

TAPS <i>Hand taps</i> <i>Machine taps</i> <i>Short machine taps</i> <i>Machine nut taps</i> <i>Fluteless taps</i> <i>Taps for wire-thread-inserts</i> <i>Combined taps</i>	GEWINDEBOHRER <i>Handgewindebohrer</i> <i>Maschinengewindebohrer</i> <i>Einschnittgewindebohrer</i> <i>Muttergewindebohrer</i> <i>Gewindeformer</i> <i>Gewindebohrer für Gewindeeinsätze</i> <i>Kombigewindebohrer</i>	МЕТЧИЦИ <i>Метчици ръчни</i> <i>Метчици машинни</i> <i>Метчици машинни къси</i> <i>Метчици гайкови</i> <i>Метчици безканални</i> <i>Метчици за резбови вложки</i> <i>Средло метчик</i>	3
DIES <i>Circular dies</i> <i>Hexagon die nuts</i> <i>Circular dies, adjustable</i>	SCHNEIDEISEN <i>Runde Schneideisen</i> <i>Sechskant-Schneidmutter</i> <i>Schneideisen, einstellbar</i>	ПЛАШКИ <i>Плашки кръгли</i> <i>Плашки шестостенни</i> <i>Плашки регулируеми</i>	137
DRILLS <i>Spiral drills</i> <i>Step drills</i> <i>Tube and sheet drills</i> <i>Drill-milling cutters</i> <i>Special drills for metal sheets</i> <i>Spiral drills for NC-machines</i> <i>Drills for wood</i>	SPIRALBOHRER <i>Spiralbohrer</i> <i>Stufenbohrer</i> <i>Blechschalbohrer</i> <i>Fräsbohrer</i> <i>Spezialbohrer für Bleche</i> <i>Spiralbohrer für NC-Maschinen</i> <i>Bohrer für Holz</i>	СВРЕДЛА <i>Свердла спирални</i> <i>Свердла стъпални</i> <i>Свердла за разширяване на отвори</i> <i>Свердла фрези</i> <i>Свердла за метални листове</i> <i>Свердла за NC машини</i> <i>Свердла за дърво</i>	187
CENTER DRILLS <i>Type A, Type B, Type R</i>	ZENTRIERBOHRER <i>Typ A, Typ B, Typ R</i>	ЦЕНТРОВИ СВРЕДЛА <i>тип А, тип В, тип R</i>	201
SINK-TOOLS <i>Countersinks</i> <i>Counterbores</i>	SENKER <i>Kegelsenker</i> <i>Flachsenker</i>	ЗЕНКЕРИ <i>Конусни зенкери</i> <i>Челни зенкери</i>	209
END MILLS <i>Keyway mill cutters</i> <i>T-slot cutters</i> <i>Dovetail cutters</i> <i>End mills, straight shank</i>	SCHAFTFRÄSER <i>Langlochfräser</i> <i>T-Nutenfräser</i> <i>Winkelfräser</i> <i>Schaftfräser</i>	ФРЕЗИ ОПАШКОВИ <i>Фрези за шпонкови канали</i> <i>Фрези за Т-канални</i> <i>Фрези ъглови</i> <i>Фрези челноцилиндрични</i>	227
MILL CUTTERS <i>Face milling cutters</i> <i>Shell end milling cutters</i> <i>Profile cutters</i> <i>Side and face milling cutters</i>	AUFSTECKFRÄSER <i>Walzenfräser</i> <i>Walzenstirnfräser</i> <i>Halbrund-Profilfräser</i> <i>Scheibenfräser</i>	ФРЕЗИ ДОРНИКОВИ <i>Фрези цилиндрични</i> <i>Фрези челноцилиндрични</i> <i>Фрези профилни</i> <i>Фрези дискови тристранни</i>	259
GEAR CUTTERS <i>Involute gear cutters</i> <i>Hob cutters</i> <i>Gear shaped cutters</i>	VERZÄHNUNGSWERKZEUGE <i>Zahnformfräser</i> <i>Wälzfräser</i> <i>Zahnstoßräder</i>	ЗЪБООБРАБОТВАЩИ ИНСТРУМЕНТИ <i>Фрези дискови модулни</i> <i>Фрези червячни</i> <i>Колела зъбодълбачни</i>	273
REAMERS	REIBAHLEN	РАЙБЕРИ	303

Taps
Gewindebohrer
Метчици



CONTENTS

INHALTSVERZEICHNIS

СЪДЪРЖАНИЕ

Taps
Gewindebohrer
Метчици

Thread Gewinde Резба	Description Beschreibung Описание	Standard Стандарт	Form Форма	Page Seite Страница	
M	Hand Taps Handgewindebohrer Метчици ръчни	Set of 3 pieces Dreiteiliger Satz Комплект от 3 броя	DIN 352		8
			DIN 2184-2		9
			DIN 352	VAP	10
			ISO 529	A, D, C	11
		Set of 3 pieces Dreiteiliger Satz Комплект от 3 броя	ISO 529		12
			JIS B 4430	A, D, C	13
	Short Machine Taps Einschnittgewindebohrer Метчици машинни къси	Spiral point Schälanschnitt Подточени канали	DIN 352	B	14
				B - AZ	15
		Helical flutes Drallgenutet Винтови канали		R35°	16
				R15°	17
	Machine Taps Maschinengewindebohrer Метчици машинни	Spiral point Schälanschnitt Подточени канали	DIN 371	A, C	18
				B	19
				B - AZ	20
				R35°	21
		Helical flutes Drallgenutet Винтови канали		R15°	22
A, C				23	
B				24	
B - AZ				25	
Machine Nut Taps Muttergewindebohrer Метчици гайкови	Spiral point Schälanschnitt Подточени канали	DIN 376	R35°	26	
			R15°	27	
			DIN 357		28
Threadforming Machine Taps Maschinengewindeformer Метчици машинни резбовалцоваци	Spiral point Schälanschnitt Подточени канали	DIN 371	D, C	29	
		DIN 376			
Machine Taps Extra Long Maschinengewindebohrer Extra Lang Метчици машинни удължени	Spiral point Schälanschnitt Подточени канали	DIN 376	B, R35°	30	
Combined Taps Kombigewindebohrer Свердело-метчици	Squared shank / mit Vierkant / Опашка с квадрат			31	
	Hexagonal shank / mit Sechskant / Опашка шестостен			32	
Machine Taps Maschinengewindebohrer Метчици машинни	Spiral point Schälanschnitt Подточени канали	ISO 529	B	33	
			B-AZ	34	
			R35°	35	
	Helical flutes Drallgenutet Винтови канали		JIS	B	36
				R35°	37

Thread Gewinde Резба		Description Beschreibung Описание	Standard Стандарт	Form Форма	Page Seite Страница	
Mf	Hand Taps Handgewindebohrer Метчици ръчни	Set of 2 pieces Zweiteiliger Satz Комплект от 2 броя	DIN 2181		38	
			DIN 2184-2		44	
			ISO 529	A, D, C	50	
			JIS B 4430	A, D, C	53	
	Machine Taps Maschinengewindebohrer Метчици машинни			DIN 374	A, C	54
			Spiral point / Schälanschnitt Подточени канали	DIN 374	B	57
		Helical flutes / Drallgenutet Винтови канали	R35°		60	
		Spiral point Schälanschnitt Подточени канали	ISO 529	B	64	
			JIS		67	
		Helical flutes / Drallgenutet Винтови канали		R39°	68	
UNC	Hand Taps Handgewindebohrer Метчици ръчни	Set of 3 pieces / Dreiteiliger Satz Комплект от 3 броя	≈ DIN352		69	
			ISO 529	A, D, C	70	
		JIS	A, D, C	71		
	Machine Taps Maschinengewindebohrer Метчици машинни	Spiral point / Schälanschnitt Подточени канали	≈ DIN371	B	72	
			≈ DIN376		73	
		Helical flutes / Drallgenutet Винтови канали	≈ DIN371	R35°	74	
			≈ DIN376		75	
UNF	Hand Taps Handgewindebohrer Метчици ръчни	Set of 2 pieces / Zweiteiliger Satz Комплект от 2 броя	≈ DIN2181		76	
			ISO 529	A, D, C	77	
		JIS	A, D, C	78		
	Machine Taps Maschinengewindebohrer Метчици машинни	Spiral point / Schälanschnitt Подточени канали	≈ DIN371	B	79	
			≈ DIN374			
		Helical flutes / Drallgenutet Винтови канали	≈ DIN371	R35°	80	
			≈ DIN374			
8-UN	Hand Taps Handgewindebohrer Метчици ръчни		ISO 529	A, D, C	81	
	Machine Taps Maschinengewindebohrer Метчици машинни	Spiral point Schälanschnitt Подточени канали	ISO 529	B	82	
		Set of 3 pieces / Dreiteiliger Satz Комплект от 3 броя	≈ DIN352		83	
			ISO 529	A, D, C	84	
BSW (W)	Hand Taps Handgewindebohrer Метчици ръчни		JIS	A, D, C	85	
		Spiral point / Schälanschnitt Подточени канали	≈ DIN371	B	86	
			≈ DIN376			
	Machine Taps Maschinengewindebohrer Метчици машинни	Helical flutes / Drallgenutet Винтови канали	≈ DIN371	R35°	87	
			≈ DIN376			
	Spiral point / Schälanschnitt Подточени канали	JIS	B	88		
			Helical flutes / Drallgenutet Винтови канали	R39°	89	
	Combined Taps Kombigewindebohrer Свредло-метчици	Squared shank / mit Vierkant / Опашка с квадрат				90
	BSF	Hand Taps Handgewindebohrer Метчици ръчни	Set of 2 pieces / Zweiteiliger Satz Комплект от 2 броя	≈ DIN2181		91
ISO 529				A, D, C	92	

Thread Gewinde Резба		Description Beschreibung Описание	Standard Стандарт	Form Форма	Page Seite Страница	
G (BSPF)	Hand Taps Handgewindebohrer Метчици ръчни	Set of 2 pieces Zweiteiliger Satz Комплект от 2 броя	DIN 5157		93	
			ISO 2284	A, D, C	94	
	Machine Taps Maschinengewindebohrer Метчици машинни			DIN 5156	C	95
		Spiral point / Schälanschnitt Подточени канали			B	96
		Helical flutes / Drallgenutet Винтови канали		R35°	97	
		Spiral point / Schälanschnitt Подточени канали	ISO 2284	B	98	
Helical flutes / Drallgenutet Винтови канали	R35°	99				
PF (G)	Machine Taps Maschinengewindebohrer Метчици машинни		JIS B 4445	C	100	
		Spiral point / Schälanschnitt Подточени канали		B	101	
		Helical flutes / Drallgenutet Винтови канали		R39°	102	
PS (Rp)	Machine Taps Maschinengewindebohrer Метчици машинни		JIS B 4446	C	103	
		Helical flutes / Drallgenutet Винтови канали		R39°	104	
Rc (BSPT)	Taps Gewindebohrer Метчици		ISO 2284	A, D, C	105	
NPS	Machine Taps Maschinengewindebohrer Метчици машинни		JIS	C	106	
		Helical flutes / Drallgenutet Винтови канали		R39°	107	
NPT	Machine Taps Maschinengewindebohrer Метчици машинни		DIN	C	108	
			ISO 2284		109	
					110	
		Spiral point / Schälanschnitt Подточени канали	JIS	B	111	
		Helical flutes / Drallgenutet Винтови канали		R39°	112	
NPTF	Machine Taps Maschinengewindebohrer Метчици машинни	Helical flutes Drallgenutet Винтови канали	JIS	R39°	113	
PT	Machine Taps Maschinengewindebohrer Метчици машинни		JIS B 4446	C	114	
		Spiral point / Schälanschnitt Подточени канали		B	115	
		Helical flutes / Drallgenutet Винтови канали		R39°	116	
Tr	Hand Taps Handgewindebohrer Метчици ръчни	Set of 3 pieces Dreiteiliger Satz Комплект от 3 броя			117	
	Machine Taps Maschinengewindebohrer Метчици машинни				118	
PG	Hand Taps Handgewindebohrer Метчици ръчни	Set of 2 pieces Zweiteiliger Satz Комплект от 2 броя	DIN 40432		119	
	Short Machine Taps Einschnittgewindebohrer Метчици машинни къси			D	120	
BA	Hand Taps Handgewindebohrer Метчици ръчни		ISO 529	A, D, C	121	

Thread Gewinde Резба	Description Beschreibung Описание	Standard Стандарт	Form Форма	Page Seite Страница
M	Short Machine Taps for Wire Thread Inserts Einschnittgewindebohrer für Gewindeeinsätze Метчици машинни къси за резбови вложки	ISO 529	A, D, C	123
BSW				124
BSF				125
UNC				126
UNF				127
M			B	128
			R35°	129
Extensions for Taps Verlängerer für Gewindebohrer Удължители за метчици		DIN 377		130
Technical information Technische information Техническа информация				131



Our instruments are made of the following high speed steels:

- HSS (1.3343, S6 - 5 - 2 DIN)
- HSSE - Co 5% (1.3243, S6 - 5 - 2 - 5 DIN)
- PM 30 - Co 8% (HS 6 - 5 - 3 - 8 DIN)

In this catalogue taps implementation is shown only with a right-hand (normal) thread. The instruments can be produced with a left-hand thread too (designation LH).

Way of ordering of left-hand taps, made of HSSE:

Machine Taps 2602 M3 LH HSSE

COATING

- * **TiN** - Titanium nitride - Increases the surface microhardness of the tool up to 2300 HV. Stands working temperature up to 600°C.
- * **TiAlN** - Titanium aluminium nitride - Increases the surface microhardness of the tool up to 3300 HV. Stands working temperature up to 900°C.
- * **TiCN** - Titanium carbonitride - Increases the surface microhardness of the tool up to 3000 HV. Stands working temperature up to 400°C.
- * **VAP** - Vaporization - Improves the adhesion. Keeps more of the cooling liquid on the tool's surface.



Unsere Werkzeuge werden aus folgenden Schnellbearbeitungsstahlarten gefertigt:

- HSS (1.3343, S6 - 5 - 2 DIN)
- HSSE - Co 5% (1.3243, S6 - 5 - 2 - 5 DIN)
- PM 30 - Co 8% (HS 6 - 5 - 3 - 8 DIN)

Im Katalog für Gewindebohrer werden diese Werkzeuge nur mit Rechtsgewinde angegeben. Die Werkzeuge können auch mit Linksgewinde ausgeführt werden (Kennzeichnung LH).

Bestellbeispiel für Gewindebohrer mit Linksgewinde, aus HSSE:

Maschinengewindebohrer 2602 M3 LH HSSE

BESCHICHTUNGEN

- * **TiN** - Titan-Nitrid - Erhöht die Mikrohärtigkeit an der Werkzeuoberfläche bis 2 300 HV. Hält eine Arbeitstemperatur bis zu 600°C aus.
- * **TiAlN** - Titan-Aluminium-Nitrid - Erhöht die Mikrohärtigkeit an der Werkzeuoberfläche bis 3 300 HV. Hält eine Arbeitstemperatur bis zu 900°C aus.
- * **TiCN** - Titan-Carbo-Nitrid - Erhöht die Mikrohärtigkeit an der Werkzeuoberfläche bis 3 000 HV. Hält eine Arbeitstemperatur bis zu 400°C aus.
- * **VAP** - Wärmebehandlung mit Wasserdampf - Verbessert die Adhäsion, hält mehr Kühl-und-Schmiermittel an der Werkzeuoberfläche an.



Нашите инструменти се изработват от следните бързорезни стомани:

- HSS (1.3343, S6 - 5 - 2 DIN)
- HSSE - Co 5% (1.3243, S6 - 5 - 2 - 5 DIN)
- PM 30 - Co 8% (HS 6 - 5 - 3 - 8 DIN)

В каталога е показано изпълнението на инструментите само с дясна (нормална) резба. Има възможност те да бъдат изработени и с лява резба (символично означение LH).

Начин на заявяване на метчици с лява резба, произведени от HSSE:

Метчици машинни 2602 M3 LH HSSE

ПОКРИТИЯ

- * **TiN** - Титан нитрид - Повишава повърхностната микротвърдост на инструмента до 2300 HV. Издържа работна температура до 600°C.
- * **TiAlN** - Титан алум. нитрид - Повишава повърхностната микротвърдост на инструмента до 3300 HV. Издържа работна температура до 900°C.
- * **TiCN** - Титан карбонитрид - Повишава повърхностната микротвърдост на инструмента до 3000 HV. Издържа работна температура до 400°C.
- * **VAP** - Термообработка с водна пара - Подобрява адхезията. Задържа повече смазочно-охлаждаща течност по повърхността на инструмента.

Hand Taps

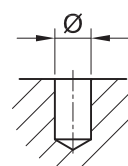
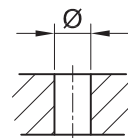
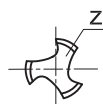
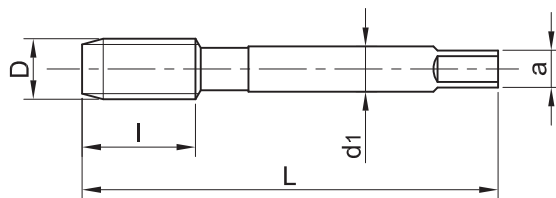
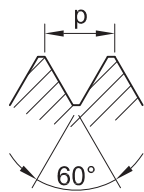
Set of 3 pieces for ISO metric thread according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Handgewindebohrer

Dreiteiliger Satz für metrisches ISO-Regelgewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Метчици ръчни

Комплект от 3 броя за метрична ISO резба по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба



M DIN 352

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 110*..
M2	0.4	36	8	2.8	2.1	3	1.6	110M2
M2.2	0.45	36	9	2.8	2.1	3	1.75	110M2.2
M2.3	0.4	36	9	2.8	2.1	3	1.9	110M2.3
M2.5	0.45	40	9	2.8	2.1	3	2.05	110M2.5
M2.6	0.45	40	9	2.8	2.1	3	2.15	110M2.6
M3	0.5	40	11	3.5	2.7	3	2.5	110M3
M3.5	0.6	45	13	4.0	3.0	3	2.9	110M3.5
M4	0.7	45	13	4.5	3.4	3	3.3	110M4
M4.5	0.75	50	16	6.0	4.9	3	3.7	110M4.5
M5	0.8	50	16	6.0	4.9	3	4.2	110M5
M5.5	0.9	50	18	6.0	4.9	3	4.7	110M5.5
M6	1.0	50	19	6.0	4.9	3	5.0	110M6
M7	1.0	50	19	6.0	4.9	3	6.0	110M7
M8	1.25	56	22	6.0	4.9	4	6.8	110M8
M9	1.25	63	22	7.0	5.5	4	7.8	110M9
M10	1.5	70	24	7.0	5.5	4	8.5	110M10
M11	1.5	70	24	8.0	6.2	4	9.5	110M11
M12	1.75	75	29	9.0	7.0	4	10.2	110M12
M13	1.75	75	29	9.0	7.0	4	11.2	110M13
M14	2.0	80	30	11.0	9.0	4	12.0	110M14
M16	2.0	80	32	12.0	9.0	4	14.0	110M16
M18	2.5	95	40	14.0	11.0	4	15.5	110M18
M19	2.5	95	40	14.0	11.0	4	16.5	110M19
M20	2.5	95	40	16.0	12.0	4	17.5	110M20
M22	2.5	100	40	18.0	14.5	4	19.5	110M22
M24	3.0	110	50	18.0	14.5	4	21.0	110M24
M27	3.0	110	50	20.0	16.0	4	24.0	110M27
M30	3.5	125	56	22.0	18.0	4	26.5	110M30
M33	3.5	125	56	25.0	20.0	4	29.5	110M33
M36	4.0	150	63	28.0	22.0	4	32.0	110M36
M39	4.0	150	63	32.0	24.0	4	35.0	110M39
M42	4.5	150	63	32.0	24.0	4	37.5	110M42
M45	4.5	160	70	36.0	29.0	6	40.5	110M45
M48	5.0	180	75	36.0	29.0	6	43.0	110M48
M52	5.0	180	75	40.0	32.0	6	47.0	110M52
M56	5.5	200	85	45.0	35.0	6	50.5	110M56
M60	5.5	200	85	45.0	35.0	6	54.5	110M60
M64	6.0	220	90	50.0	39.0	6	58.0	110M64
M68	6.0	220	90	50.0	39.0	6	62.0	110M68

Ordering example: Hand taps 110M2 HSS - for 1 set /I, II, III/
Bestellbeispiel: Handgewindebohrer 110M2 HSS - für 1 Satz /I, II, III/
Начин на заявяване: Метчици ръчни 110M2 HSS - за 1 комплект /I, II, III/

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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Hand Taps

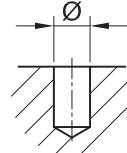
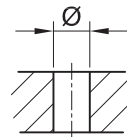
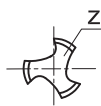
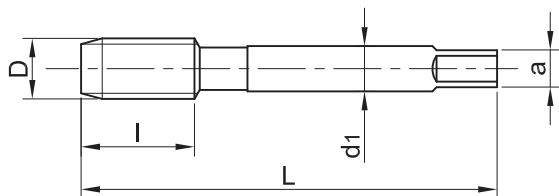
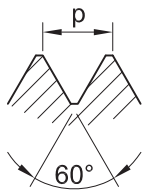
Set of 3 pieces for ISO metric thread according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Handgewindebohrer

Dreiteiliger Satz für metrisches ISO-Regelgewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Метчици ръчни

Комплект от 3 броя за метрична ISO резба по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба



M DIN 2184-2

d	p mm	L mm	I mm	d1 mm	a mm	z	Ø	Art. No. 110*.. 160*..
M2	0.4	36	8	2.8	2.1	3	1.6	110M2
M2.2	0.45	36	9	2.8	2.1	3	1.75	110M2.2
M2.3	0.4	36	9	2.8	2.1	3	1.9	110M2.3
M2.5	0.45	40	9	2.8	2.1	3	2.05	110M2.5
M2.6	0.45	40	9	2.8	2.1	3	2.15	110M2.6
M3	0.5	40	11	3.5	2.7	3	2.5	110M3
M3.5	0.6	45	12	4.0	3.0	3	2.9	160M3.5
M4	0.7	45	13	4.5	3.4	3	3.3	110M4
M4.5	0.75	50	16	6.0	4.9	3	3.7	110M4.5
M5	0.8	50	16	6.0	4.9	3	4.2	110M5
M5.5	0.9	56	17	6.0	4.9	3	4.7	160M5.5
M6	1.0	56	19	6.0	4.9	3	5.0	160M6
M7	1.0	56	19	6.0	4.9	3	6.0	160M7
M8	1.25	63	22	6.0	4.9	4	6.8	160M8
M9	1.25	63	22	7.0	5.5	4	7.8	110M9
M10	1.5	70	24	7.0	5.5	4	8.5	110M10
M11	1.5	70	24	8.0	6.2	4	9.5	110M11
M12	1.75	75	28	9.0	7.0	4	10.2	160M12
M13	1.75	80	30	9.0	7.0	4	11.2	160M13
M14	2.0	80	30	11.0	9.0	4	12.0	110M14
M16	2.0	80	32	12.0	9.0	4	14.0	110M16
M18	2.5	95	34	14.0	11.0	4	15.5	160M18
M19	2.5	95	34	14.0	11.0	4	16.5	160M19
M20	2.5	95	34	16.0	12.0	4	17.5	160M20
M22	2.5	100	34	18.0	14.5	4	19.5	160M22
M24	3.0	110	38	18.0	14.5	4	21.0	160M24
M27	3.0	110	38	20.0	16.0	4	24.0	160M27
M30	3.5	125	45	22.0	18.0	4	26.5	160M30
M33	3.5	125	50	25.0	20.0	4	29.5	160M33
M36	4.0	150	56	28.0	22.0	4	32.0	160M36
M39	4.0	150	60	32.0	24.0	4	35.0	160M39
M42	4.5	150	60	32.0	24.0	4	37.5	160M42
M45	4.5	160	65	36.0	29.0	6	40.5	160M45
M48	5.0	180	70	36.0	29.0	6	43.0	160M48
M52	5.0	180	70	40.0	32.0	6	47.0	160M52
M56	5.5	180	70	40.0	32.0	6	50.5	160M56
M60	5.5	200	75	45.0	35.0	6	54.5	160M60
M64	6.0	220	80	50.0	39.0	6	58.0	160M64
M68	6.0	220	80	50.0	39.0	6	62.0	160M68

Ordering example: Hand taps 110M2 HSS - for 1 set /I, II, III/
Bestellbeispiel: Handgewindebohrer 110M2 HSS - für 1 Satz /I, II, III/
Начин на заявяване: Метчици ръчни 110M2 HSS - за 1 комплект /I, II, III/

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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Hand Taps

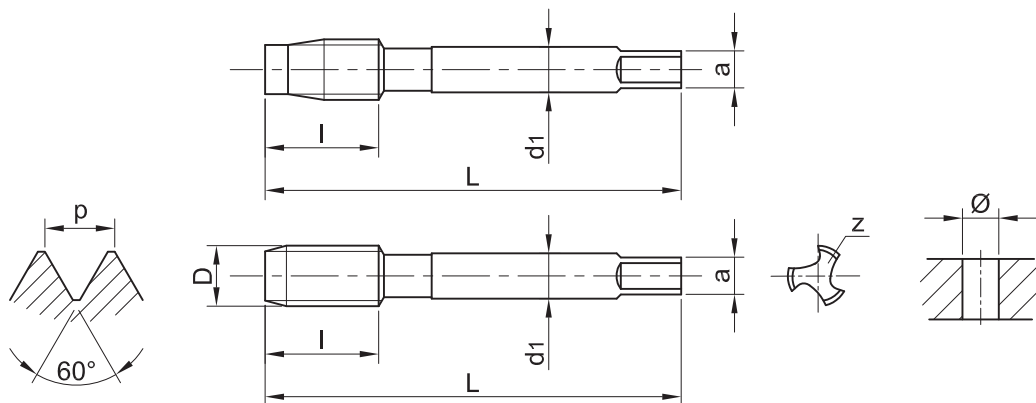
Set of 3 pieces for ISO metric thread according to DIN 13
Grade of fit: ISO 2 (6H)
Taper tap piloted
VAP - for stainless steel
Ground thread

Handgewindebohrer

Dreiteiliger Satz für metrisches ISO-Regelgewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Vorschneider mit Führungzapfen
VAP für rostfreie Stähle
Geschliffenes Gewinde

Метчици ръчни

Комплект от 3 броя за метрична ISO резба по DIN 13
Клас на точност: ISO 2 (6H)
Първи метчик с водач
VAP - за неръждаема стомана
Шлифована резба



M DIN 352

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 1109*..
M3	0.5	40	11	3.5	2.7	3	2.5	1109M3
M4	0.7	45	13	4.5	3.4	3	3.3	1109M4
M5	0.8	50	16	6.0	4.9	3	4.2	1109M5
M6	1.0	50	19	6.0	4.9	3	5.0	1109M6
M8	1.25	56	22	6.0	4.9	3	6.8	1109M8
M10	1.5	70	24	7.0	5.5	3	8.5	1109M10
M12	1.75	75	29	9.0	7.0	4	10.2	1109M12
M14	2.0	80	30	11.0	9.0	4	12.0	1109M14
M16	2.0	80	32	12.0	9.0	4	14.0	1109M16
M18	2.5	95	40	14.0	11.0	4	15.5	1109M18
M20	2.5	95	40	16.0	12.0	4	17.5	1109M20

Ordering example: Hand taps 1109M3 HSS - for 1 set /I, II, III/
Bestellbeispiel: Handgewindebohrer 1109M3 HSS - für 1 Satz /I, II, III/
Начин на заявяване: Метчици ръчни 1109M3 HSS - за 1 комплект /I, II, III/

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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Hand Taps

for ISO metric thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Form A 6-8 threads chamfered

Form D 4-5 threads chamfered

Form C 2-3 threads chamfered

Handgewindebohrer

für metrisches ISO-Regelgewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Form A 6-8 Gang Anschnitt

Form D 4-5 Gang Anschnitt

Form C 2-3 Gang Anschnitt

Метчици ръчни

за метрична ISO резба
по DIN 13

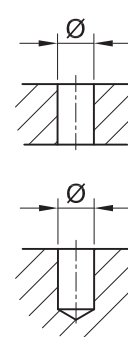
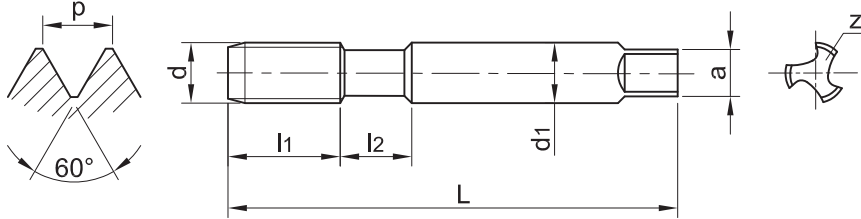
Клас на точност: ISO 2 (6H)

Шлифована резба

Форма А 6-8 навивки конус

Форма D 4-5 навивки конус

Форма С 2-3 навивки конус



M ISO 529

d	p mm	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. A 3101*.. Art. No. D 3104*.. Art. No. C 3103*..
M2	0.4	41	8		2.5	2.0	3	1.6	..*M2
M2.2	0.45	44.5	9.5		2.8	2.24	3	1.75	..*M2.2
M2.5	0.45	44.5	9.5		2.8	2.24	3	2.05	..*M2.5
M2.6	0.45	44.5	9.5		2.8	2.24	3	2.15	..*M2.6
M3	0.5	48	11	7	3.15	2.5	3	2.5	..*M3
M3.5	0.6	50	13	7	3.55	2.8	3	2.9	..*M3.5
M4	0.7	53	13	8	4.0	3.15	3	3.3	..*M4
M4.5	0.75	53	13	8	4.5	3.55	3	3.7	..*M4.5
M5	0.8	58	16	9	5.0	4.0	3	4.2	..*M5
M6	1.0	66	19	11	6.3	5.0	3	5.0	..*M6
M7	1.0	66	19	11	7.1	5.6	4	6.0	..*M7
M8	1.25	72	22	13	8.0	6.3	4	6.8	..*M8
M9	1.25	72	22	14	9.0	7.1	4	7.8	..*M9
M10	1.5	80	24	15	10.0	8.0	4	8.5	..*M10
M11	1.5	85	25		8.0	6.3	4	9.5	..*M11
M12	1.75	89	29		9.0	7.1	4	10.2	..*M12
M14	2.0	95	30		11.2	9.0	4	12.0	..*M14
M16	2.0	102	32		12.5	10.0	4	14.0	..*M16
M18	2.5	112	37		14.0	11.2	4	15.5	..*M18
M20	2.5	112	37		14.0	11.2	4	17.5	..*M20
M22	2.5	118	38		16.0	12.5	4	19.5	..*M22
M24	3.0	130	45		18.0	14.0	4	21.0	..*M24
M27	3.0	135	45		20.0	16.0	4	24.0	..*M27
M30	3.5	138	48		20.0	16.0	4	26.5	..*M30
M33	3.5	151	51		22.4	18.0	4	29.5	..*M33
M36	4.0	162	57		25.0	20.0	4	32.0	..*M36
M39	4.0	170	60		28.0	22.4	6	35.0	..*M39
M42	4.5	170	60		28.0	22.4	6	37.5	..*M42
M45	4.5	187	67		31.5	25.0	6	40.5	..*M45
M48	5.0	187	67		31.5	25.0	6	43.0	..*M48
M52	5.0	200	70		35.5	28.0	6	47.0	..*M52
M56	5.5	200	70		35.5	28.0	6	50.5	..*M56
M60	5.5	221	76		40.0	31.5	6	54.5	..*M60
M64	6.0	224	79		40.0	31.5	6	58.0	..*M64
M68	6.0	234	79		45.0	35.5	6	62.0	..*M68

Ordering example: Hand taps 3101M2 HSS
Bestellbeispiel: Handgewindebohrer 3101M2 HSS
Начин на заявяване: Метчици ръчни 3101M2 HSS

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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Hand Taps

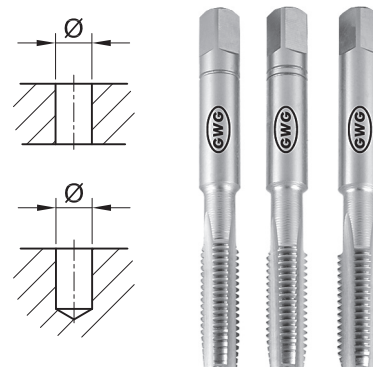
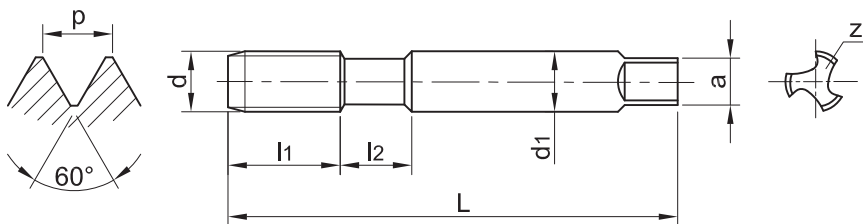
Set of 3 or 2 pieces
for ISO metric thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Handgewindebohrer

Satz à 3 oder 2 Stück
für metrisches ISO-Regelgewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Метчици ръчни

Комплект от 3, или 2 броя
за метрична ISO резба
по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба



M ISO 529

d	p mm	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. 313*..
									(I, II, III)
									Art. No.312*..
									(I, III)
M2	0.4	41	8		2.5	2.0	3	1.6	..*M2
M2.2	0.45	44.5	9.5		2.8	2.24	3	1.75	..*M2.2
M2.5	0.45	44.5	9.5		2.8	2.24	3	2.05	..*M2.5
M2.6	0.45	44.5	9.5		2.8	2.24	3	2.15	..*M2.6
M3	0.5	48	11	7	3.15	2.5	3	2.5	..*M3
M3.5	0.6	50	13	7	3.55	2.8	3	2.9	..*M3.5
M4	0.7	53	13	8	4.0	3.15	3	3.3	..*M4
M4.5	0.75	53	13	8	4.5	3.55	3	3.7	..*M4.5
M5	0.8	58	16	9	5.0	4.0	3	4.2	..*M5
M6	1.0	66	19	11	6.3	5.0	3	5.0	..*M6
M7	1.0	66	19	11	7.1	5.6	4	6.0	..*M7
M8	1.25	72	22	13	8.0	6.3	4	6.8	..*M8
M9	1.25	72	22	14	9.0	7.1	4	7.8	..*M9
M10	1.5	80	24	15	10.0	8.0	4	8.5	..*M10
M11	1.5	85	25		8.0	6.3	4	9.5	..*M11
M12	1.75	89	29		9.0	7.1	4	10.2	..*M12
M14	2.0	95	30		11.2	9.0	4	12.0	..*M14
M16	2.0	102	32		12.5	10.0	4	14.0	..*M16
M18	2.5	112	37		14.0	11.2	4	15.5	..*M18
M20	2.5	112	37		14.0	11.2	4	17.5	..*M20
M22	2.5	118	38		16.0	12.5	4	19.5	..*M22
M24	3.0	130	45		18.0	14.0	4	21.0	..*M24
M27	3.0	135	45		20.0	16.0	4	24.0	..*M27
M30	3.5	138	48		20.0	16.0	4	26.5	..*M30
M33	3.5	151	51		22.4	18.0	4	29.5	..*M33
M36	4.0	162	57		25.0	20.0	4	32.0	..*M36
M39	4.0	170	60		28.0	22.4	6	35.0	..*M39
M42	4.5	170	60		28.0	22.4	6	37.5	..*M42
M45	4.5	187	67		31.5	25.0	6	40.5	..*M45
M48	5.0	187	67		31.5	25.0	6	43.0	..*M48
M52	5.0	200	70		35.5	28.0	6	47.0	..*M52
M56	5.5	200	70		35.5	28.0	6	50.5	..*M56
M60	5.5	221	76		40.0	31.5	6	54.5	..*M60
M64	6.0	224	79		40.0	31.5	6	58.0	..*M64
M68	6.0	234	79		45.0	35.5	6	62.0	..*M68

Ordering example: Hand taps 313M2 HSS - for 1 set /I, II, III/
Bestellbeispiel: Handgewindebohrer 313M2 HSS - für 1 Satz /I, II, III/
Начин на заявяване: Метчици ръчни 313M2 HSS - за 1 комплект /I, II, III/

Hand Taps

for ISO metric thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Form A 6-8 threads chamfered
Form D 4-5 threads chamfered
Form C 2-3 threads chamfered

Handgewindebohrer

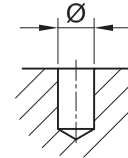
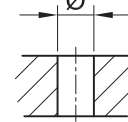
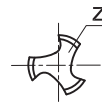
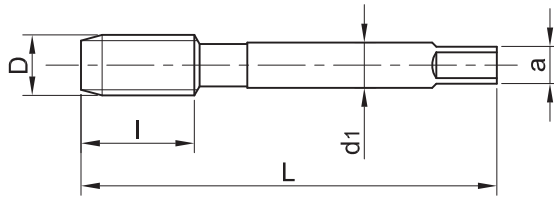
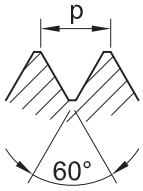
für metrisches ISO-Regelgewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Form A 6-8 Gang Anschnitt
Form D 4-5 Gang Anschnitt
Form C 2-3 Gang Anschnitt

Метчици ръчни

за метрична ISO резба
по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба

Форма А 6-8 навивки конус
Форма D 4-5 навивки конус
Форма С 2-3 навивки конус



M JIS B 4430

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. A 4101*.. Art. No. D 4104*.. Art. No. C 4103*..
M2	0.4	40	15	3.0	2.5	3	1.6	..*M2x0.4
M2.3	0.4	42	15	3.0	2.5	3	1.9	..*M2.3x0.4
M2.5	0.45	44	16	3.0	2.5	3	2.05	..*M2.5x0.45
M2.6	0.45	44	16	3.0	2.5	3	2.15	..*M2.6x0.45
M3	0.5	46	18	4.0	3.2	3	2.5	..*M3x0.5
M3.5	0.6	48	18	4.0	3.2	3	2.9	..*M3.5x0.6
M4	0.7	52	20	5.0	4.0	3	3.3	..*M4x0.7
M4.5	0.75	55	20	5.0	4.0	3	3.7	..*M4.5x0.75
M5	0.8	60	22	5.5	4.5	3	4.2	..*M5x0.8
M6	1.0	62	24	6.0	4.5	3	5.0	..*M6x1
M7	1.0	65	26	6.2	5.0	4	6.0	..*M7x1
M8	1.25	70	30	6.2	5.0	4	6.8	..*M8x1.25
M10	1.5	75	32	7.0	5.5	4	8.5	..*M10x1.5
M12	1.75	82	38	8.5	6.5	4	10.2	..*M12x1.75
M14	2.0	88	42	10.5	8.0	4	12.0	..*M14x2
M16	2.0	95	45	12.5	10.0	4	14.0	..*M16x2
M18	2.5	100	48	14.0	11.0	4	15.5	..*M18x2.5
M20	2.5	105	50	15.0	12.0	4	17.5	..*M20x2.5
M22	2.5	115	55	17.0	13.0	4	19.5	..*M22x2.5
M24	3.0	120	58	19.0	15.0	4	21.0	..*M24x3
M27	3.0	130	62	20.0	15.0	4	24.0	..*M27x3
M30	3.5	135	65	23.0	17.0	4	26.5	..*M30x3.5

Ordering example: Hand taps 4101M2x0.4 HSS
Bestellbeispiel: Handgewindebohrer 4101M2x0.4 HSS
Начин на заявяване: Метчици ръчни 4101M2x0.4 HSS

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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Short Machine Taps

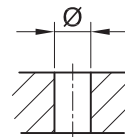
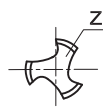
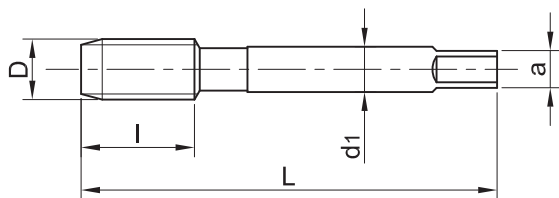
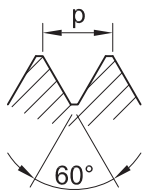
with spiral point for ISO metric thread according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread
Form B 4-5 threads chamfered

Einschnittgewindebohrer

mit Schälanschnitt für metrisches ISO-Regelgewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни къси

с подточени канали за метрична ISO резба по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба
Форма В 4-5 навивки конус



M DIN 352 B

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2602*..
M3	0.5	40	11	3.5	2.7	3	2.5	2602M3
M3.5	0.6	45	13	4.0	3.0	3	2.9	2602M3.5
M4	0.7	45	13	4.5	3.4	3	3.3	2602M4
M4.5	0.75	48	16	6.0	4.9	3	3.7	2602M4.5
M5	0.8	48	16	6.0	4.9	3	4.2	2602M5
M6	1.0	50	19	6.0	4.9	3	5.0	2602M6
M7	1.0	50	19	6.0	4.9	3	6.0	2602M7
M8	1.25	56	22	6.0	4.9	3	6.8	2602M8
M9	1.25	63	22	7.0	5.5	3	7.8	2602M9
M10	1.5	70	24	7.0	5.5	3	8.5	2602M10
M11	1.5	70	24	8.0	6.2	3	9.5	2602M11
M12	1.75	75	29	9.0	7.0	3	10.2	2602M12
M14	2.0	80	30	11.0	9.0	3	12.0	2602M14
M16	2.0	80	32	12.0	9.0	3	14.0	2602M16
M18	2.5	95	40	14.0	11.0	4	15.5	2602M18
M20	2.5	95	40	16.0	12.0	4	17.5	2602M20
M22	2.5	100	40	18.0	14.5	4	19.5	2602M22
M24	3.0	110	50	18.0	14.5	4	21.0	2602M24

Ordering example: Short machine taps 2602M3 HSSE
Bestellbeispiel: Einschnittgewindebohrer 2602M3 HSSE
Начин на заявяване: Метчици машинни къси 2602M3 HSSE

Short Machine Taps

with spiral point and interrupted thread for ISO metric thread according to DIN 13

Grade of fit: ISO 2 (6H)

Ground thread

Form B-AZ 4-5 threads chamfered

Einschnittgewindebohrer

mit Schälanschnitt und ausgesetzten Zähnen für metrisches ISO-Regelgewinde nach DIN 13

Toleranzfeld: ISO 2 (6H)

Geschliffenes Gewinde

Form B-AZ 4-5 Gang Anschnitt

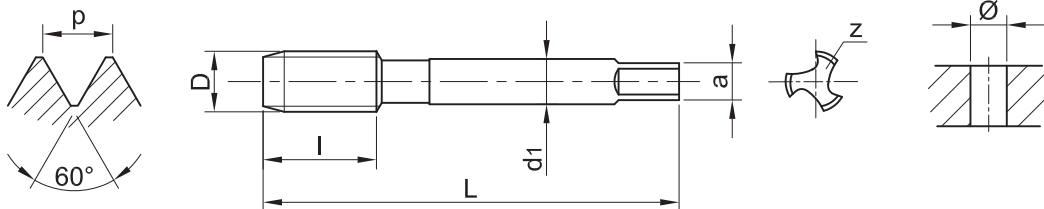
Метчици машинни къси

с подточени канали и разредени зъби за метрична ISO резба по DIN 13

Клас на точност: ISO 2 (6H)

Шлифована резба

Форма B-AZ 4-5 навивки конус



M DIN 352 B-AZ

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2608*..
M3	0.5	40	11	3.5	2.7	3	2.5	2608M3
M3.5	0.6	45	13	4.0	3.0	3	2.9	2608M3.5
M4	0.7	45	13	4.5	3.4	3	3.3	2608M4
M4.5	0.75	48	16	6.0	4.9	3	3.7	2608M4.5
M5	0.8	48	16	6.0	4.9	3	4.2	2608M5
M6	1.0	50	19	6.0	4.9	3	5.0	2608M6
M7	1.0	50	19	6.0	4.9	3	6.0	2608M7
M8	1.25	56	22	6.0	4.9	3	6.8	2608M8
M9	1.25	63	22	7.0	5.5	3	7.8	2608M9
M10	1.5	70	24	7.0	5.5	3	8.5	2608M10
M11	1.5	70	24	8.0	6.2	3	9.5	2608M11
M12	1.75	75	29	9.0	7.0	3	10.2	2608M12
M14	2.0	80	30	11.0	9.0	3	12.0	2608M14
M16	2.0	80	32	12.0	9.0	3	14.0	2608M16
M18	2.5	95	40	14.0	11.0	3	15.5	2608M18
M20	2.5	95	40	16.0	12.0	3	17.5	2608M20
M22	2.5	100	40	18.0	14.5	3	19.5	2608M22
M24	3.0	110	50	18.0	14.5	3	21.0	2608M24

Ordering example: Short machine taps 2608M3 HSSE
 Bestellbeispiel: Einschnittgewindebohrer 2608M3 HSSE
 Начин на заявяване: Метчици машинни къси 2608M3 HSSE

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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Short Machine Taps

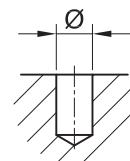
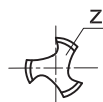
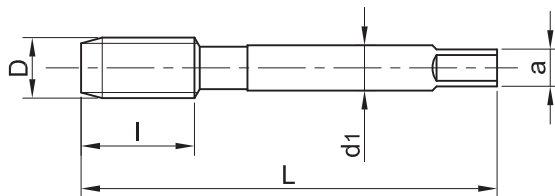
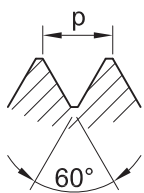
with helical flutes R35° for ISO
metric thread according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread
Form C 2-3 threads chamfered

Einschnittgewindebohrer

drallgenutet R35° für metrisches
ISO-Regelgewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde
Form C 2-3 Gang Anschnitt

Метчици машинни къси

с винтови канали R35° за
метрична ISO резба по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба
Форма С 2-3 навивки конус



M DIN 352 R35°

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2606*..
M3	0.5	40	11	3.5	2.7	3	2.5	2606M3
M3.5	0.6	45	13	4.0	3.0	3	2.9	2606M3.5
M4	0.7	45	13	4.5	3.4	3	3.3	2606M4
M4.5	0.75	48	16	6.0	4.9	3	3.7	2606M4.5
M5	0.8	48	16	6.0	4.9	3	4.2	2606M5
M6	1.0	50	19	6.0	4.9	3	5.0	2606M6
M7	1.0	50	19	6.0	4.9	3	6.0	2606M7
M8	1.25	56	22	6.0	4.9	3	6.8	2606M8
M9	1.25	63	22	7.0	5.5	3	7.8	2606M9
M10	1.5	70	24	7.0	5.5	3	8.5	2606M10
M11	1.5	70	24	8.0	6.2	3	9.5	2606M11
M12	1.75	75	29	9.0	7.0	3	10.2	2606M12
M14	2.0	80	30	11.0	9.0	3	12.0	2606M14
M16	2.0	80	32	12.0	9.0	3	14.0	2606M16
M18	2.5	95	40	14.0	11.0	4	15.5	2606M18
M20	2.5	95	40	16.0	12.0	4	17.5	2606M20
M22	2.5	100	40	18.0	14.5	4	19.5	2606M22
M24	3.0	110	50	18.0	14.5	4	21.0	2606M24

