magafor

COUNTERSINKING - COUNTERBORING

The **magafor** countersinks are well-known thanks to their performance and the super-finish they achieve. The three types (with hole-single flute-three flutes) result from the same concept:
- high positive cut, rake angle over 20°,
- their progressive offset relieving eliminates vibrations,
- a unique design to improve swarf removal.

The standard angles offered meet the largest usage:
30° - 45° - 60° - 82° - 90° - 100° - 120°.
All feasible materials are available: **HSS** / **HSS 5% Co** / **HSS 8% Co** / **CARBIDE** for the base materials. **TiN** / **Red'X** / **Hard'X** for the coatings.
For instance: the three flutes 90° countersinks are standard in 23 different ranges! **Who offers more?**

New 2017 Countersinks ANTI VIBRATION Page **48**

AVELLANADO - REFRENTADO

Los avellanadores **magafor** son reconocidos gracias a su rendimiento y al excelente acabado superficial obtenido. Los tres tipos (con agujero - un labio - tres labios) resultan de un mismo concepto:
- gran poder de corte, ángulo de corte positivo superior a 20°,
- su destalonado progresivo excéntrico elimina las vibraciones,
- una geometría única favorece la formación y la evacuación de las virutas.

Los ángulos estándar ofrecidos responden a la mayor utilización
30° - 45° - 60° - 82° - 90° - 100° - 120°.
Están disponibles en todas las calidades actualmente posibles: **HSS** / **HSS-CO** / **HSS 8% CO** / **METAL DURO** para materiales, **TIN** / **Red'X** / **Hard'X** para recubrimientos.
Los avellanadores de tres labios de 90º son estándar en 23 gamas diferentes! **Quién ofrece más?**

Novedad 2017 Avellanadores ANTI VIBRACIÓN Página **48**

倒角刀 – 锪钻

Magafor 倒角刀因高性能和加工光洁度高而闻名。
三款(包括单孔三刃）均有如下优点：
- 高效切削，大于20°的前角，
- 缓降后角消除震动，
- 独特设计使得排屑顺畅，

多种标准角度提供最大的使用范围：
30° - 45° - 60° - 82° - 90° - 100° - 120°.
各种刀具材料可选：
HSS / **HSS** 钴 **5** / **HSS** 钴 **8** / 硬质合金
刀具表面涂层有 **TiN** / **Red'X** / **Hard'X**.
举例来说 ：标准 3刃90度倒角刀 可以多达23种选择 ！
舍我其谁?

新 2017 锪孔 防震 页 **48**

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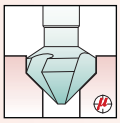
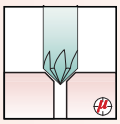
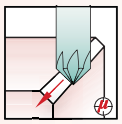
COUNTERSINKS
AVELLANADORES
倒角刀

Pages
Páginas
页



TRI-DENT — 46 ~ 54

30° - 60° - 82° - 90° - 100° - 120°

60 - 90°
Multi flutes conical cutters
Fresas cónicas multilabio
多刃槽圓錐切割 — 55

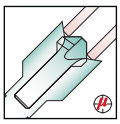
Aluminium 铝用 — 56

60° - 82° - 90° - 100° - 120°

Universal 通用 — 58

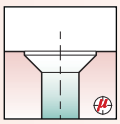
30° - 45° - 60° - 82° - 90° - 100° - 120°

90°
Hand coutersinks
Avellanadores de mano
手用倒角器

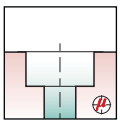


90° Inter Exter
Deburrers
Avellanadores
去毛刺 — 60 - 61

STEP DRILLS / COUNTERBORES
BROCAS ESCALONADAS / FRESAS PARA ASIENTO DE TORNILLO
阶梯钻 / 锪钻

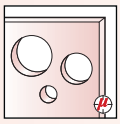


90°



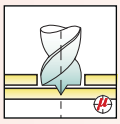
180° — 64 ~ 69

MULTI-STEP DRILLS
BROCAS ESCALONADAS
多段鑽



90° — 70

SPOTWELD DRILLS
BROCAS PARA ELIMINAR PUNTOS DE SOLDADURA
螺丝取出器



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SCREW EXTRACTORS
EXTRACTOR DE TORNILLOS
螺丝取出器

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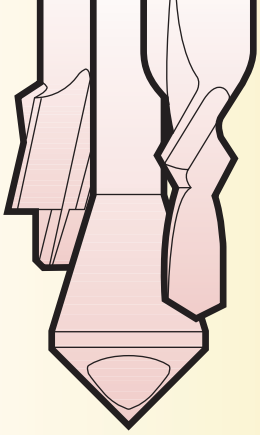
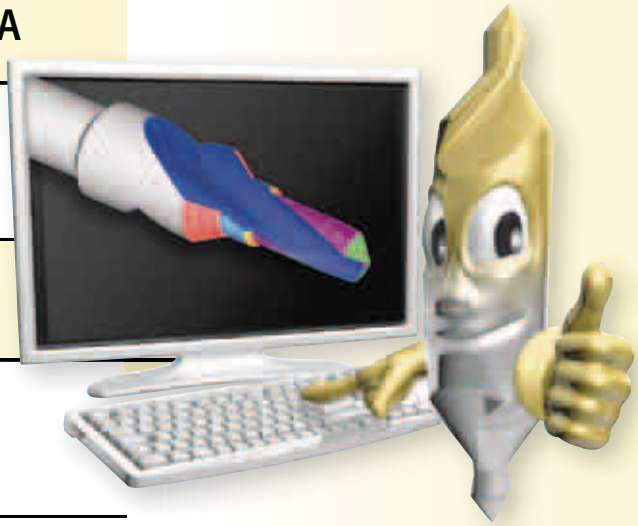


COUNTERSINKING - COUNTERBORING
AVELANADO - REFRENTADO
倒角刀 – 锪钻

"Special" — 66



TRI-DENT

Three flute COUNTERSINKS

Over 50 years of experience in the field of deburring and countersinking has led to our 3 flute countersinks having an exceptional flute geometry for use in most demanding areas.

- Constant radius form from the smallest cutter diameter up to its major diameter.
- Constant 20° rake angle.
- Constant value of the cone sharpening angle, with eccentric relieving.

Magafor offers an unequalled range:

- standard angles **30° - 60° - 82° - 90° - 100° - 120°**,
- materials: **HSS / HSS-Co / HSS 8% Co / Solid carbide,**
- coatings: **TiN / Red' X / Hard' X,**
- diameters **4 ~125** mm, including inch sizes.

This offers the user **a standard answer,** for almost all cases of machining.

AVELLANADORES **De tres labios**

Fruto de una experiencia de más de 50 años en el campo del desbarbado y avellanado, nuestros avellanadores de tres labios tienen una excepcional geometría de ranuras para responder a las necesidades más exigentes.

- Radio constante desde el diámetro de corte pequeño hasta su diámetro exterior.
- Angulo de incidencia constante de 20°.
- Angulo de desprendimiento del cono de valor constante, con destalonado excéntrico.

Magafor ofrece una gama inigualable:

- ángulos estándar **30° - 60° - 82° - 90° - 100° - 120°**,
- materiales: **HSS / HSS-Co / HSS 8% Co / Metal duro**,
- recubrimientos: **TiN / Red'X / Hard'X**,
- diámetros **4 ~125** mm, incluyendo medidas en pulgadas.

Así se ofrece al usuario **una respuesta estándar disponible**, para la mayoría de los casos de mecanizado.

倒角刀 三刃

超過50年的去毛刺的領域，擴孔專家估價的水果，我們的三個凹槽埋頭有槽的特殊幾何形狀，回答最嚴苛應用。

- 等半徑是從最小刀具直徑可達其外徑。
- 恆定前角，20°。
- 錐角刃磨的恆定值，與偏心洩壓。

Magafor提供了一個無與倫比的範圍:

- 標準角度 **30° - 60° - 82° - 90° - 100° - 120°**,
- 材料: **高速鋼 /高速鋼含鈷 /高速鋼含8%鈷 /硬質合金**
- 塗層: **錫 / Red' X / Hard' X,**
- 直徑 **4 ~125** 毫米，其中包括英制。

由此被提供給用戶的一個標準，現實答案， 對於機加工的幾乎所有的情況下。

magafor, The choice! La elección! 推荐表

Angle Ángulo 角度	HSS	HSS-E 5% Co	HSS-E 5% Co + TiN	HSS-E 5% Co + Red'X	HSS-E 8% Co	HSS-E 8% Co + Red'X	CARBIDE METAL DURO 硬质合金	CARBIDE METAL DURO 硬质合金 + Hard'X
30°		53	53					
60°	53 - 54	53 - 54	53				52 - 55	52
82°		53	53				52	52
90°	49 - 54	48 ~ 50 - 54	48 ~ 50	49	50	50	50 - 55	50
90° L - XL	51	51		51			51	51
100°		53	53					
120°		53 - 54	53					
Hardness Dureza 硬度	63 HRC	65 HRC	65 HRC + 2300 HV	65 HRC + 3500 HV	67 HRC	67 HRC + 3500 HV	1800 HV	1800 HV + 3500 HV
Use Utilización 用途	Small series Pequeñas series 小批量加工		Intensive production Producción intensiva 大批量加工		Hard and abrasive alloys Aleaciones duras y abrasivas 硬而耐磨合金		Treated steels Aceros tratados 淬火钢	

Promo-kits

COMPOSICIÓN COMPOSITION 套装	α	CALIDAD QUALITY 品质	CODE	€
5 cutters fresas 刀具 Ø 10,4 - 16,5 - 20,5 25 - 31	60°	HSS-E	432	•
		TiN	4832	•
		CARBURE	8432	•
		Hard'X	8432-H	•
	82°	HSS-E	434	•
		TiN	4834	•
	90°	HSS	4307	•
		HSS-E	431	•
		TiN	4831	•
		HSS-E	43-A *	•
		TiN	483-A *	•
		Red'X	493-A *	•
		HSS 8% Co	436	•
		Red'X	4936	•
		CARBURE	8431	•
		Hard'X	8431-H	•
	100°	HSS-E	435	•
		TiN	4835	•
	120°	HSS-E	433	•
		TiN	4833	•
7 cutters fresas 刀具 Ø 6,3 - 8,3 - 10,4 - 12,4 - 16,5 20,5 - 25 + 4001**	90°	HSS-E	431/3	•

