SESA®

CATÁLOGO | TARIFA 2026

CATALOGUE | PRICE LIST CATALOGUE | TARIF

SESA®

Estimados clientes y colaboradores.

Este 2024 cumplimos 30 años trabajando mano a mano junto a vosotros demostrando ser vuestro proveedor de herramientas de corte de confianza.

Para ello lanzamos nuestro nuevo CATALOGO TARIFA SESA 2024-25, este 30 aniversario.

SESA evoluciona a la vez que nuestro sector y en esta tarifa incorporamos las novedades que nuestros clientes demandan, ampliando gamas y fortaleciendo los productos estrella de nuestra marca.

En este catálogo-aniversario que presentamos con la nueva imagen de marca incorporada hace 3 años, sentamos las bases y hacemos que SESA siga siendo una marca referente en sectores como el Industrial y Construcción.

Un nuevo catálogo 2024-25 más amplio, dinámico y actual, con las incorporaciones realizadas en gamas de Construcción, Metal y Roscado aportamos soluciones de calidad a las necesidades de los usuarios.

Además, nuevas presentaciones para que sean una ayuda en su comercialización en los puntos de venta de nuestros clientes.

El equipo SESA pone sus 30 años de experiencia al servicio de todos nuestros clientes para seguir siendo su marca de confianza.

Calidad, Atención Personalizada, Innovación y Servicio Siempre al máximo rendimiento.

“GRACIAS A TODOS QUIENES FORMÁIS PARTE DE SESA, POR CONFIAR EN NUESTRA EXPERIENCIA”

Caros clientes e colaboradores.

Neste ano de 2024, celebramos 30 anos de trabalho lado a lado consigo, provando ser o seu fornecedor fiável de ferramentas de corte.

Por esta razão, lançamos o nosso novo CATÁLOGO SESA 2024-25, neste 30º aniversário.

A SESA evolui ao mesmo tempo que o nosso sector e neste catálogo incorporamos os novos produtos que os nossos clientes exigem, ampliando as gamas e reforçando os produtos estrela da nossa marca.

Neste catálogo de aniversário que apresentamos com a nova imagem de marca incorporada há 3 anos, lançamos as bases e fazemos com que a SESA continue a ser uma marca de referência em sectores como o Industrial e o da Construção.

Um novo catálogo 2024-25, mais extenso, dinâmico e actualizado, com as incorporações realizadas nas gamas de Construção, Metais e Roscas, proporcionamos soluções de qualidade às necessidades dos utilizadores.
Além disso, novas apresentações para ajudar na sua comercialização nos pontos de venda dos nossos clientes.

A equipa da SESA coloca os seus 30 anos de experiência ao serviço de todos os nossos clientes para continuar a ser a sua marca de confiança.

Qualidade, Atenção Personalizada, Inovação e Serviço Sempre ao máximo rendimento.

“OBRIGADO A TODOS VÓS QUE FAZEM PARTE DA SESA, POR CONFIAREM NA NOSSA EXPERIÊNCIA”.

Dear clients and associates,

The year 2024 sees us celebrate 30 years of working alongside you, proving to be your trusted supplier of cutting tools once again.

To this end, we have launched our new SESA PRICE CATALOGUE 2024-25 on this 30th anniversary.

SESA evolves in line with our sector, and in this regard we implement the new services and products our customers demand, expanding our ranges and upgrading our brand´s flagship products.

This anniversary catalogue features the new brand image introduced 3 years ago, laying the foundations and ensuring SESA continues as a leading brand in sectors such as Industry and Construction.

A new, more wide-ranging, dynamic and up-to-date 2024-25 catalogue, which includes the additions made to the Construction, Metal and Threading, providing quality solutions geared to users´ needs.

In addition, we have created new packaging formats to help clients market our products at their points of sale.

The SESA team places their 30 years of experience at the service of all our clients to ensure we continue to be their trusted brand.

Quality, a Personalised Customer Experience, Innovation and Service par excellence; Always.

"WE THANK EVERY SINGLE PERSON ASSOCIATED WITH SESA FOR TRUSTING IN OUR EXPERIENCE"

Chers clients et collaborateurs.

En cette année 2024, nous célébrons 30 ans de collaboration avec vous, prouvant ainsi que nous sommes votre fournisseur de confiance en matière d'outils de coupe.

C'est pourquoi nous lançons notre nouveau CATALOGUE SESA 2024-25, à l'occasion de ce 30ème anniversaire.

SESA évolue au même rythme que notre secteur et dans ce catalogue nous intégrons les nouveautés demandées par nos clients, en élargissant les gammes et en renforçant les produits phares de notre marque.

Dans ce catalogue anniversaire que nous présentons avec la nouvelle image de marque incorporée il y a 3 ans, nous posons les bases et faisons en sorte que SESA continue d'être une marque de référence dans des secteurs tels que l'Industrie et la Construction.

Un nouveau catalogue 2024-25, plus vaste, dynamique et actuel, avec les incorporations faites dans les gammes Construction, Métal et Filetage, nous apportons des solutions de qualité aux besoins des utilisateurs.

Par ailleurs, de nouvelles présentations pour faciliter leur commercialisation dans les points de vente de nos clients.

L'équipe SESA met ses 30 ans d'expérience au service de tous ses clients pour continuer à être leur marque de confiance.

Qualité, attention personnalisée, innovation et service toujours au meilleur rendement.

« MERCI À VOUS TOUS, QUI FAITES PARTIE DE SESA, DE FAIRE CONFIANCE À NOTRE EXPÉRIENCE. »

www.sesatools.com

http://www.sesatools.com/brocaporcelanato/ventajas.htm

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SESA®

ONLINE

SERVICIO
SERVICE
SERVICE

16 HORAS
92% STOCK - 98% TASA DE SERVICIO
SOPORTE TÉCNICO Y PERSONALIZADO

16 HOURS
92% STOCK - 98% SERVICE RATE
TECHNICAL AND PERSONALIZED SUPPORT

16 HEURES
92% STOCK - 98% TAUX SERVICE
ATTENTION TECHNIQUE ET PERSONALIZÉE

advance
MÁXIMO RENDIMIENTO

PRODUCTO
PRODUCT
PRODUIT

VALOR AÑADIDO
INNOVACIÓN
CALIDAD - GAMAS

ADDED VALUE
INNOVATION
QUALITY - RANGES

VALEUR AJOUTEÉ
INNOVATION
QUALITÉ - GAMMES

EQUIPO
TEAM
ÉQUIPE

COMPROMISO - VALORES
PROFESIONALIDAD
ASESORAMIENTO

COMMITMENT - VALUES
PROFESSIONALISM
ASSISTANCE

ACCORD - VALEURS
PROFESSIONNALISME
ADVICE

MARCA
BRAND
MARQUE

IMAGEN - SEGURIDAD
GARANTÍA
EXCELENCIA

IMAGE - SAFETY
GUARANTIE
EXCELLENCE

IMAGE - SECURITÉ
GARANTIE
EXCELLENCE

GUARANTEE
BEST QUALITY

CLIENTE
CUSTOMER
CLIENT
CONFIANZA
CONFIDENCE
CONFIANCE
COMPROMISO
COMMITMENT
CONFIANCE
COLABORACIÓN
COOPERATION
ENGAGEMENT
FIDELIDAD
FIDELITY
FIDELITÉ

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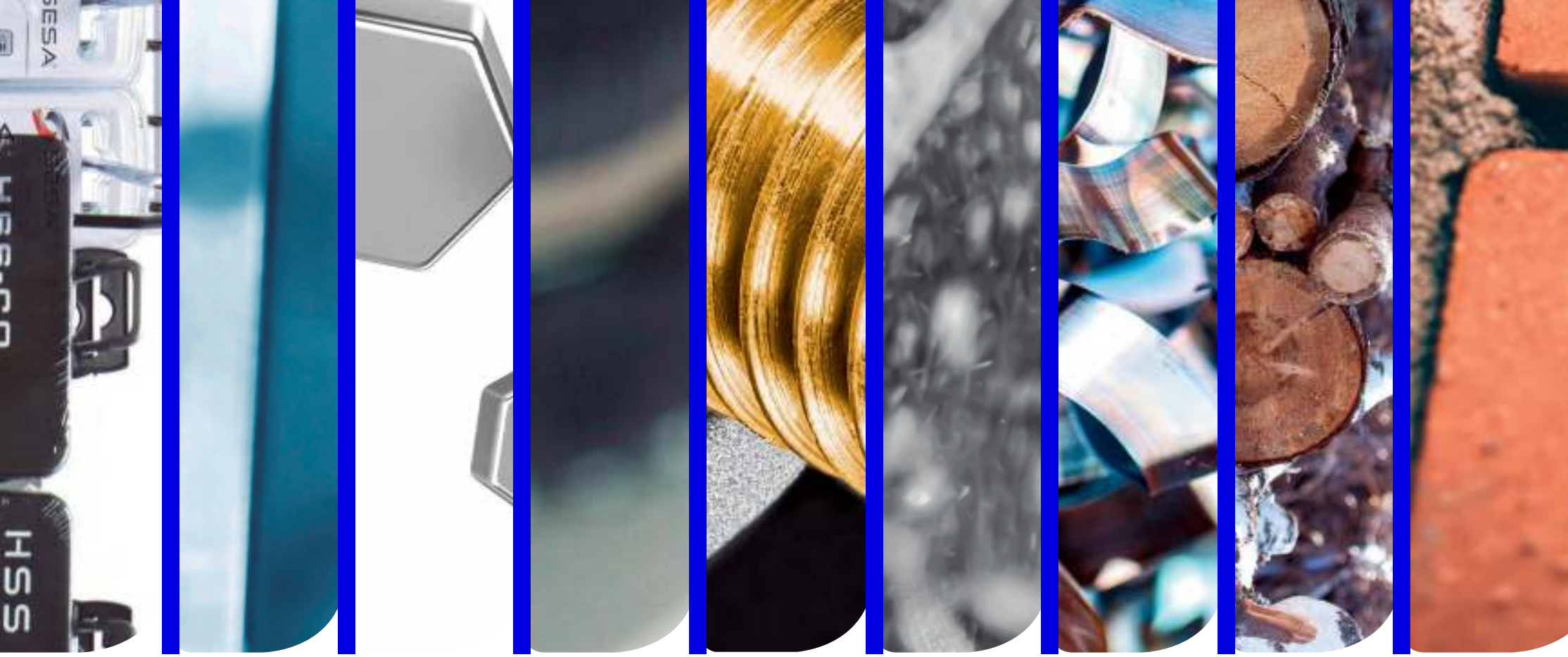

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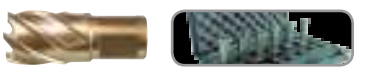
SCIES ÉLECTROMAGNÉTIQUES  HSS-CO 5% 19,00 179

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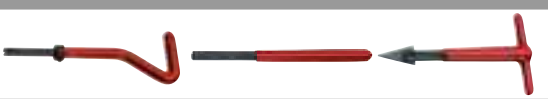
ACCESORIOS REPARACIÓN *ACCESORIES WIRE THRED INSERTS* *ACCESSOIRES FILETS RAPPORTÉS*					396
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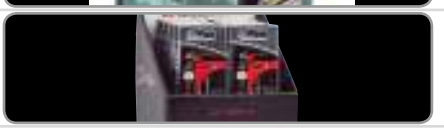
458

MÓDULOS CONSTRUCCIÓN
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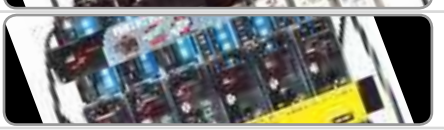
STANDARD COMBINED
STANDARD COMBINÉE

469

MÓDULOS ESTUCHES
SETS MODULE
MODULE COFFRETS

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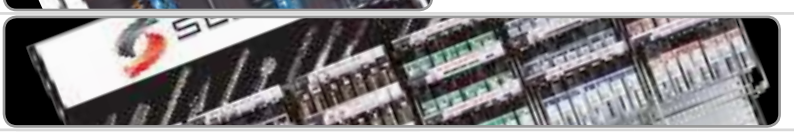
EXPOSITOR LINEAL
METER DISPLAY
PRÉSENTOIRE LINÉALE

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CONSTRUCCIÓN

CONSTRUCTION

SESA®

CARACTERÍSTICAS PORCELANATO-GRES PORCELÁNICO

En la actualidad, el gres porcelánico o porcelanato, es la tipología de baldosa cerámica más utilizada en la construcción. Un 80% (en algunos países hasta más) de los proyectos de nueva edificación y/o rehabilitación utilizan el porcelánico o porcelanato como material de revestimiento.

La principal característica del gres porcelánico o porcelanato, y por lo tanto, la gran diferencia con el resto de baldosas cerámicas (azulejo y gres esmaltado), es su, prácticamente nula, capacidad de absorción de agua. Inicialmente, ésta, debe ser de un máximo del 0,5%, tal y como indica las normas internacionales ISO 13006 y EN 14411, pero en la actualidad algunos materiales presentan absorciones muy inferiores, casi cercanas al 0%.

Otras características destacables del porcelánico o porcelanato son su elevada dureza y su resistencia a la abrasión.

La dureza se mide en una escala que se llama PEI (Porcelain Enamel Institute), laboratorio creador del método de ensayo que indica un índice de resistencia al desgaste superficial en planchas cerámicas esmaltadas (expuestas en laboratorio a una carga abrasiva a un determinado número de giros intentando simular el tráfico de personas). La escala PEI va de 1 a 5, donde 1 es la menor dureza y corresponde a placas que no admiten tránsito y solo sirven como revestimiento de paredes.

A continuación, indicamos donde es habitual estar instalado el Porcelanato o Gres Porcelánico y cuál es la posible dureza del material por donde está instalado.

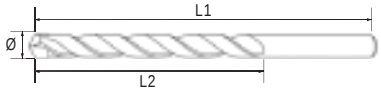
DUREZA	TRÁFICO	USO	Nº de agujeros broca JR (con refrigeración)
PEI I	Ultra ligero	Residencial e interiores	20
PEI II	Ligero	Residencial con acceso directo de exteriores (cocinas, pasillos, recibidores)	15
PEI III	Medio	Comercial con tráfico de personas moderado (pequeño comercio, garajes, terrazas)	12-15
PEI IV	Moderado	Comercial con tráfico de personas alto (restaurantes, tiendas, hoteles, viviendas)	8-10
PEI V	Intenso	Comercial e industrial (restaurantes, centros comerciales, edificios públicos, aeropuertos)	3-5

BROCA JR PARA GRES PORCELÁNICO Y PORCELANATO

JR DRILL-BIT FOR PORCELAIN STONEWARE AND PORCELANIC
FORET JR POUR GRÈS CÉRAME AND CÉRAMIQUE

advance MÁXIMO RENDIMIENTO

Nº 1 EN VENTAS



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	85	50	1	JR0030	7,16
3,50	85	50	1	JR0035	8,51
4,00	85	50	1	JR0040	7,23
4,50	85	50	1	JR0045	8,81
5,00	85	50	1	JR0050	7,30
5,50	100	65	1	JR0055	9,17
6,00	100	65	1	JR0060	7,30
6,50	100	65	1	JR0065	9,27
7,00	125	75	1	JR0070	9,81

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
7,50	125	75	1	JR0075	10,41
8,00	125	75	1	JR0080	11,72
8,50	125	75	1	JR0085	12,71
9,00	150	90	1	JR0090	12,71
9,50	150	90	1	JR0095	13,80
10,00	150	90	1	JR0100	13,53
10,50	150	90	1	JR0105	14,76
11,00	150	90	1	JR0110	18,25
12,00	150	90	1	JR0120	25,06

ESTUCHE BROCA JR 5 PIEZAS

JR DRILL-BIT SET 5 PIECES
COFFRET FORET JR 5 PIÈCES

Medidas / Sizes
4 - 5 - 6 - 6 - 8 mm

Uds. / Pcs.	Cod.	€/Unid.
1	010205S1	45,43

ESTUCHE BROCA JR 9 PIEZAS

NEW

JR DRILL-BIT SET 9 PIECES
COFFRET FORET JR 9 PIÈCES

Medidas / Sizes
5 - 5 - 5 - 6 - 6 - 6 - 8 - 8 - 8 mm

Uds. / Pcs.	Cod.	€/Unid.
1	19JR339	94,80

BROCAS CILÍNDRICAS CONSTRUCCIÓN
CYLINDRICAL MASONRY DRILL BITS • FORETS CONSTRUCTION

EXPOSITOR SOBREMESA JR
BASIC DISPLAY JR • ÉXPOSITEUR BASE TABLE JR

Expositor MINI
470 x 190 x 140 mm

Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
4,00	85	8	
5,00	85	16	
6,00	100	16	
8,00	125	8	
10,00	150	8	
SET BROCA JR 5 PIEZAS SET 5 PIECES		5	
Cod. JR061		61	710,24

NOTA: Composición con 6 ganchos / Stand with 6 hooks / Présentoirs avec 6 crochets

ACCESORIOS PORCELANATO • PORCELANIC ACCESSORIES • ACCESSOIRES CÉRAMIQUE

DISPENSADOR DE AGUA
WATER DISPENSER
DISPÉNSEUR D´EAU

Cod.	€/Unid.
JRZZZZ*	29,15

GUÍA CON VENTOSA
SUCTION DRILLING GUIDE
GUIDE AVEC VENTOUSE

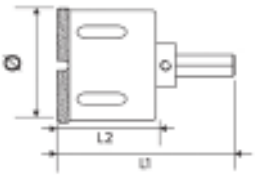
Cod.	€/Unid.
JRZ01*	27,61

MARCADOR PUNTERO AUTOMÁTICO
AUTOMATIC CENTER PUNCH
MARQUEUR AUTOMATIQUE

Cod.	€/Unid.
5PU5000	46,55

*Hasta fin de existencias / Until end of stock / Jusqu´à épuisement des stocks

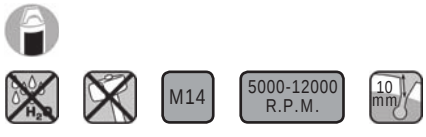
CORONA DIAMANTADA
DIAMOND CORE BIT • TRÉPAN DIAMANTÉ

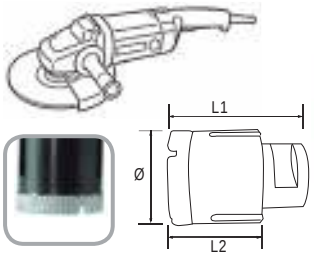


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
5,00	70	40	1	01020605	34,86
6,00	70	40	1	01020606	35,44
8,00	80	40	1	01020608	41,66
10,00	80	40	1	01020610	44,76
12,00	80	40	1	01020612	47,65
14,00	80	40	1	01020614	52,71
15,00	80	40	1	01020615	57,49
20,00	90	50	1	01020620	73,84

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
22	90	50	1	01020622	80,89
25	90	50	1	01020625	91,82
30	90	50	1	01020630	122,43
34	90	50	1	01020634	153,76
35	90	50	1	01020635	158,16
40	90	50	1	01020640	180,52
45	90	50	1	01020645	202,64

CORONA DIAMANTADA PARA AMOLADORA
DIAMOND CORE BIT FOR GRINDER
TRÉPAN DIAMANTÉ
POUR BROYEUR





Ø (mm)	**Lubrificación interior con cera** Lubrication with wax / *Lubrification avec cire*	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6	√	60	35	1	1CDM140060	30,23
8	√	60	35	1	1CDM140080	30,23
10	√	60	35	1	1CDM140100	30,23
12	√	60	35	1	1CDM140120	33,38
15	√	60	35	1	1CDM140150	34,95
18	-	60	40	1	1CDM140180	41,80
20	-	60	40	1	1CDM140200	46,21
25	-	60	40	1	1CDM140250	57,23
32	-	60	40	1	1CDM140320	72,66
35	-	60	40	1	1CDM140350	79,27
40	-	60	40	1	1CDM140400	90,29
44	-	60	40	1	1CDM140440	99,35
50	-	60	40	1	1CDM140500	112,57
60	-	60	40	1	1CDM140600	134,62
68	-	60	40	1	1CDM140680	152,25
75	-	60	40	1	1CDM140750	192,39

- Trabajo en seco
- Empezar la perforación con la corona ligeramente inclinada.
- Enderezarla poco a poco para trabajar de forma vertical
- Velocidad de perforación: 5000-12000 rpm.
- Suaves movimientos circulares permiten aumentar la velocidad de perforación y mejoran la refrigeración.
- Hacer pequeñas pausas para refrigerar la corona.

- Dry running.
- Start drilling with the drill bit slightly tilted.
- Straighten it bit by bit until it is operating vertically.
- Drilling speed: 5000-12000 rpm.
- Smooth circular movements allow the drilling speed to be increased and improves cooling.
- Take small breaks to cool the drill bit.

- Travail à sec.
- Commencer la perforation avec la couronne légèrement inclinée.
- La redresser peu à peu pour travailler de façon verticale.
- Vitesse de perforation : 5000-12000 rpm.
- Mouvements circulaires légers qui permettent d'augmenter la vitesse de perforation et d'améliorer la réfrigération.
- Faire de petites pauses pour reposer la couronne.

UTILIDADES / USES/ UTILISATION	
35 mm	Instalación de grifería / pipework installation / installation de robinetterie
40 mm	Instalación de los desagues de los electrodomésticos / installation of drainage for domestic appliances / installation des évacuations des appareils électroménagers
50 mm	Instalación desagues / installation of industrial drainage / installation d'évacuations industrielles
60mm	Instalación cajetines electricidad / installation of electrical terminal boxes / installation de boîtiers électriques

ADAPTADORES ADAPTOR • ADAPTATEUR

Conversión / *Conversion* / *Conversion*	L1 (mm)	Uds. Pcs.	Cod.	€/Unid.
De M14 a Mango Hexagonal From M14 to Hexagonal Shank / De M14 a Manche Hexagonale	65	1	1ACM1401	10,23
De M14 a Mango SDS-PLUS From M14 to SDS-PLUS Shank / De M14 a Manche SDS-PLUS	78	1	1ACM1402	13,33

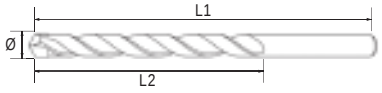
ESTUCHE DE CORONAS DIAMANTADAS PARA AMOLADORA
SET OF DIAMOND CORE BITS FOR GRINDER
COFRET DE TRÉPAN DIAMANTÉ POR BROYEUR

	Composición / Contains / Composition	Uds. / Pcs.	Cod.	€/Unid.
Coronas / Core Bits / Trépan	Ø 35-40-50-60 mm	x 1		
Adaptador	De M14 a mango hexagonal from M14 to hexagonal shank / de M14 a mache hexagonal	1	1CDM1403	440,31
Adaptador	De M14 a mango SDS-PLUS from M14 to SDS-PLUS shank / de M14 a mache SDS-PLUS	1		

BROCAS CILÍNDRICAS CONSTRUCCIÓN
CYLINDRICAL MASONRY DRILL BITS • FORETS CONSTRUCTION

TORNADO TORNADO • TORNADO

ADVANCE MAXIMO RENDIMIENTO



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3	60	30	1	1TO03060	5,01
4	75	40	1	1TO04075	5,06
5	85	50	1	1TO05085	4,47
5	150	110	1	1TO05150	7,45
6	100	60	1	1TO06100	5,06
6	150	110	1	1TO06150	8,14
6	200	135	1	1TO06200	10,94
7	100	60	1	1TO07100	5,96
8	120	80	1	1TO08120	6,55
8	200	135	1	1TO08200	10,43
8	400	350	1	1TO08400	18,20
9	120	80	1	1TO09120	7,64
10	120	80	1	1TO10120	8,95
10	200	135	1	1TO10200	14,40
10	400	350	1	1TO10400	20,18

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
11	150	90	1	1TO11150	13,11
12	150	90	1	1TO12150	12,24
12	200	135	1	1TO12200	18,78
12	400	350	1	1TO12400	23,64
13	150	90	1	1TO13150	17,58
14	150	90	1	1TO14150	17,99
14	400	350	1	1TO14400	29,80
16	150	90	1	1TO16150	22,16
16	400	350	1	1TO16400	33,78
18	160	100	1	1TO18160	28,82
18	400	350	1	1TO18400*	42,53
20	160	100	1	1TO20160	31,80
20	400	350	1	1TO20400*	49,68

*Hasta fin de existencias / Until end of stock / Jusqu´à épuisement des stocks

ESTUCHE BROCA TORNADO
TORNADO DRILL BITS SET
COFFRET FORETS TORNADO

Medidas / Sizes		
4 - 5 - 6 - 8 - 10 mm		
Uds. / Pcs.	**Cod.**	**€/Unid.**
1	1917T327N	33,75

Medidas / Sizes		
3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm		
Uds. / Pcs.	**Cod.**	**€/Unid.**
1	1917T333N	46,24

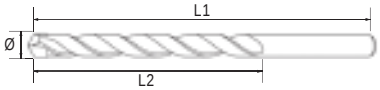
ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA
COMBINED SET METAL-CONSTRUCTION-WOOD
COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS

ADVANCE BOX (9 UDS. / PCS.) ADVANCE MAXIMO RENDIMIENTO

Composición / Contains / Composition	Medidas / Sizes	Cod.	€/Unid.
HSS CO HSS-CO 5% + TORNADO + MADERA	5 - 6 - 8 mm	19CA339	40,71

HORMAT MULTIMATERIAL HORMAT MULTI-PURPOSE • HORMAT MULTIFUNCTION

NEW



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
4,00	85	50	1	1GR04075	5,74
5,00	85	50	1	1GR05085	6,03
6,00	100	65	1	1GR06100	7,04
8,00	125	75	1	1GR08120	10,47

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
10,00	150	90	1	1GR10120	13,01
12,00	150	90	1	1GR12150	17,78
14,00	150	90	1	1GR14150	24,91

ESTUCHE BROCA HORMAT MULTIMATERIAL
HORMAT MULTI-PURPOSE DRILL BITS SET
COFFRET FORETS HORMAT MULTIFUNCTION

Medidas / Sizes
4 - 5 - 6 - 6 - 8 mm

Uds. / Pcs.	Cod.	€/Unid.
1	1GR327N	47,07

NEW

Medidas / Sizes
5 - 5 - 5 - 6 - 6 - 6 - 8 - 8 - 8 mm

Uds. / Pcs.	Cod.	€/Unid.
1	19GP339	95,65

PIZARRA

MÁRMOL

TABLERO DE FENÓLICO

SILESTONE

GRANITO

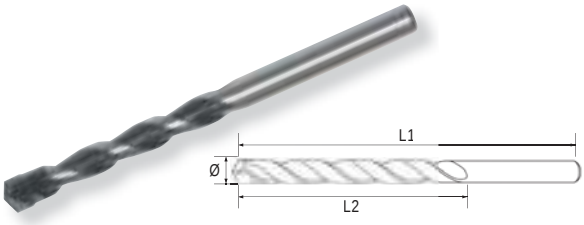
BROCAS CILÍNDRICAS CONSTRUCCIÓN
CYLINDRICAL MASONRY DRILL BITS • FORETS CONSTRUCTION

GRANITO: BLISTER RÍGIDO
GRANITE: RIGID PLATIC BLISTER
GRANITE: BLISTER DE PLASTIQUE RIGIDE

DIN 8039

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3	60	30	1	105A03060BL	2,07
4	75	40	1	105A04075BL	2,24
5	85	50	1	105A05085BL	2,61
6	100	60	1	105A06100BL	3,42
8	120	80	1	105A08120BL	5,25
10	120	80	1	105A10120BL	6,94
12	150	90	1	105A12150BL	8,90

GRANITO GRANITE • GRANITE



DIN 8039

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	60	30	1	105A03060	1,68
4,00	75	40	1	105A04075	2,04
5,00	85	50	1	105A05085	2,38
6,00	100	60	1	105A06100	3,11
6,00	200	135	1	105A06200	5,98
6,00	400	270	1	105A06400	9,18
7,00	100	60	1	105A07100	3,93
8,00	120	80	1	105A08120	4,77
8,00	200	135	1	105A08200	6,45
8,00	400	270	1	105A08400	10,96
9,00	120	80	1	105A09120	6,19
10,00	120	80	1	105A10120	6,31
10,00	200	135	1	105A10200	7,03
10,00	400	270	1	105A10400	15,73
11,00	150	90	1	105A11150	7,76
12,00	150	90	1	105A12150	8,09
12,00	200	135	1	105A12200	8,83
12,00	400	270	1	105A12400	18,46
14,00	150	90	1	105A14150	9,18
14,00	400	270	1	105A14400	22,74
16,00	150	90	1	105A16150	10,96
16,00	400	270	1	105A16400	25,59
18,00	160	100	1	105A18160	14,28
18,00	400	270	1	105A18400	29,42
20,00	160	100	1	105A20160	15,84
20,00	400	270	1	105A20400	32,99

ESTUCHE BROCA GRANITO GRANITO DRILL BITS • SET COFFRET FORETS GRANITO

Contenido / Contents / Composition
4 - 5 - 6 - 8 - 10 mm

Uds. / Pcs.	Cod.	€/Unid.
1	1915A327N	24,16

Contenido / Contents / Composition
3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm

Uds. / Pcs.	Cod.	€/Unid.
1	1915A333N	37,48

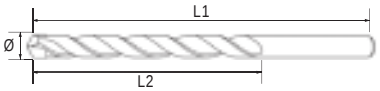
ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA
COMBINED SET METAL-CONSTRUCTION-WOOD
COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS

STANDARD BOX (9 UDS. / PCS.)

Contenido / Contents / Composition	Medidas / Sizes	Cod.	€/Unid.
HSS G + GRANITO + MADERA	5 - 6 - 8 mm	19CM339	31,21

BASIC BASIC • BASIC

DIN 8039



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	60	30	1	16F03060	0,95
4,00	75	40	1	16F04075	1,05
5,00	85	50	1	16F05085	1,30
6,00	100	60	1	16F06100	1,62
6,00	200	135	1	16F06200	2,77
6,00	300	200	1	16F06300	3,43
7,00	100	60	1	16F07100	1,93
8,00	120	80	1	16F08120	1,82
8,00	200	135	1	16F08200	3,37
8,00	300	200	1	16F08300	4,43
8,00	400	270	1	16F08400	4,62
9,00	120	80	1	16F09120	2,66
10,00	120	80	1	16F10120	2,77
10,00	200	135	1	16F10200	3,89
10,00	300	200	1	16F10300	5,05
10,00	400	270	1	16F10400	5,50

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
11,00	150	90	1	16F11150	3,00
12,00	150	90	1	16F12150	3,43
12,00	200	135	1	16F12200	4,84
12,00	300	200	1	16F12300	6,64
12,00	400	270	1	16F12400	7,11
13,00	150	90	1	16F13150	4,18
14,00	150	90	1	16F14150	4,46
14,00	400	270	1	16F14400	10,36
15,00	150	90	1	16F15150	4,87
16,00	150	90	1	16F16150	5,71
16,00	400	270	1	16F16400	12,14
18,00	160	100	1	16F18160	7,55
18,00	400	270	1	16F18400	14,07
20,00	160	100	1	16F20160	9,73
20,00	400	270	1	16F20400	15,84
22,00	400	270	1	16F22400	17,53

ESTUCHE BROCA BASIC
BASIC DRILL BITS SET
COFFRET FORETS BASIC

Medidas / Sizes
4 - 5 - 6 - 8 - 10 mm

Uds. / Pcs.	Cod.	€/Unid.
1	1916F327N	14,85

Medidas / Sizes
3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm

Uds. / Pcs.	Cod.	€/Unid.
1	1916F333N	27,56

ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA
COMBINED SET METAL-CONSTRUCTION-WOOD
COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS

BASIC BOX (9 UDS. / PCS.)

Composición / Contains / Composition	Medidas / Sizes	Cod.	€/Unid.
HSS WHITE HSS + BASIC + MADERA	5 - 6 - 8 mm	19CB339	23,30

EXPOSITORES SESA KUBO

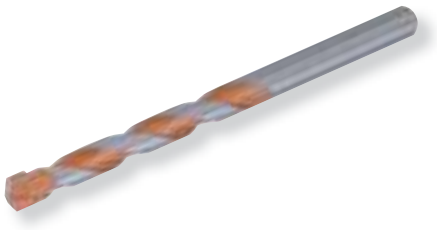
DISPLAYS SESA KUBO • EXPOSITEURS SESA KUBO

NEW

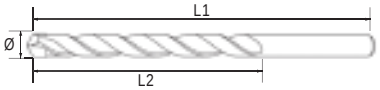
Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE	€/Unid.
KUBO 01	JR PORCELANATO	010205S1	4-5-6-6-8 mm	10	454,26
KUBO 02	HORMAT	1GR327N	4-5-6-6-8mm	10	470,67
KUBO 07	JR PORCELANATO	010205S1	4-5-6-6-8mm	5	349,19
	HSS-CO	194314	3-4-5-6-8mm	5	
KUBO 08	HSS-G	1915314	3-4-5-6-8mm	5	336,65
	HORMAT	1GR327N	4-5-6-6-8mm	5	

Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE	€/Unid.
KUBO 13	JR PORCELANATO	010205S1	4-5-6-6-8mm	7	591,05
	GRANITO	1915A327N	4-5-6-8-10mm	7	
	BASIC	1916F327N	4-5-6-8-10mm	7	
KUBO 16	JR PORCELANATO	010205S1	4-5-6-6-8mm	7	981,57
	JR PORCELANATO	19JR339	5-6-8mm (3 de cada)	7	
KUBO 17	GRANITO	1915A327N	4-5-6-8-10mm	7	838,64
	HORMAT	19GP339	5-6-8mm (3 de cada)	7	
KUBO 18	GRANITO	1915A327N	4-5-6-8-10mm	7	313,81
	MADERA	196333	3-4-5-6-7-8-9-10mm	7	

BROCA MULTI-USO
MULTI-PURPOSE DRILL-BIT • FORET MULTIFUNCTION



MULTI | DIN 8039



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	70	40	1	1MU03070	9,45
4,00	75	40	1	1MU04075	9,03
5,00	85	50	1	1MU05085	9,77
5,00	150	110	1	1MU05150	13,65
5,50	85	50	1	1MU55085	10,50
6,00	100	60	1	1MU06100	10,60
6,00	150	110	1	1MU06150	15,56
6,50	100	60	1	1MU65100	11,35
6,50	150	110	1	1MU65150	16,27
7,00	100	60	1	1MU07100	12,08

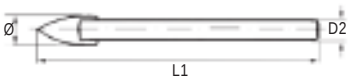
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8,00	120	80	1	1MU08120	13,23
8,00	200	135	1	1MU08200	19,42
9,00	120	80	1	1MU09120	15,24
10,00	120	80	1	1MU10120	17,43
10,00	200	135	1	1MU10200	24,89
12,00	150	90	1	1MU12150	23,84
12,00	200	135	1	1MU12200	32,57
14,00	150	90	1	1MU14150	32,29
16,00	150	90	1	1MU16150	40,31

ESTUCHE BROCA MULTI-USO
MULTI-PURPOSE DRILL-BIT DRILL BITS SET
COFFRET FORETS MULTIFUNCTION

Medidas / Sizes	Uds. / Pcs.	Cod.	€/Unid.
4 - 5 - 6 - 8 - 10 mm	1	1MU327N	65,70

Medidas / Sizes	Uds. / Pcs.	Cod.	€/Unid.
3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm	1	1MU333N	93,97

BROCA PARA VIDRIO GLASS DRIL-BIT • FORET POUR VERRE

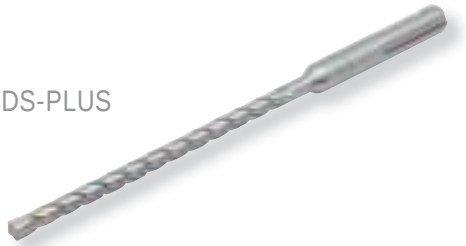


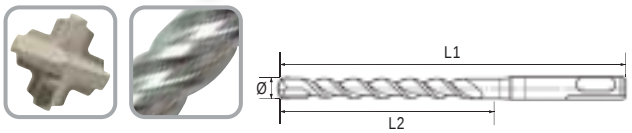
Ø (mm)	L1 (mm)	D2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	58	3,00	1	1VI0300	6,34
4,00	58	3,00	1	1VI0400	6,83
5,00	58	4,00	1	1VI0500	7,50
6,00	58	5,00	1	1VI0600	8,29
7,00	78	5,00	1	1VI0700	9,08

Ø (mm)	L1 (mm)	D2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8,00	78	6,00	1	1VI0800	10,73
9,00	98	6,00	1	1VI0900	13,17
10,00	98	7,00	1	1VI1000	13,57
12,00	98	8,00	1	1VI1200	22,13

BROCAS PARA MARTILLO
HAMMER DRILL BITS • FORETS MARTEAUX

HURRICANE MULTIARISTAS SDS-PLUS
SDS-PLUS HURRICANE MULTICUTTER • MULTITAILLANT HURRICANE SDS-PLUS





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
5	110	50	1	1HU05110	13,06
5	160	100	1	1HU05160	14,58
6	110	50	1	1HU06110	12,21
6	160	100	1	1HU06160	12,33
6	210	150	1	1HU06210	17,82
6	260	200	1	1HU06260	19,35
6	310	250	1	1HU06310	31,61
7	160	100	1	1HU07160	20,64
8	110	50	1	1HU08110	14,58
8	160	100	1	1HU08160	14,73
8	210	150	1	1HU08210	17,56
8	260	200	1	1HU08260	21,81
8	450	400	1	1HU08450	48,59
10	110	50	1	1HU10110	17,89
10	160	100	1	1HU10160	17,56
10	210	150	1	1HU10210	22,31
10	310	250	1	1HU10310	29,21
10	450	400	1	1HU10450	52,62
12	160	100	1	1HU12160	19,62
12	210	150	1	1HU12210	25,86

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
12	260	200	1	1HU12260	25,87
12	310	250	1	1HU12310	33,86
12	450	400	1	1HU12450	57,48
14	160	100	1	1HU14160	31,30
14	210	150	1	1HU14210	34,64
14	310	250	1	1HU14310	43,16
14	450	400	1	1HU14450	65,31
16	210	150	1	1HU16210	48,68
16	260	200	1	1HU16260	54,08
16	310	250	1	1HU16310	59,93
16	450	400	1	1HU16450	79,42
18	260	200	1	1HU18260	81,56
18	450	400	1	1HU18450	101,63
20	260	200	1	1HU20260	97,29
20	450	400	1	1HU20450	107,69
22	450	400	1	1HU22450	156,75
24	450	400	1	1HU24450	172,79
25	450	400	1	1HU25450	178,17
28	450	400	1	1HU28450	229,27
30	450	400	1	1HU30450	248,61

NOTA: Para longitudes útiles de más de 400 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 150 mm de profundidad. / For useful lengths of over 400 mm USE A PRE-DRILL BIT of the same diameter up to 150 mm in depth. / Pour des longueurs utiles de plus de 400 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 150 mm de profondeur.

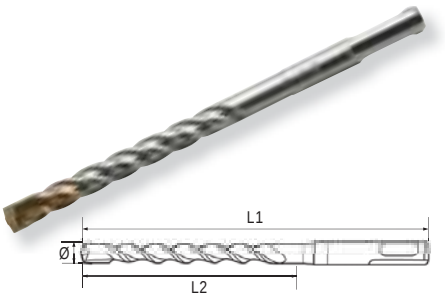
ESTUCHE BROCA HURRICANE HURRICANE DRILL BITS SET • COFFRET FORETS HURRICANE

Medidas / Sizes	Uds. / Pcs.	Cod.	€/Unid.
5 x 110, 6 x 110, 6 x 160, 8 x 110, 8 x 160, 10 x 160, 12 x 160 mm	7	1105P71	128,50

Medidas / Sizes	Uds. / Pcs.
6 x 160, 8 x 160, 10 x 160, 12 x 160 mm	4
Puntero / Point Chisel Cincel / Flat Chisel Cincel Ancho / Spade Chisel x 140 mm	3

Cod.	€/Unid.
1106P71	170,68

ST-2 SDS-PLUS SDS-PLUS ST-2 • ST-2 SDS-PLUS



DIN 8035 | SDS plus | PGM

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
4,00	110	50	1	1ST04110	6,96
5,00	110	50	1	1ST05110	5,61
5,00	160	100	1	1ST05160	6,96
5,00	210	150	1	1ST05210	10,79
5,50	110	50	1	1ST55110	6,61
5,50	160	100	1	1ST55160	7,43
6,00	110	50	1	1ST06110	5,45
6,00	160	100	1	1ST06160	6,35
6,00	210	150	1	1ST06210	9,42
6,00	260	200	1	1ST06260	14,09
6,00	460	400	1	1ST06460	29,52
6,50	110	50	1	1ST65110	6,76
6,50	160	100	1	1ST65160	7,82
6,50	260	200	1	1ST65260	12,87
7,00	110	50	1	1ST07110	7,20
7,00	160	100	1	1ST07160	7,87
8,00	110	50	1	1ST08110	6,81
8,00	160	100	1	1ST08160	6,76
8,00	210	150	1	1ST08210	8,53
8,00	260	200	1	1ST08260	11,82
8,00	310	250	1	1ST08310	17,01
8,00	460	400	1	1ST08460	26,55
9,00	160	100	1	1ST09160	9,86
9,00	260	200	1	1ST09260	16,58
10,00	110	50	1	1ST10110	7,94
10,00	160	100	1	1ST10160	8,50
10,00	210	150	1	1ST10210	10,65
10,00	260	200	1	1ST10260	12,82
10,00	310	250	1	1ST10310	18,82
10,00	460	400	1	1ST10460	28,80
10,00	600	550	1	1ST10600	41,90
11,00	160	100	1	1ST11160	11,05
11,00	260	200	1	1ST11260	16,86
12,00	160	100	1	1ST12160	9,83
12,00	200	150	1	1ST12210	12,12
12,00	260	200	1	1ST12260	15,12
12,00	300	250	1	1ST12310	22,10
12,00	450	400	1	1ST12450	27,60
12,00	600	550	1	1ST12600	41,72

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
13,00	160	100	1	1ST13160	13,67
13,00	260	200	1	1ST13260	17,92
14,00	160	100	1	1ST14165	13,67
14,00	200	150	1	1ST14200	17,92
14,00	260	200	1	1ST14260	18,77
14,00	300	250	1	1ST14310	20,97
14,00	450	400	1	1ST14450	32,19
14,00	600	550	1	1ST14600	50,17
15,00	160	100	1	1ST15160	17,89
15,00	260	200	1	1ST15260	23,70
16,00	160	100	1	1ST16160	18,43
16,00	200	150	1	1ST16200	21,15
16,00	260	200	1	1ST16260	23,28
16,00	300	250	1	1ST16300	30,23
16,00	450	400	1	1ST16450	39,07
16,00	600	550	1	1ST16600	51,57
16,00	800	750	1	1ST16800	76,83
16,00	1.000	950	1	1ST161000	118,94
18,00	200	150	1	1ST18200	33,49
18,00	300	250	1	1ST18300	44,10
18,00	450	400	1	1ST18450	47,94
18,00	600	550	1	1ST18600	64,76
18,00	1.000	950	1	1ST181000	136,21
19,00	450	400	1	1ST19450	58,72
20,00	200	150	1	1ST20200	40,78
20,00	300	250	1	1ST20300	45,03
20,00	450	400	1	1ST20450	52,51
20,00	600	550	1	1ST20600	67,61
20,00	1.000	950	1	1ST201000	183,14
22,00	250	200	1	1ST22250	57,76
22,00	450	400	1	1ST22450	77,03
22,00	600	550	1	1ST22600	100,25
24,00	250	200	1	1ST24250	66,25
24,00	450	400	1	1ST24450	84,94
25,00	250	200	1	1ST25250	68,37
25,00	450	400	1	1ST25450	91,14
26,00	450	400	1	1ST26450	91,75

NOTA: Para otras medidas, consultar / Request for other sizes / Pour d´autres dimensions, nous consulter

NOTA: Para longitudes útiles de más de 400 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 150 mm de profundidad. / For useful lengths of over 400 mm USE A PRE-DRILL BIT of the same diameter up to 150 mm in depth. / Pour des longueurs utiles de plus de 400 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 150 mm de profondeur.

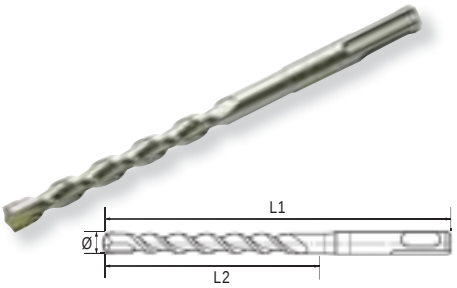
ESTUCHE BROCA ST-2 ST-2 DRILL BITS SET • COFFRET FORETS ST-2

Medidas / Sizes	Uds. / Pcs.	Cod.	€/Unid.
5 x 110, 6 x 110, 6 x 160, 8 x 110, 8 x 160, 10 x 160, 12 x 160 mm	7	1105P73	77,25

Medidas / Sizes	Uds. / Pcs.	Cod.	€/Unid.
6 x 160, 8 x 160, 10 x 160, 12 x 160 mm	4	1106P73	132,31
Puntero / Point Chisel Cincel / Flat Chisel Cincel Ancho / Spade Chisel x 140 mm	3		

CYCLONE SDS-PLUS SDS-PLUS CYCLONE • CYCLONE SDS-PLUS

Basic



DIN 8035 | SDS plus

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
4	110	50	1	1CY04110	4,73
5	110	50	1	1CY05110	3,81
5	160	100	1	1CY05160	4,73
6	110	50	1	1CY06110	3,81
6	160	100	1	1CY06160	4,44
6	210	150	1	1CY06210	6,58
7	110	50	1	1CY07110	4,88
7	160	100	1	1CY07160	5,35
8	110	50	1	1CY08110	4,62
8	160	100	1	1CY08160	4,73
8	210	150	1	1CY08210	6,79
8	260	200	1	1CY08260	8,02
10	110	50	1	1CY10110	5,40
10	160	100	1	1CY10160	5,94
10	210	150	1	1CY10210	7,44
10	260	200	1	1CY10260	8,70
10	450	390	1	1CY10450	19,56

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
12	160	100	1	1CY12160	6,87
12	210	150	1	1CY12210	8,48
12	260	200	1	1CY12260	10,27
12	310	250	1	1CY12310	12,36
12	450	390	1	1CY12450	18,75
14	160	100	1	1CY14160	9,28
14	210	150	1	1CY14210	12,18
14	260	200	1	1CY14260	12,74
14	450	390	1	1CY14450	21,87
16	160	100	1	1CY16160	12,51
16	210	150	1	1CY16210	14,37
16	310	250	1	1CY16310	17,67
16	450	390	1	1CY16450	26,54
18	210	150	1	1CY18210	22,74
20	350	290	1	1CY20350	30,58
22	450	390	1	1CY22450	51,93
25	450	390	1	1CY25450	61,92

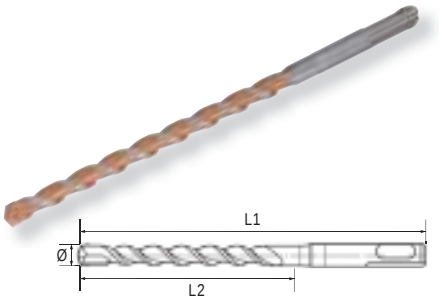
ESTUCHE BROCA CYCLONE CYCLONE DRILL BITS SET • COFFRET FORETS CYCLONE

Medidas / Sizes	Uds. / Pcs.	Cod.	€/Unid.
5 x 110, 6 x 110, 6 x 160, 8 x 110, 8 x 160, 10 x 160, 12 x 160 mm	7	1105P72	44,04

Medidas / Sizes	Uds. / Pcs.	Cod.	€/Unid.
6 x 160, 8 x 160, 10 x 160, 12 x 160 mm	4	1106P72	116,84
Puntero / Point Chisel Cincel / Flat Chisel Cincel Ancho / Spade Chisel x 140 mm	3		

BROCA MULTI-USO SDS-PLUS

SDS-PLUS MULTI- PURPOSE DRILL BIT
FORET MULTI MATERIAUX SDS-PLUS



MULTI | DIN 8035 | PGM | SDS plus

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,00	160	100	1	1MS06160	24,33
8,00	160	100	1	1MS08160	29,29
8,00	210	150	1	1MS08210	34,54
10,00	160	100	1	1MS10160	34,14

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
10,00	260	200	1	1MS10260	48,73
12,00	160	100	1	1MS12160	37,05
12,00	260	200	1	1MS12260	57,32
14,00	260	200	1	1MS14260	64,70

SDS-MAX STORM
SDS-MAX STORM • SDS-MAX STORM

La broca STORM con anclaje SDS-MAX proporciona nuevas ventajas en este tipo de herramienta. El novedoso sistema de la punta evita la fricción en mayor medida, lo que significa que aumenta la durabilidad y reduce el coste por agujero. Además, la extracción de viruta a través de sus 4 canales por las aberturas diseñadas en la punta, la convierte en la broca más rápida en esta gama.

The STORM drill bit with an SDS-MAX shank provides new advantages for this type of tool. The new cutting edge system largely reduces friction, thereby increasing durability and diminishing costs per hole. Furthermore, the *extraction of chip swarf through the 4 flutes* built into the nosepiece makes it the fastest drill in this range.

Le foret STORM à ancrage SDS-MAX offre de nouveaux avantages pour ce type d'outillage. Le modèle de pointe innovant évite dans une *grande mesure la friction, ce qui signifie une* augmentation de sa durabilité et une réduction du coût par trou. Par ailleurs, l'extraction des alésures à travers ses 4 canaux, par les ouvertures placées sur la pointe en fait le foret le plus rapide de cette gamme.

- Diseño para una fricción baja y mayor velocidad de corte.
- Cabeza de 4 puntas de Carburo de máxima calidad para maximizar la velocidad de corte.

- Designed to produce minimal friction and greater cutting speed.
- Best quality Carbure 4 cutter head design maximizing speed and minimizing vibration.

- Conçu pour obtenir une faible friction et une plus grande vitesse de coupe.
- Tête à 4 pointes en Carbure de la *plus haute qualité afin de maximiser* la vitesse de coupe et minimiser la vibration.

- Apertura en la punta diseñada especialmente para evacuación de viruta por los 4 canales de exrtracción.

- Opening in the nosepiece specially designed for the removal of chip swarf *through 4 extraction flutes.*

- Ouverture sur la pointe spécialement conçue pour l'évacuation des copeaux à travers ses 4 canaux d'extraction.

- 4 canales de extracción para una perforación rápida y cómoda.

- *4 extraction flutes for a speedy and* smooth drill.

- 4 canaux d'extraction pour une perforation rapide et facile.

- Núcleo central optimizado, mejora la transmisión de energía desde el mango hasta la punta.

- Optimised central core to improve the transmission of energy from the handle to the nosepiece.

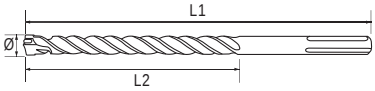
- Noyau central optimisé, qui améliore la transmission d'énergie de la poignée à la pointe.

Broca fabricada bajo los estándares de calidad PGM / Manufactured on PGM quality standards / Fabriqué sous les normes de calité PGM

BROCAS PARA MARTILLO
HAMMER DRILL BITS • FORETS MARTEAUX

SDS-MAX STORM
SDS-MAX STORM • SDS-MAX STORM

DIN 8035



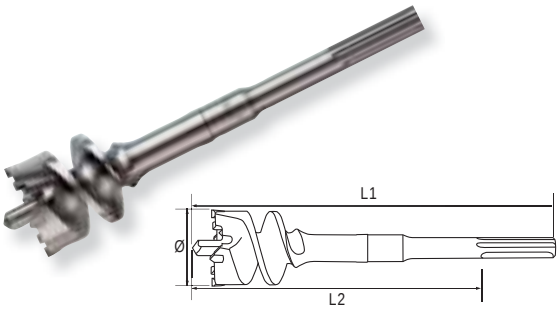
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2 ARISTAS / 2 CUTTING EDGES					
12	340	200	1	11021212340	84,09
12	540	400	1	11021212540	106,63
14	340	200	1	11021214340	90,90
14	540	400	1	11021214540	109,48
15	340	200	1	11021215340	93,43
15	540	400	1	11021215540	111,74
4 ARISTAS / 4 CUTTING EDGES					
16	340	200	1	11021216340	96,20
16	540	400	1	11021216540	117,47
18	340	200	1	11021218340	99,14
18	540	400	1	11021218540	120,57
20	340	200	1	11021220320	111,41
20	54 0	400	1	11021220520	125,36
20	920	800	1	11021220920	205,84
22	340	200	1	11021222320	120,99
22	540	400	1	11021222520	129,89
22	920	800	1	11021222920	218,53
22	1320	1200	1	110212221320	355,47
24	340	200	1	11021224320	130,04
24	540	400	1	11021224520	145,21

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
4 ARISTAS / 4 CUTTING EDGES					
25	340	200	1	11021225320	137,71
25	540	400	1	11021225520	146,45
25	920	800	1	11021225920	240,54
28	380	250	1	11021228370	158,66
28	570	450	1	11021228570	178,95
30	380	250	1	11021230370	161,38
30	570	450	1	11021230570	185,12
32	380	250	1	11021232370	173,99
32	570	450	1	11021232570	196,27
32	920	800	1	11021232920	281,77
32	1320	1200	1	110212321320	642,80
35	380	250	1	11021235370	189,75
35	570	450	1	11021235570	242,69
38	380	250	1	11021238370	235,51
38	570	450	1	11021238570	263,88
40	570	450	1	11021240570	329,93
40	920	800	1	11021240920	419,41
40	1320	1200	1	110212401320	822,84
45	570	450	1	11021245570	451,96
45	920	800	1	11021245920	602,62
50	570	450	1	11021250570	519,64

NOTA: Para longitudes útiles de más de 400 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 150 mm de profundidad. / For useful lengths of over 400 mm USE A PRE-DRILL BIT of the same diameter up to 150 mm in depth. / Pour des longueurs utiles de plus de 400 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 150 mm de profondeur.

NOTA: Para longitudes útiles de más de 800 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 400 mm de profundidad. / For useful lengths of over 800 mm USE A PRE-DRILL BIT of the same diameter up to 400 mm in depth. / Pour des longueurs utiles de plus de 800 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 400 mm de profondeur.

BROCA ROMPEDORA SDS-MAX
SDS-MAX CORE CUTTER • FORET TRÉPAN SDS-MAX



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
55,00	590	480	1	1RO55550	596,30
55,00	990	880	1	1RO55990	699,88
65,00	590	480	1	1RO65550	662,39
65,00	990	880	1	1RO65990	766,54
80,00	590	480	1	1RO80550	799,86
80,00	990	880	1	1RO80990	929,02

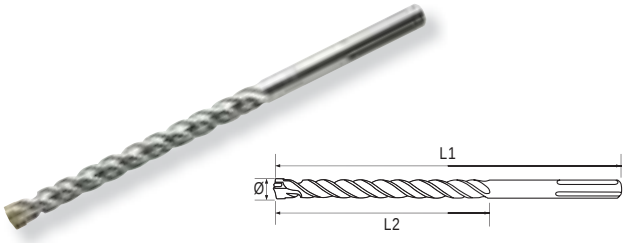
NOTA: Para otras medidas, consultar / Request for other sizes / Pour d´autres dimensions, nous consulter

CONVERSOR DE ANCLAJE SDS-MAX A SDS-PLUS
CONVERSOR FROM SDS-MAX SHANK TO SDS-PLUS
CONVERTEUR DE SDS-MAX A SDS-PLUS

L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
225	1	1CO2250	175,72

Para taladros con sistema SDS-MAX, HILTI Y-Groove y Licencia Bosch. / Drills with SDS-MAX, HILTI Y-Groove and Bosch License system. / Perceuse avec systéme SDS-MAX, HILTI Y-Groove et Bosch Licence.

BROCA SDS-TOP SDS-TOP • SDS-TOP



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2 ARISTAS DE CORTE / 2 CUTTING EDGES					
6,00	200	100	1	1TP06200	53,89
8,00	200	100	1	1TP08200	61,01
8,00	300	200	1	1TP08300	62,98
10,00	200	100	1	1TP10200	65,81
10,00	300	200	1	1TP10300	67,73
10,00	500	400	1	1TP10500	105,09
12,00	200	100	1	1TP12200	67,89
12,00	500	400	1	1TP12500	107,46
12,00	600	500	1	1TP12600	136,67
14,00	300	200	1	1TP14300	81,84
14,00	500	400	1	1TP14500	116,61
15,00	500	400	1	1TP15500	118,79
16,00	300	200	1	1TP16300	95,36
16,00	500	400	1	1TP16500	125,15
4 ARISTAS DE CORTE / 4 CUTTING EDGES					
18,00	300	200	1	1TP18300	113,26
18,00	500	400	1	1TP18500	147,26
20,00	300	200	1	1TP20300	120,17
20,00	500	400	1	1TP20500	151,78
22,00	500	400	1	1TP22500	192,90
24,00	300	200	1	1TP24300	178,04
24,00	500	400	1	1TP24500	223,35
25,00	300	200	1	1TP25300	182,93
25,00	500	400	1	1TP25500	229,37
28,00	300	200	1	1TP28300	204,90
28,00	500	400	1	1TP28500	251,45
30,00	350	250	1	1TP30350	218,05
30,00	550	450	1	1TP30550	271,17
32,00	350	250	1	1TP32350	226,31
32,00	550	450	1	1TP32550	293,14

Hasta agotar existencias / Until end of stock / Jusqu´à épuisement des stocks

NOTA: Para longitudes útiles de más de 400 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 150 mm de profundidad. / For useful lengths of over 400 mm USE A PRE-DRILL BIT of the same diameter up to 150 mm in depth. / Pour des longueurs utiles de plus de 400 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 150 mm de profondeur.

NOTA: Para longitudes útiles de más de 800 mm UTILIZAR BROCA PREVIA de mismo diámetro, hasta 400 mm de profundidad. / For useful lengths of over 800 mm USE A PRE-DRILL BIT of the same diameter up to 400 mm in depth. / Pour des longueurs utiles de plus de 800 mm UTILISER LE FORET DE PRE-PERÇAGE de même diamètre, jusqu'à 400 mm de profondeur.

BROCA PARA ENCOFRAR CILÍNDRICA
SHUTTERING STRAIGHT DRILL-BIT
FORET POUR COFFRAGE

DIN 7490

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./ Pcs.	Cod.	€/Unid.
8,00	400	100	8	1	12011108400	19,12
8,00	600	100	8	1	12011108600	19,66
8,00	800	100	8	1	12011108800	23,51
10,00	400	100	8	1	12011110400	21,31
10,00	600	100	8	1	12011110600	22,31
10,00	800	100	8	1	12011110800	26,28
12,00	400	100	10	1	12011112400	25,49
12,00	600	100	10	1	12011112600	26,58
12,00	800	100	10	1	12011112800	31,61
14,00	400	100	10	1	12011114400	29,41
14,00	600	100	10	1	12011114600	30,32
14,00	800	100	10	1	12011114800	34,64
16,00	400	100	10	1	12011116400	32,14
16,00	600	100	10	1	12011116600	32,77
16,00	800	100	10	1	12011116800	37,57

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./Pcs.	Cod.	€/Unid.
18,00	400	100	13	1	12011118400	42,42
18,00	600	100	13	1	12011118600	45,43
18,00	800	100	13	1	12011118800	53,56
20,00	400	100	13	1	12011120400	51,26
20,00	600	100	13	1	12011120600	53,43
20,00	800	100	13	1	12011120800	59,83
22,00	400	100	13	1	12011122400	61,08
22,00	600	100	13	1	12011122600	62,82
22,00	800	100	13	1	12011122800	69,96
24,00	400	100	13	1	12011124400	72,83
24,00	600	100	13	1	12011124600	78,01
24,00	800	100	13	1	12011124800	84,59
26,00	400	100	13	1	12011126400	86,77
28,00	400	100	13	1	12011128400	103,87
30,00	400	100	13	1	12011130400	121,71

BROCA PARA ENCOFRAR SDS-PLUS
SHUTTERING SDS-PLUS DRILL-BIT
FORET POUR COFFRAGE SDS-PLUS

DIN 7490

SDS plus

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./ Pcs.	Cod.	€/Unid.
10	400	100	10	1	12011210400	44,38
10	600	100	10	1	12011210600	45,29
12	400	100	10	1	12011212400	47,93
12	600	100	10	1	12011212600	49,20
12	800	100	10	1	12011212800	53,10
14	400	100	10	1	12011214400	39,97
14	600	100	10	1	12011214600	40,81
14	800	100	10	1	12011214800	45,95
16	400	100	10	1	12011216400	45,57
16	600	100	10	1	12011216600	45,95
16	800	100	10	1	12011216800	49,32
18	400	100	10	1	12011218400	71,01

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./Pcs.	Cod.	€/Unid.
18	600	100	10	1	12011218600	72,99
18	800	100	10	1	12011218800	78,64
20	400	100	10	1	12011220400	79,03
20	600	100	10	1	12011220600	81,24
20	800	100	10	1	12011220800	85,94
22	400	100	10	1	12011222400	91,53
22	600	100	10	1	12011222600	93,16
22	800	100	10	1	12011222800	96,22
24	400	100	10	1	12011224400	104,77
24	600	100	10	1	12011224600	111,97
24	800	100	10	1	12011224800	114,19

ANCLAJE SDS-PLUS
SDS-PLUS SHANK • QUEUE SDS-PLUS

	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL	250	-	1	01040101	14,94
ROTO-PERCUSIÓN ROTO-PERCUSSION	250	-	1	01040102	19,07
CINCEL FLAT CHISEL	250	20	1	01040103	14,94
CINCEL ANCHO SPADE CHISEL	250	40	1	01040104	25,21

	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
CINCEL AZULEJO TILE CHISEL	200	40	1	01040105	39,45
ACANALADOR HOLLOW CHISEL	240	22	1	01040106	30,97
ACANALADOR ALAS CHISEL WITH GLIDES	250	22	1	01040212	79,07

APLICACIONES / APPLICATIONS / APPLICATIONS	
AEG	APH 14, PH 210, PHE 16, PHE 19, PHE 20, PHE 24,PHE 26, PN 3000 SuperX2, PN 3500X, PN 3000R2, PN 3000XN2, PN 3000SuperXN2, PN 3000X2
ATLAS COPCO	ATLAS COPCO: PPH 30X2E, PPH 26RA, PPH 26XE, PPH 24X2E, PPH 24E, PLH 32XE, PLH 30XE, PLH 30E, PH 3X, PHE 24RX/R, PHE 26R, PHE 26RA, PHE 3, PHE 30RX2
BLACK & DEKER	5009, 5013, 5015, 5016, 5053, 5054, 5056, 5057, KD 651HRE, KD 645HRX
BOSCH	11207, 11210, 11211, 11212, 11213, 11215, 11216, 11222, 11224, 11228, 11236, GBH 2-24DSE, GBH 2-24DSR, GBH 2-24DFR, GAH 500DSR, GBH 4DEF, GBH 4DSC, PBH 200RE
DEWALT	514K, 523K, 557K, 566K, 567K
ELU	MBH 24RLM, MBH 26RLM
FELISATTI	T 724PREC
HILTI	TE 6C, TE 15C, TE 24, TE 25, TE 104
HITACHI	DH 22VB, DH 22VD, DH 24PG, VR 16, BRT22
KANGO	200, 285, 327, 422, 426, 430 D
KRESS	PSX 550, PSE 500, PSE 600, PCX 750, HMX 24, 240 APBE Set
MAQUITA	HR 160, HR 1821, HR 2000, HR 2010, HR 2020, HR 2400, HR 2410, HR 2420, HR 2430, HR 2431, HR 2432, HR 2440, HR 2445, HR2450, HR2455, HR2510, HR2511, HR 3000C
METABO	6010, 6018, 6020, 6024, 6026, BH 6009S, BH E 205R, BH E 24SR, BH E 6011S-R+L, BH E 6024S-R+L, BH E 6028S-R+L, KH E 28, KH E 2, KH E 24, KH E 24contact, UH E 28multi, UH E 22multi, BH EA 14S-R+L
MILWAUKEE	5302, 5303, 5312, 5317, 5320, 5324, 5343, 5344, 5347, 5348, 5362, 5366, 5368, 5369
SPARKY	BPR241E
RIOBI	ED 160, ED211
itw SPIT	335

ANCLAJE SDS-MAX
SDS-MAX SHANK • QUEUE SDS-MAX

	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL	280	-	1	01040201	20,82
	400	-	1	01040202	23,09
	600	-	1	01040203	36,92
CINCEL FLAT CHISEL	280	24	1	01040204	20,82
	400	24	1	01040205	23,21
	600	24	1	01040206	40,88

	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
CINCEL ANCHO SPADE CHISEL	300	80	1	01040213	54,34
	400	50	1	01040208	52,63
CINCEL AZULEJO TILE CHISEL	300	50	1	01040251	57,77
ACANALADOR HOLLOW CHISEL	300	26	1	01040210	51,31
ACANALADOR ALAS CHISEL WITH GLIDES	380	35	1	01040211	149,87

APLICACIONES / APPLICATIONS / APPLICATIONS	
AEG	PM 10, PN 6000S, PN 4000E
ATLAS COPCO	PH 5S, PHE 5S, PB 6S, PBE, 6S, PHE 6S, PHE 7F, PHE 7S, PB “IOS, PB 14S, PHE 40S, PHE 45S, PHE 50S
BLACK & DEKER	5097, 5099
BOSCH	11214 EVS, 11216, 11223, 11227, 11230, 11231, 11235, 11309, 11311, 11312, 11313, 11316, 11245, GBH 5DEC, GBH 7DE, GBH 7DCE, GBH 8DCE, GBH 10DC, GBH 11DE, GSH 5CE, GSH 10C, GSH 11E, GBH 5DCE, GBH 5/40DE, GBH 7/45DE, GBH 5/40DCE, GBH 8/65DCE
DEWALT	DW 540K, DW 541K, DW 543K, DW 545K, DW 570K, D 25900K
ELU	BH 40K, BH 40EK, BH 45EK, SH 50EK
HILTI	TE 52, TE 54, TE 55, TE 72, TE 74, TE 75, TE 76, TE 76-ATC, TE 92, TE 504, TE 505, TE 705, TE 704
HITACHI	DH 40MA, DH 40MB, DH 50MB, DH 65MB, H 45MA, H 60MA, H 60MB
KANGO	710 MV, 760 MV, 810 MV, 845 MV, 850 MV, 900 MV, 1400 MV
KRESS	1150PSKmax
MAQUITA	HR 500C, HM 1100C, HM 1100S, HM 1200C, HM 1202C, HR4000C, HR4001C, HR4011C, HR4500C, HR5001C
METABO	6045, Bh 6045S
MILWAUKEE	5308, 5313, 5315-21, 5315-22, PH 45SQ
SPARKY	BP 400E
RIOBI	ER 382K, DE 382NP
itwSPIT	351, 355, 385, 371, 455
WACKER	EHB 7/230, EH 9BLM, EHB 11BLM

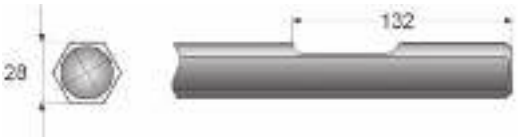
ANCLAJE SDS-TOP
SDS-TOP SHANK • QUEUE SDS-TOP

	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL	270*	-	1	01040217	31,24
ACANALADOR HOLLOW CHISEL	250*	22	1	01040250	65,98

*Hasta agotar existencias / Until end of stock / Jusqu´à épuisement des stocks

APLICACIONES / APPLICATIONS / APPLICATIONS	
AEG	PN 11
BOSCH	GBH 4Top
HILTI	TE 35
MAQUITA	HR 3550C

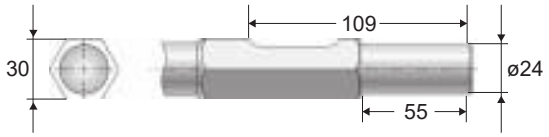
ANCLAJE SW-28
SW-28 SHANK • QUEUE SW-28



	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL	400	-	1	01040224	73,10
CINCEL FLAT CHISEL	400	35	1	01040236	72,83
CINCEL ANCHO SPADE CHISEL	400	80	1	01040245	162,50

APLICACIONES / APPLICATIONS / APPLICATIONS	
BOSCH	GSH 27, USH 27, HSH 28

ANCLAJE SW-30
SW-30 SHANK • QUEUE SW-30

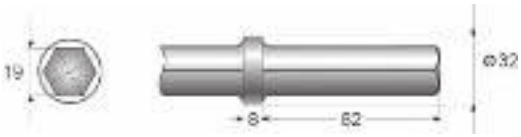


	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL	400	-	1	01040216	78,82

	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
CINCEL FLAT CHISEL	400	32	1	01040243	79,19

APLICACIONES / APPLICATIONS / APPLICATIONS	
HITACHI	H 65SB, H 70SA
MAQUITA	8900N, HM 1300, HM 1303, HM 1304, HM 1400, HM 1500

ANCLAJE SW-19 WACKER
SW-19 WACKER SHANK • QUEUE SW-19 WACKER



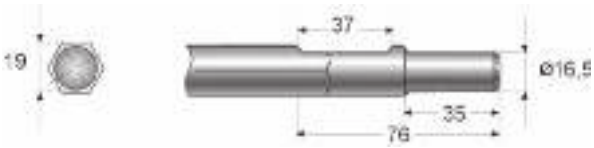
	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL	480	-	1	01040227	50,55
CINCEL FLAT CHISEL	480	35	1	01040238	50,74

	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
CINCEL ANCHO SPADE CHISEL	300	80	1	01040247	100,27

Hasta agotar existencias / Until end of stock / Jusqu´à épuisement des stocks

APLICACIONES / APPLICATIONS / APPLICATIONS	
IMPEX	DS 120
METABO	MHE "IOS
OUTIFIX	OX1000
ROCOSA	80-100
itwSPIT	CH 120, DS 120
WACKER	WACKER: BH 23, BHB 14, EH 22/380, EH 23/220, EH 24/042, EHB 7/230EB8, EHB 10/220, EH 8/220, EHL 8Y, EHU 8Y/220, EHUB 10Y/220, LHB5, SH 60K

ANCLAJE SW-19 BOSCH 16,5
SW-19 SHANK BOSCH 16,5
QUEUE SW-19 BOSCH 16,5



	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL					
	300	-	1	01040221	26,00

	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
CINCEL FLAT CHISEL					
	300	22	1	1040234	25,96
	400	22	1	1040235	33,36

Hasta agotar existencias / Until end of stock / Jusqu´à épuisement des stocks

APLICACIONES / APPLICATIONS / APPLICATIONS	
AEG	PH 26, PHD 26, PH 38, PHD 38, PHE 38, PH 240, PH 240D, PH 350, PH 350D, PDH 350D
ATLAS COPCO	PH 5H, PH 11H, PB 10H, PHE 5H
BLACK & DEKER	5041, 5042, 5043, 5044, 5045, 5059, 5093, 5095, 5096, 5098
BOSCH	11202, 11203, 11204, 11205, 11206, 11207, 11209, 11212, 11214, 11219, 11220, 11232, 11233, 11244E, 11306, 11307, 11310, 11314, GBH 7/45D, GBH 7/75DE, UBH 6/35, UBH 6/35D, UBH 10/5, UBH 12/50, USH 6
DEWALT	530K, 531K, 532K, 533K, 551K, 558K
ELU	BH 41K, SBH 41K, BH 41EK, BH 46EK
HITACHI	DH 38YA, DH 38YE, DH 38YF, DH 40FA, DH 40FB, DH 50SB, DS 50SB, DH 45SB
KANGO	430S, 501S, 637S, 750S, 950KS, 950S, 950XS, 975S
MAQUITA	HM 0810B, HM 1140C, HR 3520B, HR 3520EB, HR 3850B, HR 3851, HR 4040C, HR 5000
METABO	11285, 11295, 11305, 11315, BhE 6030S, RH 66, RH 99, RH 99X, 1129, 1130, 6030, 6040, 6046
MILWAUKEE	5309, 5312, 5316, 5317, 5334, 5341, 5343, 5344, 5347, 5348, 5352, 5353, 5363, 5367
PEUGEOT	PM 26, PM 38
RIOBI	ED 350K, ED 382, ED 382P, ER 382, ER 382K
itw SPIT	350
WACKER	EBH 7S

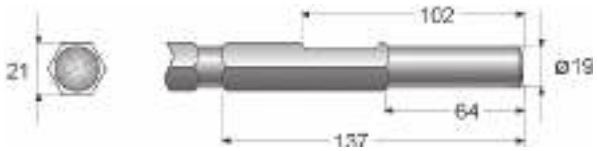
ANCLAJE HITACHI + SW 17
HITACHI SHANK + SW 17
QUEUE HITACHI + SW 17

	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL					
	450	-	1	01040220	36,81

	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
CINCEL FLAT CHISEL					
	280	22	1	01040231	26,24
	360	22	1	01040232	29,70
	450	22	1	01040233	36,81

APLICACIONES / APPLICATIONS / APPLICATIONS	
HITACHI	HITACHI: DH 28Y, DH 38YB, DH 38YB1, DH 42, H41SA, H 45SA, PH 40F, PHU 45, PR 25B, PR 38E, VR 38, VRY 38YB
MAQUITA	8035 NB, HM 0810, HM 0810T, HM 1200, HR 3500, HR 3510, HR 3520, HR 3850
RIOBI	CH 450PK, CH 460PK, CH 500K, CH 500P, ER 382K

ANCLAJE KANGO
KANGO SHANK • QUEUE KANGO



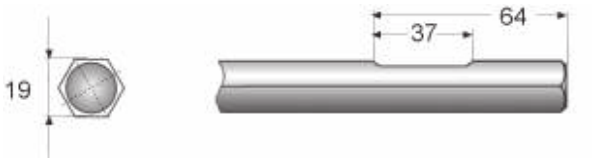
	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL	300	-	1	01040228	28,30
CINCEL FLAT CHISEL	300	25	1	01040239	28,30
	460	25	1	01040241	40,01

APLICACIONES / APPLICATIONS / APPLICATIONS	
ATLAS COPCO	PB 6C, PB 10, PB 10C, PB 14C, PH 11C
CASALS	ATILA
HITACHI	DH 50SA, DH 50SA1, H 55SA, H 55SC
IMCO	1150, 150R
KANGO	900, 900X, 928, 950, 950K, 950X, 1400
MAQUITA	HM 1200K, HR 3850K, HR 5000K
RIOBI	CH 425, CH 485K

ANCLAJE SW-19 BOSCH USH 10

SW-19 BOSCH USH 10 SHANK

QUEUE SW-19 BOSCH USH 10



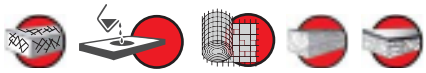
	L1 (mm)	Ancho Wide	Uds. Pcs.	Cod.	€/Unid.
PUNTERO POINT CHISEL	300	-	1	01040225	24,84

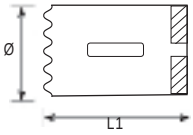
Hasta agotar existencias / Until end of stock / Jusqu´à épuisement des stocks

APLICACIONES / APPLICATIONS / APPLICATIONS	
BOSCH	11302, 11305, 12312, USH 10
CASALS	TORNADO
DEWALT	5021K, DW 558K
ELU	SH 60K
HITACHI	H 55SC
KANGO	638S, 900B, 900KS, 900S, 900XS, 1400B
MAQUITA	HM 1200B, HM 1211B
MILWAUKEE	5535
itw SPIT	400

CORONA SESAGRIT CON PÁRTICULAS DE M/D PARA FIBROCEMENTO Y FIBRA DE VIDRIO

HOLE SAWS WITH H/M PARTICLES FOR FIBROCEMENT AND FIBER GLASS
TREPAN AVEC PARTICULES M/D POUR FIBROCEMENT ET FIBRE DE VERRE





NEW

Ø (mm)	L1 (mm)	Cod.	€/Unid.
16,00	40	1SG016	16,76
19,00	40	1SG019	17,58
20,00	40	1SG020	18,19
25,00	40	1SG025	19,13
29,00	40	1SG029	21,60
32,00	40	1SG032	22,17
35,00	40	1SG035	22,62
38,00	40	1SG038	24,46
44,00	40	1SG044	25,47
48,00	40	1SG048	26,03
51,00	40	1SG051	26,19

Ø (mm)	L1 (mm)	Cod.	€/Unid.
54,00	40	1SG054	27,73
57,00	40	1SG057	28,22
60,00	40	1SG060	29,40
64,00	40	1SG064	29,56
70,00	40	1SG070	34,79
73,00	40	1SG073	42,32
76,00	40	1SG076	37,13
83,00*	40	1SG083*	48,75
86,00*	40	1SG086*	51,78
95,00*	40	1SG095*	65,57
102,00*	40	1SG102*	58,73

*Consultar plazo / Request delivery time / *Vérifier la date limite*

HUSILLOS PARA CORONA SESAGRIT

ARBOR FOR SESAGRIT HOLE SAW • ABRES POUR SESAGRIT SCIES TRÉPAN

NEW

Tipo amarre Shank (mm)	Para Coronas For Hole Saws (mm)	Rosca del Husillo Arbor Thread	Uds. Pcs.	Cod.	€/Unid.
HEXAGONAL 9,50 mm	16 - 30	1/2 x 20h UNF	1	1SG001	19,91
HEXAGONAL 9,50 mm	32 - 102	5/8 x 18h UNF	1	1SG002	29,16

ESTUCHE DE CORONAS SESAGRIT

SET OF SESAGRIT HOLE SAW • COFRET DE TRÉPAN SESAGRIT

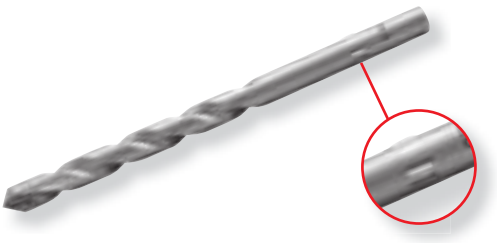
NEW

Contenido Contains / Composition		Uds. Pcs.	Cod.	€/Unid.
Coronas / Hole saw/ Trépan	Ø 20-25-35-38-51-60 mm	x1		
Husillos / Arbors / Abres	M/Hex. 14-30 mm	1	1SG003	194,38
Husillos / Arbors / Abres	M/Hex. 32-210 mm	1		

BROCA PILOTO HORMAT

HORMAT CENTRE DRILL • HORMAT FORET CENTRAGE

NEW



Ø (mm)	Para husillos / For arbors	Uds. / Pcs.	Cod.	€/Unid.
6,00 x 100	1SG001 y 1SG002	1	1GR06100	7,04

QUE ES EL FIBROCEMENTO Y PARA QUE SIRVE?
WHAT IS FIBER CEMENT AND WHAT IS IT USED FOR?
QU'EST-CE QUE LE FIBROCIMENT ET À QUOI SERT-IL ?

El fibrocemento es un material de construcción aglomerante muy popluar que se usa para el revestimiento de fachadas de todo tipo de edificios.

Su base estructural es el cemento, el aglutinante por excelencia. Varios tipos de facciones de fibra de madera refuerzan el material con el que se fabrica el fibrocemento.

Resiste las condiciones climáticas más duras, es resistente a todo tipo de condiciones climáticas, desde heladas severas y lluvias torrenciales hasta altas temperaturas y luz solar directa.

Tiene una vida útil mínima de 50 años.

Fiber cement is a very popular binder construction material that is used for cladding the facades of all kind of buildings.

Its structural base is cement, the binder par *excellence. Various types of wood fiber factions reinforce the material with which fiber cement* is made.

Withstands the harshest weather conditions, it is resistant to all types of weather conditions, from severe frosts and torrential rains to high temperatures and direct sunlight.

It has a minimum useful life of 50 years.

Le fibrociment est un matériau de construction liant très apprécié qui est utilisé pour le revêtement des façades de tous types de bâtiments.

Sa base structurale est le ciment, le liant par *excellence. Différents types de fractions de fibres* de bois renforcent le matériau avec lequel le *fibrociment est fabriqué.*

Résiste aux conditions climatiques les plus rudes, il résiste à tous types de conditions météorologiques, des fortes gelées et pluies torrentielles aux températures élevées et à la lumière directe du soleil.

Sa durée de vie utile est minimale de 50 ans.

CARACTERÍSTICAS DE LA CORONA SESAGRIT
FEATURES OF SESAGRIT HOLE SAW
CARACTÉRISTIQUES DE LA TREPAN SESAGRIT

- Dentado con polvo de Carburo de Tungsteno soldado.
- Utilizar sólo a rotación
- Corte en seco
- Ideal para materiales abrasivos extremadamente duros, incluidos laminados, fibra de vidrio, baldosas de cerámica, marmol, pizarra, hierro fundido y compuestos
- Alta resistencia al calor y a la abrasión
- Gran resistencia al desgaste

- Toothed with welded Tungsten Carbide powder.
- Use only in rotation
- Dry cutting
- Ideal for extremely hard abrasive materials *including laminates, fiberglass, ceramic tile,* marble, slate, cast iron and composites
- High resistance to heat and abrasion
- Great wear resistance

- Denté avec de la poudre de carbure de tungstène soudée.
- Utiliser uniquement en rotation
- Coupe à sec
- Idéal pour les matériaux abrasifs extrêmement *durs, notamment les stratifiés, la fibre de* verre, les carreaux de céramique, le marbre, l'ardoise, la fonte et les composites.
- Haute résistance à la chaleur et à l'abrasion
- Grande résistance à l'usure

CORONA MULTIFUNCIÓN PARA TRABAJOS LIGEROS
UNIVERSAL HOLE SAW
TRÉPAN MULTIFUNCTION

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Z	Cod.	€/Unid.
Sanitarios y calefacción / Sanitary and heating pipes / Sanitaires et chauffage						
25,00	73	60	1	3	1CT025	74,46
30,00	73	60	1	3	1CT030	76,23
35,00	73	60	1	3	1CT035	80,83
Tubería y desagüe / Pipes and wastepipes / *Tuyauteries et déversoires*						
40,00	73	60	1	3	1CT040	81,64
Tubería de agua, aislamientos y desagües / Water pipes, insulation and wastepipes / *Tuyauteries, isolations et déversoires*						
45,00	73	60	1	3	1CT045	88,93
50,00	73	60	1	3	1CT050	89,09
Focos empotrados / Recessed lights / Foyers encastrés						
55,00	73	60	1	3	1CT055*	102,06
58,00	73	60	1	5	1CT058*	115,93
60,00	73	60	1	5	1CT060	116,00
Caja de empalmes / Junction box / Boites de jonctions						
65,00	73	60	1	5	1CT065	116,98
68,00	73	60	1	5	1CT068	123,02
74,00	73	60	1	5	1CT074	140,43
Cajas de distribución / Switchboxes / Switchbox						
80,00	73	60	1	5	1CT080	145,68
Conductos de aire / Vent pipes / Conduit d´aire						
105,00	73	60	1	6	1CT105	220,47

*Hasta agotar existencias / Until end of stock / Jusqu´à épuisement des stocks

ADAPTADOR MANGO SDS-PLUS PARA CORONA M16 Y MULTIFUNCIÓN
SDS-PLUS SHANK FOR M16 AND UNIVERSAL HOLE SAW
QUEUE SDS-PLUS POUR TRÉPAN M16 ET MULTIFUNCTION

SDS plus | M16

L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
100	1	1AS100	42,83
200	1	1AS200	65,88
350	1	1AS350	88,48

NOTA: No se recomienda el uso del adaptador de 350 mm con coronas mayores de 45 mm de diámetro. / Not recommended adapter of 350 mm for more than 45 mm. diameter hole saws. / Adaptateur 350 mm non recommendé avec trépans supérieures á 45 mm.

NOTA: Para realizar un trabajo de diámetro mayor a 45 mm se recomienda el uso del sistema SDS-MAX. / For diameters bigger than 45 mm, SDS-MAX system recommended / Pour des travaux supérieures á 45 mm, système recommendé SDS-MAX.

ADAPTADOR MANGO HEXAGONAL PARA CORONA M16 Y MULTIFUNCIÓN
HEXAGONAL SHANK FOR M16 AND UNIVERSAL HOLE SAW
QUEUE HEXAGONALE POUR TRÉPAN M16 ET MULTIFUNCTION

M16

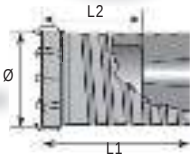
L1 (mm)	⬡ Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
80	11	1	1AH080	37,73
200	11	1	1AH200	51,73
350	11	1	1AH350	70,07

BROCA DE CENTRAR PARA CORONA M16 Y MULTIFUNCIÓN
CENTRE DRILL BIT FOR M16 AND UNIVERSAL HOLE SAW
FORET DE CENTRAGE POUR TRÉPAN M16 ET MULTIFUNCTION

L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8 x 120	1	1AP09120	9,16

CORONA SISTEMA M16 TRABAJOS MEDIOS
HOLLOW CORE M16 ASSEMBLY • TRÉPAN BÉTON M16

MD M16



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Z	Cod.	€/Unid.
25,00	80	60	1	5	1M16025	78,29
30,00	80	60	1	6	1M16030	82,40
35,00	80	60	1	6	1M16035	89,64
40,00	90	70	1	6	1M16040	96,38
45,00	90	70	1	6	1M16045	104,94
50,00	90	70	1	6	1M16050	107,03
55,00	72	52	1	6	1M16055	108,51
60,00	72	52	1	6	1M16060	110,62
65,00	72	50	1	6	1M16065	112,19
68,00	72	50	1	6	1M16068	117,36
80,00	82	60	1	6	1M16080	131,50
90,00	82	60	1	8	1M16090	182,69
100,00	82	60	1	8	1M16100	234,33

RECOMENDACIONES DE USO PARA PROLONGADORES SDS-PLUS Y HEXAGONALES PARA CORONAS M16

USAGE RECOMMENDATIONS FOR SDS-PLUS EXTENSIONS AND HEX SOCKETS FOR M16 DRILL BITS • RECOMMANDATIONS D'UTILISATION POUR RALLONGES SDS-PLUS ET HEXAGONALES POUR COURONNES M16

PROFUNDIDAD DEPTH PROFONDEUR		ADAPTADOR RECOMENDADO RECOMENDED SHANK ADAPTER ADAPTATEUR RECOMMANDÉ	
< 100 mm	1AS100	SDS-PLUS L= 100 mm (Pág. 65) SDS-PLUS SHNAK ADAPTER L= 100 mm (Pag. 65) QUEUE SDS-PLUS L= 100 mm (Pág. 65)	√
	1AH080	HEXAGONAL L=80 mm (Pág. 65) HEXAGONAL SHANK ADAPTER L=80 mm (Pag. 65) QUEUE HEXAGONAL L=80 mm (Pág. 65)	√
	1AS200	SDS-PLUS L= 200 mm (Pág. 65) SDS-PLUS SHNAK ADAPTER L= 200 mm (Pag. 65) QUEUE SDS-PLUS L= 200 mm (Pág. 65)	POSIBLE POSSIBLE POSIBLE
	1AH200	HEXAGONAL L=200 mm (Pág. 65) HEXAGONAL SHANK ADAPTER L=200 mm (Pag. 65) QUEUE HEXAGONAL L=200 mm (Pág. 65)	POSIBLE POSSIBLE POSIBLE
100-200 mm	1AS200	SDS-PLUS L= 200 mm (Pág. 65) SDS-PLUS SHNAK ADAPTER L= 200 mm (Pag. 65) QUEUE SDS-PLUS L= 200 mm (Pág. 65)	√
	1AH200	HEXAGONAL L=200 mm (Pág. 65) HEXAGONAL SHANK ADAPTER L=200 mm (Pag. 65) QUEUE HEXAGONAL L=200 mm (Pág. 65)	√

RECOMENDACIONES DE USO PARA PROLONGADORES SDS-PLUS Y HEXAGONALES PARA CORONAS M16

USAGE RECOMMENDATIONS FOR SDS-PLUS EXTENSIONS AND HEX SOCKETS FOR M16 DRILL BITS • RECOMMANDATIONS D'UTILISATION POUR RALLONGES SDS-PLUS ET HEXAGONALES POUR COURONNES M16

PROFUNDIDAD DEPTH PROFONDEUR		ADAPTADOR RECOMENDADO RECOMENDED SHANK ADAPTER ADAPTATEUR RECOMMANDÉ
> 200 mm	1AS350	SDS-PLUS L= 350 mm (Pág. 65) SDS-PLUS SHNAK ADAPTER L= 350 mm (Pag. 65) QUEUE SDS-PLUS L= 350 mm (Pág. 65)
	1AH350	HEXAGONAL L=350 mm (Pág. 65) HEXAGONAL SHANK ADAPTER L=350 mm (Pag. 65) QUEUE HEXAGONAL L=350 mm (Pág. 65)

Siempre que necesitemos taladrar con alargadores de más de 200 mm de largo, deberemos utilizar un taladrado previo con los adaptadores de menor longitud, a fin de evitar roturas derivadas de las tensiones que se producen en el mismo. De esta forma se aumenta la vida útil tanto del alargador como de la corona. No seguir estas recomendaciones se considerará como utilización inadecuada del producto, perdiendo la cobertura de la garantía.

Whenever you need to drill with extensions more than 200 mm in length, you must pre-drill with adapters of lesser length in order to avoid breakage caused by the stresses that such drilling will cause. This increases the service life of both the extension and the drill bit. Failure to follow these recommendations will be considered improper use of the product, invalidating the warranty coverage.

Lorsque vous devez percer avec des rallonges de plus de 200 mm de long, il faut utiliser une perceuse au préalable avec les adaptateurs *de moindre longueur afin d'éviter des cassures dérivées des tensions. Ainsi, il est possible d'augmenter la vie utile aussi bien de la rallonge* que de la couronne. Ne pas suivre ces recommandations sera considéré comme une utilisation on adaptée du produit, ce dernier perdra donc la couverture de la garantie.

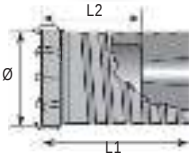
CORONA SISTEMA 1:8 PARA TRABAJOS INTENSIVOS

1:8 SYSTEM INTENSIVE USE HOLE SAW

TRÉPAN SYSTÈME 1:8 POUR DES TRAVAUX INTENSIFS

MD

1:8



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Z	Cod.	€/Unid.
35,00	100	75	1	6	1CC035	161,24
40,00	100	75	1	6	1CC040	164,83
45,00	100	75	1	6	1CC045	173,70
50,00	100	75	1	6	1CC050	179,66
60,00	100	75	1	6	1CC060	223,93
66,00	100	75	1	6	1CC066	225,04
80,00	100	75	1	8	1CC080	256,25
90,00	100	75	1	8	1CC090	298,44
100,00	100	75	1	8	1CC100	344,39

Adaptador
Adapter
Adaptateur

Broca Centradora
Center Drill
Foret de Centrage

Corona
Hole Saw Core
Trépan

Cuña
Wedge
Cale

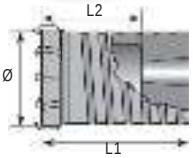
ADAPTADOR SISTEMA 1:8 PARA TRABAJOS INTENSIVOS
1:8 SYSTEM ADAPTER • ADAPTATEURS SYSTÈME 1:8

Entrada cónica 1:20 / Tapper insert 1:20 / Entrée conique 1:20

		Anclaje Shank	USO NORMAL / NORMAL USING UTILISATION HABITUELLE L1 (mm)	Uds. Pcs.	Cod.	€/Unid.
Adaptador / Adapter / Adaptateur	SDS max	SDS-MAX	250	1	1AB3210	107,70
		ESTRIADO	250	1	1AB4210*	112,27
Broca Centradora / Center Drill Foret de Centrage	SDS max	-	12 x 135	1	1AB6135	19,68
Cuña / Wedge / Cale		-	-	1	1ABCU01	24,79

Hasta agotar existencias / Until end of stock / Jusqu´à épuisement des stocks

CORONA SISTEMA RL PARA INSTALACIÓN DE AIRE ACONDICIONADO
SPECIAL RL SYSTEME FOR AIR CONDITIONING INSTALLATION
SYSTÈME SPÉCIAL RL POUR L´INSTALLATION DE CLIMATISATION



MD

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Z	Cod.	€/Unid.
50,00	105	80	1	8	RL0050	137,30
55,00	105	80	1	8	RL0055	145,38
60,00	105	80	1	12	RL0060	153,46
65,00	105	80	1	12	RL0065	161,52

Hasta agotar existencias / Until end of stock / Jusqu´à épuisement des stocks

ADAPTADOR SDS-PLUS
SDS-PLUS ADAPTER • ADAPTATEUR SDS-PLUS

L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
105	1	RL2105	48,46
300	1	RL2300	93,69

Hasta agotar existencias / Until end of stock / Jusqu´à épuisement des stocks

PUNZÓN GUÍA
PUNCH GUIDE • POINÇON GUIDE

Uds. / Pcs.	Cod.	€/Unid.
1	RL3003	48,68

Hasta agotar existencias / Until end of stock / Jusqu´à épuisement des stocks

MODO DE EMPLEO USING GUIDE • UTILISATION

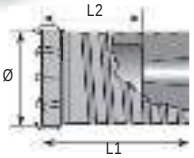
- Introducir el adaptador en la corona.
- Insert the adapter on the hole saw.
- Introduir l´adaptateur dans le trépan.

- Con una presión suave, introducir el punzón en el adaptador.
- Fix the punch guide softly on the adapter.
- Fixez le poinçon guide dans l´adaptateur doucement.

- Corona lista para realizar el trabajo.
- Hole saw ready to work.
- Trépan préparé pour réaliser le travail.

- Después de taladrar 5 mm, sacar el punzón y continuar el trabajo.
- After drilling 5 mm, pull off the punch guide and continue working.
- Aprés percer 5 mm, enlever le poinçon et continuer le travail.

CORONA UNIVERSAL
UNIVERSAL HOLE SAW CORE • TRÉPAN UNIVERSEL



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
33,00	65	55	1	1CU033	19,05
53,00	65	55	1	1CU053	20,37
67,00	65	55	1	1CU067	22,83
73,00	65	55	1	1CU073	27,17
83,00	65	55	1	1CU083	32,68

ACCESORIOS
ACCESSORIES • ACCESOIRES

L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
Plato de Sujeción / Locating Plate / Base Pour Fixer Le Trépan			
33-83	1	1AP10	21,13
Broca Centradora / Center Drill / Foret Centrage			
9,00	1	1AP09	9,68

Revoluciones Máximas Recomendadas: 1.500 R.P.M. / Maximum Recomended Speed: 1.500 R.P.M. / Maximum Vitesse Recommendée: 1.500 R.P.M.

NOTA: Los accesorios se venden por separado / Los accesorios se venden por separado / Los accesorios se venden por separado

SISTEMA S94 S94 SYSTEM • SYSTÉME S94

Para taladrados en profundidades de hasta 2 metros / Drilling depht up to 2 metres. / Pour perçages jusqu'à 2 mètres de profondeur
Rango de diámetros desde 35 mm a 150 mm / Range of diameters from 35 mm. to150 mm. / Niveau de diamètres entre 35 mm et 150 mm

ADAPTADORES SISTEMA S94
S94 SYSTEM ADAPTERS
ADAPTATEURS SYSTÉME S94

CORONA
HOLE SAW
TRÉPAN

BROCA DE CENTRAR
CENTRE DRILL BIT
FORET DE CENTRAGE

ADAPTADORES SISTEMA S94
S94 SYSTEM ADAPTERS
ADAPTATEURS SYSTÉME S94

PROLONGADORES
EXTENSION
PROLONGATEURS

HÉLICES EXTRACTORA S94
S94 SCREW EXTRACTORS
HÉLICE D´EXTRACTION

BROCA TIPO P
P TYPE DRILL BIT
FORET TYPE P

BROCA DE CENTRAR
CENTRE DRILL BIT
FORET DE CENTRAGE

ADAPTADORES SISTEMA S94
S94 SYSTEM ADAPTERS
ADAPTATEURS SYSTÉME S94

PROLONGADORES
EXTENSION
PROLONGATEURS

HÉLICES EXTRACTORA S94
S94 SCREW EXTRACTORS
HÉLICE D´EXTRACTION

PROLONGADORES
EXTENSION
PROLONGATEURS

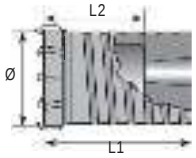
HÉLICES EXTRACTORA S94
S94 SCREW EXTRACTORS
HÉLICE D´EXTRACTION

BROCA TIPO S
S TYPE DRILL BIT
FORET TYPE S

BROCA DE CENTRAR
CENTRE DRILL BIT
FORET DE CENTRAGE

BROCAS Y CORONAS SISTEMA S94
HOLE SAWS AND DRILL BITS FOR S94 SYSTEM
TRÉPANS ET FORETS PUOR SYSTÈME S94

CORONA HOLE SAW • TRÉPAN



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
40,00	100	70	1	1CI040	197,90
50,00	100	70	1	1CI050	220,66
65,00	100	70	1	1CI065	265,38
80,00	100	70	1	1CI080	310,71

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
90,00	100	70	1	1CI090	358,23
100,00	100	70	1	1CI100	415,27
110,00	100	70	1	1CI110	440,64
125,00	100	70	1	1CI125	619,06

BROCA TIPO S S TYPE DRILL BIT • FORET TYPE S

Ø (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
35,00	3	1	1S94S035	310,82
42,00	3	1	1S94S042	376,40
45,00	3	1	1S94S045	414,12
52,00	3	1	1S94S052	470,68
55,00	3	1	1S94S055	472,85
60,00	4	1	1S94S060	546,35
65,00	4	1	1S94S065	640,16
70,00	4	1	1S94S070	678,37

Ø (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
80,00	4	1	1S94S080	725,12
90,00	6	1	1S94S090	837,58
100,00	6	1	1S94S100	903,64
110,00	6	1	1S94S110	1.129,28
135,00	6	1	1S94S135	1.722,50
150,00	6	1	1S94S150	1.900,81

BROCA TIPO P P TYPE DRILL BIT • FORET TYPE P

Ø (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
35,00	3	1	1S94P035	339,70
42,00	3	1	1S94P042	410,93
52,00	3	1	1S94P052	518,40
55,00	3	1	1S94P055	522,72
60,00	6	1	1S94P060	603,74
65,00	6	1	1S94P065	697,57

Ø (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
70,00	6	1	1S94P070	743,86
80,00	6	1	1S94P080	790,73
90,00	6	1	1S94P090	846,99
100,00	6	1	1S94P100	903,55
110,00	6	1	1S94P110	1.130,23
125,00	6	1	1S94P125	1.300,36

Hasta agotar existencias / Until end of stock / Jusqu´à épuisement des stocks

ADAPTADORES SISTEMA S94
S94 SYSTEM ADAPTERS
ADAPTATEURS SYSTÉME S94

	Anclaje / Shank	L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
	SDS-PLUS	110	1	1AI1110	158,55
	SDS-TOP*	190	1	1AI2190	165,92
	SDS-MAX	190	1	1AI3190	163,77
		400	1	1AI3400	180,94
		575	1	1AI3575	192,83
		975	1	1AI3975	291,89
	ESTRIADO	175	1	1AI4175	141,81
	Hitachi DH 38 YB DH 45 SA, H 41 SA, H 65 SB VRY38, DH 28 Y, Makita 8022B-8035B Ryobi CH 450 P, ER 382 K	170	1	1AI5170	170,32
	Duss P20 - P30 - P60 - P90 P80, PK 100	210	1	1AI6210	170,32
	Kango 950; 950x 900x, 928 1400	200	1	1AI7200	170,32
	Wacker E HUB 10 Y EH8/220, BHB 14	185	1	1AI8185	170,32

*Hasta fin de existencias / Until end of stock / *Jusqu'à fin de stocks*

PROLONGADORES
EXTENSION • PROLONGATEURS

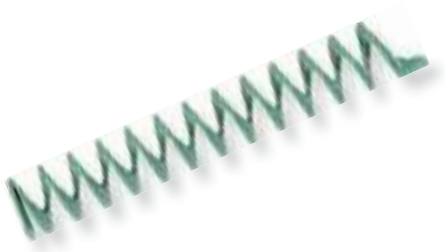
Uso con / Using with	L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
	300	1	1PR300	235,33
	450*	1	1PR400	267,72

*Utilizar con hélice extractora S94 Pag. 76 / Use with S94 screw extractor Pag. 76 / Utiliser l´hélice d´extraction S94 Pag. 76

HÉLICES EXTRACTORAS S94
S94 SCREW EXTRACTORS • HÉLICES D´EXTRACTION S94

Ø (mm)	Rango / Range	Uds. / Pcs.	Cod.	€/Unid.
42,00	Tipo S y P	1	1S94H01	131,92
45,00	Tipo S	1	1S94H02	154,03
52,00 - 55,00 - 60,00	Tipo S y P	1	1S94H03	219,35
65,00 - 70,00	Tipo S	1	1S94H04	355,98
80,00	Tipo S	1	1S94H05	658,78

Hasta fin de existencias / Until end of stock / *Jusqu'à fin de stocks*



Ø (mm)	Rango / Range	Uds. / Pcs.	Cod.	€/Unid.
32,00	32 - 45	1	1S94H06	186,60
47,00	52 - 60	1	1S94H07	243,47
63,00	64 - 70	1	1S94H08	296,70
78,00	80 - 150	1	1S94H09	410,95

BROCA DE CENTRAR
CENTRE DRILL BIT • FORET DE CENTRAGE

Uso con / Using with	L1 (mm)	L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
	12,00	155	1	1BC12155	54,37
	18,00	124	1	1BC16124	54,37
	16,00	174	1	1BC16174	58,44

ELEMENTO DE UNIÓN THREADED BOLT • ÉLÉMENT D'UNION

Uds. / Pcs.	Cod.	€/Unid.
1	1EU001	34,26

GRASA PARA ROSCA 120 GR
THREAD GREASE 120 GR • GRAISSE 120 GR

Uds. / Pcs.	Cod.	€/Unid.
1	1GR001	15,07

CONSTRUCCIÓN B5B-S10
CONSTRUCTION B5B-S10 • CONSTRUCTION B5B-S10

Ø (mm)	Eje	Uds. / Pcs.	Cod.	€/Unid.
115	22,23	1	1130115022	22,69
125	22,23	1	1130125022	26,88

Ø (mm)	Eje	Uds. / Pcs.	Cod.	€/Unid.
180	22,23	1	1130180022	54,80
230	22,23	1	1130230022	57,71

CONSTRUCCIÓN FÓRMULA 1
CONSTRUCTION FORMULA 1 • CONSTRUCTION FORMULA 1

Ø (mm)	Eje	Uds. / Pcs.	Cod.	€/Unid.
115	22,23	1	1160115022	101,15
125	22,23	1	1160125022	116,02
150	22,23	1	1160150022	175,53

Ø (mm)	Eje	Uds. / Pcs.	Cod.	€/Unid.
180	22,23	1	1160180022	205,29
230	22,23	1	1160230022	245,92

TG SUPER THIN PORCELANATO
TG SUPER THIN PORCELANICS • TG SUPER THIN CARRELAGE

Ø (mm)	Eje	Uds. / Pcs.	Cod.	€/Unid.
115	22,23	1	1500115022	72,09
115	22,23	1	1500115022 FL*	90,11
125	22,23	1	1500125022	101,15
125	22,23	1	1500125022 FL*	123,15

Ø (mm)	Eje	Uds. / Pcs.	Cod.	€/Unid.
150	22,23	1	1500150022	136,86
180	22,23	1	1500180022	175,53
230	22,23	1	1500230022	252,89

*FL: Alma reforzada (evita holguras en máquinas desgastadas) / *FL: Reinforced core (avoids looseness in worn machines) / *Ame renforcée (évite le jeu sur les machines usées)

CANTERO TITAN TURBO-I
STONE TITAN TURBO-I • TITAN TURBO-I POUR PIERRE

Ø (mm)	Eje	Uds. / Pcs.	Cod.	€/Unid.
115	22,23	1	1520115022	113,05
125	22,23	1	1520125022	136,86
150	22,23	1	1520150022	190,40
180	22,23	1	1520180022	232,07
230	22,23	1	1520230022	261,81

TITAN TURBO-II PARA CORTADORA
TITAN TURBO-II FOR LIGHTWEIGHT FLOOR SAWS
TITAN TURBO-II POUR SCIES Á CHARIOT

Ø (mm)	Eje	Uds. / Pcs.	Cod.	€/Unid.
300	20,00	1	1530300020	443,30
300	22,23	1	1530300022	443,30
300	25,40	1	1530300025	443,30
350	20,00	1	1530350020	589,07
350	22,23	1	1530350022	589,07
350	25,40	1	1530350025	589,07

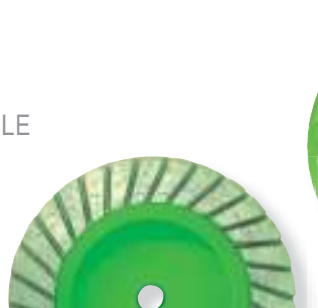
SET DISCOS DE DIAMANTE 4+4 (B5B-S10 + TG SUPERTHIN)
DIAMOND DISCS SET 4+4 (B5B-S10 + TG SUPERTHIN)
COFFRET DISQUES DIAMANTÉS 4+4 (B5B-S10 + TG SUPERTHIN)

Calidad Quality	Ø (mm)	Eje	Uds. Pcs.	Cod.	€/Unid.
B5B-S10	115	22,23	4	K1101150	373,71
TGSUPERTHIN	115	22,23	4		

PLATO DIAMANTADO HORMIGÓN
GRINDING WHEELS FOR CONCRETE
MEULE POUR DÉGROSSISSEMENT POUR BÉTON

Ø (mm)	Conexión	Uds. / Pcs.	Cod.	€/Unid.
100	M14	1	213010001400	294,54
125	M14	1	213012501400	413,54

PLATO DIAMANTADO PIEDRA NATURAL
GRINDING WHEELS FOR NATURAL STONE
MEULE POUR DÉGROSSISSEMENT POUR PIÉRRE NATURELLE



Ø (mm)	Conexión	Uds. / Pcs.	Cod.	€/Unid.
100	M14	1	214010001400	354,05
125	M14	1	214012501400	473,05

CORONAS PERFORACIÓN DIAMANTE B.K.1
B.K.1 DIAMOND DEEP DRILLING HOLE SAWS
TRÉPAN POUR CARROTAGE B.K.1

INSERCIÓN ROSCA EXTERIOR 1/2" GAS
EXTERNAL THREAD 1/2" GAS
FILET EXTERNE 1/2" GAS

			SEGMENTADO / SEGMENTS					
Ø (mm)	Long. / Lenght (mm)	Z	Largo / Long (mm)	Ancho / Width (mm)	Altura / Height (mm)	Uds. / Pcs.	Cod.	€/Unid.
22	300	1	-	2,00	8,00	1	6010022	221,55
25	300	1	-	2,00	8,00	1	6010025	231,40
32	300	4	17,00	3,00	8,00	1	6010032	251,59
35	300	3	25,00	3,50	8,00	1	6010035	255,66
42	300	4	25,00	3,50	10,00	1	6010042	279,94
52	300	5	25,00	3,50	10,00	1	6010052	300,89
62	400	5	25,00	3,50	10,00	1	6010062	344,74

ADAPTADOR HILTI HILTI ADAPTER • ADAPTATEUR HILTI

	Conversión / *Conversion* / *Conversion*	Uds. Pcs.	Cod.	€/Unid.
	De 1/2" GAS a HILTI from 1/2" GAS to HILTI / de 1/2" GAS a HILTI	1	601605	506,10

CORONAS PERFORACIÓN DIAMANTE B.K.2
B.K.2 DIAMOND DEEP DRILLING HOLE SAWS
TRÉPAN POUR CARROTAGE B.K.2

INSERCIÓN ROSCA INTERNA 1/2" GAS
INTERNAL THREAD 1/2" GAS
FILET INTERNE 1/2" GAS

			SEGMENTADO / SEGMENTS					
Ø (mm)	Long. / Lenght (mm)	Z	Largo / Long (mm)	Ancho / Width (mm)	Altura / Height (mm)	Uds. / Pcs.	Cod.	€/Unid.
52	400	5	25,00	3,50	10,00	1	6050052	298,08
57	400	5	25,00	3,50	10,00	1	6050057	312,55
62	400	5	25,00	3,50	10,00	1	6050062	341,49
72	400	6	25,00	3,50	10,00	1	6050072	384,90
82	400	7	25,00	3,50	10,00	1	6050082	431,21
92	400	8	25,00	3,50	10,00	1	6050092	489,10
102	400	9	25,00	4,00	10,00	1	6050102	517,95
112	400	9	25,00	4,00	10,00	1	6050112	575,92
122	400	10	25,00	4,00	10,00	1	6050122	665,61
132	400	10	25,00	4,00	10,00	1	6050132	665,61
162	400	12	25,00	4,00	10,00	1	6050162	847,95
230	400	17	25,00	4,00	10,00	1	6050230	1379,78

ADAPTADOR HILTI HILTI ADAPTER • ADAPTATEUR HILTI

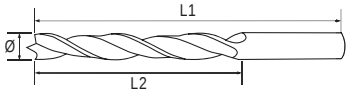
	Conversión / *Conversion* / *Conversion*	Uds. Pcs.	Cod.	€/Unid.
	De 1" 1/4 UNC a HILTI from 1" 1/4 UNC to HILTI / de 1" 1/4 UNC a HILTI	1	601605	506,10

MADERA

WOOD - BOIS

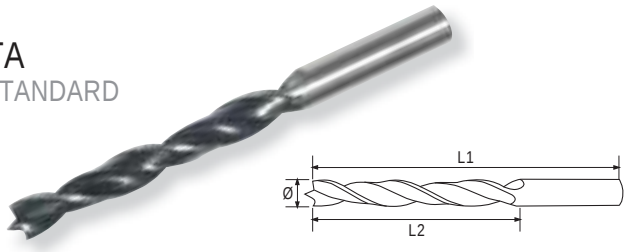
SESA®

BROCA 3 PUNTAS: BLISTER RÍGIDO
BRAD POINT DRILL BIT: RIGID PLASTIC BLISTER • FORET 3 POINTES: BLISTER RIGIDE A PLASTIQUE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.	€/Blister
3,00	70	46	2	102003BL	1,32	2,65
4,00	80	52	2	102004BL	1,37	2,73
5,00	90	60	1	102005BL	1,63	1,63
6,00	100	66	1	102006BL	1,68	1,68
8,00	120	80	1	102008BL	2,25	2,25
10,00	133	90	1	102010BL	2,64	2,64
12,00	155	102	1	102012BL	3,32	3,32

BROCA 3 PUNTAS USO GENERAL SERIE CORTA
STANDARD BRAD POINT DRILL BIT • FORET 3 POINTES STANDARD



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	70	46	1	102003	0,76
4,00	80	52	1	102004	0,85
5,00	90	60	1	102005	0,96
6,00	100	66	1	102006	1,27
7,00	110	72	1	102007	1,47
8,00	120	80	1	102008	1,79
9,00	130	87	1	102009	2,06
10,00	133	90	1	102010	2,23
11,00	150	100	1	102011	2,66

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
12,00	155	102	1	102012	3,02
13,00	160	102	1	102013	3,14
14,00	160	102	1	102014	3,42
15,00	165	107	1	102015	3,85
16,00	165	107	1	102016	4,74
18,00	200	130	1	102018	6,12
20,00	200	130	1	102020	7,85
22,00	200	130	1	102022	10,31

ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA
COMBINED SET METAL-CONSTRUCTION-WOOD
COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS

BASIC BOX (9 UDS. / PCS.)

Contenido / *Contents* / *Composition*								Medidas / *Sizes*	Cod.	€/Unid.
HSS WHITE	HSS	+	BASIC		+	MADERA		5 - 6 - 8 mm	19CB339	23,30

STANDARD BOX (9 UDS. / PCS.)

Contenido / *Contents* / *Composition*								Medidas / *Sizes*	Cod.	€/Unid.
HSS G	HSS-G	+	GRANITO		+	MADERA		5 - 6 - 8 mm	19CM339	31,21

ADVANCE BOX (9 UDS. / PCS.)

Contenido / *Contents* / *Composition*								Medidas / *Sizes*	Cod.	€/Unid.
HSS CO	HSS-CO 5%	+	TORNADO		+	MADERA		5 - 6 - 8 mm	19CA339	40,71

ESTUCHE BROCAS 3 PUNTAS
BRAD POINT DRILL BIT SET
COFFRET FORET 3 POINTES STANDARD

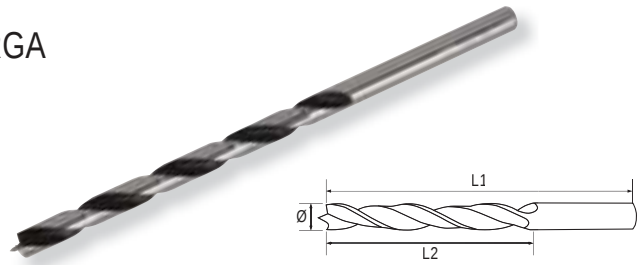
Ref.	Ø (mm)
333	3 - 10 x 1,0 mm

Uds. / *Pcs.*	Cod.	€/Unid.
8	196333	20,67

SESA KUBO NEW

Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE	€/Unid.
KUBO 18	GRANITO	1915A327N	4-5-6-8-10mm	7	313,81
	MADERA	196333	3-4-5-6-7-8-9-10mm	7	

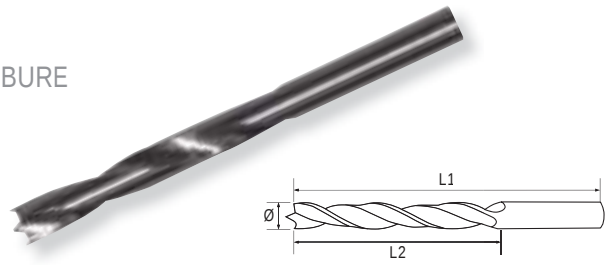
BROCA 3 PUNTAS USO GENERAL SERIE LARGA
STANDARD BRAD POINT DRILL BIT LONG SERIE
ORET 3 POINTES STANDARD SÉRIE LONGUE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,00	245	160	1	1021L06	3,14
7,00	245	160	1	1021L07	3,54
8,00	245	160	1	1021L08	4,03
9,00	245	160	1	1021L09	4,33
10,00	245	160	1	1021L10	4,93
11,00	245	200	1	1021L11	5,90
12,00	245	200	1	1021L12	6,12

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
13,00	245	200	1	1021L13	6,40
14,00	245	200	1	1021L14	7,18
15,00	245	200	1	1021L15	7,97
16,00	245	200	1	1021L16	9,25
18,00	245	200	1	1021L18	10,26
20,00	245	200	1	1021L20	13,48

BROCA 3 PUNTAS METAL DURO SERIE CORTA
HARD METAL POINT DRILL BIT • FORET 3 POINTES AU CARBURE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,00	76	32	1	10240300	6,41
4,00	76	35	1	10240400	7,04
5,00	87	50	1	10240500	7,10

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
6,00	100	57	1	10240600	7,94
8,00	103	60	1	10240800	10,42
10,00	103	60	1	10241000	12,91

TOPES DE PROFUNDIDAD PARA BROCAS
DEPTH ADJUSTING COLLAR • BUTÉES DE PERÇAGE

Ø (mm)	Gama de medidas / *Range* (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,50	De 2,0 a 3,5	1	Y10035	4,97
5,00	De 4,0 a 5,0	1	Y10050	5,68
6,00	De 5,0 a 6,0	1	Y10065	6,76
8,00	De 7,0 a 8,0	1	Y10080	6,76
10,00	De 8,5 a 10,0	1	Y10100	6,76
12,00	De 10,5 a 12,0	1	Y10120	6,76

BROCA PALA TIPO B FLAT DRILL BIT TYPE B • MÉCHE PLATE TIPE B

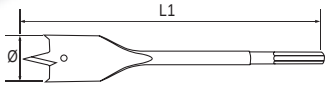
Ø (mm)	L1 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
6,00	157	1	103006	2,36
8,00	157	1	103008	2,36
10,00	157	1	103010	2,49
12,00	157	1	103012	3,01
14,00	157	1	103014	3,33
15,00	157	1	103015	3,33
16,00	157	1	103016	3,37
17,00	157	1	103017	3,54
18,00	157	1	103018	3,58
19,00	157	1	103019	3,68
20,00	157	1	103020	3,89
22,00	157	1	103022	4,55

Ø (mm)	L1 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
24,00	157	1	103024	4,99
25,00	157	1	103025	5,19
26,00	157	1	103026	5,52
28,00	157	1	103028	5,96
30,00	157	1	103030	6,21
32,00	157	1	103032	6,37
33,00	157	1	103033	6,93
34,00	157	1	103034	7,17
35,00	157	1	103035	8,11
36,00	157	1	103036	8,22
38,00	157	1	103038	8,66
40,00	157	1	103040	9,08

ESTUCHE BROCAS PALA TIPO B
FLAT DRILL BIT SET TYPE B • COFFRET MÉCHE PLATE TIPE B

Ref.	Medidas / *Sizes*	Tipo / *Type*	€/Unid.
PB13	6-8-10-12-13-14-16-18-19-20-22-24-25	B	45,77

BROCA PALA TIPO C FLAT DRILL BIT TYPE C • MÉCHE PLATE TIPE C



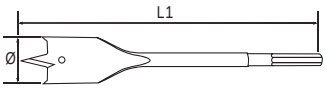
Ø (mm)	L1 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
6,00	152	1	103C06	2,70
8,00	152	1	103C08	2,70
10,00	152	1	103C10	3,01
11,00	152	1	103C11	3,24
12,00	152	1	103C12	3,42
13,00	152	1	103C13	3,48
14,00	152	1	103C14	3,65
15,00	152	1	103C15	3,92
16,00	152	1	103C16	3,98
18,00	152	1	103C18	4,08
19,00	152	1	103C19	4,21
20,00	152	1	103C20	4,36
22,00	152	1	103C22	4,67

Ø (mm)	L1 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
23,00	152	1	103C23	5,03
24,00	152	1	103C24	5,25
25,00	152	1	103C25	5,80
26,00	152	1	103C26	5,99
28,00	152	1	103C28	6,62
30,00	152	1	103C30	7,00
32,00	152	1	103C32	7,31
33,00	152	1	103C33	7,60
34,00	152	1	103C34	7,88
35,00	152	1	103C35	8,26
36,00	152	1	103C36	8,72
38,00	152	1	103C38	9,18
40,00	152	1	103C40	9,54

ESTUCHE BROCAS PALA TIPO C
FLAT DRILL BIT SET TYPE C • COFFRET MÉCHE PLATE TIPE C

Ref.	Medidas / *Sizes*	Tipo / *Type*	€/Unid.
PC13	6-8-10-12-13-14-16-18-19-20-22-24-25	C	51,29

BROCA PALA EXTENSIBLE
ADJUSTABLE FLAT DRILL BIT • MÉCHE PLATE EXTENSIBLE



Ø (mm)	L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
*22 - 76	155	1	1201032276	107,12

*Hasta fin de existencias / Until end of stock / Jusqu´à épuisement des stocks

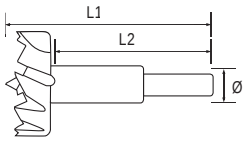
ALARGADOR PARA BROCA PALA
FLAT DRILL BIT EXTENSION • RALLONGE POUR MÉCHE PLATE

Entrada *Inlet* (mm)	Mango *Shank* (mm)	L1 (mm)	Uds. *Pcs.*	Cod.	€/Unid.
Hex. 1/4"	Hex. 1/4"	305	1	UL00334	23,33

BROCA PARA ENCAJE DE BISAGRAS PUNTA Y PRECORTADORES DE MD

FORSTNER TYPE WITH HM TIPS

MÈCHE À FAÇONNER AU CARBURE



Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
20,00	90	8	1	102120	23,88
25,00	90	8	1	102125	27,43
26,00	90	8	1	102126	31,24

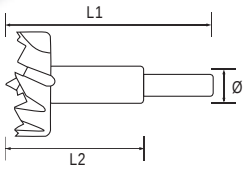
Ø (mm)	L1 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
30,00	90	8	1	102130	33,08
35,00	90	10	1	102135	38,08
40,00	90	10	1	102140	40,82

BROCA PARA ENCAJE DE BISAGRAS FORSTNER HSS AFILADO ESPECIAL

FORSTNER TYPE WITH HSS SPECIAL CUT

MÈCHE À FAÇONNER FORSTNER HSS AFILAGE SPÉCIAL

advance MAXIMO RENDIMIENTO

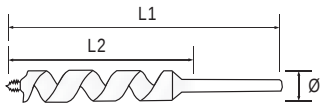


Ø (mm)	L1 (mm)	L2 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
15,00	90	57	8	1	12011015	49,42
16,00*	90	57	8	1	12011016	49,42
18,00	90	57	8	1	12011018	49,42
20,00	90	57	8	1	12011020	49,42
22,00	90	57	8	1	12011022	49,42
25,00	90	57	8	1	12011025	51,48

Ø (mm)	L1 (mm)	L2 (mm)	Mango / *Shank* Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
26,00	90	57	8	1	12011026	53,55
30,00	90	57	10	1	12011030	55,60
35,00	90	57	10	1	12011035	59,72
40,00	90	57	10	1	12011040	67,95
45,00	90	57	10	1	12011045	89,91
50,00	90	57	10	1	12011050	92,71

*Hasta fin de existencias / Until end of stock / Jusqu´à épuisement des stocks

LEWIS LEWIS • LEWIS



Ø (mm)	L1 (mm)	L2 (mm)	Mango Ø	Uds./*Pcs.*	Cod.	€/Unid.
4,00	200	100	4	1	12010804200	19,41
5,00	200	100	5	1	12010805200	21,09
6,00	200	100	6	1	12010806200	20,71
7,00	200	100	7	1	12010807200	22,03
8,00	200	100	8	1	12010808200	20,73
8,00	300	220	8	1	12010808300	36,44
8,00	450	360	8	1	12010808450	39,00
10,00	200	100	10	1	12010810200	21,04
10,00	300	220	10	1	12010810300	36,44
10,00	450	360	10	1	12010810450	42,20
10,00	600	480	10	1	12010810600	66,41
12,00	200	100	10	1	12010812200	23,40
12,00	300	220	10	1	12010812300	38,81
12,00	450	360	10	1	12010812450	44,63
12,00	600	480	10	1	12010812600	68,57
14,00	200	100	10	1	12010814200	24,97
14,00	300	220	10	1	12010814300	43,61
14,00	450	360	10	1	12010814450	47,34
14,00	600	480	10	1	12010814600	74,35
16,00	200	100	10	1	12010816200	27,21
16,00	300	220	10	1	12010816300	46,55
16,00	450	360	10	1	12010816450	57,37
16,00	600	480	10	1	12010816600	78,60
18,00	200	100	13	1	12010818200	30,90
18,00	300	220	13	1	12010818300	51,91
18,00	450	360	13	1	12010818450	59,70

Ø (mm)	L1 (mm)	L2 (mm)	Mango Ø	Uds./*Pcs.*	Cod.	€/Unid.
18,00	600	480	13	1	12010818600	87,07
20,00	200	100	13	1	12010820200	31,39
20,00	300	220	13	1	12010820300	56,06
20,00	450	360	13	1	12010820450	62,37
20,00	600	480	13	1	12010820600	90,36
22,00	200	100	13	1	12010822200	35,61
22,00	300	220	13	1	12010822300	66,17
22,00	450	360	13	1	12010822450	69,82
22,00	600	480	13	1	12010822600	96,71
24,00	200	100	13	1	12010824200	40,56
24,00	300	220	13	1	12010824300	60,29
24,00	450	360	13	1	12010824450	76,10
24,00	600	480	13	1	12010824600	101,97
25,00	450	360	13	1	12010825450	76,37
26,00	200	100	13	1	12010826200	48,37
26,00	300	220	13	1	12010826300	77,91
26,00	450	360	13	1	12010826450	85,91
26,00	600	480	13	1	12010826600	107,43
28,00	200	100	13	1	12010828200	53,35
28,00	300	220	13	1	12010828300	88,51
28,00	450	360	13	1	12010828450	96,76
28,00	600	480	13	1	12010828600	121,55
30,00	200	100	13	1	12010830200	62,60
30,00	300	220	13	1	12010830300	103,96
30,00	450	360	13	1	12010830450	111,37
30,00	600	480	13	1	12010830600	136,55

BROCA PARA ENCOFRAR CILÍNDRICA
SHUTTERING STRAIGHT DRILL-BIT
FORET POUR COFFRAGE

DIN 7490

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./*Pcs.*	Cod.	€/Unid.
8,00	400	100	8	1	12011108400	19,12
8,00	600	100	8	1	12011108600	19,66
8,00	800	100	8	1	12011108800	23,51
10,00	400	100	8	1	12011110400	21,31
10,00	600	100	8	1	12011110600	22,31
10,00	800	100	8	1	12011110800	26,28
12,00	400	100	10	1	12011112400	25,49
12,00	600	100	10	1	12011112600	26,58
12,00	800	100	10	1	12011112800	31,61
14,00	400	100	10	1	12011114400	29,41
14,00	600	100	10	1	12011114600	30,32
14,00	800	100	10	1	12011114800	34,64
16,00	400	100	10	1	12011116400	32,14
16,00	600	100	10	1	12011116600	32,77
16,00	800	100	10	1	12011116800	37,57

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./*Pcs.*	Cod.	€/Unid.
18,00	400	100	13	1	12011118400	42,42
18,00	600	100	13	1	12011118600	45,43
18,00	800	100	13	1	12011118800	53,56
20,00	400	100	13	1	12011120400	51,26
20,00	600	100	13	1	12011120600	53,43
20,00	800	100	13	1	12011120800	59,83
22,00	400	100	13	1	12011122400	61,08
22,00	600	100	13	1	12011122600	62,82
22,00	800	100	13	1	12011122800	69,96
24,00	400	100	13	1	12011124400	72,83
24,00	600	100	13	1	12011124600	78,01
24,00	800	100	13	1	12011124800	84,59
26,00	400	100	13	1	12011126400	86,77
28,00	400	100	13	1	12011128400	103,87
30,00	400	100	13	1	12011130400	121,71

BROCA PARA ENCOFRAR SDS-PLUS
SHUTTERING SDS-PLUS DRILL-BIT
FORET POUR COFFRAGE SDS-PLUS

DIN 7490 SDS plus

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./*Pcs.*	Cod.	€/Unid.
10,00	400	100	10	1	12011210400	44,38
10,00	600	100	10	1	12011210600	45,29
12,00	400	100	10	1	12011212400	47,93
12,00	600	100	10	1	12011212600	49,20
12,00	800	100	10	1	12011212800	53,10
14,00	400	100	10	1	12011214400	39,69
14,00	600	100	10	1	12011214600	40,54
14,00	800	100	10	1	12011214800	45,95
16,00	400	100	10	1	12011216400	45,57
16,00	600	100	10	1	12011216600	45,95
16,00	800	100	10	1	12011216800	49,32
18,00	400	100	10	1	12011218400	68,37

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds./*Pcs.*	Cod.	€/Unid.
18,00	600	100	10	1	12011218600	71,84
18,00	800	100	10	1	12011218800	77,60
20,00	400	100	10	1	12011220400	79,03
20,00	600	100	10	1	12011220600	81,24
20,00	800	100	10	1	12011220800	85,94
22,00	400	100	10	1	12011222400	91,53
22,00	600	100	10	1	12011222600	93,16
22,00	800	100	10	1	12011222800	96,22
24,00	400	100	10	1	12011224400	104,77
24,00	600	100	10	1	12011224600	111,97
24,00	800	100	10	1	12011224800	114,19

AVELLANADOR COUNTERSINK • FRAISE À CHANFREINER

Broca / Drill Bit Ø (mm)	Avellanador *Countersink* Bit Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
3,00	12,00	1	1201090312	8,87
4,00	12,00	1	1201090412	8,87
5,00	12,00	1	1201090512	8,87
6,00	12,00	1	1201090612	8,87
3,00	16,00	1	1201090316	11,34

Broca / Drill Bit Ø (mm)	Avellanador *Countersink* Bit Ø (mm)	Uds. *Pcs.*	Cod.	€/Unid.
4,00	16,00	1	1201090416	11,34
5,00	16,00	1	1201090516	11,34
6,00	16,00	1	1201090616	11,34
8,00	16,00	1	1201090816	11,34

BROCA PARA ENSAMBLAJE
ASSEMBLING DRILLS • MÈCHE ÉTAGÉE POUR VIS D'ASSEMBLAGE

Ø (mm)	L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
5 x 50	86	1	103J05	6,32
7 x 50	109	1	103K07	7,36

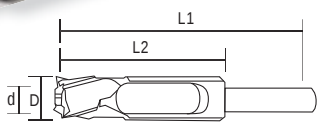
BARRENA GIMLET • VRILLE

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
2,00	106	32	1	12010302	10,29
3,00	112	34	1	12010303	12,15
4,00	137	40	1	12010304	16,03

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
5,00	142	46	1	10210305	17,06
6,00	162	49	1	12010306	20,58
8,00	162	63	1	12010308	24,30

Hasta fin de existencias / Until end of stock / Jusqu´à épuisement des stocks

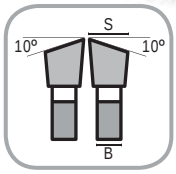
FRESA ESPECIAL TAPONES
PLUG CUTTER • MÈCHE À BOUCHONNER

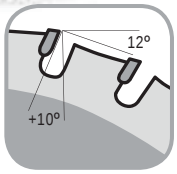


d (mm)	D (mm)	L1 (mm)	L2 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
15,00	27,00	140	160	1	12010715	62,57

Hasta fin de existencias / Until end of stock / Jusqu´à épuisement des stocks

DISCO PARA MADERA BASTA
ROUGH WOOD CIRCULAR SAWBLADES
DISQUE POUR BOIS A TEXTURE GROSSIERE

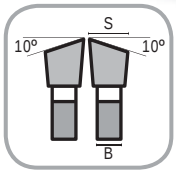


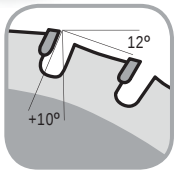


MD

Ø (mm)	S Grosor / *Thickness* (mm)	B Grosor / *Thickness* (mm)	Ø Eje / *Shaft* (mm)	Z	Cod.	€/Unid.
250	3,2	2,2	30	60	2DM25060	69,98
300	3,2	2,2	30	72	2DM30072	80,31

DISCO PARA MADERA FINA
FINE WOOD CIRCULAR SAWBLADES
DISQUE POUR BOIS A TEXTURE FINE

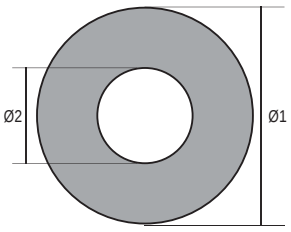




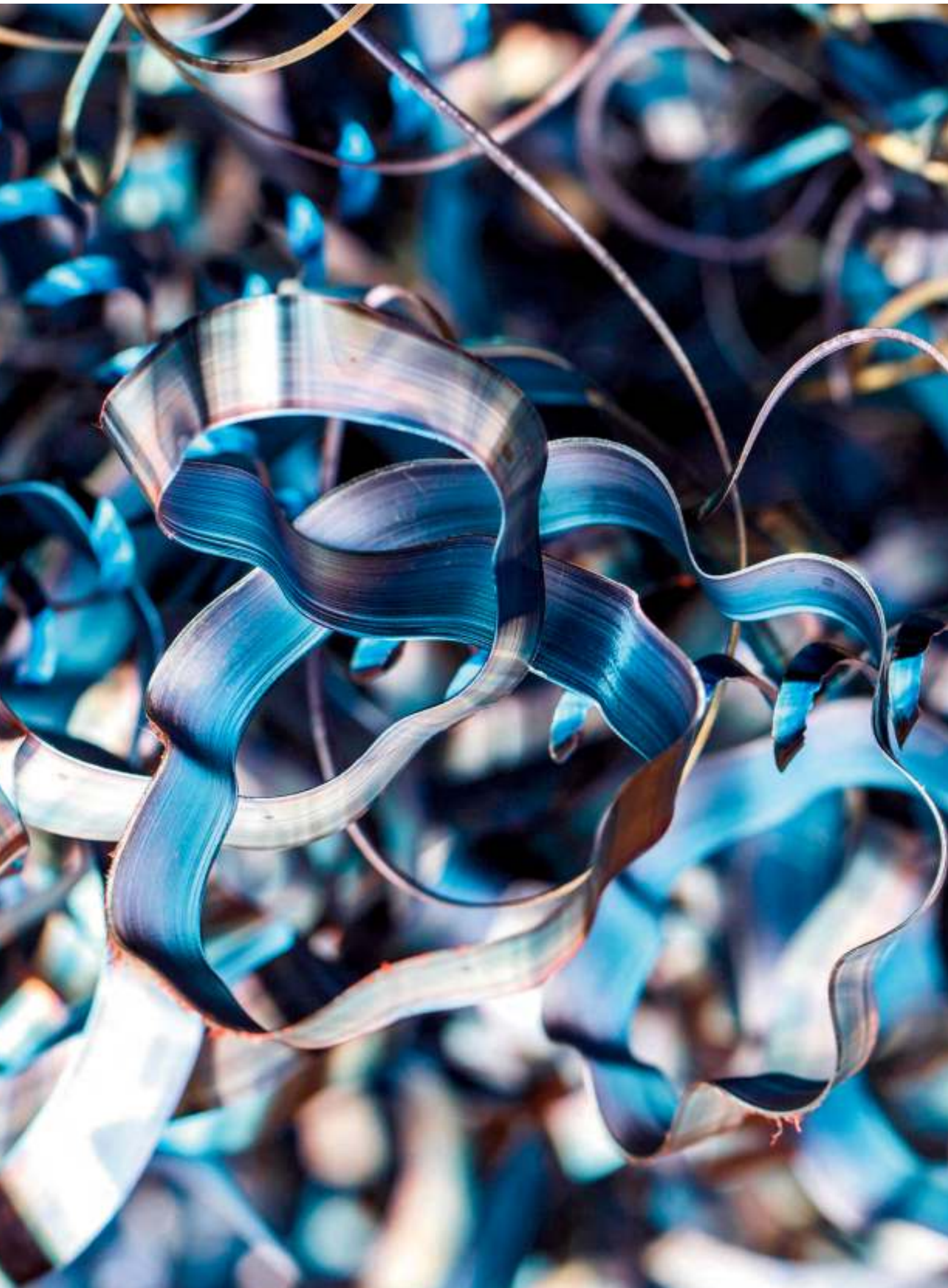
MD

Ø (mm)	S Grosor / *Thickness* (mm)	B Grosor / *Thickness* (mm)	Ø Eje / *Shaft* (mm)	Z	Cod.	€/Unid.
250	3,2	2,2	30	80	2DM25080	75,79
300	3,2	2,2	30	96	2DM30096	94,85

ANILLOS REDUCTORES
REDUCTIONS RINGS • BAGUES DE RÉDUCTION



Ø1 / Ø2 (mm)	Cod.	€/Unid.
30 / 25	2DR3025	5,45
30 / 20	2DR3020	5,45
30 / 18	2DR3018	5,45
30 / 16	2DR3016	5,45



METAL

METAL - MÉTAL

SESA®

TABLA DE APLICACIONES Y VELOCIDADES DE CORTE RECOMENDADAS PARA BROCAS M/DURO INTEGRAL

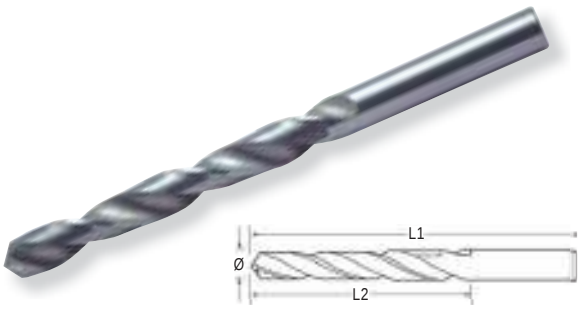
APPLICATION GUIDE AND CUTTING SPEED FOR HM DRILLS

TABLE D´APPLICATIONS ET VITESSE DE COUPE RECOMMENDÉ POUR HM FORETS

MATERIAL / MATERIAL / MATIERE		Resistencia / Ressistance Resistance N/mm²	DIN 338 MDI Pág. 97	DIN 6537K - 3XØ MD Pág. 98	DIN 6537L - 5XØ MD Pág. 99
ACEROS STEELS • ACIERS	Decoletaje Machining • Décolletage	<500	70-80	80-90	80-90
	Carbono <0,4% <0,4% Carbon • Carbon <0,4%	<850	55-70	60-80	60-80
	Acero para herramientas Steel for tools • Acier pour outils	<1200	50-60	55-70	55-70
	Templado - Revenido Tempered - Quenched • Trempé - Revenu	<1400	30-40	34-45	34-45
ACEROS INOXIDABLES STAINLESS STEEL ACIER INOXYDABLE	Austeníticos Cr-Ni Cr-Ni Austenitics • Cr-Ni austenitique	<850	22-27	25-30	25-30
	Martensíticos Cr-Mo Cr-Mo Martensitics • Cr-Mo martensitique	<1200	22-27	25-30	25-30
FUNDICIÓN CAST IRON • FONTE	Fundición gris Grey cast iron • Fonte grise	<700	70-90	80-100	80-100
	Fundición dura Hard cast iron • Fonte dur	<1000		-	-
ALUMINIO ALUMINIUM • ALUMINIUM	Puro Pure • Pure	<350	150-180	170-200	170-200
	Si < 10%	<600	150-150	170-170	170-170
	Si > 10%	<600	120-150	135-170	135-170
	Zamak Zamak • Zamak	<600	160-160	180-180	180-180
COBRE COPPER • CUIVRE	Bronce Bronze • Bronze	<350			
	Cobre viruta larga Long chip copper • Cuivre coupage long	<700	35-70	50-80	50-80
	Cobre viruta corta Short chip coppe • Cuivre coupage court	<700	37-70	40-80	40-80
	Latón duro Hard Brass • Laiton dur	<700	120-120	135-135	135-135
	Latón tenaz Tough Brass • Laiton tenace	<700	70-70	80-80	80-80
TITANIO TITANIUM • TITANE	Puro Pure • Pure	<700			
	Aleaciones de Titanio Titanium alloys • Alliages de titane	<1200			
SINTÉTICOS PLASTICS • PLASTIQUES	Termoplásticos Thermoplastics • Thermoplastique	-			
	Duroplásticos Hard-plastics • Duroplastique	-			
HARDOX	Hardox 500	<1650		25-40	25-40
	Hardox 550	<1900		15-35	15-35
	Hardox 600	<2200		15-25	15-25

M/DURO INTEGRAL DIN 338 N

DIN 338 N HM
DIN 338 N HM

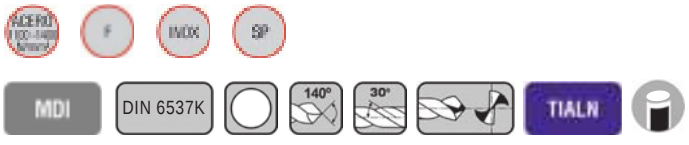


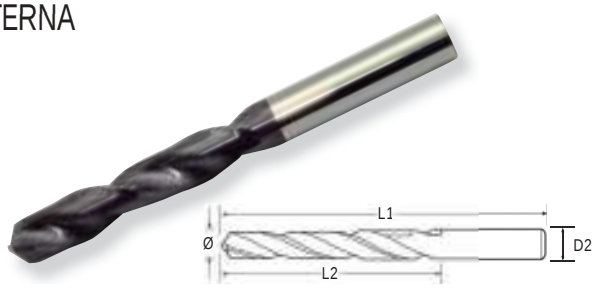
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,00	49	24	1	31XMD0200	16,46
2,50	57	30	1	31XMD0250	18,65
3,00	61	33	1	31XMD0300	23,25
3,50	70	39	1	31XMD0350	25,48
4,00	75	43	1	31XMD0400	28,47
4,50	80	47	1	31XMD0450	36,55
5,00	86	52	1	31XMD0500	38,88
5,50	93	57	1	31XMD0550	55,39
6,00	93	57	1	31XMD0600	54,83
6,50	101	63	1	31XMD0650	68,12

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
7,00	109	69	1	31XMD0700	83,74
7,50	109	69	1	31XMD0750	84,74
8,00	117	75	1	31XMD0800	94,38
8,50	117	75	1	31XMD0850	111,32
9,00	125	81	1	31XMD0900	119,63
9,50	125	81	1	31XMD0950	131,82
10,00	133	87	1	31XMD1000	142,89
11,00	142	94	1	31XMD1100	204,92
12,00	151	101	1	31XMD1200	230,40
13,00	151	101	1	31XMD1300	358,89

*Para otras medidas consultar / Request for other sizes / Pour d'autres dimensions, nous consulter

M/DURO INTEGRAL DIN 6537 3XD SIN REFRIGERACIÓN INTERNA
DIN 6537 3XD HM WITHOUT COOLANT FEED
DIN 6537 3XD HM SANS TROUS D'HUILE





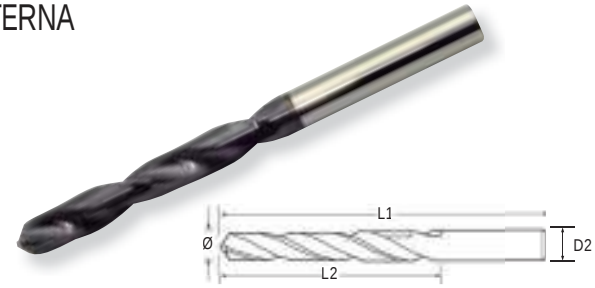
Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds. Pcs.	Cod.	€/Unid.
3,00	62	20	6	1	33XMD0300	90,28
3,10	62	20	6	1	33XMD0310	90,28
3,20	62	20	6	1	33XMD0320	90,28
3,30	62	20	6	1	33XMD0330	90,28
3,40	62	20	6	1	33XMD0340	90,28
3,50	62	20	6	1	33XMD0350	90,28
3,60	62	20	6	1	33XMD0360	90,28
3,70	62	20	6	1	33XMD0370	90,28
3,80	66	24	6	1	33XMD0380	90,83
3,90	66	24	6	1	33XMD0390	90,83
4,00	66	24	6	1	33XMD0400	90,83
4,10	66	24	6	1	33XMD0410	90,83
4,20	66	24	6	1	33XMD0420	90,83
4,30	66	24	6	1	33XMD0430	90,83
4,40	66	24	6	1	33XMD0440	90,83
4,50	66	24	6	1	33XMD0450	90,83
4,60	66	24	6	1	33XMD0460	90,83
4,70	66	24	6	1	33XMD0470	90,83
4,80	66	28	6	1	33XMD0480	90,83
4,90	66	28	6	1	33XMD0490	90,83
5,00	66	28	6	1	33XMD0500	90,83
5,10	66	28	6	1	33XMD0510	90,83
5,20	66	28	6	1	33XMD0520	90,83
5,30	66	28	6	1	33XMD0530	90,83
5,40	66	28	6	1	33XMD0540	90,83
5,50	66	28	6	1	33XMD0550	90,83
5,60	66	28	6	1	33XMD0560	90,83
5,70	66	28	6	1	33XMD0570	90,83
5,80	66	28	6	1	33XMD0580	90,83
5,90	66	28	6	1	33XMD0590	90,83
6,00	66	28	6	1	33XMD0600	90,83
6,10	79	34	8	1	33XMD0610	108,00
6,20	79	34	8	1	33XMD0620	108,00
6,30	79	34	8	1	33XMD0630	108,00
6,40	79	34	8	1	33XMD0640	108,00
6,50	79	34	8	1	33XMD0650	108,00
6,60	79	34	8	1	33XMD0660	108,00
6,70	79	34	8	1	33XMD0670	108,00
6,80	79	34	8	1	33XMD0680	108,00
6,90	79	34	8	1	33XMD0690	108,00
7,00	79	34	8	1	33XMD0700	108,00
7,10	79	41	8	1	33XMD0710	108,00
7,20	79	41	8	1	33XMD0720	108,00
7,30	79	41	8	1	33XMD0730	108,00
7,40	79	41	8	1	33XMD0740	108,00
7,50	79	41	8	1	33XMD0750	108,00

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds. Pcs.	Cod.	€/Unid.
7,60	79	41	8	1	33XMD0760	108,00
7,70	79	41	8	1	33XMD0770	108,00
7,80	79	41	8	1	33XMD0780	108,00
7,90	79	41	8	1	33XMD0790	108,00
8,00	79	41	8	1	33XMD0800	108,00
8,10	89	47	10	1	33XMD0810	127,94
8,20	89	47	10	1	33XMD0820	127,94
8,30	89	47	10	1	33XMD0830	127,94
8,40	89	47	10	1	33XMD0840	127,94
8,50	89	47	10	1	33XMD0850	127,94
8,60	89	47	10	1	33XMD0860	127,94
8,70	89	47	10	1	33XMD0870	127,94
8,80	89	47	10	1	33XMD0880	127,94
8,90	89	47	10	1	33XMD0890	127,94
9,00	89	47	10	1	33XMD0900	127,94
9,10	89	47	10	1	33XMD0910	127,94
9,20	89	47	10	1	33XMD0920	127,94
9,30	89	47	10	1	33XMD0930	127,94
9,40	89	47	10	1	33XMD0940	127,94
9,50	89	47	10	1	33XMD0950	127,94
9,60	89	47	10	1	33XMD0960	127,94
9,70	89	47	10	1	33XMD0970	127,94
9,80	89	47	10	1	33XMD0980	127,94
9,90	89	47	10	1	33XMD0990	127,94
10,00	89	47	10	1	33XMD1000	127,94
10,50	102	55	12	1	33XMD1050	171,69
11,00	102	55	12	1	33XMD1100	171,69
11,50	102	55	12	1	33XMD1150	171,69
12,00	102	55	12	1	33XMD1200	171,69
12,50	107	60	14	1	33XMD1250	233,50
13,00	107	60	14	1	33XMD1300	233,50
13,50	107	60	14	1	33XMD1350	233,50
14,00	107	60	14	1	33XMD1400	233,50
14,50	115	65	16	1	33XMD1450	288,56
15,00	115	65	16	1	33XMD1500	288,56
15,50	115	65	16	1	33XMD1550	288,56
16,00	115	65	16	1	33XMD1600	288,56
16,50	123	73	18	1	33XMD1650	426,46
17,00	123	73	18	1	33XMD1700	426,46
17,50	123	73	18	1	33XMD1750	426,46
18,00	123	73	18	1	33XMD1800	426,46
18,50	131	79	20	1	33XMD1850	534,47
19,00	131	79	20	1	33XMD1900	534,47
19,50	131	79	20	1	33XMD1950	534,47
20,00	131	79	20	1	33XMD2000	534,47

Para otras medidas consultar
Request for other sizes
Pour d'autres dimensions, nous consulter

Para brocas con canales de refrigeración, consúltennos
Request for drill bits with coolant feed
Pour forets avec trous d'huile, nous consulter

M/DURO INTEGRAL DIN 6537 5XD SIN REFRIGERACIÓN INTERNA
DIN 6537 5XD HM WITHOUT COOLANT FEED
DIN 6537 5XD HM SANS TROUS D'HUILE



MDI | DIN 6537L | 140° | 30° | TIALN

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds. Pcs.	Cod.	€/Unid.
3,00	66	28	6	1	35XMD0300	119,08
3,10	66	28	6	1	35XMD0310	119,08
3,20	66	28	6	1	35XMD0320	119,08
3,30	66	28	6	1	35XMD0330	119,08
3,40	66	28	6	1	35XMD0340	119,08
3,50	66	28	6	1	35XMD0350	119,08
3,60	66	28	6	1	35XMD0360	119,08
3,70	66	28	6	1	35XMD0370	119,08
3,80	74	36	6	1	35XMD0380	120,30
3,90	74	36	6	1	35XMD0390	120,30
4,00	74	36	6	1	35XMD0400	120,30
4,10	74	36	6	1	35XMD0410	120,68
4,20	74	36	6	1	35XMD0420	120,68
4,30	74	36	6	1	35XMD0430	120,68
4,40	74	36	6	1	35XMD0440	120,68
4,50	74	36	6	1	35XMD0450	120,68
4,60	74	36	6	1	35XMD0460	120,68
4,70	74	36	6	1	35XMD0470	120,68
4,80	82	44	6	1	35XMD0480	120,68
4,90	82	44	6	1	35XMD0490	120,68
5,00	82	44	6	1	35XMD0500	120,68
5,10	82	44	6	1	35XMD0510	120,96
5,20	82	44	6	1	35XMD0520	120,96
5,30	82	44	6	1	35XMD0530	120,96
5,40	82	44	6	1	35XMD0540	120,96
5,50	82	44	6	1	35XMD0550	120,96
5,60	82	44	6	1	35XMD0560	120,96
5,70	82	44	6	1	35XMD0570	120,96
5,80	82	44	6	1	35XMD0580	120,96
5,90	82	44	6	1	35XMD0590	120,96
6,00	82	44	6	1	35XMD0600	120,96
6,10	91	53	8	1	35XMD0610	140,12
6,20	91	53	8	1	35XMD0620	140,12
6,30	91	53	8	1	35XMD0630	140,12
6,40	91	53	8	1	35XMD0640	140,12
6,50	91	53	8	1	35XMD0650	140,12
6,60	91	53	8	1	35XMD0660	140,12
6,70	91	53	8	1	35XMD0670	140,12
6,80	91	53	8	1	35XMD0680	140,12
6,90	91	53	8	1	35XMD0690	140,12
7,00	91	53	8	1	35XMD0700	140,12
7,10	91	53	8	1	35XMD0710	141,23

Ø (mm)	L1 (mm)	L2 (mm)	D2	Uds. Pcs.	Cod.	€/Unid.
7,20	91	53	8	1	35XMD0720	141,23
7,30	91	53	8	1	35XMD0730	141,23
7,40	91	53	8	1	35XMD0740	141,23
7,50	91	53	8	1	35XMD0750	141,23
7,60	91	53	8	1	35XMD0760	141,23
7,70	91	53	8	1	35XMD0770	141,23
7,80	91	53	8	1	35XMD0780	141,23
7,90	91	53	8	1	35XMD0790	141,23
8,00	91	53	8	1	35XMD0800	141,23
8,10	103	61	10	1	35XMD0810	166,71
8,20	103	61	10	1	35XMD0820	166,71
8,30	103	61	10	1	35XMD0830	166,71
8,40	103	61	10	1	35XMD0840	166,71
8,50	103	61	10	1	35XMD0850	166,71
8,60	103	61	10	1	35XMD0860	166,71
8,70	103	61	10	1	35XMD0870	166,71
8,80	103	61	10	1	35XMD0880	166,71
8,90	103	61	10	1	35XMD0890	166,71
9,00	103	61	10	1	35XMD0900	166,71
9,10	103	61	10	1	35XMD0910	166,71
9,20	103	61	10	1	35XMD0920	166,71
9,30	103	61	10	1	35XMD0930	166,71
9,40	103	61	10	1	35XMD0940	166,71
9,50	103	61	10	1	35XMD0950	166,71
9,60	103	61	10	1	35XMD0960	166,71
9,70	103	61	10	1	35XMD0970	166,71
9,80	103	61	10	1	35XMD0980	166,71
9,90	103	61	10	1	35XMD0990	166,71
10,00	103	61	10	1	35XMD1000	166,71
10,50	118	71	12	1	35XMD1050	224,31
11,00	118	71	12	1	35XMD1100	224,31
11,50	118	71	12	1	35XMD1150	224,31
12,00	118	71	12	1	35XMD1200	224,31
12,50	124	77	14	1	35XMD1250	307,39
13,00	124	77	14	1	35XMD1300	307,39
13,50	124	77	14	1	35XMD1350	307,39
14,00	124	77	14	1	35XMD1400	307,39
14,50	133	83	16	1	35XMD1450	377,17
15,00	133	83	16	1	35XMD1500	377,17
15,50	133	83	16	1	35XMD1550	377,17
16,00	133	83	16	1	35XMD1600	377,17

Para otras medidas consultar
Request for other sizes
Pour d'autres dimensions, nous consulter

Para brocas con canales de refrigeración, consúltennos
Request for drill bits with coolant feed
Pour forets avec trous d'huile, nous consulter

TABLA DE APLICACIONES Y VELOCIDADES DE CORTE RECOMENDADAS

APPLICATION GUIDE AND CUTTING SPEED
TABLE D´APPLICATIONS ET VITESSE DE COUPE RECOMMENDÉ

MATERIAL / MATERIAL / MATIERE		Resistencia / Ressistance Resistance N/mm²	HSS-G Pág. 104	HSS "white" Pág. 111	HSSCo Pág. 112	HSS-G Pág. 116
ACEROS STEELS • ACIERS	Decoletaje Machining • Décolletage	<500	20 - 25	20 - 25	8 - 12	ESPECIAL PERFILERÍA TUBO Y CHAPA
	Carbono <0,4% <0,4% Carbon • Carbon <0,4%	<850	15 - 20	15 - 20	4 - 6	
	Acero para herramientas Steel for tools • Acier pour outils	<1.200			10 - 12	
	Templado - Revenido Tempered - Quenched • Trempé - Revenu	<1.400			4 - 5	
ACEROS INOXIDABLES STAINLESS STEEL ACIER INOXYDABLE	Austeníticos Cr-Ni Cr-Ni Austenitics • Cr-Ni austenitique	<850			8 - 12	
	Martensíticos Cr-Mo Cr-Mo Martensitics • Cr-Mo martensitique	<1.200			4 - 6	
FUNDICIÓN CAST IRON • FONTE	Fundición gris Grey cast iron • Fonte grise	<700	20 - 25		30 - 35	
	Fundición dura Hard cast iron • Fonte dur	<1.000	20 - 25		20 - 25	
ALUMINIO ALUMINIUM ALUMINIUM	Puro Pure • Pure	<350	40 - 50		50 - 55	
	Si < 10%	<600	40 - 50		50 - 60	
	Si > 10%	<600	30 - 40	30 - 40		
	Zamak Zamak • Zamak	<600	30 - 35		40 - 45	
COBRE COPPER • CUIVRE	Bronce Bronze • Bronze	<350	40 - 60			
	Cobre viruta larga Long chip copper • Cuivre coupage long	<700	40 - 60		22 - 25	
	Cobre viruta corta Short chip coppe • Cuivre coupage court	<700	25 - 30		22 - 25	
	Latón duro Hard Brass • Laiton dur	<700	40 - 60			
	Latón tenaz Tough Brass • Laiton tenace	<700	25 - 30			
TITANIO TITANIUM • TITANE	Puro Pure • Pure	<700				
	Aleaciones de Titanio Titanium alloys • Alliages de titane	<1.200				
SINTÉTICOS PLASTICS • PLASTIQUES	Termoplásticos Thermoplastics • Thermoplastique	-				
	Duroplásticos Hard-plastics • Duroplastique	-				
HARDOX	Hardox 500	<1650				
	Hardox 550	<1900				
	Hardox 600	<2200				

20 - 25 — Broca recomendada por SESATOOLS y velocidad de corte (M/Min)
SESA TOOLS recomendation and cutting speed
Foret récommendé par SESA TOOLS et vitesse de coupe

20 - 25 — Buen rendimiento y velocidad de corte (M/Min)
Good performance and cutting speed (M/Min)
Bon rendement et vitesse de coup recommendée (M/Min)

HSS-G inox Pág. 117	HSSCo inox Pág. 118	HSS -G TiN Pág. 119	HSSCo TiAlN Pág. 121	HSS-G Alu Pág. 120	K20 Pág. 122	Hardox Pág. 122	Avance/Prog. Avance
		35 - 40	35 - 40		26 - 32	8 - 12	D
		35 - 40	35 - 40		26 - 32	4 - 6	C
			18 - 20		6 - 16	10 - 12	B
			8 - 10		4 - 6	4 - 5	A
8 - 12	8 - 12	15 - 20	15 - 20			8 - 12	A
4 - 6	4 - 6	18 - 20	18 - 20			4 - 6	A
		40 - 50	40 - 50				E
		20 - 25	20 - 25				D
				60 - 80			E
				50 - 60			D
				30 - 40			D
		60 - 65		30 - 40			D
				40 - 60			E
		35 - 40		40 - 60			E
				25 - 30			E
		90 - 100		40 - 60			E
		80 - 85		25 - 30			E
	5 - 10				5 - 10		A
	5 - 6				5 - 6		A
		20 - 25			10 - 25		F
		20 - 25			10 - 25		F
						4-5	A

**El valor indicado en la tabla es el rango de velocidades de corte recomendadas *Valores recomendados en columna “AVANCES” ver pág. 100.
**The indicated value is the cutting speed range *Recomended progression values, see the guide on 100 page .
**Les valeurs indiquées c´est le classement dés vitesse de coupe recommendées *Les valeurs d´avances recomendés, aller a la page 100.