Ordering example: Short machine taps 2606M3 HSSE
Bestellbeispiel: Einschnittgewindebohrer 2606M3 HSSE
Начин на заявяване: Метчици машинни къси 2606M3 HSSE

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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Short Machine Taps

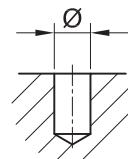
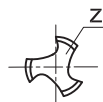
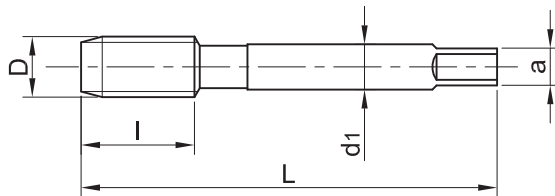
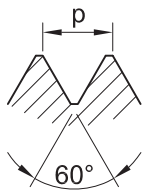
with helical flutes R15° for ISO
metric thread according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread
Form C 2-3 threads chamfered

Einschnittgewindebohrer

drallgenutet R15° für metrisches
ISO-Regelgewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde
Form C 2-3 Gang Anschnitt

Метчици машинни къси

с винтови канали R15° за
метрична ISO резба по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба
Форма С 2-3 навивки конус



M DIN 352 R15°

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2605*..
M3	0.5	40	11	3.5	2.7	3	2.5	2605M3
M3.5	0.6	45	13	4.0	3.0	3	2.9	2605M3.5
M4	0.7	45	13	4.5	3.4	3	3.3	2605M4
M4.5	0.75	48	16	6.0	4.9	3	3.7	2605M4.5
M5	0.8	48	16	6.0	4.9	3	4.2	2605M5
M6	1.0	50	19	6.0	4.9	3	5.0	2605M6
M7	1.0	50	19	6.0	4.9	3	6.0	2605M7
M8	1.25	56	22	6.0	4.9	3	6.8	2605M8
M9	1.25	63	22	7.0	5.5	3	7.8	2605M9
M10	1.5	70	24	7.0	5.5	3	8.5	2605M10
M11	1.5	70	24	8.0	6.2	3	9.5	2605M11
M12	1.75	75	29	9.0	7.0	3	10.2	2605M12
M14	2.0	80	30	11.0	9.0	3	12.0	2605M14
M16	2.0	80	32	12.0	9.0	3	14.0	2605M16
M18	2.5	95	40	14.0	11.0	4	15.5	2605M18
M20	2.5	95	40	16.0	12.0	4	17.5	2605M20
M22	2.5	100	40	18.0	14.5	4	19.5	2605M22
M24	3.0	110	50	18.0	14.5	4	21.0	2605M24

Ordering example: Short machine taps 2605M3 HSSE
Bestellbeispiel: Einschnittgewindebohrer 2605M3 HSSE
Начин на заявяване: Метчици машинни къси 2605M3 HSSE

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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Machine Taps

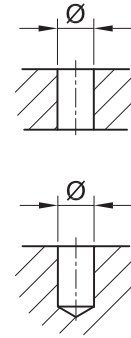
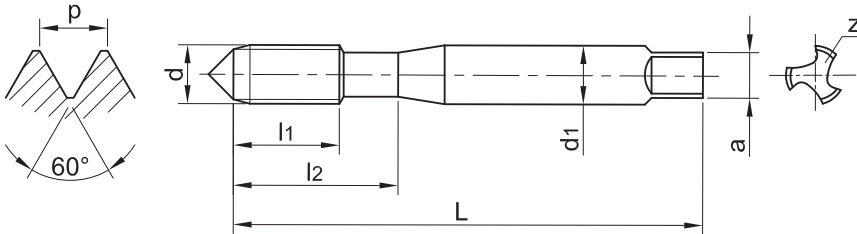
for ISO metric thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Reinforced shank
Ground thread
Form A 6-8 threads chamfered
Form C 2-3 threads chamfered

Maschinengewindebohrer

für metrisches ISO-Regelgewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Verstärkter Schaft
Geschliffenes Gewinde
Form A 6-8 Gang Anschnitt
Form C 2-3 Gang Anschnitt

Метчици машинни

за метрична ISO резба
по DIN 13
Клас на точност: ISO 2 (6H)
Усилена опашка
Шлифована резба
Форма А 6-8 навивки конус
Форма С 2-3 навивки конус



M DIN 371

d	p mm	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. A 2301*.. Art. No. C 2303*..
M2	0.4	45	8	9	2.8	2.1	3	1.6	..*M2
M2.3	0.4	45	9	10	2.8	2.1	3	1.9	..*M2.3
M2.5	0.45	50	9	10	2.8	2.1	3	2.05	..*M2.5
M2.6	0.45	50	9	10	2.8	2.1	3	2.15	..*M2.6
M3	0.5	56	11	18	3.5	2.7	3	2.5	..*M3
M3.5	0.6	56	13	20	4.0	3.0	3	2.9	..*M3.5
M4	0.7	63	13	21	4.5	3.4	3	3.3	..*M4
M4.5	0.75	70	16	25	6.0	4.9	3	3.7	..*M4.5
M5	0.8	70	16	25	6.0	4.9	3	4.2	..*M5
M6	1.0	80	19	30	6.0	4.9	3	5.0	..*M6
M7	1.0	80	19	30	7.0	5.5	3	6.0	..*M7
M8	1.25	90	22	35	8.0	6.2	3	6.8	..*M8
M9	1.25	90	22	35	9.0	7.0	3	7.8	..*M9
M10	1.5	100	24	39	10.0	8.0	3	8.5	..*M10

Ordering example: Machine taps 2301M2 HSSE
Bestellbeispiel: Maschinengewindebohrer 2301M2 HSSE
Начин на заявяване: Метчици машинни 2301M2 HSSE

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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Machine Taps

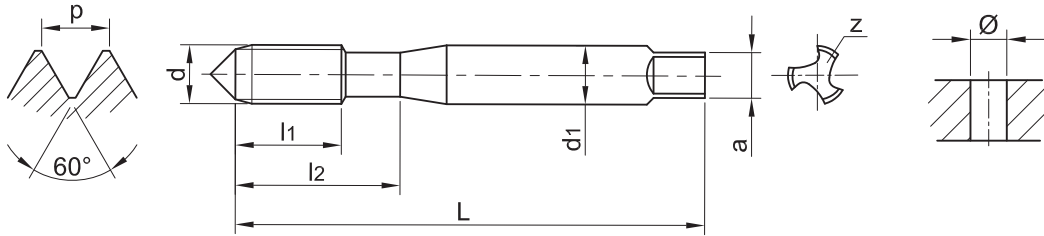
with spiral point for ISO metric thread according to DIN 13
 Grade of fit: ISO 2 (6H)
 Reinforced shank
 Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt für metrisches ISO-Regelgewinde nach DIN 13
 Toleranzfeld: ISO 2 (6H)
 Verstärkter Schaft
 Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни

с подточени канали за метрична ISO резба по DIN 13
 Клас на точност: ISO 2 (6H)
 Усилена опашка
 Шлифована резба
Форма В 4-5 навивки конус



M DIN 371 B

d	p mm	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. 2302*..
M2	0.4	45	8		2.8	2.1	3	1.6	2302M2
M2.5	0.45	50	9		2.8	2.1	3	2.05	2302M2.5
M3	0.5	56	11	18	3.5	2.7	3	2.5	2302M3
M3.5	0.6	56	13	20	4.0	3.0	3	2.9	2302M3.5
M4	0.7	63	13	21	4.5	3.4	3	3.3	2302M4
M4.5	0.75	70	16	25	6.0	4.9	3	3.7	2302M4.5
M5	0.8	70	16	25	6.0	4.9	3	4.2	2302M5
M6	1.0	80	19	30	6.0	4.9	3	5.0	2302M6
M7	1.0	80	19	30	7.0	5.5	3	6.0	2302M7
M8	1.25	90	22	35	8.0	6.2	3	6.8	2302M8
M9	1.25	90	22	35	9.0	7.0	3	7.8	2302M9
M10	1.5	100	24	39	10.0	8.0	3	8.5	2302M10

Ordering example: Machine taps 2302M2 HSSE
 Bestellbeispiel: Maschinengewindebohrer 2302M2 HSSE
 Начин на заявяване: Метчици машинни 2302M2 HSSE

Machine Taps

with spiral point and interrupted thread for ISO metric thread according to DIN 13

Grade of fit: ISO 2 (6H)

Reinforced shank

Ground thread

Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt und ausgesetzten Zähnen für metrisches ISO-Regelgewinde nach DIN 13

Toleranzfeld: ISO 2 (6H)

Verstärkter Schaft

Geschliffenes Gewinde

Form B 4-5 Gang Anschnitt

Метчици машинни

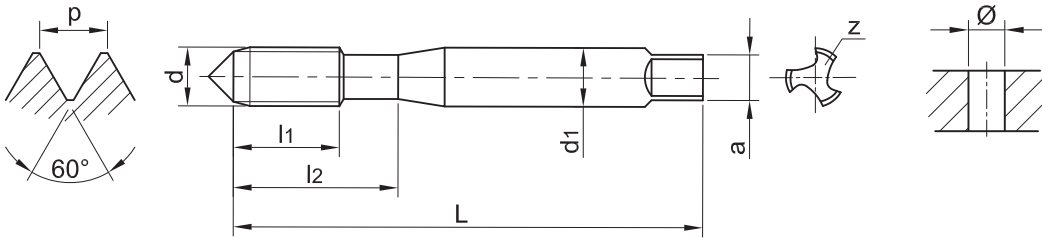
с подточени канали и разредени зъби за метрична ISO резба по DIN 13

Клас на точност: ISO 2 (6H)

Усилена опашка

Шлифована резба

Форма В 4-5 навивки конус



M DIN 371B-AZ

d	p mm	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. 2308*..
M3	0.5	56	11	18	3.5	2.7	3	2.5	2308M3
M3.5	0.6	56	13	20	4.0	3.0	3	2.9	2308M3.5
M4	0.7	63	13	21	4.5	3.4	3	3.3	2308M4
M4.5	0.75	70	16	25	6.0	4.9	3	3.7	2308M4.5
M5	0.8	70	16	25	6.0	4.9	3	4.2	2308M5
M6	1.0	80	19	30	6.0	4.9	3	5.0	2308M6
M7	1.0	80	19	30	7.0	5.5	3	6.0	2308M7
M8	1.25	90	22	35	8.0	6.2	3	6.8	2308M8
M9	1.25	90	22	35	9.0	7.0	3	7.8	2308M9
M10	1.5	100	24	39	10.0	8.0	3	8.5	2308M10

Ordering example:

Machine taps 2308M3 HSSE

Bestellbeispiel:

Maschinengewindebohrer 2308M3 HSSE

Начин на заявяване:

Метчици машинни 2308M3 HSSE

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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Machine Taps

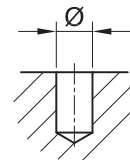
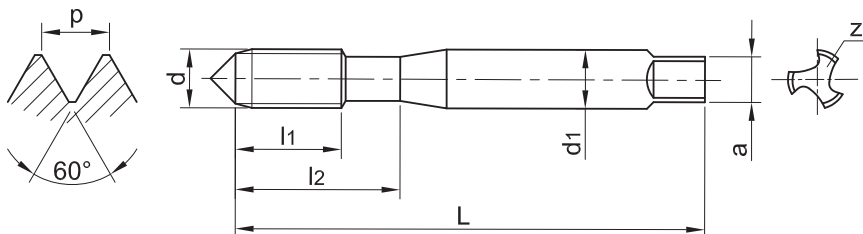
with helical flutes R35° for ISO metric thread according to DIN 13
Grade of fit: ISO 2 (6H)
Reinforced shank
Ground thread
Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R35° für metrisches ISO-Regelgewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Verstärkter Schaft
Geschliffenes Gewinde
Form C 2-3 Gang Anschnitt

Метчици машинни

с винтови канали R35° за метрична ISO резба по DIN 13
Клас на точност: ISO 2 (6H)
Усилена опашка
Шлифована резба
Форма С 2-3 навивки конус



M DIN 371 R35°

d	p mm	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. 2305*..
M2	0.4	45	6		2.8	2.1	3	1.6	2305M2
M2.5	0.45	50	6		2.8	2.1	3	2.05	2305M2.5
M3	0.5	56	6	18	3.5	2.7	3	2.5	2305M3
M3.5	0.6	56	7	20	4.0	3.0	3	2.9	2305M3.5
M4	0.7	63	7	21	4.5	3.4	3	3.3	2305M4
M4.5	0.75	70	8	25	6.0	4.9	3	3.7	2305M4.5
M5	0.8	70	8	25	6.0	4.9	3	4.2	2305M5
M6	1.0	80	10	30	6.0	4.9	3	5.0	2305M6
M7	1.0	80	10	30	7.0	5.5	3	6.0	2305M7
M8	1.25	90	14	35	8.0	6.2	3	6.8	2305M8
M9	1.25	90	14	35	9.0	7.0	3	7.8	2305M9
M10	1.5	100	16	39	10.0	8.0	3	8.5	2305M10

Ordering example: Machine taps 2305M2 HSSE
Bestellbeispiel: Maschinengewindebohrer 2305M2 HSSE
Начин на заявяване: Метчици машинни 2305M2 HSSE

Machine Taps

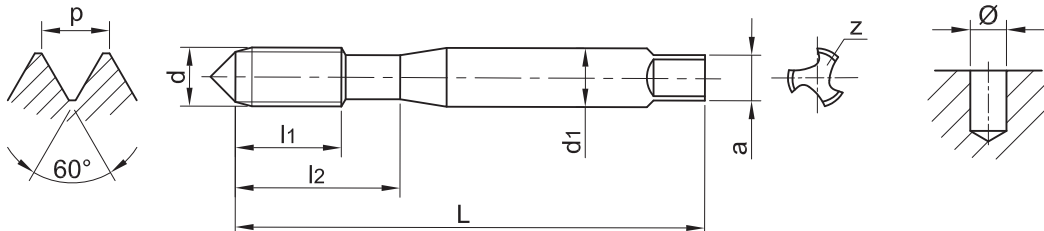
with helical flutes R15° for ISO
metric thread according to DIN 13
Grade of fit: ISO 2 (6H)
Reinforced shank
Ground thread
Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R15° für metrisches
ISO-Regelgewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Verstärkter Schaft
Geschliffenes Gewinde
Form C 2-3 Gang Anschnitt

Метчици машинни

с винтови канали R15° за
метрична ISO резба по DIN 13
Клас на точност: ISO 2 (6H)
Усилена опашка
Шлифована резба
Форма С 2-3 навивки конус



M DIN 371 R15°

d	p mm	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. 2304*..
M3	0.5	56	11	18	3.5	2.7	3	2.5	2304M3
M3.5	0.6	56	13	20	4.0	3.0	3	2.9	2304M3.5
M4	0.7	63	13	21	4.5	3.4	3	3.3	2304M4
M4.5	0.75	70	16	25	6.0	4.9	3	3.7	2304M4.5
M5	0.8	70	16	25	6.0	4.9	3	4.2	2304M5
M6	1.0	80	19	30	6.0	4.9	3	5.0	2304M6
M7	1.0	80	19	30	7.0	5.5	3	6.0	2304M7
M8	1.25	90	22	35	8.0	6.2	3	6.8	2304M8
M9	1.25	90	22	35	9.0	7.0	3	7.8	2304M9
M10	1.5	100	24	39	10.0	8.0	3	8.5	2304M10

Ordering example: Machine taps 2304M3 HSSE
Bestellbeispiel: Maschinengewindebohrer 2304M3 HSSE
Начин на заявяване: Метчици машинни 2304M3 HSSE

Machine Taps

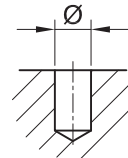
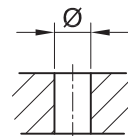
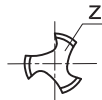
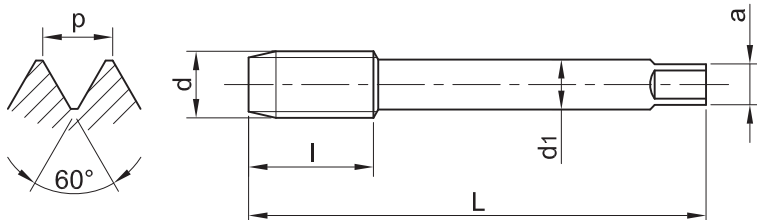
for ISO metric thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Passing shank
Ground thread
Form A 6-8 threads chamfered
Form C 2-3 threads chamfered

Maschinengewindebohrer

für metrisches ISO-Regelgewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Überlaufschäft
Geschliffenes Gewinde
Form A 6-8 Gang Anschnitt
Form C 2-3 Gang Anschnitt

Метчици машинни

за метрична ISO резба
по DIN 13
Клас на точност: ISO 2 (6H)
Преминаваща опашка
Шлифована резба
Форма А 6-8 навивки конус
Форма С 2-3 навивки конус



M DIN 376

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. A 2401*..	Art. No. C 2403*..
M3	0.5	56	11	2.2	-	3	2.5	..*M3	..*M3
M3.5	0.6	56	13	2.5	2.1	3	2.9	..*M3.5	..*M3.5
M4	0.7	63	13	2.8	2.1	3	3.3	..*M4	..*M4
M4.5	0.75	70	16	3.5	2.7	3	3.7	..*M4.5	..*M4.5
M5	0.8	70	16	3.5	2.7	3	4.2	..*M5	..*M5
M6	1.0	80	19	4.5	3.4	3	5.0	..*M6	..*M6
M7	1.0	80	19	5.5	4.3	3	6.0	..*M7	..*M7
M8	1.25	90	22	6	4.9	3	6.8	..*M8	..*M8
M9	1.25	90	22	7	5.5	3	7.8	..*M9	..*M9
M10	1.5	100	24	7	5.5	3	8.5	..*M10	..*M10
M11	1.5	100	24	8	6.2	3	9.5	..*M11	..*M11
M12	1.75	110	29	9	7	3	10.2	..*M12	..*M12
M14	2.0	110	30	11	9	3	12.0	..*M14	..*M14
M16	2.0	110	32	12	9	3	14.0	..*M16	..*M16
M18	2.5	125	34	14	11	4	15.5	..*M18	..*M18
M20	2.5	140	34	16	12	4	17.5	..*M20	..*M20
M22	2.5	140	34	18	14.5	4	19.5	..*M22	..*M22
M24	3.0	160	38	18	14.5	4	21.0	..*M24	..*M24
M27	3.0	160	38	20	16	4	24.0	..*M27	..*M27
M30	3.5	180	45	22	18	4	26.5	..*M30	..*M30
M33	3.5	180	50	25	20	4	29.5	..*M33	..*M33
M36	4.0	200	56	28	22	4	32.0	..*M36	..*M36
M39	4.0	200	60	32	24	4	35.0	..*M39	..*M39
M42	4.5	200	60	32	24	4	37.5	..*M42	..*M42
M45	4.5	220	65	36	29	4	40.5	..*M45	..*M45
M48	5.0	250	70	36	29	4	43.0	..*M48	..*M48
M52	5.0	250	70	40	32	4	47.0	..*M52	..*M52

Ordering example: Machine taps 2401M3 HSSE
Bestellbeispiel: Maschinengewindebohrer 2401M3 HSSE
Начин на заявяване: Метчици машинни 2401M3 HSSE

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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Machine Taps

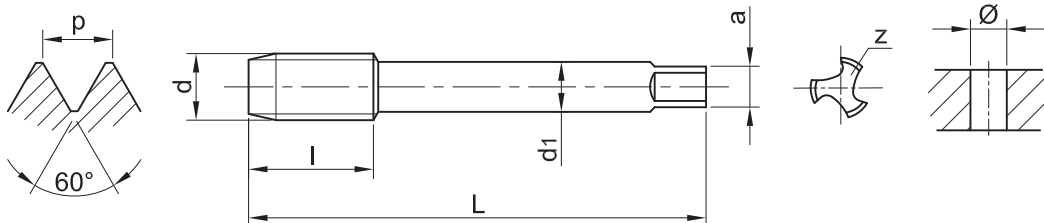
with spiral point for ISO metric thread according to DIN 13
Grade of fit: ISO 2 (6H)
Passing shank
Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt für metrisches ISO-Regelgewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Überlaufschäft
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни

с подточени канали за метрична ISO резба по DIN 13
Клас на точност: ISO 2 (6H)
Преминаваща опашка
Шлифована резба
Форма В 4-5 навивки конус



M DIN 376 B

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2402*..
M3	0.5	56	11	2.2	1.8	3	2.5	2402M3
M3.5	0.6	56	13	2.5	2.1	3	2.9	2402M3.5
M4	0.7	63	13	2.8	2.1	3	3.3	2402M4
M4.5	0.75	70	16	3.5	2.7	3	3.7	2402M4.5
M5	0.8	70	16	3.5	2.7	3	4.2	2402M5
M6	1.0	80	19	4.5	3.4	3	5.0	2402M6
M7	1.0	80	19	5.5	4.3	3	6.0	2402M7
M8	1.25	90	22	6	4.9	3	6.8	2402M8
M9	1.25	90	22	7	5.5	3	7.8	2402M9
M10	1.5	100	24	7	5.5	3	8.5	2402M10
M11	1.5	100	24	8	6.2	3	9.5	2402M11
M12	1.75	110	29	9	7	3	10.2	2402M12
M14	2.0	110	30	11	9	3	12.0	2402M14
M16	2.0	110	32	12	9	3	14.0	2402M16
M18	2.5	125	34	14	11	4	15.5	2402M18
M20	2.5	140	34	16	12	4	17.5	2402M20
M22	2.5	140	34	18	14.5	4	19.5	2402M22
M24	3.0	160	38	18	14.5	4	21.0	2402M24
M27	3.0	160	38	20	16	4	24.0	2402M27
M30	3.5	180	45	22	18	4	26.5	2402M30
M33	3.5	180	50	25	20	4	29.5	2402M33
M36	4.0	200	56	28	22	4	32.0	2402M36
M39	4.0	200	60	32	24	4	35.0	2402M39
M42	4.5	200	60	32	24	4	37.5	2402M42
M45	4.5	220	65	36	29	4	40.5	2402M45
M48	5.0	250	70	36	29	4	43.0	2402M48
M52	5.0	250	70	40	32	4	47.0	2402M52

Ordering example: Machine taps 2402M3 HSSE
Bestellbeispiel: Maschinengewindebohrer 2402M3 HSSE
Начин на заявяване: Метчици машинни 2402M3 HSSE

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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Machine Taps

with spiral point and interrupted thread for ISO metric thread according to DIN 13

Grade of fit: ISO 2 (6H)

Passing shank

Ground thread

Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt und ausgesetzten Zähnen für metrisches ISO-Regelgewinde nach DIN 13

Toleranzfeld: ISO 2 (6H)

Überlaufschaft

Geschliffenes Gewinde

Form B 4-5 Gang Anschnitt

Метчици машинни

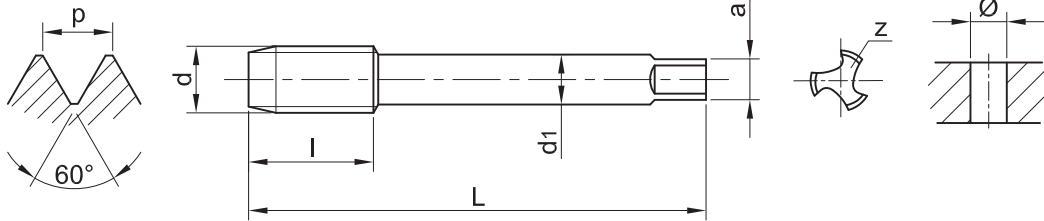
с подточени канали и разредени зъби за метрична ISO резба по DIN 13

Клас на точност: ISO 2 (6H)

Преминаваща опашка

Шлифована резба

Форма В 4-5 навивки конус



M DIN 376 B-AZ

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2408*..
M3	0.5	56	11	2.2	1.8	3	2.5	2408M3
M3.5	0.6	56	13	2.5	2.1	3	2.9	2408M3.5
M4	0.7	63	13	2.8	2.1	3	3.3	2408M4
M4.5	0.75	70	16	3.5	2.7	3	3.7	2408M4.5
M5	0.8	70	16	3.5	2.7	3	4.2	2408M5
M6	1.0	80	19	4.5	3.4	3	5.0	2408M6
M7	1.0	80	19	5.5	4.3	3	6.0	2408M7
M8	1.25	90	22	6	4.9	3	6.8	2408M8
M9	1.25	90	22	7	5.5	3	7.8	2408M9
M10	1.5	100	24	7	5.5	3	8.5	2408M10
M11	1.5	100	24	8	6.2	3	9.5	2408M11
M12	1.75	110	29	9	7	3	10.2	2408M12
M14	2.0	110	30	11	9	3	12.0	2408M14
M16	2.0	110	32	12	9	3	14.0	2408M16
M18	2.5	125	34	14	11	3	15.5	2408M18
M20	2.5	140	34	16	12	3	17.5	2408M20
M22	2.5	140	34	18	14.5	3	19.5	2408M22
M24	3.0	160	38	18	14.5	3	21.0	2408M24
M27	3.0	160	38	20	16	3	24.0	2408M27
M30	3.5	180	45	22	18	3	26.5	2408M30

Ordering example: Machine taps 2408M3 HSSE
 Bestellbeispiel: Maschinengewindebohrer 2408M3 HSSE
 Начин на заявяване: Метчици машинни 2408M3 HSSE

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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Machine Taps

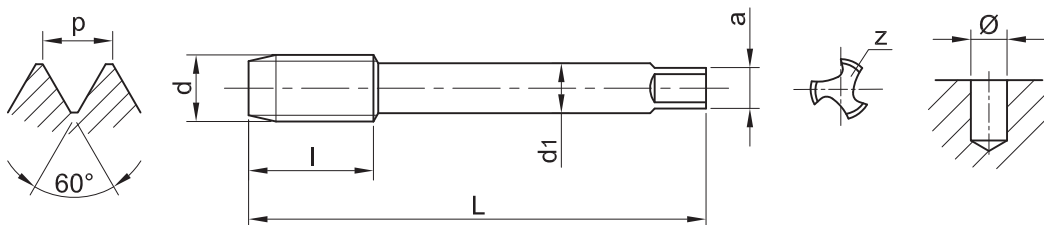
with helical flutes R35° for ISO metric thread according to DIN 13
Grade of fit: ISO 2 (6H)
Passing shank
Ground thread
Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R35° für metrisches ISO-Regelgewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Überlaufschافت
Geschliffenes Gewinde
Form C 2-3 Gang Anschnitt

Метчици машинни

с винтови канали R35° за метрична ISO резба по DIN 13
Клас на точност: ISO 2 (6H)
Преминаваща опашка
Шлифована резба
Форма С 2-3 навивки конус



M DIN 376 R35°

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2406*..
M3	0.5	56	6	2.2	-	3	2.5	2406M3
M3.5	0.6	56	7	2.5	2.1	3	2.9	2406M3.5
M4	0.7	63	7	2.8	2.1	3	3.3	2406M4
M4.5	0.75	70	8	3.5	2.7	3	3.7	2406M4.5
M5	0.8	70	8	3.5	2.7	3	4.2	2406M5
M6	1.0	80	10	4.5	3.4	3	5.0	2406M6
M7	1.0	80	10	5.5	4.3	3	6.0	2406M7
M8	1.25	90	14	6	4.9	3	6.8	2406M8
M9	1.25	90	14	7	5.5	3	7.8	2406M9
M10	1.5	100	16	7	5.5	3	8.5	2406M10
M11	1.5	100	16	8	6.2	3	9.5	2406M11
M12	1.75	110	18	9	7	3	10.2	2406M12
M14	2.0	110	20	11	9	3	12.0	2406M14
M16	2.0	110	22	12	9	3	14.0	2406M16
M18	2.5	125	25	14	11	4	15.5	2406M18
M20	2.5	140	25	16	12	4	17.5	2406M20
M22	2.5	140	27	18	14.5	4	19.5	2406M22
M24	3.0	160	30	18	14.5	4	21.0	2406M24
M27	3.0	160	30	20	16	4	24.0	2406M27
M30	3.5	180	35	22	18	4	26.5	2406M30
M33	3.5	180	35	25	20	4	29.5	2406M33
M36	4.0	200	40	28	22	4	32.0	2406M36
M39	4.0	200	40	32	24	4	35.0	2406M39
M42	4.5	200	45	32	24	4	37.5	2406M42
M45	4.5	220	45	36	29	4	40.5	2406M45
M48	5.0	250	50	36	29	4	43.0	2406M48
M52	5.0	250	50	40	32	4	47.0	2406M52

Ordering example: Machine taps 2406M3 HSSE
Bestellbeispiel: Maschinengewindebohrer 2406M3 HSSE
Начин на заявяване: Метчици машинни 2406M3 HSSE

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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Machine Taps

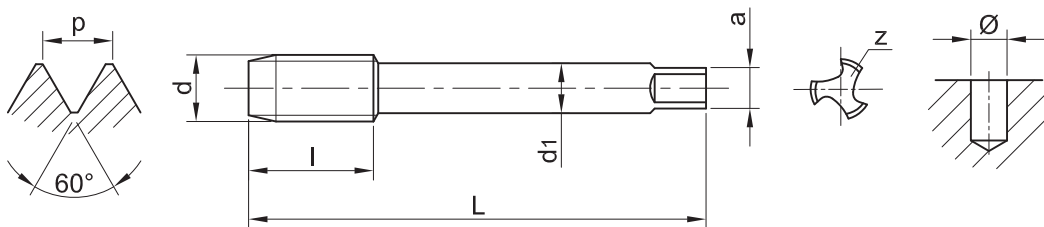
with helical flutes R15° for ISO metric thread according to DIN 13
Grade of fit: ISO 2 (6H)
Passing shank
Ground thread
Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R15° für metrisches ISO-Regelgewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Überlaufschافت
Geschliffenes Gewinde
Form C 2-3 Gang Anschnitt

Метчици машинни

с винтови канали R15° за метрична ISO резба по DIN 13
Клас на точност: ISO 2 (6H)
Преминаваща опашка
Шлифована резба
Форма С 2-3 навивки конус



M DIN 376 R15°

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2405*..
M3	0.5	56	11	2.2	-	3	2.5	2405M3
M3.5	0.6	56	13	2.5	2.1	3	2.9	2405M3.5
M4	0.7	63	13	2.8	2.1	3	3.3	2405M4
M4.5	0.75	70	16	3.5	2.7	3	3.7	2405M4.5
M5	0.8	70	16	3.5	2.7	3	4.2	2405M5
M6	1.0	80	19	4.5	3.4	3	5.0	2405M6
M7	1.0	80	19	5.5	4.3	3	6.0	2405M7
M8	1.25	90	22	6	4.9	3	6.8	2405M8
M9	1.25	90	22	7	5.5	3	7.8	2405M9
M10	1.5	100	24	7	5.5	3	8.5	2405M10
M11	1.5	100	24	8	6.2	3	9.5	2405M11
M12	1.75	110	29	9	7	3	10.2	2405M12
M14	2.0	110	30	11	9	3	12.0	2405M14
M16	2.0	110	32	12	9	3	14.0	2405M16
M18	2.5	125	34	14	11	4	15.5	2405M18
M20	2.5	140	34	16	12	4	17.5	2405M20
M22	2.5	140	34	18	14.5	4	19.5	2405M22
M24	3.0	160	38	18	14.5	4	21.0	2405M24
M27	3.0	160	38	20	16	4	24.0	2405M27
M30	3.5	180	45	22	18	4	26.5	2405M30

Ordering example: Machine taps 2405M3 HSSE
Bestellbeispiel: Maschinengewindebohrer 2405M3 HSSE
Начин на заявяване: Метчици машинни 2405M3 HSSE

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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Machine Nut Taps

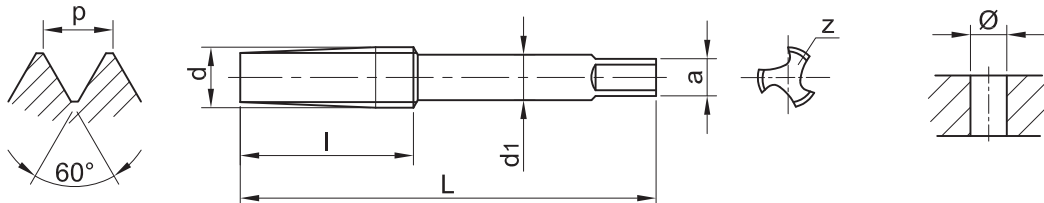
for ISO metric thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Muttergewindebohrer

für metrisches ISO-Regelgewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Метчици гайкови

за метрична ISO резба
по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба



M DIN 357

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 290*..
M3	0.5	70	22	2.2		3	2.5	290M3
M3.5	0.6	80	25	2.5	2.1	3	2.9	290M3.5
M4	0.7	90	25	2.8	2.1	3	3.3	290M4
M4.5	0.75	100	28	3.5	2.7	3	3.7	290M4.5
M5	0.8	100	28	3.5	2.7	3	4.2	290M5
M6	1.0	110	32	4.5	3.4	3	5.0	290M6
M7	1.0	110	36	5.5	4.3	3	6.0	290M7
M8	1.25	125	40	6	4.9	3	6.8	290M8
M9	1.25	140	40	7	5.5	3	7.8	290M9
M10	1.5	140	45	7	5.5	3	8.5	290M10
M11	1.5	160	45	8	6.2	3	9.5	290M11
M12	1.75	180	50	9	7.0	3	10.2	290M12
M14	2.0	200	56	11	9.0	3	12.0	290M14
M16	2.0	200	63	12	9.0	3	14.0	290M16
M18	2.5	220	63	14	11.0	4	15.5	290M18
M20	2.5	250	70	16	12.0	4	17.5	290M20
M22	2.5	280	80	18	14.5	4	19.5	290M22
M24	3.0	280	80	18	14.5	4	21.0	290M24
M27	3.0	315	90	20	16.0	4	24.0	290M27
M30	3.5	315	100	22	18.0	4	26.5	290M30
M33	3.5	355	110	25	20.0	4	29.5	290M33
M36	4.0	400	110	28	22.0	4	32.0	290M36

Ordering example: Machine nut taps 290M3 HSSE
Bestellbeispiel: Muttergewindebohrer 290M3 HSSE
Начин на заявяване: Метчици гайкови 290M3 HSSE

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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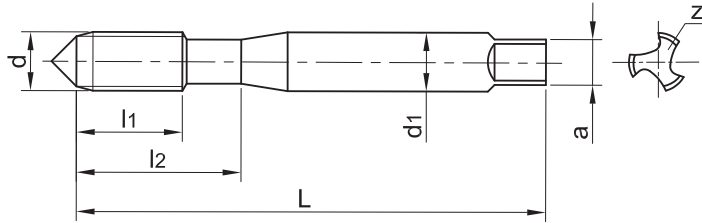
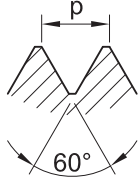
Threadforming

Machine Taps

for ISO metric thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Form D 4-5 threads chamfered

Form C 2-3 threads chamfered



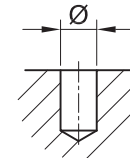
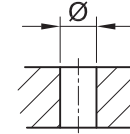
Метчици машинни

резбовалцовачи

за метрична ISO резба
по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба

Форма D 4-5 навивки конус

Форма C 2-3 навивки конус



M DIN 371, DIN 376

d	p mm	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø
DIN 371								
M3	0.5	56	11	18	3.5	2.7	3	2.8
M4	0.7	63	13	21	4.5	3.4	3	3.7
M5	0.8	70	16	25	6.0	4.9	5	4.65
M6	1.0	80	19	30	6.0	4.9	5	5.55
M8	1.25	90	22	35	8.0	6.2	5	7.45
M10	1.5	100	24	39	10.0	8.0	5	9.35
DIN 376								
M12	1.75	110	29		9.0	7.0	5	11.2
M14	2.0	110	30		11.0	9.0	5	13.1
M16	2.0	110	32		12.0	9.0	5	15.1



d	BLANK		VAP		TiN		With Oil Grooves / Mit Schmiernuten / C канали за мазане					
							BLANK		VAP		TiN	
	Art. No. C	Art. No. D	Art. No. C	Art. No. D	Art. No. C	Art. No. D	Art. No. C	Art. No. D	Art. No. C	Art. No. D	Art. No. C	Art. No. D
M3	53030003	53040003	53030103	53040103	53030203	53040203	53031003	53041003	53031103	53041103	53031203	53041203
M4	53030004	53040004	53030104	53040104	53030204	53040204	53031004	53041004	53031104	53041104	53031204	53041204
M5	53030005	53040005	53030105	53040105	53030205	53040205	53031005	53041005	53031105	53041105	53031205	53041205
M6	53030006	53040006	53030106	53040106	53030206	53040206	53031006	53041006	53031106	53041106	53031206	53041206
M8	53030008	53040008	53030108	53040108	53030208	53040208	53031008	53041008	53031108	53041108	53031208	53041208
M10	53030010	53040010	53030110	53040110	53030210	53040210	53031010	53041010	53031110	53041110	53031210	53041210
M12	54030012	54040012	54030112	54040112	54030212	54040212	54031012	54041012	54031112	54041112	54031212	54041212
M14	54030014	54040014	54030114	54040114	54030214	54040214	54031014	54041014	54031114	54041114	54031214	54041214
M16	54030016	54040016	54030116	54040116	54030216	54040216	54031016	54041016	54031116	54041116	54031216	54041216

Ordering example: Threadforming Machine taps 53030003 HSSE
Bestellbeispiel: Maschinengewindeformer 53030003 HSSE
Начин на заявяване: Метчици машинни резбовалцовачи 53030003 HSSE

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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Machine Taps

Extra Long

for ISO metric thread according to DIN 13

Grade of fit: ISO 2 (6H)

Passing shank

Ground thread

Spiral point

Form B 4-5 threads chamfered

Maschinengewindebohrer

Extra lang

für metrisches ISO-Regelgewinde nach DIN 13

Toleranzfeld: ISO 2 (6H)

Überlaufschaft

Geschliffenes Gewinde mit Schälanschnitt

Form B 4-5 Gang Anschnitt

Метчици машинни

удължени

за метрична ISO резба по DIN 13

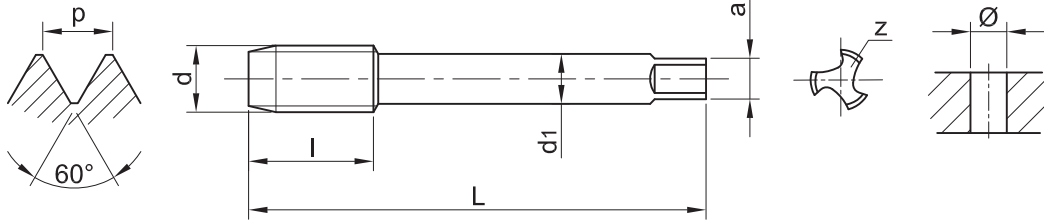
Клас на точност: ISO 2 (6H)

Преминаваща опашка

Шлифована резба

с подточени канали

Форма В 4-5 навивки конус



M DIN 376 B EL

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2402EL*..
M3	0.5	70	11	2.2	1.8	3	2.5	2402ELM3
M4	0.7	90	13	2.8	2.1	3	3.3	2402ELM4
M5	0.8	100	16	3.5	2.7	3	4.2	2402ELM5
M6	1.0	110	19	4.5	3.4	3	5.0	2402ELM6
M8	1.25	125	22	6	4.9	3	6.8	2402ELM8
M10	1.5	140	24	7	5.5	3	8.5	2402ELM10
M12	1.75	180	29	9	7	3	10.2	2402ELM12
M14	2.0	200	30	11	9	3	12.0	2402ELM14
M16	2.0	200	32	12	9	3	14.0	2402ELM16

Helical flutes R35°

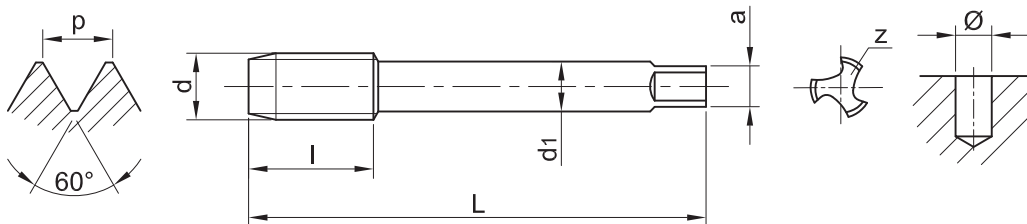
Form C 2-3 threads chamfered

Nutenform 35° Rechtsdrall

Form C 2-3 Gang Anschnitt

С десни винтови канали 35°

Форма С 2-3 навивки конус



M DIN 376 R35° EL

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2406EL*..
M3	0.5	70	6	2.2	1.8	3	2.5	2406ELM3
M4	0.7	90	7	2.8	2.1	3	3.3	2406ELM4
M5	0.8	100	8	3.5	2.7	3	4.2	2406ELM5
M6	1.0	110	10	4.5	3.4	3	5.0	2406ELM6
M8	1.25	125	14	6	4.9	3	6.8	2406ELM8
M10	1.5	140	16	7	5.5	3	8.5	2406ELM10
M12	1.75	180	18	9	7	3	10.2	2406ELM12
M14	2.0	200	20	11	9	3	12.0	2406ELM14
M16	2.0	200	22	12	9	3	14.0	2406ELM16

Ordering example:

Machine taps 2402ELM3 HSSE

Bestellbeispiel:

Maschinengewindebohrer 2402ELM3 HSSE

Начин на заявяване:

Метчици машинни 2402ELM3 HSSE

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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Combined Taps

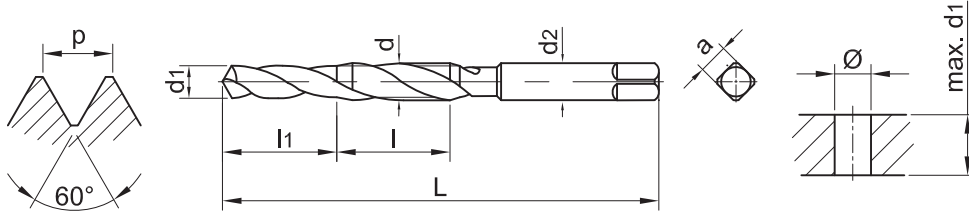
for ISO metric thread according to DIN 13
 Grade of fit: ISO 2 (6H)
 Squared shank
 Ground thread

Kombigewindebohrer

für metrisches ISO-Regelgewinde nach DIN 13
 Toleranzfeld: ISO 2 (6H)
 mit Vierkant
 Geschliffenes Gewinde

Свредло-метчици

за метрична ISO резба по DIN 13
 Клас на точност: ISO 2 (6H)
 Опашка с квадрат
 Шлифована резба



d	p mm	L mm	l1 mm	l mm	d1 mm	d2 mm	a mm	Art. No. 811*..
M3	0.5	56	16	11	2.5	3	2.4	811M3
M4	0.7	63	18	14	3.3	4	3.0	811M4
M5	0.8	71	20	18	4.2	5	3.8	811M5
M6	1.0	80	22	22	5.0	6	4.9	811M6
M8	1.25	95	26	25	6.8	8	6.2	811M8
M10	1.5	106	30	31	8.5	10	8.0	811M10
M12	1.75	115	32	35	10.2	12	9.0	811M12

Ordering example: Combined taps 811M3 HSS
 Bestellbeispiel: Kombigewindebohrer 811M3 HSS
 Начин на заявяване: Свредло-метчици 811M3 HSS

Combined Taps

for ISO metric thread according to DIN 13

Grade of fit: ISO 2 (6H)

Hexagonal shank

Ground thread

Kombigewindebohrer

für metrisches ISO-Regelgewinde nach DIN 13

Toleranzfeld: ISO 2 (6H)

mit Sechskant

Geschliffenes Gewinde

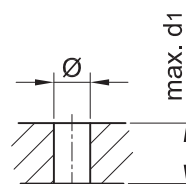
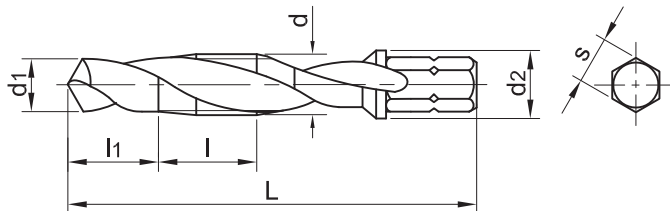
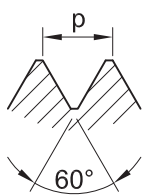
Свредло-метчици

за метрична ISO резба по DIN 13

Клас на точност: ISO 2 (6H)

Опашка шестостен

Шлифована резба



d	p mm	L mm	l1 mm	l mm	d1 mm	d2 mm	s mm	Art. No. 821*..
M3	0.5	36	5	6	2.5	7.18	6.35	821M3
M4	0.7	39	6	8	3.3	7.18	6.35	821M4
M5	0.8	41	7	9	4.2	7.18	6.35	821M5
M6	1.0	44	8	11	5.0	7.18	6.35	821M6
M8	1.25	51	11	14	6.8	8.8	6.35	821M8
M10	1.5	59	15	15	8.5	11.0	6.35	821M10

In one working stroke

Hole drilling
Thread cutting (tapping)
Thread deburring
Cleaning

Application in:

Stationary drilling machine
Hand drilling machine
Akku-drill-machine

Suitable for:

Steel and non-ferrous metal up to 1xd (M6=6mm material thickness) up to 600 N/mm² tensile strength

In einem Arbeitsgang

Kernlochbohren mit Spiralbohrer
Gewinde schneiden
Gewinde entgraten
Gewinde säubern (beim Rücklauf)

Einsatz in

Stationären Bohrmaschinen
Handbohrmaschinen
Akku-bohrmaschinen

Geeignet für

Stahl und NE-Metalle bis 1xd (M6=6mm Materialstärke) bis 600 N/mm² Zugfestigkeit

С един работен ход

Пробиване чрез спирален свредел
Нарязване резба
Зенковане
Почистване

Приложение в:

Стационарни бормащини
Ръчни бормащини
Акумулаторни бормащини

Подходящи за:

стомана и цветни метали до 1xd (M6=6mm - дебелина на материала) до 600 N/mm² якост на опън

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Combined taps 821M3 HSS

Kombigewindebohrer 821M3 HSS

Свредло-метчици 821M3 HSS

Machine Taps

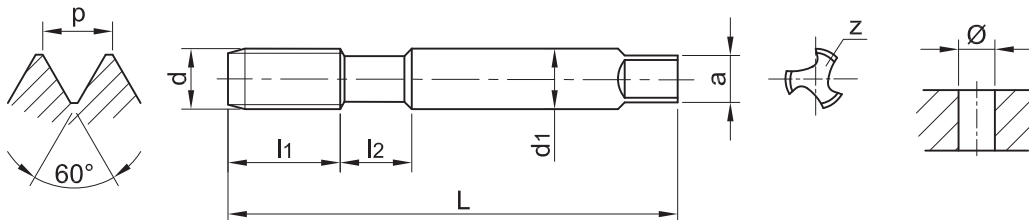
with spiral point
for ISO metric thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt
für metrisches ISO-Regelgewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни

с подточени канали
за метрична ISO резба
по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба
Форма В 4-5 навивки конус