COMPOSICIÓN COMPOSITION 套装	α	CALIDAD QUALITY 品质	CODE	€
4 cutters fresas 刀具 Ø 6,3 - 8,3 - 10,4 - 12,4 + 4002*	90°	HSS-E	403/1 HEXA	•
4 cutters fresas 刀具 Ø 10,4 - 12,4 - 16,5 - 20,5 + 4002*	90°	HSS-E	403/2 HEXA	•
4 cutters fresas 刀具 Ø 6,3 - 12,4 - 16,5 - 20,5 + 4002*	90°	HSS-E	431/6	•
		TiN	4831/6	•
6 cutters fresas 刀具 Ø 6,3 - 8,3 - 10,4 - 12,4 16,5 - 20,5	90°	HSS	4307/2	•
		HSS-E	431/2	•
		TiN	4831/2	•
		HSS-E	43-A/2 *	•
		TiN	483-A/2 *	•
		Red'X	493-A/2 *	•
		HSS 8% Co	436/2	•
		Red'X	4936/2	•
		CARBURE	8431/2	•
		Hard'X	8431-H/2	•
6 cutters fresas 刀具 Ø 6,35 ~ 19,05 (1/4" ~ 3/4")	82°	HSS-E	434/5	•
		TiN	4834/5	•
	90°	HSS-E	431/5	•
		TiN	4831/5	•
10 cutters fresas 刀具 Ø 4,3 - 5,3 - 6,3 - 8,3 - 10,4 - 12,4 16,5 - 20,5 - 25 - 31 + 4001**	90°	HSS-E	431/4	•

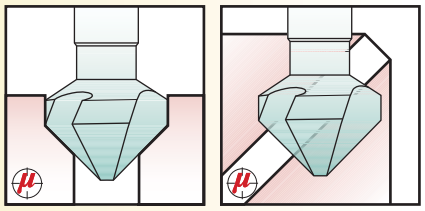
**Sets supplied with auto-lock chuck (Página 60) Juego suministrado con un mandrín autoblocante (Page 60) 带自锁夹头套装 (页 60)

New 2017

* Countersinks ANTI VIBRATIONS page
Avellanadores ANTI VIBRACIÓN página 48
锪孔 防震 页

Vidéo on line
www.magafor.com

TRI-DENT



90° Three flute COUNTERSINKS ANTI VIBRATIONS

The equal division 3 x 120° of the flutes offers good results in most materials.
For iron alloys vibrations may happen and generate facets.
These new ANTI VIBRATION countersinks with unequal division of the flutes avoid this phenomenon.
For machining of the copper and light materials (aluminium, plastics) we recommend the use of the deburring tool with hole page 56 - 57.

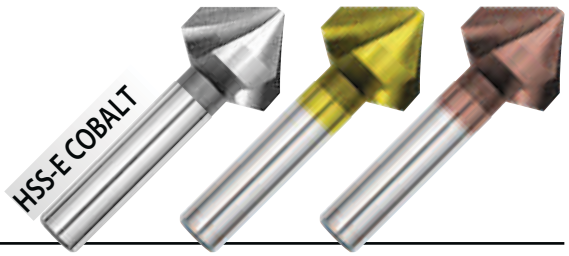
90° Tres labios AVELLANADORES ANTI VIBRACIONES

La distribución simétrica de los labios 3 x 120° ofrecen buenos resultados en la mayoría de materiales. En aleaciones férricas pueden haber vibraciones que generan facetas.
Estos nuevos avellanadores anti-vibración con paso diferencial evitan este fenómeno.
Para el mecanizado de cobre y materiales ligeros (aluminios, plásticos) recomendamos el uso de herramientas de desbarbar con agujero. Páginas 56-57.

90° 三 刃 鋑孔 防震

提供相同等級的3×120° 的刃長
在大多數材料上都適合使用
對於鐵合金，可能會發生振動
生成小平面。
這些新的防振鋑孔鉆
有不平等的刃長等級可避免了這現象產生
為了加工銅和輕質材料（鋁，塑料），我們
建議使用第56-57頁中的孔去毛刺工具。

New 2017



90°

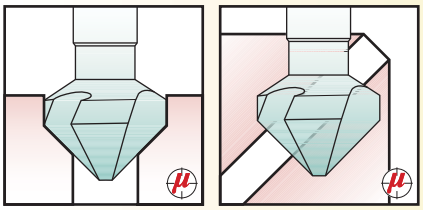
DIN 335 - C

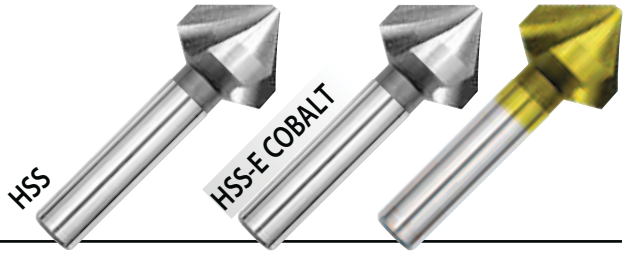
D z9	d1 maxi	d2 h9	L ± 1	magafor 43-A	TiN 483-A	Red'X 493-A
4,3	1,3	4	40	€ •	€ •	€ •
5,3	1,5	4	40	•	•	•
6,0	1,5	5	45	•	•	•
6,3	1,5	5	45	•	•	•
8,0	2,0	6	50	•	•	•
8,3	2,0	6	50	•	•	•
9,4	2,2	6	50	•	•	•
10,0	2,5	6	50	•	•	•
10,4	2,5	6	50	•	•	•
11,5	2,8	8	56	•	•	•
12,0	2,8	8	56	•	•	•
12,4	2,8	8	56	•	•	•
15,0	3,2	10	60	•	•	•
16,5	3,2	10	60	•	•	•
20,5	3,5	10	63	•	•	•
25,0	3,8	10	67	•	•	•
28,0	4,0	12	71	•	•	•
30,0	4,2	12	71	•	•	•
31,0	4,2	12	71	•	•	•

No more vibrations = unequalled finish!
No más vibraciones = ¡acabados inigualables!
沒有更多的振動 = 無與倫比的加工！

Performances
Page 页
Página 70

TRI-DENT





90°

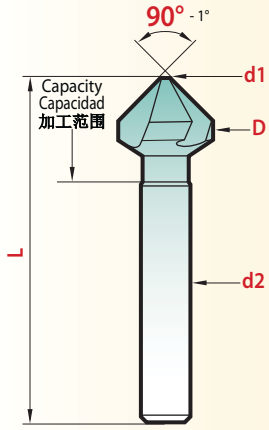
DIN 335 - C

D z9	d1 maxi	d2 h9	L ± 1	Classic 4307	magafor 431	TiN 4831
4,0	1,3	4	40	€	€ •	€ •
4,3	1,3	4	40	•	•	•
5,0	1,5	4	40	•	•	•
5,3	1,5	4	40	•	•	•
5,8	1,5	5	45	•	•	•
6,0	1,5	5	45	•	•	•
6,3	1,5	5	45	•	•	•
7,0	1,8	6	50	•	•	•
7,3	1,8	6	50	•	•	•
8,0	2,0	6	50	•	•	•
8,3	2,0	6	50	•	•	•
9,0	2,2	6	50		•	•
9,4	2,2	6	50	•	•	•
10,0	2,5	6	50	•	•	•
10,4	2,5	6	50	•	•	•
11,5	2,8	8	56	•	•	•
12,0	2,8	8	56		•	•
12,4	2,8	8	56	•	•	•
13,4	2,9	8	56	•	•	•
14,4	2,9	8	56	•	•	•
15,0	3,2	8 (1)	56		•	•
15,0	3,2	10 (1)	60	•	•	•
16,5	3,2	8 (1)	56		•	•
16,5	3,2	10 (1)	60	•	•	•
19,0	3,5	10	63	•	•	•
20,5	3,5	10	63	•	•	•
23,0	3,8	10	67	•	•	•
25,0	3,8	10	67	•	•	•
26,0	3,8	10	67		•	•
28,0	4,0	12	71	•	•	•
30,0	4,2	12	71		•	•
31,0	4,2	12	71	•	•	•

Sizes in Inches Medidas en pulgadas 以英寸尺寸

D z9 mm	D z9 (inch)	d1 maxi	d2 h9	L ± 1	magafor 431	TiN 4831
6,35	(1/4")	1,5	6,35	45	€ •	€ •
7,93	(5/16")	2,0	6,35	45	•	•
9,52	(3/8")	2,5	6,35	50	•	•
12,70	(1/2")	2,9	6,35	50	•	•
15,87	(5/8")	3,2	9,52	60	•	•
19,05	(3/4")	3,5	9,52	60	•	•
25,4	(1")	3,8	9,52	70	•	•

(1) Please mention the shank Ø when ordering. Precisar el diámetro del mango en el pedido.
订货时请注明柄径Ø



90° Three flute COUNTERSINKS HSS - HSS-Co

This highly productive countersinking cutter is a much improved version of the traditional multiflute milling cutter:
• grooves opened wide to allow chips a way out,
• high positive cut,
• constant profile relief (a great many regrinds),
Dimensions are adapted so as to sink the 90° screw caps.
We recommend lubricating.