TABLA DE AVANCES
PROGRESSIONS GUIDE • TABLE D´AVENCES

	BLOQUE (mm x r) / BLOCK (mm x r) / BLOQUE (mm x r)					
Ø (mm)	A	B	C	D	E	F
2,00	0,020	0,025	0,032	0,040	0,050	0,063
2,50	0,025	0,032	0,040	0,050	0,063	0,080
3,00	0,030	0,040	0,050	0,060	0,080	0,100
4,00	0,040	0,050	0,063	0,080	0,100	0,125
5,00	0,040	0,050	0,063	0,080	0,100	0,125
6,50	0,050	0,063	0,080	0,100	0,125	0,160
8,00	0,063	0,080	0,100	0,125	0,160	0,200
10,00	0,080	0,100	0,125	0,160	0,200	0,250
13,00	0,090	0,110	0,130	0,180	0,220	0,270
16,00	0,100	0,125	0,160	0,200	0,250	0,315
20,00	0,125	0,160	0,200	0,250	0,315	0,400
25,00	0,160	0,200	0,250	0,315	0,400	0,500
30,00	0,160	0,200	0,250	0,315	0,400	0,500
40,00	0,200	0,250	0,315	0,400	0,500	0,630
50,00	0,250	0,315	0,400	0,500	0,630	0,800
63,00	0,315	0,400	0,500	0,630	0,800	1,000
80,00	0,400	0,500	0,630	0,800	1,000	1,125

Los valores de la tabla son orientativos y para las siguientes condiciones:
- Normas DIN 338 / 345
- Profundidad hasta 3 mm x Ø
- Refrigeración adecuada del material

Values on the guide are orientatives for the next conditions:
- DIN 338 / 345 rules
- Maximum depth 3 mm x Ø
- Adequate cooling for the material

Les valeurs de la table sont orientatives pour les suivant conditions:
-Normes DIN 338 / 345
-Profondeur maximale 3 mm x Ø
-Réfrigération adéquate pour le matérial

CÁLCULO DE LAS R.P.M R.P.M. CALCULATION • CALCUL DÉS R.P.M.

$$R.P.M. = \frac{Vc \times 1.000}{\varpi \times Ø} \longrightarrow R.P.M. = \frac{20 \times 1.000}{3,1416 \times 10} = \frac{20.000}{31,416} = 641,84$$

PRINCIPALES MATERIALES DE FABRICACIÓN DE BROCAS
DRILL BIT MANUFACTURING MAIN MATERIALS
PRINCIPALES MATÉRIAUX DE FABRICATION DES FORETS

		COMPOSICIÓN % COMPOSITION % / COMPOSITION %								ID. INTERNACIONAL / ID. IMNTERNATIONAL / ID. INTERNATIONALE					
Denominación Name / Nom	N° MATERIAL	C	Si	Mn	Cr	Mo	V	W	Co	USA (AISI)	Alemania (DIN)	Francia (AFNOR. NF)	Italia (UNI)	G. B. (BS)	España (UNE)
HSS-G	1.3343	0,91	0,30	0,30	4,20	5,00	2,00	6,50	-	M2	S6-5-2	Z85WDCV	HS 6-5-2	BM2	F 5603
HSS-CO 5%	1.3243	0,91	0,30	0,30	4,20	5,00	2,00	6,50	4,75	M35	S6-5-2-5	Z85WDKCV	HS 5-2-5	-	F 5613
HSS-CO 8%	1.3247	1,08	0,40	0,30	4,00	9,50	1,20	1,50	8,00	M42	S2-10-1-8	ZII0DKCWV	HS 2-9-1-8	BM42	F 5617
MD	92, 0WC-6,0Co-2,0TIC y TA(Nb)C									-					

TABLA DE CONVERSIÓN DE DUREZAS Y RESISTENCIA A LA TRACCIÓN
HARDNESS CONVERSION GUIDE • TABLE DE CONVERSION DES DURÉTÉS

VICKERS	BRINELL	ROCKWELL		Resistencia a la tracción Tensile Strength Resistence à la traction	
HV 30	HB 30	HRB	HRC	Rm N/mm²	Rm KP/mm²
80	80	36,40	-	270	28
85	85	42,40	-	290	30
90	90	47,40	-	310	32
95	95	52,00	-	320	33
100	100	56,40	-	340	35
105	105	60,00	-	360	37
110	110	63,40	-	380	39
115	115	66,40	-	390	40
120	120	69,40	-	410	42
125	125	72,00	-	420	43
130	130	74,40	-	440	45
135	135	76,40	-	460	47
140	140	78,40	-	470	48
145	145	80,40	-	490	50
150	150	82,20	-	500	51
155	155	83,80	-	520	53
160	160	85,40	-	540	55
165	165	86,80	-	550	56
170	170	88,20	-	570	58
175	175	89,60	-	590	60
180	180	90,80	-	600	62
185	185	91,80	-	620	63
190	190	93,00	-	640	65
195	195	94,00	-	660	67
200	200	95,00	-	670	68
205	205	95,80	-	680	70
210	210	96,60	-	710	72
215	215	97,60	-	720	73
220	220	98,20	-	730	75
225	225	99,00	-	750	77
230	230	-	19,20	760	78
235	235	-	20,20	780	80
240	240	-	21,20	800	82
245	245	-	22,10	820	84
250	250	-	23,00	830	85
255	255	-	23,80	850	87
260	260	-	24,60	870	89
265	265	-	25,40	880	90
270	270	-	26,20	900	92
275	275	-	26,90	920	94
280	280	-	27,60	940	96
285	285	-	28,30	950	97
290	290	-	29,00	970	99
295	295	-	29,60	990	101
300	300	-	30,30	1.010	103
310	310		31,50	1.040	106
320	320		32,70	1.080	110
330	330		33,80	1.110	113

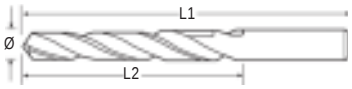
VICKERS	BRINELL	ROCKWELL		Resistencia a la tracción Tensile Strength Resistence à la traction	
HV 30	HB 30	HRB	HRC	Rm N/mm²	Rm KP/mm²
340	340	-	34,90	1.140	117
350	350	-	36,00	1.170	120
360	359	-	37,00	1.200	123
370	368	-	38,00	1.230	126
380	376	-	38,90	1.260	129
390	385	-	39,80	1.290	132
400	392	-	40,70	1.320	135
410	400	-	41,50	1.350	138
420	408	-	42,40	1.380	144
440	423	-	44,00	1.430	146
450	430	-	44,80	1.460	149
460	-	-	45,60	-	-
470	-	-	46,30	-	-
480	-	-	47,00	-	-
490	-	-	47,70	-	-
500	-	-	48,30	-	-
510	-	-	49,10	-	-
520	-	-	49,70	-	-
530	-	-	50,40	-	-
540	-	-	51,00	-	-
550	-	-	51,60	-	-
560	-	-	52,20	-	-
570	-	-	52,80	-	-
580	-	-	53,30	-	-
590	-	-	53,90	-	-
600	-	-	54,40	-	-
610	-	-	55,00	-	-
620	-	-	55,50	-	-
630	-	-	56,00	-	-
640	-	-	56,50	-	-
650	-	-	57,00	-	-
660	-	-	57,50	-	-
670	-	-	58,00	-	-
680	-	-	58,50	-	-
690	-	-	59,00	-	-
700	-	-	59,50	-	-
720	-	-	60,40	-	-
740	-	-	61,20	-	-
760	-	-	62,00	-	-
780	-	-	62,80	-	-
800	-	-	63,60	-	-
820	-	-	64,30	-	-
840	-	-	65,00	-	-
860	-	-	65,70	-	-
880	-	-	66,30	-	-
900	-	-	66,90	-	-
920	-	-	67,50	-	-
940	-	-	68,00	-	-

DIN-338 N HSS-G ALTO RENDIMIENTO: BLISTER RÍGIDO
DIN 338 N HSS-G HIGH PERFORMANCE: RIGID PLASTIC BLISTER
DIN 338 N HSS-G GRAND RENDEMENT: BLISTER DE PLASTIQUE RIGIDE

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.	€/Blister
1,00	34	12	2	1460100BL	1,36	2,72
1,50	40	18	2	1460150BL	1,35	2,70
2,00	49	24	2	1460200BL	1,61	3,22
2,50	57	30	2	1460250BL	1,45	2,89
3,00	61	33	2	1460300BL	1,57	3,13
3,25	65	36	2	1460325BL	1,61	3,22
3,50	70	39	2	1460350BL	1,60	3,20
4,00	75	43	2	1460400BL	1,63	3,26
4,25	75	43	2	1460425BL	2,05	4,09
4,50	80	47	2	1460450BL	2,05	4,11
5,00	86	52	2	1460500BL	2,20	4,39
5,25	86	52	2	1460525BL	2,71	5,43
5,50	93	57	2	1460550BL	2,72	5,43
6,00	93	57	2	1460600BL	2,85	5,71
6,50	101	63	1	1460650BL	3,89	3,89
7,00	109	69	1	1460700BL	4,40	4,40
7,50	109	69	1	1460750BL	4,83	4,83
8,00	117	75	1	1460800BL	5,47	5,47
8,50	117	75	1	1460850BL	6,15	6,15
9,00	125	81	1	1460900BL	6,83	6,83
9,50	125	81	1	1460950BL	8,00	8,00
10,00	133	87	1	1461000BL	8,41	8,41
10,50	133	87	1	1461050BL	9,51	9,51
11,00	142	94	1	1461100BL	10,43	10,43
11,50	142	94	1	1461150BL	11,55	11,55
12,00	151	101	1	1461200BL	12,50	12,50
12,50	151	101	1	1461250BL	14,97	14,97
13,00	151	101	1	1461300BL	14,44	14,44

Unidad de venta €/blister / Sales unit €/blister / Unité de vente € / blister

DIN 338 N HSS-G ALTO RENDIMIENTO
DIN 338 N HSS-G HIGH PERFORMANCE
DIN 338 N HSS-G GRAND RENDEMENT



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
0,20	19	2,5	10	1450020	3,10
0,25	19	3	10	1450025	3,10
0,30	19	3	10	1450030	3,10
0,35	19	3	10	1450035	3,11
0,40	20	5	10	1450040	3,10
0,45	22	6	10	1450045	3,11
0,50	22	6	10	1450050	2,43
0,55	24	7	10	1450055	2,94
0,60	24	7	10	1450060	2,92
0,65	26	8	10	1450065	2,94
0,70	28	9	10	1450070	2,92
0,75	28	9	10	1450075	2,92
0,80	30	10	10	1450080	2,92
0,85	30	10	10	1450085	2,94
0,90	32	11	10	1450090	2,92
0,95	32	11	10	1450095	2,94
1,00	34	12	10	1450100	1,10
1,05	34	12	10	1450105	1,24
1,10	36	14	10	1450110	1,24
1,15	36	14	10	1450115	1,24
1,20	38	16	10	1450120	1,24
1,25	38	16	10	1450125	1,10
1,30	38	16	10	1450130	1,24
1,35	40	18	10	1450135	1,24
1,40	40	18	10	1450140	1,24
1,45	40	18	10	1450145	1,24
1,50	40	18	10	1450150	1,10
1,55	43	20	10	1450155	1,24
1,60	43	20	10	1450160	1,24
1,65	43	20	10	1450165	1,24
1,70	43	20	10	1450170	1,24
1,75	46	22	10	1450175	1,10
1,80	46	22	10	1450180	1,24
1,85	46	22	10	1450185	1,24
1,90	46	22	10	1450190	1,24
1,95	49	24	10	1450195	1,24
2,00	49	24	10	1450200	0,99
2,05	49	24	10	1450205	1,17
2,10	49	24	10	1450210	1,17
2,15	53	27	10	1450215	1,17
2,20	53	27	10	1450220	1,17
2,25	53	27	10	1450225	1,02
2,30	53	27	10	1450230	1,17

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
0,20	-	-	-
0,25	-	-	-
0,30	-	-	-
0,35	-	-	-
0,40	-	-	-
0,45	-	-	-
0,50	-	-	-
0,55	-	-	-
0,60	-	-	-
0,65	-	-	-
0,70	-	-	-
0,75	-	-	-
0,80	-	-	-
0,85	-	-	-
0,90	-	-	-
0,95	-	-	-
1,00	2	1460100	1,33
1,05	2	1460105	1,49
1,10	2	1460110	1,49
1,15	2	1460115	1,50
1,20	2	1460120	1,49
1,25	2	1460125	1,33
1,30	2	1460130	1,50
1,35	2	1460135	1,49
1,40	2	1460140	1,49
1,45	2	1460145	1,50
1,50	2	1460150	1,31
1,55	2	1460155	1,50
1,60	2	1460160	1,49
1,65	2	1460165	1,50
1,70	2	1460170	1,49
1,75	2	1460175	1,39
1,80	2	1460180	1,49
1,85	2	1460185	1,50
1,90	2	1460190	1,49
1,95	2	1460195	1,50
2,00	2	1460200	1,49
2,05	2	1460205	1,41
2,10	2	1460210	1,40
2,15	2	1460215	1,41
2,20	2	1460220	1,40
2,25	2	1460225	1,34
2,30	2	1460230	1,40

SESA®

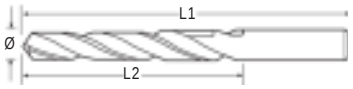
BROCAS PARA METAL MANGO CILÍNDRICO

STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 N HSS-G ALTO RENDIMIENTO

DIN 338 N HSS-G HIGH PERFORMANCE

DIN 338 N HSS-G GRAND RENDEMENT

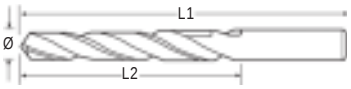


HSS-G | DIN 338 N | 118° | 30°

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,35	53	27	10	1450235	1,17
2,40	57	30	10	1450240	1,17
2,45	57	30	10	1450245	1,17
2,50	57	30	10	1450250	1,07
2,55	57	30	10	1450255	1,27
2,60	57	30	10	1450260	1,27
2,65	57	30	10	1450265	1,27
2,70	61	33	10	1450270	1,27
2,75	61	33	10	1450275	1,13
2,80	61	33	10	1450280	1,27
2,85	61	33	10	1450285	1,27
2,90	61	33	10	1450290	1,27
2,95	61	33	10	1450295	1,27
3,00	61	33	10	1450300	0,95
3,10	65	36	10	1450310	1,32
3,20	65	36	10	1450320	1,32
3,25	65	36	10	1450325	1,20
3,30	65	36	10	1450330	1,32
3,40	70	39	10	1450340	1,44
3,50	70	39	10	1450350	1,23
3,60	70	39	10	1450360	1,51
3,70	70	39	10	1450370	1,51
3,75	70	39	10	1450375	1,35
3,80	75	43	10	1450380	1,51
3,90	75	43	10	1450390	1,51
4,00	75	43	10	1450400	1,26
4,10	75	43	10	1450410	1,65
4,20	75	43	10	1450420	1,65
4,25	75	43	10	1450425	1,57
4,30	80	47	10	1450430	1,70
4,40	80	47	10	1450440	1,70
4,50	80	47	10	1450450	1,57
4,60	80	47	10	1450460	2,00
4,70	80	47	10	1450470	2,00
4,75	80	47	10	1450475	1,93
4,80	86	52	10	1450480	2,00
4,90	86	52	10	1450490	2,00
5,00	86	52	10	1450500	1,69
5,10	86	52	10	1450510	2,39
5,20	86	52	10	1450520	2,39
5,25	86	52	10	1450525	2,15
5,30	86	52	10	1450530	2,39
5,40	93	57	10	1450540	2,39

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,35	2	1460235	1,41
2,40	2	1460240	1,40
2,45	2	1460245	1,34
2,50	2	1460250	1,34
2,55	2	1460255	1,54
2,60	2	1460260	1,54
2,65	2	1460265	1,54
2,70	2	1460270	1,54
2,75	2	1460275	1,36
2,80	2	1460280	1,54
2,85	2	1460285	1,54
2,90	2	1460290	1,54
2,95	2	1460295	1,54
3,00	1	1460300	1,45
3,10	1	1460310	1,59
3,20	1	1460320	1,59
3,25	1	1460325	1,45
3,30	1	1460330	1,59
3,40	1	1460340	1,74
3,50	1	1460350	1,48
3,60	1	1460360	1,83
3,70	1	1460370	1,83
3,75	1	1460375	1,62
3,80	1	1460380	1,83
3,90	1	1460390	1,83
4,00	1	1460400	1,51
4,10	1	1460410	2,04
4,20	1	1460420	2,04
4,25	1	1460425	1,89
4,30	1	1460430	2,04
4,40	1	1460440	2,04
4,50	1	1460450	1,89
4,60	1	1460460	2,42
4,70	1	1460470	2,42
4,75	1	1460475	2,39
4,80	1	1460480	2,42
4,90	1	1460490	2,42
5,00	1	1460500	1,86
5,10	1	1460510	2,67
5,20	1	1460520	2,67
5,25	1	1460525	2,42
5,30	1	1460530	2,67
5,40	1	1460540	2,67

DIN 338 N HSS-G ALTO RENDIMIENTO
DIN 338 N HSS-G HIGH PERFORMANCE
DIN 338 N HSS-G GRAND RENDEMENT



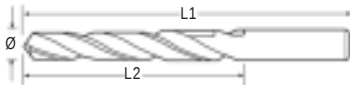
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
5,50	93	57	10	1450550	2,14
5,60	93	57	10	1450560	2,73
5,70	93	57	10	1450570	2,73
5,75	93	57	10	1450575	2,65
5,80	93	57	10	1450580	2,73
5,90	93	57	10	1450590	2,73
6,00	93	57	10	1450600	2,27
6,10	101	63	10	1450610	3,13
6,20	101	63	10	1450620	3,13
6,25	101	63	10	1450625	2,74
6,30	101	63	10	1450630	3,13
6,40	101	63	10	1450640	3,13
6,50	101	63	10	1450650	2,83
6,60	101	63	10	1450660	3,76
6,70	101	63	10	1450670	3,76
6,75	109	69	10	1450675	3,44
6,80	109	69	10	1450680	3,53
6,90	109	69	10	1450690	3,76
7,00	109	69	10	1450700	3,34
7,10	109	69	10	1450710	4,67
7,20	109	69	10	1450720	4,67
7,25	109	69	10	1450725	4,11
7,30	109	69	10	1450730	4,49
7,40	109	69	10	1450740	4,49
7,50	109	69	10	1450750	3,71
7,60	117	75	10	1450760	4,98
7,70	117	75	10	1450770	4,98
7,75	117	75	10	1450775	4,81
7,80	117	75	10	1450780	5,11
7,90	117	75	10	1450790	5,11
8,00	117	75	10	1450800	4,10
8,10	117	75	10	1450810	5,82
8,20	117	75	10	1450820	5,82
8,25	117	75	10	1450825	4,97
8,30	117	75	10	1450830	5,72
8,40	117	75	10	1450840	5,72
8,50	117	75	10	1450850	4,65
8,60	125	81	5	1450860	6,49
8,70	125	81	5	1450870	6,49
8,75	125	81	5	1450875	5,99
8,80	125	81	5	1450880	6,49
8,90	125	81	5	1450890	6,49
9,00	125	81	5	1450900	5,63

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
5,50	1	1460550	2,51
5,60	1	1460560	2,78
5,70	1	1460570	3,05
5,75	1	1460575	2,97
5,80	1	1460580	3,05
5,90	1	1460590	3,05
6,00	1	1460600	2,60
6,10	1	1460610	3,50
6,20	1	1460620	3,50
6,25	1	1460625	3,08
6,30	1	1460630	3,50
6,40	1	1460640	3,50
6,50	1	1460650	3,17
6,60	1	1460660	4,23
6,70	1	1460670	4,23
6,75	1	1460675	3,85
6,80	1	1460680	4,23
6,90	1	1460690	4,23
7,00	1	1460700	3,74
7,10	1	1460710	5,24
7,20	1	1460720	5,24
7,25	1	1460725	4,61
7,30	1	1460730	5,04
7,40	1	1460740	5,04
7,50	1	1460750	4,29
7,60	1	1460760	5,59
7,70	1	1460770	5,59
7,75	1	1460775	5,41
7,80	1	1460780	5,72
7,90	1	1460790	5,72
8,00	1	1460800	4,59
8,10	1	1460810	6,54
8,20	1	1460820	6,54
8,25	1	1460825	5,84
8,30	1	1460830	6,40
8,40	1	1460840	6,40
8,50	1	1460850	5,69
8,60	1	1460860	7,28
8,70	1	1460870	7,28
8,75	1	1460875	6,70
8,80	1	1460880	7,28
8,90	1	1460890	7,28
9,00	1	1460900	6,31

SESA

BROCAS PARA METAL MANGO CILÍNDRICO
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 N HSS-G ALTO RENDIMIENTO
DIN 338 N HSS-G HIGH PERFORMANCE
DIN 338 N HSS-G GRAND RENDEMENT

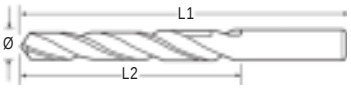


HSS-G | DIN 338 N | 118° | 30°

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
9,10	125	81	5	1450910	7,87
9,20	125	81	5	1450920	7,87
9,25	125	81	5	1450925	6,78
9,30	125	81	5	1450930	7,87
9,40	125	81	5	1450940	7,87
9,50	125	81	5	1450950	6,18
9,60	133	87	5	1450960	8,37
9,70	133	87	5	1450970	8,37
9,75	133	87	5	1450975	7,68
9,80	133	87	5	1450980	8,37
9,90	133	87	5	1450990	8,37
10,00	133	87	5	1451000	6,64
10,10	133	87	5	1451010	11,84
10,20	133	87	5	1451020	11,84
10,25	133	87	5	1451025	8,42
10,30	133	87	5	1451030	11,99
10,40	133	87	5	1451040	11,99
10,50	133	87	5	1451050	8,31
10,60	133	87	5	1451060	12,72
10,70	142	94	5	1451070	12,72
10,75	142	94	5	1451075	9,35
10,80	142	94	5	1451080	14,20
10,90	142	94	5	1451090	14,20
11,00	142	94	5	1451100	9,10
11,10	142	94	5	1451110	14,20
11,20	142	94	5	1451120	14,19
11,25	142	94	5	1451125	10,36
11,30	142	94	5	1451130	14,32
11,40	142	94	5	1451140	14,32
11,50	142	94	5	1451150	10,09
11,60	142	94	5	1451160	14,32
11,70	142	94	5	1451170	14,32
11,75	142	94	5	1451175	10,80
11,80	142	94	5	1451180	14,54
11,90	151	101	5	1451190	14,54
12,00	151	101	5	1451200	10,55
12,10	151	101	5	1451210	15,63
12,20	151	101	5	1451220	15,64
12,25	151	101	5	1451225	12,82
12,30	151	101	5	1451230	15,63
12,40	151	101	5	1451240	15,63
12,50	151	101	5	1451250	12,64
12,60	151	101	5	1451260	16,67

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
9,10	1	1460910	8,82
9,20	1	1460920	8,82
9,25	1	1460925	8,07
9,30	1	1460930	8,82
9,40	1	1460940	8,82
9,50	1	1460950	7,40
9,60	1	1460960	9,39
9,70	1	1460970	9,39
9,75	1	1460975	8,73
9,80	1	1460980	9,39
9,90	1	1460990	9,39
10,00	1	1461000	7,05
10,10	1	1461010	12,55
10,20	1	1461020	12,55
10,25	1	1461025	8,92
10,30	1	1461030	12,70
10,40	1	1461040	12,70
10,50	1	1461050	8,80
10,60	1	1461060	13,48
10,70	1	1461070	13,48
10,75	1	1461075	9,91
10,80	1	1461080	15,04
10,90	1	1461090	15,04
11,00	1	1461100	9,65
11,10	1	1461110	15,04
11,20	1	1461120	15,04
11,25	1	1461125	10,98
11,30	1	1461130	15,17
11,40	1	1461140	15,17
11,50	1	1461150	10,69
11,60	1	1461160	15,17
11,70	1	1461170	15,18
11,75	1	1461175	11,45
11,80	1	1461180	15,40
11,90	1	1461190	15,40
12,00	1	1461200	11,23
12,10	1	1461210	16,57
12,20	1	1461220	16,57
12,25	1	1461225	13,59
12,30	1	1461230	16,57
12,40	1	1461240	16,57
12,50	1	1461250	13,86
12,60	1	1461260	17,67

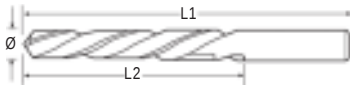
DIN 338 N HSS-G ALTO RENDIMIENTO
DIN 338 N HSS-G HIGH PERFORMANCE
DIN 338 N HSS-G GRAND RENDEMENT

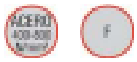


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
12,70	151	101	5	1451270	16,67
12,75	151	101	5	1451275	13,52
12,80	151	101	5	1451280	17,32
12,90	151	101	5	1451290	17,32
13,00	151	101	5	1451300	12,61
13,25	160	108	1	111325	19,47
13,50	160	108	1	111350	18,55
13,75	160	108	1	111375	19,59
14,00	160	108	1	111400	18,95
14,25	169	114	1	111425	23,49
14,50	169	114	1	111450	21,42
14,75	169	114	1	111475	23,49
15,00	169	114	1	111500	21,63
15,25	178	120	1	111525	29,08
15,50	178	120	1	111550	25,34
15,75	178	120	1	111575	31,02
16,00	178	120	1	111600	26,33
16,25	184	125	1	111625	35,49
16,50	184	125	1	111650	30,67
16,75	184	125	1	111675	37,24
17,00	184	125	1	111700	30,67
17,25	191	130	1	111725	41,20
17,50	191	130	1	111750	35,27
17,75	191	130	1	111775	41,20
18,00	191	130	1	111800	37,31
18,25	198	135	1	111825	46,04
18,50	198	135	1	111850	41,02
18,75	198	135	1	111875	49,17
19,00	198	135	1	111900	41,43
19,25	205	140	1	111925	55,01
19,50	205	140	1	111950	44,41
19,75	205	140	1	111975	55,01
20,00	205	140	1	112000	50,63

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
12,70	1	1461270	17,67
12,75	1	1461275	14,31
12,80	1	1461280	18,36
12,90	1	1461290	18,46
13,00	1	1461300	13,36

DIN 338 N HSS-G, IZQUIERDAS
DIN 338 N HSS-G, LEFT HAND • DIN 338 N HSS-G, A GAUCHE



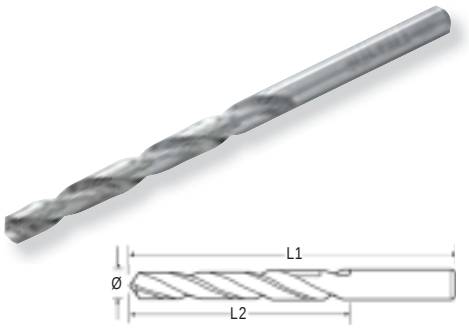


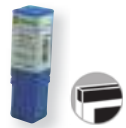
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,00	49	24	10	1450200I	4,74
2,50	57	30	10	1450250I	4,89
3,00	61	33	10	1450300I	4,65
3,25	65	36	10	1450325I	5,75
3,50	70	39	10	1450350I	6,13
4,00	75	43	10	1450400I	5,87
4,50	80	47	10	1450450I	7,52
5,00	86	52	10	1450500I	7,67
5,50	93	57	10	1450550I	9,72
6,00	93	57	10	1450600I	10,78
6,50	101	63	10	1450650I	12,25
7,00	109	69	10	1450700I	14,86
7,50	109	69	10	1450750I	17,64
8,00	117	75	10	1450800I	18,86
8,50	117	75	10	1450850I	21,80
9,00	125	81	10	1450900I	25,06
9,50	125	81	10	1450950I	28,49
10,00	133	87	10	1451000I	30,38

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,00	2	1460200I	5,59
2,50	2	1460250I	5,78
3,00	1	1460300I	5,50
3,25	1	1460325I	6,80
3,50	1	1460350I	7,23
4,00	1	1460400I	6,93
4,50	1	1460450I	8,86
5,00	1	1460500I	8,44
5,50	1	1460550I	10,69
6,00	1	1460600I	11,85
6,50	1	1460650I	13,47
7,00	1	1460700I	16,35
7,50	1	1460750I	19,38
8,00	1	1460800I	20,75
8,50	1	1460850I	23,97
9,00	1	1460900I	27,57
9,50	1	1460950I	30,21
10,00	1	1461000I	32,19

DIN 338 N HSS WHITE

DIN 338 N HSS WHITE
DIN 338 N HSS WHITE





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
1.00	34	12	10	1550100	0,42
1.25	38	16	10	1550125	0,42
1.50	40	18	10	1550150	0,42
1.75	46	22	10	1550175	0,42
2.00	49	24	10	1550200	0,42
2.25	53	27	10	1550225	0,42
2.50	57	30	10	1550250	0,42
2.75	61	33	10	1550275	0,52
3.00	61	33	10	1550300	0,52
3.25	65	36	10	1550325	0,58
3.50	70	39	10	1550350	0,58
3.75	70	39	10	1550375	0,66
4.00	75	43	10	1550400	0,65
4.25	75	43	10	1550425	0,83
4.50	80	47	10	1550450	0,83
4.75	80	47	10	1550475	1,01
5.00	86	52	10	1550500	1,01
5.25	86	52	10	1550525	1,27
5.50	93	57	10	1550550	1,27
5.75	93	57	10	1550575	1,45
6.00	93	57	10	1550600	1,45
6.25	101	63	10	1550625	1,67

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6.50	101	63	10	1550650	1,67
6.75	109	69	10	1550675	1,95
7.00	109	69	10	1550700	1,95
7.25	109	69	10	1550725	2,20
7.50	109	69	10	1550750	2,20
7.75	117	75	10	1550775	2,82
8.00	117	75	10	1550800	2,82
8.25	117	75	10	1550825	3,04
8.50	117	75	10	1550850	3,04
8.75	125	81	10	1550875	3,62
9.00	125	81	10	1550900	3,62
9.25	125	81	10	1550925	3,94
9.50	125	81	10	1550950	3,94
9.75	133	87	5	1550975	4,64
10.00	133	87	5	1551000	4,64
10.50	133	87	5	1551050	5,07
11.00	142	94	5	1551100	5,89
11.50	142	94	5	1551150	6,44
12.00	151	101	5	1551200	7,39
12.50	151	101	5	1551250	8,06
13.00	151	101	5	1551300	8,66

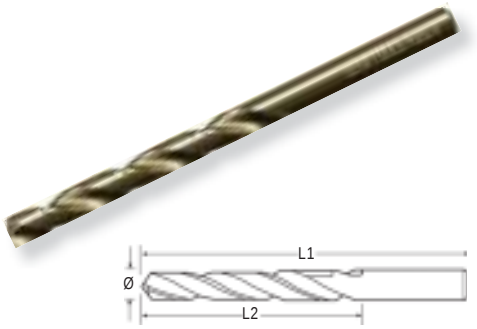
BROCAS PARA METAL MANGO CILÍNDRICO
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN-338 N HSS-CO: BLISTER RÍGIDO
DIN 338 N HSS-CO: RIGID PLASTIC BLISTER
DIN 338 N HSS-CO: BLISTER DE PLASTIQUE RIGIDE

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.	€/Blister
1,00	34	12	2	1430100BL	2,47	4,94
1,50	40	18	2	1430150BL	2,32	4,64
2,00	49	24	2	1430200BL	2,31	4,61
2,50	57	30	2	1430250BL	2,40	4,81
3,00	61	33	2	1430300BL	2,38	4,77
3,25	65	36	2	1430325BL	2,98	5,97
3,50	70	39	2	1430350BL	2,98	5,97
4,00	75	43	2	1430400BL	3,10	6,19
4,25	75	43	2	1430425BL	3,67	7,34
4,50	80	47	2	1430450BL	3,66	7,33
5,00	86	52	2	1430500BL	3,69	7,38
5,25	86	52	2	1430525BL	4,08	8,16
5,50	93	57	2	1430550BL	4,63	9,27
6,00	93	57	2	1430600BL	4,63	9,27
6,50	101	63	1	1430650BL	5,77	5,77
7,00	109	69	1	1430700BL	6,28	6,28
7,50	109	69	1	1430750BL	6,91	6,91
8,00	117	75	1	1430800BL	8,36	8,36
8,50	117	75	1	1430850BL	8,86	8,86
9,00	125	81	1	1430900BL	10,57	10,57
9,50	125	81	1	1430950BL	11,83	11,83
10,00	133	87	1	1431000BL	12,33	12,33
10,50	133	87	1	1431050BL	15,97	15,97
11,00	142	94	1	1431100BL	17,85	17,85
11,50	142	94	1	1431150BL	22,36	22,36
12,00	151	101	1	1431200BL	23,36	23,36
12,50	151	101	1	1431250BL	29,96	29,96
13,00	151	101	1	1431300BL	30,06	30,06

Unidad de venta €/blister / Sales unit €/blister / Unité de vente € / blister

DIN 338 N HSS-CO
DIN 338 N HSS-CO • DIN 338 N HSS-CO

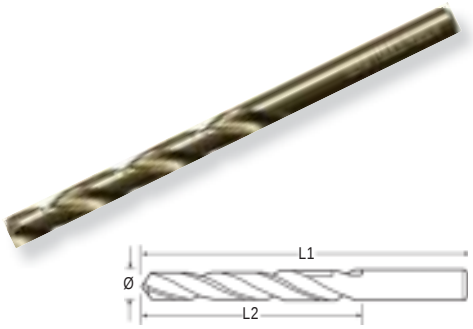


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
0,30	19	3	10	140030	4,61
0,40	20	5	10	140040	4,61
0,50	22	6	10	140050	3,48
0,60	24	7	10	140060	3,48
0,70	28	9	10	140070	3,48
0,75	28	9	10	140075	3,13
0,80	30	10	10	140080	3,48
0,90	32	11	10	140090	3,48
1,00	34	12	10	140100	1,84
1,10	36	14	10	140110	2,11
1,20	38	16	10	140120	2,11
1,25	38	16	10	140125	1,98
1,30	38	16	10	140130	2,11
1,40	40	18	10	140140	2,11
1,50	40	18	10	140150	1,74
1,60	43	20	10	140160	2,97
1,70	43	20	10	140170	2,97
1,75	46	22	10	140175	2,15
1,80	46	22	10	140180	2,97
1,90	46	22	10	140190	2,97
2,00	49	24	10	140200	1,72
2,10	49	24	10	140210	2,45
2,20	53	27	10	140220	2,45
2,25	53	27	10	140225	2,24
2,30	53	27	10	140230	2,45
2,40	57	30	10	140240	2,45
2,50	57	30	10	140250	1,80
2,60	57	30	10	140260	2,42
2,70	61	33	10	140270	2,42
2,75	61	33	10	140275	2,25
2,80	61	33	10	140280	2,42
2,90	61	33	10	140290	2,42
3,00	61	33	10	140300	1,80
3,10	65	36	10	140310	2,22
3,20	65	36	10	140320	2,22
3,25	65	36	10	140325	2,17
3,30	65	36	10	140330	2,44
3,40	70	39	10	140340	2,44
3,50	70	39	10	140350	2,24
3,60	70	39	10	140360	2,88
3,70	70	39	10	140370	2,88
3,75	70	39	10	140375	2,58
3,80	75	43	10	140380	2,88
3,90	75	43	10	140390	2,88
4,00	75	43	10	140400	2,31
4,10	75	43	10	140410	2,92
4,20	75	43	10	140420	2,92
4,25	75	43	10	140425	2,65

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
0,30	-	-	-
0,40	-	-	-
0,50	-	-	-
0,60	-	-	-
0,70	-	-	-
0,75	-	-	-
0,80	-	-	-
0,90	-	-	-
1,00	2	1430100	2,27
1,10	2	1430110	2,52
1,20	2	1430120	2,53
1,25	2	1430125	2,41
1,30	2	1430130	2,52
1,40	2	1430140	2,53
1,50	2	1430150	2,13
1,60	2	1430160	3,53
1,70	2	1430170	3,53
1,75	2	1430175	2,64
1,80	2	1430180	3,53
1,90	2	1430190	3,53
2,00	2	1430200	2,12
2,10	2	1430210	2,93
2,20	2	1430220	2,93
2,25	2	1430225	2,74
2,30	2	1430230	2,93
2,40	2	1430240	2,93
2,50	2	1430250	2,21
2,60	2	1430260	2,89
2,70	2	1430270	2,89
2,75	2	1430275	2,76
2,80	2	1430280	2,89
2,90	2	1430290	2,89
3,00	1	1430300	2,19
3,10	1	1430310	2,64
3,20	1	1430320	2,64
3,25	1	1430325	2,67
3,30	1	1430330	2,90
3,40	1	1430340	2,90
3,50	1	1430350	2,74
3,60	1	1430360	3,44
3,70	1	1430370	3,44
3,75	1	1430375	3,17
3,80	1	1430380	3,44
3,90	1	1430390	3,44
4,00	1	1430400	2,85
4,10	1	1430410	3,49
4,20	1	1430420	3,48
4,25	1	1430425	3,26

BROCAS PARA METAL MANGO CILÍNDRICO
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 N HSS-CO
DIN 338 N HSS-CO • DIN 338 N HSS-CO



HSS-CO 5%

DIN 338 N

135°

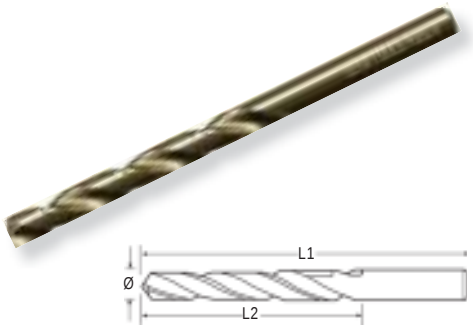
30°

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
4,30	80	47	10	140430	3,14
4,40	80	47	10	140440	3,14
4,50	80	47	10	140450	2,74
4,60	80	47	10	140460	3,14
4,70	80	47	10	140470	3,14
4,75	80	47	10	140475	2,92
4,80	86	52	10	140480	3,36
4,90	86	52	10	140490	3,36
5,00	86	52	10	140500	2,77
5,10	86	52	10	140510	3,71
5,20	86	52	10	140520	3,71
5,25	86	52	10	140525	3,34
5,30	86	52	10	140530	3,98
5,40	93	57	10	140540	3,98
5,50	93	57	10	140550	3,69
5,60	93	57	10	140560	4,29
5,70	93	57	10	140570	4,29
5,75	93	57	10	140575	4,05
5,80	93	57	10	140580	4,52
5,90	93	57	10	140590	4,52
6,00	93	57	10	140600	3,72
6,10	101	63	10	140610	5,05
6,20	101	63	10	140620	5,05
6,25	101	63	10	140625	4,61
6,30	101	63	10	140630	5,30
6,40	101	63	10	140640	5,30
6,50	101	63	10	140650	4,64
6,60	101	63	10	140660	5,95
6,70	101	63	10	140670	5,95
6,75	109	69	10	140675	5,41
6,80	109	69	10	140680	6,18
6,90	109	69	10	140690	6,18
7,00	109	69	10	140700	5,05
7,10	109	69	10	140710	7,03
7,20	109	69	10	140720	7,03
7,25	109	69	10	140725	6,66
7,30	109	69	10	140730	7,47
7,40	109	69	10	140740	7,47
7,50	109	69	10	140750	5,55
7,60	117	75	10	140760	8,68
7,70	117	75	10	140770	8,68
7,75	117	75	10	140775	8,09
7,80	117	75	10	140780	9,34
7,90	117	75	10	140790	9,34
8,00	117	75	10	140800	7,05
8,10	117	75	10	140810	9,62
8,20	117	75	10	140820	9,62
8,25	117	75	10	140825	8,06

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
4,30	1	1430430	3,75
4,40	1	1430440	3,75
4,50	1	1430450	3,36
4,60	1	1430460	3,75
4,70	1	1430470	3,75
4,75	1	1430475	3,59
4,80	1	1430480	4,00
4,90	1	1430490	4,01
5,00	1	1430500	3,39
5,10	1	1430510	4,13
5,20	1	1430520	4,13
5,25	1	1430525	3,81
5,30	1	1430530	4,42
5,40	1	1430540	4,42
5,50	1	1430550	4,22
5,60	1	1430560	4,76
5,70	1	1430570	4,76
5,75	1	1430575	4,62
5,80	1	1430580	5,02
5,90	1	1430590	5,02
6,00	1	1430600	4,25
6,10	1	1430610	5,60
6,20	1	1430620	5,60
6,25	1	1430625	5,28
6,30	1	1430630	5,88
6,40	1	1430640	5,88
6,50	1	1430650	5,31
6,60	1	1430660	6,60
6,70	1	1430670	6,61
6,75	1	1430675	6,18
6,80	1	1430680	6,86
6,90	1	1430690	6,86
7,00	1	1430700	5,76
7,10	1	1430710	7,80
7,20	1	1430720	7,80
7,25	1	1430725	7,62
7,30	1	1430730	8,30
7,40	1	1430740	8,30
7,50	1	1430750	6,34
7,60	1	1430760	9,64
7,70	1	1430770	9,64
7,75	1	1430775	9,23
7,80	1	1430780	10,37
7,90	1	1430790	10,37
8,00	1	1430800	7,68
8,10	1	1430810	10,68
8,20	1	1430820	10,68
8,25	1	1430825	9,22

DIN 338 N HSS-CO

DIN 338 N HSS-CO • DIN 338 N HSS-CO



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8,30	117	75	10	140830	10,06
8,40	117	75	10	140840	10,06
8,50	117	75	10	140850	7,79
8,60	125	81	5	140860	11,08
8,70	125	81	5	140870	11,08
8,75	125	81	5	140875	10,40
8,80	125	81	5	140880	11,44
8,90	125	81	5	140890	11,44
9,00	125	81	5	140900	9,35
9,10	125	81	5	140910	11,88
9,20	125	81	5	140920	11,88
9,25	125	81	5	140925	11,05
9,30	125	81	5	140930	13,58
9,40	125	81	5	140940	13,58
9,50	125	81	5	140950	10,24
9,60	133	87	5	140960	14,65
9,70	133	87	5	140970	14,65
9,75	133	87	5	140975	14,84
9,80	133	87	5	140980	15,69
9,90	133	87	5	140990	15,69
10,00	133	87	5	141000	11,34
10,25	133	87	5	141025	17,63
10,50	133	87	5	141050	13,57
10,75	142	94	5	141075	20,04
11,00	142	94	5	141100	15,16
11,25	142	94	5	141125	20,61
11,50	142	94	5	141150	19,01
11,75	142	94	5	141175	25,16
12,00	151	101	5	141200	19,84
12,25	151	101	5	141225	27,89
12,50	151	101	5	141250	25,46
12,75	151	101	5	141275	28,90
13,00	151	101	5	141300	25,53
13,25	160	108	1	141325	39,27
13,50	160	108	1	141350	33,87
14,00	160	108	1	141400	30,83
14,50	169	114	1	141450	44,41
15,00	169	114	1	141500	44,76
15,50	178	120	1	141550	53,02
16,00	178	120	1	141600	53,52
16,50	184	125	1	141650	63,02
17,00	184	125	1	141700	63,02
17,50	191	130	1	141750	69,93
18,00	191	130	1	141800	74,91
18,50	198	135	1	141850	83,25
19,00	198	135	1	141900	83,25
19,50	205	140	1	141950	93,25
20,00	205	140	1	142000	96,33

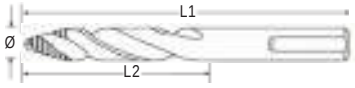
Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
8,30	1	1430830	11,47
8,40	1	1430840	11,47
8,50	1	1430850	8,14
8,60	1	1430860	12,32
8,70	1	1430870	12,64
8,75	1	1430875	11,44
8,80	1	1430880	13,05
8,90	1	1430890	13,05
9,00	1	1430900	9,71
9,10	1	1430910	13,55
9,20	1	1430920	13,55
9,25	1	1430925	12,64
9,30	1	1430930	15,49
9,40	1	1430940	15,09
9,50	1	1430950	10,86
9,60	1	1430960	16,71
9,70	1	1430970	16,27
9,75	1	1430975	14,99
9,80	1	1430980	17,90
9,90	1	1430990	17,90
10,00	1	1431000	11,32
10,25	1	1431025	19,06
10,50	1	1431050	14,66
10,75	1	1431075	21,65
11,00	1	1431100	16,39
11,25	1	1431125	22,27
11,50	1	1431150	20,54
11,75	1	1431175	27,23
12,00	1	1431200	21,44
12,25	1	1431225	30,13
12,50	1	1431250	27,51
12,75	1	1431275	31,22
13,00	1	1431300	27,59

BROCAS PARA METAL MANGO CILÍNDRICO
STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 HSS-G ST STEP
DIN 338 HSS-G ST STEP • DIN 338 HSS-G ST STEP

NEW

HSS-G | DIN 338 N



Ø mm	L1 (mm)	L2 (mm)	Nº escalones / Nº of Steps	Mango / Shank	Uds. / Pcs.	Cod.	€/Unid.
1,00	34	12	Punta normal / Normal tip	Redondo / Round	10	1SD0100	0,63
1,50	40	18	Punta normal / Normal tip	Redondo / Round	10	1SD0150	0,75
2,00	49	24	Punta normal / Normal tip	Redondo / Round	10	1SD0200	1,00
2,50	57	30	Punta normal / Normal tip	Redondo / Round	10	1SD0250	1,25
3,00	61	33	1	Redondo / Round	10	1SD0300	3,78
3,20	65	36	1	Redondo / Round	10	1SD0320	4,93
3,30	65	36	1	Redondo / Round	10	1SD0330	4,05
3,50	70	39	1	Redondo / Round	10	1SD0350	4,05
4,00	75	43	2	3 planos / *3 flats*	10	1SD0400	4,39
4,10	75	43	2	3 planos / *3 flats*	10	1SD0410	8,17
4,20	75	43	2	3 planos / *3 flats*	10	1SD0420	4,80
4,50	80	47	2	3 planos / *3 flats*	10	1SD0450	5,22
4,90	86	52	2	3 planos / *3 flats*	10	1SD0490	9,13
5,00	86	52	3	3 planos / *3 flats*	10	1SD0500	5,80
5,10	86	52	3	3 planos / *3 flats*	10	1SD0510	13,73
5,20	86	52	3	3 planos / *3 flats*	10	1SD0520	13,73
5,50	93	57	3	3 planos / *3 flats*	10	1SD0550	6,64
6,00	93	57	3	3 planos / *3 flats*	10	1SD0600	7,31
6,50	101	63	3	3 planos / *3 flats*	10	1SD0650	8,79
6,80	109	69	4	3 planos / *3 flats*	10	1SD0680	9,40
7,00	109	69	4	3 planos / *3 flats*	10	1SD0700	10,34
7,50	109	69	4	3 planos / *3 flats*	10	1SD0750	10,71
8,00	117	75	5	3 planos / *3 flats*	10	1SD0800	12,57
8,50	117	75	5	3 planos / *3 flats*	10	1SD0850	13,66
9,00	125	81	5	3 planos / *3 flats*	10	1SD0900	15,16
9,50	125	81	5	3 planos / *3 flats*	10	1SD0950	16,57
10,00	133	87	6	3 planos / *3 flats*	10	1SD1000	18,76
10,20	133	87	6	3 planos / *3 flats*	5	1SD1020	20,40
10,50	133	87	6	3 planos / *3 flats*	5	1SD1050	20,40
11,00	142	94	6	3 planos / *3 flats*	5	1SD1100	23,38
11,50	142	94	6	3 planos / *3 flats*	5	1SD1150	24,91
12,00	151	101	8	3 planos / *3 flats*	5	1SD1200	28,39
12,50	151	101	8	3 planos / *3 flats*	5	1SD1250	30,32
13,00	151	101	8	3 planos / *3 flats*	5	1SD1300	32,37

ESTUCHES METAL METAL SET • COFFRET MÉTAL

NEW

DIN 338 N

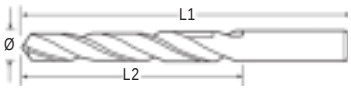
Calidad Quality	Contenido Composition	Cantidad piezas Pieces quanitty	Cod.	€/Unid.
HSS-G ST STEP	1-10x0,5 mm	19	1SD019	219,45
HSS-G ST STEP	1-13x0,5 mm	25	1SD025	365,75

1SD019 1SD025

DIN 338 N HSS-G INOX PROGRESIVA
DIN 338 N HSS-G PROGRESSIVE INOX
DIN 338 N HSS-G INOX PROGRESSIVE

SPECIAL STAINLESS STEEL
ESPECIAL INOX
SPÉCIAL ACIER INOXYDABLE

INOX | HSS-G | DIN 338 N | 130° | 38°



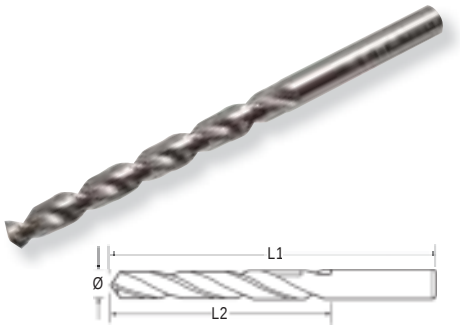
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,00	34	9	10	14P0100	1,25
1,25	38	10	10	14P0125	1,28
1,50	40	11	10	14P0150	1,28
1,75	46	12	10	14P0175	1,52
2,00	49	13	10	14P0200	1,52
2,25	53	14	10	14P0225	1,52
2,50	57	16	10	14P0250	1,52
2,75	61	18	10	14P0275	1,83
3,00	61	18	10	14P0300	1,62
3,25	65	20	10	14P0325	2,26
3,50	70	22	10	14P0350	2,26
3,75	75	25	10	14P0375	2,26
4,00	75	25	10	14P0400	2,12
4,25	80	28	10	14P0425	2,56
4,50	80	28	10	14P0450	2,56
4,75	86	32	10	14P0475	3,06
5,00	86	32	10	14P0500	2,88
5,25	86	32	10	14P0525	4,07
5,50	93	36	10	14P0550	4,07
5,75	93	36	10	14P0575	4,43
6,00	93	36	10	14P0600	3,95
6,25	101	40	10	14P0625	5,04
6,50	101	40	10	14P0650	5,04
6,75	109	45	10	14P0675	5,54
7,00	109	45	10	14P0700	5,59
7,25	109	45	10	14P0725	6,48
7,50	109	45	10	14P0750	6,48
7,75	117	51	10	14P0775	7,98
8,00	117	51	10	14P0800	7,71
8,25	117	51	10	14P0825	9,59
8,50	117	51	10	14P0850	9,59
8,75	125	57	5	14P0875	10,55
9,00	125	57	5	14P0900	10,54
9,25	125	57	5	14P0925	11,76
9,50	125	57	5	14P0950	11,77
9,75	133	63	5	14P0975	13,01
10,00	133	63	5	14P1000	12,59
10,25	133	63	5	14P1025	15,04
10,50	133	63	5	14P1050	15,04
10,75	142	71	5	14P1075	15,62
11,00	142	71	5	14P1100	15,62
11,25	142	71	5	14P1125	16,93
11,50	142	71	5	14P1150	16,95
11,75	142	71	5	14P1175	18,79
12,00	151	78	5	14P1200	18,13
12,25	151	78	5	14P1225	20,95
12,50	151	78	5	14P1250	20,93
12,75	151	78	5	14P1275	22,98
13,00	151	78	5	14P1300	22,94

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,00	2	14R0100	1,48
1,25	2	14R0125	1,50
1,50	2	14R0150	1,51
1,75	2	14R0175	1,80
2,00	2	14R0200	1,80
2,25	2	14R0225	1,80
2,50	2	14R0250	1,80
2,75	2	14R0275	2,14
3,00	1	14R0300	1,90
3,25	1	14R0325	2,67
3,50	1	14R0350	2,67
3,75	1	14R0375	2,67
4,00	1	14R0400	2,50
4,25	1	14R0425	3,03
4,50	1	14R0450	3,03
4,75	1	14R0475	3,61
5,00	1	14R0500	3,40
5,25	1	14R0525	4,48
5,50	1	14R0550	4,48
5,75	1	14R0575	4,87
6,00	1	14R0600	4,34
6,25	1	14R0625	5,54
6,50	1	14R0650	5,55
6,75	1	14R0675	6,02
7,00	1	14R0700	6,05
7,25	1	14R0725	7,13
7,50	1	14R0750	7,13
7,75	1	14R0775	8,72
8,00	1	14R0800	8,49
8,25	1	14R0825	10,55
8,50	1	14R0850	10,55
8,75	1	14R0875	11,60
9,00	1	14R0900	11,46
9,25	1	14R0925	12,80
9,50	1	14R0950	12,80
9,75	1	14R0975	14,14
10,00	1	14R1000	12,91
10,25	1	14R1025	15,63
10,50	1	14R1050	15,64
10,75	1	14R1075	16,24
11,00	1	14R1100	16,00
11,25	1	14R1125	17,30
11,50	1	14R1150	17,30
11,75	1	14R1175	19,09
12,00	1	14R1200	18,65
12,25	1	14R1225	21,40
12,50	1	14R1250	21,40
12,75	1	14R1275	23,66
13,00	1	14R1300	23,61

DIN 338 W HSS-CO PARA INOX
DIN 338 W HSS-CO SPECIAL INOX
DIN 338 W HSS-CO SPÉCIAL INOX

SPECIAL STAINLESS STEEL
ESPECIAL INOX
SPÉCIAL ACIER INOXYDABLE

advance MAXIMO RENDIMIENTO

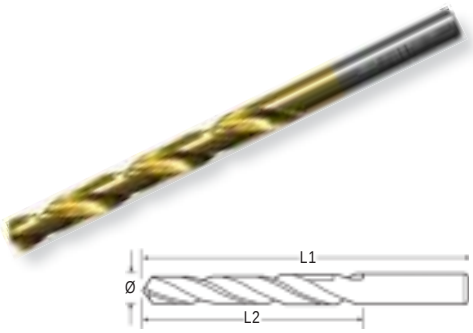


INOX | HSS-CO 5% | DIN 338 W | 135° | 40°

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,00	34	12	10	130104100	3,21
1,50	40	18	10	130104150	3,33
2,00	49	24	10	130104200	3,39
2,50	57	30	10	130104250	3,32
3,00	61	33	10	130104003	3,52
3,25	65	36	10	130104325	4,07
3,50	70	39	10	130104350	4,11
4,00	75	43	10	130104004	4,55
4,25	75	43	10	130104425	5,18
4,50	80	47	10	130104450	5,18
5,00	86	52	10	130104005	5,65
5,25	86	52	10	130104525	6,84
5,50	93	57	10	130104550	6,91
6,00	93	57	10	130104006	7,68
6,50	101	63	10	130104650	9,13
7,00	109	69	10	130104007	10,57
7,50	109	69	10	130104750	12,39
8,00	117	75	10	130104008	13,48
8,50	117	75	10	130104850	16,38
9,00	125	81	5	130104009	18,16
9,50	125	81	5	130104950	20,85
10,00	133	87	5	130104010	22,42
10,50	133	87	5	130104105	25,25
11,00	142	94	5	130104011	27,64
11,50	142	94	5	130104115	33,41
12,00	151	101	5	130104012	33,23
12,50	151	101	5	130104125	37,57
13,00	151	101	5	130104013	40,38

Ø (mm)	Uds. / Pcs.	Cod.	€ €/Unid.
1,00	2	131104100	3,54
1,50	2	131104150	3,67
2,00	2	131104200	3,73
2,50	2	131104250	3,64
3,00	1	131104003	3,88
3,25	1	131104325	4,49
3,50	1	131104350	4,52
4,00	1	131104004	5,49
4,25	1	131104425	5,80
4,50	1	131104450	5,77
5,00	1	131104005	6,61
5,25	1	131104525	8,10
5,50	1	131104550	7,89
6,00	1	131104006	8,57
6,50	1	131104650	10,04
7,00	1	131104007	11,63
7,50	1	131104750	13,64
8,00	1	131104008	15,31
8,50	1	131104850	18,13
9,00	1	131104009	20,27
9,50	1	131104950	22,94
10,00	1	131104010	24,61
10,50	1	131104105	27,38
11,00	1	131104011	30,10
11,50	1	131104115	34,75
12,00	1	131104012	35,79
12,50	1	131104125	40,28
13,00	1	131104013	43,37

DIN 338 N HSS-G+TIN
DIN 338 N HSS-G+TIN • DIN 338 N HSS-G+TIN



HSS-G | TIN | DIN 338 N | 135° | 30°

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,00	32	12	10	130100	1,60
1,25	38	16	10	130125	1,76
1,40*	40	18	10	130140	1,76
1,50	40	18	10	130150	1,72
1,75	46	22	10	130175	1,76
1,80*	46	22	10	130180	1,76
2,00	49	24	10	130200	1,67
2,25	53	27	10	130225	1,76
2,50	57	30	10	130250	1,72
2,75	61	33	10	130275	1,76
3,00	61	33	10	130300	1,74
3,25	65	36	10	130325	2,27
3,50	70	39	10	130350	2,27
3,75	70	39	10	130375	2,52
3,80*	75	43	10	130380	2,52
4,00	75	43	10	130400	2,37
4,25	75	43	10	130425	2,84
4,50	80	47	10	130450	2,84
4,75	80	47	10	130475	3,08
5,00	86	52	10	130500	2,91
5,20*	86	52	10	130520	4,10
5,25	86	52	10	130525	3,93
5,50	93	57	10	130550	3,93
5,75	93	57	10	130575	4,42
6,00	93	57	10	130600	4,14
6,25	101	63	10	130625	5,80
6,50	101	63	10	130650	5,69
6,75	109	69	10	130675	7,10
7,00	109	69	10	130700	6,71
7,25	109	69	10	130725	7,32
7,50	109	69	10	130750	7,18
7,75	117	75	10	130775	8,25
8,00	117	75	10	130800	7,80
8,25	117	75	10	130825	9,40
8,50	117	75	10	130850	9,22
8,75	125	81	5	130875	10,81
9,00	125	81	5	130900	9,82
9,25	125	81	5	130925	12,12
9,50	125	81	5	130950	11,89
9,75	133	87	5	130975	13,56
10,00	133	87	5	131000	12,39
10,50	133	87	5	131050	15,28
11,00	142	94	5	131100	16,51
11,50	142	94	5	131150	19,56
12,00	151	101	5	131200	21,84
12,50	151	101	5	131250	23,90
13,00	151	101	5	131300	25,20

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,00	2	1320100	1,93
1,25	2	1320125	2,07
1,40*	2	1320140	2,07
1,50	2	1320150	2,07
1,75	2	1320175	2,07
1,80*	2	1320180	2,07
2,00	2	1320200	2,00
2,25	2	1320225	2,07
2,50	2	1320250	2,07
2,75	2	1320275	2,07
3,00	1	1320300	2,09
3,25	1	1320325	2,75
3,50	1	1320350	2,75
3,75	1	1320375	2,96
3,80*	1	1320380	2,96
4,00	1	1320400	2,87
4,25	1	1320425	3,41
4,50	1	1320450	3,41
4,75	1	1320475	3,64
5,00	1	1320500	3,27
5,20*	1	1320520	4,52
5,25	1	1320525	4,41
5,50	1	1320550	4,41
5,75	1	1320575	4,86
6,00	1	1320600	4,64
6,25	1	1320625	6,38
6,50	1	1320650	6,38
6,75	1	1320675	7,82
7,00	1	1320700	7,53
7,25	1	1320725	8,05
7,50	1	1320750	8,05
7,75	1	1320775	9,08
8,00	1	1320800	8,74
8,25	1	1320825	10,34
8,50	1	1320850	10,34
8,75	1	1320875	11,89
9,00	1	1320900	11,02
9,25	1	1320925	13,33
9,50	1	1320950	13,33
9,75	1	1320975	14,92
10,00	1	1321000	13,13
10,50	1	1321050	16,20
11,00	1	1321100	17,51
11,50	1	1321150	20,74
12,00	1	1321200	23,16
12,50	1	1321250	25,34
13,00	1	1321300	26,71

*Hasta agotar existencias / Until end of stock / Jusqu´à épuisement des stocks

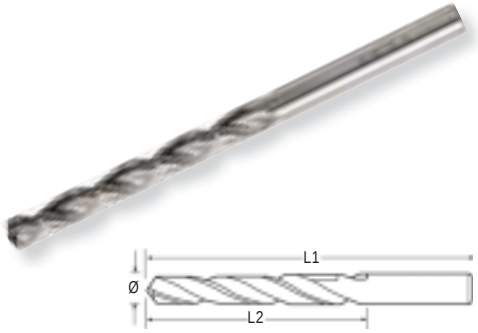
BROCAS PARA METAL MANGO CILÍNDRICO

STRAIGHT SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

DIN 338 S HSS-G PARA ALUMINIO

DIN 338 S HSS-G SPECIAL ALUMINIUM

DIN 338 S HSS-G SPÉCIALE ALUMINIUM



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,50	57	30	1	130107250	3,05
3,00	65	33	1	130107003	2,76
3,25	65	36	1	130107325	3,62
3,50	70	39	1	130107350	3,91
4,00	75	43	1	130107004	3,80
4,25	75	43	1	130107425	5,31
4,50	80	47	1	130107450	5,64
5,00	86	52	1	130107005	5,54
5,25	86	52	1	130107525	6,17
5,50	83	57	1	130107550	6,17
6,00	93	57	1	130107006	6,17
6,50	101	63	1	130107650	8,22
7,00	109	69	1	130107007	8,22

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
7,50	109	69	1	130107750	11,24
8,00	117	75	1	130107008	9,12
8,50	117	75	1	130107850	11,24
9,00	125	81	1	130107009	12,05
9,50	125	81	1	130107950	12,84
10,00	133	87	1	130107010	13,45
10,50	133	87	1	130107105	16,27
11,00	142	94	1	130107011	18,26
11,50	142	94	1	130107115	19,98
12,00	151	101	1	130107012	23,25
12,50	151	101	1	130107125	25,62
13,00	151	101	1	130107013	28,17

DIN 338 N HSS-CO + TIALN

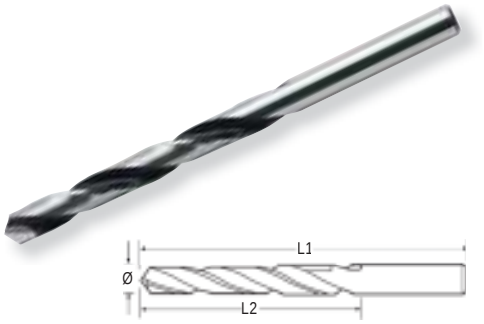
DIN 338 N HSS-CO + TIALN • DIN 338 N HSS-CO + TIALN

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,00	34	12	1	130126001	6,33
1,50	40	18	1	130126150	6,66
2,00	49	24	1	130126002	7,03
2,50	57	30	1	130126250	9,02
3,00	61	33	1	130126003	8,38
3,25	65	36	1	130126325	10,19
3,50	70	39	1	130126350	9,47
4,00	75	43	1	130126004	10,61
4,25	75	43	1	130126425	11,34
4,50	80	47	1	130126450	10,87
5,00	86	52	1	130126005	11,67
5,25	86	52	1	130126525	14,24
5,50	93	57	1	130126550	12,90
6,00	93	57	1	130126006	12,34

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,50	101	63	1	130126650	18,39
7,00	109	69	1	130126007	20,18
7,50	109	69	1	130126750	23,72
8,00	117	75	1	130126008	23,50
8,50	117	75	1	130126850	26,33
9,00	125	81	1	130126009	30,75
9,50	125	81	1	130126950	32,52
10,00	133	87	1	130126010	34,67
10,50	133	87	1	130126105	45,31
11,00	142	94	1	130126011	46,27
11,50	142	94	1	130126115	48,08
12,00	151	101	1	130126012	58,50
12,50	151	101	1	130126125	63,31
13,00	151	101	1	130126013	65,31

K20 DIN 338 N HSS-MD

K20 DIN 338 N HSS-HM • K20 DIN N 338 HSS-HM

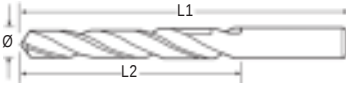


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	61	33	1	16M0300	25,21
3,50	70	39	1	16M0350	25,21
4,00	75	43	1	16M0400	25,21
4,50	80	47	1	16M0450	25,21
5,00	86	52	1	16M0500	25,21
5,50	93	57	1	16M0550	25,21
6,00	93	57	1	16M0600	27,71
6,50	101	63	1	16M0650	31,35
7,00	109	69	1	16M0700	33,42
7,50	109	69	1	16M0750	35,71
8,00	117	75	1	16M0800	37,43

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8,50	117	75	1	16M0850	39,85
9,00	125	81	1	16M0900	40,34
9,50	125	81	1	16M0950	44,34
10,00	133	87	1	16M1000	47,93
10,50	133	87	1	16M1050	59,71
11,00	142	94	1	16M1100	64,81
11,50	142	94	1	16M1150	68,66
12,00	151	101	1	16M1200	74,04
12,50	151	101	1	16M1250	79,35
13,00	151	101	1	16M1300	85,02
14,00	160	108	1	16M1400	96,34

BROCA 3XD PARA MATERIALES DUROS - HARDOX

3XD DRILL BIT FOR HARD METALS - HARDOX
FORET 3XD POUR MATÉRIAUX DURS - HARDOX



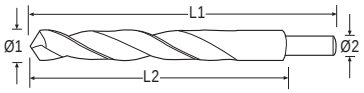
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
5	86	26	1	14HX0500	11,08
6	93	28	1	14HX0600	12,49
8	117	37	1	14HX0800	18,44

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
10	133	43	1	14HX1000	25,57
12	151	51	1	14HX1200	37,27

Para otras medidas consultar / Request for other sizes / Pour d'autres dimensions, nous consulter

DIN 338 N HSS-G MANGO REDUCIDO

DIN 338 N HSS-G REDUCED SHANK • DIN 338 N HSS-G QUEUE RÉDUITE

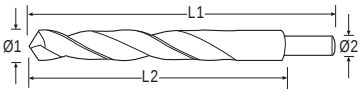


Ø1 (mm)	Ø2 (mm)	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
10,00	9,70	133	87	1	181000	12,10
10,50	9,70	133	87	1	181050	12,45
11,00	9,70	142	94	1	181100	12,10
11,50	9,70	142	94	1	181150	12,45
12,00	9,70	151	101	1	181200	13,81
12,25	9,70	151	101	1	181225	18,56
12,50	9,70	151	101	1	181250	15,29
12,75	9,70	151	101	1	181275	20,74
13,00	9,70	151	101	1	181300	15,78
13,25	12,70	160	108	1	181325	19,99
13,50	12,70	160	108	1	181350	20,46
13,75	12,70	160	108	1	181375	22,92
14,00	12,70	160	108	1	181400	20,02
14,25	12,70	169	114	1	181425	27,54
14,50	12,70	169	114	1	181450	23,69
14,75	12,70	169	114	1	181475	29,71
15,00	12,70	169	114	1	181500	23,96
15,25	12,70	178	120	1	181525	35,97
15,50	12,70	178	120	1	181550	30,00
15,75	12,70	178	120	1	181575	41,14
16,00	12,70	178	120	1	181600	28,16
16,25	12,70	184	125	1	181625	44,67
16,50	12,70	184	125	1	181650	32,92
16,75	12,70	184	125	1	181675	48,91

Ø1 (mm)	Ø2 (mm)	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
17,00	12,70	184	125	1	181700	32,96
17,25	12,70	191	130	1	181725	50,55
17,50	12,70	191	130	1	181750	39,10
17,75	12,70	191	130	1	181775	51,72
18,00	12,70	191	130	1	181800	37,23
18,25	12,70	198	135	1	181825	55,26
18,50	12,70	198	135	1	181850	47,10
18,75	12,70	198	135	1	181875	53,71
19,00	12,70	198	135	1	181900	44,55
19,50	12,70	205	140	1	181950	49,28
20,00	12,70	205	140	1	182000	52,92
20,50	12,70	213	145	1	182050	61,31
21,00	12,70	213	145	1	182100	63,80
21,50	12,70	221	150	1	182150	69,37
22,00	12,70	221	150	1	182200	68,60
22,50	12,70	221	150	1	182250	73,13
23,00	12,70	229	155	1	182300	73,86
23,50	12,70	229	155	1	182350	78,09
24,00	12,70	236	160	1	182400	79,38
24,50	12,70	236	160	1	182450	85,12
25,00	12,70	236	160	1	182500	85,29
25,50	12,70	243	165	1	182550	99,80
26,00	12,70	243	165	1	182600	107,93

BROCAS PARA METAL MANGO REDUCIDO
REDUCED SHANK METAL DRILL BITS • FORETS METAL QUEUE CYLINDRIQUE

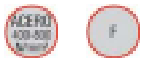
DIN 338 N HSS-CO MANGO REDUCIDO
DIN 338 N HSS-CO REDUCED SHANK • DIN338 N HSS-CO QUEUE RÉDUITE



Ø1 (mm)	Ø2 (mm)	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
12,00	9,70	151	101	1	1841200	27,09
13,00	9,70	151	101	1	1841300	33,52
13,50	12,70	160	108	1	1841350	37,82
14,00	12,70	160	108	1	1841400	35,63
14,50	12,70	169	114	1	1841450	45,28
15,00	12,70	169	114	1	1841500	45,98
15,50	12,70	178	120	1	1841550	58,01
16,00	12,70	178	120	1	1841600	54,91

Ø1 (mm)	Ø2 (mm)	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
16,50	12,70	184	125	1	1841650	66,67
17,00	12,70	184	125	1	1841700	66,69
17,50	12,70	191	130	1	1841750	76,56
18,00	12,70	191	130	1	1841800	75,44
18,50	12,70	198	135	1	1841850	82,90
19,00	12,70	198	135	1	1841900	84,83
19,50	12,70	205	140	1	1841950	92,50
20,00	12,70	205	140	1	1842000	94,93

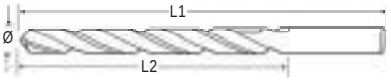
DIN 340 N HSS-G SERIE LARGA
DIN 340 N HSS-G LONG SERIES
DIN 340 N HSS-G SÉRIE LONGUE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,00	56	33	1	100100	3,65
1,25	65	41	1	100125	3,95
1,50	70	45	1	100150	3,95
1,75	80	53	1	100175	3,95
2,00	85	56	1	100200	3,20
2,10	85	56	1	100210	5,27
2,25	90	59	1	100225	3,27
2,50	95	62	1	100250	3,10
2,60	95	62	1	100260	4,39
2,75	100	66	1	100275	3,48
2,80	100	66	1	100280	4,39
3,00	100	66	1	100300	3,04
3,10	106	69	1	100310	5,59
3,25	106	69	1	100325	3,65
3,30	112	73	1	100330	3,79
3,40	112	73	1	100340	5,59
3,50	112	73	1	100350	3,48
3,60	112	73	1	100360	4,30
3,75	112	73	1	100375	4,30
4,00	119	78	1	100400	3,62
4,10	119	78	1	100410	5,09
4,20	119	78	1	100420	5,09
4,25	119	78	1	100425	5,05
4,50	126	82	1	100450	4,59
4,60	126	82	1	100460	5,42
4,75	126	82	1	100475	5,48
4,80	132	87	1	100480	5,71
4,90	132	87	1	100490	5,71
5,00	132	87	1	100500	4,75
5,10	132	87	1	100510	6,52
5,25	132	87	1	100525	6,46
5,50	139	91	1	100550	6,30
5,60	139	91	1	100560	7,15
5,70	139	91	1	100570	7,15
5,75	139	91	1	100575	6,93
5,80	139	91	1	100580	8,37
6,00	139	91	1	100600	5,82

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,10	148	97	1	100610	8,91
6,25	148	97	1	100625	9,12
6,40	148	97	1	100640	9,13
6,50	148	97	1	100650	7,66
6,75	156	102	1	100675	8,88
7,00	156	102	1	100700	7,92
7,10	156	102	1	100710	9,54
7,25	156	102	1	100725	9,54
7,50	156	102	1	100750	9,40
7,75	165	109	1	100775	10,08
8,00	165	109	1	100800	10,19
8,25	165	109	1	100825	12,02
8,50	165	109	1	100850	11,88
8,75	175	115	1	100875	13,89
9,00	175	115	1	100900	12,58
9,25	175	115	1	100925	15,68
9,50	175	121	1	100950	13,85
9,75	184	121	1	100975	16,41
10,00	184	121	1	101000	14,89
10,25	184	121	1	101025	17,50
10,50	184	121	1	101050	17,97
10,75	195	128	1	101075	20,33
11,00	195	128	1	101100	20,64
11,25	195	128	1	101125	23,99
11,50	195	128	1	101150	22,21
11,75	205	134	1	101175	26,22
12,00	205	134	1	101200	24,56
12,25	205	134	1	101225	27,74
12,50	205	134	1	101250	27,22
12,75	205	134	1	101275	32,34
13,00	205	134	1	101300	28,58
13,50	214	140	1	101350	34,43
14,00	214	140	1	101400	36,41
14,50	220	144	1	101450	41,96
15,00	220	144	1	101500	42,01
16,00	227	149	1	101600	48,06

DIN 340 N HSS-CO SERIE LARGA
DIN 340 N HSS-CO LONG SERIES
DIN 340 N HSS-CO SÉRIE LONGUE



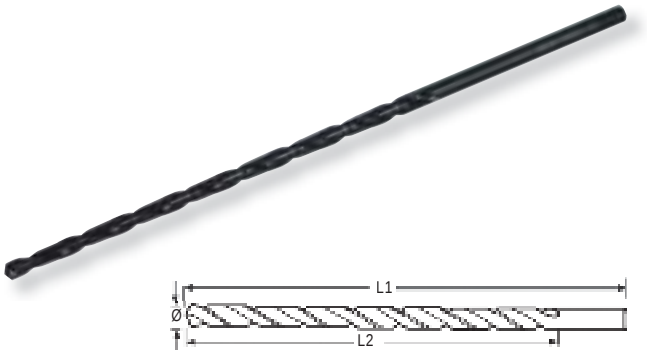
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,00	85	56	1	14L0200	8,53
2,50	95	62	1	14L0250	8,53
3,00	100	66	1	14L0300	8,53
3,20	106	69	1	14L0320	10,46
3,25	106	69	1	14L0325	8,40
3,50	112	73	1	14L0350	9,13
3,75	112	73	1	14L0375	9,37
4,00	119	78	1	14L0400	9,13
4,25	119	78	1	14L0425	10,33
4,50	126	82	1	14L0450	11,24
4,75	126	82	1	14L0475	12,92
5,00	132	87	1	14L0500	11,80
5,50	139	91	1	14L0550	14,14
6,00	139	91	1	14L0600	14,14

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,50	148	97	1	14L0650	17,97
7,00	156	102	1	14L0700	19,50
7,50	156	102	1	14L0750	23,87
8,00	165	109	1	14L0800	21,98
8,50	165	109	1	14L0850	27,13
9,00	175	115	1	14L0900	27,13
9,50	175	115	1	14L0950	31,55
10,00	184	121	1	14L1000	42,56
10,50	184	121	1	14L1050	53,40
11,00	195	128	1	14L1100	55,61
11,50	195	128	1	14L1150	72,10
12,00	205	134	1	14L1200	59,73
12,50	205	134	1	14L1250	76,21
13,00	205	134	1	14L1300	76,21

DIN 1869 N HSS-G SERIE EXTRALARGA

DIN 1869 N HSS-G EXTRA LONG SERIES

DIN 1869 N HSS-G EXTRA LONG



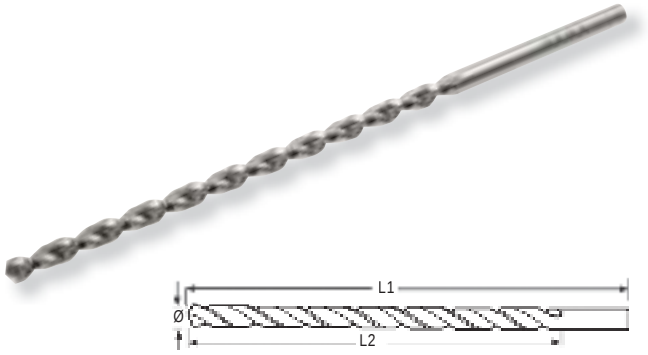
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,00	125	85	1	1002125	11,93
2,50	140	95	1	1002514	12,73
3,00	150	100	1	1003150	14,12
3,00	190	130	1	1003190	16,07
3,50	165	115	1	1003516	15,22
3,50	210	145	1	1003521	19,69
3,50	265	180	1	1003526	26,56
4,00	175	120	1	1004175	16,00
4,00	220	150	1	1004220	20,74
4,00	280	190	1	1004280	29,48
4,50	185	125	1	1004518	17,94
4,50	235	160	1	1004523	21,71
4,50	295	200	1	1004529	31,99
5,00	195	135	1	1005195	18,23
5,00	245	170	1	1005245	22,39
5,00	315	210	1	1005315	32,66
5,50	205	140	1	1005520	22,34
5,50	260	180	1	1005526	29,80
5,50	330	225	1	1005533	38,18
5,75	205	140	1	1005720	39,55
6,00	205	140	1	1006205	22,34
6,00	260	180	1	1006260	35,36
6,00	330	225	1	1006330	40,40
6,50	215	150	1	1006521	23,53
6,50	275	190	1	1006527	36,05

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,50	350	235	1	1006535	47,97
7,00	225	155	1	1007225	29,18
7,00	290	200	1	1007290	39,99
7,00	370	250	1	1007370	55,03
7,50	225	155	1	1007522	35,76
7,50	305	210	1	1007530	48,37
7,50	370	250	1	1007537	64,84
8,00	240	165	1	1008240	38,58
8,00	305	210	1	1008305	48,87
8,00	390	265	1	1008390	70,90
8,50	240	165	1	1008524	50,84
8,50	305	210	1	1008530	57,66
8,50	390	265	1	1008539	90,85
9,00	250	175	1	1009250	54,81
9,00	320	220	1	1009320	63,01
9,00	410	280	1	1009410	102,08
9,50	250	175	1	1009525	60,39
9,50	320	220	1	1009532	74,35
9,50	410	280	1	1009541	104,08
10,00	265	185	1	1010265	63,43
10,00	340	235	1	1010340	82,13
10,00	430	295	1	1010430	109,97
12,00	295	205	1	1012295	87,92
12,00	375	260	1	1012375	106,88

DIN 1869 S HSS-CO SERIE EXTRALARGA

DIN 1869 S HSS-CO EXTRA LONG SERIES

DIN 1869 S HSS-CO EXTRA LONG

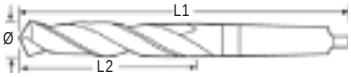


Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,00	125	85	1	130127020125	23,56
2,50	140	95	1	130127250140	24,14
3,00	150	100	1	130127030150	25,70
3,25	155	105	1	130127325155	31,62
3,50	210	145	1	130127350210	34,46
4,00	175	120	1	130127040175	29,26
4,00	220	150	1	130127040220	34,27
4,25	220	150	1	130127425220	52,82
4,50	235	160	1	130127450235	40,11
5,00	195	135	1	130127050195	33,51
5,00	245	170	1	130127205245	43,45
5,50	260	180	1	130127550260	51,73
6,00	205	140	1	130127060205	38,67

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,00	260	180	1	130127060260	55,44
6,50	275	190	1	130127650275	67,25
7,00	295	200	1	130127070295	71,01
8,00	240	165	1	130127080290	71,11
8,00	305	210	1	130127080305	83,55
8,50	305	210	1	130127850305	85,95
9,00	320	220	1	130127090320	93,37
10,00	265	185	1	130127100265	94,00
10,00	340	235	1	130127100340	109,80
11,00	360	250	1	130127110360	194,32
12,00	380	260	1	130127120380	257,06

DIN 345 N HSS-G

DIN 345 N HSS-G • DIN 345 N HSS-G



HSS-G | DIN 345 N | 118° | 30°

Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
4,00	1	124	43	1	150400	23,59
4,50	1	128	47	1	150450	25,48
5,00	1	133	52	1	150500	20,05
5,50	1	138	57	1	150550	21,71
5,75	1	138	57	1	150575	22,41
6,00	1	138	57	1	150600	19,50
6,25	1	144	63	1	150625	21,20
6,50	1	144	63	1	150650	21,46
6,75	1	150	69	1	150675	21,47
7,00	1	150	69	1	150700	20,72
7,50	1	150	69	1	150750	22,79
7,75	1	156	75	1	150775	26,95
8,00	1	156	75	1	150800	21,24
8,25	1	156	75	1	150825	28,18
8,50	1	156	75	1	150850	23,28
8,75	1	162	81	1	150875	28,68
9,00	1	162	81	1	150900	22,83
9,50	1	162	81	1	150950	23,63
9,75	1	168	87	1	150975	29,21
10,00	1	168	87	1	151000	22,22
10,25	1	168	87	1	151025	29,98
10,50	1	168	87	1	151050	24,39
10,75	1	175	94	1	151075	27,44
11,00	1	175	94	1	151100	24,07
11,25	1	175	94	1	151125	32,51
11,50	1	175	94	1	151150	26,93
11,75	1	175	94	1	151175	31,76
12,00	1	182	101	1	151200	25,16
12,25	1	182	101	1	151225	32,51
12,50	1	182	101	1	151250	29,98
12,75	1	182	101	1	151275	35,57
13,00	1	182	101	1	151300	26,87
13,25	1	189	108	1	151325	36,83
13,50	1	189	108	1	151350	29,72
13,75	1	189	108	1	151375	36,75
14,00	1	189	108	1	151400	29,48
14,25	2	212	114	1	151425	39,20
14,50	2	212	114	1	151450	33,74
14,75	2	212	114	1	151475	41,15
15,00	2	212	114	1	151500	31,63
15,25	2	218	120	1	151525	41,65
15,50	2	218	120	1	151550	33,97
15,75	2	218	120	1	151575	42,88
16,00	2	218	120	1	151600	34,38
16,25	2	223	125	1	151625	46,55
16,50	2	223	125	1	151650	38,69

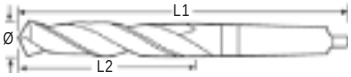
Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
16,75	2	223	125	1	151675	52,13
17,00	2	223	125	1	151700	38,14
17,25	2	228	130	1	151725	52,22
17,50	2	228	130	1	151750	41,14
17,75	2	228	130	1	151775	52,33
18,00	2	228	130	1	151800	39,07
18,25	2	233	135	1	151825	58,53
18,50	2	233	135	1	151850	46,01
18,75	2	233	135	1	151875	59,59
19,00	2	233	135	1	151900	44,04
19,25	2	238	140	1	151925	61,99
19,50	2	238	140	1	151950	49,54
19,75	2	238	140	1	151975	62,50
20,00	2	238	140	1	152000	48,80
20,25	2	243	145	1	152025	68,36
20,50	2	243	145	1	152050	59,46
20,75	2	243	145	1	152075	69,36
21,00	2	243	145	1	152100	53,77
21,25	2	248	150	1	152125	74,48
21,50	2	248	150	1	152150	62,28
21,75	2	248	150	1	152175	73,74
22,00	2	248	150	1	152200	56,30
22,25	2	253	155	1	152225	82,06
22,50	2	253	155	1	152250	61,25
22,75	2	253	155	1	152275	84,35
23,00	2	253	155	1	152300	67,55
23,25	3	276	155	1	152325	89,18
23,50	3	276	155	1	152350	73,01
23,75	3	281	160	1	152375	91,13
24,00	3	281	160	1	152400	69,68
24,25	3	281	160	1	152425	96,29
24,50	3	281	160	1	152450	81,10
24,75	3	281	160	1	152475	100,93
25,00	3	281	160	1	152500	77,26
25,25	3	286	165	1	152525	109,76
25,50	3	286	165	1	152550	86,23
25,75	3	286	165	1	152575	113,67
26,00	3	286	165	1	152600	85,38
26,25	3	286	165	1	152625	118,34
26,50	3	286	165	1	152650	98,26
26,75	3	291	170	1	152675	123,47
27,00	3	291	170	1	152700	91,26
27,25	3	291	170	1	152725	127,89
27,50	3	291	170	1	152750	101,69
27,75	3	291	170	1	152775	127,40

BROCAS PARA METAL MANGO CÓNICO

TAPPER SHANK METAL DRILL BITS • FORETS METAL QUEUE CONIQUE

DIN 345 N HSS-G

DIN 345 N HSS-G • DIN 345 N HSS-G



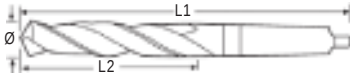
HSS-G | DIN 345 N | 118° | 30°

Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
28,00	3	291	170	1	152800	99,08
28,25	3	296	175	1	152825	139,23
28,50	3	296	175	1	152850	113,93
28,75	3	296	175	1	152875	140,50
29,00	3	296	175	1	152900	109,78
29,25	3	296	175	1	152925	158,28
29,50	3	296	175	1	152950	125,93
29,75	3	296	175	1	152975	160,32
30,00	3	296	175	1	153000	127,41
30,25	3	301	180	1	153025	170,73
30,50	3	301	180	1	153050	143,33
30,75	3	301	180	1	153075	174,54
31,00	3	301	180	1	153100	136,29
31,25	3	301	180	1	153125	181,91
31,50	3	301	180	1	153150	157,28
31,75	3	306	185	1	153175	189,53
32,00	4	334	185	1	153200	149,16
32,25	4	334	185	1	153225	193,14
32,50	4	334	185	1	153250	186,48
32,75	4	334	185	1	153275	211,84
33,00	4	334	185	1	153300	167,75
33,25	4	334	185	1	153325	217,88
33,50	4	334	185	1	153350	199,72
33,75	4	339	190	1	153375	227,36
34,00	4	339	190	1	153400	177,32
34,25	4	339	190	1	153425	233,94
34,50	4	339	190	1	153450	211,84
34,75	4	339	190	1	153475	245,78
35,00	4	339	190	1	153500	189,25
35,25	4	339	190	1	153525	245,78
35,50	4	339	190	1	153550	233,94
35,75	4	344	195	1	153575	261,03
36,00	4	344	195	1	153600	209,94
36,50	4	344	195	1	153650	250,50
37,00	4	344	195	1	153700	229,39
37,50	4	344	195	1	153750	261,03
38,00	4	349	200	1	153800	241,18
38,50	4	349	200	1	153850	274,47
39,00	4	349	200	1	153900	247,81
39,50	4	349	200	1	153950	285,77
40,00	4	349	200	1	154000	265,99
40,50	4	354	205	1	154050	297,88
41,00	4	354	205	1	154100	275,31
41,50	4	354	205	1	154150	329,20
42,00	4	354	205	1	154200	300,37

Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
42,50	4	354	205	1	154250	342,61
43,00	4	359	210	1	154300	316,33
43,50	4	359	210	1	154350	363,66
44,00	4	359	210	1	154400	336,54
44,50	4	359	210	1	154450	382,35
45,00	4	359	210	1	154500	351,00
45,50	4	364	215	1	154550	401,30
46,00	4	364	215	1	154600	370,67
46,50	4	364	215	1	154650	419,72
47,00	4	364	215	1	154700	385,62
47,50	4	364	215	1	154750	427,62
48,00	4	369	220	1	154800	398,81
48,50	4	369	220	1	154850	462,08
49,00	4	369	220	1	154900	404,31
49,50	4	369	220	1	154950	467,87
50,00	4	369	220	1	155000	417,73
50,50	4	369	220	1	155050	544,96
51,00	5	412	225	1	155100	490,62
52,00	5	412	225	1	155200	552,86
53,00	5	412	225	1	155300	567,10
54,00	5	417	230	1	155400	603,75
55,00	5	417	230	1	155500	633,90
56,00	5	417	230	1	155600	704,80
57,00	5	422	235	1	155700	746,14
58,00	5	422	235	1	155800	758,31
59,00	5	422	235	1	155900	787,23
60,00	5	422	235	1	156000	765,01
61,00	5	427	240	1	156100	909,78
62,00	5	427	240	1	156200	895,85
63,00	5	427	240	1	156300	934,63
64,00	5	432	245	1	156400	981,15
65,00	5	432	245	1	156500	1.029,48
66,00	5	432	245	1	156600	1.147,75
67,00	5	432	245	1	156700	1.171,15
68,00	5	437	250	1	156800	1.213,21
69,00	5	437	250	1	156900	1.267,20
70,00	5	437	250	1	157000	1.280,11
71,00	5	437	250	1	157100	1.296,18
72,00	5	442	255	1	157200	1.343,29
75,00	5	442	255	1	157500	1.406,97
78,00	6	514	260	1	157800	1.960,29
80,00	6	519	265	1	158000	2.231,93
85,00	6	519	265	1	158500	2.351,63
90,00	6	524	270	1	159000	2.636,89
95,00	6	529	275	1	159500	3.009,61

DIN 345 N HSS-CO

DIN 345 N HSS-CO • DIN 345 N HSS-CO



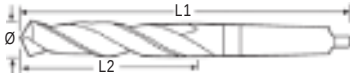
Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
10,00	1	168	87	1	14C1000	86,54
11,00	1	175	94	1	14C1100	87,44
11,50	1	175	94	1	14C1150	93,45
12,00	1	182	101	1	14C1200	87,26
12,50	1	182	101	1	14C1250	93,45
13,00	1	182	101	1	14C1300	83,71
13,50	1	189	102	1	14C1350	104,75
14,00	1	189	102	1	14C1400	97,84
14,50	2	212	114	1	14C1450	143,47
15,00	2	212	114	1	14C1500	117,12
15,50	2	218	120	1	14C1550	151,02
16,00	2	218	120	1	14C1600	129,45
16,50	2	223	125	1	14C1650	154,89
17,00	2	223	125	1	14C1700	132,02
17,50	2	228	130	1	14C1750	162,77
18,00	2	228	130	1	14C1800	135,55
18,50	2	233	135	1	14C1850	167,95
19,00	2	233	135	1	14C1900	154,35
19,50	2	238	140	1	14C1950	177,52
20,00	2	238	140	1	14C2000	161,94
20,50	2	243	145	1	14C2050	173,99
21,00	2	243	145	1	14C2100	188,61

Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
21,50	2	248	150	1	14C2150	203,31
22,00	2	248	150	1	14C2200	204,53
22,50	2	253	155	1	14C2250	230,42
23,00	2	253	155	1	14C2300	240,87
24,00	3	281	160	1	14C2400	246,36
25,00	3	281	160	1	14C2500	251,37
26,00	3	286	165	1	14C2600	278,68
27,00	3	291	170	1	14C2700	304,95
28,00	3	291	170	1	14C2800	330,46
29,00	3	296	175	1	14C2900	340,53
30,00	3	296	175	1	14C3000	363,19
31,00	3	301	180	1	14C3100	388,89
32,00	4	334	185	1	14C3200	397,44
33,00	4	334	185	1	14C3300	452,98
34,00	4	339	190	1	14C3400	475,51
35,00	4	339	190	1	14C3500	508,23
36,00	4	344	195	1	14C3600	528,82
37,00	4	344	195	1	14C3700	601,40
38,00	4	349	200	1	14C3800	630,64
39,00	4	349	200	1	14C3900	708,12
40,00	4	349	200	1	14C4000	747,79

DIN 345 N HSS-G+TIN

DIN 345 N HSS-G+TIN • DIN 345 N HSS-G+TIN

HSS-G | TIN | DIN 345 N | 118° | 30°



Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
13,50	1	189	108	1	1351350	91,73
14,00	1	189	108	1	1351400	91,84
14,50	2	212	114	1	1351450	113,83
15,00	2	212	114	1	1351500	113,83
15,50	2	218	120	1	1351550	118,20
16,00	2	218	120	1	1351600	114,99
16,50	2	223	125	1	1351650	123,12
17,00	2	223	125	1	1351700	121,93
17,50	2	228	130	1	1351750	140,91
18,00	2	228	130	1	1351800	126,26
18,50	2	233	135	1	1351850	147,44
19,00	2	233	135	1	1351900	145,02
19,50	2	238	140	1	1351950	166,78
20,00	2	238	140	1	1352000	166,84
20,50	2	243	145	1	1352050	171,15

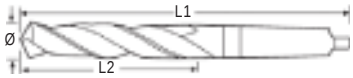
Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
21,00	2	243	145	1	1352100	169,73
21,50	2	248	150	1	1352150	186,89
22,00	2	248	150	1	1352200	194,39
22,50	2	253	155	1	1352250	214,53
23,00	2	253	155	1	1352300	212,05
23,50	3	276	155	1	1352350	231,47
24,00	3	281	160	1	1352400	233,03
24,50	3	281	160	1	1352450	254,31
25,00	3	281	160	1	1352500	249,60
26,00	3	286	165	1	1352600	265,66
27,00	3	291	170	1	1352700	282,15
28,00	3	291	170	1	1352800	305,13
29,00	3	296	175	1	1352900	329,02
30,00	3	296	175	1	1353000	352,83

BROCA CÓNICA 3XD PARA MATERIALES DUROS - HARDOX

3XD TAPER SHANK DRILL FOR HARD METALS - HARDOX

FORET CONIQUE 3XD POUR MATÉRIAUX DURS - HARDOX

INOX | TI | HSS-CO 8% | 130° | H

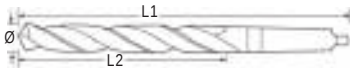


Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
8,00	1	124	43	1	15HX0800	106,72
9,00	1	127	46	1	15HX0900	109,99
10,00	1	131	50	1	15HX1000	112,18
11,00	1	136	55	1	15HX1100	115,34
12,00	2	157	59	1	15HX1200	117,09
13,00	2	157	59	1	15HX1300	120,70
14,00	2	161	63	1	15HX1400	142,55
15,00	2	164	66	1	15HX1500	149,11
16,00	2	168	70	1	15HX1600	149,70
17,00	2	171	73	1	15HX1700	151,35
18,00	2	175	77	1	15HX1800	160,02
19,00	3	201	80	1	15HX1900	174,31
20,00	3	204	83	1	15HX2000	203,58
21,00	3	208	87	1	15HX2100	228,12
22,00	3	211	90	1	15HX2200	239,08
23,00	3	215	94	1	15HX2300	256,66
24,00	3	219	98	1	15HX2400	261,01

Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
25,00	3	219	98	1	15HX2500	273,34
26,00	3	224	103	1	15HX2600	371,30
27,00	4	256	107	1	15HX2700	397,66
28,00	4	256	107	1	15HX2800	406,18
29,00	4	261	112	1	15HX2900	421,51
30,00	4	261	112	1	15HX3000	443,30
31,00	4	266	117	1	15HX3100	530,46
32,00	4	271	122	1	15HX3200	569,91
33,00	4	271	122	1	15HX3300	657,07
34,00	4	277	128	1	15HX3400	733,22
35,00	4	277	128	1	15HX3500	700,40
36,00	4	282	132	1	15HX3600	922,69
37,00	4	282	132	1	15HX3700	1.053,47
38,00	4	288	139	1	15HX3800	1.184,40
39,00	4	288	139	1	15HX3900	1.404,19
40,00	4	288	139	1	15HX4000	1.577,48

Para otras medidas consultar / Request for other sizes / Pour d'autres dimensions, nous consulter

DIN 341 N HSS-G SERIE LARGA
DIN 341 N HSS-G LONG SERIES • DIN 341 N HSS-G SERIE LONGUE



HSS-G | DIN 341 N | 118° | 30°

Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
14,00	2	223	142	1	15A1400	96,22
15,00	2	245	147	1	15A1500	110,64
15,50	2	251	153	1	15A1550	113,13
16,00	2	251	153	1	15A1600	121,87
16,50	2	257	159	1	15A1650	118,00
17,00	2	257	159	1	15A1700	129,44
17,50	2	263	165	1	15A1750	119,27
18,00	2	263	165	1	15A1800	140,33
18,50	2	269	171	1	15A1850	136,13
19,00	2	269	171	1	15A1900	148,85
19,50	2	275	177	1	15A1950	147,49
20,00	2	275	177	1	15A2000	158,15
20,50	2	282	184	1	15A2050	171,12
21,00	2	282	184	1	15A2100	175,73
21,50	2	289	191	1	15A2150	201,92
22,00	2	289	191	1	15A2200	204,12
22,50	2	296	198	1	15A2250	210,06
23,00	2	296	198	1	15A2300	200,20
23,50	3	319	198	1	15A2350	263,84
24,00	3	327	206	1	15A2400	259,81
24,50	3	327	206	1	15A2450	246,10

Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
25,00	3	327	206	1	15A2500	264,47
25,50	3	333	214	1	15A2550	271,71
26,00	3	333	214	1	15A2600	295,94
26,50	3	333	214	1	15A2650	288,19
27,00	3	343	222	1	15A2700	297,30
27,50	3	343	222	1	15A2750	355,18
28,00	3	343	222	1	15A2800	345,98
28,50	3	351	230	1	15A2850	418,00
29,00	3	351	230	1	15A2900	348,82
29,50	3	351	230	1	15A2950	402,85
30,00	3	351	230	1	15A3000	393,10
31,00	3	360	239	1	15A3100	450,69
32,00	4	397	248	1	15A3200	467,30
33,00	4	397	248	1	15A3300	522,72
34,00	4	406	257	1	15A3400	644,70
35,00	4	406	257	1	15A3500	638,37
36,00	4	416	267	1	15A3600	739,42
37,00	4	416	267	1	15A3700	768,27
38,00	4	426	277	1	15A3800	822,81
39,00	4	426	277	1	15A3900	835,62
40,00	4	426	277	1	15A4000	904,02

DIN 1870 N HSS-G SERIE EXTRALARGA
DIN 1870 N HSS-G EXTRALONG SERIE
DIN 1870 N HSS-G SERIE EXTRALONGUE

HSS-G | DIN 1870 N | 118° | 30°

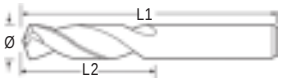
Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
10,00	1	285	185	1	15B1000	188,75
10,50	1	285	185	1	15B1050	214,16
11,00	1	300	195	1	15B1100	208,91
11,50	1	300	195	1	15B1150	220,20
12,00	1	310	205	1	15B1200	233,02
12,50	1	310	205	1	15B1250	241,63
13,00	1	310	205	1	15B1300	241,63
13,50	1	325	220	1	15B1350	258,22
14,00	1	325	220	1	15B1400	269,90
14,50	2	340	220	1	15B1450	291,61
15,00	2	340	220	1	15B1500	301,99
15,50	2	355	230	1	15B1550	399,22
16,00	2	355	230	1	15B1600	394,51
16,50	2	355	230	1	15B1650	314,53
17,00	2	355	230	1	15B1700	354,07
17,50	2	370	245	1	15B1750	383,21
18,00	2	370	245	1	15B1800	400,41
18,50	2	370	245	1	15B1850	379,09
19,00	2	370	245	1	15B1900	395,76
19,50	2	385	260	1	15B1950	420,72
20,00	2	385	260	1	15B2000	476,85

Ø (mm)	Cono Morse Tapper Shank	L1 (mm)	L2 (mm)	Uds. Pcs.	Cod.	€/Unid.
20,50	2	385	260	1	15B2050	522,15
21,00	2	385	260	1	15B2100	506,72
21,50	2	405	270	1	15B2150	554,17
22,00	2	405	270	1	15B2200	546,26
22,50	2	405	270	1	15B2250	622,72
23,00	2	405	270	1	15B2300	629,00
23,50	3	425	270	1	15B2350	684,31
24,00	3	440	290	1	15B2400	755,83
24,50	3	440	290	1	15B2450	895,07
25,00	3	440	290	1	15B2500	714,95
25,50	3	440	290	1	15B2550	1009,86
26,00	3	440	290	1	15B2600	754,24
26,50	3	440	290	1	15B2650	1009,86
27,00	3	460	305	1	15B2700	771,18
27,50	3	460	305	1	15B2750	1067,07
28,00	3	460	305	1	15B2800	803,29
28,50	3	460	305	1	15B2850	1132,91
29,00	3	460	305	1	15B2900	841,69
29,50	3	460	305	1	15B2950	907,86
30,00	3	460	305	1	15B3000	867,32

EXTRACORTA DIN 1897 N HSS-G

STUB SERIES DIN 1897 N HSS-G • EXTRA COURTE DIN 1897 N HSS-G

HSS-G | DIN 1897 N | 135°



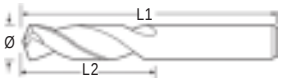
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	46	16	10	104300	1,44
3,25	49	18	10	104325	1,54
3,50	52	20	10	104350	1,54
3,75	52	20	10	104375	1,70
4,00	55	22	10	104400	1,70
4,25	55	22	10	104425	2,03
4,50	58	24	10	104450	2,03
4,75	58	24	10	104475	2,28
5,00	62	26	10	104500	2,28
5,25	62	26	10	104525	2,49
5,50	66	28	10	104550	2,49
5,75	66	28	10	104575	2,85
6,00	66	28	10	104600	2,85
6,25	66	28	10	104625	3,43
6,50	70	31	10	104650	3,43
6,75	74	34	10	104675	3,98
7,00	74	34	10	104700	3,98
7,25	74	34	10	104725	4,48

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
7,50	74	34	10	104750	4,48
7,75	79	37	10	104775	4,93
8,00	79	37	10	104800	4,93
8,25	79	37	10	104825	5,88
8,50	79	37	10	104850	5,88
8,75	84	40	10	104875	6,38
9,00	84	40	10	104900	6,38
9,50	84	40	10	104950	7,16
10,00	89	43	10	104101	8,01
10,50	89	43	5	104105	9,02
11,00	95	47	5	104110	10,16
11,50	95	47	5	104115	11,28
12,00	102	51	5	104120	11,91
12,50	102	51	5	104126	14,52
13,00	102	51	5	104130	14,63
14,00	107	54	1	104140	25,43
15,00	111	56	1	104155	26,75

EXTRACORTA DIN 1897 N HSS-CO

STUB SERIES DIN 1897 N HSS-CO • EXTRA COURTE DIN 1897 N HSS-CO

HSS-CO 5% | DIN 1897 N | 135°



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	46	16	10	14E300	2,86
3,25	49	18	10	14E325	2,92
3,50	52	20	10	14E350	3,08
3,75	52	20	10	14E375	3,63
4,00	55	22	10	14E400	3,43
4,25	55	22	10	14E425	3,76
4,50	58	24	10	14E450	3,92
4,75	58	24	10	14E475	4,19
5,00	62	26	10	14E500	4,44
5,25	62	26	10	14E525	4,68
5,50	66	28	10	14E550	4,68
5,75	66	28	10	14E575	5,62
6,00	66	28	10	14E600	5,33
6,25	66	28	10	14E625	8,12
6,50	70	31	10	14E650	6,34
6,75	74	34	10	14E675	10,18
7,00	74	34	10	14E700	7,32
7,25	74	34	10	14E725	10,79

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
7,50	74	34	10	14E750	9,43
7,75	79	37	10	14E775	10,79
8,00	79	37	10	14E800	9,16
8,25	79	37	10	14E825	11,97
8,50	79	37	10	14E850	10,86
8,75	84	40	10	14E875	14,94
9,00	84	40	10	14E900	11,88
9,25	84	40	10	14E925	16,81
9,50	84	40	10	14E950	13,34
9,75	89	43	10	14E975	18,70
10,00	89	43	10	14E100	14,87
10,50	89	43	5	14E105	19,36
11,00	95	47	5	14E110	18,55
11,50	95	47	5	14E115	20,58
12,00	102	51	5	14E120	24,64
12,50	102	51	5	14E125	25,83
13,00	102	51	5	14E130	33,81

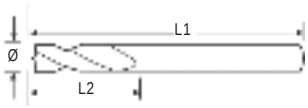
EXTRACORTA DOBLE PUNTA DIN 1897 N HSS-G
STUB SERIES DOUBLE POINT DIN 1897 N HSS-G
EXTRA COURTE DOUBLE POINT DIN 1897 N HSS-G

HSS-G | DIN 1897 N | 135°

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
2,00	38	10	10	104D200	3,20
2,25	40	10	10	104D225	3,67
2,50	43	10	10	104D250	3,19
2,75	46	10	10	104D275	3,81
3,00	49	10	10	104D300	2,80
3,20	49	10	10	104D320	2,80
3,25	49	10	10	104D325	2,80
3,50	52	13	10	104D350	3,11
3,75	55	13	10	104D375	3,43
4,00	55	13	10	104D400	3,19
4,25	55	13	10	104D425	3,43
4,50	58	13	10	104D450	3,55

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
4,75	62	13	10	104D475	5,74
5,00	62	13	10	104D500	4,06
5,25	62	13	10	104D525	5,74
5,50	66	16	10	104D550	4,91
5,75	66	16	10	104D575	6,76
6,00	66	16	10	104D600	5,49
6,50	70	19	10	104D650	6,07
7,00	74	19	10	104D700	7,22
7,50	74	19	10	104D750	7,39
8,00	79	19	10	104D800	8,84
9,00	84	20	10	104D900	11,81
10,00	89	22	10	104D100	12,75

BROCA CILÍNDRICA PARA PUNTO DE SOLDADURA
STRAIGHT SHANK WELD POINT DRILL BITS
FORETS DEPOINTEUR QUEUE CYLINDRIQUE

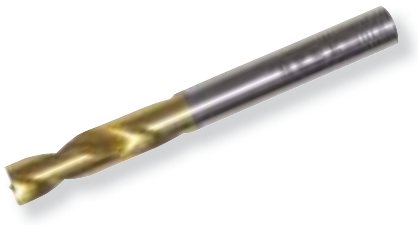


HSS-CO 5% | DIN 1897

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,00	66,00	28,00	1,00	TS0600	15,90
7,00	74,00	28,00	1,00	TS0700	20,51
8,00	79,00	37,00	1,00	TS0800	16,91
10,00	89,00	43,00	1,00	TS1000	23,83

HSS-CO 5% | TIN | DIN 1897

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,00	66,00	28,00	1,00	TT0600	28,93
7,00	74,00	28,00	1,00	TT0700	31,84
8,00	79,00	37,00	1,00	TT0800	33,06

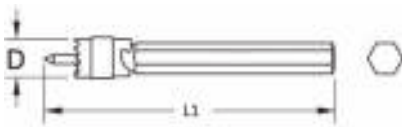


HSS-CO 5% | TIALN | DIN 1897

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,00	66,00	28,00	1,00	TF0600	35,10
7,00	74,00	28,00	1,00	TF0700	44,92
8,00	79,00	37,00	1,00	TF0800	40,41
10,00	89,00	43,00	1,00	TF1000	49,71

Recomendado para uso en aceros al Boro / Recomended for Boron steel / Recommendé pour aciers au Bore

BROCA PARA PUNTO DE SOLDADURA NEW
WELD POINT DRILL BITS
FORETS DEPOINTEUR

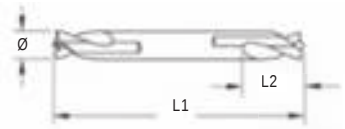


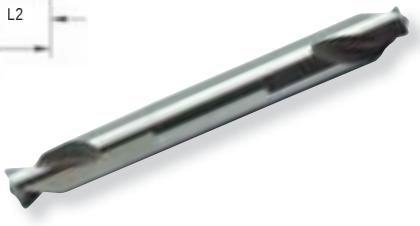
HSS-G

Ø (mm)	L1 (mm)	Mango / Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
10,00	72,00	7,00	1,00	TFR1000	30,93

Aplicaciónes: Para eliminar puntos de soldadura en paneles de carrocería de vehículos y todo tipo de chapas
Applications: To eliminate welding points in vehicle body panels and all types of sheet metal
Applications: Pour éliminer les points de soudure sur les panneaux de carrosserie et tous les types de tôles

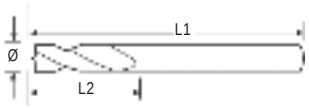
BROCA PARA PUNTO DE SOLDADURA - DOBLE PUNTA
WELD POINT DRILL BITS - DOUBLE POINT
FORETS DEPOINTEUR - DOUBLE POINT

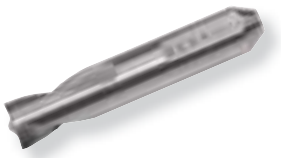




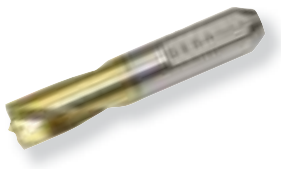
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8,00	70,00	16,30	1,00	TSD0800	43,24

BROCA CON CHAVETERO PARA MÁQUINA NEUMÁTICA
WELD POINT DRILL BITS PNEUMATIC TOOLS
FORETS DEPOINTEUR QUEUE CYLINDRIQUE MACHINES NEUMATIQUES





Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,00	45,00	16,00	1,00	TSN600	20,08
8,00	45,00	18,00	1,00	TSN800	25,23



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,00	45,00	16,00	1,00	TTN600	26,97
8,00	45,00	18,00	1,00	TTN800	32,24

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8,00	45,00	18,00	1,00	TFN800	52,79

Recomendado para uso en aceros al Boro / Recomended for Boron steel / Recommendé pour aciers au Bore

SESA BOX

	COLGADOR	HANGER	CINTRE
	Herramienta siempre ordenada	Tools always organized	Outils toujours bien organisés
	CALIDAD HERRAMIENTA	TOOL QUALITY	QUALITÉ DES OUTILS
	Herramienta SESATOOLS, máximo rendimiento	SESATOOLS drill bits, maximum performance	Outils SESA TOOLS, maximum rendement
	APERTURA	OPENING	OUVERTURE
	Sistema de cierra, herramienta siempre bien guardada	Closing system, well kept tools	Système de fermeture, outils toujours bien gardés
	ACCESO A LA HERRAMIENTA	ACCES TO THE TOOLS	ACCÉS AUX OUTILS
	Bastidor móvil, acceso fácil y rápido a la herramienta	Moving frame, fast and easy tool *fitting*	Chassis mobile, accès facile et rapide
	RESISTENCIA CAÍDAS	RESISTENCE TO THE FALLS	RÉSISTENCE AUX CHUTE
	Plástico flexible y ultraresistente	Ultra resistant *and flexible* plastic	*Plastique flexible* et ultrarésistant

ESTUCHE COMBINADO METAL-CONSTRUCCIÓN-MADERA
COMBINED SET METAL-CONSTRUCTION-WOOD
COFFRET COMBINÉ MÉTAL-CONSTRUCTION-BOIS

BASIC BOX (9 UDS. / PCS.)

Composición / Contains / Composition	Medidas / Sizes	Cod.	€/Unid.
HSS WHITE HSS + BASIC + MADERA	5 - 6 - 8 mm	19CB339	23,30

19CB339

STANDARD BOX (9 UDS. / PCS.)

Composición / Contains / Composition	Medidas / Sizes	Cod.	€/Unid.
HSS G HSS-G + GRANITO + MADERA	5 - 6 - 8 mm	19CM339	31,21

19CM339

ADVANCE BOX (9 UDS. / PCS.)