M ISO 529 B

d	p mm	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. 3402*..
M2	0.4	41	8		2.5	2.0	3	1.6	3402M2
M2.5	0.45	44.5	9.5		2.8	2.24	3	2.05	3402M2.5
M2.6	0.45	44.5	9.5		2.8	2.24	3	2.15	3402M2.6
M3	0.5	48	11	7	3.15	2.5	3	2.5	3402M3
M3.5	0.6	50	13	7	3.55	2.8	3	2.9	3402M3.5
M4	0.7	53	13	8	4.0	3.15	3	3.3	3402M4
M4.5	0.75	53	13	8	4.5	3.55	3	3.7	3402M4.5
M5	0.8	58	16	9	5.0	4.0	3	4.2	3402M5
M6	1.0	66	19	11	6.3	5.0	3	5.0	3402M6
M7	1.0	66	19	11	7.1	5.6	3	6.0	3402M7
M8	1.25	72	22	13	8.0	6.3	3	6.8	3402M8
M9	1.25	72	22	14	9.0	7.1	3	7.8	3402M9
M10	1.5	80	24	15	10.0	8.0	3	8.5	3402M10
M11	1.5	85	25		8.0	6.3	3	9.5	3402M11
M12	1.75	89	29		9.0	7.1	3	10.2	3402M12
M14	2.0	95	30		11.2	9.0	3	12.0	3402M14
M16	2.0	102	32		12.5	10.0	3	14.0	3402M16
M18	2.5	112	37		14.0	11.2	3	15.5	3402M18
M20	2.5	112	37		14.0	11.2	3	17.5	3402M20
M22	2.5	118	38		16.0	12.5	3	19.5	3402M22
M24	3.0	130	45		18.0	14.0	3	21.0	3402M24
M27	3.0	135	45		20.0	16.0	3	24.0	3402M27
M30	3.5	138	48		20.0	16.0	3	26.5	3402M30
M33	3.5	151	51		22.4	18.0	4	29.5	3402M33
M36	4.0	162	57		25.0	20.0	4	32.0	3402M36
M39	4.0	170	60		28.0	22.4	4	35.0	3402M39
M42	4.5	170	60		28.0	22.4	4	37.5	3402M42
M45	4.5	187	67		31.5	25.0	6	40.5	3402M45
M48	5.0	187	67		31.5	25.0	6	43.0	3402M48
M52	5.0	200	70		35.5	28.0	6	47.0	3402M52

Ordering example: Machine taps 3402M2 HSSE
Bestellbeispiel: Maschinengewindebohrer 3402M2 HSSE
Начин на заявяване: Метчици машинни 3402M2 HSSE

Machine Taps

with spiral point and interrupted thread for ISO metric thread according to DIN 13

Grade of fit: ISO 2 (6H)

Ground thread

Form B-AZ 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt und ausgesetzten Zähnen für metrisches ISO-Regelgewinde nach DIN 13

Toleranzfeld: ISO 2 (6H)

Geschliffenes Gewinde

Form B-AZ 4-5 Gang Anschnitt

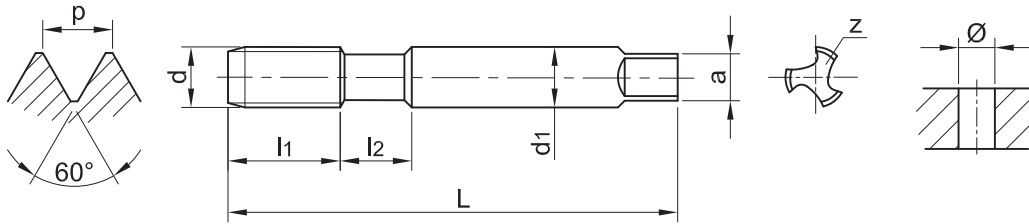
Метчици машинни

с подточени канали и разредени зъби за метрична ISO резба по DIN 13

Клас на точност: ISO 2 (6H)

Шлифована резба

Форма B-AZ 4-5 навивки конус



M ISO 529 B-AZ

d	p mm	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. 3408*..
M3	0.5	48	11	7	3.15	2.5	3	2.5	3408M3
M4	0.7	53	13	8	4.0	3.15	3	3.3	3408M4
M5	0.8	58	16	9	5.0	4.0	3	4.2	3408M5
M6	1.0	66	19	11	6.3	5.0	3	5.0	3408M6
M8	1.25	72	22	13	8.0	6.3	3	6.8	3408M8
M10	1.5	80	24	15	10.0	8.0	3	8.5	3408M10
M12	1.75	89	29		9.0	7.1	3	10.2	3408M12
M14	2.0	95	30		11.2	9.0	3	12.0	3408M14
M16	2.0	102	32		12.5	10.0	3	14.0	3408M16
M18	2.5	112	37		14.0	11.2	3	15.5	3408M18
M20	2.5	112	37		14.0	11.2	3	17.5	3408M20
M22	2.5	118	38		16.0	12.5	3	19.5	3408M22
M24	3.0	130	45		18.0	14.0	3	21.0	3408M24

Ordering example:

Machine taps 3408M3 HSSE

Bestellbeispiel:

Maschinengewindebohrer 3408M3 HSSE

Начин на заявяване:

Метчици машинни 3408M3 HSSE

Machine Taps

with helical flutes R35°

for ISO metric thread

according to DIN 13

Grade of fit: ISO 2 (6H)

Ground thread

Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R35°

für metrisches ISO-Regelgewinde

nach DIN 13

Toleranzfeld: ISO 2 (6H)

Geschliffenes Gewinde

Form C 2-3 Gang Anschnitt

Метчици машинни

с винтови канали R35°

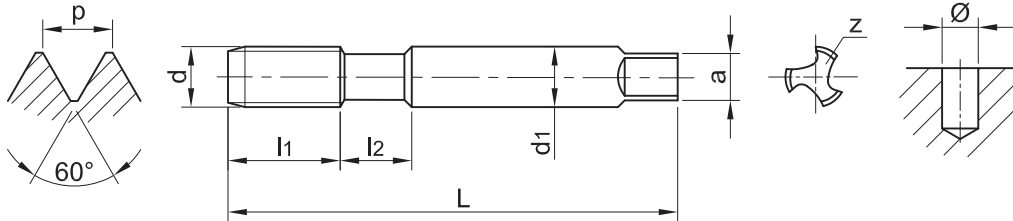
за метрична ISO резба

по DIN 13

Клас на точност: ISO 2 (6H)

Шлифована резба

Форма С 2-3 навивки конус



M ISO 529 R35°

d	p mm	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. 3406*..
M3	0.5	48	11	7	3.15	2.5	3	2.5	3406M3
M3.5	0.6	50	13	7	3.55	2.8	3	2.9	3406M3.5
M4	0.7	53	13	8	4.0	3.15	3	3.3	3406M4
M4.5	0.75	53	13	8	4.5	3.55	3	3.7	3406M4.5
M5	0.8	58	16	9	5.0	4.0	3	4.2	3406M5
M6	1.0	66	19	11	6.3	5.0	3	5.0	3406M6
M7	1.0	66	19	11	7.1	5.6	3	6.0	3406M7
M8	1.25	72	22	13	8.0	6.3	3	6.8	3406M8
M10	1.5	80	24	15	10.0	8.0	3	8.5	3406M10
M12	1.75	89	29		9.0	7.1	3	10.2	3406M12
M14	2.0	95	30		11.2	9.0	3	12.0	3406M14
M16	2.0	102	32		12.5	10.0	3	14.0	3406M16
M18	2.5	112	37		14.0	11.2	3	15.5	3406M18
M20	2.5	112	37		14.0	11.2	3	17.5	3406M20
M22	2.5	118	38		16.0	12.5	3	19.5	3406M22
M24	3.0	130	45		18.0	14.0	3	21.0	3406M24
M27	3.0	135	45		20.0	16.0	3	24.0	3406M27
M30	3.5	138	48		20.0	16.0	3	26.5	3406M30

Ordering example:

Machine taps 3406M3 HSSE

Bestellbeispiel:

Maschinengewindebohrer 3406M3 HSSE

Начин на заявяване:

Метчици машинни 3406M3 HSSE

M	Mf	UNC	UNF	UN	BSW	BSF	G	Rp	Rc	NPS	NPT	NPTF	PT	Tr	PG	BA
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Machine Taps

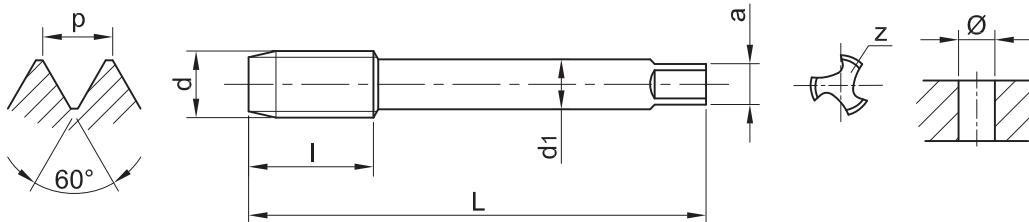
with spiral point
for ISO metric thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt
für metrisches ISO-Regelgewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни

с подточени канали
за метрична ISO резба
по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба
Форма В 4-5 навивки конус



M JIS B

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 4402*..
M2.6	0.45	44	9.5	3.0	2.5	3	2.15	4402M2.6x0.45
M3	0.5	46	11	4.0	3.2	3	2.5	4402M3x0.5
M3.5	0.6	48	13	4.0	3.2	3	2.9	4402M3.5x0.6
M4	0.7	52	13	5.0	4.0	3	3.3	4402M4x0.7
M5	0.8	60	16	5.5	4.5	3	4.2	4402M5x0.8
M6	1.0	62	19	6.0	4.5	3	5.0	4402M6x1
M7	1.0	65	19	6.2	5.0	3	6.0	4402M7x1
M8	1.25	70	22	6.2	5.0	3	6.8	4402M8x1.25
M10	1.5	75	24	7.0	5.5	3	8.5	4402M10x1.5
M12	1.75	82	29	8.5	6.5	3	10.2	4402M12x1.75
M14	2.0	88	30	10.5	8.0	3	12.0	4402M14x2
M16	2.0	95	32	12.5	10.0	3	14.0	4402M16x2
M18	2.5	100	37	14.0	11.0	3	15.5	4402M18x2.5
M20	2.5	105	37	15.0	12.0	3	17.5	4402M20x2.5
M22	2.5	115	38	17.0	13.0	3	19.5	4402M22x2.5
M24	3.0	120	45	19.0	15.0	3	21.0	4402M24x3
M27	3.0	130	45	20.0	15.0	4	24.0	4402M27x3
M30	3.5	135	48	23.0	17.0	4	26.5	4402M30x3.5

Ordering example: Machine taps 4402M2.6x0.45 HSSE
Bestellbeispiel: Maschinengewindebohrer 4402M2.6x0.45 HSSE
Начин на заявяване: Метчици машинни 4402M2.6x0.45 HSSE

Machine Taps

with helical flutes R39°

for ISO metric thread

according to DIN 13

Grade of fit: ISO 2 (6H)

Ground thread

Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R39°

für metrisches ISO-Regelgewinde

nach DIN 13

Toleranzfeld: ISO 2 (6H)

Geschliffenes Gewinde

Form C 2-3 Gang Anschnitt

Метчици машинни

с винтови канали R39°

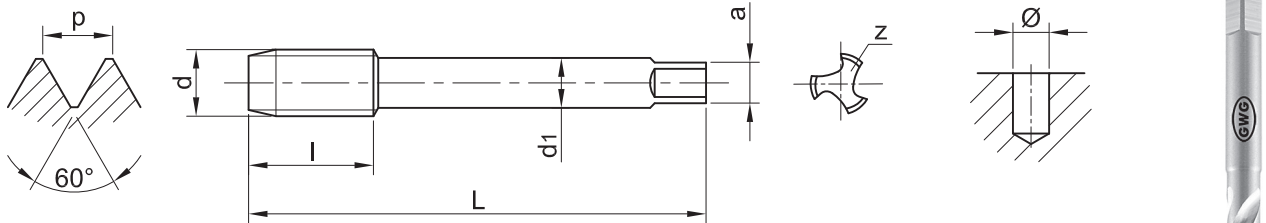
за метрична ISO резба

по DIN 13

Клас на точност: ISO 2 (6H)

Шлифована резба

Форма С 2-3 навивки конус



M JIS R39°

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 4407*..
M2.6	0.45	44	9.5	3.0	2.5	3	2.15	4407M2.6x0.45
M3	0.5	46	11	4.0	3.2	3	2.5	4407M3x0.5
M3.5	0.6	48	13	4.0	3.2	3	2.9	4407M3.5x0.6
M4	0.7	52	13	5.0	4.0	3	3.3	4407M4x0.7
M5	0.8	60	16	5.5	4.5	3	4.2	4407M5x0.8
M6	1.0	62	19	6.0	4.5	3	5.0	4407M6x1
M7	1.0	65	19	6.2	5.0	3	6.0	4407M7x1
M8	1.25	70	22	6.2	5.0	3	6.8	4407M8x1.25
M10	1.5	75	24	7.0	5.5	3	8.5	4407M10x1.5
M12	1.75	82	29	8.5	6.5	3	10.2	4407M12x1.75
M14	2.0	88	30	10.5	8.0	3	12.0	4407M14x2
M16	2.0	95	32	12.5	10.0	3	14.0	4407M16x2
M18	2.5	100	37	14.0	11.0	4	15.5	4407M18x2.5
M20	2.5	105	37	15.0	12.0	4	17.5	4407M20x2.5
M22	2.5	115	38	17.0	13.0	4	19.5	4407M22x2.5
M24	3.0	120	45	19.0	15.0	4	21.0	4407M24x3
M27	3.0	130	45	20.0	15.0	4	24.0	4407M27x3
M30	3.5	135	48	23.0	17.0	4	26.5	4407M30x3.5

Ordering example:

Machine taps 4407M2.6x0.45 HSSE

Bestellbeispiel:

Maschinengewindebohrer 4407M2.6x0.45 HSSE

Начин на заявяване:

Метчици машинни 4407M2.6x0.45 HSSE

Hand Taps

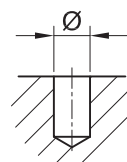
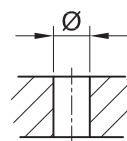
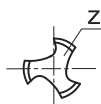
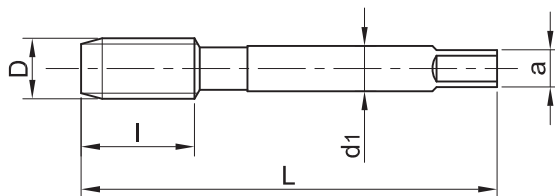
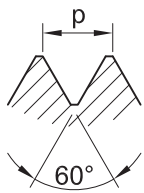
Set of 2 pieces for ISO metric
Fine thread according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Handgewindebohrer

Zweiteiliger Satz für metrisches
ISO-Feingewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Метчици ръчни

Комплект от 2 броя за метрична
ISO резба ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба



Mf DIN 2181

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 120*..
M2.5	0.35	40	9	2.8	2.1	3	2.15	120M2.5x0.35
M3	0.35	40	9	3.5	2.7	3	2.65	120M3x0.35
M3.5	0.35	45	10	4.0	3.0	3	3.15	120M3.5x0.35
M4	0.35	45	10	4.5	3.4	3	3.65	120M4x0.35
M4	0.5	45	10	4.5	3.4	3	3.5	120M4x0.5
M4.5	0.5	50	12	6	4.9	3	4.0	120M4.5x0.5
M5	0.5	50	12	6	4.9	3	4.5	120M5x0.5
M5	0.75	50	12	6	4.9	3	4.25	120M5x0.75
M5.5	0.5	50	12	6	4.9	3	5.0	120M5.5x0.5
M6	0.5	50	14	6	4.9	3	5.5	120M6x0.5
M6	0.75	50	14	6	4.9	3	5.2	120M6x0.75
M7	0.75	50	14	6	4.9	3	6.2	120M7x0.75
M8	0.5	50	19	6	4.9	4	7.5	120M8x0.5
M8	0.75	50	19	6	4.9	4	7.2	120M8x0.75
M8	1.0	56	22	6	4.9	4	7.0	120M8x1
M9	0.75	56	19	7	5.5	4	8.2	120M9x0.75
M9	1.0	63	20	7	5.5	4	8.0	120M9x1
M10	0.75	63	20	7	5.5	4	9.2	120M10x0.75
M10	1.0	63	20	7	5.5	4	9.0	120M10x1
M10	1.25	70	24	7	5.5	4	8.8	120M10x1.25
M11	0.75	63	20	8	6.2	4	10.2	120M11x0.75
M11	1.0	63	20	8	6.2	4	10.0	120M11x1
M11	1.25	63	22	8	6.2	4	9.8	120M11x1.25
M12	0.5	70	22	9	7	4	11.5	120M12x0.5
M12	0.75	70	22	9	7	4	11.2	120M12x0.75
M12	1.0	70	22	9	7	4	11.0	120M12x1
M12	1.25	70	22	9	7	4	10.8	120M12x1.25
M12	1.5	70	22	9	7	4	10.5	120M12x1.5
M13	1.0	70	22	11	9	4	12.0	120M13x1
M13	1.5	70	22	11	9	4	11.5	120M13x1.5
M14	0.5	70	22	11	9	4	13.5	120M14x0.5
M14	0.75	70	22	11	9	4	13.2	120M14x0.75
M14	1.0	70	22	11	9	4	13.0	120M14x1
M14	1.25	70	22	11	9	4	12.8	120M14x1.25
M14	1.5	70	22	11	9	4	12.5	120M14x1.5
M15	1.0	70	22	12	9	4	14.0	120M15x1
M15	1.5	70	22	12	9	4	13.5	120M15x1.5
M16	1.0	70	22	12	9	4	15.0	120M16x1
M16	1.25	70	22	12	9	4	14.8	120M16x1.25
M16	1.5	70	22	12	9	4	14.5	120M16x1.5

Ordering example: Hand taps 120M2.5x0.35 HSS - for 1 set /I, II/
Bestellbeispiel: Handgewindebohrer 120M2.5x0.35 HSS - für 1 Satz /I, II/
Начин на заявяване: Метчици ръчни 120M2.5x0.35 HSS - за 1 комплект /I, II/

Hand Taps

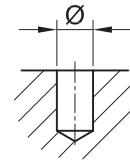
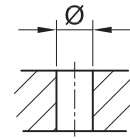
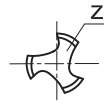
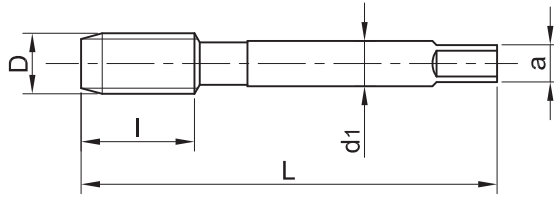
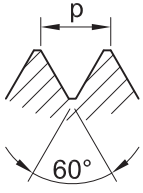
Set of 2 pieces for ISO metric
Fine thread according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Handgewindebohrer

Zweiteiliger Satz für metrisches
ISO-Feingewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Метчици ръчни

Комплект от 2 броя за метрична
ISO резба ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба



Mf DIN 2181

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 120*..
M17	1.0	70	22	12	9	4	16.0	120M17x1
M17	1.5	70	22	12	9	4	15.5	120M17x1.5
M17	2.0	80	32	12	9	4	15.0	120M17x2
M18	1.0	80	22	14	11	4	17.0	120M18x1
M18	1.25	80	22	14	11	4	16.8	120M18x1.25
M18	1.5	80	22	14	11	4	16.5	120M18x1.5
M18	2.0	80	22	14	11	4	16.0	120M18x2
M20	1.0	80	22	16	12	4	19.0	120M20x1
M20	1.25	80	22	16	12	4	18.8	120M20x1.25
M20	1.5	80	22	16	12	4	18.5	120M20x1.5
M20	2.0	80	22	16	12	4	18.0	120M20x2
M21	1.5	80	22	16	12	4	19.5	120M21x1.5
M22	1.0	80	22	18	14.5	4	21.0	120M22x1
M22	1.25	80	22	18	14.5	4	20.8	120M22x1.25
M22	1.5	80	22	18	14.5	4	20.5	120M22x1.5
M22	2.0	80	22	18	14.5	4	20.0	120M22x2
M23	1.5	80	22	18	14.5	4	21.5	120M23x1.5
M24	1.0	90	22	18	14.5	4	23.0	120M24x1
M24	1.25	90	22	18	14.5	4	22.8	120M24x1.25
M24	1.5	90	22	18	14.5	4	22.5	120M24x1.5
M24	2.0	90	22	18	14.5	4	22.0	120M24x2
M25	1.0	90	22	18	14.5	4	24.0	120M25x1
M25	1.5	90	22	18	14.5	4	23.5	120M25x1.5
M25	2.0	90	22	18	14.5	4	23.0	120M25x2
M26	1.0	90	22	18	14.5	4	25.0	120M26x1
M26	1.5	90	22	18	14.5	4	24.5	120M26x1.5
M26	2.0	90	22	18	14.5	4	24.0	120M26x2
M27	1.0	90	22	20	16	4	26.0	120M27x1
M27	1.5	90	22	20	16	4	25.5	120M27x1.5
M27	2.0	90	22	20	16	4	25.0	120M27x2
M28	1.0	90	22	20	16	4	27.0	120M28x1
M28	1.5	90	22	20	16	4	26.5	120M28x1.5
M28	2.0	90	22	20	16	4	26.0	120M28x2
M29	1.5	90	22	22	18	4	27.5	120M29x1.5
M30	1.0	90	22	22	18	4	29.0	120M30x1
M30	1.5	90	22	22	18	4	28.5	120M30x1.5
M30	2.0	90	22	22	18	4	28.0	120M30x2
M30	2.5	125	56	22	18	4	27.5	120M30x2.5
M30	3.0	125	56	22	18	4	27.0	120M30x3
M32	1.5	90	22	22	18	4	30.5	120M32x1.5

Ordering example: Hand taps 120M17x1 HSS - for 1 set /I, II/
Bestellbeispiel: Handgewindebohrer 120M17x1 HSS - für 1 Satz /I, II/
Начин на заявяване: Метчици ръчни 120M17x1 HSS - за 1 комплект /I, II/

Hand Taps

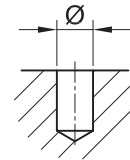
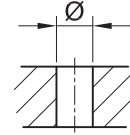
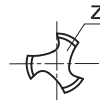
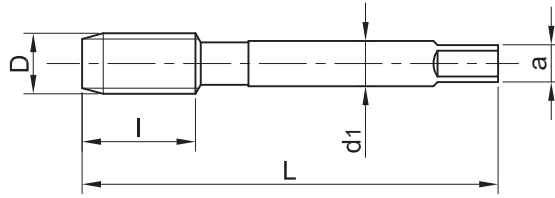
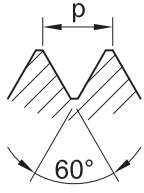
Set of 2 pieces for ISO metric
Fine thread according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Handgewindebohrer

Zweiteiliger Satz für metrisches
ISO-Feingewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Метчици ръчни

Комплект от 2 броя за метрична
ISO резба ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба



Mf DIN 2181

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 120*..
M32	2.0	90	22	22	18	4	30.0	120M32x2
M32	3.0	125	56	22	18	4	29.0	120M32x3
M33	1.5	100	25	25	20	4	31.5	120M33x1.5
M33	2.0	100	25	25	20	4	31.0	120M33x2
M33	3.0	125	56	25	20	4	30.0	120M33x3
M34	1.0	100	25	28	22	4	33.0	120M34x1
M34	1.5	100	25	28	22	4	32.5	120M34x1.5
M34	2.0	125	40	25	22	4	31.0	120M33x2
M35	1.5	100	25	28	22	4	33.5	120M35x1.5
M36	1.5	100	25	28	22	4	34.5	120M36x1.5
M36	2.0	125	40	28	22	4	34.0	120M36x2
M36	3.0	125	40	28	22	4	33.0	120M36x3
M38	1.5	100	25	28	22	4	36.5	120M38x1.5
M39	1.5	110	25	32	24	4	37.5	120M39x1.5
M39	2.0	125	40	32	24	4	37.0	120M39x2
M39	3.0	125	40	32	24	4	37.0	120M39x3
M40	1.5	110	25	32	24	4	38.5	120M40x1.5
M40	2.0	125	40	32	24	4	38.0	120M40x2
M40	3.0	125	40	32	24	4	37.0	120M40x3
M42	1.5	110	25	32	24	4	40.5	120M42x1.5
M42	2.0	125	40	32	24	4	40.0	120M42x2
M42	3.0	125	40	32	24	4	39.0	120M42x3
M42	4.0	150	63	32	24	4	38.0	120M42x4
M45	1.5	110	25	36	29	6	43.5	120M45x1.5
M45	2.0	125	40	36	29	6	43.0	120M45x2
M45	3.0	125	40	36	29	6	42.0	120M45x3
M45	4.0	160	70	36	29	6	41.0	120M45x4
M48	1.5	140	40	36	29	6	46.5	120M48x1.5
M48	2.0	140	40	36	29	6	46.0	120M48x2
M48	3.0	140	40	36	29	6	45.0	120M48x3
M48	4.0	180	75	36	29	6	44.0	120M48x4
M50	1.5	140	40	36	29	6	48.5	120M50x1.5
M50	2.0	140	40	36	29	6	48.0	120M50x2
M50	3.0	140	40	36	29	6	47.0	120M50x3
M52	1.5	140	40	40	32	6	50.5	120M52x1.5
M52	2.0	140	40	40	32	6	50.0	120M52x2
M52	3.0	140	40	40	32	6	49.0	120M52x3
M52	4.0	180	75	40	32	6	48.0	120M52x4
M54	1.5	140	32	40	32	6	52.5	120M54x1.5
M54	2.0	140	36	40	32	6	52.0	120M54x2

Ordering example: Hand taps 120M32x2 HSS - for 1 set /I, II/
 Bestellbeispiel: Handgewindebohrer 120M32x2 HSS - für 1 Satz /I, II/
 Начин на заявяване: Метчици ръчни 120M32x2 HSS - за 1 комплект /I, II/

Hand Taps

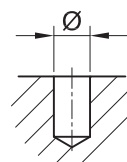
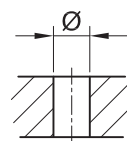
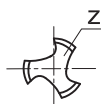
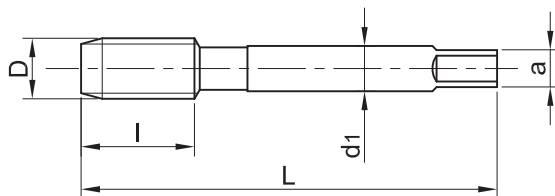
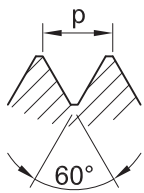
Set of 2 pieces for ISO metric
Fine thread according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Handgewindebohrer

Zweiteiliger Satz für metrisches
ISO-Feingewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Метчици ръчни

Комплект от 2 броя за метрична
ISO резба ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба



Mf DIN 2181

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art.No. 120*..
M54	3.0	140	40	40	32	6	51.0	120M54x3
M54	4.0	180	50	40	32	6	50.0	120M54x4
M55	1.5	140	32	40	32	6	53.5	120M55x1.5
M55	2.0	140	36	40	32	6	53.0	120M55x2
M55	3.0	140	40	40	32	6	52.0	120M55x3
M55	4.0	180	50	40	32	6	51.0	120M55x4
M56	1.5	140	32	40	32	6	54.5	120M56x1.5
M56	2.0	140	36	40	32	6	54.0	120M56x2
M56	3.0	140	40	40	32	6	53.0	120M56x3
M56	4.0	180	50	40	32	6	52.0	120M56x4
M58	1.5	160	32	45	35	6	56.5	120M58x1.5
M58	2.0	160	36	45	35	6	56.0	120M58x2
M58	3.0	160	40	45	35	6	55.0	120M58x3
M58	4.0	200	55	45	35	6	54.0	120M58x4
M60	1.5	160	34	45	35	6	58.5	120M60x1.5
M60	2.0	160	36	45	35	6	58.0	120M60x2
M60	3.0	160	40	45	35	6	57.0	120M60x3
M60	4.0	200	55	45	35	6	56.0	120M60x4
M62	1.5	160	34	50	39	6	60.5	120M62x1.5
M62	2.0	160	36	50	39	6	60.0	120M62x2
M62	3.0	180	45	50	39	6	59.0	120M62x3
M62	4.0	220	55	50	39	6	58.0	120M62x4
M63	1.5	160	32	50	39	6	61.5	120M63x1.5
M64	1.5	160	34	50	39	6	62.5	120M64x1.5
M64	2.0	160	36	50	39	6	62.0	120M64x2
M64	3.0	180	45	50	39	6	61.0	120M64x3
M64	4.0	220	60	50	39	6	60.0	120M64x4
M65	1.5	160	34	50	39	6	63.5	120M65x1.5
M65	2.0	160	36	50	39	6	63.0	120M65x2
M65	3.0	180	45	50	39	6	62.0	120M65x3
M65	4.0	220	60	50	39	6	61.0	120M65x4
M68	1.5	160	36	50	39	6	66.5	120M68x1.5
M68	2.0	160	40	50	39	6	66.0	120M68x2
M68	3.0	180	50	50	39	6	65.0	120M68x3
M68	4.0	220	60	50	39	6	64.0	120M68x4
M70	1.5	160	36	50	39	6	68.5	120M70x1.5
M70	2.0	160	40	50	39	6	68.0	120M70x2
M70	3.0	200	50	50	39	6	67.0	120M70x3
M70	4.0	240	60	50	39	6	66.0	120M70x4
M72	1.5	160	36	50	39	6	70.5	120M72x1.5

Ordering example: Hand taps 120M54x3 HSS - for 1 set /I, II/
Bestellbeispiel: Handgewindebohrer 120M54x3 HSS - für 1 Satz /I, II/
Начин на заявяване: Метчици ръчни 120M54x3 HSS - за 1 комплект /I, II/

Hand Taps

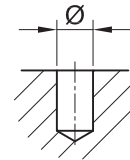
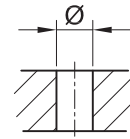
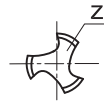
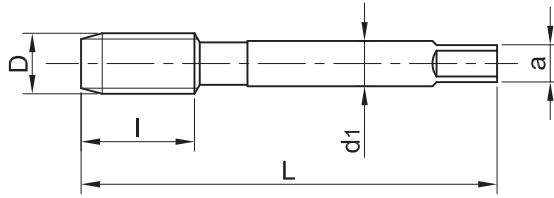
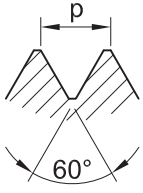
Set of 2 pieces for ISO metric
Fine thread according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Handgewindebohrer

Zweiteiliger Satz für metrisches
ISO-Feingewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Метчици ръчни

Комплект от 2 броя за метрична
ISO резба ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба



Mf DIN 2181

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 120*..
M72	2.0	160	40	50	39	6	70.0	120M72x2
M72	3.0	200	50	50	39	6	69.0	120M72x3
M72	4.0	240	60	50	39	6	68.0	120M72x4
M74	1.5	160	36	50	39	6	72.5	120M74x1.5
M74	2.0	160	40	50	39	6	72.0	120M74x2
M74	3.0	200	50	50	39	6	71.0	120M74x3
M74	4.0	240	60	50	39	6	70.0	120M74x4
M75	1.5	160	36	50	39	6	73.5	120M75x1.5
M75	2.0	160	40	50	39	6	73.0	120M75x2
M75	3.0	200	50	50	39	6	72.0	120M75x3
M75	4.0	240	60	50	39	6	71.0	120M75x4
M76	1.5	160	36	50	39	6	74.5	120M76x1.5
M76	2.0	160	40	50	39	6	74.0	120M76x2
M76	3.0	220	50	50	39	6	73.0	120M76x3
M76	4.0	260	60	50	39	6	72.0	120M76x4
M78	1.5	160	36	50	39	6	76.5	120M78x1.5
M78	2.0	160	40	50	39	6	76.0	120M78x2
M78	3.0	220	55	50	39	6	75.0	120M78x3
M78	4.0	260	65	50	39	6	74.0	120M78x4
M80	1.5	160	36	50	39	6	78.5	120M80x1.5
M80	2.0	160	40	50	39	6	78.0	120M80x2
M80	3.0	220	55	50	39	6	77.0	120M80x3
M80	4.0	260	65	50	39	6	76.0	120M80x4
M82	1.5	160	36	50	39	8	80.5	120M82x1.5
M82	2.0	160	40	50	39	8	80.0	120M82x2
M82	3.0	220	55	50	39	8	79.0	120M82x3
M82	4.0	260	65	50	39	8	78.0	120M82x4
M84	1.5	160	36	50	39	8	82.5	120M84x1.5
M84	2.0	160	40	50	39	8	82.0	120M84x2
M84	3.0	220	55	50	39	8	81.0	120M84x3
M84	4.0	260	65	50	39	8	80.0	120M84x4
M85	1.5	160	36	50	39	8	83.5	120M85x1.5
M85	2.0	160	40	50	39	8	83.0	120M85x2
M85	3.0	220	55	50	39	8	82.0	120M85x3
M85	4.0	260	65	50	39	8	81.0	120M85x4
M86	1.5	160	36	50	39	8	84.5	120M86x1.5
M86	2.0	160	40	50	39	8	84.0	120M86x2
M86	3.0	220	55	50	39	8	83.0	120M86x3
M86	4.0	260	65	50	39	8	82.0	120M86x4
M88	1.5	160	38	50	39	8	86.5	120M88x1.5

Ordering example: Hand taps 120M72x2 HSS - for 1 set /I, II/
Bestellbeispiel: Handgewindebohrer 120M72x2 HSS - für 1 Satz /I, II/
Начин на заявяване: Метчици ръчни 120M72x2 HSS - за 1 комплект /I, II/

Hand Taps

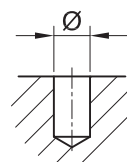
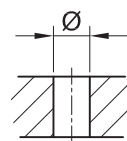
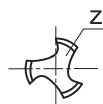
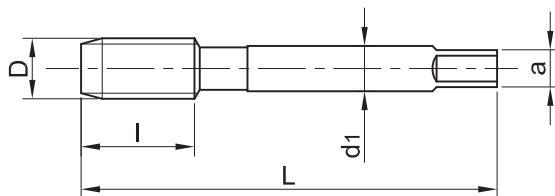
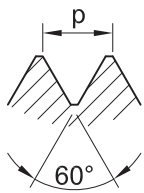
Set of 2 pieces for ISO metric
Fine thread according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Handgewindebohrer

Zweiteiliger Satz für metrisches
ISO-Feingewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Метчици ръчни

Комплект от 2 броя за метрична
ISO резба ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба



Mf DIN 2181

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 120*..
M88	2.0	160	40	50	39	8	86.0	120M88x2
M88	3.0	220	55	50	39	8	85.0	120M88x3
M88	4.0	260	65	50	39	8	84.0	120M88x4
M90	1.5	160	38	50	39	8	88.5	120M90x1.5
M90	2.0	160	40	50	39	8	88.0	120M90x2
M90	3.0	220	55	50	39	8	87.0	120M90x3
M90	4.0	260	65	50	39	8	86.0	120M90x4
M92	1.5	180	40	56	44	8	90.5	120M92x1.5
M92	2.0	180	45	56	44	8	90.0	120M92x2
M92	3.0	240	60	56	44	8	89.0	120M92x3
M92	4.0	280	70	56	44	8	88.0	120M92x4
M95	1.5	180	40	56	44	8	93.5	120M95x1.5
M95	2.0	180	45	56	44	8	93.0	120M95x2
M95	3.0	240	60	56	44	8	92.0	120M95x3
M95	4.0	280	70	56	44	8	91.0	120M95x4
M96	1.5	180	40	56	44	8	94.5	120M96x1.5
M96	2.0	180	45	56	44	8	94.0	120M96x2
M96	3.0	240	60	56	44	8	93.0	120M96x3
M96	4.0	280	70	56	44	8	92.0	120M96x4
M98	1.5	180	40	56	44	8	96.5	120M98x1.5
M98	2.0	180	45	56	44	8	96.0	120M98x2
M98	3.0	240	60	56	44	8	95.0	120M98x3
M98	4.0	280	70	56	44	8	94.0	120M98x4
M100	1.5	180	45	56	44	8	98.5	120M100x1.5
M100	2.0	180	50	56	44	8	98.0	120M100x2
M100	3.0	240	65	56	44	8	97.0	120M100x3
M100	4.0	280	75	56	44	8	96.0	120M100x4
M105	1.5	180	45	56	44	8	103.5	120M105x1.5
M105	2.0	180	50	56	44	8	103.0	120M105x2
M105	3.0	240	65	56	44	8	102.0	120M105x3
M105	4.0	280	75	56	44	8	101.0	120M105x4
M110	1.5	180	45	56	44	10	108.5	120M110x1.5
M110	2.0	180	50	56	44	10	108.0	120M110x2
M110	3.0	240	65	56	44	10	107.0	120M110x3
M110	4.0	280	75	56	44	10	106.0	120M110x4

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Hand taps 120M88x2 HSS - for 1 set /I, II/

Handgewindebohrer 120M88x2 HSS - für 1 Satz /I, II/

Метчици ръчни 120M88x2 HSS - за 1 комплект /I, II/

Hand Taps

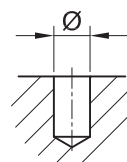
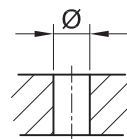
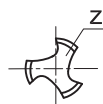
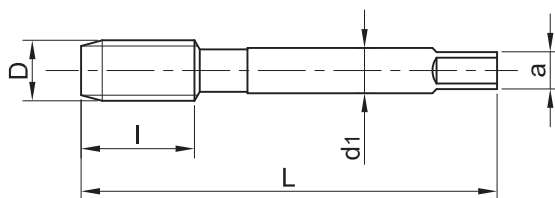
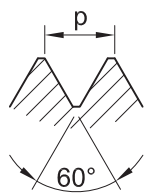
Set of 2 pieces for ISO metric
Fine thread according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Handgewindebohrer

Zweiteiliger Satz für metrisches
ISO-Feingewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Метчици ръчни

Комплект от 2 броя за метрична
ISO резба ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба



Mf DIN 2184-2

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 120*.. 170*..
M2.5	0.35	40	9	2.8	2.1	3	2.15	120M2.5x0.35
M3	0.35	40	8	3.5	2.7	3	2.65	170M3x0.35
M3.5	0.35	45	9	4	3.0	3	3.15	170M3.5x0.35
M4	0.35	45	10	4.5	3.4	3	3.65	120M4x0.35
M4	0.5	45	10	4.5	3.4	3	3.5	120M4x0.5
M4.5	0.5	50	12	6	4.9	3	4.0	120M4.5x0.5
M5	0.5	50	12	6	4.9	3	4.5	120M5x0.5
M5	0.75	50	12	6	4.9	3	4.25	120M5x0.75
M5.5	0.5	56	12	6	4.9	3	5.0	170M5.5x0.5
M6	0.5	56	14	6	4.9	3	5.5	170M6x0.5
M6	0.75	56	14	6	4.9	3	5.2	170M6x0.75
M7	0.75	56	14	6	4.9	3	6.2	170M7x0.75
M8	0.5	56	18	6	4.9	4	7.5	170M8x0.5
M8	0.75	56	18	6	4.9	4	7.2	170M8x0.75
M8	1.0	63	22	6	4.9	4	7.0	170M8x1
M9	0.75	63	18	7	5.5	4	8.2	170M9x0.75
M9	1.0	63	22	7	5.5	4	8.0	170M9x1
M10	0.75	63	20	7	5.5	4	9.2	120M10x0.75
M10	1.0	63	20	7	5.5	4	9.0	120M10x1
M10	1.25	70	24	7	5.5	4	8.8	120M10x1.25
M11	0.75	63	20	8	6.2	4	10.2	120M11x0.75
M11	1.0	63	20	8	6.2	4	10.0	120M11x1
M11	1.25	70	24	8	6.2	4	9.8	170M11x1.25
M12	0.5	70	22	9	7.0	4	11.5	120M12x0.5
M12	0.75	70	22	9	7.0	4	11.2	120M12x0.75
M12	1.0	70	22	9	7.0	4	11.0	120M12x1
M12	1.25	70	22	9	7.0	4	10.8	120M12x1.25
M12	1.5	70	22	9	7.0	4	10.5	120M12x1.5
M13	1.0	70	22	11	9.0	4	12.0	120M13x1
M13	1.5	70	22	11	9.0	4	11.5	120M13x1.5
M14	0.5	70	22	11	9.0	4	13.5	120M14x0.5
M14	0.75	70	22	11	9.0	4	13.2	120M14x0.75
M14	1.0	70	22	11	9.0	4	13.0	120M14x1
M14	1.25	70	22	11	9.0	4	12.8	120M14x1.25
M14	1.5	70	22	11	9.0	4	12.5	120M14x1.5
M15	1.0	70	22	12	9.0	4	14.0	120M15x1
M15	1.5	70	22	12	9.0	4	13.5	120M15x1.5
M16	1.0	70	22	12	9.0	4	15.0	120M16x1
M16	1.25	70	22	12	9.0	4	14.8	120M16x1.25
M16	1.5	70	22	12	9.0	4	14.5	120M16x1.5

Ordering example:

Hand taps 120M2.5x0.35 HSS - for 1 set /I, II/

Bestellbeispiel:

Handgewindebohrer 120M2.5x0.35 HSS - für 1 Satz /I, II/

Начин на заявяване:

Метчици ръчни 120M2.5x0.35 HSS - за 1 комплект /I, II/

M

Mf

UNC

UNF

UN

BSW

BSF

G

Rp

Rc

NPS

NPT

NPTF

PT

Tr

PG

BA

Hand Taps

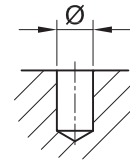
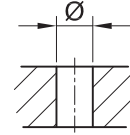
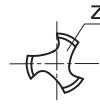
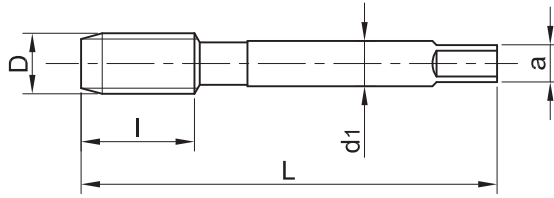
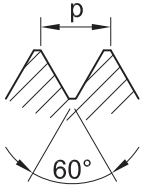
Set of 2 pieces for ISO metric
 Fine thread according to DIN 13
 Grade of fit: ISO 2 (6H)
 Ground thread

Handgewindebohrer

Zweiteiliger Satz für metrisches
 ISO-Feingewinde nach DIN 13
 Toleranzfeld: ISO 2 (6H)
 Geschliffenes Gewinde

Метчици ръчни

Комплект от 2 броя за метрична
 ISO резба ситна стъпка по DIN 13
 Клас на точност: ISO 2 (6H)
 Шлифована резба



Mf DIN 2184-2

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 120*.. 170*..
M17	1.0	70	22	12	9	4	16.0	120M17x1
M17	1.5	70	22	12	9	4	15.5	120M17x1.5
M17	2.0	80	32	12	9	4	15.0	120M17x2
M18	1.0	80	22	14	11	4	17.0	120M18x1
M18	1.25	80	22	14	11	4	16.8	120M18x1.25
M18	1.5	80	22	14	11	4	16.5	120M18x1.5
M18	2.0	80	22	14	11	4	16.0	120M18x2
M20	1.0	80	22	16	12	4	19.0	120M20x1
M20	1.25	80	22	16	12	4	18.8	120M20x1.25
M20	1.5	80	22	16	12	4	18.5	120M20x1.5
M20	2.0	80	22	16	12	4	18.0	120M20x2
M21	1.5	80	22	16	12	4	19.5	120M21x1.5
M22	1.0	80	22	18	14.5	4	21.0	120M22x1
M22	1.25	80	22	18	14.5	4	20.8	120M22x1.25
M22	1.5	80	22	18	14.5	4	20.5	120M22x1.5
M22	2.0	80	22	18	14.5	4	20.0	120M22x2
M23	1.5	80	22	18	14.5	4	21.5	120M23x1.5
M24	1.0	90	22	18	14.5	4	23.0	120M24x1
M24	1.25	90	22	18	14.5	4	22.8	120M24x1.25
M24	1.5	90	22	18	14.5	4	22.5	120M24x1.5
M24	2.0	90	22	18	14.5	4	22.0	120M24x2
M25	1.0	90	22	18	14.5	4	24.0	120M25x1
M25	1.5	90	22	18	14.5	4	23.5	120M25x1.5
M25	2.0	90	22	18	14.5	4	23.0	120M25x2
M26	1.0	90	22	18	14.5	4	25.0	120M26x1
M26	1.5	90	22	18	14.5	4	24.5	120M26x1.5
M26	2.0	90	22	18	14.5	4	24.0	120M26x2
M27	1.0	90	22	20	16	4	26.0	120M27x1
M27	1.5	90	22	20	16	4	25.5	120M27x1.5
M27	2.0	90	22	20	16	4	25.0	120M27x2
M28	1.0	90	22	20	16	4	27.0	120M28x1
M28	1.5	90	22	20	16	4	26.5	120M28x1.5
M28	2.0	90	22	20	16	4	26.0	120M28x2
M29	1.5	90	22	22	18	4	27.5	120M29x1.5
M30	1.0	90	22	22	18	4	29.0	120M30x1
M30	1.5	90	22	22	18	4	28.5	120M30x1.5
M30	2.0	90	22	22	18	4	28.0	120M30x2
M30	2.5	125	45	22	18	4	27.5	170M30x2.5
M30	3.0	125	45	22	18	4	27.0	170M30x3
M32	1.5	90	22	22	18	4	30.5	120M32x1.5

Ordering example: Hand taps 120M17x1 HSS - for 1 set /I, II/
 Bestellbeispiel: Handgewindebohrer 120M17x1 HSS - für 1 Satz /I, II/
 Начин на заявяване: Метчици ръчни 120M17x1 HSS - за 1 комплект /I, II/

Hand Taps

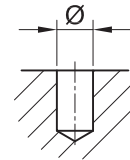
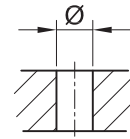
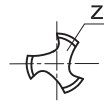
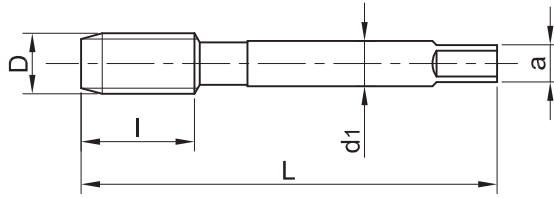
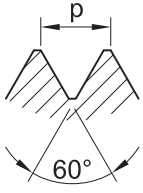
Set of 2 pieces for ISO metric
Fine thread according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Handgewindebohrer

Zweiteiliger Satz für metrisches
ISO-Feingewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Метчици ръчни

Комплект от 2 броя за метрична
ISO резба ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба