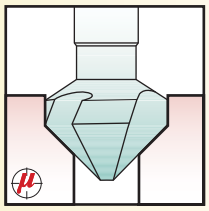
AVELLANADORES 90° De tres labios HSS - HSS-Co

Este avellanador de alto rendimiento es una versión mejorada de la tradicional fresa multi-labio:
• ranuras ampliamente abiertas para permitir la salida de la viruta.
• corte muy positivo.
• perfil constante destalonado (numerosos reafilados).
Las dimensiones son adaptadas para alojar cabezas de tornillos de 90°.
Recomendamos lubricación.

90° 三刃 倒角刀 HSS - HSS-Co

该款高效倒角刀极大改进了传统多刃倒角刀，具有如下特点:
• 宽槽使得铁屑从一个方向快速 排出
• 高效切削
• 成型光洁度好
可以最大加工到M12的90°
沉头螺钉孔建议润滑

TRI-DENT



Three flute COUNTERSINKS

The countersinks code **4936** with red'X coating are designed for machining abrasive hard alloys.

The **magaforce** countersinks, short and long, are made from SOLID CARBIDE. This concept offers a unique strength.

AVELLANADORES De tres labios

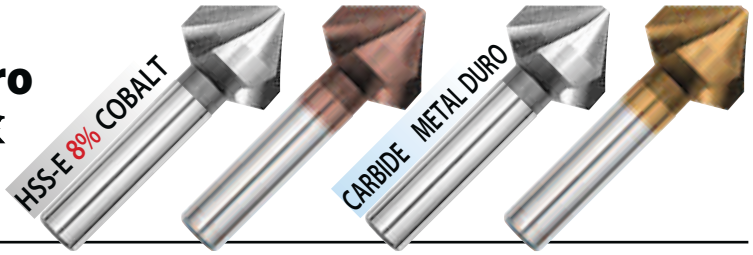
Los avellanadores ref. **4936** con recubrimiento Red'X están diseñados para resistir la abrasión en el mecanizado de aleaciones duras.

Los avellanadores **magaforce**, cortos y largos, están fabricados en METAL DURO INTEGRAL.
Este concepto ofrece una rigidez única.

三刃 倒角刀

锪孔編碼4936與Red'X塗層被設計用於加工的耐磨硬質合金。
該magaforce锪孔，短期和長期，從整體硬質合金製成。
這種觀念賦予他們獨特的力量。

HSS 8% Co
Carbide
Metal duro
硬质合金



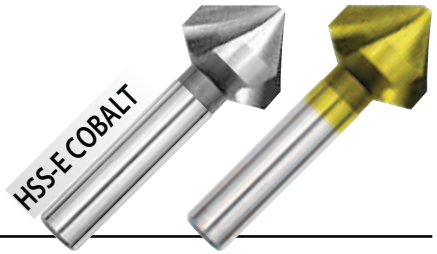
90°

DIN 335 - C

D z9 (1)	d1 maxi	d2 h9	L ± 1	magafor 436	Red'X 4936	magaforce 8431	Hard'X 8431-H
4,3	1,3	4	40	€	€	€ •	€ •
5,3	1,5	4	40			•	•
6,0	1,5	5	45			•	•
6,3	1,5	5	45	•	•	•	•
8,0	2,0	6	50			•	•
8,3	2,0	6	50	•	•	•	•
10,0	2,5	6	50			•	•
10,4	2,5	6	50	•	•	•	•
11,5	2,8	8	56			• *	• *
12,4	2,8	8	56	•	•	• *	• *
15,0	3,2	10	60			• *	• *
16,5	3,2	10	60	•	•	• *	• *
20,5	3,5	10	63	•	•	• *	• *
25,0	3,8	10	67	•	•	• *	• *
31,0	4,2	12	71	•	•	• *	• *
50,0	5,0	16	126	• *	• *		

(1) Tolerances Tolerancias 公差 Ø 50 = 0 + 0,3
* 3 flated shanks Mango con 3 planos 三面削平柄

3 flated shanks
mango con 3 planos
3面削平柄



90°

DIN 335 - C

Effective holding thanks to the 3 flats

Los 3 planos aseguran una sujeción efectiva

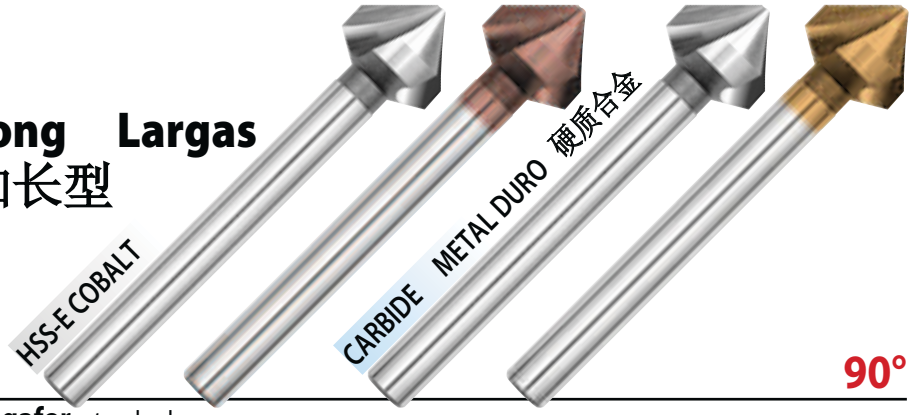
可靠夹持
三面削平柄

D z9 (1)	d1 maxi	d2 h9	L ± 1	magafor 437	TiN 4837
6,3	1,5	5	45	€ •	€ •
8,3	2,0	6	50	•	•
10,4	2,5	6	50	•	•
12,4	2,8	8	56	•	•
14,4	2,9	8	56	•	•
15,0	3,2	10	60	•	•
16,5	3,2	10	60	•	•
20,5	3,5	10	63	•	•
25,0	3,8	10	67	•	•
31,0	4,2	12	71	•	•
34,0	4,5	16	103	•	•
35,0	4,5	16	103	•	•
37,0	4,5	16	118	•	•
40,0	4,5	16	118	•	•
45,0	4,5	12	116	•	•
50,0	5,0	16	126	•	•
63,0	10,0	16	140	•	•
80,0	14,0	16	166	•	•

(1) Tolerances Tolerancias 公差 Ø 34 ~ 80 = 0 + 0,3

TRI-DENT

Long Largas 加长型

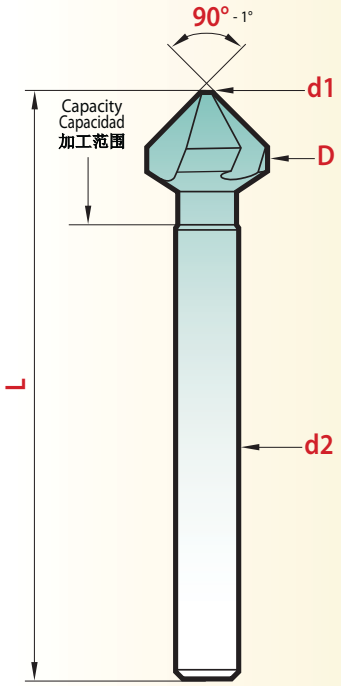


90°

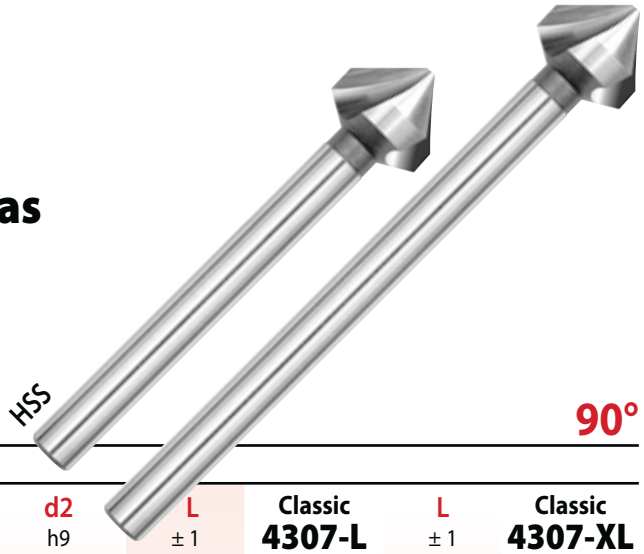
magafor standard

D z9	d1 maxi	d2 h9	L ± 1	magafor 4303	Red'X 4933	magaforce 8431-L	Hard'X 8431-LH
6,3	1,5	6	84	€ •	€ •	€ •	€ •
8,3	2,0	8	85	•	•	• *	• *
10,4	2,5	10	87	•	•	• *	• *
12,4	2,8	10	108	•	•	• *	• *
16,5	3,2	12	112	•	•	• *	• *
20,5	3,5	12	115	•	•	• *	• *
25,0	3,8	12	118	•	•		

* 3 flated shanks Mango con 3 planos 三面削平柄



Long / X-Long Largas / X-largas 长型 / 超长型



90°

magafor standard

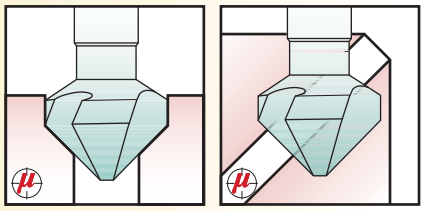
D z9	d1 maxi	d2 h9	L ± 1	Classic 4307-L	L ± 1	Classic 4307-XL
5,8	1,5	5	104	€ •		€
6,3	1,5	5	104	•	154	•
8,3	2,0	6	105	•	155	•
10,4	2,5	6	107	•	157	•
12,4	2,8	8	108	•	158	•
15,0	3,2	10	109	•	159	•
16,5	3,2	10	111	•	161	•
20,5	3,5	10	114	•	164	•
25,0	3,8	10	118	•	168	•