Composición / Contains / Composition	Medidas / Sizes	Cod.	€/Unid.
HSS CO HSS-CO 5% + TORNADO + MADERA	5 - 6 - 8 mm	19CA339	40,71

19CA339

ESTUCHE MODELO 314 - COMPOSICIÓN: 3-4-5-6-8 mm

SET MOD.: 314 - CONTAINS: 3-4-5-6-8 mm
COFFRET MOD.: 314 - COMPOSITION: 3-4-5-6-8 mm

DIN 338

NEW

1915314 155P314 194314 194P314 195P314 192314 19SD314

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915314	20,26
HSS	WHITE WHITE	1	155P314	15,94
HSS-CO 5%		1	194314	24,41

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
INOX HSS-G	INOX PROGRESIVA PROGRESSIVE INOX	1	194P314	27,85
INOX HSS-CO 5%		1	195P314	39,66
TIN		1	192314	24,91
HSS-G	ST STEP	1	19SD314	33,33

ESTUCHE MODELO 333 - COMPOSICIÓN: 3-4-5-6-7-8-9-10 mm

SET MOD.: 333- CONTAINS: 3-4-5-6-7-8-9-10 mm
COFFRET MOD.: 333 - COMPOSITION: 3-4-5-6-7-8-9-10 mm

DIN 338

NEW

1915333 155P333 194333 194P333 195P333 192333 19SD333

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915333	37,25
HSS	WHITE WHITE	1	155P333	27,42
HSS-CO 5%		1	194333	53,22

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
INOX HSS-G	INOX PROGRESIVA PROGRESSIVE INOX	1	194P333	58,26
INOX HSS-CO 5%		1	195P333	87,73
TIN		1	192333	53,87
HSS-G	ST STEP	1	19SD333	78,11

ESTUCHE CRT19 PLÁSTICO - COMPOSICIÓN: 19 PIEZAS, 1-10 x 0,5 mm
SET MOD.: CRT19 PLASTIC - 19 PIECES, 1-10 x 0,5 mm
COFFRET MOD.: CRT19 PLASTIQUE - 19 PIÈCES, 1-10 x 0,5 mm

DIN 338

1915019T

194019T

194P019T

1935019T

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915019T	64,09
HSS-CO 5%		1	194019T	97,62
INOX HSS-G	INOX PROGRESIVA PROGRESSIVE INOX	1	194P019T	117,52

Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
INOX HSS-CO 5%	1	1935019T	176,01
ESTUCHE VACÍO / EMPTY SET	1	19R2008	25,24

ESTUCHE DRT25 PLÁSTICO - COMPOSICIÓN: 25 PIEZAS, 1-13 x 0,5 mm
SET MOD.: DRT25 PLASTIC - 25 PIECES, 1-13 x 0,5 mm
COFFRET MOD.: DRT25 PLASTIQUE - 25 PIÈCES, 1-13 x 0,5 mm

DIN 338

1915025T

194025T

194P025T

1935025T

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915025T	127,46
HSS-CO 5%		1	194025T	224,81
INOX HSS-G	INOX PROGRESIVA PROGRESSIVE INOX	1	194P025T	259,50

Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
INOX HSS-CO 5%	1	1935025T	321,47
ESTUCHE VACÍO / EMPTY SET	1	19R2007	29,64

ESTUCHE CR19 METAL - COMPOSICIÓN: 19 PIEZAS, 1-10 x 0,5 mm

SET MOD.: CR19 METAL - 19 PIECES, 1-10 x 0,5 mm
COFFRET MOD.: CR19 MÉTAL - 19 PIÈCES, 1-10 x 0,5 mm

DIN 338

1915119 1935519 194019 192119 1935119 1915019NI 1SD019

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915119	60,70
HSS	WHITE WHITE	1	1935519	48,11
HSS-CO 5%		1	194019	94,83

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
TIN		1	192119	108,94
HSS		1	1935119	48,11
HSS-G	A IZQUIERDAS 1-10 mm LEFT 1-10 mm	1	1915019NI	253,19
HSS-G	ST STEP	1	1SD019	219,45
ESTUCHE VACÍO / EMPTY SET		1	19CR19	21,56

ESTUCHE DR25 METAL - COMPOSICIÓN: 25 PIEZAS, 1-13 x 0,5 mm

SET MOD.: DR25 METAL - 25 PIECES, 1-13 x 0,5 mm
COFFRET MOD.: DR25 MÉTAL - 25 PIÈCES, 1-13 x 0,5 mm

DIN 338

1915025 1935525 194025 192025 1935025 1SD025

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915025	126,23
HSS	WHITE WHITE	1	1935525	98,28
HSS-CO 5%		1	194025	222,83

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
TIN		1	192025	197,43
HSS		1	1935025	98,28
HSS-G	ST STEP	1	1SD025	365,75
ESTUCHE VACÍO / EMPTY SET		1	19DR25	26,86

ESTUCHE FR37 METAL - COMPOSICIÓN: 37 PIEZAS, 1-10 x 0,25 mm

SET MOD.: FR37 METAL - 37 PIECES, 1-10 x 0,25 mm
COFFRET MOD.: FR37 METAL - 37 PIÈCES, 1-10 x 0,25 mm

DIN 338

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915037	158,26
HSS-CO 5%		1	194037	234,99
TIN		1	192037	262,85

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
INOX HSS-G	INOX PROGRESIVA PROGRESSIVE INOX	1	194P037	249,28
ESTUCHE VACÍO / EMPTY SET		1	19R037	57,94

ESTUCHE LR49 METAL - COMPOSICIÓN: 49 PIEZAS 1-13 x 0,25 mm

SET MOD.: LR49 METAL - 49 PIECES 1-13 x 0,25 mm
COFFRET MOD.: LR49 METAL - 49 PIÈCES 1-13 x 0,25 mm

DIN 338

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915049	289,78
HSS-CO 5%		1	194049	529,16
TIN		1	192049	545,84

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
INOX HSS-G	INOX PROGRESIVA PROGRESSIVE INOX	1	194P049	560,85
ESTUCHE VACÍO / EMPTY SET		1	19R049	61,93

ESTUCHE M.014 METAL - COMPOSICIÓN: 51 PIEZAS 1-6,0 x 0,1 mm

SET MOD.: M.014 METAL - 51 PIECES 1-6,0 x 0,1mm
COFFRET MOD.: M.014 METAL - 51 PIÈCES 1-6,0 x 0,1 mm

DIN 338

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915014	120,66
HSS-CO 5%		1	194014	188,00

Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
ESTUCHE VACÍO / EMPTY SET	1	19R0014	61,93

ESTUCHE M.015 METAL - COMPOSICIÓN: 41 PIEZAS 6-10 x 0,1 mm

SET MOD.: M.015 METAL - 41 PIECES 6-10 x 0,1 mm
COFFRET MOD.: M.015 METAL - 41 PIÈCES 6-10 x 0,1mm

DIN 338

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO HIGH PERFORMANCE	1	1915015	304,72
HSS-CO 5%		1	1940015	492,78

Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
ESTUCHE VACÍO / EMPTY SET	1	19R0015	113,18

ESTUCHE M.9965 PLÁSTICO - COMPOSICIÓN: 91 PIEZAS 1-10 x 0,1mm

SET MOD.: M.9965 METAL - 91 PIECES 1-10 x 0,1 mm
COFFRET MOD.: M.9965 METAL - 91 PIÈCES 1-10 x 0,1 mm

DIN 338

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO HIGH PERFORMANCE	1	19159965	345,71
HSS-CO 5%		1	1949965	585,21

Calidad / Quality	Uds. Pcs.	Cod.	€/Unid.
ESTUCHE VACÍO / EMPTY SET	1	19R9965	79,57

ESTUCHE M.880 PLÁSTICO - COMPOSICIÓN: 292 PIEZAS 1-10 x 0.5 mm

SET MOD.: M.880 PLASTIC
292 PIECES 1-10 x 0,5 mm
COFFRET MOD.: M.880 PLASTIQUE
292 PIÈCES 1-10 x 0,5 mm

DIN 338

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO HIGH PERFORMANCE	1	145R880	637,90
HSS	WHITE WHITE	1	155R880	377,32
HSS-CO 5%		1	14R880	1.021,85
INOX HSS-G	INOX PROGRESIVA PROGRESSIVE INOX	1	14PR880	1.073,71

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
INOX HSS-CO 5%		1	193R880	1.994,13
TIN		1	13R880	1.131,49
ESTUCHE VACÍO / EMPTY SET		1	19R880	51,04

Contenido / Contains / Contenu

Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.
1,00	20	3,50	20	6,00	20	8,50	8
1,50	20	4,00	15	6,50	15	9,00	8
2,00	20	4,50	15	7,00	15	9,50	8
2,50	20	5,00	15	7,50	15	10,00	8
3,00	20	5,50	15	8,00	15		

EXPOSITORES SESA KUBO

DISPLAYS SESA KUBO • EXPOSITEURS SESA KUBO

NEW

Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE	€/Unid.
KUBO 03	HSS-G	1915314	3-4-5-6-8 mm	10	202,63
KUBO 03P	HSS	155P314	3-4-5-6-8 mm	10	159,36
KUBO 04	HSS-CO	194314	3-4-5-6-8 mm	10	244,13
KUBO 05	HSS-G INOX	194P314	3-4-5-6-8 mm	10	278,49
KUBO 06	ST STEP	19SD314	3-4-5-6-8 mm	10	333,25
KUBO 07	JR PORCELANATO	010205S1	4-5-6-6-8 mm	5	349,19
	HSS-CO	194314	3-4-5-6-8 mm	5	
KUBO 08	HSS-G	1915314	3-4-5-6-8 mm	5	336,65
	HORMAT	1GR327N	4-5-6-6-8 mm	5	
KUBO 09	HSS-G	1915314	3-4-5-6-8 mm	5	223,38
	HSS-CO	194314	3-4-5-6-8 mm	5	

Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE	€/Unid.
KUBO 12	HSS-G	1915314	3-4-5-6-8 mm	7	507,67
	HSS-CO	194314	3-4-5-6-8 mm	7	
	HSS-G INOX	194P314	3-4-5-6-8 mm	7	

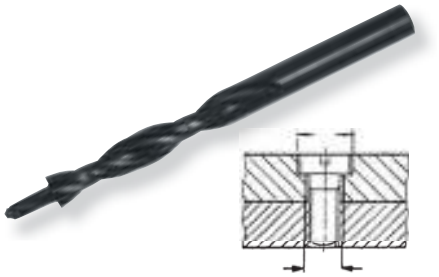
EXPOSITORES SESA KUBO

DISPLAYS SESA KUBO • EXPOSITEURS SESA KUBO

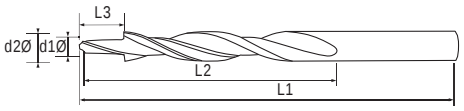
NEW

Cod.	COMPOSICIÓN KUBO		REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE	€/Unid.
KUBO 10	ST STEP	HSS-G	19SD314	3-4-5-6-8 mm	7	780,07
	ST STEP	HSS-G	19SD333	3-4-5-6-7-8-9-10 mm	7	
KUBO 14	HSS-G	HSS-G	1915314	3-4-5-6-8 mm	7	402,62
	HSS-G	HSS-G	1915333	3-4-5-6-7-8-9-10 mm	7	
KUBO 15	HSS-CO	HSS-CO 5%	194314	3-4-5-6-8 mm	7	543,42
	HSS-CO	HSS-CO 5%	194333	3-4-5-6-7-8-9-10 mm	7	

BROCA BIDIAMETRAL PARA ASIENTOS DE TORNILLO 180º
SUBLAND DRILL BITS 180º • FORETS ÉTAGÉS Á VIS 180º

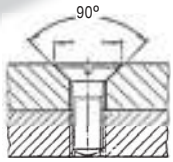


HSS-G | DIN 8376 | 180º

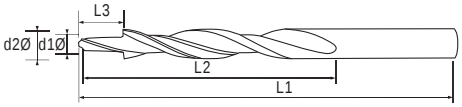


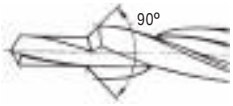
Ø (mm)	L1 (mm)	L2 (mm)	L3 (mm)	d1 (mm)	d2 (mm)	Cod.	€/Unid.
M 3	93	57	9	3,4	6	16B0300	97,79
M 4	117	75	11	4,5	8	16B0400	102,48
M 5	133	87	13	5,5	10	16B0500	123,01
M 6	142	94	15	6,5	11	16B0600	137,64
M 8	169	114	19	9,0	15	16B0800	169,01
M 10	191	130	23	11,0	18	16B1000	336,22

BROCA BIDIAMETRAL PARA ASIENTOS DE TORNILLO 90º
SUBLAND DRILL BITS 90º • FORETS ÉTAGÉS Á VIS 90º



HSS-G | DIN 8374 | 90º

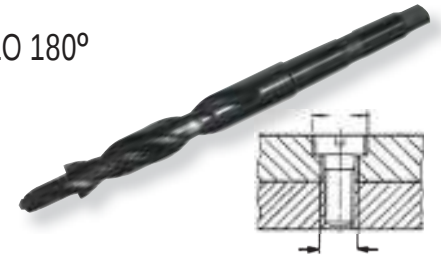




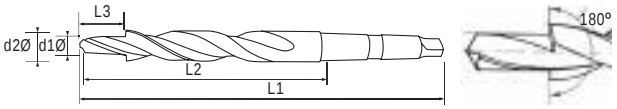
Ø (mm)	L1 (mm)	L2 (mm)	L3 (mm)	d1 (mm)	d2 (mm)	Cod.	€/Unid.
M 3	93	57	9	3,2	6,0	16C0300	114,13
M 4	117	75	11	4,3	8,0	16C0400	119,62
M 5	133	87	13	5,3	10,0	16C0500	142,33
M 6	142	94	15	6,4	11,5	16C0600	162,36
M 8	169	114	19	8,4	15,0	16C0800	222,42
M 10	198	135	23	10,5	19,0	16C1000	342,93

BROCA BIDIAMETRAL MANGO CÓNICO PARA ASIENTOS DE TORNILLO 180º

TAPPER SHANK SUBLAND DRILL BITS 180º
FORETS ÉTAGÉS Á VIS 180º QUEUE CONIQUE



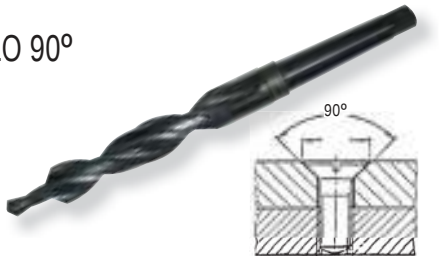
HSS-G | DIN 8377 | 180º



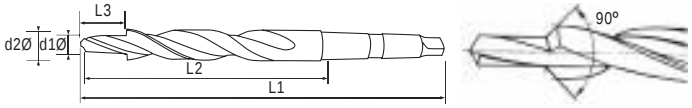
Ø (mm)	L1	L2	L3	d1	d2	Cono Morse / Tapper Shank	Cod.	€/Unid.
M 8	212	114	19	9,0	15	2	16D0800	247,55
M 10	228	130	23	11,0	18	2	16D1000	279,56
M 12	238	140	27	13,5	20	2	16D1200	312,86
M 14	281	160	31	15,5	24	3	16D1400	444,52
M 16	286	165	35	17,5	26	3	16D1600	633,65
M 18	296	175	39	20,0	30	3	16D1800	705,50
M 20	334	185	43	22,0	33	4	16D2000	795,29

BROCA BIDIAMETRAL MANGO CÓNICO PARA ASIENTOS DE TORNILLO 90º

TAPPER SHANK SUBLAND DRILL BITS 90º
FORETS ÉTAGÉS Á VIS 90º QUEUE CONIQUE



HSS-G | DIN 8375 | 90º

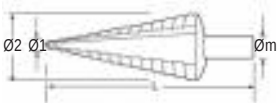


Ø (mm)	L1	L2	L3	d1	d2	Cono Morse / Tapper Shank	Cod.	€/Unid.
M 5	175	94	13	5,5	11,0	1	16E0500	239,23
M 6	182	101	15	6,6	13,0	1	16E0600	244,16
M 8	228	130	19	9,0	17,2	2	16E0800	290,96
M 10	248	150	23	11,0	21,5	2	16E1000	344,71

BROCAS ESCALONADAS Y CÓNICAS
STEP DRILL BITS • FORETS ETAGEÉS

BROCAS ESCALONADAS RECTAS
STEP DRILL-BITS • FRAISES ÉTAGÉES

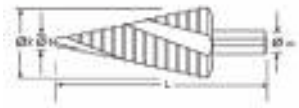
HSS-G | 118°



Ø 1 (mm)	L1 (mm)	Ø Mango / Ø Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
4 a 12 / 1	74	6,5	1	109401	42,46
4 a 20 / 2	68	10	1	109402	65,99
4 a 30 / 2	101	10	1	109403	99,64
6 a 38 / 2	101	10	1	109632	204,58

BROCAS ESCALONADAS CANAL HELICOIDAL
SPIRAL STEP DRILL-BITS • FRAISES ÉTAGÉES SPIRAL

HSS-G | 118° | 35°



Ø 1 a Ø 2 (mm)	L1 (mm)	Ø Mango / Ø Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
4-12	65	6	1	110401	60,84
4-20	75	8	1	110402	99,93
4-30	100	10	1	110403	145,27
6-38	100	10	1	110632	220,08

ESTUCHE DE BROCAS ESCALONADAS
STEP DRILL BITS SET
COFFRETS FRAISES ETAGÉES

Medidas / Sizes

4 a 12 / 1 - 4 a 20 / 2 - 4 a 30 / 2 mm

Tipo / Type	Uds. Pcs.	Cod.	€/Unid.
RECTA STRAIGHT	3	109169	232,76

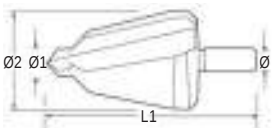
Medidas / Sizes

4 a 12 / 1 - 4 a 20 / 2 - 4 a 30 / 2 mm

Tipo / Type	Uds. Pcs.	Cod.	€/Unid.
HELICOIDAL 35º SPIRAL 35º	3	109170	324,55

BROCAS CÓNICA PARA TUBO Y CHAPA
SHEET METAL DRILL-BITS • FORETS CONIQUES

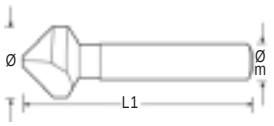
HSS-G



Ø 1 a Ø 2 (mm)	L1 (mm)	Ø Mango / Ø Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
3 a 14	58	6	1	108031	31,30
6 a 20	70	8	1	108062	51,47
16 a 30,5	79	10	1	108163	88,04
26 a 40	86	10	1	108264	183,55

AVELLANADOR HSS-G 90º
90º HSS-G COUNTERSINK CUTTERS • FRAISES CONIQUE 90º HSS-G

HSS-G | DIN 335C | 3Z | 90º

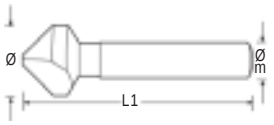


Ø (mm)	L1 (mm)	Mango/Shank Ø (mm)	Para tornillos For screws	Uds. Pcs.	Cod.	€ Unid.
4,30	44	4		1	T04344	17,78
6,30	45	5	M3	1	T06344	15,13
8,30	50	6	M4	1	T08350	18,06
10,40	50	6	M5	1	T10454	20,99
12,40	54	8	M6	1	T12454	23,16

Ø (mm)	L1 (mm)	Mango/Shank Ø (mm)	Para tornillos For screws	Uds. Pcs.	Cod.	€ Unid.
16,50	60	10	M8	1	T16560	31,84
20,50	63	10	M10	1	T20563	46,87
25,00	66	10	M12	1	T25066	59,10
31,00	72	12	M16	1	T31071	94,61

AVELLANADOR HSS-CO 90º
90º HSS-CO COUNTERSINK CUTTERS • FRAISES CONIQUE 90º HSS-CO

HSS-CO 5% | DIN 335C | 3Z | 90º



Ø (mm)	L1 (mm)	Mango/Shank Ø (mm)	Para tornillos For screws	Uds. Pcs.	Cod.	€ Unid.
4,30	40	4		1	3AE0430	28,27
6,30	45	5	M3	1	3AE0630	18,71
8,30	50	6	M4	1	3AE0830	26,50
10,40	50	6	M5	1	3AE1040	30,95
12,40	56	8	M6	1	3AE1250	33,70

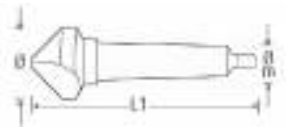
Ø (mm)	L1 (mm)	Mango/Shank Ø (mm)	Para tornillos For screws	Uds. Pcs.	Cod.	€ Unid.
16,50	60	10	M8	1	3AE1650	44,99
20,50	63	10	M10	1	3AE2050	67,48
25,00	67	10	M12	1	3AE2500	87,96
31,00	71	12	M16	1	3AE3100	141,86
40,00	80	15		1	3AE4000	170,40

ESTUCHE AVELLANADORES 90º
90º COUNTERSINKS SETS • COFFRETS FRAISES À CHANFREINER 90º

Medidas / Sizes
6,3 - 8,3 - 10,4 - 12,4 - 16,5 - 20,5 mm

Calidad Quality	Uds. Pcs.	Cod.	€/Unid.
HSS-G	6	T40757	196,64
HSS-CO 5%	6	T40757C	264,24

AVELLANADOR HSS-G 90º MANGO CÓNICO
90º TAPER SHANK HSS-G COUNTERSINK CUTTERS
FRAISE CONIQUE QUEUE CONIQUE 90º HSS-G

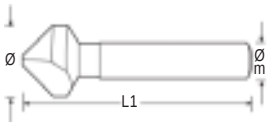


HSS-G | DIN 335D | 3Z | 90º

Ø (mm)	L1 (mm)	Mango/Shank Ø (mm)	Para tornillos For screws	Uds. Pcs.	Cod.	€ Unid.
16,50	85	12.065 (CM 1)	M8	1	3AM1650	122,14
20,50	100	17.780 (CM 2)	M10	1	3AM2050	144,86
25,00	106	17.780 (CM 2)	M12	1	3AM2500	146,21
31,00	112	17.780 (CM 2)	M16	1	3AM3100	162,63

Ø (mm)	L1 (mm)	Mango/Shank Ø (mm)	Para tornillos For screws	Uds. Pcs.	Cod.	€ Unid.
40,00	140	23.825 (CM 3)		1	3AM4000	248,11
50,00	150	23.825 (CM 3)		1	3AM5000	302,54
63,00	180	31.267 (CM 4)		1	3AM6300	451,00
80,00	190	31.267 (CM 4)		1	3AM8000	777,61

AVELLANADOR HSS-G 60º
60º HSS-G COUNTERSINK CUTTERS
FRAISES CONIQUE 60º HSS-G

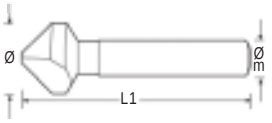


HSS-G | DIN 334C | 3Z | 60°

Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds, Pcs,	Cod,	€/Unid.
6,30	45	5	1	3AS0630	27,18
8,30	50	6	1	3AS0800	29,50
10,00	53	6	1	3AS1000	31,69

Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds, Pcs,	Cod,	€/Unid.
12,50	56	8	1	3AS1250	34,35
16,00	63	10	1	3AS1600	44,80
20,50	67	10	1	3AS2050	56,76

AVELLANADORES HSS-G 90º HEXAGONAL
90º HSS-G HEXAGONAL COUNTERSINK
FRAISE CONIQUE 90º HSS-G HEXAGONALE



HSS-G | 1/4 | 90º

Ø (mm)	L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,30	31	1	3R67306	23,34
8,30	31	1	3R67308	23,34
10,40	34	1	3R67310	25,14
12,40	35	1	3R67312	26,46
16,50	40	1	3R67316	29,69
20,50	41	1	3R67320	35,79

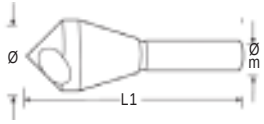
MANGO SILICONA ENTRADA HEXAGONAL
SILICONE HEXAGONAL SHANK HOLDER, INLET 1/4”
MANCHE À SILICONE, ENTRÉE 1/4”

Uds. / Pcs.	Cod.	€/Unid.
1	NZBD14	25,61

CJTO. AVELLANANADORES C/ADAPTADOR Y MANGO
COUNTERSINKS SETS
COFFRET FRAISES À CHANFREINER

Medidas / *Sizes*		
6,3 - 8,3 - 10,4 - 12,4, 16,5 - 20,5 mm		
Uds. / *Pcs.*	**Cod.**	€/Unid.
8	3R67423	111,14

AVELLANADOR 90º HSS-G CON AGUJERO
90º HSS-G COUNTERSINK CUTTERS WITH HOLE
FRAISES À TROU ET À CHANFREINER 90º HSS-G

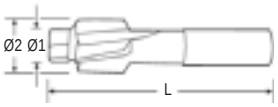


HSS-G | 90º

Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
2-5	45	6	1	T50001	23,75
5-10	48	8	1	T50002	25,96
10-15	65	10	1	T50003	53,12
15-20	85	12	1	T50004	92,18
20-25	100	15	1	T50005	189,34

AVELLANADOR HSS-G PARA ASIENTO DE TORNILLOS “ALLEN”
FLAT COUNTERSINK • FRAISES À LAMER

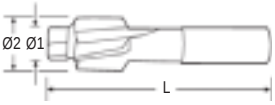
HSS-G | DIN 373



Ø (mm)	Ø 1 (mm)	Ø 2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	3,2	6,0	1	TAAM03	30,50
4,00	4,3	8,0	1	TAAM04	30,50
5,00	5,3	10,0	1	TAAM05	31,82
6,00	6,4	11,0	1	TAAM06	33,50
8,00	8,4	15,0	1	TAAM08	55,38
10,00	10,5	18,0	1	TAAM10	68,36
12,00	13,0	20,0	1	TAAM12	71,30

AVELLANADOR HSS-G PARA ASIENTO DE TORNILLOS “ALLEN”
FLAT COUNTERSINK • FRAISES À LAMER

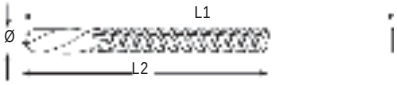
HSS-G | DIN 375



Ø (mm)	Ø 1 (mm)	Ø 2 (mm)	Cono Morse / Tapper Shank	Uds. / Pcs.	Cod.	€/Unid.
8,00	8,4	15,0	2	1	TABM08	112,42
10,00	10,5	18,0	2	1	TABM10	115,68
12,00	13,0	20,0	2	1	TABM12	122,00
14,00	15,0	24,0	2	1	TABM14	142,67
16,00	17,0	26,0	3	1	TABM16	159,82
18,00	19,0	30,0	3	1	TABM18	201,60
20,00	21,0	33,0	3	1	TABM20	222,47

BROCA FRESA CUTTING DRILL BITS • FORETS FRAISEUR

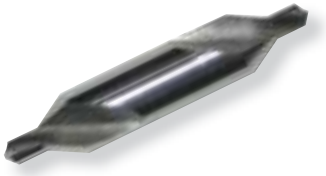
HSS-G | TIN



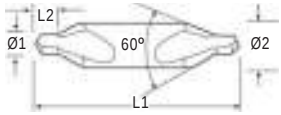
Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,00	90	60	1	1360600	29,05
8,00	90	60	1	1360800	33,78

BROCAS DE CENTRAR
CENTER DRILLS • FORETS À CENTRER

BROCA HSS DE CENTRAR 60º
HSS 60º CENTER DRILLS • FORETS À CENTRER HSS 60º



HSS-G | DIN 333 A

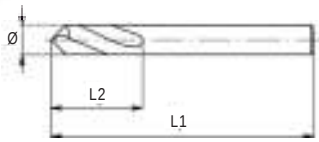


Ø 1 (mm)	Ø 2 (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,00	3,15	31,5	1,6	1	106100	8,44
1,25	3,15	33,5	1,9	1	106125	8,44
1,60	4,00	37,5	2,4	1	106160	8,44
2,00	5,00	42,0	2,9	1	106200	8,99
2,50	6,30	47,0	3,6	1	106250	9,95
3,15	8,00	52,0	4,4	1	106315	10,97
4,00	10,00	59,0	5,6	1	106400	14,32
5,00	12,50	66,0	6,9	1	106500	24,05
6,30	16,00	74,0	8,6	1	106630	38,58
10,00	25,00	100,0	31,5	1	106102	104,57
12,50*	31,50	125,0	33,5	1	1061250	249,58

*Hasta agotar existencias / Until end of stock / Jusqu´à épuisement des stocks

BROCA DE PUNTEAR 90º

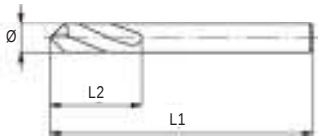
90º NC SPOTTING DRILLS • FORETS À CENTRER 90º



HSS-CO 5%

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	46,00	12,00	1	11590030	15,16
4,00	55,00	12,00	1	11590040	18,07
5,00	62,00	14,00	1	11590050	22,95
6,00	66,00	16,00	1	11590060	21,96
8,00	79,00	21,00	1	11590080	28,95
10,00	89,00	25,00	1	11590100	36,15
12,00	102,00	30,00	1	11590120	48,87
14,00	107,00	34,00	1	11590140	81,30
16,00	115,00	38,00	1	11590160	119,31

BROCA DE PUNTEAR 120º
120º NC SPOTTING DRILLS • FORETS À CENTRER 120º

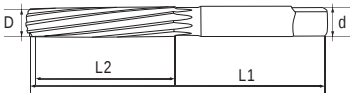


HSS-CO 5%

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3,00	46,00	12,00	1	115128030	14,88
4,00	55,00	12,00	1	115128040	18,07
5,00	62,00	14,00	1	115128050	22,47
6,00	66,00	16,00	1	115128060	24,19
8,00	79,00	21,00	1	115128080	28,95
10,00	89,00	25,00	1	115128100	36,15
12,00	102,00	30,00	1	115128120	48,87
14,00	107,00	34,00	1	115128140	81,30
16,00	115,00	38,00	1	115128160	126,55

ESCARIADOR HELICOIDAL DE MANO
HAND REAMER • ALÉSOIR À MAIN

HSS-G | DIN 206 B | TOL 7H | 8°



D Ø (mm)	d Ø (mm)	L1 (mm)	L2 (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
3,00	3,00	62	31	4	1	N10300	34,09
3,50	3,50	71	35	4	1	N10350	34,09
4,00	4,00	76	38	6	1	N10400	34,09
4,50	4,50	81	41	6	1	N10450	37,73
5,00	5,00	87	44	6	1	N10500	38,84
5,50	5,50	93	47	6	1	N10550	39,06
6,00	6,00	93	47	6	1	N10600	39,06
6,50	6,50	107	54	6	1	N10650	39,06
7,00	7,00	107	54	6	1	N10700	39,06
7,50	7,50	115	58	6	1	N10750	41,22
8,00	8,00	115	58	6	1	N10800	41,22
8,50	8,50	124	62	6	1	N10850	41,22
9,00	9,00	124	62	6	1	N10900	41,22
9,50	9,50	133	66	6	1	N10950	45,08
10,00	10,00	133	66	6	1	N11000	45,08
10,50	10,50	142	71	6	1	N11050	51,65
11,00	11,00	142	71	6	1	N11100	51,65
11,50	11,50	152	76	6	1	N11150	53,49
12,00	12,00	152	76	6	1	N11200	53,49
12,50	12,50	152	76	6	1	N11250	70,92
13,00	13,00	152	76	6	1	N11300	70,92
13,50	13,50	163	81	8	1	N11350	75,74
14,00	14,00	163	81	8	1	N11400	75,74
14,50	14,50	163	81	8	1	N11450	77,56
15,00	15,00	163	81	8	1	N11500	82,75
15,50	15,50	175	87	8	1	N11550	90,91
16,00	16,00	175	87	8	1	N11600	90,91
16,50	16,50	175	87	8	1	N11650	94,74
17,00	17,00	175	87	8	1	N11700	94,74
17,50	17,50	188	93	8	1	N11750	102,43
18,00	18,00	188	93	8	1	N11800	102,43
18,50	18,50	188	93	8	1	N11850	128,80
19,00	19,00	188	93	8	1	N11900	128,80
20,00	20,00	201	100	8	1	N12000	131,89
21,00	21,00	215	107	8	1	N12100	148,02
22,00	22,00	215	107	8	1	N12200	155,27
23,00	23,00	231	115	8	1	N12300	162,42
24,00	24,00	231	115	8	1	N12400	199,08
25,00	25,00	231	115	10	1	N12500	214,76
26,00	26,00	231	115	10	1	N12600	222,01
27,00	27,00	247	124	10	1	N12700	231,64
28,00	28,00	247	124	10	1	N12800	245,75
29,00	29,00	247	124	10	1	N12900	252,77
30,00	30,00	265	133	10	1	N13000	253,68
32,00	32,00	265	133	10	1	N13200	318,69

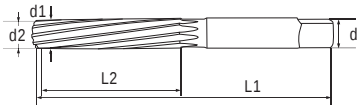
Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

ESCARIADOR CÓNICO DE MANO - CONICIDAD 2:100

TAPERED REAMER - 2 IN 100 TAPPER

ALÉSOIR CONIQUE À MAIN - CONICITÉ 2:100

HSS-G | DIN 9 A

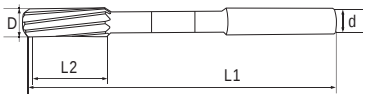


D Ø NOMINAL (mm)	d1 Ø (mm)	d2 Ø (mm)	L1 (mm)	L2 (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	1,90	2,86	68	48	4	1	N20200	69,58
2,50	2,40	3,36	68	48	4	1	N20250	70,82
3,00	2,90	4,06	80	58	4	1	N20300	72,27
4,00	3,90	5,26	93	68	4	1	N20400	60,74
5,00	4,90	6,36	100	73	4	1	N20500	61,72
6,00	5,90	8,00	135	105	6	1	N20600	75,24
8,00	7,90	10,80	180	145	6	1	N20800	115,71
10,00	9,90	13,40	215	175	6	1	N21000	142,74
12,00	11,80	16,00	255	210	8	1	N21200	194,82
13,00	12,80	17,00	255	210	8	1	N21300	220,69
14,00	13,80	18,00	255	210	8	1	N21400	302,43
16,00	15,80	20,40	280	230	8	1	N21600	298,06
20,00	19,80	24,80	310	250	8	1	N22000	414,81

Consultar medidas no tarifadas y disponibilidad de medidas en tipo B
Request measuraments not listed and availability in type B
Consulter les mesures non tarifaires et la disponibilité dans le type B

ESCARIADOR HELICOIDAL DE MÁQUINA
MACHINE REAMER • ALÉSOIR MACHINE

HSS-CO 5% | DIN 212 D | TOL 7H | 8°



D Ø (mm)	d Ø (mm)	L1 (mm)	L2 (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
3,00	3,00	61	15	6	1	N70300	42,95
3,50	3,50	70	18	6	1	N70350	42,95
4,00	4,00	75	19	6	1	N70400	42,13
4,50	4,50	80	21	6	1	N70450	47,63
5,00	5,00	86	23	6	1	N70500	46,71
5,50	5,60	93	26	6	1	N70550	48,91
6,00	5,60	93	26	6	1	N70600	47,97
7,00	7,10	109	31	6	1	N70700	50,00
8,00	8,00	117	33	6	1	N70800	54,34
9,00	9,00	125	36	6	1	N70900	61,47
10,00	10,00	133	38	6	1	N71000	66,18
11,00	10,00	142	41	6	1	N71100	74,98
12,00	10,00	151	44	6	1	N71200	79,94
13,00	10,00	151	44	6	1	N71300	95,97
14,00	12,50	160	47	8	1	N71400	98,64
15,00	12,50	162	50	8	1	N71500	103,87
16,00	12,50	170	52	8	1	N71600	104,72

Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

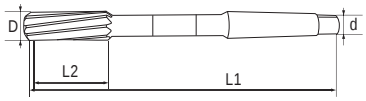
MATERIAL / MATERIAL / MATIERE		Resistencia Resistance N/mm	Vc (m/min.)	4 mm. Avance	4 mm. Ø Previo
ACEROS STEELS • ACIERS	Decoletaje Machining • Décolletage	<500	8-12	0,080	0,2 mm
	Carbono <0,4% <0,4% Carbon • Carbon <0,4%	<850			
	Acero para herramientas Steel for tools • Acier pour outils	<1200	6-8		
	Templado - Revenido Tempered - Quenched • Trempé - Revenu	<1400	4-6		
ACEROS INOXIDABLES STAINLESS STEEL ACIER INOXYDABLE	Austeníticos Cr-Ni Cr-Ni Austenitics • Cr-Ni austenitique	<850			
	Martensíticos Cr-Mo Cr-Mo Martensitics • Cr-Mo martensitique	<1200	4-6	0,080	0,2 mm
FUNDICIÓN CAST IRON • FONTE	Fundición gris Grey cast iron • Fonte grise	<700			
	Fundición dura Hard cast iron • Fonte dur	<1000			
ALUMINIO ALUMINIUM • ALUMINIUM	Puro Pure • Pure	<350	15-30	0,120	0,2 mm
	Si < 10%	<600	15-30		
	Si > 10%	<600	8-10		
	Zamak Zamak • Zamak	<600			
COBRE COPPER • CUIVRE	Bronce Bronze • Bronze	<350			
	Cobre viruta larga Long chip copper • Cuivre coupage long	<700			
	Cobre viruta corta Short chip coppe • Cuivre coupage court	<700			
	Latón duro Hard Brass • Laiton dur	<700			
	Latón tenaz Tough Brass • Laiton tenace	<700			
TITANIO TITANIUM • TITANE	Puro Pure • Pure	<700			
	Aleaciones de Titanio Titanium alloys • Alliages de titane	<1200			
SINTÉTICOS PLASTICS • PLASTIQUES	Termoplásticos Thermoplastics • Thermoplastique	-			
	Duroplásticos Hard-plastics • Duroplastique	-			

20 - 25 Broca recomendada por SESATOOLS y velocidad de corte (M/Min)
SESA TOOLS recomendation and cutting speed
Foret récommendé par SESA TOOLS et vitesse de coupe

20 - 25 Buen rendimiento y velocidad de corte (M/Min)
Good performance and cutting speed (M/Min)
Bon rendement et vitesse de coup recommendée (M/Min)

ESCARIADOR HELICOIDAL DE MÁQUINA ANCLAJE CÓNICO
TAPPER SHANK MACHINE REAMER
ALÉSOIR MACHINE QUEUE CONIQUE

HSS-CO 5% | DIN 208 B | TOL 7H | 8°



D Ø (mm)	Cono Morse / Tapper Shank	L1 (mm)	L2 (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
5,00	1	133	23	4	1	N30500	68,69
6,00	1	138	26	4	1	N30600	57,92
7,00	1	150	31	4	1	N30700	62,01
8,00	1	156	33	4	1	N30800	60,64
9,00	1	162	36	4	1	N30900	67,71
10,00	1	168	38	4	1	N31000	63,53
11,00	1	175	41	4	1	N31100	68,34
12,00	1	182	44	4	1	N31200	65,23
13,00	1	182	44	4	1	N31300	75,72
14,00	1	189	47	4	1	N31400	83,91
15,00	2	204	50	4	1	N31500	90,75
16,00	2	210	52	6	1	N31600	94,27
17,00	2	214	54	6	1	N31700	110,32
18,00	2	219	56	6	1	N31800	117,44
19,00	2	223	58	6	1	N31900	122,61
20,00	2	228	60	6	1	N32000	120,83
21,00	2	232	62	6	1	N32100	139,86
22,00	2	237	64	6	1	N32200	135,96
23,00	2	241	66	6	1	N32300	168,16
24,00	3	268	68	6	1	N32400	159,26
25,00	3	268	68	6	1	N32500	183,20
26,00	3	273	70	6	1	N32600	227,43
27,00	3	277	71	6	1	N32700	261,76
28,00	3	277	71	6	1	N32800	227,60
29,00	3	281	73	6	1	N32900	250,20
30,00	3	281	73	6	1	N33000	237,02

Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

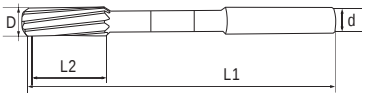
6 mm.		10 mm.		16 mm.		20 mm.		25 mm.		30 mm.	
Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo
0,120	0,2 mm	0,180	0,2 mm	0,250	0,2-0,3 mm	0,300	0,3 mm.	0,350	0,3 mm.	0,400	0,3 mm.
0,100		0,120		0,200	0,2 mm	0,220		0,250		0,350	
0,100		0,120		0,160		0,200		0,240		0,300	
0,100	0,2 mm	0,120	0,2 mm	0,160	0,2 mm	0,200	0,3 mm.	0,240	0,3 mm.	0,300	0,3 mm.
0,160	0,3 mm	0,200	0,3 mm	0,200	0,3-0,4 mm	0,300	0,3-0,5 mm	0,400	0,3-0,5 mm	0,500	0,3-0,5 mm

ESCARIADOR HELICOIDAL DE MÁQUINA TIPO "GAMMON"

"GAMMON TYPE" MACHINE REAMER

ALÉSOIR MACHINE TIPE "GAMMON"

HSS-CO 5% | DIN 212 E | TOL 7H | 45°



D Ø (mm)	d Ø (mm)	L1 (mm)	L2 (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
3,00	3,00	61	15	4	1	N80300	49,34
3,50	3,50	70	18	4	1	N80350	53,30
4,00	4,00	75	19	4	1	N80400	46,91
4,50	4,50	80	21	4	1	N80450	54,19
5,00	5,00	86	23	4	1	N80500	52,58
5,50	5,60	93	26	4	1	N80550	54,12
6,00	5,60	93	26	4	1	N80600	52,90
7,00	7,10	109	31	4	1	N80700	55,09
8,00	8,00	117	33	4	1	N80800	55,65
9,00	9,00	125	36	4	1	N80900	62,69
10,00	10,00	133	38	4	1	N81000	65,31
11,00	10,00	142	41	4	1	N81100	82,50
12,00	10,00	151	44	4	1	N81200	83,44
13,00	10,00	151	44	4	1	N81300	108,52
14,00	12,50	160	47	4	1	N81400	111,79
15,00	12,50	162	50	4	1	N81500	120,52
16,00	12,50	170	52	6	1	N81600	131,03
17,00	14,00	175	54	6	1	N81700	184,42
18,00	14,00	182	56	6	1	N81800	207,07
19,00	16,00	189	58	6	1	N81900	208,95
20,00	16,00	195	60	6	1	N82000	209,16

Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

MATERIAL / MATERIAL / MATIERE		Resistencia Resistance N/mm	Vc (m/min.)	4 mm. Avance	4 mm. Ø Previo
ACEROS STEELS • ACIERS	Decoletaje Machining • Décolletage	<500	8-12	0,080	0,2 mm
	Carbono <0,4% <0,4% Carbon • Carbon <0,4%	<850			
	Acero para herramientas Steel for tools • Acier pour outils	<1200	6-8		
	Templado - Revenido Tempered - Quenched • Trempé - Revenu	<1400	4-6		
ACEROS INOXIDABLES STAINLESS STEEL ACIER INOXYDABLE	Austeníticos Cr-Ni Cr-Ni Austenitics • Cr-Ni austenitique	<850	4-6	0,080	0,2 mm
	Martensíticos Cr-Mo Cr-Mo Martensitics • Cr-Mo martensitique	<1200			
FUNDICIÓN CAST IRON • FONTE	Fundición gris Grey cast iron • Fonte grise	<700	8-12	0,080	0,2 mm
	Fundición dura Hard cast iron • Fonte dur	<1000	4-8	0,120	
ALUMINIO ALUMINIUM • ALUMINIUM	Puro Pure • Pure	<350			
	Si < 10%	<600			
	Si > 10%	<600			
	Zamak Zamak • Zamak	<600			
COBRE COPPER • CUIVRE	Bronce Bronze • Bronze	<350	8-15	0,080	0,2 mm
	Cobre viruta larga Long chip copper • Cuivre coupage long	<700	15-20	0,120	
	Cobre viruta corta Short chip coppe • Cuivre coupage court	<700	8-15	0,080	
	Latón duro Hard Brass • Laiton dur	<700	8-15	0,080	
	Latón tenaz Tough Brass • Laiton tenace	<700	8-15	0,080	
TITANIO TITANIUM • TITANE	Puro Pure • Pure	<700	3-5	0,060	0,2 mm
	Aleaciones de Titanio Titanium alloys • Alliages de titane	<1200			
SINTÉTICOS PLASTICS • PLASTIQUES	Termoplásticos Thermoplastics • Thermoplastique	-			
	Duroplásticos Hard-plastics • Duroplastique	-			

20 - 25 Broca recomendada por SESATOOLS y velocidad de corte (M/Min)
SESA TOOLS recomendation and cutting speed
Foret récommendé par SESA TOOLS et vitesse de coupe

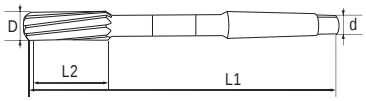
20 - 25 Buen rendimiento y velocidad de corte (M/Min)
Good performance and cutting speed (M/Min)
Bon rendement et vitesse de coup recommendée (M/Min)

ESCARIADOR HELICOIDAL DE MÁQUINA “GAMMON” ANCLAJE CÓNICO

TAPPER SHANK “GAMMON TYPE” MACHINE REAMER

ALÉSOIR MACHINE TIPE “GAMMON” QUEUE CONIQUE

HSS-CO 5% | DIN 208 C | TOL 7H | 45°



D Ø (mm)	Cono Morse / Tapper Shank	L1 (mm)	L2 (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
5,00	1	133	23	4	1	N40500	114,48
6,00	1	138	26	4	1	N40600	124,45
7,00	1	150	31	4	1	N40700	134,95
8,00	1	156	33	4	1	N40800	134,95
9,00	1	162	36	4	1	N40900	134,95
10,00	1	168	38	4	1	N41000	111,86
11,00	1	175	41	4	1	N41100	126,34
12,00	1	182	44	4	1	N41200	120,49
13,00	1	182	44	4	1	N41300	158,38
14,00	1	189	47	4	1	N41400	153,98
15,00	2	204	50	4	1	N41500	167,94
16,00	2	210	52	6	1	N41600	167,94
17,00	2	214	54	6	1	N41700	180,48
18,00	2	219	56	6	1	N41800	182,70
19,00	2	223	58	6	1	N41900	202,82
20,00	2	228	60	6	1	N42000	188,26
21,00	2	232	62	6	1	N42100	237,53
22,00	2	237	64	6	1	N42200	233,35
23,00	2	241	66	6	1	N42300	274,56
24,00	3	268	68	6	1	N42400	278,81
25,00	3	268	68	6	1	N42500	277,23
26,00	3	273	70	6	1	N42600	293,27
27,00	3	277	71	6	1	N42700	334,07
28,00	3	277	71	6	1	N42800	329,71
29,00	3	281	73	6	1	N42900	371,06
30,00	3	281	73	6	1	N43000	357,93
32,00	4	317	77	8	1	N43200	479,26

Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

6 mm.		10 mm.		16 mm.		20 mm.		25 mm.		30 mm.	
Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo	Avance	Ø Previo
0,120	0,2 mm	0,180	0,2 mm	0,250	0,2-0,3 mm	0,300	0,3 mm	0,350	0,3 mm	0,400	0,3 mm.
0,100		0,120		0,200	0,2 mm	0,220	0,3 mm	0,250	0,3 mm	0,350	0,3 mm.
0,100		0,120		0,160							
0,100	0,2 mm	0,120	0,2 mm	0,160	0,2 mm	0,200	0,3 mm	0,240	0,3 mm	0,300	0,3 mm.
0,100	0,2 mm	0,120	0,2-0,3 mm	0,160	0,2-0,3 mm	0,200	0,3-0,4 mm	0,240	0,3-0,4 mm	0,300	0,3-0,4 mm.
0,160		0,200		0,250		0,300		0,400		0,500	
0,100	0,2 mm	0,120	0,2-0,3 mm	0,160	0,2-0,3 mm	0,200	0,3 mm	0,240	0,3 mm	0,300	0,3 mm.
0,100		0,120		0,160		0,200		0,240		0,300	
0,100		0,120		0,160		0,200		0,240		0,300	
0,160		0,200		0,250		0,300		0,400		0,500	
0,100	0, 2mm	0,140	0,3 mm	0,180	0,3 mm	0,220	0,3-0,4 mm	0,300	0,3-0,4 mm.	0,350	0,3-0,4 mm.

ESCARIADOR EXTENSIBLE CON GUÍA DE AJUSTE RÁPIDO
EXTENDABLE REAMERS • ALÉSOIR EXTENSIBLE

HSS-G | S./859

Ø MIN. (mm)	Ø MAX. (mm)	L1 (mm)	L2 (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
8,00	9,00	175	36	5	1	N508009	177,44
9,00	10,00	185	36	5	1	N509010	177,44
10,00	11,00	200	40	5	1	N510011	177,44
11,00	12,00	210	42	5	1	N511012	177,44
12,00	13,50	220	43	5	1	N5121350	180,98
13,50	15,50	245	52	5	1	N513515	188,17
15,50	18,00	275	61	5	1	N515518	195,19
18,00	21,00	300	66	5	1	N518021	209,57
21,00	24,00	320	70	5	1	N521024	227,22
24,00	27,50	350	78	5	1	N524275	255,00
27,50	31,50	380	83	6	1	N527531	296,66
31,50	37,00	430	97	6	1	N531537	399,31
37,00	45,00	500	108	6	1	N537045	555,95
45,00	55,00	600	126	6	1	N545055	800,37
55,00	67,00	750	151	6	1	N555067	1.294,11
67,00	80,00	830	167	10	1	N567080	1.848,81

Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

SET ESCARIADORES EXTENSIBLES
EXTENDABLE REAMERS SET • COFFRET ALÉSOIR EXTENSIBLE

Ref.	Medidas / Sizes	Uds. / Pcs.	Cod.	€/Unid.
184	De 8 a 31,5 mm	11	N500184	2.449,67

Hasta fin de existencias / Until end of stock /Jusqu´à épuisement des stocks

ESCARIADOR EXTENSIBLE REFORZADO DE AJUSTE RÁPIDO
REINFORCED EXTENDABLE REAMERS
ALÉSOIR EXTENSIBLE RENFORCÉ

HSS-G | S./859

Ø MIN. (mm)	Ø MAX. (mm)	L1 (mm)	L2 (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
8,00	9,00	115	36	5	1	N608009	132,95
9,00	10,00	115	36	5	1	N609010	132,95
10,00	11,00	115	42	5	1	N610011	132,95
11,00	12,00	135	44	5	1	N611012	132,95
12,00	13,50	135	45	5	1	N612135	134,18
13,50	15,50	145	48	5	1	N613515	134,18
15,50	18,00	170	61	5	1	N615518	150,60
18,00	21,00	180	66	5	1	N618021	155,67
21,00	24,00	195	70	5	1	N621024	180,48
24,00	27,50	218	78	5	1	N624275	200,22
27,50	31,50	245	83	6	1	N627531	214,81
31,50	37,00	280	97	6	1	N631537	279,20
37,00	45,00	325	108	6	1	N637045	418,00
45,00	55,00	385	126	6	1	N645055	613,60
55,00	67,00	450	151	8	1	N655067	1.116,25
67,00	80,00	545	182	10	1	N667080	1.713,77

Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

RECOMENDACIONES TÉCNICAS
TECHNICAL RECOMMENDATIONS • RECOMMANDATIONS TECHNIQUES

INOX · ACERO 400-500 · ACERO 800-1100 · F · LT · AL · PL · HSS-CO 8% · 4-6 TPI

TABLA DE VELOCIDADES RECOMENDADAS / RECOMENDED SPEED / VITESSES RECOMMANDÉES

	ACERO 400-500	ACERO 800-1100	INOX	F	LT	AL	PL	
VC=m/min	25-30	13-17	12-15	10-15	30-35	30-40	15-20	35-45
Refrigeración	Emulsión Aceite de corte	Emulsión Aceite de corte	Emulsión Aceite de corte	Aire a presión	Aire a presión	Aceite de corte Spray	Aire	Aire a presión
Ø (mm)	RPM	RPM	RPM	RPM	RPM	RPM	RPM	RPM
14	580	300	270	400	790	900	385	910
16	550	275	240	365	730	825	340	795
17	500	250	225	330	665	750	320	750
19	460	230	200	300	600	690	285	670
20	435	240	190	290	570	630	270	635
21	425	210	180	280	560	630	260	605
22	390	195	175	260	520	575	245	580
24	370	185	160	245	495	525	225	530
25	350	175	155	235	470	525	215	510
27	325	160	140	215	435	480	200	470
29	300	150	130	200	400	435	185	440
30	285	145	125	190	380	425	180	425
32	275	140	120	180	360	410	170	400
33	260	135	115	175	345	380	165	385
35	250	125	110	165	330	375	155	365
37	240	120	105	160	315	360	145	345
38	230	115	100	150	300	330	140	335
40	220	110	95	145	290	330	135	320
41	210	105	95	140	280	310	130	310
43	205	100	90	135	270	305	125	295
44	195	95	85	130	260	285	125	290
46	190	95	85	125	250	285	120	275
48	180	90	80	120	240	270	115	265
50	175	85	75	115	235	265	110	260
51	170	85	75	115	230	255	105	250
52	165	80	75	110	220	245	105	245
54	160	80	70	105	210	240	100	235
56	155	75	65	100	205	220	95	230
57	150	75	65	100	200	225	95	225
59	145	75	65	100	195	225	90	215
60	140	70	65	95	190	205	90	210
63	135	65	6	90	180	200	85	205
64	135	65	60	90	180	200	85	200
65	130	65	60	85	175	200	85	195
67	130	65	55	85	170	195	80	190
68	125	60	55	80	165	190	75	190
70	125	60	55	80	160	185	75	180
73	120	60	50	80	160	180	75	175
76	115	55	50	75	150	170	70	170
79	110	55	50	70	140	165	70	160
83	105	50	45	70	140	155	65	155
86	100	50	45	65	130	150	65	150
89	95	45	45	65	130	145	60	145
92	95	45	40	60	120	140	60	140
95	90	45	40	60	120	135	55	135
98	90	45	40	60	120	135	55	130
102	85	40	35	55	110	130	55	125
105	80	40	35	55	110	120	50	120
108	80	40	35	55	110	120	50	120
111	80	40	35	50	100	120	50	115
114	75	35	35	50	100	105	45	110
121	70	35	30	45	90	105	45	105
127	65	30	30	45	85	100	45	100
140	60	25	25	40	80	90	40	90
146	60	25	25	40	75	85	35	85
152	55	25	25	35	75	85	35	85
160	50	25	25	35	70	80	35	80
168	50	25	25	35	65	75	30	75
177	45	25	20	30	60	70	30	70
200	40	20	20	30	55	65	25	65
210	40	20	20	25	55	60	25	60

CORONAS BIMETAL M42

BIMETAL HOLE SAWS M42 • SCIES TRÉPAN BIMETAL M42

INOX · ACERO · F · LT · AL · PL · HSS-CO 8% · 4-6 TPI

Ø (mm)	Profundidad de Corte Depth of the Cut (mm)	Equivalencia P.G. Equivalence P.G.	Uds. / Pcs.	Cod.	€/Unid.
14	32	7	1	UC20014	15,89
16	32	9	1	UC20016	15,89
17	32	-	1	UC20017	15,89
19	32	11	1	UC20019	15,89
20	32	-	1	UC20020	15,89
21	32	13,5	1	UC20021	15,89
22	32	-	1	UC20022	15,89
24	32	16	1	UC20024	16,36
25	32	-	1	UC20025	16,36
27	32	-	1	UC20027	17,40
29	32	21	1	UC20029	17,40
30	32	-	1	UC20030	18,14
32	32	-	1	UC20032	18,14
33	32	-	1	UC20033	18,14
35	32	-	1	UC20035	19,28
37	32	-	1	UC20037	19,28
38	32	29	1	UC20038	19,28
40	32	-	1	UC20040	19,28
41	32	-	1	UC20041	19,28
43	32	-	1	UC20043	19,28
44	32	-	1	UC20044	23,19
46	32	-	1	UC20046	23,19
48	32	36	1	UC20048	23,90
50	32	-	1	UC20050	23,90
51	32	-	1	UC20051	23,90
52	32	-	1	UC20052	26,63
54	32	42	1	UC20054	26,63
56	32	-	1	UC20056	26,63
57	32	-	1	UC20057	26,63
59	32	-	1	UC20059	27,37
60	32	48	1	UC20060	27,37
63	32	-	1	UC20063	27,37
64	32	-	1	UC20064	28,32
65	32	-	1	UC20065	29,32
67	32	-	1	UC20067	30,29
68	32	-	1	UC20068	30,77
70	32	-	1	UC20070	30,77
73	32	-	1	UC20073	30,77
76	32	-	1	UC20076	31,46
79	32	-	1	UC20079	31,46
83	32	-	1	UC20083	31,46
86	32	-	1	UC20086	31,46
89	32	-	1	UC20089	31,46
92	32	-	1	UC20092	36,28

CORONAS BIMETAL M42
BIMETAL HOLE SAWS M42 • SCIES TRÉPAN BIMETAL M42

INOX · ACERO · F · LT · AL · PL · HSS-CO 8% · 4-6 TPI

Ø (mm)	Profundidad de Corte Depth of the Cut (mm)	Equivalencia P.G. Equivalence P.G.	Uds. / Pcs.	Cod.	€/Unid.
95,00	32	-	1	UC20095	41,37
98,00	32	-	1	UC20098	44,38
102,00	32	-	1	UC20102	46,74
105,00	32	-	1	UC20105	50,80
108,00	32	-	1	UC20108	56,67
111,00	32	-	1	UC20111	62,37
114,00	32	-	1	UC20114	66,58
121,00	32	-	1	UC20121	71,13
127,00	32	-	1	UC20127	74,91
140,00	32	-	1	UC20140	83,35
146,00	32	-	1	UC20146	92,96
152,00	32	-	1	UC20152	101,87
160,00	32	-	1	UC20160	126,13
168,00	32	-	1	UC20168	145,53
177,00	32	-	1	UC20177	160,18
200,00	32	-	1	UC20200	194,06
210,00	32	-	1	UC20210	218,31

CORONAS BIMETAL M3 SERIE LARGA
BIMETAL HOLE SAWS M3 LONG SERIES
SCIES TRÉPAN BIMETAL M3 SÉRIE LONGUE

ACERO · F · LT · AL · PL · HSS M3 · 4-6 TPI

Ø (mm)	Profundidad de Corte Depth of the Cut (mm)	Uds. / Pcs.	Cod.	€/Unid.
32	97	1	UC20032L	93,79
35	97	1	UC20035L	94,21
40	97	1	UC20040L	98,25

Se recomienda utilizar los siguientes husillos y broca piloto
Recommended to use with the below arbors and centre drill
Il est recommandé d'utiliser les suivants arbres and foret centrage

Husillo / Arbor	Broca Piloto / Centre Drill
UH20A2T - Amarre hexagonal 11,00 UH20A3T - Amarre hexagonal 9,50 UH200A4 - Amarre SDS-PLUS	6,35x150mm Ref. UB1014A

HUSILLOS PARA CORONAS BIMETAL
ARBORS FOR BIMETAL HOLE SAWS
ARBRES POUR SCIES TRÉPAN BIMETAL

Tipo Amarre Shank	Para Coronas For Hole Saws (mm)	Rosca del Husillo Arbor Thread	Uds. Pcs.	Cod.	€/Unid.
CILÍNDRICA / STRAIGHT	14 a 30	1/2 x 20h UNF	1	UH20A0N	16,20

Tipo Amarre Shank (mm)	Para Coronas For Hole Saws (mm)	Rosca del Husillo Arbor Thread	Uds. Pcs.	Cod.	€/Unid.
HEXAGONAL 11,00	14 a 30	1/2 x 20h UNF	1	UH200A1	16,48
HEXAGONAL 9,50	14 a 30	1/2 x 20h UNF	1	UH200A0	16,48
HEXAGONAL 11,00	32 a 210	5/8 x 18h UNF	1	UH20A2T	29,73
HEXAGONAL 9,50	32 a 210	5/8 x 18h UNF	1	UH20A3T	29,73

Tipo Amarre Shank	Para Coronas For Hole Saws (mm)	Rosca del Husillo Arbor Thread	Uds. Pcs.	Cod.	€/Unid.
SDS-PLUS	14 a 30	1/2 x 20h UNF	1	UH20A1N	20,38
SDS-PLUS	32 a 210	5/8 x 18h UNF	1	UH200A4	33,97

BROCAS PILOTO Y MUELLE EXPULSOR UNIVERSAL
CENTER DRILL & SPRING EJECTORS
FORET CENTRAGE ET RESSORT À EXPULSER

Tipo Amarre / Shank (mm)	Para husillos / For Arbors	Uds. / Pcs.	Cod.	€/Unid.
6,35 X 150 mm	A2T-A3T-A4	1	UB1014A	6,36
6,35 x 105*	A0N	1	UB1014C	5,86
6,35 x 85	A0-A1-A2T-A3T-A1N-A4	1	UB1014B	5,86
MUELLE EXPULSOR UNIVERSAL SPRING EJECTOR		1	UM0000	2,52

* Las brocas piloto de 6,35 x 105 tambien se recomiendan para taladrado de difícil acceso. / * ***6.35 x 105 pilot bits are also recommended for drilling in difficult to access*** locations / * ***Les forets pilote de 6,35 x 105 sont aussi recommandés pour le perçage à des endroits d'accès difficile***

ALARGADORES PARA HUSILLOS 330 MM
EXTENSION 330 MM • EXTENSION 330 MM

Husillo / Arbor	Para husillos / For Arbors	Uds. / Pcs.	Cod.	€/Unid.
HEXAGONAL 11,00 mm	A1 - A2T	1	UL00330	23,56
HEXAGONAL 9,50 mm	A0 - A3T	1	UL00331	23,56
SDS-PLUS	A1 - A2T	1	UL00332	29,46
SDS-PLUS	A0 - A3T	1	UL00333	29,46

CONJUNTOS DE CORONAS BIMETÁLICAS
HOLE SAWS SETS
COFFRETS SCIES TRÉPANS

HSS-CO 8%

4-6 TPI

Cod.	Modelo / Model / Modéle	Contenido / Contains / Contenu			€/Unid.
		Coronas Hole Saws / Scies Trépans	Diámetros / Diameters Diametres (mm)	Husillos Arbors / Arbres	
UT20EK2A	ELECTRICISTA PG. ELECTRICIAN PG. ÉLECTRICITÉ PG.	6	16 - 21 - 24 - 29 - 38 - 48 PG. 9 - 3,5 - 16 - 21 - 29 - 36	A1 + A2T	224,31
UT20EK4	ELECTRICISTA- 3 ELECTRICIAN -3 ÉLECTRICITÉ-3	6	22 - 29 - 35 - 38 - 44 - 51	A1 + A2T	235,82
UT20EK5	ELECTRICISTA- 4 ELECTRICIAN-4 ÉLECTRICITÉ-4	6	19 - 21 - 24 - 29 - 38 - 48	A1 + A2T	224,31
UT20EK5A	ELECTRICISTA- 5 ELECTRICIAN-5 ÉLECTRICITÉ-5	6	19 - 21 - 25 - 30 - 37 - 46	A1 + A2T	224,31
UT20EK5B	ELECTRICISTA-6 ELECTRICIAN-6 ÉLECTRICITÉ-6	6	17 - 21 - 24 - 29 - 35 - 46	A1 + A2T	223,48
UT20EK6	FONTANERÍA- 1 PLUMBING-1 PLOMBERIE-1	6	19 - 22 - 29 - 38 - 44 - 51	A1 + A2T	232,03
UT20EK7	FONTANERÍA- 2 PLUMBING-2 PLOMBERIE-2	6	22 - 25 - 33 - 35 - 41 - 51	A1 + A2T	228,99
UT20EK8	REFRIGERACIÓN COOLING RÉFRIGÉRATION	6	16 - 22 - 29 - 35 - 41 - 52	A1 + A2T	230,70
UT20EK9	CERRAJERÍA HARDWARE SERRURERIE	6	22 - 25 - 32 - 38 - 44 - 52	A1 + A2T	236,48
UT20EK10	INSTALACIÓN AUTOMÓVIL VEHICLE INSTALLATION INSTALLATION AUTOMIBILE	6	19 - 22 - 32 - 38 - 44 - 52	A1 + A2T	235,95
UT20EK11	BÁSICO BASIC BASIQUE	6	22 - 29 - 33 - 38 - 43 - 51	A1 + A2T	230,18
UT20EK0	MANTENIMIENTO INDUSTRIAL INDUSTRIAL MAINTENANCE MAINTENANCE INDUISTRIELLE	11	21 - 25 - 27 - 33 - 37 - 38 - 44 - 51 60 - 65 - 73	A1 + A2T + PROLONGADOR EXTENSION EXTENSION	403,40
UT20EK1	UNIVERSAL UNIVERSAL UNIVERSALE	11	19 - 22 - 25 - 29 - 35 - 38 - 44 - 51 57 - 64 - 70	A1 + A2T	402,81
UT20EK2	ELECTRICISTA PG. ELECTRICIAN PG. ÉLECTRICITÉ PG.	10	14 - 16 - 19 - 21 - 24 - 29 - 38 - 48 - 54 - 60 PG. 7 - 11 -13,5 - 16 - 21 - 29 - 36 - 42 - 48	A1 + A2T	338,99
UT20EK3	ELECTRICISTA-2. ELECTRICIAN-2. ÉLECTRICITÉ-2	10	16 - 19 - 21 - 24 - 29 - 38 43 - 48 - 60 - 65	A 1+ A2T	345,29
UT20EK12	CARPINTERÍA CARPENTRY MENUISERIE	11	14 - 16 - 19 - 22 - 24 - 25 - 30 - 35 40 - 51 - 59	A1 + A2T + PROLONGADOR EXTENSION EXTENSION	368,87

PERFORADORES DE CHAPA
CIRCULAR PUNCHES • EMPORTE PIÈCES

CAPACIDAD DE CORTE: 2 mm en chapa de acero; 1,5 mm en chapa inox.
CUTTING LENGTH: 2 mm on steel sheet; 1,5 mm on Stainless steel
PROFONDEUR DE COUPAGE: 2 mm en plaque d´acier; 1,5 mm en plaque d´INOX

Ø (mm)	Tornillo / Screw	Uds. / Pcs.	advance MÁXIMO RENDIMIENTO Cod.	€/Unid.	Basic Cod.	€/Unid.
12,7 (1/2")		1	P0013	82,71	PS013	48,36
14,00		1	P0014	82,71	PS014	48,36
15,00		1	P0015	82,71	PS015	48,36
16 (5/8")	M 8	1	P0016	82,71	PS016	48,36
17,00		1	P0017	90,39	-	
18,00		1	P0018	90,39	PS018	52,15
19 (3/4")		1	P0019	90,39	PS019	52,15
20,00		1	P0020	103,68	PS020	54,82
21,00		1	P0021	103,68	-	
22 (7/8")		1	P0022	103,68	PS022	59,87
23,00	M 10	1	P0023	121,55	-	
24,00		1	P0024	121,55	-	
25 (1")		1	P0025	121,55	PS025	66,32
26,00		1	P0026	121,55	-	
27,00		1	P0027	121,55	-	
28 (1.3/32")		1	P0028	142,77	PS028	73,98
29,00		1	P0029	142,77	-	
30,00		1	P0030	142,77	PS030	73,98
31,00		1	P0031	142,77	-	
32 (1.1/4")		1	P0032	142,77	PS032	73,98
33,00	M 12	1	P0033	157,81	-	
34 (1.11/32")		1	P0034	157,81	PS034	84,02
35,00		1	P0035	157,81	PS035	84,02
36,00		1	P0036	157,81	-	
37,00		1	P0037	157,81	PS037	84,02
38 (1.1/2")		1	P0038	157,81	PS038	84,02
39,00		1	P0039	157,81	-	
40,00		1	P0040	174,80	PS040	115,54
41,00		1	P0041	174,80	-	
42,00		1	P0042	190,66	-	
43,00		1	P0043	190,66	-	
44,00		1	P0044	190,66	-	
45,00		1	P0045	190,66	PS045	137,36
46,00	M 14	1	P0046	190,66	-	
47,00		1	P0047	205,64	PS047	156,80
48,00		1	P0048	205,64	-	
49,00		1	P0049	205,64	-	
50,00		1	P0050	205,64	PS050	158,91
51 (2")		1	P0051	216,41	-	
52,00		1	P0052	216,41	PS052	154,93
55,00		1	P0055	376,75	PS055	186,85
60 (2.3/8")		1	P0060	452,40	PS060	210,71
63,00		1	P0063	512,71	PS063	238,73
65,00		1	P0065	529,70	-	
70,00		1	P0070	569,36	-	
72,00		1	P0072	583,52	-	
75,00		1	P0075	606,19	-	
80,00	M 20	1	P0080	617,52	-	
85,00		1	P0085	640,17	-	
90,00		1	P0090	658,03	-	
95,00		1	P0095	694,29	-	
100,00		1	P0100	784,65	-	
105,00		1	P0105	835,64	-	
110,00		1	P0110	906,45	-	
115,00		1	P0115	951,77	-	

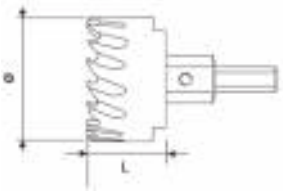
TORNILLOS DE REPUESTO
SPARE CREWS • VIS DE REMPLACEMENT

Ø (mm)	Uds. / Pcs.	Cod.	€/Unid.
M 8 x 125	1	PT001	14,57
M 10 x 125	1	PT002	19,03
M 12 x 150	1	PT003	21,41
M 14 x 150	1	PT004	32,12
M 20 x 150	1	PT005	66,92

JUEGOS PERFORADORES
CIRCULAR PUNCHES SETS • COFFRETS EMPORTE PIECES

Ø	advance MÁXIMO RENDIMIENTO Cod.	€/Unid.	Basic Cod.	€/Unid.
18-22-25-32 mm	PJ003	435,10	PSJ001	248,45
15-20-22-28 mm	PJ006	410,69	PSJ002	234,04
5/8"-3/4"-1"-1.1/4"	PJ007	419,92	PSJ003	239,26
1/2"-3/4"-1"-1.1/4"	PJ008	419,92	PSJ004	239,26

CORONAS HSS-G REAFILABLES
HOLE SAWS HSS-G REGRINDABLE
SCIES TRÉPAN HSS-G RÉAFFÛTABLE



Ø mm	L2 (mm)	Z	Uds. / Pcs.	Cod.	€/Unid.
10*	23	5	1	UV00010	28,10
12	23	5	1	UV00012	28,82
13	23	5	1	UV00013	28,82
14	23	6	1	UV00014	29,44
15	23	6	1	UV00015	27,59
16	23	6	1	UV00016	29,44
17	23	6	1	UV00017	27,59
18	23	6	1	UV00018	27,59
19	23	8	1	UV00019	28,47
20	23	8	1	UV00020	30,18
21	23	8	1	UV00021	31,57
22	23	8	1	UV00022	33,03
23	23	8	1	UV00023	37,98
24	23	8	1	UV00024	38,59
25	23	8	1	UV00025	37,40
26	23	10	1	UV00026	39,89
27	23	10	1	UV00027	40,52
28	23	10	1	UV00028	42,18
29	23	10	1	UV00029	43,69
30	23	10	1	UV00030	44,45
31	23	12	1	UV00031	47,66
32	23	12	1	UV00032	47,66
33	23	12	1	UV00033	52,48
34	23	12	1	UV00034	54,29
35	23	12	1	UV00035	55,57
36	23	12	1	UV00036	58,25
37	23	12	1	UV00037	58,90
38	23	12	1	UV00038	60,47
39	23	12	1	UV00039	65,58
40	23	12	1	UV00040	65,58
41	23	14	1	UV00041	66,42
42	23	14	1	UV00042	67,80
43	23	14	1	UV00043	70,18
44	23	16	1	UV00044	71,46
45	23	16	1	UV00045	75,57
46	23	16	1	UV00046	75,57
47	23	16	1	UV00047	76,23
48	23	16	1	UV00048	80,68
49	23	16	1	UV00049	82,20
50	23	16	1	UV00050	82,20
60	23	18	1	UV00060	119,66
65	23	20	1	UV00065	154,30
70	23	20	1	UV00070	165,50
75	23	22	1	UV00075	178,24
80	23	22	1	UV00080	199,22
85	23	24	1	UV00085	224,67
90	23	24	1	UV00090	248,80
95	23	24	1	UV00095	267,25
100	23	24	1	UV00100	287,98

* Integral / *Intengrale / *Intégrale

Para medidas no tarifadas consultar / For measurements not listed, request / Pour des mesures non cotées consulter
Producto bajo demanda / Product on demand / Produit à la demande
Profundidad de corte: 5 mm / Cutting depth: 5 mm / Profondeur de coupe: 5 mm

RECOMENDACIONES TÉCNICAS
TECHNICAL RECOMMENDATIONS • RECOMMANDATIONS TECHNIQUES

HSS-G

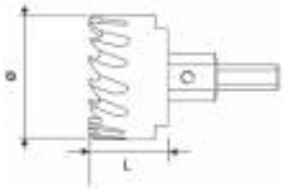
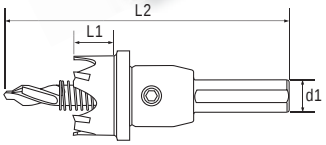


TABLA DE VELOCIDADES RECOMENDADAS / RECOMENDED SPEED / VITESSES RECOMMANDÉES

	ACERO	ACERO	INOX	F	LT	AL	PL
VC=m/min	25-30	13-17	12-15	10-15	30-35	30-40	15-20
Refrigeración	Emulsión Aceite de corte	Emulsión Aceite de corte	Emulsión Aceite de corte	Aire a presión	Aire a presión	Aceite de corte Spray	Aire
Ø (mm)	RPM	RPM	RPM	RPM	RPM	RPM	RPM
10	800	410	380	320	960	990	480
20	400	210	190	160	480	490	240
30	270	140	130	110	320	330	160
50	160	80	80	60	190	200	100
60	130	70	60	50	160	160	80
70	110	60	50	50	140	140	70
80	100	50	50	40	120	120	60
90	90	50	40	40	110	110	50
100	80	40	40	30	100	100	50

CORONAS CON DIENTE METAL DURO SERIE CORTA
TUNGSTEN CARBIDE TIPED HOLE SAWS SHORT SERIES
SCIES TRÉPANS AU CARBURE DE TUNGSTENE SERIE COURTE



MD

Ø (mm)	Z	D1 (mm)	L1 (mm)	L2 (mm)	Espesor máximo de corte Max. Cutting Thickness (mm)	Uds. / Pcs.	Cod.	€/Unid.
16,00	4	10	12	79	4	1	UI00016	71,03
18,00	4	10	12	79	4	1	UI00018	71,03
20,00	5	10	12	79	4	1	UI00020	73,56
22,00	5	10	12	79	4	1	UI00022	76,42
23,00	5	10	12	79	4	1	UI00023	77,40
25,00	5	10	12	79	4	1	UI00025	77,40
26,00	5	10	12	79	4	1	UI00026	80,26
30,00	5	10	12	79	4	1	UI00030	83,53
32,00	6	10	12	79	4	1	UI00032	89,81
33,00	7	10	12	79	4	1	UI00033	94,88
35,00	7	10	12	79	4	1	UI00035	97,65
40,00	7	10	12	84	4	1	UI00040	114,39
50,00	9	10	12	84	4	1	UI00050	133,98
60,00	10	10	12	84	4	1	UI00060	175,71
63,00	11	10	12	84	4	1	UI00063	177,50
65,00	11	10	12	84	4	1	UI00065	180,45

Junto con la corona se incluye el husillo y la broca centradora / The spindle and central bit come together with the core bit / La couronne est accompagnée de la broche et du foret de centrage

BROCA PILOTO / PILOT DRILL / FORET DE CENTRAGE

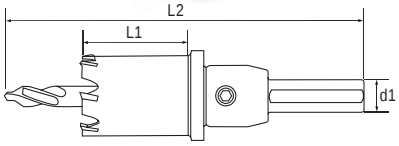
Tipo Broca / Drill Bit Type	Uds. / Pcs.	Cod.	€/Unid.
Para Corona Serie Corta For short series	1	UIB0660	13,39

TABLA DE VELOCIDADES RECOMENDADAS / RECOMENDED SPEED / VITESSES RECOMMANDÉES

VELOCIDAD DE CORTE RECOMENDADAS (R.P.M.) CUTTING SPEED / VITESSE DE COUP			
Ø (mm)	Inox	Acero / Steel	Fundición / Cast Iron
20,00	400	600	800
30,00	280	400	550
40,00	200	300	400
50,00	160	250	320
60,00	130	200	260
80,00	100	150	200
100,00	80	120	160

Coronas reomendadas para espesores de hasta 4 mm. En caso de aceros inoxidables se recomienda no sobrepasar los 2 mm. de espesor. / Recomended maximum cutting depth of 4 mm, for stainless steel 2 mm / Profondeur de coupage maximum recomendée 4 mm, pour INOX 2 mm

CORONAS CON DIENTE METAL DURO SERIE LARGA
TUNGSTEN CARBIDE TIPED HOLE SAWS LONG SERIES
SCIES TRÉPANS AU CARBURE DE TUNGSTENE SERIE LONGUE



MD

Ø (mm)	Z	D1 (mm)	L1 (mm)	L2 (mm)	Espesor máximo de corte Max. Cutting Thickness (mm)	Uds. / Pcs.	Cod.	€/Unid.
20,00	5	10	35	107	4	1	UIL0020	113,91
22,00	5	10	35	107	4	1	UIL0022	116,40
23,00	5	10	35	107	4	1	UIL0023	117,11
25,00	6	10	35	107	4	1	UIL0025	122,79
30,00	6	10	35	107	4	1	UIL0030	127,02
32,00	8	10	35	107	4	1	UIL0032	148,99
33,00	8	10	35	107	4	1	UIL0033	149,34
35,00	8	10	35	107	4	1	UIL0035	149,70
40,00	10	10	35	107	4	1	UIL0040	168,30
45,00	10	10	35	107	4	1	UIL0045	197,17
50,00	12	10	35	107	4	1	UIL0050	220,03
54,00	12	10	35	107	4	1	UIL0054	248,92
60,00	14	10	35	107	4	1	UIL0060	300,46
65,00	14	10	35	107	4	1	UIL0065	359,64

Junto con la corona se incluye el husillo y la broca centradora / The spindle and central bit come together with the core bit / La couronne est accompagnée de la broche et du foret de centrage

BROCA PILOTO / PILOT DRILL / FORET DE CENTRAGE

Tipo Broca / Drill Bit Type	Uds. / Pcs.	Cod.	€/Unid.
Para Corona Serie Larga (Ø 20 a Ø 30) For long series	1	UILB680	11,55
Para Corona Serie Larga (Ø 32 a Ø 54) For long series	1	UILB880	14,67
Para Corona Serie Larga (Ø 60 a Ø 65) For long series	1	UILB8100	16,67

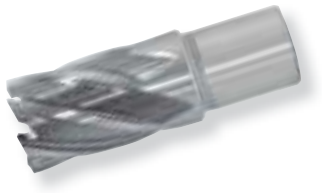
TABLA DE VELOCIDADES RECOMENDADAS / RECOMENDED SPEED / VITESSES RECOMMANDÉES

VELOCIDAD DE CORTE RECOMENDADAS (R.P.M.) CUTTING SPEED / VITESSE DE COUP			
Ø (mm)	Inox	Acero / Steel	Fundición / Cast Iron
20,00	400	600	800
30,00	280	400	550
40,00	200	300	400
50,00	160	250	320
60,00	130	200	260
80,00	100	150	200
100,00	80	120	160

Coronas reomendadas para espesores de hasta 4 mm. En caso de aceros inoxidables se recomienda no sobrepasar los 2 mm. de espesor. / Recomended maximum cutting depth of 4 mm, for stainless steel 2 mm / Profondeur de coupage maximum recomendée 4 mm, pour INOX 2 mm

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-G

HSS-G ELECTROMAGNETIC CORE BITS
SCIÉS ELECTROMAGNETIQUES HSS-G



HSS-G | WELDON 19,00

Ø (mm)	Profundidad de Corte Depth of the cut (mm)	Ø Mango / Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
12,00	30	19	1	1917012030	41,57
13,00	30	19	1	1917013030	41,57
14,00	30	19	1	1917014030	41,57
15,00	30	19	1	1917015030	43,15
16,00	30	19	1	1917016030	49,20
17,00	30	19	1	1917017030	49,20
18,00	30	19	1	1917018030	52,45
19,00	30	19	1	1917019030	54,49
20,00	30	19	1	1917020030	56,15
21,00	30	19	1	1917021030	59,70
22,00	30	19	1	1917022030	61,29
23,00	30	19	1	1917023030	64,99
24,00	30	19	1	1917024030	64,99
25,00	30	19	1	1917025030	68,54
26,00	30	19	1	1917026030	70,21
27,00	30	19	1	1917027030	73,91
28,00	30	19	1	1917028030	75,50
29,00	30	19	1	1917029030	77,16
30,00	30	19	1	1917030030	79,05
31,00	30	19	1	1917031030	97,11
32,00	30	19	1	1917032030	104,14
33,00	30	19	1	1917033030	109,58
34,00	30	19	1	1917034030	113,36
35,00	30	19	1	1917035030	120,08
36,00	30	19	1	1917036030	123,56
38,00	30	19	1	1917038030	135,95
40,00	30	19	1	1917040030	136,78
42,00	30	19	1	1917042030	146,08
44,00	30	19	1	1917044030	151,14
45,00	30	19	1	1917045030	151,37
46,00	30	19	1	1917046030	153,86
48,00	30	19	1	1917048030	155,83
50,00	30	19	1	1917050030	167,54
52,00	30	19	1	1917052030	170,26
55,00	30	19	1	1917055030	189,01
60,00	30	19	1	1917060030	206,54

PUNZÓN EXPULSOR / PUNCHER / POINÇON

Ø (mm)	L1 (mm)	Para / For / Pour	Uds. / Pcs.	Cod.	€/Unid.
6,35	77	Coronas Ø13-60mm	1	1926500	31,76

Adaptadores de WELDON a FEIN y portafresas con cono morse en pag. 411 / Adaptor from WELDON to FEIN and morse taper at pag. 411 / Adaptateur du WELDON au FEIN et queue conique surge la page. 411

ESTUCHE DE CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-G

HSS-G ELECTROMAGNETIC CORE BITS SET
COFFRET SCIÉS ELECTROMAGNETIQUES HSS-G

Medidas mm / Sizes mm	Uds. / Pcs.	Cod.	€/Unid.
12x30, 14x30, 16x30, 18x30, 20x30, 22x30, punzón expulsor 6.35x77	7	19CW05	333,97

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-G

HSS-G ELECTROMAGNETIC CORE BITS

SCIÉS ELECTROMAGNETIQUES HSS-G

HSS-G | WELDON 19,00

Ø (mm)	Profundidad de Corte Depth of the cut (mm)	Ø Mango / Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
12,00	50	19		1917012050	49,80
13,00	50	19		1917013050	49,80
14,00	50	19		1917014050	49,80
15,00	50	19		1917015050	51,77
16,00	50	19		1917016050	53,88
17,00	50	19		1917017050	55,85
18,00	50	19		1917018050	57,96
19,00	50	19		1917019050	59,32
20,00	50	19		1917020050	64,84
21,00	50	19		1917021050	69,15
22,00	50	19		1917022050	72,02
23,00	50	19		1917023050	74,82
24,00	50	19		1917024050	77,69
25,00	50	19		1917025050	80,41
26,00	50	19		1917026050	83,20
27,00	50	19		1917027050	86,08
28,00	50	19		1917028050	88,87
29,00	50	19		1917029050	91,74
30,00	50	19		1917030050	94,47
31,00	50	19		1917031050	108,82
32,00	50	19		1917032050	117,29
33,00	50	19		1917033050	122,84
34,00	50	19		1917034050	133,46
35,00	50	19		1917035050	142,23
36,00	50	19		1917036050	143,36
38,00	50	19		1917038050	146,30
40,00	50	19		1917040050	162,55
42,00	50	19		1917042050	166,19
44,00	50	19		1917044050	166,68
45,00	50	19		1917045050	167,16
46,00	50	19		1917046050	173,81
48,00	50	19		1917048050	173,50
50,00	50	19		1917050050	191,42
52,00	50	19		1917052050	241,98
55,00	50	19		1917055050	263,67
60,00	50	19		1917060050	271,38

PUNZÓN EXPULSOR / PUNCHER / POINÇON

Ø (mm)	L1 (mm)	Para / For / Pour	Uds. / Pcs.	Cod.	€/Unid.
6,35	102	Coronas Ø13-60mm	1	1950500	35,23

Adaptadores de WELDON a FEIN y portafresas con cono morse en pag. 411 / Adaptor from WELDON to FEIN and morse taper at pag. 4101 / Adaptateur du WELDON au FEIN et queue conique surge la page. 411

ESTUCHE DE CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-G

HSS-G ELECTROMAGNETIC CORE BITS SET

COFFRET SCIÉS ELECTROMAGNETIQUES HSS-G

Medidas mm / Sizes mm	Uds. / Pcs.	Cod.	€/Unid.
12x50, 14x50, 16x50, 18x50, 20x50, 22x50, punzón expulsor 6.35x102	7	19CW06	383,55

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-CO
HSS-CO ELECTROMAGNETIC CORE BITS
SCIÉS ELECTROMAGNETIQUES HSS-CO

Ø (mm)	Profundidad de Corte Depth of the cut (mm)	Ø Mango / Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
12,00	30	19	1	1907012030	57,24
13,00	30	19	1	1907013030	57,49
14,00	30	19	1	1907014030	57,67
15,00	30	19	1	1907015030	66,90
16,00	30	19	1	1907016030	69,36
17,00	30	19	1	1907017030	71,73
18,00	30	19	1	1907018030	73,17
19,00	30	19	1	1907019030	78,08
20,00	30	19	1	1907020030	81,71
21,00	30	19	1	1907021030	86,63
22,00	30	19	1	1907022030	88,07
23,00	30	19	1	1907023030	91,37
24,00	30	19	1	1907024030	95,95
25,00	30	19	1	1907025030	100,60
26,00	30	19	1	1907026030	101,87
27,00	30	19	1	1907027030	106,78
28,00	30	19	1	1907028030	109,33
29,00	30	19	1	1907029030	114,15
30,00	30	19	1	1907030030	115,93
31,00	30	19	1	1907031030	128,04
32,00	30	19	1	1907032030	137,10
35,00	30	19	1	1907035030	169,36
40,00	30	19	1	1907040030	198,66
45,00	30	19	1	1907045030	223,85
50,00	30	19	1	1907050030	250,72
52,00	30	19	1	1907052030	261,37
55,00	30	19	1	1907055030	273,36
60,00	30	19	1	1907060030	295,75

PUNZÓN EXPULSOR / PUNCHER / POINÇON

Ø (mm)	L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,35	77	1	1926500	31,76

ESTUCHE DE CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-CO
HSS-CO ELECTROMAGNETIC CORE BITS SET
COFFRET SCIÉS ELECTROMAGNETIQUES HSS-CO

Medidas mm / Sizes mm	Uds. / Pcs.	Cod.	€/Unid.
12x30, 14x30, 16x30, 18x30, 20x30, 22x30, punzón expulsor 6.35x77	7	19CW01	458,96

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-CO

HSS-CO ELECTROMAGNETIC CORE BITS

SCIÉS ELECTROMAGNETIQUES HSS-CO

ACERO / INOX / HSS-CO 5% / WELDON 19,00

Ø (mm)	Profundidad de Corte Depth of the cut (mm)	Ø Mango / Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
12,00	50	19	1	1907012050	76,68
13,00	50	19	1	1907013050	76,92
14,00	50	19	1	1907014050	77,32
15,00	50	19	1	1907015050	91,55
16,00	50	19	1	1907016050	98,65
17,00	50	19	1	1907017050	105,84
18,00	50	19	1	1907018050	109,16
19,00	50	19	1	1907019050	117,40
20,00	50	19	1	1907020050	117,81
21,00	50	19	1	1907021050	127,91
22,00	50	19	1	1907022050	129,43
23,00	50	19	1	1907023050	131,30
24,00	50	19	1	1907024050	135,49
25,00	50	19	1	1907025050	143,83
26,00	50	19	1	1907026050	144,07
27,00	50	19	1	1907027050	152,71
28,00	50	19	1	1907028050	157,15
29,00	50	19	1	1907029050	165,79
30,00	50	19	1	1907030050	174,52
31,00	50	19	1	1907031050	183,25
32,00	50	19	1	1907032050	194,48
35,00	50	19	1	1907035050	218,80
36,00	50	19	1	1907036050	224,97
40,00	50	19	1	1907040050	246,93
45,00	50	19	1	1907045050	280,85
50,00	50	19	1	1907050050	312,01
52,00	50	19	1	1907052050	324,23
55,00	50	19	1	1907055050	343,17
60,00	50	19	1	1907060050	374,61

PUNZÓN EXPULSOR / PUNCHER / POINÇON

Ø (mm)	L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,35	102	1	1950500	35,23

ESTUCHE DE CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA HSS-CO

HSS-CO ELECTROMAGNETIC CORE BITS SET

COFFRET SCIÉS ELECTROMAGNETIQUES HSS-CO

Medidas mm / Sizes mm	Uds. / Pcs.	Cod.	€/Unid.
12x50, 14x50, 16x50, 18x50, 20x50, 22x50, punzón expulsor 6.35x102	7	19CW02	609,07

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA MD
HM ELECTROMAGNETIC CORE BITS
SCIÉS ELECTROMAGNETIQUES MD

Ø (mm)	Profundidad de Corte Depth of the cut (mm)	Ø Mango / Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
18,00	35	19	1	2003018035	200,89
19,00	35	19	1	2003019035	201,63
20,00	35	19	1	2003020035	202,12
21,00	35	19	1	2003021035	202,28
22,00	35	19	1	2003022035	205,54
23,00	35	19	1	2003023035	205,63
24,00	35	19	1	2003024035	205,79
25,00	35	19	1	2003025035	210,78
26,00	35	19	1	2003026035	211,68
27,00	35	19	1	2003027035	211,84
28,00	35	19	1	2003028035	212,40
29,00	35	19	1	2003029035	212,74
30,00	35	19	1	2003030035	215,59
31,00	35	19	1	2003031035	216,49
32,00	35	19	1	2003032035	216,81
33,00	35	19	1	2003033035	216,90
34,00	35	19	1	2003034035	217,15
35,00	35	19	1	2003035035	233,88

PUNZÓN EXPULSOR / PUNCHER / POINÇON

Ø (mm)	L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8	87	1	2001500	35,23

ESTUCHE DE CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA MD
MD ELECTROMAGNETIC CORE BITS SET
COFFRET SCIÉS ELECTROMAGNETIQUES MD

Medidas mm / Sizes mm	Uds. / Pcs.	Cod.	€/Unid.
18x35, 20x35, 22x35, 24x35, 26x35, 28x35, punzón expulsor 8x87	7	19CW03	1.273,66

CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA MD

HM ELECTROMAGNETIC CORE BITS
SCIÉS ELECTROMAGNETIQUES MD

ACERO | INOX | AL | CU | F | MD | WELDON 19,00

Ø (mm)	Profundidad de Corte Depth of the cut (mm)	Ø Mango / Shank (mm)	Uds. / Pcs.	Cod.	€/Unid.
18,00	50	19	1	2003018050	221,89
19,00	50	19	1	2003019050	222,82
20,00	50	19	1	2003020050	223,06
21,00	50	19	1	2003021050	223,50
22,00	50	19	1	2003022050	228,66
23,00	50	19	1	2003023050	228,75
24,00	50	19	1	2003024050	230,35
25,00	50	19	1	2003025050	231,45
26,00	50	19	1	2003026050	233,32
27,00	50	19	1	2003027050	233,74
28,00	50	19	1	2003028050	234,09
29,00	50	19	1	2003029050	234,51
30,00	50	19	1	2003030050	236,28
31,00	50	19	1	2003031050	237,12
32,00	50	19	1	2003032050	237,63
33,00	50	19	1	2003033050	238,06
34,00	50	19	1	2003034050	240,51
35,00	50	19	1	2003035050	245,68
36,00	50	19	1	2003036050	253,45
37,00	50	19	1	2003037050	253,45
38,00	50	19	1	2003038050	251,56
39,00	50	19	1	2003039050	247,29
40,00	50	19	1	2003040050	285,52
41,00	50	19	1	2003041050	290,68
42,00	50	19	1	2003042050	291,77
43,00	50	19	1	2003043050	292,31
44,00	50	19	1	2003044050	292,92
45,00	50	19	1	2003045050	293,28
46,00	50	19	1	2003046050	369,25
47,00	50	19	1	2003047050	372,80
48,00	50	19	1	2003048050	373,81
49,00	50	19	1	2003049050	374,66
50,00	50	19	1	2003050050	376,02

PUNZÓN EXPULSOR / PUNCHER / POINÇON

Ø (mm)	L1 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8	102	1	2001501	35,23

ESTUCHE DE CORONAS PARA MÁQUINAS CON BASE ELECTROMAGNÉTICA MD

MD ELECTROMAGNETIC CORE BITS SET
COFFRET SCIÉS ELECTROMAGNETIQUES MD

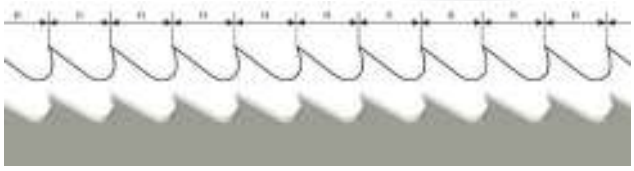
Medidas mm / Sizes mm	Uds. / Pcs.	Cod.	€/Unid.
18x50, 20x50, 22x50, 24x50, 26x50, 28x50, punzón expulsor 8x102	7	19CW04	1.406,59

TIPOS DE DENTADOS TOOTH PITCH • DENTURES

HSS-CO 8% HRC 68-69

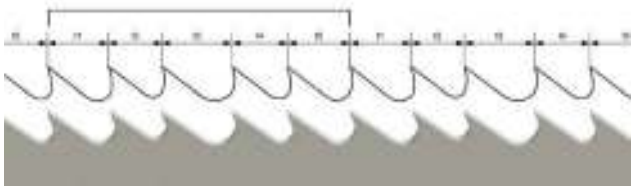
DENTADO FIJO / CONSTANT TOOTH PITCH / DENTURE CONSTANTE

Dentado constante en toda la longitud. Para cortes en materiales macizos. Recomendado para aceros, aceros inoxidables.
Constant tooth pitch, suitable for solid materials.
Dentures constante, appropiés pour des materiales solides.



DENTADO VARIABLE / VARIABLE TOOTH PITCH / DENTURE VARIABLE

Dentado alterno en intervalos regulares an toda la longitud.Para cortes en perfiles y tubos, reduce la vibración.
Variable pitch, recommended to suppress the ressonance phenomenons and vibrations.
Denture variable, recommendés pour suprimer les phénomènes de résonance et les vibrations.



TIPOS DE TRISCADOS TOOTH SETTINGS • TYPES D´AVOYAGES

TRISCADO ESTÁNDAR / STANDARD SET / AVOYAGE STANDARD

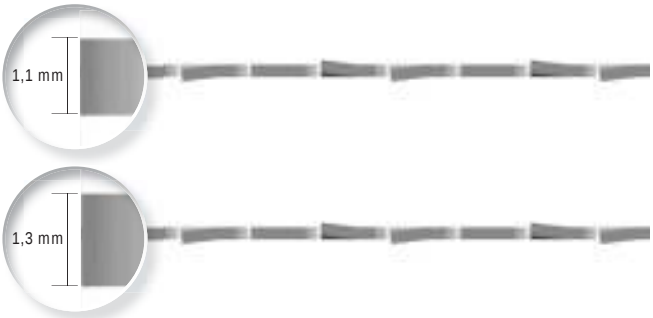
Triscado constante con secuencia de izquierda / derecha / recto. Recomendado para multiusos. / Constant tooth set, with sequence left / right / straight. Recommended for multipurpose.
Denture constante, avoyage gauche / droite / centre.

TRISCADO DE GRUPO / GROUP TOOTH SET / AVOYAGE GROUPÉ

Triscado agrupado, secuencia de dientes por grupo.
Mejora los acabados./ Group tooth set, improve surfaces quality.
Avoyage groupé, améliore la calité de la surface.

ANCHO DE LA CINTA BAND WIDTH • LARGEURS DES LAMES

GROSOR DE LA CINTA BAND THICKNESS • ÉPAISSEUR DE LAME



CAUSAS DEL MAL FUNCIONAMIENTO Y SOLUCIONES
CAUSES OF MALFUNCTION AND SOLUTIONS
CAUSES DE DYSFONCTIONNEMENT ET SOLUTIONS

Procedente
Procedente
Procedente

No procedente
No procedente
No procedente

ROTURA DE LA SIERRA / BROKEN SAW / RUPTURE DE LA SCIE

CAUSA / CAUSE	SOLUCIÓN / SOLUTION
Guías laterales demasiado prietas. Side guide rails too tight. Guides latéraux trop serrés.	Comprobar y ajustar las guías. Check and adjust the guide rails. ***Vérifier et ajuster les guides.***
Guías desgastadas, rotas o no alineadas. Worn, broken or misaligned guide rails. Guides usés, cassés ou non alignés.	Revisar o reemplazar las guías. Service or replace the guide rails. ***Vérifier ou remplacer les guides.***
Tensión excesiva, volantes de la máquina desgastados o problemas de rodamientos. ***Excessive tension, worn flywheels or bearing problems.*** Tension excessive, volants de la machine usés ou problèmes de roulements.	Revisar la máquina. Service the machine. ***Vérifier la machine.***
Rotura limpia por la soldadura. Clean break from welding. Cassure propre à cause de la soudure.	Reclamación procedente. Appropriate complaint. Réclamation adaptée.

DESGASTE DE LOS DIENTES / WORN TEETH / USURE DES DENTS

CAUSA / CAUSE	SOLUCIÓN / SOLUTION
Velocidad de corte superior a la recomendada. Cutting speed higher than recommended. Vitesse de coupe supérieure à la vitesse recommandée.	Reducción de la velocidad de corte. Reduce the cutting speed. Réduction de la vitesse de coupe.
Refrigeración insuficiente. ***Insufficient cooling.*** Faible réfrigération.	Aumentar refrigeración o concentración. Increase cooling or concentration. Augmenter réfrigération ou concentration.
El material no está bien sujeto. The material is not securely fastened. ***Le matériel n'est pas bien fixé.***	Ajustar la mordaza de la máquina. Adjust the jaws of the machine. ***Ajuster la fixation de la machine.***
Material poco homogéneo. ***The material is not sufficiently uniform.*** Matériel peu homogène.	Realizar un análisis metalúrgico del material. Conduct a metallurgical analysis of the material. Réaliser une analyse métallurgique du matériel.
Rodaje inadecuado. Incorrect running-in. Rodage non adapté.	Realizar el proceso de rodaje correcto. Conduct the running in process correctly. Réaliser la procédure de de rodage correctement.

ROTURA DE LOS DIENTES / BROKEN TEETH / RUPTURE DES DENTS

CAUSA / CAUSE	SOLUCIÓN / SOLUTION
Velocidad de corte baja. Low cutting speed. Vitesse de coupe faible.	Adaptar la velocidad de corte al material a cortar. Adjust the cutting speed to the material to be cut. Adapter la vitesse de coupe au matériel à couper.
Avance demasiado alto. Feed rate too high. Avancée trop élevée.	Reducir el avance. Reduce the feed rate. Réduire l'avancée.
Dentado inapropiado. Unsuitable tooth size. Dents non adaptées.	Seleccionar el dentado correcto. Select the correct tooth size. Sélectionner les dents adaptées.
El material no está bien sujeto. The material is not securely fastened. ***Le matériel n'est pas bien fixé.***	Ajustar la mordaza de la máquina. Adjust the jaw of the machine. ***Ajuster la fixation de la machine.***
Refrigeración insuficiente. ***Insufficient cooling.*** Faible réfrigération.	Aumentar refrigeración o concentración. Increase cooling or concentration. Augmenter réfrigération ou concentration.
Cepillo limpia virutas no funciona. Shavings cleaning brush not working. Brosse qui nettoie les copeaux ne fonctionne pas.	Comprobar o sustituir el cepillo limpia viruta. Check or replace shavings cleaning brush. ***Vérifier ou replacer la brosse.***

CAUSAS DEL MAL FUNCIONAMIENTO Y SOLUCIONES
CAUSES OF MALFUNCTION AND SOLUTIONS
CAUSES DE DYSFONCTIONNEMENT ET SOLUTIONS

Procedente
Procedente
Procedente

No procedente
No procedente
No procedente

CORTE IRREGULAR / IRREGULAR CUT / COUPE IRRÉGULIÈRE

CAUSA / CAUSE	SOLUCIÓN / SOLUTION
Hoja de sierra de cinta desafilada. Blunt band saw blade. Feuille de scie du tapis mal aiguisée.	Cambiar la cinta. Replace the blade. Changer le tapis.
Guías de la hoja de sierra de cinta flojas o desalineadas. Loose or misaligned band saw blade guides. Guides de la feuille peu serrés ou mal alignés.	Ajustar o sustituir las guías. Adjust or replace the guides. Ajuster ou remplacer les guides.
Brazos guía de la máquina están demasiado separados. The machine´s guide arms are too far apart. Bras guide la machine trop séparée.	Ajustar al máximo la apertura de los brazos guías al tamaño de la pieza a cortar. Open the guide arms as far as possible to the size of the piece to be cut. Ajuster au maximum l'ouverture des bras guides aux dimensions de la pièce à couper.
Dentado demasiado pequeño. Blade teeth too small. Dents trop petites.	Seleccionar el dentado apropiado. Select the correct blade teeth size. Sélectionner les dents adaptées.
Avance demasiado alto. Feed rate too high. Avancée trop élevée.	Reducir el avance. Reduce the feed rate. Réduire l'avancée.
Tensión baja de la hoja. Blade tension too low. Tension de la feuille faible.	Aumentar la tensión. Increase the tension. Augmenter la tension.
Cepillo limpia virutas no funciona. Shavings cleaning brush not working. Brosse qui nettoie les copeaux ne fonctionne pas.	Comprobar o sustituir el cepillo. Check or replace the brush. ***Vérifier ou replacer la brosse.***

RECOMENDACIONES
TIPS •RECOMMANDATIONS

1 Comprobar con frecuencia el buen estado de la máquina, el funcionamiento del cepillo, el desgaste y la alineación de las guías, la tensión de la cinta, etc.
Conduct frequent checks of the condition of the machine, the operation of the brush, the wear and alignment of the guide rails, the tension of the belt, etc.
Vérifier fréquemment le bon état de la machine, le fonctionnement de la brosse, l'usure et l'alignement des guides, la tension du tapis, etc.

2 Comprobar que estamos utilizando el refrigerante adecuado al trabajo que estamos realizando.
Check you are using the correct coolant for the work being carried out.
Vérifier que nous utilisons le liquide de refroidissement adapté au travail à réaliser.

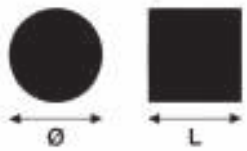
3 Asegurarnos que la pieza está perfectamente sujeta en las mordazas de la máquina.
Make sure that the piece is securely fastened in the jaws of the machine.
S'assurer que la pièce est parfaitement fixée à la machine.

4 Elegir el dentado correcto de acuerdo a las tablas que les adjuntamos, teniendo en cuenta el espesor de las piezas y la geometría de las mismas.
Choose the correct blade tooth size in accordance with the tables attached hereto, taking the thickness and geometry of the pieces into account.
Choisir les dents correctes selon les tableaux joints, en prenant en compte l'épaisseur des pièces et leur géométrie.

PARA EL CORTE DE TUBOS Y PERFILES / TO CUT TUBES AND BEAMS / POUR LA COUPE DE TUBES ET PROFILES

	D (mm)										
S (mm)	20	40	60	80	100	120	150	200	300	400	500
2	14	14	14	14	10/14	10/14	10/14	10/14	10/14	8/12	8/12
3				10/14					6/10		
4			10/14				6/10	6/10		6/10	6/10
5		10/14			6/10	6/10			4/6	4/6	4/6
6	10/14		8/12	6/10			5/8	4/6			
7		8/12				5/8					
8			6/10		5/8		4/6		3/4	3/4	3/4
10	-	6/10		5/8		4/6		3/4			
12	-		5/8		4/6		3/4				2/3
15	-	-		4/6	3/4	3/4		2/3	2/3	2/3	
20	-	-	-	-	-	-	2/3				
30	-	-	-								
50	-	-	-								

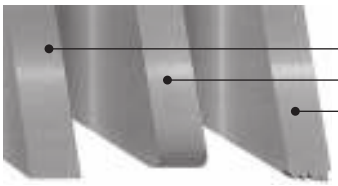
PARA EL CORTE DE SECCIONES MACIZAS / TO CUT SOLID MATERIALS / POUR LA COUPE DE MATÉRIAUX PLEINS



Ø (mm) / L (mm)	Dentado Variable / Variable Tooth Pitch	Dentado Fijo / Constant Tooth Pitch
- 10	10 / 14	14,00
10 - 20	8 / 12	10,00
20 - 40	6 / 10	8,00
40 - 70	4 / 6	6,00
70 - 140	3 / 4	4,00
140 - 200	3 / 4	3,00
200 - 400	2 / 3	2,00
+ 400	1 / 2	1,25

5 Con el fin de proteger los dientes de la sierra no quitar el protector del dentado hasta que esté la sierra montada.
In order to protect the teeth of the saw, do not remove the tooth guard until the saw has been assembled.
Afin de protéger les dents de la scie, ne pas quitter la protection des dents jusqu'à ce que la scie soit montée.

6 Hacer el rodaje de las sierras adecuadamente aumenta su vida útil. Consiste en cortar durante un pequeño periodo de tiempo a una velocidad de corte y a un avance reducido. Se trata de trabajar aproximadamente al 70% de la velocidad de corte y a un 50% de la velocidad de avance. Después de haber cortado aproximadamente 500 cm² de área, se puede incrementar la velocidad de corte gradualmente hasta el máximo, y después incrementar también el avance.
Running in the saw in the correct manner increases its service life. This consists of cutting at a reduced cutting speed and feed rate for a short period of time. This means working at around 70% of the cutting speed and 50% of the feed rate. After having cut an area of approximately 500 cm² in size, you may gradually increase the cutting speed to the maximum and then increase the feed rate.
Faire le rodage des scies de façon adaptée augmente leur vie utile. Consiste à découper pendant une courte période de temps à une vitesse de coupe et une avancée réduite. Il s'agit de travailler à environ 70% de la vitesse de coupe et 50% de la vitesse d'avancée. Après avoir coupé environ 500 cm² de surface, on peut augmenter la vitesse de coupe graduellement jusqu'au maximum, et ensuite augmenter également l'avancée.

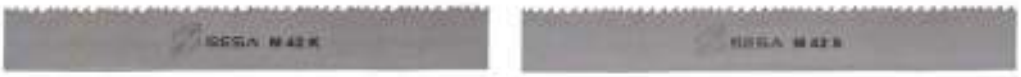


SIERRA DE CINTA M42 - PARA DIVERSAS TAREAS DE CORTE
M42 BIMETAL BANDSAW BLADES - FOR DIVERSE CUTTING TASKS
LAMES DE SCIES Á RUBAN M42 - POUR DIVERSES TÂCHES DE DÉCOUPE

CÁLCULO DEL PRECIO DE UNA SIERRA DE CINTA
PRICE CALCULATION • CALCULE DU PRIX

HSS-CO 8% HRC 68-69

Tipo de diente / Tipo de diente / Tipo de diente



Anchura / Width (mm)	Grosor / Thickness (mm)	Precio Metro / Meter price €	Precio Soldadura / Welding Price €
6	0,9	24,70	11,08
10	0,9	24,70	11,08
13	0,6	23,47	11,08
13	0,9	23,47	11,08
20	0,9	26,08	11,08
27	0,9	27,71	11,08
34	1,1	37,25	14,31
41	1,3	47,51	16,08

	PRECIO METRO METER PRICE PRIX METRE		DESARROLLO / MM LENGTH LONGEUR		SOLDADURA / WELD WELD SOUDURE		PRECIO FINAL PRICE PRIX
Ej / Ex:	27,71	x	2,450 mm	+	11,08	=	78,97

PVP CORTES MÁS HABITUALES M42
PRICES OF MOST USUAL CUTS
PRIX DES LAMES DE SCIES Á RUBAN PLUS HABITUELS

Desarrollo / Length (mm)	Anchura / Width (mm)	€/Unid.
1325	13x0,6	42,19
1330	13x0,6	42,31
1470	13x0,6	45,59
1475	13x0,6	45,70
2000	20x0,9	63,24
2060	20x0,9	64,79
2352	20x0,9	72,42
2070	27x0,9	68,46
2360	27x0,9	76,47
2450	27x0,9	78,97

Desarrollo / Length (mm)	Anchura / Width (mm)	€/Unid.
2460	27x0,9	79,26
2600	27x0,9	83,13
2750	27x0,9	87,29
2835	27x0,9	89,64
2945	27x0,9	92,70
3010	27x0,9	94,51
3660	27x0,9	112,51
4570	34x1,1	184,58
5300	34x1,1	211,80

SIERRA DE CINTA M42 - PARA PERFILES Y TUBOS TIPO "P"

M42 BIMETAL BANDSAW BLADES - FOR PROFILES AND TUBES TYPE "P"
LAMES DE SCIES Á RUBAN M42 - POUR PROFILÉS ET TUBES TIPE "P"

NEW

CÁLCULO DEL PRECIO DE UNA SIERRA DE CINTA

PRICE CALCULATION • CALCULE DU PRIX

HSS-CO 8% | HRC 68-69 | advance MAXIMO RENDIMIENTO

Tipo de diente / Tipo de diente / Tipo de diente

Anchura / Width (mm)	Grosor / Thickness (mm)	Precio Metro / Meter price €	Precio Soldadura / Welding Price €
20	0,9	28,65	10,62
27	0,9	32,40	11,54
34	1,1	40,65	14,31
41	1,3	51,00	16,91

	PRECIO METRO METER PRICE PRIX METRE		DESARROLLO / MM LENGTH LONGEUR		SOLDADURA / WELD WELD SOUDURE		PRECIO FINAL PRICE PRIX
Ej / Ex:	32,40	x	2,450 mm	+	11,54	=	90,92

PVP CORTES MÁS HABITUALES M42

PRICES OF MOST USUAL CUTS
PRIX DES LAMES DE SCIES Á RUBAN PLUS HABITUELS

Desarrollo / Length (mm)	Anchura / Width (mm)	€/Unid.
2000	20x0,9	68,38
2060	20x0,9	70,11
2352	20x0,9	78,47
2070	27x0,9	78,13
2360	27x0,9	87,53
2450	27x0,9	90,44
2460	27x0,9	92,86
2600	27x0,9	95,30

Desarrollo / Length (mm)	Anchura / Width (mm)	€/Unid.
2750	27x0,9	100,16
2835	27x0,9	102,92
2945	27x0,9	106,49
3010	27x0,9	108,59
3660	27x0,9	129,64
4570	34x1,1	200,09
5300	34x1,1	229,76

Plazo 4-5 días laborables / Delivery time 4-5 working days / Durée 4-5 jours ouvrables

RECOMENDACIÓN DE VELOCIDADES DE CORTE PARA SIERRAS DE CINTA M42

SPEED RECOMMENDATION
VITESSE RECOMMENDÉE

HSS-CO 8% HRC 68-69

MATERIAL	Selección Del Dentado / Tooth Selecting		10/14	8/12 - 6/10	5/8 - 4/6	4/6 - 3/4	3/4 - 2/3	Refrigeración Aceite de Corte / Coolant Cutting Fluid	
	Dimensión A Cortar / To Cut		0 -13 mm	13-25 mm	25 - 75 mm	75 - 150 mm	150 - 200 mm		
	REF - I.HA	REF - SAE / AISI	Velocidad Speed (m / min)	Velocidad Speed (m / min)	Velocidad Speed (m / min)	Velocidad Speed (m / min)	Velocidad Speed (m / min)	SI / YES	NO
Aceros Al Carbono Carbon Steels	F-151	1010	105	100	90	85	80		X
	F-111 - F-112	1015 - 1025	110	105	100	95	85		X
	F-113	I035	83	79	73	64	61		X
	M14 - F-115	1045 - 1055	71	73	70	60	49		X
	F-S12 - F 516	W-1 - W-2	78	72	66	60	54		X
Aceros Fácil Mecanización Free Cutting Steels	-	1108-1111	105	105	IOS	102	87		X
	F-211	1117 -1118	102	102	102	99	84		X
			100	93	84	81	72		X
	F-212	1137-1151 1211 -1215	110	110	105	105	93		X
Aceros al Manganeso Manganese Steels	-	1330 - 1340	80	75	71	65	56		X
	-	1513 - 1536	115	112	105	97	85		X
	-	1541 - 1572	75	72	70	60	50		X
Aceros Molibdeno Molybdenum Steels	-	4012- 4024	102	97	90	85	75		X
	-	4027 - 4037	36	93	83	81	71		X
	-	4042 - 4047	82	77	68	63	56		X
Aceros Cromo Molibdeno Chrome Molybdenum Steels	-	4118 - 4130	100	88	80	80	75		X
	F-125	4135 - 4142	94	86	77	75	64		X
	F-155	4145 - 4161	75	70	67	63	55		X
Aceros Níquel Nickel Steels	F-152	2317	90	85	82	77	70	X	
	-	2330 - 2345	74	70	67	61	55	X	
	-	2512 - 2517	64	61	58	52	49	X	
Aceros Cromo Níquel Chrome Nickel Steels	F-158	3115 - 3130	90	84	78	75	72	X	
	-	3135 - 3150	70	65	61	57	50	X	
	F-153	3310 - 3315	67	61	55	54	45	X	
	F-154	3320 - 3340	55	50	43	44	40	X	

Reducir de 10 a 20% con dimensiones superiores a 200 mm. / Reduce from 10% to 20% for sizes over 200 mm. / Reduire du 10% á 20% dans les mésures plus grandes.

RECOMENDACIÓN DE VELOCIDADES DE CORTE PARA SIERRAS DE CINTA M42

SPEED RECOMMENDATION

VITESSE RECOMMENDÉE

HSS-CO 8% HRC 68-69

MATERIAL	Selección Del Dentado Tooth Selecting		10/14	8/12 - 6/10	5/8 - 4/6	4/6 - 3/4	3/4 - 2/3	Refrigeración Aceite de Corte Coolant Cutting Fluid	
	Dimensión A Cortar / To Cut		0 -13 mm	13-25 mm	25 - 75 mm	75 - 150 mm	150 - 200 mm		
	REF - I.HA	REF - SAE / AISI	Velocidad Speed (m / min)	Velocidad Speed (m / min)	Velocidad Speed (m / min)	Velocidad Speed (m / min)	Velocidad Speed (m / min)	SI / YES	NO
Aceros Cromo Níquel Molibdeno CR-Ni-Mb Steels	-	4317 - 4320	83	78	70	68	62	X	
	F-127	4337 - 4340	83	75	68	66	54	X	
	-	8615 - 8627	83	78	75	68	54	X	
	F-12S	8630 - 8645	83	78	72	65	54	X	
	-	8647 -8660	75	69	63	60	48	X	
	-	8716 - 6750	63	78	75	69	54	X	
	F-156	9310 - 9317	73	66	55	52	45	X	
	-	9437 - 9446	86	7B	74	68	65	X	
	-	9447 - 9763	80	77	74	66	62	X	
	-	9840 - 9850	78	75	70	66	52	X	
Aceros Níquel Molibdeno Ni-Mb Steels	-	4608 - 4626	89	84	80	75	65	X	
	-	4640	79	72	68	63	64	X	
	-	4812	74	67	62	60	52	X	
Aceros Cromo Chrome Steel	-	5040 - 5050	90	86	80	78	65		X
	F-121	5120 -5135	90	87	70	75	60		X
	F-122	5140 - 5160	81	77	74	70	58		X
	F-131	50100 - 52100	63	56	52	48	35		X
Aceros Cromo Vanadio Chrome Vanadium Steels	-	6117 - 6120	80	77	70	70	49		X
	F-143	6145 - 6152	76	69	63	60	47		X
Aceros 5(Uck) Manganeso 5 (UCK)-Mg Steels	F-144	9255 - 9260	69	63	60	57	46		X
	-	9261 - 9262	67	60	57	54	45		X
Aceros Trabajados en Frío Cold Worked Steels	F-522 - F-520 H	01 - 02	74	67	65	60	50		
	F-523	L-3	63	58	S2	46	36		
	F-520 P	06 - 07	70	65	62	57	46		
	F-S36	A2 - A3 - A6	72	66	65	60	50		
		D2 - D3 - D6	44	39	35	33	24		X
	-	D7	33	30	27	25	20		X

Reducir de 10 a 20% con dimensiones superiores a 200 mm. / Reduce from 10% to 20% for sizes over 200 mm. / Reduire du 10% á 20% dans les mésures plus grandes.

RECOMENDACIÓN DE VELOCIDADES DE CORTE PARA SIERRAS DE CINTA M42

SPEED RECOMMENDATION
VITESSE RECOMMENDÉE

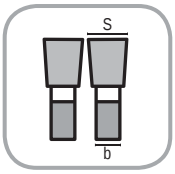
HSS-CO 8% HRC 68-69

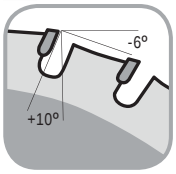
MATERIAL	Selección Del Dentado / Tooth Selecting		10/14	8/12 - 6/10	5/8 - 4/6	4/6 - 3/4	3/4 - 2/3	Refrigeración Aceite de Corte / Coolant Cutting Fluid	
	Dimensión A Cortar / To Cut		0 -13 mm	13-25 mm	25 - 75 mm	75 - 150 mm	150 - 200 mm		
	REF - I.HA	REF - SAE / AISI	Velocidad Speed (m / min)	Velocidad Speed (m / min)	Velocidad Speed (m / min)	Velocidad Speed (m / min)	Velocidad Speed (m / min)	SI / YES	NO
Aceros Trabajos en Caliente Hot Worked Steels	F-526 - F-536	H12 - H13 - H21	70	68	62	60	48	X	
	-	H22 - H24 - H26	60	54	50	48	42	X	
	F-528	L2 L6 - L7	65	61	50	55	46	X	
	F-532	F-1	62	60	56	50	38		X
Aceros Trabajos de Choque Steel Shock Works	F-524	S1	70	63	60	58	48		
	F-520 E	S-2 - S-5	55	50	48	40	35	X	
Aceros Rapidos High Speed Steels	F-552	T-1 - T-2	46	43	39	36	28		X
	F-553 - F-554	T4 - T5	39	35	33	30	24		X
	-	T-6 - T4	35	31	28	28	20		X
	-	T-15 - M-1S	23	26	21	19	te		X
	-	M-1	53	50	46	43	35		X
	F-S50A	M-2 - M-3	39	36	33	30	24		X
	-	M-41 - M-43	35	31	28	25	20		X
Aceros Inoxidables Stainless Steels	F-314	201 - 202 - 304	42	39	35	34	26		
	F-310 C	303 - 303 F	50	45	42	38	30		
	F-331	308 - 309 - 310	31	30	27	24	19		
	F-310 A	314 - 316 - 317	31	30	27	24	18		
	F-332	321 - 347	44	38	35	35	30		
	F-311 - F-312	410 - 420	53	50	45	42	33		
	-	330	27	24	20	17	14	*	
	F-313	431	39	33	30	28	24		
	-	440A-B-C	42	36	34	30	24		
	-	I7-7Ph - 17-4Ph	36	30	27	24	15		
		NITRONIC - 33	18	18	16	15	12		
	F-330 B	446	30	26	23	20	17		
		D2 - D3 - D6	44	39	35	33	24		
	-	D7	33	30	27	25	20		

* Especial para INOX / For INOX / Pour INOX

Reducir de 10 a 20% con dimensiones superiores a 200 mm. / Reduce from 10% to 20% for sizes over 200mm. / Reduire du 10% á 20% dans les mésures plus grandes.

DISCO PARA ALUMINIO Y METALES NO FÉRRICOS
ALUMINIUM AND NON-FERROUS METAL DISCS
DISQUE POUR ALUMINIUM ET METAUX NON FERREUX



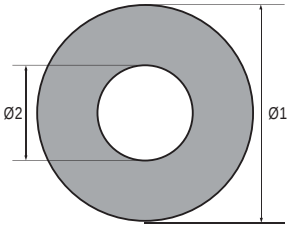


AL · ACERO

MD

Ø (mm)	S Grosor / Thickness	B Grosor / Thickness	Ø Eje / Axe	Z	Cod.	€/Unid.
250	3,2	2,2	32	80	3DM0250	91,78
300	3,2	2,2	32	96	3DM0300	114,47

ANILLOS REDUCTORES
REDUCTIONS RINGS • BIAGUES DE RÉDUCTION



Ø1 / Ø2 (mm)	Cod.	€/Unid.
32/30	2DR3230	5,35
32/25	2DR3225	5,35
32/20	2DR3220	5,35

HOJAS DE SIERRA DE MANO ACERO AL CARBONO
HAND HACKSAW BLADE CARBON STEEL
LAMES DE SCIES ACIER CARBONE

L1 (mm)	A	Grosor / Thickness	Dtes. x pulgada / Teeth x inch	Uds. / Pcs.	Cod.	€/Unid.
300	13	0,65	24	100	S31225	1,56

HOJAS DE SIERRA DE MANO BIMETAL
BIMETAL HAND HACKSAW BLADE
LAMES DE SCIES BIMETAL

L1 (mm)	A	Grosor / Thickness	Dtes. x pulgada / Teeth x inch	Uds. / Pcs.	Cod.	€/Unid.
300	13	0,65	24	100	S21224	3,02
300	13	0,65	32	100	S21232	3,02

HOJA DE SIERRA DOBLE FILO ACERO AL CARBONO
DOUBLE SIDED HACKSAW BLADE CARBON STEEL
LAME DE SCIE À DOUBLE BORD ACIER CARBONE

L1 (mm)	A	Grosor / Thickness	Dtes. x pulgada / Teeth x inch	Uds. / Pcs.	Cod.	€/Unid.
300	13	0,65	24	100	S31224	1,86

SIERRAS DE SABLE PARA MÁQUINAS FEIN
SABRE SAW BLADES FOR FEIN MACHINE
SCIE SABRE POUR FEIN MACHINES

HSS

L1 (mm)	A	Grosor / Thickness	Dtes. x pulgada / Teeth x inch	Uds. / Pcs.	Cod.	€/Unid.
300	27	1,60	14	10	S8300271614	22,61
400	27	1,60	14	10	S8400271614	29,13
500	27	1,60	14	10	S8500271614	33,13
600	27	1,60	14	10	S8600271614	41,76
700	28	2,00	14	10	S8700282014	61,99

Para máquinas neumáticas y eléctricas con anclaje FEIN, SPITZHAS, PREMAG, ROCKWELLL...
For pneumatic and electric machines with anchor FEIN, SPITZHAS, PREMAG, ROCKWELLL...
Pour machines pneumatiques et électriques avec ancre FEIN, SPITZHAS, PREMAG, ROCKWELLL...

HOJA SIERRA DE MÁQUINA BIMETAL
BIMETAL POWER HACKSAW BLADES FOR MACHINE
LAME DE SCIE MACHINE BIMETAL

L1 (mm)		Dtes. x pulgada / Teeth x inch				Uds. / Pcs.	Cod.	€/Unid.
300 x 25 x 1,20		6	8	10	14	10	S73002512XX*	14,73
350 x 32 x 1,60	4	6	8	10	14	10	S73503216XX*	20,78
400 x 32 x 1,60	4	6	8	10	14	10	S74003216XX*	24,12
400 x 40 x 2,00	4	6	8	10	-	10	S74004020XX*	34,93
450 x 32 x 1,60	4	6	8	10	14	10	S74503216XX*	25,41
450 x 40 x 2,00	4	6	8	10	-	10	S74504020XX*	37,95
500 x 40 x 2,00	4	6	8	10	-	10	S75004020XX*	41,10
550 x 50 x 2,50	4	6	8	10	-	10	S75505025XX*	70,12
600 x 50 x 2,00	-	6	8	10	-	10	S76005020XX*	81,70
600 x 50 x 2,50	4	6	8	10	-	10	S76005025XX*	84,26
650 x 50 x 2,50	4	6	8	10	-	10	S76505025XX*	91,66
700 x 50 x 2,50	4	6	8	10	-	10	S77005025XX*	94,30

Consultar plazo / Request delyvery time / ***Vérifier la date limite***

*Las "XX" hacen referencia al número de dientes por pulgada
*The "XX" refer to the number or teeth per inch
*Les "XX" se reférer au nombre de dents par pouce

Ejemplo para pedir: / Example to order: / Exemple de commande:

300 x 25 x 1,20 8 TPI → Cod. S7300251**28**
300 x 25 x 1,20 10 TPI → Cod. S7300251**210**

DESBARBADOR
DEBURRING TOOL
ÉBAVUREUR

Uds. / Pcs.	Cod.	€/Unid.
1	3DE1000	27,45

CUCHILLAS RECAMBIO
DEBURRING TOOLS BLADES • LAMES

Uds. / Pcs.	Cod.	€/Unid.
10	3DE1001	3,15

DESBARBADOR PARA VARILLAS
BOLT CHAMFER
CHAMFER À BOULON

Uds. / Pcs.	Cod.	Ø	€/Unid.
1	3DE1003	8-22mm	33,92

GRANETES
POUNCHES • POINTEAU

GRANETE AUTOMÁTICO
AUTHOMATIC CENTER PUNCH • POINTEAU AUTOMATIQUE

NEW

Uds. / Pcs.	Cod.	€/Unid.
1	5PU5000	46,55

FRESADO

MILLING - FRAISAGE

SESA®

TABLA DE APLICACIONES Y VELOCIDADES DE CORTE RECOMENDADAS
APPLICATION GUIDE AND CUTTING SPEED
TABLE D´APPLICATIONS ET VITESSE DE COUPE RECOMMENDÉ

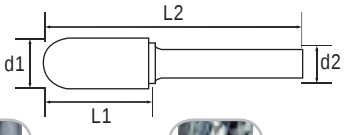
MATERIAL / MATERIAL / MATIERE		Resistencia Ressistance Resistance N/mm²	3 Cortes 3 Cuts 3 Dents	6 Cortes 6 Cuts 6 Dents	Corte INOX INOX cut INOX dent
ACEROS STEELS • ACIERS	Decoletaje Machining • Décolletage	<500		■	
	Carbono <0,4% <0,4% Carbon • Carbon <0,4%	<850		■	
	Acero para herramientas Steel for tools • Acier pour outils	<1.200		■	
	Templado - Revenido Tempered - Quenched • Trempé - Revenu	<1.400		■	
ACEROS INOXIDABLES STAINLESS STEEL ACIER INOXYDABLE	Austeníticos Cr-Ni Cr-Ni Austenitics • Cr-Ni austenitique	<850		■	■
	Martensíticos Cr-Mo Cr-Mo Martensitics • Cr-Mo martensitique	<1.200		■	■
FUNDICIÓN CAST IRON • FONTE	Fundición gris Grey cast iron • Fonte grise	<700		■	
	Fundición dura Hard cast iron • Fonte dur	<1.000		■	
ALUMINIO ALUMINIUM • ALUMINIUM	Puro Pure • Pure	<350	■		
	Si < 10%	<600	■		
	Si > 10%	<600	■		
	Zamak Zamak • Zamak	<600	■		
COBRE COPPER • CUIVRE	Bronce Bronze • Bronze	<350		■	
	Cobre viruta larga Long chip copper • Cuivre coupage long	<700		■	
	Cobre viruta corta Short chip coppe • Cuivre coupage court	<700		■	
	Latón duro Hard Brass • Laiton dur	<700		■	
	Latón tenaz Tough Brass • Laiton tenace	<700		■	
TITANIO TITANIUM • TITANE	Puro Pure • Pure	<700		■	
	Aleaciones de Titanio Titanium alloys • Alliages de titane	<1.200		■	
SINTÉTICOS PLASTICS • PLASTIQUES	Termoplásticos Thermoplastics • Thermoplastique	-	■		
	Duroplásticos Hard-plastics • Duroplastique	-	■		

*VELOCIDADES RECOMENDADAS PARA FRESAS CON MANGO DE LONGITUD ESTANDAR.
*RECOMMENDED SPEEDS FOR STANDARD LENGTH BURRS.
*VITESSE RECOMMANDÉE POUR LES FRAISES DE LONGUEUR STANDARD.

Diámetro de la cabeza de la fresa - RPM x 1000 / Burr head diameter - RPM x 1000 / Diamètre de la tête de la fraise - RPM x 1000														
Ø 3 mm			Ø 6 mm			Ø 10 mm			Ø 12 mm			Ø 16 mm		
RPM Max.	RPM	RPM Inicial Initial Initiale	RPM Max.	RPM	RPM Inicial Initial Initiale	RPM Max.	RPM	RPM Inicial Initial Initiale	RPM Max.	RPM	RPM Inicial Initial Initiale	RPM Max.	RPM	RPM Inicial Initial Initiale
	60-80	65		45-60	50		30-40	30		22-30	25		18-20	20
				30-45	40		19-30	25		15-22	20		12-18	15
	60-80	80		30-45	40		19-30	25		15-22	20		12-18	15
	45-80	65		22-60	45		15-40	30		11-30	25		9-20	20
100	60-80	65	65	15-60	40	55	10-50	25	35	7-30	20	25	6-20	15
	45-80	65		22-60	45		15-40	30		11-30	25		9-20	20
	60-80	80		30-45	40		19-30	25		15-22	20		12-18	15
	60-80	80		15-60	40		10-50	25		7-30	20		6-20	15

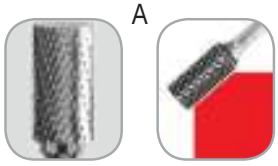
FRESAS ROTATIVAS DE METAL DURO
HARD METAL ROTARY BURRS
FRAISES ROTATIVES MÉTAL DUR

MD



CILÍNDRICA CYLINDER • CYLINDRIQUE

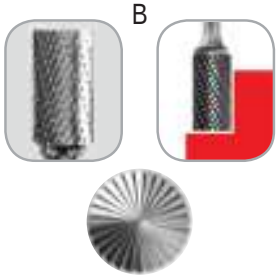
A



Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / 3 Cuts Cod.	€/Unid.	6 Cortes / 6 Cuts Cod.	€/Unid.
A	3,00	3,00	14,00	38,00	FRA3104	24,41	FRA6100	19,08
		6,35	12,70	45,00	FRA3105	38,00	FRA6101	30,61
	6,00	4,00	14,00	50,00	*	*	FRA6107	35,48
		6,00	18,00	50,00	FRA3102	39,36	FRA6102	32,95
		8,00	19,00	64,00	FRA3103	52,91	FRA6103	42,56
		9,60	19,00	64,00	FRA3100	54,48	FRA6104	51,53
		9,60	25,00	70,00	FRA3106	57,59	FRA6109	55,91
		12,70	19,00	64,00	*	*	FRA6105	75,95
		12,70	25,00	70,00	FRA3101	85,52	FRA6106	70,91

CILÍNDRICA CORTE FRONTAL
CYLINDER END CUT • CYLINDRIQUE COUP FRONTALE

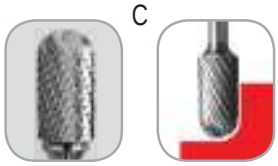
B



Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / 3 Cuts Cod.	€/Unid.	6 Cortes / 6 Cuts Cod.	€/Unid.
B	3,00	3,00	14,00	38.0	FRB3103	31,52	FRB6100	19,62
		6,35	12,70	45,00	FRB3104	38,62	FRB6101	32,03
	6,00	4,00	14,00	50,00	*	*	FRB6107	37,58
		6,00	18,00	50,00	FRB3100	48,11	FRB6102	33,95
		8,00	19,00	64,00	FRB3101	58,47	FRB6103	44,24
		9,60	25,00	70,00	*	*	FRB6109	60,31
		9,60	19,00	64,00	FRB3102	62,86	FRB6104	51,88
		12,70	19,00	64,00	*	*	FRB6105	77,69
		12,70	25,00	70,00	FRB3105	89,22	FRB6106	71,04
		16,00	25,00	70,00	FRB3106	116,76	FRB6108	82,66

CILÍNDRICA CON RADIO BULL NOSE • CYLINDRIQUE A RAYON

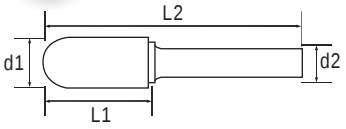
C



Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / 3 Cuts Cod.	€/Unid.	6 Cortes / 6 Cuts Cod.	€/Unid.
C	3,00	3,00	14,00	38,00	FRC3104	31,48	FRC6100	19,95
		6,35	12,70	45,00	FRC3105	42,58	FRC6101	29,64
	6,00	4,00	14,00	50,00	*	*	FRC6108	37,68
		6,00	18,00	50,00	FRC3102	51,77	FRC6102	40,04
		8,00	19,00	64,00	FRC3103	57,60	FRC6103	45,24
		9,60	19,00	64,00	FRC3100	60,61	FRC6104	52,40
		12,70	19,00	64,00	*	*	FRC6105	76,32
		12,70	25,00	70,00	FRC3101	101,76	FRC6106	77,10
		16,00	25,00	70,00	FRC3106	119,59	FRC6107	93,94

FRESAS ROTATIVAS DE METAL DURO
HARD METAL ROTARY BURRS
FRAISES ROTATIVES MÉTAL DUR

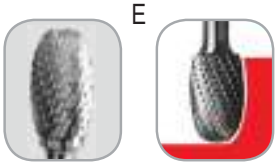
MD



ESFÉRICA BALL • SPHERIQUE

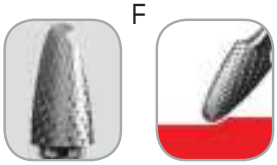
Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / 3 Cuts Cod.	3 Cortes / 3 Cuts €/Unid.	6 Cortes / 6 Cuts Cod.	6 Cortes / 6 Cuts €/Unid.
D	3,00	3,00	2,50	38,00	*	*	FRD6100	19,42
		4,00	3,40	38,00	FRD3103	58,16	FRD6102	44,50
		6,35	5,00	38,00	*	*	FRD6101	30,43
	6,00	6,00	4,70	50,00	FRD3100	48,36	FRD6103	32,71
		8,00	6,00	52,00	*	*	FRD6106	36,23
		9,60	8,00	54,00	FRD3101	49,18	FRD6104	39,87
		12,70	11,00	56,00	FRD3102	66,75	FRD6105	55,20
		16,00	14,00	59,00	FRD3104	87,88	FRD6107	69,00

OVAL OVAL • OVALE



Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / 3 Cuts Cod.	3 Cortes / 3 Cuts €/Unid.	6 Cortes / 6 Cuts Cod.	6 Cortes / 6 Cuts €/Unid.
E	3,00	3,00	6,00	38,00	*	*	FRE6100	22,94
		6,35	9,50	42,00	*	*	FRE6101	29,35
	6,00	8,00	15,00	60,00	*	*	FRE6102	44,24
		9,60	16,00	60,00	FRE3100	64,57	FRE6103	48,60
		12,70	22,00	67,00	FRE3101	92,60	FRE6104	73,40
		16,00	25,00	70,00	*	*	FRE6105	98,25

ÁRBOL CON RADIO ROUND TREE • OGIVE A RAYON

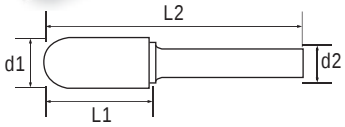


Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / 3 Cuts Cod.	3 Cortes / 3 Cuts €/Unid.	6 Cortes / 6 Cuts Cod.	6 Cortes / 6 Cuts €/Unid.
F	3,00	3,00	14,00	38,00	*	*	FRF6100	25,09
		6,35	12,70	45,00	*	*	FRF6101	28,87
	6,00	6,00	18,00	50,00	FRF3102	57,47	FRF6102	38,69
		8,00	20,00	65,00	FRF3103	56,65	FRF6106	45,18
		9,60	19,00	64,00	FRF3100	60,81	FRF6103	56,98
		12,70	25,00	70,00	FRF3101	91,31	FRF6104	72,25
		16,00	25,00	70,00	FRF3104	120,92	FRF6105	94,68

Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

FRESAS ROTATIVAS DE METAL DURO
HARD METAL ROTARY BURRS
FRAISES ROTATIVES MÉTAL DUR

MD



ÁRBOL CON PUNTA POINTED TREE • ARBRE

G

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / 3 Cuts Cod.	€/Unid.	6 Cortes / 6 Cuts Cod.	€/Unid.
G	3,00	3,00	14,00	38,00	*	*	FRG6100	25,09
		6,35	12,70	45,00	*	*	FRG6101	29,26
	6,00	6,00	18,00	50,00	*	*	FRG6102	37,35
		8,00	19,00	64,00	FRG3100	64,55	FRG6106	44,67
		9,60	19,00	64,00	*	*	FRG6103	53,16
		12,70	19,00	64,00	*	*	FRG6104	67,05
		12,70	25,00	70,00	FRG3101	90,07	FRG6105	72,27

LLAMA FLAME • FLAMME

H

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / 3 Cuts Cod.	€/Unid.	6 Cortes / 6 Cuts Cod.	€/Unid.
H	3,00	3,00	6,00	38,00	*	*	FRH6104	25,02
	6,00	6,00	14,00	50,00	*	*	FRH6101	38,30
		8,00	19,00	64,00	*	*	FRH6102	47,61
		9,60	19,00	65,00	FRH3102	107,86	FRH6103	88,03
		12,70	32,00	77,00	FRH3103 NEW	103,63	FRH6100	98,26

CÓNICA 90º COUNTER SINK 90º • CONIQUE 90º

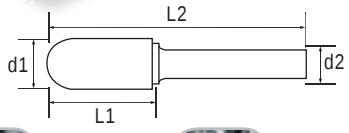
K

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / 3 Cuts Cod.	€/Unid.	6 Cortes / 6 Cuts Cod.	€/Unid.
K	6,00	9,60	4,70	53,00	*	*	FRK6101	42,70
		16,00	8,00	57,00	*	*	FRK6102	71,30

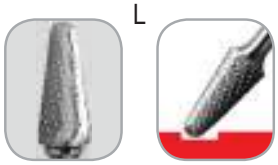
Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

FRESAS ROTATIVAS DE METAL DURO
HARD METAL ROTARY BURRS
FRAISES ROTATIVES MÉTAL DUR

MD

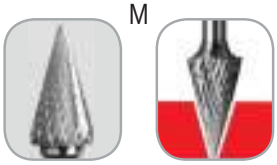


CÓNICA CON RADIO BALL NOSE CONE • CONIQUE A RAYON



Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / 3 Cuts Cod.	€/Unid.	6 Cortes / 6 Cuts Cod.	€/Unid.
L	3,00	3,00	14,00	38,00	*	*	FRL6100	22,33
		6,35	15,80	48,00	*	*	FRL6101	33,25
	6,00	6,00	18,00	50,00	FRL3102	53,49	FRL6106	39,37
		8,00	25,40	70,00	*	*	FRL6105	51,44
		9,60	30,00	76,00	FRL3100	77,68	FRL6102	60,22
		10,00	20,00	65,00	FRL3103	74,71	FRL6107	57,32
		12,00	25,00	70,00	FRL3104	80,05	FRL6108	69,96
		12,70	32,00	77,00	FRL3101	94,06	FRL6103	77,34
		16,00	33,30	78,00	*	*	FRL6104	142,35

CÓNICA CON PUNTA CONE • CONIQUE TRONQUEE



Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / 3 Cuts Cod.	€/Unid.	6 Cortes / 6 Cuts Cod.	€/Unid.
M	3,00	3,00	11,00	38,00	*	*	FRM6100	25,73
	6,00	6,00	20,00	50,00	*	*	FRM6101	37,94
		8,00	18,00	18,00	*	*	FRM6104	54,58
		9,60	16,00	64,00	FRM3101	77,68	FRM6102	57,63
		12,70	22,00	71,00	FRM3102	98,07	FRM6103	79,40
		16,00	25,00	71,00	*	*	FRM6105	102,56

CONO INVERTIDO INVERTED CONE • CONIQUE RENVERSEE

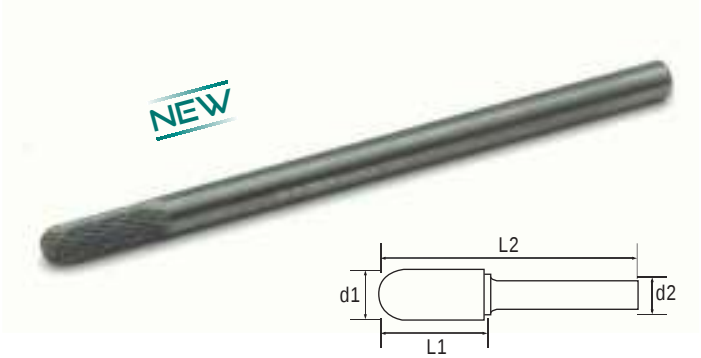
Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	3 Cortes / 3 Cuts Cod.	€/Unid.	6 Cortes / 6 Cuts Cod.	€/Unid.
N	3,00	3,00	4,00	38,00	*	*	FRN6101	22,67
	6,00	6,00	8,00	50,00	*	*	FRN6102	38,00
		12,70	12,70	58,00	*	*	FRN6103	73,31

PASTILLA RIM SHAPE • DISQUE

Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	2 Cortes / 2 Cuts Cod.	€/Unid.	2 Cortes / 2 Cuts Cod.	€/Unid.
P	3,00	10,00	1,60	34,00	FRP3101	56,36	*	*
	6,00	12,00	2,60	48,00	*	*	FRP6101	54,66

Para medidas no tarifadas consultar. / For measurements not listed, request / Pour des mesures non cotées consulter

ESPECIAL CERRAJERÍA
SPECIAL LOCKSMITH
SERRRURERIE SPÉCIAL

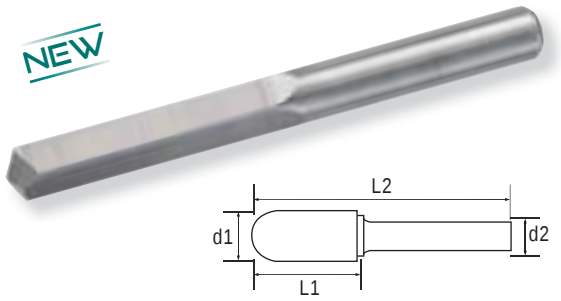


MD

Ø d2 Mango / Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	€/Unid.
6	6,00	18,00	100,00	FRC6109	80,52

Recomendaciones / Recommendations / Recommandations:

Máquina: Amoladora / Machine: Grinder / Machine : Broyeur
Velocidad de trabajo: Consultar tabla pag. 199 / Work speed: Consult table on page. 199 / Vitesse de travail : Voir tableau en page. 199



MD

Ø d2 Mango / Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	Cod.	€/Unid.
6	6,00	33,00	60,00	FRQ6106	75,24

Recomendaciones / Recommendations / Recommandations:

Máquina: Taladro / Machine: Drill / Machine : Perceuse
Velocidad de trabajo: 300RPM / Work speed: 300RPM / Vitesse de travail : 300 tr/min

FRESAS ROTATIVAS DE METAL DURO

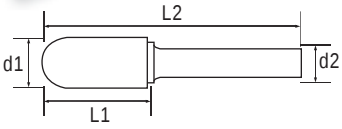
RECOMENDADO PARA ACERO INOXIDABLE

HARD METAL ROTARY BURRS

RECOMMENDED FOR STAINLESS STEEL

FRAISES ROTATIVES MÉTAL DUR

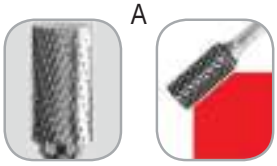
RECOMMANDÉ POUR INOX



MD

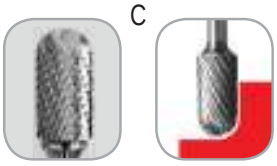
SPECIAL STAINLESS STEEL
ESPECIAL INOX
SPÉCIAL ACIER INOXYDABLE

CILÍNDRICA CYLINDER • CYLINDRIQUE



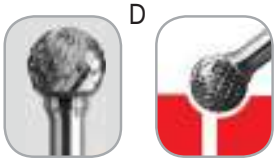
Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	INOX Cod.	€/Unid.
A	6,00	6,00	18,00	50,00	FRA3102-INOX	37,46
		12,70	25,00	70,00	FRA3101-INOX	82,19

CILÍNDRICA CON RADIO BULL NOSE • CYLINDRIQUE A RAYON



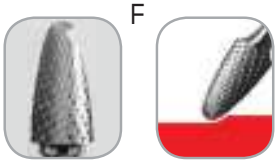
Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	INOX Cod.	€/Unid.
C	6,00	6,00	18,00	50,00	FRC3102-INOX	43,58
		12,70	25,00	70,00	FRC3101-INOX	92,17

ESFÉRICA BALL • SPHERIQUE



Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	INOX Cod.	€/Unid.
D	6,00	6,00	4,70	50,00	FRD3100-INOX	40,05
		12,70	11,00	56,00	FRD3102-INOX	64,94

ÁRBOL CON RADIO ROUND TREE • OGIVE A RAYON



Tipo / Type	Ø d2 Mango Shank (mm)	Ø d1 (mm)	L1 (mm)	L2 (mm)	INOX Cod.	€/Unid.
F	6,00	6,00	18,00	50,00	FRF3102-INOX	45,52
		12,70	25,00	70,00	FRF3101 -INOX	84,87

ESTUCHES DE FRESAS ROTATIVAS
ROTARY BURRS SETS
COFFRET FRAISES ROTATIVES

130801256

Cod. FR	Uds. Pcs.	€/Unid.
FRA6106	1	
FRB6106	1	
FRC6106	1	
FRD6105	1	
FRE6104	1	
FRF6104	1	
FRG6105	1	
FRL6103	1	
FRM6103	1	
FRH6100	1	
TOTAL	10	747,18

130801966

Cod. FR	Uds. Pcs.	€/Unid.
FRB6106	1	
FRB6104	1	
FRC6106	1	
FRC6104	1	
FRL6103	1	
FRE6103	1	
FRG6105	1	
FRG6103	1	
FRD6105	1	
FRF6104	1	
TOTAL	10	631,25

130801255

Cod. FR	Uds. Pcs.	€/Unid.
FRB6106	1	
FRF6104	1	
FRC6106	1	
FRD6105	1	
FRM6103	1	
TOTAL	5	355,00

130801965

Cod. FR	Uds. Pcs.	€/Unid.
FRC6104	1	
FRB6104	1	
FRG6103	1	
FRF6103	1	
FRM6102	1	
TOTAL	5	272,06

130801967*

Cod. FR	Uds. Pcs.	€/Unid.
CILINDRICA CYLINDER	1	
CIL. CON RADIO BULL NOSE	1	
ESFÉRICA BALL	1	
OVAL OVAL	1	
ÁRBOL RADIO ROUND TREE	1	
ÁRBOL PUNTA POINTED TREE	1	
LLAMA FLAME	1	
CÓNICA RADIO BALL NOSE CONE	1	
CÓNICA PUNTA CONE	1	
CONO INVERTIDO INVERTED CONE	1	
TOTAL	10	222,57

*Diámetro fresa/mango 3 mm, dentado cruzado
*Burr and shank diameter 3 mm, 6 cuts
*Diametre fraise et queue 3 mm, 6 coups

FREST6DT

Cod. FR	Uds. Pcs.	€/Unid.
FRB6106	1	
FRC6106	1	
FRD6105	1	
FRF6104	1	
FRG6105	1	
TOTAL	5	347,86

FRESTINOX

Cod. FR	Uds. Pcs.	€/Unid.
FRA3101-INOX	1	
FRC3101-INOX	1	
FRC3102-INOX	1	
FRF3101-INOX	1	
FRD3102-INOX	1	
TOTAL	5	367,75

FREST3DT

Cod. FR	Uds. Pcs.	€/Unid.
FRA3101	1	
FRB3105	1	
FRC3101	1	
FRG3101	1	
FRF3101	1	
TOTAL	5	457,88

USO GENERAL
GENERAL USE
USAGE GÉNÉRAL

ESPECIAL INOX
SPECIAL STAINLESS STEEL
SPÉCIAL ACIER INOXYDABLE

ESPECIAL ALUMINIO
SPECIAL ALUMINIUM
SPÉCIAL ALUMINIUM

EXPOSITOR 40 PIEZAS
DISPLAY 40 PIECES • DISPLAY 40 PIECES

MD

EXPFR2

Cod.	Uds. / Pcs.	Cod.	Uds. / Pcs.
FRB6102	2	FRB6104	2
FRC6102	2	FRC6104	2
FRF6102	2	FRF6103	2
FRG6102	2	FRG6103	2
FRL6103	2	FRL6102	2
FRB6103	2	FRB6106	2
FRC6103	2	FRC6106	2
FRE6104	2	FRF6104	2
FRD6104	2	FRG6105	2
FRH6100	2	FRA6105	2
		TOTAL €	2.343,31

Nota: Se puede adaptar el contenido del expositor según requisitos cliente.
Content of display adaptable / Contenu du display adaptable

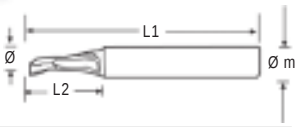
EXPOSITORES SESA KUBO
DISPLAYS SESA KUBO
EXPOSITEURS SESA KUBO

NEW

MD

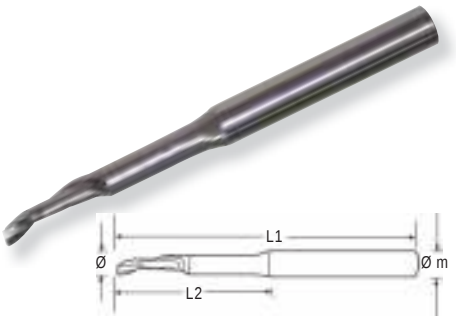
Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE	€/Unid.
KUBO 24	FRESAS ROTATIVAS METAL DURO advance MAXIMO RENDIMIENTO	FREST6DT	FRB6106-FRC6106-FRD6105-FRF6104-FRG6105	6	2.087,17

FRESA FRONTAL UN DIENTE
1Z FINISHING END MILLS • FRAISE 1Z FINITION



Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Uds. / Pcs.	Cod.	€/Unid.
3,00	60	12	8	1	TC0300	23,01
4,00	60	12	8	1	TC0400	23,01
5,00	60	14	8	1	TC0500	23,01
6,00	60	14	8	1	TC0600	23,01
7,00	60	14	8	1	TC0700	26,60
8,00	80	14	8	1	TC0800	25,19
10,00	80	14	8	1	TC1000	32,06

FRESA FRONTAL LARGA UN DIENTE
1Z FINISHING LONG END MILLS • FRAISE LONGUE 1Z FINITION



Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Uds. / Pcs.	Cod.	€/Unid.
4,00	80	16 - 45	8	1	TL0400	34,77
5,00	80	16 - 45	8	1	TL0500	34,77
6,00	90	16 - 45	8	1	TL0600	34,77
8,00	100	30 - 70	8	1	TL0800	52,67

FRESA FRONTAL LARGA UN DIENTE PARA PVC
1Z FINISHING LONG END MILLS FOR PVC
FRAISE LONGUE 1Z FINITION POUR PVC

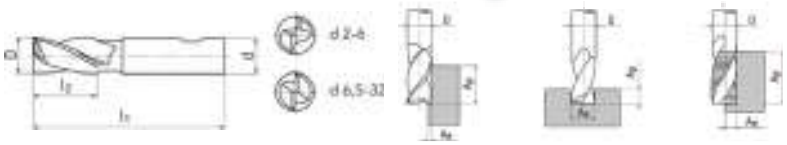
Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Uds. / Pcs.	Cod.	€/Unid.
5,00 PVC +	120	84	8	1	TPVC05	53,00
8,00 PVC +	120	80	8	1	TPVC08	72,34

Condiciones de corte / Cutting conditions / Conditions de coupe

			fz(mm/z)			
Material	Composición	Vc	Ø 3	Ø 6	Ø 8	Ø 10
AL	Si ≤ 12%	160-260	0.008	0.018	0.024	0.03

FRESA FRONTAL DOS DIENTES PARA ALUMINIO
2Z STRAIGHT SHANK END MILLS ESPECIAL FOR ALUMINIUM
FRAISES QUEUE CYLINDRIQUE 2Z POUR L'ALUMINIUM

AL · ACERO · HSS-CO 8% · DIN 844W · 2Z · DIN 1835B · 40° · N



Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	51	7	6	2	1	TDW0200	22,03
2,50	52	8	6	2	1	TDW0250	22,03
3,00	52	8	6	2	1	TDW0300	22,03
3,50	54	10	6	2	1	TDW0350	22,03
4,00	55	11	6	2	1	TDW0400	22,03
4,50	55	11	6	2	1	TDW0450	22,03
5,00	57	13	6	2	1	TDW0500	22,03
5,50	57	13	6	2	1	TDW0550	22,03
6,00	57	13	6	2	1	TDW0600	22,03
6,50	66	16	10	2	1	TDW0650	29,99
7,00	66	16	10	2	1	TDW0700	29,99
7,50	66	16	10	2	1	TDW0750	29,99
8,00	69	19	10	2	1	TDW0800	29,99
8,50	69	19	10	2	1	TDW0850	31,39
9,00	69	19	10	2	1	TDW0900	31,39
9,50	69	19	10	2	1	TDW0950	31,39
10,00	72	22	10	2	1	TDW1000	31,39
11,00	79	22	12	2	1	TDW1100	40,70
12,00	83	26	12	2	1	TDW1200	40,70
13,00	83	26	12	2	1	TDW1300	44,98
14,00	83	26	12	2	1	TDW1400	44,98
15,00	83	26	12	2	1	TDW1500	54,88
16,00	92	32	16	2	1	TDW1600	54,88
17,00	92	32	16	2	1	TDW1700	68,07
18,00	92	32	16	2	1	TDW1800	68,07
19,00	92	32	16	2	1	TDW1900	82,85
20,00	104	38	20	2	1	TDW2000	82,85
21,00	104	38	20	2	1	TDW2100	132,42
22,00	104	38	20	2	1	TDW2200	132,42
24,00	121	45	25	2	1	TDW2400	132,42
25,00	121	45	25	2	1	TDW2500	153,09
26,00	121	45	25	2	1	TDW2600	180,68
28,00	121	45	25	2	1	TDW2800	209,44
30,00	121	45	25	2	1	TDW3000	224,22
32,00	133	53	25	2	1	TDW3200	252,85

Condiciones de corte / Cutting conditions / Conditions de coupe

					fz(mm/z)							
Material	Dureza / Strength / Duretè	Ap	Ae	Vc	Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
AL	Si ≤ 12%	0,5xD	1xD	160-300	0.0117	0.0286	0.0377	0.0468	0.0572	0.0754	0.0845	0.0949