Mf DIN 2184-2

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 120*.. 170*..
M32	2.0	90	22	22	18	4	30.0	120M32x2
M32	3.0	125	45	22	18	4	29.0	170M32x3
M33	1.5	100	25	25	20	4	31.5	120M33x1.5
M33	2.0	100	25	25	20	4	31.0	120M33x2
M33	3.0	125	50	25	20	4	30.0	170M33x3
M34	1.0	100	25	28	22	4	33.0	120M34x1
M34	1.5	100	25	28	22	4	32.5	120M34x1.5
M34	2.0	125	40	25	22	4	31.0	120M34x2
M35	1.5	100	25	28	22	4	33.5	120M35x1.5
M36	1.5	100	25	28	22	4	34.5	120M36x1.5
M36	2.0	125	40	28	22	4	34.0	120M36x2
M36	3.0	125	40	28	22	4	33.0	120M36x3
M38	1.5	100	25	28	22	4	36.5	120M38x1.5
M39	1.5	110	25	32	24	4	37.5	120M39x1.5
M39	2.0	125	40	32	24	4	37.0	120M39x2
M39	3.0	125	40	32	24	4	37.0	120M39x3
M40	1.5	110	25	32	24	4	38.5	120M40x1.5
M40	2.0	125	40	32	24	4	37.0	120M40x2
M40	3.0	125	40	32	24	4	37.0	120M40x3
M42	1.5	110	25	32	24	4	40.5	120M42x1.5
M42	2.0	125	40	32	24	4	40.0	120M42x2
M42	3.0	125	40	32	24	4	39.0	120M42x3
M42	4.0	150	60	32	24	4	38.0	170M42x4
M45	1.5	110	25	36	29	6	43.5	120M45x1.5
M45	2.0	125	40	36	29	6	43.0	120M45x2
M45	3.0	125	40	36	29	6	42.0	120M45x3
M45	4.0	160	65	36	29	6	41.0	170M45x4
M48	1.5	140	40	36	29	6	46.5	120M48x1.5
M48	2.0	140	40	36	29	6	46.0	120M48x2
M48	3.0	140	40	36	29	6	45.0	120M48x3
M48	4.0	180	70	36	29	6	44.0	170M48x4
M50	1.5	140	40	36	29	6	48.5	120M50x1.5
M50	2.0	140	40	36	29	6	48.0	120M50x2
M50	3.0	140	40	36	29	6	47.0	120M50x3
M52	1.5	140	40	40	32	6	50.5	120M52x1.5
M52	2.0	140	40	40	32	6	50.0	120M52x2
M52	3.0	140	40	40	32	6	49.0	120M52x3
M52	4.0	180	70	40	32	6	48.0	170M52x4
M54	1.5	140	40	40	32	6	52.5	170M54x1.5
M54	2.0	140	40	40	32	6	52.0	170M54x2

Ordering example: Hand taps 120M32x2 HSS - for 1 set /I, II/
Bestellbeispiel: Handgewindebohrer 120M32x2 HSS - für 1 Satz /I, II/
Начин на заявяване: Метчици ръчни 120M32x2 HSS - за 1 комплект /I, II/

Hand Taps

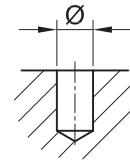
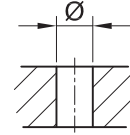
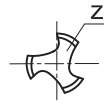
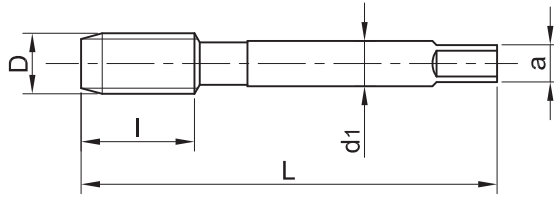
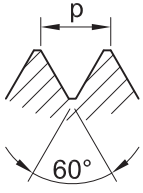
Set of 2 pieces for ISO metric
Fine thread according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Handgewindebohrer

Zweiteiliger Satz für metrisches
ISO-Feingewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Метчици ръчни

Комплект от 2 броя за метрична
ISO резба ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба



Mf DIN 2184-2

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art.No. 120*.. 170*..
M54	3.0	140	40	40	32	6	51.0	120M54x3
M54	4.0	180	70	40	32	6	50.0	170M54x4
M55	1.5	140	40	40	32	6	53.5	170M55x1.5
M55	2.0	140	40	40	32	6	53.0	170M55x2
M55	3.0	140	40	40	32	6	52.0	120M55x3
M55	4.0	180	70	40	32	6	51.0	170M55x4
M56	1.5	140	40	40	32	6	54.5	170M56x1.5
M56	2.0	140	40	40	32	6	54.0	170M56x2
M56	3.0	140	40	40	32	6	53.0	120M56x3
M56	4.0	180	70	40	32	6	52.0	170M56x4
M58	1.5	160	40	45	35	6	57.0	170M58x1.5
M58	2.0	160	40	45	35	6	56.0	170M58x2
M58	3.0	160	40	45	35	6	55.0	120M58x3
M58	4.0	200	75	45	35	6	54.0	170M58x4
M60	1.5	160	40	45	35	6	58.5	170M60x1.5
M60	2.0	160	40	45	35	6	58.0	170M60x2
M60	3.0	160	40	45	35	6	57.0	120M60x3
M60	4.0	200	75	45	35	6	56.0	170M60x4
M62	1.5	160	40	50	39	6	60.5	170M62x1.5
M62	2.0	160	40	50	39	6	60.0	170M62x2
M62	3.0	180	56	50	39	6	59.0	170M62x3
M62	4.0	220	80	50	39	6	58.0	170M62x4
M63	1.5	160	40	50	39	6	61.5	170M63x1.5
M64	1.5	160	40	50	39	6	62.5	170M64x1.5
M64	2.0	160	40	50	39	6	62.0	170M64x2
M64	3.0	180	56	50	39	6	61.0	170M64x3
M64	4.0	220	80	50	39	6	60.0	170M64x4
M65	1.5	160	40	50	39	6	63.5	170M65x1.5
M65	2.0	160	40	50	39	6	63.0	170M65x2
M65	3.0	180	56	50	39	6	62.0	170M65x3
M65	4.0	220	80	50	39	6	61.0	170M65x4
M68	1.5	160	40	50	39	6	66.5	170M68x1.5
M68	2.0	160	40	50	39	6	66.0	120M68x2
M68	3.0	180	56	50	39	6	65.0	170M68x3
M68	4.0	220	80	50	39	6	64.0	170M68x4
M70	1.5	160	40	50	39	6	68.5	170M70x1.5
M70	2.0	160	40	50	39	6	68.0	120M70x2
M70	3.0	200	56	50	39	6	67.0	170M70x3
M70	4.0	240	80	50	39	6	66.0	170M70x4
M72	1.5	160	40	50	39	6	70.5	170M72x1.5

Ordering example: Hand taps 120M54x3 HSS - for 1 set /I, II/
Bestellbeispiel: Handgewindebohrer 120M54x3 HSS - für 1 Satz /I, II/
Начин на заявяване: Метчици ръчни 120M54x3 HSS - за 1 комплект /I, II/

Hand Taps

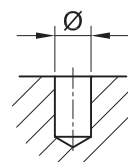
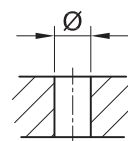
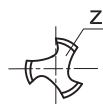
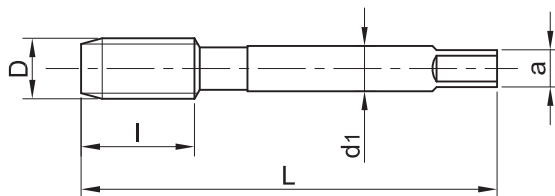
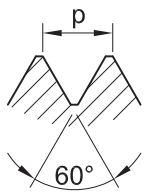
Set of 2 pieces for ISO metric
Fine thread according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Handgewindebohrer

Zweiteiliger Satz für metrisches
ISO-Feingewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Метчици ръчни

Комплект от 2 броя за метрична
ISO резба ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба



Mf DIN 2184-2

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 120*.. 170..*
M72	2.0	160	40	50	39	6	70.0	120M72x2
M72	3.0	200	56	50	39	6	69.0	170M72x3
M72	4.0	240	80	50	39	6	68.0	170M72x4
M74	1.5	160	40	50	39	6	72.5	170M74x1.5
M74	2.0	160	40	50	39	6	72.0	120M74x2
M74	3.0	200	56	50	39	6	71.0	170M74x3
M74	4.0	240	80	50	39	6	70.0	170M74x4
M75	1.5	160	40	50	39	6	73.5	170M75x1.5
M75	2.0	160	40	50	39	6	73.0	120M75x2
M75	3.0	200	56	50	39	6	72.0	170M75x3
M75	4.0	240	80	50	39	6	71.0	170M75x4
M76	1.5	160	40	50	39	6	74.5	170M76x1.5
M76	2.0	160	40	50	39	6	74.0	120M76x2
M76	3.0	200	56	50	39	6	73.0	170M76x3
M76	4.0	240	80	50	39	6	72.0	170M76x4
M78	1.5	160	40	50	39	6	76.5	170M78x1.5
M78	2.0	160	40	50	39	6	76.0	120M78x2
M78	3.0	220	60	50	39	6	75.0	170M78x3
M78	4.0	260	85	50	39	6	74.0	170M78x4
M80	1.5	160	40	50	39	6	78.5	170M80x1.5
M80	2.0	160	40	50	39	6	78.0	120M80x2
M80	3.0	220	60	50	39	6	77.0	170M80x3
M80	4.0	260	85	50	39	6	76.0	170M80x4
M82	1.5	160	40	50	39	8	80.5	170M82x1.5
M82	2.0	160	40	50	39	8	80.0	120M82x2
M82	3.0	220	60	50	39	8	79.0	170M82x3
M82	4.0	260	85	50	39	8	78.0	170M82x4
M84	1.5	160	40	50	39	8	82.5	170M84x1.5
M84	2.0	160	40	50	39	8	82.0	120M84x2
M84	3.0	220	60	50	39	8	81.0	170M84x3
M84	4.0	260	85	50	39	8	80.0	170M84x4
M85	1.5	160	40	50	39	8	83.5	170M85x1.5
M85	2.0	160	40	50	39	8	83.0	120M85x2
M85	3.0	220	60	50	39	8	82.0	170M85x3
M85	4.0	260	85	50	39	8	81.0	170M85x4
M86	1.5	160	40	50	39	8	84.5	170M86x1.5
M86	2.0	160	40	50	39	8	84.0	120M86x2
M86	3.0	220	60	50	39	8	83.0	170M86x3
M86	4.0	260	85	50	39	8	82.0	170M86x4
M88	1.5	160	40	50	39	8	86.5	170M88x1.5

Ordering example: Hand taps 120M72x2 HSS - for 1 set /I, II/
Bestellbeispiel: Handgewindebohrer 120M72x2 HSS - für 1 Satz /I, II/
Начин на заявяване: Метчици ръчни 120M72x2 HSS - за 1 комплект /I, II/

Hand Taps

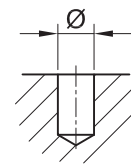
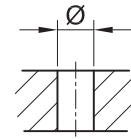
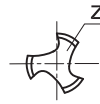
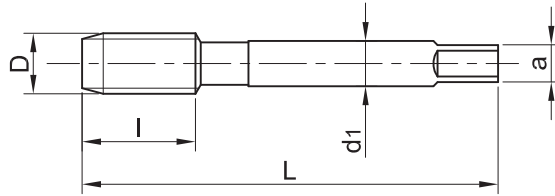
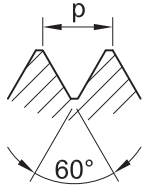
Set of 2 pieces for ISO metric
Fine thread according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Handgewindebohrer

Zweiteiliger Satz für metrisches
ISO-Feingewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Метчици ръчни

Комплект от 2 броя за метрична
ISO резба ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба



Mf DIN 2184-2

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 120*.. 170*..
M88	2.0	160	40	50	39	8	86.0	120M88x2
M88	3.0	220	60	50	39	8	85.0	170M88x3
M88	4.0	260	85	50	39	8	84.0	170M88x4
M90	1.5	160	40	50	39	8	88.5	170M90x1.5
M90	2.0	160	40	50	39	8	88.0	120M90x2
M90	3.0	220	60	50	39	8	87.0	170M90x3
M90	4.0	260	85	50	39	8	86.0	170M90x4
M92	1.5	180	45	56	44	8	90.5	170M92x1.5
M92	2.0	180	45	56	44	8	90.0	120M92x2
M92	3.0	240	65	56	44	8	89.0	170M92x3
M92	4.0	280	90	56	44	8	88.0	170M92x4
M95	1.5	180	45	56	44	8	93.5	170M95x1.5
M95	2.0	180	45	56	44	8	93.0	120M95x2
M95	3.0	240	65	56	44	8	92.0	170M95x3
M95	4.0	280	90	56	44	8	91.0	170M95x4
M96	1.5	180	45	56	44	8	94.5	170M96x1.5
M96	2.0	180	45	56	44	8	94.0	120M96x2
M96	3.0	240	65	56	44	8	93.0	170M96x3
M96	4.0	280	90	56	44	8	92.0	170M96x4
M98	1.5	180	45	56	44	8	96.5	170M98x1.5
M98	2.0	180	45	56	44	8	96.0	120M98x2
M98	3.0	240	65	56	44	8	95.0	170M98x3
M98	4.0	280	90	56	44	8	94.0	170M98x4
M100	1.5	180	45	56	44	8	98.5	120M100x1.5
M100	2.0	180	45	56	44	8	98.0	170M100x2
M100	3.0	240	65	56	44	8	97.0	120M100x3
M100	4.0	280	90	56	44	8	96.0	170M100x4
M105	1.5	180	45	56	44	8	103.5	120M105x1.5
M105	2.0	180	45	56	44	8	103.0	170M105x2
M105	3.0	240	65	56	44	8	102.0	120M105x3
M105	4.0	280	90	56	44	8	101.0	170M105x4
M110	1.5	180	45	56	44	10	108.5	120M110x1.5
M110	2.0	180	45	56	44	10	108.0	170M110x2
M110	3.0	240	65	56	44	10	107.0	120M110x3
M110	4.0	280	90	56	44	10	106.0	170M110x4

Ordering example: Hand taps 120M88x2 HSS - for 1 set /I, II/
Bestellbeispiel: Handgewindebohrer 120M88x2 HSS - für 1 Satz /I, II/
Начин на заявяване: Метчици ръчни 120M88x2 HSS - за 1 комплект /I, II/

Hand Taps

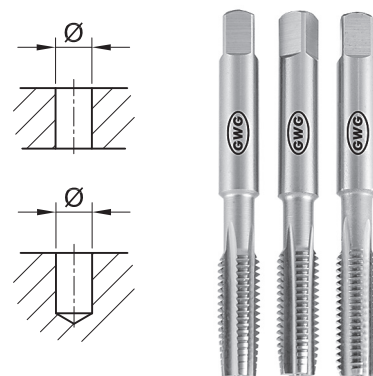
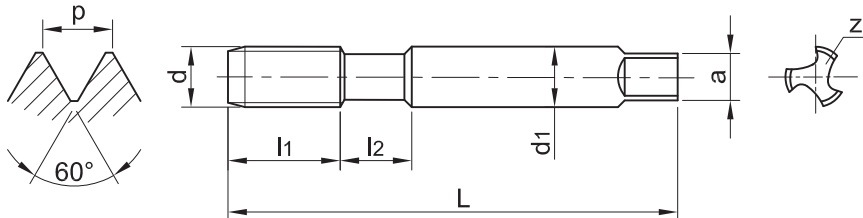
for ISO metric Fine thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread
Form A 6-8 threads chamfered
Form D 4-5 threads chamfered
Form C 2-3 threads chamfered

Handgewindebohrer

für metrisches ISO-Feingewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde
Form A 6-8 Gang Anschnitt
Form D 4-5 Gang Anschnitt
Form C 2-3 Gang Anschnitt

Метчици ръчни

за метрична ISO резба
ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба
Форма А 6-8 навивки конус
Форма D 4-5 навивки конус
Форма С 2-3 навивки конус



Mf ISO 529

d	p mm	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. A 3201*.. Art. No. D 3204*.. Art. No. C 3203*..
M3	0.35	48	11	7	3.15	2.5	3	2.15	..*M3x0.35
M3.5	0.35	50	13	7	3.55	2.8	3	2.65	..*M3.5x0.35
M4	0.5	53	13	8	4.0	3.15	3	3.5	..*M4x0.5
M4.5	0.5	53	13	8	4.5	3.55	3	4.0	..*M4.5x0.5
M5	0.5	58	16	9	5.0	4.0	3	4.5	..*M5x0.5
M5.5	0.5	62	17	9	5.6	4.5	3	5.0	..*M5.5x0.5
M6	0.75	66	19	11	6.3	5.0	3	5.2	..*M6x0.75
M7	0.75	66	19	11	7.1	5.6	4	6.2	..*M7x0.75
M8	0.75	69	19	13	8.0	6.3	4	7.2	..*M8x0.75
M8	1.0	69	19	13	8.0	6.3	4	7.0	..*M8x1
M9	0.75	69	19	14	9.0	7.1	4	8.2	..*M9x0.75
M9	1.0	69	19	14	9.0	7.1	4	8.0	..*M9x1
M10	0.75	76	20	15	10.0	8.0	4	9.2	..*M10x0.75
M10	1.0	76	20	15	10.0	8.0	4	9.0	..*M10x1
M10	1.25	76	20	15	10.0	8.0	4	8.8	..*M10x1.25
M11	0.75	80	20		8.0	6.3	4	10.2	..*M11x0.75
M11	1.0	80	20		8.0	6.3	4	10.0	..*M11x1
M12	1.0	84	24		9.0	7.1	4	11.0	..*M12x1
M12	1.25	84	24		9.0	7.1	4	9.8	..*M12x1.25
M12	1.5	89	29		9.0	7.1	4	10.5	..*M12x1.5
M14	1.0	90	25		11.2	9.0	4	13.0	..*M14x1
M14	1.25	90	25		11.2	9.0	4	12.8	..*M14x1.25
M14	1.5	95	30		11.2	9.0	4	12.5	..*M14x1.5
M15	1.0	95	25		11.2	9.0	4	14.0	..*M15x1
M15	1.5	95	30		11.2	9.0	4	13.5	..*M15x1.5
M16	1.0	95	25		12.5	10.0	4	15.0	..*M16x1
M16	1.5	102	32		12.5	10.0	4	14.5	..*M16x1.5
M17	1.0	95	25		12.5	10.0	4	16.0	..*M17x1
M17	1.5	102	32		12.5	10.0	4	15.5	..*M17x1.5
M18	1.0	104	29		14.0	11.2	4	17.0	..*M18x1
M18	1.25	104	29		14.0	11.2	4	16.8	..*M18x1.25
M18	1.5	104	29		14.0	11.2	4	16.5	..*M18x1.5
M18	2.0	112	37		14.0	11.2	4	16.0	..*M18x2
M20	1.0	104	29		14.0	11.2	4	19.0	..*M20x1
M20	1.25	104	29		14.0	11.2	4	18.8	..*M20x1.25
M20	1.5	104	29		14.0	11.2	4	18.5	..*M20x1.5

Ordering example: Hand taps 3201M3x0.35 HSS
Bestellbeispiel: Handgewindebohrer 3201M3x0.35 HSS
Начин на заявяване: Метчици ръчни 3201M3x0.35 HSS

Hand Taps

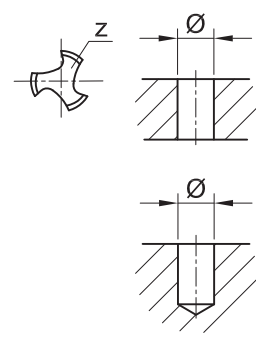
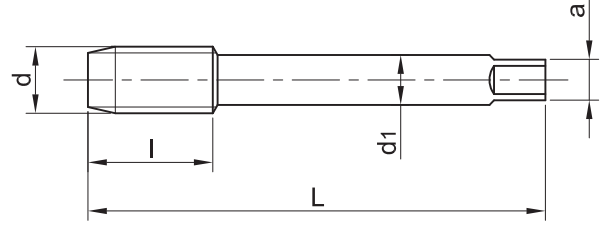
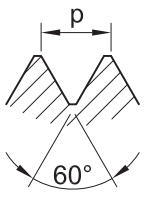
for ISO metric Fine thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread
Form A 6-8 threads chamfered
Form D 4-5 threads chamfered
Form C 2-3 threads chamfered

Handgewindebohrer

für metrisches ISO-Feingewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde
Form A 6-8 Gang Anschnitt
Form D 4-5 Gang Anschnitt
Form C 2-3 Gang Anschnitt

Метчици ръчни

за метрична ISO резба
ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба
Форма А 6-8 навивки конус
Форма D 4-5 навивки конус
Форма С 2-3 навивки конус



Mf ISO 529

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. A 3201*.. Art. No. D 3204*.. Art. No. C 3203*..
M20	2.0	112	37	14.0	11.2	4	18.0	..*M20x2
M22	1.0	109	29	16.0	12.5	4	21.0	..*M22x1
M22	1.5	113	33	16.0	12.5	4	20.5	..*M22x1.5
M22	2.0	118	38	16.0	12.5	4	20.0	..*M22x2
M24	1.0	114	29	18.0	14.0	4	23.0	..*M24x1
M24	1.5	120	35	18.0	14.0	4	22.5	..*M24x1.5
M24	2.0	120	35	18.0	14.0	4	22.0	..*M24x2
M25	1.0	120	35	18.0	14.0	4	24.0	..*M25x1
M25	1.5	120	35	18.0	14.0	4	23.5	..*M25x1.5
M25	2.0	120	35	18.0	14.0	4	23.0	..*M25x2
M26	1.5	120	35	18.0	14.0	4	24.5	..*M26x1.5
M27	1.0	120	30	20.0	16.0	4	26.0	..*M27x1
M27	1.5	127	37	20.0	16.0	4	25.5	..*M27x1.5
M27	2.0	127	37	20.0	16.0	4	25.0	..*M27x2
M28	1.0	120	30	20.0	16.0	6	27.0	..*M28x1
M28	1.5	127	37	20.0	16.0	6	26.5	..*M28x1.5
M28	2.0	127	37	20.0	16.0	6	26.0	..*M28x2
M30	1.0	120	30	20.0	16.0	6	29.0	..*M30x1
M30	1.5	127	37	20.0	16.0	6	28.5	..*M30x1.5
M30	2.0	127	37	20.0	16.0	6	28.0	..*M30x2
M30	3.0	138	48	20.0	16.0	6	27.0	..*M30x3
M32	1.5	137	37	22.4	18.0	6	30.5	..*M32x1.5
M32	2.0	137	37	22.4	18.0	6	30.0	..*M32x2
M33	1.5	137	37	22.4	18.0	6	31.5	..*M33x1.5
M33	2.0	137	37	22.4	18.0	6	31.0	..*M33x2
M33	3.0	151	51	22.4	18.0	6	30.0	..*M33x3
M35	1.5	144	39	25.0	20.0	6	33.5	..*M35x1.5
M36	1.5	144	39	25.0	20.0	6	34.5	..*M36x1.5
M36	2.0	144	39	25.0	20.0	6	34.0	..*M36x2
M36	3.0	162	57	25.0	20.0	6	33.0	..*M36x3
M38	1.5	149	39	28.0	22.4	6	36.5	..*M38x1.5
M39	1.5	149	39	28.0	22.4	6	37.5	..*M39x1.5
M39	2.0	149	39	28.0	22.4	6	37.0	..*M39x2
M39	3.0	170	60	28.0	22.4	6	36.0	..*M39x3
M40	1.5	149	39	28.0	22.4	6	38.5	..*M40x1.5
M40	2.0	149	39	28.0	22.4	6	38.0	..*M40x2

Ordering example: Hand taps 3201M20x2 HSS
Bestellbeispiel: Handgewindebohrer 3201M20x2 HSS
Начин на заявяване: Метчици ръчни 3201M20x2 HSS

Hand Taps

for ISO metric Fine thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Form A 6-8 threads chamfered
Form D 4-5 threads chamfered
Form C 2-3 threads chamfered

Handgewindebohrer

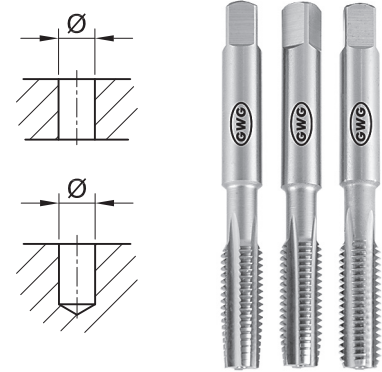
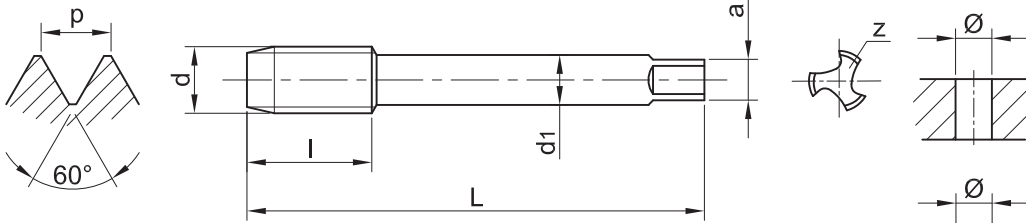
für metrisches ISO-Feingewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Form A 6-8 Gang Anschnitt
Form D 4-5 Gang Anschnitt
Form C 2-3 Gang Anschnitt

Метчици ръчни

за метрична ISO резба
ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба

Форма А 6-8 навивки конус
Форма D 4-5 навивки конус
Форма С 2-3 навивки конус



Mf ISO 529

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. A 3201*..	Art. No. D 3204*..	Art. No. C 3203*..
M40	3.0	170	60	28.0	22.4	6	37.0	..*M40x3		
M42	1.5	149	39	28.0	22.4	6	40.5	..*M42x1.5		
M42	2.0	149	39	28.0	22.4	6	40.0	..*M42x2		
M42	3.0	170	60	28.0	22.4	6	39.0	..*M42x3		
M42	4.0	170	60	28.0	22.4	6	38.0	..*M42x4		
M45	1.5	165	45	31.5	25.0	6	43.5	..*M45x1.5		
M45	2.0	165	45	31.5	25.0	6	43.0	..*M45x2		
M45	3.0	187	67	31.5	25.0	6	42.0	..*M45x3		
M45	4.0	187	67	31.5	25.0	6	41.0	..*M45x4		
M48	1.5	165	45	31.5	25.0	6	46.5	..*M48x1.5		
M48	2.0	165	45	31.5	25.0	6	46.0	..*M48x2		
M48	3.0	187	67	31.5	25.0	6	45.0	..*M48x3		
M48	4.0	187	67	31.5	25.0	6	44.0	..*M48x4		
M50	1.5	165	45	31.5	25.0	6	48.5	..*M50x1.5		
M50	2.0	165	45	31.5	25.0	6	48.0	..*M50x2		
M50	3.0	187	67	31.5	25.0	6	47.0	..*M50x3		
M52	1.5	175	45	35.5	28.0	6	50.5	..*M52x1.5		
M52	2.0	175	45	35.5	28.0	6	50.0	..*M52x2		
M52	3.0	200	70	35.5	28.0	6	49.0	..*M52x3		
M52	4.0	200	70	35.5	28.0	6	48.0	..*M52x4		

Ordering example: Hand taps 3201M40x3 HSS
Bestellbeispiel: Handgewindebohrer 3201M40x3 HSS
Начин на заявяване: Метчици ръчни 3201M40x3 HSS

Hand Taps

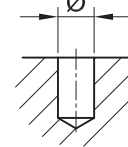
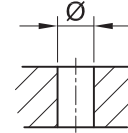
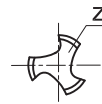
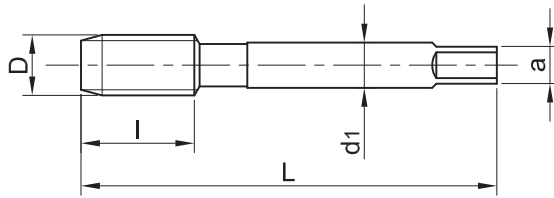
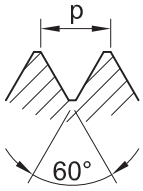
for ISO metric Fine thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread
Form A 6-8 threads chamfered
Form D 4-5 threads chamfered
Form C 2-3 threads chamfered

Handgewindebohrer

für metrisches ISO-Feingewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde
Form A 6-8 Gang Anschnitt
Form D 4-5 Gang Anschnitt
Form C 2-3 Gang Anschnitt

Метчици ръчни

за метрична ISO резба
ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба
Форма А 6-8 навивки конус
Форма D 4-5 навивки конус
Форма С 2-3 навивки конус



Mf JIS B 4430

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. A 4101*..	Art. No. D 4104*..	Art. No. C 4103*..
M4	0.5	52	15	5.0	4.0	3	3.5	..*M4x0.5		
M5	0.75	60	22	5.5	4.5	3	4.7	..*M5x0.75		
M5	0.5	52	15	5.5	4.5	3	4.5	..*M5x0.5		
M6	0.75	62	20	6.0	4.5	3	5.2	..*M6x0.75		
M6	0.5	55	15	6.0	4.5	3	5.5	..*M6x0.5		
M8	1.0	70	30	6.2	5.0	4	7.0	..*M8x1		
M8	0.75	62	20	6.2	5.0	4	7.2	..*M8x0.75		
M10	1.25	75	32	7.0	5.5	4	8.8	..*M10x1.25		
M10	1.0	70	30	7.0	5.5	4	9.0	..*M10x1		
M12	1.5	82	38	8.5	6.5	4	10.5	..*M12x1.5		
M12	1.25	80	38	8.5	6.5	4	10.8	..*M12x1.25		
M12	1.0	70	30	8.5	6.5	4	11.0	..*M12x1		
M14	1.5	88	42	10.5	8.0	4	12.5	..*M14x1.5		
M14	1.25	88	38	10.5	8.0	4	12.8	..*M14x1.25		
M14	1.0	70	30	10.5	8.0	4	13.0	..*M14x1		
M16	1.5	95	45	12.5	10.0	4	14.5	..*M16x1.5		
M16	1.0	75	30	12.5	10.0	4	15.0	..*M16x1		
M18	2.0	95	45	14.0	11.0	4	16.0	..*M18x2		
M18	1.5	95	45	14.0	11.0	4	16.5	..*M18x1.5		
M18	1.0	80	30	14.0	11.0	4	17.0	..*M18x1		
M20	2.0	95	45	15.0	12.0	4	18.0	..*M20x2		
M20	1.5	95	45	15.0	12.0	4	18.5	..*M20x1.5		
M20	1.0	80	30	15.0	12.0	4	19.0	..*M20x1		
M22	2.0	95	45	17.0	13.0	4	20.0	..*M22x2		
M22	1.5	95	45	17.0	13.0	4	20.5	..*M22x1.5		
M22	1.0	85	30	17.0	13.0	4	21.0	..*M22x1		
M24	2.0	95	45	19.0	15.0	4	22.0	..*M24x2		
M24	1.5	95	45	19.0	15.0	4	22.5	..*M24x1.5		
M24	1.0	90	30	19.0	15.0	4	23.0	..*M24x1		
M27	2.0	95	45	20.0	15.0	4	25.0	..*M27x2		
M27	1.5	95	45	20.0	15.0	4	25.5	..*M27x1.5		
M30	3.0	135	65	23.0	17.0	4	27.0	..*M30x3		
M30	2.0	105	45	23.0	17.0	4	28.0	..*M30x2		
M30	1.5	105	45	23.0	17.0	4	28.5	..*M30x1.5		

Ordering example: Hand taps 4101M18x1 HSS
Bestellbeispiel: Handgewindebohrer 4101M18x1 HSS
Начин на заявяване: Метчици ръчни 4101M18x1 HSS

Machine Taps

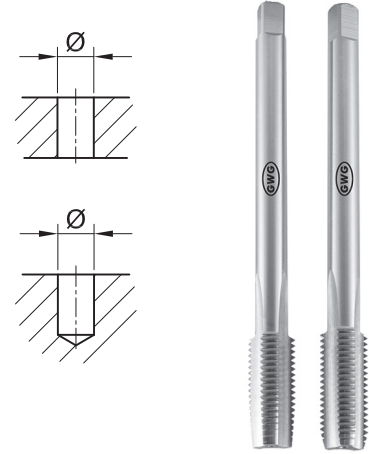
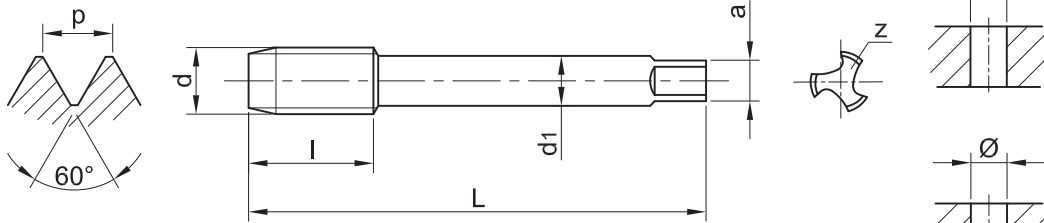
for ISO metric Fine thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Passing shank
Ground thread
Form A 6-8 threads chamfered
Form C 2-3 threads chamfered

Maschinengewindebohrer

für metrisches ISO-Feingewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Überlaufschafft
Geschliffenes Gewinde
Form A 6-8 Gang Anschnitt
Form C 2-3 Gang Anschnitt

Метчици машинни

за метрична ISO резба
ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Преминаваща опашка
Шлифована резба
Форма А 6-8 навивки конус
Форма С 2-3 навивки конус



Mf DIN 374

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. A 2501*.. Art. No. C 2503*..
M3	0.35	56	9	2.2	-	3	2.65	..* M3x0.35
M3.5	0.35	56	10	2.5	2.1	3	3.15	..* M3.5x0.35
M4	0.35	63	10	2.8	2.1	3	3.65	..* M4x0.35
M4	0.5	63	10	2.8	2.1	3	3.5	..* M4x0.5
M4.5	0.5	70	12	3.5	2.7	3	4.0	..* M4.5x0.5
M5	0.5	70	12	3.5	2.7	3	4.5	..* M5x0.5
M5.5	0.5	80	12	4	3.0	3	5.0	..* M5.5x0.5
M6	0.75	80	14	4.5	3.4	3	5.2	..* M6x0.75
M7	0.75	80	14	5.5	4.3	3	6.2	..* M7x0.75
M8	0.75	80	19	6	4.9	3	7.2	..* M8x0.75
M8	1.0	90	22	6	4.9	3	7.0	..* M8x1
M9	0.75	80	19	7	5.5	3	8.2	..* M9x0.75
M9	1.0	90	22	7	5.5	3	8.0	..* M9x1
M10	0.75	90	20	7	5.5	3	9.2	..* M10x0.75
M10	1.0	90	20	7	5.5	3	9.0	..* M10x1
M10	1.25	100	24	7	5.5	3	8.8	..* M10x1.25
M11	0.75	90	20	8	6.2	3	10.2	..* M11x0.75
M11	1.0	90	20	8	6.2	3	10.0	..* M11x1
M12	1.0	100	22	9	7.0	3	11.0	..* M12x1
M12	1.25	100	22	9	7.0	3	10.8	..* M12x1.25
M12	1.5	100	22	9	7.0	3	10.5	..* M12x1.5
M14	1.0	100	22	11	9.0	3	13.0	..* M14x1
M14	1.25	100	22	11	9.0	3	12.8	..* M14x1.25
M14	1.5	100	22	11	9.0	3	12.5	..* M14x1.5
M15	1.0	100	22	12	9.0	3	14.0	..* M15x1
M15	1.5	100	22	12	9.0	3	13.5	..* M15x1.5
M16	1.0	100	22	12	9.0	3	15.0	..* M16x1
M16	1.25	100	22	12	9.0	3	14.8	..* M16x1.25
M16	1.5	100	22	12	9.0	3	14.5	..* M16x1.5
M17	1.0	100	22	12	9	3	16.0	..* M17x1
M17	1.5	100	22	12	9	3	15.5	..* M17x1.5
M18	1.0	110	25	14	11	4	17.0	..* M18x1
M18	1.5	110	25	14	11	4	16.5	..* M18x1.5
M18	2.0	125	34	14	11	4	16.0	..* M18x2
M20	1.0	125	25	16	12	4	19.0	..* M20x1

Ordering example: Machine taps 2501M3x0.35 HSSE
Bestellbeispiel: Maschinengewindebohrer 2501M3x0.35 HSSE
Начин на заявяване: Метчици машинни 2501M3x0.35 HSSE

Machine Taps

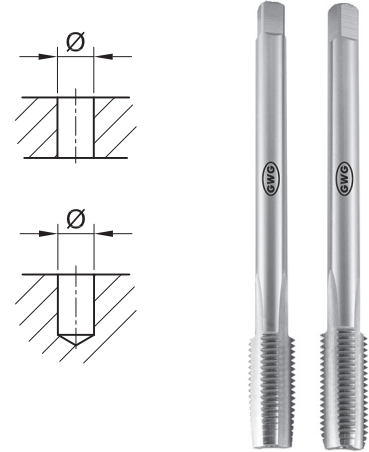
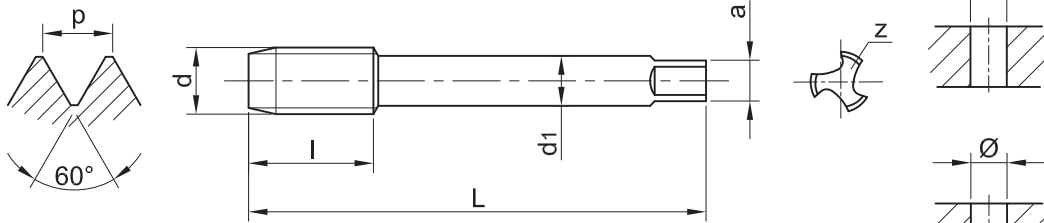
for ISO metric Fine thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Passing shank
Ground thread
Form A 6-8 threads chamfered
Form C 2-3 threads chamfered

Maschinengewindebohrer

für metrisches ISO-Feingewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Überlaufschaft
Geschliffenes Gewinde
Form A 6-8 Gang Anschnitt
Form C 2-3 Gang Anschnitt

Метчици машинни

за метрична ISO резба
ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Преминаваща опашка
Шлифована резба
Форма А 6-8 навивки конус
Форма С 2-3 навивки конус



Mf DIN 374

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. A 2501*.. Art. No. C 2503*..
M20	1.5	125	25	16	12	4	18.5	..* M20x1.5
M20	2.0	140	34	16	12	4	18.0	..* M20x2
M22	1.0	125	25	18	14.5	4	21.0	..* M22x1
M22	1.5	125	25	18	14.5	4	20.5	..* M22x1.5
M22	2.0	140	34	18	14.5	4	20.0	..* M22x2
M24	1.0	140	28	18	14.5	4	23.0	..* M24x1
M24	1.5	140	28	18	14.5	4	22.5	..* M24x1.5
M24	2.0	140	28	18	14.5	4	22.0	..* M24x2
M25	1.0	140	28	18	14.5	4	24.0	..* M25x1
M25	1.5	140	28	18	14.5	4	23.5	..* M25x1.5
M25	2.0	140	28	18	14.5	4	23.0	..* M25x2
M26	1.0	140	28	18	14.5	4	25.0	..* M26x1.0
M26	1.5	140	28	18	14.5	4	24.5	..* M26x1.5
M26	2.0	140	28	18	14.5	4	24.0	..* M26x2.0
M27	1.0	140	28	20	16	4	26.0	..* M27x1
M27	1.5	140	28	20	16	4	25.5	..* M27x1.5
M27	2.0	140	28	20	16	4	25.0	..* M27x2
M28	1.0	140	28	20	16	4	27.0	..* M28x1
M28	1.5	140	28	20	16	4	26.5	..* M28x1.5
M28	2.0	140	28	20	16	4	26.0	..* M28x2
M29	1.5	150	28	22	18	4	27.5	..* M29x1.5
M30	1.0	150	28	22	18	4	29.0	..* M30x1.0
M30	1.5	150	28	22	18	4	28.5	..* M30x1.5
M30	2.0	150	28	22	18	4	28.0	..* M30x2
M30	2.5	180	45	22	18	4	27.5	..* M30x2.5
M30	3.0	180	45	22	18	4	27.0	..* M30x3
M32	1.5	150	28	22	18	4	30.5	..* M32x1.5
M32	2.0	150	28	22	18	4	30.0	..* M32x2
M33	1.5	160	30	25	20	4	31.5	..* M33x1.5
M33	2.0	160	30	25	20	4	31.0	..* M33x2
M33	3.0	180	50	25	20	4	30.0	..* M33x3
M35	1.5	170	30	28	22	4	33.5	..* M35x1.5
M36	1.5	170	30	28	22	4	34.5	..* M36x1.5
M36	2.0	170	30	28	22	4	34.0	..* M36x2
M36	3.0	200	56	28	22	4	33.0	..* M36x3

Ordering example: Machine taps 2501M20x1.5 HSSE
Bestellbeispiel: Maschinengewindebohrer 2501M20x1.5 HSSE
Начин на заявяване: Метчици машинни 2501M20x1.5 HSSE

Machine Taps

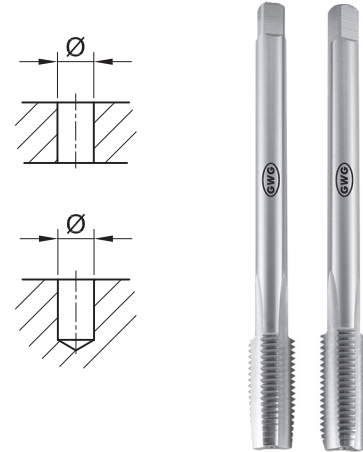
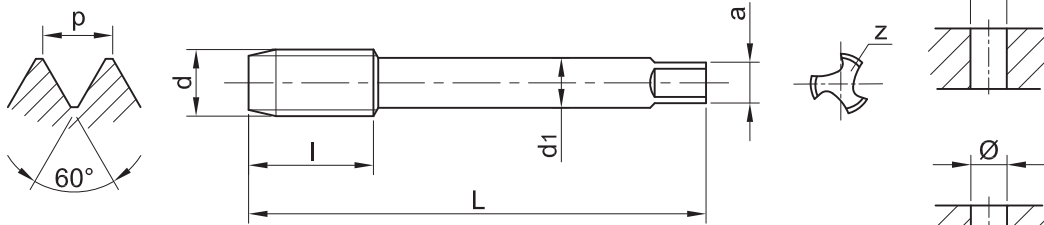
for ISO metric Fine thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Passing shank
Ground thread
Form A 6-8 threads chamfered
Form C 2-3 threads chamfered

Maschinengewindebohrer

für metrisches ISO-Feingewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Überlaufschäft
Geschliffenes Gewinde
Form A 6-8 Gang Anschnitt
Form C 2-3 Gang Anschnitt

Метчици машинни

за метрична ISO резба
ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Преминаваща опашка
Шлифована резба
Форма А 6-8 навивки конус
Форма С 2-3 навивки конус



Mf DIN 374

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. A 2501*.. Art. No. C 2503*..
M38	1.5	170	30	28	22	4	830	..* M38x1.5
M39	1.5	170	30	32	24	4	880	..* M39x1.5
M39	2.0	170	30	32	24	4	880	..* M39x2
M39	3.0	200	60	32	24	4	1120	..* M39x3
M40	1.5	170	30	32	24	4	990	..* M40x1.5
M40	2.0	170	30	32	24	4	990	..* M40x2
M40	3.0	200	60	32	24	4	1200	..* M40x3
M42	1.5	170	30	32	24	4	1020	..* M42x1.5
M42	2.0	170	30	32	24	4	1020	..* M42x2
M42	3.0	200	60	32	24	4	1240	..* M42x3
M45	1.5	180	32	36	29	6	1300	..* M45x1.5
M45	2.0	180	32	36	29	6	1300	..* M45x2
M45	3.0	200	50	36	29	6	1520	..* M45x3
M45	4.0	220	65	36	29	6	1680	..* M45x4
M48	1.5	190	32	36	29	6	1440	..* M48x1.5
M48	2.0	190	32	36	29	6	1440	..* M48x2
M48	3.0	225	50	36	29	6	1720	..* M48x3
M48	4.0	250	70	36	29	6	1900	..* M48x4
M50	1.5	190	32	36	29	6	1500	..* M50x1.5
M50	2.0	190	32	36	29	6	1500	..* M50x2
M50	3.0	225	50	36	29	6	1880	..* M50x3
M52	1.5	190	32	40	32	6	1870	..* M52x1.5
M52	2.0	190	32	40	32	6	1870	..* M52x2
M52	3.0	225	50	40	32	6	2230	..* M52x3
M52	4.0	250	70	40	32	6	2450	..* M52x4

Ordering example: Machine taps 2501M20x1.5 HSSE
Bestellbeispiel: Maschinengewindebohrer 2501M20x1.5 HSSE
Начин на заявяване: Метчици машинни 2501M20x1.5 HSSE

Machine Taps

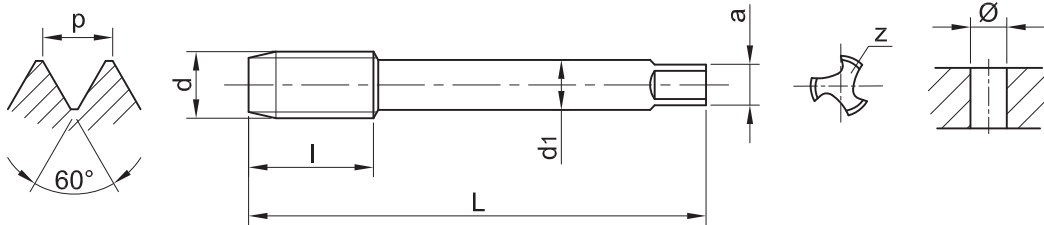
with spiral point for ISO metric
 Fine thread according to DIN 13
 Grade of fit: ISO 2 (6H)
 Passing shank
 Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt für metrisches
 ISO-Feingewinde nach DIN 13
 Toleranzfeld: ISO 2 (6H)
 Überlaufschafft
 Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни

с подточени канали за метрична
 ISO резба ситна стъпка по DIN 13
 Клас на точност: ISO 2 (6H)
 Преминаваща опашка
 Шлифована резба
Форма В 4-5 навивки конус