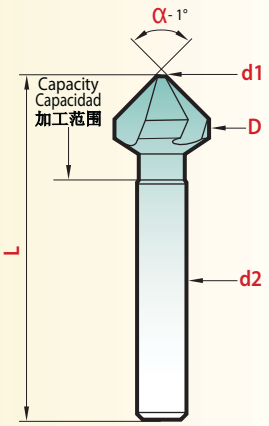
magafor, The choice! La elección! 推荐表

Vidéo on line
www.magafor.com

Material 材质 Material	HSS	HSS-E Cobalt	HSS-E Cobalt + TiN	HSS-E 8% Cobalt	HSS-E 8% Cobalt + Red'x	CARBIDE 硬质合金 METAL DURO	CARBIDE METAL DURO + Hard'X
Hardness 硬度 Dureza	63 HRC	65HRC	65 HRC + 2300 HV	67 HRC	67 HRC + 3500 HV	1800 HV	1800 HV + 3500 HV
Use Utilización 用途	Small series Pequeñas series 小批量加工	Intensive production Producción intensiva 大批量加工		Hard and abrasive alloys Aleaciones duras y abrasivas 硬而耐磨合金		Treated steels Aceros tratados 淬火钢	
Page Página 页	49 - 51 - 54	48 ~ 53		50		50 ~ 52	

TRI-DENT





Three flute COUNTERSINKS

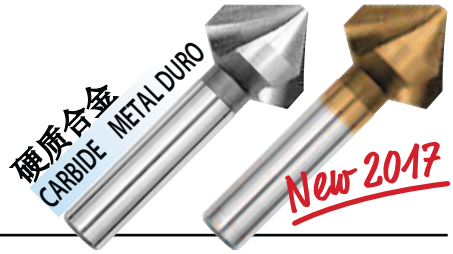
The **magaforce** cutters are made from SOLID CARBIDE.
This design offers a unique strength.

AVELLANADORES De tres labios

Las herramientas **magaforce** están fabricadas en METAL DURO INTEGRAL.
Este concepto ofrece una rigidez única.

三刃 倒角刀

Magaforce倒角刀有整体硬质合金制成。

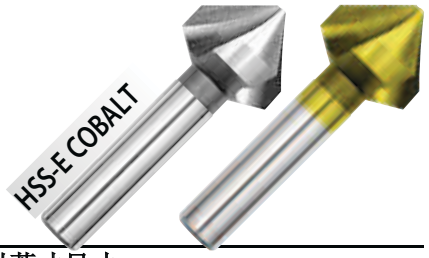


60° - 82° - 100°

DIN 335 - C

α - 1°	D z9	d1 maxi	d2 h9	L ± 1	code	magaforce	code	Hard'X
60°	6,3	1,5	5	47	8432	€ •	8432 H	€ •
	8,3	2,0	6	52		•		•
	10,4	2,5	6	53		•		•
	12,4	2,8	8*	60		•		•
	16,5	3,2	10*	65		•		•
	20,5	3,5	10*	69		•		•
	25,0	3,8	10*	75		•		•
	31,0	4,2	12*	81		•		•
82°	10,4	2,5	6	50	8434	•	8434 H	•
	12,4	2,8	8*	56		•		•
	16,5	3,2	10*	61		•		•
	20,5	3,5	10*	64		•		•
	25,0	3,8	10*	68		•		•
100°	6,3	1,5	5	44	8435	•	8435 H	•
	8,3	2,0	6	49		•		•
	10,4	2,5	6	49		•		•
	12,4	2,8	8*	55		•		•
	16,5	3,2	10*	59		•		•
	20,5	3,5	10*	62		•		•

* Shanks with 3 flats to optimize tool holding.
3 planos en el mango para optimizar la sujeción de la herramienta.
带3面磨平柄，优化了刀柄



82°

Sizes in Inches Medidas en pulgadas 以英寸尺寸

D z9 mm	(inch)	d1 maxi	d2 h9	L ± 1	code	magafor	code	TiN
6,35	(1/4")	1,5	6,35	45	434	€ •	4834	€ •
7,93	(5/16")	2,0	6,35	45		•		•
9,52	(3/8")	2,5	6,35	50		•		•
12,70	(1/2")	2,9	6,35	50		•		•
15,87	(5/8")	3,2	9,52	60		•		•
19,05	(3/4")	3,5	9,52	60		•		•
25,4	(1")	3,8	9,52	70		•		•

Performances
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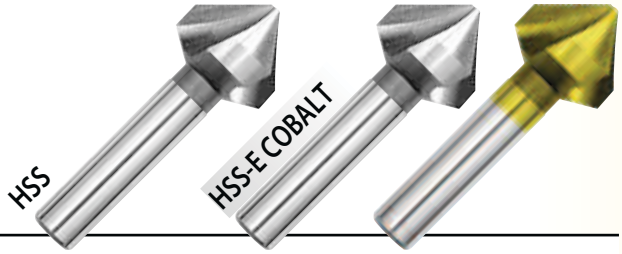
Página 62

TRI-DENT

30° - 60° - 82° - 100° - 120°



DIN 335 - C

α - 1°	D z9	d1 maxi	d2 h9	L ± 1	code	Classic	code	magafor	code	TiN
30°	6,3	2	5	50				€ •		€ •
	12,4	3	8	65			439	•	4839	•
	16,5	4	10	76				•		•
	25,0	6	10	90				•		•
60°	6,3	1,7	5	45		€ •				
	6,3	1,5	5	47				•		•
	8,0	2,1	6	50		•				
	8,3	2,0	6	52				•		•
	10,0	2,6	6	53		•				
	10,4	2,5	6	53				•		•
	12,4	2,8	8	60				•		•
	12,5	3,3	8	56	4302	•	432		4832	
	16,0	4,1	10	63		•				
	16,5	3,2	10	65				•		•
	20,0	5,1	10	67		•				
	20,5	3,5	10	69				•		•
	25,0	6,4	10	71		•				
	25,0	3,8	10	75				•		•
	31,0	4,2	12	81				•		•
82°	6,3	1,5	5	45				•		•
	8,3	2,0	6	50				•		•
	10,4	2,5	6	50				•		•
	12,4	2,8	8	56			434	•	4834	•
	16,5	3,2	10	61				•		•
	20,5	3,5	10	64				•		•
	25,0	3,8	10	68				•		•
	31,0	4,2	12	73				•		•
100°	6,3	1,5	5	44				•		•
	8,3	2,0	6	49				•		•
	10,4	2,5	6	49				•		•
	12,4	2,8	8	55			435	•	4835	•
	16,5	3,2	10	59				•		•
	20,5	3,5	10	62				•		•
	25,0	3,8	10	65				•		•
	31,0	4,2	12	68				•		•
120°	6,3	1,5	5	43				•		•
	8,3	2,0	6	48				•		•
	10,4	2,5	6	48				•		•
	12,4	2,8	8	54			433	•	4833	•
	16,5	3,2	10	57				•		•
	20,5	3,5	10	59				•		•
	25,0	3,8	10	62				•		•
	31,0	4,2	12	65				•		•

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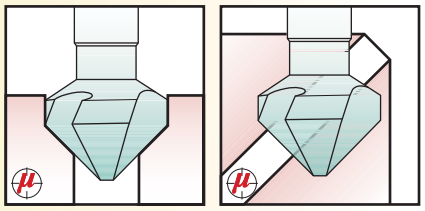
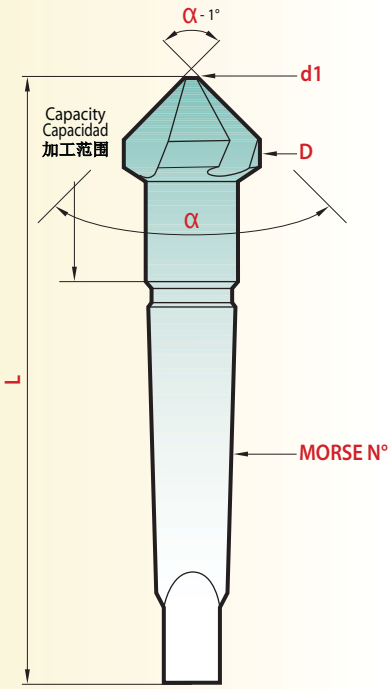
TRI-DENT



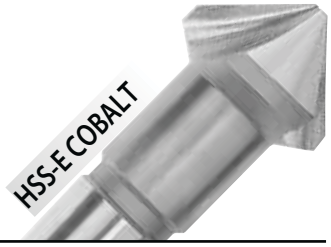


WITH MORSE TAPER
CON CONO MORSE
莫氏錐柄

The **magafor** standard is valuable:
- HSS-E 5% Co = machining up to 110kg, extended tool life,
- larger range: diameters - angles - Morse taper shanks,
- longer tools (Ø 34 ~ 80mm).

El estándar de se cumple.:
- HSS-E 5% Co = En mecanizado hasta 110 kg vida de la herramienta prolongada,
- gamas más amplias: diámetros-ángulos-mangos cono Morse,
- mayores dimensiones (Ø 34 ~ 80mm).

Magafor 標準是有效:
- HSS-E 5% Co = 加工長達110kg，延長刀具壽命,
- 較大的範圍：直徑，角度，莫氏錐柄,
- 更長的工具 (Ø 34 ~ 80mm).