FRESA FRONTAL LARGA DOS DIENTES PARA ALUMINIO

2Z STRAIGHT SHANK LONG END MILLS ESPECIAL FOR ALUMINIUM

FRAISE LONGUE QUEUE CYLINDRIQUE 2Z POUR L'ALUMINIUM

AL

ACERO

HSS-CO 8%

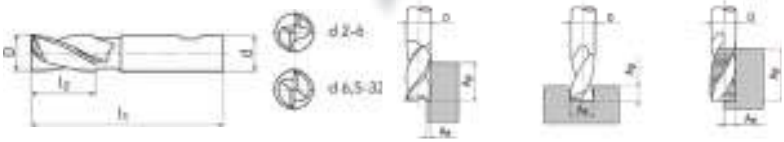
DIN 844W

2Z

DIN 1835B

40°

N



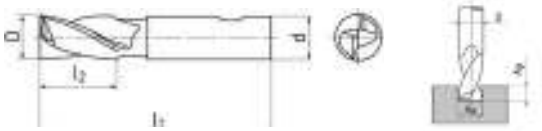
Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	54	10	6	2	1	TDWL0200	30,82
3,00	56	12	6	2	1	TDWL0300	30,82
4,00	63	19	6	2	1	TDWL0400	30,82
5,00	68	24	6	2	1	TDWL0500	30,82
6,00	68	24	6	2	1	TDWL0600	30,82
7,00	80	30	10	2	1	TDWL0700	41,28
8,00	88	38	10	2	1	TDWL0800	44,15
10,00	95	45	10	2	1	TDWL1000	45,92
11,00	102	45	12	2	1	TDWL1100	62,94
12,00	110	53	12	2	1	TDWL1200	62,94
13,00	110	53	12	2	1	TDWL1300	75,90
14,00	110	53	12	2	1	TDWL1400	72,29
15,00	110	53	12	2	1	TDWL1500	82,16
16,00	123	63	16	2	1	TDWL1600	82,16
18,00	123	63	16	2	1	TDWL1800	105,61
20,00	141	75	20	2	1	TDWL2000	128,01
22,00	141	75	20	2	1	TDWL2200	185,49
25,00	166	90	25	2	1	TDWL2500	189,61

Condiciones de corte / Cutting conditions / Conditions de coupe

					fz(mm/z)							
Material	Dureza / Strength / Duretè	Ap	Ae	Vc	Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
AL	Si ≤ 12%	0,5xD	1xD	160-300	0.0117	0.0286	0.0377	0.0468	0.0572	0.0754	0.0845	0.0949

FRESA FRONTAL ACABADO DOS DIENTES
2Z FINISHING STRAIGHT SHANK END MILLS
FRAISES QUEUE CYLINDRIQUE FINITION 2Z

ACERO · INOX · F · HSS-CO 8% · DIN 327N · 2Z · DIN 1835B · 25° · N



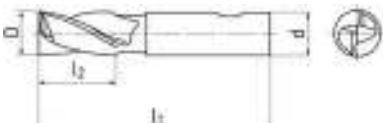
Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	48	4	6	2	1	TDC0200	19,83
2,50	49	5	6	2	1	TDC0250	19,83
3,00	49	5	6	2	1	TDC0300	19,83
3,50	51	7	6	2	1	TDC0350	21,53
4,00	51	7	6	2	1	TDC0400	18,97
5,00	52	8	6	2	1	TDC0500	18,97
6,00	52	8	6	2	1	TDC0600	18,97
7,00	60	10	10	2	1	TDC0700	30,91
8,00	61	11	10	2	1	TDC0800	24,41
9,00	61	11	10	2	1	TDC0900	31,64
10,00	63	13	10	2	1	TDC1000	24,82
11,00	70	13	12	2	1	TDC1100	37,21
12,00	73	16	12	2	1	TDC1200	31,28
13,00	73	16	12	2	1	TDC1300	47,96
14,00	73	16	12	2	1	TDC1400	45,88
15,00	73	16	16	2	1	TDC1500	53,65
16,00	79	19	16	2	1	TDC1600	46,00
17,00	79	19	16	2	1	TDC1700	63,84
18,00	79	19	16	2	1	TDC1800	61,07
19,00	79	19	16	2	1	TDC1900	80,55
20,00	88	22	20	2	1	TDC2000	72,93
22,00	88	22	20	2	1	TDC2200	99,75
24,00	102	26	25	2	1	TDC2400	133,55
25,00	102	26	25	2	1	TDC2500	126,39
26,00	102	26	25	2	1	TDC2600	128,34
28,00	102	26	25	2	1	TDC2800	159,91
30,00	102	26	25	2	1	TDC3000	182,20
32,00	112	32	32	2	1	TDC3200	187,15
36,00	112	32	32	2	1	TDC3600	250,36
40,00	130	38	38	2	1	TDC4000	307,38

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Duretè	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 850 N/mm²	0,5xD	1xD	39	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	24	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 900 N/mm²	0,5xD	1xD	30	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	24	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
INOX	750 - 850 N/mm²	0,5xD	1xD	15	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
F	< 240 HB	0,5xD	1xD	35	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	> 240 HB	0,5xD	1xD	25	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073

FRESA FRONTAL LARGA ACABADO DOS DIENTES
2Z FINISHING STRAIGHT SHANK LONG END MILLS
FRAISE LONGUE QUEUE CYLINDRIQUE FINITION 2Z

HSS-CO 8% | DIN 327N | 2Z



Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	54	7	6	2	1	TDCL0200	25,19
3,00	56	8	6	2	1	TDCL0300	25,19
3,50	59	10	6	2	1	TDCL0350	25,19
4,00	63	11	6	2	1	TDCL0400	22,90
4,50	63	11	6	2	1	TDCL0450	25,19
5,00	68	13	6	2	1	TDCL0500	22,90
5,50	68	13	6	2	1	TDCL0550	25,19
6,00	68	13	6	2	1	TDCL0600	22,90
6,50	80	16	10	2	1	TDCL0650	31,56
7,00	80	16	10	2	1	TDCL0700	28,69
8,00	88	19	10	2	1	TDCL0800	28,69
8,50	88	19	10	2	1	TDCL0850	37,19
9,00	88	19	10	2	1	TDCL0900	33,82
10,00	95	22	10	2	1	TDCL1000	33,82
11,00	102	22	12	2	1	TDCL1100	39,18
12,00	110	26	12	2	1	TDCL1200	39,18
13,00	110	26	12	2	1	TDCL1300	48,74
14,00	110	26	12	2	1	TDCL1400	48,74
15,00	110	26	12	2	1	TDCL1500	56,48
16,00	123	32	16	2	1	TDCL1600	56,48
18,00	123	32	16	2	1	TDCL1800	69,59
20,00	141	38	20	2	1	TDCL2000	86,83
22,00	141	38	20	2	1	TDCL2200	119,60
24,00	166	45	25	2	1	TDCL2400	152,57
25,00	166	45	25	2	1	TDCL2500	167,32
26,00	166	45	25	2	1	TDCL2600	182,32
28,00	166	45	25	2	1	TDCL2800	212,81
30,00	166	45	25	2	1	TDCL3000	241,08
32,00	182	53	32	2	1	TDCL3200	281,30
36,00	182	53	32	2	1	TDCL3600	444,91
40,00	196	63	32*	2	1	TDCL4000	518,71

* d≠ DIN 327

Condiciones de corte / Cutting conditions / Conditions de coupe

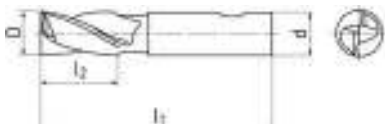
Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 850 N/mm²	0,5xD	1xD	39	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	24	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 900 N/mm²	0,5xD	1xD	30	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	24	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
INOX	750 - 850 N/mm²	0,5xD	1xD	15	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
F	< 240 HB	0,5xD	1xD	35	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	> 240 HB	0,5xD	1xD	25	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073

FRESA FRONTAL ACABADO DOS DIENTES-TIALN
2Z FINISHING STRAIGHT SHANK END MILLS- TIALN
FRAISES QUEUE CYLINDRIQUE FINITION 2Z- TIALN

ACERO · INOX · F

HSS-CO 8% · TIALN · DIN 327N · 2Z

DIN 1835B · 25° · N



Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	48	4	6	2	1	TDC0200T	22,37
2,50	49	5	6	2	1	TDC0250T	24,26
3,00	49	5	6	2	1	TDC0300T	23,96
3,50	50	6	6	2	1	TDC0350T	25,85
4,00	51	7	6	2	1	TDC0400T	25,56
5,00	52	8	6	2	1	TDC0500T	27,15
6,00	52	8	6	2	1	TDC0600T	28,74
7,00	60	10	10	2	1	TDC0700T	35,13
8,00	61	11	10	2	1	TDC0800T	36,84
9,00	61	11	10	2	1	TDC0900T	42,65
10,00	63	13	10	2	1	TDC1000T	44,41
11,00	70	13	12	2	1	TDC1100T	50,34
12,00	73	16	12	2	1	TDC1200T	51,93
13,00	73	16	12	2	1	TDC1300T	61,47
14,00	73	16	12	2	1	TDC1400T	63,06
15,00	73	16	12	2	1	TDC1500T	71,11
16,00	79	19	16	2	1	TDC1600T	72,69
17,00	79	19	16	2	1	TDC1700T	85,47
18,00	79	19	16	2	1	TDC1800T	87,06
19,00	79	19	16	2	1	TDC1900T	102,89
20,00	88	22	20	2	1	TDC2000T	104,67
22,00	88	22	20	2	1	TDC2200T	126,64
24,00	102	26	25	2	1	TDC2400T	145,49
25,00	102	26	25	2	1	TDC2500T	149,60
28,00	102	26	25	2	1	TDC2800T	179,36
30,00	102	26	25	2	1	TDC3000T	198,07
32,00	112	32	32	2	1	TDC3200T	223,46
36,00	112	32	32	2	1	TDC3600T	280,79
40,00	118	38	32*	2	1	TDC400032T	345,57

* d≠ DIN 327

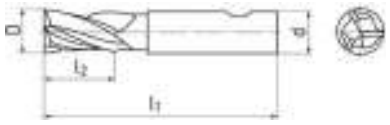
Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Duretè	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm²	0,5xD	1xD	67	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 850 N/mm²	0,5xD	1xD	58	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	36	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 900 N/mm²	0,5xD	1xD	45	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	36	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
INOX	750 - 850 N/mm²	0,5xD	1xD	22,5	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
F	< 240 HB	0,5xD	1xD	52	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	> 240 HB	0,5xD	1xD	37	0.009	0.022	0.029	0.036	0.044	0.058	0.065	0.073

FRESA FRONTAL ACABADO TRES DIENTES - PM ALTIN

3Z FINISHING STRAIGHT SHANK END MILLS - PM ALTIN

FRAISES QUEUE CYLINDRIQUE FINITION 3Z - PM ALTIN



Ø mm (e8)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
6,00	52	8	6	3	1	TDC0600PM	36,23
8,00	61	11	10	3	1	TDC0800PM	47,35
10,00	63	13	10	3	1	TDC1000PM	53,41
12,00	73	16	12	3	1	TDC1200PM	66,44
14,00	73	16	12	3	1	TDC1400PM	78,89
16,00	79	19	16	3	1	TDC1600PM	96,56
18,00	79	19	16	3	1	TDC1800PM	110,92
20,00	88	22	20	3	1	TDC2000PM	149,95

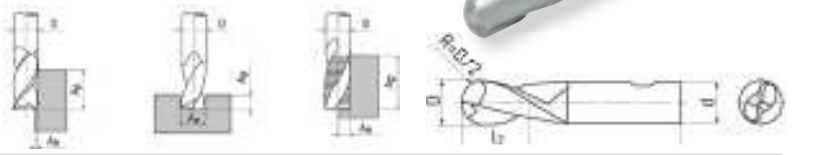
Más rápida y menor vibración / Faster and less vibration / Plus rapide et moins de vibrations

Condiciones de corte / Cutting conditions / Conditions de coupe

					fz(mm/z)						
Material	Dureza / Strength / Duretè	Ap	Ae	Vc	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm²	0,5xD	1xD	114	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 850 N/mm²	0,5xD	1xD	99	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 1100 N/mm²	0,5xD	1xD	62	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 900 N/mm²	0,5xD	1xD	77	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 1100 N/mm²	0,5xD	1xD	62	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	> 1100 N/mm²	0,5xD	1xD	51	0.0168	0.0224	0.028	0.0336	0.0448	0.0504	0.056
INOX	750 - 850 N/mm²	0,5xD	1xD	38	0.024	0.032	0.04	0.048	0.064	0.072	0.08
F	< 240 HB	0,5xD	1xD	89	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	> 240 HB	0,5xD	1xD	66	0.024	0.032	0.04	0.048	0.064	0.072	0.08

FRESA FRONTAL RADIAL ACABADO DOS DIENTES
2Z FINISHING RADIAL STRAIGHT SHANK END MILLS
FRAISES RADIALES QUEUE CYLINDRIQUE FINITION 2Z

HSS-CO 8% | DIN 1889 | 2Z

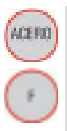


Ø mm (h10)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	48	4	6	2	1	TRC0200	40,55
3,00	49	5	6	2	1	TRC0300	40,55
4,00	51	7	6	2	1	TRC0400	40,55
4,50	51	7	6	2	1	TRC0450	40,55
5,00	52	8	6	2	1	TRC0500	40,55
6,00	52	8	6	2	1	TRC0600	40,55
7,00	60	10	10	2	1	TRC0700	42,19
8,00	61	11	10	2	1	TRC0800	43,67
9,00	61	11	10	2	1	TRC0900	47,23
10,00	63	13	10	2	1	TRC1000	43,83
11,00	70	13	12	2	1	TRC1100	57,71
12,00	73	16	12	2	1	TRC1200	57,45
13,00	73	16	12	2	1	TRC1300	66,38
14,00	73	16	12	2	1	TRC1400	75,84
15,00	73	16	12	2	1	TRC1500	82,42
16,00	79	19	16	2	1	TRC1600	85,51
18,00	79	19	16	2	1	TRC1800	102,83
20,00	88	22	20	2	1	TRC2000	121,94
22,00	88	22	20	2	1	TRC2200	157,65
24,00	102	26	25	2	1	TRC2400	180,88
25,00	102	26	25	2	1	TRC2500	185,12
28,00	102	26	25	2	1	TRC2800	226,97
30,00	102	26	25	2	1	TRC3000	253,34
32,00	112	32	32	2	1	TRC3200	290,77

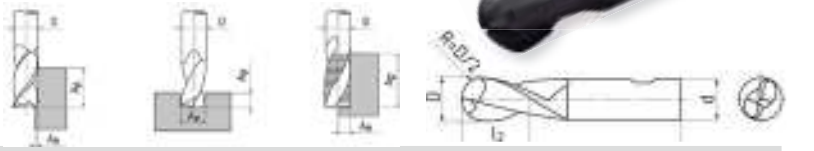
Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Duretè	Ap	Ae	Vc	fz(mm/z) Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 850 N/mm²	0,5xD	1xD	39	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	24	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 900 N/mm²	0,5xD	1xD	30	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	24	0.022	0.029	0.036	0.044	0.058	0.065	0.073
	> 1100 N/mm²	0,5xD	1xD	20	0.0154	0.0203	0.0252	0.0308	0.0406	0.0455	0.0511
INOX	750 - 850 N/mm²	0,5xD	1xD	15	0.022	0.029	0.036	0.044	0.058	0.065	0.073
F	> 240 HB	0,5xD	1xD	25	0.022	0.029	0.036	0.044	0.058	0.065	0.073
TI	≤ 1500 N/mm²	0,5xD	1xD	12	0.0154	0.0203	0.0252	0.0308	0.0406	0.0455	0.051

FRESA FRONTAL RADIAL ACABADO DOS DIENTES - PM ALTIN
2Z FINISHING RADIAL STRAIGHT SHANK END MILLS - PM ALTIN
FRAISES RADIALES QUEUE CYLINDRIQUE FINITION 2Z - PM ALTIN



PM | ALTIN | DIN 1889 | 2Z

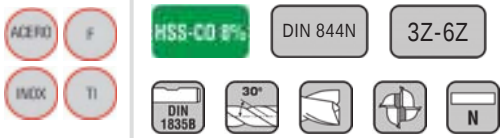


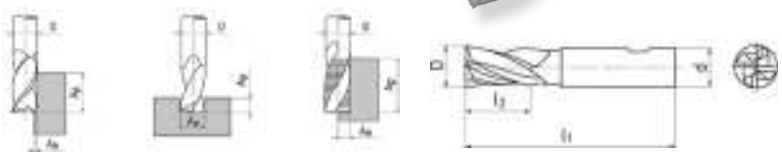
Ø mm (h10)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
4,00	49	5	6	2	1	TRC0400PM	50,47
5,00	51	7	6	2	1	TRC0500PM	50,47
6,00	52	8	6	2	1	TRC0600PM	50,47
7,00	52	8	6	2	1	TRC0700PM	64,65
8,00	61	11	10	2	1	TRC0800PM	64,65
9,00	63	13	10	2	1	TRC0900PM	74,24
10,00	73	16	10	2	1	TRC1000PM	74,24
12,00	73	16	12	2	1	TRC1200PM	89,16
14,00	79	19	16	2	1	TRC1400PM	107,10
16,00	79	19	16	2	1	TRC1600PM	123,43
18,00	88	22	20	2	1	TRC1800PM	148,86
20,00	88	22	20	2	1	TRC2000PM	184,61

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Duretè	Ap	Ae	Vc	fz(mm/z) Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm²	0,5xD	1xD	114	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 850 N/mm²	0,5xD	1xD	99	0.024	0.032	0.04	0.048	0.064	0.072	0.08
	≤ 900 N/mm²	0,5xD	1xD	77	0.024	0.032	0.04	0.048	0.064	0.072	0.08
F	< 240 HB	0,5xD	1xD	89	0.024	0.032	0.04	0.048	0.064	0.072	0.08

FRESA FRONTAL ACABADO - VARIOS DIENTES
NZ FINISHING STRAIGHT SHANK END MILLS
FRAISES QUEUE CYLINDRIQUE FINITION NZ





Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	51	7	6	3	1	TVC0200	21,51
2,50	52	8	6	3	1	TVC0250	21,51
3,00	52	8	6	4	1	TVC0300	21,51
3,50	55	11	6	4	1	TVC0350	21,51
4,00	55	11	6	4	1	TVC0400	20,58
4,50	57	13	6	4	1	TVC0450	21,51
5,00	57	13	6	4	1	TVC0500	20,58
6,00	57	13	6	4	1	TVC0600	20,58
7,00	66	16	10	4	1	TVC0700	31,54
8,00	69	19	10	4	1	TVC0800	24,96
9,00	69	19	10	4	1	TVC0900	32,95
10,00	72	22	10	4	1	TVC1000	28,65
11,00	79	22	12	4	1	TVC1100	39,73
12,00	83	26	12	4	1	TVC1200	34,64
13,00	83	26	12	4	1	TVC1300	51,10
14,00	83	26	12	4	1	TVC1400	46,16
15,00	83	26	12	4	1	TVC1500	55,08
16,00	92	32	16	4	1	TVC1600	53,76
17,00	92	32	16	4	1	TVC1700	66,18
18,00	92	32	16	4	1	TVC1800	63,31
20,00	104	38	20	4	1	TVC2000	74,16
22,00	104	38	20	5	1	TVC2200	107,63
24,00	121	45	25	5	1	TVC2400	133,70
25,00	121	45	25	5	1	TVC2500	133,70
26,00	121	45	25	5	1	TVC2600	162,28
28,00	121	45	25	5	1	TVC2800	167,10
30,00	121	45	25	5	1	TVC3000	193,40
32,00	133	53	32	6	1	TVC3200	199,19
36,00	133	53	32	6	1	TVC3600	291,71
40,00	143	63	32*	6	1	TVC400032	366,01

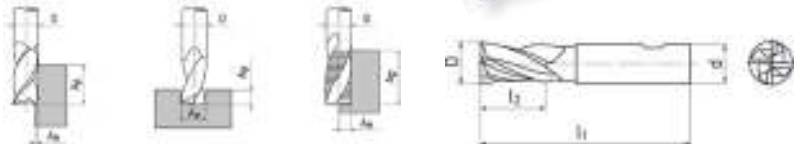
* d≠ DIN 844

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Duretè	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 30	Ø 40
ACERO	≤ 600 N/mm²	1xD	0,1xD	45	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 850 N/mm²	1xD	0,1xD	39	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 1100 N/mm²	1xD	0,1xD	24	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 900 N/mm²	1xD	0,1xD	30	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	> 1100 N/mm²	1xD	0,1xD	20	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0595	0.077
INOX	750 - 850 N/mm²	1xD	0,1xD	15	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
F	< 240 HB	1xD	0,1xD	35	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
TI	≤ 1500 N/mm²	1xD	0,1xD	12	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0595	0.077

FRESA FRONTAL LARGA ACABADO VARIOS DIENTES

NZ FINISHING STRAIGHT SHANK LONG END MILS
FRAISES LONGUE QUEUE CYLINDRIQUE FINITION NZ



Ø mm (k10)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	54	10	6	3	1	TVCL0200	23,72
3,00	56	12	6	4	1	TVCL0300	23,72
3,50	59	15	6	4	1	TVCL0350	26,10
4,00	63	19	6	4	1	TVCL0400	24,47
4,50	63	19	6	4	1	TVCL0450	26,64
5,00	68	24	6	4	1	TVCL0500	24,96
5,50	68	24	6	4	1	TVCL0550	27,46
6,00	68	24	6	4	1	TVCL0600	24,96
7,00	80	30	10	4	1	TVCL0700	31,90
8,00	88	38	10	4	1	TVCL0800	31,90
9,00	88	38	10	4	1	TVCL0900	37,41
10,00	95	45	10	4	1	TVCL1000	37,41
11,00	102	45	12	4	1	TVCL1100	46,17
12,00	110	53	12	4	1	TVCL1200	46,17
13,00	110	53	12	4	1	TVCL1300	56,80
14,00	110	53	12	4	1	TVCL1400	54,01
15,00	110	53	12	4	1	TVCL1500	64,36
16,00	123	63	16	4	1	TVCL1600	64,36
18,00	123	63	16	4	1	TVCL1800	74,76
20,00	141	75	20	4	1	TVCL2000	91,20
22,00	141	75	20	5	1	TVCL2200	120,09
24,00	166	90	25	5	1	TVCL2400	146,98
25,00	166	90	25	5	1	TVCL2500	155,64
26,00	166	90	25	5	1	TVCL2600	172,24
28,00	166	90	25	5	1	TVCL2800	175,59
30,00	166	90	25	5	1	TVCL3000	197,65
32,00	186	106	32	6	1	TVCL3200	204,17
36,00	186	106	32	6	1	TVCL3600	367,47
40,00	205	125	32 *	6	1	TVCL400032	497,11

* d≠ DIN844

Condiciones de corte / Cutting conditions / Conditions de coupe

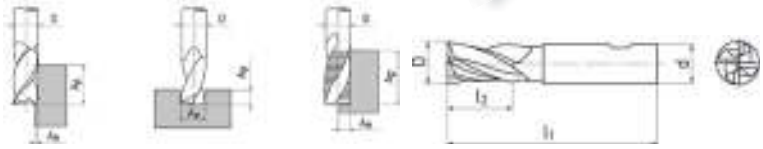
Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 30	Ø 40
ACERO	≤ 600 N/mm²	1xD	0,1xD	45	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 850 N/mm²	1xD	0,1xD	39	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 1100 N/mm²	1xD	0,1xD	24	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	≤ 900 N/mm²	1xD	0,1xD	30	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
	> 1100 N/mm²	1xD	0,1xD	20	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0595	0.077
INOX	750 - 850 N/mm²	1xD	0,1xD	15	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
F	< 240 HB	1xD	0,1xD	35	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.085	0.11
TI	≤ 1500 N/mm²	1xD	0,1xD	12	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0595	0.077

FRESA FRONTAL ACABADO VARIOS DIENTES -TIALN

NZ FINISHING STRAIGHT SHANK END MILLS-TIALN
FRAISES QUEUE CYLINDRIQUE FINITION NZ- TIALN

HSS-CO 8% | TIALN | DIN 844N

3Z-6Z | DIN 1835B | 30° | N



Ø mm (k10)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	51	7	6	3	1	TVC0200T	25,51
2,50	52	8	6	3	1	TVC0250T	26,20
3,00	52	8	6	4	1	TVC0300T	24,84
3,50	55	11	6	4	1	TVC0350T	27,61
4,00	55	11	6	4	1	TVC0400T	26,24
4,50	57	13	6	4	1	TVC0450T	29,01
5,00	57	13	6	4	1	TVC0500T	27,65
5,50	57	13	6	4	1	TVC0550T	30,41
6,00	57	13	6	4	1	TVC0600T	29,04
6,50	66	16	10	4	1	TVC0650T	38,11
7,00	66	16	10	4	1	TVC0700T	36,16
7,50	66	16	10	4	1	TVC0750T	39,50
8,00	69	19	10	4	1	TVC0800T	37,67
8,50	69	19	10	4	1	TVC0850T	46,10
9,00	69	19	10	4	1	TVC0900T	43,71
9,50	69	19	10	4	1	TVC0950T	47,51
10,00	72	22	10	4	1	TVC1000T	42,62
11,00	79	22	12	4	1	TVC1100T	52,57
12,00	83	26	12	4	1	TVC1200T	50,45
13,00	83	26	12	4	1	TVC1300T	61,62
14,00	83	26	12	4	1	TVC1400T	63,03
15,00	83	26	12	4	1	TVC1500T	72,69
16,00	92	32	16	4	1	TVC1600T	74,08
17,00	92	32	16	4	1	TVC1700T	87,54
18,00	92	32	16	4	1	TVC1800T	88,93
20,00	104	38	20	4	1	TVC2000T	102,92
22,00	104	38	20	5	1	TVC2200T	135,15
24,00	121	45	25	5	1	TVC2400T	163,90
25,00	121	45	25	5	1	TVC2500T	170,35
26,00	121	45	25	5	1	TVC2600T	189,10
28,00	121	45	25	5	1	TVC2800T	199,51
30,00	121	45	25	5	1	TVC3000T	213,84
32,00	133	53	32	6	1	TVC3200T	231,17
35,00	133	53	32	6	1	TVC3500T	356,38
36,00	133	53	32	6	1	TVC3600T	349,47
40,00	143	63	32*	6	1	TVC400032T	431,75

* d≠ DIN844

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz(mm/z) Ø 3	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32	Ø 40
ACERO	≤ 600 N/mm²	1xD	0,1xD	67,5	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
	≤ 850 N/mm²	1xD	0,1xD	58,5	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
	≤ 1100 N/mm²	1xD	0,1xD	36	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
	≤ 900 N/mm²	1xD	0,1xD	45	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
	> 1100 N/mm²	1xD	0,1xD	30	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077
INOX	750 - 850 N/mm²	1xD	0,1xD	22,5	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
F	< 240 HB	1xD	0,1xD	52,5	0.006	0.015	0.021	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11
TI	≤ 1500 N/mm²	1xD	0,1xD	18	0.0042	0.0105	0.0147	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077

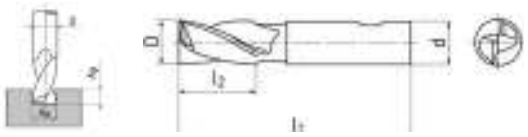
FRESA FRONTAL ACABADO VARIOS DIENTES - PM ALTIN

NZ FINISHING STRAIGHT SHANK END MILLS - PM ALTIN

FRAISES QUEUE CYLINDRIQUE FINITION NZ - PM ALTIN

PM | ALTIN | DIN 844

4Z-5Z | DIN 1835B | 30° | N



Ø mm (k10)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
2,00	51	7	6	4	1	TVC0200PM	44,09
3,00	52	8	6	4	1	TVC0300PM	44,09
4,00	55	11	6	4	1	TVC0400PM	44,09
5,00	57	13	6	4	1	TVC0500PM	44,09
6,00	57	13	6	4	1	TVC0600PM	44,09
8,00	69	19	10	4	1	TVC0800PM	55,03
10,00	72	22	10	4	1	TVC1000PM	65,20
12,00	83	26	12	4	1	TVC1200PM	77,86
14,00	83	26	12	4	1	TVC1400PM	91,15
16,00	92	32	16	4	1	TVC1600PM	111,16
18,00	92	32	16	4	1	TVC1800PM	136,02
20,00	104	38	20	4	1	TVC2000PM	167,45
25,00	121	45	25	5	1	TVC2500PM	258,91
30,00	121	45	25	5	1	TVC3000PM	341,30

Condiciones de corte / Cutting conditions / Conditions de coupe

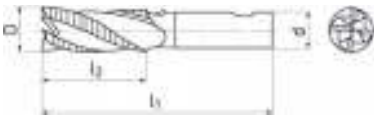
					fz(mm/z)								
Material	Dureza / Strength / Duretè	Ap	Ae	Vc	Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32
ACERO	≤ 850 N/mm²	1xD	0,1xD	99	0.017	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
	≤ 1100 N/mm²	1xD	0,1xD	61.5	0.017	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
	≤ 900 N/mm²	1xD	0,1xD	76.5	0.017	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
	≤ 1100 N/mm²	1xD	0,1xD	61.5	0.017	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
INOX	750 - 850 N/mm²	1xD	0,1xD	37.5	0.015	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
F	≤ 240 HB	1xD	0,1xD	88.5	0.017	0.023	0.031	0.037	0.048	0.056	0.063	0.085	0.1001
AL (Si ≤ 12%)	≤ 600 N/mm²	1xD	0,1xD	240-450	0.0221	0.0299	0.0403	0.0481	0.0624	0.0728	0.0819	0.1103	0.1301
TI	≤ 1500 N/mm²	1xD	0,1xD	31.5	0.0119	0.0161	0.0217	0.0259	0.0336	0.0392	0.0441	0.052	0.0701

FRESA DESBASTE GRUESO - VARIOS DIENTES
NZ COARSE ROUGHING STRAIGHT SHANK END MILLS
FRAISES QUEUE CYLINDRIQUE EBAUCHE NZ

ACERO · INOX · F

HSS-CO 8% · DIN 844NR · 4Z-5Z

DIN 1835B · 30° · NR



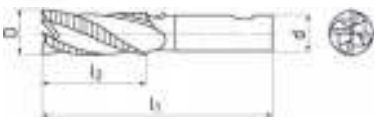
Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
6,00	57	13	6	4	1	TVG0600	55,22
8,00	69	19	10	4	1	TVG0800	58,12
10,00	72	22	10	4	1	TVG1000	58,64
12,00	83	26	12	4	1	TVG1200	69,07
14,00	83	26	12	4	1	TVG1400	81,17
16,00	92	32	16	4	1	TVG1600	95,23
18,00	92	32	16	4	1	TVG1800	105,09
20,00	104	38	20	4	1	TVG2000	131,79
22,00	104	38	20	5	1	TVG2200	155,02
24,00	121	45	25	5	1	TVG2400	195,17
25,00	121	45	25	5	1	TVG2500	193,61

FRESA LARGA DESBASTE GRUESO - VARIOS DIENTES
NZ COARSE ROUGHING STRAIGHT SHANK LONG END MILL
FRAISES LONGUE QUEUE CYLINDRIQUE EBAUCHE NZ

ACERO · INOX · F

HSS-CO 8% · DIN 844NR · 4Z-5Z

DIN 1835B · 30° · NR



Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
6,00	68	24	6	4	1	TVGL0600	49,97
8,00	88	38	10	4	1	TVGL0800	54,99
10,00	95	45	10	4	1	TVGL1000	62,64
12,00	110	53	12	4	1	TVGL1200	73,58
14,00	110	53	12	4	1	TVGL1400	89,28
16,00	123	63	16	4	1	TVGL1600	104,01
18,00	123	63	16	4	1	TVGL1800	128,40
20,00	141	75	20	4	1	TVGL2000	154,20
22,00	141	75	20	5	1	TVGL2200	189,07
24,00	166	90	25	5	1	TVGL2400	231,10
25,00	166	90	25	5	1	TVGL2500	226,57

* d≠ DIN844

Condiciones de corte / Cutting conditions / Conditions de coupe (TVG Y TVGL)

Material	Dureza / Strength / Duretè	Ap	Ae	Vc	fz(mm/z) Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 30	Ø 40
ACERO	≤ 600 N/mm²	1,5xD	0,5xD	45	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14
	≤ 850 N/mm²	1,5xD	0,5xD	39	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14
	≤ 900 N/mm²	1,5xD	0,5xD	30	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14
INOX	750 - 850 N/mm²	1,5xD	0,5xD	15	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14
F	< 240 HB	1,5xD	0,5xD	35	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.115	0.14

FRESA DESBASTE FINO - VARIOS DIENTES
NZ FINE PITCH ROUGHING STRAIGHT SHANK END MILLS
FRAISES QUEUE CYLINDRIQUE EBAUCHE PAS FIN NZ

ACERO · INOX · F

HSS-CO 8% · DIN 844NR-F · 4Z · DIN 1835B · 30° · NR-F

Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
6,00	57	13	6	4	1	TVF0600	62,26
8,00	69	19	10	4	1	TVF0800	64,80
10,00	72	22	10	4	1	TVF1000	65,08
12,00	83	26	12	4	1	TVF1200	77,50
14,00	83	26	12	4	1	TVF1400	90,15
16,00	92	32	16	4	1	TVF1600	105,77

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Duretè	Ap	Ae	Vc	fz(mm/z) Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32
ACERO	≤ 600 N/mm²	1,5xD	0,5xD	45	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
	≤ 850 N/mm²	1,5xD	0,5xD	39	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
	≤ 900 N/mm²	1,5xD	0,5xD	30	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
	≤ 1100 N/mm²	1,5xD	0,5xD	24	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
INOX	750 - 850 N/mm²	1,5xD	0,5xD	15	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12
F	< 240 HB	1,5xD	0,5xD	35	0.02	0.025	0.035	0.04	0.07	0.08	0.09	0.1	0.12

FRESA DESBASTE GRUESO - VARIOS DIENTES - RECOMENDADO PARA MATERIALES DUROS
NZ COARSE ROUGHING STRAIGHT SHANK END MILLS - *RECOMMENDED FOR HARD MATERIALS*
FRAISES QUEUE CYLINDRIQUE EBAUCHE NZ - RECOMMANDÉ POUR MATÉRIAUX DURS

ACERO · F · INOX · TI

PM · ALTIN · DIN 844HR · 5Z · DIN 1835B · 30° · HR

Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
9,00	69	19	10	5	1	TVGH0900PM	97,39
10,00	72	22	10	5	1	TVGH1000PM	102,42
11,00	79	22	12	5	1	TVGH1100PM	113,74
12,00	83	26	12	5	1	TVGH1200PM	120,48
13,00	83	26	12	5	1	TVGH1300PM	134,07
14,00	83	26	12	5	1	TVGH1400PM	142,81
15,00	83	26	12	5	1	TVGH1500PM	157,16
16,00	92	32	16	5	1	TVGH1600PM	168,56
18,00	92	32	16	5	1	TVGH1800PM	199,05
20,00	104	38	20	5	1	TVGH2000PM	244,53

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Duretè	Ap	Ae	Vc	fz(mm/z) Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32
ACERO	≤ 1100 N/mm²	1,5xD	0,5xD	61.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
	≤ 1100 N/mm²	1,5xD	0,5xD	61.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
	> 1100 N/mm²	1,5xD	0,5xD	51	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
INOX	750 - 850 N/mm²	1,5xD	0,5xD	37,5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
F	> 240 HB	1,5xD	0,5xD	66	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
TI	≤ 1500 N/mm²	1,5xD	0,5xD	31.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
	≤ 1250 N/mm²	1,5xD	0,5xD	30	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924

FRESA DESBASTE FINO - VARIOS DIENTES-PM - RECOMENDADO PARA MATERIALES DUROS

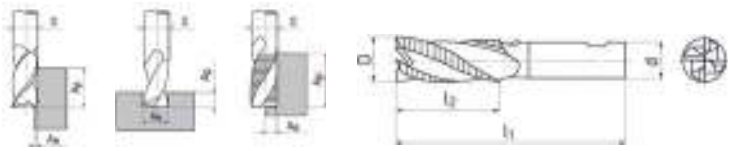
NZ FINE PITCH ROUGHING STRAIGHT SHANK END MILLS-PM - *RECOMMENDED FOR HARD MATERIALS*

FRAISES QUEUE CYLINDRIQUE EBAUCHE PAS FIN NZ-PM - RECOMMANDÉ POUR MATÉRIAUX DURS

ACERO · F · INOX · TI

PM · ALTIN · 4Z-6Z · DIN 844HR-F

DIN 1835B · 30° · HR-F



Ø mm (k12)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
6,00	57	13	6	4	1	TVFH0600PM	74,74
8,00	69	19	10	4	1	TVFH0800PM	85,72
10,00	72	22	10	4	1	TVFH1000PM	95,59
11,00	79	22	12	4	1	TVFH1100PM	116,04
12,00	83	26	12	4	1	TVFH1200PM	111,95
13,00	83	26	12	4	1	TVFH1300PM	122,48
14,00	83	26	12	4	1	TVFH1400PM	131,87
15,00	83	26	12	4	1	TVFH1500PM	148,94
16,00	92	32	16	4	1	TVFH1600PM	155,01
17,00	92	32	16	4	1	TVFH1700PM	177,32
18,00	92	32	16	4	1	TVFH1800PM	183,08
20,00	104	38	20	4	1	TVFH2000PM	231,85
22,00	104	38	20	5	1	TVFH2200PM	268,71
25,00	121	45	25	5	1	TVFH2500PM	325,57
28,00	121	45	25	5	1	TVFH2800PM	404,26
30,00	121	45	25	5	1	TVFH3000PM	465,12
32,00	133	53	32	6	1	TVFH3200PM	518,44

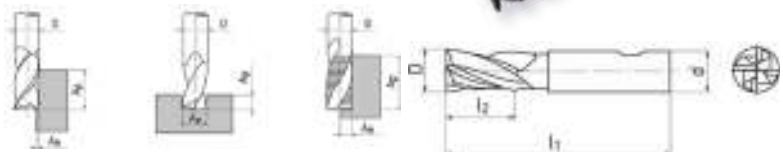
Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Duretè	Ap	Ae	Vc	fz(mm/z) Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32
ACERO	≤ 1100 N/mm²	1,5xD	0,5xD	61.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
	≤ 1100 N/mm²	1,5xD	0,5xD	61.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
	> 1100 N/mm²	1,5xD	0,5xD	51	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
INOX	750 - 850 N/mm²	1,5xD	0,5xD	37,5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
F	> 240 HB	1,5xD	0,5xD	66	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.11	0.132
TI	≤ 1500 N/mm²	1,5xD	0,5xD	31.5	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924
	≤ 1250 N/mm²	1,5xD	0,5xD	30	0.022	0.028	0.039	0.044	0.077	0.088	0.1	0.077	0.0924

FRESA FRONTAL VARIOS DIENTES
NZ FINISHING STRAIGHT SHANK END MILS
FRAISES QUEUE CYLINDRIQUE FINITION NZ

SPECIAL STAINLESS STEEL ESPECIAL INOX SPÉCIAL ACIER INOXYDABLE

ACERO INOX | PM | ALCrN | ESP | 4Z | DIN 1835B | 50° | N



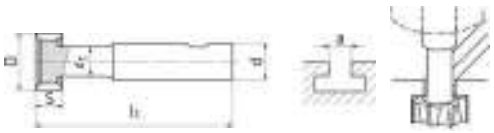
Ø mm (k10)	L1 (mm)	L2 (mm)	Ø Mango / Shank (h6)	Z	Uds. / Pcs.	Cod.	€/Unid.
6,00	57	7	6	4	1	TVC0600PMC	51,19
8,00	65	9	8	4	1	TVC0800PMC	74,84
10,00	72	11	10	4	1	TVC1000PMC	79,51
12,00	83	13	12	4	1	TVC1200PMC	98,48
16,00	92	17	16	4	1	TVC1600PMC	147,89
20,00	104	21	20	4	1	TVC2000PMC	203,21

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Duretè	Ae	Ap	Vc	fz(mm/z) Ø 6	Ø 8	Ø 10	Ø 12	Ø 16	Ø 20
ACERO	≤ 600 N/mm²	1xD	0,1xD	78	0.2	0.027	0.038	0.044	0.054	0.065
	≤ 850 N/mm²	1xD	0,1xD	78	0.2	0.027	0.038	0.044	0.054	0.065
	≤ 1100 N/mm²	1xD	0,1xD	66	0.018	0.024	0.03	0.036	0.042	0.053
	≤ 900 N/mm²	1xD	0,1xD	66	0.018	0.024	0.03	0.036	0.042	0.053
	≤ 1100 N/mm²	1xD	0,1xD	66	0.018	0.024	0.03	0.036	0.042	0.053
	> 1100 N/mm²	1xD	0,1xD	66	0.018	0.024	0.03	0.036	0.042	0.053
INOX	≤ 750 N/mm²	1xD	0,1xD	60	0.018	0.024	0.03	0.036	0.042	0.054
	750 - 850 N/mm²	1xD	0,1xD	48	0.018	0.024	0.03	0.036	0.042	0.054
	> 850 mm²	1xD	0,1xD	48	0.018	0.024	0.03	0.036	0.042	0.054

FRESA PARA RANURAS EN T
T SLOTS SHANK TOOL • FRAISE POUR RANURES À "T"

ACERO TI | HSS-CO 5% | DIN 851N | DIN 1835B | 10° | N



Ø mm (d11)	d (h6)	s (d11)	d1	l1	z	a	Uds. / Pcs.	Cod.	€/Unid.
11,00	10	4	4	53,5	6	5	1	T851N01100	112,41
12,50	10	6	5	57	6	6	1	T851N01250	112,86
16,00	10	8	7	62	6	8	1	T851N01600	117,93
18,00	12	8	8	70	6	10	1	T851N01800	122,69
21,00	12	9	10	74	6	12	1	T851N02100	132,14
25,00	16	11	12	82	8	14	1	T851N02500	145,50
32,00	16	14	15	90	8	18	1	T851N03200	184,30
40,00	25	18	19	108	10	22	1	T851N04000	320,16
50,00	32	22	25	124	10	28	1	T851N05000	461,67
60,00	32	28	30	139	10	36	1	T851N06000	563,74

Para recubrimiento TIALN, consultar / Request for TIALN coating / Pour TIALN revêtement, nous consulter.

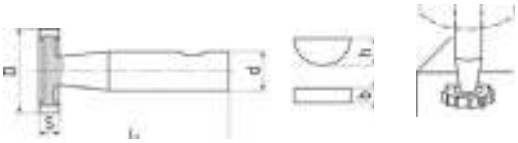
Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Duretè	Ae	Ap	Vc	fz(mm/z) Ø 21	Ø 25	Ø 40	Ø 50
ACERO	≤ 600 N/mm²	0,1xD	1xb	37.5	0.07	0.08	0.04	0.05
	≤ 850 N/mm²	0,1xD	1xb	32.5	0.07	0.08	0.04	0.05
	≤ 1100 N/mm²	0,1xD	1xb	18	0.07	0.08	0.04	0.05
TI	≤ 1250 N/mm²	0,1xD	1xb	9	0.049	0.056	0.028	0.035

FRESA PARA RANURAS WOODRUFF

WOODRUFF SLOTS SHANK TOOL • FRAISE POUR RANURES WOODRUFF

ACERO | TI | HSS-CO 5% | DIN 850 | 6Z-12Z | DIN 1835B | 10°



Ø mm (h12)	d (h6)	s (e8) / b	l1	z	h	Uds. / Pcs.	Cod.	€/Unid.
4,50	6	1	50	6	1,4	1	T850045010	76,08
7,50	6	1,5	50	6	2,6	1	T850075015	60,85
7,50	6	2	50	6	2,6	1	T850075020	60,85
10,50	6	2	50	6	3,7	1	T850105020	72,82
10,50	6	2,5	50	6	3,7	1	T850105025	72,82
10,50	6	3	50	6	3,7	1	T850105030	72,82
13,50*	10	2	56	6		1	T850135020	76,34
13,50	10	3	56	6	5	1	T850135030	76,34
13,50	10	4	56	6	5	1	T850135040	76,34
16,50	10	3	56	6	6,5	1	T850165030	83,29
16,50	10	4	56	6	6,5	1	T850165040	83,29
16,50	10	5	56	6	6,5	1	T850165050	83,29
19,50*	10	3	63	8		1	T850195030	102,25
19,50	10	4	63	8	7,5	1	T850195040	102,25
19,50	10	5	63	8	7,5	1	T850195050	102,25
19,50	10	6	63	8	7,5	1	T850195060	102,25
22,50*	10	4	63	8		1	T850225040	115,87
22,50	10	5	63	8	9	1	T850225050	115,87
22,50	10	6	63	8	9	1	T850225060	115,87
22,50	10	8	63	8	9	1	T850225080	115,87
25,50*	10	5	63	10		1	T850255050	129,60
25,50	10	6	63	10	10	1	T850255060	129,60
28,50	10	6	63	10	11	1	T850285060	136,84
28,50	10	8	63	10	11	1	T850285080	136,84
28,50	12	10	71	10	11	1	T850285100	136,84
32,50*	12	6	71	10		1	T850325060	146,74
32,50*	12	7	71	10		1	T850325070	146,74
32,50	12	8	71	10	13	1	T850325080	146,74
32,50	12	10	71	10	13	1	T850325100	146,74
38,50*	12	8	71	10		1	T850385080	174,24
45,50*	12	8	71	12		1	T850455080	208,29
45,50	12	10	71	12	16	1	T850455100	208,29

Diámetros inferiores a 7,50 mm dentado no cruzado / Diametros inferiores a 7,50.-mm dentado no cruzado / Diametros inferiores a 7,50.-mm dentado no cruzado

Para recubrimiento TIALN, consultar / Request for TIALN coating / Pour TIALN revêtement, nous consulter.

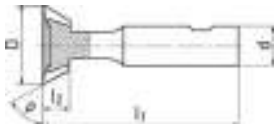
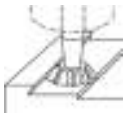
* ≠ DIN 850, ≠ DIN 6888

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Duretè	Ae	Ap	Vc	fz(mm/z) Ø 7.5	Ø 16.5	Ø 22.5	Ø 32.5	Ø 45.5
ACERO	≤ 600 N/mm²	0,1xD	1xb	37.5	0.04	0.07	0.075	0.09	0.1
	≤ 850 N/mm²	0,1xD	1xb	32.5	0.04	0.07	0.075	0.09	0.1
	≤ 1100 N/mm²	0,1xD	1xb	18	0.04	0.07	0.075	0.09	0.1
TI	≤ 1250 N/mm²	0,1xD	1xb	9	0.028	0.049	0.0525	0.063	0.07

FRESA EN BISEL
DOVETAIL MILLING CUTTERS • FRAISES ANGULAIRES

ACERO · TI · HSS-CO 5% · DIN 1833C · 10Z-12Z · DIN 1835B

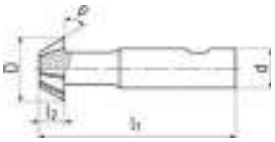



Pº (±30')	Ø mm (js16)	Ø Mango / Shank (h6)	L1	L2	Z	Uds. / Pcs.	Cod.	€/Unid.
45	16,00	12	60	4	10	1	T1833C4516	89,03
45	20,00	12	63	5	10	1	T1833C4520	113,69
45	25,00	12	67	6,3	10	1	T1833C4525	141,78
45	32,00	16	71	8	12	1	T1833C4532	183,69
45	40,00	16	80	10	12	1	T1833C4540	309,19
60	16,00	12	60	6,3	10	1	T1833C6016	89,03
60	20,00	12	63	8	10	1	T1833C6020	113,69
60	25,00	12	67	10	10	1	T1833C6025	141,78
60	32,00	16	71	12,5	12	1	T1833C6032	183,69
60	40,00	16	80	16	12	1	T1833C6040	309,19

Para recubrimiento TIALN, consultar / Request for TIALN coating / Pour TIALN revêtement, nous consulter.

FRESA EN BISEL
DOVETAIL MILLING CUTTERS • FRAISES ANGULAIRES

ACERO · TI · HSS-CO 5% · DIN 1833D · 10Z-12Z · DIN 1835B



Pº (±30')	Ø mm (js16)	Ø Mango / Shank (h6)	L1	L2	Z	Uds. / Pcs.	Cod.	€/Unid.
45	16,00	12	60	4	10	1	T1833D4516	89,03
45	20,00	12	63	5	10	1	T1833D4520	113,69
45	25,00	12	67	6,3	10	1	T1833D4525	141,77
45	32,00	16	71	8	12	1	T1833D4532	179,22
45	40,00	16	80	10	12	1	T1833D4540	309,19
60	16,00	12	60	6,3	10	1	T1833D6016	89,03
60	20,00	12	63	8	10	1	T1833D6020	113,69
60	25,00	12	67	10	10	1	T1833D6025	141,78

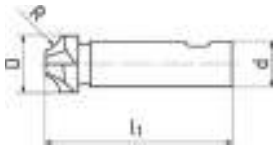
Para recubrimiento TIALN, consultar / Request for TIALN coating / Pour TIALN revêtement, nous consulter.

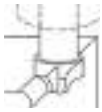
Condiciones de corte / Cutting conditions / Conditions de coupe (T1833C y T1833D)

Material	Dureza / Strength / Duretè	Ae	Vc	fz(mm/z) Ø 16	Ø 20	Ø 25	Ø 32
ACERO	≤ 600 N/mm²	1xb	37.5	0.07	0.075	0.08	0.09
	≤ 850 N/mm²	1xb	32.5	0.07	0.075	0.08	0.09
	≤ 1100 N/mm²	1xb	18	0.07	0.075	0.08	0.09
TI	≤ 1250 N/mm²	1xb	9	0.049	0.0525	0.056	0.063

FRESA RADIO
CORNER ROUNDING CUTTER • FRAISE A RAYON

ACERO · TI · HSS-CO 8% · DIN 6518 · 4Z-6Z · DIN 1835B





R (H11)	Ø mm (js15)	Ø Mango / Shank (h6)	L1	Z	Uds. / Pcs.	Cod.	€/Unid.
1,00	8	10	60	4	1	T65180100	109,25
1,50	9	10	60	4	1	T65180150	119,27
1,60	9,2	10	60	4	1	T65180160	119,27
2,00	10	10	60	4	1	T65180200	119,27
2,50	11	10	60	4	1	T65180250	119,27
3,00	12	12	60	4	1	T65180300	124,00
3,50	13	12	60	4	1	T65180350	134,17
4,00	14	12	60	4	1	T65180400	134,17
4,50	15	12	60	4	1	T65180450	143,84
5,00	16	12	60	4	1	T65180500	143,84
5,50	19	16	67	4	1	T65180550	151,60
6,00	20	16	67	4	1	T65180600	151,60
6,50	21	16	71	4	1	T65180650	186,20
7,00	22	16	71	4	1	T65180700	186,20
7,50	23	16	71	4	1	T65180750	186,20
8,00	24	16	71	4	1	T65180800	186,20
8,50	25	25	85	4	1	T65180850	224,15
9,00	26	25	85	4	1	T65180900	224,15
9,50	27	25	85	4	1	T65180950	224,15
10,00	28	25	85	4	1	T65181000	224,15
10,50	31	25	90	4	1	T65181050	247,53
11,00	32	25	90	4	1	T65181100	247,53
12,00	34	25	90	4	1	T65181200	247,53
12,50	41	25	100	6	1	T65181250	385,87
13,00	42	25	100	6	1	T65181300	346,57
14,00	44	25	100	6	1	T65181400	346,57
15,00	46	25	100	6	1	T65181500	396,37
16,00	48	25	100	6	1	T65181600	396,37
18,00	52	32	112	6	1	T65181800	447,16
19,00	56	32	112	6	1	T65181900	495,68
20,00	56	32	112	6	1	T65182000	496,69

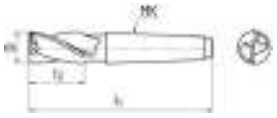
Para recubrimiento TIALN, consultar / Request for TIALN coating / Pour TIALN revêtement, nous consulter.

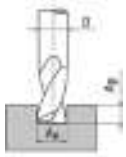
Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Duretè	Ae	Ap	Vc	fz(mm/z) Ø 8	Ø 10	Ø 12	Ø 16	Ø 20
ACERO	≤ 600 N/mm²	1xR	1xR	45	0.04	0.05	0.06	0.065	0.07
	≤ 850 N/mm²	1xR	1xR	39	0.04	0.05	0.06	0.065	0.07
	≤ 1100 N/mm²	1xR	1xR	24	0.04	0.05	0.06	0.065	0.07
TI	≤ 1250 N/mm²	1xR	1xR	12	0.028	0.035	0.042	0.0455	0.049

FRESA FRONTAL ACABADO DOS DIENTES MANGO CÓNICO

2 Z FINISHING TAPER SHANK END MILL • FRAISE QUEUE CONIQUE FINITION 2Z





Ø mm (e8)	MK	L1	L2	Z	Uds. / Pcs.	Cod.	€/Unid.
12,00	1	85	14	2	1	TDMC1200	73,63
14,00	2	100	16	2	1	TDMC1400	91,99
16,00	2	105	18	2	1	TDMC1600	101,89
18,00	2	110	20	2	1	TDMC1800	111,93
20,00	2	115	20	2	1	TDMC2000	121,97
22,00	2	120	22	2	1	TDMC2200	131,86
24,00	3	140	25	2	1	TDMC2400	157,63
25,00	3	140	25	2	1	TDMC2500	167,84
28,00	3	145	28	2	1	TDMC2800	181,77
30,00	3	150	30	2	1	TDMC3000	189,84
32,00	4	175	32	2	1	TDMC3200	206,70
36,00	4	175	34	2	1	TDMC3600	246,16
40,00	4	180	38	2	1	TDMC4000	312,78
45,00	4	185	42	2	1	TDMC4500	352,09
50,00	5	220	45	2	1	TDMC5000	429,99

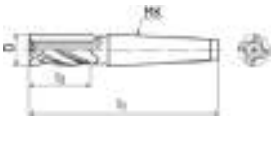
Para recubrimiento TIALN, consultar / Request for TIALN coating / Pour TIALN revêtement, nous consulter.

Condiciones de corte / Cutting conditions / Conditions de coupe

					fz(mm/z)			
Material	Dureza / Strength / Duretè	Ap	Ae	Vc	Ø 12	Ø 16	Ø 18	Ø 20
ACERO	≤ 600 N/mm²	0,5xD	1xD	45	0.044	0.058	0.065	0.073
	≤ 850 N/mm²	0,5xD	1xD	39	0.044	0.058	0.065	0.073
	≤ 1100 N/mm²	0,5xD	1xD	24	0.044	0.058	0.065	0.073
	≤ 900 N/mm²	0,5xD	1xD	30	0.044	0.058	0.065	0.073
INOX	750 - 850 N/mm²	0,5xD	1xD	15	0.044	0.058	0.065	0.073

FRESA FRONTAL 4-8 DIENTES MANGO CÓNICO
NZ TAPER SHANK END MILLS • FRAISE QUEUE CONIQUE NZ

HSS-CO 5% | DIN 845N | 4Z-8Z | 35° | N



Ø mm (e8)	MK	L1	L2	Z	Uds. / Pcs.	Cod.	€/Unid.
10,00	1	92	22	4	1	TVMC1000	68,07
12,00	2	111	26	4	1	TVMC1200	69,53
14,00	2	111	26	4	1	TVMC1400	85,92
16,00	2	117	32	4	1	TVMC1600	96,01
18,00	2	117	32	4	1	TVMC1800	111,70
20,00	2	123	38	4	1	TVMC2000	121,25
22,00	2	123	38	5	1	TVMC2200	138,40
24,00	3	147	45	5	1	TVMC2400	160,46
25,00	3	147	45	5	1	TVMC2500	167,98
26,00	3	147	45	5	1	TVMC2600	177,68
28,00	3	147	45	5	1	TVMC2800	179,33
30,00	3	147	45	6	1	TVMC3000	192,67
32,00	4	178	53	6	1	TVMC3200	218,20
36,00	4	178	53	6	1	TVMC3600	267,43
40,00	4	188	63	6	1	TVMC4000	327,85
45,00	4	188	63	6	1	TVMC4500	412,83
50,00	5	233	75	6	1	TVMC5000	501,02
56,00	5	233	75	8	1	TVMC5600	700,64
63,00	5	248	90	8	1	TVMC6300	900,20

Para recubrimiento TIALN, consultar / Request for TIALN coating / Pour TIALN revêtement, nous consulter.

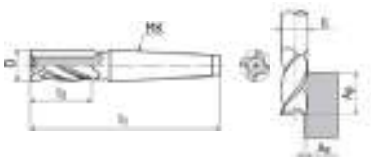
Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Duretè	Ap	Ae	Vc	fz(mm/z) Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32	Ø 40	Ø 50
ACERO	≤ 600 N/mm²	1xD	0,1xD	37.5	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 850 N/mm²	1xD	0,1xD	32.5	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 1100 N/mm²	1xD	0,1xD	18	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 900 N/mm²	1xD	0,1xD	25	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 1100 N/mm²	1xD	0,1xD	18	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	> 1100 N/mm²	1xD	0,1xD	16	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077	0.091
F	> 240 HB	1xD	0,1xD	22	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
INOX	750 - 850 N/mm²	1xD	0,1xD	10	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
TI	≤ 1500 N/mm²	1xD	0,1xD	8	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077	0.091

FRESA FRONTAL LARGA 4-8 DIENTES MANGO CONICO

LONG NZ TAPER SHANK END MILLS • FRAISE QUEUE CONIQUE NZ LONGUE

HSS-CO 5% | DIN 845N | 4Z-8Z | 35° | N



Ø mm (e8)	MK	L1	L2	Z	Uds. / Pcs.	Cod.	€/Unid.
10,00	1	115	45	4	1	TVMCL1000	91,00
12,00	2	138	53	4	1	TVMCL1200	93,09
14,00	2	138	53	4	1	TVMCL1400	114,93
16,00	2	148	63	4	1	TVMCL1600	125,78
18,00	2	148	63	4	1	TVMCL1800	142,17
20,00	2	160	75	4	1	TVMCL2000	154,33
22,00	2	160	75	5	1	TVMCL2200	183,02
24,00	3	192	90	5	1	TVMCL2400	204,40
25,00	3	192	90	5	1	TVMCL2500	215,71
26,00	3	192	90	5	1	TVMCL2600	269,55
28,00	3	192	90	5	1	TVMCL2800	287,29
30,00	3	192	90	6	1	TVMCL3000	308,63
32,00	4	231	106	6	1	TVMCL3200	353,72
36,00	4	231	106	6	1	TVMCL3600	393,67
40,00	4	250	125	6	1	TVMCL4000	433,60
45,00	4	250	125	6	1	TVMCL4500	548,22
50,00	5	308	150	6	1	TVMCL5000	662,61
56,00	5	308	150	8	1	TVMCL5600	972,91
63,00	5	338	180	8	1	TVMCL6300	1.250,06

Para recubrimiento TIALN, consultar / Request for TIALN coating / Pour TIALN revêtement, nous consulter.

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Dureté	Ap	Ae	Vc	fz(mm/z) Ø 10	Ø 12	Ø 16	Ø 18	Ø 20	Ø 25	Ø 32	Ø 40	Ø 50
ACERO	≤ 600 N/mm²	1xD	0,1xD	37.5	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 850 N/mm²	1xD	0,1xD	32.5	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 1100 N/mm²	1xD	0,1xD	18	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 900 N/mm²	1xD	0,1xD	25	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	≤ 1100 N/mm²	1xD	0,1xD	18	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
	> 1100 N/mm²	1xD	0,1xD	16	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077	0.091
F	> 240 HB	1xD	0,1xD	22	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
INOX	750 - 850 N/mm²	1xD	0,1xD	10	0.028	0.034	0.044	0.051	0.057	0.71	0.091	0.11	0.13
TI	≤ 1500 N/mm²	1xD	0,1xD	8	0.0196	0.0238	0.0308	0.0357	0.0399	0.497	0.0637	0.077	0.091

FRESA FRONTAL ACABADO AGUJERO
FINISHING END MILLING CUTTER • FRAISE À TROU FINITION

ACERO F INOX | HSS-CO 5% | DIN 1880N | 6Z-14Z | DIN 138 | 30° | N

Ø mm (js16)	d (H7)	L1	Z	Uds. / Pcs.	Cod.	€/Unid.
40,00	16	32	6	1	T1880N040	187,72
50,00	22	36	8	1	T1880N050	238,86
63,00	27	40	8	1	T1880N063	324,55
80,00	27	45	10	1	T1880N080	476,28
100,00	32	50	10	1	T1880N100	755,77
125,00	40	56	14	1	T1880N125	1.155,87

FRESA FRONTAL ACABADO AGUJERO-TIALN
FINISHING END MILLS-TIALN •FRAISE À TROU FINITION-TIALN

ACERO F INOX | HSS-CO 5% | TIALN | DIN 1880N | 6Z-14Z | DIN 138 | 30° | N

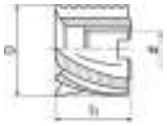
Ø mm (js16)	d (H7)	L1	Z	Uds. / Pcs.	Cod.	€/Unid.
40,00	16	32	6	1	T1880N040T	270,45
50,00	22	36	8	1	T1880N050T	334,46
63,00	27	40	8	1	T1880N063T	445,44
80,00	27	45	10	1	T1880N080T	633,08
100,00	32	50	10	1	T1880N100T	983,27
125,00	40	56	14	1	T1880N125T	1.326,06

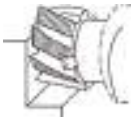
Condiciones de corte / Cutting conditions / Conditions de coupe

						fz(mm/z)			
Material	Dureza / Strength / Duretè	Ap	Ae	**Vc HSSCO 5%**	Vc TIALN	Ø 40	Ø 50	Ø 80	Ø 100
ACERO	≤ 600 N/mm²	0,05xD	0,75xD	37,50	56,25	0.08	0.085	0.11	0.11
	≤ 850 N/mm²	0,05xD	0,75xD	32,50	48,75	0.08	0.085	0.11	0.11
	≤ 1100 N/mm²	0,05xD	0,75xD	18,00	27	0.08	0.085	0.11	0.11
	≤ 900 N/mm²	0,05xD	0,75xD	25,00	37,5	0.08	0.085	0.11	0.11
	≤ 1100 N/mm²	0,05xD	0,75xD	18,00	27	0.08	0.085	0.11	0.11
INOX	750 - 850 N/mm²	0,05xD	0,75xD	10,00	15	0.08	0.085	0.11	0.11
F	> 240 HB	0,05xD	0,75xD	22,00	33	0.08	0.085	0.11	0.11

FRESA FRONTAL DESBASTE AGUJERO
ROUGHING END MILLS •FRAISE À TROU EBAUCHE

ACERO · F · INOX · HSS-CO 5% · DIN 1880N · 6Z-10Z · DIN 138 · 30° · NR

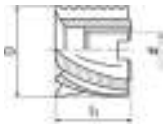


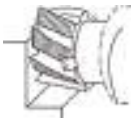


Ø mm (js16)	d (H7)	L1	Z	Uds. / Pcs.	Cod.	€/Unid.
40,00	16	32	6	1	T1880NR040	290,91
50,00	22	36	8	1	T1880NR050	361,49
63,00	27	40	8	1	T1880NR063	458,60
80,00	27	45	10	1	T1880NR080	637,67
100,00	32	50	10	1	T1880NR100	989,75

FRESA FRONTAL DESBASTE AGUJERO - TIALN
ROUGHING END MILLS - TIALN •FRAISE À TROU EBAUCHE - TIALN

ACERO · F · INOX · HSS-CO 5% · TIALN · DIN 1880N · 6Z-10Z · DIN 138 · 30° · NR





Ø mm (js16)	d (H7)	L1	Z	Uds. / Pcs.	Cod.	€/Unid.
40,00	16	32	6	1	T1880NR040T	381,25
50,00	22	36	8	1	T1880NR050T	465,91
63,00	27	40	8	1	T1880NR063T	589,60
80,00	27	45	10	1	T1880NR080T	806,32
100,00	32	50	10	1	T1880NR100T	1.234,20

Condiciones de corte / Cutting conditions / Conditions de coupe

						fz(mm/z)			
Material	Dureza / Strength / Duretè	Ap	Ae	**Vc HSSCO 5%**	Vc TIALN	Ø 40	Ø 50	Ø 80	Ø 100
ACERO	≤ 600 N/mm²	0,05xD	0,75xD	45,00	67.5	0.08	0.085	0.11	0.11
	≤ 850 N/mm²	0,05xD	0,75xD	39,00	58.5	0.08	0.085	0.11	0.11
	≤ 900 N/mm²	0,05xD	0,75xD	30,00	45	0.08	0.085	0.11	0.11
INOX	750 - 850 N/mm²	0,05xD	0,75xD	15,00	22.5	0.08	0.085	0.11	0.11
F	> 240 HB	0,05xD	0,75xD	25,00	37.5	0.08	0.085	0.11	0.11

FRESA 3 CORTES DENTADO FINO CRUZADO - RECOMENDADO PARA MATERIALES DUROS

SIDE AND FACE MILLING CUTTERS FINE TEETH - *RECOMMENDED FOR HARD MATERIALS*

FRAISE CIRCULAIRES 3 TAILLES DENTURE FINE - RECOMMANDÉ POUR MATÉRIAUX DURS

Ø mm (js16)	s (k11)	d (H7)	Z	Uds. / Pcs.	Cod.	€/Unid.
50	4	16	16	1	T885A05004	159,57
50	5	16	16	1	T885A05005	160,72
50	6	16	16	1	T885A05006	169,21
50	8	16	16	1	T885A05008	181,72
50	10	16	16	1	T885A05010	199,06
63	4	22	18	1	T885A06304	178,46
63	5	22	18	1	T885A06305	183,91
63	6	22	18	1	T885A06306	191,68
63	8	22	18	1	T885A06308	206,33
63	10	22	18	1	T885A06310	230,32
63	12	22	18	1	T885A06312	261,43
63	14	22	18	1	T885A06314	293,62
63	16	22	18	1	T885A06316	312,41
80	4	27	20	1	T885A08004	221,90
80	5	27	20	1	T885A08005	231,32
80	6	27	20	1	T885A08006	244,14
80	8	27	20	1	T885A08008	259,13
80	10	27	18	1	T885A08010	265,64
80	12	27	18	1	T885A08012	299,19
80	14	27	18	1	T885A08014	345,76
80	16	27	18	1	T885A08016	374,57
80	18	27	18	1	T885A08018	431,83
80	20	27	18	1	T885A08020	432,11
100	4	32	20	1	T885A10004	250,18
100	5	32	20	1	T885A10005	261,63
100	6	32	20	1	T885A10006	289,72
100	8	32	20	1	T885A10008	321,79
100	10	32	20	1	T885A10010	373,05
100	12	32	20	1	T885A10012	402,26
100	14	32	20	1	T885A10014	448,74
100	16	32	20	1	T885A10016	473,19
100	18	32	20	1	T885A10018	556,25
100	20	32	20	1	T885A10020	559,83
100	25	32	20	1	T885A10025	692,94
125	5	32	24	1	T885A12505	312,23
125	6	32	24	1	T885A12506	342,13
125	8	32	24	1	T885A12508	387,01
125	10	32	22	1	T885A12510	446,51
125	12	32	22	1	T885A12512	532,54
125	14	32	22	1	T885A12514	600,08
125	16	32	22	1	T885A12516	622,09
125	18	32	22	1	T885A12518	716,56
125	20	32	22	1	T885A12520	731,49
125	25	32	22	1	T885A12525	875,86
125	28	32	22	1	T885A12528	941,77
160	6	40	26	1	T885A16006	509,63
160	8	40	26	1	T885A16008	581,47
160	10	40	26	1	T885A16010	635,34
160	12	40	26	1	T885A16012	691,65
160	14	40	26	1	T885A16014	860,75
160	16	40	26	1	T885A16016	926,13
160	18	40	26	1	T885A16018	1.037,32
160	20	40	26	1	T885A16020	1.148,76
160	25	40	26	1	T885A16025	1.270,92
160	32	40	26	1	T885A16032	1.597,83

FRESA 3 CORTES DENTADO FINO CRUZADO - RECOMENDADO PARA MATERIALES DUROS

SIDE AND FACE MILLING CUTTERS FINE TEETH - *RECOMMENDED FOR HARD MATERIALS*

FRAISE CIRCULAIRES 3 TAILLES DENTURE FINE - RECOMMANDÉ POUR MATÉRIAUX DURS

ACERO · INOX · CU · HSS-CO 5% · DIN 885A · DIN 138 · H

Ø mm (js16)	s (k11)	d (H7)	Z	Uds. / Pcs.	Cod.	€/Unid.
200	8	40	32	1	T885A20008	902,35
200	10	40	32	1	T885A20010	974,31
200	12	40	32	1	T885A20012	1.099,25
200	14	40	32	1	T885A20014	1.242,66
200	16	40	32	1	T885A20016	1.272,88
200	18	40	32	1	T885A20018	1.392,71
200	20	40	32	1	T885A20020	1.421,62
200	25	40	32	1	T885A20025	1.725,60
200	32	40	32	1	T885A20032	2.182,06

Condiciones de corte / Cutting conditions / Conditions de coupe

Material	Dureza / Strength / Duretè	Ae	Ap	Vc	fz(mm/z) Ø 50	Ø 80	Ø 100	Ø 160	Ø 200
ACERO	≤ 600 N/mm²	0,1xD	1xb	37.5	0.05	0.07	0.08	0.09	0.09
	≤ 850 N/mm²	0,1xD	1xb	32.5	0.05	0.07	0.08	0.09	0.09
	≤ 900 N/mm²	0,1xD	1xb	25	0.05	0.07	0.08	0.09	0.09
	≤ 1100 N/mm²	0,1xD	1xb	18	0.05	0.07	0.08	0.09	0.09
F	< 240 HB	0,1xD	1xb	30	0.05	0.07	0.08	0.09	0.09
	> 240 HB	0,1xD	1xb	22	0.05	0.07	0.08	0.09	0.09
INOX	750 - 850 N/mm²	0,1xD	1xb	10	0.05	0.07	0.08	0.09	0.09
CU	≤ 800 N/mm²	0,1xD	1xb	60-100	0.05	0.07	0.08	0.09	0.09

FRESA FRONTAL DOS DIENTES PARA ALUMINIO
2Z STRAIGHT SHANK END MILLS ESPECIAL FOR ALUMINIUM
FRAISES QUEUE CYLINDRIQUE 2Z POUR ALUMINIUM

Ref		
TDW0400, TDW0500, TDW0600, TDW0800, TDW1000, TDW1200		
Uds. / Pcs.	Cod.	€/Unid.
6	TDW0601	166,57

*Medidas y condiciones de Corte en pag. 210 / Cutting conditions and sizes in pag. 210 / Condition de coupe et dimensions a la pag. 210

FRESA FRONTAL ACABADO DOS DIENTES
2Z FINISHING STRAIGHT SHANK END MILLS
FRAISES QUEUE CYLINDRIQUE FINITION 2Z

Ref		
TDC0400, TDC0500, TDC0600, TDC0800, TDC1000, TDC1200		
Uds. / Pcs.	Cod.	€/Unid.
6	TDC0601	140,84

*Medidas y condiciones de Corte en pag. 212 / Cutting conditions and sizes in pag. 212 / Condition de coupe et dimensions a la pag. 212

FRESA FRONTAL ACABADO DOS DIENTES-TIALN
2Z FINISHING STRAIGHT SHANK END MILLS- TIALN
FRAISES QUEUE CYLINDRIQUE FINITION 2Z- TIALN

Ref		
TDC0400T, TDC0500T, TDC0600T, TDC0800T, TDC1000T, TDC1200T		
Uds. / Pcs.	Cod.	€/Unid.
6	TDC0601T	210,61

*Medidas y condiciones de Corte en pag. 214 / Cutting conditions and sizes in pag. 214 / Condition de coupe et dimensions a la pag. 214

FRESA FRONTAL RADIAL ACABADO - DOS DIENTES
2Z FINISHING RADIAL STRAIGHT SHANK END MILLS
FRAISES RADIALES QUEUE CYLINDRIQUE FINITION 2Z

Ref		
TRC0400, TRC0500, TRC0600, TRC0800, TRC1000, TRC1200		
Uds. / Pcs.	Cod.	€/Unid.
6	TRC0601	264,12

*Medidas y condiciones de Corte en pag. 216 / Cutting conditions and sizes in pag. 216 / Condition de coupe et dimensions a la pag. 216

FRESA FRONTAL RADIAL ACABADO - DOS DIENTES PM ALTIN
2Z FINISHING RADIAL STRAIGHT SHANK END MILLS PM ALTIN
FRAISES RADIALES QUEUE CYLINDRIQUE FINITION 2Z PM ALTIN

Ref		
TRC0400PM, TRC0500PM, TRC0600PM, TRC0800PM, TRC1000PM, TRC1200PM		
Uds. / Pcs.	Cod.	€/Unid.
6	TRC0601PM	372,34

*Medidas y condiciones de Corte en pag. 216 / Cutting conditions and sizes in pag. 216 / Condition de coupe et dimensions a la pag. 216

FRESA FRONTAL ACABADO VARIOS DIENTES
NZ FINISHING STRAIGHT SHANK END MILS
FRAISES QUEUE CYLINDRIQUE FINITION NZ

Ref		
TVC0400, TVC0500, TVC0600, TVC0800, TVC1000, TVC1200		
Uds. / Pcs.	Cod.	€/Unid.
6	TVC0601	157,42

*Medidas y condiciones de Corte en pag. 217 / Cutting conditions and sizes in pag. 217 / Condition de coupe et dimensions a la pag. 217

FRESA FRONTAL ACABADO VARIOS DIENTES TIALN
NZ FINISHING STRAIGHT SHANK END MILS TIALN
FRAISES QUEUE CYLINDRIQUE FINITION NZ TIALN

Ref		
TVC0400T, TVC0500T, TVC0600T, TVC0800T, TVC1000T, TVC1200T		
Uds. / Pcs.	Cod.	€/Unid.
6	TVC0601T	207,71

*Medidas y condiciones de Corte en pag. 219 / Cutting conditions and sizes in pag. 219 / Condition de coupe et dimensions a la pag. 219

ROSCADO

THREADING - FILETAGE

SESA®

TABLA DE ROSCAS Y PASOS EN PULGADAS
TABLE OF THREADS AND PICHES IN INCHES
TABLE DES FILLETAGES ET PAS EN POUCES

	WHITWORTH 55º				UN 60º		
	CILÍNDRICAS / *CYLINDRICAL*			CÓNICA / *TAPPER*	CILÍNDRICAS / *CYLINDRICAL*		
Ø	BSW	BSF	G(BSP)	BSPT	NPS	NPSF	UNC
Nº 0	-	-	-	-	-	-	-
Nº 1	-	-	-	-	-	-	64
Nº 2	-	-	-	-	-	-	56
Nº 3	-	-	-	-	-	-	48
Nº 4	-	-	-	-	-	-	40
Nº 5	-	-	-	-	-	-	40
Nº 6	-	-	-	-	-	-	32
Nº 8	-	-	-	-	-	-	32
Nº 10	-	-	-	-	-	-	24
Nº 12	-	-	-	-	-	-	24
1/16	60	-	-	-	-	-	-
5/64	56	-	-	-	-	-	-
3/32	48	-	-	-	-	-	-
7/64	48	-	-	-	-	-	-
1/8	40	-	28	28	27	27	32
9/64	-	-	-	-	-	-	-
5/32	32	-	-	-	-	-	32
11/64	32	-	-	-	-	-	-
3/16	24	32	-	-			24
13/63	24	-	-	-	-	-	-
7/32	24	28	-	-	-	-	-
15/64	24	-	-	-	-	-	-
1/4	20	26	19	19	18	18	20
9/32	20	-	-	-	-	-	-
5/16	18	22	-	-	-	-	18
11/32	18	20	-	-	-	-	-
3/8	16	20	19	19	18	18	16
13/32	16	20	-	-	-	-	-
7/16	14	18	-	-	-	-	14
15/32	14	-	-	-	-	-	-
1/2	12	16	14	14	14	14	13
9/16	12	16	-	-	-	-	12
5/8	11	14	14	14	-	-	11
11/16	11	14	-	-	-	-	11
3/4	10	12	14	14	14	14	10
13/16	10	12	-	-	-	-	-
7/8	9	11	14	14	-	-	9
15/16	9	11	-	-	-	-	-
1"	8	10	11	11	11,5	-	8
1" 1/16	8	-	-	-	-	-	-
1" 1/8	7	9	11	11	11,5	-	7
1" 3/16	7	-	-	-	-	-	-
1" 1/4	7	9	11	11	-	-	7
1" 3/8	6	8	11	11	-	-	6
1" 1/2	6	8	11	11	11,5	-	6
1" 5/8	5	8	11	11	-	-	5
1" 3/4	5	7	11	11	-	-	5
1" 7/8	4,5	7	11	11	-	-	4,5
2"	4,5	7	11	11	11,5	-	4,5
2" 1/4	4	6	11	11	-	-	4,5
2" 1/2	4	6	11	11	8	-	4
2" 3/4	3,5	6	11	11	-	-	4
3"	3,5	5	11	11	8	-	4
3" 1/2	-	-	11	-	8	-	-
4"	-	-	11	-	8	-	-

UN 60º				UNS 60º	
CILÍNDRICAS / *CYLINDRICAL*		CÓNICA / *TAPPER*		CILÍNDRICAS / *CYLINDRICAL*	
UNF	UNEF	NPT API	NPTF	UN	UNS
80	-	-	-	-	-
72	-	-	-	-	-
64	-	-	-	-	-
56	-	-	-	-	-
48	-	-	-	-	-
44	-	-	-	-	-
40	-	-	-	-	-
36	-	-	-	-	-
32	-	-	-	-	-
28	-	-	-	-	-
-	-	27	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	27	27	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
32	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
28	32	18	18	-	24 - 27 - 36 - 40 - 48 - 56
-	-	-	-	-	-
24	32	-	-	20 - 28	27 - 36 - 40 - 48
-	-	-	-	-	-
24	32	18	18	20 - 28	18 - 27 - 36 - 40
-	-	-	-	-	-
20	28	-	-	16 - 32	18 - 24 - 27
-	-	-	-	-	-
20	28	14	14	16 - 32	12 - 14 - 18 - 24 - 27
18	24	-	-	16 - 20 - 28 - 32	14 - 27
18	24	14	-	12 - 16 - 20 - 28 - 32	14 - 27
-	24	-	-	12 - 16 - 20 - 28 - 32	-
16	20	14	14	12 - 28 - 32	14 - 18 - 24 - 27
-	20	-	-	-	-
14	20	-	-	12 - 16 - 28 - 32	10 - 18 - 24 - 27
-	20	-	-	-	-
14 y 12	20	-	-	16 - 28 - 32	10 - 14 - 18 - 24 - 27
-	20	-	-	-	-
12	18	-	-	8 - 16 - 20 - 28	10 - 14 - 24
-	18	-	-	-	-
12	18	-	-	8 - 16 - 20 - 28	10 - 14 - 24
12	18	-	-	8 - 16 - 20 - 28	10 - 14 - 24
12	18	-	-	8 - 16 - 20 - 28	10 - 14 - 24
-	18	-	-	6 - 8 - 12 - 16 - 20	10 - 14 - 24
-	-	-	-	6 - 8 - 12 - 16 - 20	10 - 14 - 18
-	-	-	-	6 - 8 - 12 - 16 - 20	10 - 14 - 18
-	-	-	-	6 - 8 - 12 - 16 - 20	10 - 14 - 18
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

EQUIVALENCIAS DE PULGADAS EN MM
EQUIVALENTS OF INCHES IN MM • ÉQUIVALENCES DES POUCES EN MM

	BSW BSF	UNC UNF	G (BSP)	NPS NPT		PG
Ø (")	Ø (mm)	Ø (mm)	Ø (mm)	Ø (mm)	Ø (")	Ø (mm)
No 0	-	1,52	-	-	PG 7	12,5
No 1	-	1,854	-	-	PG 9	15,2
No 2	-	2,184	-	-	PG 11	18,6
No 3	-	2,515	-	-	PG 13,5	20,4
No 4	-	2,845	-	-	PG 16	22,5
No 5	-	3,175	-	-	PG 21	28,3
No 6	-	3,505	-	-	PG 29	37,0
No 8	-	4,166	-	-	PG 36	47,0
No 10	-	4,826	-	-	PG 42	54,0
No 12	-	5,486	-	-	PG 48	59,5
1/16	1,587	1,587	-	-		
3/32	2,381	2,381	-	-		
1/8	3,175	3,175	9,728	10,287		
5/32	3,969	3,969	-	-		
3/16	4,762	4,762	-	-		
7/32	5,556	5,556	-	-		
1/4	6,35	6,35	13,157	13,716		
5/16	7,938	7,938	-	-		
3/8	9,525	9,525	16,662	17,145		
7/16	11,113	11,113	-	-		
1/2	12,700	12,700	20,955	21,336		

	BSW BSF	UNC UNF	G (BSP)	NPS NPT
Ø (")	Ø (mm)	Ø (mm)	Ø (mm)	Ø (mm)
9/16	14,288	14,288	-	-
5/8	15,876	15,876	22,911	-
3/4	19,051	19,051	26,441	26,67
7/8	22,226	22,226	30,201	-
1	25,401	25,401	33,249	33,401
1 1/8	28,576	28,576	37,897	-
1 1/4	31,751	31,751	41,910	42,164
1 3/8	34,926	34,926	44,323	-
1 1/2	38,101	38,101	47,803	48,26
1 5/8	41,277	41,277	-	-
1 3/4	44,452	44,452	53,746	-
1 7/8	47,627	47,627	-	-
2	50,802	50,802	59,614	60,32
2 1/4	57,152	57,152	65,710	-
2 1/2	63,502	63,502	75,184	-
2 3/4	69,853	69,853	81,534	-
3	76,203	76,203	87,884	-
3 1/4	-	-	93,980	-
3 1/2	-	-	100,330	-
3 3/4	-	-	106,680	-
4	-	-	113,030	-

CONVERSIÓN DE VELOCIDAD DE CORTE, DE M/MIN A RPM
CONVERSION TABLE OF CUTTING SPEED M/MIN TO R/MIN
CONVERSION DE VITESSE DE COUPAGE, DE M/MIN Á RPM

m/min.		4	6	8	9	10	12
Medida / *Size*		RPM					
mm	Pulgada / *Inches*						
1,6	1/16	800	1.194	1.592	1.791	1.988	2.386
1,8		708	1.065	1.415	1.598	1.768	2.121
2,0		637	955	1.274	1.433	1.591	1.909
2,2	3/32	579	869	1.158	1.303	1.446	1.736
2,5		510	764	1.019	1.147	1.274	1.527
3,0	1/8	425	637	849	955	1.061	1.273
3,5		364	546	728	819	909	1.091
4,0	5/32	318	478	637	718	796	955
4,5		283	425	566	637	707	849
5,0	3/16	255	382	510	573	637	764
6,0	1/4	212	319	425	477	530	636
7,0	9/32	182	273	364	409	455	546
8,0	5/16	159	239	319	358	398	477
9,0		142	212	283	318	354	425
10,0	3/8	127	191	255	286	318	382
11,0		116	174	232	260	289	347
12,0	1/2	106	159	212	238	265	318
13,0		98	147	196	220	245	294
14,0	9/16	91	136	182	205	277	273
16,0	5/8	80	119	159	179	199	239
18,0		71	106	141	159	177	212
20,0	3/4	64	96	127	143	159	191
22,0	7/8	58	87	116	130	145	174
24,0	1	53	80	106	119	133	159
27,0		47	71	94	106	118	141
30,0	1-1/8	43	64	85	95	106	127
33,0	1-1/4	39	58	77	87	96	116
36,0		35	53	71	80	88	106
39,0	1-1/2	33	49	65	73	82	98
42,0		30	46	61	68	76	91
45,0	1-3/4	28	42	57	64	71	85
48,0		27	40	53	60	66	80
52,0		24	37	49	55	61	73
56,0	2	23	34	46	51	57	68

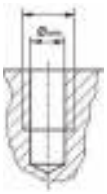
TRANSFORMACIÓN DEL PASO EN HILOS PULGADA EN MM
TRANSFORMATION OF PITCH IN INCH THREADS IN MM • TRANSFORMATION DU PAS EN POUCES FILETAGES EN MM

Paso Pitch	mm
80	0,317
72	0,352
64	0,396
60	0,423
56	0,453
48	0,529
44	0,577
40	0,635
36	0,705
32	0,793
28	0,907
27	0,940
26	0,976
24	1,058
22	1,154
20	1,270
19	1,336
18	1,411
16	1,587
14	1,814

Paso Pitch	mm
13	1,953
12	2,116
11 1/2	2,208
11	2,309
10	2,540
9	2,822
8	3,174
7	3,628
6	4,233
5	5,080
4 1/2	5,644
4	6,349
3 1/2	7,257
3 1/4	7,815
3	8,466
2 7/8	8,834
2 3/4	9,236
2 5/8	9,676
2 1/2	10,160

15	18	21	25	27	30	36
RPM						
2.983	3.579	4.176	4.971	5.369	5.965	7.158
2.652	3.182	3.712	4.419	4.743	5.303	6.364
2.386	2.863	3.341	3.977	4.295	4.773	5.727
2.169	2.603	3.037	3.616	3.905	4.339	5.207
1.909	2.291	2.673	3.182	3.436	3.818	4.582
1.591	1.909	2.227	2.651	2.864	3.182	3.818
1.364	1.636	1.909	2.273	2.455	2.727	3.273
1.193	1.432	1.671	1.989	2.148	2.387	2.864
1.061	1.273	1.485	1.768	1.909	2.122	2.546
955	1.146	1.337	1.591	1.719	1.909	2.292
795	954	1.113	1.326	1.432	1.592	1.909
682	818	955	1.136	1.227	1.364	1.636
597	716	835	994	1.074	1.193	1.432
531	637	742	885	955	1.061	1.293
477	573	668	795	859	955	1.146
434	521	608	723	781	868	1.041
398	477	557	663	716	796	955
367	441	514	612	661	734	881
341	409	477	568	614	682	818
298	358	418	497	537	597	716
265	318	371	442	477	530	636
239	286	334	398	430	477	573
217	260	304	362	391	434	521
199	239	275	331	353	398	477
177	212	245	295	318	354	424
159	191	223	265	286	318	382
145	174	203	241	260	289	347
133	159	186	221	239	265	318
122	147	171	204	220	245	294
114	186	159	189	205	227	273
106	127	149	177	191	212	255
99	119	139	166	179	199	239
92	110	129	153	165	184	220
85	102	119	142	153	170	205

DIÁMETRO DE BROCA PREVIA PARA ROSCADO
RECOMMENDED TAPPINNG DRILL SIZES • DIAMÈTRES PRÉALABLES AU FILETAGE



M	Ø (mm)	Mf	Ø (mm)	Mf	Ø (mm)	BSW	Ø (mm)	UNC	Ø (mm)	UNF	Ø (mm)
1 x 0,25	0,75	3 x 0,35	2,65	24 x 2	22,00	W 3/32	1,80	Nº 1-64	1,50	Nº 0-80	1,30
1,1 x 0,25	0,85	3,5 x 0,35	3,15	25 x 1	24,00	W 1/8	2,60	Nº 2-56	1,80	Nº 1-72	1,60
1,2 x 0,25	0,95	4 x 0,35	3,65	25 x 1,5	23,50	W 5/32	3,10	Nº3-48	2,10	Nº 2-64	1,90
1,4 x 0,3	1,10	4 x 0,5	3,50	26 x 1	25,00	W 3/16	3,60	Nº 4-40	2,30	Nº 3-56	2,10
1,6 x 0,35	1,25	5 x 0,5	4,50	26 x 1,5	24,50	W 7/32	4,40	Nº 5-40	2,60	Nº 4-48	2,40
(1,7) x 0,35	1,30	6 x 0,5	5,50	27 x 1	26,00	W 1/4	5,10	Nº 6-32	2,85	Nº 5-44	2,70
1,8 x 0,35	1,45	6 x 0,75	5,20	27 x 1,5	25,50	W 5/16	6,50	Nº 8-32	3,50	Nº 6-40	3,00
2 x 0,4	1,60	7 x 0,75	6,20	27 x 2	25,00	W 3/8	7,90	Nº 10-24	3,90	Nº8-36	3,50
2,2 x 0,45	1,75	8 x 0,5	7,50	28 x 1,5	26,50	W 7/16	9,30	Nº 12-24	4,50	Nº 10-32	4,10
(2,3) x 0,4	1,90	8 x 0,75	7,20	28 x 2	26,00	W 1/2	10,50	1/4-20	5,20	Nº 12-28	4,70
2,5 x 0,45	2,05	8 x 0,1	7,00	30 x 1	29,00	W 9/16	12,00	5/16-18	6,60	1/4-28	5,50
(2,6) x 0,45	2,10	9 x 0,1	8,00	30 x 1,5	28,50	W 5/8	13,50	3/8-16	8,00	5/16-24	6,90
3 x 0,5	2,50	10 x 0,5	9,50	30 x 2	28,00	W 3/4	16,50	7/16-14	9,40	3/8-24	8,50
(3) x 0,6	2,40	10 x 0,75	9,20	32 x 1,5	30,50	W 7/8	19,25	1/2-13	10,80	7/16-20	9,90
3,5 x 0,6	2,90	10 x 1	9,00	33 x 1,5	31,50	W 1"	22,00	9/16-12	12,20	1/2-20	11,50
(3,5) x 0,75	2,75	10 x 1,25	8,80	33 x 2	31,00	W 1" 1/8	24,75	5/8-11	13,50	9/16-18	12,90
4 x 0,7	3,30	11 x 1	10,00	34 x 1,5	32,50	W 1" 1/4	27,75	3/4-10	16,50	5/8-18	14,50
(4) x 0,75	3,25	12 x 0,75	11,20	35 x 1,5	33,50	W 1" 3/8	30,20	7/8-9	19,50	3/4-16	17,50
4,5 x 0,75	3,70	12 x 1	11,00	36 x 1,5	34,50	W 1" 1/2	33,50	1"-8	22,25	7/8-14	20,25
5 x 0,8	4,20	12 x 1,25	10,80	36 x 2	34,00	W 1" 3/4	38,50	1" 1/8-7	25,00	1"-12	23,25
(5) x 0,9	4,10	12 x 1,5	10,50	36 x 3	33,00	W 2"	44,50	1" 1/4-7	28,25	1" 1/8-12	26,50
6 x 1	5,00	13 x 1	12,00	38 x 1,5	36,50	BSF	Ø (mm)	1" 3/8-6	30,75	1"1/4-12	29,50
7 x 1	6,00	13 x 1,5	11,50	39 x 1,5	37,50	BSF 1/4	5,20	1" 1/2-6	34,00	1" 3/8-12	32,50
8 x 1,25	6,80	13 x 1,75	11,20	39 x 2	37,00	BSF 5/16	6,60	1" 3/4-5	39,50	1"1/2-12	36,00
9 x 1,25	7,80	14 x 1	13,00	39 x 3	36,00	BSF 3/8	8,10	2"-4,5	45,00	BSP	Ø (mm)
10 x 1,5	8,50	14 x 1,25	12,80	40 x 1,5	38,50	BSF 7/16	9,50	2" 1/4-4,5	51,50	G 1/8	8,80
11 x 1,5	9,50	14 x 1,5	12,50	40 x 2	38,00	BSF 1/2	11,00	2" 1/2-4	57,25	G 1/4	11,80
12 x 1,75	10,20	15 x 1	14,00	40 x 3	37,00	BSF 5/8	14,00	2" 3/4-4	63,50	G 3/8	15,25
14 x 2	12,00	15 x 1,5	13,50	42 x 1,5	40,50	BSF 3/4	16,50	3"-4	70,00	G 1/2	19,00
16 x 2	14,00	15 x 2	13,00	42 x 2	40,00	BSF 7/8	19,50	3" 1/4-4	76,20	G 5/8	21,00
18 x 2,5	15,50	16 x 1	15,00	42 x 3	39,00	BSF 1"	22,50	3" 1/2-4	82,60	G 3/4	24,50
20 x 2,5	17,50	16 x 1,5	14,50	45 x 1,5	43,50	NPT	Ø (mm)	PG	Ø (mm)	G 7/8	28,25
22 x 2,5	19,50	18 x 1	17,00	45 x 2	43,00	1/16-27	6,30	PG 7	11,40	G 1"	30,75
24 x 3	21,00	18 x 1,5	16,50	45 x 3	42,00	1/8-27	8,50	PG 9	14,00	G 1" 1/8	35,30
27 x 3	24,00	18 x 2	16,00	48 x 1,5	46,50	1/4-18	11,20	PG 11	17,25	G 1" 1/4	39,30
30 x 3,5	26,50	20 x 1	19,00	48 x 2	46,00	3/8-18	14,50	PG 13,5	19,00	G 1" 3/8	41,70
33 x 3,5	29,50	20 x 1,5	18,50	48 x 3	45,00	1/2-14	18,00	PG 16	21,25	G 1" 1/2	45,20
36 x 4	32,00	20 x 2	18,00	50 x 1,5	48,50	3/4-14	23,00	PG 21	26,75	G 1" 3/4	51,10
39 x 4	35,00	22 x 1	21,00	50 x 2	48,00	1"-11,5	29,00	PG 29	35,50	G 2"	57,00
42 x 4,5	37,50	22 x 1,5	20,50	50 x 3	47,00	1" 1/4-11,5	38,00	PG 36	45,50	G 2" 1/4	63,10
45 x 4,5	40,50	22 x 2	20,00	52 x 1,5	50,50	1" 1/2-11,5	44,00	PG 42	52,50	G 2" 1/2	72,60
48 x 5	43,00	24 x 1	23,00	52 x 2	50,00	2"-11,5	56,00	PG 48	58,00	G 2" 3/4	78,90
52 x 5	47,00	24 x 1,5	22,50	52 x 3	49,00	2" 1/2-8	67,00			G 3"	85,30
						3"-8	83,00				

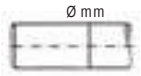
DIÁMETRO DE BROCA PREVIA PARA ROSCADO POR LAMINACIÓN
RECCOMMENDED DRILL SIZE FOR FORMING THREADS • DIAMÈTRES PRÉALABLES POUR FILETAGE ROULANT

M	Ø (mm)	M	Ø (mm)
1 x 0,25	0,90	9 x 1,25	8,40
1,2 x 0,25	1,10	10 x 1,5	9,30
1,4 x 0,3	1,26	11 x 1,5	10,30
1,6 x 0,35	1,45	12 x 1,75	11,20
1,8 x 0,35	1,65	14 x 2	13,00
2 x 0,4	1,85	16 x 2	15,10
2,2 x 0,45	2,00	18 x 2,5	16,80
2,5 x 0,45	2,30	20 x 2,5	18,80
3 x 0,5	2,80	22 x 2,5	20,80
3,5 x 0,6	3,25	24 x 3	22,50
4 x 0,7	3,70		
4,5 x 0,75	4,15		
5 x 0,8	4,65		
6 x 1	5,55		
7 x 1	6,55		
8 x 1,25	7,45		

Mf	Ø (mm)	Mf	Ø (mm)
2 x 0,25	1,90	7 x 0,5	6,80
2,2 x 0,25	2,10	7 x 0,75	6,65
2,5 x 0,25	2,40	8 x 0,5	7,80
2,5 x 0,35	2,35	8 x 0,75	7,65
3 x 0,25	2,90	8 x 1	7,55
3 x 0,35	2,85	9 x 0,5	8,80
3,5 x 0,35	3,35	9 x 0,75	8,65
3,5 x 0,5	3,30	9 x 1	8,55
4 x 0,35	3,85	10 x 0,5	9,80
4 x 0,5	3,80	10 x 0,75	9,65
4,5 x 0,5	4,30	10 x 1	9,55
5 x 0,5	4,80	10 x 1,25	9,40
5 x 0,75	4,65	11 x 0,75	10,70
5,5 x 0,5	5,30	11 x 1	10,50
6 x 0,5	5,80	12 x 0,75	11,70
6 x 0,75	5,65		

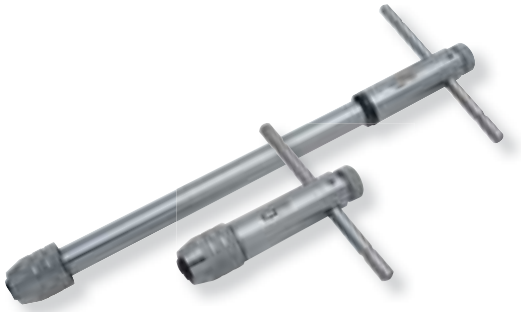
Mf	Ø (mm)	Mf	Ø (mm)
M12 x 1	11,50	M18 x 1	17,50
M12 x 1,25	11,40	M18 x 1,5	17,30
M12 x 1,5	11,30	M18 x 2	17,00
M13 x 0,75	12,70	M20 x 1	19,50
M13 x 1	12,50	M20 x 1,5	19,30
M13 x 1,5	12,30	M20 x 2	19,00
M14 x 0,75	13,70	M22 x 1,5	21,30
M14 x 1	13,50	M22 x 2	21,00
M14 x 1,25	13,40	M24 x 1,5	23,30
M14 x 1,5	13,30	M24 x 2	23,00
M15 x 0,75	14,70	M25 x 1,5	24,30
M15 x 1	14,50	M26 x 1,5	25,30
M15 x 1,5	14,30	M27 x 2	26,00
M16 x 0,75	15,70	M28 x 1,5	27,25
M16 x 1	15,50	M30 x 1,5	29,25
M16 x 1,5	15,30	M30 x 2	29,00

DIÁMETRO PREVIO DEL EJE A ROSCAR
RECOMMENDED OUTSIDE DIAMETER • AXES PRÉALABLES AU FILETAGE



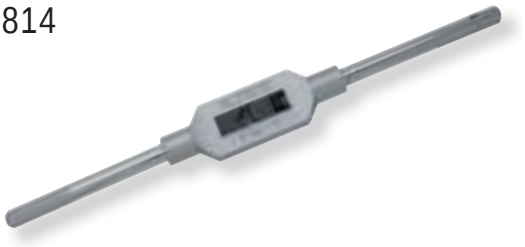
M	Ø (mm)	Mf	Ø (mm)	Mf	Ø (mm)	BSW	Ø (mm)	UNC	Ø (mm)	UNF	Ø (mm)
1 x 0,25	0,97	3 x 0,35	2,94	24 x 2	22,82	W 1/4	6,16	Nº 1-64	1,79	Nº 0-80	1,47
1,1 x 0,25	1,07	3,5 x 0,35	3,44	25 x 1	24,88	W 5/16	7,76	Nº 2-56	2,12	Nº 1-72	1,79
1,2 x 0,25	1,17	4 x 0,35	3,94	25 x 1,5	24,85	W 3/8	9,30	Nº3-48	2,44	Nº 2-64	2,12
1,4 x 0,3	1,36	4 x 0,5	3,93	26 x 1	25,88	W 7/16	10,89	Nº 4-40	2,76	Nº 3-56	2,44
1,6 x 0,35	1,54	5 x 0,5	4,93	26 x 1,5	25,85	W 1/2	12,43	Nº 5-40	3,09	Nº 4-48	2,77
(1,7) x 0,35	1,64	6 x 0,5	5,93	27 x 1	26,88	W 9/16	13,92	Nº 6-32	3,41	Nº 5-44	3,10
1,8 x 0,35	1,74	6 x 0,75	5,90	27 x 1,5	26,85	W 5/8	15,62	Nº 8-32	4,07	Nº 6-40	3,42
2 x 0,4	1,93	7 x 0,75	6,90	27 x 2	26,82	W 3/4	18,76	Nº 10-24	4,71	Nº8-36	4,08
2,2 x 0,45	2,13	8 x 0,5	7,93	28 x 1,5	27,85	W 7/8	21,89	Nº 12-24	5,37	Nº 10-32	7,73
(2,3) x 0,4	2,23	8 x 0,75	7,90	28 x 2	27,82	W 1"	25,08	1/4-20	6,22	Nº 12-28	5,38
2,5 x 0,45	2,43	8 x 0,1	7,83	30 x 1	29,88	W 1" 1/8	28,21	5/16-18	7,80	1/4-28	6,24
(2,6) x 0,45	2,53	9 x 0,1	8,88	30 x 1,5	29,85	BSF	Ø (mm)	3/8-16	9,37	5/16-24	7,82
3 x 0,5	2,92	10 x 0,5	9,93	30 x 2	29,82	BSF 1/4	6,25	7/16-14	10,95	3/8-24	9,41
(3) x 0,6	2,91	10 x 0,75	9,90	32 x 1,5	31,85	BSF 5/16	7,82	1/2-13	12,52	7/16-20	10,98
3,5 x 0,6	3,41	10 x 1	9,88	33 x 1,5	32,85	BSF 3/8	9,39	9/16-12	14,10	1/2-20	12,56
(3,5) x 0,75	3,41	10 x 1,25	9,86	33 x 2	32,82	BSF 7/16	10,97	5/8-11	15,68	9/16-18	14,14
4 x 0,7	3,91	11 x 1	10,88	34 x 1,5	33,85	BSF 1/2	12,54	3/4-10	18,84	5/8-18	15,73
(4) x 0,75	3,91	12 x 0,75	11,90	35 x 1,5	34,85	BSF 5/8	15,71	7/8-9	22,00	3/4-16	18,89
4,5 x 0,75	4,41	12 x 1	11,88	36 x 1,5	35,85	BSF 3/4	18,85	1"-8	25,16	7/8-14	22,05
5 x 0,8	4,90	12 x 1,25	11,86	36 x 2	35,82	BSF 7/8	22,02	1" 1/8-7	28,31	1"-12	25,21
(5) x 0,9	4,89	12 x 1,5	11,85	36 x 3	35,76	BSF 1"	25,17	1" 1/4-7	31,49	1" 1/8-12	28,38
6 x 1	5,88	13 x 1	12,88	38 x 1,5	37,85	NPT	Ø (mm)	1" 3/8-6	34,63	1"1/4-12	31,56
7 x 1	6,88	13 x 1,5	12,85	39 x 1,5	38,85	1/16-27	8,17	1" 1/2-6	37,81	1" 3/8-12	34,73
8 x 1,25	7,87	13 x 1,75	12,83	39 x 2	38,82	1/8-27	10,55	1" 3/4-5	44,12	1"1/2-12	37,91
9 x 1,25	8,87	14 x 1	13,88	39 x 3	38,76	1/4-18	14,10	2"-4,5	50,45	BSP	Ø (mm)
10 x 1,5	9,85	14 x 1,25	13,86	40 x 1,5	39,85	3/8-18	17,52	2" 1/4-4,5	56,80	G 1/8	9,62
11 x 1,5	10,85	14 x 1,5	13,85	40 x 2	39,82	1/2-14	21,85	2" 1/2-4	63,10	G 1/4	13,03
12 x 1,75	11,83	15 x 1	14,88	40 x 3	39,76	3/4-14	27,16	2" 3/4-4	69,45	G 3/8	16,53
14 x 2	13,82	15 x 1,5	14,85	42 x 1,5	41,85	1"-11,5	34,16	3"-4	75,80	G 1/2	20,81
16 x 2	15,82	15 x 2	14,82	42 x 2	41,85	1" 1/4-11,5	42,74	3" 1/4-4		G 5/8	22,77
18 x 2,5	17,79	16 x 1	15,88	42 x 3	41,76	1" 1/2-11,5	48,87	3" 1/2-4		G 3/4	26,30
20 x 2,5	19,79	16 x 1,5	15,85	45 x 1,5	44,85	2"-11,5	60,95	PG	Ø (mm)	G 7/8	30,06
22 x 2,5	21,79	18 x 1	17,88	45 x 2	44,82			PG 7	12,40	G 1"	33,07
24 x 3	23,77	18 x 1,5	17,85	45 x 3	44,76			PG 9	15,10	G 1" 1/8	37,71
27 x 3	26,77	18 x 2	17,82	48 x 1,5	47,85			PG 11	18,50	G 1" 1/4	41,73
30 x 3,5	29,73	20 x 1	19,88	48 x 2	47,82			PG 13,5	20,30	G 1" 3/8	44,14
33 x 3,5	32,73	20 x 1,5	19,85	48 x 3	47,46			PG 16	22,40	G 1" 1/2	47,62
36 x 4	35,70	20 x 2	19,82	50 x 1,5	49,85			PG 21	28,15	G 1" 3/4	53,56
39 x 4	38,70	22 x 1	21,88	50 x 2	49,82			PG 29	36,85	G 2"	59,43
42 x 4,5	41,69	22 x 1,5	21,85	50 x 3	49,76			PG 36	46,85		
45 x 4,5	44,68	22 x 2	21,82	52 x 1,5	51,85			PG 42	53,85		
48 x 5	47,66	24 x 1	23,88	52 x 2	51,82			PG 48	59,15		
52 x 5	51,66	24 x 1,5	23,85	52 x 3	51,76						

GIRAMACHOS CON CRIQUE IZQ-DCH
TAP HOLDER WITH RATCHET, LEFT-RIGHT HAND
PORTE TARAUDS



Nº	Para machos / *For Taps*		⌀ (mm)	L1 (mm)	Peso / *Weight* (kg)	Uds. / *Pcs.*	Cod.	€/Unid.
1	M 3 - 10	1/8 - 3/8	2,4 - 5,5	85	0,165	1	1R10001	25,24
2	M 5 - 12	7/32 - 1/2	4,5 - 8,0	100	0,310	1	1R10002	30,99
10	M 3 - 10	1/8 - 3/8	2,4 - 5,5	250	0,250	1	1R10010	41,23
20	M 5 - 12	7/32 - 1/2	4,5 - 8,0	300	0,440	1	1R10020	49,59

GIRAMACHOS AJUSTABLES DE ZINC FUNDIDO DIN1814
ZINC ADJUSTABLE TAP WRENCHES DIN 1814
PORTE TARAUDS EN ZINC DIN 1814



DIN 1814

Nº	Para machos / *For Taps*				⌀ (mm)	L1 (mm)	Peso / *Weight* (kg)	Uds. / *Pcs.*	Cod.	€/Unid.
0	M 1 - 8	1/16 - 1/4			2,0 - 5,0	130	0,050	1	1R13000	11,76
1	M 1 - 10	1/16 - 3/8	G	1/8	2,0 - 6,3	176	0,095	1	1R13010	13,85
1.1/2	M 1 - 12	1/16 - 1/2	G	1/8	2,1 - 8,0	176	0,120	1	1R13015	14,06
2	M 4 - 12	5/32 - 1/2	G	1/8	3,0 - 9,0	280	0,285	1	1R13020	23,98
3	M 5 - 20	7/32 - 3/4	G	1/8 - 1/2	4,9 - 12,0	380	0,660	1	1R13030	47,50
4	M 11 - 27	7/16 - 1	G	1/4 - 3/4	5,5 - 16,0	505	1,500	1	1R13040	83,55
5 L	M 13 - 32	1/2 - 1.1/4	G	1/4 - 1	7,0 - 20,0	700	1,800	1	1R13050	116,99

GIRAMACHOS AJUSTABLES DE ACERO DIN 1814

STEEL ADJUSTABLE TAP WRENCHES DIN 1814

PORTE TARAUDS EN ACIER DIN1814

DIN 1814

Nº	Para machos / *For Taps*			Ø (mm)	L1 (mm)	Peso / *Weight* (kg)	Uds. / *Pcs.*	Cod.	€/Unid.
0	M 1 - 8	1/16 - 1/4		2,0 - 5,0	130	0,050	1	1R14000	22,23
1	M 1 - 10	1/16 - 3/8		2,0 - 6,3	176	0,100	1	1R14010	23,25
1.1/2	M 1 - 12	1/16 - 1/2	G 1/8	2,1 - 8,0	176	0,120	1	1R14015	23,25
2	M 4 - 12	5/32 - 1/2	G 1/8	3,0 - 9,0	280	0,285	1	1R14020	39,87
3	M 5 - 20	7/32 - 3/4	G 1/8 - 1/2	4,9 - 12	380	0,660	1	1R14030	77,17
4	M 11 - 27	7/16 - 1	G 1/4 - 3/4	5,5 - 16	500	1,500	1	1R14040	133,60
5	M 13 - 32	1/2 - 1.1/4	G 1/4 - 1	7 - 20	700	1,800	1	1R14050	157,53
6	M 18 - 42	3/4 - 1.1/2	G 1/2 - 1.1/4	11 - 24	1000	2,600	1	1R14060	225,56
7	M 25 - 52	1 - 2.1/8	G 3/4 - 2.1/4	16 - 32	1250	4,500	1	1R14070	255,14
8	M 25 - 64	1 - 2.1/2	G 3/4 - 3	16 - 40	1250	4,500	1	1R14080	575,64

PROLONGADOR PARA MACHOS DIN 377

TAP EXTYENSION DIN 377

EXTENSION POUR TARAUDS

DIN 377

Ø (mm)	Dmin	Dmax	L1	Para / *For* DIN 352	Cod.	€/Unid.
2,1	5	2,7	60	M 1-2.6	1R14521	10,73
2,4	6	3	70		1R14524	10,73
2,7	7	3,5	80	M 3	1R14527	10,73
3,0	7	4	90	M 3.5	1R14530	10,73
3,4	8	4,5	95	M 4	1R14534	11,06
3,8	9	5	100		1R14538	11,73
4,3	10	5,5	105		1R14543	12,75
4,9	11	6	110	M 4.5-8	1R14549	13,07
5,5	12	7	115	M 9-10	1R14555	13,42
6,2	14	8	120	M 11	1R14562	17,78
7,0	15	9	125	M 12	1R14570	18,44
8,0	17	10	125		1R14580	20,79
9,0	19	12	130	M 14-16	1R14590	24,46
10,0	21	13	140		1R14610	29,87
11,0	23	14	150	M 18	1R14611	34,55
12,0	25	16	155	M 20	1R14612	38,56
13,0	27	17	165		1R14613	51,30
14,5	29	18	175	M 22-24	1R14614	59,02
16,0	30	20	180	M 27	1R14616	61,11
18,0	33	22	200	M 30	1R14618	70,78
20,0	36	25	220	M 33	1R14620	95,25
22,0	38	28	220	M 36	1R14622	129,11
24,0	42	32	235	M 39-42	1R14624	158,97
26,0	45	34	250		1R14626	194,35
29,0	50	36	265	M 45-48	1R14629	234,10
32,0	55	40	285	M 52	1R14632	323,38

VOLVEDORES ZINC FUNDIDO DIN 225 (EN 22568)

ZINC DIE HOLDERS DIN 225 (EN 22568)
PORTE FILIÈRES DIN 225 (EN 22568) EN ZINC

DIN 225 DIN 22568

Ø (mm)	Para cojinetes / *For Taps*		L1 (mm)	Peso / *Weight* (kg)	Uds. / *Pcs.*	Cod.	€/Unid.
16 x 5	M 1,0 - 2,6	BSW 1/16 - 3/32	160	0,050	1	1R15001	7,52
20 x 5	M 3,0 - 4,0	BSW 1/8 - 5/32	200	0,065	1	1R15002	8,62
20 x 7	M 4,5 - 6,0	BSW 3/16 - 1/4	200	0,065	1	1R15003	8,62
25 x 9	M 7,0 - 9,0	BSW 5/16	224	0,105	1	1R15004	11,50
30 x 11	M 10,0 - 11,0	BSW 3/8 - 7/16	280	0,190	1	1R15005	18,34
38 x 10	Mf 12,0 - 15,0	G 1/4	315	0,340	1	1R15006	25,97
38 x 14	M 12,0 - 15,0	BSW 1/2 - 9/16	315	0,340	1	1R15007	25,97
45 x 14	Mf 16,0 - 21,0	G 3/8 - 1/2	450	0,650	1	1R15008	33,96
45 x 18	M 16,0 - 20,0	BSW 5/8 - 13/16	450	0,650	1	1R15009	34,22
55 x 16	Mf 22,0 - 26,0	G 5/8 - 3/4	560	0,900	1	1R15010	44,26
55 x 22	M 22,0 - 24,0	BSW 7/8 - 1	560	0,900	1	1R15011	44,26
65 x 18	Mf 27,0 - 36,0	G 7/8 - 1	630	1,400	1	1R15012	68,81
65 x 25	M 27,0 - 36,0	BSW 1.1/8 - 1.3/8	630	1,400	1	1R15013	68,81

VOLVEDORES ZINC FUNDIDO EN PULGADAS - 3 TORNILLOS

ZINC DIE HOLDERS IN INCH 3 SCREWS
PORTE FILIÈRES EN POUCES Á 3 VISSES

Ø (")	Para cojinetes / *For Taps*		L1 (mm)	Peso / *Weight* (kg)	Uds. / *Pcs.*	Cod.	€/Unid.
13/16	20,6 x 6,35	13/16 x 1/4	200	0,060	1	1R15520	8,15
1	25,4 x 9,5	1 x 3/8"	224	0,100	1	1R15525	9,25
1.5/16	33,4 x 11,1	1.5/16 x 7/16	270	0,180	1	1R15533	18,24
1.1/2	38,1 x 12,7	1.1/2 x 1/2	315	0,320	1	1R15538	30,25
2	50,8 x 15,9	2 x 5/8	560	0,900	1	1R15550	43,84
2.1/4	57,1 x 17,5	2.1/4 x 11/16	560	0,900	1	1R15557	45,93
2.1/2	63,5 x 19,0	2.1/2 x 3/4	630	1,400	1	1R15563	68,92
3	76,2 x 22,2	3 x 7/8"	800	2,200	1	1R15576	163,91
3.1/2	88,9 x 25,4	3.1/2 x 1	900	3,300	1	1R15588	244,37
4	101,6 x 25,4	4 x 1	1.000	3,600	1	1R15599	518,49

VOLVEDORES ACERO DIN 225 (EN 22568)

STEEL DIE HOLDERS DIN 225 (EN 22568)

PORTE FILIÈRES DIN 225 (EN 22568) EN ACIER

DIN 225 DIN 22568

Ø (mm)	Para cojinetes / *For Taps*		L1 (mm)	Peso / *Weight* (kg)	Uds. / *Pcs.*	Cod.	€/Unid.
45 x 18	M 16 - 20	BSW 5/8 - 13/16	450	0,650	1	1R15209	62,86
55 x 22	M 22 - 24	BSW 7/8 - 1	560	0,900	1	1R15211	81,35
65 x 25	M 27 - 36	BSW 1.1/8 - 1.3/8	630	1,400	1	1R15213	102,36
75 x 20	Mf 38 - 42	G 1.1/8 - 1.1/4	800	2,250	1	1R15214	169,13
75 x 30	M 38 - 42	BSW 1.1/2 - 1.5/8	800	2,100	1	1R15215	169,13
90 x 22	Mf 45 - 52	G 1.3/8 - 1.5/8	900	3,200	1	1R15216	217,20
90 x 36	M 45 - 52	BSW 1.3/4 - 2	900	3,000	1	1R15217	217,20
105 x 22	Mf 54 - 63	G 1.3/4 - 2	975	3,500	1	1R15218	259,11
105 x 36	M 54 - 63	BSW 2.1/4	975	3,500	1	1R15219	259,11
120 x 22	Mf 64 - 71	G 2.1/4 - 2.3/4	956	3,170	1	1R15220	699,99
120 x 36	M 64 - 71	BSW 2.1/2 - 2.3/4	956	3,910	1	1R15221	699,99
130 x 25		G 3	966	3,505	1	1R15222	875,55
130 x 36			966	4,025	1	1R15223	1.008,80
140 x 22			976	3,620	1	1R15224	1.126,35
150 x 25		G 3.1/2	986	3,950	1	1R15226	1.237,80
160 x 25		G 4	996	4,115	1	1R15228	1.700,06

ACEITE DE CORTE Y ROSCADO

CUTTING AND TAPPING FLUID

FLUIDE POUR FILETAGE ET DE COUP

Contenido / *Content*	Uds.	Cod	€/Unid.
400 ml	1	1AC4000	23,77

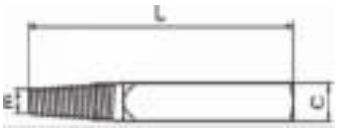
Metales duros y blandos. Alto poder refirgerante y anticorrosivo.
Suitable for hard and soft metals. High refrigerating and anti-corrision capacity.
Métaux doux et durs. Haut pouvoir anticorrosion.

EXTRACTOR DE TORNILLOS 5 PIEZAS ADVANCE
5 PCS ADVANCE SCREW EXTRACTORS
EXTRACTEURS DE VIS ADVANCE 5 PCS

advance MAXIMO RENDIMIENTO

Para Tornillos / *Screws*	Uds. / *Pcs.*	Cod.	€/Unid.
3 - 22	5	6Z00GR30	65,05

Broca / *Drill Bit*	m (mm)	C (mm)	L (mm)
3	2,7	5	51
4	3,3	5	68
5	4,6	6	66
6	5,5	8	73
8	6,7	10	80



EXTRACTOR DE TORNILLOS STANDARD
STANDARD SCREW EXTRACTORS
EXTRACTEURS DE VIS STANDARD

Basic

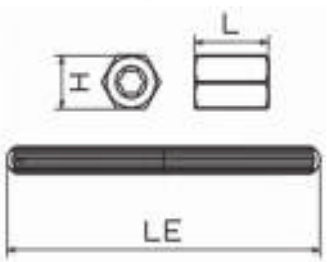
Para Tornillos / *Screws*	Uds. / *Pcs.*	Cod.	€/Unid.
3 - 18	5	6Z00GR15	19,68
3 - 24	6	6Z00GR16	24,50
3 - 45	8	6Z00GR18	49,47

JUEGOS DE MACHOS ESTRIADOS 5 PIEZAS
FLUTES TAPS SET - 5 PCS
JEU DE TARAUDS CANÉLÉS 5 PCS

Para Tornillos / *Screws*	Uds. / *Pcs.*	Cod.	€/Unid.
5 - 14	5	6Z00ST01	118,99

Contenido / Contains / Contenu

Extractor	Broca / *Drill Bit*	H (mm)	L (mm)	LE (mm)
H1	4,0	16	10	57
H2	5,0	16	11	68
H3	6,0	16	13	78
H4	7,5	16	14	84
H5	8,5	16	16	94



JUEGOS DE BROCAS Y GUIAS EXTERIORES E INTERIORES

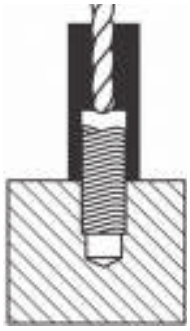
FULL SET WITH 5 DRILLS AND EXTERNAL AND INTERNAL GUIDES

JEU COMPLET AVEC 5 FORETS ET 10 INTERNE ET EXTERNE GUIDES

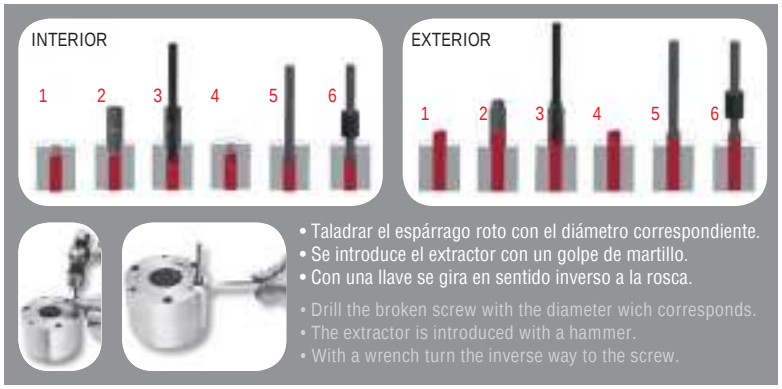
Para Tornillos / *Screws*	Uds. / *Pcs.*	Cod.	€/Unid.
5 - 14	25	6Z00ST02	246,05

Contenido / Contains / Contenu

Guía / *Guide*	1	2	3	4	5	6	7	8	9	10
Ext.	M5	M6	M7	M8	M8	M9	M10	M11	M12	M14
Int.	-	M6	M8	3/8"	1/2"	M10	7/16"	M12	M14	M16
Broca / *Drill Bit*	4	4	4	4	5	5	5	6	7,5	8,5
Extractor	H1	H1	H1	H1	H2	H2	H2	H3	H4	H5



Instrucciones de uso / Instructions / Mode d´emploi



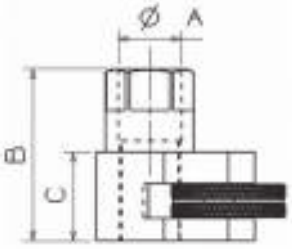
- Taladrar el espárrago roto con el diámetro correspondiente.
- Se introduce el extractor con un golpe de martillo.
- Con una llave se gira en sentido inverso a la rosca.

- Drill the broken screw with the diameter wich corresponds.
- The extractor is introduced with a hammer.
- With a wrench turn the inverse way to the screw.

EXTRACTORES DE ESPÁRRAGOS SALIENTES

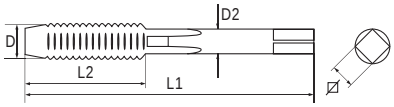
STUD EXTRACTORS • EXTRACTEURS DE GOUJONS

Para Tornillos / *Screws*	A (mm)	B (mm)	C (mm)	Cod.	€/Unid.
4,5 - 9,5	12	46	25	6Z00GR31	104,88
8 - 19	21	60	31	6Z00GR32	161,15
15 - 25	30	68	38	6Z00GR33	248,75



M JUEGOS DE MACHOS MÉTRICA ISO-ROSCA DIN 13 CON COLGADOR
METRIC ISO-TRHEAD DIN 13 HAND TAPS - WITH HANGER
JEUX DE TARAUDS À MAIN, METRIQUE DIN-13 - AVEC CROCHET

HSS-G | DIN 352 | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Set
M 3 x 0.50	40	11.0	3.5	2.7	2R27326BL	25,81
M 4 x 0.70	45	13.0	4.5	3.4	2R27330BL	24,54
M 5 x 0.80	50	16.0	6.0	4.9	2R27334BL	25,81
M 6 x 1.00	50	19.0	6.0	4.9	2R27338BL	25,81
M 8 x 1.25	56	22.0	6.0	4.9	2R27342BL	28,85
M 10 x 1.50	70	24.0	7.0	5.5	2R27346BL	39,10
M 12 x 1.75	75	29.0	9.0	7.0	2R27350BL	51,19

M MÉTRICA ISO-ROSCA DIN 13 CON COLGADOR
METRIC ISO-THREAD DIN 13 WITH HANGER
MÉTRIQUE DIN-13 AVEC CROCHET

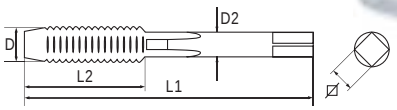
HSS-G | DIN 223 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 3 x 0.50	20 x 5	4R27426BL	32,43
M 4 x 0.70	20 x 5	4R27430BL	32,43
M 5 x 0.80	20 x 7	4R27434BL	32,43
M 6 x 1.00	20 x 7	4R27438BL	32,43

D Ø x P (mm)	Ø Exterior x Ø Espesor Ø Exterior x Ø Thickness (mm)	Cod.	€/Unid.
M 8 x 1.25	25 x 9	4R27442BL	32,43
M 10 x 1.50	30 x 11	4R27446BL	38,18
M 12 x 1.75	38 x 14	4R27450BL	43,89

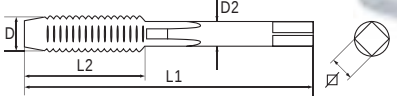
M MÉTRICA ISO-ROSCA DIN 13 - BLISTER
METRIC ISO-THREAD DIN 13 - BLISTER
MÉTRIQUE DIN-13 - BLISTER

HSS-CO 5% | DIN 371 | FORM C | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0.50	56	11	3.5	2.7	3R37426BL	16,54
M 4 x 0.70	63	13	4.5	3.4	3R37430BL	16,83
M 5 x 0.80	70	16	6.0	4.9	3R37434BL	17,06
M 6 x 1.00	80	19	6.0	4.9	3R37438BL	17,59
M 8 x 1.25	90	22	8.0	6.2	3R37442BL	21,74
M 10 x 1.50	100	24	10.0	8.0	3R37446BL	24,87

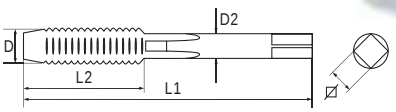
HSS-CO 5% | DIN 376 | FORM C | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 12 x 1.75	110	29	9.0	7.0	3R38450BL	30,40

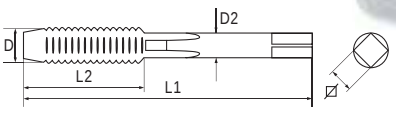
M MÉTRICA ISO-ROSCA DIN 13 - BLISTER
METRIC ISO-THREAD DIN 13 - BLISTER
MÉTRIQUE DIN-13 - BLISTER

HSS-CO 5% | DIN 371 | FORM B | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0.50	56	11	3.5	2.7	3R37526BL	17,36
M 4 x 0.70	63	13	4.5	3.4	3R37530BL	17,30
M 5 x 0.80	70	16	6.0	4.9	3R37534BL	17,98
M 6 x 1.00	80	19	6.0	4.9	3R37538BL	18,84
M 8 x 1.25	90	22	8.0	6.2	3R37542BL	21,78
M 10 x 1.5	100	24	10.0	8.0	3R37546BL	26,19

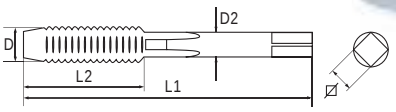
HSS-CO 5% | DIN 376 | FORM B | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 12 x1.75	110	29	9.0	7.0	3R38550BL	35,08

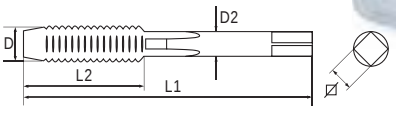
M MÉTRICA ISO-ROSCA DIN 13 - BLISTER
METRIC ISO-THREAD DIN 13 - BLISTER
MÉTRIQUE DIN-13 - BLISTER

HSS-CO 5% | DIN 371 | FORM C/35° | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0.5	56	6	3.5	2.7	3R37726BL	20,74
M 4 x 0.7	63	7	4.5	3.4	3R37730BL	20,74
M 5 x 0.8	70	8	6.0	4.9	3R37734BL	21,76
M 6 x 1.0	80	10	6.0	4.9	3R37738BL	21,76
M 8 x 1.25	90	14	8.0	6.2	3R37742BL	26,34
M 10 x 1.5	100	16	10.0	8.0	3R37746BL	30,77

HSS-CO 5% | DIN 376 | FORM C/35° | TOL 6H



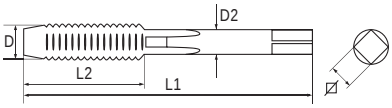
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 12 x 1.75	110	18	9.0	7.0	3R38750BL	38,87

M JUEGOS DE MACHOS MÉTRICA ISO- ROSCA DIN 13

METRIC ISO-THREAD DIN 13 HAND TAPS

JEUX DE TARAUDS À MAIN, METRIQUE DIN 13

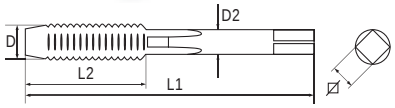
HSS-G | DIN 352 | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 1 x 0.25	32	5.5	2.5	2.1	2R27302	28,11	84,33
M 1.1 x 0.25	32	5.5	2.5	2.1	2R27304	28,11	84,33
M 1.2 x 0.25	32	5.5	2.5	2.1	2R27306	28,11	84,33
M 1.4 x 0.3	32	7.0	2.5	2.1	2R27308	28,11	84,33
M 1.6 x 0.35	32	8.0	2.5	2.1	2R27310	28,11	84,33
M 1.7 x 0.35	32	8.0	2.5	2.1	2R27312	28,11	84,33
M 1.8 x 0.35	32	8.0	2.5	2.1	2R27314	28,11	84,33
M 2 x 0.4	36	8.0	2.8	2.1	2R27316	11,49	34,48
M 2.2 x 0.45	36	9.0	2.8	2.1	2R27318	11,49	34,48
M 2.3 x 0.4	36	9.0	2.8	2.1	2R27320	11,49	34,48
M 2.5 x 0.45	40	9.0	2.8	2.1	2R27322	11,49	34,48
M 2.6 x 0.45	40	9.0	2.8	2.1	2R27324	11,49	34,48
M 3 x 0.5	40	11.0	3.5	2.7	2R27326	7,35	22,06
M 3.5 x 0.6	45	13.0	4.0	3.0	2R27328	9,56	28,68
M 4 x 0.7	45	13.0	4.5	3.4	2R27330	6,99	20,97
M 4.5 x 0.75	50	16.0	6.0	4.9	2R27332	10,72	32,17
M 5 x 0.8	50	16.0	6.0	4.9	2R27334	7,35	22,06
M 5.5 x 0.9	50	18.0	6.0	4.9	2R27336	17,39	52,16
M 6 x 1.0	50	19.0	6.0	4.9	2R27338	7,35	22,06
NEW M 6 x 1.25	50	19.0	6.0	4.9	2R27339	34,05	102,15
M 7 x 1.0	50	19.0	6.0	4.9	2R27340	10,95	32,85
M 8 x 1.25	56	22.0	6.0	4.9	2R27342	8,22	24,66
NEW M 8 x 1,50	56	22.0	6.0	4.9	2R27343	34,58	103,74
M 9 x 1.25	63	22.0	7.0	5.5	2R27344	14,57	43,70
M 10 x 1.5	70	24.0	7.0	5.5	2R27346	11,14	33,42
M 11 x 1.5	70	24.0	8.0	6.2	2R27348	19,16	57,47
M 12 x 1.75	75	29.0	9.0	7.0	2R27350	14,58	43,75
M 14 x 2.0	80	30.0	11.0	9.0	2R27354	16,82	50,46
M 15 x2.0	80	32.0	12.0	9.0	2R27356	18,44	55,33
M 16 x2.0	80	32.0	12.0	9.0	2R27358	23,68	71,05
M 18 x 2.5	95	40.0	14.0	11.0	2R27362	33,31	99,93
M 20 x 2.5	95	40.0	16.0	12.0	2R27366	35,51	106,52
M 22 x 2.5	100	40.0	18.0	14.5	2R27370	44,39	133,18
M 24 x 3.0	110	50.0	18.0	14.5	2R27374	59,19	177,58
M 27 x 3.0	110	50.0	20.0	16.0	2R27376	79,05	237,16
M 30 x 3.5	125	56.0	22.0	18.0	2R27378	102,74	308,22
M 33 x 3.5	125	56.0	25.0	20.0	2R27380	139,41	418,22
M 36 x 4.0	150	63.0	28.0	22.0	2R27382	175,00	525,00
M 39 x 4.0	150	63.0	32.0	24.0	2R27384	220,39	661,16
M 42 x 4.5	150	63.0	32.0	24.0	2R27386	246,49	739,46
M 45 x 4.5	160	70.0	36.0	29.0	2R27388	288,13	864,38
M 48 x 5.0	180	75.0	36.0	36.0	2R27390	390,81	1.172,44
M 52 x 5.0	180	75.0	40.0	32.0	2R27392	423,38	1.270,14
M 56 x 5.5	200	85.0	45.0	35.0	2R27394	536,47	1.609,42
M 60 x 5.5	200	85.0	45.0	35.0	2R27396	730,76	2.192,29
M 64 x 6.0	220	90.0	50.0	39.0	2R27398	887,46	2.662,39
M 68 x 6.0	220	90.0	50.0	39.0	2R27399	1040,27	3.120,81

JUEGOS DE MACHOS MÉTRICA ISO- ROSCA DIN 13 CON ENTRADA CÓNICA
METRIC ISO-THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS À MAIN, METRIQUE DIN 13

HSS-G | DIN 352 | TOL 6H

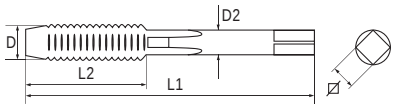


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 2,00 x 0,40	36	8	2,8	2,1	2R27616	11,41	34,23
M 2,50 x 0,45	40	9	2,8	2,1	2R27622	11,41	34,23
M 3,00 x 0,50	40	11	3,5	2,7	2R27626	7,86	23,58
M 4,00 x 0,70	45	13	4,5	3,4	2R27630	7,47	22,42
M 5,00 x 0,80	50	16	6,0	4,9	2R27634	7,86	23,58
M 6,00 X 100	50	19	6,0	4,9	2R27638	7,86	23,58
M 8,00 x 1,25	56	22	6,0	4,9	2R27642	8,79	26,36
M 9,00 x 1,25	63	22	7,0	5,5	2R27644	14,90	44,70
M 10,00 x 1,50	70	24	7,0	5,5	2R27646	11,91	35,73
M 11,00 x 1,50	70	24	8,0	6,2	2R27648	19,02	57,06
M 12,00 x 1,75	75	29	9,0	7,0	2R27650	15,60	46,79
M 13,00 x 1,75	75	29	9,0	7,0	2R27652	21,46	64,39
M 14,00 x 2,00	80	30	11,0	9,0	2R27654	17,98	53,94
M 16,00 x 2,00	80	32	12,0	9,0	2R27658	25,32	75,95
M 18,00 x 2,50	95	40	14,0	11,0	2R27662	34,07	102,20
M 19,00 x 2,50	95	40	14,0	11,0	2R27664	47,01	141,02
M 20,00 x 2,50	95	40	16,0	12,0	2R27666	36,31	108,92
M 22,00 x 2,50	100	40	18,0	14,5	2R27670	45,40	136,19
M 24,00 x 3,00	110	50	18,0	14,5	2R27674	60,53	181,60
M 27,00 x 3,00	110	50	20,0	16,0	2R27676	84,94	254,82
M 30,00 x 3,50	125	56	22,0	18,0	2R27678	111,45	334,35
M 33,00 x 3,50	125	56	25,0	20,0	2R27680	135,22	405,65
M 36,00 x 4,00	150	63	28,0	22,0	2R27682	169,74	509,23
M 39,00 x 4,00	150	63	32,0	24,0	2R27684	196,50	589,49
M 42,00 x 4,50	150	63	32,0	24,0	2R27686	236,00	707,99
M 3,00 x 0,60	40	11	3,5	2,7	2R27627*	14,76	44,28
M 4,00 x 0,75	45	13	4,5	3,4	2R27631*	14,76	44,29

*Hasta fin de existencias / *Until end of stock / *Jusqu´à épuisement des stocks

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13
METRIC FINE THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS MÉTRIQUE FINE DIN 13

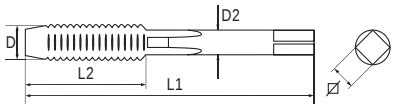
HSS-G | DIN 2181 | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 2,50 x 0,35	40	9	2,8	2,1	2R26304	21,15	42,30
M 2,60 x 0,35	40	9	2,8	2,1	2R26305	21,15	42,30
M 3,00 x 0,35	40	9	3,5	2,7	2R26308	21,15	42,30
M 3,50 x 0,35	45	10	4,0	3,0	2R26309	21,15	42,30
M 4,00 x 0,35	45	10	4,5	3,4	2R26310	21,15	42,30
M 4,00 x 0,50	45	10	4,5	3,4	2R26312	21,15	42,30
M 4,50 x 0,50	50	12	6,0	4,9	2R26313	21,15	42,30
M 5,00 x 0,50	50	12	6,0	4,9	2R26314	21,15	42,30
M 5,00 x 0,75	50	12	6,0	4,9	2R26316	21,15	42,30
M 5,50 x 0,50	50	12	6,0	4,9	2R26315	21,15	42,30
M 6,00 x 0,50	50	14	6,0	4,9	2R26317	16,77	33,53
M 6,00 x 0,75	50	14	6,0	4,9	2R26318	14,68	29,36
M 7,00 x 0,50	50	14	6,0	4,9	2R26319	19,14	38,28
M 7,00 x 0,75	50	14	6,0	4,9	2R26320	16,94	33,88
M 8,00 x 0,50	50	19	6,0	4,9	2R26322	25,01	50,02
M 8,00 x 0,75	50	19	6,0	4,9	2R26324	18,32	36,64
M 8,00 x 1,00	56	22	6,0	4,9	2R26326	14,55	29,10
M 9,00 x 0,50	56	19	7,0	5,5	2R26327	21,15	42,30
M 9,00 x 0,75	56	19	7,0	5,5	2R26328	21,15	42,30
M 9,00 x 1,00	63	20	7,0	5,5	2R26330	17,86	35,72
M 10,00 x 0,50	63	20	7,0	5,5	2R26331	25,01	50,02
M 10,00 x 0,75	63	20	7,0	5,5	2R26332	25,01	50,02
M 10,00 x 1,00	63	20	7,0	5,5	2R26336	14,50	29,00
M 10,00 x 1,25	70	24	7,0	5,5	2R26338	16,83	33,66
M 11,00 x 0,75	63	20	8,0	6,2	2R26339	33,65	67,30
M 11,00 x 1,00	63	20	8,0	6,2	2R26340	25,96	51,91
M 11,00 x 1,25	63	22	8,0	6,2	2R26342	25,96	51,91
M 12,00 x 0,50	70	22	9,0	7,0	2R26345	33,65	67,30
M 12,00 x 0,75	70	22	9,0	7,0	2R26343	33,65	67,30
M 12,00 x 1,00	70	22	9,0	7,0	2R26344	24,72	49,44
M 12,00 x 1,25	70	22	9,0	7,0	2R26346	24,72	49,44
M 12,00 x 1,50	70	22	9,0	7,0	2R26348	21,80	43,60
M 13,00 x 0,50	70	22	11,0	9,0	2R26347	38,45	76,89
M 13,00 x 0,75	70	22	11,0	9,0	2R26349	36,62	73,24
M 13,00 x 1,00	70	22	11,0	9,0	2R26350	38,45	76,90
M 13,00 x 1,50	70	22	11,0	9,0	2R26351	38,45	76,90
M 14,00 x 0,50	70	22	11,0	9,0	2R26355	43,26	86,52
M 14,00 x 0,75	70	22	11,0	9,0	2R26352	43,26	86,52
M 14,00 x1,00	70	22	11,0	9,0	2R26353	36,62	73,24
M 14,00 x 1,25	70	22	11,0	9,0	2R26354	32,05	64,09
M 14,00 x 1,50	70	22	11,0	9,0	2R26356	23,93	47,86
M 15,00 x 0,75	70	22	12,0	9,0	2R26357	47,59	95,17
M 15,00 x 1,00	70	22	12,0	9,0	2R26358	47,59	95,17
M 15,00 x 1,50	70	22	12,0	9,0	2R26360	47,59	95,17
M 16,00 x 0,50	70	22	12,0	9,0	2R26361	43,74	87,48

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13
METRIC FINE THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS MÉTRIQUE FINE DIN 13

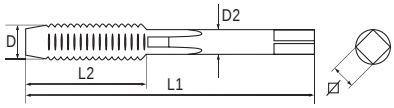
HSS-G | DIN 2181 | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 16,00 x 0,75	70	22	12,0	9,0	2R26363	43,74	87,48
M 16,00 x 1,00	70	22	12,0	9,0	2R26362	41,66	83,31
M 16,00 x 1,25	70	22	12,0	9,0	2R26364	41,66	83,31
M 16,00 x 1,50	70	22	12,0	9,0	2R26366	29,10	58,19
M 17,00 x 1,00	70	22	12,0	9,0	2R26368	47,59	95,17
M 17,00 x 1,50	70	22	12,0	9,0	2R26369	47,59	95,17
M 18,00 x 0,50	80	22	14,0	11,0	2R26367	47,59	95,17
M 18,00 x 0,75	80	22	14,0	11,0	2R26373	47,59	95,17
M 18,00 x 1,00	80	22	14,0	11,0	2R26370	45,32	90,64
M 18,00 x 1,25	80	22	14,0	11,0	2R26371	47,59	95,17
M 18,00 x 1,50	80	22	14,0	11,0	2R26372	39,67	79,35
M 18,00 x 2,00	80	22	14,0	11,0	2R26374	45,32	90,64
M 19,00 x 1,00	80	22	16,0	12,0	2R26375	62,49	124,99
M 19,00 x 1,50	80	22	14,0	11,0	2R26376	62,49	124,99
M 20,00 x 0,50	80	22	16,0	12,0	2R26377	62,49	124,99
M 20,00 x 0,75	80	22	16,0	12,0	2R26379	62,49	124,99
M 20,00 x 1,00	80	22	16,0	12,0	2R26378	62,49	124,99
M 20,00 x 1,25	80	22	16,0	12,0	2R26380	62,49	124,99
M 20,00 x 1,50	80	22	16,0	12,0	2R26384	48,62	97,23
M 20,00 x 2,00	80	22	16,0	12,0	2R26386	59,52	119,04
M 21,00 x 1,00	80	22	16,0	12,0	2R26387	62,49	124,99
M 21,00 x 1,50	80	22	16,0	12,0	2R26388	62,49	124,99
M 22,00 x 0,50	80	22	18,0	14,5	2R26389	62,49	124,99
M 22,00 x 0,75	80	22	18,0	14,5	2R26391	62,49	124,99
M 22,00 x 1,00	80	22	18,0	14,5	2R26390	62,49	124,99
M 22,00 x 1,25	80	22	18,0	14,5	2R26392	62,49	124,99
M 22,00 x 1,50	80	22	18,0	14,5	2R26394	56,77	113,55
M 22,00 x 2,00	80	22	18,0	14,5	2R26396	59,52	119,04
M 23,00 x 1,00	80	22	18,0	14,5	2R26397	86,53	173,07
M 23,00 x 1,50	80	22	18,0	14,5	2R26398	86,53	173,06
M 24,00 x 0,50	90	22	18,0	14,5	2R26501	86,53	173,07
M 24,00 x 0,75	90	22	18,0	14,5	2R26503	86,53	173,07
M 24,00 x 1,00	90	22	18,0	14,5	2R26500	86,53	173,06
M 24,00 x 1,25	90	22	18,0	14,5	2R26502	86,53	173,06
M 24,00 x 1,50	90	22	18,0	14,5	2R26504	75,28	150,57
M 24,00 x 2,00	90	22	18,0	14,5	2R26506	82,41	164,82
M 25,00 x 1,00	90	22	18,0	14,5	2R26507	124,98	249,96
M 25,00 x 1,50	90	22	18,0	14,5	2R26508	120,17	240,34
M 26,00 x 1,00	90	22	18,0	14,5	2R26510	120,17	240,34
M 26,00 x 1,50	90	22	18,0	14,5	2R26512	107,25	214,50
M 26,00 x 2,00	90	22	18,0	14,5	2R26514	119,03	238,06
M 27,00 x 1,00	90	22	20,0	16,0	2R26516	124,98	249,96
M 27,00 x 1,50	90	22	20,0	16,0	2R26517	124,98	249,96
M 27,00 x 2,00	90	22	20,0	16,0	2R26518	142,28	284,57
M 28,00 x 1,00	90	22	20,0	16,0	2R26520	153,81	307,63