Mf DIN 374 B

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2502*..
M3	0.35	56	9	2.2	1.8	3	2.65	2502M3x0.35
M3.5	0.35	56	10	2.5	2.1	3	3.15	2502M3.5x0.35
M4	0.35	63	10	2.8	2.1	3	3.65	2502M4x0.35
M4	0.5	63	10	2.8	2.1	3	3.5	2502M4x0.5
M4.5	0.5	70	12	3.5	2.7	3	4.0	2502M4.5x0.5
M5	0.5	70	12	3.5	2.7	3	4.5	2502M5x0.5
M5	0.75	70	12	3.5	2.7	3	4.2	2502M5x0.75
M5.5	0.5	80	12	4.0	3.0	3	5.0	2502M5.5x0.5
M6	0.5	80	14	4.5	3.4	3	5.5	2502M6x0.5
M6	0.75	80	14	4.5	3.4	3	5.2	2502M6x0.75
M7	0.75	80	14	5.5	4.3	3	6.2	2502M7x0.75
M8	0.5	80	19	6.0	4.9	3	7.5	2502M8x0.5
M8	0.75	80	19	6.0	4.9	3	7.2	2502M8x0.75
M8	1.0	90	22	6.0	4.9	3	7.0	2502M8x1
M9	0.75	80	19	7.0	5.5	3	8.2	2502M9x0.75
M9	1.0	90	22	7.0	5.5	3	8.0	2502M9x1
M10	0.75	90	20	7.0	5.5	3	9.2	2502M10x0.75
M10	1.0	90	20	7.0	5.5	3	9.0	2502M10x1
M10	1.25	100	24	7.0	5.5	3	8.8	2502M10x1.25
M11	0.75	90	20	8.0	6.2	3	10.2	2502M11x0.75
M11	1.0	90	20	8.0	6.2	3	10.0	2502M11x1
M11	1.25	90	22	8.0	6.2	3	9.8	2502M11x1.25
M12	0.75	100	22	9.0	7	3	11.2	2502M12x0.75
M12	1.0	100	22	9.0	7	3	11.0	2502M12x1
M12	1.25	100	22	9.0	7	3	10.8	2502M12x1.25
M12	1.5	100	22	9.0	7	3	10.5	2502M12x1.5
M13	1.0	100	22	11.0	9	3	12.0	2502M13x1
M13	1.25	100	22	11.0	9	3	11.8	2502M13x1.25
M13	1.5	100	22	11.0	9	3	11.5	2502M13x1.5
M14	0.75	100	22	11	9	3	13.2	2502M14x0.75
M14	1.0	100	22	11	9	3	13.0	2502M14x1
M14	1.25	100	22	11	9	3	12.8	2502M14x1.25
M14	1.5	100	22	11	9	3	12.5	2502M14x1.5
M15	1.0	100	22	12	9	3	14.0	2502M15x1
M15	1.5	100	22	12	9	3	13.5	2502M15x1.5
M16	1.0	100	22	12	9	3	15.0	2502M16x1
M16	1.25	100	22	12	9	3	14.8	2502M16x1.25
M16	1.5	100	22	12	9	3	14.5	2502M16x1.5

Ordering example: Machine taps 2502M3x0.35 HSSE
 Bestellbeispiel: Maschinengewindebohrer 2502M3x0.35 HSSE
 Начин на заявяване: Метчици машинни 2502M3x0.35 HSSE

Machine Taps

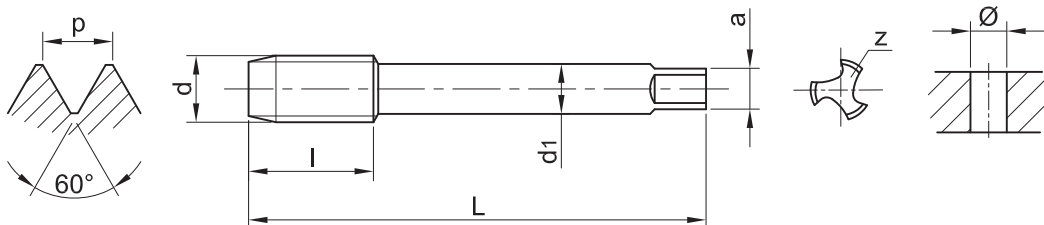
with spiral point for ISO metric
Fine thread according to DIN 13
Grade of fit: ISO 2 (6H)
Passing shank
Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt für metrisches
ISO-Feingewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Überlaufschافت
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни

с подточени канали за метрична
ISO резба ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Преминаваща опашка
Шлифована резба
Форма В 4-5 навивки конус



Mf DIN 374 B

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2502*..
M17	1.0	100	22	12	9	3	16.0	2502M17x1
M17	1.5	100	22	12	9	3	15.5	2502M17x1.5
M18	1.0	110	25	14	11	4	17.0	2502M18x1
M18	1.25	110	25	14	11	4	16.8	2502M18x1.25
M18	1.5	110	25	14	11	4	16.5	2502M18x1.5
M18	2.0	125	34	14	11	4	16.0	2502M18x2
M20	1.0	125	25	16	12	4	19.0	2502M20x1
M20	1.25	125	25	16	12	4	18.8	2502M20x1.25
M20	1.5	125	25	16	12	4	18.5	2502M20x1.5
M20	2.0	140	34	16	12	4	18.0	2502M20x2
M21	1.5	125	25	16	12	4	19.5	2502M21x1.5
M22	1.0	125	25	18	14.5	4	21.0	2502M22x1
M22	1.25	125	25	18	14.5	4	20.8	2502M22x1.25
M22	1.5	125	25	18	14.5	4	20.5	2502M22x1.5
M22	2.0	140	34	18	14.5	4	20.0	2502M22x2
M23	1.5	125	25	18	14.5	4	21.5	2502M23x1.5
M24	1.0	140	28	18	14.5	4	23.0	2502M24x1
M24	1.25	140	28	18	14.5	4	22.8	2502M24x1.25
M24	1.5	140	28	18	14.5	4	22.5	2502M24x1.5
M24	2.0	140	28	18	14.5	4	22.0	2502M24x2
M25	1.0	140	28	18	14.5	4	24.0	2502M25x1
M25	1.5	140	28	18	14.5	4	23.5	2502M25x1.5
M25	2.0	140	28	18	14.5	4	23.0	2502M25x2
M26	1.0	140	28	18	14.5	4	25.0	2502M26x1
M26	1.5	140	28	18	14.5	4	24.5	2502M26x1.5
M26	2.0	140	28	18	14.5	4	24.0	2502M26x2
M27	1.0	140	28	20	16	4	26.0	2502M27x1
M27	1.5	140	28	20	16	4	25.5	2502M27x1.5
M27	2.0	140	28	20	16	4	25.0	2502M27x2
M28	1.0	140	28	20	16	4	27.0	2502M28x1
M28	1.5	140	28	20	16	4	26.5	2502M28x1.5
M28	2.0	140	28	20	16	4	26.0	2502M28x2
M29	1.5	150	28	22	18	4	27.5	2502M29x1.5
M30	1.0	150	28	22	18	4	29.0	2502M30x1
M30	1.5	150	28	22	18	4	28.5	2502M30x1.5
M30	2.0	150	28	22	18	4	28.0	2502M30x2
M30	2.5	180	45	22	18	4	27.5	2502M30x2.5
M30	3.0	180	45	22	18	4	27.0	2502M30x3

Ordering example: Machine taps 2502M17x1 HSSE
Bestellbeispiel: Maschinengewindebohrer 2502M17x1 HSSE
Начин на заявяване: Метчици машинни 2502M17x1 HSSE

Machine Taps

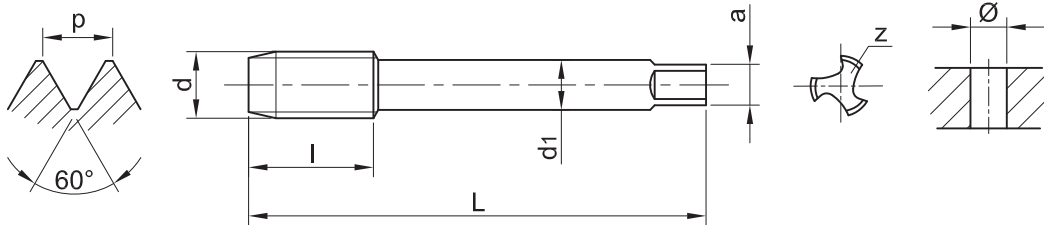
with spiral point for ISO metric
Fine thread according to DIN 13
Grade of fit: ISO 2 (6H)
Passing shank
Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt für metrisches
ISO-Feingewinde nach DIN 13
Toleranzfeld: ISO 2 (6H)
Überlaufschafft
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни

с подточени канали за метрична
ISO резба ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Преминаваща опашка
Шлифована резба
Форма В 4-5 навивки конус



Mf DIN 374 B

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2502*..
M32	1.5	150	28	22	18	4	30.5	2502M32x1.5
M32	2.0	150	28	22	18	4	30.0	2502M32x2
M32	3.0	180	50	22	18	4	29.0	2502M32x3
M33	1.5	160	30	25	20	4	31.5	2502M33x1.5
M33	2.0	160	30	25	20	4	31.0	2502M33x2
M33	3.0	180	50	25	20	4	30.0	2502M33x3
M34	1.5	170	30	28	22	4	32.5	2502M34x1.5
M34	2.0	170	30	28	22	4	32.0	2502M34x2
M35	1.5	170	30	28	22	4	33.5	2502M35x1.5
M36	1.5	170	30	28	22	4	34.5	2502M36x1.5
M36	2.0	170	30	28	22	4	34.0	2502M36x2
M36	3.0	200	56	28	22	4	33.0	2502M36x3
M38	1.5	170	30	28	22	4	36.5	2502M38x1.5
M39	1.5	170	30	32	24	4	37.5	2502M39x1.5
M39	2.0	170	30	32	24	4	37.0	2502M39x2
M39	3.0	200	60	32	24	4	36.0	2502M39x3
M40	1.5	170	30	32	24	4	38.5	2502M40x1.5
M40	2.0	170	30	32	24	4	38.0	2502M40x2
M40	3.0	200	60	32	24	4	37.0	2502M40x3
M42	1.5	170	30	32	24	4	40.5	2502M42x1.5
M42	2.0	170	30	32	24	4	40.0	2502M42x2
M42	3.0	200	60	32	24	4	39.0	2502M42x3
M45	1.5	180	32	36	29	6	43.5	2502M45x1.5
M45	2.0	180	32	36	29	6	43.0	2502M45x2
M45	3.0	200	50	36	29	6	42.0	2502M45x3
M45	4.0	220	65	36	29	6	41.0	2502M45x4
M48	1.5	190	32	36	29	6	46.5	2502M48x1.5
M48	2.0	190	32	36	29	6	46.0	2502M48x2
M48	3.0	225	50	36	29	6	45.0	2502M48x3
M48	4.0	250	70	36	29	6	44.0	2502M48x4
M50	1.5	190	32	36	29	6	48.5	2502M50x1.5
M50	2.0	190	32	36	29	6	48.0	2502M50x2
M50	3.0	225	50	36	29	6	47.0	2502M50x3
M52	1.5	190	32	40	32	6	50.5	2502M52x1.5
M52	2.0	190	32	40	32	6	50.0	2502M52x2
M52	3.0	225	50	40	32	6	49.0	2502M52x3
M52	4.0	250	70	40	32	6	48.0	2502M52x4

Ordering example: Machine taps 2502M32x1.5 HSSE
Bestellbeispiel: Maschinengewindebohrer 2502M32x1.5 HSSE
Начин на заявяване: Метчици машинни 2502M32x1.5 HSSE

Machine Taps

with helical flutes R35° for ISO metric Fine thread according to DIN 13

Grade of fit: ISO 2 (6H)

Passing shank

Ground thread

Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R35° für metrisches

ISO-Feingewinde nach DIN 13

Toleranzfeld: ISO 2 (6H)

Überlaufschaft

Geschliffenes Gewinde

Form C 2-3 Gang Anschnitt

Метчици машинни

с винтови канали R35° за

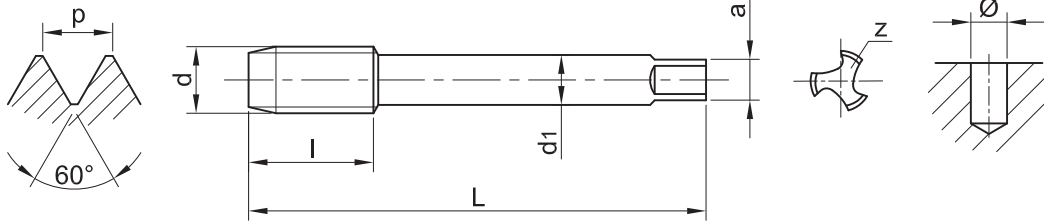
метрична ISO резба ситна стъпка по DIN 13

Клас на точност: ISO 2 (6H)

Преминаваща опашка

Шлифована резба

Форма С 2-3 навивки конус



Mf DIN 374 35°

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2506*..
M3	0.35	56	5	2.2	1.8	3	2.65	2506M3x0.35
M3.5	0.35	56	5	2.5	2.1	3	3.15	2506M3.5x0.35
M4	0.35	63	5	2.8	2.1	3	3.65	2506M4x0.35
M4	0.5	63	5	2.8	2.1	3	3.5	2506M4x0.5
M4.5	0.5	70	5	3.5	2.7	3	4.0	2506M4.5x0.5
M5	0.5	70	5	3.5	2.7	3	4.5	2506M5x0.5
M5	0.75	70	8	3.5	2.7	3	4.2	2506M5x0.75
M5.5	0.5	80	5	4.0	3.0	3	5.0	2506M5.5x0.5
M6	0.5	80	5	4.5	3.4	3	5.5	2506M6x0.5
M6	0.75	80	8	4.5	3.4	3	5.2	2506M6x0.75
M7	0.75	80	8	5.5	4.3	3	6.2	2506M7x0.75
M8	0.5	80	8	6.0	4.9	3	7.5	2506M8x0.5
M8	0.75	80	8	6.0	4.9	3	7.2	2506M8x0.75
M8	1.0	90	10	6.0	4.9	3	7.0	2506M8x1
M9	0.75	80	10	7.0	5.5	3	8.2	2506M9x0.75
M9	1.0	90	10	7.0	5.5	3	8.0	2506M9x1
M10	0.75	90	10	7.0	5.5	3	9.2	2506M10x0.75
M10	1.0	90	10	7.0	5.5	3	9.0	2506M10x1
M10	1.25	100	16	7.0	5.5	3	8.8	2506M10x1.25
M11	0.75	90	10	8.0	6.2	3	10.2	2506M11x0.75
M11	1.0	90	11	8.0	6.2	3	10.0	2506M11x1
M11	1.25	90	14	8.0	6.2	3	9.8	2506M11x1.25
M12	0.75	100	10	9.0	7	3	11.2	2506M12x0.75
M12	1.0	100	11	9.0	7	3	11.0	2506M12x1
M12	1.25	100	15	9.0	7	3	10.8	2506M12x1.25
M12	1.5	100	15	9.0	7	3	10.5	2506M12x1.5
M13	1.0	100	11	11.0	9	3	12.0	2506M13x1
M13	1.5	100	15	11.0	9	3	11.5	2506M13x1.5
M14	0.75	100	10	11	9	3	13.2	2506M14x0.75
M14	1.0	100	11	11	9	3	13.0	2506M14x1
M14	1.25	100	15	11	9	3	12.8	2506M14x1.25
M14	1.5	100	15	11	9	3	12.5	2506M14x1.5
M15	1.0	100	12	12	9	3	14.0	2506M15x1
M15	1.5	100	15	12	9	3	13.5	2506M15x1.5
M16	1.0	100	12	12	9	3	15.0	2506M16x1
M16	1.25	100	15	12	9	3	14.8	2506M16x1.25

Ordering example:

Machine taps 2506M3x0.35 HSSE

Bestellbeispiel:

Maschinengewindebohrer 2506M3x0.35 HSSE

Начин на заявяване:

Метчици машинни 2506M3x0.35 HSSE

Machine Taps

with helical flutes R35° for ISO metric Fine thread according to DIN 13

Grade of fit: ISO 2 (6H)

Passing shank

Ground thread

Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R35° für metrisches

ISO-Feingewinde nach DIN 13

Toleranzfeld: ISO 2 (6H)

Überlaufschaft

Geschliffenes Gewinde

Form C 2-3 Gang Anschnitt

Метчици машинни

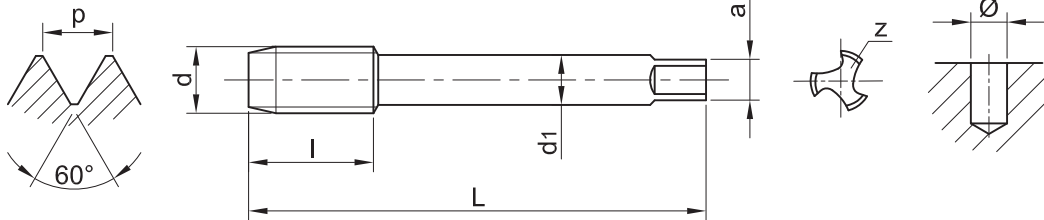
с винтови канали R35° за метрична ISO резба ситна стъпка по DIN 13

Клас на точност: ISO 2 (6H)

Преминаваща опашка

Шлифована резба

Форма С 2-3 навивки конус



Mf DIN 374 35°

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2506*..
M16	1.5	100	15	12	9	3	14.5	2506M16x1.5
M17	1.0	100	12	12	9	3	16.0	2506M17x1
M17	1.5	100	15	12	9	3	15.5	2506M17x1.5
M18	1.0	110	13	14	11	4	17.0	2506M18x1
M18	1.25	110	15	14	11	4	16.8	2506M18x1.25
M18	1.5	110	17	14	11	4	16.5	2506M18x1.5
M18	2.0	125	20	14	11	4	16.0	2506M18x2
M20	1.0	125	14	16	12	4	19.0	2506M20x1
M20	1.25	125	17	16	12	4	18.8	2506M20x1.25
M20	1.5	125	17	16	12	4	18.5	2506M20x1.5
M20	2.0	140	20	16	12	4	18.0	2506M20x2
M21	1.0	125	14	16	12	4	20.0	2506M21x1.0
M21	1.25	125	17	16	12	4	19.8	2506M21x1.25
M21	1.5	125	17	16	12	4	19.5	2506M21x1.5
M21	2.0	140	20	16	12	4	19.0	2506M21x2.0
M22	1.0	125	14	18	14.5	4	21.0	2506M22x1
M22	1.25	125	17	18	14.5	4	20.8	2506M22x1.25
M22	1.5	125	17	18	14.5	4	20.5	2506M22x1.5
M22	2.0	140	20	18	14.5	4	20.0	2506M22x2
M23	1.5	125	17	18	14.5	4	21.5	2506M23x1.5
M24	1.0	140	15	18	14.5	4	23.0	2506M24x1
M24	1.25	140	17	18	14.5	4	22.8	2506M24x1.25
M24	1.5	140	20	18	14.5	4	22.5	2506M24x1.5
M24	2.0	140	20	18	14.5	4	22.0	2506M24x2
M25	1.0	140	15	18	14.5	4	24.0	2506M25x1
M25	1.5	140	20	18	14.5	4	23.5	2506M25x1.5
M25	2.0	140	20	18	14.5	4	23.0	2506M25x2
M26	1.0	140	15	18	14.5	4	25.0	2506M26x1
M26	1.5	140	20	18	14.5	4	24.5	2506M26x1.5
M26	2.0	140	20	18	14.5	4	24.0	2506M26x2
M27	1.0	140	15	20	16	4	26.0	2506M27x1
M27	1.5	140	20	20	16	4	25.5	2506M27x1.5
M27	2.0	140	20	20	16	4	25.0	2506M27x2
M28	1.0	140	15	20	16	4	27.0	2506M28x1
M28	1.5	140	20	20	16	4	26.5	2506M28x1.5
M28	2.0	140	20	20	16	4	26.0	2506M28x2

Ordering example:

Machine taps 2506M16x1.5 HSSE

Bestellbeispiel:

Maschinengewindebohrer 2506M16x1.5 HSSE

Начин на заявяване:

Метчици машинни 2506M16x1.5 HSSE

Machine Taps

with helical flutes R35° for ISO metric Fine thread according to DIN 13

Grade of fit: ISO 2 (6H)

Passing shank

Ground thread

Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R35° für metrisches

ISO-Feingewinde nach DIN 13

Toleranzfeld: ISO 2 (6H)

Überlaufschaft

Geschliffenes Gewinde

Form C 2-3 Gang Anschnitt

Метчици машинни

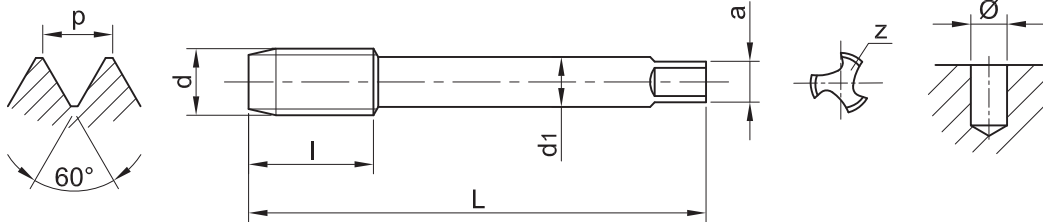
с винтови канали R35° за метрична ISO резба ситна стъпка по DIN 13

Клас на точност: ISO 2 (6H)

Преминаваща опашка

Шлифована резба

Форма С 2-3 навивки конус



Mf DIN 374 35°

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2506*..
M29	1.5	150	22	22	18	4	27.5	2506M29x1.5
M30	1.0	150	17	22	18	4	29.0	2506M30x1
M30	1.5	150	22	22	18	4	28.5	2506M30x1.5
M30	2.0	150	22	22	18	4	28.0	2506M30x2
M30	2.5	180	27	22	18	4	27.5	2506M30x2.5
M30	3.0	180	30	22	18	4	27.0	2506M30x3
M32	1.5	150	22	22	18	4	30.5	2506M32x1.5
M32	2.0	150	22	22	18	4	30.0	2506M32x2
M32	3.0	180	30	22	18	4	29.0	2506M32x3
M33	1.5	160	24	25	20	4	31.5	2506M33x1.5
M33	2.0	160	24	25	20	4	31.0	2506M33x2
M33	3.0	180	30	25	20	4	30.0	2506M33x3
M34	1.5	170	24	28	22	4	32.5	2506M34x1.5
M34	2.0	170	24	28	22	4	32.0	2506M34x2
M35	1.5	170	24	28	22	4	33.5	2506M35x1.5
M36	1.5	170	24	28	22	4	34.5	2506M36x1.5
M36	2.0	170	24	28	22	4	34.0	2506M36x2
M36	3.0	200	30	28	22	4	33.0	2506M36x3
M38	1.5	170	24	28	22	4	36.5	2506M38x1.5
M39	1.5	170	25	32	24	4	37.5	2506M39x1.5
M39	2.0	170	25	32	24	4	37.0	2506M39x2
M39	3.0	200	30	32	24	4	36.0	2506M39x3
M40	1.5	170	25	32	24	4	38.5	2506M40x1.5
M40	2.0	170	25	32	24	4	38.0	2506M40x2
M40	3.0	200	30	32	24	4	37.0	2506M40x3
M42	1.5	170	25	32	24	4	40.5	2506M42x1.5
M42	2.0	170	25	32	24	4	40.0	2506M42x2
M42	3.0	200	30	32	24	4	39.0	2506M42x3
M45	1.5	180	27	36	29	6	43.5	2506M45x1.5
M45	2.0	180	27	36	29	6	43.0	2506M45x2
M45	3.0	200	30	36	29	6	42.0	2506M45x3
M45	4.0	220	40	36	29	6	41.0	2506M45x4
M48	1.5	190	27	36	29	6	46.5	2506M48x1.5
M48	2.0	190	27	36	29	6	46.0	2506M48x2
M48	3.0	225	33	36	29	6	45.0	2506M48x3
M48	4.0	250	45	36	29	6	44.0	2506M48x4

Ordering example:

Machine taps 2506M29x1.5 HSSE

Bestellbeispiel:

Maschinengewindebohrer 2506M29x1.5 HSSE

Начин на заявяване:

Метчици машинни 2506M29x1.5 HSSE

Machine Taps

with helical flutes R35° for ISO metric Fine thread according to DIN 13

Grade of fit: ISO 2 (6H)

Passing shank

Ground thread

Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R35° für metrisches

ISO-Feingewinde nach DIN 13

Toleranzfeld: ISO 2 (6H)

Überlaufschaft

Geschliffenes Gewinde

Form C 2-3 Gang Anschnitt

Метчици машинни

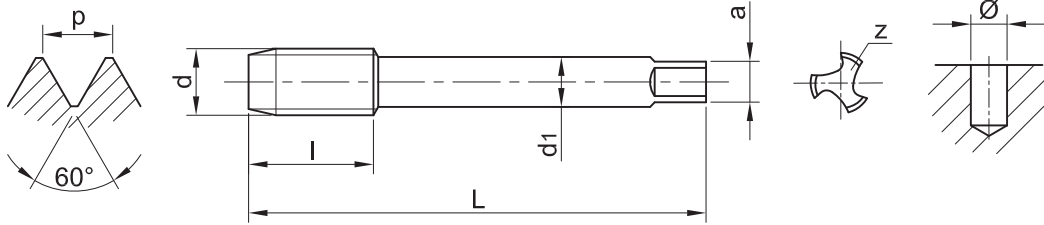
с винтови канали R35° за метрична ISO резба ситна стъпка по DIN 13

Клас на точност: ISO 2 (6H)

Преминаваща опашка

Шлифована резба

Форма C 2-3 навивки конус



Mf DIN 374 35°

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2506*..
M50	1.5	190	27	36	29	6	48.5	2506M50x1.5
M50	2.0	190	27	36	29	6	48.0	2506M50x2
M50	3.0	225	33	36	29	6	47.0	2506M50x3
M52	1.5	190	27	40	32	6	50.5	2506M52x1.5
M52	2.0	190	27	40	32	6	50.0	2506M52x2
M52	3.0	225	33	40	32	6	49.0	2506M52x3
M52	4.0	250	46	40	32	6	48.0	2506M52x4

Ordering example:

Machine taps 2506M50x1.5 HSSE

Bestellbeispiel:

Maschinengewindebohrer 2506M50x1.5 HSSE

Начин на заявяване:

Метчици машинни 2506M50x1.5 HSSE

Machine Taps

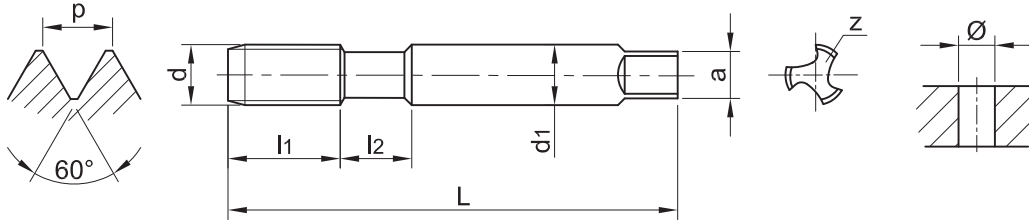
with spiral point
for ISO metric fine thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt
für metrisches ISO-Feingewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни

с подточени канали
за метрична ISO резба
ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба
Форма В 4-5 навивки конус



Mf ISO 529 B

d	p mm	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. 3202*..
M3	0.35	48	11	7	3.15	2.5	3	2.15	3202M3x0.35
M3.5	0.35	50	13	7	3.55	2.8	3	2.65	3202M3.5x0.35
M4	0.5	53	13	8	4.0	3.15	3	3.5	3202M4x0.5
M4.5	0.5	53	13	8	4.5	3.55	3	4.0	3202M4.5x0.5
M5	0.5	58	16	9	5.0	4.0	3	4.5	3202M5x0.5
M5.5	0.5	62	17	9	5.6	4.5	3	5.0	3202M5.5x0.5
M6	0.5	66	19	11	6.3	5.0	3	5.5	3202M6x0.5
M6	0.75	66	19	11	6.3	5.0	3	5.2	3202M6x0.75
M7	0.5	66	19	11	7.1	5.6	3	6.5	3202M7x0.5
M7	0.75	66	19	11	7.1	5.6	3	6.2	3202M7x0.75
M8	0.5	69	19	13	8.0	6.3	3	7.5	3202M8x0.5
M8	0.75	69	19	13	8.0	6.3	3	7.2	3202M8x0.75
M8	1.0	69	19	13	8.0	6.3	3	7.0	3202M8x1
M9	0.5	69	19	14	9.0	7.1	3	8.5	3202M9x0.5
M9	0.75	69	19	14	9.0	7.1	3	8.2	3202M9x0.75
M9	1.0	69	19	14	9.0	7.1	3	8.0	3202M9x1
M10	0.75	76	20	15	10.0	8.0	3	9.2	3202M10x0.75
M10	1.0	76	20	15	10.0	8.0	3	9.0	3202M10x1
M10	1.25	76	20	15	10.0	8.0	3	8.8	3202M10x1.25
M11	0.75	80	20		8.0	6.3	3	10.2	3202M11x0.75
M11	1.0	80	20		8.0	6.3	3	10.0	3202M11x1
M12	1.0	84	24		9.0	7.1	3	11.0	3202M12x1
M12	1.25	84	24		9.0	7.1	3	9.8	3202M12x1.25
M12	1.5	89	29		9.0	7.1	3	10.5	3202M12x1.5
M14	1.0	90	25		11.2	9.0	3	13.0	3202M14x1
M14	1.25	90	25		11.2	9.0	3	12.8	3202M14x1.25
M14	1.5	95	30		11.2	9.0	3	12.5	3202M14x1.5
M15	1.0	87	22		11.2	9.0	3	14.0	3202M15x1
M15	1.5	95	30		11.2	9.0	3	13.5	3202M15x1.5
M16	1.0	95	25		12.5	10.0	3	15.0	3202M16x1
M16	1.25	95	25		12.5	10.0	3	14.8	3202M16x1.25
M16	1.5	102	32		12.5	10.0	3	14.5	3202M16x1.5
M17	1.0	92	22		12.5	10.0	3	16.0	3202M17x1
M17	1.5	102	32		12.5	10.0	3	15.5	3202M17x1.5
M18	1.0	104	29		14.0	11.2	3	17.0	3202M18x1
M18	1.25	104	29		14.0	11.2	3	16.8	3202M18x1.25
M18	1.5	104	29		14.0	11.2	3	16.5	3202M18x1.5
M18	2.0	112	37		14.0	11.2	3	16.0	3202M18x2

Ordering example: Machine taps 3202M3x0.35 HSSE
Bestellbeispiel: Maschinengewindebohrer 3202M3x0.35 HSSE
Начин на заявяване: Метчици машинни 3202M3x0.35 HSSE

Machine Taps

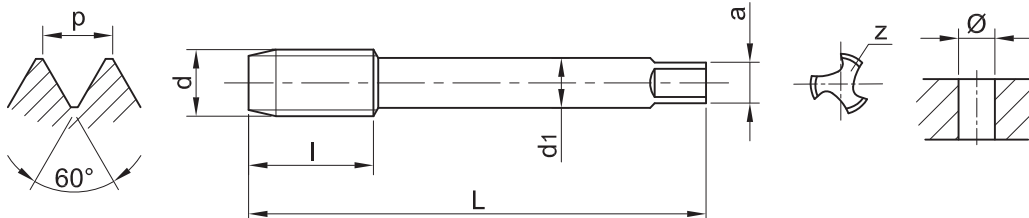
with spiral point
for ISO metric fine thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt
für metrisches ISO-Feingewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни

с подточени канали
за метрична ISO резба
ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба
Форма В 4-5 навивки конус



Mf ISO 529 B

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 3202*..
M20	1.0	104	29	14.0	11.2	3	19.0	3202M20x1
M20	1.25	104	29	14.0	11.2	3	18.8	3202M20x1.25
M20	1.5	104	29	14.0	11.2	3	18.5	3202M20x1.5
M20	2.0	112	37	14.0	11.2	3	18.0	3202M20x2
M22	1.0	109	29	16.0	12.5	3	21.0	3202M22x1
M22	1.25	109	29	16.0	12.5	3	20.8	3202M22x1.25
M22	1.5	113	33	16.0	12.5	3	20.5	3202M22x1.5
M22	2.0	118	38	16.0	12.5	3	20.0	3202M22x2
M24	1.0	114	29	18.0	14.0	3	23.0	3202M24x1
M24	1.25	114	29	18.0	14.0	3	22.8	3202M24x1.25
M24	1.5	120	35	18.0	14.0	3	22.5	3202M24x1.5
M24	2.0	120	35	18.0	14.0	3	22.0	3202M24x2
M25	1.0	114	29	18.0	14.0	3	24.0	3202M25x1
M25	1.5	120	35	18.0	14.0	3	23.5	3202M25x1.5
M25	2.0	120	35	18.0	14.0	3	23.0	3202M25x2
M26	1.5	120	35	18.0	14.0	3	24.5	3202M26x1.5
M27	1.0	120	30	20.0	16.0	3	26.0	3202M27x1
M27	1.5	127	37	20.0	16.0	3	25.5	3202M27x1.5
M27	2.0	127	37	20.0	16.0	3	25.0	3202M27x2
M28	1.0	120	30	20.0	16.0	3	27.0	3202M28x1
M28	1.5	127	37	20.0	16.0	3	26.5	3202M28x1.5
M28	2.0	127	37	20.0	16.0	3	26.0	3202M28x2
M30	1.0	120	30	20.0	16.0	3	29.0	3202M30x1
M30	1.5	127	37	20.0	16.0	3	28.5	3202M30x1.5
M30	2.0	127	37	20.0	16.0	3	28.0	3202M30x2
M30	2.5	127	37	20.0	16.0	3	27.5	3202M30x2.5
M30	3.0	138	48	20.0	16.0	3	27.0	3202M30x3
M32	1.5	137	37	22.4	18.0	4	30.5	3202M32x1.5
M32	2.0	137	37	22.4	18.0	4	30.0	3202M32x2
M32	3.0	151	51	22.4	18.0	4	29.0	3202M32x3
M33	1.5	137	37	22.4	18.0	4	31.5	3202M33x1.5
M33	2.0	137	37	22.4	18.0	4	31.0	3202M33x2
M33	3.0	151	51	22.4	18.0	4	30.0	3202M33x3
M35	1.5	144	39	25.0	20.0	4	33.5	3202M35x1.5
M36	1.5	144	39	25.0	20.0	4	34.5	3202M36x1.5
M36	2.0	144	39	25.0	20.0	4	34.0	3202M36x2
M36	3.0	162	57	25.0	20.0	4	33.0	3202M36x3
M38	1.5	149	39	28.0	22.4	4	36.5	3202M38x1.5

Ordering example: Machine taps 3202M20x1 HSSE
Bestellbeispiel: Maschinengewindebohrer 3202M20x1 HSSE
Начин на заявяване: Метчици машинни 3202M20x1 HSSE

Machine Taps

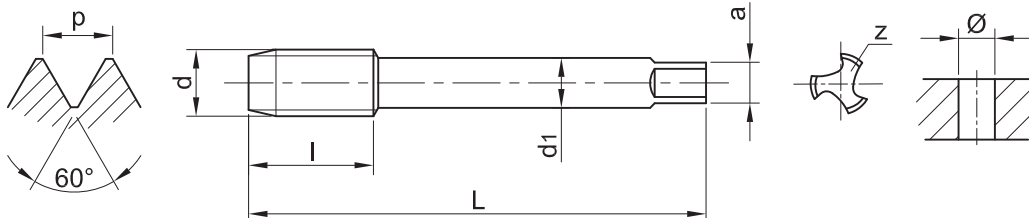
with spiral point
for ISO metric fine thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt
für metrisches ISO-Feingewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни

с подточени канали
за метрична ISO резба
ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба
Форма В 4-5 навивки конус



Mf ISO 529 B

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 3202*..
M39	1.5	149	39	28.0	22.4	4	37.5	3202M39x1.5
M39	2.0	149	39	28.0	22.4	4	37.0	3202M39x2
M39	3.0	170	60	28.0	22.4	4	36.0	3202M39x3
M40	1.5	149	39	28.0	22.4	4	38.5	3202M40x1.5
M40	2.0	149	39	28.0	22.4	4	38.0	3202M40x2
M40	3.0	170	60	28.0	22.4	4	37.0	3202M40x3
M42	1.5	149	39	28.0	22.4	4	40.5	3202M42x1.5
M42	2.0	149	39	28.0	22.4	4	40.0	3202M42x2
M42	3.0	170	60	28.0	22.4	4	39.0	3202M42x3
M42	4.0	170	60	28.0	22.4	4	38.0	3202M42x4
M45	1.5	165	45	31.5	25.0	6	43.5	3202M45x1.5
M45	2.0	165	45	31.5	25.0	6	43.0	3202M45x2
M45	3.0	187	67	31.5	25.0	6	42.0	3202M45x3
M45	4.0	187	67	31.5	25.0	6	41.0	3202M45x4
M48	1.5	165	45	31.5	25.0	6	46.5	3202M48x1.5
M48	2.0	165	45	31.5	25.0	6	46.0	3202M48x2
M48	3.0	187	67	31.5	25.0	6	45.0	3202M48x3
M48	4.0	187	67	31.5	25.0	6	44.0	3202M48x4
M50	1.5	165	45	31.5	25.0	6	48.5	3202M50x1.5
M50	2.0	165	45	31.5	25.0	6	48.0	3202M50x2
M50	3.0	187	67	31.5	25.0	6	47.0	3202M50x3
M52	1.5	175	45	35.5	28.0	6	50.5	3202M52x1.5
M52	2.0	175	45	35.5	28.0	6	50.0	3202M52x2
M52	3.0	200	70	35.5	28.0	6	49.0	3202M52x3
M52	4.0	200	70	35.5	28.0	6	48.0	3202M52x4

Ordering example: Machine taps 3202M39x1.5 HSSE
Bestellbeispiel: Maschinengewindebohrer 3202M39x1.5 HSSE
Начин на заявяване: Метчици машинни 3202M39x1.5 HSSE

Machine Taps

with spiral point
for ISO metric Fine thread
according to DIN 13
Grade of fit: ISO 2 (6H)
Ground thread

Form B 4-5 threads chamfered

Maschinengewindebohrer

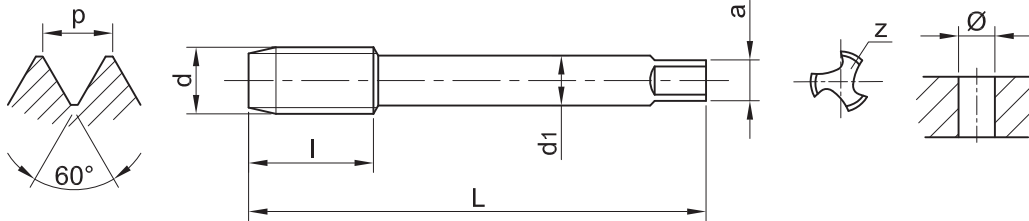
mit Schälanschnitt
für metrisches ISO-Feingewinde
nach DIN 13
Toleranzfeld: ISO 2 (6H)
Geschliffenes Gewinde

Form B 4-5 Gang Anschnitt

Метчици машинни

с подточени канали
за метрична ISO резба
ситна стъпка по DIN 13
Клас на точност: ISO 2 (6H)
Шлифована резба

Форма В 4-5 навивки конус



Mf JIS B

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 4402*..
M4	0.5	52	13	5.0	4.0	3	3.5	4402M4x0.5
M5	0.5	55	13	5.5	4.5	3	4.5	4402M5x0.5
M6	0.75	62	19	6.0	4.5	3	5.2	4402M6x0.75
M6	0.5	55	13	6.0	4.5	3	5.5	4402M6x0.5
M8	1.0	70	22	6.2	5.0	3	7.0	4402M8x1
M8	0.75	70	22	6.2	5.0	3	7.2	4402M8x0.75
M10	1.25	75	24	7.0	5.5	3	8.8	4402M10x1.25
M10	1.0	75	24	7.0	5.5	3	9.0	4402M10x1
M12	1.5	82	29	8.5	6.5	3	10.5	4402M12x1.5
M12	1.25	82	29	8.5	6.5	3	10.8	4402M12x1.25
M12	1.0	82	29	8.5	6.5	3	11.0	4402M12x1
M14	1.5	88	30	10.5	8.0	3	12.5	4402M14x1.5
M14	1.25	88	30	10.5	8.0	3	12.8	4402M14x1.25
M14	1.0	88	30	10.5	8.0	3	13.0	4402M14x1
M16	1.5	95	32	12.5	10.0	3	14.5	4402M16x1.5
M16	1.0	95	32	12.5	10.0	3	15.0	4402M16x1
M18	2.0	100	37	14.0	11.0	3	16.0	4402M18x2
M18	1.5	100	37	14.0	11.0	3	16.5	4402M18x1.5
M18	1.0	95	30	14.0	11.0	3	17.0	4402M18x1
M20	2.0	105	37	15.0	12.0	3	18.0	4402M20x2
M20	1.5	105	37	15.0	12.0	3	18.5	4402M20x1.5
M20	1.0	95	30	15.0	12.0	3	19.0	4402M20x1
M22	2.0	115	38	17.0	13.0	3	20.0	4402M22x2
M22	1.5	115	38	17.0	13.0	3	20.5	4402M22x1.5
M22	1.0	95	30	17.0	13.0	3	21.0	4402M22x1
M24	2.0	120	45	19.0	15.0	3	22.0	4402M24x2
M24	1.5	120	45	19.0	15.0	3	22.5	4402M24x1.5
M24	1.0	95	30	19.0	15.0	3	23.0	4402M24x1
M27	2.0	130	45	20.0	15.0	4	25.0	4402M27x2
M27	1.5	130	45	20.0	15.0	4	25.5	4402M27x1.5
M30	3.0	135	48	23.0	17.0	4	27.0	4402M30x3
M30	2.0	135	45	23.0	17.0	4	28.0	4402M30x2
M30	1.5	135	45	23.0	17.0	4	28.5	4402M30x1.5

Ordering example: Machine taps 4402M4x0.5 HSSE
Bestellbeispiel: Maschinengewindebohrer 4402M4x0.5 HSSE
Начин на заявяване: Метчици машинни 4402M4x0.5 HSSE

Machine Taps

with helical flutes R39°

for ISO metric Fine thread

according to DIN 13

Grade of fit: ISO 2 (6H)

Ground thread

Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R39°

für metrisches ISO-Feingewinde

nach DIN 13

Toleranzfeld: ISO 2 (6H)

Geschliffenes Gewinde

Form C 2-3 Gang Anschnitt

Метчици машинни

с винтови канали R39°

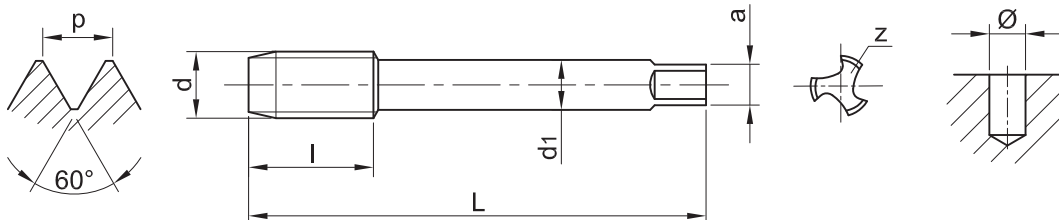
за метрична ISO резба

ситна стъпка по DIN 13

Клас на точност: ISO 2 (6H)

Шлифована резба

Форма С 2-3 навивки конус



Mf JIS R39°

d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 4407*..
M4	0.5	52	13	5.0	4.0	3	3.5	4407M4x0.5
M5	0.5	55	13	5.5	4.5	3	4.5	4407M5x0.5
M6	0.75	62	19	6.0	4.5	3	5.2	4407M6x0.75
M6	0.5	55	13	6.0	4.5	3	5.5	4407M6x0.5
M8	1.0	70	22	6.2	5.0	3	7.0	4407M8x1
M8	0.75	70	22	6.2	5.0	3	7.2	4407M8x0.75
M10	1.25	75	24	7.0	5.5	3	8.8	4407M10x1.25
M10	1.0	75	24	7.0	5.5	3	9.0	4407M10x1
M12	1.5	82	29	8.5	6.5	3	10.5	4407M12x1.5
M12	1.25	82	29	8.5	6.5	3	10.8	4407M12x1.25
M12	1.0	82	29	8.5	6.5	3	11.0	4407M12x1
M14	1.5	88	30	10.5	8.0	3	12.5	4407M14x1.5
M14	1.25	88	30	10.5	8.0	3	12.8	4407M14x1.25
M14	1.0	88	30	10.5	8.0	3	13.0	4407M14x1
M16	1.5	95	32	12.5	10.0	3	14.5	4407M16x1.5
M16	1.0	95	32	12.5	10.0	3	15.0	4407M16x1
M18	2.0	100	37	14.0	11.0	4	16.0	4407M18x2
M18	1.5	100	37	14.0	11.0	4	16.5	4407M18x1.5
M18	1.0	95	30	14.0	11.0	4	17.0	4407M18x1
M20	2.0	105	37	15.0	12.0	4	18.0	4407M20x2
M20	1.5	105	37	15.0	12.0	4	18.5	4407M20x1.5
M20	1.0	95	30	15.0	12.0	4	19.0	4407M20x1
M22	2.0	115	38	17.0	13.0	4	20.0	4407M22x2
M22	1.5	115	38	17.0	13.0	4	20.5	4407M22x1.5
M22	1.0	95	30	17.0	13.0	4	21.0	4407M22x1
M24	2.0	120	45	19.0	15.0	4	22.0	4407M24x2
M24	1.5	120	45	19.0	15.0	4	22.5	4407M24x1.5
M24	1.0	95	30	19.0	15.0	4	23.0	4407M24x1
M27	2.0	130	45	20.0	15.0	4	25.0	4407M27x2
M27	1.5	130	45	20.0	15.0	4	25.5	4407M27x1.5
M30	3.0	135	48	23.0	17.0	4	27.0	4407M30x3
M30	2.0	135	45	23.0	17.0	4	28.0	4407M30x2
M30	1.5	135	45	23.0	17.0	4	28.5	4407M30x1.5

Ordering example:

Machine taps 4407M4x0.5 HSSE

Bestellbeispiel:

Maschinengewindebohrer 4407M4x0.5 HSSE

Начин на заявяване:

Метчици машинни 4407M4x0.5 HSSE

Hand Taps

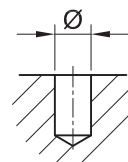
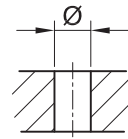
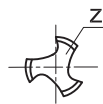
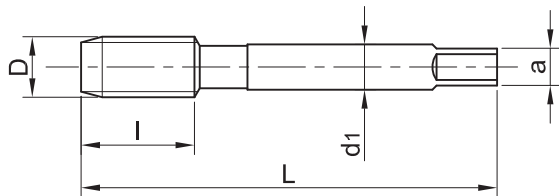
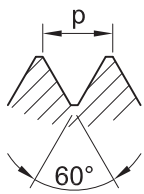
Set of 3 pieces for American Unified Coarse thread according to ANSI B1.1
Grade of fit: 2B
Ground thread

Handgewindebohrer

Dreiteiliger Satz für amerikanisches unifiziertes Grobgewinde nach ANSI B1.1
Toleranzfeld: 2B
Geschliffenes Gewinde

Метчици ръчни

Комплект от 3 броя за американска унифицирана резба едра стъпка по ANSI B1.1
Клас на точност: 2B
Шлифована резба