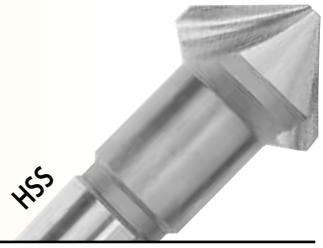


60° - 90° - 120°

magafor standard

α - 1°	D * z9	d1 maxi	MORSE N° **	L ± 1	magafor
60° 432	16,5	3,2	1	94	€ •
	20,5	4	1	100	•
	25	6	2	112	•
	31	6	2	121	•
	40	8	3	172	•
	50	10	3	183	•
	63	10	3	201	•
	80	14	4	253	•
90° 431	10,4	2,5	1	84	•
	12,4	2,8	1	87	•
	16,5	3,2	1	90	•
	20,5	3,5	1	94	•
	25	3,8	2	105	•
	28	4,0	2	112	•
	30	4,2	2	112	•
	31	4,2	2	112	•
	34	4,5	2	133	•
	35	4,5	2	133	•
	37	4,5	2	145	•
	40	4,5	3	160	•
	45	4,5	2	149	•
	50	5,0	2	153	•
	50	5,0	3	168	•
	53	5,0	2	155	•
	63	10	2	167	•
	63	10	3	182	•
	80	14	4	229	•
	100	40	4	185	•
	125	50	4	192	•
120° 433	20,5	4	1	91	•
	31	5	2	106	•
	40	8	3	154	•

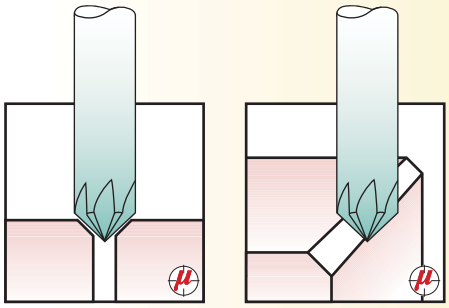
* Tolerances Tolerancias 公差 Ø 34 ~ 125 : 0 + 0,3
** Please mention the MT number when ordering
Especificar el CM en el pedido
訂貨時請註明MT的數量



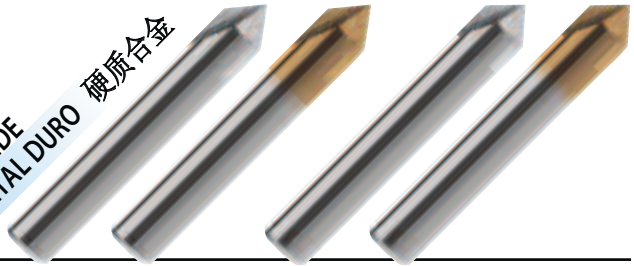
60° - 90°

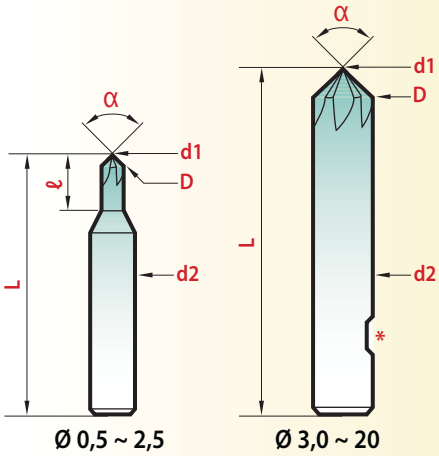
DIN 335 - D

α - 1°	D * z9	d1 maxi	MORSE N°	L ± 1	Classic
60° 4302	16	4,0	1	90	€ •
	20	5,0	2	106	•
	25	6,4	2	112	•
	31,5	10,1	2	118	•
	40	12,5	3	150	•
	50	16	3	160	•
	63	20	4	190	•
90° 4307	15,0	3,3	1	85	•
	16,5	3,3	1	85	•
	19,0	3,6	2	100	•
	20,5	3,6	2	100	•
	23	3,9	2	106	•
	25	3,9	2	106	•
	30	4,3	2	112	•
	31	4,3	2	112	•
	34	4,5	2	118	•
	37	4,8	2	118	•
	40	10	3	140	•
	50	14	3	150	•
	63	16	4	160	•
	80	22	4	190	•



New 2017





α						60°	60°	90°	90°
D z9	d1 maxi	L ± 1	ℓ	d2 h6	z	magaforce **8436**	Hard'X **8436-H**	magaforce **8439**	Hard'X **8439-H**
0,5	0,1	39	3	3	3	€ •	€ •	€ •	€ •
0,6	0,1	39	3	3	3	•	•	•	•
0,7	0,1	39	3	3	3	•	•	•	•
0,8	0,1	39	3	3	3	•	•	•	•
0,9	0,1	39	3	3	3	•	•	•	•
1	0,1	39	3	3	3	•	•	•	•
1,5	0,1	39	4,5	3	3	•	•	•	•
2	0,1	39	6,0	3	3	•	•	•	•
2,5	0,1	39	7,5	3	3	•	•	•	•
3	0,1	39	-	3	3	•	•	•	•
4	0,8	54	-	4	4	•	•	•	•
6	0,8	57	-	6*	4	•	•	•	•
8	0,8	63	-	8*	5	•	•	•	•
10	1,0	72	-	10*	6	•	•	•	•
12	1,2	83	-	12*	6	•	•	•	•
16	1,6	92	-	16*	6	•	•	•	•
20	2	104	-	20*	6	•	•	•	•

* With flat Con plano 具有平板

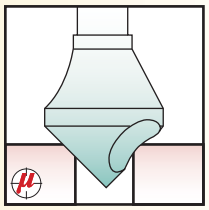
MULTI-FLUTES
CONICAL CUTTERS

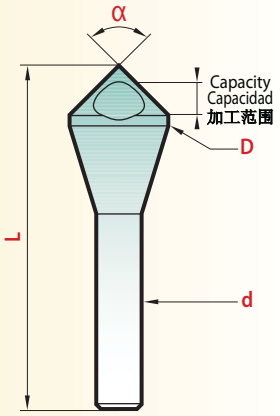
FRESAS CÓNICAS
MULTILABIO

多刃
圓錐切割

Hard-X
Hasta 硬度最大
Up to 67 HRC

magafor





Special aluminium

60°-82°-90°-100°-120°

Straight shank — Mango cilíndrico — 直柄

α - 1°	D + 0,3	Capacity Capacidad 范围 mini ~ maxi	d h9	L ± 1	magafor	α - 1°	TiN
60° 412	10	5 ~ 9	6	49	€ •	60° 4812	€ •
	15	8 ~ 14	8	60	•		•
	20	10 ~ 18	10	71	•		•
	25	12 ~ 23	12	85	•		•
	30	15 ~ 28	12	96	•		•
	35	17 ~ 33	16 (3)	117	•		•
82° 414	10	4 ~ 9	6	46	•	82° 4814	•
	15	6 ~ 14	8	56	•		•
	20	8 ~ 18	10	66	•		•
	25	10 ~ 23	12	76	•		•
	30	12 ~ 28	12	89	•		•
	35	14 ~ 33	16 (3)	108	•		•
90° 411	10 (1)	2 ~ 5	6	45	•	90° 4811	•
	10 (1)	4 ~ 9	6	45	•		•
	15	6 ~ 14	6 (2)	48	•		•
	15	6 ~ 14	8 (2)	55	•		•
	20	8 ~ 18	10	65	•		•
	25	10 ~ 23	12	78	•		•
	28	11 ~ 26	12	78	•		•
	30	12 ~ 28	12	87	•		•
	35	14 ~ 33	16 (3)	106	•		•
	40	16 ~ 38	16 (3)	121	•		•
	50	20 ~ 48	16 (3)	130	•		•
100° 415	10	4 ~ 9	6	44	•	100° 4815	•
	15	6 ~ 14	8	54	•		•
	20	7 ~ 18	10	63	•		•
	25	9 ~ 23	12	76	•		•
	30	11 ~ 28	12	85	•		•
	35	13 ~ 33	16 (3)	103	•		•
120° 413	10	4 ~ 9	6	43	•	120° 4813	•
	15	5 ~ 14	8	52	•		•
	20	6 ~ 18	10	61	•		•
	25	8 ~ 23	12	68	•		•
	30	10 ~ 28	12	82	•		•
	35	12 ~ 33	16 (3)	99	•		•

(1) Please mention capacity when ordering — Precisar la capacidad en el pedido — 订货时请注明加工范围
(2) Please mention the shank Ø when ordering — Precisar el Ø de mango en el pedido — 订货时请注明柄径Ø
(3) effective holding = shank with 3 flats — Mango con 3 planos = sujeción eficaz — 可靠夹持 = 三面削平柄

DEBURRING TOOL **With Hole**

The deburring tool "with hole" is particulary designed for countersinking, the execution of small chamfers, and for use with light metals and plastics. The surface obtained is smooth and burr free.
We recommend lubricating.

HERRAMIENTA DE DESBARBAR **Con agujero**

La herramienta de desbarbar "con agujero" está particularmente diseñada para el avellanado, la ejecución de pequeños chaflanes y para la utilización con metales ligeros y plásticos. La superficie obtenida es lisa y sin rebabas.
Recomendamos lubricación.

带孔倒角刀

带孔倒角刀是特别设计的一种倒角刀，用于小余量倒角较软的金属和塑料材质，表面加工后光洁无毛刺。
推荐加工时润滑

Vidéo ou line

www.magafor.com

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60° - 82° - 90°

Straight shank — Mango cilíndrico — 直柄

α - 1°	#	D + 0,3 mm (inch)	Capacity Capacidad 范围 mini ~ maxi	d h9	L ± 1	magafor	α - 1°	TiN
60° 412	0	6,35 (1/4") (1)	3 ~ 5	6,35	45	€ •	60° 4812	€ •
	1	11,2 (7/16")	5 ~ 10	6,35	45	•		•
	2	14,0 (9/16")	7 ~ 13	6,35	50	•		•
	3	20,4 (13/16")	10 ~ 18	12,7	66	•		•
	4	30,1 (1-3/16")	15 ~ 28	12,7	87	•		•
82° 414	0	6,35 (1/4") (1)	2 ~ 5	6,35	45	•	82° 4814	•
	1	11,2 (7/16")	5 ~ 10	6,35	46	•		•
	2	14,0 (9/16")	6 ~ 13	6,35	50	•		•
	3	20,4 (13/16")	9 ~ 18	12,7	66	•		•
	4	30,1 (1-3/16")	12 ~ 28	12,7	80	•		•
90° 411	0	6,35 (1/4") (1)	2 ~ 5	6,35	45	•	90° 4811	•
	1	11,2 (7/16")	5 ~ 10	6,35	45	•		•
	2	14,0 (9/16")	6 ~ 13	6,35	50	•		•
	3	20,4 (13/16")	9 ~ 18	12,7	66	•		•
	4	30,1 (1-3/16")	12 ~ 28	12,7	78	•		•