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13
METRIC FINE THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS MÉTRIQUE FINE DIN 13

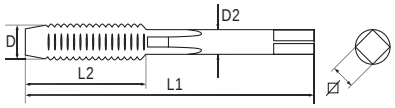
HSS-G | DIN 2181 | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 28,00 x 1,50	90	22	20,0	16,0	2R26522	129,78	259,55
M 28,00 x 2,00	90	22	20,0	16,0	2R26524	144,20	288,40
M 29,00 x 1,50	90	22	22,0	18,0	2R26526	149,01	298,02
M 30,00 x 1,00	90	22	22,0	18,0	2R26528	149,97	299,93
M 30,00 x 1,50	90	22	22,0	18,0	2R26530	137,03	274,05
M 30,00 x 2,00	90	22	22,0	18,0	2R26532	153,81	307,63
M 30,00 x 2,50	125	56	22,0	18,0	2R26533	153,81	307,63
M 30,00 x 3,00	125	56	22,0	18,0	2R26534	163,43	326,87
M 32,00 x 1,00	90	22	22,0	18,0	2R26539	163,43	326,87
M 32,00 x 1,50	90	22	22,0	18,0	2R26536	163,44	326,88
M 32,00 x 2,00	90	22	22,0	18,0	2R26535	163,44	326,88
M 32,00 x 3,00	125	56	22,0	18,0	2R26537	163,44	326,88
M 33,00 x 1,50	100	25	25,0	20,0	2R26538	163,44	326,88
M 33,00 x 2,00	100	25	25,0	20,0	2R26540	201,89	403,77
M 33,00 x 3,00	125	56	25,0	20,0	2R26542	201,89	403,77
M 34,00 x 1,00	100	25	28,0	22,0	2R26543	201,89	403,78
M 34,00 x 1,50	100	25	28,0	22,0	2R26544	201,89	403,77
M 34,00 x 2,00	125	40	28,0	22,0	2R26546	211,51	423,01
M 35,00 x 1,00	100	25	28,0	22,0	2R26547	201,89	403,77
M 35,00 x 1,50	100	25	28,0	22,0	2R26548	201,89	403,77
M 35,00 x 2,00	125	40	28,0	22,0	2R26549	201,89	403,77
M 36,00 x 1,00	100	25	28,0	22,0	2R26551	215,34	430,69
M 36,00 x 1,50	100	25	28,0	22,0	2R26550	215,34	430,69
M 36,00 x 2,00	125	40	28,0	22,0	2R26552	221,12	442,23
M 36,00 x 3,00	125	40	28,0	22,0	2R26554	221,12	442,23
M 37,00 x 1,50	100	25	28,0	22,0	2R26553	249,95	499,91
M 38,00 x 1,00	100	25	28,0	22,0	2R26555	249,96	499,91
M 38,00 x 1,50	100	25	28,0	22,0	2R26556	249,95	499,91
M 38,00 x 2,00	125	40	28,0	22,0	2R26557	269,18	538,37
M 38,00 x 3,00	125	40	28,0	22,0	2R26559	269,18	538,37
M 39,00 x 1,50	110	25	32,0	24,0	2R26558	269,18	538,37
M 39,00 x 2,00	125	40	32,0	24,0	2R26560	269,18	538,37
M 39,00 x 3,00	125	40	32,0	24,0	2R26562	269,18	538,37
M 40,00 x 1,00	110	25	32,0	24,0	2R26563	269,18	538,37
M 40,00 x 1,50	110	25	32,0	24,0	2R26564	269,18	538,37
M 40,00 x 2,00	125	40	32,0	24,0	2R26566	269,18	538,37
M 40,00 x 3,00	125	40	32,0	24,0	2R26568	288,41	576,82
M 42,00 x 1,00	110	25	32,0	24,0	2R26569	288,41	576,82
M 42,00 x 1,50	110	25	32,0	24,0	2R26570	288,41	576,82
M 42,00 x 2,00	125	40	32,0	24,0	2R26572	288,41	576,82
M 42,00 x 3,00	125	40	32,0	24,0	2R26574	326,87	653,74
M 44,00 x 1,50	110	25	36,0	29,0	2R26571	336,48	672,95
M 44,00 x 2,00	125	40	36,0	29,0	2R26573	336,48	672,96
M 45,00 x 1,00	110	25	36,0	29,0	2R26575	336,48	672,95
M 45,00 x 1,50	110	25	36,0	29,0	2R26576	336,48	672,96

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13
METRIC FINE THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS MÉTRIQUE FINE DIN 13

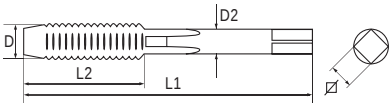
HSS-G | DIN 2181 | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 45,00 x 2,00	125	40	36,0	29,0	2R26578	336,48	672,96
M 45,00 x 3,00	125	40	36,0	29,0	2R26580	336,48	672,96
M 46,00 x 1,50	140	40	36,0	29,0	2R26581	336,48	672,95
M 48,00 x 1,00	140	40	36,0	29,0	2R26583	365,32	730,63
M 48,00 x 1,50	140	40	36,0	29,0	2R26582	365,32	730,64
M 48,00 x 2,00	140	40	36,0	29,0	2R26584	365,32	730,64
M 48,00 x 3,00	140	40	36,0	29,0	2R26586	365,32	730,64
M 50,00 x 1,50	140	40	36,0	29,0	2R26588	408,58	817,15
M 50,00 x 2,00	140	40	36,0	29,0	2R26590	408,58	817,15
M 50,00 x 3,00	140	40	36,0	29,0	2R26592	408,58	817,15
M 52,00 x 1,50	140	40	40,0	32,0	2R26594	447,03	894,07
M 52,00 x 2,00	140	40	40,0	32,0	2R26596	480,68	961,36
M 52,00 x 3,00	140	40	40,0	32,0	2R26598	480,68	961,36
M 54,00 x 1,00	140	32	40,0	32,0	2R28118	692,31	1384,63
M 54,00 x 1,50	140	32	40,0	32,0	2R28001	524,99	1049,98
M 54,00 x 2,00	140	36	40,0	32,0	2R28002	524,99	1049,98
M 54,00 x 3,00	140	40	40,0	32,0	2R28003	524,99	1049,98
M 54,00 x 4,00	180	50	40,0	32,0	2R28004	524,99	1049,98
M 55,00 x 1,50	140	32	40,0	32,0	2R28005	690,00	1380,01
M 55,00 x 2,00	140	36	40,0	32,0	2R28006	690,00	1380,00
M 55,00 x 3,00	140	40	40,0	32,0	2R28007	690,00	1380,01
M 55,00 x 4,00	180	50	40,0	32,0	2R28008	690,00	1380,01
M 56,00 x 1,00	140	32	40,0	32,0	2R28119	809,80	1.619,59
M 56,00 x 1,50	140	32	40,0	32,0	2R28009	733,13	1.466,25
M 56,00 x 2,00	140	36	40,0	32,0	2R28010	732,06	1.464,12
M 56,00 x 3,00	140	40	40,0	32,0	2R28011	732,06	1.464,12
M 56,00 x 4,00	180	50	40,0	32,0	2R28012	636,58	1.273,15
M 58,00 x 1,00	160	32	45,0	35,0	2R28120	919,52	1.839,04
M 58,00 x 1,50	160	32	45,0	35,0	2R28013	776,25	1.552,50
M 58,00 x 2,00	160	36	45,0	35,0	2R28014	776,25	1.552,50
M 58,00 x 3,00	160	40	45,0	35,0	2R28015	776,25	1.552,50
M 58,00 x 4,00	200	55	45,0	35,0	2R28016	776,25	1.552,50
M 60,00 x 1,50	160	34	45,0	35,0	2R28017	797,81	1.595,61
M 60,00 x 2,00	160	36	45,0	35,0	2R28018	797,81	1.595,61
M 60,00 x 3,00	160	40	45,0	35,0	2R28019	797,81	1.595,61
M 60,00 x 4,00	200	55	45,0	35,0	2R28020	797,81	1.595,61
M 62,00 x 1,50	160	34	50,0	39,0	2R28021	862,50	1.725,00
M 62,00 x 2,00	160	36	50,0	39,0	2R28022	862,50	1.725,00
M 62,00 x 3,00	180	45	50,0	39,0	2R28023	862,37	1.724,73
M 62,00 x 4,00	220	55	50,0	39,0	2R28024	862,50	1.725,00
M 63,00 x 1,50	160	32	50,0	39,0	2R28025	884,07	1.768,14
M 64,00 x 1,50	160	34	50,0	39,0	2R28026	884,07	1.768,14
M 64,00 x 2,00	160	36	50,0	39,0	2R28027	884,07	1.768,14
M 64,00 x 3,00	180	45	50,0	39,0	2R28028	884,07	1.768,14
M 64,00 x 4,00	220	60	50,0	39,0	2R28029	884,07	1.768,14

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13
METRIC FINE THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS MÉTRIQUE FINE DIN 13

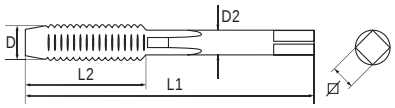
HSS-G | DIN 2181 | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 65,00 x 1,50	160	34	50,0	39,0	2R28030	948,75	1.897,50
M 65,00 x 2,00	160	36	50,0	39,0	2R28031	948,75	1.897,50
M 65,00 x 3,00	180	45	50,0	39,0	2R28032	948,75	1.897,50
M 65,00 x 4,00	220	60	50,0	39,0	2R28033	948,75	1.897,51
M 68,00 x 1,50	160	36	50,0	39,0	2R28034	970,32	1.940,65
M 68,00 x 2,00	160	40	50,0	39,0	2R28035	970,32	1.940,65
M 68,00 x 3,00	180	50	50,0	39,0	2R28036	970,32	1.940,65
M 68,00 x 4,00	220	60	50,0	39,0	2R28037	970,32	1.940,64
M 70,00 x 1,50	160	36	50,0	39,0	2R28038	1.562,00	3.124,00
M 70,00 x 2,00	160	40	50,0	39,0	2R28039	1.562,00	3.124,00
M 70,00 x 3,00	200	50	50,0	39,0	2R28040	1.776,77	3.553,55
M 70,00 X 4,00	240	60	50,0	39,0	2R28041	1.776,77	3.553,55
M 72,00 x 1,50	160	36	50,0	39,0	2R28042	1.666,70	3.333,39
M 72,00 X 2,00	160	40	50,0	39,0	2R28043	1.687,13	3.374,25
M 72,00 x 3,00	200	50	50,0	39,0	2R28044	1.776,77	3.553,55
M 72,00 x 4,00	240	60	50,0	39,0	2R28045	1.797,66	3.595,32
M 74,00 x 1,50	160	36	50,0	39,0	2R28046	1.718,20	3.436,40
M 74,00 x 2,00	160	40	50,0	39,0	2R28047	1.747,68	3.495,37
M 74,00 x 3,00	200	50	50,0	39,0	2R28048	2.030,60	4.061,21
M 74,00 X 4,00	240	60	50,0	39,0	2R28049	2.030,60	4.061,21
M 75,00 x 1,50	160	36	50,0	39,0	2R28050	1.749,44	3.498,89
M 75,00 x 2,00	160	40	50,0	39,0	2R28051	1.758,13	3.516,27
M 75,00 x 3,00	200	50	50,0	39,0	2R28052	2.069,65	4.139,31
M 75,00 x 4,00	240	60	50,0	39,0	2R28053	2.069,65	4.139,30
M 76,00 x1,50	160	36	50,0	39,0	2R28054	1.800,27	3.600,55
M 76,00 x 2,00	160	40	50,0	39,0	2R28055	1.817,52	3.635,03
M 76,00 x 3,00	220	50	50,0	39,0	2R28056	2.186,80	4.373,60
M 76,00 x 4,00	260	60	50,0	39,0	2R28057	2.186,80	4.373,60
M 78,00 x 1,50	160	36	50,0	39,0	2R28058	1.906,05	3.812,11
M 78,00 x 2,00	160	40	50,0	39,0	2R28059	1.942,92	3.885,83
M 78,00 x 3,00	220	55	50,0	39,0	2R28060	2.180,14	4.360,29
M 78,00 x 4,00	260	65	50,0	39,0	2R28061	2.186,80	4.373,60
M 80,00 x 1,50	160	36	50,0	39,0	2R28062	1.975,49	3.950,99
M 80,00 x 2,00	160	40	50,0	39,0	2R28063	2.009,51	4.019,02
M 80,00 x 3,00	220	55	50,0	39,0	2R28064	2.401,57	4.803,15
M 80,00 x 4,00	260	65	50,0	39,0	2R28065	2.401,57	4.803,15
M 82,00 x 1,50	160	36	50,0	39,0	2R28066	2.087,26	4.174,51
M 82,00 x 2,00	160	40	50,0	39,0	2R28067	2.113,77	4.227,55
M 82,00 x 3,00	220	55	50,0	39,0	2R28068	2.401,57	4.803,15
M 82,00 x 4,00	260	65	50,0	39,0	2R28069	2.401,57	4.803,15
M 84,00 x 1,50	160	36	50,0	39,0	2R28070	2.245,37	4.490,75
M 84,00 x 2,00	160	40	50,0	39,0	2R28071	2.245,37	4.490,75
M 84,00 x 3,00	220	55	50,0	39,0	2R28072	2.733,50	5.467,00
M 84,00 x 4,00	260	65	50,0	39,0	2R28073	2.733,50	5.467,00
M 85,00 x 1,50	160	36	50,0	39,0	2R28074	2.928,75	5.857,51

Mf JUEGOS DE MACHOS MÉTRICA FINA DIN 13
METRIC FINE THREAD DIN 13 HAND TAPS
JEUX DE TARAUDS MÉTRIQUE FINE DIN 13

HSS-G | DIN 2181 | TOL 6H



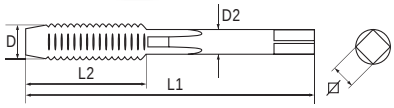
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 85,00 x 2,00	160	40	50,0	39,0	2R28075	2.928,75	5.857,51
M 85,00 x 3,00	220	55	50,0	39,0	2R28076	3.553,55	7.107,11
M 85,00 x 4,00	260	65	50,0	39,0	2R28077	3.553,55	7.107,11
M 86,00 x 1,50	160	36	50,0	39,0	2R28078	2.928,75	5.857,51
M 86,00 x 2,00	160	40	50,0	39,0	2R28079	2.928,75	5.857,51
M 86,00 x 3,00	220	55	50,0	39,0	2R28080	3.553,55	7.107,11
M 86,00 x 4,00	260	65	50,0	39,0	2R28081	3.553,55	7.107,11
M 88,00 x 1,50	160	38	50,0	39,0	2R28082	3.182,58	6.365,15
M 88,00 x 2,00	160	40	50,0	39,0	2R28083	3.182,58	6.365,15
M 88,00 x 3,00	220	55	50,0	39,0	2R28084	3.690,23	7.380,45
M 88,00 x 4,00	260	65	50,0	39,0	2R28085	3.690,22	7.380,45
M 90,00 x 1,50	160	38	50,0	39,0	2R28086	3.319,26	6.638,51
M 90,00 x 2,00	160	40	50,0	39,0	2R28087	3.319,26	6.638,51
M 90,00 x 3,00	220	55	50,0	39,0	2R28088	3.944,05	7.888,10
M 90,00 x 4,00	260	65	50,0	39,0	2R28089	3.944,05	7.888,10
M 92,00 x 1,50	180	40	56,0	44,0	2R28090	3.319,26	6.638,51
M 92,00 x 2,00	180	45	56,0	44,0	2R28091	3.319,26	6.638,51
M 92,00 x 3,00	240	60	56,0	44,0	2R28092	4.197,88	8.395,76
M 92,00 x 4,00	280	70	56,0	44,0	2R28093	4.197,88	8.395,76
M 95,00 x 1,50	180	40	56,0	44,0	2R28094	4.250,20	8.500,40
M 95,00 x 2,00	180	45	56,0	44,0	2R28095	4.250,20	8.500,40
M 95,00 x 3,00	240	60	56,0	44,0	2R28096	4.783,63	9.567,26
M 95,00 x 4,00	280	70	56,0	44,0	2R28097	4.783,63	9.567,26
M 96,00 x 1,50	180	40	56,0	44,0	2R28098	4.036,05	8.072,10
M 96,00 x 2,00	180	45	56,0	44,0	2R28099	4.047,02	8.094,05
M 96,00 x 3,00	240	60	56,0	44,0	2R28100	4.783,63	9.567,26
M 96,00 x 4,00	280	70	56,0	44,0	2R28101	4.935,14	9.870,29
M 98,00 x 1,50	180	40	56,0	44,0	2R28102	5.818,45	11.636,91
M 98,00 x 2,00	180	45	56,0	44,0	2R28103	5.818,45	11.636,91
M 98,00 x 3,00	240	60	56,0	44,0	2R28104	5.076,50	10.153,00
M 98,00 x 4,00	280	70	56,0	44,0	2R28105	5.086,80	10.173,60
M 100,00 x 1,50	180	45	56,0	44,0	2R28106	4.538,17	9.076,35
M 100,00 x 2,00	180	50	56,0	44,0	2R28107	4.538,17	9.076,35
M 100,00 x 3,00	240	65	56,0	44,0	2R28108	5.369,37	10.738,74
M 100,00 x 4,00	280	75	56,0	44,0	2R28109	5.582,91	11.165,83
M 105,00 x 1,50	180	45	56,0	44,0	2R28110	4.956,17	9.912,35
M 105,00 x 2,00	180	50	56,0	44,0	2R28111	4.956,17	9.912,35
M 105,00 x 3,00	240	65	56,0	44,0	2R28112	5.759,88	11.519,76
M 105,00 x 4,00	280	75	56,0	44,0	2R28113	6.053,29	12.106,59
M 110,00 x 1,50	180	45	56,0	44,0	2R28114	5.483,90	10.967,80
M 110,00 x 2,00	180	50	56,0	44,0	2R28115	5.483,90	10.967,80
M 110,00 x 3,00	240	65	56,0	44,0	2R28116	6.501,83	13.003,65
M 110,00 x 4,00	280	75	56,0	44,0	2R28117	6.575,92	13.151,85

BSW JUEGOS DE MACHOS WHITWORTH BS 84

METRIC HAND TAPS WHITWORTH BS 84

JEUX DE TARAUDS À MAIN WHITWORTH

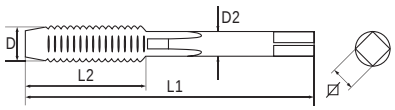
HSS-G | DIN 351 | ≈DIN 352



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
1/16 x 60	36	10	2,5	2,1	2R22302	16,75	50,25
3/32 x 48	36	10	2,8	2,1	2R22304	13,16	39,48
1/8 x 40	40	12	3,5	2,7	2R22306	10,43	31,30
5/32 x 32	45	14	4,5	3,4	2R22308	10,43	31,30
3/16 x 24	50	18	6,0	4,9	2R22310	10,43	31,30
7/32 x 24	50	18	6,0	4,9	2R22312	13,16	39,48
1/4 x 20	50	19	6,0	4,9	2R22314	10,85	32,56
5/16 x 18	56	22	6,0	4,9	2R22316	12,53	37,60
3/8 x 16	70	24	7,0	5,5	2R22318	14,11	42,33
7/16 x 14	70	24	8,0	6,2	2R22320	18,23	54,69
1/2 x 12	75	29	9,0	7,0	2R22322	20,62	61,86
9/16 x 12	80	30	11,0	9,0	2R22324	28,49	85,47
5/8 x 11	80	32	12,0	9,0	2R22326	32,47	97,40
3/4 x 10	95	40	14,0	11,0	2R22330	43,95	131,84
7/8 x 9	100	40	18,0	14,5	2R22334	54,94	164,82
1 x 8	110	50	18,0	14,5	2R22338	73,25	219,74
1.1/8 x 7	132	56	22,0	18,0	2R22342	113,22	339,67
1.1/4 x 7	132	56	22,0	18,0	2R22346	119,70	359,10
1.3/8 x 6	150	63	28,0	22,0	2R22350	161,76	485,28
1.1/2 x 6	150	63	32,0	24,0	2R22354	190,87	572,61
1.5/8 x 5	160	70	32,0	24,0	2R22358	320,26	960,79
1.3/4 x 5	160	70	36,0	29,0	2R22362	342,92	1.028,76
1.7/8 x 4.1/2	190	80	36,0	29,0	2R22366	459,37	1.378,12
2 x 4.1/2	190	80	40,0	32,0	2R22370	465,84	1.397,53
2.1/4 x 4	220	80	45,0	35,0	2R22372	938,71	2.816,12
2.1/2 x 4	220	80	50,0	39,0	2R22374	1.496,27	4.488,80
2.3/4 x 3.1/2	240	80	50,0	39,0	2R22376	3.126,47	9.379,40
3 x 3.1/2	260	80	50,0	39,0	2R22378	3.859,71	11.579,12

BSF JUEGOS DE MACHOS ROSCA BRITÁNICA STANDARD FINA BS 84
BRITISH STANDARD FINE THREAD BS 84
JEUX DE TARAUDS À MAIN FILETAGE WHITWORTH BS 84

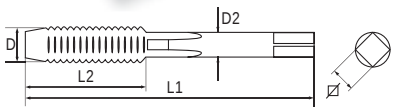
HSS-G ≈DIN 2181



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€/Unid.	€/Set
3/16 x 32	50	14	6,0	4,9	2R22710	33,17	66,33
1/4 x 26	50	18	6,0	4,9	2R22714	23,07	46,15
5/16 x 22	56	22	6,0	4,9	2R22716	24,04	48,07
3/8 x 20	63	22	7,0	5,5	2R22718	28,85	57,69
7/16 x 18	63	22	8,0	6,2	2R22720	36,54	73,08
1/2 x 16	75	24	9,0	7,0	2R22722	43,26	86,52
9/16 x 16	80	28	11,0	9,0	2R22724	48,07	96,15
5/8 x 14	80	28	12,0	9,0	2R22726	67,30	134,59
3/4 x 12	95	32	14,0	11,0	2R22730	96,13	192,27
7/8 x 11	100	36	18,0	14,5	2R22734	120,17	240,34
1 x 10	110	40	18,0	14,5	2R22738	144,20	288,40

BA JUEGOS DE MACHOS ENTRADA CÓNICA BA, BS 93
BA THREAD BS 93
JEUX DE TARAUDS À MAIN FILETAGE BA, BS 93

HSS-G BA ISO 529

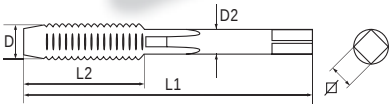


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€/Set
BA 0 x 1,00	66	19,0	6,30	5,00	2R89400	121,25
BA 1 x 0,90	62	17,0	5,60	4,50	2R89401	121,25
BA 2 x 0,81	58	16,0	5,00	4,00	2R89402	121,25
BA 3 x 0,73	53	13,0	4,50	3,55	2R89403	121,25
BA 4 x 0,66	50	13,0	3,55	2,80	2R89404	121,25
BA 5 x 0,59	48	11,0	3,15	2,50	2R89405	121,25
BA 6 x 0,53	45	9,5	2,80	2,24	2R89406	121,25

UNC

JUEGOS DE MACHOS ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
JEUX DE TARAUDS À MAIN FILETAGE UNIFIÉ
PAS GROS ANSI B 1.1

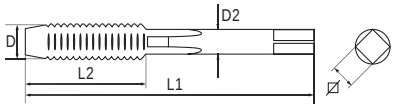
HSS-G | ≈DIN 352 | TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
Nr. 1 x 64	32	10	2,5	2,1	2R23301	30,21	90,64
Nr. 2 x 56	36	11	2,8	2,1	2R23302	27,47	82,41
Nr. 3 x 48	36	11	2,8	2,1	2R23303	27,47	82,41
Nr. 4 x 40	40	12	3,5	2,7	2R23304	18,80	56,39
Nr. 5 x 40	40	12	3,5	2,7	2R23305	18,80	56,39
Nr. 6 x 32	45	14	4,0	3,0	2R23306	21,65	64,95
Nr. 8 x 32	45	14	4,5	3,4	2R23308	21,65	64,95
Nr. 10 x 24	50	16	6,0	4,9	2R23310	21,65	64,95
Nr. 12 x 24	50	18	6,0	4,9	2R23312	21,65	64,95
1/4 x 20	50	19	6,0	4,9	2R23314	14,53	43,60
5/16 x 18	56	22	6,0	4,9	2R23316	16,86	50,58
3/8 x 16	70	24	7,0	5,5	2R23318	18,61	55,82
7/16 x 14	70	24	8,0	6,2	2R23320	24,41	73,24
1/2 x 13	75	29	9,0	7,0	2R23322	29,07	87,21
9/16 x 12	80	30	11,0	9,0	2R23324	33,71	101,14
5/8 x 11	80	32	12,0	9,0	2R23326	40,69	122,07
3/4 x 10	95	40	14,0	11,0	2R23330	52,32	156,96
7/8 x 9	100	40	18,0	14,5	2R23334	67,14	201,43
1 x 8	110	50	18,0	14,5	2R23338	103,77	311,31
1.1/8 x 7	132	56	22,0	18,0	2R23342	116,46	349,39
1.1/4 x 7	132	56	22,0	18,0	2R23346	119,70	359,10
1.3/8 x 6	150	63	28,0	22,0	2R23350	161,76	485,28
1.1/2 x 6	150	63	32,0	24,0	2R23354	204,62	613,85
1.5/8 x 5	160	70	32,0	24,0	2R23358	452,91	1.358,72
1.3/4 x 5	160	70	36,0	29,0	2R23362	452,91	1.358,72
1.7/8 x 4.1/2	190	80	36,0	29,0	2R23366	517,60	1.552,80
2 x 4.1/2	190	80	40,0	32,0	2R23370	483,10	1.449,29

UNF JUEGOS DE MACHOS ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
JEUX DE TARAUDS À MAIN FILETAGE UNIFIÉ
PAS FIN ANSI B 1.1

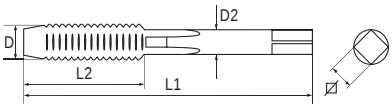
HSS-G | ≈DIN 2181 | TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
Nr. 0 x 80	28	8	2,5	2,1	2R24300	37,54	75,08
Nr. 1 x 72	32	9	2,8	2,1	2R24301	37,54	75,08
Nr. 2 x 64	32	10	2,8	2,1	2R24302	34,26	68,51
Nr. 3 x 56	32	10	2,8	2,1	2R24303	34,26	68,51
Nr. 4 x 48	36	11	3,5	2,7	2R24304	23,07	46,15
Nr. 5 x 44	36	11	3,5	2,7	2R24305	23,07	46,15
Nr. 6 x 40	40	12	4,5	3,4	2R24306	23,07	46,15
Nr. 8 x 36	40	12	4,5	3,4	2R24308	23,07	46,15
Nr. 10 x 32	45	14	6,0	4,9	2R24310	21,98	43,95
Nr. 12 x 28	50	14	6,0	4,9	2R24312	23,07	46,15
1/4 x 28	50	18	6,0	4,9	2R24314	13,83	27,66
5/16 x 24	56	22	6,0	4,9	2R24316	14,65	29,30
3/8 x 24	63	22	7,0	5,5	2R24318	18,72	37,44
7/16 x 20	63	22	8,0	6,2	2R24320	20,35	40,69
1/2 x 20	75	24	9,0	7,0	2R24322	23,61	47,21
9/16 x 18	80	28	11,0	9,0	2R24324	29,87	59,73
5/8 x 18	80	28	12,0	9,0	2R24326	36,62	73,24
3/4 x 16	95	32	14,0	11,0	2R24330	50,57	101,14
7/8 x 14	100	36	18,0	14,5	2R24334	68,67	137,34
1 x 12	110	40	18,0	14,5	2R24338	96,14	192,27
1 x 14	110	40	18,0	14,5	2R24340	109,87	219,74
1.1/8 x 12	110	50	22,0	18,0	2R24342	121,32	242,63
1.1/4 x 12	132	56	22,0	18,0	2R24346	169,83	339,67
1.3/8 x 12	132	56	28,0	22,0	2R24350	266,89	533,78
1.1/2 x 12	150	63	32,0	24,0	2R24354	291,16	582,32

G(BSP) JUEGOS DE MACHOS ROSCA GAS DIN ISO 228
PIPE THREAD DIN ISO 228
JEUX DE TARAUDS À MAIN FILETAGE
PAS GAZ DIN ISO 228

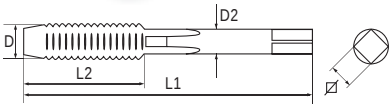
HSS-G | DIN 5157



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
G 1/8 x 28	63	20	7,0	5,5	2R25312	18,38	36,77
G 1/4 x 19	70	22	11,0	9,0	2R25314	25,07	50,13
G 3/8 x 19	70	22	12,0	9,0	2R25316	31,76	63,53
G 1/2 x 14	80	22	16,0	12,0	2R25318	45,12	90,24
G 5/8 x 14	80	22	18,0	14,5	2R25320	58,49	116,98
G 3/4 x 14	90	22	20,0	16,0	2R25322	66,86	133,72
G 7/8 x 14	90	22	22,0	18,0	2R25324	91,56	183,11
G 1 x 11	100	25	25,0	20,0	2R25326	115,62	231,24
G 1.1/8 x 11	125	40	28,0	22,0	2R25330	162,08	324,17
G 1.1/4 x 11	125	40	32,0	24,0	2R25334	194,10	388,20
G 1.3/8 x 11	140	40	36,0	29,0	2R25338	232,92	465,85
G 1.1/2 x 11	140	40	36,0	29,0	2R25342	266,89	533,78
G 1.5/8 x 11	140	40	40,0	32,0	2R25346	465,84	931,68
G 1.3/4 x 11	140	40	40,0	32,0	2R25350	465,84	931,68
G 2 x 11	160	40	45,0	35,0	2R25354	509,51	1.019,02
G 2.1/4 x 11	160	40	50,0	39,0	2R25358	1.016,52	2.033,05
G 2.1/2 x 11	160	40	50,0	39,0	2R25362	1.450,20	2.900,40
G 2.3/4 x 11	160	40	50,0	39,0	2R25366	2.076,94	4.153,88
G 3 x 11	160	40	50,0	39,0	2R25370	2.429,63	4.859,25
G 3.1/2 x 11	180	45	56,0	44,0	2R25374	4.018,03	8.036,05
G 4 x 11	180	45	56,0	44,0	2R25378	5.582,91	11.165,83

VG PARA ROSCAS DE VALVULAS DE NEUMÁTICO DIN 7756
FOR TIRE VALVES THREADS DIN 7756
POUR LES VALVES DES PNEUMATIQUES DIN 7756

HSS-G | DIN 2181 | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Set
VG 5 X 36	50	12	6	4,9	2R21501	621,27
VG 5,2 X 24	56	17	6	4,9	2R21502	571,09
VG 6 X 32	56	14	6	4,9	2R21503	648,97
VG 8 X 32	56	16	7	5,5	2R21504	726,85
VG 10 X 28	63	18	8	6,2	2R21505	778,75
VG 12X26	64	22	9	7,0	2R21506	828,31

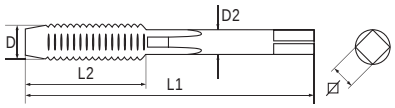
PG ROSCA PARA TUBOS BLINDADOS DIN 40 430

ARMOURED TUBE THREAD DIN 40 430

JEUX DE TARAUDS À MAIN FILETAGE ÉLECTRIQUE DIN 40 430

HSS-G

DIN 40432



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
PG 7 - 12,50 x 20	70	22	9,0	7,0	2R25707-3	36,85
PG 9 - 15,20 x 18	70	22	12,0	9,0	2R25709-3	46,07
PG 11 - 18,60 x 18	80	22	14,0	11,0	2R25711-3	64,49
PG 13,5 - 20,40 x 18	80	22	16,0	12,0	2R25713-3	75,54
PG 16 - 22,50 x 18	80	22	18,0	14,5	2R25716-3	87,79
PG 21 - 28,30 x 16	90	22	22,0	18,0	2R25721-3	122,11
PG 29 - 37,00 x 16	100	25	28,0	22,0	2R25729-3	202,21
PG 36 - 47,00 x 16	140	40	36,0	29,0	2R25736-3	323,79
PG 48 - 59,30 x 16	160	40	45,0	35,0	2R25748-3	658,19

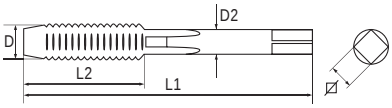
Equivalencia de roscas PG a roscas Mf Equivalents of threads PG to threads Mf / Équivalence du pas PG à pas Mf	
PG 7	M 12 x 150
PG 9	M 16 x 150
PG 11	M 20 x 150
PG 13,5	M 20 x 150
PG 16	M 25 x 150
PG 21	M 32 x 150
PG 29	M 40 x 150
PG 36	M 50 x 150
PG 48	M 63 x 150

UNEF

JUEGOS DE MACHOS ROSCA EXTRAFINA UNIFICADA ANSI B 1.1, ENTRADA CÓNICA

UNIFIED EXTRA FINE THREAD
ANSI B 1.1, NON SERIAL FORM
JEUX DE TARAUDS À MAIN FILETAGE
UNIFIÉ PAS FIN ANSI B 1.1

HSS-G | ISO 529 | TOL 2B



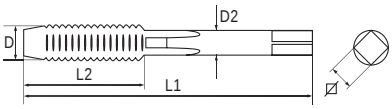
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
1/4 x 32	66	19	6.3	5.0	2R83821	44,49	133,48
5/16 x 32	72	22	8.0	6.3	2R83822	52,40	157,21
3/8 x 32	80	24	10.0	8.0	2R83823	59,38	178,15
7/16 x 28	85	25	8.0	6.3	2R83824	73,36	220,09
1/2 x 28	89	29	9.0	7.1	2R83825	84,69	254,08
9/16 x 24	95	30	11.2	9.0	2R83826	88,22	264,66
5/8 x 24	102	32	12.5	10.0	2R83827	130,42	391,27
3/4 x 20	112	37	14.0	11.2	2R83829	170,44	511,33
7/8 x 20	118	38	16.0	12.5	2R83831	194,79	584,37
1"x20	130	45	16.0	14.0	2R83833	235,82	707,45

Tr

JUEGOS DE MACHOS ROSCA TRAPEZOIDAL DIN 103

TRAPEZOIDAL THREAD DIN 103
JEUX DE TARAUDS À MAIN FILETAGE TRAPÉZOÏDAL DIN 103

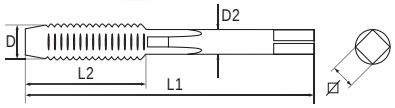
HSS-G | TOL 7H



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
Tr 10 x 2	90	34	7	5,5	2R25108	308,62	925,86
Tr 10 x 3	100	40	7	5,5	2R25112	308,62	925,86
Tr 12 x 3	110	40	8	6,2	2R25116	322,04	966,12
Tr 14 x 3	130	45	10	8,0	2R25120	421,71	1.265,14
Tr 14 x 4	130	55	10	8,0	2R25124	421,71	1.265,14
Tr 16 x 4	140	55	11	9,0	2R25128	379,54	1.138,63
Tr 18 x 4	150	55	12	9,0	2R25132	533,99	1.601,97
Tr 20 x 4	160	55	14	11,0	2R25136	575,07	1.725,20
Tr 22 x 5	175	65	16	12,0	2R25140	731,16	2.193,47
Tr 24 x 5	190	65	18	14,5	2R25144	813,31	2.439,93
Tr 26 x 5	210	70	20	16,0	2R25148	887,25	2.661,74
Tr 28 x 5	220	70	22	18,0	2R25152	982,47	2.947,42
Tr 30 x 6	240	80	22	18,0	2R25156	1.043,34	3.130,01
Tr 32 x 6	255	80	25	20,0	2R25160	1.321,93	3.965,78

M JUEGO DE MACHOS MÉTRICA COBALTO
COBALT METRIC HAND TAPS
JEUX DE TARAUDS À MAIN COBALT, METRIQUE

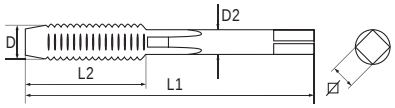
HSS-CO 5% | DIN 352 | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 3 x 0,50	40	11	3,5	2,7	2R57326	12,31	36,94
M 4 x 0,70	45	13	4,5	3,4	2R57330	12,31	36,94
M 5 x 0,80	50	16	6,0	4,9	2R57334	12,31	36,94
M 6 x 1,00	50	19	6,0	4,9	2R57338	12,31	36,94
M 8 x 1,25	56	22	6,0	4,9	2R57342	15,15	45,46
M 10 x 1,50	70	24	7,0	5,5	2R57346	19,84	59,51
M 12 x 1,75	75	29	9,0	7,0	2R57350	24,61	73,83
M 14 x 2,00	80	30	11,0	9,0	2R57354	30,02	90,06
M 16 x 2,00	80	32	12,0	9,0	2R57358	40,00	120,01
M 18 x 2,50	95	40	14,0	11,0	2R57362	51,15	153,46
M 20 x 2,50	95	40	16,0	12,0	2R57366	57,46	172,37
M 22 x 2,50	100	40	18,0	14,5	2R57370	70,77	212,31
M 24 x 3,00	110	50	18,0	14,5	2R57374	95,77	287,32
M 27 x 3,00	110	50	20,0	16,0	2R57376	166,45	499,35
M 30 x 3,50	125	56	22,0	18,0	2R57378	180,12	540,37

M JUEGO DE MACHOS MÉTRICA CON PUNTA PILOTO COBALTO
COBALT METRIC HAND TAPS ROUGHER PILOTED
JEUX DE TARAUDS À MAIN COBALT RECTIFIÉ ETAGÉ

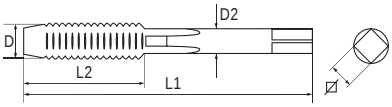
HSS-CO 5% | DIN 352 | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 3 x 0,50	40	11	3,5	2,7	2R57726	24,80	74,41
M 4 x 0,70	45	13	4,5	3,4	2R57730	24,80	74,41
M 5 x 0,80	50	16	6,0	4,9	2R57734	26,59	79,78
M 6 x 1,00	50	19	6,0	4,9	2R57738	26,59	79,78
M 8 x 1,25	56	22	6,0	4,9	2R57742	29,08	87,25
M 10 x 1,50	70	24	7,0	5,5	2R57746	39,00	116,99
M 12 x 1,75	75	29	9,0	7,0	2R57750	53,18	159,54

Mf JUEGOS DE MACHOS MANO MÉTRICA FINA COBALTO
COBALT METRIC FINE HAND TAPS
JEUX DE TARAUDS À MAIN, METRIQUE FIN

ACERO INOX HSS-CO 5% DIN 2181 TOL 6H



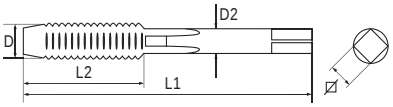
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.	€/Set
M 6 x 0,75	50	14	6,0	4,9	2R56318	24,84	49,68
M 8 x 0,75	50	19	6,0	4,9	2R56324	24,84	49,68
M 8 x 1,00	56	22	6,0	4,9	2R56326	24,84	49,68
M 10 x 1,00	63	20	7,0	5,5	2R56336	26,81	53,62
M 10 x 1,25	70	24	7,0	5,5	2R56338	31,15	62,30
M 12 x 1,00	70	22	9,0	7,0	2R56344	37,47	74,94
M 12 x 1,25	70	22	9,0	7,0	2R56346	37,47	74,94
M 12 x 1,50	70	22	9,0	7,0	2R56348	37,47	74,94
M 14 x 1,25	70	22	11,0	9,0	2R56354	44,59	89,17
M 14 x 1,50	70	22	11,0	9,0	2R56356	39,43	78,86
M 16 x 1,50	70	22	12,0	9,0	2R56366	49,68	99,37
M 18 x 1,50	80	22	14,0	11,0	2R56372	52,05	104,09
M 18 x 2,00	80	22	14,0	11,0	2R56374	69,00	138,00
M 20 x 1,50	80	22	16,0	12,0	2R56384	65,06	130,12
M 20 x 2,00	80	22	16,0	12,0	2R56386	86,75	173,51
M 22 x 1,50	80	22	18,0	14,5	2R56394	80,83	161,67
M 22 x 2,00	80	22	18,0	14,5	2R56396	86,75	173,51
M 24 x 1,50	90	22	18,0	14,5	2R56504	93,23	186,46

G(BSP)

JUEGOS DE MACHOS ROSCA GAS DIN ISO 228 COBALTO
COBALT HAND TAPS PIPE THREAD DIN ISO 228
JEUX DE TARAUDS À MAIN FILETAGE
PAS GAZ DIN ISO 228 COBALT

HSS-CO 5%

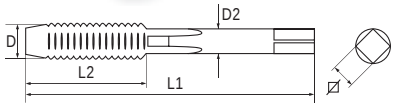
DIN 5157



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€/Unid.	€/Set
G 1/8 x 28	63	20	7,0	5,5	2R55312	24,84	49,68
G 1/4 x 19	70	22	11,0	9,0	2R55314	29,17	58,35
G 3/8 x 19	70	22	12,0	9,0	2R55316	43,77	87,54
G 1/2 x 14	80	22	16,0	12,0	2R55318	60,32	120,65
G 3/4 x 14	90	22	20,0	16,0	2R55322	82,80	165,61
G 1 x 11	100	25	25,0	20,0	2R55326	134,07	268,13

M JUEGO DE MACHOS MÉTRICA IZQUIERDAS
METRIC LEFT HAND TAPS
JEUX DE TARAUDS À MAIN À GAUCHE, METRIQUE

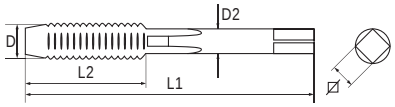
HSS-G | DIN 352 | TOL 6H | LH



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 3 x 0,50	40	11	3,5	2,7	2R27026	14,97	44,91
M 4 x 0,70	45	13	4,5	3,4	2R27030	14,24	42,71
M 5 x 0,80	50	16	6,0	4,9	2R27034	14,97	44,91
M 6 x 1,00	50	19	6,0	4,9	2R27038	14,97	44,91
M 8 x 1,25	56	22	6,0	4,9	2R27042	16,73	50,20
M 10 x 1,50	70	24	7,0	5,5	2R27046	22,69	68,06
M 12 x 1,75	75	29	9,0	7,0	2R27050	29,70	89,10
M 14 x 2,00	80	30	11,0	9,0	2R27054	35,96	107,89
M 16 x 2,00	80	32	12,0	9,0	2R27058	50,63	151,90
M 18 x 2,50	95	40	14,0	11,0	2R27062	68,13	204,38
M 20 x 2,50	95	40	16,0	12,0	2R27066	72,62	217,85
M 22 x 2,50	100	40	18,0	14,5	2R27070	90,80	272,40
M 24 x 3,00	110	50	18,0	14,5	2R27074	121,06	363,18
M 27 x 3,00	110	50	20,0	16,0	2R27076	152,19	456,58
M 30 x 3,50	125	56	22,0	18,0	2R27078	219,47	658,42
M 33 x 3,50	125	56	25,0	20,0	2R27080	289,75	869,26
M 36 x 4,00	150	63	28,0	22,0	2R27082	363,73	1.091,20
M 39 x 4,00	150	63	32,0	24,0	2R27084	421,06	1.263,19
M 42 x 4,50	150	63	32,0	24,0	2R27086	505,71	1.517,12
M 45 x 4,50	160	70	36,0	29,0	2R27088	580,06	1.740,18
M 48 x 5,00	180	75	36,0	29,0	2R27090	727,46	2.182,39
M 52 x 5,00	180	75	40,0	32,0	2R27092	814,96	2.444,87

Mf JUEGO DE MACHOS MÉTRICA FINA IZQUIERDAS
FINE METRIC LEFT HAND TAPS
JEUX DE TARAUDS À MAIN À GAUCHE, METRIQUE FIN

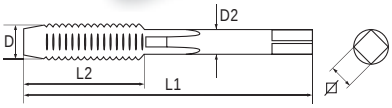
HSS-G | DIN 2181 | TOL 6H | LH



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
M 6 x 0,75	50	14	6,0	4,9	2R26007	29,34	58,69
M 8 x 0,75	50	19	6,0	4,9	2R26010	35,91	71,82
M 8 x 1,00	56	22	6,0	4,9	2R26011	27,96	55,93
M 10 x 1,00	63	20	7,0	5,5	2R26015	29,48	58,97
M 10 x 1,25	70	24	7,0	5,5	2R26016	32,99	65,98
M 12 x 1,00	70	22	9,0	7,0	2R26020	48,45	96,91
M 12 x 1,25	70	22	9,0	7,0	2R26021	48,45	96,91
M 12 x 1,50	70	22	9,0	7,0	2R26022	42,73	85,47
M 14 x 1,25	70	22	11,0	9,0	2R26027	62,81	125,63
M 14 x 1,50	70	22	11,0	9,0	2R26028	50,25	100,49
M 16 x 1,00	70	22	12,0	9,0	2R26031	81,65	163,30
M 16 x 1,50	70	22	12,0	9,0	2R26033	61,11	122,22
M 18 x 1,50	80	22	14,0	11,0	2R26036	77,77	155,53
M 20 x 1,50	80	22	16,0	12,0	2R26040	102,09	204,17
M 22 x 1,50	80	22	18,0	14,5	2R26045	111,27	222,55
M 24 x 1,50	90	22	18,0	14,5	2R26050	148,22	296,44
M 24 x 2,00	90	22	18,0	14,5	2R26051	161,52	323,04
M 30 x 1,50	90	22	22,0	18,0	2R26063	253,02	506,05
M 30 x 2,00	90	22	22,0	18,0	2R26064	287,11	574,23

UNC JUEGO DE MACHOS ROSCA UNIFICADA ANSI B 1.1 IZQUIERDAS
UNC LEFT HAND TAPS
JEUX DE TARAUDS À MAIN À GAUCHE, UNC

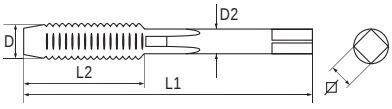
HSS-G | ≈DIN 352 | TOL 2B | LH



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
UNC Nr, 6 x 32	45	14	4,0	3,0	2R23006	46,40	139,19
UNC Nr. 8 x 32	45	14	4,5	3,4	2R23008	46,39	139,18
UNC Nr. 10 x 24	50	16	6,0	4,9	2R23010	46,40	139,19
UNC Nr. 12 x 24	50	18	6,0	4,9	2R23012	46,39	139,18
UNC 1/4 x 20	50	19	6,0	4,9	2R23014	30,52	91,56
UNC 5/16 x 18	56	22	6,0	4,9	2R23016	35,41	106,24
UNC 3/8 x 16	70	24	7,0	5,5	2R23018	39,07	117,22
UNC 7/16 x 14	70	24	6,2	6,2	2R23020	51,27	153,80
UNC 1/2 x 13	75	29	9,0	7,0	2R23022	61,05	183,14
UNC 9/16 x 12	80	30	11,0	9,0	2R23024	70,80	212,39
UNC 5/8 x 11	80	32	12,0	9,0	2R23026	85,45	256,34
UNC 3/4 x 10	95	40	14,0	11,0	2R23030	126,35	379,06
UNC 7/8 x 9	100	40	18,0	14,5	2R23034	141,00	423,00
UNC 1 x 8	110	50	18,0	14,5	2R23038	217,92	653,75

UNF JUEGO DE MACHOS ROSCA FINA UNIFICADA ANSI B 1.1 IZQUIERDAS
UNF LEFT HAND TAPS
JEUX DE TARAUDS À MAIN À GAUCHE, UNF

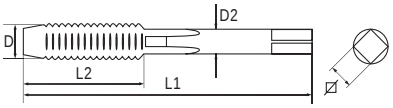
HSS-G | DIN 2181 | TOL 2B | LH



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
Nr. 10 x 32	45	14	6,0	4,9	2R24010	43,07	86,13
UNF 1/4 x 28	50	18	6,0	4,9	2R24014	31,13	62,26
UNF 5/16 x 24	56	22	6,0	4,9	2R24016	32,96	65,92
UNF 3/8 x 24	63	22	7,0	5,5	2R24018	42,13	84,26
UNF 7/16 x 20	63	22	8,0	6,2	2R24020	45,78	91,56
UNF 1/2 x 20	75	24	9,0	7,0	2R24022	53,12	106,24
UNF 9/16 x 18	80	28	11,0	9,0	2R24024	67,19	134,38
UNF 5/8 x 18	80	28	12,0	9,0	2R24026	82,40	164,79
UNF 3/4 x 16	95	32	14,0	11,0	2R24030	106,20	212,39
UNF 7/8 x 14	100	36	18,0	14,5	2R24034	144,20	288,40
UNF 1 x 12	110	40	18,0	14,5	2R24038	201,89	403,77

BSW JUEGO DE MACHOS WHITWORTH BS 84 IZQUIERDAS
WHITWORTH BS 84 LEFT HAND TAPS
JEUX DE TARAUDS À MAIN À GAUCHE, WHITWORTH BS 84

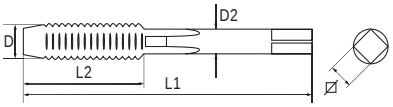
HSS-G | ≈DIN 351 | LH



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
BSW 1/8 x 40	40	12	3,5	2,7	2R22006	21,08	63,24
BSW 5/32 x 32	45	14	4,5	3,4	2R22008	21,08	63,24
BSW 3/16 x 24	50	18	6,0	4,9	2R22010	21,08	63,24
BSW 1/4 x 20	50	19	6,0	4,9	2R22014	23,40	70,19
BSW 5/16 x 18	56	22	6,0	4,9	2R22016	27,03	81,08
BSW 3/8 x 16	70	24	7,0	5,5	2R22018	31,74	95,22
BSW 7/16 x 14	70	24	8,0	6,2	2R22020	41,02	123,06
BSW 1/2 x 12	75	29	9,0	7,0	2R22022	46,39	139,16
BSW 9/16 x 12	80	30	11,0	9,0	2R22024	64,10	192,31
BSW 5/8 x 11	80	32	12,0	9,0	2R22026	73,06	219,17
BSW 3/4 x 10	95	40	14,0	11,0	2R22030	92,29	276,88
BSW 7/8 x 9	100	40	18,0	14,5	2R22034	115,37	346,11
BSW 1 x 8	110	50	18,0	14,5	2R22038	153,82	461,45

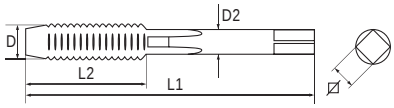
G(BSP) JUEGO DE MACHOS ROSCA GAS DIN ISO 228 IZQUIERDAS
BSP LEFT HAND TAP SETS
JEUX DE TARAUDS À MAIN À GAUCHE, BSP

HSS-G | DIN 5157 | LH



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.	€/Set
G 1/8 x 28	63	20	7,0	5,5	2R25012	37,61	75,21
G 1/4 x 19	70	22	11,0	9,0	2R25014	51,28	102,55
G 3/8 x 19	70	22	12,0	9,0	2R25016	64,94	129,88
G 1/2 x 14	80	22	16,0	12,0	2R25018	92,29	184,58
G 5/8 x 14	80	22	18,0	14,5	2R25020	128,19	256,38
G 3/4 x 14	90	22	20,0	16,0	2R25022	146,49	292,98
G 1 x 11	100	25	25,0	20,0	2R25026	242,80	485,59
G 1.1/8 x 11	125	40	28,0	22,0	2R25030	321,11	642,22
G 1.1/4 x 11	125	40	32,0	24,0	2R25034	384,65	769,29
G 1.3/8 x 11	140	40	36,0	29,0	2R25038	461,44	922,89
G 1.1/2 x 11	140	40	36,0	29,0	2R25042	528,75	1.057,49
G 1.3/4 x 11	140	40	40,0	32,0	2R25050	922,89	1.845,78
G 2 x 11	160	40	45,0	35,0	2R25054	1.009,41	2.018,83

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13



PUNTA EN ESPIRAL (PASANTE) • SPIRAL POINT (THROUGH) • POINTE SPIRALE (INTERNE)

HSS-CO 5% | DIN 352 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 3 x 0,50	40	11	3,5	2,7	3R61526	13,05
M 4 x 0,70	45	13	4,5	3,4	3R61530	13,05
M 5 x 0,80	48	16	6,0	4,9	3R61534	13,05
M 6 x 1,00	50	19	6,0	4,9	3R61538	13,05
M 8 x 1,25	56	22	6,0	4,9	3R61542	15,50
M 10 x 1,50	70	24	7,0	5,5	3R61546	19,57
M 12 x 1,75	75	29	9,0	7,0	3R61550	25,28
M 14 x 2,00	80	30	11,0	9,0	3R61554	31,81
M 16 x 2,00	80	32	12,0	9,0	3R61558	44,41
M 18 x 2,50	95	40	14,0	11,0	3R61562	50,92
M 20 x 2,50	95	40	16,0	12,0	3R61566	59,10
M 22 x 2,50	100	40	18,0	14,5	3R61570	78,32
M 24 x 3,00	110	50	18,0	14,5	3R61574	85,60

HELICOIDAL 35° (CIEGO) • 35° SPIRAL FLUTE (BLIND) • HÉLICOÏDAL (AVEUGLE)

HSS-CO 5% | DIN 352 | FORM C/35° | TOL 6H

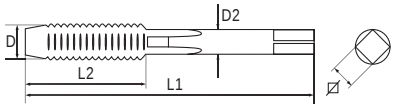
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 3 x 0,50	40	11	3,5	2,7	3R61726	15,90
M 4 x 0,70	45	13	4,5	3,4	3R61730	15,90
M 5 x 0,80	48	16	6,0	4,9	3R61734	15,90
M 6 x 1,00	50	19	6,0	4,9	3R61738	15,90
M 8 x 1,25	56	22	6,0	4,9	3R61742	18,32
M 10 x 1,50	70	24	7,0	5,5	3R61746	23,22
M 12 x 1,75	75	29	9,0	7,0	3R61750	29,35

CON DIENTE ALTERNO (PASANTE) • WIHT INTERRUPTED THREADS (THROUGH) • AVEC ALTERNANCE DENT (INTERNE)

HSS-CO 5% | DIN 352 | FORM B-AZ | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 3 x 0,50	40	11	3,5	2,7	3R61926	19,95
M 4 x 0,70	45	13	4,5	3,4	3R61930	19,95
M 5 x 0,80	48	16	6,0	4,9	3R61934	19,95
M 6 x 1,00	50	19	6,0	4,9	3R61938	19,95
M 8 x 1,25	56	22	6,0	4,9	3R61942	25,60
M 10 x 1,50	70	24	7,0	5,5	3R61946	40,23
M 12 x 1,75	75	29	9,0	7,0	3R61950	46,55

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13



FORMA B • FORM B • FORME B

HSS-G | ISO 529 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 2,0 x 0,40	41,0	8,0	2,50	2,00	3R80516	17,23
M 2,5 x 0,45	44,5	9,5	2,80	2,24	3R80522	17,23
M 2,6 x 0,45	44,5	9,5	2,90	2,24	3R80524	17,24
M 3,0 x 0,50	48,0	11,0	3,15	2,50	3R80526	10,14
M 3,5 x 0,60	50,0	13,0	3,55	2,80	3R80528	10,78
M 4,0 x 0,70	53,0	13,0	4,00	3,15	3R80530	10,14
M 5,0 x 0,80	58,0	16,0	5,00	4,00	3R80534	11,08
M 6,0 x 1,00	66,0	19,0	6,30	5,00	3R80538	11,39
M 8,0 x 1,25	72,0	22,0	8,00	6,30	3R80542	14,47
M 10,0 x 1,50	80,0	24,0	10,00	8,00	3R80546	17,85
M 12,0 x 1,75	89,0	29,0	9,00	7,10	3R80550	25,25
M 14,0 x 2,00	95,0	30,0	11,20	9,00	3R80554	31,30
M 16,0 x 2,00	102,0	32,0	12,50	10,00	3R80558	36,05
M 18,0 x 2,50	110,0	37,0	14,00	11,20	3R80562	50,78
M 20,0 x 2,50	112,0	37,0	14,00	11,20	3R80566	56,94
M 22,0 x 2,50	118,0	38,0	16,00	12,50	3R80570	67,72
M 24,0 x 3,00	130,0	45,0	18,00	14,00	3R80574	80,73
M 27,0 x 3,00	135,0	45,0	20,00	16,00	3R80576	107,72
M 30,0 x 3,50	138,0	48,0	20,00	16,00	3R80578	144,78

CON DIENTE ALTERNO (PASANTE)
WIHT INTERRUPTED THREADS (THROUGH)
AVEC ALTERNANCE DENT (INTERNE)

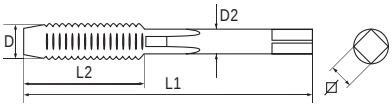
HSS-G | ISO 529 | FORM B-AZ | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	48,0	11,0	3,15	2,50	3R80926	16,20
M 4 x 0,70	53,0	13,0	4,00	3,15	3R80930	16,98
M 5 x 0,80	58,0	16,0	5,00	4,00	3R80934	18,65
M 6 x 1,00	66,0	19,0	6,30	5,00	3R80938	19,38
M 7 x 1,00	66,0	19,0	7,10	5,60	3R80940	24,92
M 8 x 1,25	72,0	22,0	8,00	6,30	3R80942	25,65
M 10 x 1,50	80,0	24,0	10,00	8,00	3R80946	39,55
M 12 x 1,75	89,0	29,0	9,00	7,10	3R80950	45,72
M 14 x 2,00	95,0	30,0	11,20	9,00	3R80954	51,15
M 16 x 2,00	102,0	32,0	12,50	10,00	3R80958	56,17
M 18 x 2,50	110,0	37,0	14,00	11,20	3R80962	63,48
M 20 x 2,50	112,0	37,0	14,00	11,20	3R80966	93,79
M 22 x 2,50	118,0	38,0	16,00	12,50	3R80970	100,16
M 24 x 3,00	130,0	45,0	18,00	14,00	3R80974	109,67

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13

FORMA C/35° RPS • FORM C/35° RPS

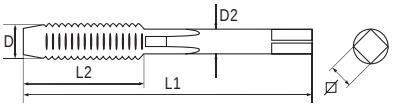
HSS-G | ISO 529 | FORM C/35° | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 2,5 x 0,45	44,5	9,5	2,80	2,24	3R80722	22,17
M 2,6 x 0,45	44,5	9,5	2,90	2,24	3R80724	22,17
M 3,0 x 0,50	48,0	11,0	3,15	2,50	3R80726	13,23
M 4,0 x 0,70	53,0	13,0	4,00	3,15	3R80730	13,23
M 5,0 x 0,80	58,0	16,0	5,00	4,00	3R80734	13,23
M 6,0 x 1,00	66,0	19,0	6,30	5,00	3R80738	13,53
M 8,0 x 1,25	72,0	22,0	8,00	6,30	3R80742	16,02
M 10,0 x 1,50	80,0	24,0	10,00	8,00	3R80746	20,63
M 12,0 x 1,75	89,0	29,0	9,00	7,10	3R80750	26,79
M 14,0 x 2,00	95,0	30,0	11,20	9,00	3R80754	39,66
M 16,0 x 2,00	102,0	32,0	12,50	10,00	3R80758	43,84
M 18,0 x 2,50	110,0	37,0	14,00	11,20	3R80762	62,54
M 20,0 x 2,50	112,0	37,0	14,00	11,20	3R80766	70,79
M 22,0 x 2,50	118,0	38,0	16,00	12,00	3R80770	80,02
M 24,0 x 3,00	130,0	45,0	18,00	14,00	3R80774	91,80
M 27,0 x 3,00	135,0	45,0	20,00	16,00	3R80776	131,51
M 30,0 x 3,50	138,0	48,0	20,00	16,00	3R80778	173,31

Mf MÉTRICA FINA ISO ROSCA DIN 13
METRIC FINE ISO THREAD DIN 13
FILETAGE MÉTRIQUE ISO DIN 13

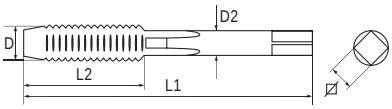
HSS-G | DIN 2181 | FORM D | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 6 x 0,75	50	14	6,0	4,9	3R66318	18,98
M 8 x 0,75	50	19	6,0	4,9	3R66324	18,98
M 8 x 1,00	56	22	6,0	4,9	3R66326	18,98
M 9 x 0,75	56	19	7,0	5,5	3R66328	21,21
M 9 x 1,00	63	20	7,0	5,5	3R66330	21,21
M 10 x 0,75	63	20	7,0	5,5	3R66332	21,21
M 10 x 1,00	63	20	7,0	5,5	3R66336	18,98
M 10 x 1,25	70	24	7,0	5,5	3R66338	21,21
M 12 x 1,00	70	22	9,0	7,0	3R66344	27,47
M 12 x 1,25	70	22	9,0	7,0	3R66346	27,47
M 12 x 1,50	70	22	9,0	7,0	3R66348	25,44
M 13 x 1,00	70	22	11,0	9,0	3R66350	42,39
M 13 x 1,50	70	22	11,0	9,0	3R66351	42,39
M 14 x 1,00	70	22	11,0	9,0	3R66353	42,40
M 14 x 1,25	70	22	11,0	9,0	3R66354	31,92
M 14 x 1,50	70	22	11,0	9,0	3R66356	27,47
M 15 x 1,50	70	22	12,0	9,0	3R66360	46,85
M 16 x 1,50	70	22	12,0	9,0	3R66366	33,91
M 18 x 1,00	80	22	14,0	11,0	3R66370	50,88
M 18 x 1,50	80	22	14,0	11,0	3R66372	38,35
M 20 x 1,50	80	22	16,0	12,0	3R66384	46,84
M 20 x 2,00	80	22	16,0	12,0	3R66386	63,80
M 22 x 1,50	80	22	18,0	14,5	3R66394	59,76
M 22 x 2,00	80	22	18,0	14,5	3R66396	63,80
M 24 x 1,50	90	22	18,0	14,5	3R66504	64,59
M 24 x 2,00	90	22	18,0	14,5	3R66506	84,79
M 25 x 1,50	90	22	18,0	14,5	3R66508	127,19
M 26 x 1,50	90	22	18,0	14,5	3R66512	119,98
M 27 x 1,50	90	22	20,0	16,0	3R66517	119,98
M 28 x 1,50	90	22	20,0	16,0	3R66522	144,74
M 30 x 1,50	90	22	22,0	18,0	3R66530	160,00
M 30 x 2,00	90	22	22,0	18,0	3R66532	160,00
M 32 x 1,50	90	22	22,0	18,0	3R66536	160,00

BSW WHITWORTH BS 84
WHITWORTH THREAD BS 84
FILETAGE WHITWORTH BS 84

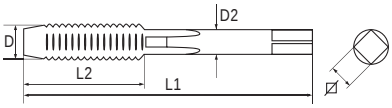
HSS-G | DIN 351 | ≈DIN 352 | FORM D



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
1/8 x 40	40	12	3,5	2,7	3R62306	13,73
3/16 x 24	50	18	6,0	4,9	3R62310	13,73
1/4 x 20	50	19	6,0	4,9	3R62314	13,73
5/16 x 18	56	22	6,0	4,9	3R62316	14,93
3/8 x 16	70	24	7,0	5,5	3R62318	16,97
7/16 x 14	70	24	8,0	6,2	3R62320	21,21
1/2 x 12	75	29	9,0	7,0	3R62322	25,44
9/16 x 12	80	30	11,0	9,0	3R62324	33,10
5/8 x 11	80	32	12,0	9,0	3R62326	37,54
3/4 x 10	95	40	14,0	11,0	3R62330	50,07
7/8 x 9	100	40	18,0	14,5	3R62334	61,80
1 x 8	110	50	18,0	14,5	3R62338	74,30

G(BSP) GAS DIN ISO 228
BSP PIPE THREAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228

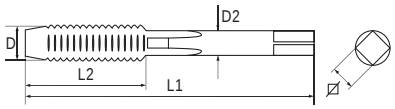
HSS-G | DIN 5157 | FORM D



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
G 1/8 x 28	63	20	7	5,5	3R65312	18,16
G 1/4 x 19	70	22	11	9,0	3R65314	20,19
G 3/8 x 19	70	22	12	9,0	3R65316	29,87
G 1/2 x 14	80	22	16	12,0	3R65318	38,36
G 3/4 x 14	90	22	20	16,0	3R65322	55,31
G 1 x 11	100	25	25	20,0	3R65326	95,71
G 1.1/4 x 11	125	40	32	24,0	3R65334	159,49
G 1.1/2 x 11	140	40	32	29,0	3R65342	201,89
G 1.3/4 x 11	140	40	40	32,0	3R65350	423,95
G 2 x 11	160	40	45	35,0	3R65354	423,95
G 2.1/4 x 11	160	40	50	39,0	3R65358	1.011,10
G 2.1/2 x 11	160	40	50	39,0	3R65362	1.152,07
G 2.3/4 x 11	160	40	50	39,0	3R65366	1.981,27
G 3 x 11	160	40	50	39,0	3R65370	2.283,85
G 3.1/2 x 11	180	45	56	44,0	3R65374	3.339,86
G 4 x 11	180	45	56	44,0	3R65378	4.233,03

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1 UNC
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1

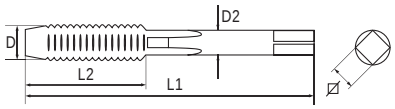
HSS-G | ≈DIN 352 | FORM D | TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
1/4 x 20	50	19	6,0	4,9	3R63314	13,73
5/16 x 18	56	22	6,0	4,9	3R63316	14,93
3/8 x 16	70	24	7,0	5,5	3R63318	16,97
7/16 x 14	70	24	8,0	6,2	3R63320	21,21
1/2 x 13	75	29	9,0	7,0	3R63322	25,44
19/16 x 12	80	30	11,0	9,0	3R63324	33,11
5/8 x 11	80	32	12,0	9,0	3R63326	37,54
3/4 x 10	95	40	14,0	11,0	3R63330	50,07
7/8 x 9	100	40	18,0	14,5	3R63334	61,80
1 x 8	110	50	18,0	14,5	3R63338	74,30

UNF ROSCA FINA UNIFICADA ANSI B 1.1 UNF
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1

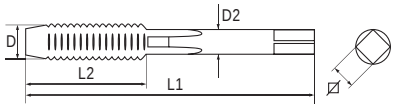
HSS-G | ≈DIN 352 | FORM D | TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
1/4 x 28	50	18	6,0	4,9	3R64314	13,73
5/16 x 24	56	22	6,0	4,9	3R64316	14,93
3/8 x 24	63	22	7,0	5,5	3R64318	16,97
7/16 x 20	63	22	8,0	6,2	3R64320	21,21
1/2 x 20	75	24	9,0	7,0	3R64322	25,44
19/16 x 18	80	28	11,0	9,0	3R64324	33,11
5/8 x 18	80	28	12,0	9,0	3R64326	37,54
3/4 x 16	95	32	14,0	11,0	3R64330	50,07
7/8 x 14	100	36	18,0	14,5	3R64334	61,80
1 x12	110	40	18,0	14,5	3R64338	74,30

NPT

ROSCA AMERICANA PARA TUBO, CONICIDAD 1:16
NPT AMERICAN TAPERED THREAD, TAPER 1:16
FILETAGE AMERICAIN NPT CONICITÉ 1:16



HSS-G | FORM C

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
NPT 1/16 x 27	65	19	7,0	5,5	3R63510	49,44
NPT 1/8 x 27	65	19	7,0	5,5	3R63512	41,19
NPT 1/4 x 18	70	25	11,0	9,0	3R63514	45,13
NPT 3/8 x 18	75	26	12,0	9,0	3R63516	62,77
NPT 1/2 x 14	80	31	16,0	12,0	3R63518	78,46
NPT 3/4 x 14	100	33	20,0	16,0	3R63522	103,18
NPT 1 x 11.5	110	38	25,0	20,0	3R63526	164,80
NPT 1.1/4 x 11.5	125	41	32,0	24,0	3R63534	247,18
NPT 1.1/2 x 11.5	140	42	36,0	29,0	3R63542	462,96
NPT 2 x 11.5	160	44	36,0	35,0	3R63554	568,89

HSS-G | FORM B

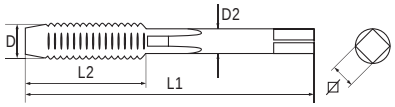
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
NPT 1/16 x 27	55	17,5	8,0	6,0	3R98502	61,99
NPT 1/8 x 27	55	19,0	8,0	6,0	3R98506	49,44
NPT 1/4 x 18	62	28,0	11,0	9,0	3R98514	49,44
NPT 3/8 x 18	65	28,0	14,0	11,0	3R98518	74,56
NPT 1/2 x 14	80	35,0	18,0	14,0	3R98522	93,00
NPT 3/4 x 14	85	35,0	23,0	17,0	3R98530	123,99
NPT 1 x 11.5	95	45,0	26,0	21,0	3R98538	198,52
NPT 1.1/4 x 11.5	105	45,0	32,0	26,0	3R98546	350,92
NPT 1.1/2 x 11.5	110	45,0	38,0	29,0	3R98554	758,41
NPT 2 x 11.5	120	50,0	46,0	35,0	3R98570	1.302,02

HSS-G | FORM C/35°

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
NPT 1/16 x 27	55	17,5	6,0	6,0	3R98702	61,99
NPT 1/8 x 27	55	19,0	8,0	6,0	3R98706	57,21
NPT 1/4 x 18	62	28,0	11,0	9,0	3R98714	78,32
NPT 3/8 x 18	65	28,0	14,0	11,0	3R98718	104,03
NPT 1/2 x 14	80	35,0	18,0	14,0	3R98722	203,72
NPT 3/4 x 14	85	35,0	23,0	17,0	3R98730	342,60
NPT 1 x 11.5	95	45,0	26,0	21,0	3R98738	460,79
NPT 1.1/4 x 11.5	105	45,0	32,0	26,0	3R98746	544,39
NPT 1.1/2 x 11.5	110	45,0	38,0	29,0	3R98754	716,35
NPT 2 x 11.5	120	50,0	46,0	35,0	3R98770	1.302,02

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

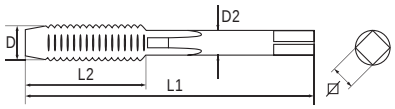
HSS-G | TOL 6H | 1/4



D Ø x P (mm)	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
M 3 x 0,50	2,5	36	3R67226	21,98
M 4 x 0,70	3,3	39	3R67230	21,98
M 5 x 0,80	4,2	41	3R67234	21,98
M 6 x 1,00	5,0	44	3R67238	21,98
M 8 x 1,25	6,8	50	3R67242	31,40
M 10 x 1,50	8,5	59	3R67246	37,67

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

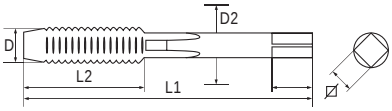
HSS-G | TIN | TOL 6H | 1/4



D Ø x P (mm)	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
M 3 x 0,50	2,5	36	3R67210	44,95
M 4 x 0,70	3,3	39	3R67211	44,95
M 5 x 0,80	4,2	41	3R67212	44,95
M 6 x 1,00	5,0	44	3R67213	44,95
M 8 x 1,25	6,8	50	3R67214	60,35
M 10 x 1,50	8,5	59	3R67215	83,23

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1

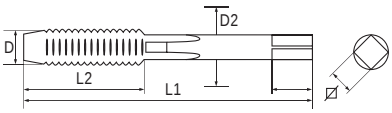
HSS-G



D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
Nr. 4 x 40	2.30	36	3R67280	31,21
Nr. 5 x 40	2.60	36	3R67281	31,21
Nr. 6 x 32	2.85	39	3R67282	31,21
Nr. 8 x 32	3.50	39	3R67283	31,21
Nr. 10 x 24	3.90	41	3R67284	31,21
Nr. 12 x 24	4.50	41	3R67285	31,21
1/4 x 20	5.20	44	3R67286	31,21
5/16 x 18	6.60	50	3R67287	43,69
3/8 x 16	8.00	59	3R67288	52,43

UNF ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1

HSS-G

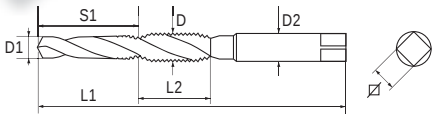


D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
Nr. 4 x 48	2.4	36	3R67290	31,21
Nr. 5 x 44	2.7	36	3R67291	31,21
Nr. 6 x 40	3.0	39	3R67292	31,21
Nr. 8 x 36	3.5	39	3R67293	31,21
Nr. 10 x 32	4.1	41	3R67294	31,21
Nr. 12 x 28	4.7	41	3R67295	31,21
1/4 x 28	5.5	44	3R67296	31,21
5/16 x 24	6.9	50	3R67297	43,69
3/8 x 24	8.5	59	3R67298	52,43

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

HSS-CO 5%

TOL 6H

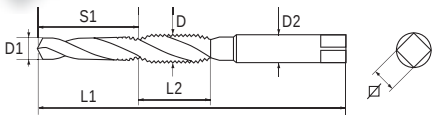


D Ø x P (mm)	L1 (mm)	S1 (mm)	L2 (mm)	D1 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	16	11	2.5	3.0	2.4	3R37026	45,83
M 4 x 0,70	63	18	14	3.3	4.0	3.0	3R37030	45,83
M 5 x 0,80	71	20	18	4.2	5.0	3.8	3R37034	45,83
M 6 x 1,00	80	22	22	5.0	6.0	4.9	3R37038	49,69
M 8 x 1,25	95	26	25	6.8	8.0	6.2	3R37042	66,21
M 10 x 1,50	106	30	31	8.5	10.0	8.0	3R37046	76,39
M 12 x 1,75	115	32	35	10.2	12.0	9.0	3R37050	92,11

BSW WHITWORTH BS 84
WHITWORTH BS 84
WHITWORTH BS 84

HSS-CO 5%

TOL 6H



D Ø x P (")	L1 (mm)	S1 (mm)	L2 (mm)	D1 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
1/8 x 40	56	16	11	2.6	3.0	2.4	3R70006	49,24
5/32 x 32	63	18	14	3.2	4.0	3.0	3R70008	49,24
3/16 x 24	71	20	18	3.7	5.0	3.8	3R70010	49,24
1/4 x 20	80	22	22	5.1	6.0	4.9	3R70014	55,55
5/16 x 18	95	26	25	6.5	8.0	6.2	3R70016	62,95
3/8 x 16	106	30	31	7.9	10.0	8.0	3R70018	68,51
1/2 x 12	115	32	35	10.5	12.0	9.0	3R70022	85,30

TABLA DE APLICACIONES Y VELOCIDADES DE CORTE RECOMENDADAS PARA MACHOS MÁQUINA

MACHINE TAPS APPLICATION GUIDE AND RECOMMENDED CUTTING SPEED

TABLE D´APPLICATIONS ET VITESSE DE COUPE RECOMMENDÉ POUR TARAUDS MACHINE

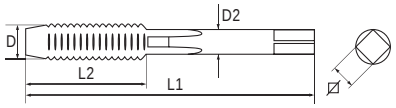
			HSS-CO 5%			HSS-CO 5% TIN		HSS-CO 5% VAP		HSS-CO 5%
				TOL 6H		TOL 6H		TOL 6H		TOL 6H
			FORM B	FORM C	FORM C/35°	FORM B	FORM C/35°	FORM B	FORM C/35°	FORM C/15°
MATERIAL / MATERIAL / MATIÉRE		Resistencia Ressistance Resistance N/mm	Pág 287	Pág 286	Pág. 290	Pág. 288	Pág. 288	Pág. 288	Pág. 291	Pág. 289
ACEROS STEELS ACIERS	Decoletaje Machining • Décolletage	<500	5 - 15	5 - 15	5 - 15	20 - 30	20 - 30	20 - 30	20 - 30	5 - 15
	Carbono <0,4% <0,4% Carbon • Carbon <0,4%	<850	12 - 18	12 - 18	12 - 18	15 - 20	15 - 20	15 - 25	15 - 25	12 - 18
	Acero para herramientas Steel for tools • Acier pour outils	<1.200								
	Templado - Revenido Tempered - Quenched • Trempé - Revenu	<1.400								
ACEROS INOXIDABLES STAINLESS STEEL ACIER INOXYDABLE	Austeníticos Cr-Ni Cr-Ni Austenitics • Cr-Ni austenitique	<850								
	Martensíticos Cr-Mo Cr-Mo Martensitics • Cr-Mo martensitique	<1.200								
FUNDICIÓN CAST IRON FONTE	Fundición gris Grey cast iron • Fonte grise	<700	10 - 15	10 - 15	10 - 15					
	Fundición dura Hard cast iron • Fonte dur	<1.000								
ALUMINIO ALUMINIUM A LUMINIUM	Puro Pure • Pure	<350								
	Si < 10%	<600	10 - 15		10 - 15	10 - 20	10 - 20	20 - 30	20 - 30	
	Si > 10%	<600	10 - 15		10 - 15			20 - 30	20 - 30	
	Zamak Zamak • Zamak	<600								
COBRE COPPER CUIVRE	Bronce Bronze • Bronze	<350								
	Cobre viruta larga Long chip copper • Cuivre coupage long	<700	15 - 20		15 - 20	15 - 20	15 - 20			
	Cobre viruta corta Short chip coppe • Cuivre coupage court	<700								
	Latón duro Hard Brass • Laiton dur	<700	10 - 15		10 - 15	20 - 30	20 - 30			
	Latón tenaz Tough Brass • Laiton tenace	<700	10 - 15		10 - 15	10 - 15	10 - 15			
TITANIO TITANIUM TITANE	Puro Pure • Pure	<700								
	Aleaciones de Titanio Titanium alloys • Alliages de titane	<1.200								
SINTÉTICOS PLASTICS PLASTIQUES	Termoplásticos Thermoplastics • Thermoplastique	-	10 - 15		10 - 15	10 - 20	10 - 20			
	Duroplásticos Hard-plastics • Duroplastique	-								

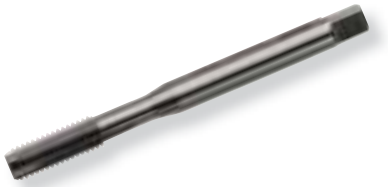
20 - 25 Macho recomendado por SESATOOLS y velocidad de corte
SESA TOOLS recomendation and cutting speed
Foret récommendé par SESA TOOLS et vitesse de coupage

20 - 25 Buen rendimiento y velocidad de corte (RPM)
Good performance and speed of the cut (RPM)
Bon rendement et vitesse de coup recommendée (RPM)

HSS-CO 5%	PM / HL	HSS-E-V3 / TIN	HSS-CO 5%	PM / FUTURA	HSS-CO 5% / ALUSPEED	HSS-CO 5% / TIN
TOL 6H	TOL 6H	TOL 6H	TOL 6H	TOL 6H	TOL 6H	TOL 6HX
FORM B-AZ	FORM B / FORM C/35°	FORM B / FORM C/35°	FORM B / FORM C/39°	FORM B / FORM C/35° / FORM C/15°	FORM B / FORM C/45°	LAMINACIÓN FORMING TAPS À REFOULER
Pág. 294	Pág. 324 / Pág. 324	Pág. 325 / Pág. 325	Pág. 326 / Pág. 326	Pág. 331 / Pág. 331 / Pág. 331	Pág. 332 / Pág. 332	Pág. 333 / Pág. 333
	8 - 10 / 8 -1 0					12 - 25 / 12 - 25
	8 - 10 / 8 - 10	8 - 10 / 8 - 10				15 - 25 / 15 - 25
	6 - 8 / 6 - 8	4 - 6 / 4 - 6				
				3 - 8 / 3 - 8 / 3 - 8		
	8 - 14 / 8 - 14	6 - 10 / 6 - 10	5 - 10 / 5 - 10			15 - 25 / 15 - 25
	6 - 10 / 6 -1 0	4 - 7 / 4 - 7				10 - 20 / 10 - 20
		8 - 12 / 8 - 12				
		7 - 10 / 7 - 10				
					15 - 35 / 15 - 35	
10 - 15		12 - 20 / 12 - 20			15 - 35 / 15 - 35	
10 - 15		12 - 20 / 12 - 20			15 - 30 / 15 - 30	
10 - 15					15 - 30 / 15 - 30	
						15 - 35 / 15 - 35
	10 - 15 / 10 - 15	12 - 20 / 12 -2 0				10 - 20 / 10 - 20
	10 - 15 / 10 - 15					
		2 - 8 / 2 - 8	2 - 5 / 2 - 5			
				3 - 8 / 3 - 8 / 3 - 8		10 - 20 / 10 - 20
				10 - 15 / 10 - 15 / 10 - 15		

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13





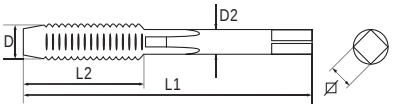
ACERO HSS-CO 5% | DIN 371 | FORM C | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 2,0 x 0,40	45	8	2,8	2,1	3R37416	17,74
M 2,3 x 0,40	45	9	2,8	2,1	3R37418	19,28
M 2,5 x 0,45	50	9	2,8	2,1	3R37422	19,28
M 2,6 x 0,45	50	9	2,8	2,1	3R37424	19,28
M 3,0 x 0,50	56	11	3,5	2,7	3R37426	13,78
M 3,5 x 0,60	56	13	4,0	3,0	3R37428	16,33
M 4,0 x 0,70	63	13	4,5	3,4	3R37430	14,03
M 5,0 x 0,80	70	16	6,0	4,9	3R37434	14,21
M 6,0 x 1,00	80	19	6,0	4,9	3R37438	14,66
M 7,0 x 1,00	80	19	7,0	5,5	3R37440	19,94
M 8,0 x 1,25	90	22	8,0	6,2	3R37442	18,11
M 10,0 x 1,50	100	24	10,0	8,0	3R37446	20,72

ACERO HSS-CO 5% | DIN 376 | FORM C | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	2,2	-	3R38426	14,14
M 4 x 0,70	63	13	2,8	2,1	3R38430	14,39
M 5 x 0,80	70	16	3,5	2,7	3R38434	14,57
M 6 x 1,00	80	19	4,5	3,4	3R38438	15,03
M 8 x 1,25	90	22	6,0	4,9	3R38442	18,59
M 10 x 1,50	100	24	7,0	5,5	3R38446	21,25
M 12 x 1,75	110	29	9,0	7,0	3R38450	25,33
M 14 x 2,00	110	30	11,0	9,0	3R38454	33,84
M 16 x 2,00	110	32	12,0	9,0	3R38458	39,10
M 18 x 2,50	125	34	14,0	11,0	3R38462	51,61
M 20 x 2,50	140	34	16,0	12,0	3R38466	70,42
M 22 x 2,50	140	34	18,0	14,5	3R38470	80,76
M 24 x 3,00	160	38	18,0	14,5	3R38474	89,60
M 27 x 3,00	160	38	20,0	16,0	3R38476	138,73
M 30 x 3,50	180	45	22,0	18,0	3R38478	148,37
M 33 x 3,50	180	50	25,0	20,0	3R38480	200,58
M 36 x 4,00	200	56	28,0	22,0	3R38482	314,44
M 39 x 4,00	200	60	32,0	24,0	3R38484	405,29
M 42 x 4,50	200	60	32,0	24,0	3R38486	463,02
M 45 x 4,50	220	65	36,0	29,0	3R38488	525,23
M 48 x 5,00	250	70	36,0	29,0	3R38490	573,59
M 52 x 5,00	250	70	40,0	32,0	3R38492	709,06

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



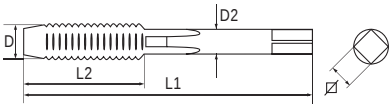
HSS-CO 5% | DIN 371 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 2,0 x 0,40	45	8	2,8	2,1	3R37516	19,28
M 2,5 x 0,45	50	9	2,8	2,1	3R37522	19,86
M 3,0 x 0,50	56	11	3,5	2,7	3R37526	14,47
M 3,5 x 0,60	56	13	4,0	3,0	3R37528	16,19
M 4,0 x 0,70	63	13	4,5	3,4	3R37530	14,41
M 5,0 x 0,80	70	16	6,0	4,9	3R37534	14,99
M 6,0 x 1,00	80	19	6,0	4,9	3R37538	15,70
M 7,0 x 1,00	80	19	7,0	5,5	3R37540	21,07
M 8,0 x 1,25	90	22	8,0	6,2	3R37542	18,15
M 10,0 x 1,50	100	24	10,0	8,0	3R37546	21,82

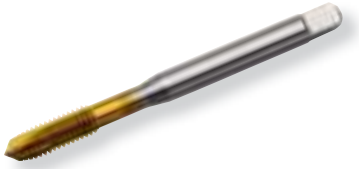
HSS-CO 5% | DIN 376 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	2,2	-	3R38526	15,24
M 4 x 0,70	63	13	2,8	2,1	3R38530	15,18
M 5 x 0,80	70	16	3,5	2,7	3R38534	15,78
M 6 x 1,00	80	19	4,5	3,4	3R38538	16,54
M 8 x 1,25	90	22	6,0	4,9	3R38542	19,11
M 10 x 1,50	100	24	7,0	5,5	3R38546	22,98
M 11 x 1,50	100	24	8,0	6,2	3R37548*	23,77
M 12 x 1,75	110	29	9,0	7,0	3R38550	29,23
M 14 x 2,00	110	30	11,0	9,0	3R38554	37,69
M 16 x 2,00	110	32	12,0	9,0	3R38558	44,39
M 18 x 2,50	125	34	14,0	11,0	3R38562	62,89
M 20 x 2,50	140	34	16,0	12,0	3R38566	73,89
M 22 x 2,50	140	34	18,0	14,5	3R38570	84,37
M 24 x 3,00	160	38	18,0	14,5	3R38574	97,05
M 27 x 3,00	160	38	20,0	16,0	3R38576	148,58
M 30 x 3,50	180	45	22,0	18,0	3R38578	159,47
M 33 x 3,50	180	50	25,0	20,0	3R38580	213,63
M 36 x 4,00	200	56	28,0	22,0	3R38582	351,32
M 39 x 4,00	200	60	32,0	24,0	3R38584	577,21
M 42 x 4,50	200	60	32,0	24,0	3R38586	518,86
M 45 x 4,50	220	65	36,0	29,0	3R38588	750,68
M 48 x 5,00	250	70	36,0	29,0	3R38590	824,45
M 52 x 5,00	250	70	40,0	32,0	3R38592	1.005,55

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 400-500 N/mm² | HSS-CO 5% | TIN | DIN 371 | FORM B | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R31526	26,28
M 4 x 0,70	63	13	4,5	3,4	3R31530	26,28
M 5 x 0,80	70	16	6,0	4,9	3R31534	26,96
M 6 x 1,00	80	19	6,0	4,9	3R31538	30,97
M 8 x 1,25	90	22	8,0	6,2	3R31542	35,38
M 10 x 1,50	100	24	10,0	8,0	3R31546	43,33
M 12 x 1,75*	110	29	9,0	7,0	3R31550	53,73

* Machos en DIN 376

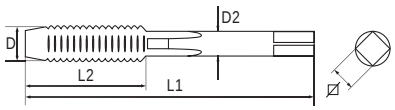
ACERO 400-500 N/mm² | INOX | HSS-CO 5% | VAP | DIN 371 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R31570	17,40
M 4 x 0,70	63	13	4,5	3,4	3R31571	17,40
M 5 x 0,80	70	16	6,0	4,9	3R31572	18,47
M 6 x 1,00	80	19	6,0	4,9	3R31573	18,47
M 8 x 1,25	90	22	8,0	6,2	3R31574	23,02
M 10 x 1,50	100	24	10,0	8,0	3R31575	28,91

ACERO 400-500 N/mm² | INOX | HSS-CO 5% | VAP | DIN 376 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€/Unid.
M 12 x 1,75	110	29	9,0	7,0	3R31576	35,54
M 14 x 2,00	110	30	11,0	9,0	3R31577	47,20
M 16 x 2,00	110	32	12,0	9,0	3R31578	52,66
M 18 x 2,50	125	34	14,0	11,0	3R31579	88,77
M 20 x 2,50	140	34	16,0	12,0	3R31580	141,02

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



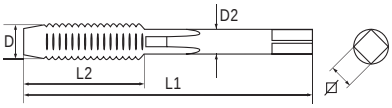
HSS-CO 5% | DIN 371 | FORM C/15° | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3,0 x 0,50	56	11	3,5	2,7	3R37626	18,51
M 3,5 x 0,60	56	13	4,0	3,0	3R37628	22,94
M 4,0 x 0,70	63	13	4,5	3,4	3R37630	18,51
M 5,0 x 0,80	70	16	6,0	4,9	3R37634	19,21
M 6,0 x 1,00	80	19	6,0	4,9	3R37638	19,42
M 7,0 x 1,00	80	19	7,0	5,5	3R37640	28,78
M 8,0 x 1,25	90	22	8,0	6,2	3R37642	23,42
M 10,0 x 1,50	100	24	10,0	8,0	3R37646	28,93

HSS-CO 5% | DIN 376 | FORM C/15° | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€ €/Unid.
M 3 x 0,50	56	11	2,2	-	3R38626	24,30
M 4 x 0,70	63	13	2,8	2,1	3R38630	19,35
M 5 x 0,80	70	16	3,5	2,7	3R38634	20,09
M 6 x 1,00	80	19	4,5	3,4	3R38638	26,07
M 8 x 1,25	90	22	6,0	4,9	3R38642	24,49
M 10 x 1,50	100	24	7,0	5,5	3R38646	44,78
M 12 x 1,75	110	29	9,0	7,0	3R38650	43,05
M 14 x 2,00	110	30	11,0	9,0	3R38654	45,34
M 16 x 2,00	110	32	12,0	11,0	3R38658	53,61
M 18 x 2,50	125	34	14,0	11,0	3R38662	88,30
M 20 x 2,50	140	34	16,0	12,0	3R38666	110,09
M 22 x 2,50	140	34	18,0	14,5	3R38670	124,09
M 24 x 3,00	160	38	18,0	14,5	3R38674	126,39

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



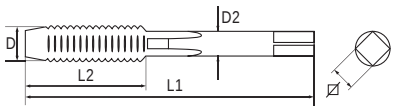
HSS-CO 5% | DIN 371 | FORM C/35° | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 2,0 x 0,40	45	6	2,8	2,1	3R37716	22,50
M 2,5 x 0,45	50	6	2,8	2,1	3R37722	23,17
M 3,0 x 0,50	56	6	3,5	2,7	3R37726	17,28
M 3,5 x 0,60	56	13	4,0	3,0	3R37728	20,26
M 4,0 x 0,70	63	7	4,5	3,4	3R37730	17,28
M 5,0 x 0,80	70	8	6,0	4,9	3R37734	18,13
M 6,0 x 1,00	80	10	6,0	4,9	3R37738	18,13
M 7,0 x 1,00	80	19	7,0	5,5	3R37740	24,19
M 8,0 x 1,25	90	14	8,0	6,2	3R37742	21,95
M 10,0 x 1,50	100	16	10,0	8,0	3R37746	25,64

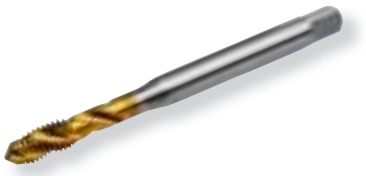
HSS-CO 5% | DIN 376 | FORM C/35° | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	2,2	-	3R38726	18,11
M 4 x 0,70	63	7	2,8	2,1	3R38730	18,11
M 5 x 0,80	70	8	3,5	2,7	3R38734	19,02
M 6 x 1,00	80	10	4,5	3,4	3R38738	19,02
M 8 x 1,25	90	14	6,0	4,9	3R38742	23,03
M 10 x 1,50	100	16	7,0	5,5	3R38746	26,90
M 12 x 1,75	110	18	9,0	7,0	3R38750	32,39
M 14 x 2,00	110	20	11,0	9,0	3R38754	42,05
M 16 x 2,00	110	22	12,0	9,0	3R38758	51,04
M 18 x 2,50	125	25	14,0	11,0	3R38762	69,04
M 20 x 2,50	140	25	16,0	12,0	3R38766	86,50
M 22 x 2,50	140	27	18,0	14,5	3R38770	99,29
M 24 x 3,00	160	30	18,0	14,5	3R38774	107,51
M 27 x 3,00	160	30	20,0	16,0	3R38776	173,05
M 30 x 3,50	180	35	22,0	18,0	3R38778	181,31
M 33 x 3,50	180	35	25,0	20,0	3R38780	249,67
M 36 x 4,00	200	40	28,0	22,0	3R38782	411,92
M 39 x 4,00	200	40	32,0	24,0	3R38784	731,45
M 42 x 4,50	200	45	32,0	24,0	3R38786	758,15
M 45 x 4,50	220	45	36,0	29,0	3R38788	991,18
M 48 x 5,00	250	50	36,0	29,0	3R38790	1.095,68
M 52 x 5,00	250	50	40,0	32,0	3R38792	1.217,27

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



ACERO 800-1100 N/mm² | HSS-CO 5% | TIN | DIN 371 | FORM C/35° | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	3,5	2,7	3R31726	28,05
M 4 x 0,70	63	7	4,5	3,4	3R31730	28,05
M 5 x 0,80	70	8	6,0	4,9	3R31734	29,63
M 6 x 1,00	80	10	6,0	4,9	3R31738	33,19
M 8 x 1,25	90	14	8,0	6,2	3R31742	39,83
M 10 x 1,50	100	16	10,0	8,0	3R31746	49,44
M 12 x 1,75*	110	18	7,0	7,0	3R31750	60,02

* Machos en DIN376 / Taps on DIN376 / Tarauds en DIN376

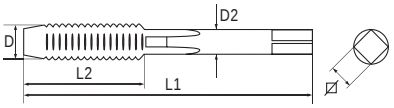
ACERO 800-1100 N/mm² | HSS-CO 5% | VAP | DIN 371 | FORM C/35° | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	3,5	2,7	3R31770	21,35
M 4 x 0,70	63	7	4,5	3,4	3R31771	21,35
M 5 x 0,80	70	8	4,5	4,9	3R31772	23,29
M 6 x 1,00	80	10	6,0	4,9	3R31773	23,29
M 8 x 1,25	90	14	6,0	6,2	3R31774	27,81
M 10 x 1,50	100	16	10,0	8,0	3R31775	34,28

ACERO 800-1100 N/mm² | HSS-CO 5% | VAP | DIN 376 | FORM C/35° | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 12 x 1,75	110	18	9,0	7,0	3R31776	41,40
M 14 x 2,00	110	20	11,0	9,0	3R31777	54,95
M 16 x 2,00	110	22	12,0	9,0	3R31778	61,63
M 18 x 2,50	125	25	14,0	11,0	3R31779	94,31
M 20 x 2,50	140	25	16,0	12,0	3R31780	140,92

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



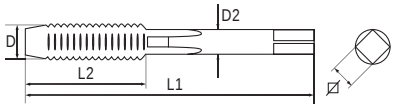
AL · ACERO HSS-CO 5% · DIN 371 · FORM B-AZ · TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R37926	26,02
M 4 x 0,70	63	13	4,5	3,4	3R37930	26,02
M 5 x 0,80	70	16	6,0	4,9	3R37934	26,63
M 6 x 1,00	80	19	6,0	4,9	3R37938	28,16
M 8 x 1,25	90	22	8,0	6,2	3R37942	35,58
M 10 x 1,50	100	24	10,0	8,0	3R37946	44,88

AL · ACERO HSS-CO 5% · DIN 376 · FORM B-AZ · TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	2,2	-	3R38926	26,02
M 4 x 0,70	63	13	2,8	2,1	3R38930	26,02
M 5 x 0,80	70	16	3,5	2,7	3R38934	26,63
M 6 x 1,00	80	19	4,5	3,4	3R38938	29,10
M 8 x 1,25	90	22	6,0	4,9	3R38942	35,48
M 10 x 1,50	100	24	7,0	5,5	3R38946	44,88
M 12 x 1,75	110	29	9,0	7,0	3R38950	57,32
M 14 x 2,00	110	30	11,0	9,0	3R38954	75,08
M 16 x 2,00	110	32	12,0	9,0	3R38958	82,40
M 18 x 2,50	125	34	14,0	11,0	3R38962	110,20
M 20 x 2,50	140	34	16,0	12,0	3R38966	146,67
M 22 x 2,50	140	34	18,0	14,5	3R38970	169,03
M 24 x 3,00	160	38	18,0	14,5	3R38974	179,22

MÉTRICA ISO-ROSCA DIN 13 EXTRA-LARGOS
METRIC ISO-THREAD DIN 13 EXTRALONG
MÉTRIQUE DIN-13 EXTRALONG



100 mm

HSS-CO 5% | ≈DIN 371 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0.50	100	11	3,5	2,7	3R32010	27,56
M 4 x 0.70	100	13	4,5	3,4	3R32011	27,56
M 5 x 0.80	100	16	6,0	4,9	3R32012	28,48
M 6 x 1.00	100	19	6,0	4,9	3R32013	28,48
M 8 x 1.25	100	22	8,0	6,2	3R32014	32,54

120 mm

HSS-CO 5% | ≈DIN 371 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 4 x 0,70	120	13	4,5	3,4	3R32021	28,48
M 5 x 0,80	120	16	6,0	4,9	3R32022	31,16
M 6 x 1,00	120	19	6,0	4,9	3R32023	31,16
M 8 x 1,25	120	22	8,0	6,2	3R32024	36,14
M 10 x 1,50	120	24	10,0	8,0	3R32025	41,13
M 12 x 1,75	120	29	12,0	9,0	3R32026	46,56

150 mm

HSS-CO 5% | ≈DIN 371 | FORM B | TOL 6H

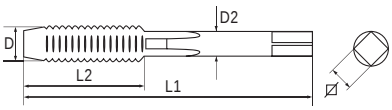
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 4 x 0,70	150	13	4,5	3,4	3R32031	29,84
M 5 x 0,80	150	16	6,0	4,9	3R32032	33,91
M 6 x 1,00	150	19	6,0	4,9	3R32033	41,13
M 8 x 1,25	150	22	8,0	6,2	3R32034	41,13
M 10 x 1,50	150	24	10,0	8,0	3R32035	50,17
M 12 x 1,75	150	29	12,0	9,0	3R32036	56,05

150 mm

HSS-CO 5% | ≈DIN 376 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 4 x 0.7	150	13	2.8	2,1	3R32071	33,39
M 5 x 0.8	150	16	3.5	2,7	3R32072	36,52
M 6 x 1.0	150	19	4.5	3,4	3R32073	41,13
M 8 x 1.25	150	22	6.0	4,9	3R32074	44,78
M 10 x1.5	150	24	7.0	5,5	3R32075	54,18
M 12 x1.75	150	29	9.0	7,0	3R32076	63,59

M MÉTRICA ISO-ROSCA DIN 13 EXTRA-LARGOS
METRIC ISO-THREAD DIN 13 EXTRALONG
MÉTRIQUE DIN-13 EXTRALONG



100 mm

ACERO 400-500 N/mm² | HSS-CO 5% | ≈DIN 371 | FORM C/35° | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€/Unid.
M 3 x 0,50	100	6	3,5	2,7	3R32040	32,54
M 4 x 0,70	100	7	4,5	3,4	3R32041	32,54
M 5 x 0,80	100	8	6,0	4,9	3R32042	34,81
M 6 x 1,00	100	10	6,0	4,9	3R32043	34,81
M 8 x 1,25	100	14	8,0	6,2	3R32044	38,42

120 mm

ACERO 400-500 N/mm² | HSS-CO 5% | ≈DIN 371 | FORM C/35° | TOL 6H

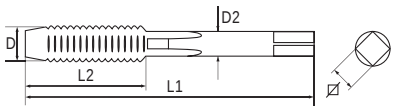
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€/Unid.
M 4 x 0,70	120	7	4,5	3,4	3R32051	33,91
M 5 x 0,80	120	8	6,0	4,9	3R32052	37,53
M 6 x 1,00	120	10	6,0	4,9	3R32053	37,53
M 8 x 1,25	120	14	8,0	6,2	3R32054	42,51
M 10 x 1,50	120	16	10,0	8,0	3R32055	48,82
M 12 x 1,75	120	18	12,0	9,0	3R32056	50,17

150 mm

ACERO 400-500 N/mm² | HSS-CO 5% | ≈DIN 371 | FORM C/35° | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€/Unid.
M 4 x 0,70	150	7	4,5	3,4	3R32061	34,81
M 5 x 0,80	150	8	6,0	4,9	3R32062	40,22
M 6 x 1,00	150	10	6,0	4,9	3R32063	40,22
M 8 x 1,25	150	14	8,0	6,2	3R32064	47,45
M 10 x 1,50	150	16	10,0	8,0	3R32065	57,41
M 12 x 1,75	150	18	12,0	9,0	3R32066	60,12

M MÉTRICA ISO-ROSCA DIN 13 SOBREDIMENSIONADO
METRIC ISO-THREAD DIN 13 OVERSIZED
MÉTRIQUE DIN-13 SURDIMENSIONNÉ



ACERO 400-500 N/mm²
HSS-CO 5%
DIN 371
DIN 376
FORM B
TOL 6G

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 2,5 x 0,45	50	9	2,8	2,1	3R32522	22,69
M 3,0 x 0,50	56	5	3,5	2,7	3R32526	23,43
M 4,0 x 0,70	63	7	4,5	3,4	3R32530	23,43
M 5,0 x 0,80	70	8	6,0	4,9	3R32534	24,72
M 6,0 x 1,00	80	10	6,0	4,9	3R32538	24,72
M 8,0 x 1,25	90	13	8,0	6,2	3R32542	30,25
M 10,0 x 1,50	100	15	10,0	8,0	3R32546	34,07
M 12,0 x 1,75*	110	18	90,0	7,0	3R32550	42,02
M 14,0 x 2,00*	110	20	11,0	9,0	3R32554	60,12
M 16,0 x 2,00*	110	20	12,0	9,0	3R32558	68,26
M 18,0 x 2,50*	125	34	14,0	11,0	3R32562	93,99
M 20,0 x 2,50*	140	34	16,0	12,0	3R32566	124,94

ACERO 400-500 N/mm²
HSS-CO 5%
DIN 371
DIN 376
FORM B
TOL 7G

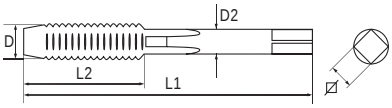
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R32503	24,60
M 4 x 0,70	63	13	4,5	3,4	3R32504	24,60
M 5 x 0,80	70	16	6,0	4,9	3R32505	26,08
M 6 x 1,00	80	19	6,0	4,9	3R32506	26,08
M 8 x 1,25	90	22	6,0	6,2	3R32508	32,79
M 10 x 1,50	100	24	10,0	8,0	3R32510	39,12
M 12 x 1,75*	110	29	9,0	7,0	3R32512	47,82

ACERO 400-500 N/mm²
HSS-CO 5%
DIN 371
DIN 376
FORM B
TOL 6H +0,1mm

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R32583	24,60
M 4 x 0,70	63	13	4,5	3,4	3R32584	24,60
M 5 x 0,80	70	16	6,0	4,9	3R32585	26,08
M 6 x 1,00	80	19	6,0	4,9	3R32586	26,08
M 8 x 1,25	90	22	8,0	6,2	3R32588	32,79
M 10 x 1,50	100	24	10,0	8,0	3R32590	39,12
M 12 x 1,75*	110	29	9,0	7,0	3R32592	47,82

* Machos en DIN376 / Taps on DIN376 / Tarauds en DIN376
Sobredimensión: 0.02 - 0.04 mm / Oversize 0.02 - 0.04 mm / Surcotage 0.02 - 0.04 mm
Materiales tratados superficialmente (galvanizados, cromados…) / For pre plate material for galvanising / Pour matériaux présentant une couche de galvanisation

M MÉTRICA ISO-ROSCA DIN 13 SOBREDIMENSIONADO
METRIC ISO-THREAD DIN 13 OVERSIZED
MÉTRIQUE DIN-13 SURDIMENSIONNÉ



HSS-CO 5% | DIN 371 | DIN 376 | FORM C/35° | TOL 6G

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3,0 x 0,50	56	6	3,5	2,7	3R32726	29,84
M 4,0 x 0,70	63	7	4,5	3,4	3R32730	29,84
M 5,0 x 0,80	70	8	6,0	4,9	3R32734	31,16
M 6,0 x 1,00	80	10	6,0	4,9	3R32738	31,16
M 8,0 x 1,25	90	14	8,0	6,2	3R32742	36,22
M 10,0 x 1,50	100	16	10,0	8,0	3R32746	41,76
M 12,0 x 1,75*	110	18	9,0	7,0	3R32750	43,03
M 14,0 x 2,00*	110	20	11,0	9,0	3R32754	62,22
M 16,0 x 2,00*	110	22	12,0	9,0	3R32758	65,61
M 18,0 x 2,50*	125	25	14,0	11,0	3R32762	97,13
M 20,0 x 2,50*	140	25	16,0	12,0	3R32766	129,51

HSS-CO 5% | DIN 371 | DIN 376 | FORM C/35° | TOL 7G

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	3,5	2,7	3R32703	31,63
M 4 x 0,70	63	7	4,5	3,4	3R32704	31,63
M 5 x 0,80	70	8	6,0	4,9	3R32705	33,99
M 6 x 1,00	80	10	6,0	4,9	3R32706	33,98
M 8 x 1,25	90	14	8,0	6,2	3R32708	40,98
M 10 x 1,50	100	16	10,0	8,0	3R32710	48,43
M 12 x 1,75*	110	18	9,0	7,0	3R32712	52,16

HSS-CO 5% | DIN 371 | DIN 376 | FORM C/35° | TOL 6H +0,1mm

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	3,5	2,7	3R32783	31,63
M 4 x 0,70	63	7	4,5	3,4	3R32784	31,63
M 5 x 0,80	70	8	6,0	4,9	3R32785	33,99
M 6 x 1,00	80	10	6,0	4,9	3R32786	33,98
M 8 x 1,25	90	14	8,0	6,2	3R32788	40,98
M 10 x 1,50	100	16	10,0	8,0	3R32790	48,43
M 12 x 1,75*	110	18	9,0	7,0	3R32792	52,16

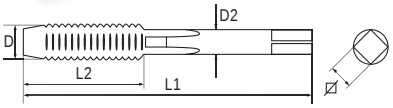
* Machos en DIN376 / Taps on DIN376 / Tarauds en DIN376

Sobredimensión: 0.02 - 0.04 mm / Oversize 0.02 - 0.04 mm / Surcotage 0.02 - 0.04 mm

Materiales tratados superficialmente (galvanizados, cromados…) / For pre plate material for galvanising / Pour matériaux présentant une couche de galvanisation

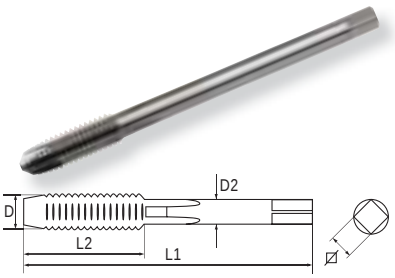
Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC FINE ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

HSS-CO 5% | DIN 374 | FORM C | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 4 x 0,35	63	10	2,8	2,1	3R39402	28,56
M 5 x 0,50	70	12	3,5	2,7	3R39404	26,86
M 6 x 0,75	80	14	4,5	3,4	3R39407	25,11
M 8 x 0,75	80	19	6,0	4,9	3R39410	25,22
M 8 x 1,00	90	22	6,0	4,9	3R39411	24,37
M 10 x 1,00	90	20	7,0	5,5	3R39415	27,75
M 10 x 1,25	100	24	7,0	5,5	3R39416	27,75
M 12 x 1,00	100	22	9,0	7,0	3R39420	36,99
M 12 x 1,25	100	22	9,0	7,0	3R39421	36,99
M 12 x 1,50	100	22	9,0	7,0	3R39422	36,99
M 14 x 1,00	100	22	11,0	9,0	3R39426	47,93
M 14 x 1,25	100	22	11,0	9,0	3R39427	45,40
M 14 x 1,50	100	22	11,0	9,0	3R39428	45,40
M 16 x 1,00	100	22	12,0	9,0	3R39431	61,38
M 16 x 1,50	100	22	12,0	9,0	3R39433	52,12
M 18 x 1,00	110	25	14,0	11,0	3R39434	77,34
M 18 x 1,50	110	25	14,0	11,0	3R39436	60,54
M 18 x 2,00	125	34	14,0	11,0	3R39437	71,89
M 20 x 1,00	125	25	16,0	12,0	3R39438	89,22
M 20 x 1,25	125	25	16,0	12,0	3R39439	146,14
M 20 x 1,50	125	25	16,0	12,0	3R39440	68,41
M 20 x 2,00	140	34	16,0	12,0	3R39441	80,28
M 22 x 1,00	125	25	18,0	14,5	3R39443	103,93
M 22 x 1,50	125	25	18,0	14,5	3R39445	86,62
M 22 x 2,00	140	34	18,0	14,5	3R39446	103,93
M 24 x 1,00	140	28	18,0	14,5	3R39448	114,16
M 24 x 1,50	140	28	18,0	14,5	3R39450	103,93
M 24 x 2,00	140	28	18,0	14,5	3R39451	117,79
M 25 x 1,00	140	28	18,0	14,5	3R39452	128,46
M 26 x 1,50	140	28	18,0	14,5	3R39454	124,72
M 27 x 1,50	140	28	20,0	16,0	3R39456	136,82
M 27 x 2,00	140	28	20,0	16,0	3R39457	140,93
M 28 x 1,50	140	28	20,0	16,0	3R39459	136,82
M 30 x 1,50	150	28	22,0	16,0	3R39463	145,50
M 30 x 2,00	150	28	22,0	18,0	3R39464	173,03
M 32 x 1,50	150	28	22,0	18,0	3R39466	181,87
M 32 x 2,00	150	28	22,0	18,0	3R39467	214,07
M 33 x 2,00	160	28	25,0	20,0	3R39468	231,92
M 35 x 1,50	170	30	28,0	22,0	3R39472	231,92
M 36 x 1,50	170	30	28,0	22,0	3R39473	233,58
M 36 x 2,00	170	30	28,0	22,0	3R39474	285,44
M 38 x 1,50	170	30	28,0	22,0	3R39476	395,90
M 40 x 1,50	170	30	32,0	24,0	3R39480	311,78
M 42 x 1,50	170	30	32,0	24,0	3R39483	330,83
M 45 x 1,50	180	32	36,0	29,0	3R39486	397,52
M 48 x 1,50	190	32	36,0	29,0	3R39489	431,47
M 50 x 1,50	190	32	36,0	29,0	3R39494	501,23
M 52 x 1,50	190	32	40,0	32,0	3R39497	547,14

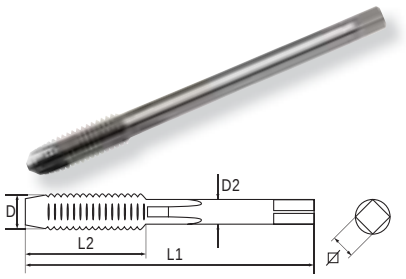
Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC FINE ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13



ACERO 400-500 N/mm²
HSS-CO 5%
DIN 374
FORM B
TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€/Unid.
M 3 x 0,35	56	9	2,2	-	3R39501	33,02
M 4 x 0,35	63	10	2,8	2,1	3R39502	33,02
M 4 x 0,5O	63	10	2,8	2,1	3R39503	29,29
M 5 x 0,5O	70	12	3,5	2,7	3R39504	29,29
M 5 x 0,75	70	12	3,5	2,7	3R39505	27,50
M 6 x 0,50	80	14	4,5	3,4	3R39506	33,02
M 6 x 0,75	80	14	4,5	3,4	3R39507	26,12
M 7 x 0,75	80	14	5,5	4,3	3R39508	31,75
M 8 x 0,50	80	19	6,0	4,9	3R39509	33,02
M 8 x 0,75	80	19	6,0	4,9	3R39510	30,17
M 8 x 1,0O	90	22	6,0	4,9	3R39511	26,12
M 9 x 0,75	80	19	7,0	5,5	3R39512	33,02
M 9 x 1,00	90	22	7,0	5,5	3R39513	34,85
M 10 x 0,75	90	20	7,0	5,5	3R39514	41,52
M 10 x 1,00	90	20	7,0	5,5	3R39515	30,86
M 10 x 1,25	100	24	7,0	5,5	3R39516	33,51
M 11 x 1,00	90	20	8,0	6,2	3R39517	44,99
M 11 x 1,25	90	22	8,0	6,2	3R39518	47,62
M 12 x 0,75	100	22	9,0	7,0	3R39519	50,96
M 12 x 1,00	100	22	9,0	7,0	3R39520	41,33
M 12 x 1,25	100	22	9,0	7,0	3R39521	41,33
M 12 x 1,50	100	22	9,0	7,0	3R39522	42,34
M 13 x 1,00	100	22	11,0	9,0	3R39523	68,79
M 13 x 1,50	100	22	11,0	9,0	3R39524	68,79
M 14 x 0,75	100	22	11,0	9,0	3R39525	73,60
M 14 x 1,00	100	22	11,0	9,0	3R39526	56,46
M 14 x 1,25	100	22	11,0	9,0	3R39527	53,76
M 14 x 1,50	100	22	11,0	9,0	3R39528	53,76
M 15 x 1,00	100	22	12,0	9,0	3R39529	74,09
M 15 x 1,50	100	22	12,0	9,0	3R39530	71,34
M 16 x 1,00	100	22	12,0	9,0	3R39531	68,79
M 16 x 1,25	100	22	12,0	9,0	3R39532	76,32
M 16 x 1,50	100	22	12,0	9,0	3R39533	59,98
M 18 x 1,00	110	25	14,0	11,0	3R39534	78,68
M 18 x 1,25	110	25	14,0	11,0	3R39535	90,61
M 18 x 1,50	110	25	14,0	11,0	3R39536	72,68
M 18 x 2,00	125	34	14,0	11,0	3R39537	80,27
M 20 x 1,00	125	25	16,0	12,0	3R39538	105,86
M 20 x 1,25	125	25	16,0	12,0	3R39539	113,27
M 20 x 1,50	125	25	16,0	12,0	3R39540	80,18
M 20 x 2,00	140	34	16,0	12,0	3R39541	92,64
M 21 x 1,50	125	25	16,0	12,0	3R39542	113,27
M 22 x 1,00	125	25	18,0	14,5	3R39543	114,68
M 22 x 1,25	125	25	18,0	14,5	3R39544	146,14
M 22 x 1,50	125	25	18,0	14,5	3R39545	97,98
M 22 x 2,00	140	34	18,0	14,5	3R39546	114,68
M 23 x 1,50	125	25	18,0	14,5	3R39547	182,35
M 24 x 1,00	140	28	18,0	14,5	3R39548	140,26
M 24 x 1,25	140	28	18,0	14,5	3R39549	182,35
M 24 x 1,50	140	28	18,0	14,5	3R39550	114,68
M 24 x 2,00	140	28	18,0	14,5	3R39551	130,55
M 25 x 1,00	140	28	18,0	14,5	3R39552	192,80

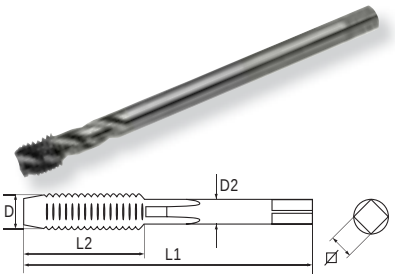
Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC FINE ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13



HSS-CO 5% | DIN 374 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€/Unid.
M 25 x 1,5	140	28	18,0	14,5	3R39553	151,01
M 26 x 1,0	140	28	18,0	14,5	3R3955X	151,01
M 26 x 1,5	140	28	18,0	14,5	3R39554	132,32
M 26 x 2,0	140	28	18,0	14,5	3R39555	151,01
M 27 x 1,0	140	28	20,0	16,0	3R39500	188,76
M 27 x 1,5	140	28	20,0	16,0	3R39556	151,72
M 27 x 2,0	140	28	20,0	16,0	3R39557	169,89
M 28 x 1,0	140	28	20,0	16,0	3R39558	188,76
M 28 x 1,5	140	28	20,0	16,0	3R39559	154,48
M 28 x 2,0	140	28	20,0	16,0	3R39560	170,11
M 29 x 1,5	150	28	22,0	18,0	3R39561	250,75
M 30 x 1,0	150	28	22,0	18,0	3R39562	203,76
M 30 x 1,5	150	28	22,0	18,0	3R39563	167,06
M 30 x 2,0	150	28	22,0	18,0	3R39564	194,06
M 30 x 2,5	180	45	22,0	18,0	3R3956X	250,75
M 30 x 3,0	180	45	22,0	18,0	3R39565	217,08
M 32 x 1,5	150	28	22,0	18,0	3R39566	206,57
M 32 x 2,0	150	28	22,0	18,0	3R39567	285,81
M 32 x 3,0	180	50	22,0	18,0	3R39592	285,81
M 33 x 1,5	160	30	25,0	20,0	3R39593	220,51
M 33 x 2,0	160	30	25,0	20,0	3R39568	283,15
M 33 x 3,0	180	50	25,0	20,0	3R39569	313,34
M 34 x 1,5	170	30	28,0	22,0	3R39570	313,34
M 34 x 2,0	170	30	28,0	22,0	3R39571	313,45
M 35 x 1,5	170	30	28,0	22,0	3R39572	264,62
M 36 x 1,5	170	30	28,0	22,0	3R39573	264,62
M 36 x 2,0	170	30	28,0	22,0	3R39574	335,18
M 36 x 3,0	200	56	28,0	22,0	3R39575	379,29
M 38 x 1,5	170	30	28,0	22,0	3R39576	273,46
M 39 x 1,5	170	30	32,0	24,0	3R39577	397,05
M 39 x 2,0	170	30	32,0	24,0	3R39578	397,05
M 39 x 3,0	200	60	32,0	24,0	3R39579	397,05
M 40 x 1,5	170	30	32,0	24,0	3R39580	352,83
M 40 x 2,0	170	30	32,0	24,0	3R39581	453,03
M 40 x 3,0	200	60	32,0	24,0	3R39582	441,05
M 42 x 1,5	170	30	32,0	24,0	3R39583	370,47
M 42 x 2,0	170	30	32,0	24,0	3R39584	528,56
M 42 x 3,0	200	60	32,0	24,0	3R39585	511,61
M 45 x 1,5	180	32	36,0	29,0	3R39586	652,97
M 45 x 2,0	180	32	36,0	29,0	3R39587	652,97
M 45 x 3,0	200	50	36,0	29,0	3R39588	652,97
M 48 x 1,5	190	32	36,0	36,0	3R39589	761,65
M 48 x 2,0	190	32	36,0	29,0	3R39590	761,65
M 48 x 3,0	225	50	36,0	36,0	3R39591	761,65
M 50 x 1,5	190	32	36,0	29,0	3R39594	933,13
M 50 x 2,0	190	32	36,0	36,0	3R39595	732,41
M 50 x 3,0	225	50	36,0	29,0	3R39596	933,13
M 52 x 1,5	190	32	40,0	32,0	3R39597	1.001,79
M 52 x 2,0	190	32	40,0	32,0	3R39598	1.001,79
M 52 x 3,0	225	50	40,0	32,0	3R39599	1.001,79
M 63 x 1,5	275	50	50,0	39,0	3R3959X	1.698,44

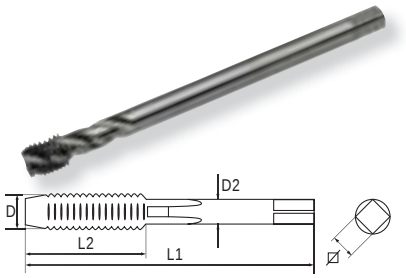
Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC FINE ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13



ACERO HSS-CO 5% DIN 374 FORM C/35° TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€/Unid.
M 3 x 0,35	56	5	2,2	-	3R39701	39,86
M 4 x 0,35	63	5	2,8	2,1	3R39702	39,86
M 4 x 0,50	63	5	2,8	2,1	3R39703	34,07
M 5 x 0,50	70	5	3,5	2,7	3R39704	34,66
M 5 x 0,75	70	8	3,5	2,7	3R39705	34,66
M 6 x 0,50	80	5	4,5	3,4	3R39706	39,86
M 6 x 0,75	80	8	4,5	3,4	3R39707	31,06
M 7 x 0,75	80	8	5,5	4,3	3R39708	39,86
M 8 x 0,50	80	8	6,0	4,9	3R39709	39,86
M 8 x 0,75	80	8	6,0	4,9	3R39710	39,86
M 8 x 1,00	90	10	6,0	4,9	3R39711	30,86
M 9 x 0,75	80	10	7,0	5,5	3R39712	40,78
M 9 x 1,00	90	10	7,0	5,5	3R39713	39,70
M 10 x 0,75	90	10	7,0	5,5	3R39714	40,93
M 10 x 1,00	90	10	7,0	5,5	3R39715	35,37
M 10 x 1,25	100	16	7,0	5,5	3R39716	39,17
M 11 x 1,00	90	11	8,0	6,2	3R39717	69,05
M 11 x 1,25	90	14	8,0	6,2	3R39718	69,05
M 12 x 0,75	100	10	9,0	7,0	3R39719	69,05
M 12 x 1,00	100	11	9,0	7,0	3R39720	49,39
M 12 x 1,25	100	15	9,0	7,0	3R39721	47,62
M 12 x 1,50	100	15	9,0	7,0	3R39722	45,46
M 13 x 1,00	100	11	11,0	9,0	3R39723	72,62
M 13 x 1,50	100	15	11,0	9,0	3R39724	72,62
M 14 x 0,75	100	10	11,0	9,0	3R39725	72,62
M 14 x 1,00	100	11	11,0	9,0	3R39726	69,01
M 14 x 1,25	100	15	11,0	9,0	3R39727	62,58
M 14 x 1,50	100	15	11,0	9,0	3R39728	55,44
M 15 x 1,00	100	12	12,0	9,0	3R39729	100,30
M 15 x 1,50	100	15	12,0	9,0	3R39730	100,30
M 16 x 1,00	100	12	12,0	9,0	3R39731	100,30
M 16 x 1,25	100	15	12,0	9,0	3R39732	100,30
M 16 x 1,50	100	15	12,0	9,0	3R39733	74,10
M 18 x 1,00	110	13	14,0	11,0	3R39734	106,88
M 18 x 1,25	110	15	14,0	11,0	3R39735	106,88
M 18 x 1,50	110	17	14,0	11,0	3R39736	84,21
M 18 x 2,00	125	20	14,0	11,0	3R39737	106,88
M 20 x 1,00	125	14	16,0	12,0	3R39738	129,57
M 20 x 1,25	125	17	16,0	12,0	3R39739	146,14
M 20 x 1,50	125	17	16,0	12,0	3R39740	89,83
M 20 x 2,00	140	20	16,0	12,0	3R39741	129,57
M 21 x 1,50	125	17	16,0	12,0	3R39742	146,14
M 22 x 1,00	125	14	18,0	14,5	3R39743	149,42
M 22 x 1,25	125	17	18,0	14,5	3R39744	149,42
M 22 x 1,50	125	17	18,0	14,5	3R39745	109,28
M 22 x 2,00	140	20	18,0	14,5	3R39746	158,75
M 23 x 1,50	125	17	18,0	14,5	3R39747	182,72
M 24 x 1,00	140	15	18,0	14,5	3R39748	182,72
M 24 x 1,25	140	17	18,0	14,5	3R39749	182,72
M 24 x 1,50	140	20	18,0	14,5	3R39750	131,11
M 24 x 2,00	140	20	18,0	14,5	3R39751	167,60
M 25 x 1,00	140	15	18,0	14,5	3R39752	176,04

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC FINE ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

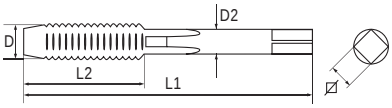


HSS-CO 5% | DIN 374 | FORM C/35° | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 25 x 1,5	140	20	18,0	14,5	3R39753	176,04
M 26 x 1,0	140	15	18,0	14,5	3R3975X	224,52
M 26 x 1,5	140	20	18,0	14,5	3R39754	185,30
M 26 x 2,0	140	20	18,0	14,5	3R39755	224,52
M 27 x 1,0	140	15	20,0	16,0	3R39700	206,90
M 27 x 1,5	140	20	20,0	16,0	3R39756	221,68
M 27 x 2,0	140	20	20,0	16,0	3R39757	221,68
M 28 x 1,0	140	15	20,0	16,0	3R39758	246,46
M 28 x 1,5	140	20	20,0	16,0	3R39759	221,68
M 28 x 2,0	140	20	20,0	16,0	3R39760	221,68
M 29 x 1,5	150	22	22,0	18,0	3R39761	250,64
M 30 x 1,0	150	17	22,0	18,0	3R39762	240,30
M 30 x 1,5	150	22	22,0	18,0	3R39763	199,63
M 30 x 2,0	150	22	22,0	18,0	3R39764	249,53
M 30 x 2,5	180	27	22,0	18,0	3R3976X	250,64
M 30 x 3,0	180	30	22,0	18,0	3R39765	249,53
M 32 x 1,5	150	22	22,0	18,0	3R39766	295,46
M 32 x 2,0	150	22	22,0	18,0	3R39767	333,83
M 32 x 3,0	180	30	22,0	18,0	3R39792	371,45
M 33 x 1,5	160	24	25,0	20,0	3R39793	295,46
M 33 x 2,0	160	24	25,0	20,0	3R39768	295,46
M 33 x 3,0	180	30	25,0	20,0	3R39769	377,19
M 34 x 1,5	170	24	28,0	22,0	3R39770	381,58
M 34 x 2,0	170	24	28,0	22,0	3R39771	381,58
M 35 x 1,5	170	24	28,0	22,0	3R39772	299,16
M 36 x 1,5	170	24	28,0	22,0	3R39773	377,90
M 36 x 2,0	170	24	28,0	22,0	3R39774	377,90
M 36 x 3,0	200	30	28,0	22,0	3R39775	377,90
M 38 x 1,5	170	24	28,0	22,0	3R39776	508,39
M 39 x 1,5	170	25	32,0	24,0	3R39777	508,39
M 39 x 2,0	170	25	32,0	24,0	3R39778	508,39
M 39 x 3,0	200	30	32,0	24,0	3R39779	508,39
M 40 x 1,5	170	25	32,0	24,0	3R39780	562,16
M 40 x 2,0	170	25	32,0	24,0	3R39781	562,16
M 40 x 3,0	200	30	32,0	24,0	3R39782	562,16
M 42 x 1,5	170	25	32,0	24,0	3R39783	632,07
M 42 x 2,0	170	25	32,0	24,0	3R39784	632,07
M 42 x 3,0	200	30	32,0	24,0	3R39785	632,07
M 45 x 1,5	180	27	36,0	29,0	3R39786	739,80
M 45 x 2,0	180	27	36,0	29,0	3R39787	739,80
M 45 x 3,0	200	30	36,0	29,0	3R39788	739,80
M 48 x 1,5	190	27	36,0	29,0	3R39789	857,42
M 48 x 2,0	190	27	36,0	29,0	3R39790	857,42
M 48 x 3,0	225	33	36,0	29,0	3R39791	857,42
M 50 x 1,5	190	27	36,0	29,0	3R39794	1.022,53
M 50 x 2,0	190	27	36,0	29,0	3R39795	1.022,53
M 50 x 3,0	225	33	36,0	29,0	3R39796	1.022,53
M 52 x 1,5	190	27	40,0	32,0	3R39797	1.021,75
M 52 x 2,0	190	27	40,0	32,0	3R39798	1.021,75
M 52 x 3,0	225	33	40,0	32,0	3R39799	1.021,75
M 63 x 1,5	275	40	50,0	39,0	3R3979X	1.807,33

BSW

WHITWORTH BS 84
WHITWORTH BS 84
FILETAGE WHITWORTH BS 84



ACERO HSS-CO 5% ≈DIN 371 FORM B

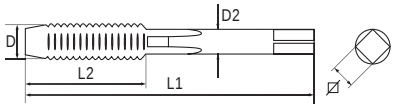
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
BSW 1/8 x 40	56	11	3,5	2,7	3R70506	22,93
BSW 5/32 x 32	63	13	4,5	3,4	3R70508	22,93
BSW 3/16 x 24	70	15	6,0	4,9	3R70510	22,93
BSW 1/4 x 20	80	17	7,0	5,5	3R70514	25,76
BSW 5/16 x 18	90	20	8,0	6,2	3R70516	30,60
BSW 3/8 x 16	100	22	9,0	7,0	3R70518	33,88
BSW 7/16 x 14	100	22	11,0	9,0	3R70520	42,73
BSW 1/2 x 12	110	25	12,0	9,0	3R70522	42,73

ACERO HSS-CO 5% ≈DIN 376 FORM B

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
BSW 1/4 x 20	80	17	4,5	3,4	3R71514	25,76
BSW 5/16 x 18	90	20	6,0	4,9	3R71516	30,60
BSW 3/8 x 16	100	22	7,0	5,5	3R71518	33,88
BSW 7/16 x 14	100	22	8,0	6,2	3R71520	42,73
BSW 1/2 x 12	110	25	9,0	7,0	3R71522	42,73
BSW 9/16 x 12	110	26	11,0	9,0	3R71524	59,37
BSW 5/8 x 11	110	27	12,0	9,0	3R71526	59,37
BSW 3/4 x 10	125	30	14,0	11,0	3R71530	115,10
BSW 7/8 x 9	140	32	18,0	14,5	3R71534	139,19
BSW 1 x 8	160	36	20,0	16,0	3R71538	157,93
BSW 1.1/8 x 7	180	40	22,0	18,0	3R71542	220,84
BSW 1.1/4 x 7	180	40	22,0	18,0	3R71546	224,93
BSW 1.3/8 x 6	200	50	28,0	22,0	3R71550	460,41
BSW 1.1/2 x 6	200	50	32,0	24,0	3R71554	460,41

BSW

WHITWORTH BS 84
WHITWORTH BS 84
FILETAGE WHITWORTH BS 84



HSS-CO 5% | ≈DIN 371 | FORM C/35°

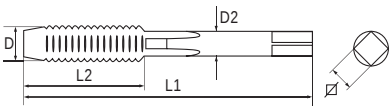
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
BSW 1/8 x 40	56	7	3,5	2,7	3R70706	26,12
BSW 5/32 x 32	63	7	4,5	3,4	3R70708	26,12
BSW 3/16 x 24	70	10	6,0	4,9	3R70710	26,12
BSW 1/4 x 20	80	13	7,0	5,5	3R70714	29,98
BSW 5/16 x 18	90	14	8,0	6,2	3R70716	34,52
BSW 3/8 x 16	100	16	9,0	7,0	3R70718	38,87
BSW 7/16 x 14	100	17	11,0	9,0	3R70720	51,03
BSW 1/2 x 12	110	20	12,0	9,0	3R70722	49,55

HSS-CO 5% | ≈DIN 376 | FORM C/35°

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
BSW 1/4 x 20	80	13	4,5	3,4	3R71714	28,64
BSW 5/16 x 18	90	14	6,0	4,9	3R71716	35,87
BSW 3/8 x 16	100	16	7,0	5,5	3R71718	39,35
BSW 7/16 x 14	100	17	8,0	6,2	3R71720	48,60
BSW 1/2 x 12	110	20	9,0	7,0	3R71722	49,55
BSW 9/16 x 12	110	20	11,0	9,0	3R71724	71,47
BSW 5/8 x 11	110	22	12,0	9,0	3R71726	71,47
BSW 3/4 x 10	125	25	14,0	11,0	3R71730	142,41
BSW 7/8 x 9	140	27	18,0	14,5	3R71734	173,99
BSW 1 x 8	160	30	20,0	16,0	3R71738	195,41
BSW 1.1/4 x 7	180	35	22,0	18,0	3R71746	248,94
BSW 1.3/8 x 6	200	40	28,0	22,0	3R71750	545,12
BSW 1.1/2 x 6	200	40	32,0	24,0	3R71754	545,12

UNC

ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1



ACERO 409-500 N/mm²
HSS-CO 5%
≈DIN 371
FORM B
TOL 2B

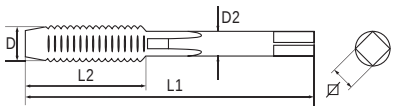
D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
UNC Nr.	4 x 40	50	10	3,5	2,7	3R74504	31,35
UNC Nr.	5 x 40	56	11	3,5	2,7	3R74505	31,35
UNC Nr.	6 x 32	56	12	4,0	3,0	3R74506	28,74
UNC Nr.	8 x 32	63	13	4,5	3,4	3R74508	28,74
UNC Nr.	10 x 24	70	15	6,0	4,9	3R74510	31,35
UNC Nr.	12 x 24	70	16	6,0	4,9	3R74512	31,35
UNC	1/4 x 20	80	17	7,0	5,5	3R74514	28,74
UNC	5/16 x 18	90	20	8,0	6,2	3R74516	32,33
UNC	3/8 x 16	100	22	9,0	7,2	3R74518	37,73

ACERO 409-500 N/mm²
HSS-CO 5%
≈DIN 376
FORM B
TOL 2B

D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
UNC Nr.	4 x 40	50	10	1,8	-	3R75504	31,35
UNC Nr.	5 x 40	56	11	2,2	1,8	3R75505	31,35
UNC Nr.	6 x 32	56	12	2,5	2,1	3R75506	28,74
UNC Nr.	8 x 32	63	13	2,8	2,1	3R75508	28,74
UNC Nr.	10 x 24	70	15	3,5	2,7	3R75510	31,35
UNC Nr.	12 x 24	70	16	3,5	2,7	3R75512	31,35
UNC	1/4 x 20	80	17	4,5	3,4	3R75514	28,74
UNC	5/16 x 18	90	20	6,0	4,9	3R75516	32,33
UNC	3/8 x 16	100	22	7,0	5,5	3R75518	37,73
UNC	7/16 x 14	100	22	8,0	6,2	3R75520	47,42
UNC	1/2 x 13	110	25	9,0	7,0	3R75522	51,39
UNC	9/16 x 12	110	26	11,0	9,0	3R75524	72,86
UNC	5/8 x 11	110	27	12,0	9,0	3R75526	72,86
UNC	3/4 x 10	125	30	14,0	11,0	3R75530	115,10
UNC	7/8 x 9	140	32	18,0	14,5	3R75534	139,19
UNC	1 x 8	160	36	20,0	16,0	3R75538	175,75
UNC	1.1/4 x 7	180	40	22,0	18,0	3R75546	248,99
UNC	1.1/2 x 6	200	50	32,0	24,0	3R75554	515,32
UNC	1.3/4 x 5	220	65	36,0	29,0	3R75562	866,03
UNC	2 x 4.1/2	250	70	40,0	32,0	3R75570	1.449,94

UNC

ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
ILETAGE UNIFIED GROSSE ANSI B 1.1



HSS-CO 5% | ≈DIN 371 | FORM C/35° | TOL 2B

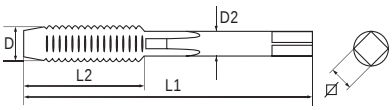
D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
UNC Nr.	4 x 40	50	6	3,5	2,7	3R74704	37,73
UNC Nr.	5 x 40	56	7	3,5	2,7	3R74705	37,73
UNC Nr.	6 x 32	56	7	3,5	3,0	3R74706	37,73
UNC Nr.	8 x 32	63	8	4,5	3,4	3R74708	37,73
UNC Nr.	10 x 24	70	10	6,0	4,9	3R74710	37,73
UNC Nr.	12 x 24	70	10	6,0	4,9	3R74712	36,49
UNC	1/4 x 20	80	13	7,0	5,5	3R74714	33,94
UNC	5/16 x 18	90	14	8,0	6,2	3R74716	38,48
UNC	3/8 x 16	100	16	9,0	7,0	3R74718	42,57

HSS-CO 5% | ≈DIN 376 | FORM C/35° | TOL 2B

D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
UNC	4 x 40	50	6	1,8	-	3R75704	37,73
UNC Nr.	5 x 40	56	7	2,2	1,8	3R75705	37,73
UNC Nr.	6 x 32	56	7	2,5	2,1	3R75706	37,73
UNC Nr.	8 x 32	63	8	2,8	2,1	3R75708	37,73
UNC Nr.	10 x 24	70	10	3,5	2,7	3R75710	37,73
UNC Nr.	12 x 24	70	10	3,5	2,7	3R75712	36,49
UNC	1/4 x 20	80	13	4,5	3,4	3R75714	33,94
UNC	5/16 x 18	90	14	6,0	4,9	3R75716	38,48
UNC	3/8 x 16	100	16	7,0	5,5	3R75718	42,57
UNC	7/16 x 14	100	17	8,0	6,2	3R75720	60,16
UNC	1/2 x13	110	20	9,0	7,0	3R75722	64,01
UNC	9/16 x 12	110	20	11,0	9,0	3R75724	88,81
UNC	5/8 x 11	110	22	12,0	9,0	3R75726	86,21
UNC	3/4 x 10	125	25	14,0	11,0	3R75730	142,41
UNC	7/8 x 9	140	27	18,0	14,5	3R75734	178,68
UNC	1 x 8	160	30	20,0	16,0	3R75738	225,65
UNC	1.1/4 x 7	180	35	22,0	18,0	3R75746	321,53
UNC	1.1/2 x 6	200	40	32,0	24,0	3R75754	592,05
UNC	1.3/4 x 5	220	45	36,0	29,0	3R75762	866,03
UNC	2 x 4.1/2	250	50	40,0	32,0	3R75770	1.489,39

UNF

ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIED À PAS FINE ANSI B 1.1



HSS-CO 5% | ≈DIN 371 | FORM B | TOL 2B

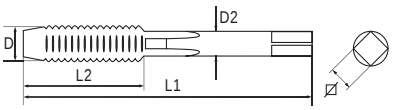
D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€/Unid.
UNF Nr.	4 x 48	50	10	3,5	2,7	3R76504	31,35
UNF Nr.	5 x 44	56	11	3,5	2,7	3R76505	31,35
UNF Nr.	6 x 40	56	12	4,0	3,0	3R76506	31,35
UNF Nr.	8 x 36	63	13	4,5	3,4	3R76508	31,35
UNF Nr.	10 x 32	70	15	6,0	4,9	3R76510	31,35
UNF Nr.	12 x 28	70	16	6,0	4,9	3R76512	31,35
UNF	1/4 x 28	80	17	7,0	5,5	3R76514	27,76
UNF	5/16 x 24	90	17	8,0	6,2	3R76516	32,33
UNF	3/8 x 24	100	18	9,0	7,0	3R76518	36,30

HSS-CO 5% | ≈DIN 376 | FORM B | TOL 2B

D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€/Unid.
UNF	7/16 x 20	100	22	8,0	6,2	3R77520	47,15
UNF	1/2 x 20	100	22	9,0	7,0	3R77522	49,06
UNF	9/16 x 18	100	22	11,0	9,0	3R77524	61,07
UNF	5/8 x 18	100	22	12,0	9,0	3R77526	67,88
UNF	3/4 x 16	110	25	14,0	11,0	3R77530	115,10
UNF	7/8 x 14	140	26	18,0	14,5	3R77534	139,19
UNF	1 x 14	150	28	20,0	16,0	3R77540	147,27
UNF	1 x 12	150	28	20,0	16,0	3R77538	165,96
UNF	1.1/4 x 12	150	30	22,0	18,0	3R77546	226,33
UNF	1.1/2 x 12	170	33	32,0	24,0	3R77554	471,53

UNF

ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIED À PAS FINE ANSI B 1.1



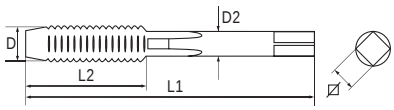
ACERO HSS-CO 5% ≈DIN 371 FORM C/35° TOL 2B

D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNF Nr.	4 x 48	50	6	3,5	2,7	3R76704	39,40
UNF Nr.	5 x 44	56	7	3,5	2,7	3R76705	39,40
UNF Nr.	6 x 40	56	7	4,0	3,0	3R76706	39,40
UNF Nr.	8 x 36	63	8	4,5	3,4	3R76708	39,40
UNF Nr.	10 x 32	70	10	6,0	4,9	3R76710	39,40
UNF Nr.	12 x 28	70	10	6,0	4,9	3R76712	39,40
UNF	1/4 x 28	80	10	7,0	5,5	3R76714	31,15
UNF	5/16 x 24	90	10	8,0	6,2	3R76716	36,30
UNF	3/8 x 24	100	10	9,0	7,0	3R76718	41,75