UNC ≈ DIN 352

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 111*..
UNC Nr.2	56	36	11	2.8	2.1	3	1.8	111UNCNr.2x56
UNC Nr.3	48	36	11	2.8	2.1	3	2.1	111UNCNr.3x48
UNC Nr.4	40	40	12	3.5	2.7	3	2.35	111UNCNr.4x40
UNC Nr.5	40	40	12	3.5	2.7	3	2.65	111UNCNr.5x40
UNC Nr.6	32	45	14	4.0	3.0	3	2.85	111UNCNr.6x32
UNC Nr.8	32	45	14	4.5	3.4	3	3.5	111UNCNr.8x32
UNC Nr.10	24	50	16	6.0	4.9	3	3.9	111UNCNr.10x24
UNC Nr.12	24	50	18	6.0	4.9	3	4.5	111UNCNr.12x24
UNC 1/4	20	50	19	6.0	4.9	3	5.1	111UNC1/4x20
UNC 5/16	18	56	22	6.0	4.9	4	6.6	111UNC5/16x18
UNC 3/8	16	70	24	7.0	5.5	4	8.0	111UNC3/8x16
UNC 7/16	14	70	24	8.0	6.2	4	9.4	111UNC7/16x14
UNC 1/2	13	75	29	9.0	7.0	4	10.8	111UNC1/2x13
UNC 9/16	12	80	30	11.0	9.0	4	12.2	111UNC9/16x12
UNC 5/8	11	80	32	12.0	9.0	4	13.5	111UNC5/8x11
UNC 3/4	10	95	40	14.0	11.0	4	16.5	111UNC3/4x10
UNC 7/8	9	100	40	18.0	14.5	4	19.5	111UNC7/8x9
UNC 1"	8	110	50	18.0	14.5	4	22.2	111UNC1"x8
UNC 1"1/8	7	132	56	22.0	18.0	4	25.0	111UNC1"1/8x7
UNC 1"1/4	7	132	56	22.0	18.0	4	28.2	111UNC1"1/4x7
UNC 1"3/8	6	150	63	28.0	22.0	4	30.8	111UNC1"3/8x6
UNC 1"1/2	6	150	63	32.0	24.0	4	34.1	111UNC1"1/2x6
UNC 1"5/8	5	160	70	32.0	24.0	4	36.1	111UNC1"5/8x5
UNC 1"3/4	5	160	70	36.0	29.0	6	39.3	111UNC1"3/4x5
UNC 1"7/8	4.5	190	80	36.0	29.0	6	42.0	111UNC1"7/8x4.5
UNC 2"	4.5	190	80	40.0	32.0	6	45.2	111UNC2"x4.5

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Hand taps 111UNCNr.2x56 HSS - for 1 set /I, II, III/

Handgewindebohrer 111UNCNr.2x56 HSS - für 1 Satz /I, II, III/

Метчици ръчни 111UNCNr.2x56 HSS - за 1 комплект /I, II, III/

Hand Taps

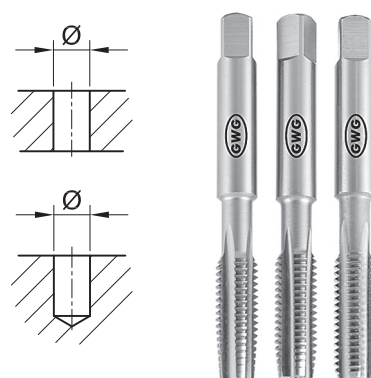
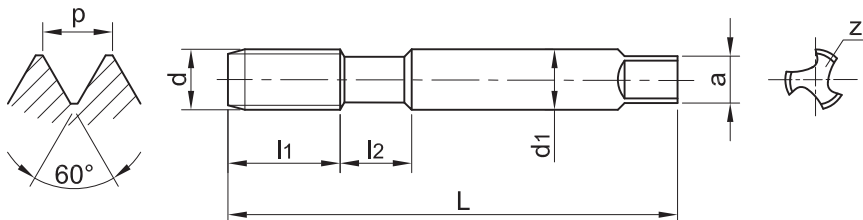
for American
Unified Coarse thread
according to ANSI B1.1
Grade of fit: 2B
Ground thread
Form A 6-8 threads chamfered
Form D 4-5 threads chamfered
Form C 2-3 threads chamfered

Handgewindebohrer

für amerikanisches
unifiziertes Grobgewinde
nach ANSI B1.1
Toleranzfeld: 2B
Geschliffenes Gewinde
Form A 6-8 Gang Anschnitt
Form D 4-5 Gang Anschnitt
Form C 2-3 Gang Anschnitt

Метчици ръчни

за американска унифицирана
резба едра стъпка
по ANSI B1.1
Клас на точност: 2B
Шлифована резба
Форма А 6-8 навивки конус
Форма D 4-5 навивки конус
Форма С 2-3 навивки конус



UNC ISO 529

d	p / inch	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. A 3111*.. Art. No. D 3114*.. Art. No. C 3113*..
UNC Nr.4	40	48	11	7	3.15	2.5	3	2.35	..*UNCNr.4x40
UNC Nr.5	40	48	11	7	3.15	2.5	3	2.65	..*UNCNr.5x40
UNC Nr.6	32	50	13	7	3.55	2.8	3	2.85	..*UNCNr.6x32
UNC Nr.8	32	53	13	8	4.5	3.55	3	3.5	..*UNCNr.8x32
UNC Nr.10	24	58	16	9	5.0	4.0	3	3.9	..*UNCNr.10x24
UNC Nr.12	24	62	17	9	5.6	4.5	3	4.5	..*UNCNr.12x24
UNC 1/4	20	66	19	11	6.3	5.0	3	5.1	..*UNC1/4x20
UNC 5/16	18	72	22	13	8.0	6.3	4	6.6	..*UNC5/16x18
UNC 3/8	16	80	24	15	10.0	8.0	4	8.0	..*UNC3/8x16
UNC 7/16	14	85	25		8.0	6.3	4	9.4	..*UNC7/16x14
UNC 1/2	13	89	29		9.0	7.1	4	10.8	..*UNC1/2x13
UNC 9/16	12	95	30		11.2	9.0	4	12.2	..*UNC9/16x12
UNC 5/8	11	102	32		12.5	10.0	4	13.5	..*UNC5/8x11
UNC 3/4	10	112	37		14.0	11.2	4	16.5	..*UNC3/4x10
UNC 7/8	9	118	38		16.0	12.5	4	19.5	..*UNC7/8x9
UNC 1"	8	130	45		18.0	14.0	4	22.2	..*UNC1"x8
UNC 1"1/8	7	138	48		20.0	16.0	4	25.0	..*UNC1"1/8x7
UNC 1"1/4	7	151	51		22.4	18.0	4	28.2	..*UNC1"1/4x7
UNC 1"3/8	6	162	57		25.0	20.0	4	30.8	..*UNC1"3/8x6
UNC 1"1/2	6	170	60		28.0	22.4	4	34.1	..*UNC1"1/2x6
UNC 1"5/8	5	170	60		28.0	22.4	4	36.1	..*UNC1"5/8x5
UNC 1"3/4	5	187	67		31.5	25.0	6	39.3	..*UNC1"3/4x5
UNC 1"7/8	4.5	187	67		31.5	25.0	6	42.0	..*UNC1"7/8x5
UNC 2"	4.5	200	70		35.5	28.0	6	45.2	..*UNC2"x4.5

Ordering example: Hand taps 3111UNCNr.4x40 HSS
Bestellbeispiel: Handgewindebohrer 3111UNCNr.4x40 HSS
Начин на заявяване: Метчици ръчни 3111UNCNr.4x40 HSS

Hand Taps

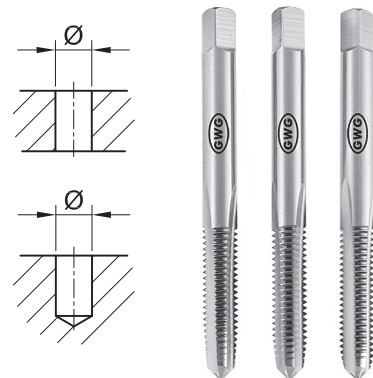
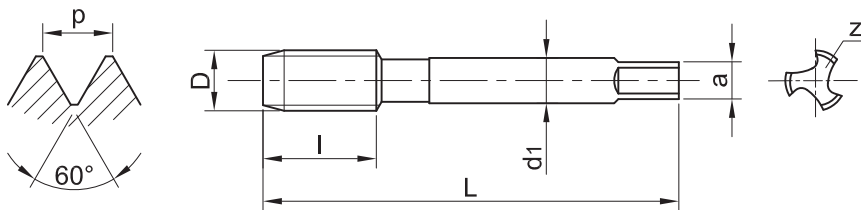
for American
Unified Coarse thread
according to ANSI B1.1
Grade of fit: 2B
Ground thread
Form A 6-8 threads chamfered
Form D 4-5 threads chamfered
Form C 2-3 threads chamfered

Handgewindebohrer

für amerikanisches
unifiziertes Grobgewinde
nach ANSI B1.1
Toleranzfeld: 2B
Geschliffenes Gewinde
Form A 6-8 Gang Anschnitt
Form D 4-5 Gang Anschnitt
Form C 2-3 Gang Anschnitt

Метчици ръчни

за американска унифицирана
резба едра стъпка
по ANSI B1.1
Клас на точност: 2B
Шлифована резба
Форма А 6-8 навивки конус
Форма D 4-5 навивки конус
Форма С 2-3 навивки конус



UNC **JIS**

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. A 4111*.. Art. No. D 4114*.. Art. No. C 4113*..
UNC Nr.4	40	44	16	3.0	2.5	3	2.35	..*UNCNr.4x40
UNC Nr.5	40	46	18	4.0	3.2	3	2.65	..*UNCNr.5x40
UNC Nr.6	32	48	18	4.0	3.2	3	2.85	..*UNCNr.6x32
UNC Nr.8	32	52	20	5.0	4.0	4	3.5	..*UNCNr.8x32
UNC Nr.10	24	60	22	5.5	4.5	4	3.9	..*UNCNr.10x24
UNC Nr.12	24	60	22	5.5	4.5	4	4.5	..*UNCNr.12x24
UNC 1/4	20	62	24	6.0	4.5	4	5.1	..*UNC1/4x20
UNC 5/16	18	70	30	6.1	5.0	4	6.6	..*UNC5/16x18
UNC 3/8	16	75	35	7.0	5.5	4	8.0	..*UNC3/8x16
UNC 7/16	14	80	38	8.0	6.0	4	9.4	..*UNC7/16x14
UNC 1/2	13	85	42	9.0	7.0	4	10.8	..*UNC1/2x13
UNC 9/16	12	90	42	10.5	8.0	4	12.2	..*UNC9/16x12
UNC 5/8	11	95	45	12.0	9.0	4	13.5	..*UNC5/8x11
UNC 3/4	10	105	50	14.0	11.0	4	16.5	..*UNC3/4x10
UNC 7/8	9	115	55	17.0	13.0	4	19.5	..*UNC7/8x9
UNC 1"	8	125	60	20.0	15.0	4	22.2	..*UNC1"x8

Ordering example: Hand taps 4111UNCNr.4x40 HSS
Bestellbeispiel: Handgewindebohrer 4111UNCNr.4x40 HSS
Начин на заявяване: Метчици ръчни 4111UNCNr.4x40 HSS

Machine Taps

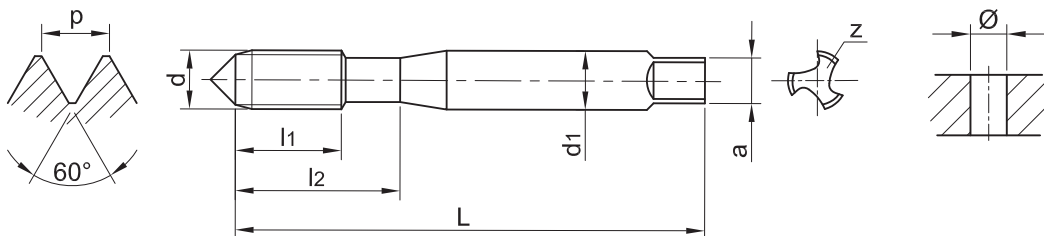
with spiral point for American Unified Coarse thread according to ANSI B1.1
Grade of fit: 2B
Reinforced shank
Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt für amerikanisches unifiziertes Grobgewinde nach ANSI B1.1
Toleranzfeld: 2B
Verstärkter Schaft
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни

с подточени канали за американска унифицирана резба едра стъпка по ANSI B1.1
Клас на точност: 2B
Усилена опашка
Шлифована резба
Форма В 4-5 навивки конус



UNC ≈ DIN 371 B

d	p / inch	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. 2312*..
UNC Nr.4	40	56	11	18	3.5	2.7	3	2.35	2312UNCNr.4x40
UNC Nr.5	40	56	11	18	3.5	2.7	3	2.65	2312UNCNr.5x40
UNC Nr.6	32	56	12	20	4.0	3.0	3	2.85	2312UNCNr.6x32
UNC Nr.8	32	63	13	21	4.5	3.4	3	3.5	2312UNCNr.8x32
UNC Nr.10	24	70	15	25	6.0	4.9	3	3.9	2312UNCNr.10x24
UNC Nr.12	24	70	16	25	6.0	4.9	3	4.5	2312UNCNr.12x24
UNC 1/4	20	80	17	30	7.0	5.5	3	5.1	2312UNC1/4x20
UNC 5/16	18	90	20	35	8.0	6.2	3	6.6	2312UNC5/16x18
UNC 3/8	16	100	22	39	9.0	7.0	3	8.0	2312UNC3/8x16

Ordering example: Machine taps 2312UNCNr.4x40 HSSE
Bestellbeispiel: Maschinengewindebohrer 2312UNCNr.4x40 HSSE
Начин на заявяване: Метчици машинни 2312UNCNr.4x40 HSSE

Machine Taps

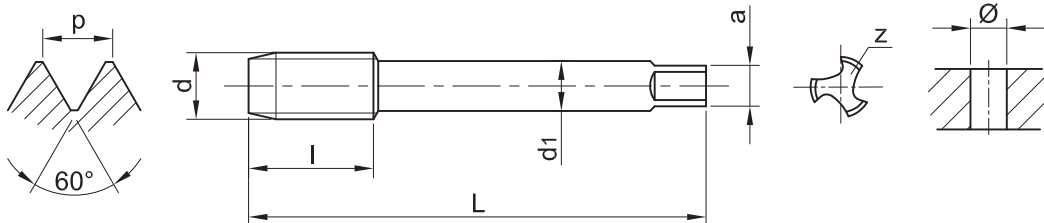
with spiral point for American Unified Coarse thread according to ANSI B1.1
Grade of fit: 2B
Passing shank
Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt für amerikanisches unifiziertes Grobgewinde nach ANSI B1.1
Toleranzfeld: 2B
Überlaufschaft
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни

с подточени канали за американска унифицирана резба едра стъпка по ANSI B1.1
Клас на точност: 2B
Преминаваща опашка
Шлифована резба
Форма В 4-5 навивки конус



UNC ≈ DIN 376 B

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2412*..
UNC Nr.4	40	56	11	1.8	-	3	2.35	2412UNCNr.4x40
UNC Nr.5	40	56	11	2.2	1.8	3	2.65	2412UNCNr.5x40
UNC Nr.6	32	56	12	2.5	2.1	3	2.85	2412UNCNr.6x32
UNC Nr.8	32	63	13	2.8	2.1	3	3.5	2412UNCNr.8x32
UNC Nr.10	24	70	15	3.5	2.7	3	3.9	2412UNCNr.10x24
UNC Nr.12	24	70	16	3.5	2.7	3	4.5	2412UNCNr.12x24
UNC 1/4	20	80	17	4.5	3.4	3	5.1	2412UNC1/4x20
UNC 5/16	18	90	20	6.0	4.9	3	6.6	2412UNC5/16x18
UNC 3/8	16	100	22	7.0	5.5	3	8.0	2412UNC3/8x16
UNC 7/16	14	100	22	8.0	6.2	3	9.4	2412UNC7/16x14
UNC 1/2	13	110	25	9.0	7.0	3	10.8	2412UNC1/2x13
UNC 9/16	12	110	26	11.0	9.0	3	12.2	2412UNC9/16x12
UNC 5/8	11	110	27	12.0	9.0	3	13.5	2412UNC5/8x11
UNC 3/4	10	125	30	14.0	11.0	4	16.5	2412UNC3/4x10
UNC 7/8	9	140	32	18.0	14.5	4	19.5	2412UNC7/8x9
UNC 1"	8	160	36	20.0	16.0	4	22.2	2412UNC1"x8
UNC 1"1/4	7	180	40	22.0	18.0	4	28.2	2412UNC1"1/4x7
UNC 1"1/2	6	200	50	32.0	24.0	4	34.1	2412UNC1"1/2x6
UNC 1"3/4	5	220	65	36.0	29.0	6	39.3	2412UNC1"3/4x5
UNC 2"	4.5	250	70	40.0	32.0	6	45.2	2412UNC2"x4.5

Ordering example: Machine taps 2412UNCNr.4x40 HSSE
Bestellbeispiel: Maschinengewindebohrer 2412UNCNr.4x40 HSSE
Начин на заявяване: Метчици машинни 2412UNCNr.4x40 HSSE

Machine Taps

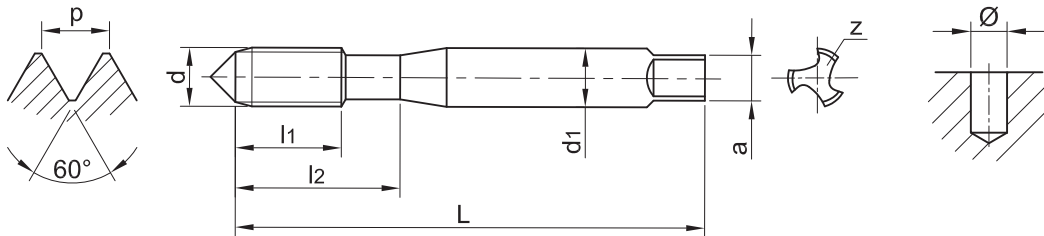
with helical flutes R35° for American Unified Coarse thread according to ANSI B1.1
 Grade of fit: 2B
 Reinforced shank
 Ground thread
Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R35° für amerikanisches unifiziertes Grobgewinde nach ANSI B1.1
 Toleranzfeld: 2B
 Verstärkter Schaft
 Geschliffenes Gewinde
Form C 2-3 Gang Anschnitt

Метчици машинни

с винтови канали R35° за американска унифицирана резба едра стъпка по ANSI B1.1
 Клас на точност: 2B
 Усилена опашка
 Шлифована резба
Форма С 2-3 навивки конус



UNC ≈ DIN 371 R35°

d	p / inch	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. 2316*..
UNC Nr.4	40	56	7	18	3.5	2.7	3	2.35	2316UNCNr.4x40
UNC Nr.5	40	56	7	18	3.5	2.7	3	2.65	2316UNCNr.5x40
UNC Nr.6	32	56	7	20	4.0	3.0	3	2.85	2316UNCNr.6x32
UNC Nr.8	32	63	8	21	4.5	3.4	3	3.5	2316UNCNr.8x32
UNC Nr.10	24	70	10	25	6.0	4.9	3	3.9	2316UNCNr.10x24
UNC Nr.12	24	70	10	25	6.0	4.9	3	4.5	2316UNCNr.12x24
UNC 1/4	20	80	13	30	7.0	5.5	3	5.1	2316UNC1/4x20
UNC 5/16	18	90	14	35	8.0	6.2	3	6.6	2316UNC5/16x18
UNC 3/8	16	100	16	39	9.0	7.0	3	8.0	2316UNC3/8x16

Ordering example: Machine taps 2316UNCNr.4x40 HSSE
 Bestellbeispiel: Maschinengewindebohrer 2316UNCNr.4x40 HSSE
 Начин на заявяване: Метчици машинни 2316UNCNr.4x40 HSSE

Machine Taps

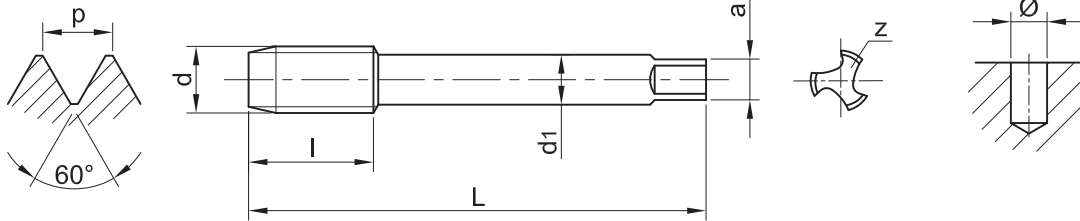
with helical flutes R35° for
American Unified Coarse thread
according to ANSI B1.1
Grade of fit: 2B
Passing shank
Ground thread
Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R35° für amerikanisches
unifiziertes Grobgewinde
nach ANSI B1.1
Toleranzfeld: 2B
Überlaufschaft
Geschliffenes Gewinde
Form C 2-3 Gang Anschnitt

Метчици машинни

с винтови канали R35° за
американска унифицирана резба
едра стъпка по ANSI B1.1
Клас на точност: 2B
Преминаваща опашка
Шлифована резба
Форма С 2-3 навивки конус



UNC ≈ DIN 376 R35°

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2416*..
UNC Nr.4	40	56	7	1.8	-	3	2.35	2416UNCNr.4x40
UNC Nr.5	40	56	7	2.2	1.8	3	2.65	2416UNCNr.5x40
UNC Nr.6	32	56	7	2.5	2.1	3	2.85	2416UNCNr.6x32
UNC Nr.8	32	63	8	2.8	2.1	3	3.5	2416UNCNr.8x32
UNC Nr.10	24	70	10	3.5	2.7	3	3.9	2416UNCNr.10x24
UNC Nr.12	24	70	10	3.5	2.7	3	4.5	2416UNCNr.12x24
UNC 1/4	20	80	13	4.5	3.4	3	5.1	2416UNC1/4x20
UNC 5/16	18	90	14	6.0	4.9	3	6.6	2416UNC5/16x18
UNC 3/8	16	100	16	7.0	5.5	3	8.0	2416UNC3/8x16
UNC 7/16	14	100	17	8.0	6.2	3	9.4	2416UNC7/16x14
UNC 1/2	13	110	20	9.0	7.0	3	10.8	2416UNC1/2x13
UNC 9/16	12	110	20	11.0	9.0	3	12.2	2416UNC9/16x12
UNC 5/8	11	110	22	12.0	9.0	3	13.5	2416UNC5/8x11
UNC 3/4	10	125	25	14.0	11.0	4	16.5	2416UNC3/4x10
UNC 7/8	9	140	27	18.0	14.5	4	19.5	2416UNC7/8x9
UNC 1"	8	160	30	20.0	16.0	4	22.2	2416UNC1"x8
UNC 1"1/4	7	180	35	22.0	18.0	4	28.2	2416UNC1"1/4x7
UNC 1"1/2	6	200	40	32.0	24.0	4	34.1	2416UNC1"1/2x6
UNC 1"3/4	5	220	50	36.0	29.0	4	39.3	2416UNC1"3/4x5
UNC 2"	4.5	250	56	40.0	32.0	6	45.2	2416UNC2"x4.5

Ordering example: Machine taps 2416UNCNr.4x40 HSSE
Bestellbeispiel: Maschinengewindebohrer 2416UNCNr.4x40 HSSE
Начин на заявяване: Метчици машинни 2416UNCNr.4x40 HSSE

Hand Taps

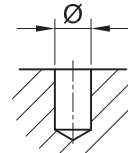
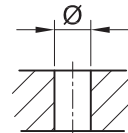
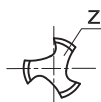
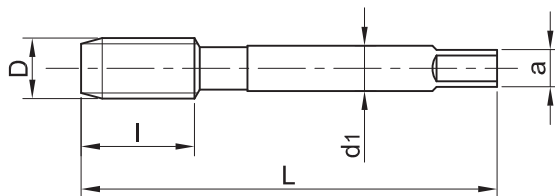
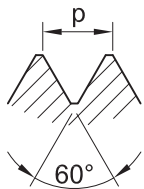
Set of 2 pieces for American Unified Fine thread according to ANSI B1.1
Grade of fit: 2B
Ground thread

Handgewindebohrer

Zweiteiliger Satz für amerikanisches unifiziertes Feingewinde nach ANSI B1.1
Toleranzfeld: 2B
Geschliffenes Gewinde

Метчици ръчни

Комплект от 2 броя за американска унифицирана резба ситна стъпка по ANSI B1.1
Клас на точност: 2B
Шлифована резба



UNF ≈ DIN 2181

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 121*..
UNF Nr.2	64	32	10	2.8	2.1	3	1.9	121UNFNr.2x64
UNF Nr.3	56	32	10	2.8	2.1	3	2.1	121UNFNr.3x56
UNF Nr.4	48	36	11	3.5	2.7	3	2.4	121UNFNr.4x48
UNF Nr.5	44	36	11	3.5	2.7	3	2.7	121UNFNr.5x44
UNF Nr.6	40	40	12	4.5	3.4	3	2.95	121UNFNr.6x40
UNF Nr.8	36	40	12	4.5	3.4	3	3.5	121UNFNr.8x36
UNF Nr.10	32	45	14	6.0	4.9	3	4.1	121UNFNr.10x32
UNF Nr.12	28	50	14	6.0	4.9	3	4.7	121UNFNr.12x28
UNF 1/4	28	50	18	6.0	4.9	3	5.5	121UNF1/4x28
UNF 5/16	24	56	22	6.0	4.9	4	6.9	121UNF5/16x24
UNF 3/8	24	63	22	7.0	5.5	4	8.5	121UNF3/8x24
UNF 7/16	20	63	22	8.0	6.2	4	9.9	121UNF7/16x20
UNF 1/2	20	75	24	9.0	7.0	4	11.5	121UNF1/2x20
UNF 9/16	18	80	28	11.0	9.0	4	12.9	121UNF9/16x18
UNF 5/8	18	80	28	12.0	9.0	4	14.5	121UNF5/8x18
UNF 3/4	16	95	32	14.0	11.0	4	17.5	121UNF3/4x16
UNF 7/8	14	100	36	18.0	14.5	4	20.4	121UNF7/8x14
UNF 1"	12	110	40	18.0	14.5	4	23.3	121UNF1"x12
UNF 1"	14	110	40	18.0	14.5	4	23.6	121UNF1"x14
UNF 1"1/8	12	110	50	22.0	18.0	4	26.5	121UNF1"1/8x12
UNF 1"1/4	12	132	56	22.0	18.0	4	29.7	121UNF1"1/4x12
UNF 1"3/8	12	132	56	28.0	22.0	4	32.8	121UNF1"3/8x12
UNF 1"1/2	12	150	63	32.0	24.0	4	36.1	121UNF1"1/2x12

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Hand taps 121UNFNr.2x64 HSS - for 1 set /I, II/

Handgewindebohrer 121UNFNr.2x64 HSS - für 1 Satz /I, II/

Метчици ръчни 121UNFNr.2x64 HSS - за 1 комплект /I, II/

Hand Taps

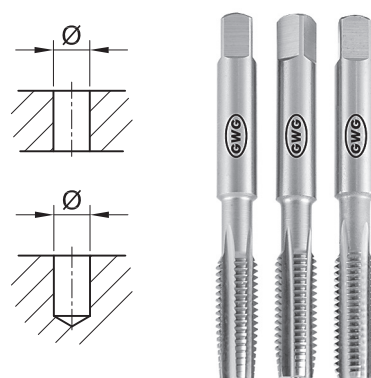
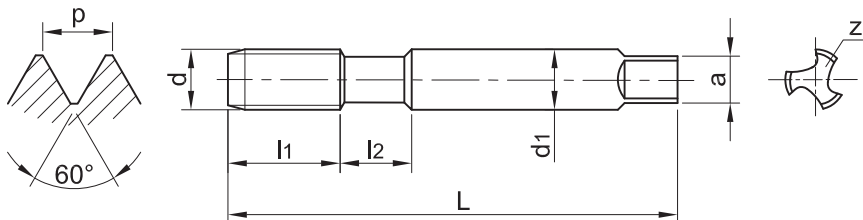
for American
Unified Fine thread
according to ANSI B1.1
Grade of fit: 2B
Ground thread
Form A 6-8 threads chamfered
Form D 4-5 threads chamfered
Form C 2-3 threads chamfered

Handgewindebohrer

für amerikanisches
unifiziertes Feingewinde
nach ANSI B1.1
Toleranzfeld: 2B
Geschliffenes Gewinde
Form A 6-8 Gang Anschnitt
Form D 4-5 Gang Anschnitt
Form C 2-3 Gang Anschnitt

Метчици ръчни

за американска унифицирана
резба ситна стъпка
по ANSI B1.1
Клас на точност: 2B
Шлифована резба
Форма А 6-8 навивки конус
Форма D 4-5 навивки конус
Форма С 2-3 навивки конус



UNF ISO 529

d	p / inch	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. A 3211*.. Art. No. D 3214*.. Art. No. C 3213*..
UNF Nr.4	48	48	11	7	3.15	2.5	3	2.4	..*UNFNr.4x48
UNF Nr.5	44	48	11	7	3.15	2.5	3	2.7	..*UNFNr.5x44
UNF Nr.6	40	50	13	7	3.55	2.8	3	2.95	..*UNFNr.6x40
UNF Nr.8	36	53	13	8	4.5	3.55	3	3.5	..*UNFNr.8x36
UNF Nr.10	32	58	16	9	5.0	4.0	3	4.1	..*UNFNr.10x32
UNF Nr.12	28	62	17	9	5.6	4.5	3	4.7	..*UNFNr.12x28
UNF 1/4	28	66	19	11	6.3	5.0	3	5.5	..*UNF1/4x28
UNF 5/16	24	69	19	13	8.0	6.3	4	6.9	..*UNF5/16x24
UNF 3/8	24	76	20	15	10.0	8.0	4	8.5	..*UNF3/8x24
UNF 7/16	20	82	22		8.0	6.3	4	9.9	..*UNF7/16x20
UNF 1/2	20	84	24		9.0	7.1	4	11.5	..*UNF1/2x20
UNF 9/16	18	90	25		11.2	9.0	4	12.9	..*UNF9/16x18
UNF 5/8	18	95	25		12.5	10.0	4	14.5	..*UNF5/8x18
UNF 3/4	16	104	29		14.0	11.2	4	17.5	..*UNF3/4x16
UNF 7/8	14	113	33		16.0	12.5	4	20.4	..*UNF7/8x14
UNF 1"	12	120	35		18.0	14.0	4	23.3	..*UNF1"x12
UNF 1"1/8	12	127	37		20.0	16.0	4	26.5	..*UNF1"1/8x12
UNF 1"1/4	12	137	37		22.4	18.0	4	29.7	..*UNF1"1/4x12
UNF 1"3/8	12	144	39		25.0	20.0	4	32.8	..*UNF1"3/8x12
UNF 1"1/2	12	149	39		28.0	22.4	4	36.1	..*UNF1"1/2x12
UNF 1"5/8	12	164	45		28.0	22.4	6	39.2	..*UNF1"5/8x12
UNF 1"3/4	12	164	45		31.5	25.0	6	42.3	..*UNF1"3/4x12
UNF 1"7/8	12	164	45		31.5	25.0	6	45.5	..*UNF1"7/8x12
UNF 2"	12	175	47		35.5	28.0	6	48.7	..*UNF2"x12

Ordering example: Hand taps 3211UNFNr.4x48 HSS
Bestellbeispiel: Handgewindebohrer 3211UNFNr.4x48 HSS
Начин на заявяване: Метчици ръчни 3211UNFNr.4x48 HSS

Hand Taps

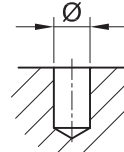
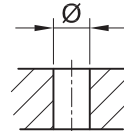
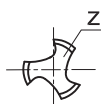
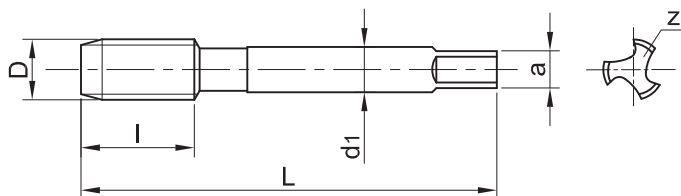
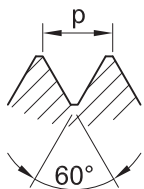
for American
Unified Fine thread
according to ANSI B1.1
Grade of fit: 2B
Ground thread
Form A 6-8 threads chamfered
Form D 4-5 threads chamfered
Form C 2-3 threads chamfered

Handgewindebohrer

für amerikanisches
unifiziertes Feingewinde
nach ANSI B1.1
Toleranzfeld: 2B
Geschliffenes Gewinde
Form A 6-8 Gang Anschnitt
Form D 4-5 Gang Anschnitt
Form C 2-3 Gang Anschnitt

Метчици ръчни

за американска унифицирана
резба ситна стъпка
по ANSI B1.1
Клас на точност: 2B
Шлифована резба
Форма А 6-8 навивки конус
Форма D 4-5 навивки конус
Форма С 2-3 навивки конус



UNF **JIS**

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. A 4211*.. Art. No. D 4214*.. Art. No. C 4213*..
UNF Nr.4	48	44	16	3.0	2.5	3	2.4	..*UNFNr.4x48
UNF Nr.5	44	46	18	4.0	3.2	3	2.7	..*UNFNr.5x44
UNF Nr.6	40	48	18	4.0	3.2	3	2.95	..*UNFNr.6x40
UNF Nr.8	36	52	20	5.0	4.0	4	3.5	..*UNFNr.8x36
UNF Nr.10	32	60	22	5.5	4.5	4	4.1	..*UNFNr.10x32
UNF Nr.12	28	60	22	5.5	4.5	4	4.7	..*UNFNr.12x28
UNF 1/4	28	62	24	6.0	4.5	4	5.5	..*UNF1/4x28
UNF 5/16	24	70	30	6.1	5.0	4	6.9	..*UNF5/16x24
UNF 3/8	24	75	32	7.0	5.5	4	8.5	..*UNF3/8x24
UNF 7/16	20	80	38	8.0	6.0	4	9.9	..*UNF7/16x20
UNF 1/2	20	85	42	9.0	7.0	4	11.5	..*UNF1/2x20
UNF 9/16	18	90	42	10.5	8.0	4	12.9	..*UNF9/16x18
UNF 5/8	18	95	45	12.0	9.0	4	14.5	..*UNF5/8x18
UNF 3/4	16	95	45	14.0	11.0	4	17.5	..*UNF3/4x16
UNF 7/8	14	95	45	17.0	13.0	4	20.4	..*UNF7/8x14
UNF 1"	12	95	45	20.0	15.0	4	23.3	..*UNF1"x12

Ordering example: Hand taps 4211UNFNr.4x48 HSS
Bestellbeispiel: Handgewindebohrer 4211UNFNr.4x48 HSS
Начин на заявяване: Метчици ръчни 4211UNFNr.4x48 HSS

M Mf UNC **UNF** UN BSW BSF G Rp Rc NPS NPT NPTF PT Tr PG BA

Machine Taps

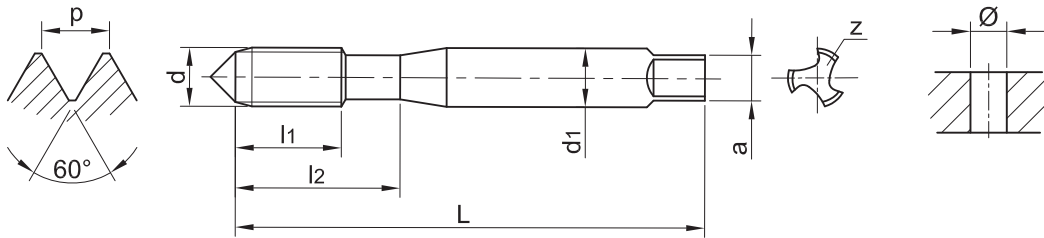
with spiral point for American Unified Fine thread according to ANSI B1.1
Grade of fit: 2B
Reinforced shank
Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt für amerikanisches unifiziertes Feingewinde nach ANSI B1.1
Toleranzfeld: 2B
Verstärkter Schaft
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

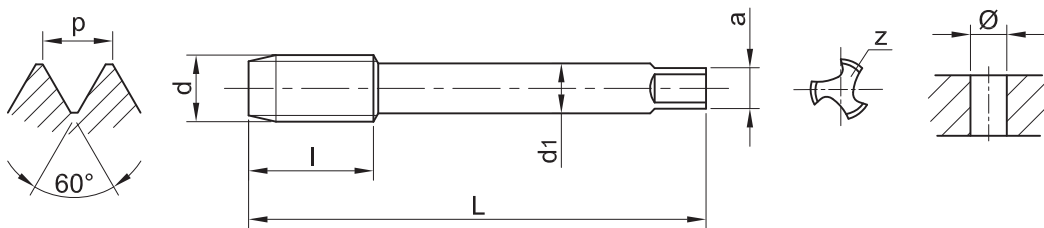
Метчици машинни

с подточени канали за американска унифицирана резба ситна стъпка по ANSI B1.1
Клас на точност: 2B
Усилена опашка
Шлифована резба
Форма В 4-5 навивки конус



UNF ≈ DIN 371 B

d	p / inch	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. 2812*..
UNF Nr.4	48	56	11	18	3.5	2.7	3	2.4	2812UNFNr.4x48
UNF Nr.5	44	56	11	18	3.5	2.7	3	2.7	2812UNFNr.5x44
UNF Nr.6	40	56	12	20	4.0	3.0	3	2.95	2812UNFNr.6x40
UNF Nr.8	36	63	13	21	4.5	3.4	3	3.5	2812UNFNr.8x36
UNF Nr.10	32	70	15	25	6.0	4.9	3	4.1	2812UNFNr.10x32
UNF Nr.12	28	70	16	25	6.0	4.9	3	4.7	2812UNFNr.12x28
UNF 1/4	28	80	17	30	7.0	5.5	3	5.5	2812UNF1/4x28
UNF 5/16	24	90	17	35	8.0	6.2	3	6.9	2812UNF5/16x24
UNF 3/8	24	100	18	39	9.0	7.0	3	8.5	2812UNF3/8x24



UNF ≈ DIN 374 B

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2512*..
UNF 7/16	20	100	22	8.0	6.2	3	9.9	2512UNF7/16x20
UNF 1/2	20	100	22	9.0	7.0	3	11.5	2512UNF1/2x20
UNF 9/16	18	100	22	11.0	9.0	3	12.9	2512UNF9/16x18
UNF 5/8	18	100	22	12.0	9.0	3	14.5	2512UNF5/8x18
UNF 3/4	16	110	25	14.0	11.0	4	17.5	2512UNF3/4x16
UNF 7/8	14	140	26	18.0	14.5	4	20.4	2512UNF7/8x14
UNF 1"	14	150	28	20.0	16.0	4	23.3	2512UNF1"x14
UNF 1"	12	150	28	20.0	16.0	4	23.6	2512UNF1"x12
UNF 1"1/4	12	150	30	22.0	18.0	4	29.7	2512UNF1"1/4x12
UNF 1"1/2	12	170	33	32.0	24.0	4	36.1	2512UNF1"1/2x12

Ordering example: Machine taps 2812UNFNr.4x40 HSSE
Bestellbeispiel: Maschinengewindebohrer 2812UNFNr.4x40 HSSE
Начин на заявяване: Метчици машинни 2812UNFNr.4x40 HSSE

Machine Taps

with helical flutes R35° for American Unified Fine thread according to ANSI B1.1

Grade of fit: 2B

Reinforced shank

Ground thread

Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R35° für amerikanisches unifiziertes Feingewinde nach ANSI B1.1

Toleranzfeld: 2B

Verstärkter Schaft

Geschliffenes Gewinde

Form C 2-3 Gang Anschnitt

Метчици машинни

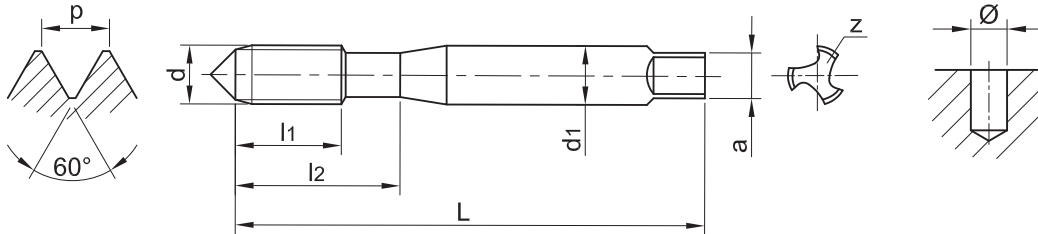
с винтови канали R35° за американска унифицирана резба ситна стъпка по ANSI B1.1

Клас на точност: 2B

Усилена опашка

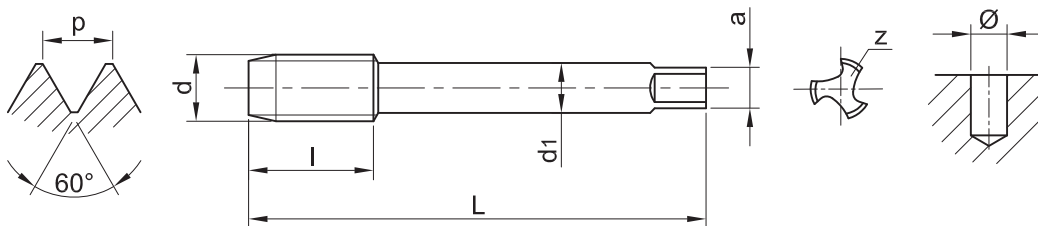
Шлифована резба

Форма С 2-3 навивки конус



UNF ≈ DIN 371 R35°

d	p / inch	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. 2816*..
UNF Nr.4	48	56	5.5	18	3.5	2.7	3	2.4	2816UNFNr.4x48
UNF Nr.5	44	56	7	18	3.5	2.7	3	2.7	2816UNFNr.5x44
UNF Nr.6	40	56	7	20	4.0	3.0	3	2.95	2816UNFNr.6x40
UNF Nr.8	36	63	8	21	4.5	3.4	3	3.5	2816UNFNr.8x36
UNF Nr.10	32	70	10	25	6.0	4.9	3	4.1	2816UNFNr.10x32
UNF Nr.12	28	70	10	25	6.0	4.9	3	4.7	2816UNFNr.12x28
UNF 1/4	28	80	10	30	7.0	5.5	3	5.5	2816UNF1/4x28
UNF 5/16	24	90	10	35	8.0	6.2	3	6.9	2816UNF5/16x24
UNF 3/8	24	100	10	39	9.0	7.0	3	8.5	2816UNF3/8x24



UNF ≈ DIN 374 R35°

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2516*..
UNF 7/16	20	100	13	8.0	6.2	3	9.9	2516UNF7/16x20
UNF 1/2	20	100	13	9.0	7.0	3	11.5	2516UNF1/2x20
UNF 9/16	18	100	15	11.0	9.0	3	12.9	2516UNF9/16x18
UNF 5/8	18	100	15	12.0	9.0	3	14.5	2516UNF5/8x18
UNF 3/4	16	110	17	14.0	11.0	4	17.5	2516UNF3/4x16
UNF 7/8	14	140	17	18.0	14.5	4	20.4	2516UNF7/8x14
UNF 1"	14	150	20	20.0	16.0	4	23.3	2516UNF1"x14
UNF 1"	12	150	20	20.0	16.0	4	23.6	2516UNF1"x12
UNF 1"1/4	12	150	22	22.0	18.0	4	29.7	2516UNF1"1/4x12
UNF 1"1/2	12	170	25	32.0	24.0	4	36.1	2516UNF1"1/2x12

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Machine taps 2816UNFNr.4x40 HSSE

Maschinengewindebohrer 2816UNFNr.4x40 HSSE

Метчици машинни 2816UNFNr.4x40 HSSE

Hand Taps

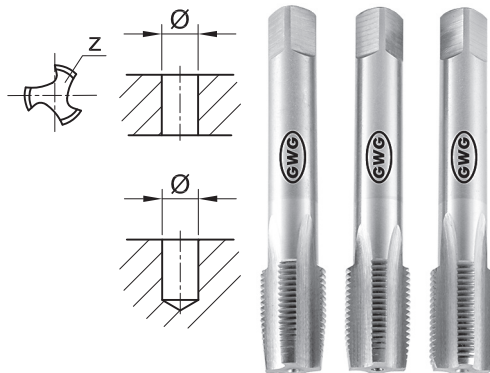
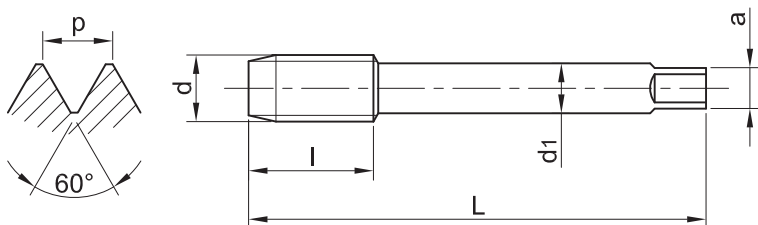
for American
Unified thread 8-UN
according to ANSI B1.1
Grade of fit: 2B
Ground thread
Form A 6-8 threads chamfered
Form D 4-5 threads chamfered
Form C 2-3 threads chamfered

Handgewindebohrer

für amerikanisches unifiziertes
Gewinde 8-UN
nach ANSI B1.1
Toleranzfeld: 2B
Geschliffenes Gewinde
Form A 6-8 Gang Anschnitt
Form D 4-5 Gang Anschnitt
Form C 2-3 Gang Anschnitt

Метчици ръчни

за американска унифицирана
резба 8-UN
по ANSI B1.1
Клас на точност: 2B
Шлифована резба
Форма А 6-8 навивки конус
Форма D 4-5 навивки конус
Форма С 2-3 навивки конус



8-UN ISO 529

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. A 3411*.. Art. No. D 3414*.. Art. No. C 3413*..
UN 1"1/16	8	138	48	20.0	16.0	4	23.8	..*UN1"1/16x8
UN 1"1/8	8	138	48	20.0	16.0	4	25.4	..*UN1"1/8x8
UN 1"3/16	8	151	51	22.4	18.0	4	27.0	..*UN1"3/16x8
UN 1"1/4	8	151	51	22.4	18.0	4	28.6	..*UN1"1/4x8
UN 1"5/16	8	162	57	25.0	20.0	4	30.2	..*UN1"5/16x8
UN 1"3/8	8	162	57	25.0	20.0	4	31.8	..*UN1"3/8x8
UN 1"1/2	8	170	60	28.0	22.4	4	35.0	..*UN1"1/2x8
UN 1"5/8	8	170	60	28.0	22.4	6	38.1	..*UN1"5/8x8
UN 1"3/4	8	187	67	31.5	25.0	6	41.3	..*UN1"3/4x8
UN 1"7/8	8	187	67	31.5	25.0	6	44.5	..*UN1"7/8x8
UN 2"	8	200	70	35.5	28.0	6	47.6	..*UN2"x8
UN 2"1/8	8	200	70	35.5	28.0	8	50.8	..*UN2"1/8x8
UN 2"1/4	8	221	76	40.0	31.5	8	54.0	..*UN2"1/4x8
UN 2"3/8	8	221	76	40.0	31.5	8	57.2	..*UN2"3/8x8
UN 2"1/2	8	224	79	40.0	31.5	8	60.3	..*UN2"1/2x8
UN 2"3/4	8	234	79	45.0	35.5	8	66.7	..*UN2"3/4x8
UN 3"	8	258	83	50.0	40.0	8	73.0	..*UN3"x8
UN 3"1/8	8	258	83	50.0	40.0	8	76.2	..*UN3"1/8x8
UN 3"1/4	8	261	86	50.0	40.0	8	79.4	..*UN3"1/4x8
UN 3"1/2	8	261	86	50.0	40.0	8	85.7	..*UN3"1/2x8
UN 3"3/4	8	279	89	56.0	45.0	8	92.1	..*UN3"3/4x8
UN 4"	8	279	89	56.0	45.0	8	98.4	..*UN4"x8

Ordering example: Hand taps 3411UN1"1/16x8 HSS
Bestellbeispiel: Handgewindebohrer 3411UN1"1/16x8 HSS
Начин на заявяване: Метчици ръчни 3411UN1"1/16x8 HSS