(1) Double end cutter — Fresas doble punta — 雙端

60° - 90° - 120°

Morse taper — Cono Morse — 莫氏锥柄

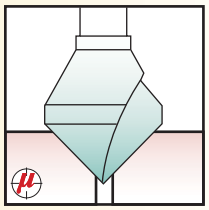
α - 1°	D + 0,3	Capacity Capacidad 范围 mini ~ maxi	MORSE N° *	L ± 1	magafor
60° 412	20	10 ~ 18	1	97	€ •
	25	12 ~ 23	1	104	•
	30	15 ~ 28	2	125	•
	40	20 ~ 38	2	160	•
	45	22 ~ 43	3	158	•
	50	25 ~ 48	2	145	•
	50	25 ~ 48	3	170	•
	60	30 ~ 58	3	175	•
	80	40 ~ 77	4	253	•
90° 411	15	6 ~ 14	1	91	•
	20	8 ~ 18	1	94	•
	25	10 ~ 23	1	101	•
	30	12 ~ 28	2	120	•
	35	14 ~ 33	2	134	•
	40	16 ~ 38	2	149	•
	40	16 ~ 38	3	164	•
	50	20 ~ 48	2	158	•
	50	20 ~ 48	3	172	•
	63	26 ~ 60	3	184	•
	80	32 ~ 77	4	229	•
120° 413	20	6 ~ 18	1	92	•
	30	10 ~ 28	2	117	•
	35	12 ~ 33	1	104	•
	35	12 ~ 33	2	112	•
	40	14 ~ 38	3	153	•
	50	16 ~ 48	2	149	•
	50	16 ~ 48	3	151	•

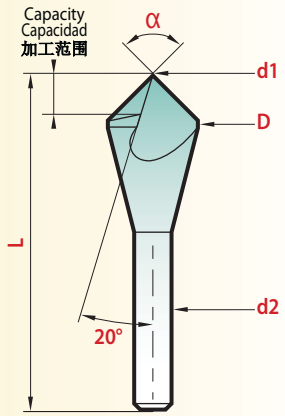
* Please mention the MT number when ordering
Especificar el CM en el pedido
訂貨時請註明MT的數量

60° - 82° - 90° - 100° - 120°

COMPOSICIÓN COMPOSITION 套装	α	magafor	€
5 cutters fresas 刀具 Ø 10 - 15 - 20 25 - 30	60°	412	•
		4812 TiN	•
	82°	414	•
		4814 TiN	•
	90°	411	•
		4811 TiN	•
	100°	415	•
		4815	•
	120°	413	•
		4813	•
5 cutters fresas 刀具 (inch) # 0 - 1 - 2 - 3 - 4	60°	412/5	•
	82°	414/5	•
	90°	411/5	•

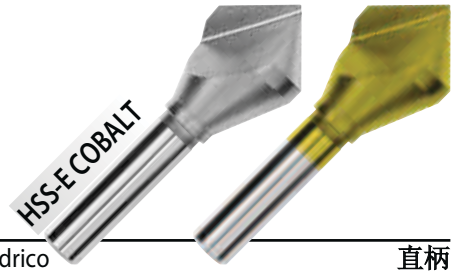
magafor





Universal

30° - 45° - 60°
82° - 90° - 100° - 120°



Straight shank — Mango cilíndrico — 直柄

α - 1°	D + 0,3	d1	d2 h9	L ± 1	magafor	α - 1°	TiN
30° **426** (1)	10	5,5	6	49	€ •	30° **4826** (1)	€ •
	15	8,5	8	60	•		•
	20	11,0	10	72	•		•
	25	13,5	12	78	•		•
	30	16,5	12	99	•		•
45° **427** (1)	6	2,0	6	43	•	45° **4827** (1)	•
	10	3,0	6	49	•		•
	15	4,5	8	61	•		•
	20	6,0	10	72	•		•
	25	7,5	12	87	•		•
	30	9,0	12	99	•		•
60° **422**	6	1	6	43	•	60° **4822**	•
	10	1	6	49	•		•
	12	2	8	54	•		•
	15	2	8	60	•		•
	20	2	10	72	•		•
	25	3	12	78	•		•
	30	3	12	99	•		•
82° **424**	6	1	6	41	•	82° **4824**	•
	10	1	6	46	•		•
	12	2	8	51	•		•
	15	2	8	56	•		•
	20	2	10	66	•		•
	25	3	12	80	•		•
	30	3	12	90	•		•
90° **421**	4	1	4	40	•	90° **4821**	•
	5	1	5	40	•		•
	6	1	6	40	•		•
	8	1	6	40	•		•
	10	1	6	45	•		•
	12	2	8	50	•		•
	15	2	8	55	•		•
	20	2	10	65	•		•
	25	3	12	78	•		•
	30	3	12	88	•		•
	35	4	16 (2)	103	•		•
	40	5	16 (2)	118	•		•
	50	12	16 (2)	126	•		•
100° **425**	10	1	6	44	•	100° **4825**	•
	12	2	8	49	•		•
	15	2	8	54	•		•
	20	2	10	63	•		•
	25	3	12	76	•		•
	30	3	12	85	•		•
120° **423**	10	1	6	43	•	120° **4823**	•
	12	2	8	47	•		•
	15	2	8	52	•		•
	20	2	10	61	•		•
	25	3	12	73	•		•
	30	3	12	66	•		•

(1) 30° and 45° cutters are truncated — Las fresas de 30° y 45°son truncadas. 30° 和 45° 不再采用

(2) Effective holding = shank with 3 flats — Sujeción eficaz = mango con 3 planos 可靠夹持 = 采用三面削平柄

Single flute
CHAMFERING CUTTERS

- Greater countersinking capacity from the point to the outside diameter.
- Simultaneous drilling and countersinking on thin elements (up to Ø 30 mm).

Constant finish-grind profile makes it possible to obtain a great many easy regrinds: a mere touch of the grinder to the tooth is sufficient. We recommend lubricating.

AVELLANADORES
De un labio

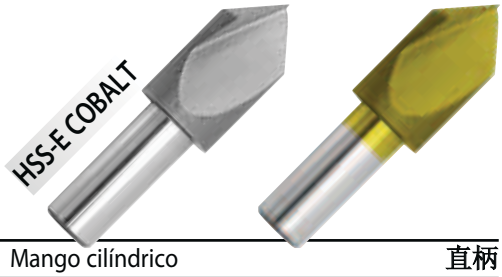
- Mayor capacidad de avellanado, desde la punta al diámetro exterior.
- Taladrado y avellanado simultáneo en piezas de pequeño espesor (hasta Ø 30).

El destalonado de perfil constante permite numerosos y fáciles afilados: un simple rectificado de muela delante del diente es suficiente.
Recomendamos lubricación.

单刃倒角刀

- 加工范围较宽，外径最大到 Ø 30 mm
- 可以在薄板上钻加工和倒角（层压板，铝，木材）

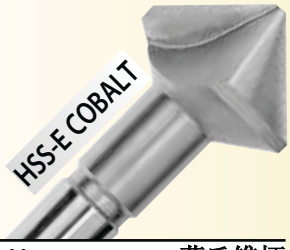
刃口容易重磨
重磨时需要润滑



60° - 82° - 90°

Straight shank — Mango cilíndrico — 直柄

α - 1°	D + 0,3 mm	(inch)	d1	d2 h9	L ± 1	magafor	α - 1°	TiN
						€		€
60° 422	3,17	(1/8")	1	3,17	32	•	60° 4822	•
	4,76	(3/16")	1	4,76	35	•		•
	6,35	(1/4")	1	6,35	38	•		•
	7,93	(5/16")	1	6,35	42	•		•
	9,52	(3/8")	1	6,35	45	•		•
	12,70	(1/2")	2	6,35	51	•		•
	15,87	(5/8")	2	9,52	57	•		•
	19,05	(3/4")	2	12,70	67	•		•
	22,22	(7/8")	3	12,70	70	•		•
	25,40	(1")	3	12,70	70	•		•
	31,75	(1-1/4")	3	12,70	76	•		•
82° 424	3,17	(1/8")	1	3,17	32	•	82° 4824	•
	4,76	(3/16")	1	4,76	35	•		•
	6,35	(1/4")	1	6,35	38	•		•
	7,93	(5/16")	1	6,35	42	•		•
	9,52	(3/8")	1	6,35	45	•		•
	12,70	(1/2")	2	6,35	51	•		•
	15,87	(5/8")	2	9,52	57	•		•
	19,05	(3/4")	2	12,70	67	•		•
	22,22	(7/8")	3	12,70	70	•		•
	25,40	(1")	3	12,70	70	•		•
	31,75	(1-1/4")	3	12,70	70	•		•
90° 421	3,17	(1/8")	1	3,17	32	•	90° 4821	•
	4,76	(3/16")	1	4,76	35	•		•
	6,35	(1/4")	1	6,35	38	•		•
	7,93	(5/16")	1	6,35	42	•		•
	9,52	(3/8")	1	6,35	45	•		•
	12,70	(1/2")	2	6,35	51	•		•
	15,87	(5/8")	2	9,52	57	•		•
	19,05	(3/4")	2	12,70	67	•		•
	22,22	(7/8")	3	12,70	70	•		•
	25,40	(1")	3	12,70	70	•		•
	31,75	(1-1/4")	3	12,70	70	•		•



60° - 90° - 120°

Morse taper — Cono Morse — 莫氏錐柄

α - 1°	D + 0,3	d1	MORSE N° *	L ± 1	magafor
					€
60° 422	15	2	1	96	•
	20	2	1	105	•
	25	3	1	106	•
	30	3	2	125	•
	35	5	2	146	•
	40	8	3	172	•
	50	10	3	183	•
	63	10	3	201	•
	80	10	4	253	•
90° 421	15	2	1	91	•
	20	2	1	106	•
	25	3	1	110	•
	30	3	2	114	•
	35	5	2	135	•
	40	5	2	145	•
	40	5	3	160	•
	50	5	2	153	•
	50	5	3	168	•
	63	10	3	182	•
	80	10	4	229	•
120° 423	20	2	1	87	•
	30	3	2	108	•
	40	8	3	154	•
	50	10	3	160	•