ACERO HSS-CO 5% ≈DIN 376 FORM C/35° TOL 2B

D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNF	7/16 x 20	100	13	8,0	6,2	3R77720	54,69
UNF	1/2 x 20	100	13	9,0	7,0	3R77722	54,69
UNF	9/16 x 18	100	15	11,0	9,0	3R77724	71,47
UNF	5/8 x 18	100	15	12,0	9,0	3R77726	76,19
UNF	3/4 x 16	110	17	14,0	11,0	3R77730	142,41
UNF	7/8 x 14	140	17	18,0	14,5	3R77734	173,99
UNF	1 x 14	150	20	20,0	16,0	3R77740	216,36
UNF	1 x 12	150	20	20,0	16,0	3R77738	195,41
UNF	1.1/4 x 12	150	22	22,0	18,0	3R77746	273,47
UNF	1.1/2 x 12	170	25	32,0	24,0	3R77754	543,39

UN ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ ANSI B 1.1



8-UN

HSS-CO 5% | ISO 529 | FORM B | TOL 2B

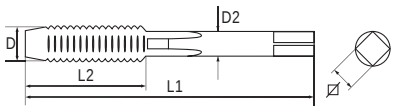
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€/Unid.
UN 1.1/16 x 8	138	48	20,0	16,0	3R83101	203,55
UN 1.1/8 x 8	138	48	20,0	16,0	3R83102	203,55
UN 1.3/16 x 8	151	51	22,4	18,0	3R83103	239,48
UN 1.1/4 x 8	151	51	22,4	18,0	3R83104	239,47
UN 1.5/16 x 8	162	57	25,0	20,0	3R83105	299,33
UN 1.3/8 x 8	162	57	25,0	20,0	3R83106	299,33
UN 1.1/2 x 8	170	60	28,0	22,4	3R83107	391,14
UN 1.5/8 x 8	170	60	28,0	22,4	3R83108	458,99
UN 1.3/4 x 8	187	67	31,5	25,0	3R83109	642,94
UN 1.7/8 x 8	187	67	31,5	25,0	3R83110	818,20
UN 2 x 8	200	70	35,5	28,0	3R83111	1.489,65
UN 2.1/8 x 8	200	70	35,5	28,0	3R83112	2.142,51
UN 2.1/4 x 8	221	76	40,0	31,5	3R83113	2.142,51
UN 2.1/2 x 8	224	79	40,0	31,5	3R83115	2.819,67
UN 2.3/4 x 8	234	79	45,0	35,5	3R83116	3.130,66
UN 3 x 8	258	83	50,0	40,0	3R83117	4.175,66
UN 3.1/4 x 8	261	86	50,0	40,0	3R83118	4.969,24
UN 3.1/2 x 8	261	86	50,0	40,0	3R83119	5.700,74
UN 3.3/4 x 8	279	89	56,0	45,0	3R83120	7.837,50
UN 4 x 8	279	89	56,0	45,0	3R83121	8.803,60

12-UN

HSS-CO 5% | ISO 529 | FORM B | TOL 2B

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€/Unid.
UN 1.5/8 x 12	170	60	28.0	22.4	3R83301	458,99
UN 1.3/4 x 12	187	67	31.5	25.0	3R83302	632,49
UN 1.7/8 x 12	187	67	31.5	25.0	3R83303	818,20
UN 2 x 12	200	70	35.5	28.0	3R83304	1.593,78
UN 2.1/8 x 12	200	70	35.5	28.0	3R83305	2.315,20
UN 2.1/4 x 12	221	76	40.0	31.5	3R83306	2.315,20
UN 2.1/2 x 12	224	79	40.0	31.5	3R83308	3.015,35
UN 2.3/4 x 12	234	79	45.0	35.5	3R83309	3.291,75
UN 3 x 12	258	83	50.0	40.0	3R83310	3.966,30
UN 3.1/4 x 12	261	86	50.0	40.0	3R83311	4.697,80
UN 3.1/2 x 12	261	86	50.0	40.0	3R83312	5.408,40
UN 3.3/4 x 12	279	89	56.0	45.0	3R83313	7.341,65
UN 4 x 12	279	89	56.0	45.0	3R83314	7.968,49

UN ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ ANSI B 1.1



8-UN

ACERO 400-500 N/mm² | HSS-CO 5% | ISO 529 | FORM C/35° | TOL 2B

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UN 1.1/16 x 8	138	48	20,0	16,0	3R83151	255,44
UN 1.1/8 x 8	138	48	20,0	16,0	3R83152	255,45
UN 1.3/16 x 8	151	51	22,4	18,0	3R83153	308,54
UN 1.1/4 x 8	151	51	22,4	18,0	3R83154	308,54
UN 1.5/16 x 8	162	57	25,0	20,0	3R83155	412,30
UN 1.3/8 x 8	162	57	25,0	20,0	3R83156	412,30
UN 1.1/2 x 8	170	60	28,0	22,4	3R83157	643,04
UN 1.5/8 x 8	170	60	28,0	22,4	3R83158	798,85
UN 1.3/4 x 8	187	67	31,5	25,0	3R83159	861,97
UN 1.7/8 x 8	187	67	31,5	25,0	3R83160	1.098,03
UN 2 x 8	200	70	35,5	28,0	3R83161	1.583,44
UN 2.1/8 x 8	200	70	35,5	28,0	3R83162	2.424,66
UN 2.1/4 x 8	221	76	40,0	31,5	3R83163	2.424,66
UN 2.1/2 x 8	224	79	40,0	31,5	3R83165	2.943,54
UN 2.3/4 x 8	234	79	45,0	35,5	3R83166	3.240,88
UN 3 x 8	258	83	50,0	40,0	3R83167	4.178,80
UN 3.1/4 x 8	261	86	50,0	40,0	3R83168	4.650,51
UN 3.1/2 x 8	261	86	50,0	40,0	3R83169	5.377,05
UN 3.3/4 x 8	279	89	56,0	45,0	3R83170	7.310,66
UN 4 x 8	279	89	56,0	45,0	3R83171	8.177,70

12-UN

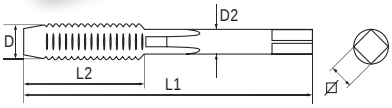
ACERO 400-500 N/mm² | HSS-CO 5% | ISO 529 | FORM C/35° | TOL 2B

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UN 1.5/8 x 12	170	60	28,0	22,4	3R83351	574,74
UN 1.3/4 x 12	187	67	31,5	25,0	3R83352	688,50
UN 1.7/8 x 12	187	67	31,5	25,0	3R83353	1.021,77
UN 2 x 12	200	70	35,5	28,0	3R83354	1.447,33
UN 2.1/8 x 12	200	70	35,5	28,0	3R83355	2.241,79
UN 2.1/4 x 12	221	76	40,0	31,5	3R83356	2.241,79
UN 2.1/2 x 12	224	79	40,0	31,5	3R83358	2.943,54
UN 2.3/4 x 12	234	79	45,0	35,5	3R83359	3.240,88
UN 3 x 12	258	83	50,0	40,0	3R83360	3.862,16
UN 3.1/4 x 12	261	86	50,0	40,0	3R83361	4.697,80
UN 3.1/2 x 12	261	86	50,0	40,0	3R83362	5.377,05
UN 3.3/4 x 12	279	89	56,0	45,0	3R83363	7.310,66
UN 4 x 12	279	89	56,0	45,0	3R83364	8.203,51

UNEF

ROSCA EXTRA FINA UNIFICADA ANSI B 1.1
UNIFIED EXTRA FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS EXTRA FIN ANSI B 1.1

HSS-CO 5% | ISO 529 | FORM B | TOL 2B

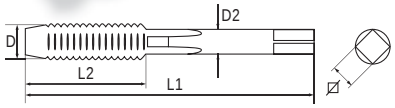


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNEF Nr. 12 x 32	62	17	5,6	4,5	3R83320	28,74
UNEF 1/4 x 32	66	19	6,3	5,0	3R83321	25,95
UNEF 5/16 x 32	72	22	8,0	6,3	3R83322	32,73
UNEF 3/8 x 32	80	24	10,0	8,0	3R83323	36,72
UNEF 7/16 x 28	85	25	8,0	6,3	3R83324	43,83
UNEF 1/2 x 28	89	29	9,0	7,1	3R83325	43,50
UNEF 9/16 x 24	95	30	11,2	9,0	3R83326	65,46
UNEF 5/8 x 24	102	32	12,5	10,0	3R83327	65,46
UNEF 11/16 x 24	112	37	14,0	11,2	3R83328	123,73
UNEF 3/4 x 20	112	37	14,0	11,2	3R83329	123,73
UNEF 13/16 x 20	118	38	16,0	12,5	3R83330	151,66
UNEF 7/8 x 20	118	38	16,0	12,5	3R83331	151,66
UNEF 15/16 x 20	130	45	18,0	14,0	3R83332	173,63
UNEF 1" x 20	130	45	18,0	14,0	3R83333	173,62
UNEF 1.1/16 x 18	138	48	20,0	16,0	3R83334	203,55
UNEF 1.1/8 x 18	138	48	20,0	16,0	3R83335	203,55
UNEF 1.3/16 x 18	151	51	22,4	18,0	3R83336	280,58
UNEF 1.1/4 x 18	151	51	22,4	18,0	3R83337	324,11
UNEF 1.5/16 x 18	162	57	25,0	20,0	3R83338	355,14
UNEF 1.3/8 x 18	162	57	25,0	20,0	3R83339	354,73
UNEF 1.7/16 x 18	170	60	28,0	22,4	3R83340	391,14
UNEF 1.1/2 x 18	170	60	28,0	22,4	3R83341	391,14
UNEF 1.9/16 x 18	170	60	28,0	22,4	3R83342	549,15
UNEF 1.5/8 x 18	170	60	28,0	22,4	3R83343	549,15
UNEF 1.11/16 x 18	187	67	31,5	25,0	3R83344	652,60
UNEF 1.3/4 x 18	187	67	31,5	25,0	3R83345	679,62
UNEF 2 x 18	200	70	35,5	28,0	3R83346	1.515,09

UNEF

ROSCA EXTRA FINA UNIFICADA ANSI B 1.1
UNIFIED EXTRA FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS EXTRA FIN ANSI B 1.1

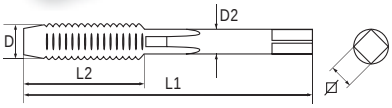
HSS-CO 5% | ISO 529 | FORM C/35° | TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNEF Nr. 12 x 32	62	17	5,6	4,5	3R83370	35,91
UNEF 1/4 x 32	66	19	6,3	5,0	3R83371	32,33
UNEF 5/16 x 32	72	22	8,0	6,3	3R83372	40,72
UNEF 3/8 x 32	80	24	10,0	8,0	3R83373	49,06
UNEF 7/16 x 28	85	25	8,0	6,3	3R83374	60,35
UNEF 1/2 x 28	89	29	9,0	7,1	3R83375	54,27
UNEF 9/16 x 24	95	30	11,2	9,0	3R83376	81,82
UNEF 5/8 x 24	102	32	12,5	10,0	3R83377	87,00
UNEF 11/16 x 24	112	37	14,0	11,2	3R83378	155,65
UNEF 3/4 x 20	112	37	14,0	11,2	3R83379	159,10
UNEF 13/16 x 20	118	38	16,0	12,5	3R83380	189,58
UNEF 7/8 x 20	118	38	16,0	12,5	3R83381	189,58
UNEF 15/16 x 20	130	45	18,0	14,0	3R83382	217,12
UNEF 1 x 20	130	45	18,0	14,0	3R83383	217,12

UNS ROSCA UNIFICADA ANSI B 1.1
UNIFIED THREAD ANSI B 1.1
FILETAGE UNIFIÉ ANSI B 1.1

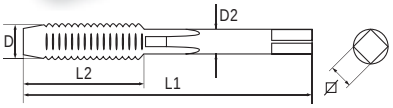
HSS-CO 5% | ISO 529 | FORM B | TOL 2B



D Ø x P (")		L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid. €
UNS	1/4 x 24	66	19	6,3	5,0	3R83201	25,95
UNS	1/4 x 36	66	19	6,3	5,0	3R83202	25,94
UNS	1/4 x 40	66	19	6,3	5,0	3R83203	25,95
UNS	3/8 x 27	80	24	10,0	8,0	3R83204	36,72
UNS	7/16 x 24	85	25	8,0	6,3	3R83205	43,50
UNS	1/2 x 24	89	29	9,0	7,1	3R83206	43,50
UNS	5/8 x 27	102	32	12,5	10,0	3R83207	65,46
UNS	3/4 x 24	112	37	14,0	11,2	3R83208	123,73
UNS	7/8 x 18	118	38	16,0	12,5	3R83209	151,66
UNS	1 x 14	130	45	18,0	14,0	3R83210	173,63

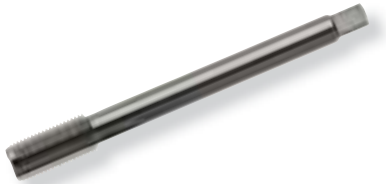
UN ROSCA UNIFICADA ANSI B 1.1
UNIFIED THREAD ANSI B 1.1
FILETAGE UNIFIÉ ANSI B 1.1

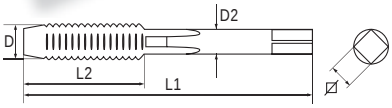
HSS-CO 5% | ISO 529 | FORM B | TOL 2B



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UN 5/16 x 28	72	22	8,0	6,3	3R83221	32,73
UN 3/8 x 20	80	24	10,0	8,0	3R83222	36,72
UN 3/8 x 28	80	24	10,0	8,0	3R83223	36,72
UN 7/16 x 32	85	25	8,0	6,3	3R83224	43,50
UN 1/2 x 32	89	29	9,0	7,1	3R83225	43,50
UN 9/16 x 20	95	30	11,2	9,0	3R83226	65,46
UN 9/16 x 28	95	30	11,2	9,0	3R83227	65,46
UN 9/16 x 32	95	30	11,2	9,0	3R83228	65,46
UN 5/8 x 20	102	32	12,5	10,0	3R83229	65,46
UN 5/8 x 28	102	32	12,5	10,0	3R83230	65,46
UN 11/16 x 20	112	37	14,0	11,2	3R83231	123,73
UN 11/16 x 16	112	37	14,0	11,2	3R83232	123,73
UN 1 x 32	130	45	18,0	14,0	3R83233	173,63

G(BSP) ROSCA GAS DIN ISO 228
PIPE THREAD ISO 228
FILETAGE PAS GAZ DIN ISO 228

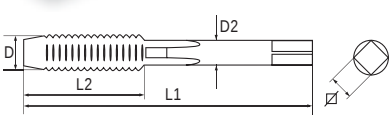




HSS-CO 5% | DIN 5156 | FORM C

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
G 1/8 x 28	90	20	7,0	5,5	3R78412	36,04
G 1/4 x 19	100	22	11,0	9,0	3R78414	47,15
G 3/8 x 19	100	22	12,0	9,0	3R78416	59,83
G 1/2 x 14	125	25	12,0	12,0	3R78418	77,23
G 5/8 x 14	125	25	18,0	14,5	3R78420	94,23
G 3/4 x 14	140	28	20,0	16,0	3R78422	118,34
G 7/8 x 14	150	28	22,0	18,0	3R78424	159,11
G 1 x 11	160	30	25,0	20,0	3R78426	179,17
G 1.1/8 x 11	170	30	28,0	22,0	3R78430	280,05
G 1.1/4 x 11	170	30	32,0	24,0	3R78434	329,20
G 1.3/8 x 11	180	32	36,0	29,0	3R78438	411,38
G 1.1/2 x 11	190	32	36,0	29,0	3R78442	524,57
G 1.3/4 x 11	190	32	40,0	32,0	3R78450	623,87
G 2 x 11	220	40	45,0	35,0	3R78454	678,97

G(BSP) ROSCA GAS DIN ISO 228
PIPE THREAD ISO 228
FILETAGE PAS GAZ DIN ISO 228

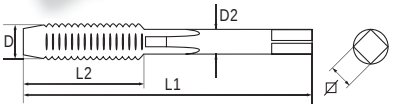


HSS-CO 5% | DIN 5156 | FORM B

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
G 1/8 x 28	90	20	7,0	5,5	3R78512	41,33
G 1/4 x 19	100	22	11,0	9,0	3R78514	54,95
G 3/8 x 19	100	22	12,0	9,0	3R78516	66,46
G 1/2 x 14	125	22	16,0	12,0	3R78518	83,15
G 5/8 x 14	125	25	18,0	14,5	3R78520	105,99
G 3/4 x 14	140	28	20,0	16,0	3R78522	131,11
G 7/8 x 14	150	28	22,0	18,0	3R78524	177,83
G 1 x 11	160	30	25,0	20,0	3R78526	198,03
G 1.1/8 x 11	170	30	28,0	22,0	3R78530	319,99
G 1.1/4 x 11	170	30	32,0	24,0	3R78534	368,21
G 1.3/8 x 11	180	32	36,0	29,0	3R78538	471,53
G 1.1/2 x 11	190	32	36,0	29,0	3R78542	660,12
G 1.3/4 x 11	190	32	40,0	32,0	3R78550	691,54
G 2 x 11	220	40	45,0	35,0	3R78554	691,54

G(BSP) ROSCA GAS DIN ISO 228
PIPE THREAD ISO 228
FILETAGE PAS GAZ DIN ISO 228

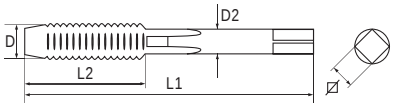
HSS-CO 5% | DIN 5156 | FORM C/35°



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
G 1/8 x 28	90	20	7,0	5,5	3R78712	43,40
G 1/4 x 19	100	22	11,0	9,0	3R78714	60,37
G 3/8 x 19	100	22	12,0	9,0	3R78716	75,43
G 1/2 x 14	125	25	18,0	12,0	3R78718	94,32
G 5/8 x 14	125	25	18,0	14,5	3R78720	117,69
G 3/4 x 14	140	28	20,0	16,0	3R78722	149,09
G 7/8 x 14	150	28	22,0	18,0	3R78724	198,92
G 1 x 11	160	30	25,0	20,0	3R78726	233,50
G 1.1/8 x 11	170	30	28,0	22,0	3R78730	351,55
G 1.1/4 x 11	170	30	32,0	24,0	3R78734	422,13
G 1.3/8 x 11	180	32	36,0	29,0	3R78738	557,13
G 1.1/2 x 11	190	32	36,0	29,0	3R78742	745,44
G 1.3/4 x 11	190	32	40,0	32,0	3R78750	895,89
G 2 x 11	220	40	45,0	35,0	3R78754	895,89

Rc(BSPT) ROSCA INGLESA PARA TUBO, CONICIDAD 1:16
TAPERED PIPE THREAD, TAPER 1:16
FILETAGE PAS GAZ CONIQUE, CONICITÉ 1:16

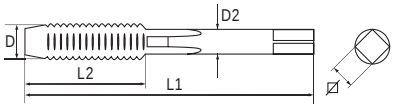
HSS-CO 5% | DIN 5156 | FORM C



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
Rc 1/8 x 28	90	20	7,0	5,5	3R73404	58,61
Rc 1/4 x 19	100	22	11,0	9,0	3R73406	75,76
Rc 3/8 x 19	100	22	12,0	9,0	3R73408	102,67
Rc 1/2 x 14	125	28	16,0	12,0	3R73410	177,49
Rc 3/4 x 14	140	28	20,0	16,0	3R73412	291,92
Rc 1 x 11	160	38	25,0	20,0	3R73414	309,30

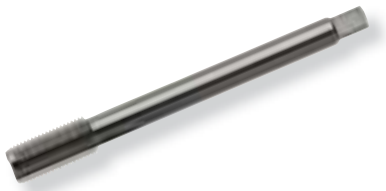
NPT ROSCA AMERICANA PARA TUBO, CONICIDAD 1:16
TAPERED PIPE THREAD, TAPER 1:16
FILETAGE NPT CONICITÉ 1:16

HSS-CO 5% | FORM C

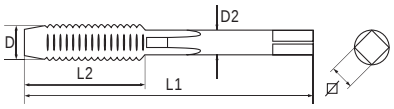


D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
NPT 1/16 x 27	90	20	6,0	4,9	3R73432	72,99
NPT 1/8 x 27	90	20	7,0	5,5	3R73434	57,32
NPT 1/4 x 18	100	22	11,0	9,0	3R73436	61,56
NPT 3/8 x 18	100	22	12,0	9,0	3R73438	79,68
NPT 1/2 x 14	125	28	16,0	12,0	3R73440	142,64
NPT 3/4 x 14	140	28	20,0	16,0	3R73442	256,91
NPT 1 x 11.5	160	38	25,0	20,0	3R73444	308,80

VG PARA ROSCAS DE VÁLVULAS DE NEUMÁTICO DIN 7756
FOR TIRE VALVES THREADS DIN 7756
POUR LES VALVES DES PNEUMATIQUES DIN 7756

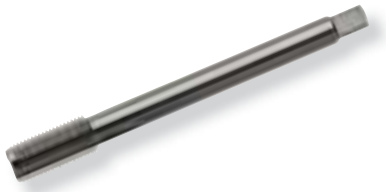


HSS-CO 5% | DIN 374 | FORM C | TOL 6H

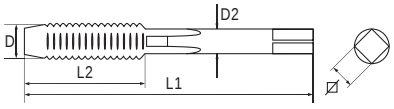


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
VG 5 X 36	70	12	6,00	4,90	3R30501	179,22
VG 5,2 X 24	80	17	6,00	4,90	3R30502	179,22
VG 6 X 32	80	14	6,00	5,50	3R30503	202,57
VG 8 X 32	80	16	7,00	6,20	3R30504	205,50
VG 10 X 28	90	18	8,00	6,20	3R30505	223,11
VG 12 X 26	100	22	8,00	7,00	3R30506	250,64

BSC PARA EJES DE PEDALIER
FOR BOTTOM BRACKET
POUR PÉDALIER VÉLO



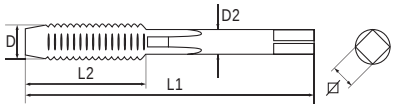
HSS-CO 5% | DIN 374 | FORM C | TOL 6H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
BSC 1/4" X 26	56	14	7	4,9	3R30507	233,50
BSC 5/16" X 26	63	16	6	4,9	3R30508	246,36
BSC 3/8" X 26	63	16	7	5,5	3R30509	253,15
BSC 9/16" X 20 R	70	22	11,00	9,00	3R30510	261,20
BSC 9/16" X 20 L	70	22	11,00	9,00	3R30511	270,50
BSC 1" X 24	70	22	11,00	11,00	3R30512	*

* Consultar precio y disponibilidad / Request price and availability / Consulter le prix et le disponibilité

M MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



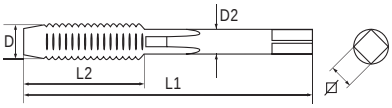
HSS-CO 5% | DIN 371 | FORM C | TOL 6H | LH

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R33426	36,52
M 4 x 0,70	63	13	4,5	3,4	3R33430	37,05
M 5 x 0,80	70	16	6,0	4,9	3R33434	37,99
M 6 x 1,00	80	19	6,0	4,9	3R33438	39,14
M 8 x 1,25	90	22	8,0	6,2	3R33442	41,28
M 10 x 1,50	100	24	10,0	8,0	3R33446	49,64

HSS-CO 5% | DIN 376 | FORM C | TOL 6H | LH

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 12 x 1,75	110	29	9,0	7,0	3R34450	56,48
M 14 x 2,00	110	30	11,0	9,0	3R34454	74,14
M 16 x 2,00	110	32	12,0	9,0	3R34458	110,25
M 18 x 2,50	125	34	14,0	11,0	3R34462	143,95
M 20 x 2,50	140	34	16,0	12,0	3R34466	194,11
M 22 x 2,50	140	34	18,0	14,5	3R34470	235,60
M 24 x 3,00	160	38	18,0	14,5	3R34474	252,73

M MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



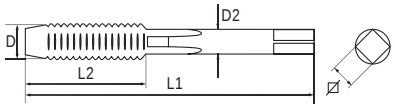
ALCRO HSS-CO 5% DIN 371 FORM B TOL 6H LH

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R33526	40,70
M 4 x 0,70	63	13	4,5	3,4	3R33530	41,28
M 5 x 0,80	70	16	6,0	4,9	3R33534	42,17
M 6 x 1,00	80	19	6,0	4,9	3R33538	42,32
M 7 x 1,00	80	19	7,0	5,5	3R33540	42,80
M 8 x 1,25	90	22	8,0	6,2	3R33542	44,67
M 10 x 1,50	100	24	10,0	8,0	3R33546	50,63

ALCRO HSS-CO 5% DIN 376 FORM B TOL 6H LH

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	2,2	-	3R34526	49,48
M 4 x 0,70	63	13	2,8	2,1	3R34530	48,96
M 5 x 0,80	70	16	3,5	2,7	3R34534	49,06
M 6 x 1,00	80	19	4,5	3,4	3R34538	49,17
M 8 x 1,25	90	22	6,0	4,9	3R34542	50,32
M 10 x 1,50	100	24	7,0	5,5	3R34546	52,20
M 12 x 1,75	110	29	9,0	7,0	3R34550	62,65
M 14 x 2,00	110	30	11,0	9,0	3R34554	77,65
M 16 x 2,00	110	32	12,0	9,0	3R34558	121,06
M 18 x 2,50	125	34	14,0	11,0	3R34562	144,05
M 20 x 2,50	140	34	16,0	12,0	3R34566	152,21
M 22 x 2,50	140	34	18,0	14,5	3R34570	237,06
M 24 x 3,00	160	38	18,0	14,5	3R34574	253,36
M 27 x 3,00	160	38	20,0	16,0	3R34576	416,80
M 30 x 3,50	180	45	22,0	18,0	3R34578	520,93
M 33 x 3,50	180	50	25,0	20,0	3R34580	861,60
M 36 x 4,00	200	56	28,0	22,0	3R34582	883,55
M 39 x 4,00	200	60	32,0	24,0	3R34584	906,37
M 42 x 4,50	200	60	32,0	24,0	3R34586	1.037,71
M 45 x 4,50	220	65	36,0	29,0	3R34588	1.178,87
M 48 x 5,00	250	70	36,0	29,0	3R34590	1.294,79
M 52 x 5,00	250	70	40,0	32,0	3R34592	1.577,62

M MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



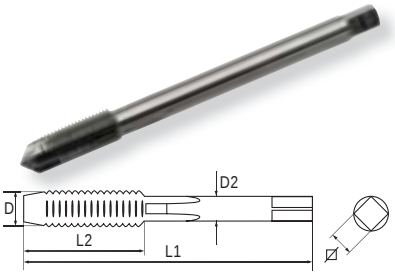
HSS-CO 5% | DIN 371 | FORM C/35° | TOL 6H | LH

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	3,5	2,7	3R33726	46,97
M 4 x 0,70	63	7	4,5	3,4	3R33730	46,97
M 5 x 0,80	70	8	6,0	4,9	3R33734	47,18
M 6 x 1,00	80	10	6,0	4,9	3R33738	47,18
M 8 x 1,25	90	14	8,0	6,2	3R33742	49,64
M 10 x 1,50	100	16	10,0	8,0	3R33746	57,32

HSS-CO 5% | DIN 376 | FORM C/35° | TOL 6H | LH

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	2,2	-	3R34726	47,55
M 4 x 0,70	63	7	2,8	2,1	3R34730	47,55
M 5 x 0,80	70	8	3,5	2,7	3R34734	48,75
M 6 x 1,00	80	10	4,5	3,4	3R34738	48,75
M 8 x 1,25	90	14	6,0	4,9	3R34742	51,15
M 10 x 1,50	100	16	7,0	5,5	3R34746	65,68
M 12 x 1,75	110	18	9,0	7,0	3R34750	73,10
M 14 x 2,00	110	20	11,0	9,0	3R34754	94,94
M 16 x 2,00	110	22	12,0	9,0	3R34758	109,04
M 18 x 2,50	125	25	14,0	11,0	3R34762	167,04
M 20 x 2,50	140	25	16,0	12,0	3R34766	224,52
M 22 x 2,50	140	27	18,0	14,5	3R34770	271,54
M 24 x 3,00	160	30	18,0	14,5	3R34774	292,44
M 27 x 3,00	160	30	20,0	16,0	3R34776	480,54
M 30 x 3,50	180	35	22,0	18,0	3R34778	604,90
M 33 x 3,50	180	35	25,0	20,0	3R34780	988,05
M 36 x 4,00	200	40	28,0	22,0	3R34782	998,65
M 39 x 4,00	200	40	32,0	24,0	3R34784	1.030,11
M 42 x 4,50	200	45	32,0	24,0	3R34786	1.474,07
M 45 x 4,50	220	45	36,0	29,0	3R34788	1.673,27
M 48 x 5,00	250	50	36,0	29,0	3R34790	1.832,64
M 52 x 5,00	250	50	40,0	32,0	3R34792	2.231,04

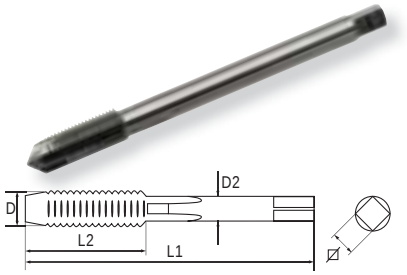
Mf MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



ACERO 400-500 N/mm² | HSS-CO 5% | DIN 374 | FORM B | TOL 6H | LH

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,35	56	9	2,2	-	3R34801	70,13
M 4 x 0,35	63	10	2,8	2,1	3R34802	70,13
M 4 x 0,50	63	10	2,8	2,1	3R34803	70,13
M 5 x 0,50	70	12	3,5	2,7	3R34804	70,13
M 5 x 0,75	70	12	3,5	2,7	3R34805	70,13
M 6 x 0,50	80	14	4,5	3,4	3R34806	70,13
M 6 x 0,75	80	14	4,5	3,4	3R34807	70,13
M 7 x 0,75	80	14	5,5	4,3	3R34808	70,13
M 8 x 0,50	80	19	6,0	4,9	3R34809	70,13
M 8 x 0,75	80	19	6,0	4,9	3R34810	70,13
M 8 x 1,00	90	22	6,0	4,9	3R34811	70,13
M 9 x 0,75	80	19	7,0	5,5	3R34812	73,10
M 9 x 1,00	90	22	7,0	5,5	3R34813	74,61
M 10 x 0,75	90	20	7,0	5,5	3R34814	87,63
M 10 x 1,00	90	20	7,0	5,5	3R34815	85,17
M 10 x 1,25	100	24	7,0	5,5	3R34816	87,62
M 11 x 1,00	90	20	8,0	6,2	3R34817	109,21
M 11 x 1,25	90	22	8,0	6,2	3R34818	109,21
M 12 x 0,75	100	22	9,0	7,0	3R34819	112,70
M 12 x 1,00	100	22	9,0	7,0	3R34820	112,70
M 12 x 1,25	100	22	9,0	7,0	3R34821	112,70
M 12 x 1,50	100	22	9,0	7,0	3R34822	112,70
M 13 x 1,00	100	22	11,0	9,0	3R34823	145,23
M 13 x 1,50	100	22	11,0	9,0	3R34824	145,23
M 14 x 0,75	100	22	11,0	9,0	3R34825	155,37
M 14 x 1,00	100	22	11,0	9,0	3R34826	132,77
M 14 x 1,25	100	22	11,0	9,0	3R34827	132,77
M 14 x 1,50	100	22	11,0	9,0	3R34828	132,77
M 15 x 1,00	100	22	12,0	9,0	3R34829	156,41
M 15 x 1,50	100	22	12,0	9,0	3R34830	153,92
M 16 x 1,00	100	22	12,0	9,0	3R34831	153,92
M 16 x 1,25	100	22	12,0	9,0	3R34832	161,23
M 16 x 1,50	100	22	12,0	9,0	3R34833	153,92
M 18 x 1,00	110	25	14,0	11,0	3R34834	184,70
M 18 x 1,25	110	25	14,0	11,0	3R34835	191,26
M 18 x 1,50	110	25	14,0	11,0	3R34836	184,70
M 18 x 2,00	125	34	14,0	11,0	3R34837	184,70
M 20 x 1,00	125	25	16,0	12,0	3R34838	223,44
M 20 x 1,25	125	25	16,0	12,0	3R34839	239,10
M 20 x 1,50	125	25	16,0	12,0	3R34840	213,70
M 20 x 2,00	140	34	16,0	12,0	3R34841	213,70
M 21 x 1,50	125	25	16,0	12,0	3R34842	261,09
M 22 x 1,00	125	25	18,0	14,5	3R34843	265,95
M 22 x 1,25	125	25	18,0	14,5	3R34844	278,88
M 22 x 1,50	125	25	18,0	14,5	3R34845	267,10
M 22 x 2,00	140	34	18,0	14,5	3R34846	267,10
M 23 x 1,50	125	25	18,0	14,5	3R34847	342,71
M 24 x 1,00	140	28	18,0	14,5	3R34848	340,62
M 24 x 1,25	140	28	18,0	14,5	3R34849	342,71
M 24 x 1,50	140	28	18,0	14,5	3R34850	340,62
M 24 x 2,00	140	28	18,0	14,5	3R34851	340,62

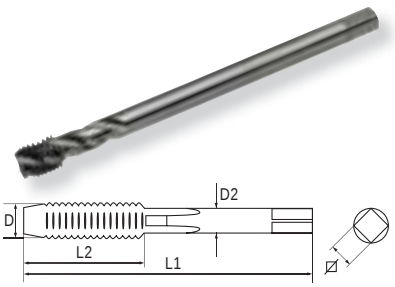
Mf MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE



HSS-CO 5% | DIN 374 | FORM B | TOL 6H | LH

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 25 x 1,0	140	28	18,0	14,5	3R34852	417,95
M 25 x 1,5	140	28	18,0	14,5	3R34853	417,95
M 26 x 1,0	140	28	18,0	14,5	3R3485X	417,95
M 26 x 1,5	140	28	18,0	14,5	3R34854	417,95
M 26 x 2,0	140	28	18,0	14,5	3R34855	424,01
M 27 x 1,0	140	28	20,0	16,0	3R34800	455,10
M 27 x 1,5	140	28	20,0	16,0	3R34856	416,69
M 27 x 2,0	140	28	20,0	16,0	3R34857	416,69
M 28 x 1,0	140	28	20,0	16,0	3R34858	434,20
M 28 x 1,5	140	28	20,0	16,0	3R34859	427,14
M 28 x 2,0	140	28	20,0	16,0	3R34860	427,14
M 29 x 1,5	150	28	22,0	18,0	3R34861	475,32
M 30 x 1,0	150	28	22,0	18,0	3R34862	470,20
M 30 x 1,5	150	28	22,0	18,0	3R34863	466,64
M 30 x 2,0	150	28	22,0	18,0	3R34864	466,64
M 30 x 2,5	180	45	22,0	18,0	3R3486X	470,20
M 30 x 3,0	180	45	22,0	18,0	3R34865	523,02
M 32 x 1,5	150	28	22,0	18,0	3R34866	558,55
M 32 x 2,0	150	28	22,0	18,0	3R34867	597,67
M 32 x 3,0	180	50	22,0	18,0	3R34892	597,67
M 33 x 1,5	160	30	25,0	20,0	3R34893	652,60
M 33 x 2,0	160	30	25,0	20,0	3R34868	664,10
M 33 x 3,0	180	50	25,0	20,0	3R34869	664,10
M 34 x 1,5	170	30	28,0	22,0	3R34870	647,74
M 34 x 2,0	170	30	28,0	22,0	3R34871	647,74
M 35 x 1,5	170	30	28,0	22,0	3R34872	652,60
M 36 x 1,5	170	30	28,0	22,0	3R34873	697,44
M 36 x 2,0	170	30	28,0	22,0	3R34874	707,53
M 36 x 3,0	200	56	28,0	22,0	3R34875	800,62
M 38 x 1,5	170	30	28,0	22,0	3R34876	738,86
M 39 x 1,5	170	30	32,0	24,0	3R34877	763,39
M 39 x 2,0	170	30	32,0	24,0	3R34878	763,39
M 39 x 3,0	200	60	32,0	24,0	3R34879	763,38
M 40 x 1,5	170	30	32,0	24,0	3R34880	804,48
M 40 x 2,0	170	30	32,0	24,0	3R34881	893,72
M 40 x 3,0	200	60	32,0	24,0	3R34882	930,96
M 42 x 1,5	170	30	32,0	24,0	3R34883	897,70
M 42 x 2,0	170	30	32,0	24,0	3R34884	1.042,66
M 42 x 3,0	200	60	32,0	24,0	3R34885	1.079,92
M 45 x 1,5	180	32	36,0	29,0	3R34886	1.063,42
M 45 x 2,0	180	32	36,0	29,0	3R34887	1.063,42
M 45 x 3,0	200	50	36,0	29,0	3R34888	1.117,13
M 48 x 1,5	190	32	36,0	29,0	3R34889	1.277,48
M 48 x 2,0	190	32	36,0	29,0	3R34890	1.277,48
M 48 x 3,0	225	50	36,0	29,0	3R34891	1.277,48
M 50 x 1,5	190	32	36,0	29,0	3R34894	1.481,19
M 50 x 2,0	190	32	36,0	29,0	3R34895	1.481,19
M 50 x 3,0	225	50	36,0	29,0	3R34896	1.481,19
M 52 x 1,5	190	32	40,0	32,0	3R34897	1.633,12
M 52 x 2,0	190	32	40,0	32,0	3R34898	1.633,12
M 52 x 3,0	225	50	40,0	32,0	3R34899	1.686,38

Mf MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE

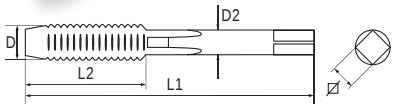


ACERO 400-500 N/mm² | HSS-CO 5% | DIN 374 | FORM C/35° | TOL 6H | LH

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€/Unid.
M 3 x 0,35	56	5	2,2	-	3R34901	81,94
M 4 x 0,35	63	5	2,8	2,1	3R34902	81,94
M 4 x 0,50	63	5	2,8	2,1	3R34903	78,16
M 5 x 0,50	70	5	3,5	2,7	3R34904	78,16
M 5 x 0,75	70	8	3,5	2,7	3R34905	78,16
M 6 x 0,50	80	5	4,5	3,4	3R34906	81,94
M 6 x 0,75	80	8	4,5	3,4	3R34907	78,16
M 7 x 0,75	80	8	5,5	4,3	3R34908	81,94
M 8 x 0,50	80	8	6,0	4,9	3R34909	81,95
M 8 x 0,75	80	8	6,0	4,9	3R34910	81,94
M 8 x 1,00	90	10	6,0	4,9	3R34911	78,16
M 9 x 0,75	80	10	7,0	5,5	3R34912	83,84
M 9 x 1,00	90	10	7,0	5,5	3R34913	85,64
M 10 x 0,75	90	10	7,0	5,5	3R34914	98,07
M 10 x 1,00	90	10	7,0	5,5	3R34915	98,07
M 10 x 1,25	100	16	7,0	5,5	3R34916	101,21
M 11 x 1,00	90	11	8,0	6,2	3R34917	141,94
M 11 x 1,25	90	14	8,0	6,2	3R34918	141,94
M 12 x 0,75	100	10	9,0	7,0	3R34919	141,94
M 12 x 1,00	100	11	9,0	7,0	3R34920	133,60
M 12 x 1,25	100	15	9,0	7,0	3R34921	133,60
M 12 x 1,50	100	15	9,0	7,0	3R34922	133,60
M 13 x 1,00	100	11	11,0	9,0	3R34923	149,30
M 13 x 1,50	100	15	11,0	9,0	3R34924	149,30
M 14 x 0,75	100	10	11,0	9,0	3R34925	149,30
M 14 x 1,00	100	11	11,0	9,0	3R34926	147,76
M 14 x 1,25	100	15	11,0	9,0	3R34927	147,76
M 14 x 1,50	100	15	11,0	9,0	3R34928	147,76
M 15 x 1,50	100	15	12,0	9,0	3R34930	206,18
M 16 x 1,00	100	12	12,0	9,0	3R34931	224,50
M 16 x 1,25	100	15	12,0	9,0	3R34932	206,18
M 16 x 1,50	100	15	12,0	9,0	3R34933	169,44
M 18 x 1,00	110	13	14,0	11,0	3R34934	219,70
M 18 x 1,25	110	15	14,0	11,0	3R34935	219,70
M 18 x 1,50	110	17	14,0	11,0	3R34936	210,13
M 18 x 2,00	125	20	14,0	11,0	3R34937	219,70
M 20 x 1,00	125	14	16,0	12,0	3R34938	266,37
M 20 x 1,25	125	17	16,0	12,0	3R34939	266,37
M 20 x 1,50	125	17	16,0	12,0	3R34940	254,82
M 20 x 2,00	140	20	16,0	12,0	3R34941	266,37
M 22 x 1,00	125	14	18,0	14,5	3R34943	310,89
M 22 x 1,25	125	17	18,0	14,5	3R34944	310,89
M 22 x 1,50	125	17	18,0	14,5	3R34945	310,21
M 22 x 2,00	140	20	18,0	14,5	3R34946	326,33
M 24 x 1,00	140	15	18,0	14,5	3R34948	396,94
M 24 x 1,25	140	17	18,0	14,5	3R34949	394,85
M 24 x 1,50	140	20	18,0	14,5	3R34950	391,72
M 24 x 2,00	140	20	18,0	14,5	3R34951	394,85
M 26 x 1,50	140	20	18,0	14,5	3R34954	479,50
M 26 x 2,00	140	20	18,0	14,5	3R34955	479,50
M 27 x 2,00	140	20	20,0	16,0	3R34957	491,67
M 28 x 1,50	140	20	20,0	16,0	3R34959	491,67

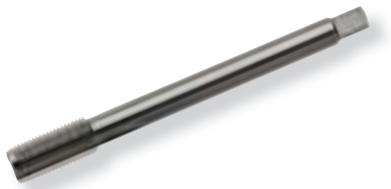
Mf MÉTRICA ISO-ROSCA DIN 13, IZQUIERDAS
METRIC ISO-THREAD DIN 13, LEFT HAND
MÉTRIQUE DIN-13, GAUCHE

HSS-CO 5% | DIN 374 | FORM C/35° | TOL 6H | LH

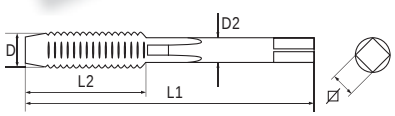


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 28 x 2,00	140	20	20,0	16,0	3R34960	491,67
M 30 x 1,00	150	17	22,0	18,0	3R34962	543,24
M 30 x 1,50	150	22	22,0	18,0	3R34963	538,02
M 30 x 2,00	150	22	22,0	18,0	3R34964	556,46
M 30 x 2,50	180	27	22,0	18,0	3R3496X	556,46
M 30 x 3,00	180	30	22,0	18,0	3R34965	604,90
M 32 x 2,00	150	22	22,0	18,0	3R34967	668,75
M 33 x 2,00	160	24	25,0	20,0	3R34968	761,28
M 34 x 1,50	170	24	28,0	22,0	3R34970	779,41
M 34 x 2,00	170	24	28,0	22,0	3R34971	779,41
M 36 x 1,50	170	24	28,0	22,0	3R34973	810,40
M 36 x 2,00	170	24	28,0	22,0	3R34974	810,40
M 36 x 3,00	200	30	28,0	22,0	3R34975	810,40
M 38 x 1,50	170	24	28,0	22,0	3R34976	819,58
M 39 x 2,00	170	25	32,0	24,0	3R34978	819,58
M 40 x 1,50	170	25	32,0	24,0	3R34980	906,64
M 40 x 2,00	170	25	32,0	24,0	3R34981	906,64
M 40 x 3,00	200	30	32,0	24,0	3R34982	906,07
M 42 x 2,00	170	25	32,0	24,0	3R34984	1.019,37
M 45 x 1,50	180	27	36,0	29,0	3R34986	1.211,00
M 45 x 2,00	180	27	36,0	29,0	3R34987	1.211,00
M 45 x 3,00	200	30	36,0	29,0	3R34988	1.211,00
M 48 x 2,00	190	27	36,0	29,0	3R34990	1.421,63
M 50 x 1,50	190	27	36,0	29,0	3R34994	1.726,86
M 50 x 2,00	190	27	36,0	29,0	3R34995	1.726,86
M 50 x 3,00	225	33	36,0	29,0	3R34996	1.726,86
M 52 x 1,50	190	27	40,0	32,0	3R34997	1.813,32
M 52 x 2,00	190	27	40,0	32,0	3R34998	1.813,32
M 52 x 3,00	225	33	40,0	32,0	3R34999	1.813,32

G(BSP) ROSCA GAS DIN ISO 228, IZQUIERDAS
PIPE THREAD DIN ISO 228, LEFT HAND
FILETAGE PAS GAZ DIN ISO 228, GAUCHE

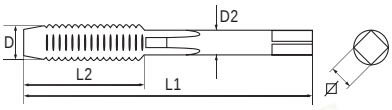


HSS-CO 5% | DIN 5156 | FORM C | LH



D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
G 1/8 x 28	90	20	7,0	5,5	3R78202	71,88
G 1/4 x 19	100	22	11,0	9,0	3R78203	89,79
G 3/8 x 19	100	22	12,0	9,0	3R78204	118,55
G 1/2 x 14	125	25	16,0	12,0	3R78205	229,74
G 5/8 x 14	125	25	18,0	14,5	3R78206	279,90
G 3/4 x 14	140	28	20,0	16,0	3R78207	323,43
G 1 x 11	160	30	25,0	20,0	3R78208	652,60

M MÉTRICA ISO-ROSCA DIN 13 — BANDA VERDE PM
METRIC ISO-THREAD DIN 13 — GREEN RING PM
MÉTRIQUE DIN-13 — BANDE VERT PM



SPECIAL STAINLESS STEEL
ESPECIAL INOX
SPÉCIAL ACIER INOXYDABLE

advance MÁXIMO RENDIMIENTO

ACERO | INOX | CU | PM | DIN 371 | FORM B | TOL 6H | HL

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	9	3,5	2,7	3R30226	39,16
M 4,0 x 0,70	63	12	4,5	3,4	3R30230	40,01
M 5,0 x 0,80	70	13	6	4,9	3R30234	42,23
M 6,0 x 1,00	80	15	6	4,9	3R30238	42,23
M 8,0 x 1,25	90	18	8	6,2	3R30242	48,90
M 10,0 x 1,50	100	20	10	8	3R30246	58,53

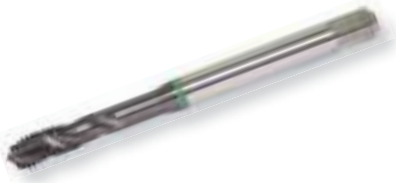
advance MÁXIMO RENDIMIENTO

ACERO | INOX | CU | PM | DIN 376 | FORM B | TOL 6H | HL

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 x 1,75	110	23	9	7	3R30250	74,51
M 14,0 x 2,00	110	25	11	9	3R30254	93,92
M 16,0 x 2,00	110	25	12	9	3R30258	98,15
M 18,0 x 2,50	125	30	14	11	3R30262	147,33
M 20,0 x 2,50	140	30	16	12	3R30266	151,99
M 22,0 x 2,50	140	30	18	14,5	3R30270	219,44
M 24,0 x 3,00	160	36	18	14,5	3R30274	220,22
M 27,0 x 3,00	160	36	20	16	3R30276	295,33
M 30,0 x 3,50	180	40	22	18	3R30282	357,48

advance MÁXIMO RENDIMIENTO

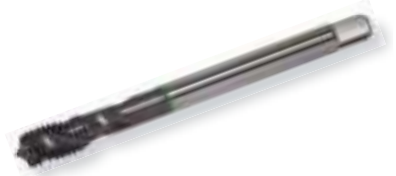
ACERO | INOX | CU | PM | DIN 371 | FORM C/35° | TOL 6H | HL



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	5	3,50	2,70	3R30126	44,88
M 4,0 x 0,70	63	7	4,50	3,40	3R30130	44,88
M 5,0 x 0,80	70	8	6,00	4,90	3R30134	46,04
M 6,0 x 1,00	80	10	6,00	4,90	3R30138	47,84
M 8,0 x 1,25	90	13	8,00	6,20	3R30142	55,78
M 10,0 x 1,50	100	15	10,00	8,00	3R30146	65,83

advance MÁXIMO RENDIMIENTO

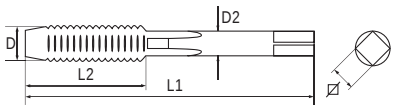
ACERO | INOX | CU | PM | DIN 376 | FORM C/35° | TOL 6H | HL



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 x 1,75	110	18	9,00	7,00	3R30150	85,10
M 14,0 x 2,00	110	20	11,00	9,00	3R30154	105,63
M 16,0 x 2,00	110	20	12,00	9,00	3R30158	116,14
M 18,0 x 2,50	125	25	14,00	11,00	3R30162	168,08
M 20,0 x 2,50	140	25	16,00	12,00	3R30166	173,79

*Para otras medidas consultar / Request for other sizes / Pour d'autres dimensions, nous consulter

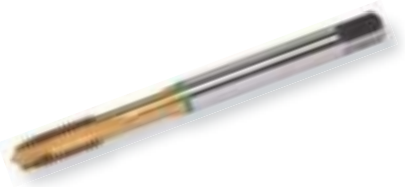
M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



BANDA VERDE - MULTIMATERIAL
GREEN RING - MULTIMATERIAL • BANDE VERT - MULTIMATERIEL

advance MÁXIMO RENDIMIENTO

ACERO INOX AL CU F LT | HSS-E-V3 | DIN 371 | FORM B | TOL 6H | TIN



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	9	3,5	2,7	3R30426	27,31
M 4,0 x 0,70	63	12	4,5	3,4	3R30430	27,62
M 5,0 x 0,80	70	13	6	4,9	3R30434	28,58
M 6,0 x 1,00	80	15	6	4,9	3R30438	28,79
M 8,0 x 1,25	90	18	8	6,2	3R30442	33,23
M 10,0 x 1,50	100	20	10	8	3R30446	39,06

advance MÁXIMO RENDIMIENTO

ACERO INOX AL CU F LT | HSS-E-V3 | DIN 376 | FORM B | TOL 6H | TIN

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 x 1,75	110	23	9	7	3R30450	49,53
M 14,0 x 2,00	110	25	11	9	3R30454	64,67
M 16,0 x 2,00	110	25	12	11	3R30458	71,44
M 18,0 x 2,50	125	30	14	11	3R30462	102,03
M 20,0 x 2,50	140	30	16	12	3R30466	105,42

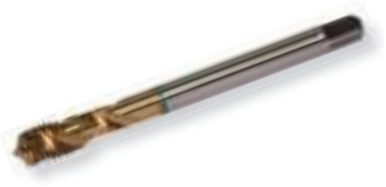
advance MÁXIMO RENDIMIENTO

ACERO INOX AL CU F LT | HSS-E-V3 | DIN 371 | FORM C/35° | TOL 6H | TIN

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	5	3,5	2,7	3R30326	29,53
M 4,0 x 0,70	63	7	4,5	3,4	3R30330	29,53
M 5,0 x 0,80	70	8	6	4,9	3R30334	30,17
M 6,0 x 1,00	80	10	6	4,9	3R30338	31,65
M 8,0 x 1,25	90	13	8	6,2	3R30342	36,62
M 10,0 x 1,50	100	15	10	8	3R30346	43,08

advance MÁXIMO RENDIMIENTO

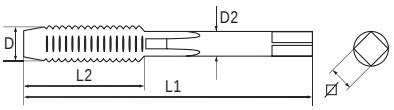
ACERO INOX AL CU F LT | HSS-E-V3 | DIN 376 | FORM C/35° | TOL 6H | TIN



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 x 1,75	110	18	9	7	3R30350	56,31
M 14,0 x 2,00	110	20	11	9	3R30354	70,39
M 16,0 x 2,00	110	20	12	9	3R30358	77,37
M 18,0 X 2,50	125	25	14	11	3R30362	111,55
M 20,0 x 2,50	140	25	16	12	3R30366	115,05

*Para otras medidas consultar / Request for other sizes / Pour d'autres dimensions, nous consulter

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



BANDA BLANCA WHITE RING • BANDE BLANC

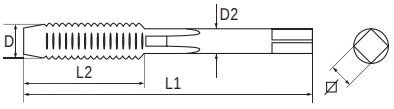
ACERO 800 - 1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 371 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	11	3,5	2,7	3R35226	23,92
M 4 x 0,70	63	13	4,5	3,4	3R35230	23,92
M 5 x 0,80	70	16	6,0	4,9	3R35234	25,64
M 6 x 1,00	80	19	6,0	4,9	3R35238	26,50
M 8 x 1,25	90	22	8,0	6,2	3R35242	29,89
M 10 x 1,50	100	24	10,0	8,0	3R35246	35,89

ACERO 800 - 1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 376 | FORM B | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 12 x 1,75	110	29	9,0	7,0	3R35250	46,15
M 14 x 2,00	110	30	11,0	9,0	3R35254	63,24
M 16 x 2,00	110	32	12,0	9,0	3R35258	71,77
M 18 x 2,50	125	34	14,0	11,0	3R35262	109,37
M 20 x 2,50	140	34	16,0	12,0	3R35266	122,82

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



BANDA BLANCA WHITE RING • BANDE BLANC

ACERO 800 - 1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 371 | FORM C/40° | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	56	6	3,5	2,7	3R36226	30,22
M 4 x 0,70	63	7	4,5	3,4	3R36230	30,22
M 5 x 0,80	70	8	6,0	4,9	3R36234	31,85
M 6 x 1,00	80	10	6,0	4,9	3R36238	31,85
M 8 x 1,25	90	14	8,0	6,2	3R36242	37,08
M 10 x 1,50	100	16	10,0	8,0	3R36246	43,67

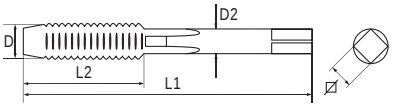
ACERO 800 - 1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 376 | FORM C/40° | TOL 6H

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 12 x 1,75	110	18	9,0	7,0	3R36250	54,14
M 14 x 2,00	110	20	11,0	9,0	3R36254	70,40
M 16 x 2,00	110	22	12,0	9,0	3R36258	83,66
M 18 x 2,50	125	25	14,0	11,0	3R36262	111,07
M 20 x 2,50	140	25	16,0	12,0	3R36266	150,42

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

BANDA BLANCA WHITE RING • BANDE BLANC

HSS-CO 5% | VAP | DIN 374 | FORM B

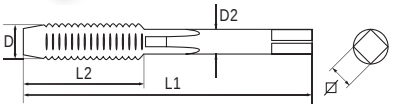


D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 5 x 0,50	70	12	3,5	2,7	3R35903	54,88
M 6 x 0,75	80	14	4,5	3,4	3R35904	54,88
M 8 x 0,75	80	19	6,0	4,9	3R35906	54,88
M 8 x 1,00	90	22	6,0	4,9	3R35907	54,88
M 10 x 1,00	90	20	7,0	5,5	3R35909	64,02
M 10 x 1,25	100	24	7,0	5,5	3R35910	64,02
M 12 x 1,25	100	22	9,0	5,5	3R35913	87,81
M 12 x 1,50	100	22	9,0	7,0	3R35914	87,81
M 14 x 1,50	100	22	11,0	9,0	3R35917	109,76
M 16 x 1,50	100	22	12,0	9,0	3R35921	126,23
M 18 x 1,50	110	25	14,0	11,0	3R35925	153,67
M 20 x 1,50	125	25	16,0	12,0	3R35929	194,32

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

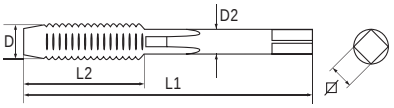
BANDA BLANCA WHITE RING • BANDE BLANC

HSS-CO 5% | VAP | DIN 374 | FORM C/39º



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
M 5 x 0,50	70	5	3,5	2,7	3R36903	62,21
M 6 x 0,75	80	8	4,5	3,4	3R36904	62,21
M 8 x 0,75	80	8	6,0	4,9	3R36906	62,21
M 8 x 1,00	90	10	6,0	4,9	3R36907	62,21
M 10 x 1,00	90	10	7,0	5,5	3R36909	75,00
M 10 x 1,25	100	16	7,0	5,5	3R36910	73,91
M 12 x 1,25	100	15	9,0	7,0	3R36913	95,13
M 12 x 1,50	100	15	9,0	7,0	3R36914	95,13
M 14 x 1,50	100	15	11,0	9,0	3R36917	117,08
M 16 x 1,50	100	15	12,0	9,0	3R36921	135,36
M 18 x 1,50	110	17	14,0	11,0	3R36925	168,30
M 20 x 1,50	125	17	16,0	12,0	3R36929	234,97

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1



BANDA BLANCA WHITE RING • BANDE BLANC

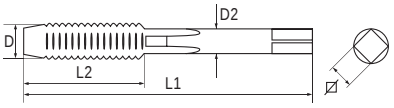
ACERO 800 - 1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 371 | FORM B

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNC 1/4 x 20	80	17	7,0	5,5	3R35945	40,24
UNC 5/16 x 18	90	20	8,0	6,2	3R35946	51,22
UNC 3/8 x 16	100	22	9,0	7,0	3R35947	58,55

ACERO 800 - 1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 376 | FORM B

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNC 7/16 x 14	100	22	8,0	6,2	3R35948	69,52
UNC 1/2 x 13	110	25	9,0	7,0	3R35949	69,52

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1



BANDA BLANCA WHITE RING • BANDE BLANC

ACERO 800 - 1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 371 | FORM C/39°

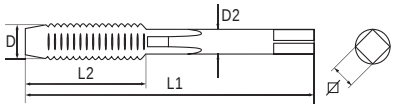
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€ €/Unid.
UNC 1/4 x 20	80	17	7,0	5,5	3R36945	50,12
UNC 5/16 x 18	90	20	8,0	6,2	3R36946	60,37
UNC 3/8 x 16	100	22	9,0	7,0	3R36947	66,60

ACERO 800 - 1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 376 | FORM C/39°

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNC 7/16 x 14	100	22	8,0	6,2	3R36948	84,16
UNC 1/2 x 13	110	25	9,0	7,0	3R36949	84,16

UNF

ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIED À PAS FINE ANSI B 1.1



BANDA BLANCA WHITE RING • BANDE BLANC

ACERO INOX HSS-CO 5% VAP DIN 371 FORM B

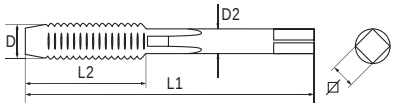
D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNF 1/4 x2 8	80	17	7,0	5,5	3R35965	40,24
UNF 5/16 x 24	90	17	8,0	6,2	3R35966	51,24
UNF 3/8 x 24	100	18	9,0	7,0	3R35967	58,55

ACERO INOX HSS-CO 5% VAP DIN 376 FORM B

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNF 7/16 x 20	100	22	8,0	6,2	3R35968	69,52
UNF 1/2 x 20	100	22	9,0	7,0	3R35969	69,52

UNF

ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIED À PAS FINE ANSI B 1.1



BANDA BLANCA WHITE RING • BANDE BLANC

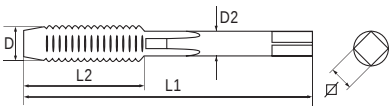
ACERO INOX HSS-CO 5% VAP DIN 371 FORM C/39°

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNF 1/4 x 28	80	10	7,0	5,5	3R36965	50,12
UNF 5/16 x 24	90	10	8,0	6,2	3R36966	60,38
UNF 3/8 x 24	100	10	9,0	7,0	3R36967	66,59

ACERO INOX HSS-CO 5% VAP DIN 376 FORM C/39°

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNF 7/16 x 20	100	13	8,0	6,2	3R36968	84,16
UNF 1/2 x 20	100	13	9,0	7,0	3R36969	84,16

G(BSP) ROSCA GAS DIN ISO 228
PIPE THREAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228

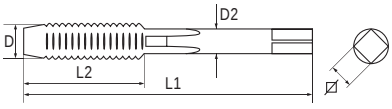


BANDA BLANCA WHITE RING • BANDE BLANC

ACERO 800 - 1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 5156 | FORM B

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
G 1/8 x 28	90	20	7,0	5,5	3R35992	65,86
G 1/4 x 19	100	22	11,0	9,0	3R35993	80,49
G 3/8 x 19	100	22	12,0	9,0	3R35994	138,20
G 1/2 x 14	125	25	16,0	12,0	3R35995	194,21

G(BSP) ROSCA GAS DIN ISO 228
PIPE THREAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228

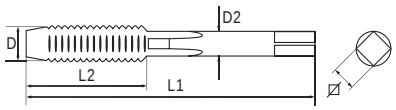


BANDA BLANCA WHITE RING • BANDE BLANC

ACERO 800 - 1100 N/mm² | INOX | HSS-CO 5% | VAP | DIN 5156 | FORM C/39°

D Ø x P (")	L1 (mm)	L2 (mm)	D2 (mm)	⌀ (mm)	Cod.	€/Unid.
G 1/8 x 28	90	20	7,0	5,5	3R36992	73,18
G 1/4 x 19	100	22	11,0	9,0	3R36993	91,47
G 3/8 x 19	100	22	12,0	9,0	3R36994	168,77
G 1/2 x 14	125	25	16,0	12,0	3R36995	229,74

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



BANDA NEGRA PM - PARA MATERIALES DUROS
BLACK RING PM - FOR HARD MATERIALS • BANDE NOIR PM - POUR MATÉRIAUX DURS

advance MÁXIMO RENDIMIENTO

PM | DIN 371 | FORM B | TOL 6H | FUTURA

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	5	3,5	2,7	3R35126	38,74
M 4,0 x 0,70	63	7	4,5	3,4	3R35130	39,69
M 5,0 x 0,80	70	8	6	4,9	3R35134	41,81
M 6,0 x 1,00	80	10	6	4,9	3R35138	41,81
M 8,0 x 1,25	90	13	8	6,2	3R35142	48,37
M 10,0 x 1,50	100	15	10	8	3R35146	57,79

advance MÁXIMO RENDIMIENTO

PM | DIN 376 | FORM B | TOL 6H | FUTURA

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 X 1,75	110	23	9	7	3R35150	73,77

advance MÁXIMO RENDIMIENTO

PM | DIN 371 | FORM C/40° | TOL 6H | FUTURA

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	5	3,5	2,7	3R36126	44,24
M 4,0 x 0,70	63	7	4,5	3,4	3R36130	44,24
M 5,0 x 0,80	70	8	6	4,9	3R36134	45,20
M 6,0 x 1,00	80	10	6	4,9	3R36138	47,21
M 8,0 x 1,25	90	13	8	6,2	3R36142	54,93
M 10,0 x 1,50	100	15	10	8	3R36146	64,99

advance MÁXIMO RENDIMIENTO

PM | DIN 376 | FORM C/40° | TOL 6H | FUTURA

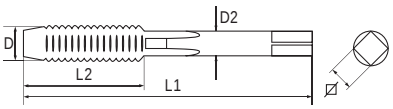
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 X 1,75	110	18	9	7	3R36150	85,17

advance MÁXIMO RENDIMIENTO

PM | DIN 371 | FORM C/15° | TOL 6H | FUTURA

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 5,0 x 0,80	70	8	6	4,9	3R35154	45,20
M 6,0 x 1,00	80	10	6	4,9	3R35158	60,45
M 8,0 x 1,25	90	13	8	6,2	3R35162	62,65
M 10,0 x 1,50	100	15	10	8	3R35166	92,85

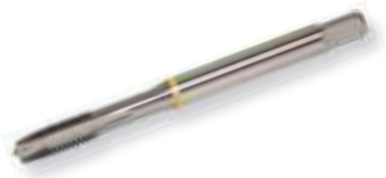
M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



BANDA AMARILLA - PARA ALUMINIO
YELLOW RING - FOR ALUMINIUM • BANDE JAUNE - POUR L'ALUMINIUM

advance MAXIMO RENDIMIENTO

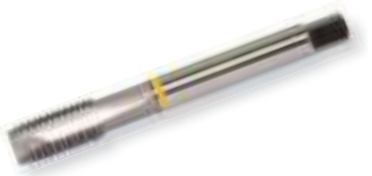
AL | HSS-CO 5% | DIN 371 | FORM B | TOL 6H | ALUSPEED



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	9	3,5	2,7	3R35426	33,98
M 4,0 x 0,70	63	12	4,5	3,4	3R35430	34,29
M 5,0 x 0,80	70	13	6	4,9	3R35434	35,35
M 6,0 x 1,00	80	15	6	4,9	3R35438	35,35
M 8,0 x 1,25	90	18	8	6,2	3R35442	41,49
M 10,0 x 1,50	100	20	10	8	3R35446	48,48

advance MAXIMO RENDIMIENTO

AL | HSS-CO 5% | DIN 376 | FORM B | TOL 6H | ALUSPEED



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 x 1,75	110	23	9	7	3R35450	61,49
M 14,0 x 2,00	110	25	11	9	3R35454	80,33
M 16,0 x 2,00	110	25	12	11	3R35458	88,91
M 18,0 x 2,50	125	30	14	11	3R35462	127,01
M 20,0 x 2,50	140	30	16	12	3R35466	131,24

advance MAXIMO RENDIMIENTO

AL | HSS-CO 5% | DIN 371 | FORM C/45° | TOL 6H | ALUSPEED

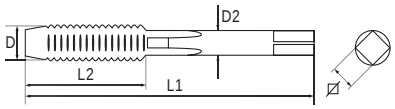
D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 3,0 x 0,50	56	5	3,5	2,7	3R36426	36,52
M 4,0 x 0,70	63	7	4,5	3,4	3R36430	36,52
M 5,0 x 0,80	70	8	6	4,9	3R36434	37,47
M 6,0 x 1,00	80	10	6	4,9	3R36438	39,16
M 8,0 x 1,25	90	13	8	6,2	3R36442	45,41
M 10,0 x 1,50	100	15	10	8	3R36446	53,35

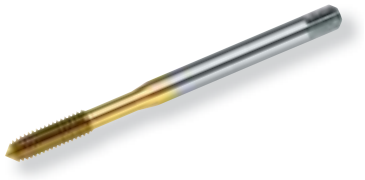
advance MAXIMO RENDIMIENTO

AL | HSS-CO 5% | DIN 376 | FORM C/45° | TOL 6H | ALUSPEED

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€
M 12,0 x 1,75	110	18	9	7	3R36450	70,07
M 14,0 x 2,00	110	20	11	9	3R36454	87,32
M 16,0 x 2,00	110	20	12	11	3R36458	96,32
M 18,0 x 2,50	125	25	14	11	3R36462	138,34
M 20,0 x 2,50	140	25	16	12	3R36466	143,10

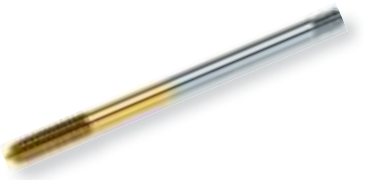
M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13





HSS-CO 5% | TIN | DIN 2174 | TOL 6HX | TOL ISO2X

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€
M 3,0 x 0,50	56	11	3,5	2,7	3R35530	35,87
M 4,0 x 0,70	63	13	4,5	3,4	3R35532	39,15
M 5,0 x 0,80	70	16	6	4,9	3R35533	41,74
M 6,0 x 1,00	80	19	6	4,9	3R35534	43,38
M 8,0 x 1,25	90	22	8	6,2	3R35535	52,86
M 10,0 x 1,50	100	24	10	8	3R35536	64,27



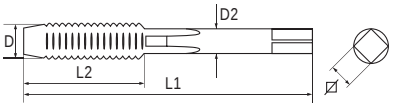
HSS-CO 5% | TIN | DIN 2174 | TOL 6HX | TOL ISO2X

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€
M 12,0 x 1,75	110	28	9	7	3R35537	83,78

DIÁMETRO BROCA PREVIA / RECOMMENDED TAPPINNG DRILL SIZES / DIAMÈTRES PRÉALABLES AU FILETAGE

Ø M3	Ø M4	Ø M5	Ø M6	Ø M8	Ø M10	Ø M12	Ø M14	Ø M16
2,80	3,70	4,65	5,55	7,45	9,30	11,20	13,00	15,10

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



CON RANURAS PARA LUBRICACIÓN WITH OIL GROOVE • AVEC RANURE GRAISSAGE

HSS-CO 5% | TIN | DIN 2174 | TOL 6HX | TOL ISO2X

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€
M 3,0 x 0,50	56	11	3,5	2,7	3R35630	39,15
M 4,0 x 0,70	63	13	4,5	3,4	3R35632	50,68
M 5,0 x 0,80	70	16	6	4,9	3R35633	45,99
M 6,0 x 1,00	80	19	6	4,9	3R35634	47,63
M 8,0 x 1,25	90	22	8	6,2	3R35635	57,75
M 10,0 x 1,50	100	24	10	8	3R35636	69,49

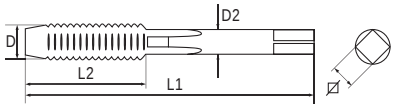
HSS-CO 5% | TIN | DIN 2174 | TOL 6HX | TOL ISO2X

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	⊠ (mm)	Cod.	€
M 12,0 x 1,75	110	28	9	7	3R35637	88,69

DIÁMETRO BROCA PREVIA / RECOMMENDED TAPPINNG DRILL SIZES / DIAMÈTRES PRÉALABLES AU FILETAGE

Ø M3	Ø M4	Ø M5	Ø M6	Ø M8	Ø M10	Ø M12	Ø M14	Ø M16
2,80	3,70	4,65	5,55	7,45	9,30	11,20	13,00	15,10

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13



HSS-CO 5% | DIN 357 | TOL 6H | TOL ISO2

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3 x 0,50	70	22	2,2	-	3R37126	38,93
M 4 x 0,70	90	25	2,8	2,1	3R37130	38,93
M 5 x 0,80	100	28	3,5	2,7	3R37134	40,88
M 6 x 1,00	110	32	4,5	3,4	3R37138	40,88
M 8 x 1,25	125	40	6,0	4,9	3R37142	54,71
M 10 x 1,50	140	45	7,0	5,5	3R37146	62,65

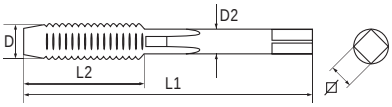
HSS-CO 5% | DIN 357 | TOL 6H | TOL ISO2

D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 12 x 1,75	180	50	9,0	7,0	3R37150	86,47
M 14 x 2,00	200	56	11,0	9,0	3R37154	120,96
M 16 x 2,00	200	63	12,0	9,0	3R37158	136,37
M 18 x 2,50	220	63	14,0	11,0	3R37162	190,71
M 20 x 2,50	250	70	16,0	12,0	3R37166	298,61
M 22 x 2,50	280	80	18,0	14,5	3R37170	455,36
M 24 x 3,00	280	80	18,0	14,5	3R37174	606,88

Materiales tratados superficialmente (galvanizados, cromados…) / For pre plate material for galvanising / Pour matériaux présentant une couche de galvanisation

Tr PUNTA PILOTO, TRAPEZOIDAL DIN 13
PILOTED, TRAPEZOIDAL THREAD DIN103
POUR FILETAGE TRAPÉZOIDAL DIN 103

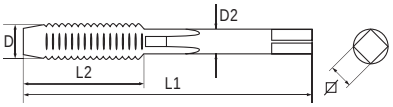
HSS-G TOL 7H



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
Tr 10 x 2	110	63	7	5,5	3R79108	610,91
Tr 10 x 3	125	75	7	5,5	3R79112	610,91
Tr 12 x 3	165	111	8	6,2	3R79116	525,30
Tr 14 x 3	140	85	10	8,0	3R79120	560,98
Tr 14 x 4	170	112	10	8,0	3R79124	560,98
Tr 16 x 4	180	116	11	9,0	3R79128	610,04
Tr 18 x 4	190	120	12	9,0	3R79132	627,89
Tr 20 x 4	200	124	14	11,0	3R79136	652,53
Tr 22 x 4	210	130	16	12,0	3R79139	847,27
Tr 22 x 5	235	155	16	12,0	3R79140	847,27
Tr 24 x 5	245	160	18	14,5	3R79144	974,51
Tr 26 x 5	255	165	20	16,0	3R79148	1.016,72
Tr 28 x 5	265	170	22	18,0	3R79152	1.133,80
Tr 30 x 6	290	185	22	18,0	3R79156	1.328,53
Tr 32 x 6	300	191	25	20,0	3R79160	1.622,81
Tr 36 x 6	310	200	28	22,0	3R79164	1.661,60

Tr PUNTA PILOTO, TRAPEZOIDAL DIN 13, IZQUIERDAS
PILOTED, TRAPEZOIDAL THREAD DIN103, LEFT HAND
POUR FILETAGE TRAPÉZOIDAL DIN 103 À GAUCHE

HSS-G | TOL 7H | LH



D Ø x P (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
Tr 10 x 2	110	63	7	5,5	3R79108-L	896,60
Tr 10 x 3	125	75	7	5,5	3R79112-L	896,60
Tr 12 x 3	165	111	8	6,2	3R79116-L	770,45
Tr 14 x 3	140	85	10	8,0	3R79120-L	819,34
Tr 14 x 4	170	112	10	8,0	3R79124-L	819,34
Tr 16 x 4	180	116	11	9,0	3R79128-L	894,73
Tr 18 x 4	190	120	12	9,0	3R79132-L	925,95
Tr 20 x 4	200	124	14	11,0	3R79136-L	958,61
Tr 22 x 5	235	155	16	12,0	3R79140-L	1.244,57
Tr 24 x 5	245	160	18	14,5	3R79144-L	1.425,68
Tr 26 x 5	255	165	20	16,0	3R79148-L	1.491,23
Tr 28 x 5	265	170	22	18,0	3R79152-L	1.660,00
Tr 30 x 6	290	185	22	18,0	3R79156-L	1.949,22
Tr 32 x 6	300	191	25	20,0	3R79160-L	2.378,80
Tr 36 x 6	310	200	28	22,0	3R79164-L	2.437,60

Consultar disponiblidad / Request availability / Consulter le disponibilité

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

HSS-G | DIN 223 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 1,0 x 0,25	16 x 5	4R27402	57,10
M 1,1 x 0,25	16 x 5	4R27404	57,10
M 1,2 x 0,25	16 x 5	4R27406	52,20
M 1,4 x 0,30	16 x 5	4R27408	52,20
M 1,6 x 0,35	16 x 5	4R27410	48,93
M 1,7 x 0,35	16 x 5	4R27412	48,93
M 1,8 x 0,35	16 x 5	4R27414	48,93
M 2,0 x 0,40	16 x 5	4R27416	35,89
M 2,2 x 0,45	16 x 5	4R27418	40,77
M 2,3 x 0,40	16 x 5	4R27420	40,77
M 2,5 x 0,45	16 x 5	4R27422	40,77
M 2,6 x 0,45	16 x 5	4R27424	40,77
M 3,0 x 0,50	20 x 5	4R27426	27,72
M 3,5 x 0,60	20 x 5	4R27428	27,72
M 4,0 x 0,70	20 x 5	4R27430	27,72
M 4,5 x 0,75	20 x 7	4R27432	27,72
M 5,0 x 0,80	20 x 7	4R27434	27,72
M 5,5 x 0,90	20 x 7	4R27436	27,72
M 6,0 x 1,00	20 x 7	4R27438	27,72
NEW M 6,0 x 1,25	25 x 9	4R27439	104,38
M 7,0 x 1,00	25 x 9	4R27440	27,72
M 8,0 x 1,25	25 x 9	4R27442	27,72
NEW M 8,0 x 1,50	25 x 9	4R27443	104,38
M 9,0 x 1,25	25 x 9	4R27444	27,72

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 10 x 1,5	30 x 11	4R27446	32,63
M 11 x 1,5	30 x 11	4R27448	32,63
M 12 x 1,75	38 x 14	4R27450	37,51
M 14 x 2.0	38 x 14	4R27454	37,51
M 15 x 2,0	38 x 14	4R27456	63,95
M 16 x 2,0	45 x 18	4R27458	54,07
M 18 x 2,5	45 x 18	4R27462	54,07
M 19 x 2,5	45 x 18	4R27464	64,74
M 20 x 2,5	45 x 18	4R27466	54,07
M 22 x 2,5	55 x 22	4R27470	94,18
M 24 x 3,0	55 x 22	4R27474	94,18
M 27 x 3,0	65 x 25	4R27476	135,71
M 30 x 3,5	65 x 25	4R27478	135,71
M 33 x 3,5	65 x 25	4R27480	135,71
M 36 x 4,0	65 x 25	4R27482	135,71
M 39 x 4,0	75 x 30	4R27484	212,03
M 42 x 4,5	75 x 30	4R27486	212,03
M 45 x 4,5	90 x 36	4R27488	350,67
M 48 x 5,0	90 x 36	4R27490	350,67
M 52 x 5.,0	90 x 36	4R27492	350,67
M 56 x 5,5	105 x 36	4R27494	888,09
M 60 x 5,5	105 x 36	4R27496	888,09
M 64 x 6,0	120 x 36	4R27498	1.227,72
M 68 x 6,0	120 x 36	4R27499	1.227,72

DIN 223 = DIN EN 22568

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

DIÁMETRO EXTERIORES ESPECIALES
EXTERNAL ESPECIFIC DIAMETRES • DIMÉTRES EXTÉRIEURES SPÉCIALES

HSS-G | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 3 x 0,5	25 x 9	4R27826	**28,22**
M 4 x 0,7	25 x 9	4R27830	**28,22**
M 5 x 0,8	25 x 9	4R27834	**28,22**
M 6 x 1,0	25 x 9	4R27838	**28,22**
M 8 x 1,25	25 x 9	4R27842	**28,22**
M 10 x 1,50	25 x 9	4R27846	**28,22**
M 12 x 1,75	25 x 9	4R27850	**28,22**

HSS-G | TOL 6g | FORM A

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 3 x 0,50	25,4	4R27926	**28,22**
M 4 x 0,70	25,4	4R27930	**28,22**
M 5 x 0,80	25,4	4R27934	**28,22**
M 6 x 1,00	25,4	4R27938	**28,22**
M 8 x 1,25	25,4	4R27942	**28,22**
M 10 x 1,50	25,4	4R27946	**28,22**
M 12 x 1,75	25,4	4R27950	**28,22**
M 14 x 2,00	38,1	4R27954	**45,68**
M 16 x 2,00	38,1	4R27958	**45,68**
M 18 x 2,50	38,1	4R27962	**45,68**
M 20 x 2,50	38,1	4R27966	**45,68**

TOLERANCIA 6e SPECIAL TOLERANCE • TOLERANCE SPÉCIALE

HSS-G | DIN 223 | TOL 6e

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 3 x 0,50	20 x 5	4R27503	**30,49**
M 4 x 0,70	20 x 5	4R27505	**30,49**
M 5 x 0,80	20 x 7	4R27507	**30,49**
M 6 x 1,00	20 x 7	4R27509	**30,49**
M 8 x 1,25	25 x 9	4R27511	**30,50**
M 10 x 1,50	30 x 11	4R27513	**35,90**
M 12 x 1,75	38 x 14	4R27515	**45,00**
M 14 x 2,00	38 x 14	4R27516	**56,28**
M 16 x 2,00	45 x 18	4R27517	**95,94**
M 18 x 2,50	45 x 18	4R27518	**95,94**
M 20 x 2,50	45 x 18	4R27519	**95,94**

DIN 223 = DIN EN 22568

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

HSS-G | DIN 223 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 2,5 x 0,35	16 x 5	4R26404	41,93
M 2,6 x 0,35	16 x 5	4R26405	41,93
M 3,0 x 0,35	20 x 5	4R26408	38,20
M 3,5 x 0,35	20 x 5	4R26409	38,20
M 4,0 x 0,35	20 x 5	4R26410	38,20
M 4,0 x 0,50	20 x 5	4R26412	38,20
M 4,5 x 0,50	20 x 5	4R26413	38,20
M 5,0 x 0,50	20 x 5	4R26414	38,20
M 5,0 x 0,75	20 x 7	4R26416	38,20
M 5,5 x 0,50	20 x 5	4R26415	38,21
M 6,0 x 0,50	20 x 5	4R26417	38,20
M 6,0 x 0,75	20 x 7	4R26418	38,20
M 7,0 x 0,50	25 x 9	4R26419	38,20
M 7,0 x 0,75	25 x 9	4R26420	31,97
M 8,0 x 0,50	25 x 9	4R26422	38,20
M 8,0 x 0,75	25 x 9	4R26424	31,97
M 8,0 x 1,00	25 x 9	4R26426	31,97
M 9,0 x 0,50	25 x 9	4R26427	42,87
M 9,0 x 0,75	25 x 9	4R26428	42,87
M 9,0 x 1,00	25 x 9	4R26430	36,01
M 10,0 x 0,50	30 x 11	4R26431	44,60
M 10,0 x 0,75	30 x 11	4R26432	44,60
M 10,0 x 1,00	30 x 11	4R26436	43,19
M 10,0 x 1,25	30 x 11	4R26438	43,19
M 11,0 x 1,00	30 x 11	4R26440	53,15
M 11,0 x 1,25	30 x 11	4R26442	53,15
M 12,0 x 0,50	38 x 10	4R26445	53,15
M 12,0 x 0,75	38 x 10	4R26443	53,15
M 12,0 x 1,00	38 x 10	4R26444	54,89
M 12,0 x 1,25	38 x 10	4R26446	54,89
M 12,0 x 1,50	38 x 10	4R26448	53,15
M 13,0 x 0,50	38 x 10	4R26447	73,81
M 13,0 x 0,75	38 x 10	4R26449	73,80
M 13,0 x 1,00	38 x 10	4R26450	59,05
M 13,0 x 1,50	38 x 10	4R26451	59,05
M 14,0 x 0,50	38 x 10	4R26455	92,27
M 14,0 x 0,75	38 x 10	4R26452	92,28
M 14,0 x 1,00	38 x 10	4R26453	53,15
M 14,0 x 1,25	38 x 10	4R26454	53,15
M 14,0 x 1,50	38 x 10	4R26456	53,15
M 15,0 x 0,75	38 x 10	4R26457	95,95
M 15,0 x 1,00	38 x 10	4R26458	73,25
M 15,0 x 1,50	38 x 10	4R26460	73,25
M 16,0 x 0,50	45 x 14	4R26461	93,93
M 16,0 x 0,75	45 x 14	4R26463	93,93
M 16,0 x 1,00	45 x 14	4R26462	73,25
M 16,0 x 1,25	45 x 14	4R26464	73,25
M 16,0 x 1,50	45 x 14	4R26466	66,43
M 17,0 x 1,00	45 x 14	4R26468	115,73
M 17,0 x 1,50	45 x 14	4R26469	115,73

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 18 x 0,50	45 x 14	4R26467	115,74
M 18 x 0,75	45 x 14	4R26473	115,74
M 18 x 1,00	45 x 14	4R26470	66,43
M 18 x 1,25	45 x 14	4R26471	66,43
M 18 x 1,50	45 x 14	4R26472	68,01
M 18 x 2,00	45 x 14	4R26474	74,72
M 19 x 1,00	45 x 14	4R26475	115,74
M 19 x 1,50	45 x 14	4R26476	79,08
M 20 x 0,50	45 x 14	4R26477	115,74
M 20 x 0,75	45 x 14	4R26479	115,73
M 20 x 1,00	45 x 14	4R26478	74,72
M 20 x 1,25	45 x 14	4R26480	83,05
M 20 x 1,50	45 x 14	4R26484	68,01
M 20 x 2,00	45 x 14	4R26486	83,05
M 21 x 1,00	45 x 14	4R26487	118,55
M 21 x 1,50	45 x 14	4R26488	118,54
M 22 x 0,50	55 x 16	4R26489	165,90
M 22 x 0,75	55 x 16	4R26491	165,90
M 22 x 1,00	55 x 16	4R26490	116,24
M 22 x 1,25	55 x 16	4R26492	126,19
M 22 x 1,50	55 x 16	4R26494	128,13
M 22 x 2,00	55 x 16	4R26496	151,03
M 23 x 1,00	55 x 16	4R26497	165,90
M 23 x 1,50	55 x 16	4R26498	126,19
M 24 x 0,50	55 x 16	4R26601	165,90
M 24 x 0,75	55 x 16	4R26603	165,90
M 24 x 1,00	55 x 16	4R26600	116,24
M 24 x 1,25	55 x 16	4R26602	126,19
M 24 x 1,50	55 x 16	4R26604	116,24
M 24 x 2,00	55 x 16	4R26606	116,24
M 25 x 1,00	55 x 16	4R26607	141,15
M 25 x 1,50	55 x 16	4R26608	141,15
M 26 x 1,00	55 x 16	4R26610	141,15
M 26 x 1,50	55 x 16	4R26612	141,15
M 26 x 2,00	55 x 16	4R26614	141,15
M 27 x 1,00	65 x 18	4R26616	156,83
M 27 x 1,50	65 x 18	4R26617	156,83
M 27 x 2,00	65 x 18	4R26618	156,83
M 28 x 1,00	65 x 18	4R26620	156,83
M 28 x 1,50	65 x 18	4R26622	156,83
M 28 x 2,00	65 x 18	4R26624	156,83
M 29 x 1,50	65 x 18	4R26626	166,08
M 30 x 1,00	65 x 18	4R26628	166,08
M 30 x 1,50	65 x 18	4R26630	153,95
M 30 x 2,00	65 x 18	4R26632	166,08
M 30 x 2,50	65 x 18	4R26633	166,08
M 30 x 3,00	65 x 25	4R26634	166,08
M 32 x 1,00	65 x 18	4R26639	254,62
M 32 x 1,50	65 x 18	4R26636	153,95
M 32 x 2,00	65 x 18	4R26635	166,08

DIN 223 = DIN EN 22568

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

HSS-G | DIN 223 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 32 x 3,0	65 x 25	4R26637	**166,08**
M 33 x 1,5	65 x 18	4R26638	**153,95**
M 33 x 2,0	65 x 18	4R26640	**166,08**
M 33 x 3,0	65 x 25	4R26642	**166,08**
M 34 x 1,0	65 x 18	4R26643	**254,62**
M 34 x 1,5	65 x 18	4R26644	**162,51**
M 34 x 2,0	65 x 18	4R26646	**175,29**
M 35 x 1,0	65 x 18	4R26647	**254,62**
M 35 x 1,5	65 x 18	4R26648	**162,51**
M 35 x 2,0	65 x 18	4R26649	**254,62**
M 36 x 1,0	65 x 18	4R26651	**254,62**
M 36 x 1,5	65 x 18	4R26650	**164,08**
M 36 x 2,0	65 x 18	4R26652	**164,08**
M 36 x 3,0	65 x 25	4R26654	**172,86**
M 37 x 1,5	65 x 18	4R26653	**408,22**
M 38 x 1,0	75 x 20	4R26655	**408,22**
M 38 x 1,5	75 x 20	4R26656	**262,07**
M 38 x 2,0	75 x 20	4R26657	**262,07**
M 38 x 3,0	75 x 30	4R26659	**408,21**
M 39 x 1,5	75 x 20	4R26658	**250,38**
M 39 x 2,0	75 x 20	4R26660	**250,38**
M 39 x 3,0	75 x 30	4R26662	**250,38**
M 40 x 1,0	75 x 20	4R26663	**288,26**
M 40 x 1,5	75 x 20	4R26664	**250,38**
M 40 x 2,0	75 x 20	4R26666	**250,38**
M 40 x 3,0	75 x 30	4R26668	**250,37**
M 42 x 1,0	75 x 20	4R26669	**288,26**
M 42 x 1,5	75 x 20	4R26670	**250,38**
M 42 x 2,0	75 x 20	4R26672	**250,38**
M 42 x 3,0	75x30	4R26674	**250,38**
M 44 x 1,5	90 x 22	4R26671	**556,29**
M 44 x 2,0	90 x 22	4R26673	**556,29**
M 45 x 1,0	90 x 22	4R26675	**556,29**
M 45 x 1,5	90 x 22	4R26676	**411,82**
M 45 x 2,0	90 x 22	4R26678	**411,82**
M 45 x 3,0	90 x 22	4R26680	**411,82**
M 46 x 1,5	90 x 22	4R26681	**556,29**
M 48 x 1,0	90 x 22	4R26683	**556,29**
M 48 x 1,5	90 x 22	4R26682	**411,82**
M 48 x 2,0	90 x 22	4R26684	**411,82**
M 48 x 3,0	90 x 36	4R26686	**411,82**
M 50 x 1,5	90 x 22	4R26688	**411,82**
M 50 x 2,0	90 x 22	4R26690	**411,82**
M 50 x 3,0	90 x 36	4R26692	**411,82**
M 52 x 1,5	90 x 22	4R26694	**411,81**
M 52 x 2,0	90 x 22	4R26696	**411,82**
M 52 x 3,0	90 x 36	4R26698	**411,82**
M 54 x 1,0	105 x 22	4R28267	**886,00**
M 54 x 1,5	105 x 22	4R28150	**811,48**
M 54 x 2,0	105 x 22	4R28151	**811,48**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 54 x 3,0	105 x 36	4R28152	**811,48**
M 54 x 4,0	105 x 36	4R28153	**811,48**
M 55 x 1,5	105 x 22	4R28154	**811,48**
M 55 x 2,0	105 x 22	4R28155	**811,48**
M 55 x 3,0	105 x 36	4R28156	**811,48**
M 55 x 4,0	105 x 36	4R28157	**811,48**
M 56 x 1,0	105 x 22	4R28268	**886,00**
M 56 x 1,5	105 x 22	4R28158	**886,00**
M 56 x 2,0	105 x 22	4R28159	**886,00**
M 56 x 3,0	105 x 36	4R28160	**886,00**
M 56 x 4,0	105 x 36	4R28161	**886,00**
M 58 x 1,0	105 x 22	4R28269	**886,00**
M 58 x 1,5	105 x 22	4R28162	**886,00**
M 58 x 2,0	105 x 22	4R28163	**886,00**
M 58 x 3,0	105 x 36	4R28164	**886,00**
M 58 x 4,0	105 x 36	4R28165	**886,00**
M 60 x 1,5	105 x 22	4R28166	**886,00**
M 60 x 2,0	105 x 22	4R28167	**886,00**
M 60 x 3,0	105 x 36	4R28168	**886,00**
M 60 x 4,0	105 x 36	4R28169	**886,00**
M 62 x 1,5	105 x 22	4R28170	**811,48**
M 62 x 2,0	105 x 22	4R28171	**811,48**
M 62 x 3,0	105 x 36	4R28172	**886,00**
M 62 x 4,0	105 x 36	4R28173	**886,00**
M 63 x 1,5	105 x 22	4R28174	**811,48**
M 64 x 1,5	120 x 22	4R28175	**1.112,40**
M 64 x 2,0	120 x 22	4R28176	**1.112,40**
M 64 x 3,0	120 x 36	4R28177	**1.239,21**
M 64 x 4,0	120 x 36	4R28178	**1.239,21**
M 65 x 1,5	120 x 22	4R28179	**1.112,40**
M 65 x 2,0	120 x 22	4R28180	**1.112,40**
M 65 x 3,0	120 x 36	4R28181	**1.239,21**
M 65 x 4,0	120 x 36	4R28182	**1.239,21**
M 68 x 1,5	120 x 22	4R28183	**1.112,40**
M 68 x 2,0	120 x 22	4R28184	**1.112,40**
M 68 x 3,0	120 x 36	4R28185	**1.239,21**
M 68 x 4,0	120 x 36	4R28186	**1.239,21**
M 70 x 1,5	120 x 22	4R28187	**1.112,40**
M 70 x 2,0	120 x 22	4R28188	**1.112,40**
M 70 x 3,0	120 x 36	4R28189	**1.239,21**
M 70 x 4,0	120 x 36	4R28190	**1.239,21**
M 72 x 1,5	120 x 22	4R28191	**1.112,40**
M 72 x 2,0	120 x 22	4R28192	**1.112,40**
M 72 x 3,0	120 x 36	4R28193	**1.239,21**
M 72 x 4,0	120 x 36	4R28194	**1.239,21**
M 74 x 1,5	120 x 22	4R28195	**1.112,40**
M 74 x 2,0	120 x 22	4R28196	**1.112,40**
M 74 x 3,0	120 x 36	4R28197	**1.239,21**
M 74 x 4,0	120 x 36	4R28198	**1.239,21**
M 75 x 1,5	120 x 22	4R28199	**1.112,40**

DIN 223 = DIN EN 22568

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

HSS-G | DIN 223 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 75 x 2,0	120 x 22	4R28200	**1.112,40**
M 75 x 3,0	120 x 36	4R28201	**1.239,21**
M 75 x 4,0	120 x 36	4R28202	**1.239,21**
M 76 x 1,5	120 x 22	4R28203	**1.112,40**
M 76 x 2,0	120 x 22	4R28204	**1.112,40**
M 76 x 3,0	120 x 36	4R28205	**1.239,21**
M 76 x 4,0	120 x 36	4R28206	**1.239,21**
M 78 x 1,5	120 x 22	4R28207	**1.112,40**
M 78 x 2,0	120 x 22	4R28208	**1.112,40**
M 78 x 3,0	120 x 36	4R28209	**1.239,21**
M 78 x 4,0	120 x 36	4R28210	**1.239,21**
M 80 x 1,5	120 x 22	4R28211	**1.112,40**
M 80 x 2,0	120 x 22	4R28212	**1.112,40**
M 80 x 3,0	120 x 36	4R28213	**1.239,21**
M 80 x 4,0	120 x 36	4R28214	**1.239,21**
M 82 x 1,5	130 x 25	4R28215	**1.385,15**
M 82 x 2,0	130 x 25	4R28216	**1.385,15**
M 82 x 3,0	130 x 36	4R28217	**1.514,73**
M 82 x 4,0	130 x 36	4R28218	**1.514,73**
M 84 x1,5	130 x 25	4R28219	**1.385,15**
M 84 x 2,0	130 x 25	4R28220	**1.385,15**
M 84 x 3,0	130 x 36	4R28221	**1.514,73**
M 84 x 4,0	130 x 36	4R28222	**1.514,73**
M 85 x 1,5	130 x 25	4R28223	**1.385,15**
M 85 x 2,0	130 x 25	4R28224	**1.385,15**
M 85 x 3,0	130 x 36	4R28225	**1.514,73**
M 85 x 4,0	130 x 36	4R28226	**1.514,73**
M 86 x 1,5	140 x 22	4R28227	**1.578,47**
M 86 x 2,0	140 x 22	4R28228	**1.578,47**
M 86 x 3,0	140 x 22	4R28229	**1.578,47**
M 86 x 4,0	140 x 22	4R28230	**1.578,47**
M 88 x 1,5	140 x 22	4R28231	**1.578,47**
M 88 x 2,0	140 x 22	4R28232	**1.578,47**
M 88 x 3,0	140 x 22	4R28233	**1.578,47**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 88 x 4,0	140 x 22	4R28234	**1.578,47**
M 90 x 1,5	140 x 22	4R28235	**1.578,47**
M 90 x 2,0	140 x 22	4R28236	**1.578,47**
M 90 x 3,0	140 x 22	4R28237	**1.578,47**
M 90 x 4,0	140 x 22	4R28238	**1.578,47**
M 92 x 1,5	140 x 22	4R28239	**1.578,47**
M 92 x 2,0	140 x 22	4R28240	**1.578,47**
M 92 x 3,0	140 x 22	4R28241	**1.578,47**
M 92 x 4,0	140 x 22	4R28242	**1.578,47**
M 95 x 1,5	140 x 22	4R28243	**1.578,47**
M 95 x 2,0	140 x 22	4R28244	**1.578,47**
M 95 x 3,0	140 x 22	4R28245	**1.578,47**
M 95 x 4,0	140 x 22	4R28246	**1.578,47**
M 96 x 1,5	140 x 22	4R28247	**1.578,47**
M 96 x 2,0	140 x 22	4R28248	**1.578,47**
M 96 x 3,0	140 x 22	4R28249	**1.578,47**
M 96 x 4,0	140 x 22	4R28250	**1.578,47**
M 98 x 1,5	150 x 25	4R28251	**1.931,00**
M 98 x 2,0	150 x 25	4R28252	**1.931,00**
M 98 x 3,0	150 x 25	4R28253	**1.931,00**
M 98 x 4,0	150 x 25	4R28254	**1.931,00**
M 100 x 1,5	150 x 25	4R28255	**1.931,00**
M 100 x 2,0	150 x 25	4R28256	**1.931,00**
M 100 x 3,0	150 x 25	4R28257	**1.931,00**
M 100 x 4,0	150 x 25	4R28258	**1.931,00**
M 105 x 1,5	150 x 25	4R28259	**1.931,00**
M 105 x 2,0	150 x 25	4R28260	**1.931,00**
M 105 x 3,0	150 x 25	4R28261	**1.931,00**
M 105 x 4,0	150 x 25	4R28262	**1.931,00**
M 110 x 1,5	160 x 25	4R28263	**2.263,31**
M 110 x 2,0	160 x 25	4R28264	**2.263,31**
M 110 x 3,0	160 x 25	4R28265	**2.263,31**
M 110 x 4,0	160 x 25	4R28266	**2.263,31**

DIN 223 = DIN EN 22568

BSW ROSCA WITHWORTH BS 84
WITHWORTH THREAD BS 84
FILETAGE WHITWORTH BS 84

HSS-G | DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSW 1/16 x 60	16 x 5	4R22402	41,52
BSW 3/32 x 48	16 x 5	4R22404	48,17
BSW 1/8 x 40	20 x 5	4R22406	41,52
BSW 5/32 x 32	20 x 5	4R22408	41,52
BSW 3/16 x 24	20 x 7	4R22410	41,52
BSW 7/32 x 24	20 x 7	4R22412	41,52
BSW 1/4 x 20	20 x 7	4R22414	42,62
BSW 5/16 x 18	25 x 9	4R22416	42,62
BSW 3/8 x 16	30 x 11	4R22418	42,62
BSW 7/16 x 14	30 x 11	4R22420	42,62
BSW 1/2 x 12	38 x 14	4R22422	51,15
BSW 9/16 x 12	38 x 14	4R22424	59,69
BSW 5/8 x 11	45 x 18	4R22426	68,20
BSW 3/4 x 10	45 x 18	4R22430	68,20
BSW 7/8 x 9	55 x 22	4R22434	102,31

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSW 1 x 8	55 x 22	4R22438	102,31
BSW 1.1/8 x 7	65 x 25	4R22442	170,53
BSW 1.1/4 x 7	65 x 25	4R22446	170,53
BSW 1.3/8 x 6	65 x 25	4R22450	170,53
BSW 1.1/2 x 6	65 x 25	4R22452	170,53
BSW 1.1/2 x 6	75 x 30	4R22454	269,43
BSW 1.5/8 x 5	75 x 30	4R22458	272,82
BSW 1.3/4 x 5	90 x 36	4R22462	392,19
BSW 1.7/8 x 4.1/2	90 x 36	4R22466	409,24
BSW 2 x 4.1/2	90 x 36	4R22470	409,24
BSW 2.1/4 x 4	105 x 36	4R22472	1.326,14
BSW 2.1/2 x 4	105 x 36	4R22474	1.326,14
BSW 2.3/4 x 3.1/2	120 x 36	4R22476	1.629,26
BSW 3 x 3.1/2	120 x 36	4R22478	1.629,26

DIN 223 = DIN EN 22568

BSF ROSCA BRITÁNICA STANDARD FINA BS 84
BRITISH STANDARD FINE THREAD BS 84
FILETAGE BRITANIQUE BSF, BS 84

HSS-G | DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSF 3/16 x32	20 x 7	4R22810	**45,22**
BSF 1/4 x26	20 x 7	4R22814	**45,22**
BSF 5/16 x 22	25 x 9	4R22816	**45,22**
BSF 3/8 x 20	30 x 11	4R22818	**49,34**
BSF 7/16 x 18	30 x 11	4R22820	**45,22**
BSF 1/2 x 16	38 x 10	4R22822	**67,84**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSF 9/16 x 16	38 x 10	4R22824	**71,97**
BSF 5/8 x 14	45 x 14	4R22826	**103,09**
BSF 3/4 x 12	45 x 14	4R22830	**103,09**
BSF 7/8 x 11	55 x 22	4R22834	**127,50**
BSF 1" x 10	55 x 20	4R22838	**127,50**

DIN 223 = DIN EN 22568

BA ROSCA BA, BS 93
BA THREAD BS93
FILÉTAGE BA, BS 93

HSS-G | BS1127 | FORM A

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BA 0	20.6 x 6.35	4R89000	**36,90**
BA 1	20.6 x 6.35	4R89001	**36,90**
BA 2	20.6 x 6.35	4R89002	**36,90**
BA 3	20.6 x 6.35	4R89003	**36,90**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BA 4	20.6 x 6.35	4R89004	**36,90**
BA 5	20.6 x 6.35	4R89005	**36,90**
BA 6	20.6 x 6.35	4R89006	**36,90**

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1.
UNIFIED COARSE THREAD, ANSI B.1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1

HSS-G | DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
Nr. 1 x 64	16 x 5	4R23401	51,49
Nr. 2 x 56	16 x 5	4R23402	51,49
Nr. 3 x 48	16 x 5	4R23403	51,49
Nr. 4 x 40	20 x 5	4R23404	37,52
Nr. 5 x 40	20 x 5	4R23405	37,53
Nr. 6 x 32	20 x 7	4R23406	37,53
Nr. 8 x 32	20 x 7	4R23408	37,53
Nr. 10 x 24	20 x 7	4R23410	37,53
Nr. 12 x 24	20 x 7	4R23412	37,53
Nr. 1/4 x 20	20 x 7	4R23414	37,53
Nr. 5/16 x 18	25 x 9	4R23416	37,53
Nr. 3/8 x 16	30 x 11	4R23418	37,53
Nr. 7/16 x 14	30 x 11	4R23420	45,66
Nr. 1/2 x 13	38 x 14	4R23422	45,66

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
9/16 x 12	38 x 14	4R23424	55,45
5/8 x 11	45 x 18	4R23426	73,40
3/4 x 10	45 x 18	4R23430	73,40
7/8 x 9	55 x 22	4R23434	106,03
1 x 8	55 x 22	4R23438	106,03
1.1/8 x 7	65 x 25	4R23442	163,11
1.1/4 x 7	65 x 25	4R23446	163,11
1.3/8 x 6	65 x 25	4R23450	163,11
1.1/2 x 6	65 x 25	4R23452	163,11
1.1/2 x 6	75 x 30	4R23454	326,21
1.5/8 x 5	75 x 30	4R23458	326,21
1.3/4 x 5	90 x 36	4R23462	489,32
1.7/8 x 4.1/2	90 x 36	4R23466	489,31
2 x 4.1/2	90 x 36	4R23470	489,31

DIN 223 = DIN EN 22568

UNF ROSCA FINA UNIFICADA ANSI B.1.1
UNIFIED FINE THREAD, ANSI B.1.1
FILETAGE UNIFIED À PAS FINE ANSI B 1.1

HSS-G | DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
Nr. 0 x 80	16 x 5	4R24400	**52,43**
Nr. 1 x 72	16 x 5	4R24401	**52,43**
Nr. 2 x 64	16 x 5	4R24402	**52,43**
Nr. 3 x 56	16 x 5	4R24403	**63,40**
Nr. 4 x 48	20 x 5	4R24404	**38,20**
Nr. 5 x 44	20 x 5	4R24405	**38,20**
Nr. 6 x 40	20 x 5	4R24406	**38,20**
Nr. 8 x 36	20 x 7	4R24408	**38,20**
Nr. 10 x 32	20 x 7	4R24410	**38,20**
Nr. 12 x 28	20 x 7	4R24412	**38,20**
Nr. 1/4 x 28	20 x 7	4R24414	**38,20**
Nr. 5/16 x 24	25 x 9	4R24416	**39,23**
Nr. 3/8 x 24	30 x 11	4R24418	**39,23**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
7/16 x 20	30 x 11	4R24420	**42,62**
1/2 x 20	38 x 10	4R24422	**51,15**
9/16 x 18	38 x 10	4R24424	**59,69**
5/8 x 18	45 x 14	4R24426	**76,72**
3/4 x 16	45 x 14	4R24430	**76,72**
7/8 x 14	55 x 16	4R24434	**102,31**
1 x12	55 x 16	4R24438	**102,31**
1 x14	55 x 16	4R24440	**102,31**
1.1/8 x 12	65 x 18	4R24442	**170,53**
1.1/4 x 12	65 x 18	4R24446	**170,53**
1.3/8 x 12	65 x 18	4R24450	**170,53**
1.1/2 x 12	65 x 18	4R24452	**170,53**
1.1/2 x 12	75 x 20	4R24454	**272,82**

DIN 223 = DIN EN 22568

UNEF ROSCA EXTRA FINA UNIFICADA ANSI B.1.1
UNIFIED EXTRA FINE THREAD, ANSI B.1.1
FILETAGE UNIFIÉ PAS EXTRA FIN ANSI B.1.1

HSS-G | DIN 223

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
UNEF Nr. 12 x 32	20 x 7	4R24612	**46,12**
UNEF 1/4 x 32	20 x 7	4R24614	**46,12**
UNEF 5/16 x 32	25 x 9	4R24615	**58,71**
UNEF 3/8 x 32	30 x 11	4R24616	**67,09**
UNEF 7/16 x 28	30 x 11	4R24620	**67,09**
UNEF 1/2 x 28	38 x 10	4R24621	**100,65**
UNEF 9/16 x 24	25 x 9	4R24625	**100,65**
UNEF 5/8 x 24	30 x 11	4R24626	**159,35**
UNEF 11/16 x 24	25 x 9	4R24627	**159,35**
UNEF 3/4 x 20	30 x 11	4R24633	**159,35**
UNEF 13/16 x 20	55 x 16	4R24634	**188,70**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
UNEF 7/8 x 20	55 x 16	4R24635	**188,70**
UNEF 15/16 x 20	55 x 16	4R24636	**188,70**
UNEF 1 x 20	55 x 16	4R24637	**188,70**
UNEF 1.1/16 x 18	65 x 18	4R24645	**301,92**
UNEF 1.1/8 x 18	65 x 18	4R24646	**301,92**
UNEF 1.3/16 x 18	65 x 18	4R24647	**301,92**
UNEF 1.1/4 x 18	65 x 18	4R24648	**301,92**
UNEF 1.5/16 x 18	65 x 18	4R24649	**301,92**
UNEF 1.3/8 x 18	65 x 18	4R24650	**301,92**
UNEF 1.7/16 x 18	75 x 20	4R24651	**377,40**
UNEF 1.1/2 x 18	75 x 20	4R24652	**377,40**

DIN 223 = DIN EN 22568

G(BSP)

ROSCA FINA UNIFICADA ANSI B.1.1
UNIFIED FINE THREAD, ANSI B.1.1
FILETAGE PAS GAZ DIN ISO 228

HSS-G | DIN 5158

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
G 1/8 x 28	30 x 11	4R25412	**49,81**
G 1/4 x 19	38 x 10	4R25414	**46,50**
G 3/8 x 19	45 x 14	4R25416	**66,43**
G 1/2 x 14	45 x 14	4R25418	**66,43**
G 5/8 x 14	55 x 16	4R25420	**99,65**
G 3/4 x 14	55 x 16	4R25422	**108,49**
G 7/8 x 14	65 x 18	4R25424	**149,82**
G 1 x 11	65 x 18	4R25426	**149,82**
G 1.1/8 x 11	75 x 20	4R25430	**204,60**
G 1.1/4 x 11	75 x 20	4R25434	**204,60**
G 1.3/8 x 11	90 x 22	4R25438	**339,57**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
G 1.1/2 x 11	90 x 22	4R25442	**339,57**
G 1.5/8 x 11	90 x 22	4R25446	**339,57**
G 1.3/4 x 11	105 x 22	4R25450	**574,59**
G 2 x 11	90 x 22	4R25452	**362,55**
G 2 x 11	105 x 22	4R25454	**648,42**
G 2.1/4 x 11	120 x 22	4R25458	**1.224,79**
G 2.1/2 x 11	120 x 22	4R25462	**1.224,79**
G 2.3/4 x 11	120 x 22	4R25466	**1.224,79**
G 3 x 11	130 x 25	4R25470	**1.385,15**
G 3.1/2 x 11	150 x 25	4R25474	**2.169,60**
G 4 x 11	160 x 25	4R25478	**2.799,47**

DIN 223 = DIN EN 22568

R(BSPT)

ROSCA INGLESA PARA TUBO, CONICIDAD 1:16
TAPERED PIPE THREAD, TAPER 1:16
FILETAGE PAS GAZ CONIQUE, CONICITÉ 1:16

HSS-G | FORM A

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
PT 1/8 x 28	38 x 11	4R97006	**58,02**
PT 1/4 x 19	38 x 16	4R97014	**58,02**
PT 3/8 x 19	50 x 18	4R97020	**119,26**
PT 1/2 x 14	50 x 22	4R97022	**119,26**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
PT 3/4 x 14	50 x 24	4R97030	**119,26**
PT 1 x 11	63 x 28	4R97040	**198,95**
PT 1.1/4 x 11	75 x 32	4R97048	**268,57**

PG

ROSCA PARA TUBOS BLINDADOS DIN 40 430
ARMOURED TUBE THREAD DIN 40 430
FILETAGE ÉLECTRIQUE DIN 40 430

HSS-G | DIN 40434

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
PG 7 x 20	38 x 10	4R25807	**97,51**
PG 9 x 18	45 x 14	4R25809	**119,01**
PG 11 x 18	45 x 14	4R25811	**121,03**
PG 13.5 x 18	45 x 14	4R25813	**121,03**
PG 16 x 18	55 x 16	4R25816	**140,92**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
PG 21 x 16	65 x 18	4R25821	**218,11**
PG 29 x 16	65 x 18	4R25829	**218,11**
PG 36 x 16	90 x 22	4R25836	**679,09**
PG 42 x 16	105 x 22	4R25842	**888,09**
PG 48 x 16	105 x 22	4R25848	**888,09**

NPT

ROSCA AMERICANA PARA TUBO, CONICIDAD 1:16
AMERICAN TAPERED PIPE THREAD, TAPER 1:16
FILETAGE NPT CONICITÉ 1:16

HSS-G

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
NPT 1/16 x 27	25 x 9	4R23610	**96,81**
NPT 1/8 x 27	30 x 11	4R23612	**104,56**
NPT 1/4 x 18	38 x 14	4R23614	**109,91**
NPT 3/8 x 18	45 x 14	4R23616	**142,53**
NPT 1/2 x 14	45 x 18	4R23618	**142,53**
NPT 5/8 x 14	55 x 22	4R23620	**257,03**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
NPT 3/4 x 14	55 x 22	4R23622	**193,63**
NPT 7/8 x 14	65 x 25	4R23624	**376,22**
NPT 1 x 11.5	65 x 25	4R23626	**265,36**
NPT 1.1/4 x 11.5	75 x 26	4R23634	**366,95**
NPT 1.1/2 x 11.5	90 x 27	4R23642	**592,78**
NPT 2 x 11.5	105 x 28	4R23654	**813,90**

DIN 223 = DIN EN 22568

VG

PARA ROSCAS DE VÁLVULAS DE NEUMÁTICO
FOR TIRE VALVES THREADS
POUR LES VALVES DES PNEUMATIQUES

HSS-G TOL 6g

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
VG 5 X 36	20 x 7	4R21501	**345,90**
VG 5,2 X 24	20 x 7	4R21502	**370,61**
VG 6 X 32	20 x 7	4R21503	**394,34**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
VG 8 X 32	25 x 9	4R21504	**395,31**
VG 10 X 28	30 x 11	4R21505	**444,73**
VG 12 X 26	30 x 11	4R21506	**543,57**

BSC

PARA EJES DE PEDALIER
FOR BOTTOM BRACKET
POUR PÉDALIER VÉLO

HSS-G TOL 6g

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSC 1/4" X 26	20,6 X 6,35	4R21507	*
BSC 5/16" X 26	25,4 X 9,5	4R21508	*
BSC 3/8" X 26	25,4 X 9,5	4R21509	*

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSC 9/16" X 20 R	38,1 X 12,7	4R21510	*
BSC 9/16" X 20 L	38,1 X 12,7	4R21511	*
BSC 1" X 24	55 X 16	4R21512	*

* Consultar precio y disponibilidad / Request price and availability / Consulter le prix et le disponibilité

NPTF

ROSCA AMERICANA PARA TUBO, CONICIDAD 1:16
AMERICAN TAPERED PIPE THREAD, TAPER 1:16
FILETAGE NPT CONICITÉ 1:16

HSS-G

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
NPTF 1/8 x 27	50 x 11	4R98072	**120,67**
NPTF 1/4 x 18	50 x 14	4R98074	**120,67**
NPTF 3/8 x 18	50 x 14	4R98076	**120,67**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
NPTF 1/2 x 14	50 x 18	4R98078	**120,67**
NPTF 3/4 x 14	50 x 22	4R98080	**120,67**
NPTF 1 x 11.5	50 x 25	4R98082	**120,67**

DIN 223 = DIN EN 22568

M

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

HSS-CO 5% | DIN 223 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 3 x 0,50	20 x 5	4R57426	**38,38**
M 4 x 0,70	20 x 5	4R57430	**38,38**
M 5 x 0,80	20 x 7	4R57434	**38,38**
M 6 x 1,00	20 x 7	4R57438	**38,38**
M 8 x 1,25	25 x 9	4R57442	**43,92**
M 10 x 1,50	30 x 11	4R57446	**58,72**
M 12 x 1,75	38 x 14	4R57450	**70,03**
M 14 x 2,00	38 x 14	4R57454	**70,03**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 16 x 2,0	45 x 18	4R57458	**122,91**
M 18 x 2,5	45 x 18	4R57462	**122,91**
M 20 x 2,5	45 x 18	4R57466	**122,91**
M 22 x 2,5	55 x 22	4R57470	**195,15**
M 24 x 3,0	55 x 22	4R57474	**195,15**
M 27 x 3,0	65 x 25	4R57476	**284,76**
M 30 x 3,5	65 x 25	4R57478	**284,76**

DIN 223 = DIN EN 22568

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

HSS-CO 5% | DIN 223 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 6 x 0,75	20 x 7	4R56418	**49,90**
M 8 x 0,75	25 x 9	4R56424	**41,76**
M 8 x 1,00	25 x 9	4R56426	**41,76**
M 10 x 1,00	30 x 11	4R56436	**56,94**
M 10 x 1,25	30 x 11	4R56438	**56,94**
M 12 x 1,00	38 x 10	4R56444	**78,22**
M 12 x 1,25	38 x 10	4R56446	**78,22**
M 12 x 1,50	38 x 10	4R56448	**78,22**
M 14 x 1,25	38 x 10	4R56454	**78,22**
M 14 x 1,5	38 x 10	4R56456	**78,22**
M 16 x 1,5	45 x 14	4R56466	**124,20**
M 18 x 1,5	45 x 14	4R56472	**125,35**
M 18 x 2,0	45 x 14	4R56474	**126,29**
M 20 x 1,5	45 x 14	4R56484	**124,20**
M 20 x 2,0	45 x 14	4R56486	**129,06**
M 22 x 1,5	55 x 16	4R56494	**215,11**
M 24 x 1,5	55 x 16	4R56604	**215,11**

DIN 223 = DIN EN 22568

G(BSP) ROSCA GAS DIN ISO 228
PIPE TRHEAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228

HSS-CO 5% | DIN 5158

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
G 1/8 x 28	30 x 11	4R55412	**79,92**
G 1/4 x 19	38 x 10	4R55414	**74,59**
G 3/8 x 19	45 x 14	4R55416	**112,70**
G 1/2 x 14	45 x 14	4R55418	**112,70**
G 3/4 x 14	55 x 16	4R55422	**187,94**
G 1 x 11	65 x 18	4R55426	**284,76**

DIN 5158 = DIN EN 24231

MÉTRICA ISO-ROSCA DIN 13 IZQUIERDAS
METRIC ISO THREAD DIN 13 LEFT HAND
MÉTRIQUE DIN-13 Á GAUCHE

HSS-G | DIN 223 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 2 x 0,40	16 x 5	4R27216	**71,77**
M 3 x 0,50	20 x 5	4R27226	**55,45**
M 4 x 0,70	20 x 5	4R27230	**55,45**
M 5 x 0,80	20 x 7	4R27234	**55,45**
M 6 x 1,00	20 x 7	4R27238	**55,45**
M 8 x 1,25	25 x 9	4R27242	**56,88**
M 10 x 1,50	30 x 11	4R27246	**65,28**
M 12 x 1,75	38 x 14	4R27250	**75,02**
M 14 x 2,00	38 x 14	4R27254	**75,02**
M 16 x 2,00	45 x 18	4R27258	**127,90**
M 18 x 2,50	45 x 18	4R27262	**127,90**
M 20 x 2,50	45 x 18	4R27266	**127,90**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 22 x 2,5	55 x 22	4R27270	**188,35**
M 24 x 3,0	55 x 22	4R27274	**188,35**
M 27 x 3,0	65 x 25	4R27276	**271,43**
M 30 x 3,5	65 x 25	4R27278	**271,42**
M 33 x 3,5	65 x 25	4R27280	**271,43**
M 36 x 4,0	65 x 25	4R27282	**271,43**
M 39 x 4,0	75 x 30	4R27284	**424,07**
M 42 x 4,5	75 x 30	4R27286	**424,07**
M 45 x 4,5	90 x 36	4R27288	**701,36**
M 48 x 5,0	90 x 36	4R27290	**701,36**
M 52 x 5,0	90 x 36	4R27292	**701,36**

DIN 223 = DIN EN 22568

Mf MÉTRICA FINA ISO ROSCA DIN 13 IZQUIERDAS
METRIC FINE ISO THREAD DIN 13 LEFT HAND
MÉTRIQUE FIN ISO DIN-13 Á GAUCHE

HSS-G | DIN 223 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 6 x 0,75	20 x 7	4R26207	**75,05**
M 8 x 0,75	25 x 9	4R26210	**62,79**
M 8 x 1,00	25 x 9	4R26211	**62,80**
M 10 x 1,00	30 x 11	4R26215	**84,85**
M 10 x 1,25	30 x 11	4R26216	**84,85**
M 12 x 1,00	38 x 10	4R26220	**107,84**
M 12 x 1,25	38 x 10	4R26221	**107,84**
M 12 x 1,50	38 x 10	4R26222	**107,85**
M 14 x 1,25	38 x 10	4R26227	**107,85**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 14 x 1,5	38 x 10	4R26228	**107,85**
M 16 x 1,0	45 x 14	4R26231	**133,61**
M 16 x 1,5	45 x 14	4R26233	**133,61**
M 18 x 1,5	45 x 14	4R26236	**133,60**
M 20 x 1,5	45 x 14	4R26240	**133,60**
M 22 x 1,5	55 x 16	4R26245	**228,36**
M 24 x 1,5	55 x 16	4R26250	**228,36**
M 24 x 2,0	55 x 16	4R26251	**228,36**
M 30 x 2,0	65 x 18	4R26264	**326,21**

DIN 223 = DIN EN 22568

BSW ROSCA WITHWORTH BS 84 IZQUIERDAS
WITHWORTH THREAD BS 84 LEFT HAND
FILETAGE WHITWORTH BS 84 A GAUCHE

HSS-G | DIN 223

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
1/8 x 40	**20 x 5**	4R22206	**81,56**
5/32 x 32	**20 x 5**	4R22208	**81,56**
3/16 x 24	**20 x 7**	4R22210	**81,56**
1/4 x 20	**20 x 7**	4R22214	**81,56**
5/16 x 18	**25 x 9**	4R22216	**81,56**
3/8 x 16	**30 x 11**	4R22218	**81,56**
7/16 x 14	**30 x 11**	4R22220	**81,56**

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
1/2 x 12	**38 x 14**	4R22222	**99,65**
9/16 x 12	**38 x 14**	4R22224	**114,16**
5/8 x 11	**45 x18**	4R22226	**130,49**
3/4 x 10	**45 x 18**	4R22230	**130,49**
7/8 x 9	**55 x 22**	4R22234	**199,28**
1 x 8	**55 x 22**	4R22238	**199,28**

DIN 223 = DIN EN 22568

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1. IZQUIERDAS
UNIFIED COARSE THREAD, ANSI B.1.1 LEFT HAND
FILETAGE UNIFIED GROSSE ANSI B 1.1 A GAUCHE

HSS-G | DIN 223

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
UNC Nr. 6 x 32	20 x 7	4R23206	**81,17**
UNC Nr. 8 x 32	20 x 7	4R23208	**81,17**
UNC Nr.10 x 32	20 x 7	4R23210	**81,17**
UNC 1/4 x 20	20 x 7	4R23214	**81,17**
UNC 5/16 x 18	25 x 9	4R23216	**81,17**
UNC 3/8 x 16	30 x 11	4R23218	**81,17**
UNC 7/16 x 14	38 x 14	4R23220	**98,79**

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
UNC 1/2 x 13	38 x 14	4R23222	**98,79**
UNC 9/16 x 12	38 x 14	4R23224	**119,95**
UNC 5/8 x 11	45 x 18	4R23226	**158,76**
UNC 3/4 x 10	45 x 18	4R23230	**158,76**
UNC 7/8 x 9	55 x 22	4R23234	**229,35**
UNC 1 x 8	55 x 22	4R23238	**229,35**

DIN 223 = DIN EN 22568

UNF ROSCA FINA UNIFICADA ANSI B.1.1 IZQUIERDAS
UNIFIED FINE THREAD, ANSI B.1.1 LEFT HAND
FILETAGE UNIFIED GROSSE ANSI B 1.1 A GAUCHE

HSS-G | DIN 223

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
UNF Nr. 10 x 32	20 x 7	4R24210	81,17
UNF 1/4 x 28	20 x 7	4R24214	81,17
UNF 5/16 x 24	25 x 9	4R24216	81,17
UNF 3/8 x 24	30 x 11	4R24218	81,17
UNF 7/16 x 20	30 x 11	4R24220	88,20
UNF 1/2 x 20	38 x 10	4R24222	105,84

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
UNF 9/16 x 18	38 x 10	4R24224	123,51
UNF 5/8 x 18	45 x 14	4R24226	158,76
UNF 3/4 x 16	45 x 14	4R24230	158,76
UNF 7/8 x 14	55 x 16	4R24234	211,71
UNF 1 x 12	55 x 16	4R24238	211,71

DIN 223 = DIN EN 22568

G(BSP) ROSCA GAS DIN ISO 228 IZQUIERDAS
PIPE TRHEAD DIN ISO 228 LEFT HAND
FILETAGE PAS GAZ DIN ISO 228 A GAUCHE

HSS-G | DIN 5158

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
G 1/8 x 28	30 x 11	4R25212	105,86
G 1/4 x 19	38 x 10	4R25214	121,62
G 3/8 x 19	45 x 14	4R25216	141,14
G 1/2 x 14	45 x 14	4R25218	141,14
G 5/8 x 14	55 x 16	4R25220	211,70
G 3/4 x 14	55 x 16	4R25222	218,75
G 7/8 x 14	65 x 18	4R25224	318,30
G 1 x 11	65 x 18	4R25226	318,30

D Ø x P (“)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
G 1.1/8 x 11	75 x 20	4R25230	434,68
G 1.1/4 x 11	75 x 20	4R25234	434,68
G 1.3/8 x 11	90 x 22	4R25238	671,81
G 1.1/2 x 11	90 x 22	4R25242	671,81
G 1.5/8 x 11	90 x 22	4R25246	671,81
G 1.3/4 x 11	105 x 22	4R25250	1.017,37
G 2 x 11	105 x 22	4R25254	1.054,97

DIN 5158 = DIN EN 24231

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

HSS-G | DIN 382 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 3,0 x 0,50	19 x 5	4R27126	**36,16**
M 3,5 x 0,60	19 x 5	4R27128	**36,16**
M 4,0 x 0,70	19 x 5	4R27130	**36,16**
M 5,0 x 0,80	19 x 7	4R27134	**36,16**
M 6,0 x 1,00	19 x 7	4R27138	**36,16**
M 7,0 x 1,00	22 x 9	4R27140	**38,81**
M 8,0 x 1,25	22 x 9	4R27142	**38,81**
M 9,0 x 1,25	22 x 9	4R27144	**38,81**
M 10,0 x 1,50	27 x 11	4R27146	**46,30**
M 11,0 x 1,50	27 x 11	4R27148	**46,30**
M 12,0 x 1,75	36 x 14	4R27150	**63,95**
M 14,0 x 2,00	36 x 14	4R27154	**63,95**
M 16,0 x 2,00	41 x 18	4R27158	**90,40**
M 18,0 x 2,50	41 x 18	4R27162	**90,40**
M 20,0 x 2,50	41 x 18	4R27166	**90,40**

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 22 x 2,5	50 x 22	4R27170	**151,43**
M 24 x 3,0	50 x 22	4R27174	**177,74**
M 27 x 3,0	60 x 25	4R27176	**277,52**
M 30 x 3,5	60 x 25	4R27178	**277,52**
M 33 x 3,5	60 x 25	4R27180	**277,52**
M 36 x 4,0	60 x 25	4R27182	**277,52**
M 39 x 4,0	70 x 30	4R27184	**453,35**
M 42 x 4,5	70 x 30	4R27186	**453,35**
M 45 x 4,5	85 x 36	4R27188	**638,45**
M 48 x 5,0	85 x 36	4R27190	**638,45**
M 52 x 5,0	85 x 36	4R27192	**638,45**
M 56 x 5,5	100 x 36	4R27194	**1.117,32**
M 60 x 5,5	100 x 36	4R27196	**1.117,32**
M 64 x 6,0	100 x 36	4R27198	**1.117,32**
M 68 x 6,0	115 x 36	4R27199	**1.458,66**

Mf MÉTRICA FINA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE FIN ISO DIN-13

HSS-G | DIN 382 | TOL 6g

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 3 x 0,35	19 x 5	4R26108	69,68
M 4 x 0,35	19 x 5	4R26110	69,68
M 4 x 0,50	19 x 5	4R26112	69,68
M 5 x 0,50	19 x 5	4R26114	69,68
M 5 x 0,75	19 x 7	4R26116	69,68
M 6 x 0,50	19 x 5	4R26117	69,68
M 6 x 0,75	19 x 7	4R26118	69,68
M 7 x 0,75	22 x 9	4R26120	74,09
M 8 x 0,50	22 x 9	4R26122	74,09
M 8 x 0,75	22 x 9	4R26124	74,09
M 8 x 1,00	22 x 9	4R26126	74,09
M 9 x 0,75	22 x 9	4R26128	74,09
M 9 x 1,00	22 x 9	4R26130	74,09
M 10 x 0,75	27 x 11	4R26132	74,09
M 10 x 1,00	27 x 11	4R26136	74,09
M 10 x 1,25	27 x 11	4R26138	74,09
M 11 x 1,00	27 x 11	4R26140	102,31
M 11 x 1,25	27 x 11	4R26142	102,31
M 12 x 0,75	36 x 10	4R26143	102,31
M 12 x 1,00	36 x 10	4R26144	102,31
M 12 x 1,25	36 x 10	4R26146	102,31
M 12 x 1,50	36 x 10	4R26148	102,31
M 13 x 1,00	36 x 10	4R26150	115,99
M 13 x 1,50	36 x 10	4R26151	115,99
M 14 x 0,75	36 x 10	4R26152	115,99
M 14 x 1,00	36 x 10	4R26153	115,99
M 14 x 1,25	36 x 10	4R26154	115,99
M 14 x 1,50	36 x 10	4R26156	115,99
M 15 x 1,00	36 x 10	4R26158	139,35
M 15 x 1,50	36 x 10	4R26160	139,35
M 16 x 1,00	41 x 14	4R26162	142,71
M 16 x 1,25	41 x 14	4R26164	142,71
M 16 x 1,50	41 x 14	4R26166	142,71
M 18 x 1,00	41 x 14	4R26170	151,26
M 18 x 1,25	41 x 14	4R26171	151,26
M 18 x 1,50	41 x 14	4R26172	151,26
M 18 x 2,00	41 x 14	4R26174	151,26
M 20 x 1,00	41 x 14	4R26178	151,26
M 20 x 1,25	41 x 14	4R26180	151,26
M 20 x 1,50	41 x 14	4R26184	151,26
M 20 x 2,00	41 x 14	4R26186	151,26
M 21 x 1,50	41 x 14	4R26188	219,65
M 22 x 1,00	50 x 16	4R26190	219,65
M 22 x 1,25	50 x 16	4R26192	219,65
M 22 x 1,50	50 x 16	4R26194	219,65
M 22 x 2,00	50 x 16	4R26196	219,65
M 23 x 1,50	50 x 16	4R26198	219,65
M 24 x 1,00	50 x 16	4R26700	218,18
M 24 x 1,25	50 x 16	4R26702	218,18
M 24 x 1,50	50 x 16	4R26704	218,18
M 24 x 2,00	50 x 16	4R26706	218,18

D Ø x P (mm)	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
M 25 x 1,0	50 x 16	4R26707	315,28
M 25 x 1,5	50 x 16	4R26708	315,28
M 26 x 1,0	50 x 16	4R26710	315,28
M 26 x 1,5	50 x 16	4R26712	315,28
M 26 x 2,0	50 x 16	4R26714	315,28
M 27 x 1,0	60 x 18	4R26717	327,86
M 27 x 1,5	60 x 18	4R26716	327,86
M 27 x 2,0	60 x 18	4R26718	327,86
M 28 x 1,0	60 x 18	4R26720	327,86
M 28 x 1,5	60 x 18	4R26722	327,86
M 28 x 2,0	60 x 18	4R26724	327,86
M 29 x 1,5	60 x 18	4R26726	327,86
M 30 x 1,0	60 x 18	4R26728	327,86
M 30 x 1,5	60 x 18	4R26730	327,86
M 30 x 2,0	60 x 18	4R26732	327,86
M 30 x 3,0	60 x 25	4R26734	327,86
M 32 x 1,5	60 x 18	4R26736	327,86
M 32 x 2,0	60 x 18	4R26735	327,86
M 32 x 3,0	60 x 25	4R26737	327,86
M 33 x 1,5	60 x 18	4R26738	327,86
M 33 x 2,0	60 x 18	4R26740	327,86
M 33 x 3,0	60 x 25	4R26742	327,86
M 34 x 1,5	60 x 18	4R26744	327,86
M 34 x 2,0	60 x 18	4R26746	327,86
M 35 x 1,5	60 x 18	4R26748	327,86
M 36 x 1,5	60 x 18	4R26750	327,86
M 36 x 2,0	60 x 18	4R26752	327,86
M 36 x 3,0	60 x 25	4R26754	327,86
M 38 x 1,5	70 x 20	4R26756	545,78
M 39 x 1,5	70 x 20	4R26758	545,78
M 39 x 2,0	70 x 20	4R26760	545,78
M 39 x 3,0	70 x 30	4R26762	545,78
M 40 x 1,5	70 x 20	4R26764	545,78
M 40 x 2,0	70 x 20	4R26766	545,78
M 40 x 3,0	70 x 30	4R26768	545,78
M 42 x 1,5	70 x 20	4R26770	545,78
M 42 x 2,0	70 x 20	4R26772	545,78
M 42 x 3,0	70 x 30	4R26774	545,78
M 45 x 1,5	85 x 22	4R26776	797,83
M 45 x 2,0	85 x 22	4R26778	797,83
M 45 x 3,0	85 x 36	4R26780	797,83
M 48 x 1,5	85 x 22	4R26782	797,83
M 48 x 2,0	85 x 22	4R26784	797,83
M 48 x 3,0	85 x 36	4R26786	797,83
M 50 x 1,5	85 x 22	4R26788	797,83
M 50 x 2,0	85 x 22	4R26790	797,83
M 50 x 3,0	85 x 36	4R26792	797,83
M 52 x 1,5	85 x 22	4R26794	797,83
M 52 x 2,0	85 x 22	4R26796	797,83
M 52 x 3,0	85 x 36	4R26798	797,83

BSW ROSCA WITHWORTH BS 84
WITHWORTH THREAD BS 84
FILETAGE WHITWORTH BS 84

HSS-G DIN 382

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSW 1/8 x 40	19 x 5	4R22106	46,30
BSW 3/16 x 24	19 x 7	4R22110	46,30
BSW 1/4 x 20	19 x 7	4R22114	46,30
BSW 5/16 x 18	22 x 9	4R22116	48,51
BSW 3/8 x 16	27 x 11	4R22118	57,53
BSW 7/16 x 14	27 x 11	4R22120	57,53
BSW 1/2 x 12	36 x 14	4R22122	69,68
BSW 9/16 x 12	36 x 14	4R22124	69,68
BSW 5/8 x 11	41 x 18	4R22126	97,01
BSW 3/4 x 10	41 x 18	4R22130	97,01
BSW 7/8 x 9	50 x 22	4R22134	197,41

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSW 1" x 8	50 x 22	4R22138	197,41
BSW 1.1/8 x 7	60 x 25	4R22142	302,43
BSW 1.1/4 x 7	60 x 25	4R22146	302,43
BSW 1.3/8 x 6	60 x 25	4R22150	302,43
BSW 1.1/2 x 6	70 x 30	4R22154	356,81
BSW 2 x 4.1/2	85 x 36	4R22170	441,05
BSW 2.1/4 x 4	100 x 22	4R22172	1.639,98
BSW 2.1/2 x 4	115 x 22	4R22174	1.828,23
BSW 2.3/4 x 3.1/2	115 x 36	4R22176	2.039,45
BSW 3 x 3.1/2	115 x 36	4R22178	2.039,45

BSF ROSCA BRITÁNICA STANDARD FINA BS 84
BRITISH STANDARD FINE THREAD BS 84
FILETAGE BRITANIQUE BSF, BS 84

HSS-G DIN 382

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSF 3/16 x 32	19 x 7	4R22510	51,77
BSF 1/4 x 26	19 x 7	4R22514	51,77
BSF 5/16 x 22	22 x 9	4R22516	57,37
BSF 3/8 x 20	27 x 11	4R22518	70,13
BSF 7/16 x 18	27 x 11	4R22520	70,13
BSF 1/2 x 16	36 x 10	4R22522	109,99

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
BSF 9/16 x 16	36 x 10	4R22524	109,99
BSF 5/8 x 14	41 x 14	4R22526	168,01
BSF 3/4 x 12	41 x 14	4R22530	168,01
BSF 7/8 x 11	50 x 16	4R22534	197,41
BSF 1 x 10	50 x 16	4R22538	197,41

G(BSP)

ROSCA GAS DIN ISO 228
PIPE TRHEAD DIN ISO 228
FILETAGE PAS GAZ DIN ISO 228

HSS-G | DIN 382

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
G 1/8 x 28	27 x 11	4R25512	**64,84**
G 1/4 x 19	36 x 10	4R25514	**86,60**
G 3/8 x 19	41 x 14	4R25516	**111,56**
G 1/2 x 14	41 x 14	4R25518	**111,56**
G 5/8 x 14	50 x 16	4R25520	**188,90**
G 3/4 x 14	50 x 16	4R25522	**188,90**
G 7/8 x 14	60 x 18	4R25524	**251,86**
G 1 x11	60 x 18	4R25526	**251,86**

D Ø x P (")	Ø Exterior x Ø Espesor *Ø Exterior x Ø Thickness* (mm)	Cod.	€/Unid.
G 1.1/8 x 11	70 x 20	4R25530	**373,63**
G 1.1/4 x 11	70 x 20	4R25534	**373,63**
G 1.3/8 x 11	85 x 22	4R25538	**614,66**
G 1.1/2 x 11	85 x 22	4R25542	**614,66**
G 1.5/8 x 11	85 x 22	4R25546	**614,66**
G 1.3/4 x 11	100 x 22	4R25550	**923,53**
G 2 x 11	100 x 22	4R25554	**923,53**

ESTUCHE MACHOS MANO
HAND TAPS SET • COFFRET TARAUDS Á MAIN

3RH352 - 3RC352

3RB352 - 3RB529

Calidad / *Quality*		Machos / *Taps*	Brocas / *Drill Bits*	Giramachos / *Tap Wrenche*	Cod.	€/Unid.
HSS-G	Machos Mano Hand Taps	M 3 - 4 - 5 - 6 - 8 - 10 - 12	-	-	3RH352	**188,99**
HSS-CO 5%	Machos Mano Hand Taps	M 3 - 4 - 5 - 6 - 8 - 10 - 12	-	-	3RC352	**326,55**
HSS-G	Macho Nº 3 Tap Nº 3	M 3 - 4 - 5 - 6 - 8 - 10 - 12	M 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	Nº 1.1/2	3RB352	**102,80**
HSS-CO 5%	DIN 352/B	M 3 - 4 - 5 - 6 - 8 - 10 - 12	M 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	Nº 1.1/2	3RB529	**145,99**

ESTUCHES MACHOS MÁQUINA
MACHINE TAPS SETS • COFFRETS TARAUDS MACHINE

3RM001

3RM002

3RM003

3RM004

Calidad / *Quality*		Machos / *Taps*	Cod.	€/Unid.
HSS-CO 5%	FORM B	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM001	**142,01**
HSS-CO 5%	FORM C/35º	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM002	**150,81**

Calidad / *Quality*		Machos / *Taps*	Cod.	€/Unid.
TIN	FORM B	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM003	**242,93**
TIN	FORM C/35º	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM004	**268,22**

ESTUCHES MACHOS MÁQUINA CON BROCA
MACHINE TAPS AND DRILL BITS SETS
COFFRETS TARAUDS MACHINE ET FORETS MÉTAUX

3RM011

3RM012

Calidad / *Quality*	Machos / *Taps*	Brocas / *Drill Bits*	Giramachos / *Tap Wrenche*	Cod.	€/Unid.
HSS-CO 5% FORM B	M 3 - 4 - 5 - 6 - 8 - 10 - 12	M 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	-	3RM011	**154,53**
HSS-CO 5% FORM C/35°	M 3 - 4 - 5 - 6 - 8 - 10 - 12	M 2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5 - 10,2	-	3RM012	**173,40**

ESTUCHES MACHOS MÁQUINA DE BANDA
COLORED RING MACHINE TAPS SETS
COFFRETS TARAUDS MACHINE BANDE COLORÉE

3RM021

3RM022

3RM023

3RM024

3RM025

3RM026

Calidad / *Quality*	Banda/*Ring*	Machos/*Taps*	Cod.	€/Unid.
PM HL FORM B		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM021	**345,58**
PM HL FORM C/35°		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM022	**390,35**
HSS-E-V3 TIN FORM B	MULTIUSOS	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM023	**234,12**

Calidad / *Quality*	Banda/*Ring*	Machos/*Taps*	Cod.	€/Unid.
HSS-E-V3 TIN FORM C/35°	MULTIUSOS	M 3 - 4 - 5 - 6 8 - 10 - 12	3RM024	**256,88**
HSS-CO 5% FORM B		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM025	**211,91**
HSS-CO 5% FORM C/40°		M 3 - 4 - 5 - 6 8 - 10 - 12	3RM026	**259,04**

MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 - 12 14 - 16 - 18 - 20 - 22 - 24	Nº 1 + 4	20 x 5 - 20 x 7 - 25 x 9 - 30 x 11 38 x 14 - 45 x 18 - 55 x 22	-	3R48006	**1.756,04**
M 5 - 6 - 8 - 10 - 12 - 14 - 16 18 - 20 - 22 - 24 - 27 - 30	Nº 1 + Nº 3 + 5	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 45 x 18 - 55 x 22 - 65 x 25	-	3R48007	**2.921,66**

3R49101P

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Brocas *Drill Bits* (mm)	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
M 3-4-5-6-8-10-12	2.5 - 3.3 - 4.2 - 5.0 - 6.8 - 8.5 - 10.2	Nº 1 + Nº 2	20x5 - 20x7 - 25x9 - 30x11 - 38x14	N.° 1	3R49101	**448,66**
M 3-4-5-6-8-10-12	2.5 - 3.3 - 4.2 - 5.0 - 6.8 - 8.5 - 10.2	Nº 1 + Nº 2	20x5 - 20x7 - 25x9 - 30x11 - 38x14	-	3R49101P	**411,63**
M 3-4-5-6-8-10-12	-	Nº 1 + Nº 2	20x5 - 20x7 - 25x9 - 30x11 - 38x14	-	3R49107	**407,08**
M 3-4-5-6-8-10-12	2.5 - 3.3 - 4.2 - 5.0 - 6.8 - 8.5 - 10.2	Nº 1 + Nº 2	20x5 - 20x7 - 25x9 - 30x11 - 38x14	-	3R49111	**433,60**

HSS-CO 5%

Machos Mano y Cojinetes *Hand Taps and Dies*	Brocas *Drill Bits* (mm)	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 - 12	2,5 - 3,3 - 4,2 - 5,0 6,8 - 8,5 - 10,2	Nº 1 + Nº 2	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14	Nº 1	3R49151	**701,96**

HSS-G LH IZQUIERDAS

Machos Mano y Cojinetes *Hand Taps and Dies*	Brocas *Drill Bits* (mm)	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 - 12	2,5 - 3,3 - 4,2 - 5,0 6,8 - 8,5 - 10,2	Nº 1 + Nº 2	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14	Nº 1	3R49171	**799,70**