Machine Taps

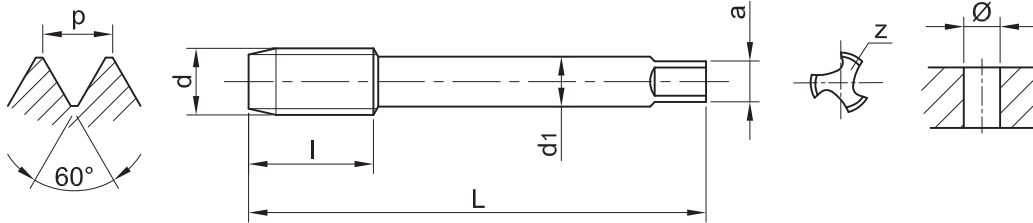
with spiral point for
American Unified thread 8-UN
according to ANSI B1.1
Grade of fit: 2B
Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt für amerikanisches
unifiziertes Gewinde 8-UN
nach ANSI B1.1
Toleranzfeld: 2B
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни

с подточени канали за
американска унифицирана
резба 8-UN по ANSI B1.1
Клас на точност: 2B
Шлифована резба
Форма В 4-5 навивки конус



8-UN ISO 529 B

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 3412*..
UN 1"1/16	8	138	48	20.0	16.0	4	23.8	..*UN1"1/16x8
UN 1"1/8	8	138	48	20.0	16.0	4	25.4	..*UN1"1/8x8
UN 1"3/16	8	151	51	22.4	18.0	4	27.0	..*UN1"3/16x8
UN 1"1/4	8	151	51	22.4	18.0	4	28.6	..*UN1"1/4x8
UN 1"5/16	8	162	57	25.0	20.0	4	30.2	..*UN1"5/16x8
UN 1"3/8	8	162	57	25.0	20.0	4	31.8	..*UN1"3/8x8
UN 1"1/2	8	170	60	28.0	22.4	4	35.0	..*UN1"1/2x8
UN 1"5/8	8	170	60	28.0	22.4	6	38.1	..*UN1"5/8x8
UN 1"3/4	8	187	67	31.5	25.0	6	41.3	..*UN1"3/4x8
UN 1"7/8	8	187	67	31.5	25.0	6	44.5	..*UN1"7/8x8
UN 2"	8	200	70	35.5	28.0	6	47.6	..*UN2"x8
UN 2"1/8	8	200	70	35.5	28.0	8	50.8	..*UN2"1/8x8
UN 2"1/4	8	221	76	40.0	31.5	8	54.0	..*UN2"1/4x8
UN 2"3/8	8	221	76	40.0	31.5	8	57.2	..*UN2"3/8x8
UN 2"1/2	8	224	79	40.0	31.5	8	60.3	..*UN2"1/2x8
UN 2"3/4	8	234	79	45.0	35.5	8	66.7	..*UN2"3/4x8
UN 3"	8	258	83	50.0	40.0	8	73.0	..*UN3"x8
UN 3"1/8	8	258	83	50.0	40.0	8	76.2	..*UN3"1/8x8
UN 3"1/4	8	261	86	50.0	40.0	8	79.4	..*UN3"1/4x8
UN 3"1/2	8	261	86	50.0	40.0	8	85.7	..*UN3"1/2x8
UN 3"3/4	8	279	89	56.0	45.0	8	92.1	..*UN3"3/4x8
UN 4"	8	279	89	56.0	45.0	8	98.4	..*UN4"x8

Ordering example: Machine taps 3412UN1"1/16x8 HSSE
Bestellbeispiel: Maschinengewindebohrer 3411UN1"1/16x8 HSSE
Начин на заявяване: Метчици машинни 3411UN1"1/16x8 HSSE

Hand Taps

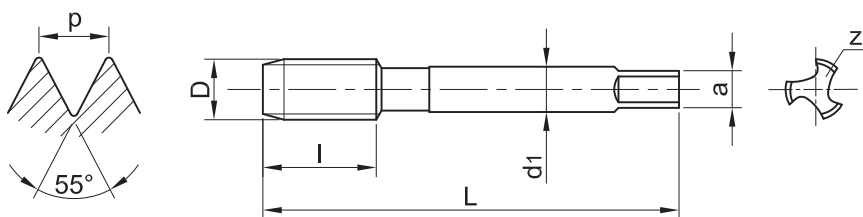
Set of 3 pieces for Whitworth thread according to BS 84
Grade of fit: medium class
Ground thread

Handgewindebohrer

Dreiteiliger Satz für Whitworth-Gewinde nach BS 84
Toleranzfeld: medium class
Geschliffenes Gewinde

Метчици ръчни

Комплект от 3 броя за Витвортова резба по BS 84
Клас на точност: medium
Шлифована резба



BSW ≈ DIN 352

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 112*..
BSW 3/32	48	36	10	2.8	2.1	3	1.9	112BSW3/32x48
BSW 1/8	40	40	12	3.5	2.7	3	2.5	112BSW1/8x40
BSW 5/32	32	45	14	4.5	3.4	3	3.2	112BSW5/32x32
BSW 3/16	24	50	18	6.0	4.9	3	3.6	112BSW3/16x24
BSW 7/32	24	50	18	6.0	4.9	3	4.5	112BSW7/32x24
BSW 1/4	20	50	19	6.0	4.9	3	5.1	112BSW1/4x20
BSW 5/16	18	56	22	6.0	4.9	4	6.5	112BSW5/16x18
BSW 3/8	16	70	24	7.0	5.5	4	7.9	112BSW3/8x16
BSW 7/16	14	70	24	8.0	6.2	4	9.3	112BSW7/16x14
BSW 1/2	12	75	29	9.0	7.0	4	10.5	112BSW1/2x12
BSW 9/16	12	80	30	11.0	9.0	4	12.0	112BSW9/16x12
BSW 5/8	11	80	32	12.0	9.0	4	13.5	112BSW5/8x11
BSW 3/4	10	95	40	14.0	11.0	4	16.5	112BSW3/4x10
BSW 7/8	9	100	40	18.0	14.5	4	19.25	112BSW7/8x9
BSW 1"	8	110	50	18.0	14.5	4	22.0	112BSW1"x8
BSW 1 1/8"	7	132	56	22.0	18.0	4	24.75	112BSW1 1/8"x7
BSW 1 1/4"	7	132	56	22.0	18.0	4	28.0	112BSW1 1/4"x7
BSW 1 3/8"	6	150	63	28.0	22.0	4	30.5	112BSW1 3/8"x6
BSW 1 1/2"	6	150	63	32.0	24.0	4	33.5	112BSW1 1/2"x6
BSW 1 5/8"	5	160	70	32.0	24.0	4	35.5	112BSW1 5/8"x5
BSW 1 3/4"	5	160	70	36.0	29.0	6	39.0	112BSW1 3/4"x5
BSW 1 7/8"	4.5	190	80	36.0	29.0	6	41.5	112BSW1 7/8"x4.5
BSW 2"	4.5	190	80	40.0	32.0	6	44.5	112BSW2"x4.5

Ordering example: Hand taps 112BSW3/32x48 HSS - for 1 set /I, II, III/
Bestellbeispiel: Handgewindebohrer 112BSW3/32x48 HSS - für 1 Satz /I, II, III/
Начин на заявяване: Метчици ръчни 112BSW3/32x48 HSS - за 1 комплект /I, II, III/

Hand Taps

for Whitworth thread
according to BS 84

Grade of fit: medium class

Ground thread

Form A 6-8 threads chamfered

Form D 4-5 threads chamfered

Form C 2-3 threads chamfered

Handgewindebohrer

für Whitworth-Gewinde
nach BS 84

Toleranzfeld: medium class

Geschliffenes Gewinde

Form A 6-8 Gang Anschnitt

Form D 4-5 Gang Anschnitt

Form C 2-3 Gang Anschnitt

Метчици ръчни

за Витвортова резба
по BS 84

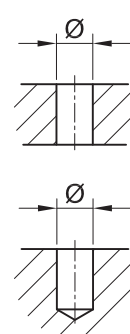
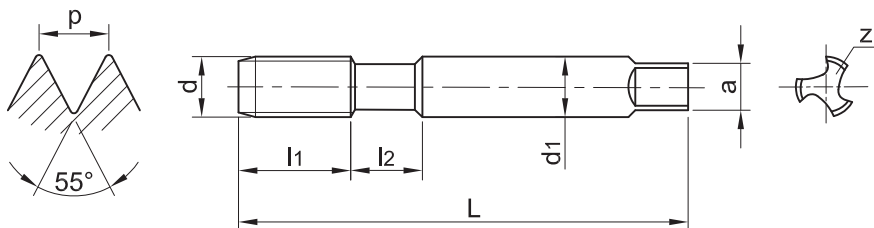
Клас на точност: medium

Шлифована резба

Форма А 6-8 навивки конус

Форма D 4-5 навивки конус

Форма C 2-3 навивки конус



BSW ISO 529

d	p / inch	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. A 3121*..	Art. No. D 3124*..	Art. No. C 3123*..
BSW 3/32	48	44.5	9.5	6	2.8	2.24	3	1.9	..*BSW3/32x48		
BSW 1/8	40	48	11	7	3.15	2.5	3	2.5	..*BSW1/8x40		
BSW 5/32	32	53	13	8	4.0	3.15	3	3.2	..*BSW5/32x32		
BSW 3/16	24	58	16	9	5.0	4.0	3	3.6	..*BSW3/16x24		
BSW 7/32	24	62	17	9	5.6	4.5	3	4.5	..*BSW7/32x24		
BSW 1/4	20	66	19	11	6.3	5.0	3	5.1	..*BSW1/4x20		
BSW 5/16	18	72	22	13	8.0	6.3	4	6.5	..*BSW5/16x18		
BSW 3/8	16	80	24	15	10.0	8.0	4	7.9	..*BSW3/8x16		
BSW 7/16	14	85	25		8.0	6.3	4	9.3	..*BSW7/16x14		
BSW 1/2	12	89	29		9.0	7.1	4	10.5	..*BSW1/2x12		
BSW 9/16	12	95	30		11.2	9.0	4	12.0	..*BSW9/16x12		
BSW 5/8	11	102	32		12.5	10.0	4	13.5	..*BSW5/8x11		
BSW 3/4	10	112	37		14.0	11.2	4	16.5	..*BSW3/4x10		
BSW 7/8	9	118	38		16.0	12.5	4	19.25	..*BSW7/8x9		
BSW 1"	8	130	45		18.0	14.0	4	22.0	..*BSW1"x8		
BSW 1"1/8	7	138	48		20.0	16.0	4	24.75	..*BSW1"1/8x7		
BSW 1"1/4	7	151	51		22.4	18.0	4	28.0	..*BSW1"1/4x7		
BSW 1"3/8	6	162	57		25.0	20.0	4	30.5	..*BSW1"3/8x6		
BSW 1"1/2	6	170	60		28.0	22.4	4	33.5	..*BSW1"1/2x6		
BSW 1"5/8	5	170	60		28.0	22.4	6	35.5	..*BSW1"5/8x5		
BSW 1"3/4	5	187	67		31.5	25.0	6	39.0	..*BSW1"3/4x5		
BSW 1"7/8	4.5	187	67		31.5	25.0	6	41.5	..*BSW1"7/8x4.5		
BSW 2"	4.5	200	70		35.5	28.0	6	44.5	..*BSW2"x4.5		

Ordering example:

Hand taps 3121BSW3/32x48 HSS

Bestellbeispiel:

Handgewindebohrer 3121BSW3/32x48 HSS

Начин на заявяване:

Метчици ръчни 3121BSW3/32x48 HSS

Hand Taps

for Whitworth thread
according to BS 84

Grade of fit: medium class

Ground thread

Form A 6-8 threads chamfered

Form D 4-5 threads chamfered

Form C 2-3 threads chamfered

Handgewindebohrer

für Whitworth-Gewinde
nach BS 84

Toleranzfeld: medium class

Geschliffenes Gewinde

Form A 6-8 Gang Anschnitt

Form D 4-5 Gang Anschnitt

Form C 2-3 Gang Anschnitt

Метчици ръчни

за Витвортова резба
по BS 84

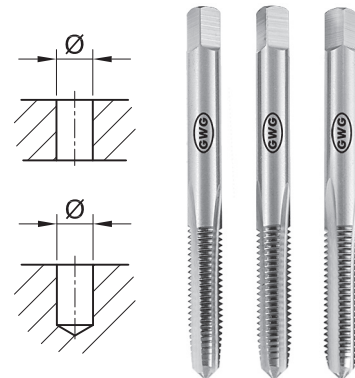
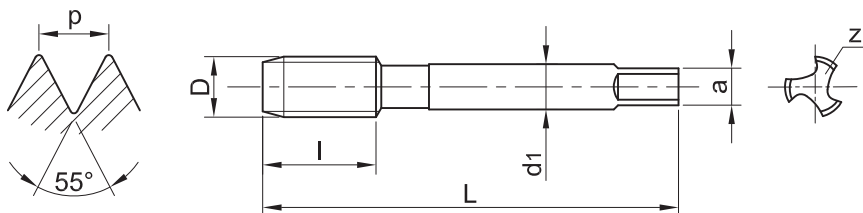
Клас на точност: medium

Шлифована резба

Форма А 6-8 навивки конус

Форма D 4-5 навивки конус

Форма C 2-3 навивки конус



W (BSW) JIS

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. A 4121*..	Art. No. D 4124*..	Art. No. C 4123*..
W 1/8	40	46	18	4.0	3.2	3	2.5	..*W1/8x40		
W 5/32	32	52	20	5.0	4.0	4	3.2	..*W5/32x32		
W 3/16	24	60	22	5.5	4.5	4	3.6	..*W3/16x24		
W 1/4	20	62	24	6.0	4.5	4	5.1	..*W1/4x20		
W 5/16	18	70	30	6.1	5.0	4	6.5	..*W5/16x18		
W 3/8	16	75	30	7.0	5.5	4	7.9	..*W3/8x16		
W 7/16	14	80	38	8.0	6.0	4	9.3	..*W7/16x14		
W 1/2	12	85	42	9.0	7.0	4	10.5	..*W1/2x12		
W 9/16	12	90	42	10.5	8.0	4	12.0	..*W9/16x12		
W 5/8	11	95	45	12.0	9.0	4	13.5	..*W5/8x11		
W 3/4	10	105	50	14.0	11.0	4	16.5	..*W3/4x10		
W 7/8	9	115	55	17.0	13.0	4	19.25	..*W7/8x9		
W 1"	8	126	60	20.0	15.0	4	22.0	..*W1"x8		
W 1 1/4"	7	145	70	24.0	19.0	4	28.0	..*W1 1/4"x7		

Ordering example:

Hand taps 4121W1/8x40 HSS

Bestellbeispiel:

Handgewindebohrer 4121W1/8x40 HSS

Начин на заявяване:

Метчици ръчни 4121W1/8x40 HSS

Machine Taps

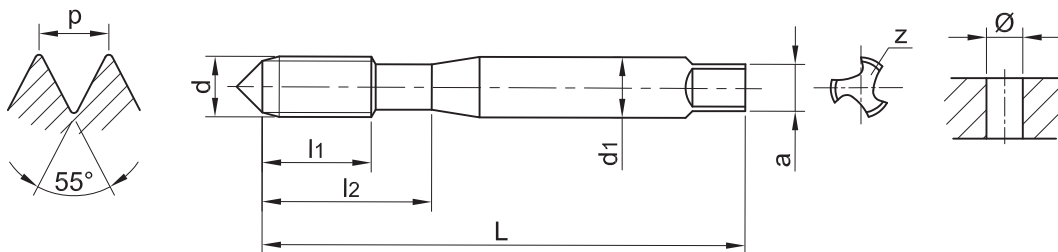
with spiral point for Whitworth thread according to BS 84
Grade of fit: medium class
Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt für Whitworth-Gewinde nach BS 84
Toleranzfeld: medium class
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

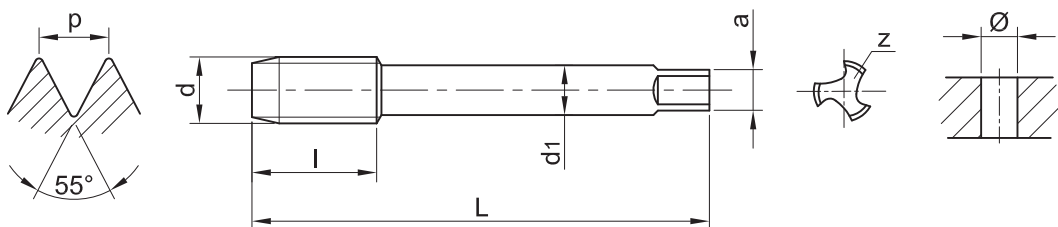
Метчици машинни

с подточени канали за Витвортова резба по BS 84
Клас на точност: medium
Шлифована резба
Форма В 4-5 навивки конус



BSW ≈ DIN 371 B

d	p / inch	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. 2322*..
BSW 1/8	40	56	11	18	3.5	2.7	3	2.5	2322BSW1/8x40
BSW 5/32	32	63	13	21	4.5	3.4	3	3.2	2322BSW5/32x32
BSW 3/16	24	70	15	25	6.0	4.9	3	3.6	2322BSW3/16x24
BSW 1/4	20	80	17	30	7.0	5.5	3	5.1	2322BSW1/4x20
BSW 5/16	18	90	20	35	8.0	6.2	3	6.5	2322BSW5/16x18
BSW 3/8	16	100	22	39	9.0	7.0	3	7.9	2322BSW3/8x16
BSW 7/16	14	100	22	39	11.0	9.0	3	9.3	2322BSW7/16x14
BSW 1/2	12	110	25	43	12.0	9.0	3	10.5	2322BSW1/2x12



BSW ≈ DIN 376 B

d	p / inch	L mm	l1 mm	d1 mm	a mm	z	Ø	Art. No. 2422*..
BSW 1/4	20	80	17	4.5	3.4	3	5.1	2422BSW1/4x20
BSW 5/16	18	90	20	6.0	4.9	3	6.5	2422BSW5/16x18
BSW 3/8	16	100	22	7.0	5.5	3	7.9	2422BSW3/8x16
BSW 7/16	14	100	22	8.0	6.2	3	9.3	2422BSW7/16x14
BSW 1/2	12	110	25	9.0	7.0	3	10.5	2422BSW1/2x12
BSW 9/16	12	110	26	11.0	9.0	3	12.0	2422BSW9/16x12
BSW 5/8	11	110	27	12.0	9.0	3	13.5	2422BSW5/8x11
BSW 3/4	10	125	30	14.0	11.0	4	16.5	2422BSW3/4x10
BSW 7/8	9	140	32	18.0	14.5	4	19.25	2422BSW7/8x9
BSW 1"	8	160	36	20.0	16.0	4	22.0	2422BSW1"x8
BSW 1"1/8	7	180	40	22.0	18.0	4	24.75	2422BSW1"1/8x7
BSW 1"1/4	7	180	40	22.0	18.0	4	28.0	2422BSW1"1/4x7
BSW 1"3/8	6	200	50	28.0	22.0	4	30.5	2422BSW1"3/8x6
BSW 1"1/2	6	200	50	32.0	24.0	4	33.5	2422BSW1"1/2x6
BSW 1"3/4	5	220	60	36.0	29.0	6	39.0	2422BSW1"3/4x5
BSW 2"	4.5	250	65	40.0	32.0	6	44.5	2422BSW2"x4.5

Ordering example: Machine taps 2322BSW1/8x40 HSSE
Bestellbeispiel: Maschinengewindebohrer 2322BSW1/8x40 HSSE
Начин на заявяване: Метчици машинни 2322BSW1/8x40 HSSE

Machine Taps

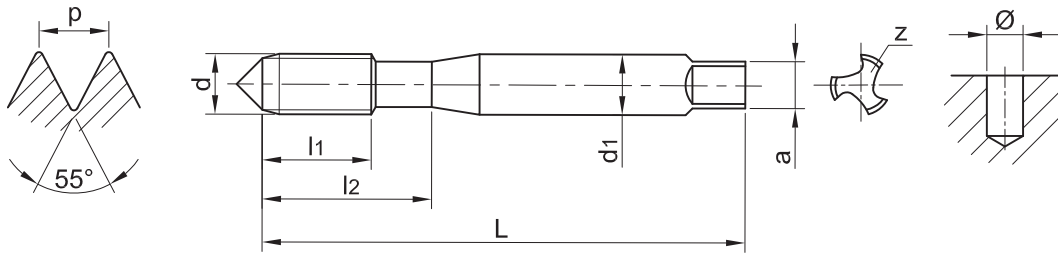
with helical flutes R35° for
Whitworth thread according to BS 84
Grade of fit: medium class
Ground thread
Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R35° für
Whitworth-Gewinde nach BS 84
Toleranzfeld: medium class
Geschliffenes Gewinde
Form C 2-3 Gang Anschnitt

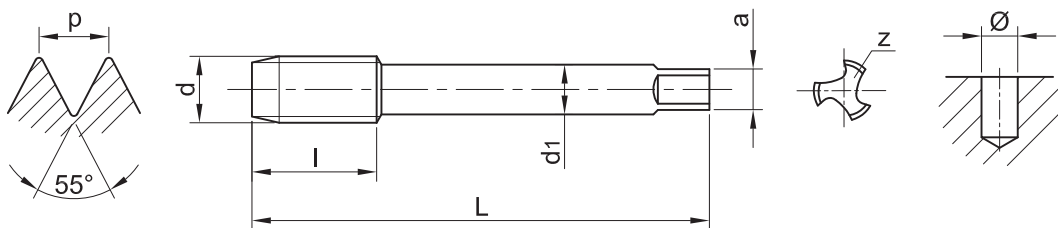
Метчици машинни

с винтови канали R35° за
Витвортова резба по BS 84
Клас на точност: medium
Шлифована резба
Форма С 2-3 навивки конус



BSW ≈ DIN 371 R35°

d	p / inch	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. 2326*..
BSW 1/8	40	56	7	18	3.5	2.7	3	2.5	2326BSW1/8x40
BSW 5/32	32	63	7	21	4.5	3.4	3	3.2	2326BSW5/32x32
BSW 3/16	24	70	10	25	6.0	4.9	3	3.6	2326BSW3/16x24
BSW 1/4	20	80	13	30	7.0	5.5	3	5.1	2326BSW1/4x20
BSW 5/16	18	90	14	35	8.0	6.2	3	6.5	2326BSW5/16x18
BSW 3/8	16	100	16	39	9.0	7.0	3	7.9	2326BSW3/8x16
BSW 7/16	14	100	17	39	11.0	9.0	3	9.3	2326BSW7/16x14
BSW 1/2	12	110	20	43	12.0	9.0	3	10.5	2326BSW1/2x12



BSW ≈ DIN 376 R35°

d	p / inch	L mm	l1 mm	d1 mm	a mm	z	Ø	Art. No. 2426*..
BSW 1/4	20	80	13	4.5	3.4	3	5.1	2426BSW1/4x20
BSW 5/16	18	90	14	6.0	4.9	3	6.5	2426BSW5/16x18
BSW 3/8	16	100	16	7.0	5.5	3	7.9	2426BSW3/8x16
BSW 7/16	14	100	17	8.0	6.2	3	9.3	2426BSW7/16x14
BSW 1/2	12	110	20	9.0	7.0	3	10.5	2426BSW1/2x12
BSW 9/16	12	110	20	11.0	9.0	3	12.0	2426BSW9/16x12
BSW 5/8	11	110	22	12.0	9.0	3	13.5	2426BSW5/8x11
BSW 3/4	10	125	25	14.0	11.0	4	16.5	2426BSW3/4x10
BSW 7/8	9	140	27	18.0	14.5	4	19.25	2426BSW7/8x9
BSW 1"	8	160	30	20.0	16.0	4	22.0	2426BSW1"x8
BSW 1"1/4	7	180	35	22.0	18.0	4	28.0	2426BSW1"1/4x7
BSW 1"3/8	6	200	40	28.0	22.0	4	30.5	2426BSW1"3/8x6
BSW 1"1/2	6	200	40	32.0	24.0	4	33.5	2426BSW1"1/2x6

Ordering example: Machine taps 2326BSW1/8x40 HSSE
Bestellbeispiel: Maschinengewindebohrer 2326BSW1/8x40 HSSE
Начин на заявяване: Метчици машинни 2326BSW1/8x40 HSSE

Machine Taps

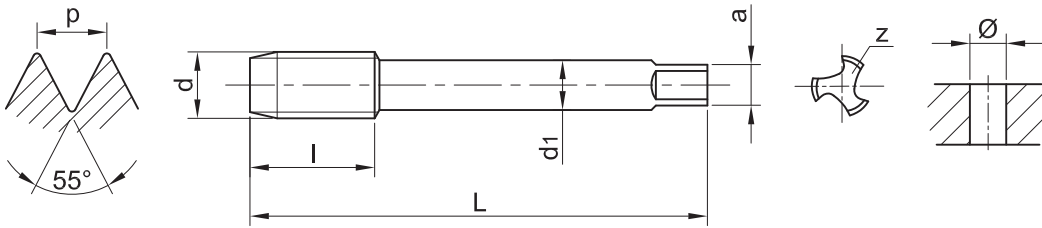
with spiral point for Whitworth thread according to BS 84
Grade of fit: medium class
Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt für Whitworth-Gewinde nach BS 84
Toleranzfeld: medium class
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни

с подточени канали за Витвортова резба по BS 84
Клас на точност: medium
Шлифована резба
Форма В 4-5 навивки конус



W (BSW) JIS B

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 4422*..
W 1/8	40	46	11	4.0	3.2	3	2.5	4422W1/8x40
W 5/32	32	52	13	5.0	4.0	3	3.2	4422W5/32x32
W 3/16	24	60	16	5.5	4.5	3	3.6	4422W3/16x24
W 1/4	20	62	19	6.0	4.5	3	5.1	4422W1/4x20
W 5/16	18	70	22	6.1	5.0	3	6.5	4422W5/16x18
W 3/8	16	75	24	7.0	5.5	3	7.9	4422W3/8x16
W 7/16	14	80	25	8.0	6.0	3	9.3	4422W7/16x14
W 1/2	12	85	29	9.0	7.0	3	10.5	4422W1/2x12
W 9/16	12	90	30	10.5	8.0	3	12.0	4422W9/16x12
W 5/8	11	95	32	12.0	9.0	3	13.5	4422W5/8x11
W 3/4	10	105	37	14.0	11.0	4	16.5	4422W3/4x10
W 7/8	9	115	38	17.0	13.0	4	19.25	4422W7/8x9
W 1"	8	126	45	20.0	15.0	4	22.0	4422W1"x8
W 1 1/4"	7	145	51	24.0	19.0	4	28.0	4422W1 1/4"x7

Ordering example: Machine taps 4422W1/8x40 HSSE
Bestellbeispiel: Maschinengewindebohrer 4422W1/8x40 HSSE
Начин на заявяване: Метчици машинни 4422W1/8x40 HSSE

Machine Taps

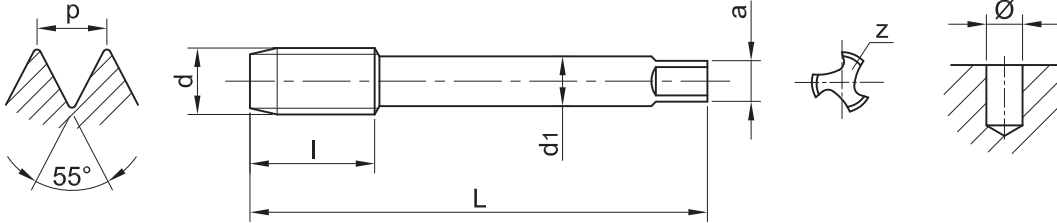
with helical flutes R39° for
Whitworth thread according to BS 84
Grade of fit: medium class
Ground thread
Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R39° für
Whitworth-Gewinde nach BS 84
Toleranzfeld: medium class
Geschliffenes Gewinde
Form C 2-3 Gang Anschnitt

Метчици машинни

с винтови канали R39° за
Витвортова резба по BS 84
Клас на точност: medium
Шлифована резба
Форма С 2-3 навивки конус



W (BSW) JIS R39°

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 4427*..
W 1/8	40	46	11	4.0	3.2	3	2.5	4427W1/8x40
W 5/32	32	52	13	5.0	4.0	3	3.2	4427W5/32x32
W 3/16	24	60	16	5.5	4.5	3	3.6	4427W3/16x24
W 1/4	20	62	19	6.0	4.5	3	5.1	4427W1/4x20
W 5/16	18	70	22	6.1	5.0	3	6.5	4427W5/16x18
W 3/8	16	75	24	7.0	5.5	3	7.9	4427W3/8x16
W 7/16	14	80	25	8.0	6.0	3	9.3	4427W7/16x14
W 1/2	12	85	29	9.0	7.0	3	10.5	4427W1/2x12
W 9/16	12	90	30	10.5	8.0	3	12.0	4427W9/16x12
W 5/8	11	95	32	12.0	9.0	3	13.5	4427W5/8x11
W 3/4	10	105	37	14.0	11.0	4	16.5	4427W3/4x10
W 7/8	9	115	38	17.0	13.0	4	19.25	4427W7/8x9
W 1"	8	126	45	20.0	15.0	4	22.0	4427W1"x8
W 1 1/4"	7	145	51	24.0	19.0	4	28.0	4427W1 1/4"x7

Ordering example: Machine taps 4427W1/8x40 HSSE
Bestellbeispiel: Maschinengewindebohrer 4427W1/8x40 HSSE
Начин на заявяване: Метчици машинни 4427W1/8x40 HSSE

Combined Taps

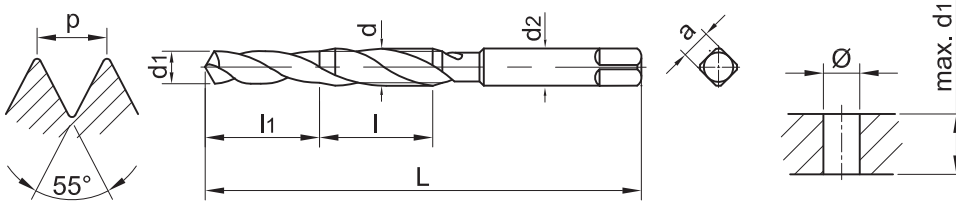
for Whitworth thread
according to BS 84
Grade of fit: medium class
Squared shank
Ground thread

Kombigewindebohrer

für Whitworth-Gewinde
nach BS 84
Toleranzfeld: medium class
mit Vierkant
Geschliffenes Gewinde

Свредло-метчици

за Витвортова резба
по BS 84
Клас на точност: medium
Опашка с квадрат
Шлифована резба



BSW



d	p / inch	L mm	l1 mm	l mm	d1 mm	d2 mm	a mm	Art. No. 812*..
BSW 1/8	40	56	16	11	2.6	3	2.4	812BSW1/8x40
BSW 5/32	32	63	18	14	3.2	4	3.0	812BSW5/32x32
BSW 3/16	24	71	20	18	3.7	5	3.8	812BSW3/16x24
BSW 1/4	20	80	22	22	5.1	6	4.9	812BSW1/4x20
BSW 5/16	18	95	26	25	6.5	8	6.2	812BSW5/16x18
BSW 3/8	16	106	30	31	7.9	10	8.0	812BSW3/8x16
BSW 1/2	12	116	32	35	10.5	12	9.0	812BSW1/2x12

Ordering example: Combined taps 812BSW1/8x40 HSS
Bestellbeispiel: Kombigewindebohrer 812BSW1/8x40 HSS
Начин на заявяване: Свредло-метчици 812BSW1/8x40 HSS

M Mf UNC UNF UN **BSW** BSF G Rp Rc NPS NPT NPTF PT Tr PG BA

Hand Taps

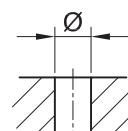
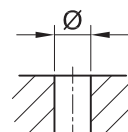
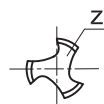
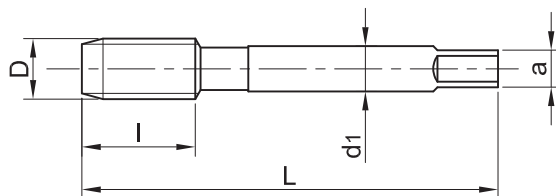
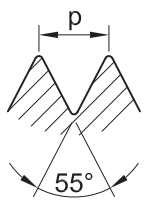
Set of 2 pieces for Whitworth
Fine thread according to BS 84
Grade of fit: medium class
Ground thread

Handgewindebohrer

Zweiteiliger Satz für Whitworth-
Feingewinde nach BS 84
Toleranzfeld: medium class
Geschliffenes Gewinde

Метчици ръчни

Комплект от 2 броя за Витвортова
резба ситна стъпка по BS 84
Клас на точност: medium
Шлифована резба



BSF ≈ DIN 2181

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 122*..
BSF 3/16	32	50	14	6.0	4.9	3	4.0	122BSF3/16x32
BSF 1/4	26	50	18	6.0	4.9	3	5.2	122BSF1/4x26
BSF 5/16	22	56	22	6.0	4.9	4	6.6	122BSF5/16x22
BSF 3/8	20	63	22	7.0	5.5	4	8.1	122BSF3/8x20
BSF 7/16	18	63	22	8.0	6.2	4	9.5	122BSF7/16x18
BSF 1/2	16	75	24	9.0	7.0	4	11.0	122BSF1/2x16
BSF 9/16	16	80	28	11.0	9.0	4	12.5	122BSF9/16x16
BSF 5/8	14	80	28	12.0	9.0	4	14.0	122BSF5/8x14
BSF 3/4	12	95	32	14.0	11.0	4	16.5	122BSF3/4x12
BSF 7/8	11	100	36	18.0	14.5	4	19.5	122BSF7/8x11
BSF 1"	10	110	40	18.0	14.5	4	22.5	122BSF1"x10

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Hand taps 122BSF3/16x32 HSS - for 1 set /I, II/

Handgewindebohrer 122BSF3/16x32 HSS - für 1 Satz /I, II/

Метчици ръчни 122BSF3/16x32 HSS - за 1 комплект /I, II/

Hand Taps

for Whitworth Fine thread
according to BS 84

Grade of fit: medium class

Ground thread

Form A 6-8 threads chamfered

Form D 4-5 threads chamfered

Form C 2-3 threads chamfered

Handgewindebohrer

für Whitworth-Feingewinde
nach BS 84

Toleranzfeld: medium class

Geschliffenes Gewinde

Form A 6-8 Gang Anschnitt

Form D 4-5 Gang Anschnitt

Form C 2-3 Gang Anschnitt

Метчици ръчни

за Витвортова ситна резба
по BS 84

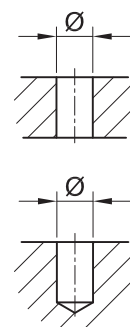
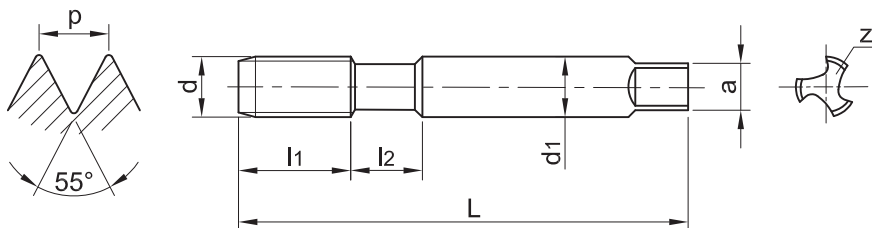
Клас на точност: medium

Шлифована резба

Форма А 6-8 навивки конус

Форма D 4-5 навивки конус

Форма C 2-3 навивки конус



BSF ISO 529

d	p / inch	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. A 3221*.. Art. No. D 3224*.. Art. No. C 3223*..
BSF 3/16	32	58	16	9	5.0	4.0	3	4.0	..*BSF3/16x32
BSF 1/4	26	66	19	11	6.3	5.0	3	5.2	..*BSF1/4x26
BSF 5/16	22	72	22	13	8.0	6.3	4	6.6	..*BSF5/16x22
BSF 3/8	20	80	24	15	10.0	8.0	4	8.1	..*BSF3/8x20
BSF 7/16	18	85	25		8.0	6.3	4	9.5	..*BSF7/16x18
BSF 1/2	16	89	29		9.0	7.1	4	11.0	..*BSF1/2x16
BSF 9/16	16	95	30		11.2	9.0	4	12.5	..*BSF9/16x16
BSF 5/8	14	102	32		12.5	10.0	4	14.0	..*BSF5/8x14
BSF 3/4	12	112	37		14.0	11.2	4	16.5	..*BSF3/4x12
BSF 7/8	11	118	38		16.0	12.5	4	19.5	..*BSF7/8x11
BSF 1"	10	130	45		18.0	14.0	4	22.5	..*BSF1"x10
BSF 1"1/8	9	138	48		20.0	16.0	4	25.5	..*BSF1"1/8x9
BSF 1"1/4	9	151	51		22.4	18.0	4	29.0	..*BSF1"1/4x9
BSF 1"3/8	8	162	57		25.0	20.0	4	31.5	..*BSF1"3/8x8
BSF 1"1/2	8	170	60		28.0	22.4	4	34.5	..*BSF1"1/2x8
BSF 1"5/8	8	170	60		28.0	22.4	6	37.6	..*BSF1"5/8x8
BSF 1"3/4	7	187	67		31.5	25.0	6	40.5	..*BSF1"3/4x7
BSF 1"7/8	7	187	67		31.5	25.0	6	43.5	..*BSF1"7/8x7
BSF 2"	7	200	70		35.5	28.0	6	47.0	..*BSF2"x7

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Hand taps 3221BSF3/16x32 HSS

Handgewindebohrer 3221BSF3/16x32 HSS

Метчици ръчни 3221BSF3/16x32 HSS

Hand Taps

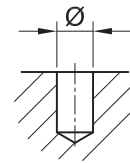
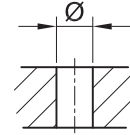
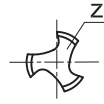
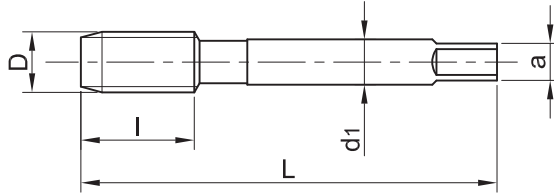
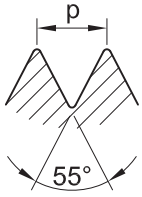
Set of 2 pieces for
Whitworth Pipe thread
according to DIN ISO 228
Ground thread

Handgewindebohrer

Zweiteiliger Satz für
Whitworth-Rohrgewinde
nach DIN ISO 228
Geschliffenes Gewinde

Метчици ръчни

Комплект от 2 броя за
тръбна цилиндрична резба
по DIN ISO 228
Шлифована резба



G (BSPF) DIN 5157

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 113*..
G 1/8	28	63	20	7	5.5	3	8.8	113G1/8x28
G 1/4	19	70	22	11	9.0	4	11.8	113G1/4x19
G 3/8	19	70	22	12	9.0	4	15.25	113G3/8x19
G 1/2	14	80	22	16	12.0	4	19.0	113G1/2x14
G 5/8	14	80	22	18	14.5	4	21.0	113G5/8x14
G 3/4	14	90	22	20	16.0	4	24.5	113G3/4x14
G 7/8	14	90	22	22	18.0	4	28.25	113G7/8x14
G 1"	11	100	25	25	20.0	4	30.75	113G1"x11
G 1"1/8	11	125	40	28	22.0	4	35.4	113G1"1/8x11
G 1"1/4	11	125	40	32	24.0	4	39.3	113G1"1/4x11
G 1"3/8	11	140	40	36	29.0	4	41.9	113G1"3/8x11
G 1"1/2	11	140	40	36	29.0	6	45.2	113G1"1/2x11
G 1"5/8	11	140	40	40	32.0	6	49.4	113G1"5/8x11
G 1"3/4	11	140	40	40	32.0	6	51.1	113G1"3/4x11
G 2"	11	160	40	45	35.0	8	57.0	113G2"x11
G 2"1/4	11	160	40	50	39.0	8	63.1	113G2"1/4x11
G 2"1/2	11	160	40	50	39.0	8	72.6	113G2"1/2x11
G 2"3/4	11	160	40	50	39.0	10	78.9	113G2"3/4x11
G 3"	11	160	40	50	39.0	10	85.3	113G3"x11
G 3"1/2	11	180	45	56	44.0	12	97.7	113G3"1/2x11
G 4"	11	180	45	56	44.0	14	110.4	113G4"x11

Ordering example: Hand taps 113G1/8x28 HSS - for 1 set /I, II/
 Bestellbeispiel: Handgewindebohrer 113G1/8x28 HSS - für 1 Satz /I, II/
 Начин на заявяване: Метчици ръчни 113G1/8x28 HSS - за 1 комплект /I, II/

Hand Taps

for Whitworth Pipe thread
according to DIN ISO 228
Ground thread

Form A 6-8 threads chamfered

Form D 4-5 threads chamfered

Form C 2-3 threads chamfered

Handgewindebohrer

für Whitworth-Rohrgewinde
nach DIN ISO 228

Geschliffenes Gewinde

Form A 6-8 Gang Anschnitt

Form D 4-5 Gang Anschnitt

Form C 2-3 Gang Anschnitt

Метчици ръчни

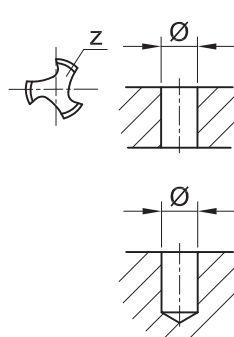
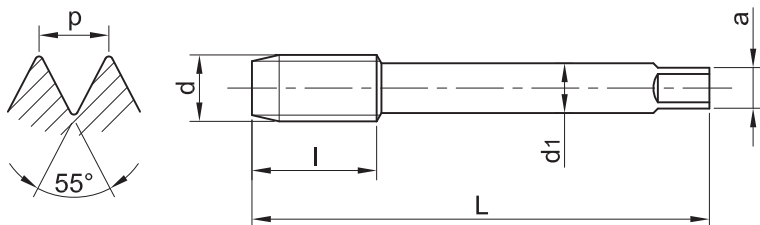
за тръбна цилиндрична резба
по DIN ISO 228

Шлифована резба

Форма А 6-8 навивки конус

Форма D 4-5 навивки конус

Форма C 2-3 навивки конус



G (BSPF) ISO 2284

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. A 3131*.. Art. No. D 3134*.. Art. No. C 3133*..
G 1/8	28	59	15	8.0	6.3	4	8.8	..*G1/8x28
G 1/4	19	67	19	10.0	8.0	4	11.8	..*G1/4x19
G 3/8	19	75	21	12.5	10.0	4	15.25	..*G3/8x19
G 1/2	14	87	26	16.0	12.5	4	19.0	..*G1/2x14
G 5/8	14	91	26	18.0	14.0	4	21.0	..*G5/8x14
G 3/4	14	96	28	20.0	16.0	4	24.5	..*G3/4x14
G 7/8	14	102	29	22.4	18.0	4	28.25	..*G7/8x14
G 1"	11	109	33	25.0	20.0	6	30.75	..*G1"x11
G 1"1/8	11	115	34	28.0	22.4	6	35.4	..*G1"1/8x11
G 1"1/4	11	119	36	31.5	25.0	6	39.3	..*G1"1/4x11
G 1"1/2	11	125	37	35.5	28.0	6	45.2	..*G1"1/2x11
G 1"3/4	11	132	39	35.5	28.0	6	51.1	..*G1"3/4x11
G 2"	11	140	41	40.0	31.5	6	57.0	..*G2"x11
G 2"1/4	11	142	42	40.0	31.5	8	63.1	..*G2"1/4x11
G 2"1/2	11	153	45	45.0	35.5	8	72.6	..*G2"1/2x11
G 3"	11	164	48	50.0	40.0	8	85.3	..*G3"x11
G 4"	11	185	53	71.0	56.0	14	110.4	..*G4"x11

Ordering example: Hand taps 3131G1/8x28 HSS
Bestellbeispiel: Handgewindebohrer 3131G1/8x28 HSS
Начин на заявяване: Метчици ръчни 3131G1/8x28 HSS

Machine Taps

for Whitworth Pipe thread
according to DIN ISO 228

Ground thread

Form C 2-3 threads chamfered

Maschinengewindebohrer

für Whitworth-Rohrgewinde nach
DIN ISO 228

Geschliffenes Gewinde

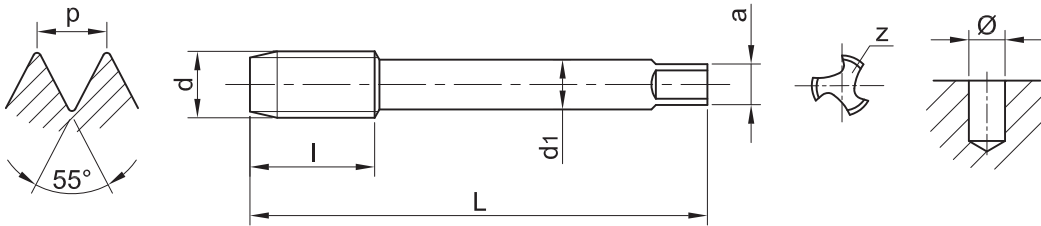
Form C 2-3 Gang Anschnitt

Метчици машинни

за тръбна цилиндрична резба
по DIN ISO 228

Шлифована резба

Форма С 2-3 навивки конус



G (BSPF) DIN 5156 C

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2333*..
G 1/8	28	90	20	7.0	5.5	3	8.8	2333G1/8x28
G 1/4	19	100	22	11.0	9.0	3	11.8	2333G1/4x19
G 3/8	19	100	22	12.0	9.0	4	15.25	2333G3/8x19
G 1/2	14	125	25	16.0	12.0	4	19.0	2333G1/2x14
G 5/8	14	125	25	18.0	14.5	4	21.0	2333G5/8x14
G 3/4	14	140	28	20.0	16.0	4	24.5	2333G3/4x14
G 7/8	14	150	28	22.0	18.0	4	28.25	2333G7/8x14
G 1"	11	160	30	25.0	20.0	4	30.75	2333G1"x11
G 1 1/8	11	170	30	28.0	22.0	4	35.4	2333G1 1/8x11
G 1 1/4	11	170	30	32.0	24.0	6	39.3	2333G1 1/4x11
G 1 3/8	11	180	32	36.0	29.0	6	41.9	2333G1 3/8x11
G 1 1/2	11	190	32	36.0	29.0	6	45.2	2333G1 1/2x11
G 1 3/4	11	190	32	40.0	32.0	6	51.1	2333G1 3/4x11
G 2"	11	220	40	45.0	35.0	8	57.0	2333G2"x11

Ordering example: Machine taps 2333G1/8x28 HSSE
 Bestellbeispiel: Maschinengewindebohrer 2333G1/8x28 HSSE
 Начин на заявяване: Метчици машинни 2333G1/8x28 HSSE

Machine Taps

with spiral point for
Whitworth Pipe thread
according to DIN ISO 228

Ground thread

Form B 2-3 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt für
Whitworth-Rohrgewinde
nach DIN ISO 228