* Please mention the MT number when ordering
Especificar el CM en el pedido
訂貨時請註明MT的數量

30° - 45° - 60° - 82° - 90° - 100° - 120°

COMPOSICIÓN COMPOSITION 套裝	α	magafor	€
5 cutters fresas 刀具 Ø 10 - 15 - 20 25 - 30	30°	426	•
		4826 TiN	•
	45°	427	•
		4827 TiN	•
	60°	422	•
		4822 TiN	•
	82°	424	•
		4824 TiN	•
	90°	421	•
		4821 TiN	•
	100°	425	•
		4825 TiN	•
	120°	423	•
		4823 TiN	•
6 cutters fresas 刀具 Ø 6 - 8 - 10 - 12 - 15 - 20	90°	421/2	•
Ø 6,35 - 7,93 - 9,52 12,7 - 15,87 - 19,05	60°	422/6	•
	82°	424/6	•
	90°	421/6	•

Performances
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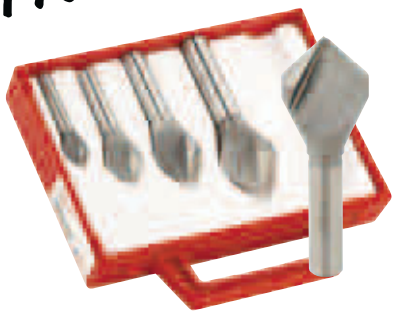
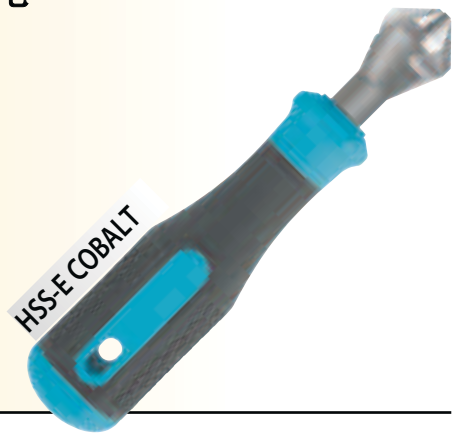
Promo-kits



TRI-DENT

HAND COUNTERSINKS
90° AVELLANADORES DE MANO
手提锪孔



90°

D	Capacity Capacidad 范围 mini ~ maxi	Weight Peso 重量	magafor 430
12,4	3 ~ 12,4	60 gr	€ •
16,5	4 ~ 16,5	65 gr	•
20,5	4 ~ 20,5	80 gr	•
25,0	5 ~ 25,0	95 gr	•
31,0	5 ~ 31,0	120 gr	•

AUTO-LOCK CHUCK
PORTA HERRAMIENTA AUTO-BLOCANTE
自鎖夾盤

UNIVERSEL

Capacity Capacidad 范围	Weight Peso 重量	magafor 4001	magafor 4002
Ø 1 - 8 mm	150 gr		€ •
Ø 2 - 13 mm	260 gr	€ •	

To hold any straight shank tool, for hand use.

Sujeción de cualquier herramienta de mango cilíndrico, paro uso manual.

持有任何直柄工具，用於手提使用。

TRI-DENT 6,35 1/4"

90° CUTTERS WITH HEXAGONAL SHANKS

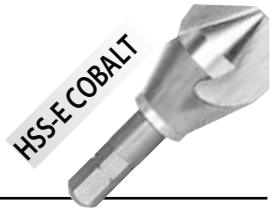
Universal use cutters:
- with pneumatic screw driver,
- with standard drilling machine,
- by hand.

FRESAS 90° CON MANGO HEXAGONAL

Fresas de utilización universal:
- En destornillador neumático,
- En taladrado convencional,
- a mano, con portaherramientas.

90°銑刀，六角形柄

普遍使用的刀具：
- 氣動螺絲刀 ，
- 標準鑽孔機，
- 手動。



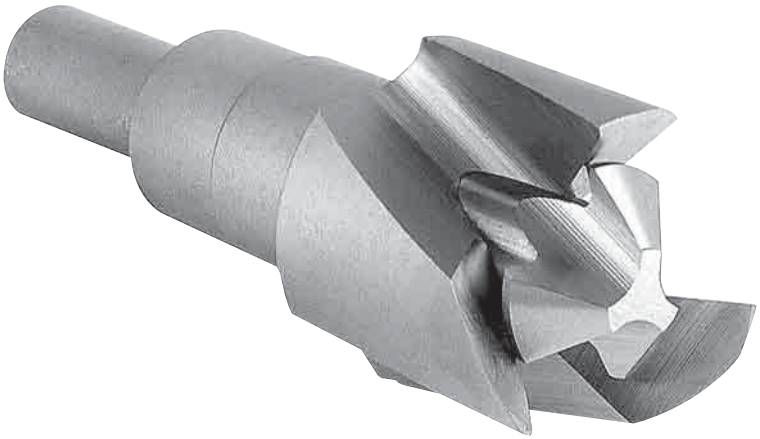
90°

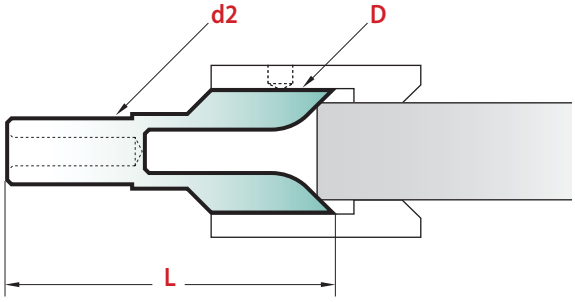
D	Capacidad Capacity 范围	L	HEXA 403
6,3	M2 - M3	50	€ •
8,3	M4	50	•
10,4	M5	50	•
12,4	M6	50	•
16,5	M8	50	•
20,5	M10	50	•
403/1	*Promo-kit* **4** pieces Ø 6,3 ~ 12,4 + **4002***	piezas 支	•
403/2	*Promo-kit* **4** pieces Ø 10,4 ~ 20,5 + **4002***	piezas 支	•

* Sets supplied with a **free** auto-lock chuck
Juego suministrado con un mandrín autoblocante **ofrecido**
带免费自锁夹头套装

Inter-Exter

DEBURRERS
AVELLANADORES
去毛刺機

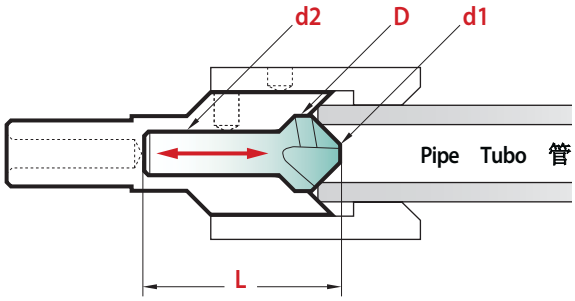




Using the exter cutter alone, to chamfer bar ends.

Utilización de la fresa sólo para chaflanar las extremidades de las barras.

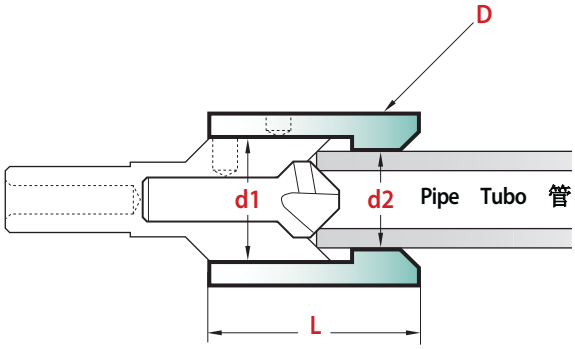
獨立使用外部刀，倒角材料兩端。



Two cutters simultaneously used, to produce inter-exter chamfers in tubes.

Son utilizadas dos fresas simultáneamente para producir chaflanes internos y externos de tubos.

兩個刀具同時使用，以產生在管間的外內部倒角。



The centering guide aids location and axial guidance on small tube with hand use.

El centrador permite posicionar en el eje pequeños tubos.

定心引導允許在軸的小管來定位的，手持的。

90° 407 Exter Externo 外部 — HSS-E COBALT

D		15	32	50
d2		12	12	16 (1)
L		50	88	135
Capacity Exter	Capacidad Externo	范围 外部	5,2 ~ 13,5	12,2 ~ 30	18 ~ 48
€			•	•	•

90° 408 Inter Interno 內部 — HSS-E COBALT

D		11	31	50
d1		2	10	20
d2		5	12	12
L		38	52	72
Capacity	Capacidad	范围			
Inter	Interno	內部	2,0 ~ 11,0	10,0 ~ 31	20 ~ 50
Exter	Externo	外部	5,2 ~ 13,5	12,2 ~ 30	18 ~ 48
€			•	•	•

409 Guide Centrador 指南

D	25	44
d1	15	32
d2 (2)	6,2	14,2
L	35	50
€	•	•

(1) 3 flatted shanks = effective holding.
Mango con 3 planos = sujeción eficaz.
可靠夾持 = 三面削平柄

(2) The user will enlarge d2 with regard to the pipe Ø and over size due to the burrs.
El operario aumentará d2 en función del Ø del tubo y de la sobremedida respecto a las rebabas exteriores.
用戶將擴大d2的關於管道直徑和過度尺寸陬生的毛刺。