M CONJUNTO M3 – M12, Ref. 3R12
M3 – M12 SET, REF. 3R12
COFFRET M3 – M12, REF. 3R12

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 - 12	Nº 1	25 x 9	Nº 1	3R49501	**278,04**

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 12 - 14 - 16 - 18 - 20	Nº 1 + Nº 3	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14 - 45 x 18	Nº 1 - Nº 2	3R49201	**937,02**
M 5 - 6 - 8 - 10 12 - 14 - 16 - 18 - 20	Nº 1 + Nº 3	20 x 7 - 25 x 9 30 x 11 - 38 x 14 - 45 x 18	Nº 1 + Nº 2	3R49301	**907,88**

HSS-CO 5%

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 12 - 14 - 16 - 18 - 20	Nº 1 + Nº 3	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14 - 45 x 18	-	3R49251	**1.516,15**

HSS-G LH IZQUIERDAS

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10 12 - 14 - 16 - 18 - 20	Nº 1 + Nº 3	20 x 5 - 20 x 7 - 25 x 9 30 x 11 - 38 x 14 - 45 x 18	-	3R49271	**2.059,81**

M MÉTRICA ISO-529 FORMA B
METRIC ISO-529 B FORM
MÉTRIQUE ISO-529 FORME B

HSS-G

Machos Mano y Cojinetes / *Hand Taps and Dies*	Brocas / *Drill Bits* (mm)	Cod.	€/Unid.
M 3 - 4 - 5 - 6 - 8 - 10	2,5 - 3,3 - 4,2 - 5,0 - 6,8 - 8,5	3R80501	**204,66**

Mf MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
Mf 3 x 0,35 - 4 x 0,5 - 5 x 0,5 - 6 x 0,75 8 x 0,75 - 8 x 1,0 - 10 x 1,0 - 12 x 1,5	Nº 1 + Nº 2	20 x 5 - 25 x 9 - 30 x 11 - 38 x 10	Nº 1	3R48010	**809,20**
Mf 6 x 0,75 - 8 x 0,75 - 8 x 1,0 - 10 x 1,0 12 x 1,0 - 12 x 1,5 - 14 x 1,25 - 14 x 1,5 16 x 1,5 - 18 x 1,5 - 20 x 1,5	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 38 x 10 - 45 x 14	-	3R48011	**1.366,14**
Mf 6 x 0,75 - 8 x 0,75 - 8 x 1,0 - 10 x 1,0 12 x 1,0 - 12 x 1,5 - 14 x 1,25 - 14 x 1,5 16 x 1,5 - 18 x 1,5 - 20 x 1,5 - 22 x 1,5 - 24 x 1,5	Nº 1 + Nº 4	20 x 7 - 25 x 9 - 30 x 11 38 x 10 - 45 x 14 - 55 x 16	-	3R48012	**1.850,09**

G(BSP) ROSCA GAS DIN ISO 228
PIPE THREAD ISO 228
FILETAGE PAS GAZ DIN ISO 228

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
G 1/8 - 1/4 - 3/8 - 1/2 - 3/4 - 1"	Nº 1 + Nº 3 + Nº 5	30 x 11 - 38 x 10 - 45 x 14 - 55 x 16 - 65 x 18	-	3R48020	**1.494,61**
G 1/8 - 1/4 - 3/8 - 1/2 - 5/8 - 3/4 - 7/8 - 1"	Nº 1 + Nº 3 + Nº 5	31 x 11 - 38 x 10 - 45 x 14 - 55 x 16 - 65 x 18	-	3R48021	**2.014,81**
G 1/4 - 3/8 - 1/2 - 3/4 - 1" - 1 1/4 - 1 1/2	Nº 2 + Nº 4 + Nº 7	38 x 10 - 45 x 14 - 65 x 18 - 75 x 20 - 90 x 22	-	3R48022	**3.988,90**

NPT ROSCA INGLESA PARA TUBO, CONOCIDAD 1:16
TAPERED PIPE THREAD, TAPER 1:16
FILETAGE NPT CONICITÉ 1:16

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
NPT 1/8 - 1/4 - 3/8 - 1/2 -3/4 - 1"	Nº 1 + Nº 3 + Nº 5	31 x 11 - 38 x 14 - 45 x 18 55 x 22 - 65 x 25	-	3R48025	**1.999,97**
NPT 1/8 - 1/4 - 3/8 - 1/2 -3/4 - 1" 1 1/4 - 1 1/2 - 2"	Nº 2 + Nº 4 + Nº 7	30 x 11 - 38 x 14 - 45 x 18 - 55 x 22 65 x 25 - 75 x 30 - 90 x 36 - 105 x 36	-	3R48027	**6.628,68**

BSW ROSCA WHITWORTH BS 84
WITHWORTH THREAD BS 84
WHITWORTH BS 84

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
BSW 1/8 - 3/16 - 1/4 - 5/16 - 3/8 - 7/16 - 1/2	Nº 1 + Nº 2	20 x 5 - 20 x 7 - 25 x 9 - 30 x 11 - 38 x 14	Nº 1	3R48030	**821,87**
BSW 1/4 - 5/16 - 3/8 - 7/16 - 1/2	Nº 1 + Nº 2	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14	Nº 1	3R48031	**672,89**
BSW 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 - 45 x 18	-	3R48032	**1.215,98**
BSW 1/4 - 5/16 - 3/8 - 7/16 - 1/2 5/8 - 3/4 - 7/8 - 1"	Nº 1 + Nº 4	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 45 x 18 - 55 x 22	-	3R48034	**1.773,54**
BSW 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 3/4 - 7/8 - 1" - 1" 1/8 - 1" 1/4 - 1" 3/8 - 1" 1/2	Nº 1 + Nº 3 + Nº 5	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 45 x 18 - 55 x 22 - 65 x 25	-	3R48035	**4.237,58**

BSF ROSCA BRITÁNICA STANDARD FINA BS 84
BRITISH STANDARD FINE THREAD BS 84
BRITISH STANDARD FINE THREAD BS 84

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
BSF 1/4 - 5/16 - 3/8 - 7/16 - 1/2	Nº 1 + Nº 2	20 x 7 - 25 x 9 - 30 x 11 - 38 x 10	Nº 1	3R48041	**697,45**
BSF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	21 x 7 - 25 x 9 - 30 x 11 - 38 x 10 - 45 x 14	-	3R48042	**1.207,54**
BSF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4 - 7/8 - 1"	Nº 1 + Nº 4	22 x 7 - 25 x 9 - 30 x 11 - 38 x 10 - 45 x 14 - 55 x 16	-	3R48044	**1.995,70**

BSW/BSF

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
BSW/BSF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 - 45 x 18	-	3R48046	**2.258,84**

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
UNC 1/4 - 5/16 - 3/8 - 7/16 -1/2	Nº 1 + Nº 2	20 x 70 - 25 x 9 - 30 x 11 - 38 x 14	Nº 1	3R48050	**736,62**
UNC 1/4 - 5/16 - 3/8 - 7/16 -1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 70 - 25 x 9 - 30 x 11 38 x 14 - 45 x 18	-	3R48051	**1.290,81**

UNF ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIED GROSSE ANSI B 1.1

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
UNF 1/4 - 5/16 - 3/8 - 7/16 - 1/2	Nº 1 + Nº 2	20 x 7 - 25 x 9 - 30 x 11 - 38 x 10	Nº 1	3R48060	**623,91**
UNF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 38 x 10 - 45 x 14	-	3R48061	**1.086,97**
UNF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 5/8 - 3/4 - 7/8 - 1"	Nº 1 + Nº 4	20 x 7 - 25 x 9 - 30 x 11 38 x 10 - 45 x 14 - 55 x 16	-	3R48063	**1.551,17**

UNC/UNF

HSS-G

Machos Mano y Cojinetes *Hand Taps and Dies*	Giramachos *Tap Holder*	Volvedor *Tap Wrenche* (mm)	Giramachos con Criquet *Tap Holder with Ratchet*	Cod.	€/Unid.
UNC/UNF 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8 - 3/4	Nº 1 + Nº 3	20 x 7 - 25 x 9 - 30 x 11 - 38 x 14 - 45 x 18	-	3R48066	**2.258,83**

M/Mf MALETIN AUTOMOCION REF.6000

THREADING SET REF.6000 FOR AUTOMOTIVE
ENSAMBLE FILETTAGE POUR GARAGE REF.6000

Basic

Cod.	€/Unid.
6000FIAT	**642,42**

Contenido / Contains / Contenu

Machos Mano -2 machos- y Cojinetes / *Hand Taps -2 taps- and Dies*							
METRICA DIN352 / *METRIC DIN352*			**METRICA FINA DIN2181** / *FINE METRIC DIN2181*				
2 x 0,40	7 x 1,00	12 x 1,75	6 x 0,75	9 x 1,00	11 x 1,00	12 x 1,50	16 x 1,50
3 x 0,50	8 x 1,25	14 x 2,00	7 x 0,75	10 x 0,75	11 x 1,25	14 x 1,00	18 x 1,50
4 x 0,70	9 x 1,25	16 x 2,00	8 x 0,75	10 x 1,00	12 x 0,75	14 x 1,25	
5 x 0,80	10 x 1,50		8 x 1,00	10 x 1,25	12 x 1,00	14 x 1,50	
6 x 1,00	11 x 1,50		9 x 0,75	11 x 0,75	12 x 1,25	16 x 1,00	
Volvedor / *Tap Wrenche* (mm)							
25,4 - 38,1							
Giramachos / *Tap Holder*							
Nº 1 + Nº 3 + Nº 1 en forma de T / Nº 1 + Nº 3 + Nº 1 in form T							
TOTAL 110 pcs							

M TAMPÓN DE ROSCA PARA MÉTRICA ISO-ROSCA DIN 13
THREAD PLUG GAUGE FOR METRIC ISO-THREAD DIN 13
JAUGE DE FILETAGE POUR MÉTRIQUE ISO-FILETAGE DIN 13

DIN ISO 1502 | TOL 6H | CALIBRATION CERTIFICATE / CERTIFICADO DE CALIBRACIÓN / CERTIFICAT DE CALIBRAGE

D Ø x P (mm)	PASA - NO PASA *GO - NO GO*	Uds. *Pcs.*	€/Unid.
M 3 x 0.5	5R17326	1	195,45
M 3.5 x 0.6	5R17328	1	186,15
M 4 x 0.7	5R17330	1	180,83
M 4.5 x 0.75	5R17332	1	215,39
M 5 x 0.8	5R17334	1	179,50
M 5.5 x 0.9	5R17336	1	215,39
M 6 x 1.0	5R17338	1	179,50
M 7 x 1.0	5R17340	1	179,50
M 8 x 1.25	5R17342	1	178,17

D Ø x P (mm)	PASA - NO PASA *GO - NO GO*	Uds. *Pcs.*	€/Unid.
M 9 x 1.25	5R17344	1	190,57
M 10 x 1.5	5R17346	1	190,57
M 11 x 1.5	5R17348	1	190,57
M 12 x 1.75	5R17350	1	201,20
M 14 x 2.0	5R17354	1	214,50
M 16 x 2.0	5R17358	1	214,50
M 18 x 2.5	5R17362	1	247,73
M 20 x 2.5	5R17366	1	247,73

Para otras medidas consultar / Request for other sizes / Pour d'autres dimensions, nous consulter

Plazo: 6-7días laborables / 6-7 business day / 6 jours ouvrables

M ANILLO DE ROSCA PARA MÉTRICA ISO-ROSCA DIN 13
RING PLUG GAUGE FOR METRIC ISO-THREAD DIN 13
JAUGE À ANNEAU POUR MÉTRIQUE ISO-FILETAGE DIN 13

DIN ISO 1502 | TOL 6g | CALIBRATION CERTIFICATE / CERTIFICADO DE CALIBRACIÓN / CERTIFICAT DE CALIBRAGE

D Ø x P (mm)	PASA *GO*	NO PASA *NO GO*	Uds. *Pcs.*	€/Unid.
M 3 x 0.5	5R17426P	5R17426N	1	174,62
M 3.5 x 0.6	5R17428P	5R17428N	1	179,94
M 4 x 0.7	5R17430P	5R17430N	1	163,98
M 4.5 x 0.75	5R17432P	5R17432N	1	195,89
M 5 x 0.8	5R17434P	5R17434N	1	163,98
M 5.5 x 0.9	5R17436P	5R17436N	1	195,89
M 6 x 1.0	5R17438P	5R17438N	1	163,98
M 7 x 1.0	5R17440P	5R17440N	1	169,30
M 8 x 1.25	5R17442P	5R17442N	1	169,30

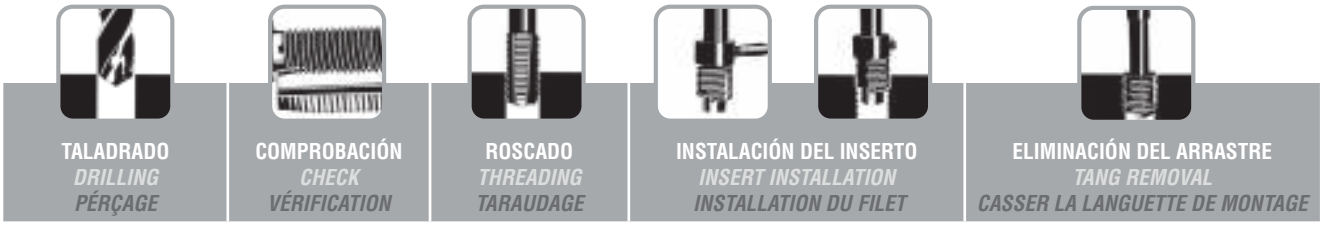
D Ø x P (mm)	PASA *GO*	NO PASA *NO GO*	Uds. *Pcs.*	€/Unid.
M 9 x 1.25	5R17444P	5R17444N	1	190,57
M 10 x 1.5	5R17446P	5R17446N	1	190,57
M 11 x 1.5	5R17448P	5R17448N	1	190,57
M 12 x 1.75	5R17450P	5R17450N	1	201,20
M 14 x 2.0	5R17454P	5R17454N	1	214,50
M 16 x 2.0	5R17458P	5R17458N	1	214,50
M 18 x 2.5	5R17462P	5R17462N	1	247,73
M 20 x 2.5	5R17466P	5R17466N	1	247,73

Para otras medidas consultar / Request for other sizes / Pour d'autres dimensions, nous consulter

Plazo: 6-7días laborables / 6-7 business day / 6 jours ouvrables

SESA COIL®

MODO DE USO
OPERATINSG INSTRUCTIONS • INSTRUSCTIONS D´UTILISATION



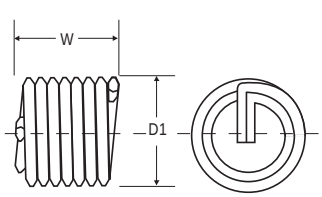
TALADRADO	COMPROBACIÓN	ROSCADO	INSTALACIÓN DEL INSERTO	ELIMINACIÓN DEL ARRASTRE
DRILLING	*CHECK*	*THREADING*	*INSERT INSTALLATION*	*TANG REMOVAL*
PÉRÇAGE	*VÉRIFICATION*	*TARAUDAGE*	*INSTALLATION DU FILET*	*CASSER LA LANGUETTE DE MONTAGE*

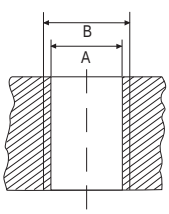
INFORMACIÓN TÉCNICA PARA INSTALACIÓN DE INSERTOS DIN 8140
TECHNICAL DATA SHEET FOR THE INSTALLATION OF WIRE THREAD INSERTS DIN8140
INFORMATION TÉCHNIQUE POUR L´INSTALLATION DES FILETS RAPPORTÉS DIN 8140

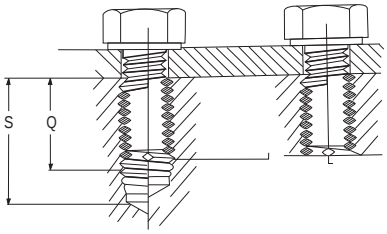
	TALARADO / DRILLING / PREÇAGE						ROSCADO / THREADING / FILETAGE		
D Ø X P (mm)	C	LONGITUD (S) / LENGTH (S) / LONGEUR (S)					B	A	
M / MF	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
M 2,0 x 0,40	2,10	3,80	4,80	5,80	6,80	7,80	2,52	2,09	2,18
M 2,5 x 0,45	2,60	4,53	5,77	7,02	8,27	9,52	3,08	2,60	2,70
M 3,0 x 0,50	3,20	5,25	6,75	8,25	9,75	11,25	3,65	3,11	3,22
M 3,5 x 0,60	3,70	6,20	7,95	9,70	11,45	13,20	4,28	3,63	3,76
M 4,0 x 0,70	4,20	7,15	9,15	11,15	13,15	15,15	4,91	4,15	4,29
M 5,0 x 0,80	5,20	8,60	11,10	13,60	16,10	18,60	6,04	5,17	5,33
M 6,0 x 1,00	6,30	10,50	13,50	16,50	19,50	22,50	7,30	6,22	6,41
M 7,0 x 1,00	7,30	11,50	15,00	18,50	22,00	25,52	8,30	7,22	7,41
M 8,0 x 1,25	8,30	13,63	17,62	21,62	25,62	29,62	9,62	8,27	8,48
M 8,0 x 1,00	8,30	12,50	16,50	20,50	24,50	28,50	9,30	8,22	8,41
M 9,0 x 1,25	9,30	14,63	19,12	23,62	28,13	32,62	10,62	9,27	9,48
M 10,0 x 1,50	10,40	13,50	21,75	26,75	31,75	36,75	11,95	10,32	10,56
M 10,0 x 1,25	10,30	15,63	20,62	25,62	30,62	35,62	11,62	10,27	10,48
M 10,0 x 1,00	10,30	14,50	19,50	24,50	29,50	34,50	11,30	10,22	10,41
M 11,0 x 1,50	11,40	17,75	23,25	28,75	34,25	39,75	12,95	11,33	11,56
M 12,0 x 1,75	12,40	19,87	25,87	31,87	37,87	43,87	14,27	12,38	12,64
M 12,0 x 1,50	12,40	18,75	24,75	30,75	36,75	42,75	14,10	12,32	12,56
M 12,0 x 1,25	12,30	17,62	23,62	29,62	35,62	41,62	13,62	12,27	12,48
M 12,0 x 1,00	12,30	16,50	22,50	28,50	34,50	40,50	13,30	12,22	12,41
M 14,0 x 2,00	14,50	23,00	30,00	37,00	44,00	51,00	16,60	14,43	14,73
M 14,0 x 1,50	14,40	20,75	27,75	34,75	41,75	48,75	15,95	14,35	14,56
M 14,0 x 1,25	14,40	19,62	26,62	33,62	40,62	47,62	15,62	14,27	14,48
M 14,0 x 1,00	14,30	18,50	25,50	32,50	39,50	46,50	15,30	14,22	14,41
M 16,0 x 2,00	16,50	25,00	33,00	41,00	49,00	57,00	18,60	16,43	16,73
M 16,0 x 1,50	16,40	22,75	30,75	38,75	46,75	54,75	17,95	16,32	16,56
M 18,0 x 2,50	18,60	29,25	38,25	47,25	56,25	65,25	21,25	18,54	18,90
M 18,0 x 2,00	18,50	27,00	36,00	45,00	54,00	63,00	20,60	18,43	18,73
M 18,0 x 1,50	18,50	24,75	33,75	42,75	51,75	60,75	19,95	18,32	18,56
M 20,0 x 2,50	20,60	31,25	41,25	51,25	61,25	71,25	23,25	20,54	20,90
M 20,0 x 2,00	20,50	29,00	39,00	49,00	59,00	69,00	22,60	20,43	20,73
M 20,0 x 1,50	20,50	26,75	36,75	46,75	56,75	66,75	21,95	20,32	20,56
M 22,0 x 2,50	22,60	33,25	44,25	55,25	66,25	77,25	25,25	22,54	22,90
M 22,0 x 2,00	22,50	31,00	42,00	53,00	64,00	75,00	24,60	22,43	22,73
M 22,0 x 1,50	22,50	28,75	39,75	50,75	61,75	72,75	23,95	22,32	22,56
M 24,0 x 3,00	24,75	37,50	49,50	61,50	73,50	85,50	27,90	24,65	25,05
M 24,0 x 2,00	24,50	33,00	45,00	57,00	69,00	81,00	26,60	24,43	24,73
M 24,0 x 1,50	24,50	30,75	42,75	54,75	66,75	78,75	26,02	24,33	24,56

C Diámetro de broca previa / Recommended drill diameter / Perçage avant trou
S Longitud de taladrado / Drilling Length / Longueur perçage
B Ø mayor de rosca / Maximum diameter of thread / *Diametre maximum du filet*
A Ø menor de rosca / Minimum diameter of thread / *Diametre minimum du filet*
Q Longitud nominal / Nominal Length / Longeur nominale
d1 exterior del casquillo / External Ø of wire insert / *Diametre extérieur di filet rapporté*
W N° de hilos / N° of coils / Nombre de spires

ROSCADO / THREADING / FILETAGE					NSERTO / INSERTS / FILETS RAPPORTÉS						
LONGITUD ÚTIL (Q) / LENGTH (Q) / LONGEUR (Q)					D1		Nº DE HILOS (W) / Nº OF COILS (W) / LONGEUR (W)				
1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
2,00	3,00	4,00	5,00	6,00	2,60	2,80	2,90	4,90	6,90	8,90	10,90
2,50	3,75	5,00	6,25	7,50	3,20	3,70	3,50	5,90	8,10	10,50	12,90
3,00	4,50	6,00	7,50	9,00	3,80	4,35	3,90	6,30	8,70	11,10	13,50
3,50	5,25	7,00	8,75	10,50	4,55	4,75	3,70	6,30	8,70	11,20	13,30
4,00	6,00	8,00	10,00	12,00	5,05	5,60	3,70	6,10	8,40	10,90	13,20
5,00	7,50	10,00	12,50	15,00	6,25	6,80	4,30	6,90	9,70	12,30	14,80
6,00	9,00	12,00	15,00	18,00	7,40	7,95	4,20	6,90	9,60	12,30	14,60
7,00	10,50	14,00	17,50	21,00	8,65	9,20	5,30	8,20	11,10	14,30	17,40
8,00	12,00	16,00	20,00	24,00	9,80	10,35	4,70	7,40	10,60	13,50	16,40
8,00	12,00	16,00	20,00	24,00	9,70	10,25	6,10	9,50	12,90	16,50	19,90
9,00	13,50	18,00	22,50	27,00	10,85	11,10	5,30	8,60	11,90	15,30	18,10
10,00	15,00	20,00	25,00	30,00	11,95	12,50	5,00	8,10	11,20	14,20	17,20
10,00	15,00	20,00	25,00	30,00	12,10	12,65	6,00	9,70	13,10	16,90	20,10
10,00	15,00	20,00	25,00	30,00	12,10	12,50	7,60	12,10	16,30	20,70	25,00
11,00	16,50	22,00	27,50	33,00	13,10	13,50	5,60	9,00	12,30	15,70	19,10
12,00	18,00	24,00	30,00	36,00	14,30	15,00	5,20	8,40	11,70	14,70	18,00
12,00	18,00	24,00	30,00	36,00	14,25	14,95	6,20	9,80	13,50	17,10	20,80
12,00	18,00	24,00	30,00	36,00	14,30	15,00	7,40	11,60	15,90	20,00	24,30
12,00	18,00	24,00	30,00	36,00	14,40	14,80	9,30	14,50	19,50	24,80	30,00
14,00	21,00	28,00	35,00	42,00	16,65	17,35	5,60	8,80	12,00	15,20	18,40
14,00	21,00	28,00	35,00	42,00	15,96	16,64	7,40	11,70	15,70	19,90	24,10
14,00	21,00	28,00	35,00	42,00	15,74	16,00	8,40	12,55	18,20	23,10	28,00
14,00	21,00	28,00	35,00	42,00	15,35	15,65	11,20	19,05	12,20	29,20	35,20
16,00	24,00	32,00	40,00	48,00	18,90	19,60	6,50	10,10	13,80	17,50	21,10
16,00	24,00	32,00	40,00	48,00	18,10	18,40	8,70	13,60	18,10	22,90	27,60
18,00	27,00	36,00	45,00	54,00	21,30	22,00	5,60	9,00	12,30	15,70	19,00
18,00	27,00	36,00	45,00	54,00	20,80	21,45	7,10	11,40	15,20	19,20	23,20
18,00	27,00	36,00	45,00	54,00	20,15	20,80	9,50	15,10	20,20	25,50	30,80
20,00	30,00	40,00	50,00	60,00	23,55	24,40	6,30	10,00	13,70	17,40	21,10
20,00	30,00	40,00	50,00	60,00	22,80	23,45	8,00	12,60	16,80	21,20	25,60
20,00	30,00	40,00	50,00	60,00	22,20	22,80	10,70	17,10	22,40	28,30	34,20
22,00	33,00	44,00	55,00	66,00	25,90	26,90	6,90	10,90	15,00	19,10	23,10
22,00	33,00	44,00	55,00	66,00	24,85	25,50	8,70	14,20	18,50	23,40	28,30
22,00	33,00	44,00	55,00	66,00	24,20	24,60	11,70	18,35	24,50	30,90	37,30
24,00	36,00	48,00	60,00	72,00	28,00	29,00	6,20	10,00	14,00	17,90	21,90
24,00	36,00	48,00	60,00	72,00	26,85	27,50	9,60	15,50	20,20	25,10	30,00
24,00	36,00	48,00	60,00	72,00	26,20	26,80	12,90	20,00	26,70	33,60	40,50







INFORMACIÓN TÉCNICA PARA INSTALACIÓN DE INSERTOS DIN 8140

TECHNICAL DATA SHEET FOR THE INSTALLATION OF WIRE THREAD INSERTS DIN8140

INFORMATION TÉCHNIQUE POUR L´INSTALLATION DES FILETS RAPPORTÉS DIN 8140

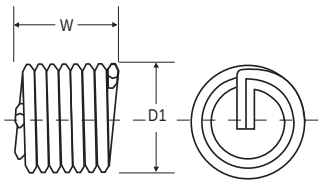
	TALARADO / DRILLING / PREÇAGE						ROSCADO / THREADING / FILETAGE		
D Ø X P (")	C	LONGITUD (S) / LENGTH (S) / LONGEUR (S)					B	A	
UNC	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
Nr. 2 x 56	2,40	4,80	5,90	7,00	8,10	9,20	2,84	2,29	2,44
Nr. 4 x 40	3,00	6,30	7,70	9,20	10,60	12,10	3,67	3,00	3,10
Nr. 5 x 40	3,40	6,60	8,20	9,80	11,10	13,00	4,00	3,33	3,48
Nr. 6 x 32	3,70	7,70	9,50	11,20	13,20	14,70	4,54	3,68	3,81
Nr. 8 x 32	4,40	8,40	10,50	12,50	14,70	16,80	5,11	4,34	4,45
Nr. 10 x 24	5,10	5,20	12,30	14,70	17,20	19,50	6,20	5,05	5,21
Nr. 12 x 24	5,70	5,80	13,30	16,10	18,80	21,60	6,86	5,72	5,84
1/4 x 20	6,70	6,70	15,70	18,90	22,10	25,40	8,00	6,63	6,86
5/16 x 18	8,30	8,30	19,20	23,20	27,10	31,00	9,77	8,26	8,48
3/8 x 16	9,90	9,90	21,60	26,40	31,10	35,80	11,59	9,88	10,11
7/16 x 14	11,60	11,60	25,00	30,50	36,10	41,60	13,47	11,51	11,76
1/2 x 13	13,00	13,00	28,40	34,70	41,10	47,40	15,23	13,13	13,39
9/16 x 12	14,80	14,80	30,80	37,90	45,00	52,20	17,04	14,76	15,01
5/8 x 11	16,50	16,50	35,00	43,00	50,90	58,90	18,87	16,38	16,66
3/4 x 10	19,75	19,75	39,80	49,30	58,80	68,50	22,35	19,61	19,89
7/8 x 9	23,00	23,00	46,40	57,60	68,70	79,70	25,89	22,83	23,16
1 x 8	26,25	26,25	51,20	63,90	76,60	89,30	29,52	26,09	26,47
1.1/8 x 7	29,50	29,50	58,10	72,40	86,70	101,00	33,29	29,36	29,74
1.1/4 x 7	33,00	33,00	62,80	78,70	94,70	110,60	36,46	32,54	32,92
1.3/8 x 6	36,00	36,00	69,20	86,70	104,50	121,50	40,42	35,84	36,35
1.1/2 x 6	39,50	39,50	74,00	93,00	112,50	131,10	43,60	39,01	39,52

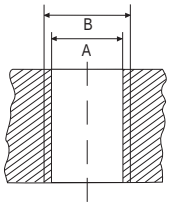
UNF	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
Nr. 4 x 40	3,00	5,600	6,655	8,500	9,900	11,200	3,53	2,972	3,048
Nr. 6 x 32	3,70	5,900	8,103	10,400	12,200	13,900	4,33	3,658	3,759
Nr. 8 x 36	4,40	8,000	9,423	12,100	14,300	16,400	5,08	4,318	4,420
Nr. 10 x 32	5,10	9,000	10,820	13,800	16,300	18,600	5,86	5,004	5,105
1/4 x 28	6,60	11,500	13,614	17,800	21,000	24,300	7,53	6,553	6,706
5/16 x 24	8,20	13,000	16,662	21,000	24,900	28,800	9,31	8,179	8,331
3/8 x 24	9,80	14,600	19,050	24,200	28,900	33,600	10,90	9,754	9,906
7/16 x 20	11,50	17,300	22,377	28,400	34,000	39,500	12,76	11,405	11,582
1/2 x 20	13,00	18,900	24,765	31,600	38,000	44,300	14,35	12,979	13,157
9/16 x 18	14,80	21,600	27,762	35,900	43,000	50,200	16,12	14,605	14,783
5/8 x 18	16,25	23,200	30,150	39,100	47,000	55,000	17,70	16,180	16,358
3/4 x 16	19,50	26,400	35,712	45,400	55,000	64,600	21,11	19,406	19,583
7/8 x 14	22,75	30,500	41,504	52,800	63,900	74,900	24,58	22,606	22,835
1 x 12	26,00	34,700	47,625	60,100	72,800	85,500	28,15	25,857	26,111
1.1/8 x 12	29,00	37,900	52,375	66,500	80,800	95,100	31,33	29,032	29,312
1.1/4 x 12	32,50	41,100	57,150	72,800	88,800	104,700	34,50	32,207	32,487
1.3/8 x 12	35,50	44,200	61,925	79,200	96,550	114,000	37,68	35,382	35,662
1.1/2 x 12	38,50	47,400	66,675	85,500	104,550	123,600	40,85	38,557	38,837

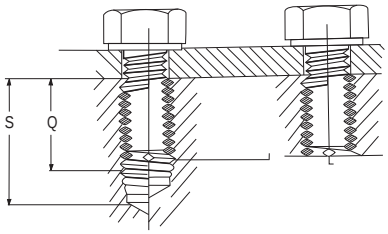
C Diámetro de broca previa / Recommended drill diameter / Perçage avant trou
S Longitud de taladrado / Drilling Length / Longueur perçage
B Ø mayor de rosca / Maximum diameter of thread / *Diametre maximum du filet*
A Ø menor de rosca / Minimum diameter of thread / *Diametre minimum du filet*
Q Longitud nominal / Nominal Length / Longeur nominale
d1 exterior del casquillo / External Ø of wire insert / *Diametre extérieur di filet rapporté*
W N° de hilos / N° of coils / Nombre de spires

ROSCADO / THREADING / FILETAGE					NSERTO / INSERTS / FILETS RAPPORTÉS						
LONGITUD ÚTIL (Q) / LENGTH (Q) / LONGEUR (Q)					D1		Nº DE HILOS (W) / Nº OF COILS (W) / LONGEUR (W)				
1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
2,20	3,30	4,40	5,50	6,60	2,69	2,90	3,00	5,25	7,40	9,60	11,80
2,90	4,27	5,80	7,20	8,70	3,66	4,04	2,80	4,70	6,80	8,80	10,80
3,20	4,80	6,40	7,90	9,60	3,99	4,39	3,30	5,50	7,80	10,00	10,30
3,50	5,26	7,00	8,80	10,50	4,52	4,90	2,80	4,70	6,70	8,70	10,70
4,20	6,25	8,40	10,50	12,60	5,21	5,59	3,50	6,00	8,30	10,70	13,10
4,80	7,24	9,60	12,10	14,40	6,20	6,58	2,90	5,00	7,10	9,20	11,30
5,50	8,23	11,00	13,70	16,50	6,86	7,24	3,50	5,90	8,30	10,70	13,10
6,40	9,53	12,70	15,90	19,20	7,87	8,38	3,40	5,70	8,00	10,30	12,60
7,90	11,91	15,90	19,80	23,70	9,65	10,16	4,00	6,60	9,30	11,90	14,50
9,50	14,27	19,10	23,80	28,50	11,48	11,99	4,40	7,20	10,10	12,90	15,70
11,10	16,66	22,20	27,80	33,30	13,36	14,00	4,50	7,40	10,30	13,10	15,90
12,70	19,05	25,40	31,80	38,10	15,16	15,80	4,80	7,90	10,90	13,90	16,90
14,30	21,44	28,60	35,70	42,90	16,99	17,63	5,10	8,30	11,50	14,70	17,90
15,90	23,80	31,80	39,70	47,70	18,85	19,48	5,30	9,30	11,80	15,00	18,20
19,10	28,58	38,10	47,60	57,30	22,38	23,01	5,90	9,40	13,00	16,60	20,20
22,20	33,32	44,50	55,60	66,60	25,78	26,16	6,30	10,10	13,70	17,40	21,10
25,40	38,10	50,80	63,50	76,20	29,34	29,72	6,40	10,30	14,00	17,80	21,60
28,60	42,85	57,20	71,50	85,80	33,71	34,11	6,30	9,90	13,80	17,60	21,40
31,80	47,63	63,50	79,50	95,40	37,01	37,39	7,10	11,25	15,40	19,60	23,70
34,90	52,37	69,90	87,25	104,70	40,89	41,40	6,60	10,50	14,40	18,30	22,30
38,10	57,15	76,20	95,25	114,30	44,09	44,60	7,40	11,50	15,90	20,10	24,30

1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
2,800	4,267	5,700	7,100	8,400	3,734	4,115	3,400	5,60	7,900	10,300	27,700
3,500	5,258	7,000	8,800	10,500	4,394	4,902	3,600	6,00	8,400	10,800	13,200
4,200	6,248	8,300	10,500	12,600	5,182	5,690	4,000	6,60	9,100	11,700	14,300
4,800	7,239	9,600	12,100	14,400	5,994	6,502	4,100	6,80	9,500	12,100	14,700
6,400	9,525	12,700	15,900	19,200	7,772	8,280	5,000	8,10	11,300	14,400	17,500
7,900	11,913	15,900	19,800	23,700	9,652	10,160	5,500	8,90	12,200	15,600	19,000
9,500	14,275	19,100	23,800	28,500	11,379	11,887	6,900	10,90	14,900	19,000	23,100
11,100	16,662	22,200	27,800	33,300	13,310	13,945	6,600	10,60	14,500	18,400	22,300
12,700	19,050	25,400	31,800	38,100	15,037	15,672	7,800	12,30	16,800	21,300	25,800
14,300	21,438	28,600	35,700	42,900	16,916	17,551	7,900	12,50	17,100	21,600	26,200
15,900	23,800	31,800	39,700	47,700	18,618	19,253	8,900	14,10	19,100	24,300	29,500
19,100	28,575	38,100	47,700	57,300	22,250	22,885	9,700	15,10	20,600	26,000	31,400
22,200	33,325	44,500	55,600	66,600	24,765	25,019	9,900	16,20	21,000	26,600	32,200
25,400	38,100	50,800	63,500	76,200	28,194	28,575	9,700	15,70	20,600	26,100	31,400
28,600	42,850	57,200	71,500	85,800	31,750	32,106	10,100	17,50	24,400	31,500	38,600
31,800	47,625	63,500	79,500	95,400	35,001	35,408	12,400	19,60	26,100	33,000	39,900
34,900	52,375	69,900	87,250	104,700	38,202	38,608	13,800	21,60	28,900	36,400	43,900
38,100	57,150	76,200	95,250	114,300	41,402	41,808	15,200	23,75	31,600	39,800	48,000







INFORMACIÓN TÉCNICA PARA INSTALACIÓN DE INSERTOS DIN 8140

TECHNICAL DATA SHEET FOR THE INSTALLATION OF WIRE THREAD INSERTS DIN8140
INFORMATION TÉCHNIQUE POUR L´INSTALLATION DES FILETS RAPPORTÉS DIN 8140

	TALARADO / DRILLING / PREÇAGE					ROSCADO / THREADING / FILETAGE		
D Ø X P (")	C	LONGITUD (S) / LENGTH (S) / LONGUEUR (S)				B	A	
BSW	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín,	máx,
1/8 x 40	3,40	6,600	8,204	9,800	11,100	13,000	3,93	3,277	3,429
3/16 x 24	5,10	9,900	12,192	14,700	17,000	19,500	6,01	4,978	5,105
1/4 x 20	6,70	12,600	15,240	18,900	26,100	25,400	7,80	6,629	6,782
5/16 x 18	8,30	15,200	18,237	23,200	27,100	31,000	9,60	8,331	8,484
3/8 x 16	9,90	16,800	21,438	26,400	31,100	35,800	11,40	9,906	10,109
7/16 x 14	11,60	19,400	24,816	30,500	36,100	41,600	13,20	11,506	11,760
1/2 x 12	13,00	22,000	28,575	34,700	41,100	47,400	15,20	13,081	13,335
9/16 x 12	14,80	23,600	30,963	37,900	45,000	52,200	16,80	14,681	14,935
5/8 x 11	16,70	27,100	34,214	43,000	50,900	58,900	18,60	16,586	16,840
3/4 x 10	20,00	30,300	40,005	49,300	58,800	68,500	22,00	19,837	20,091
7/8 x 9	23,00	35,300	46,025	57,600	68,700	79,700	25,50	23,012	23,266
1 x 8	26,50	38,500	52,375	63,900	76,600	89,300	29,10	26,187	26,518
BSF	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
3/16 x 32	5,00	8,331	11,303	13,081	15,469	17,856	5,71	4,877	5,029
1/4 x 26	6,60	10,744	13,919	17,094	20,269	23,444	7,50	6,528	6,706
5/16 x 22	8,30	13,132	17,094	21,057	25,044	29,007	9,30	8,204	8,382
3/8 x 20	9,90	15,240	19,990	24,765	29,515	34,290	11,00	9,779	9,957
7/16 x 18	11,60	17,450	23,012	28,550	34,112	39,675	12,80	11,430	11,633
1/2 x 16	13,00	19,837	26,187	32,537	38,887	45,237	14,60	13,030	13,259
9/16 x 16	14,80	21,438	28,575	35,712	42,850	50,013	16,20	14,656	14,884
5/8 x 14	16,40	24,028	31,979	39,903	47,854	55,778	18,00	16,256	16,485
3/4 x 12	19,50	28,575	38,100	47,625	57,150	66,675	21,50	19,431	19,685
7/8 x 11	22,70	32,614	43,739	54,839	65,938	77,064	24,90	22,606	22,860
1 x 10	26,50	36,830	49,530	62,230	74,930	87,630	28,40	26,187	26,518
BSP	mm	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mm	mín.	máx.
1/8 x 28	10,00	7,264	8,640	10,439	11,100	13,614	10,82	9,900	10,160
1/4 x 19	13,60	12,370	15,540	18,720	21,895	25,070	14,74	13,460	13,720
3/8 x 19	17,10	15,545	20,290	25,070	29,820	34,595	18,25	17,000	17,270
1/2 x 14	21,50	20,853	27,200	33,553	39,903	46,253	23,09	21,330	21,600
5/8 x 14	23,40	24,028	31,950	39,903	47,828	55,778	25,05	23,240	23,550
3/4 x 14	27,00	27,203	36,720	46,253	55,778	65,303	28,59	26,750	27,070
7/8 x 14	30,60	30,378	41,500	52,603	63,729	74,828	32,35	30,480	30,810
1 x 11	33,70	35,789	49,490	61,189	73,889	86,589	35,96	33,530	33,900

C Diámetro de broca previa / Recommended drill diameter / Perçage avant trou
S Longitud de taladrado / Drilling Length / Longueur perçage
B Ø mayor de rosca / Maximum diameter of thread / *Diametre maximum du filet*
A Ø menor de rosca / Minimum diameter of thread / *Diametre minimum du filet*
Q Longitud nominal / Nominal Length / Longeur nominale
d1 exterior del casquillo / External Ø of wire insert / *Diametre extérieur di filet rapporté*
W N° de hilos / N° of coils / Nombre de spires

RESISTENCIA DE LOS INSERTOS ROSCADOS

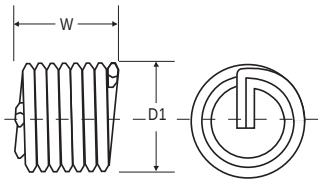
RESISTENCES OF WIRE TRHEAD INSERTS • RÉSISTENCES DÉS FILETS RAPPORTÉS

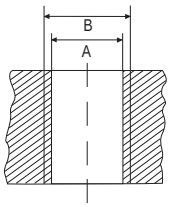
MATERIAL MATERIAL / MATÉRIEL	TEMP. MÁXIMA MAX. TEMPERATURE / TEMPERATURE MAX.	RESISTENCIA MÍNIMA A LA TRACCIÓN MIN. TENSILE STRENGTH / RÉSISTENCE MIN. À LA TRACTION
X10 Cr Ni 18-8	425° C (peak) / 315° C (cont.)	1400 N/mm^2

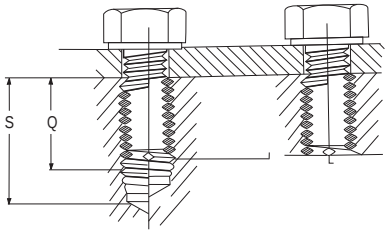
ROSCADO / THREADING / FILETAGE					NSERTO / INSERTS / FILETS RAPPORTÉS						
LONGITUD ÚTIL (Q) / LENGTH (Q) / LONGEUR (Q)					D1		Nº DE HILOS (W) / Nº OF COILS (W) / LONGEUR (W)				
1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín,	máx,	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
3,200	4,801	6,400	7,900	9,600	3,988	4,394	3,400	7,90	7,900	10,300	12,500
4,800	7,112	9,600	11,900	14,400	6,096	6,502	2,900	5,10	7,200	9,300	11,500
6,400	9,525	12,700	15,900	19,200	7,899	8,407	3,400	5,90	8,100	10,500	12,900
7,900	11,913	15,900	19,800	23,700	9,703	10,185	4,100	6,70	9,400	12,000	14,600
9,500	14,275	19,100	23,800	28,500	11,506	11,989	4,500	7,30	10,200	13,000	15,800
11,100	16,662	22,200	27,800	33,300	13,487	13,995	4,600	7,50	10,400	13,300	16,200
12,700	19,050	25,400	31,800	38,100	15,392	16,002	4,400	7,30	10,100	13,000	15,900
14,300	21,438	28,600	35,700	42,900	16,993	17,628	5,200	8,40	11,600	14,800	18,000
15,900	23,800	31,800	39,700	47,700	18,898	19,482	5,400	8,70	11,900	15,300	18,700
19,100	28,575	38,100	47,600	57,300	22,403	22,987	6,000	9,70	13,200	16,800	20,400
22,200	33,325	44,500	55,600	66,600	26,010	26,695	6,400	10,10	13,900	17,700	21,400
25,400	38,100	50,800	63,500	76,200	27,686	30,404	6,500	10,30	14,100	17,900	21,700

1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
4,750	7,112	9,525	11,913	14,275	5,994	6,401	4,100	6,80	9,400	12,100	-
6,350	9,525	12,700	15,875	19,050	7,899	8,407	4,600	7,60	10,400	13,400	-
7,925	11,913	15,875	19,837	23,800	9,804	10,312	5,000	8,10	11,200	14,300	-
9,525	14,275	19,050	23,800	28,575	11,608	12,090	5,600	9,00	12,400	15,800	-
11,100	16,662	22,225	27,788	33,325	13,589	14,097	5,900	9,50	13,100	16,600	-
12,700	19,050	25,400	31,750	38,100	15,494	16,002	6,100	9,70	13,300	16,900	-
14,275	21,438	28,575	35,712	42,850	17,196	17,780	7,000	11,10	15,100	19,300	-
15,875	23,800	31,750	39,675	47,625	19,101	19,685	6,800	10,80	14,800	18,700	-
19,050	28,575	38,100	47,625	57,150	22,911	23,495	7,000	11,10	15,200	19,300	-
22,225	33,325	44,450	55,550	66,675	26,492	27,305	7,600	11,90	16,400	20,800	-
25,400	38,100	50,800	63,500	76,200	30,201	30,988	7,900	12,50	17,100	21,600	-

1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø	mín.	máx.	1,0 x Ø	1,5 x Ø	2,0 x Ø	2,5 x Ø	3,0 x Ø
3,175	4,760	6,350	7,925	9,525	11,100	11,400	1,90	3,80	5,10	6,70	-
6,350	9,500	12,700	15,875	19,050	15,050	15,350	3,10	5,50	7,40	9,60	-
9,525	14,300	19,050	23,800	28,575	18,550	18,850	5,30	8,75	11,80	15,00	-
12,700	19,100	25,400	31,750	38,100	23,400	23,700	5,20	8,60	11,60	14,80	-
15,875	23,800	31,750	39,675	47,625	25,350	25,650	6,80	11,00	14,80	18,80	-
19,050	28,600	38,100	47,625	57,150	28,900	29,200	8,40	13,50	18,10	22,90	-
22,225	33,300	44,450	55,550	66,675	32,750	33,150	10,00	15,80	21,30	-	-
25,400	38,100	50,800	63,500	76,200	36,400	36,800	8,90	14,10	19,00	-	-

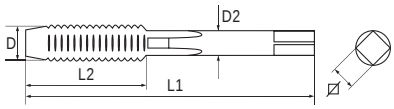






M MACHOS STI (INTERMEDIO)
STI TAPS (SECOND LEAD)
TARAUDS STI

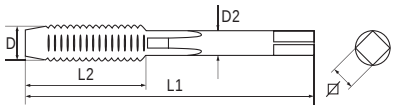
HSS-G | FORM D | TOL ISO1 4H



D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 2,00 x 0,40	2,5	44,5	9,5	2,8	2,24	1C03001	20,93
M 2,50 x 0,45	3,1	48,0	11,0	3,15	2,50	1C03003	20,93
M 3,00 x 0,50	3,6	53,0	13,0	4,0	3,15	1C03005	18,00
M 3,50 x 0,60	4,3	53,0	13,0	4,5	3,55	1C03006	18,26
M 4,00 x 0,70	4,9	58,0	16,0	5,0	4,00	1C03007	18,00
M 5,00 x 0,80	6,0	66,0	19,0	6,3	5,00	1C03008	18,00
M 6,00 x 1,00	7,3	72,0	22,0	8,0	6,30	1C03009	18,00
M 7,00 x 1,00	8,3	72,0	22,0	9,0	7,10	1C03010	22,75
M 8,00 x 1,25	9,6	80,0	24,0	10,0	8,00	1C03011	22,43
M 8,00 x 1,00	9,3	80,0	24,0	10,0	8,00	1C03012	22,75
M 9,00 x 1,25	10,6	85,0	25,0	8,0	6,30	1C03013	27,89
M 10,00 x 1,50	11,9	89,0	29,0	9,0	7,10	1C03015	27,48
M 10,00 x 1,25	11,6	85,0	25,0	8,0	6,30	1C03016	27,89
M 10,00 x 1,00	11,3	85,0	25,0	8,0	6,30	1C03017	27,89
M 11,00 x 1,50	12,9	89,0	29,0	9,0	7,10	1C03018	31,56
M 12,00 x 1,75	14,3	95,0	30,0	11,2	9,00	1C03020	31,11
M 12,00 x 1,50	14,0	95,0	30,0	11,2	9,00	1C03021	38,54
M 12,00 x 1,25	13,6	95,0	30,0	11,2	9,00	1C03022	38,54
M 12,00 x 1,00	13,3	95,0	30,0	11,2	9,00	1C03023	38,54
M 14,00 x 2,00	16,6	102,0	32,0	12,5	10,00	1C03027	43,20
M 14,00 x 1,50	16,0	102,0	32,0	12,5	10,00	1C03028	43,20
M 14,00 x 1,25	15,6	102,0	32,0	12,5	10,00	1C03029	43,20
M 14,00 x 1,00	15,3	102,0	32,0	12,5	10,00	1C03030	43,20
M 16,00 x 2,00	18,6	112,0	37,0	14,0	11,20	1C03033	51,72
M 16,00 x 1,50	18,0	104,0	29,0	14,0	11,20	1C03034	52,47
M 18,00 x 2,50	21,3	118,0	38,0	16,0	12,50	1C03035	66,43
M 18,00 x 2,00	20,6	104,0	29,0	14,0	11,20	1C03036	66,43
M 18,00 x 1,50	20,0	104,0	29,0	14,0	11,20	1C03037	66,43
M 20,00 x 2,50	23,3	118,0	38,0	16,0	12,50	1C03038	73,06
M 20,00 x 2,00	22,6	113,0	33,0	16,0	12,50	1C03039	73,06
M 20,00 x 1,50	22,0	113,0	33,0	16,0	12,50	1C03040	73,06
M 22,00 x 2,50	25,3	130,0	45,0	18,0	14,00	1C03041	84,04
M 22,00 x 2,00	24,6	120,0	35,0	18,0	14,00	1C03042	84,04
M 22,00 x 1,50	24,0	120,0	35,0	18,0	14,00	1C03043	84,04
M 24,00 x 3,00	27,9	138,0	48,0	20,0	16,00	1C03044	106,28
M 24,00 x 2,00	26,6	127,0	37,0	20,0	16,00	1C03045	106,28
M 24,00 x 1,50	26,0	120,0	35,0	18,0	14,00	1C03046	106,28

MACHOS STI, JUEGO 2 PIEZAS
STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÉCES

HSS-G | FORM D | TOL ISO1 4H

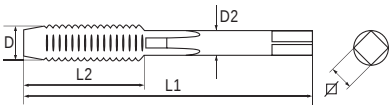


D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod,	€/Unid.
M 26,00 x 1,50	28,0	127,0	37,0	20,0	16,00	1C03049	311,27
M 27,00 x 3,00	30,9	151,0	51,0	22,4	18,00	1C03050	311,27
M 27,00 x 2,00	29,6	127,0	37,0	20,0	16,00	1C03051	311,27
M 27,00 x 1,50	29,0	127,0	37,0	20,0	16,00	1C03052	311,27
M 28,00 x 1,50	30,0	127,0	37,0	20,0	16,00	1C03053	311,27
M 30,00 x 3,50	34,6	162,0	57,0	25,0	20,00	1C03054	414,01
M 30,00 x 2,00	32,6	137,0	37,0	22,4	18,00	1C03055	414,01
M 30,00 x 1,50	32,0	137,0	37,0	22,4	18,00	1C03056	414,01
M 33,00 x 3,50	37,6	162,0	57,0	25,0	20,00	1C03057	414,01
M 33,00 x 2,00	35,6	144,0	37,0	25,0	20,00	1C03058	414,01
M 36,00 x 4,00	41,2	170,0	60,0	28,0	22,40	1C03060	463,81
M 36,00 x 3,00	39,9	170,0	60,0	28,0	22,40	1C03061	463,81
M 36,00 x 2,00	38,6	150,0	39,0	28,0	22,40	1C03062	463,81
M 36,00 x 1,50	38,0	150,0	39,0	28,0	22,40	1C03063	463,81
NEW M 39,00 x 4,00	44,2	187,0	67,0	31,5	28,00	1C03064*	909,46
NEW M 39,00 x 3,00	42,9	149,0	39,0	28,0	26,00	1C03065*	611,58
NEW M 40,00 x 3,00	43,9	149,0	39,0	28,0	26,00	1C03066*	611,58
NEW M 42,00 x 4,50	47,9	187,0	67,0	31,5	28,00	1C03067*	1.285,05
NEW M 42,00 x 3,00	45,9	165,0	45,0	31,5	28,00	1C03068*	765,36
NEW M 45,00 x 4,50	50,9	200,0	70,0	35,5	31,00	1C03069*	1.285,05
NEW M 45,00 x 3,00	48,9	175,0	45,0	35,5	31,00	1C03070*	874,02
NEW M 48,00 x 4,00	54,5	200,0	70,0	35,5	31,00	1C03076*	1.592,14
NEW M 48,00 x 5,00	53,2	175,0	45,0	35,5	31,00	1C03071*	1.592,14
NEW M 48,00 x 3,00	51,9	175,0	45,0	35,5	31,00	1C03072*	1.001,58
NEW M 50,00 x 3,00	53,9	175,0	45,0	35,5	31,00	1C03073*	1.096,07
NEW M 52,00 x 5,00	58,5	221,0	76,0	40,0	34,00	1C03074*	2.314,98
NEW M 52,00 x 3,00	55,9	193,0	48,0	40,0	34,00	1C03075*	1.638,44

*Consultar plazo / Request delivery time / *Vérifier la date limite*

UNC MACHOS STI (INTERMEDIO)
STI-TAPS (SECOND LEAD)
TARAUDS STI

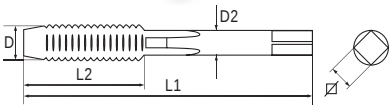
HSS-G | FORM D | TOL 3B



D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNC/NC							
Nr. 2 x 56	2,8	48,0	10,0	3,15	2,50	1C03100	29,01
Nr. 4 x 40	3,7	53,0	13,0	4,00	3,15	1C03101	29,01
Nr. 5 x 40	4,0	53,0	13,0	4,00	3,15	1C03102	29,01
Nr. 6 x 32	4,5	58,0	16,0	5,00	4,00	1C03103	29,01
Nr. 8 x 32	5,2	62,0	17,0	5,60	4,50	1C03104	29,01
Nr. 10 x 24	6,2	66,0	19,0	6,30	5,00	1C03105	29,01
Nr. 12 x 24	6,9	66,0	19,0	7,10	5,60	1C03106	29,01
1/4 x 20	8,0	72,0	22,0	8,00	6,30	1C03107	18,99
5/16 x 18	9,8	80,0	24,0	10,00	8,00	1C03108	20,91
3/8 x 16	11,6	85,0	25,0	8,00	6,30	1C03109	21,77
7/16 x 14	13,5	95,0	30,0	11,20	9,00	1C03110	29,01
1/2 x 13	15,2	102,0	32,0	12,50	10,00	1C03111	32,82
9/16 x 12	17,0	112,0	37,0	14,00	11,20	1C03112	54,56
5/8 x 11	18,9	112,0	37,0	14,00	11,20	1C03113	67,36
3/4 x 10	22,4	118,0	38,0	16,00	12,50	1C03114	81,86
7/8 x 9	25,9	130,0	45,0	18,00	14,00	1C03115	95,52
1 x 8	29,5	138,0	48,0	20,00	16,00	1C03116	95,52

UNC MACHOS STI, JUEGO 2 PIEZAS
STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÉCES

HSS-G | FORM D | TOL 3B

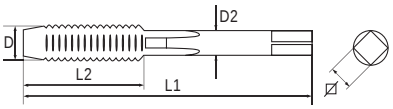


D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNC/NC							
1.1/8 x 7	33,3	151,0	51,0	22,4	18,00	1C03117	302,89
1.1/4 x 7	36,5	162,0	57,0	25,0	20,00	1C03118	355,25
1.3/8 x 6	40,4	170,0	60,0	28,0	22,40	1C03119	433,89
1.1/2 x 6	43,6	187,0	67,0	31,5	25,00	1C03120	562,37

UNF

MACHOS STI (INTERMEDIO)
STI-TAPS (SECOND LEAD)
TARAUDS STI

HSS-G | FORM D | TOL 3B

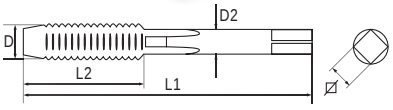


D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNF/NF							
Nr. 4 x 48	3,5	53,0	13,0	4,0	3,15	1C03151	29,01
Nr. 6 x 40	4,3	53,0	13,0	4,5	3,55	1C03152	29,01
Nr. 8 x 36	5,1	62,0	17,0	5,6	4,50	1C03153	29,01
Nr. 10 x 32	5,9	66,0	19,0	6,3	5,00	1C03154	29,01
1/4 x 28	7,5	69,0	19,0	8,0	6,30	1C03155	18,99
5/16 x 24	9,3	76,0	20,0	10,0	8,00	1C03156	20,91
3/8 x 24	10,9	82,0	22,0	8,0	6,30	1C03157	21,77
7/16 x 20	12,8	84,0	24,0	9,0	7,10	1C03158	29,01
1/2 x 20	14,4	90,0	25,0	11,2	9,00	1C03159	29,81
9/16 x 18	16,1	104,0	29,0	12,5	10,00	1C03160	54,56
5/8 x 18	17,7	104,0	29,0	14,0	11,20	1C03161	67,36
3/4 x 16	21,1	104,0	29,0	14,0	11,20	1C03162	81,86
7/8 x 14	24,6	120,0	35,0	18,0	14,00	1C03163	95,00
1 x 12	28,2	127,0	37,0	20,0	16,00	1C03164	95,00
1 x 14	27,8	127,0	37,0	20,0	16,00	1C03165	95,00

UNF

MACHOS STI, JUEGO 2 PIEZAS
STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÉCES

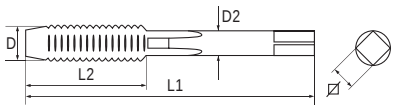
HSS-G | FORM D | TOL 3B



D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
UNF/NF							
1.1/8 x 12	31,3	137,0	37,0	22,4	18,00	1C03166	292,09
1.1/4 x 12	34,5	144,0	39,0	25,0	20,00	1C03167	358,64
1.3/8 x 12	37,7	150,0	39,0	28,0	22,40	1C03168	438,11
1.1/2 x 12	40,9	150,0	39,0	28,0	22,40	1C03169	567,83

G(BSP) MACHOS STI (INTERMEDIO)
STI-TAPS (SECOND LEAD)
TARAUDS STI

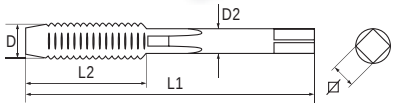
HSS-G | FORM D | TOL ISO1 4H



D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
1/8 x 28	10,8	59,0	15,0	8,00	6,30	1C03301	26,32
1/4 x 19	14,7	67,0	19,0	11,20	9,00	1C03302	32,13
3/8 x 19	18,3	75,0	21,0	14,00	11,20	1C03303	41,96
1/2 x 14	23,1	87,0	26,0	16,00	12,50	1C03304	68,81
5/8 x 14	25,0	91,0	26,0	18,00	14,00	1C03305	101,21
3/4 x 14	28,6	96,0	28,0	20,00	16,00	1C03306	101,21
1 x 11	36,0	109,0	33,0	25,00	20,00	1C03307	159,73

G(BSP) MACHOS STI, JUEGO 2 PIEZAS
STI-TAPS, SET OF 2 PCS
TARAUDS STI - JEU 2 PIÉCES

HSS-G | FORM D | TOL ISO1 4H

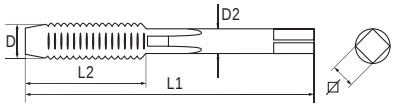


D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
1/8 x 28	10,0	59,0	15,0	8,0	6,30	1C03311	51,05
1/4 x 19	14,7	67,0	19,0	11,2	9,00	1C03312	64,27
3/8 x 19	18,3	75,0	21,0	14,0	11,20	1C03313	84,38
1/2 x 14	23,1	87,0	26,0	16,0	12,50	1C03314	137,78
5/8 x 14	25,1	91,0	26,0	18,0	14,00	1C03315	203,25
3/4 x 14	28,6	96,0	28,0	20,0	16,00	1C03316	203,25
7/8 x 14	32,4	102,0	29,0	22,4	18,00	1C03318	322,75
1 x 11	36,0	109,0	33,0	25,0	20,00	1C03317	322,75

BSW MACHOS STI (INTERMEDIO)

STI-TAPS (SECOND LEAD)
TARAUDS STI

HSS-G | FORM D | TOL ISO1 4H

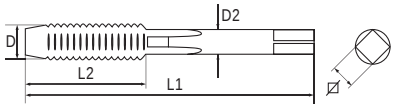


D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
1/8 x 40	3,9	53,0	13,0	4,0	3,15	1C03201	18,99
3/16 x 24	6,0	56,0	19,0	6,3	5,00	1C03202	18,99
1/4 x 20	7,8	72,0	22,0	8,0	6,30	1C03203	18,99
5/16 x 18	9,6	80,0	24,0	10,0	8,00	1C03204	20,91
3/8 x 16	11,4	85,0	25,0	8,0	6,30	1C03205	21,77
7/16 x 14	13,2	95,0	30,0	11,2	9,00	1C03206	29,01
1/2 x 12	15,2	102,0	32,0	12,5	10,00	1C03207	32,82
9/16 x 12	16,8	102,0	32,0	12,5	10,00	1C03208	54,56
5/8 x 11	18,6	112,0	37,0	14,0	11,20	1C03209	67,36
11/16 x 11	20,2	112,0	37,0	14,0	11,20	1C03210	81,86
3/4 x 10	22,0	118,0	38,0	16,0	12,50	1C03211	81,86
7/8 x 9	25,5	130,0	45,0	18,0	14,00	1C03212	95,00
1 x 8	29,1	138,0	48,0	20,0	16,00	1C03213	95,00

BSF MACHOS STI (INTERMEDIO)

STI-TAPS (SECOND LEAD)
TARAUDS STI

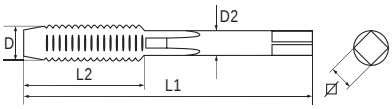
HSS-G | FORM D | TOL ISO1 4H



D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
3/16 x 32	5,7	66,0	19,0	6,3	5,00	1C03251	18,99
1/4 x 26	7,5	72,0	22,0	8,0	6,30	1C03253	18,99
5/16 x 22	9,3	80,0	24,0	10,0	8,00	1C03255	20,91
3/8 x 20	11,0	85,0	25,0	8,0	6,30	1C03256	21,77
7/16 x 18	12,8	89,0	29,0	9,0	7,10	1C03257	29,01
1/2 x 16	14,6	95,0	30,0	11,2	9,00	1C03258	32,82
9/16 x 16	16,2	102,0	32,0	12,5	10,00	1C03259	54,56
5/8 x 14	18,0	112,0	37,0	14,0	11,20	1C03260	67,36
11/16 x 14	19,6	112,0	37,0	14,0	11,20	1C03261	81,86
3/4 x 12	21,5	118,0	38,0	16,0	12,50	1C03262	81,86
7/8 x 11	24,9	130,0	45,0	18,0	14,00	1C03264	95,00
1 x 10	28,4	138,0	48,0	20,0	16,00	1C03265	95,00

BA MACHOS STI (INTERMEDIO)
STI-TAPS (SECOND LEAD)
TARAUDS STI

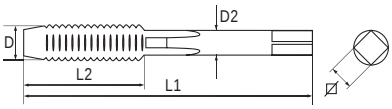
HSS-G | FORM D | TOL ISO1 4H



D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
BA 0	7,1	66,0	19,0	7,10	5,60	1C03321	18,99
BA 2	5,6	66,0	19,0	6,30	5,00	1C03323	18,99
BA 4	4,4	53,0	13,0	4,50	3,55	1C03325	18,99
BA 6	3,4	50,0	13,0	3,55	2,80	1C03327	18,99

BS. Brass MACHOS STI (INTERMEDIO)
STI-TAPS (SECOND LEAD)
TARAUDS STI

HSS-G | FORM D | TOL ISO1 4H



D Ø x P (")	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
1/4 x 26	7,5	69,0	19,0	8,00	6,30	1C03341	19,55
5/16 x 26	9,1	76,0	20,0	10,00	8,00	1C03342	21,52
3/8 x 26	10,7	82,0	22,0	8,00	6,30	1C03343	22,41
7/16 x 26	12,3	84,0	24,0	9,00	7,10	1C03344	29,85
1/2 x 26	13,9	90,0	25,0	11,20	9,00	1C03345	41,75

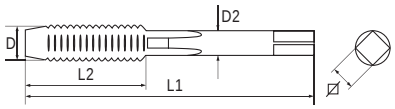
Consultar precio y plazo para kit / Request price and availability for kit / Consulter de prix et le disponibilité pour kit

M MACHOS MÁQUINA STI (PASANTE)
STI MACHINE TAPS (SPIRAL POINT)
TARAUDS MACHINE STI ENTRÉE GUN

HSS-CO 5%

FORM B

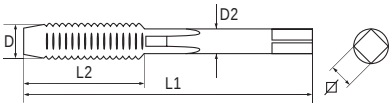
TOL ISO1 4H



D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3,00 x 0,50	3,6	53,0	13,0	4,0	3,15	1C03505	21,46
M 3,50 x 0,60	4,3	53,0	13,0	4,5	3,55	1C03506	21,46
M 4,00 x 0,70	4,9	58,0	16,0	5,0	4,00	1C03507	21,46
M 5,00 x 0,80	6,0	66,0	19,0	6,3	5,00	1C03508	23,51
M 6,00 x 1,00	7,3	72,0	22,0	8,0	6,40	1C03509	24,19
M 7,00 x 1,00	8,3	72,0	22,0	9,0	7,10	1C03510	29,63
M 8,00 x 1,25	9,5	80,0	24,0	10,0	8,00	1C03511	26,89
M 8,00 x 1,00	9,3	80,0	24,0	10,0	8,00	1C03512	29,73
M 10,00 x 1,50	11,9	89,0	29,0	9,0	7,10	1C03515	37,05
M 10,00 x 1,00	11,3	85,0	25,0	8,0	6,30	1C03517	37,05
M 12,00 x 1,75	14,3	95,0	30,0	11,2	9,00	1C03520	56,27
M 12,00 x 1,50	14,0	95,0	30,0	11,2	9,00	1C03521	56,27
M 12,00 x 1,25	13,6	95,0	30,0	11,2	9,00	1C03522	56,27
M 14,00 x 2,00	16,6	102,0	32,0	12,5	10,00	1C03527	66,72
M 14,00 x 1,50	16,0	102,0	32,0	12,5	10,00	1C03528	66,72
M 14,00 x 1,25	15,6	102,0	32,0	12,5	10,00	1C03529	66,72
M 16,00 x 2,00	18,6	112,0	37,0	14,0	11,20	1C03533	69,86

MACHOS MÁQUINA STI (CIEGO)
STI MACHINE TAPS (SPIRAL FLUTE)
TARAUDS MACHINE STI HÉLICOIDAL

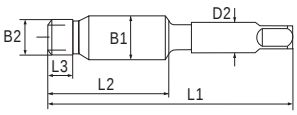
HSS-CO 5% | FORM C/35° | TOL ISO1 4H



D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3,00 x 0,50	3,6	53,0	13,0	4,0	3,15	1C03705	21,46
M 3,50 x 0,60	4,3	53,0	13,0	4,5	3,55	1C03706	21,46
M 4,00 x 0,70	4,9	58,0	16,0	5,0	4,00	1C03707	21,46
M 5,00 x 0,80	6,0	66,0	19,0	6,3	5,00	1C03708	21,46
M 6,00 x 1,00	7,3	72,0	22,0	8,0	6,40	1C03709	21,46
M 7,00 x 1,00	8,3	72,0	22,0	9,0	7,10	1C03710	26,89
M 8,00 x 1,25	9,5	80,0	24,0	10,0	8,00	1C03711	26,89
M 8,00 x 1,00	9,3	80,0	24,0	10,0	8,00	1C03712	26,89
M 10,00 x 1,50	11,9	89,0	29,0	9,0	7,10	1C03715	32,35
M 10,00 x 1,00	11,3	85,0	25,0	8,0	6,30	1C03717	32,36
M 12,00 x 1,75	14,3	95,0	30,0	11,2	9,00	1C03720	42,89
M 12,00 x 1,50	14,0	95,0	30,0	11,2	9,00	1C03721	45,82
M 12,00 x 1,25	13,6	95,0	30,0	11,2	9,00	1C03722	45,82
M 14,00 x 2,00	16,6	102,0	32,0	12,5	10,00	1C03727	59,26
M 14,00 x 1,50	16,0	102,0	32,0	12,5	10,00	1C03728	59,26
M 14,00 x 1,25	15,6	102,0	32,0	12,5	10,00	1C03729	59,26
M 16,00 x 2,00	18,6	112,0	37,0	14,0	11,20	1C03733	62,63

MACHOS STI "SPARK PLUG" CON PUNTA PILOTO
STI-SPARK PLUG TAPS WITH PILOT NOSE
TARAUDS STI ÉTAGÉS

HSS-G | TOL ISO1 4H

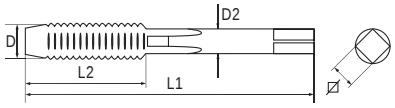


D Ø x P (mm)	B1 (mm)	B2 (mm)	L3 (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 6,00 x 1,00	7,3	6	7	28	70	8	6,3	1C03630	35,88
M 8,00 x 1,25	9,6	8	9	32	75	8	6,3	1C03631	35,88
M 10,00 x 1,50	11,9	10	9	37	80	9	7,1	1C03632	46,50
M 10,00 x 1,00	11,3	10	8	30	74	8	6,3	1C03633	46,50
M 12,00 x 1,25	13,6	12	9	32	75	9	7,1	1C03634	64,94
M 14,00 x 1,25	15,6	14	10	45	90	12	9,2	1C03635	72,65
M 18,00 x 1,50	20,0	18	10	47	116	16	12,5	1C03636	108,04

MACHOS STI POR LAMINACIÓN
STI-FLUTELESS TAPS
TARAUDS STI À REFOULER

HSS-CO 5%

TOL ISO1
4H



D Ø x P (mm)	D (mm)	L1 (mm)	L2 (mm)	D2 (mm)	Ø (mm)	Cod.	€/Unid.
M 3,00 x 0,50	3,6	53,0	13,0	4,0	3,15	1C03605	33,78
M 4,00 x 0,70	4,9	58,0	16,0	5,0	4,00	1C03607	36,63
M 5,00 x 0,80	6,0	66,0	19,0	6,3	5,00	1C03608	36,63
M 6,00 x 1,00	7,3	72,0	22,0	8,0	6,40	1C03609	41,96
M 8,00 x 1,25	9,5	80,0	24,0	10,0	8,00	1C03611	50,47
M 10,00 x 1,50	11,9	89,0	29,0	9,0	7,10	1C03615	59,73
M 12,00 x 1,75	14,3	95,0	30,0	11,2	9,00	1C03620	106,07

DIÁMETRO BROCA PREVIA / RECOMMENDED TAPPINNG DRILL SIZES / DIAMÈTRES PRÉALABLES AU FILETAGE

Ø M3	Ø M4	Ø M5	Ø M6	Ø M8	Ø M10	Ø M12
3,40	4,60	5,60	6,80	9,00	11,20	13,40

M y Mf

INSERTOS ROSCADOS DE ACERO INOXIDABLE
STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140

TOL ISO2 6H

		1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
D Ø x P (mm)	Uds. / Pcs.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.
M 2.0 x 0.40	100	2C07202	1,31	2C07302	1,62	2C07402	1,99	2C07502	2,24	2C07602	2,80
M 2,2 x 0,45	100	2C07203	1,31	2C07303	1,62	2C07403	1,99	2C07503	2,24	2C07603	2,80
M 2,5 x 0,45	100	2C07204	0,41	2C07304	0,39	2C07404	0,45	2C07504	0,53	2C07604	0,64
M 3,0 x 0,50	100	2C07205	0,41	2C07305	0,39	2C07405	0,45	2C07505	0,53	2C07605	0,64
M 3,5 x 0,60	100	2C07206	0,45	2C07306	0,45	2C07406	0,52	2C07506	0,59	2C07606	0,70
M 4,0 x 0,70	100	2C07207	0,41	2C07307	0,39	2C07407	0,45	2C07507	0,53	2C07607	0,59
M 5,0 x 0,80	100	2C07208	0,45	2C07308	0,35	2C07408	0,52	2C07508	0,63	2C07608	0,74
M 6,0 x 1,00	100	2C07209	0,48	2C07309	0,38	2C07409	0,59	2C07509	0,70	2C07609	0,87
M 7,0 x 1,00	100	2C07210	0,53	2C07310	0,60	2C07410	0,70	2C07510	0,85	2C07610	1,01
M 8,0 x 1,25	100	2C07211	0,52	2C07311	0,49	2C07411	0,70	2C07511	0,85	2C07611	1,01
M 8,0 x 1,00	100	2C07212	0,59	2C07312	0,56	2C07412	0,75	2C07512	0,89	2C07612	1,09
M 9,0 x 1,25	100	2C07213	0,70	2C07313	0,91	2C07413	0,96	2C07513	1,03	2C07613	1,23
M 10,0 x 1,50	100	2C07215	0,64	2C07315	0,67	2C07415	0,81	2C07515	0,98	2C07615	1,19
M 10,0 x 1,25	100	2C07216	0,64	2C07316	0,67	2C07416	0,81	2C07516	0,98	2C07616	1,19
M 10,0 x 1,00	100	2C07217	0,64	2C07317	0,67	2C07417	0,81	2C07517	0,98	2C07617	1,19
M 11,0 x 1,50	100	2C07219	1,08	2C07319	1,13	2C07419	1,20	2C07519	1,57	2C07619	1,76
M 12,0 x 1,75	100	2C07221	0,96	2C07321	1,03	2C07421	1,23	2C07521	1,45	2C07621	1,76
M 12,0 x 1,50	100	2C07222	0,96	2C07322	1,03	2C07422	1,23	2C07522	1,45	2C07622	1,76
M 12,0 x 1,25	100	2C07223	0,96	2C07323	1,03	2C07423	1,23	2C07523	1,45	2C07623	1,76
M 12,0 x 1,00	100	2C07224	0,96	2C07324	1,03	2C07424	1,23	2C07524	1,45	2C07624	1,76
M 14,0 x 2,00	50	2C07225	1,34	2C07325	1,45	2C07425	1,59	2C07525	1,93	2C07625	2,35
M 14,0 x 1,50	50	2C07226	1,34	2C07326	1,45	2C07426	1,59	2C07526	1,93	2C07626	2,35
M 14,0 x 1,25	50	2C07227	1,34	2C07327	1,45	2C07427	1,59	2C07527	1,93	2C07627	2,35
M 14,0 x 1,00	50	2C07231	1,64	2C07331	1,45	2C07431	1,93	2C07531	2,35	2C07631	2,80
M 16,0 x 2,00	50	2C07234	1,82	2C07334	1,80	2C07434	2,35	2C07534	2,57	2C07634	3,14
M 16,0 x 1,50	50	2C07235	1,82	2C07335	1,80	2C07435	2,35	2C07535	2,57	2C07635	2,80
M 18,0 x 2,50	25	2C07236	2,66	2C07336	2,92	2C07436	4,21	2C07536	4,77	2C07636	5,59
M 18,0 x 2,00	25	2C07237	2,66	2C07337	2,92	2C07437	4,21	2C07537	4,77	2C07637	5,59
M 18,0 x 1,50	25	2C07238	2,66	2C07338	2,92	2C07438	4,21	2C07538	4,77	2C07638	5,59
M 20,0 x 2,50	25	2C07239	3,09	2C07339	3,70	2C07439	5,03	2C07539	5,59	2C07639	6,45
M 20,0 x 2,00	25	2C07240	3,09	2C07340	3,70	2C07440	5,03	2C07540	5,59	2C07640	6,45
M 20,0 x 1,50	25	2C07241	3,09	2C07341	3,70	2C07441	5,03	2C07541	5,59	2C07641	6,45
M 22,0 x 2,50	10	2C07242	3,36	2C07342	3,97	2C07442	5,33	2C07542	6,15	2C07642	7,00
M 22,0 x 2,00	10	2C07243	3,36	2C07343	3,97	2C07443	5,33	2C07543	6,15	2C07643	8,20
M 22,0 x 1,50	10	2C07244	3,36	2C07344	3,97	2C07444	5,33	2C07544	6,15	2C07644	7,00
M 24,0 x 3,00	10	2C07245	4,21	2C07345	4,75	2C07445	5,70	2C07545	7,26	2C07645	7,99
M 24,0 x 2,00	10	2C07246	4,21	2C07346	4,75	2C07446	5,59	2C07546	7,26	2C07646	7,99
M 24,0 x 1,50	10	2C07247	4,21	2C07347	4,75	2C07447	5,59	2C07547	7,26	2C07647	7,99
M 26,0 x 1,50	5	-	-	2C07349	6,88	-	-	-	-	-	-
M 27,0 x 3,00	5	-	-	2C07350	6,88	-	-	-	-	-	-
M 27,0 x 2,00	5	-	-	2C07351	6,88	-	-	-	-	-	-
M 27,0 x 1,50	5	-	-	2C07352	6,88	-	-	-	-	-	-
M 28,0 x 1,50	5	-	-	2C07353	6,88	-	-	-	-	-	-
M 30,0 x 3,50	5	-	-	2C07354	7,94	-	-	-	-	-	-
M 30,0 x 2,00	5	-	-	2C07355	7,94	-	-	-	-	-	-
M 30,0 x 1,50	5	-	-	2C07356	7,94	-	-	-	-	-	-
M 33,0 x 3,50	5	-	-	2C07357	10,19	-	-	-	-	-	-
M 33,0 x 2,00	5	-	-	2C07358	10,19	-	-	-	-	-	-
M 36,0 x 4,00	5	-	-	2C07360	10,19	-	-	-	-	-	-
M 36,0 x 3,00	5	-	-	2C07361	10,19	-	-	-	-	-	-
M 36,0 x 2,00	5	-	-	2C07362	10,19	-	-	-	-	-	-
M 36,0 x 1,50	5	-	-	2C07363	10,19	-	-	-	-	-	-
NEW M 39,0 x 4,00	5	-	-	2C07364*	31,55	-	-	-	-	-	-
NEW M 39,0 x 3,00	5	-	-	2C07365*	31,55	-	-	-	-	-	-

*Consultar plazo / Request delivery time / *Vérifier la date limite*

M y Mf

INSERTOS ROSCADOS DE ACERO INOXIDABLE
STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140 | TOL ISO2 6H

		1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
D Ø x P (mm)	Uds. / Pcs.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.
M 40 x 3.00	5	-	-	2C07368*	43,66	-	-	-	-	-	-
M 42 x 4.50	5	-	-	2C07372*	43,84	-	-	-	-	-	-
M 42 x 3.00	5	-	-	2C07373*	43,84	-	-	-	-	-	-
M 45 x 4.50	5	-	-	2C07377*	53,11	-	-	-	-	-	-
M 45 x 3.00	5	-	-	2C07378*	53,11	-	-	-	-	-	-
M 48 x 5.00	5	-	-	2C07382*	69,22	-	-	-	-	-	-
M 48 x 4.00	5	-	-	2C07384*	69,09	-	-	-	-	-	-
M 48 x 3.00	5	-	-	2C07383*	51,95	-	-	-	-	-	-
M 50 x 3.00	5	-	-	2C07387*	67,85	-	-	-	-	-	-
M 52 x 5.00	5	-	-	2C07390*	73,07	-	-	-	-	-	-
M 52 x 3.00	5	-	-	2C07391*	73,07	-	-	-	-	-	-

*Consultar plazo / Request delivery time / *Vérifier la date limite*

M y Mf

INSERTOS ROSCADOS DE ACERO INOXIDABLE NEW
STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140 | TOL ISO2 6H

D Ø x P (mm)	Uds. x caja / Units x box	1,0 x DØ			1,5 x DØ		
		Cod.	€/Unid.	€/Caja	Cod.	€/Unid.	€/Caja
M 2 x 0,4	20	BL-2C07202	1,70	34,07	BL-2C07302	2,11	42,22
M 2,2 x 0,45	20	BL-2C07203	1,70	34,07	BL-2C07303	2,11	42,22
M 2,5 x 0,45	20	BL-2C07204	0,52	10,45	BL-2C07304	0,51	10,24
M 3 x 0,5	20	BL-2C07205	0,52	10,45	BL-2C07305	0,51	10,24
M 3,5 x 0,6	20	BL-2C07206	0,59	11,70	BL-2C07306	0,59	11,70
M 4 x 0,7	20	BL-2C07207	0,52	10,45	BL-2C07307	0,51	10,24
M 5 x 0,8	20	BL-2C07208	0,59	11,70	BL-2C07308	0,45	8,99
M 6 x 1,0	20	BL-2C07209	0,62	12,33	BL-2C07309	0,49	9,82
M 7 x 1,0	20	BL-2C07210	0,69	13,79	BL-2C07310	0,78	15,68
M 8 x 1,25	20	BL-2C07211	0,67	13,38	BL-2C07311	0,64	12,75
M 8 x 1,0	20	BL-2C07212	0,76	15,26	BL-2C07312	0,73	14,63
M 9 x 1,25	20	BL-2C07213	0,91	18,18	BL-2C07313	1,18	23,62
M 10 x 1,5	20	BL-2C07215	0,84	16,72	BL-2C07315	0,87	17,35
M 10 x 1,25	20	BL-2C07216	0,84	16,72	BL-2C07316	0,87	17,35
M 10 x 1,0	20	BL-2C07217	0,84	16,72	BL-2C07317	0,87	17,35
M 11 x 1,5	20	BL-2C07219	1,40	28,01	BL-2C07319	1,47	29,47
M 12 x 1,75	20	BL-2C07221	1,25	25,08	BL-2C07321	1,35	26,96
M 12 x 1,5	20	BL-2C07222	1,25	25,08	BL-2C07322	1,35	26,96
M 12 x 1,25	20	BL-2C07223	1,25	25,08	BL-2C07323	1,35	26,96
M 12 x 1,0	20	BL-2C07224	1,25	25,08	BL-2C07324	1,35	26,96
M 14 x 2,0	25	BL-2C07225	1,75	43,63	BL-2C07325	1,89	47,29
M 14 x 1,5	25	BL-2C07226	1,75	43,63	BL-2C07326	1,89	47,29
M 14 x 1,25	25	BL-2C07227	1,75	43,63	BL-2C07327	1,89	47,29
M 14 x 1,0	25	BL-2C07231	2,12	53,03	BL-2C07331	1,89	47,29
M 16 x 2,0	25	BL-2C07234	2,36	59,04	BL-2C07334	2,34	58,52
M 16 x 1,5	25	BL-2C07235	2,36	59,04	BL-2C07335	2,34	58,52

SESA COIL

M y Mf

INSERTOS ROSCADOS DE ACERO INOXIDABLE NEW
STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140

TOL ISO2 6H

D Ø x P (mm)	Uds. x caja Units x box	2,0 x DØ			2,5 x DØ			3,0 x DØ		
		Cod.	€/Unid.	€/Caja	Cod.	€/Unid.	€/Caja	Cod.	€/Unid.	€/Caja
M 2 x 0,4	20	BL-2C07402	2,58	51,62	BL-2C07502	2,91	58,10	BL-2C07602	3,64	72,73
M 2,2 x 0,45	20	BL-2C07403	2,58	51,62	BL-2C07503	2,91	58,10	BL-2C07603	3,64	72,73
M 2,5 x 0,45	20	BL-2C07404	0,59	11,70	BL-2C07504	0,69	13,79	BL-2C07604	0,84	16,72
M 3 x 0,5	20	BL-2C07405	0,59	11,70	BL-2C07505	0,69	13,79	BL-2C07605	0,84	16,72
M 3,5 x 0,6	20	BL-2C07406	0,67	13,38	BL-2C07506	0,76	15,26	BL-2C07606	0,91	18,18
M 4 x 0,7	20	BL-2C07407	0,59	11,70	BL-2C07507	0,69	13,79	BL-2C07607	0,76	15,26
M 5 x 0,8	20	BL-2C07408	0,67	13,38	BL-2C07508	0,82	16,30	BL-2C07608	0,96	19,23
M 6 x 1,0	20	BL-2C07409	0,76	15,26	BL-2C07509	0,91	18,18	BL-2C07609	1,13	22,57
M 7 x 1,0	20	BL-2C07410	0,91	18,18	BL-2C07510	1,11	22,15	BL-2C07610	1,31	26,13
M 8 x 1,25	20	BL-2C07411	0,91	18,18	BL-2C07511	1,11	22,15	BL-2C07611	1,31	26,13
M 8 x 1,0	20	BL-2C07412	0,98	19,65	BL-2C07512	1,16	23,20	BL-2C07612	1,42	28,42
M 9 x 1,25	20	BL-2C07413	1,25	25,08	BL-2C07513	1,35	26,96	BL-2C07613	1,60	31,98
M 10 x 1,5	20	BL-2C07415	1,06	21,11	BL-2C07515	1,27	25,50	BL-2C07615	1,55	30,93
M 10 x 1,25	20	BL-2C07416	1,06	21,11	BL-2C07516	1,27	25,50	BL-2C07616	1,55	30,93
M 10 x 1,0	20	BL-2C07417	1,06	21,11	BL-2C07517	1,27	25,50	BL-2C07617	1,55	30,93
M 11 x 1,5	20	BL-2C07419	1,57	31,35	BL-2C07519	2,04	40,76	BL-2C07619	2,29	45,77
M 12 x 1,75	20	BL-2C07421	1,60	31,98	BL-2C07521	1,89	37,83	BL-2C07621	2,29	45,77
M 12 x 1,5	20	BL-2C07422	1,60	31,98	BL-2C07522	1,89	37,83	BL-2C07622	2,29	45,77
M 12 x 1,25	20	BL-2C07423	1,60	31,98	BL-2C07523	1,89	37,83	BL-2C07623	2,29	45,77
M 12 x 1,0	20	BL-2C07424	1,60	31,98	BL-2C07524	1,89	37,83	BL-2C07624	2,29	45,77
M 14 x 2,0	25	BL-2C07425	2,07	51,73	BL-2C07525	2,51	62,70	BL-2C07625	3,05	76,29
M 14 x 1,5	25	BL-2C07426	2,07	51,73	BL-2C07526	2,51	62,70	BL-2C07626	3,05	76,29
M 14 x 1,25	25	BL-2C07427	2,07	51,73	BL-2C07527	2,51	62,70	BL-2C07627	3,05	76,29
M 14 x 1,0	25	BL-2C07431	2,51	62,70	BL-2C07531	3,05	76,29	BL-2C07631	3,64	90,92
M 16 x 2,0	25	BL-2C07434	3,05	76,29	BL-2C07534	3,34	83,60	BL-2C07634	4,08	101,89
M 16 x 1,5	25	BL-2C07435	3,05	76,29	BL-2C07535	3,34	83,60	BL-2C07635	3,64	90,92

Mf INSERTOS ROSCADOS PARA LAS ROSCAS DE LAS BUJÍAS
STAINLESS STEEL WIRE THREAD INSERTS FOR SPARK PLUG
FILETS RAPPORTÉS INOX POUR BOUGIES

DIN 8140 | TOL ISO2 6H

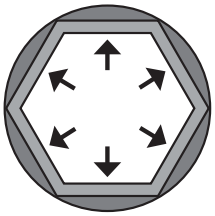
		8,40		12,40		16,40	
D Ø x P (mm)	Uds. / Pcs.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.
M 14 x 1,25	50	2C07128	1,45	2C07228	1,45	2C07328	1,45

M INSERTOS ROSCADOS AUTOFRENANTES DE ACERO INOXIDABLE
SCREW LOCKING STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX INDESSERRABLES

DIN 8140 | TOL ISO2 6H

		1,0 x DØ		1,5 x DØ		2,0 x DØ	
D Ø x P (mm)	Uds. / Pcs.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.
M 3 x 0,50	100	2C05205	0,48	2C05305	0,49	2C05405	0,53
M 4 x 0,70	100	2C05207	0,48	2C05307	0,49	2C05407	0,53
M 5 x 0,80	100	2C05208	0,53	2C05308	0,53	2C05408	0,63
M 6 x 1,00	100	2C05209	0,59	2C05309	0,60	2C05409	0,70
M 8 x 1,25	100	2C05211	0,63	2C05311	0,67	2C05411	0,85
M 10 x 1,50	100	2C05215	0,78	2C05315	0,80	2C05415	0,98
M 12 x 1,75	100	2C05221	1,15	2C05321	1,24	2C05421	1,48
M 14 x 2,00	50	2C05225	1,64	2C05325	1,75	2C05425	1,93
M 16 x 2,00	50	2C05234	2,19	2C05334	2,18	2C05434	2,98

Consultar precio y plazo para largos de 2,5xD y 3,0xD
Request prices and availability for length of 2,5xD and 3,0xD
Consulter de prix et le disponibilité pour longueur 2,5xD et 3,0xD



- Insertos con sistema de frenado interno
  Wire thread inserts with a locking internal system
  Filets rapportés avec systéme interne autofreinage.
- Indicados en mecanismos con altas vibraciones o impactos
  Suited to high impact and vibrations systems
  ndiqués pour mécanismes avec grandes vibrations et impacts
- Se recomienda su utilización con tornillería lubrificada o con recubrimientos
  Recommended for using with oil lubricated bolts
  Utilisation recommandé avec boulons lubrifiés

UNC INSERTOS ROSCADOS DE ACERO INOXIDABLE
STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140 | TOL 2B

D Ø x P (")	Uds. / Pcs.	1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
		Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.
Nr. 2 x 56	100	2C08200	1,32	2C08300	1,45	2C08400	1,98	2C08500	2,24	2C08600	2,80
Nr. 4 x 40	100	2C08201	0,52	2C08301	0,45	2C08401	0,52	2C08501	0,59	2C08601	0,71
Nr. 5 x 40	100	2C08202	0,53	2C08302	0,53	2C08402	0,59	2C08502	0,71	2C08602	1,10
Nr. 6 x 32	100	2C08203	0,41	2C08303	0,42	2C08403	0,48	2C08503	0,53	2C08603	0,63
Nr. 8 x 32	100	2C08204	0,40	2C08304	0,42	2C08404	0,48	2C08504	0,53	2C08604	0,68
Nr. 10 x 24	100	2C08205	0,52	2C08305	0,49	2C08405	0,56	2C08505	0,67	2C08605	0,81
Nr. 12 x 24	100	2C08206	0,53	2C08306	0,56	2C08406	0,64	2C08506	0,79	2C08606	1,10
1/4 x 20	100	2C08207	0,53	2C08307	0,56	2C08407	0,64	2C08507	0,78	2C08607	0,96
5/16 x 18	100	2C08208	0,70	2C08308	0,80	2C08408	0,89	2C08508	0,79	2C08608	1,30
3/8 x 16	100	2C08209	1,09	2C08309	1,03	2C08409	1,43	2C08509	1,64	2C08609	1,93
7/16 x 14	100	2C08210	1,20	2C08310	1,37	2C08410	1,65	2C08510	1,97	2C08610	2,42
1/2 x 13	100	2C08211	1,30	2C08311	1,37	2C08411	1,65	2C08511	1,97	2C08611	2,42
9/16 x 12	50	2C08212	4,21	2C08312	5,30	2C08412	7,20	2C08512	8,23	2C08612	9,93
5/8 x 11	50	2C08214	3,80	2C08314	4,82	2C08414	6,33	2C08514	7,58	2C08614	9,03
3/4 x 10	25	2C08216	4,43	2C08316	5,69	2C08416	7,51	2C08516	8,91	2C08616	10,67
7/8 x 9	10	2C08218	5,89	2C08318	8,34	2C08418	11,20	2C08518	13,24	2C08618	16,08
1 x 8	10	2C08219	8,07	2C08319	8,41	2C08419	11,70	2C08519	14,00	2C08619	15,81
1.1/8 x 7	5	-	-	2C08320	13,58	-	-	-	-	-	-
1.1/4 x 7	5	-	-	2C08321	14,28	-	-	-	-	-	-
1.3/8 x 6	5	-	-	2C08322	22,98	-	-	-	-	-	-
1.1/2 x 6	5	-	-	2C08323	28,83	-	-	-	-	-	-

UNF

INSERTOS ROSCADOS DE ACERO INOXIDABLE
STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140 | TOL 2B

			1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
	D Ø x P (")	Uds. / Pcs.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.
Nr.	4 x 48	100	2C08290	1,19	2C08390	1,28	2C08490	1,78	2C08590	1,98	2C08690	2,53
Nr.	6 x 40	100	2C08291	1,19	2C08391	1,28	2C08491	1,78	2C08591	1,98	2C08691	2,53
Nr.	8 x 36	100	2C08292	1,19	2C08392	1,28	2C08492	1,78	2C08592	1,98	2C08692	2,53
Nr.	10 x 32	100	2C08293	0,52	2C08393	0,50	2C08493	0,64	2C08593	0,79	2C08693	0,96
	1/4 x 28	100	2C08225	0,52	2C08325	0,50	2C08425	0,64	2C08525	0,79	2C08625	0,96
	5/16 x 24	100	2C08226	0,71	2C08326	0,71	2C08426	0,89	2C08526	1,08	2C08626	1,30
	3/8 x 24	100	2C08227	1,03	2C08327	1,03	2C08427	1,31	2C08527	1,60	2C08627	1,93
	7/16 x 20	100	2C08228	1,30	2C08328	1,37	2C08428	1,65	2C08528	1,97	2C08628	2,42
	1/2 x 20	100	2C08229	1,30	2C08329	1,37	2C08429	1,65	2C08529	1,97	2C08629	2,42
	9/16 x 18	50	2C08230	3,06	2C08330	2,89	2C08430	3,66	2C08530	4,47	2C08630	5,14
	5/8 x 18	50	2C08231	3,06	2C08331	2,89	2C08431	3,66	2C08531	4,21	2C08631	5,14
	3/4 x 16	25	2C08233	5,03	2C08333	6,63	2C08433	8,46	2C08533	10,25	2C08633	12,29
	7/8 x 14	10	2C08235	6,82	2C08335	9,52	2C08435	12,82	2C08535	14,74	2C08635	17,66
	1 x 12	10	2C08237	6,82	2C08337	9,52	2C08437	12,82	2C08537	14,74	2C08637	17,66
	1.1/8 x 12	5	-	-	2C08396	17,82	-	-	-	-	-	-
	1.1/4 x 12	5	-	-	2C08397	19,33	-	-	-	-	-	-
	1.3/8 x 12	5	-	-	2C08398	21,16	-	-	-	-	-	-
	1.1/2 x 12	5	-	-	2C08399	24,61	-	-	-	-	-	-

BSW

INSERTOS ROSCADOS DE ACERO INOXIDABLE
STAINLESS STEEL WIRE THREAD INSERTS
FILETS RAPPORTÉS INOX

DIN 8140 | TOL ISO2 6H

		1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
D Ø x P (")	Uds. / Pcs.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.
1/8 x 40	100	2C08241	1,54	2C08341	1,69	2C08441	2,80	2C08541	3,17	2C08641	3,40
3/16 x 24	100	2C08242	1,54	2C08342	1,69	2C08442	2,80	2C08542	3,17	2C08642	3,40
1/4 x 20	100	2C08243	0,89	2C08343	0,99	2C08443	0,85	2C08543	1,12	2C08643	1,20
5/16 x 18	100	2C08244	0,89	2C08344	0,96	2C08444	1,19	2C08544	1,43	2C08644	1,77
3/8 x 16	100	2C08245	1,37	2C08345	1,41	2C08445	1,75	2C08545	2,04	2C08645	2,46
7/16 x 14	100	2C08246	1,79	2C08346	1,85	2C08446	2,13	2C08546	2,53	2C08646	3,09
1/2 x 12	100	2C08247	2,33	2C08347	2,48	2C08447	2,61	2C08547	2,89	2C08647	3,00
9/16 x 12	50	2C08248	4,21	2C08348	5,56	2C08448	6,91	2C08548	8,23	2C08648	10,08
5/8 x 11	50	2C08249	4,21	2C08349	5,56	2C08449	6,91	2C08549	8,23	2C08649	10,08
3/4 x 10	25	2C08251	5,44	2C08351	6,63	2C08451	8,54	2C08551	10,25	2C08651	12,29
7/8 x 9	10	2C08253	7,00	2C08353	9,27	2C08453	12,23	2C08553	14,74	2C08653	17,66
1 x 8	10	2C08255	8,62	2C08355	11,00	2C08455	14,89	2C08555	15,62	2C08655	17,66

G(BSP) INSERTOS ROSCADOS DE ACERO INOXIDABLE

WIRE THREAD INSERTS "FREE RUNNING" STAINLESS STEEL
FILETS RAPPORTÉS INOX

DIN 8140 | TOL ISO2 6H

		1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
D Ø x P (")	Uds. / Pcs.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.
1/8 x 28	50	-	-	2C08380	1,06	-	-	-	-	-	-
1/4 x 19	50	-	-	2C08381	1,59	-	-	-	-	-	-
3/8 x 19	50	-	-	2C08382	1,86	-	-	-	-	-	-
1/2 x 14	50	-	-	2C08383	2,77	-	-	-	-	-	-
5/8 x 14	5	-	-	2C08384	5,96	-	-	-	-	-	-
3/4 x 14	5	-	-	2C08385	5,96	-	-	-	-	-	-
7/8 x 14	5	-	-	2C08386	18,27	-	-	-	-	-	-
1 x 11	5	-	-	2C08387	18,27	-	-	-	-	-	-

BSF INSERTOS ROSCADOS "FACIL INSERCIÓN", INOXIDABLE

WIRE THREAD INSERTS "FREE RUNNING" STAINLESS STEEL
FILETS RAPPORTÉS INOX

DIN 8140 | TOL ISO2 6H

		1,0 x DØ		1,5 x DØ		2,0 x DØ		2,5 x DØ		3,0 x DØ	
D Ø x P (")	Uds. / Pcs.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.	Cod.	€/Unid.
3/16 x 32	100	2C08262	0,96	2C08362	1,00	2C08462	1,09	2C08562	1,25	2C08662	1,38
1/4 x 26	100	2C08263	1,18	2C08363	1,32	2C08463	1,39	2C08563	1,53	2C08663	1,67
5/16 x 22	100	2C08265	1,32	2C08365	1,46	2C08465	1,53	2C08565	1,67	2C08665	2,44
3/8 x 20	100	2C08266	1,74	2C08366	1,95	2C08466	2,02	2C08566	2,23	2C08666	3,18
7/16 x 18	100	2C08267	2,99	2C08367	3,34	2C08467	3,48	2C08567	3,18	2C08667	3,80
1/2 x 16	100	2C08268	3,48	2C08368	3,83	2C08468	3,97	2C08568	4,60	2C08668	5,68
9/16 x 16	50	2C08269	3,97	2C08369	4,53	2C08469	4,74	2C08569	6,64	2C08669	7,73
5/8 x 14	50	2C08270	4,60	2C08370	5,29	2C08470	5,50	2C08570	9,99	2C08670	11,57
3/4 x 12	25	2C08272	5,99	2C08372	6,62	2C08472	8,57	2C08572	17,09	2C08672	19,64
7/8 x 11	10	2C08274	6,20	2C08374	6,62	2C08474	8,57	2C08574	23,06	2C08674	26,87
1 x 10	10	2C08276	7,66	2C08376	9,12	2C08476	9,89	2C08576	29,96	2C08676	34,47

HERRAMIENTA PARA INSERTAR CON TOPE AJUSTABLE
INSERTING TOOL WITH LOCKING RING
APPAREIL DE POSE MANUEL

Nº	M - Mf	UNC / UNF / BSW / BSF	Uds. / Pcs.	Cod.	€
2	M 2,00 x 0,40 M 2,20 x 0,45	UNC Nr. 2	1	3C08002	19,08
3	M 2,50 x 0,45	-	1	3C08003	19,08
4	M 3,00 x 0,50	UNC/UNF Nr. 4	1	3C08004	19,08
5	M 3,50 x 0,60	UNC/UNF Nr. 6	1	3C08005	19,08
6	M 4,00 x 0,70	UNC/UNF Nr. 8	1	3C08006	19,08
7	-	BSW 3/16 UNC Nr.10	1	3C08007	19,08
8	M 5,00 x 0,80	UNC/UNF Nr.10 UNC Nr. 12	1	3C08008	19,08
9	M 6,00 x 1,00	UNC/UNF 1/4 BSW/BSF 1/4	1	3C08009	19,08
10	M 7,00 x 1,00	UNC/BSW 5/16	1	3C08010	21,87
11	M 8,00 x 1,25 M 8,00 x 1,00	UNC/BSF 5/16	1	3C08011	21,87
12	M 9,00 x 1,25 M 9,00 x 1,00	UNC 3/8 BSW/BSF 3/8	1	3C08012	23,62
13	M 10,00 x 1,50 M 10,00 x 1,00 M 10,00 x 1,25	UNF 3/8	1	3C08013	23,62
14	M 11,00 x 1,50 M 11,00 x 1,25	UNC/UNF 7/16 BSW/BSF 7/16	1	3C08014	27,40
15	M 12,00 x 1,75 M 12,00 x 1,50 M 12,00 x 1,25 M 12,00 x 1,00	UNC/UNF 1/2 BSW/BSF 1/2	1	3C08015	32,98
16	M 14,00 x 2,00 M 14,00 x 1,50	UNC/UNF 9/16 BSW/BSF 9/16	1	3C08016	32,98
17	M 14,00 x 1,25 M 14,00 x 1,00	-	1	3C08017	32,98
18	M 16,00 x 2,00 M 16,00 x 1,50	UNC/UNF 5/8 BSW/BSF 5/8	1	3C08018	36,43
20	M 18,00 x 2,50 M 18,00 x 2,00 M 18,00 x 1,50	UNC 3/4 BSW/BSF 3/4	1	3C08020	36,43
21	M 20,00 x 2,50 M 20,00 x 2,00 M 20,00 x 1,50	UNF 3/4	1	3C08021	36,43
22	M 22,00 x 2,50 M 22,00 x 2,00 M 22,00 x 1,50	UNC/UNF 7/8 BSW/BSF 7/8	1	3C08022	45,79
23	M 24,00 x 3,00 M 24,00 x 2,00 M 24,00 x 1,50	UNC/UNF 1" BSW/BSF 1"	1	3C08023	45,79

M HERRAMIENTA PARA INSERTAR A MÁQUINA
MACHINE INSERTING TOOL
APPAREIL DE POSE À MACHINE

D Ø x P (mm)		L1 (mm)		(")	Uds. / Pcs.	Cod.	€/Unid.
M	3,00 x 0,50	46	6	1/4	1	3C08070	28,15
M	4,00 x 0,70	56	7	1/4	1	3C08071	28,15
M	5,00 x 0,80	62	8	1/4	1	3C08072	28,15
M	6,00 x 1,00	76	10	1/4	1	3C08073	28,15
M	8,00 x 1,25	85	12	1/4	1	3C08074	34,29
M	10,00 x 1,50	96	14	1/4	1	3C08075	37,89
M	12,00 x 1,75	107	16	1/4	1	3C08076	41,88

M HERRAMIENTA PARA INSERTAR
INSERTING TOOL
APPAREIL DE POSE À MACHINE

Ø Nominal Ø x Paso / Ø Nominal Ø x Paso	Uds. / Pcs.	⬡	Cod.	€/Unid.
M - Mf				
M 26,00 x 1,50	1	1/2"	3C08024	47,32
M 27,00 x 3,00	1	1/2"	3C08025	47,30
M 27,00 x 2,00	1	1/2"	3C08026	47,32
M 27,00 x 1,50	1	1/2"	3C08027	47,32
M 28,00 x 1,50	1	1/2"	3C08028	47,32
M 30,00 x 3,50	1	1/2"	3C08029	56,77
M 30,00 x 2,00	1	1/2"	3C08030	56,77
M 30,00 x 1,50	1	1/2"	3C08031	56,77
M 33,00 x 3,50	1	1/2"	3C08032	66,24
M 33,00 x 2,00	1	1/2"	3C08033	66,24
M 36,00 x 4,00	1	1/2"	3C08034	66,24
M 36,00 x 3,00	1	1/2"	3C08035	66,24
M 36,00 x 2,00	1	1/2"	3C08036	66,24
M 36,00 x 1,50	1	1/2"	3C08037	66,24
UNC				
1.1/8 x 7	1	1/2"	3C08050	56,78
1.1/4 x 7	1	1/2"	3C08051	56,78
1.3/8 x 6	1	1/2"	3C08052	66,24
1.1/2 x 6	1	1/2"	3C08053	66,24
UNF				
1.1/8 x 7	1	1/2"	3C08060	56,77
1.1/4 x 7	1	1/2"	3C08061	56,78
1.3/8 x 6	1	1/2"	3C08062	66,24
1.1/2 x 6	1	1/2"	3C08063	66,24
G (BSP)				
1/8 x 28	1	1/4"	3C08080	28,39
1/4 x 19	1	1/4"	3C08081	28,39
3/8 x 19	1	1/4"	3C08082	33,12
1/2 x 14	1	1/4"	3C08083	37,85
5/8 x 14	1	1/2"	3C08084	47,32
3/4 x 14	1	1/2"	3C08085	47,32
7/8 x 14	1	1/2"	3C08086	66,24
1" x 11	1	1/2"	3C08087	66,24

HERRAMIENTA ROMPE ARRASTRE
TANG BREAK TOOL
RUPTEUR

Nº	M - Mf	UNC / UNF / BSW / BSF	Uds. / Pcs.	Cod.	€/Unid.
2	M 2,00 x 0,40 M 2,20 x 0,45	UNC Nº 2	1	3C07002	8,14
3	M 2,50 x 0,45	-	1	3C07003	8,25
4	M 3,00 x 0,50	UNC/UNF Nº 4	1	3C07004	8,25
5	M 3,50 x 0,60	UNC/UNF Nº 6	1	3C07005	8,25
6	M 4,00 x 0,70	UNC/UNF Nº 8	1	3C07006	8,25
8	M 5,00 x 0,80	UNC/UNF Nº10 UNC Nº12	1	3C07008	8,25
9	M 6,00 x 1,00	UNC/UNF 1/4 BSW/BSF 1/4	1	3C07009	8,25
11	M 7,00 x 1,00 M 8,00 x 1,00 M 8,00 x 1,25	UNC/UNF 5/16 BSW/BSF 5/16	1	3C07011	9,16
12	M 9,00 x 1,25 M 9,00 x 1,00	UNC 3/8 BSW/BSF 3/8	1	3C07012	9,16
13	M 10,00 x 1,50 M 10,00 x 1,00 M 10,00 x 1,25	UNF 3/8	1	3C07013	11,09
14	M 11,00 x 1,50 M 11,00 x 1,25	UNC/UNF 7/16 BSW/BSF 7/16	1	3C07014	11,09
15	M 12,00 x 1,75 M 12,00 x 1,50 M 12,00 x 1,25 M 12,00 x 1,00	UNC/UNF 1/2 BSW/BSF 1/2	1	3C07015	11,09

HERRAMIENTA EXTRACTORA
EXTRACTING TOOL
EXTRACTEUR

Nº	Métrica / Métrica	Pulgadas / Inches	Uds. / Pcs.	Cod.	€/Unid.
2	M 3 - M 10	3/16 - 3/8	1	3C07052	41,24
3	M 11 - M 24	3/8 - 1	1	3C07053	49,98

Hasta fin de existencias / Until end of stock /Jusqu´à épuisement des stocks

M y Mf

KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE

				x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
M 2,00 x 0,40	2,1 mm	Nº 2	Nº 2	20	1	4C04001	70,34
M 2,50 x 0,45	2,6 mm	Nº 3	Nº 3	20	1	4C04003	70,34
M 3,00 x 0,50	3,2 mm	Nº 4	Nº 4	20	1	4C04005	68,29
M 3,50 x 0,60	3,7 mm	Nº 5	Nº 5	20	1	4C04006	70,34
M 4,00 x 0,70	4,2 mm	Nº 6	Nº 6	20	1	4C04007	63,77
M 5,00 x 0,80	5,2 mm	Nº 8	Nº 8	20	1	4C04009	66,31
M 6,00 x 1,00	6,3 mm	Nº 9	Nº 9	20	1	4C04010	71,43
M 7,00 x 1,00	7,3 mm	Nº 10	Nº 11	20	1	4C04011	96,07
M 8,00 x 1,25	8,3 mm	Nº 11	Nº 11	20	1	4C04012	90,87
M 8,00 x 1,00	8,3 mm	Nº 11	Nº 11	20	1	4C04013	96,07
M 9,00 x 1,25	9,3 mm	Nº 12	Nº 12	15	1	4C04014	109,74
M 10,00 x 1,50	10,4 mm	Nº 13	Nº 13	15	1	4C04016	97,26
M 10,00 x 1,25	10,3 mm	Nº 13	Nº 13	15	1	4C04017	102,83
M 10,00 x 1,00	10,3 mm	Nº 13	Nº 13	15	1	4C04018	102,83
M 11,00 x 1,50	11,4 mm	Nº 14	Nº 14	10	1	4C04019	118,74
M 12,00 x 1,75	12,4 mm	Nº 15	Nº 15	10	1	4C04021	109,03
M 12,00 x 1,50	12,4 mm	Nº 15	Nº 15	10	1	4C04022	115,28
M 12,00 x 1,25	12,3 mm	Nº 15	Nº 15	10	1	4C04023	115,28
M 12,00 x 1,00	12,3 mm	Nº 15	Nº 15	10	1	4C04024	118,74
M 14,00 x 2,00		Nº 16		10	1	4C04028	122,96
M 14,00 x 1,50		Nº 16		10	1	4C04029	130,01
M 14,00 x 1,25		Nº 17		10	1	4C04030	130,01
M 14,00 x 1,00		Nº 17		10	1	4C04031	133,91
M 16,00 x 2,00		Nº 18		10	1	4C04032	149,05
M 16,00 x 1,50		Nº 18		10	1	4C04033	157,59
M 18,00 x 2,50		Nº 20		5	1	4C04034	192,80
M 18,00 x 2,00		Nº 20		5	1	4C04035	192,80
M 18,00 x 1,50		Nº 20		5	1	4C04036	192,80
M 20,00 x 2,50		Nº 21		5	1	4C04037	208,57
M 20,00 x 2,00		Nº 21		5	1	4C04038	208,57
M 20,00 x 1,50		Nº 21		5	1	4C04039	208,57
M 22,00 x 2,50		Nº 22		5	1	4C04040	240,13
M 22,00 x 2,00		Nº 22		5	1	4C04041	240,13
M 22,00 x 1,50		Nº 22		5	1	4C04042	240,13
M 24,00 x 3,00		Nº 23		5	1	4C04043	276,94
M 24,00 x 2,00		Nº 23		5	1	4C04044	276,94
M 24,00 x 1,50		Nº 23		5	1	4C04045	276,94

M y Mf KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE

		x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
M 26,00 x 1,50	3C08024	10	1	4C04049	674,12
M 27,00 x 3,00	3C08025	10	1	4C04050	674,12
M 27,00 x 2,00	3C08026	10	1	4C04051	674,12
M 27,00 x 1,50	3C08027	10	1	4C04052	674,12
M 28,00 x 1,50	3C08028	10	1	4C04053	768,14
M 30,00 x 3,50	3C08029	10	1	4C04054	803,68
M 30,00 x 2,00	3C08030	10	1	4C04055	803,68
M 30,00 x 1,50	3C08031	10	1	4C04056	803,68
M 33,00 x 3,50	3C08032	10	1	4C04057	839,22
M 33,00 x 2,00	3C08033	10	1	4C04058	839,23
M 36,00 x 4,00	3C08034	10	1	4C04060	913,03
M 36,00 x 3,00	3C08035	10	1	4C04061	913,03
M 36,00 x 2,00	3C08036	10	1	4C04062	913,03
M 36,00 x 1,50	3C08037	10	1	4C04063	913,03
M 39.00 x 4.00	3C08038	10	1	4C04231	1.395,60
M 39.00 x 3.00	3C08039	10	1	4C04232	1.137,10
M 40.00 x 3.00	3C08040	10	1	4C04233	1.303,51
M 42.00 x 4.50	3C08041	10	1	4C04234	1.828,59
M 42.00 x 3.00	3C08042	10	1	4C04235	1.410,23
M 45.00 x 4.50	3C08043	10	1	4C04236	1.907,65
M 45.00 x 3.00	3C08044	10	1	4C04237	1.636,31
M 48.00 x 5.00	3C08045	10	1	4C04238	2.294,30
M 48.00 x 3.00	3C08046	10	1	4C04239	1.636,31
M 50.00 x 3.00	3C08047	10	1	4C04240	1.858,53
M 52.00 x 5.00	3C08048	10	1	4C04241	2.910,85
M 52.00 x 3.00	3C08049	10	1	4C04242	2.357,41

*Consultar disponibilidad / Request availability /Consulter le disponibilité

KIT PARA LAS ROSCAS DE LAS BUJÍAS
INSERTING TOOL
KITS DE RÉPARATION DE FILETAGE POUR BOUGIES D´ALLUMAGE

		8,40 mm	12,40 mm	16,40 mm	Uds. / Pcs.	Cod.	€/Unid.
M 14 x 1,25	Nº 17	5	5	5	1	4C04096	162,34

MACHOS SPARK-PLUG / STI-SPARK PLUG TAPS / TARAUDS STI ÉTAGÉS

UNC KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE

				x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
Nr. 2 x 56	2,4 mm	Nº 2	Nº 2	20	1	4C04100	97,74
Nr. 4 x 40	3,1 mm	Nº 4	Nº 4	20	1	4C04101	88,67
Nr. 5 x 40	3,4 mm	Nº 4	Nº 4	20	1	4C04106	88,67
Nr. 6 x 32	3,8 mm	Nº 5	Nº 5	20	1	4C04102	88,67
Nr. 8 x 32	4,4 mm	Nº 6	Nº 6	20	1	4C04103	88,67
Nr. 10 x 24	5,2 mm	Nº 7	Nº 6	20	1	4C04104	88,67
Nr. 12 x 24	5,8 mm	Nº 8	Nº 8	20	1	4C04105	88,67
1/4 x 20	6,7 mm	Nº 9	Nº 9	20	1	4C04107	79,88
5/16 x 18	8,3 mm	Nº 10	Nº 10	20	1	4C04108	94,37
3/8 x 16	9,9 mm	Nº 12	Nº 12	15	1	4C04109	100,90
7/16 x 14	11,6 mm	Nº 14	Nº 14	10	1	4C04110	113,26
1/2 x 13	13,0 mm	Nº 15	Nº 15	10	1	4C04111	124,32
9/16 x 12		Nº 16		10	1	4C04112	165,98
5/8 x 11		Nº 18		10	1	4C04113	165,98
3/4 x 10		Nº 20		5	1	4C04114	211,55
7/8 x 9		Nº 22		5	1	4C04115	257,11
1 x 8		Nº 23		4	1	4C04116	245,07

UNC KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE

		x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
1.1/8 x 7	3C08050	10	1	4C04117	810,40
1.1/4 x 7	3C08051	10	1	4C04118	883,55
1.3/8 x 6	3C08052	10	1	4C04119	935,02
1.1/2 x 6	3C08053	10	1	4C04135	1.089,40

UNF

KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE

				x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
Nr. 4 x 48	3,0 mm	Nº 4	Nº 4	20	1	4C04120	89,53
Nr. 6 x 40	3,8 mm	Nº 5	Nº 5	20	1	4C04121	89,53
Nr. 8 x 36	4,4 mm	Nº 6	Nº 6	20	1	4C04122	89,53
Nr. 10 x 32	5,1 mm	Nº 8	Nº 8	20	1	4C04123	89,53
1/4 x 28	6,7 mm	Nº 9	Nº 9	20	1	4C04125	80,67
5/16 x 24	8,3 mm	Nº 11	Nº 11	20	1	4C04126	98,71
3/8 x 24	9,8 mm	Nº 13	Nº 13	15	1	4C04127	105,53
7/16 x 20	11,5 mm	Nº 14	Nº 14	10	1	4C04128	118,46
1/2 x 20	13,0 mm	Nº 15	Nº 15	10	1	4C04129	130,03
9/16 x 18		Nº 16		10	1	4C04130	173,61
5/8 x 18		Nº 18		10	1	4C04131	173,61
3/4 x 16		Nº 21		5	1	4C04132	221,27
7/8 x 14		Nº 22		5	1	4C04133	268,91
1 x 12		Nº 23		4	1	4C04134	256,31

UNF

KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE

		x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
1.1/8 x 12	3C08060	10	1	4C04136	680,28
1.1/4 x 12	3C08061	10	1	4C04137	756,83
1.3/8 x 12	3C08062	10	1	4C04138	909,90
1.1/2 x 12	3C08063	10	1	4C04139	1.060,13

BSW KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE

				x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
1/8 x 40	3,4 mm	Nº 4	Nº 4	20	1	4C04141	88,67
3/16 x 24	5,0 mm	Nº 8	Nº 8	20	1	4C04142	88,67
1/4 x 20	6,7 mm	Nº 9	Nº 9	20	1	4C04143	79,88
5/16 x 18	8,3 mm	Nº 10	Nº 11	20	1	4C04144	97,74
3/8 x 16	9,9 mm	Nº 12	Nº 12	15	1	4C04145	104,50
7/16 x 14	11,5 mm	Nº 14	Nº 14	10	1	4C04146	117,30
1/2 x 12	13,0 mm	Nº 15	Nº 15	10	1	4C04147	128,76
9/16 x 12		Nº 16		10	1	4C04148	171,91
5/8 x 11		Nº 18		10	1	4C04149	171,91
3/4 x 10		Nº 20		5	1	4C04150	219,11
7/8 x 9		Nº 22		5	1	4C04151	266,29
1 x 8		Nº 23		4	1	4C04152	253,81

BSF KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE

				x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
3/16 x 32	5,0 mm	Nº 8	Nº 6	20	1	4C04162	88,67
1/4 x 26	6,6 mm	Nº 9	Nº 9	20	1	4C04163	79,88
5/16 x 22	8,3 mm	Nº 11	Nº 11	20	1	4C04165	97,74
3/8 x 20	9,9 mm	Nº 12	Nº 13	15	1	4C04166	104,50
7/16 x 18	11,5 mm	Nº 14	Nº 14	10	1	4C04167	117,30
1/2 x 16	13,0 mm	Nº 15	Nº 15	10	1	4C04168	128,76
9/16 x 16		Nº 16		10	1	4C04169	171,91
5/8 x 14		Nº 18		10	1	4C04170	171,91
3/4 x 12		Nº 20		5	1	4C04172	219,11
7/8 x 11		Nº 22		5	1	4C04174	266,28
1 x 10		Nº 23		4	1	4C04176	253,98

G(BSP) KITS REPARADORES DE ROSCA
THREAD REPAIR KIT
KITS DE RÉPARATION DE FILETAGE

		x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
1/8 x 28	3C08080	10	1	4C04190	165,36
1/4 x 19	3C08081	10	1	4C04191	174,00
3/8 x 19	3C08082	10	1	4C04192	193,05
1/2 x 14	3C08083	10	1	4C04193	245,99
5/8 x 14	3C08084	10	1	4C04194	550,82
3/4 x 14	3C08085	10	1	4C04195	550,82
7/8 x 14	3C08086	10	1	4C04196	756,72
1 x 11	3C08087	10	1	4C04197	756,73

M REPARADOR DE ROSCA CON ANCLAJE DE 1/4”
1/4” SHANK REPAIR KIT
KIT DE RÉPARATION DE FILETAGE AVEC QUEU 1/4”

				x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
M 4,00 x 0,70	4,2 mm	Nº 6	Nº 6	20	1	4C04307	65,72
M 5,00 x 0,80	5,2 mm	Nº 8	Nº 8	20	1	4C04309	68,34
M 6,00 x 1,00	6,3 mm	Nº 9	Nº 9	20	1	4C04310	73,62
M 8,00 x 1,25	8,3 mm	Nº 11	Nº 11	20	1	4C04312	93,64

Hasta fin de existencias / Until end of stock /Jusqu´à épuisement des stocks

KIT REPARADOR DE ROSCADO PARA TALLER
THREAD REPAIR WORKSHOP KITS
KITS DE RÉPARATION DE FILETAGE POUR ATÉLIERS

				x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
M5-M 12					1	4C04081	490,28
M 5.00 x 0.80	5,2 mm	Nº 8	Nº 8	25			
M 6.00 x 1.00	6,3 mm	Nº 9	Nº 9	25			
M 8.00 x 1.25	8,3 mm	Nº 11	Nº 11	25			
M 10.00 x 1.50	10,4 mm	Nº 13	Nº 13	25			
M 12.00 x 1.75	12,4 mm	Nº 15	Nº 15	10			
M6-M 14 x 1.25 /NP					1	4C04082	544,62
M 6.00 x 1.00	6,3 mm	Nº 9	Nº 9	25			
M 8.00 x 1.25	8,3 mm	Nº 11	Nº 11	25			
M 10.00 x 1.50	10,4 mm	Nº 13	Nº 13	25			
M 12.00 x 1.75	12,4 mm	Nº 15	Nº 15	10			
M 14.00 x 1.25		Nº 17		10			
M 6 - M 14 x 1.25 / PT (*Machos Plug - Punta Piloto / *Plug Taps - Pilot Nose)					1	4C04083	561,66
M 6.00 x 1.00	6,3 mm	Nº 9	Nº 9	25			
M 8.00 x 1.25	8,3 mm	Nº 11	Nº 11	25			
M 10.00 x 1.50	10,4 mm	Nº 13	Nº 13	25			
M 12.00 x 1.75	12,4 mm	Nº 15	Nº 15	10			
M 14.00 x 1.25*		Nº 17		10			
UNC 1/4 - 1/2"					1	4C04184	612,70
UNC 1/4 x 20	6,7 mm	Nº 9	Nº 9	25			
UNC 5/16 x 18	8,3 mm	Nº 10	Nº 11	25			
UNC 3/8 x 16	9,9 mm	Nº 12	Nº 12	25			
UNC 7/16 x 14	11,6 mm	Nº 14	Nº 14	10			
UNC 1/2 x 13	13,0 mm	Nº 15	Nº 15	10			
UNF 1/4 - 1/2"					1	4C04185	612,70
UNF 1/4 x 28	6,7 mm	Nº 9	Nº 9	25			
UNF 5/16 x 24	8,3 mm	Nº 11	Nº 11	25			
UNF 3/8 x 24	9,8 mm	Nº 13	Nº 13	25			
UNF 7/16 x 20	11,5 mm	Nº 14	Nº 14	10			
UNF 1/2 x 20	13,0 mm	Nº 15	Nº 15	10			
BSW 1/4 - 1/2"					1	4C04186	612,70
BSW 1/4 x 20	6,7 mm	Nº 9	Nº 9	25			
BSW 5/16 x 18	8,3 mm	Nº 10	Nº 11	25			
BSW 3/8 x 1 6	9,9 mm	Nº 12	Nº 12	25			
BSW 7/16 x 14	11,5 mm	Nº 14	Nº 14	10			
BSW 1/2 x 12	13,0 mm	Nº 15	Nº 15	10			
BSF 1/4 - 1/2"					1	4C04187*	612,70
BSF 1/4 x 26	6,6 mm	Nº 9	Nº 9	25			
BSF 5/16 x 22	8,3 mm	Nº 11	Nº 11	25			
BSF 3/8 x 20	9,9 mm	Nº 12	Nº 12	25			
BSF 7/16 x 18	11,5 mm	Nº 14	Nº 14	10			
BSF 1/2 x 16		Nº 15		10			

*Hasta fin de existencias / Until end of stock /Jusqu´à épuisement des stocks

M KIT CON HERRAMIENTAS PARA INSERTAR A MÁQUINA
THREAD REPAIR KIT WITH MACHINE INSERTING TOOL
COFFRET RÉPARATION AVEC DES OUTILS À MACHINE

				x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
M 3,00 x 0,50	3,2 mm	M 3	Nº 4	20	1	4C04070	80,89
M 4,00 x 0,70	4,2 mm	M 4	Nº 6	20	1	4C04071	80,89
M 5,00 x 0,80	5,2 mm	M 5	Nº 8	20	1	4C04072	83,70
M 6,00 x 1,00	6,3 mm	M 6	Nº 9	20	1	4C04073	88,91
M 8,00 x 1,25	8,3 mm	M 7	Nº 11	20	1	4C04074	114,02
M 10,00 x 1,50	10,4 mm	M 8	Nº 13	15	1	4C04075	123,09
M 12,00 x 1,75	12,4 mm	M 9	Nº 15	10	1	4C04076	137,71

M KIT CON HERRAMIENTAS PARA INSERTAR A MÁQUINA
THREAD REPAIR KIT WITH MACHINE INSERTING TOOL
COFFRET RÉPARATION AVEC DES OUTILS À MACHINE

				x 1,5D	Uds. / Pcs.	Cod.	€/Unid.
M5 - M12					1	4C04087	610,07
M 5,00 x 0,80	5,2 mm	M 5	Nº 8	25			
M 6,00 x 1,00	6,3 mm	M 6	Nº 9	25			
M 8,00 x 1,25	8,3 mm	M 8	Nº 11	25			
M 10,00 x 1,50	10,4 mm	M 10	Nº 13	25			
M 12,00 x 1,75	12,4 mm	M 12	Nº 15	10			

EXPOSITORES SESA KUBO
DISPLAYS SESA KUBO • EXPOSITEURS SESA KUBO

NEW

Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE	€/Unid.
KUBO 22	KIT REPARADOR DE ROSCAS	4C04007 4C04009 4C04010 4C04012 4C04016 4C04021	M4-M5-M6-M8 M10-M12	6	498,67

SESA®

ACCESORIOS

ACCESORIES - ACCESSOIRES

PORTABROCAS PERCUSIÓN CIERRE RÁPIDO
PERCUSSIVE DRILL AND FAST LOCK DRILL CHUCK
PERCEUSES À PERCUSSION EN FERMETURE RAPIDE

V021220

V021221

V023824

			LONGITUD / *LENGHT*					
Capacidad *Range* (mm)	Acople / *Mount*	Ø ext. (mm)	Abierto / *Opened* (mm)	Cerrado / *Closed* (mm)	Peso *Weight* (kg)	Uds. *Pcs.*	Cod.	€/Unid.
2 - 13	1/2 - 20 UNF	43	62	75	0,250	1	V021220	26,61
2 - 13	1/2 - 20 UNF	43	62	75	0,280	1	V021221	29,94
1,50 - 13	3/8 - 24 UNF	43	62	72	0,290	1	V023824	43,73

PORTABROCAS DE LLAVE
KEY TYPE CHUCK • MANDRIN FERMETURE AVEC CLÉ

			LONGITUD / *LENGHT*					
Capacidad *Range* (mm)	Acople / *Mount*	Ø ext. (mm)	Abierto / *Opened* (mm)	Cerrado / *Closed* (mm)	Peso *Weight* (kg)	Uds. *Pcs.*	Cod.	€/Unid.
1,50 - 13	1/2 - 20 UNF	42	57	70	0,34	1	V021520	55,55

LLAVE SINGLE KEY • CLÉ DE RECHANGE

Uds. / *Pcs.*	Cod.	€/Unid.
1	V031520	9,32

PORTABROCAS ROTACIÓN CON CIERRE RÁPIDO
FAST LOCK DRILL CHUCK
MANDRIN FÉRMÉTURE RAPIDE ET AUTOAJUTABLE

Capacidad *Range* (mm)	Acople / *Mount*	Ø ext. (mm)	LONGITUD / *LENGHT* Abierto / *Opened* (mm)	Cerrado / *Closed* (mm)	Peso *Weight* (kg)	Uds. *Pcs.*	Precisión *Precision* (mm)	Cod.	€/Unid.
1 - 13	1/2 - 20 UNF	44	85	95	0,73	1	0,20	V0131220	87,75
1 - 16	B - 16	51	102	115	1,09	1	0,07	V016116	97,01
1 - 16	B - 18	51	102	115	1,08	1	0,07	V018116	97,01
5 - 20	B - 22	57	105	129	1,53	1	0,18	V022520	156,34

PORTAFRESAS CONO MORSE
BUR HOLDER MORSE TAPER • QUEUE CONIQUE

Ø (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
C.M. 2 + accesorios / *C.M. 2 + accessories*	1	18003	469,73
C.M. 3 + accesorios / *C.M. 3 + accessories*	1	18025	469,73

Portafresas con entrada para refrigerante para máquinas con base electromagnética SIN AMARRES WELDON. Permite el uso de estas fresas en tornos, fresadoras y taladros.
Tool holders with internal cooling system for electromagnetic drilling machines without WELDON SHANK. It alows the use of WELDON SHANK milling cutters on lathes, milling machines and drill machines. / Porte-fraises à réfrigération interne pour machines à base électromagnétique SANS ANCRAGE WELDON. Pour l'utilisation de fraises à ancrage Weldon sur des tours, fraiseuses ou perceuses.

ADAPTADOR
ADAPTOR • ADAPTATEUR

Conversión / *Conversion*	Uds. / *Pcs.*	Cod.	€/Unid.
De WELDON a FEIN / From WELDON to FEIN / Du WELDON au FEIN	1	193010	93,18

ACEITE DE CORTE Y ROSCADO
CUTTING AND TAPPING FLUID
FLUIDE POUR FILETAGE ET DE COUP

Contenido / *Content*	Uds.	Cod	€/Unid.
400 ml	1	1AC4000	23,76

Metales duros y blandos. Alto poder refrigerante y anticorrosivo.
Suitable for hard and soft metals. High refrigerating and anti-corrision capacity.
Métaux doux et durs. Haut pouvoir anticorrosion.

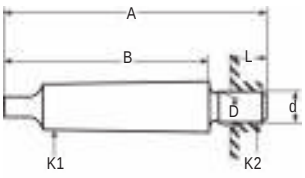
ESPIGAS TEMPLADAS Y RECTIFICADAS
HARDENED AND GROUNDED TAPER SHANK ARBORS
ARBRES DE MONTAGE TREMPÉS ET RECTIFIÉS

DIN 228 — CONO MORSE
DIN 238 — ESPIGA

Cono Morse / *Morse Cone*	Espiga / *Arbor*	L (mm)	Peso / *Weight* (Kg)	Uds. / *Pcs.*	Cod.	€/Unid.
1	B - 10	86	0,050	1	V2001B10	11,74
1	B - 12	88	0,060	1	V2001B12	11,74
1	B - 16	99	0,090	1	V2001B16	11,74
1	B - 18	107	0,110	1	V2001B18	11,74
2	B - 10	105	0,130	1	V2002B10	12,74
2	B - 12	106	0,140	1	V2002B12	12,51
2	B - 16	112	0,160	1	V2002B16	12,51
2	B - 18	119	0,185	1	V2002B18	12,51
3	B - 12	125	0,280	1	V2003B12	16,31
3	B - 16	130	0,300	1	V2003B16	16,31
3	B - 18	138	0,330	1	V2003B18	16,31
3	B - 22	147	0,390	1	V2003B22	16,31
4	B - 16	156	0,615	1	V2004B16	25,38
4	B - 18	164	0,635	1	V2004B18	25,38
4	B - 22	173	0,700	1	V2004B22	25,38
5	B - 18	200	1,570	1	V2005B18	42,15

Para medidas no tarifadas consultar precio y disponibilidad / *Check prices and availability for no tarified articles* / *Demandez pour des produits non tarifiqués*

DIMENSIONES APROXIMADAS ESPIGAS DE ASIENTO
SLEEVES MEASURES
DIMENSIONS DES DOUILLES DE RÉDUCTION



Cono Morse *Morse Cone* DIN 228 (K-1)	Cono interior del portabrocas *Drill Chuck Internal Cone* DIN 228 K-2)	A (mm)	B (mm)	D (mm)	d (mm)	L (mm)
1	B - 10	86	65,5	10,094	9,4	14,5
1	B - 12	88	65,5	12,065	11,1	18,5
1	B - 16	99	65,5	15,733	14,5	24,0
1	B - 18	107	65,5	17,780	16,2	32,0
2	B - 10	105	80	10,094	9,4	14,5
2	B - 12	106	80	12,065	11,1	18,5
2	B - 16	112	80	15,733	14,5	24,0
2	B - 18	119	80	17,780	16,2	32,0
3	B - 12	125	99	12,065	11,1	18,5
3	B - 16	130	99	15,733	14,5	24,0
3	B - 18	138	99	17,780	16,2	32,0
3	B - 22	148	99	21,793	19,8	40,5
4	B - 16	156	124	15,733	14,5	24,0
4	B - 18	164	124	17,780	16,2	32,0
4	B - 22	171	124	21,793	19,8	40,5
5	B - 16	198	156	15,733	14,5	24,0
5	B - 18	198	156	17,780	16,2	32,0

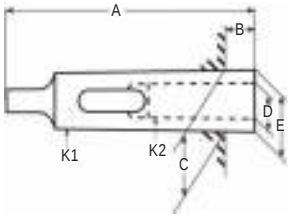
CASQUILLOS REDUCTORES TEMPLADOS Y RECTIFICADOS
HARDENED AND GROUND SLEEVES
DOUILLES DE RÉDUCTION TREMPÉS ET RECTIFIÉS

DIN 2185

Exterior / *External*	Interior / *Internal*	L (mm)	Peso / *Weight* (Kg)	Uds. / *Pcs.*	Cod.	€/Unid.
2	1	92	0,090	1	V1000021	24,24
3	1	99	0,205	1	V1000031	25,97
3	2	112	0,180	1	V1000032	25,97
3*	2	195	0,470	1	V1000L32	51,93
4	1	124	0,500	1	V1000041	30,29
4	2	124	0,430	1	V1000042	30,29
4	3	140	0,385	1	V1000043	30,29
5	1	155	1,400	1	V1000051	73,61
5	2	157	1,340	1	V1000052	73,61
5	3	157	1,150	1	V1000053	85,13
5	4	170	1,010	1	V1000054	92,10
5*	4	300	2,071	1	V1000L54	184,20
6	3	218	3,790	1	V1000063	145,14
6	4	218	3,450	1	V1000064	161,19
6	5	218	3,450	1	V1000065	167,62

* Casquillos serie larga / Long series / Série longue

DIMENSIONES APROXIMADAS CASQUILLOS REDUCTORES
TAPER SHANK ARBOR MEASURES
DIMENSIONS DES ARBRES DE MONTAGE



CONO MORSE / *MORSE CONE*						
Exterior / *External* (K-1)	Interior / *Internal* (K-2)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
2	1	92	17,0	17,780	12,065	18,6
3	1	99	5,0	23,825	12,065	24,1
3	2	112	18,0	23,825	17,780	24,7
4	1	124	6,5	31,267	12,065	31,6
4	2	124	6,5	31,267	17,780	31,6
4	3	140	22,5	31,267	23,825	32,4
5	1	156	6,5	44,399	12,065	44,7
5	2	156	6,5	44,399	17,780	44,7
5	3	156	6,5	44,399	23,825	44,7
5	4	170	21,5	44,399	31,267	45,5
6	2	218	8,0	63,348	17,780	63,8
6	3	218	8,0	63,348	23,825	63,8
6	4	218	8,0	63,348	31,267	63,8
6	5	218	8,0	63,348	44,399	63,8

CASQUILLOS AUMENTADORES TEMPLADOS Y RECTIFICADOS
HARDENED AND GROUNDED EXTENSION SLEEVES
DOUILLES RALLONGÉS TREMPÉS ET RECTIFIÉS

Exterior / *External*	Interior / *Internal*	L (mm)	Peso / *Weight* (Kg)	Uds. / Pcs.	Cod.	€/Unid.
2	3	195	0,69	1	V1L00032	62,33
3	4	239	1,54	1	V1L00043	71,22

CUÑAS PARA CASQUILLOS
EXTRACTION WEDGE • ÉCROUS D´EXTRACTION

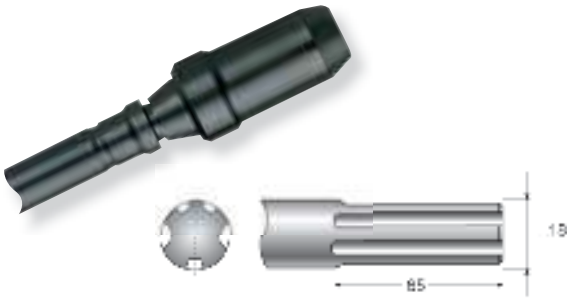
DIN 317

Utilidad / *Utility*	Uds. / *Pcs.*	Cod.	€/Unid.
Para Conos Morse Nº 1 y Nº 2 / For Morse tapper Nº 1 y Nº 2	1	VC31712	10,52
Para Conos Morse Nº 3 / For Morse tapper Nº 3	1	VC31703	17,27
Para Conos Morse Nº 4 y Nº 5 / For Morse tapper Nº 4 y Nº 5	1	VC31704	22,25

TOPES DE PROFUNDIDAD PARA BROCAS
DEPTH ADJUSTING COLLAR • BUTÉES DE PERÇAGE

Ø (mm)	Gama de medidas / *Range* (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
3,5	De 2,0 a 3,5	1	Y10035	4,97
5,0	De 4,0 a 5,0	1	Y10050	5,68
6,0	De 5,0 a 6,0	1	Y10065	6,76
8,0	De 7,0 a 8,0	1	Y10080	6,76
10,0	De 8,5 a 10,0	1	Y10100	6,76
12,0	De 10,5 a 12,0	1	Y10120	6,76

CONVERSOR DE ANCLAJE SDS-MAX A SDS-PLUS
CONVERSOR FROM SDS-MAX SHANK TO SDS-PLUS
CONVERTEUR DE SDS-MAX A SDS-PLUS



L1 (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
225	1	1CO2250	175,72

Para taladros con sistema SDS-MAX, HILTI Y-Groove y Licencia Bosch.
Drills with SDS-MAX, HILTI Y-Groove and Bosch License system
Perceuse avec systéme SDS-MAX, HILTI Y-Groove et Bosch Licence.

ELEMENTOS DE UNIÓN Y ÚTILES DE SUJECCIÓN
ADAPTERS • ADAPTATEURS

V945212
V945024

264 000 001

V945138

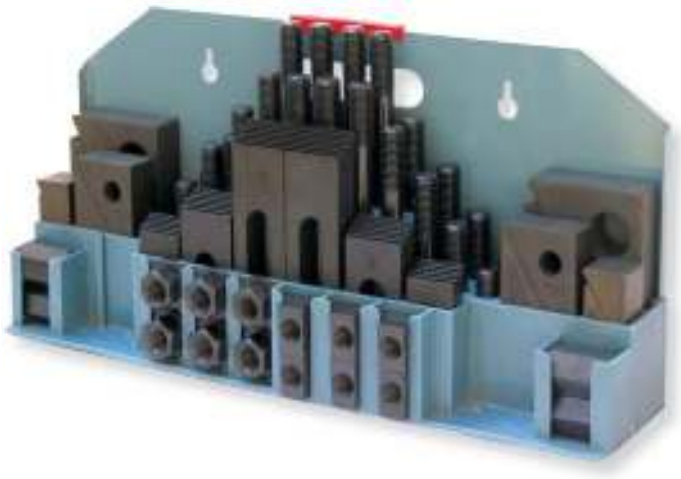
V930001

V931021

V931121
V935816

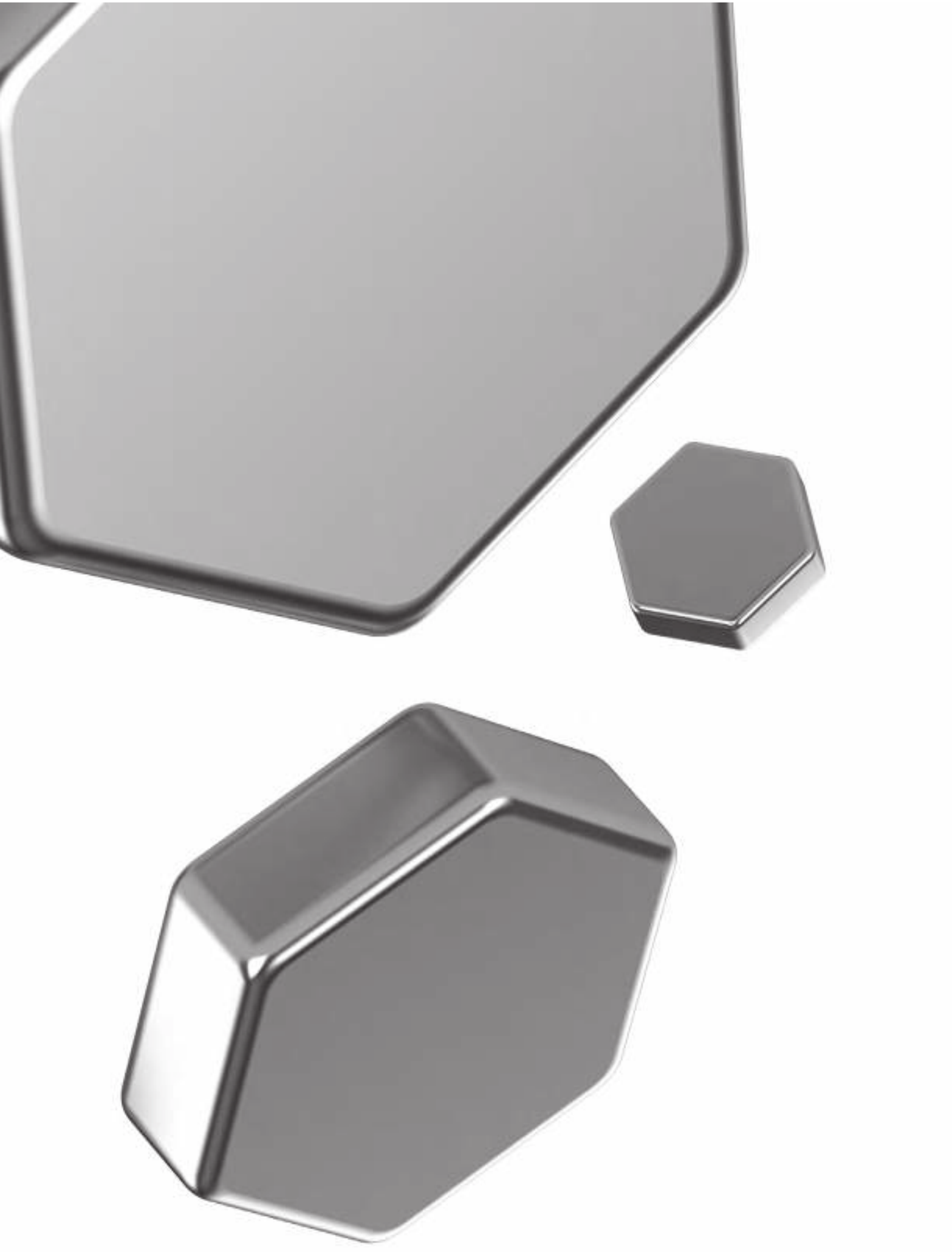
Conversión / *System*	Uds. / *Pcs.*	Cod.	€/Unid.
SDS-PLUS a 1/2" - 20 H (M6 Izq.) / From SDS-PLUS to Thread 1/2" - 20 tpi (M6 LH)	1	V945212	17,80
SDS-PLUS a 3/8" - 24 H (M5 Izq.) / From SDS-PLUS to Thread 3/8" - 24 tpi (M5 LH)	1	V945024	17,80
TORNILLO REPUESTO M6 Izq. / Replacement Screw M6 LH	1	V945406	2,12
TORNILLO REPUESTO M4 Izq. / Replacement Screw M4 LH	1	V945404	2,12
SDS-plus a hexag. 1/4" / From SDS-PLUS to 1/4"	1	264 000 001	34,90
HEXAGONAL 1/4" a 3/8" - 24 H / From HEXAGONAL 1/4" to thread 3/8" - 24tpi	1	V945138	7,12
Rosca 3/8" - 24 H / Thread 3/8" 24 tpi	1	V930001	2,67
Rosca 3/8" - 24 H a 1/2" - 20 H / From Thread 3/8" 24 tpi to Thread 1/2" 20 tpi	1	V931021	22,47
Rosca 1/2" - 20 H a 3/8" - 24 H / From Thread 1/2 - 20 tpi to 3/8 - 24 tpi	1	V931121	10,17
Rosca 5/8" - 16 H a 1/2" - 20 H / Thread 5/8" - 16tpi to 1/2" - 20 tpi	1	V935816	5,93

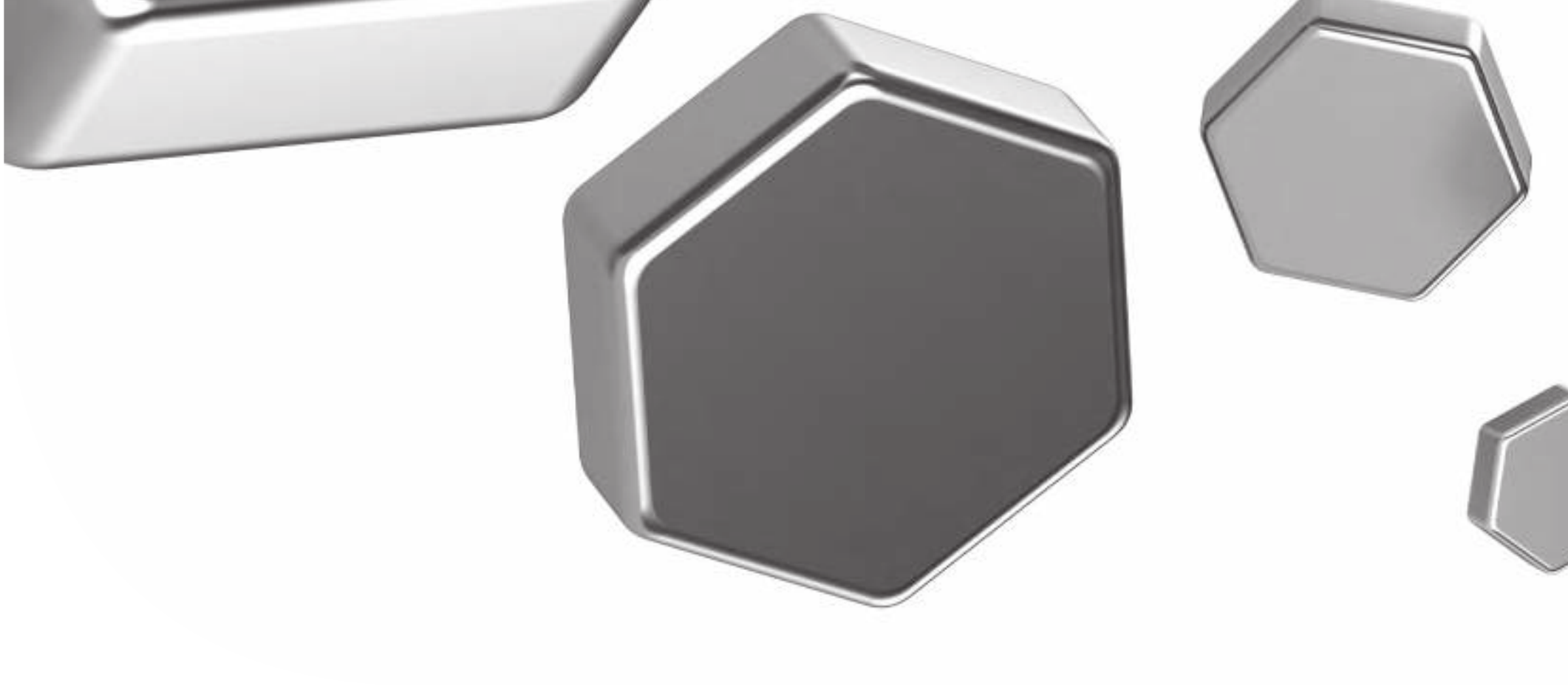
ÚTILES DE SUJECIÓN CONJUNTO DE 52 PIEZAS
CLAMPING TOOLS - 52 PCS. KIT • OUTILS DE FIXATION - 52 PCS.



Ref.	Rosca / *Thread*	a	Uds. / *Pcs.*	Cod.	€/Unid.
RH. M - 10	M 10	12,00 mm	1	V40RHM10	240,38
RH. M - 12	M 12	14,00 mm	1	V40RHM12	249,28
RH. M - 14	M 14	16,00 mm	1	V40RHM14	265,30
RH. M - 16	M 16	18,00 mm	1	V40RHM16	302,70

Hasta fin de existencias / Until end of stock /Jusqu´à épuisement des stocks





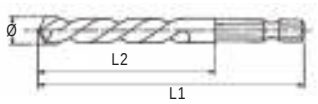
SESA®

HEXAGONAL

HEXAGONAL

BROCAS HEXAGONAL PARA CONSTRUCCIÓN
HEXAGONAL SHANK DRILL BITS • FORETS QUEUE HEXAGONALE

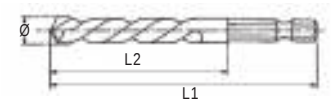
MULTIUSOS
MULTIPURPOSE • MULTI USAGE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
4	95	50	1	1HX0040	7,95
5	95	50	1	1HX0050	8,39
6	100	55	1	1HX0060	9,09

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
8	120	65	1	1HX0080	10,41
10	120	65	1	1HX0100	14,85
12	140	85	1	1HX0120	19,93

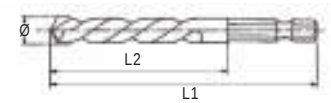
BROCA 3 PUNTAS PARA MADERA HSS
HSS 3 POINT WOOD DRIL BIT
FORET A BOIS 3 POINTES HSS



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3	82	33	1	120106003	5,11
4	96	43	1	120106004	5,27
5	106	52	1	120106005	5,35

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6	113	57	1	120106006	5,35
8	117	75	1	120106008	5,61
10	133	87	1	120106010	6,17

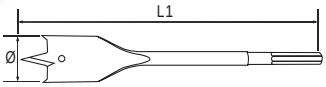
BROCA 3 PUNTAS PARA MADERA HSS-G SERIE CORTA
HSS-G 3 POINT WOOD DRILL BIT SHORT SERIES
FORET A BOIS 3 POINTE HSS-G SERIE COURTE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3	39	22	1	3R67630	8,57
4	43	26	1	3R67640	8,57
5	48	31	1	3R67650	8,57

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6	49	33	1	3R67660	9,62
8	50	37	1	3R67680	10,77
10	53	40	1	3R67698	13,02

BROCA PALA TIPO B FLAT DRILL BIT TYPE B • MÉCHE PLATE TIPE B



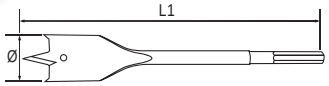
Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
6,00	157	6,5	1	103006	2,36
8,00	157	6,5	1	103008	2,36
10,00	157	6,5	1	103010	2,49
12,00	157	6,5	1	103012	3,01
14,00	157	6,5	1	103014	3,33
15,00	157	6,5	1	103015	3,33
16,00	157	6,5	1	103016	3,37
17,00	157	6,5	1	103017	3,54
18,00	157	6,5	1	103018	3,58
19,00	157	6,5	1	103019	3,68
20,00	157	6,5	1	103020	3,89
22,00	157	6,5	1	103022	4,55

Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
24,00	157	6,5	1	103024	4,99
25,00	157	6,5	1	103025	5,19
26,00	157	6,5	1	103026	5,52
28,00	157	6,5	1	103028	5,96
30,00	157	6,5	1	103030	6,21
32,00	157	6,5	1	103032	6,37
33,00	157	6,5	1	103033	6,93
34,00	157	6,5	1	103034	7,17
35,00	157	6,5	1	103035	8,11
36,00	157	6,5	1	103036	8,22
38,00	157	6,5	1	103038	8,66
40,00	157	6,5	1	103040	9,08

ESTUCHE BROCAS PALA TIPO B
FLAT DRILL BIT SET TYPE B • COFFRET MÉCHE PLATE TIPE B

Ref.	Medidas / Sizes	Tipo / Type	€/Unid.
PB13	6-8-10-12-13-14-16-18-19-20-22-24-25	B	45,77

BROCA PALA TIPO C FLAT DRILL BIT TYPE C • MÉCHE PLATE TIPE C



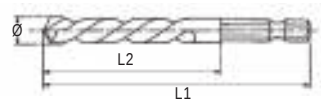
Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
6	157	6,5	1	103C06	2,70
8	157	6,5	1	103C08	2,70
10	157	6,5	1	103C10	3,01
11	157	6,5	1	103C11	3,24
12	157	6,5	1	103C12	3,42
13	157	6,5	1	103C13	3,48
14	157	6,5	1	103C14	3,65
15	157	6,5	1	103C15	3,92
16	157	6,5	1	103C16	3,98
18	157	6,5	1	103C18	4,08
19	157	6,5	1	103C19	4,21
20	157	6,5	1	103C20	4,36
22	157	6,5	1	103C22	4,67

Ø (mm)	L1 (mm)	Mango / Shank Ø (mm)	Uds. Pcs.	Cod.	€/Unid.
23	157	6,5	1	103C23	5,03
24	157	6,5	1	103C24	5,25
25	157	6,5	1	103C25	5,80
26	157	6,5	1	103C26	5,99
28	157	6,5	1	103C28	6,62
30	157	6,5	1	103C30	7,00
32	157	6,5	1	103C32	7,31
33	157	6,5	1	103C33	7,60
34	157	6,5	1	103C34	7,88
35	157	6,5	1	103C35	8,26
36	157	6,5	1	103C36	8,72
38	157	6,5	1	103C38	9,18
40	157	6,5	1	103C40	9,54

ESTUCHE BROCAS PALA TIPO C
FLAT DRILL BIT SET TYPE C • COFFRET MÉCHE PLATE TIPE C

Ref.	Medidas / Sizes	Tipo / Type	€/Unid.
PC13	6-8-10-12-13-14-16-18-19-20-22-24-25	C	51,29

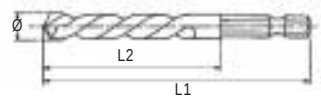
BROCA METAL HSS-G
HSS-G METAL DRILL BIT • FORETS METAL HSS-G



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
3	62	35	1	130132003	6,02
4	75	50	1	130132004	6,63
5	85	60	1	130132005	6,89

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6	94	68	1	130132006	7,43
8	117	90	1	130132008	8,10

BROCA METAL HSS-G SERIE CORTA
HSS-G METAL DRILL BIT SHORT SERIES
FORETS METAL HSS-G SÉRIE COURTE



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
1,0	32	7	1	3R67110	9,05
1,5	32	10	1	3R67115	9,05
2,0	34	12	1	3R67120	9,05
2,5	36	14	1	3R67125	9,05
3,0	38	16	1	3R67130	9,05
3,3	40	18	1	3R67133	9,05
3,5	40	18	1	3R67135	9,05
4,0	44	20	1	3R67140	9,05
4,2	45	20	1	3R67142	9,05
4,5	46	24	1	3R67145	9,05
5,0	50	26	1	3R67150	9,05
5,5	50	26	1	3R67155	9,89

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,0	50	26	1	3R67160	9,89
6,5	50	30	1	3R67165	9,89
6,8	50	30	1	3R67168	9,89
7,0	50	30	1	3R67170	9,89
7,5	51	32	1	3R67175	11,54
8,0	51	32	1	3R67180	11,54
8,5	53	33	1	3R67185	11,54
9,0	53	33	1	3R67190	13,86
9,5	54	38	1	3R67195	13,86
10,0	54	38	1	3R67198	13,86
10,2	54	38	1	3R67199	13,86

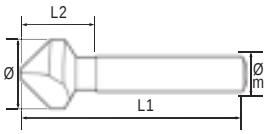
ESTUCHE DE BROCAS
DRILL BITS SET
COFFRET FORETS

Medidas / Sizes
De 1,0 a 10,0 x 0,5 mm

Uds. / Pcs.	Cod.	€/Unid.
19	3R67100	141,02

AVELLANADORES 90º
COUNTERSINK HSS 90º • CHANFRENEUR HSS 90º

HSS-G | 1/4 | 90º



Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
6,3	31	2,0 a 5,7	1	3R67306	23,34
8,3	31	2,5 a 7,6	1	3R67308	23,34
10,4	34	3,0 a 9,7	1	3R67310	25,14

Ø (mm)	L1 (mm)	L2 (mm)	Uds. / Pcs.	Cod.	€/Unid.
12,4	35	3,2 a 12,0	1	3R67312	26,46
16,5	40	3,6 a 16,0	1	3R67316	29,69
20,5	41	4,0 a 20,0	1	3R67320	35,79

CJTO. AVELLANANADORES C/ADAPTADOR Y MANGO
COUNTERSINK SET
COFFRET CHANFREINEURS

Medidas / Sizes		
6,3, 8,3, 10,4, 12,4, 16,5, 20,5 mm		
Uds. / Pcs.	Cod.	€/Unid.
8	3R67423	103,74

MACHO CON ANCLAJE DE 1/4”
1/4” SHANK TAPS
TARAUDS MÉCHE 1/4”

HSS-G | DIN 13 | 1/4

Ø (mm)	L1	L2	Uds, / Pcs,	Cod,	€/Unid.
M 3,00 x 0,50	33,0	11	1	3R67026	8,89
M 3,50 x 0,60	33,5	10	1	3R67028	13,58
M 4,00 x 0,70	35,0	12	1	3R67030	8,89
M 4,50 x 0,75	35,0	12	1	3R67032	13,58
M 5,00 x 0,80	36,0	15	1	3R67034	11,49
M 5,50 x 0,90	35,0	15	1	3R67036	15,29
M 6,00 x 1,00	39,0	18	1	3R67038	11,49
M 7,00 x 1,00	37,5	16	1	3R67040	15,29
M 8,00 x 1,25	40,0	19	1	3R67042	17,00
M 9,00 x 1,25	40,5	18	1	3R67044	25,48
M 10,00 x 1,50	41,0	21	1	3R67046	19,72

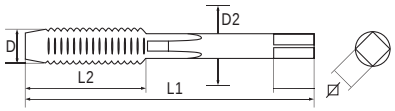
ESTUCHE MACHOS MANGO HEXAGONAL HSS-G
HSS-G HEXAGON SHANK TAPS SET
COFFRET DE TARAUDS HEXAGONALES HSS-G

Medidas / Sizes		
M 3, 4, 5, 6, 8, 10 mm		
Uds. / Pcs.	Cod.	€/Unid.
7	3R67010	79,25

Métrica Dimensions	M 3	M 4	M 5	M 6	M 8	M 10
Ø Broca previa Core hole dia	2,5 mm	3,3 mm	4,2 mm	5,0 mm	6,8 mm	8,5 mm
N° de revoluciones RPM	Regulación más baja (0 – 450 revoluciones/min.) Lowest setting (0 - 450 RPM)					
Par de giro Torque	Regulación máxima Maximum setting					

M MACHOS COMBINADOS HSS-G
HSS-G COMBINED TAPS
TARAUDS COMBINÉS HSS-G

HSS-G



Macho / Tap Ø (mm)	Broca / Drill Bit Ø (mm)	L1 (mm)	L2 (mm)	Uds, / Pcs,	Cod,	€/Unid.
M 3,00 x 0,50	2,5	36	18	1	3R67226	21,98
M 4,00 x 0,70	3,3	39	23	1	3R67230	21,98
M 5,00 x 0,80	4,2	41	25	1	3R67234	21,98
M 6,00 x 1,00	5,0	44	27	1	3R67238	21,98
M 8,00 x 1,25	6,8	50	35	1	3R67242	31,40
M 10,00 x 1,50	8,5	59	42	1	3R67246	37,67

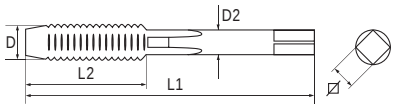
ESTUCHE MACHOS COMBINADOS HSS-G
HSS-G COMBINED TAPS SET
COFFRET TARUADS COMBINÉS HSS-G

Medidas / Sizes
M 3, 4, 5, 6, 8, 10 (mm).

Uds. / Pcs.	Cod.	€/Unid.
7	3R67200	163,42

M MÉTRICA ISO-ROSCA DIN 13
METRIC ISO-THREAD DIN 13
MÉTRIQUE DIN-13

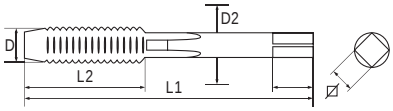
HSS-G | TIN | TOL 6H | 1/4



D Ø x P (mm)	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
M 3 x 0,50	2,5	36	3R67210	44,95
M 4 x 0,70	3,3	39	3R67211	44,95
M 5 x 0,80	4,2	41	3R67212	44,95
M 6 x 1,00	5,0	44	3R67213	44,95
M 8 x 1,25	6,8	50	3R67214	60,35
M 10 x 1,50	8,5	59	3R67215	83,23

UNC ROSCA GRUESA UNIFICADA ANSI B 1.1
UNIFIED COARSE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1

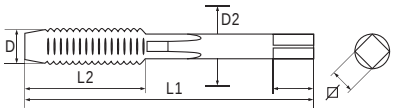
HSS-G | 1/4



D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
Nr. 4 x 40	2.30	36	3R67280	31,21
Nr. 5 x 40	2.60	36	3R67281	31,21
Nr. 6 x 32	2.85	39	3R67282	31,21
Nr. 8 x 32	3.50	39	3R67283	31,21
Nr. 10 x 24	3.90	41	3R67284	31,21
Nr. 12 x 24	4.50	41	3R67285	31,21
1/4 x 20	5.20	44	3R67286	31,21
5/16 x 18	6.60	50	3R67287	43,69
3/8 x 16	8.00	59	3R67288	52,43

UNF ROSCA FINA UNIFICADA ANSI B 1.1
UNIFIED FINE THREAD ANSI B 1.1
FILETAGE UNIFIÉ PAS GROS ANSI B 1.1

HSS-G



D Ø x P (")	D 1 (mm)	L1 (mm)	Cod.	€/Unid.
Nr. 4 x 48	2.4	36	3R67290	31,21
Nr. 5 x 44	2.7	36	3R67291	31,21
Nr. 6 x 40	3.0	39	3R67292	31,21
Nr. 8 x 36	3.5	39	3R67293	31,21
Nr. 10 x 32	4.1	41	3R67294	31,21
Nr. 12 x 28	4.7	41	3R67295	31,21
1/4 x 28	5.5	44	3R67296	31,21
5/16 x 24	6.9	50	3R67297	43,69
3/8 x 24	8.5	59	3R67298	52,43

M REPARADOR DE ROSCA CON ANCLAJE DE 1/4"
1/4" SHANK REPAIR KIT
KIT DE RÉPARATION DE FILETAGE AVEC QUEU 1/4"

					Uds. / Pcs.	Cod.	€/Unid.
				x 1,5D			
M 4,00 x 0,70	4,2 mm	Nº 6	Nº 6	20	1	4C04307	65,72
M 5,00 x 0,80	5,2 mm	Nº 8	Nº 8	20	1	4C04309	68,35
M 6,00 x 1,00	6,3 mm	Nº 9	Nº 9	20	1	4C04310	73,62
M 8,00 x 1,25	8,3 mm	Nº 11	Nº 11	20	1	4C04312	93,64

Hasta fin de existencias / Until end of stock /Jusqu´à épuisement des stocks

PUNTAS DE ATORNILLAR 1/4"

1/4" SCREWDRIVER BITS • EMBOUTS 1/4"

PH — EXTRA

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PH - 1 x 25	EXTRA	100	NM0PH1	111,71
PH - 2 x 25	EXTRA	100	NM0PH2	111,71
PH - 3 x 25	EXTRA	100	NM0PH3	111,71
PH - 4 x 32	EXTRA	50	NM0PH4	221,61
Forma / Form	**Calidad / Quality**	**Uds. / Pcs.**	**Cod.**	**€/Envase**
PH - 1 x 50	EXTRA	50	NN0PH1	118,69
PH - 2 x 50	EXTRA	50	NN0PH2	118,69
PH - 3 x 50	EXTRA	50	NN0PH3	118,69

PH — EXTRA

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PH - 0 x 25	EXTRA	10	NMCPH0	19,23
PH - 1 x 25	EXTRA	10	NMCPH1	14,06
PH - 2 x 25	EXTRA	10	NMCPH2	14,06
PH - 3 x 25	EXTRA	10	NMCPH3	14,06
PH - 4 x 32	EXTRA	10	NMCPH4	47,44
Forma / Form	**Calidad / Quality**	**Uds. / Pcs.**	**Cod.**	**€/Envase**
PH - 1 x 50	EXTRA	5	NNCPH1	14,69
PH - 2 x 50	EXTRA	5	NNCPH2	14,69
PH - 3 x 50	EXTRA	5	NNCPH3	14,69

PH — TIN

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PH - 1 x 25	TIN - CVD	100	NM1PH1	346,75
PH - 2 x 25	TIN - CVD	100	NM1PH2	346,75
PH - 3 x 25	TIN - CVD	100	NM1PH3	346,75
Forma / Form	**Calidad / Quality**	**Uds. / Pcs.**	**Cod.**	**€/Envase**
PH - 1 x 50	TIN - CVD	50	NN1PH1	283,92
PH - 2 x 50	TIN - CVD	50	NN1PH2	283,92
PH - 3 x 50	TIN - CVD	50	NN1PH3	283,92

PH — TIN

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PH - 1 x 25	TIN - CVD	10	NMTPH1	37,56
PH - 2 x 25	TIN - CVD	10	NMTPH2	37,56
PH - 3 x 25	TIN - CVD	10	NMTPH3	37,56
Forma / Form	**Calidad / Quality**	**Uds. / Pcs.**	**Cod.**	**€/Envase**
PH - 1 x 50	TIN - CVD	5	NNTPH1	30,66
PH - 2 x 50	TIN - CVD	5	NNTPH2	30,66
PH - 3 x 50	TIN - CVD	5	NNTPH3	30,66

HEX — EXTRA

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
HEX 2,0 x 25	EXTRA	50	NS0H20	92,56
HEX 2,5 x 25	EXTRA	50	NS0H25	92,56
HEX 3,0 x 25	EXTRA	100	NS0H30	185,10
HEX 4,0 x 25	EXTRA	100	NS0H40	185,10
HEX 5,0 x 25	EXTRA	100	NS0H50	185,10
HEX 6,0 x 25	EXTRA	100	NS0H60	185,10
Forma / Form	**Calidad / Quality**	**Uds. / Pcs.**	**Cod.**	**€/Envase**
HEX 2,0 x 50	EXTRA	25	NT0H20	94,52
HEX 2,5 x 50	EXTRA	25	NT0H25	94,52
HEX 3,0 x 50	EXTRA	50	NT0H30	189,02
HEX 4,0 x 50	EXTRA	50	NT0H40	189,02
HEX 5,0 x 50	EXTRA	50	NT0H50	189,02
HEX 6,0 x 50	EXTRA	50	NT0H60	189,02

HEX — EXTRA

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
HEX 2,0 x 25	EXTRA	10	NSCH20	21,64
HEX 2,5 x 25	EXTRA	10	NSCH25	21,64
HEX 3,0 x 25	EXTRA	10	NSCH30	21,64
HEX 4,0 x 25	EXTRA	10	NSCH40	21,64
HEX 5,0 x 25	EXTRA	10	NSCH50	21,64
HEX 6,0 x 25	EXTRA	10	NSCH60	21,64
Forma / Form	**Calidad / Quality**	**Uds. / Pcs.**	**Cod.**	**€/Envase**
HEX 2,0 x 50	EXTRA	5	NTCH20	22,18
HEX 2,5 x 50	EXTRA	5	NTCH25	22,18
HEX 3,0 x 50	EXTRA	5	NTCH30	22,18
HEX 4,0 x 50	EXTRA	5	NTCH40	22,18
HEX 5,0 x 50	EXTRA	5	NTCH50	22,18
HEX 6,0 x 50	EXTRA	5	NTCH60	22,18

PZ

EXTRA

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PZ - 1 x 25	EXTRA	100	NP0PZ1	111,71
PZ - 2 x 25	EXTRA	100	NP0PZ2	111,71
PZ - 3 x 25	EXTRA	100	NP0PZ3	111,71
PZ - 4 x 32	EXTRA	50	NP0PZ4	221,59
Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PZ - 1 x 50	EXTRA	50	NQ0PZ1	118,69
PZ - 2 x 50	EXTRA	50	NQ0PZ2	118,69
PZ - 3 x 50	EXTRA	50	NQ0PZ3	118,69

PZ

EXTRA

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PZ - 1 x 25	EXTRA	10	NPCPZ1	14,06
PZ - 2 x 25	EXTRA	10	NPCPZ2	14,06
PZ - 3 x 25	EXTRA	10	NPCPZ3	14,06
PZ - 4 x 32	EXTRA	10	NPCPZ4	47,44
Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PZ - 1 x 50	EXTRA	5	NQCPZ1	14,69
PZ - 2 x 50	EXTRA	5	NQCPZ2	14,69
PZ - 3 x 50	EXTRA	5	NQCPZ3	14,69

PZ

TIN

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PZ - 1 x 25	TIN - CVD	100	NP1PZ1	346,75
PZ - 2 x 25	TIN - CVD	100	NP1PZ2	346,75
PZ - 3 x 25	TIN - CVD	100	NP1PZ3	346,75
Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PZ - 1 x 50	TIN - CVD	50	NQT1Z1	283,92
PZ - 2 x 50	TIN - CVD	50	NQT1Z2	283,92
PZ - 3 x 50	TIN - CVD	50	NQT1Z3	283,92

PZ

TIN

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PZ - 1 x 25	TIN - CVD	10	NPTPZ1	37,56
PZ - 2 x 25	TIN - CVD	10	NPTPZ2	37,56
PZ - 3 x 25	TIN - CVD	10	NPTPZ3	37,56
Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PZ - 1 x 50	TIN - CVD	5	NQTPZ1	31,23
PZ - 2 x 50	TIN - CVD	5	NQTPZ2	31,23
PZ - 3 x 50	TIN - CVD	5	NQTPZ3	31,23

R-CUADRADA
R-SQUARE
R-CARRÉ

EXTRA

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
R - 1 x 25	EXTRA	50	NU00R1	100,38
R - 2 x 25	EXTRA	50	NU00R2	100,38
R - 3 x 25	EXTRA	50	NU00R3	100,38
Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
R - 1 x 50	EXTRA	25	NV00R1	132,31
R - 2 x 50	EXTRA	25	NV00R2	132,31
R - 3 x 50	EXTRA	25	NV00R3	132,31

R-CUADRADA
R-SQUARE
R-CARRÉ

EXTRA

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
R - 1 x 25	EXTRA	10	NU0CR1	13,29
R - 2 x 25	EXTRA	10	NU0CR2	13,29
R - 3 x 25	EXTRA	10	NU0CR3	13,29
Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
R - 1 x 50	EXTRA	5	NV0CR1	29,73
R - 2 x 50	EXTRA	5	NV0CR2	29,73
R - 3 x 50	EXTRA	5	NV0CR3	29,73

TORX

EXTRA

25 mm

50 mm

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
T - 6 x 25	EXTRA	50	NJ0T06	142,64
T - 7 x 25	EXTRA	50	NJ0T07	142,64
T - 8 x 25	EXTRA	50	NJ0T08	142,64
T - 9 x 25	EXTRA	50	NJ0T09	142,64
T - 10 x 25	EXTRA	100	NJ0T10	231,42
T - 15 x 25	EXTRA	100	NJ0T15	231,42
T - 20 x 25	EXTRA	100	NJ0T20	231,42
T - 25 x 25	EXTRA	100	NJ0T25	231,42
T - 27 x 25	EXTRA	100	NJ0T27	231,42
T - 30 x 25	EXTRA	100	NJ0T30	231,42
T - 40 x 25	EXTRA	100	NJ0T40	231,42
Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
T - 10 x 50	EXTRA	50	NK0T10	352,72
T - 15 x 50	EXTRA	50	NK0T15	352,72
T - 20 x 50	EXTRA	50	NK0T20	352,72
T - 25 x 50	EXTRA	50	NK0T25	352,72
T - 27 x 50	EXTRA	50	NK0T27	352,72
T - 30 x 50	EXTRA	50	NK0T30	352,72
T - 40 x 50	EXTRA	50	NK0T40	352,72

TORX

EXTRA

25 mm

50 mm

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
T - 6 x 25	EXTRA	10	NJCT06	30,88
T - 7 x 25	EXTRA	10	NJCT07	30,88
T - 8 x 25	EXTRA	10	NJCT08	30,88
T - 9 x 25	EXTRA	10	NJCT09	30,88
T - 10 x 25	EXTRA	10	NJCT10	25,74
T - 15 x 25	EXTRA	10	NJCT15	25,74
T - 20 x 25	EXTRA	10	NJCT20	25,74
T - 25 x 25	EXTRA	10	NJCT25	25,74
T - 27 x 25	EXTRA	10	NJCT27	25,74
T - 30 x 25	EXTRA	10	NJCT30	25,74
T - 40 x 25	EXTRA	10	NJCT40	25,74
Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
T - 10 x 50	EXTRA	5	NKCT10	39,10
T - 15 x 50	EXTRA	5	NKCT15	39,10
T - 20 x 50	EXTRA	5	NKCT20	39,10
T - 25 x 50	EXTRA	5	NKCT25	39,10
T - 27 x 50	EXTRA	5	NKCT27	39,10
T - 30 x 50	EXTRA	5	NKCT30	39,10
T - 40 x 50	EXTRA	5	NKCT40	39,10

TORX

TIN

25 mm

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
T - 10 x 25	TIN - CVD	100	NJ1T10	462,41
T - 15 x 25	TIN - CVD	100	NJ1T15	462,41
T - 20 x 25	TIN - CVD	100	NJ1T20	462,41
T - 25 x 25	TIN - CVD	100	NJ1T25	462,41
T - 27 x 25	TIN - CVD	100	NJ1T27	462,41
T - 30 x 25	TIN - CVD	100	NJ1T30	462,41
T - 40 x 25	TIN - CVD	100	NJ1T40	462,41

TORX

TIN

25 mm

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
T - 10 x 25	TIN - CVD	10	NJTT10	50,11
T - 15 x 25	TIN - CVD	10	NJTT15	50,11
T - 20 x 25	TIN - CVD	10	NJTT20	50,11
T - 25 x 25	TIN - CVD	10	NJTT25	50,11
T - 27 x 25	TIN - CVD	10	NJTT27	50,11
T - 30 x 25	TIN - CVD	10	NJTT30	50,11
T - 40 x 25	TIN - CVD	10	NJTT40	50,11

TORX INVIOLABLE
TORX TAMPER
TORX PERCÉ BAGUÉ

EXTRA

25 mm

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
T x - 10 x 25	EXTRA	50	NL0T10	231,31
T x - 15 x 25	EXTRA	50	NL0T15	231,31
T x - 20 x 25	EXTRA	50	NL0T20	231,31
T x - 25 x 25	EXTRA	50	NL0T25	231,31
T x - 27 x 25	EXTRA	50	NL0T27	231,31
T x - 30 x 25	EXTRA	50	NL0T30	231,31
T x - 40 x 25	EXTRA	50	NL0T40	231,31

TORX INVIOLABLE
TORX TAMPER
TORX PERCÉ BAGUÉ

EXTRA

25 mm

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
T x - 10 x 25	EXTRA	10	NLCT10	46,87
T x - 15 x 25	EXTRA	10	NLCT15	46,87
T x - 20 x 25	EXTRA	10	NLCT20	46,87
T x - 25 x 25	EXTRA	10	NLCT25	46,87
T x - 27 x 25	EXTRA	10	NLCT27	46,87
T x - 30 x 25	EXTRA	10	NLCT30	46,87
T x - 40 x 25	EXTRA	10	NLCT40	46,87

PLANA
SLOTTED
PLAT

EXTRA

25 mm

50 mm

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PLANA 3,0 x 0,5 x 25	EXTRA	50	NH3005	92,56
PLANA 4,0 x 0,5 x 25	EXTRA	100	NH4005	185,10
PLANA 4,5 x 0,6 x 25	EXTRA	100	NH4506	185,10
PLANA 5,5 x 0,8 x 25	EXTRA	100	NH5508	185,10
PLANA 5,5 x 1,0 x 25	EXTRA	100	NH5510	185,10
PLANA 6,5 x 1,2 x 25	EXTRA	100	NH6512	185,10
PLANA 8,0 x 1,2 x 25	EXTRA	50	NH8012	359,78
PLANA 8,0 x 1,6 x 25	EXTRA	50	NH8016	359,78
Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PLANA 3,0 x 0,5 x 50	EXTRA	25	NI3005	108,22
PLANA 4,0 x 0,5 x 50	EXTRA	50	NI4005	216,39
PLANA 4,5 x 0,6 x 50	EXTRA	50	NI4506	216,39
PLANA 5,5 x 0,8 x 50	EXTRA	50	NI5508	216,39
PLANA 5,5 x 1,0 x 50	EXTRA	50	NI5510	216,39
PLANA 6,5 x 1,2 x 50	EXTRA	50	NI6512	216,39
PLANA 8,0 x 1,2 x 50	EXTRA	25	NI8012	187,06
PLANA 8,0 x 1,6 x 50	EXTRA	25	NI8016	187,06

PLANA
SLOTTED
PLAT

EXTRA

25 mm

50 mm

Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PLANA 3,0 x 0,5 x 25	EXTRA	10	NHC3005	21,64
PLANA 4,0 x 0,5 x 25	EXTRA	10	NHC4005	21,64
PLANA 4,5 x 0,6 x 25	EXTRA	10	NHC4506	21,64
PLANA 5,5 x 0,8 x 25	EXTRA	10	NHC5508	21,64
PLANA 5,5 x 1,0 x 25	EXTRA	10	NHC5510	21,64
PLANA 6,5 x 1,2 x 25	EXTRA	10	NHC6512	21,64
PLANA 8,0 x 1,2 x 25	EXTRA	10	NHC8012	75,08
PLANA 8,0 x 1,6 x 25	EXTRA	10	NHC8016	75,08
Forma / Form	Calidad / Quality	Uds. / Pcs.	Cod.	€/Envase
PLANA 3,0 x 0,5 x 50	EXTRA	5	NIC3005	24,78
PLANA 4,0 x 0,5 x 50	EXTRA	5	NIC4005	24,78
PLANA 4,5 x 0,6 x 50	EXTRA	5	NIC4506	24,78
PLANA 5,5 x 0,8 x 50	EXTRA	5	NIC5508	24,78
PLANA 5,5 x 1,0 x 50	EXTRA	5	NIC5510	24,78
PLANA 6,5 x 1,2 x 50	EXTRA	5	NIC6512	24,78
PLANA 8,0 x 1,2 x 50	EXTRA	5	NIC8012	40,68
PLANA 8,0 x 1,6 x 50	EXTRA	5	NIC8016	40,68

Otras puntas, CONSULTAR. / For measurements not listed, request. / Pour des mesures non cotées consulter.

EXPENDEDOR DE PUNTAS
SCREWDRIVER BITS BOX • CAISSE ÉMBOUTS

advance MÁXIMO RENDIMIENTO

EXTRA

Descripción / Description	Uds. / Pcs.	Cod.	€/Unid.
Composición Puntas 25 mm / Bits 25 mm / Embouts 25 mm	325	NX0017	525,07
Composición Puntas 50 mm / Bits 50 mm / Embouts 50 mm	150	NX0018	553,87

Contenido / Contains / Contenu

EXPENDEDOR DE PUNTAS 25 mm / SCREWDRIVER BITS BOX 25 mm / CAISSE ÉMBOUTS 25 mm

Puntas / Bits	Uds. / Pcs.
PLANA / SLOTTED / PLAT 4,5 x 0,6 x 25	20
PLANA / SLOTTED / PLAT 5,5 x 0,8 x 25	50
PLANA / SLOTTED / PLAT 6,5 x 1,2 x 25	20
TORX-10 x 25	10
TORX-15 x 25	10
TORX-20 x 25	10
TORX-25 x 25	10
PH-1 x 25	20
PH-2 x 25	50
PH-3 x 25	10

Puntas / Bits	Uds. / Pcs.
HEX 3,0 x 25	10
HEX 4,0 x 25	10
HEX 5,0 x 25	10
PZ-1 x 25	20
PZ-2 x 25	50
PZ-3 x 25	10
ADAPTADOR MAGNETICO / MAGNETIC HOLDER ADAPTATEUR MAGNETIQUE 10 x 60	5

EXPENDEDOR DE PUNTAS 50 mm / SCREWDRIVER BITS BOX 50 mm / CAISSE ÉMBOUTS 50 mm

Puntas / Bits	Uds. / Pcs.
PLANA / SLOTTED / PLAT 4,5 x 0,6 x 50	10
PLANA / SLOTTED / PLAT 5,5 x 0,8 x 50	20
PLANA / SLOTTED / PLAT 6,5 x 1,2 x 50	10
TORX-10 x 50	5
TORX-15 x 50	5
TORX-20 x 50	5
TORX-25 x 50	5
PH-1 x 50	5
PH-2 x 50	20
PH-3 x 50	5

Puntas / Bits	Uds. / Pcs.
HEX 3,0 x 50	5
HEX 4,0 x 50	5
HEX 5,0 x 50	5
PZ-1 x 50	10
PZ-2 x 50	20
PZ-3 x 50	10
ADAPTADOR MAGNETICO / MAGNETIC HOLDER ADAPTATEUR MAGNETIQUE 10 x 60	5

JUEGOS DE PUNTAS
SCREWDRIVER BIT SETS • COFFRET ÉMBOUT

Basic

Descripción / Description	Uds. / Pcs.	Cod.	€/Unid.
Juego Puntas y Adaptador EXTRA Screwdriver Bit Sets & Adapter EXTRA / Coffret Émbout et Adaptateur EXTRA	32	NX0019	38,88

Contenido / Contains / Contenu

Puntas / Bits
PH-1, PH-2, PH-2, PH-3
PZ-1, PZ-2, PZ-2, PZ-3
PLANA / SLOTTED / PLAT 3-4-5-6
HEX-3, HEX-4, HEX-5, HEX-6

Puntas / Bits
TORX-10, TORX-15, TORX-20, TORX-25, TORX-27, TORX-30, TORX-40
TX.INV.-10, TX.INV.-15, TX.INV.-20, TX.INV.-25, TX.INV.-27, TX.INV.-30, TX.INV.-40
ADAPTADOR MAGNETICO MAGNETIC HOLDER / ADAPTATEUR MAGNETIQUE
ADAPTADOR PORTA VASOS NUT DRIVER SOCKETS / ADAPTATEUR Á BILLE

JUEGOS DE PUNTAS
SCREWDRIVER BIT SETS • COFFRET ÉMBOUT

ADVANCE MÁXIMO RENDIMIENTO

EXTRA

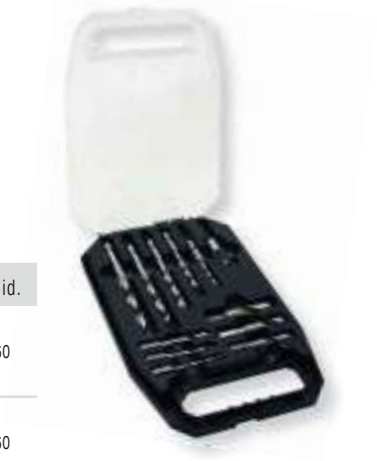
Descripción / Description	Uds. / Pcs.	Cod.	€/Unid.
Juego Puntas y Adaptador EXTRA Screwdriver Bit Sets & Adapter EXTRA / Coffret Émbout et Adaptateur EXTRA	32	NX0020	80,34

Contenido / Contains / Contenu

Puntas / Bits
PH-1, PH-2, PH-3 x 2
PZ-1, PZ-2, PZ-3 x 2
HEX-2, HEX-2,5, HEX-3, HEX-4, HEX-5, HEX-6

Puntas / Bits
PLANAº / SLOTTED / PLAT 3 - 4 - 4,5 - 5,5 - 6,5 - 8
TORX-10, TORX-15, TORX-20, TORX-25, TORX-27, TORX-30
ADAPTADOR MAGNETICO 10x60 MAGNETIC HOLDER 10x60 / ADAPTATEUR MAGNETIQUE 10x60

JUEGOS DE BROCAS 1/4"
1/4" DRILL BIT SET • COFFRET FORET 1/4"



Descripción / Description	Uds. / Pcs.	Cod.	€/Unid.
Construcción + Madera Extracorta + Adaptador Magnético Masonry + Wood Extrashort + Magnetic Holder Béton + Bois Extracourte + Adpatateur Magnétique	12	6JG001	111,60
Construcción + Metal Extracorta + Adaptador Magnético Masonry + Metal Extrashort + Magnetic Holder Béton + Metal Extracourte + Adpatateur Magnétique	12	6JG002	111,60
Madera + Madera Extracorta + Adaptador Magnético Wood + Wood Extrashort + Magnetic Holder Bois + Bois Extracourte + Adpatateur Magnétique	12	6JG003	111,60
Madera + Metal Extracorta + Adaptador Magnético Wood + Metal Extrashort + Magnetic Holder Bois + Metal Extracourte + Adpatateur Magnétique	12	6JG004	111,60
Metal + Metal Extracorta + Adaptador Magnético Metal + Metal Extrashort + Magnetic Holder Metal + Metal Extracourte + Adpatateur Magnétique	12	6JG005	111,60
Metal + Madera Extracorta + Adaptador Magnético Metal + Wood Extra Short + Magnetic Holder Metal + Bois Extracourte + Adpatateur Magnétique	12	6JG006	111,60

Hasta fin de existencias / Until end of stock /Jusqu´à épuisement des stocks

Diámetros / Diameters / Diametres	
SERIE NORMAL / NORMAL SERIES / SÉRIE NORMALE	4, 5, 6, 8, 10 mm
SERIE EXTRACORTA / EXTRASHORT SERIES / SÉRIE EXTRACOURTE	3, 4, 5, 6, 8, 10 mm

ADAPTADOR
ADAPTER • ADAPTATEUR

ADAPTADOR MAGNETICO 1/4'' DE 10 x 60 mm
MAGNETIC HOLDER 10 x 60 mm
ADAPTATEUR MAGNETIQUE 10 x 60 mm

Uds. / Pcs.	Cod.	€/Unid.
1	NZAD10	7,45

ADAPTADOR MAGNETICO 1/4'' DE 10 x 100 mm
MAGNETIC HOLDER 10 x 100 mm
ADAPTATEUR MAGNETIQUE 10 x 100 mm

Uds. / Pcs.	Cod.	€/Unid.
1	NZAD100	17,04

ADAPTADOR 1/4'' CAMBIO RÁPIDO
QUICK GRIP HOLDER
ADAPTATEUR RAPIDE

Uds. / Pcs.	Cod.	€/Unid.
1	NZAD14	23,56

MANGO SILICONA GRIP HEXAGONAL 1/4''
SILICONE SHANK HOLDER
MANCHE DE SILICONE

Uds. / Pcs.	Cod.	€/Unid.
1	NZBD14	25,61

ALARGADOR PARA BROCA PALA
FLAT DRILL BIT EXTENSION • RALLONGE POUR MÉCHE PLATE

Entrada Inlet (mm)	Mango Shank (mm)	L1 (mm)	Uds. Pcs.	Cod.	€/Unid.
Hex. 1/4"	Hex. 1/4"	305	1	UL00334	23,33

METROLOGÍA

METROLOGY - MÉTROLOGIE

SESA®

RELOJES COMPARADORES Y BASES MAGNÉTICAS
INDICATOR AND MAGNETIC BASE
EMBASE MAGNETIQUE ET COMPARATEURS

RELOJ COMPARADOR ANALÓGICO
DIAL INDICATOR • COMPARATEUR

			MEDICIÓN / *MEASUREMENT*				
Ref.	Modelo / *Model*	Esfera / *Oval* (Ø mm)	Capacidad / *Range*	Resolución *Resolution* (mm)	Uds. *Pcs.*	Cod.	€/Unid.
851	ANALÓGICO	55	0 - 10 mm / 0 - 0,5"	0,01	1	XD0511	63,78

RELOJ COMPARADOR DIGITAL
ELECTRONIC DIAL INDICATOR
COMPARATEUR AFFICHAGE DIGITAL

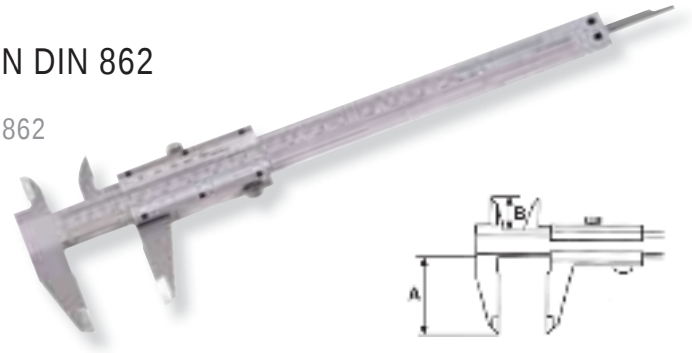
			MEDICIÓN / *MEASUREMENT*				
Ref.	Modelo / *Model*	Esfera / *Oval* (Ø mm)	Capacidad / *Range*	Resolución *Resolution* (mm)	Uds. *Pcs.*	Cod.	€/Unid.
852	DIGITAL	55	0 - 10 mm / 0 - 0,5"	0,01	1	XD0512	133,74

BASE MAGNÉTICA
MAGNETIC BASE • SUPPORT MAGNETIQUE

Ref.	Soporte / *Base* (mm)	Torreta Vertical *Height of Column* (mm)	Torreta Articulada *Articulated Arm* (mm)	Cod.	€/Unid.
801	50 x 55 x 66	180 x 12	150 x 10	XD0510	70,78

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

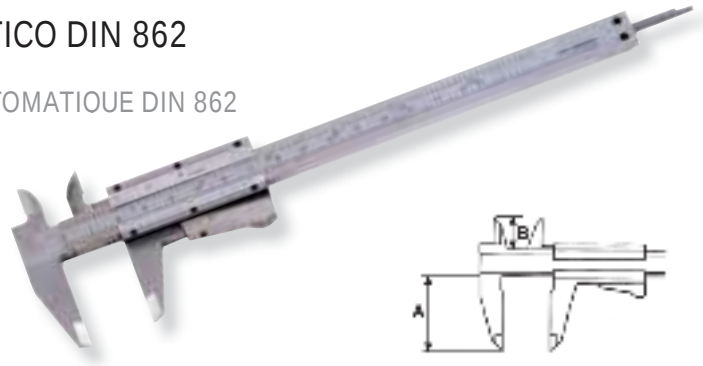
CALIBRE INOX CON TORNILLO DE FIJACIÓN DIN 862
INOX CALIPER WITH LOCKING SCREW DIN 862
PIED À COULISSE INOX AVEC VIS DE BLOCKAGE DIN 862



DIN 862

		MEDICIÓN / *MEASUREMENT*					
Ref.	A - B (mm)	Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.	€/Unid.
103	40 - 20	0 - 150	0,05	MATE	ABS-PLASTIC	X10150	39,55
103-L	46 - 23	0 - 200	0,05	MATE	ABS-PLASTIC	X10150L	60,48

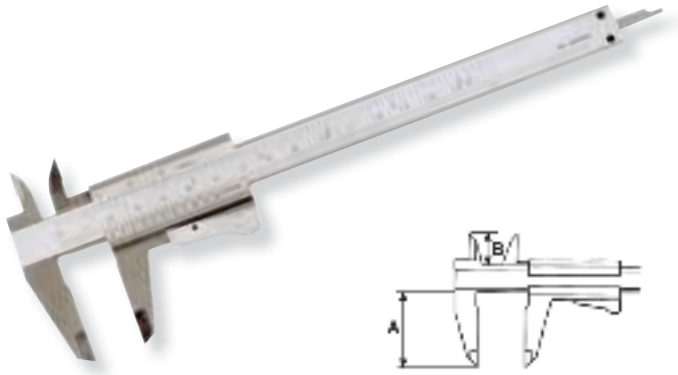
CALIBRE INOX CON PULSADOR AUTOMÁTICO DIN 862
INOX CALIPER WITH LOCKING DEVICE DIN 862
PIED Á COULISSE INOX AVEC VIS DE BLOCKAGE AUTOMATIQUE DIN 862



DIN 862

		MEDICIÓN / *MEASUREMENT*					
Ref.	A - B (mm)	Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.	€/Unid.
105	40 - 20	0 - 150	0,05	MATE	ABS-PLASTIC	X20515	41,67

CALIBRE INOX MONOBLOCK DIN 862
INOX MONOBLOCK CALIPER DIN 862
PIED Á COULISSE INOX MONOBLOCK DIN 862



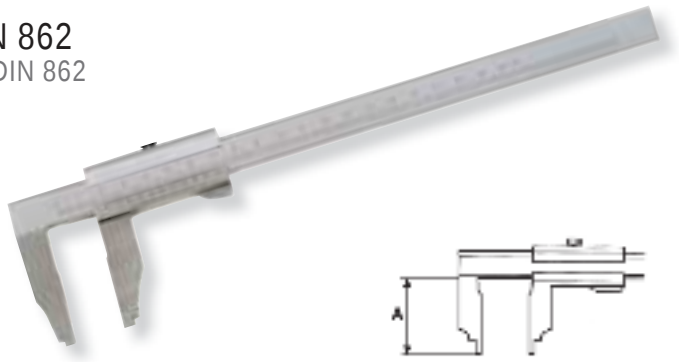
DIN 862

		MEDICIÓN / *MEASUREMENT*					
Ref.	A - B (mm)	Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.	€/Unid.
107	40 - 20	0 - 150	0,05	MATE	CUERO	X30715	67,13
107-B	40 - 20	0 - 150	0,05	MATE	ABS-PLASTIC	X3071B	67,13

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

CALIBRE TORNERO INOX MONOBLOCK DIN 862

INOX MONOBLOCK CALIPER WITH LOCKING SCREW DIN 862
PIED Á COULISSE DE TOURNEUR INOX DIN 862

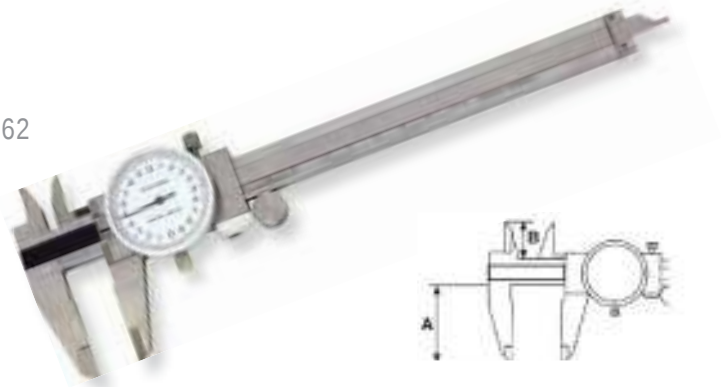


DIN 862

		MEDICIÓN / *MEASUREMENT*					
Ref.	A - B (mm)	Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.	€/Unid.
110-B	59	0 - 200	0,02	MATE	ABS-PLASTIC	X5102B	144,54

CALIBRE INOX CON RELOJ DIN 862

DIAL INOX CALIPER DIN 862
PIED Á COULISSE INOX AVEC COMPARATEUR DIN 862

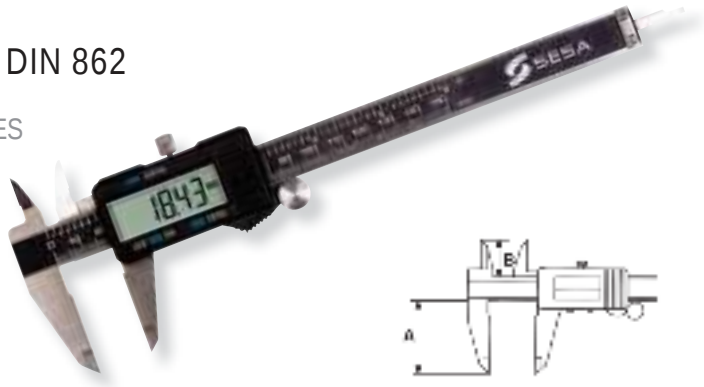


DIN 862

		MEDICIÓN / *MEASUREMENT*					
Ref.	A - B (mm)	Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.	€/Unid.
111	40 - 20	0 - 150	0,02	MATE	ABS-PLASTIC	X61115	83,86
111-X	58 - 20	0 - 300	0,02	MATE	ABS-PLASTIC	X61115X	214,41

CALIBRE DIGITAL INOX - MM / PULGADAS DIN 862

DIGITAL INOX CALIPER DIN 862 MM / INCHES
PIED Á COULISSE INOX DIGITAL DIN 862 MM / POUCES

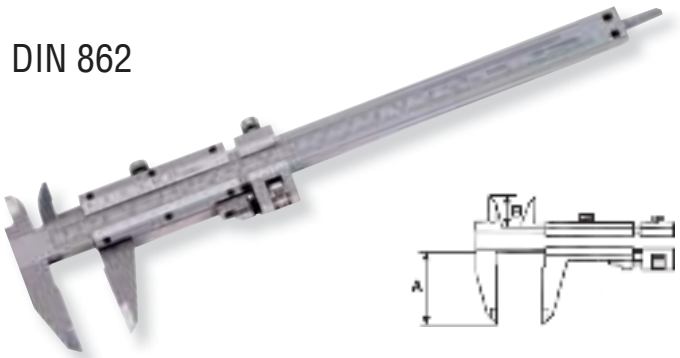


DIN 862

		MEDICIÓN / *MEASUREMENT*					
Ref.	A - B (mm)	Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.	€/Unid.
112-G	40 - 20	0 - 150	0,01	MATE	ABS-PLASTIC	X71215G	109,44
112-L	46 - 23	0 - 200	0,01	MATE	ABS-PLASTIC	X71215L	115,15
112-X	46 - 23	0 - 300	0,01	MATE	ABS-PLASTIC	X71215X	213,39

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

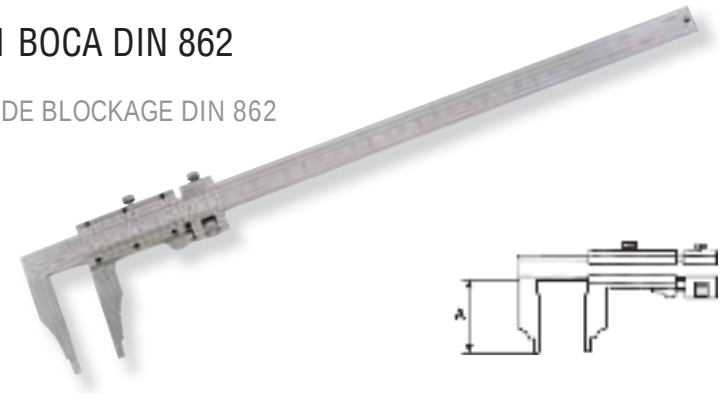
CALIBRE INOX CON TORNILLO DE APROX. DIN 862
INOX CALIPER WITH FINE ADJUSTMENT DIN 862
PIED Á COULISSE INOX AVEC VIS DE BLOCKAGE



DIN 862

		MEDICIÓN / *MEASUREMENT*					
Ref.	A - B (mm)	Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.	€/Unid.
109-C	40 - 20	0 - 150	0,02	MATE	ABS-PLASTIC	X40920C	51,32
109	46 - 26	0 - 200	0,02	MATE	ABS-PLASTIC	X40920	64,37
116	55 - 26,5	0 - 300	0,02	MATE	ABS-PLASTIC	X10300	120,84
116-A	130 - 45	0 - 1.000	0,02	MATE	MADERA	X01000A	964,05

CALIBRE CON TORNILLO DE APROX. - 1 BOCA DIN 862
INOX CALIPER WITH LOCKING SCREW DIN 862
PIED Á COULISSE DE TOURNEUR INOX AVEC VIS DE BLOCKAGE DIN 862



DIN 862

		MEDICIÓN / *MEASUREMENT*					
Ref.	A - B (mm)	Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.	€/Unid.
117-N	126	0 - 800	0,02	MATE	MADERA	X00800	696,21
118	150	0 - 1.000	0,02	MATE	MADERA	X01000	1.188,67

Hasta fin de existencias / *Until end of stock* / *Jusqu´à épuisement des stocks*

CALIBRE CALIBRE INOX PROFUNDIDAD DIN 862
INOX DEPTH GAUGE DIN 862
JAUGES DE PROFONDEUR INOX DIN 862

DIN 862

	MEDICIÓN / *MEASUREMENT*					
Ref.	Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.	€/Unid.
113	0 - 200	0,02	MATE	MADERA	X81320	61,35

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

MICRÓMETRO INOX PARA EXTERIORES DIN 863
INOX OUTSIDE MICROMETERS
MICROMÈTRES POUR EXTERIEURES

DIN 863

			MEDICIÓN / *MEASUREMENT*					
Ref.	Anillo / *Ring* (mm)	Contacto *Contact*	Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.	€/Unid.
201	6,5	WIDIA	0 - 25	0,01	MATE	ABS-PLASTIC	X91025	55,42
202	6,5	WIDIA	25 - 50	0,01	MATE	ABS-PLASTIC	X92050	62,37
203	6,5	WIDIA	50 - 75	0,01	MATE	ABS-PLASTIC	X93075	76,60
204	6,5	WIDIA	75 - 100	0,01	MATE	ABS-PLASTIC	X94100	88,61
205	6,5	WIDIA	100 - 125	0,01	MATE	ABS-PLASTIC	X94125	146,40
206	6,5	WIDIA	125 - 150	0,01	MATE	ABS-PLASTIC	X94150	221,13

MICRÓMETRO INOX DIGITAL PARA EXTERIORES DIN 863
ELECTRONIC OUTSIDE MICROMETERS
MICROMÉTRES EXTERIEURES DIGITALES

DIN 863

			MEDICIÓN / *MEASUREMENT*					
Ref.	Anillo / *Ring* (mm)	Contacto *Contact*	Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.	€/Unid.
301	6,5	WIDIA	0 - 25	0,001	MATE	ABS-PLASTIC	XA1025	290,01

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

MICRÓMETRO INOX PARA INTERIORES
INTERNAL INOX MICROMETERS
ALÉSOMETRES

			MEDICIÓN / *MEASUREMENT*					
Ref.	Anillo / *Ring* (mm)	Contacto *Contact*	Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.	€/Unid.
401	17	WIDIA	5 - 30	0,01	MATE	MADERA	XB1530	154,92
402	17	WIDIA	25 - 50	0,01	MATE	MADERA	XB2255	160,36

MICRÓMETRO INOX DE PROFUNDIDAD
INOX DEPTH MICROMETRES
MICROMÈTRES DE PROFONDEUR

		MEDICIÓN / *MEASUREMENT*					
Ref.	Varillas *Reading Rod*	Capacidad / *Range* (mm)	Resolución *Resolution* (mm)	Acabado *Finishing*	Estuche / *Pack*	Cod.	€/Unid.
501	INTERCAMBIABLES	0 - 100	0,01	MATE	MADERA	XC1100	183,43

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

KIT RELOJ ANALÓGICO + BASE MAGNÉTICA
SET WITH MAGNETIC BASE AND DIAL INDICATOR
COFFRET AVEC COMPARATEUR ET SUPPORT MAGNETIQUE

Ref.	Composición / *Composition*	Uds. *Pcs.*	Rango Medición *Measurement Range*	Resolución *Resolution* (mm)	Estuche *Pack*	Cod.	€/Unid.
212	Reloj comparador analógico / *Dial Indicator*	1	0 - 10 mm.	0,01/0,0005"	Plástico / Plastic	X97150	221,11
	Base magnética / *Magnetic base*	1	-	-			

CONJUNTO DE MEDICIÓN DIGITAL PARA TORNERO
TOURNER DIGITAL MEASURING SET
COFFRET MÉSURE DIGITAL POUR TOURNEUR

Ref.	Composición / *Composition*	Uds. *Pcs.*	Rango Medición *Measurement Range*	Resolución *Resolution* (mm)	Estuche *Pack*	Cod.	€/Unid.
	Calibre digital electrónico / *Inox Digital caliper*	1	0 - 150 mm.	0,01/0,0005"			
213	Reloj comparador digital / *Digital Dial Indicator*	1	0 - 10 mm.	0,01/0,0005"	Plástico / Plastic	X98150	320,39
	Base magnética / *Magnetic base*	1	-	-			

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

CONJUNTO DE MEDICION DIGITAL
DIGITAL MEASURING SET
COFFRET MESURE DIGITAL

Ref.	Composición / *Composition*	Uds. *Pcs.*	Rango Medición *Measurement Range*	Resolución *Resolution* (mm)	Estuche *Pack*	Cod.	€/Unid.
	Calibre digital electrónico 112-G / *Inox Digital caliper*	1	0 - 150 mm.	0,01/0,0005"			
214	Micrómetro electrónico / *Outside Micrometer*	1	0 - 25 mm.	0,01/0,0005"	Plástico / Plastic	X99100	263,14
	Pilas / *Batteries*	2					

CONJUNTO DE MICRÓMETROS INOX EXTERIORES
INOX OUTSIDE MICROMETERS SET
COFFRET MICROMÈTRES EXTERIEURES INOX

		MEDICIÓN / *MEASUREMENT*				
Ref.	Uds. / *Pcs.*	Rango Medición / *Measurement Range*	Resolución / *Resolution* (mm)	Estuche / *Pack*	Cod.	€/Unid.
210	4	0 - 100 mm.	0,01	Madera / Wood	X95100	240,59
211	6	0 - 150 mm.	0,01	Madera / Wood	X96150	430,57

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

GALGAS DE ROSCA COMBINADAS, MÉTRICA Y WHITHWORTH
METRIC AND WHITWORTH SCREW PITCH GAUGES
CALIBRES DE FILETAGE PUR MÉTRIQUE ET WHITWORTH

Ref.	Láminas / *Blades*	Uds. / *Pcs.*	Cod.	€/Unid.
1102	52	1	NB1102	23,28
1103	58	1	NB1103	30,08

GALGAS DE ROSCA COMBINADAS, CÓNCAVAS Y CONVEXAS
CONCAVE AND CONVEX RADIUS GAUGE SETS
JAUGES À RAYONS CONCAVES ET CONVEXES

Ref.	Láminas / *Blades*	Gama / *Range*	Uds. / *Pcs.*	Cod.	€/Unid.
1203	34	R 1,0 - 7,0	1	NB1203	52,49
1202	32	R 7,5 - 15,0	1	NB1202	49,41
1201	30	R 15,5 - 25,0	1	NB1201	43,50

GALGAS DE ESPESORES, LONGITUD 100mm
THICKNESS GAUGE SETS, LENGTH 100mm
JAUGES D´ÉPAISSEUR, LONGEUR 100mm

Ref.	Láminas / *Blades*	Gama / *Range*	Uds. / *Pcs.*	Cod.	€/Unid.
1001	13	0,05 - 1,00	1	NB1001	9,27
1002	20	0,05 - 1,00	1	NB1002	11,38

ESCUADRAS DE ZINC
SQUARES OF ZINC
EQUERRES DU ZINC

LISA
WITHOUT BASE

TACÓN
WITH BASE

Ref.	Dimensiones / *Size* (mm)	Tipo / *Type*	Sección / *Section* (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
901	100 x 70	Lisa / *Without base*	15 x 5	1	NA0901	15,09
950	100 x 70	Tacón / *With base*	15 x 5	1	NA0950	24,68
902	150 x 100	Lisa / *Without base*	20 x 5	1	NA0902	16,01
951	150 x 100	Tacón / *With base*	20 x 5	1	NA0951	29,20
903	200 x 130	Lisa / *Without base*	20 x 5	1	NA0903	24,52
952	200 x 130	Tacón / *With base*	20 x 5	1	NA0952	35,86
904	300 x 175	Lisa / *Without base*	25 x 5	1	NA0904	26,13
953	300 x 175	Tacón / *With base*	25 x 5	1	NA0953	50,63
905	400 x 230	Lisa / *Without base*	30 x 5	1	NA0905	33,11
954	400 x 230	Tacón / *With base*	30 x 5	1	NA0954	60,40
906	500 x 280	Lisa / *Without base*	30 x 5	1	NA0906	38,20
955	500 x 280	Tacón / *With base*	30 x 5	1	NA0955	87,74

TRANSPORTADORES DE ÁNGULOS 0 - 180º
ANGLE PROTRACTORS
RAPPORTEURS

Ref.	Ø mm.	L. Caña (mm)	Uds. / *Pcs.*	Cod.	€/Unid.
975	80	120	1	NA0975	54,05
976	120	150	1	NA0976	56,62
977	150	200	1	NA0977	67,98
978	200	300	1	NA0978	107,77

Se ofrece servicio de certificado de calibración, para más información consultar precios.
Calibration certificate service is offered, for more information consult prices.
Un service de certificat d'étalonnage est offert, pour plus d'informations, consultez les prix.

COMPASES CIRCULARES DE ACERO FORJADO
ROUGHT STEEL DIVIDERS WITH QUADRANT
COMPAS ACIER FORGE AVEC ARC DE CERCLE

Ref.	L (mm)	Uds. / *Pcs.*	Patas / *Legs*	Cod.	€/Unid.
601	150	1	Cuadradas / *Square*	NC0601	31,29
602	200	1	Cuadradas / *Square*	NC0602	34,70
603	250	1	Cuadradas / *Square*	NC0603	47,06
604	300	1	Cuadradas / *Square*	NC0604	55,87

COMPASES INTERIORES DE ACERO FORJADO
ROUGHT STEEL INSIDE CALIPERS
COMPAS D´INTERIEUR

Ref.	L (mm)	Uds. / *Pcs.*	Patas / *Legs*	Cod.	€/Unid.
701	150	1	Planas / Flat	NC0701	17,03
702	200	1	Planas / Flat	NC0702	22,51
703	250	1	Planas / Flat	NC0703	28,11
704	300	1	Planas / Flat	NC0704	33,85

COMPASES EXTERIORES DE ACERO FORJADO
ROUGHT STEELOUTSIDE CALIPERS
COMPAS D´ÉXTERIEUR

Ref.	L (mm)	Uds. / *Pcs.*	Patas / *Legs*	Cod.	€/Unid.
801	150	1	Planas / Flat	NC0801	17,42
802	200	1	Planas / Flat	NC0802	22,51
803	250	1	Planas / Flat	NC0803	28,47
804	300	1	Planas / Flat	NC0804	33,71

SESA
PORCELANATO
ACERO RÁPIDO

DISPLAYS

DISPLAYS

SESA®

MINI EXPOSITOR
MINI DISPLAY
MINI ÉXPOSITEUR

Expositor MINI
1.830 x 500 x 430 mm

MINI EXPOSITOR MINI DISPLAY • MINI ÉXPOSITEUR

COMBINADO CONBINED • COMBINÉ

Art.	Ø (mm)	Uds.	€/Unid.
BROCA DIN 338N HSS-G	3,00	10	
	3,50	10	
	4,00	10	
	4,50	10	
	5,00	10	
	6,00	10	
	8,00	10	
	10,00	5	
	12,00	5	
BROCA GRANITO	3 X 60	5	
	4 X 75	5	
	5 X 85	10	
	6 X 100	15	
	8 X 120	15	
	10X 120	10	
	12 X 150	10	
	SESABOX GRANITO	5	
BROCA JR PORCELANATO	4X85	10	
	5X85	10	
	6X100	15	
	8X125	5	
	10X150	5	
	SESABOX JR 4-5-6-6-8	5	
BROCA ST-2 (SDS-PLUS)	4X110	5	
	5X110	10	
	6X160	15	
	8X160	10	
	10X160	10	
	12X160	5	
	14x200	5	
	16x260	5	
	18x300	5	
CORONAS BIMETAL M42	16	3	
	20	3	
	24	3	
	27	3	
	30	3	
	35	3	
	40	3	
	51	2	
	60	2	
	70	2	
	83	2	
	A1 14-30	3	
	A2T 32-152	3	
Cod. MIN001			3.008,72

MINI EXPOSITOR MINI DISPLAY • MINI ÉXPOSITEUR

METAL METAL • MÉTAL

Art.	Ø (mm)	Uds.	€/Unid.
BROCA DIN 338N HSS-G	3,00	10	
	3,50	10	
	4,00	10	
	4,50	10	
	5,00	10	
	6,00	10	
	8,00	10	
	10,00	5	
	12,00	5	
BROCA DIN 338N HSS-G MANGO REDUCIDO	14	2	
	16	2	
	18	2	
	20	2	
	22	2	
	24	2	
	25	2	
	26	2	
ESTUCHES DE BROCAS	1915314	2	
	194314	2	
	1915333	2	
	194333	2	
	1915015T	2	
	194019T	2	
	1915025T	2	
	194025T	2	
CORONAS BIMETAL M42	16	2	
	20	2	
	24	2	
	27	2	
	30	2	
	35	2	
	40	2	
	51	2	
	60	2	
	70	1	
	83	1	
	A1 14-30	2	
	A2T 32-152	2	
Cod. MIN002			3.137,63

MINI EXPOSITOR MINI DISPLAY • MINI ÉXPOSITEUR

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION

Art.	Ø (mm)	Uds.	€/Unid.
BROCA TORNADO PARED	3X60	5	
	4X75	5	
	5X85	10	
	6X100	15	
	8X120	10	
	10X120	5	
	12X150	5	
	14X150	3	
BROCA JR PORCELANATO	4X85	10	
	5X85	10	
	6X100	20	
	8X125	10	
	10X150	5	
	SESABOX JR 4-5-6-6-8	5	
BROCA ST-2 (SDS-PLUS)	4X110	5	
	5X110	10	
	6X110	15	
	8X160	5	
	10X160	5	
	12X160	5	
	14x200	3	
	16x260	4	
	18x300	3	
PUNTEROS Y CINCELES	PUNT 250	2	
	CINCEL 250/20	2	
	CINCEL 250/40	2	
	CINCEL 200/40 AZ.	2	
	ACAN. 240/22	2	
	ACAN. ALAS 250/22	2	
	PUNT 280 (MAX)	2	
	PUNT 400 (MAX)	2	
	CINCEL 280/24 (MAX)	2	
	CINCEL 400/24 (MAX)	2	
	CINCEL 300/80 (MAX)	2	
	ACAN. 300/26 (MAX)	2	
	ACAN. ALAS 380/35 (MAX)	2	
Cod. MIN003			2.773,16

MINI EXPOSITOR MINI DISPLAY • MINI ÉXPOSITEUR

CASH

Art.	Ø (mm)	Uds.	€/Unid.
BROCA DIN 338N HSS-G	3,00	10	
	3,50	10	
	4,00	10	
	4,50	10	
	5,00	10	
	6,00	10	
	8,00	10	
	10,00	5	
	12,00	5	
BROCA DIN 338 N HSS-CO	3,00	10	
	3,50	10	
	4,00	10	
	4,50	10	
	5,00	10	
	6,00	10	
	8,00	10	
	10,00	5	
	12,00	5	
BROCA JR PORCELANATO	4X85	5	
	5X85	10	
	6X100	10	
	8X125	10	
	10X150	5	
	SESABOX JR 4-5-6-6-8	3	
BROCA MADERA 3 PUNTAS	3,00	5	
	4,00	5	
	5,00	5	
	6,00	5	
	8,00	5	
	10,00	5	
	12,00	5	
CORONAS BIMETAL M42	16	3	
	20	3	
	24	3	
	27	3	
	30	3	
	35	3	
	40	3	
	51	2	
	60	2	
	70	2	
	83	2	
	A1 14-30	3	
	A2T 32-152	3	
Cod. MIN004			2.388,85

EXPOSITOR SOBREMESA JR PORCELANATO
BASIC DISPLAY JR PORCELANIC
ÉXPOSITEUR BASE TABLE JR CÉRAMIQUE

Expositor MINI
470 x 190 x 140 mm

Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
4,00	85	8	
5,00	85	16	
6,00	100	16	
8,00	125	8	
10,00	150	8	
SET BROCA JR 5 PIEZAS SET 5 PIECES		5	
COD. JR061		61	710,23

NOTA: Composición con 6 ganchos / Stand with 6 hooks / Présentoirs avec 6 crochets

EXPOSITOR - DISPENSADOR DE SOBREMESA CERRADO
DISPLAY - CLOSED DESKTOP DISPENSER
ÉXPOSITEUR - DISTRIBUTEUR DE BUREAU FERMÉ

Expositor
35 x 30 x 25 mm

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
HSS	WHITE WHITE	475	EXP01 BW	677,50
HSS-G		475	EXP01 AR	1.125,59
HSS-CO 5%		475	EXP01 CO	1.929,42
INOX HSS-G	INOX PROGRESIVA PROGRESSIVE INOX	475	EXP01 IP	2.000,66
TIN		475	EXP01 TI	2.118,18

Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.
2,00	50	4,00	50	5,50	30	7,00	20	8,50	15	11,00	5
3,00	50	4,50	40	6,00	30	7,50	20	9,00	10	12,00	5
3,50	50	5,00	40	6,50	30	8,00	15	10,00	10	13,00	5

EXPOSITOR - DISPENSADOR COMBINADO DE SOBREMESA CERRADO
DISPLAY - CLOSED COMBINED DESKTOP DISPENSER
ÉXPOSITEUR - DISTRIBUTEUR DE BUREAU COMBINÉ FERMÉ

Expositor
35 x 30 x 25 mm

Composición / Contains / Composition					Uds. / Pcs.	Cod.	€/Unid.
BASIC EXPO	HSS WHITE	+ BASIC	+ MADERA		610	EXP02 BASIC	732,26
STANDARD EXPO	HSS G	+ GRANITO	+ MADERA		610	EXP02 STANDARD	1.149,47
ADVANCE EXPO	HSS-CO 5% HSS CO	+ TORNADO	+ MADERA	advance	610	EXP02 ADVANCE	1.975,58

Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.
3,00	50	6,00	40	3,00	50	6,00	30	3,00	50	6,00	30
4,00	50	8,00	20	4,00	50	8,00	15	4,00	50	8,00	15
5,00	50	10,00	10	5,00	40	10,00	10	5,00	40	10,00	10
METAL / METAL / MÉTAL				MADERA / WOOD / BOIS				CONSTRUCCIÓN / CONSTRUCTION / CONSTRUCTION			

EXPOSITORES SESA KUBO

DISPLAYS SESA KUBO • EXPOSITEURS SESA KUBO

NEW

Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE	€/Unid.
KUBO 01	JR PORCELANATO	010205S1	4-5-6-6-8 mm	10	454,26
KUBO 02	HORMAT	1GR327N	4-5-6-6-8mm	10	470,67
KUBO 03	HSS-G	1915314	3-4-5-6-8 mm	10	202,63
KUBO 03P	HSS	155P314	3-4-5-6-8 mm	10	159,36
KUBO 04	HSS-CO	194314	3-4-5-6-8 mm	10	244,13
KUBO 05	HSS-G INOX	194P314	3-4-5-6-8 mm	10	278,49
KUBO 06	ST STEP	19SD314	3-4-5-6-8 mm	10	333,25
KUBO 07	JR PORCELANATO	010205S1	4-5-6-6-8 mm	5	349,20
	HSS-CO	194314	3-4-5-6-8 mm	5	
KUBO 08	HSS-G	1915314	3-4-5-6-8 mm	5	336,65
	HORMAT	1GR327N	4-5-6-6-8 mm	5	
KUBO 09	HSS-G	1915314	3-4-5-6-8 mm	5	223,38
	HSS-CO	194314	3-4-5-6-8 mm	5	

Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE	€/Unid.
KUBO 12	HSS-G	1915314	3-4-5-6-8 mm	7	507,67
	HSS-CO	194314	3-4-5-6-8 mm	7	
	HSS-G INOX	194P314	3-4-5-6-8 mm	7	
KUBO 13	JR PORCELANATO	010205S1	4-5-6-6-8mm	7	591,05
	GRANITO	1915A327N	4-5-6-8-10mm	7	
	BASIC	1916F327N	4-5-6-8-10mm	7	

EXPOSITORES SESA KUBO

NEW

DISPLAYS SESA KUBO • EXPOSITEURS SESA KUBO

Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE	€/Unid.
KUBO 10	ST STEP HSS-G	19SD314	3-4-5-6-8 mm	7	780,07
	ST STEP HSS-G	19SD333	3-4-5-6-7-8-9-10 mm	7	
KUBO 14	HSS-G	1915314	3-4-5-6-8 mm	7	402,62
	HSS-G	1915333	3-4-5-6-7-8-9-10 mm	7	
KUBO 15	HSS-CO	194314	3-4-5-6-8 mm	7	543,42
	HSS-CO	194333	3-4-5-6-7-8-9-10 mm	7	
KUBO 16	JR PORCELANATO	010205S1	4-5-6-6-8mm	7	981,57
	JR PORCELANATO	19JR339	5-6-8mm (3 de cada)	7	
KUBO 17	GRANITO	1915A327N	4-5-6-8-10mm	7	838,64
	HORMAT	19GP339	5-6-8mm (3 de cada)	7	
KUBO 18	GRANITO	1915A327N	4-5-6-8-10mm	7	313,81
	MADERA	196333	3-4-5-6-7-8-9-10mm	7	

Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE	€/Unid.
KUBO 22	KIT REPARADOR DE ROSCAS	4C04007 4C04009 4C04010 4C04012 4C04016 4C04021	M4-M5-M6-M8 M10-M12	6	498,67

Cod.	COMPOSICIÓN KUBO	REF. ESTUCHE	CONTENIDO ESTUCHE	CANTIDAD ESTUCHE	€/Unid.
KUBO 24	FRESAS ROTATIVAS METAL DURO ADVANCE MAXIMO RENDIMIENTO	FREST6DT	FRB6106 FRC6106 FRD6105 FRF6104 FRG6105	6	2.087,17

BROCA JR PARA PORCELANATO JR DRILL-BIT FOR PORCELANIC • FORET JR POUR CÉRAMIQUE

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION

advance MÁXIMO RENDIMIENTO

Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
3,00	85	10	
4,00	85	10	
4,00	85	10	
5,00	85	10	
5,00	100	10	
6,00	100	10	
6,00	100	10	
6,00	100	10	
6,00	100	10	
6,00	100	10	
6,00	100	10	
7,00	125	10	
8,00	125	10	
8,00	125	10	
8,00	125	10	
10,00	150	8	
10,00	150	8	
12,00	150	8	
Cod. HR01JR		174	1.667,32

*Composición con 18 ganchos / Stand with 18 hooks / Présentoirs avec 18crochets *Detalles del producto en la página 37 / Product information at page 37 / Info sur le produit á la page 37

BASIC BASIC • BASIC

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION

Basic

DIN 8039

Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
3,00	60	20	
4,00	75	20	
5,00	85	20	
6,00	100	15	
6,00	100	15	
8,00	120	15	
8,00	120	15	
10,00	120	10	
10,00	120	10	
12,00	150	8	
12,00	150	8	
14,00	150	5	
14,00	150	5	
16,00	150	5	
18,00	160	5	
20,00	160	5	
6,00	200	10	
8,00	200	10	
10,00	200	5	
12,00	200	5	
14,00	200	5	
Cod. HR01BA		216	595,10

*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 43 / Product information at page 43 / Info sur le produit á la page 43

GRANITO GRANITO • GRANITO

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION

DIN 8039

Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
3,00	60	20	
4,00	75	20	
5,00	85	20	
6,00	100	15	
6,00	100	15	
8,00	120	15	
8,00	120	15	
10,00	120	10	
10,00	120	10	
12,00	150	8	
12,00	150	8	
14,00	150	5	
14,00	150	5	
16,00	150	5	
18,00	160	5	
20,00	160	5	
6,00	200	10	
8,00	200	10	
10,00	200	5	
12,00	200	5	
14,00	400	5	
Cod. HR01GR		216	1.228,45

*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 42 / Product information at page 42 / Info sur le produit á la page 42

TORNADO TORNADO • TORNADO

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION

ADVANCE MAXIMO RENDIMIENTO

DIN 8039

Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
3,00	60	20	
4,00	75	20	
5,00	85	20	
6,00	100	15	
6,00	100	15	
8,00	120	15	
8,00	120	15	
10,00	120	10	
10,00	120	10	
12,00	150	8	
12,00	150	8	
14,00	150	5	
14,00	150	5	
16,00	150	5	
18,00	160	5	
20,00	160	5	
6,00	200	10	
8,00	200	10	
10,00	200	5	
12,00	200	5	
14,00	200	5	
Cod. HR01TN		216	2.077,45

*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 40 / Product information at page 40 / Info sur le produit á la page 40

SDS-PLUS CYCLONE CYCLONE SDS-PLUS • SDS-PLUS CYCLONE

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION

Basic

DIN 8035 | SDS plus

Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
3,00	60	20	
4,00	75	20	
5,00	85	20	
6,00	100	15	
6,00	100	15	
8,00	120	15	
8,00	120	15	
10,00	120	10	
10,00	120	10	
12,00	150	8	
12,00	150	8	
14,00	150	5	
14,00	150	5	
16,00	150	5	
18,00	160	5	
20,00	160	5	
6,00	200	10	
8,00	200	10	
10,00	200	5	
12,00	200	5	
14,00	200	5	
Cod. HR01CY		164	1.443,73

*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 48 / Product information at page 46 / Info sur le produit á la page 48

SDS-PLUS ST-2 ST-2 SDS-PLUS • SDS-PLUS ST-2

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION

DIN 8035 | PGM | SDS plus

Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
4,00	110	8	
5,00	110	8	
6,00	110	8	
8,00	110	8	
10,00	110	8	
6,00	160	8	
6,00	160	8	
8,00	160	8	
8,00	160	8	
10,00	160	8	
12,00	160	8	
14,00	160	5	
16,00	160	5	
18,00	200	5	
8,00	260	5	
10,00	260	5	
12,00	260	5	
14,00	260	5	
16,00	450	4	
18,00	450	4	
20,00	450	4	
Cod. HR01ST		135	1.797,33

*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 47 / Product information at page 47 / Info sur le produit á la page 47

SDS-PLUS HURRICANE HURRICANE SDS-PLUS • SDS-PLUS HURRICANE

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION

advance MAXIMO RENDIMIENTO

DIN 8035 | PGM | SDS plus

Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
5,00	110	8	
6,00	110	8	
8,00	110	8	
10,00	110	8	
6,00	160	8	
6,00	160	8	
6,00	160	8	
8,00	160	8	
8,00	160	8	
10,00	160	8	
12,00	160	8	
14,00	160	8	
8,00	210	5	
10,00	210	5	
12,00	210	5	
14,00	210	5	
12,00	260	5	
14,00	310	5	
16,00	310	4	
18,00	450	4	
20,00	450	4	
Cod. HR01HU		138	3.465,39

*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 46 / Product information at page 46 / Info sur le produit á la page 46

SDS-MAX STORM SDS-MAX STORM • SDS-MAX STORM

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION

DIN 8035 | PGM | SDS max

Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
12,00	340	2	
14,00	340	2	
16,00	340	2	
18,00	340	2	
20,00	340	2	
22,00	340	2	
24,00	340	2	
14,00	540	2	
16,00	540	2	
18,00	540	2	
20,00	540	2	
22,00	540	2	
25,00	540	2	
30,00	570	2	
Cod. HR01SM		28	3.334,24

*Composición con 14 ganchos / Stand with 14 hooks / Présentoirs avec 14 crochets *Detalles del producto en la página 50 / Product information at page 50 / Info sur le produit á la page 50

PUNTEROS Y CINCELES CHISELS AND POINTERS • BURINS ET PICS

CONSTRUCCIÓN CONSTRUCTION • CONSTRUCTION

Descripción / Description	L (mm)	Uds. / Pcs.	€/Unid.
SDS-PLUS			
Puntero / Point Chisel	250	4	
Puntero / Point Chisel	250	4	
Cincel / Flat Chisel	250 / 20	3	
Cincel / Flat Chisel	250 / 20	3	
Cincel ancho / Spade Chisel	200 / 40	3	
Acanalador / Hollow Chisel	240 / 22	3	
Cincel azulejo / Tile Chisel	200 / 40	3	
SDS-MAX			
Puntero / Point Chisel	400	3	
Puntero / Point Chisel	400	3	
Cincel / Flat Chisel	400 / 24	3	
Cincel / Flat Chisel	400 / 24	3	
Cincel ancho / Spade Chisel	300 / 80	3	
Acanalador / Hollow Chisel	300 / 26	3	
Cincel azulejo / Tile Chisel	300 / 50	3	
Cod. HR01CP		44	1.264,04

*Composición con 14 ganchos / Stand with 14 hooks / Présentoirs avec 14 crochets
*Detalles del producto en las páginas 54-55 / Product information at pages 54-55 / Info sur le produit á les pages 54-55

BROCA MADERA 3 PUNTAS
STANDARD BRAD POINT DRILL BIT • FORET 3 POINTES STANDARD

MADERA WOOD • BOIS

Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
3,00	70	20	
4,00	80	20	
5,00	90	20	
6,00	100	20	
7,00	110	15	
8,00	120	15	
9,00	130	10	
10,00	133	10	
11,00	150	10	
12,00	155	10	
13,00	160	8	
14,00	160	8	
15,00	165	8	
6,00	245	20	
7,00	245	15	
8,00	245	15	
9,00	245	10	
10,00	245	10	
11,00	245	10	
12,00	245	10	
13,00	245	8	
14,00	245	8	
15,00	245	8	
Cod. HR02BL		288	870,40

*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 84 / Product information at page 84 / Info sur le produit á la page 84

BROCAS PALA B FLAT DRILL BIT TYPE B • MÉCHE PLATE TIPE B

MADERA WOOD • BOIS

Ø (mm)	Uds. / Pcs.	€/Unid.
6,00	15	
8,00	15	
10,00	15	
12,00	15	
14,00	15	
15,00	15	
16,00	15	
18,00	15	
19,00	15	
20,00	15	
22,00	15	
24,00	15	
25,00	15	
26,00	15	
28,00	15	
30,00	15	
32,00	10	
33,00	10	
34,00	10	
35,00	10	
36,00	10	
38,00	10	
40,00	10	
Cod. HR02PB	310	1.502,68

*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 86 / Product information at page 86 / Info sur le produit á la page 86

BROCAS PALA C FLAT DRILL BIT TYPE C • MÉCHE PLATE TIPE C

MADERA WOOD • BOIS

Ø (mm)	Uds. / Pcs.	€/Unid.
6,00	8	
8,00	8	
10,00	8	
12,00	8	
14,00	8	
15,00	8	
16,00	8	
18,00	8	
19,00	8	
20,00	8	
22,00	8	
24,00	8	
25,00	8	
26,00	8	
28,00	8	
30,00	8	
32,00	8	
33,00	8	
34,00	8	
35,00	8	
36,00	8	
38,00	8	
40,00	8	
Cod. HR02PC	184	1.038,53

*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 87 / Product information at page 87 / Info sur le produit á la page 87

LEWIS LEWIS • LEWIS

MADERA WOOD • BOIS

Ø (mm)	L (mm)	Uds. / Pcs.	€/Unid.
6,00	200	4	
8,00	200	4	
10,00	200	4	
12,00	200	4	
14,00	200	4	
16,00	200	4	
18,00	200	4	
8,00	300	3	
10,00	300	3	
12,00	300	3	
14,00	300	3	
16,00	300	3	
18,00	300	3	
20,00	300	3	
10,00	450	2	
12,00	450	2	
14,00	450	2	
16,00	450	2	
18,00	450	2	
20,00	450	2	
22,00	450	2	
Cod. HR02LE		63	2.372,18

*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 90 / Product information at page 90 / Info sur le produit á la page 90

DIN 338N HSS-G ALTO RENDIMIENTO

DIN 338N HSS-G HIGH PERFORMANCE DRILL BIT • DIN 338N HSS-G GRAND PERFORMANCE

BLISTER RÍGIDO RIGID BLISTER • BLISTER RIGIDE

METAL METAL • MÉTAL

HSS-G | DIN 338 N | 118° | 30°

Ø (mm)	Uds. / Pcs.	€/Unid.
1,00	15	
1,50	10	
2,00	15	
2,50	10	
3,00	15	
3,50	10	
4,00	15	
4,50	10	
5,00	15	
5,50	10	
6,00	15	
7,00	5	
8,00	20	
9,00	5	
10,00	10	
11,00	5	
12,00	10	
13,00	5	
Cod. HR03ARB		1.019,03

*Composición con 18 ganchos / Stand with 18hooks / Présentoirs avec 18 crochets *Detalles del producto en la página 104 / Product information at page 104 / Info sur le produit á la page 104

DIN 338N HSS-CO DIN 338N HSS-CO • DIN 338N HSS-E COBALT

BLISTER RÍGIDO RIGID BLISTER • BLISTER RIGIDE

METAL METAL • MÉTAL

Ø (mm)	Uds. / Pcs.	€/Unid.
1,00	15	
1,50	10	
2,00	15	
2,50	10	
3,00	15	
3,50	10	
4,00	15	
4,50	10	
5,00	15	
5,50	10	
6,00	15	
7,00	5	
8,00	20	
9,00	5	
10,00	10	
11,00	5	
12,00	10	
13,00	5	
Cod. HR03COB		1.725,50

*Composición con 18 ganchos / Stand with 18hooks / Présentoirs avec 18 crochets *Detalles del producto en la página 112 / Product information at page 112 / Info sur le produit á la page 112

BLISTER BLANDO SOFT BLISTER • BLISTER DOUX

METAL METAL • MÉTAL

Calidad / Quality		Uds. Pcs.	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO HIGH PERFORMANCE	330	HR03AR	902,11
HSS-CO 5%		330	HR03CO	1.565,77
HSS-G	INOX	330	HR03IP	1.484,29
HSS-CO 5%	INOX	330	HRC3IC	2.864,54
TIN		330	HRCO3TI	1.628,73

Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.
1,00	30	4,00	30	7,00	5
1,50	20	4,25	10	8,00	20
2,00	30	4,50	10	9,00	5
2,50	20	5,00	30	10,00	10
3,00	20	5,25	10	11,00	5
3,25	10	5,50	10	12,00	10
3,50	10	6,00	30	13,00	5

DIN338N M/RED. HSS-G DIN 338N HSS-G REDUCED SHANK • DIN338N HSS-G QUEUE RÉDUITE

METAL METAL • MÉTAL

HSS-G | DIN 338 N | 118° | 30°

Ø (mm)	Uds. / Pcs.	€/Unid.
13,00	6	
13,50	3	
14,00	6	
14,50	3	
15,00	5	
15,50	2	
16,00	5	
16,50	2	
17,00	4	
17,50	2	
18,00	4	
18,50	2	
19,00	4	
19,50	2	
20,00	4	
20,50	2	
21,00	4	
21,50	2	
22,00	3	
22,50	2	
23,00	3	
23,50	2	
24,00	3	
24,50	2	
25,00	3	
Cod. HRC03MR	80	3.585,89

*Composición con 23 ganchos / Stand with 23 hooks / Présentoirs avec 23 crochets
*Detalles del producto en la página 123
Product information at page 123 / Info sur le produit á la page 123

DIN 338N M/RED. HSS-CO DIN 338N HSS-CO REDUCED SHANK • DIN 338N HSS-CO QUEUE RÉDUITE

METAL METAL • MÉTAL

HSS-CO 5% | DIN 338 N | 135° | 30°

Ø (mm)	Uds. / Pcs.	€/Unid.
12,00	3	
12,00	3	
13,00	3	
13,50	2	
14,00	3	
14,00	3	
15,00	3	
15,50	2	
16,00	3	
16,00	3	
16,00	3	
16,50	2	
17,00	3	
17,50	2	
18,00	3	
18,00	3	
18,50	2	
19,00	3	
19,50	2	
20,00	3	
20,00	3	
Cod. HR03MC	57	3.414,63

*Composición con 21 ganchos / Stand with 21 hooks / Présentoirs avec 21 crochets *Detalles del producto en la página 124 / Product information at page 124 / Info sur le produit á la page 124

CORONAS BIMETAL M42
BIMETAL HOLE SAWS M42
SCIES TRÉPAN BIMETAL M42

METAL METAL • MÉTAL

Ø (mm)	Uds. / Pcs.	€/Unid.
16,00	3	
19,00	3	
20,00	3	
22,00	3	
25,00	3	
27,00	3	
30,00	3	
32,00	2	
33,00	2	
35,00	2	
38,00	2	
44,00	2	
48,00	2	
51,00	2	
Husillo / Arbor A0	3	
Husillo / Arbor A1	3	
Husillo / Arbor A2T	2	
Husillo / Arbor A3T	2	
Cod. HR03CB	45	855,89

*Composición con 18 ganchos / Stand with 18 hooks / Présentoirs avec 18 crochets
*Detalles del producto en la página 168 / Product information at page 168 / Info sur le produit á la page 168

COMBINADO STANDARD
STANDARD COMBINED
STANDARD COMBINÉE

BLISTER RÍGIDO RIGID BLISTER • BLISTER RIGIDE

COMBINADO CONBINED • COMBINÉ

	Ø (mm)	Uds. / Pcs.	€/Unid.
HSS-G METAL METAL MÉTAL	3,00	10	
	4,00	10	
	5,00	15	
	6,00	15	
	8,00	20	
	10,00	10	
GRANITO GRANITE	3,00	20	
	4,00	20	
	5,00	30	
	6,00	30	
	8,00	20	
	10,00	10	
MADERA WOOD BOIS	3,00	20	
	4,00	20	
	5,00	30	
	6,00	30	
	8,00	20	
	10,00	10	
Cod. HR0STAND			1.128,76

*Composición con 18 ganchos / Stand with 18hooks / Présentoirs avec 18 crochets

ESTUCHES SETS • COFFRETS

Descripción / Description	Calidad / Composition	Uds. / Pcs.	€/Unid.
CRT 19 Pcs. 1 - 10 x 0,5 mm.	HSS-G	4	
CRT 19 Pcs. 1 - 10 x 0,5 mm.	HSS-CO 5%	4	
CRT 19 Pcs. 1 - 10 x 0,5 mm.	HSS-G INOX	4	
SESABOX 5 Pcs. 3 - 4 - 5 - 6 - 8 mm	HSS-G	4	
SESABOX 5 Pcs. 3 - 4 - 5 - 6 - 8 mm	HSS-CO 5%	4	
SESABOX 5 Pcs. 3 - 4 - 5 - 6 - 8 mm	HSS-G INOX	4	
Cod. HR03ET		24	1.407,03

*Composición con 9 ganchos / Stand with 9 hooks / Présentoirs avec 9 crochets

ESTUCHES SETS • COFFRETS

Descripción / Description	Calidad / Composition	Uds. / Pcs.	€/Unid.
CR 19 pcs. 1-10x0,5mm.	HSS	6	
CR 19 pcs. 1-10x0,5mm.	HSS-CO 5%	6	
SESABOX 5 pcs.	HSS-G	4	
SESABOX 5 pcs.	HSS-CO 5%	8	
Cod. HR04ET		24	1.133,97

*Composición con 9 ganchos / Stand with 9 hooks / Présentoirs avec 9 crochets

ESTUCHES SESABOX SESABOX SET • COFFRETS SESABOX

Descripción / Description	Uds. / Pcs.	Uds. / Pcs.	€/Unid.
SESABOX 5 Pcs.	HSS-G	4	
SESABOX 5 Pcs.	HSS-CO 5%	4	
SESABOX 5 Pcs.	HSS TIN	4	
SESABOX 5 Pcs.	TORNADO	4	
SESABOX 5 Pcs.	GRANITO	4	
SESABOX 5 Pcs.	JR	4	
SESABOX 8 Pcs.	HSS-G	3	
SESABOX 8 Pcs.	HSS-CO 5%	3	
SESABOX 8 Pcs.	TORNADO	3	
SESABOX 8 Pcs.	GRANITO	3	
SESABOX 8 Pcs.	MADERA 3P STANDARD BRAD POINT	3	
Cod. HR03ES		39	1.276,31

*Composición con11 ganchos / Stand with 11 hooks / Présentoirs avec 11 crochets

SESA
SESA

DOBLE METRO LINEAL "COMBINADO"
"COMBINED" DOUBLE METRE DISPLAY • PRÉSENTOIRE DOUBLE "COMBINÉ"

Cod.	Expositor / Displays	€/Unid.
HR03AR	DIN 338 HSS M2 / DIN 338 HSS M2	902,11
HR03CO	DIN 338 HSSCO / DIN 338 HSSCO	1.565,77
HR03IP	DIN 338N HSS-INOX Progresiva / DIN 338N HSS Progressive INOX	1.484,29
HR03MR	DIN338N M/RED. HSS-G / DIN 338N HSS-G Reduced Shank	3.585,89
HR03CB	Corona Bi-Metal / Bimetal Hole Saw	855,89
HR03ET	Estuches / Sets	1.407,03
HR03ES	SESABOX / SESABOX	1.276,31
HR01JR	JR para Porcelanato / JR Drill-Bit for Porcelanic	1.667,32

Cod.	Expositor / Displays	€/Unid.
HR01GR	Granito / Granito	1.228,45
HR01TN	Tornado / Tornado	2.077,44
HR01HU	SDS-PLUS Hurricane / Hurricane SDS-PLUS	3.465,39
HR01ST	SDS-PLUS ST-2 / SDS-PLUS ST-2	1.797,33
HR01SM	SDS-MAX Storm / Storm SDS-MAX	3.334,24
HR01CP	Punteros y Cinceles / Chisels and Pointers	1.264,04
HR02LE	Lewis / Lewis	2.372,18
HR02PC	Brocas Pala Tipo C / Flat Drill Bit Type C	1.038,53
HR02BL	Madera 3 Puntas / Standard Brad Point Drill Bit	870,40
MLCOM		30.192,60

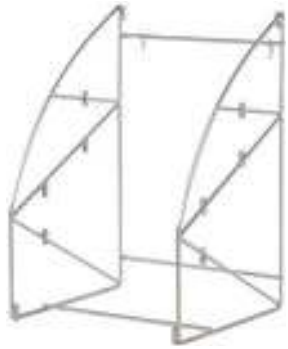
METRO LINEAL "PROFESIONAL"
"PROFESSIONAL" METRE DISPLAY
PRÉSENTOIRE METRE "PROFESSIONNEL"

Cod.	Expositor / Displays	€/Unid.
HR03AR	DIN 338 HSS M2 / DIN 338 HSS M2	902,11
HR03CO	DIN 338 HSSCO / DIN 338 HSSCO	1.565,77
HR03CB	Corona Bi-Metal / Bimetal Hole Saw	855,89
HR01TN	Tornado / Tornado	2.077,44
HR01ST	SDS-PLUS ST-2 / SDS-PLUS ST-2	1.797,33
HR01JR	JR para Porcelanato / JR Drill-Bit for Porcelanic	1.667,32
HR03ES	SESABOX / SESABOX	1.276,31
HR03ET	Estuches / Sets	1.407,03
HR02PB	Brocas Pala Tipo B / Flat Drill Bit Type B	1.502,69
MLPRO		13.051,89

METRO LINEAL "FERRETERÍA"
"IRONMONGERY" METRE DISPLAY
PRÉSENTOIRE METRE "QUINCAILLERIE"

Cod.	Expositor / Displays	€/Unid.
HR03AR	DIN 338 HSS M2 / DIN 338 HSS M2	902,11
HR03CO	DIN 338 HSSCO / DIN 338 HSSCO	1.565,77
HR03CB	Corona Bi-Metal / Bimetal Hole Saw	855,89
HR01BA	Basic / Basic	596,09
HR01CY	SDS-PLUS Cyclone / Cyclone SDS-PLUS	1.443,73
HR01JR	JR para Porcelanato / JR Drill-Bit for Porcelanic	1.667,32
HR03ES	SESABOX / SESABOX	1.276,31
HR02PC	Brocas Pala Tipo C / Flat Drill Bit Type C	1.038,53
HR02BL	Madera 3 Puntas / Standard Brad Point Drill Bit	870,40
MLFER		10.216,15

PIECERÍA PIECES • PIÈCES



ESTRUCTURA / STRUCTURE / STRUCTURE

Cod.	€/Unid.
HR0	102,89

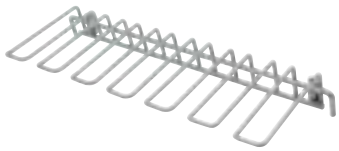
SOPORTE CARÁTULA
LABEL BASE / BASE ÉTIQUETTE

Cod.	€/Unid.
HR0CAR	18,93

GANCHO REDONDO
ROUND HOOK / CROCHET ROND

Cod.	€/Unid.
HR0GRD	3,84

Hasta fin de existencias / Until end of stock
Jusqu´à épuisement des stocks



TIRA DE GANCHOS
HOOK BAND / BANDE DE CROCHETS

Cod.	Descripción / Description	€/Unid.
HR0T7IN	gancho redondo / round hook	15,36
HR0T6IN	gancho redondo / round hook	15,36
000201007	gancho varilla / rod hook	10,39
000201009	gancho varilla / rod hook	10,39

NEW

GANCHOS
HOOKS / CROCHETS

Cod.	Descripción / Description	€/Unid.
HR04120	gancho / hook 4 x 120 mm	3,06
HR04150	gancho / hook 4 x 150 mm	3,06
HR048200	gancho / hook 4 x 200 mm	3,06
HR04150G	gancho con porta precios hook with porta prices 4 x 150 mm	6,10

BASE PARA GANCHO
BASE FOR HOOKS / BASE POUR CROCHETS

Cod.	€/Unid.
HR0BAS	16,34

Hasta fin de existencias / Until end of stock
Jusqu´à épuisement des stocks

*Para otras composiciones consultar / *For other compositions, request / *Pour d'autres compositions consulter

EXPOSITOR INDIVIDUAL
INDIVIDUAL DISPLAY • DISPLAY INDIVIDUEL

METACRILATO 540 x 370 x 735 mm

METAL METAL • MÉTAL

Calidad / Quality		Uds. / Pcs.	Cod.	€/Unid.
HSS-G	ALTO RENDIMIENTO HIGH PERFORMANCE	1.630	3EM01	4.378,41
HSS-CO 5%		1.630	3EM03	7.640,19
HSS-G	INOX	1.630	3EM04	7.702,45
HSS-CO 5%	INOX	1.630	3EM05	14.352,56
TIN		1.630	3EM06	8.195,06

Contenido / Contains / Contenu

Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.	Ø (mm)	Uds. / Pcs.
1,00	40	4,00	160	6,50	40	10,00	50
1,50	40	4,25	70	7,00	40	10,50	20
2,00	70	4,50	60	7,50	40	11,00	20
2,50	80	5,00	150	8,00	40	11,50	20
3,00	140	5,25	50	8,50	40	12,00	25
3,25	60	5,50	70	9,00	25	12,50	20
3,50	140	6,00	80	9,50	20	13,00	20
						TOTAL	1.630

EXPOSITORES ROSCADO MANUAL
HAND THREADING DISPLAY
DISPLAY FILETAGE MANUEL

METACRILATO 390 x 155 x 235 mm

ROSCADO THREADING • FILÉTAGE

HSS-G

Cod.	Descripción / Description	Uds. / Pcs.	€/Unid.
	Giramachos con Criqué / Tap Holder with Ratchet / Porte Tarauds		
1R10001	Gr. 1/C	3	
1R10002	Gr. 2/C	2	
	Juegos de Machos / Hand Taps / Tarauds À Main		
2R27326	M3 x 0,50	5	
2R27330	M4 x 0,70	5	
2R27334	M5 x 0,80	5	
2R27338	M6 x 1,00	10	
2R27342	M8 x 1,25	5	
2R27346	M10 x 1,50	5	
2R27350	M12 x 1,75	5	
	Cojinetes / Round Dies / Filières Rondes		
4R27434	M5 x 0,80 - 20 x 7	3	
4R27438	M6 x 1,00 - 20 x 7	3	
4R27442	M8 x 1,25 - 25 x 9	3	
4R27446	M10 x 1,50 - 30 x 11	3	
4R27450	M12 x 1,75 - 38 x 14	3	
	COD. 19RAJV	60	1.652,84

EXPOSITORES ROSCADO MANUAL
HAND THREADING DISPLAY
DISPLAY FILETAGE MANUEL

ROSCADO THREADING • FILÉTAGE

HSS-G | DIN 352 | DIN 223

Expositor MINI
470 x 190 x 140 mm

Cod.	Descripción / Description	Uds. / Pcs.	€/Unid.
	Juegos de Machos / Hand Taps / Tarauds À Main		
2R27326BL	M3 x 0,50	3	
2R27330BL	M4 x 0,70	3	
2R27334BL	M5 x 0,80	3	
2R27338BL	M6 x 1,00	3	
2R27342BL	M8 x 1,25	3	
2R27346BL	M10 x 1,50	3	
2R27350BL	M12 x 1,75	3	
	Cojinetes / Round Dies / Filières Rondes		
4R27426BL	M3 x 0,50 - 20 x 5	3	
4R27430BL	M4 x 0,70 - 20 x 5	3	
4R27434BL	M5 x 0,80 - 20 x 7	3	
4R27438BL	M6 x 1,00 - 20 x 7	3	
4R27442BL	M8 x 1,25 - 25 x 9	3	
4R27446BL	M10 x 1,50 - 30 x 11	3	
4R27450BL	M12 x 1,75 - 38 x 14	3	
COD. 19RAJC			1.396,05

EXPOSITORES MACHOS ANCLAJE 1/4”
1/4” SHANK TAPS DISPLAY
PRÉSENTOIR TARAUDS MÉCHE 1/4”

ROSCADO THREADING • FILÉTAGE

HSS-G | 1/4 | QUICK DRILL

METACRILATO
190 x 190 x 175 mm

Descripción / Description	Uds. / Pcs.	€/Unid.
Machos / Taps / Tarauds		
M3	10	
M4	10	
M5	10	
M6	10	
M8	10	
M10	10	
Brocas / Drill Bits / Forets		
2,5 mm.	10	
3,3 mm.	10	
4,2 mm.	10	
5,0 mm:	10	
6,8 mm.	10	
8,5 mm.	10	
Cod. 3R48960	120	1.351,15

Expositor MINI
470 x 190 x 140 mm

EXPOSITORES MACHOS MÁQUINA
MACHINE TAPS DISPLAY
PRÉSENTOIR TARAUDS MACHINE

ROSCADO THREADING • FILÉTAGE

Calidad / Quality				Uds. / Pcs.	Cod.	€/Unid.
ACERO	HSS-CO 5%	DIN 371/376	FORM B	35	3R48933	772,66
ACERO	HSS-CO 5%	DIN 371/376	FORM C	35	3R48934	725,07
ACERO	HSS-CO 5%	DIN 371/376	FORM C/35°	35	3R48935	904,86

Contenido / Contains / Contenu

Medida / Size	DIN	Uds. / Pcs.
M3 x 0,50	371	5
M4 x 0,70	371	5
M5 x 0,80	371	5
M6 x 1,00	371	5
M8 x 1,25	371	5
M10 x 1,50	371	5
M12 x 1,75	376	5

EXPOSITORES MACHOS MÁQUINA
MACHINE TAPS DISPLAY
PRÉSENTOIR TARAUDS MACHINE

ROSCADO THREADING • FILÉTAGE

METACRILATO
330 x 140 x 180 mm

Calidad / Quality				Mat.	Banda Ring	Nº Filas Rows Nº	€/Unid.	Contenido / Contains / Contenu M3	M4	M5	M6	M8	M10	M12	TOTAL
PM	HL	DIN 371/376	FORM B			1		1	1	2	2	2	1	1	10
PM	HL	DIN 371/376	FORM C/35°			1		1	1	2	2	2	1	1	10
HSS-E-V3	TIN	DIN 371/376	FORM B		MULTIUSOS	1		1	1	2	2	2	1	1	10
HSS-E-V3	TIN	DIN 371/376	FORM C/35°		MULTIUSOS	1		1	1	2	2	2	1	1	10
HSS-CO 5%		DIN 371/376	FORM B			1		1	1	2	2	2	1	1	10
HSS-CO 5%		DIN 371/376	FORM C/40°			1		1	1	2	2	2	1	1	10
PM	FUTURA	DIN 371/376	FORM B			1		1	1	2	2	2	1	1	10
PM	FUTURA	DIN 371/376	FORM C/40°			1		1	1	2	2	2	1	1	10
PM	ALUSPEED	DIN 371/376	FORM B			1		1	1	2	2	2	1	1	10
PM	ALUSPEED	DIN 371/376	FORM C/45°			1		1	1	2	2	2	1	1	10
HSS-CO 5%	TIN	DIN 371/376	FORM B			1		1	1	2	2	2	1	1	10
HSS-CO 5%	TIN	DIN 371/376	FORM C/35°			1		1	1	2	2	2	1	1	10
HSS-CO 5%		DIN 371/376	FORM C			2		2	2	4	4	4	2	2	20
HSS-CO 5%		DIN 371/376	FORM B			3		3	3	6	6	6	3	3	30
HSS-CO 5%		DIN 371/376	FORM C/35°			3		3	3	6	6	6	3	3	30
COD. 3R48932					TOTAL FILAS	20	6.405,86						TOTAL PZAS		200

FILOS DE CORTE / *SHARPENED* / *AFFUTAGE*

PUNTA CONVENCIONAL
CONVENTIONAL POINT
POINTE UNIVERSEL

PUNTA SPLIT POINT
SPLIT POINT
AFFUTAGE EN CROIX

GEOMETRÍA RECTA
STRAIGHT HEAD GEOMETRY
GEOMÉTRIE DROITE

PUNTA FILO CORREGIDO
LIP CORRECTION
LÉVRE CORRIGÉ

PUNTA PLACA DE CARBURO
CARBIDE TIPPED
POINTE CARBURE

GEOMETRÍA RADIAL
RADIAL HEAD GEOMETRY
GEOMÉTRIE RADIALE

PUNTA CENTRADORA
CENTERING POINT
POINTE À CENTRER

CORTE AL CENTRO 2 DIENTES
CENTER CUTTING 2 FLUTES
2 DENTS ET COUPE AU CENTRE

CORTE AL CENTRO 3 DIENTES
CENTER CUTTING 3 FLUTES
3 DENTS ET COUPE AU CENTRE

CORTE AL CENTRO 4 Ó MÁS DIENTES
CENTER CUTTING 4 OR MORE FLUTES
4 DENTS OU PLUS ET COUPE AU CENTRE

CORTES / *CUTS* / *DENTS*

Nº DE CORTES
Nº OF CUTS / Nº DE DENTS.
2Z / 3Z / 4Z / 3Z - 5Z / 4Z - 6Z

DIENTES POR PULGADA
TOOTH PER INCH
DENT PAR POUCE

DIENTES POR PULGADA
TOOTH PER INCH
DENT PAR POUCE

DENTADO DE ACABADO TIPO N
N FINISHING
FINITION N

DENTADO PARA GRAN DESBASTE TIPO NR
NR GRINDING
NR DÉGROSSISSAGE

DENTADO PARA DESBASTE FINO TIPO NRF
NR-F FINE GRINDING
NR-F DÉGROSSISMENT FIN

DENTADO PARA GRAN DESBASTE EN MATERIALES DUROS
COARSE ROUGHING FOR HARD METALS
EBAUCHE GROSSIÈRE POUR MATÉRIAUX DURS

DENTADO PARA DESBASTE FINO EN MATERIALES DUROS
FINE PITCH ROUGHING FOR HARD MATERIALS
EBAUCHE PAS FIN POUR MATÉRIAUX DURS

DENTADO DE ACABADO TIPO H PARA MATERIALES DUROS
H FINISHING FOR HARD METALS
FINITION H POUR MATÉRIAUX DURS

TIPO ROSCA / *THREAD TYPE* / *TYPE FILETAGE*

FORMA A
A FORM
FORME A

FORMA D
D FORM
FORME D

FORMA B-AZ
B-AZ FORM
FORME B-AZ

FORMA B
B FORM
FORME B

FORMA C/º
C/º FORM - FORME C/º
C/15º - C/35º - C/39º - C/40º - C/50º

FORMA COJINETE A
DIES FORM A
FILIÉRE FORME A

FORMA C
C FORM
FORME C

ÁNGULOS HÉLICES / *HELIX ANGLES* / *ANGLE D´HÉLICE*

HÉLICE ÁNGULO º
º HELIX ANGLE
ANGLE D´HELICE º
8º / 30º / 35º / 40º / 45º

HÉLICE TIPO "S"
"S" TYPE HELIX
HÉLICE TIPE "S"

ANGULOS DE PUNTA / *POINT ANGLES* / *ANGLES POINTES*

ÁNGULO PUNTA º
º TIP ANGLE
ANGLE DE POINTE º
118º / 120º / 130º / 135º / 140º

ÁNGULO DE ASIENTO Y AVELLANADO / *ANGLES* / *ANGLES*

35º / 60º / 90º / 180º

MANGOS / *SHANK TYPES* / *QUEUES*

SDS MAX
SDS MAX
SDS MAX

MANGO CILÍNDRICO
STRAIGHT SHANK
QUEUE CYLINDRIQUE

MANGO CÓNICO
MORSE TAPER SHANK
QUEUE CONIQUE

SDS PLUS
SDS PLUS
SDS PLUS

MANGO HEXAGONAL
HEXAGONAL SHANK
QUEUE HEXAGONALE

MANGO MÁQUINA NEUMÁTICA
PNEUMATIC MACHINE SHANK
QUEUE MACHINE PNEUMATIQUE

SDS TOP
SDS TOP
SDS TOP

MANGO HEXAGONAL 1/4
HEXAGONAL SHANK 1/4
QUEUE HEXAGONALE 1/4

ANCLAJE WELDON DIN 1835B
WELDON SHANK DIN 1835B
QUEUE WELDON DIN 1835B

MANGO 3 PLANOS
3 FLAT SHANK
QUEUE 3 PLANS

MANGO REBAJADO
REDUCED SHANK
QUEUE RÉDUITE

ANCLAJE WELDON 19,00
WELDON SHANK 19,00
QUEUE WELDON 19,00

TOLERANCIAS / *TOLERANCES* / *TOLERANCES*

.6H / 7H / 6g / 6e / 2B / ISO2X / 3B / ISO1 - 4H
ISO2 - 6H / 6H + 0,1mm / 6HX / 6GX

SISTEMAS ANCLAJE / *ANCHOR SYSTEMS* / *SYSTÈME ANCRAGE*

SISTEMA 1:8
1:8 SYSTEM
SYSTÈME 1:8

SISTEMA M16
M16 SYSTEM
SYSTÈME M16

SISTEMA M14
M14 SYSTEM
SYSTÈME M14

DIN 138
DIN 138
DIN 138

ÍNDICE ICONOGRÁFICO
ICONOGRAPHIC INDEX • INDEX ICONOGRAPHIQUE

OTROS ICONOS / *OTHER ICONOGRAPHY* / *AUTRE ICONOGRAPHIE*

REFRIGERACIÓN
COOLING
REFROIDISSEMENT

SIN REFRIGERACIÓN
NO COOLING
SANS RÉFROIDISSEMENT

CORTE IZQUIERDA
LEFT HAND
COUP À GAUCHE

PERCUSION
PERCUSSION
PERCUSSION

SIN PERCUSIÓN
NO PERCUSSION
NON PERCUSSION

ALTURA DE SEGMENTO
SEGMENT HEIGHT
HAUTEUR SEGMENT

PGM
PGM
PGM

RPM
RPM
RPM

CALIDAD HERRAMIENTA Y RECUBRIMIENTOS / *TOOL COMPOSITION AND COATINGS* / *CALITÉ OUTILS ET RECOUVREMENTS*

ACERO RÁPIDO HSS-G (M2)
HIGH SPEED STEEL HSS-G (M2)
ACIER RAPIDE HSS-G (M2)

FUTURA
FUTURA
FUTURA

ALUSPEED
ALUSPEED
ALUSPEED

ACERO RÁPIDO HSS (M3)
HIGH SPEED STEEL HSS (M3)
ACIER RAPIDE HSS (M3)

ACERO RÁPIDO COBALTO 8% (M42)
HIGH SPEED 8% COBALT STEEL (M42)
ACIER RAPIDE COBALT 8% (M42)

NITRURO DE TIT. ALUMINIO (RECUBRIMIENTO)
TITANIUM ALUMINIUM NITRIDE
NITRURE DE TITANE ALUMINIUM

ACERO RÁPIDO HSS
HIGH SPEED STEEL HSS
ACIER RAPIDE HSS

LAMINADO
ROLL FORGED
LAMINÉ

NITRURO DE TITANIO (RECUBRIMIENTO)
TITANIUN NITRIDE (COATING)
NITRURE DE TITANE (RECOUVREMENT)

ACERO RÁPIDO COBALTO 5% (M35)
HIGH SPEED 5% COBALT STEEL (M35)
ACIER RAPIDE COBALT 5% (M35)

METAL DURO - CARBURO DE TUNGSTENO
HARD METAL - CARBURE TUNGSTEN
METAL DUR - CARBURE TUNGSTÉNE

VAPORIZADO (TRATAMIENTO)
VAPORIZED (TREATMENT)
VAPORISÉ (TRAITEMENT)

METAL DURO INTEGRAL
HARD METAL INTEGRAL
METAL DUR PLEIN

PULVIMETALÚRGICO
POWDER METALURGY
MÉTALLURGIE DES POUDRES

ACERO RÁPIDO VANADIO 3%
HIGH SPEED STEEL 3% VANADIUM
ACIER RAPIDE VANADIUM 3%

NITRURO DE TITANIO ALUMNIO
TITANIUM ALUMINIUM NITRIDE
NITRURE DE TITANE ALUMINIUM

NITRURO DE CROMO ALUMINIO
ALUMINUM CHROMIUM NITRIDE
NITRURE DE CHROME ALUMINIUM

HARD LUBE
HARD LUBE
HARD LUBE

APLICACIONES CONSTRUCCIÓN / *APLICATIONS CONSTRUCTION* / *APLICATIONS CONSTRUCTION*

HORMIGÓN REFORZADO
REINFORCED CONCRETE
BÉTON ARMÉ

HORMIGÓN
CONCRETE
BÉTON

HORMIGÓN BLOQUE
CONCRETE BLOCK
BRIQUE BÉTON

FIBROCEMENTO
FIBROCEMENT
FIBROCEMENT

PIEDRA NATURAL - GRANITO - MÁRMOL
NATURAL STONE - GRANITE - MARBLE
PIERRE NATURELLE

PIEDRA ARTIFICIAL
ARTIFICIAL STONE
PIERRE ARTIFICIELLE

CERÁMICA - PORCELANATO - GRES
CERAMIC - GRES - HARD TILE
CÉRAMIQUE - GRÈS

VIDRIO
GLASS
VERRE

LADRILLO
BRICK
BRIQUE

TEJA
TILE
TILE

EPOXI
EPOXY
ÉPOXY

MAMPOSTERÍA
PLYWOOD
MAÇONNERIE

MULTIUSOS
MULTIPURPOSE
MULTIMATÉRIL

PVC - ACRÍLICO
PVC
PVC

FIBRA DE VIDRIO
FIBER GLASS
FIBRE DE VERRE

MADERA
WOOD
BOIS

AGLOMERADO
SOFTWOOD
AGGLOMÉRÉS

CONTRACHAPADO
PLYWOOD
CONTRAPLAQUÉ

TUBO
TUBE
TUBE

APLICACIONES METAL / *METAL APLICATIONS* / *APLICATIONS MÉTAL*

ACERO 400-800
STEEL 400-800
ACIER 400-800

ALUMINIO
ALUMINIUM
ALUMINIUM

INOX
STAINLESS STEEL
INOX

TITANIO
TITANIUM
TITANIUM

ACERO 800-1100
STEEL 800-1100
ACIER 800-1100

COBRE
COPPER
CUIVRE

ALEACIONES ESPECIALES
SPECIAL ALLOYS
ALLIAGES SPÉCIAUX

LATÓN
BRASS
LAITON

ACERO 1100-1400
STEEL 1100-1400
ACIER 1100-1400

FUNDICIÓN
CAST IRON
FONTE

PLÁSTICO
PLASTIC
PLASTIQUE

ENVASES / *PACKAGINGS* / *EMBALLAGES*

BLISTER
BLISTER
BLISTER

COLGADOR
CLIP
CLIP

PETACA
PACK
PACK

TUBO CON COLGADOR
TUBE WITH HANGER
TUBE AVEC CONGATEUR

TUBO SIN COLGADOR
TUBE WITHOUT HANGER
TUBE SANS CONGATEUR

CAJA SIN COLGADOR
BOX WITHOUT HANGER
BOÎTE SANS CONGATEUR

CARACTERÍSTICAS DEL ACERO
CHARACTERISTICS OF STEEL
CARACTERISTIQUES DE L'ACIER

HSS

Acero rápido con buena tenacidad y rendimiento para herramientas de corte.
High Speed Steel with good toughness and good performance for cutting tools.
Acier rapide avec une bonne ténacité et une bonne performance pour les outils de coupe.

HSS-G

Acero rápido de gran rendimiento y buena tenacidad, para el trabajo en materiales hasta 850 N/mm^2.
Very high performance HSS with good toughness, for milling and cutting of materials up to 850 N/mm^2.
Acier rapide à haut rendement et bonne ténacité, pour le broyage et le coupe des matériaux jusqu'à 850 N/mm^2.

HSS M3

Acero rápido de gran rendimiento y alta tenacidad, con alta estabilidad en la arista de corte.
Very high performance and good toughness HSS with high stability at the cutting edge.
Acier rapide à haut rendement et bonne ténacité, avec une grande stabilité à la arête de coupe des outils.

HSS-CO 5%

Acero rápido de gran rendimiento y buena tenacidad, para el fresado de materiales hasta 1200 n/mm^2
Very high performance HSS with good toughness, for milling of materials up to 1200 n/mm^2
Acier rapide à haut rendement et bonne ténacité, pour le broyage des matériaux jusqu'à 1200 n/mm^2

HSS-CO 8%

Acero rápido de excelente rendimiento, buena tenacidad y gran resistencia a la temperatura. para el fresado de materiales de gran dureza.
Extra high performance HSS with good toughness and great temperature resistence. For milling of hard materials.
Acier rapide à excellent rendement, bonne ténacité et haute résistance à la température. Pour l'usinage de matériaux très durs.

HSS-E-V3

Acero rápido de gran rendimiento y buena tenacidad. Especialmente usado en piezas de gran diámetro y fresas de disco.
HSS with high performance and good toughness. Applicable for tools of big diameters and for face milling cutters.
Acier rapide à haut rendement et bonne ténacité, notamment utilisé dans les pièces à grand diamètre et fraises de disque.

PM

Acero rápido pulvi-metalúrgico. Estructura homogénea, gran estabilidad y mayor vida útil de las herramientas. Para trabajar materiales muy duros.
Powder metallurgical HSS, extra high performance. Homogeneous structure, more stability and longer life for tools. For very hard materials.
Acier rapide pulvimétallurgique. Structure homogène, grande stabilité et durée de vie des outils prolongée. Pour l'usinage de matériaux très durs.

MDI

Aleación sinterizada de Carburo de Tungsteno, de gran dureza, estabilidad y resistencia al desgaste, que permite trabajar a velocidades muy altas y en grandes producciones.
Sintered alloy of Tungsten Carbide, with great hardness, excellent stability and resistance to wear, which allows working at very high speeds and in large productions.
Alliage fritté de carbure de tungstène, avec une grande dureté, une excellente stabilité et une résistance à l'usure, ce qui permet de travailler à des vitesses très élevées et dans les grandes productions.

RECUBRIMIENTOS
COATINGS
REVETEMENTS

TIALN

Recubrimiento que aumenta la resistencia, la dureza y la oxidación a altas temperaturas. Permite trabajar a altas velocidades sin refrigerar.
Increases resistance, hardness and high temperature oxidation. It allows high speed without cooling.
Revêtement qui accroît la résistance, la dureté et l'oxydation à des températures élevées. Possibilité de travail à des vitesses élevées sans réfrigérer.

ALTIN

Mayor contenido en Al que el TiAlN. Aumenta ligeramente la dureza respecto a éste.
With more Al than TiAlN. Lightly increases hardness.
Teneur plus importante que celle du "TIALN".

ALCrN

Recubrimiento con excelente resistencia a la tracción en caliente.
Great tensile strength and excellent hot hardness.
Revêtement avec excellente résistance à la traction à chaud.

TIN

Disminuye el coeficiente de fricción, aumenta la vida útil de la herramienta.
More sliding properties and tool life increase.
Diminution du coefficient de frottement, prolongation de la durée de vie utile de l'outil.

HL

Disminuye mucho la fricción. Gran adhesión del recubrimiento en todo tipo de materiales.
Very good sliding properties. Great adhesión to all kind of tools.
Réduction considérable des frottements.

FUTURA

Mejora la dureza, disminuye la fricción y aumenta la resistencia química.
Increases hardness, better sliding properties and chemical resistance.
Amélioration de la dureté, diminution des frottement et accroissement de la résistance chimique.

ALUSPEED

Recubrimiento antiadherente AlSi al 10%. Propiedades auto-lubricantes y muy buena evacuación de viruta debido a su baja fricción.
Better sliding properties. AlSi 10% coating. Low friction coefficient and chip extraction.
Revêtement anti-adhésif "ALSI" à 10 % des propriétés auto-lubrifiantes et très bonne évacuation des copeaux en raison de sa faible friction.

VAP

Recubrimiento PVD, mayor vida útil de la herramienta y mayor productividad con menor coste.
PVD coating: longer tool life and higher productivity at a lower cost.
Revêtement PVD: durée de vie outils prolongée et et une meilleure productivité à moindre coût de l'outil.

CONDICIONES GENERALES DE VENTA
GENERAL CONDITIONS OF SALES
CONDITIONS GENERALES DE VENTE

1º. CONDICIONES DE PAGO

La forma de pago será adecuada a la ley vigente en cada país. En el mercado nacional, según la Ley 15/2010 del 05 de Julio de 2010.

Reposición, mediante cheque o transferencia a los 11días de fecha factura tendrá un Dto. Adicional del 2%.

2º. VENCIMIENTOS FIJOS

En caso de fechas fijas de pago que rebasen los plazos de pago estipulados, giraremos a la fecha fijada pero inmediatamente anterior, según corresponda, siendo el plazo máximo el límite establecido por la ley vigente de cada país.

3º. SEGURO

Las mercancías viajarán siempre por exclusiva cuenta y riesgo del comprador, siendo a cargo del mismo la prima del seguro que se realice, en los casos en los que el cliente desee asegurarla.

4º. RECLAMACIONES

En discrepancias por diferencias observadas en la recepción del material, se atenderán todas aquellas reclamaciones que se planteen dentro de los 8 días siguientes a la recepción del material, no aceptando ninguna devolución sin previo conocimiento de SESA TOOLS, S.A.

5º. CONDICIONALIDAD

La aceptación de las mercancías sin el rechazo inmediato por parte del comprador, supone la aprobación de estas condiciones generales de venta y su modificación sólo tendrá validez si consta por escrito la conformidad de SESA TOOLS, S.A.

6º. GARANTIAS

Todas las herramientas del programa de ventas están garantizadas contra cualquier defecto de fabricación y materiales, sin responsabilizarse SESA TOOLS, S.A. de la utilización inadecuada de las mismas. En cualquier caso, nuestra responsabilidad estará limitada al valor de la herramienta suministrada. Nos reservamos el derecho de modificar, sin previo aviso, las dimensiones, calidades de acero y en general todas las características técnicas de las herramientas. No será sustituida ninguna herramienta sin el informe previo de nuestro Departamento de Control de Calidad. Para la elaboración de dicho informe será imprescindible remitir debidamente cumplimentada la ficha de devolución del producto correspondiente.

7º. DEVOLUCIONES

No se admitirá ninguna devolución sin comunicación previa del cliente y es necesario el consentimiento de SESA TOOLS, S.A., estipulando como plazo máximo para atenderlas un **periodo de 30 días** desde la recepción de la mercancía por parte del cliente.

Cualquier devolución deberá ser documentada adjuntando el albarán o factura de venta del material afectado. En caso de tratarse de una devolución **por error en el pedido efectuado por el cliente o no venta**, siendo consentida por SESA TOOLS, S.A., se realizará un cargo de un 15% en factura de abono en concepto de gastos de manipulación, reenvasado, etc.

Siempre deberán realizarse a portes pagados. **No se aceptarán** devoluciones de herramientas enviadas a portes debidos por agencias no autorizadas por SESA TOOLS, S.A.

Para la tramitación de una **devolución de un producto en caso de incidencia**, será necesario que se adjunte un formulario con las condiciones de trabajo, que será proporcionado por SESA TOOLS, S.A.

Una vez recibida la herramienta, nuestro departamento de calidad lo verificará y emitirá el informe correspondiente.

8º. PORTES

PENINSULA Y BALEARES

Pedidos inferiores a 150 € NETOS por expedición: Portes debidos o cargados en factura, siempre que se utilicen nuestros medios habituales.

Pedidos superiores a 150 € NETOS: PORTES PAGADOS

CANARIAS, CEUTA Y MELILLA

PAGADOS, exclusivamente en pedidos superiores a 600 € NETOS, por VÍA MARÍTIMA.

Otros envíos por paquete postal express, mensajeros, etc., se cargarán en factura los costos de envío, más los gastos de DESPACHO, si los hubiera.

PORTUGAL

Pedidos inferiores a 150 € NETOS por expedición: Portes debidos o cargados en factura, siempre que se utilicen nuestros medios habituales.

Pedidos superiores a 150 € NETOS: PORTES PAGADOS.

FRANCIA

Pedidos inferiores a 300 €: Portes debidos o cargados en factura

Pedidos superiores a 300 €: PORTES PAGADOS.

9º. IMPORTE MÍNIMO DE PEDIDO

No existe límite mínimo de pedido. A los pedidos inferiores a 50 € se cargará un coste adicional de 4 €.

10º. I.V.A.

Todos los precios están sujetos al Impuesto sobre el Valor Añadido, siendo a cargo del cliente el recargo correspondiente.

11º. RESERVA DE DOMINIO

Nuestras ventas se consideran siempre bajo la condición de "RESERVA DE DOMINIO", según el artículo 1.506 del C.C. hasta que se haya hecho efectivo íntegramente el pago de todo lo adeudado.

12º. JURISDICCIÓN COMPETENTE

Para cualquier discrepancia acerca de la interpretación de estas condiciones, o litigio por razón de incumplimiento por cualquiera de las partes, ambas se someterán al fuero de los Juzgados y Tribunales de San Sebastián, con renuncia al que pudiera corresponderles.

1º. TERMS OF PAYMENT

Payment shall be made in accordance with the laws in force in each country. Payment in Spain shall be governed by Law 15/2010 of 05 July 2010.

Payment by means of a cheque or bank transfer 11 days after the invoice due date shall be subject to an additional charge of 2%.

2º. FIXED MATURITIES

In the case of fixed payment dates exceeding the predefined payment deadlines, we shall bill on the date immediately previous to the set date, as applicable, up to the maximum deadline established under the law in force in each country.

3º. INSURANCE

Goods shall be transported at the sole risk of the purchaser, which shall also be responsible for the respective insurance premium in cases where the customer wishes to take out insurance coverage.

4º. COMPLAINTS

In relation to discrepancies detected on delivery of the goods, only complaints filed within 8 days of receipt of the material will be dealt with, and no returned goods will be accepted without the previous knowledge of SESA TOOLS, S.A.

5º. CONDITIONALITY

The acceptance of goods with no immediate rejection by the puchaser implies the approval of these general conditions of sale and the amendment of the same shall only be valid with the written consent of SESA TOOLS, S.A.

6º. GUARANTEES

All sales program tools are guaranteed against any manufacturing and material defects, and SESA TOOLS, S.A. shall not be held liable for any improper use of the same. Furthermore, our liability shall be limited to the value of the tool supplied. We reserve the right to modify the dimensions, steel quality and overall technical characteristics of the tools. No tool shall be replaced without the submission of a report by our quality control department. This report shall only be issued on receipt of the duly completed product rejection sheet for the item in question.

7º. RETURNS

*No return will be accepted without previous communication from the client and the consent of SESA TOOLS, S.A. is required. To attend returns, it´s stipulated a maximum term of **30 days** from the receipt of the goods by the client.*

*Any return must be documented attaching the delivery note or invoice of the affected items. In case of a return **by customer´s mistake placing the order or non-sale**, previously being consented by SESA TOOLS, SA shall be subject to a 15% surcharge for handling, repackaging, etc.*

Returns should always be done free of freight. SESA TOOLS, S.A. ***shall not accept*** *returned tools with freight charged by not authorized agencies.*

For processing of a return of items in ***the event of an incident****, it will be necessary to send attached a form with working conditions. This document will be provided by SESA TOOLS, S.A.*

Once the tool is received, our quality department will verify it and issue the corresponding report.

8º. FREIGHT

THE MAINLAND AND THE BALEARIC ISLANDS

Orders below €150 net per shipment: Freight paid or billed by invoice whenever using our habitual means.

Orders above €150 net: FREIGHT INCLUDED.

THE CANARY ISLANDS, CEUTA AND MELILLA

INCLUDED, exclusively for orders of over € 600 net, by SEA.

Other express delivery services via courier, etc., delivery costs will be billed for by invoice, plus shipment costs, if applicable.

PORTUGAL

Orders below €150 net per shipment: Freight paid or billed by invoice whenever using our habitual means.

Orders above €150 net: FREIGHT INCLUDED.

FRANCE

Orders below € 300 net: Freight paid or billed by invoice.

Orders above € 300 net: FREIGHT INCLUDED.

9º. MINIMUM ORDERS

There is no minimum order limit. Orders of less than € 50 shall be subject to an additional cost of 4 €.

10º. I.V.A. (VAT)

All prices are subject to value added tax and the customer shall bear the cost of the same.

11º. RESERVATION OF RIGHT OF OWNERSHIP

Our sales are always conducted under the condition of "RIGHT OF OWNERSHIP" in accordance with article 1506 of the Constitution until full payment of all that is owed has been effected.

12º. JURISDICTION

All disputes arising from the interpretation of these terms or litigation due to non-compliance by either party shall be settled by the courts of the city of San Sebastian, with the express waiver of any other.

1º. CONDITIONS DE PAIEMENT

Le mode de paiement sera adapté à la loi en vigueur de chaque pays. Sur le marché national, il sera conforme à la Loi 15/2010 du 05 juillet 2010.

Lors du paiement par chèque ou virement dans les 11 jours à partir de la date de facturation vous aurez droit à une remise supplémentaire de 2%.

2º. ECHEANCES FIXES

Dans le cas de dates de règlement fixes qui réduiraient les délais de paiement établis, nous procéderons au virement à la date fixe la plus immédiatement antérieure audit délai correspondant, le délai maximum étant la limite établie par la loi en vigueur dans chaque pays.

3º. ASSURANCE

Les marchandises voyageront toujours à la charge et au risque de l'acheteur, qui devra prendre en charge la prime de l'assurance éventuellement souscrite, si le client souhaite assurer ses marchandises.

4º. RECLAMATIONS

En cas de divergences suite à des non-conformités par rapport à la commande constatées lors de la réception du matériel, nous répondrons à toutes les réclamations présentées dans un délai de 8 jours après la réception du matériel, aucun retour de marchandise ne sera accepté sans que SESA TOOLS, S.A. en soit informée au préalable.

5º. CONDITIONS

L'acceptation des marchandises sans leur refus immédiat de la part de l'acheteur implique l'approbation des présentes conditions générales de vente et toute modification de ces dernières ne sera valide que si elle est approuvée par écrit par SESA TOOLS, S.A.

6º. GARANTIES

Tous les outils de notre programme de ventes sont garantis contre tout défaut de fabrication et de matériels, sans que SESA TOOLS, S.A. puisse être tenue pour responsable d'une utilisation inadéquate de ses produits. Dans tous les cas, notre responsabilité est limitée à la valeur de l'outil fourni. Nous nous réservons le droit de modifier sans préavis les dimensions, les qualités d'acier et en général toutes les caractéristiques techniques des outils. Aucun outil ne sera remplacé sans le rapport préalable de notre Département de Contrôle Qualité. Pour l'élaboration dudit rapport il sera indispensable de remplir comme il se doit la fiche de retour du produit concerné.

7º. RETOUR DE MARCHANDISES

Aucun retour ne sera accepté sans une communication préalable du client et le consentement de SESA TOOLS, S.A. est requis. Il est stipulé un délai maximum ***de 30 jours*** *à compter de la réception des marchandises par le client pour y assister.*

Tout retour doit être documenté en joignant le bon de livraison ou la facture des articles concernés. Dans le cas d'un retour ***par erreur dans la commande du client ou de la non-vente****, préalablement consenti par SESA TOOLS, SA, sera soumis à un supplément de 15% pour la manutention, le reconditionnement, etc.*

Les retours doivent toujours être effectués sans fret. SESA TOOLS, S.A. n'acceptera pas de retours d'outils qui arriveraient avec le fret sans payer par l'intermédiaire d'agences non autorisées.

Pour le traitement d'un retour d'articles ***en cas d'incident****, il sera nécessaire d'envoyer ci-joint un formulaire avec conditions de travail. Ce document sera fourni par SESA TOOLS, S.A.*

Une fois l'outil reçu, notre service qualité le vérifie et émet le rapport correspondant.

8º. FRAIS DE PORT

PENINSULE IBERIQUE ET BALEARES

Pour les commandes inférieures à 150 € NETS par expédition : Port dû ou inclus dans la facture, à condition d'utiliser nos moyens de livraison habituels.

Pour les commandes supérieures à 150 € NETS : PORT PAYE.

CANARIES, CEUTA ET MELILLA

PORT PAYE exclusivement pour les commandes supérieures à 600 € NETS, par VOIE MARITIME.

Pour les autres modes d'envoi par colis postal express, messagerie, etc., les frais d'envoi, ainsi que les frais d'EXPEDITION, si existantes, seront inclus dans la facture.

PORTUGAL

Pour les commandes inférieures à 150 € NETS par expédition : Port dû ou inclus dans la facture, à condition d'utiliser nos moyens de livraison habituels.

Pour les commandes supérieures à 150 € NETS : PORT PAYE.

FRANCE

Pour les commandes inférieures 300 € : Port dû ou inclus dans la facture

Pour les commandes supérieures à 300 € : PORT PAYE.

9º. MONTANT MINIMUM DE LA COMMANDE

Il n'y a pas de limite minimum de commande. Un coût additionnel de 4 € sera appliqué aux commandes inférieures à 50 €.

10º. T.V.A.

Tous les prix sont soumis à la Taxe sur la Valeur Ajoutée, qui sera à la charge du client.

11º. RESERVE DE PROPRIETE

Nos ventes se Font toujours sous la condition de "RESERVE DE PROPRIETE", conformément aux dispositions de l'article 1.506 du C.C. jusqu'au recouvrement effectif et intégral du montant dû.

12º. JURIDICTION COMPETENTE

Pour toute divergence concernant l'interprétation des présentes conditions ou tout litige découlant du non-accomplissement de ses obligations par l'une des parties, les deux parties se soumettront à la juridiction des Tribunaux de San Sebastián, en renonçant à tout autre tribunal.

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