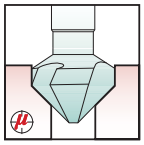
Performances

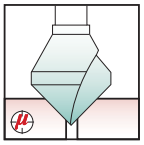
Vc = speed velocidad = m/min. 速度 = 米/分

Vf = feed avance = mm/min. 进给速度 = 毫米/分

$\frac{Vc \times 1000}{\pi \times Ø}$ = Rev. / min. 转/分
revoluciones por minuto

DEBURRING - COUNTERSINKING
DESBARBADO - AVELLANADO
去毛刺 – 倒角刀





Recommandation
Recomendación
推荐

N° 1

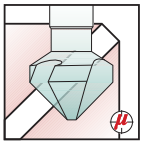
N° 2

Others
Otros 其它

MATERIAL MATERIAL 材质			HSS-Co	HSS-Co + TiN	HSS 8% Co	HSS 8% Co + Red'X	Carbide Metal duro 硬质合金	Carbide Metal duro 硬质合金 + Hard'X	HSS-Co	HSS-Co + TiN	HSS-Co	HSS-Co + TiN
Page Páginas 页			48 ~ 53		50		48 ~ 53		56 - 57		58 - 59	
Steels	Vc		17~22	17~22	35~45	35~45	40~80	40~80	35~45	35~45	35~45	35~45
Aceros	Ø 10		85	85	165	165	250	250	165	165	165	165
普通钢	Ø 20	Vf	45	45	85	85	125	125	85	85	85	85
≤ 500 N/mm²	Ø 30		30	30	55	55	85	85	55	55	55	55
Steels	Vc		10~15	10~15	20~30	20~30	30~60	30~60	20~30	20~30	20~30	20~30
Aceros	Ø 10		60	60	110	110	170	170	110	110	110	110
普通钢	Ø 20	Vf	30	30	55	55	85	85	55	55	55	55
500 ~ 800 N/mm²	Ø 30		20	20	35	35	60	60	35	35	35	35
Steels	Vc		8~12	8~12	16~20	16~20	20~40	20~40	15~20	15~20	15~20	15~20
Aceros	Ø 10		35	35	55	55	100	100	55	55	55	55
普通钢	Ø 20	Vf	25	25	35	35	60	60	35	35	35	35
800 ~ 1000 N/mm²	Ø 30		15	15	25	25	45	45	25	25	25	25
Stainless steel	Vc		6~10	6~10	12~15	12~15	20~40	20~40	12~15	12~15	12~15	12~15
Aceros Inoxidables	Ø 10		30	30	45	45	100	100	45	45	45	45
不锈钢	Ø 20	Vf	15	15	25	25	60	60	25	25	25	25
1000 ~ 1300 N/mm²	Ø 30		10	10	20	20	40	40	20	20	20	20
Abrasive tough	Vc					12~15	15~20	15~20				
steel < 420 HB	Ø 10					40	55	55				
Acero resistente a la abrasión	Ø 20	Vf				30	35	35				
耐磨钢	Ø 30					20	25	25				
Inconel, Nimonic	Vc				4~6	4~6	10~12	10~12				
Hard bronze	Ø 10				16	16	30	30				
Bronce duro	Ø 20	Vf			8	8	16	16				
铜合金	Ø 30				6	6	10	10				
Treated steel	Vc						8~10	10~12				
Acero tratado	Ø 10						20	30				
淬火钢	Ø 20	Vf					10	16				
≥ 60 HRC	Ø 30						8	10				
Cast iron	Vc		15~25	15~25	20~40	20~40	40~80	40~80	20~40	20~40	20~40	20~40
Fundición	Ø 10		70	70	125	125	250	250	125	125	125	125
铸铁	Ø 20	Vf	40	40	75	75	150	150	75	75	75	75
	Ø 30		30	30	50	50	100	100	50	50	50	50
Aluminium	Vc		35~45	35~45	50~60	50~60	40~100	40~100	50~60	50~60	50~60	50~60
Aluminio	Ø 10		200	200	255	255	350	350	255	255	255	255
铝合金	Ø 20	Vf	130	130	180	180	230	230	180	180	180	180
	Ø 30		110	110	150	150	200	200	150	150	150	150
Brass - Bronze	Vc		20~30	20~30	30~40	30~40			30~40	30~40	30~40	30~40
Latòn - Bronce	Ø 10		120	120	150	150			150	150	150	150
黄铜	Ø 20	Vf	85	85	110	110			110	110	110	110
	Ø 30		70	70	90	90			90	90	90	90
Copper	Vc		15~25	15~25	20~30	20~30	50~80	50~80	20~30	20~30	20~30	20~30
Cobre	Ø 10		95	95	120	120	300	300	120	120	120	120
紫铜	Ø 20	Vf	60	60	80	80	200	200	80	80	80	80
	Ø 30		45	45	65	65	175	175	65	65	65	65
Laminated	Vc		35~70	35~70	35~70	35~70			50~100	50~100	50~100	50~100
Laminados	Ø 10		300	300	300	300			400	400	400	400
复合材料	Ø 20	Vf	200	200	200	200			300	300	300	300
	Ø 30		150	150	150	150			250	250	250	250
Nylon - PVC	Vc		35~70	35~70	35~70	35~70			50~100	50~100	50~100	50~100
Plastics	Ø 10		400	400	400	400			450	450	450	450
Plásticos	Ø 20	Vf	300	300	300	300			350	350	350	350
塑料	Ø 30		250	250	250	250			300	300	300	300

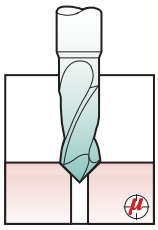
magafor, The choice! La elección! 推荐表

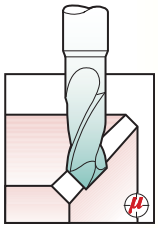
CONTOURING
CONTORNEADO
锪钻



MATERIAL MATERIAL 材质			HSS-Co	HSS-Co + TiN	HSS 8% Co	HSS 8% Co + Red'X	Carbide Metal duro 硬质合金	Carbide Metal duro 硬质合金 + Hard'X
Page Páginas 页			48 ~ 53		50		48 ~ 53	
Steels	Vc		17~22	17~22	35~45	35~45	40~80	40~80
Aceros	Ø 10		85	85	165	165	250	250
普通钢	Ø 20	Vf	45	45	85	85	125	125
≤ 500 N/mm²	Ø 30		30	30	55	55	85	85
Steels	Vc		10~15	10~15	20~30	20~30	30~60	30~60
Aceros	Ø 10		60	60	110	110	170	170
普通钢	Ø 20	Vf	30	30	55	55	85	85
500 ~ 800 N/mm²	Ø 30		20	20	35	35	60	60
Steels	Vc		8~12	8~12	16~20	16~20	20~40	20~40
Aceros	Ø 10		35	35	55	55	100	100
普通钢	Ø 20	Vf	25	25	35	35	60	60
800 ~ 1000 N/mm²	Ø 30		15	15	25	25	45	45
Stainless steel	Vc		6~10	6~10	12~15	12~15	20~40	20~40
Aceros Inoxidables	Ø 10		30	30	45	45	100	100
不锈钢	Ø 20	Vf	15	15	25	25	60	60
1000 ~ 1300 N/mm²	Ø 30		10	10	20	20	40	40
Abrasive tough	Vc					12~15	15~20	15~20
steel < 420 HB	Ø 10					40	55	55
Acero resistente a la abrasión	Ø 20	Vf				30	35	35
耐磨钢	Ø 30					20	25	25
Inconel, Nimonic	Vc				4~6	4~6	10~12	10~12
Hard bronze	Ø 10				16	16	30	30
Bronce duro	Ø 20	Vf			8	8	16	16
铜合金	Ø 30				6	6	10	10
Treated steel	Vc						8~10	10~12
Acero tratado	Ø 10						20	30
淬火钢	Ø 20	Vf					10	16
≥ 60 HRC	Ø 30						8	10
Cast iron	Vc		15~25	15~25	20~40	20~40	40~80	40~80
Fundición	Ø 10		70	70	125	125	250	250
铸铁	Ø 20	Vf	40	40	75	75	150	150
	Ø 30		30	30	50	50	100	100
Aluminium	Vc		35~45	35~45	50~60	50~60	40~100	40~100
Aluminio	Ø 10		200	200	255	255	350	350
铝合金	Ø 20	Vf	130	130	180	180	230	230
	Ø 30		110	110	150	150	200	200
Brass - Bronze	Vc		20~30	20~30	30~40	30~40		
Latòn - Bronce	Ø 10		120	120	150	150		
黄铜	Ø 20	Vf	85	85	110	110		
	Ø 30		70	70	90	90		
Copper	Vc		15~25	15~25	20~30	20~30	50~80	50~80
Cobre	Ø 10		95	95	120	120	300	300
紫铜	Ø 20	Vf	60	60	80	80	200	200
	Ø 30		45	45	65	65	175	175
Laminated	Vc		35~70	35~70	35~70	35~70		
Laminados	Ø 10		300	300	300	300		
复合材料	Ø 20	Vf	200	200	200	200		
	Ø 30		150	150	150	150		
Nylon - PVC	Vc		35~70	35~70	35~70	35~70		
Plastics	Ø 10		400	400	400	400		
Plásticos	Ø 20	Vf	300	300	300	300		
塑料	Ø 30		250	250	250	250		

OTHER SOLUTIONS
OTRAS SOLUCIONES
其他解决方案





1 MULTI-V® = 10 OPERATIONS

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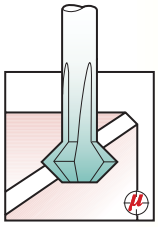

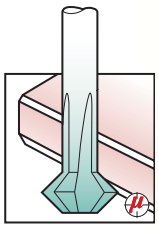

Bi face

FRONT AND BACK CHAMFERING

AVELLANADORES FRONTAL Y TRASERO

前后倒角刀

双面倒角刀

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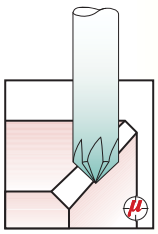

MULTI-FLUTES CONICAL CUTTERS

FRESAS CÓNICAS MULTILABIO

多刃 圓錐切割

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