Geschliffenes Gewinde

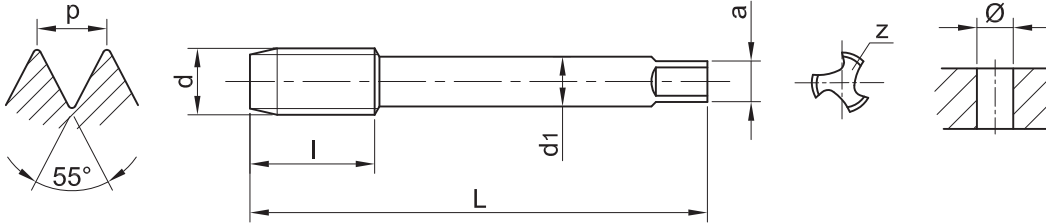
Form B 2-3 Gang Anschnitt

Метчици машинни

с подточени канали за
тръбна цилиндрична резба
по DIN ISO 228

Шлифована резба

Форма В 2-3 навивки конус



G (BSPF) DIN 5156 B

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2332*..
G 1/8	28	90	20	7.0	5.5	3	8.8	2332G1/8x28
G 1/4	19	100	22	11.0	9.0	3	11.8	2332G1/4x19
G 3/8	19	100	22	12.0	9.0	4	15.25	2332G3/8x19
G 1/2	14	125	25	16.0	12.0	4	19.0	2332G1/2x14
G 5/8	14	125	25	18.0	14.5	4	21.0	2332G5/8x14
G 3/4	14	140	28	20.0	16.0	4	24.5	2332G3/4x14
G 7/8	14	150	28	22.0	18.0	4	28.25	2332G7/8x14
G 1"	11	160	30	25.0	20.0	4	30.75	2332G1"x11
G 1 1/8	11	170	30	28.0	22.0	4	35.4	2332G1 1/8x11
G 1 1/4	11	170	30	32.0	24.0	6	39.3	2332G1 1/4x11
G 1 3/8	11	180	32	36.0	29.0	6	41.9	2332G1 3/8x11
G 1 1/2	11	190	32	36.0	29.0	6	45.2	2332G1 1/2x11
G 1 5/8	11	190	32	40.0	32.0	6	49.4	2332G1 5/8x11
G 1 3/4	11	190	32	40.0	32.0	6	51.1	2332G1 3/4x11
G 2"	11	220	40	45.0	35.0	8	57.0	2332G2"x11

Ordering example: Machine taps 2332G1/8x28 HSSE
 Bestellbeispiel: Maschinengewindebohrer 2332G1/8x28 HSSE
 Начин на заявяване: Метчици машинни 2332G1/8x28 HSSE

Machine Taps

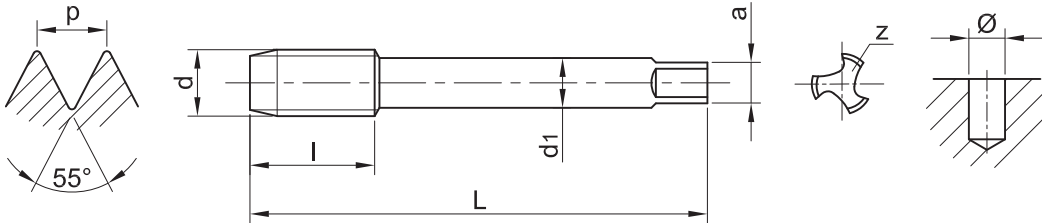
with helical flutes R35° for
Whitworth Pipe thread
according to DIN ISO 228
Ground thread
Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R35° für
Whitworth-Rohrgewinde
nach DIN ISO 228
Geschliffenes Gewinde
Form C 2-3 Gang Anschnitt

Метчици машинни

с винтови канали R35° за
тръбна цилиндрична резба
по DIN ISO 228
Шлифована резба
Форма С 2-3 навивки конус



G (BSPF) DIN 5156 R35°

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2336*..
G 1/8	28	90	20	7.0	5.5	3	8.8	2336G1/8x28
G 1/4	19	100	22	11.0	9.0	3	11.8	2336G1/4x19
G 3/8	19	100	22	12.0	9.0	3	15.25	2336G3/8x19
G 1/2	14	125	25	16.0	12.0	4	19.0	2336G1/2x14
G 5/8	14	125	25	18.0	14.5	4	21.0	2336G5/8x14
G 3/4	14	140	28	20.0	16.0	4	24.5	2336G3/4x14
G 7/8	14	150	28	22.0	18.0	4	28.25	2336G7/8x14
G 1"	11	160	30	25.0	20.0	4	30.75	2336G1"x11
G 1"1/8	11	170	30	28.0	22.0	4	35.4	2336G1"1/8x11
G 1"1/4	11	170	30	32.0	24.0	6	39.3	2336G1"1/4x11
G 1"3/8	11	180	32	36.0	29.0	6	41.9	2336G1"3/8x11
G 1"1/2	11	190	32	36.0	29.0	6	45.2	2336G1"1/2x11
G 1"3/4	11	190	32	40.0	32.0	6	51.1	2336G1"3/4x11
G 2"	11	220	40	45.0	35.0	6	57.0	2336G2"x11

Ordering example: Machine taps 2336G1/8x28 HSSE
Bestellbeispiel: Maschinengewindebohrer 2336G1/8x28 HSSE
Начин на заявяване: Метчици машинни 2336G1/8x28 HSSE

Machine Taps

with spiral point for
Whitworth Pipe thread
according to DIN ISO 228

Ground thread

Form B 2-3 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt für
Whitworth-Rohrgewinde
nach DIN ISO 228

Geschliffenes Gewinde

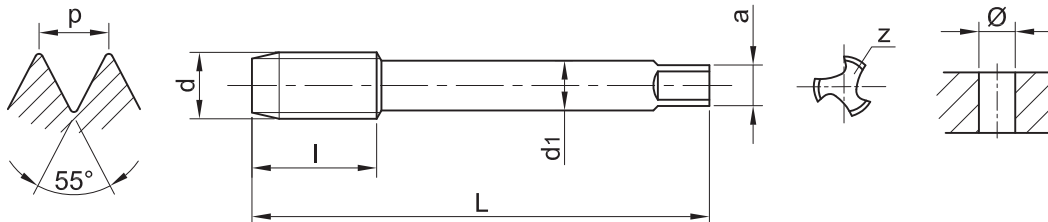
Form B 2-3 Gang Anschnitt

Метчици машинни

с подточени канали за
тръбна цилиндрична резба
по DIN ISO 228

Шлифована резба

Форма В 2-3 навивки конус



G (BSPF) ISO 2284 B

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 3432*..
G 1/8	28	59	15	8.0	6.3	3	8.8	3432G1/8x28
G 1/4	19	67	19	10.0	8.0	3	11.8	3432G1/4x19
G 3/8	19	75	21	12.5	10.0	3	15.25	3432G3/8x19
G 1/2	14	87	26	16.0	12.5	3	19.0	3432G1/2x14
G 5/8	14	91	26	18.0	14.0	3	21.0	3432G5/8x14
G 3/4	14	96	28	20.0	16.0	3	24.5	3432G3/4x14
G 7/8	14	102	29	22.4	18.0	4	28.25	3432G7/8x14
G 1"	11	109	33	25.0	20.0	4	30.75	3432G1"x11
G 1 1/8	11	115	34	28.0	22.4	4	35.4	3432G1 1/8x11
G 1 1/4	11	119	36	31.5	25.0	6	39.3	3432G1 1/4x11
G 1 3/8	11	125	37	35.5	28.0	6	41.9	3432G1 3/8x11
G 1 1/2	11	125	37	35.5	28.0	6	45.2	3432G1 1/2x11
G 1 3/4	11	132	39	35.5	28.0	6	51.1	3432G1 3/4x11
G 2"	11	140	41	40.0	31.5	8	57.0	3432G2"x11
G 2 1/4	11	142	42	40.0	31.5	8	63.1	3432G2 1/4x11
G 2 1/2	11	153	45	45.0	35.5	8	72.6	3432G2 1/2x11
G 2 3/4	11	160	46	50.0	40.0	8	79.1	3432G2 3/4x11
G 3"	11	164	48	50.0	40.0	8	85.3	3432G3"x11

Ordering example: Machine taps 3432G1/8x28 HSSE
 Bestellbeispiel: Maschinengewindebohrer 3432G1/8x28 HSSE
 Начин на заявяване: Метчици машинни 3432G1/8x28 HSSE

Machine Taps

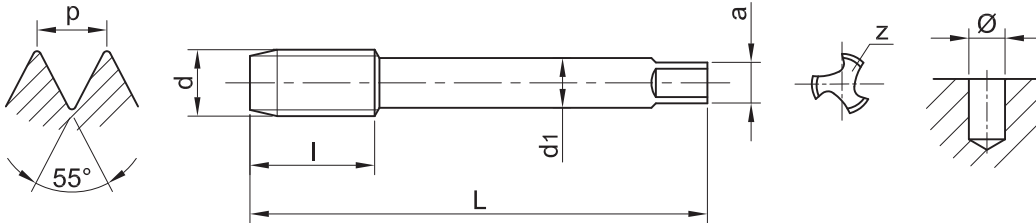
with helical flutes R35° for
Whitworth Pipe thread
according to DIN ISO 228
Ground thread
Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R35° für
Whitworth-Rohrgewinde
nach DIN ISO 228
Geschliffenes Gewinde
Form C 2-3 Gang Anschnitt

Метчици машинни

с винтови канали R35° за
тръбна цилиндрична резба
по DIN ISO 228
Шлифована резба
Форма С 2-3 навивки конус



G (BSPF) ISO 2284 R35°

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 3436*..
G 1/8	28	59	15	8.0	6.3	3	8.8	3436G1/8x28
G 1/4	19	67	19	10.0	8.0	3	11.8	3436G1/4x19
G 3/8	19	75	21	12.5	10.0	3	15.25	3436G3/8x19
G 1/2	14	87	26	16.0	12.5	3	19.0	3436G1/2x14
G 5/8	14	91	26	18.0	14.0	3	21.0	3436G5/8x14
G 3/4	14	96	28	20.0	16.0	3	24.5	3436G3/4x14
G 7/8	14	102	29	22.4	18.0	4	28.25	3436G7/8x14
G 1"	11	109	33	25.0	20.0	4	30.75	3436G1"x11
G 1 1/8	11	115	34	28.0	22.4	4	35.4	3436G1 1/8x11
G 1 1/4	11	119	36	31.5	25.0	6	39.3	3436G1 1/4x11
G 1 3/8	11	125	37	35.5	28.0	6	41.9	3436G1 3/8x11
G 1 1/2	11	125	37	35.5	28.0	6	45.2	3436G1 1/2x11
G 1 3/4	11	132	39	35.5	28.0	6	51.1	3436G1 3/4x11
G 2"	11	140	41	40.0	31.5	8	57.0	3436G2"x11
G 2 1/4	11	142	42	40.0	31.5	8	63.1	3436G2 1/4x11
G 2 1/2	11	153	45	45.0	35.5	8	72.6	3436G2 1/2x11
G 2 3/4	11	160	46	50.0	40.0	8	79.1	3436G2 3/4x11
G 3"	11	164	48	50.0	40.0	8	85.3	3436G3"x11

Ordering example: Machine taps 3436G1/8x28 HSSE
Bestellbeispiel: Maschinengewindebohrer 3436G1/8x28 HSSE
Начин на заявяване: Метчици машинни 3436G1/8x28 HSSE

Machine Taps

for Parallel Pipe thread
according to JIS B 0202

Ground thread

Form C 2-3 threads chamfered

Maschinengewindebohrer

für paralleles Rohrgewinde
nach JIS B 0202

Geschliffenes Gewinde

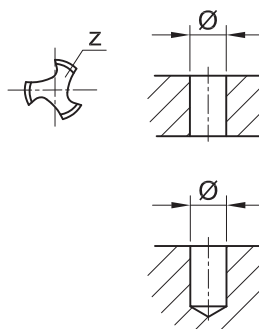
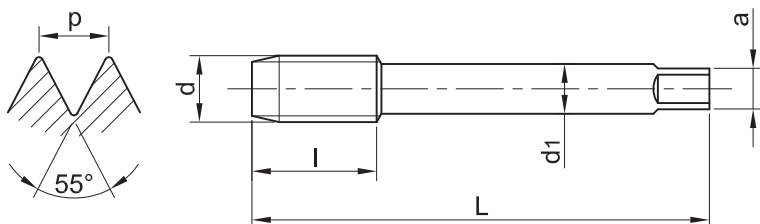
Form C 2-3 Gang Anschnitt

Метчици машинни

за тръбна цилиндрична резба
по JIS B 0202

Шлифована резба

Форма С 2-3 навивки конус



PF (G) JIS B 4445

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 4433*..
PF 1/16	28	55	19	6.5	5	4	6.8	4433PF1/16x28
PF 1/8	28	55	19	8.0	6	4	8.8	4433PF1/8x28
PF 1/4	19	62	28	11.0	9	4	11.8	4433PF1/4x19
PF 3/8	19	65	28	14.0	11	4	15.25	4433PF3/8x19
PF 1/2	14	80	35	18.0	14	4	19.0	4433PF1/2x14
PF 3/4	14	85	35	23.0	17	4	24.5	4433PF3/4x14
PF 1"	11	95	45	26.0	21	4	30.75	4433PF1"x11
PF 1"1/4	11	105	45	32.0	26	4	39.3	4433PF1"1/4x11
PF 1"1/2	11	110	45	38.0	29	6	45.2	4433PF1"1/2x11
PF 2"	11	120	50	46.0	35	6	57.0	4433PF2"x11

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Machine taps 4433PF1/16x28 HSSE

Maschinengewindebohrer 4433PF1/16x28 HSSE

Метчици машинни 4433PF1/16x28 HSSE

Machine Taps

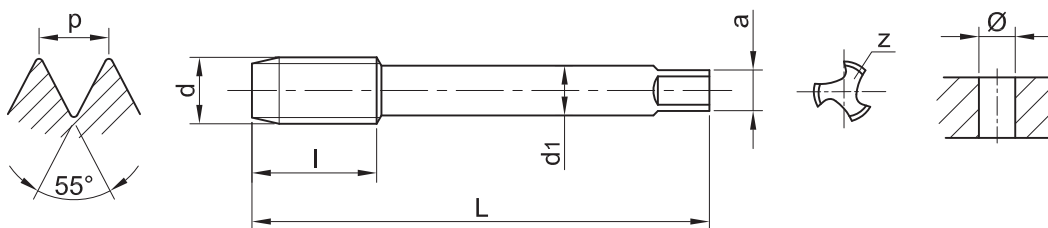
with spiral point for
Parallel Pipe thread
according to JIS B 0202
Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt
für paralleles Rohrgewinde
nach JIS B 0202
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни

с подточени канали за
тръбна цилиндрична резба
по JIS B 0202
Шлифована резба
Форма В 4-5 навивки конус



PF (G) JIS B 4445 B

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 4432*..
PF 1/16	28	55	19	6.5	5	3	6.8	4432PF1/16x28
PF 1/8	28	55	19	8.0	6	3	8.8	4432PF1/8x28
PF 1/4	19	62	28	11.0	9	3	11.8	4432PF1/4x19
PF 3/8	19	65	28	14.0	11	3	15.25	4432PF3/8x19
PF 1/2	14	80	35	18.0	14	4	19.0	4432PF1/2x14
PF 3/4	14	85	35	23.0	17	4	24.5	4432PF3/4x14
PF 1"	11	95	45	26.0	21	4	30.75	4432PF1"x11
PF 1"1/4	11	105	45	32.0	26	6	39.3	4432PF1"1/4x11
PF 1"1/2	11	110	45	38.0	29	6	45.2	4432PF1"1/2x11
PF 2"	11	120	50	46.0	35	6	57.0	4432PF2"x11

Ordering example: Machine taps 4432PF1/16x28 HSSE
 Bestellbeispiel: Maschinengewindebohrer 4432PF1/16x28 HSSE
 Начин на заявяване: Метчици машинни 4432PF1/16x28 HSSE

Machine Taps

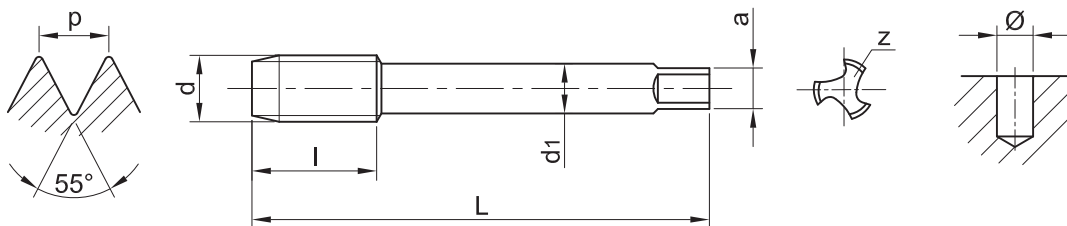
with helical flutes R39° for
Parallel Pipe thread
according to JIS B 0202
Ground thread
Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R39° für
paralleles Rohrgewinde
nach JIS B 0202
Geschliffenes Gewinde
Form C 2-3 Gang Anschnitt

Метчици машинни

с винтови канали R39° за
тръбна цилиндрична резба
по JIS B 0202
Шлифована резба
Форма С 2-3 навивки конус



PF (G) JIS B 4445 R39°

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 4437*..
PF 1/16	28	55	19	6.5	5	3	6.8	4437PF1/16x28
PF 1/8	28	55	19	8.0	6	3	8.8	4437PF1/8x28
PF 1/4	19	62	28	11.0	9	3	11.8	4437PF1/4x19
PF 3/8	19	65	28	14.0	11	3	15.25	4437PF3/8x19
PF 1/2	14	80	35	18.0	14	4	19.0	4437PF1/2x14
PF 3/4	14	85	35	23.0	17	4	24.5	4437PF3/4x14
PF 1"	11	95	45	26.0	21	4	30.75	4437PF1"x11
PF 1"1/4	11	105	45	32.0	26	4	39.3	4437PF1"1/4x11
PF 1"1/2	11	110	45	38.0	29	4	45.2	4437PF1"1/2x11
PF 2"	11	120	50	46.0	35	4	57.0	4437PF2"x11

Ordering example: Machine taps 4437PF1/16x28 HSSE
Bestellbeispiel: Maschinengewindebohrer 4437PF1/16x28 HSSE
Начин на заявяване: Метчици машинни 4437PF1/16x28 HSSE

Machine Taps

for Parallel Pipe thread
according to JIS B 0203
Ground thread

Form C 2-3 threads chamfered

Maschinengewindebohrer

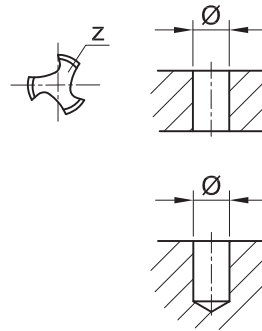
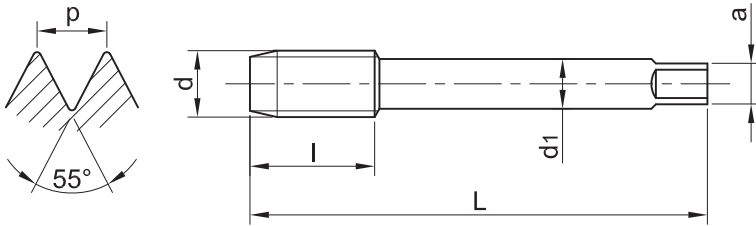
für paralleles Rohrgewinde
nach JIS B 0203
Geschliffenes Gewinde

Form C 2-3 Gang Anschnitt

Метчици машинни

за тръбна цилиндрична резба
по JIS B 0203
Шлифована резба

Форма С 2-3 навивки конус



PS (Rp) JIS B 4446

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 44331*..
PS 1/16	28	55	19	6.5	5	4	6.5	44331PS1/16x28
PS 1/8	28	55	19	8.0	6	4	8.5	44331PS1/8x28
PS 1/4	19	62	28	11.0	9	4	11.4	44331PS1/4x19
PS 3/8	19	65	28	14.0	11	4	14.9	44331PS3/8x19
PS 1/2	14	80	35	18.0	14	4	18.5	44331PS1/2x14
PS 3/4	14	85	35	23.0	17	4	24.0	44331PS3/4x14
PS 1"	11	95	45	26.0	21	5	30.0	44331PS1"x11
PS 1"1/4	11	105	45	32.0	26	5	39.0	44331PS1"1/4x11
PS 1"1/2	11	110	45	38.0	29	6	45.0	44331PS1"1/2x11
PS 2"	11	120	50	46.0	35	6	56.0	44331PS2"x11

Ordering example: Machine taps 44331PS1/16x28 HSSE
Bestellbeispiel: Maschinengewindebohrer 44331PS1/16x28 HSSE
Начин на заявяване: Метчици машинни 44331PS1/16x28 HSSE

Machine Taps

with helical flutes R39°
for Parallel Pipe thread
according to JIS B 0203
Ground thread

Form C 2-3 threads chamfered

Maschinengewindebohrer

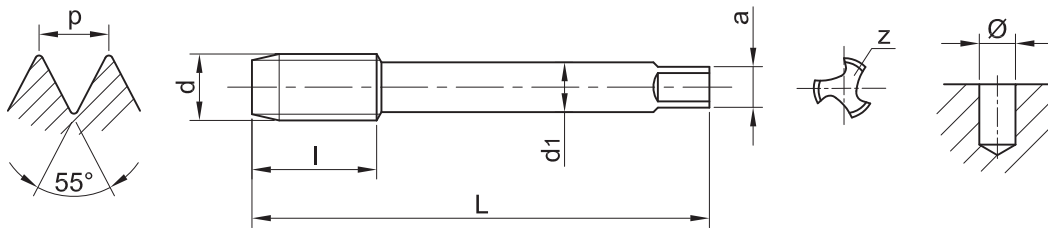
drallgenutet R39°
für paralleles Rohrgewinde
nach JIS B 0203
Geschliffenes Gewinde

Form C 2-3 Gang Anschnitt

Метчици машинни

с винтови канали R39°
за тръбна цилиндрична резба
по JIS B 0203
Шлифована резба

Форма С 2-3 навивки конус



PS (Rp) JIS B 4446 R39°

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 44371*..
PS 1/16	28	55	19	6.5	5	3	6.5	44371PS1/16x28
PS 1/8	28	55	19	8.0	6	3	8.5	44371PS1/8x28
PS 1/4	19	62	28	11.0	9	3	11.4	44371PS1/4x19
PS 3/8	19	65	28	14.0	11	3	14.9	44371PS3/8x19
PS 1/2	14	80	35	18.0	14	4	18.5	44371PS1/2x14
PS 3/4	14	85	35	23.0	17	4	24.0	44371PS3/4x14
PS 1"	11	95	45	26.0	21	4	30.0	44371PS1"x11
PS 1"1/4	11	105	45	32.0	26	4	39.0	44371PS1"1/4x11
PS 1"1/2	11	110	45	38.0	29	4	45.0	44371PS1"1/2x11
PS 2"	11	120	50	46.0	35	4	56.0	44371PS2"x11

Ordering example: Machine taps 44371PS1/16x28 HSSE
Bestellbeispiel: Maschinengewindebohrer 44371PS1/16x28 HSSE
Начин на заявяване: Метчици машинни 44371PS1/16x28 HSSE

Taps

for Tapered Withworth Pipe thread according to BS 21

Taper 1:16

Ground thread

Form A 7-8 threads chamfered

Form D 4-5 threads chamfered

Form C 1.5-2 threads chamfered

Gewindebohrer

für Whithworth kegeliges

Rohrgewinde nach BS 21

Kegel 1:16

Geschliffenes Gewinde

Form A 6-8 Gang Anschnitt

Form D 4-5 Gang Anschnitt

Form C 1.5-2 Gang Anschnitt

Метчици

за Витвортова тръбна

конусна резба по BS 21

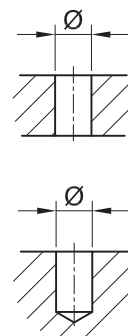
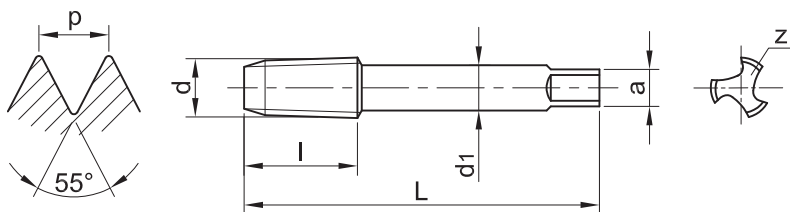
Конус 1:16

Шлифована резба

Форма А 6-8 навивки конус

Форма D 4-5 навивки конус

Форма C 1.5-2 навивки конус



Rc (BSPT) ISO 2284

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. A 3341*.. Art. No. D 3344*.. Art. No. C 3343*..
BSPT 1/8	28	59	15	8	6.3	4	8.6	..*BSPT1/8x28
BSPT 1/4	19	67	19	10	8.0	4	11.5	..*BSPT1/4x19
BSPT 3/8	19	75	21	12.5	10.0	4	15.0	..*BSPT3/8x19
BSPT 1/2	14	87	26	16	12.5	4	18.5	..*BSPT1/2x14
BSPT 3/4	14	96	28	20	16.0	5	24.0	..*BSPT3/4x14
BSPT 1"	11	109	33	25	20.0	5	30.25	..*BSPT1"x11
BSPT 1"1/4	11	119	36	31.5	25.0	5	39.0	..*BSPT1"1/4x11
BSPT 1"1/2	11	125	37	35.5	28.0	7	45.0	..*BSPT1"1/2x11
BSPT 2"	11	140	41	40	31.5	7	56.5	..*BSPT2"x11

Ordering example:

Taps 3341BSPT1/8x28 HSS

Bestellbeispiel:

Gewindebohrer 3341BSPT1/8x28 HSS

Начин на заявяване:

Метчици 3341BSPT1/8x28 HSS

Machine Taps

for American Parallel Pipe thread
according to ANSI B1.20.1

Ground thread

Form C 2-3 threads chamfered

Maschinengewindebohrer

für amerikanisches paralleles
Rohrgewinde

nach ANSI B1.20.1

Geschliffenes Gewinde

Form C 2-3 Gang Anschnitt

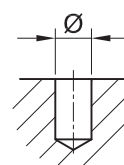
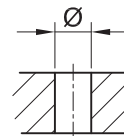
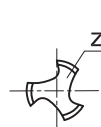
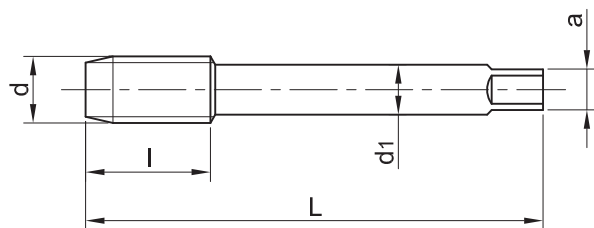
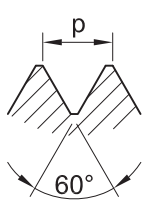
Метчици машинни

за американска тръбна
цилиндрична резба

по ANSI B1.20.1

Шлифована резба

Форма С 2-3 навивки конус



NPS JIS

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 4493*..
NPS 1/16	27	54	17	8.0	6	4	6.35	4493NPS1/16x27
NPS 1/8	27	55	19	8.0	6	4	8.75	4493NPS1/8x27
NPS 1/4	18	62	28	11.0	9	4	11.1	4493NPS1/4x18
NPS 3/8	18	65	28	14.0	11	4	14.7	4493NPS3/8x18
NPS 1/2	14	80	35	18.0	14	4	18.3	4493NPS1/2x14
NPS 3/4	14	85	35	23.0	17	4	23.4	4493NPS3/4x14
NPS 1"	11.5	95	45	26.0	21	5	29.4	4493NPS1"x11.5
NPS 1 1/4"	11.5	105	45	32.0	26	5	38.1	4493NPS1 1/4"x11.5
NPS 1 1/2"	11.5	110	45	38.0	29	6	44.5	4493NPS1 1/2"x11.5
NPS 2"	11.5	120	50	46.0	35	6	56.4	4493NPS2"x11.5

Ordering example:

Machine taps 4493NPS1/16x27 HSSE

Bestellbeispiel:

Maschinengewindebohrer 4493NPS1/16x27 HSSE

Начин на заявяване:

Метчици машинни 4493NPS1/16x27 HSSE

Machine Taps

with helical flutes R39°

for American Parallel Pipe thread according to ANSI B1.20.1

Ground thread

Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R39°

für amerikanisches paralleles Rohrgewinde

nach ANSI B1.20.1

Geschliffenes Gewinde

Form C 2-3 Gang Anschnitt

Метчици машинни

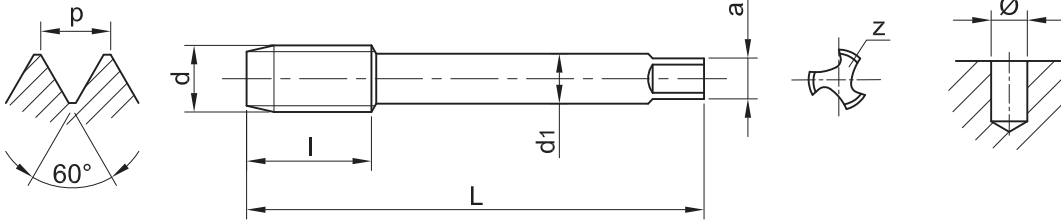
с винтови канали R39°

за американска тръбна цилиндрична резба

по ANSI B1.20.1

Шлифована резба

Форма С 2-3 навивки конус



NPS JIS R39°

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 4497*..
NPS 1/16	27	54	17	8.0	6	3	6.35	4497NPS1/16x27
NPS 1/8	27	55	19	8.0	6	3	8.75	4497NPS1/8x27
NPS 1/4	18	62	28	11.0	9	3	11.1	4497NPS1/4x18
NPS 3/8	18	65	28	14.0	11	3	14.7	4497NPS3/8x18
NPS 1/2	14	80	35	18.0	14	4	18.3	4497NPS1/2x14
NPS 3/4	14	85	35	23.0	17	4	23.4	4497NPS3/4x14
NPS 1"	11.5	95	45	26.0	21	4	29.4	4497NPS1"x11.5
NPS 1"1/4	11.5	105	45	32.0	26	4	38.1	4497NPS1"1/4x11.5
NPS 1"1/2	11.5	110	45	38.0	29	4	44.5	4497NPS1"1/2x11.5
NPS 2"	11.5	120	50	46.0	35	4	56.4	4497NPS2"x11.5

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Machine taps 4497NPS1/16x27 HSSE

Maschinengewindebohrer 4497NPS1/16x27 HSSE

Метчици машинни 4497NPS1/16x27 HSSE

Short Machine Taps

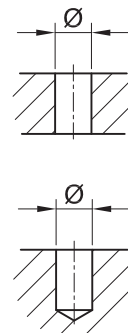
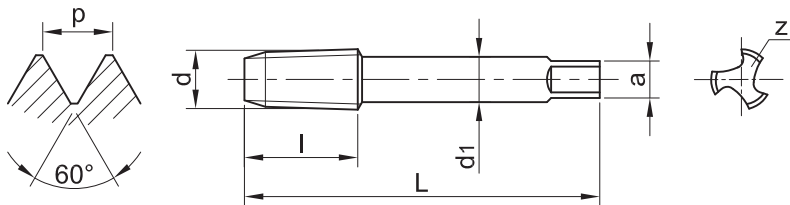
for American Tapered Pipe thread
according to
ANSI / ASME B1.20.1
Taper 1:16
Ground thread
Form C 2-3 threads chamfered

Einschnittgewindebohrer

für amerikanisches kegeliges
Rohrgewinde nach
ANSI / ASME B1.20.1
Kegel 1:16
Geschliffenes Gewinde
Form C 2-3 Gang Anschnitt

Метчици машинни къси

за американска тръбна конусна
резба по ANSI / ASME B1.20.1
Конус 1:16
Шлифована резба
Форма С 2-3 навивки конус



NPT

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2353*..
NPT 1/16	27	65	19	7	5.5	3	6.25	2353NPT1/16x27
NPT 1/8	27	65	19	7	5.5	3	8.4	2353NPT1/8x27
NPT 1/4	18	70	25	11	9.0	4	11.1	2353NPT1/4x18
NPT 3/8	18	75	26	12	9.0	4	14.4	2353NPT3/8x18
NPT 1/2	14	80	31	16	12.0	4	17.8	2353NPT1/2x14
NPT 3/4	14	100	33	20	16.0	4	23	2353NPT3/4x14
NPT 1"	11.5	110	38	25	20.0	4	29	2353NPT1"x11.5
NPT 1 1/4"	11.5	125	41	32	24.0	6	38	2353NPT1 1/4"x11.5
NPT 1 1/2"	11.5	140	42	36	29.0	6	44	2353NPT1 1/2"x11.5
NPT 2"	11.5	160	44	36	29.0	6	56	2353NPT2"x11.5

Machine Taps

for American Tapered Pipe thread
according to
ANSI / ASME B1.20.1
Taper 1:16
Ground thread
Form C 2-3 threads chamfered

Maschinengewindebohrer

für amerikanisches kegeliges
Rohrgewinde nach
ANSI / ASME B1.20.1
Kegel 1:16
Geschliffenes Gewinde
Form C 2-3 Gang Anschnitt

Метчици машинни

за американска тръбна конусна
резба по ANSI / ASME B1.20.1
Конус 1:16
Шлифована резба
Форма С 2-3 навивки конус

NPT ≈ DIN 374

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2553*..
NPT 1/16	27	90	20	6	4.9	3	6.25	2553NPT1/16x27
NPT 1/8	27	90	20	7	5.5	3	8.4	2553NPT1/8x27
NPT 1/4	18	100	22	11	9.0	4	11.1	2553NPT1/4x18
NPT 3/8	18	100	22	12	9.0	4	14.4	2553NPT3/8x18
NPT 1/2	14	125	28	16	12.0	4	17.8	2553NPT1/2x14
NPT 3/4	14	140	28	20	16.0	4	23	2553NPT3/4x14
NPT 1"	11.5	160	38	25	20.0	4	29	2553NPT1"x11.5

Ordering example: Short machine taps 2353NPT1/16x27 HSSE
Bestellbeispiel: Einschnittgewindebohrer 2353NPT1/16x27 HSSE
Начин на заявяване: Метчици машинни къси 2353NPT1/16x27 HSSE

Taps

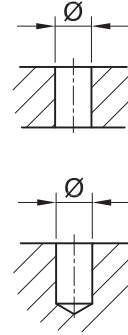
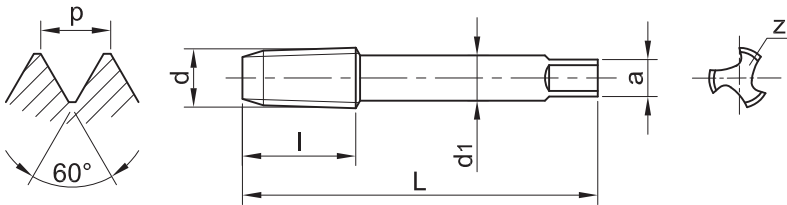
for American Tapered Pipe thread
according to
ANSI / ASME B1.20.1
Taper 1:16
Ground thread
Form A 7-8 threads chamfered
Form D 4-5 threads chamfered
Form C 1.5-2 threads chamfered

Gewindebohrer

für amerikanisches kegeliges
Rohrgewinde nach
ANSI / ASME B1.20.1
Kegel 1:16
Geschliffenes Gewinde
Form A 6-8 Gang Anschnitt
Form D 4-5 Gang Anschnitt
Form C 1.5-2 Gang Anschnitt

Метчици

за американска тръбна
конусна резба по
ANSI / ASME B1.20.1
Конус 1:16
Шлифована резба
Форма А 6-8 навивки конус
Форма D 4-5 навивки конус
Форма C 1.5-2 навивки конус



NPT ISO 2284

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. A 3351*.. Art. No. D 3354*.. Art. No. C 3353*..
NPT 1/16	27	52	14	5.6	4.5	4	6.25	..*NPT1/16x27
NPT 1/8	27	59	15	8	6.3	4	8.4	..*NPT1/8x27
NPT 1/4	18	67	19	10	8.0	4	11.1	..*NPT1/4x18
NPT 3/8	18	75	21	12.5	10.0	4	14.4	..*NPT3/8x18
NPT 1/2	14	87	26	16	12.5	4	17.8	..*NPT1/2x14
NPT 3/4	14	96	28	20	16.0	4	23.0	..*NPT3/4x14
NPT 1"	11.5	109	33	25	20.0	6	29.0	..*NPT1"x11.5
NPT 1"1/4	11.5	119	36	31.5	25.0	6	38.0	..*NPT1"1/4x11.5
NPT 1"1/2	11.5	125	37	35.5	28.0	6	44.0	..*NPT1"1/2x11.5
NPT 2"	11.5	140	41	40	31.5	6	56.0	..*NPT2"x11.5
NPT 2"1/2	8	153	45	45	35.5	8	67.0	..*NPT2"1/2x8
NPT 3"	8	164	48	50	40.0	10	83.0	..*NPT3"x8

Ordering example: Taps 3351NPT1/16x27 HSS
Bestellbeispiel: Gewindebohrer 3351NPT1/16x27 HSS
Начин на заявяване: Метчици 3351NPT1/16x27 HSS

Machine Taps

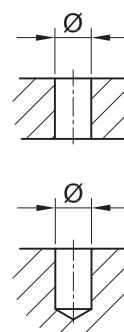
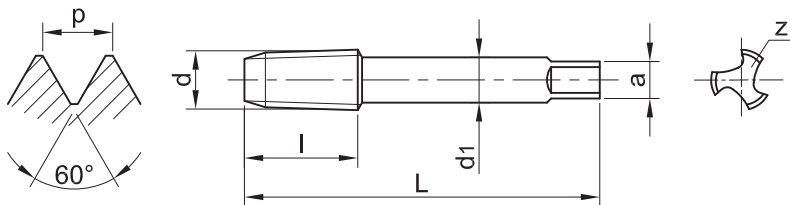
for American Tapered Pipe thread
according to
ANSI / ASME B1.20.1
Taper 1:16
Ground thread
Form C 2-3 threads chamfered

Maschinengewindebohrer

für amerikanisches kegeliges
Rohrgewinde nach
ANSI / ASME B1.20.1
Kegel 1:16
Geschliffenes Gewinde
Form C 2-3 Gang Anschnitt

Метчици машинни

за американска тръбна
конусна резба по
ANSI / ASME B1.20.1
Конус 1:16
Шлифована резба
Форма С 2-3 навивки конус



NPT JIS

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 4453*..
NPT 1/16	27	54	17	8.0	6	4	6.25	4453NPT1/16x27
NPT 1/8	27	55	19	8.0	6	4	8.4	4453NPT1/8x27
NPT 1/4	18	62	28	11.0	9	4	11.1	4453NPT1/4x18
NPT 3/8	18	65	28	14.0	11	4	14.4	4453NPT3/8x18
NPT 1/2	14	80	35	18.0	14	4	17.8	4453NPT1/2x14
NPT 3/4	14	85	35	23.0	17	4	23.0	4453NPT3/4x14
NPT 1"	11.5	95	45	26.0	21	5	29.0	4453NPT1"x11.5
NPT 1"1/4	11.5	105	45	32.0	26	5	38.0	4453NPT1"1/4x11.5
NPT 1"1/2	11.5	110	45	38.0	29	6	44.0	4453NPT1"1/2x11.5
NPT 2"	11.5	120	50	46.0	35	6	56.0	4453NPT2"x11.5

Ordering example: Machine taps 4453NPT1/16x27 HSSE
Bestellbeispiel: Maschinengewindebohrer 4453NPT1/16x27 HSSE
Начин на заявяване: Метчици машинни 4453NPT1/16x27 HSSE

Machine Taps

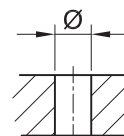
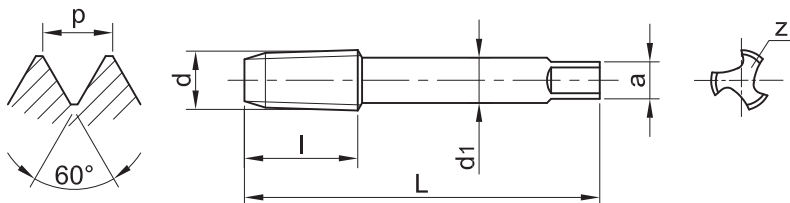
with spiral point
for American Tapered Pipe thread
according to
ANSI / ASME B1.20.1
Taper 1:16
Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt
für amerikanisches kegeliges
Rohrgewinde nach
ANSI / ASME B1.20.1
Kegel 1:16
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни

с подточени канали
за американска тръбна
конусна резба по
ANSI / ASME B1.20.1
Конус 1:16
Шлифована резба
Форма В 4-5 навивки конус



NPT JIS B

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 4452*..
NPT 1/16	27	54	17	8.0	6	3	6.25	4452NPT1/16x27
NPT 1/8	27	55	19	8.0	6	3	8.4	4452NPT1/8x27
NPT 1/4	18	62	28	11.0	9	3	11.1	4452NPT1/4x18
NPT 3/8	18	65	28	14.0	11	3	14.4	4452NPT3/8x18
NPT 1/2	14	80	35	18.0	14	4	17.8	4452NPT1/2x14
NPT 3/4	14	85	35	23.0	17	4	23.0	4452NPT3/4x14
NPT 1"	11.5	95	45	26.0	21	4	29.0	4452NPT1"x11.5
NPT 1 1/4"	11.5	105	45	32.0	26	6	38.0	4452NPT1 1/4"x11.5
NPT 1 1/2"	11.5	110	45	38.0	29	6	44.0	4452NPT1 1/2"x11.5
NPT 2"	11.5	120	50	46.0	35	8	56.0	4452NPT2"x11.5

Ordering example: Machine taps 4452NPT1/16x27 HSSE
Bestellbeispiel: Maschinengewindebohrer 4452NPT1/16x27 HSSE
Начин на заявяване: Метчици машинни 4452NPT1/16x27 HSSE

Machine Taps

with helical flutes R39°

for American Tapered Pipe thread

according to

ANSI / ASME B1.20.1

Taper 1:16

Ground thread

Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R39°

für amerikanisches kegeliges

Rohrgewinde nach

ANSI / ASME B1.20.1

Kegel 1:16

Geschliffenes Gewinde

Form C 2-3 Gang Anschnitt

Метчици машинни

с винтови канали R39°

за американска тръбна

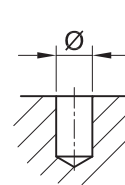
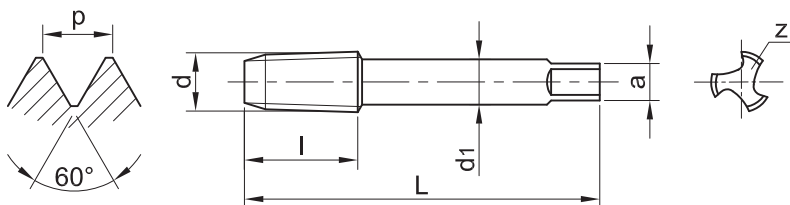
конусна резба по

ANSI / ASME B1.20.1

Конус 1:16

Шлифована резба

Форма С 2-3 навивки конус



NPT JIS R39°

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 4457*..
NPT 1/16	27	54	17	8.0	6	3	6.25	4457NPT1/16x27
NPT 1/8	27	55	19	8.0	6	3	8.4	4457NPT1/8x27
NPT 1/4	18	62	28	11.0	9	3	11.1	4457NPT1/4x18
NPT 3/8	18	65	28	14.0	11	3	14.4	4457NPT3/8x18
NPT 1/2	14	80	35	18.0	14	4	17.8	4457NPT1/2x14
NPT 3/4	14	85	35	23.0	17	4	23.0	4457NPT3/4x14
NPT 1"	11.5	95	45	26.0	21	4	29.0	4457NPT1"x11.5
NPT 1 1/4	11.5	105	45	32.0	26	4	38.0	4457NPT1 1/4"x11.5
NPT 1 1/2	11.5	110	45	38.0	29	4	44.0	4457NPT1 1/2"x11.5
NPT 2"	11.5	120	50	46.0	35	4	56.0	4457NPT2"x11.5
NPT 2 1/2	8	145	65	55.0	41	6	67.0	4457NPT2 1/2"x11.5

Ordering example:

Machine taps 4457NPT1/16x27 HSSE

Bestellbeispiel:

Maschinengewindebohrer 4457NPT1/16x27 HSSE

Начин на заявяване:

Метчици машинни 4457NPT1/16x27 HSSE

Machine Taps

with helical flutes R39°

for Dryseal American Tapered Pipe thread according to

ANSI / ASME B1.20.3

Taper 1:16

Ground thread

Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R39°

für amerikanisches kegeliges

Rohrgewinde, selbstdichtend nach

ANSI / ASME B1.20.3

Kegel 1:16

Geschliffenes Gewinde

Form C 2-3 Gang Anschnitt

Метчици машинни

с винтови канали R39°

за американска тръбна

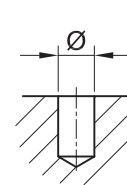
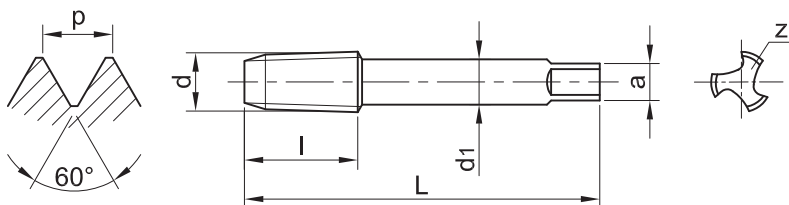
плътна конусна резба по

ANSI / ASME B1.20.3

Конус 1:16

Шлифована резба

Форма С 2-3 навивки конус



NPTF JIS R39°

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 44571*..
NPTF 1/8	27	55	19	8.0	6	3	8.6	44571NPTF1/8x27
NPTF 1/4	18	62	28	11.0	9	3	11.1	44571NPTF1/4x18
NPTF 3/8	18	65	28	14.0	11	3	14.7	44571NPTF3/8x18
NPTF 1/2	14	80	35	18.0	14	4	17.9	44571NPTF1/2x14
NPTF 3/4	14	85	35	23.0	17	4	23.4	44571NPTF3/4x14
NPTF 1"	11.5	95	45	26.0	21	4	29.4	44571NPTF1"x11.5

Ordering example:

Machine taps 44571NPTF1/8x27 HSSE

Bestellbeispiel:

Maschinengewindebohrer 44571NPTF1/8x27 HSSE

Начин на заявяване:

Метчици машинни 44571NPTF1/8x27 HSSE

Machine Taps

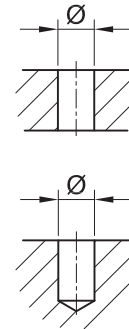
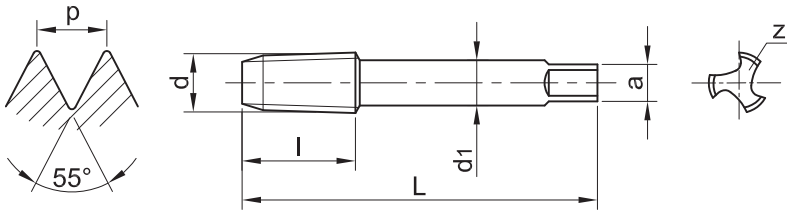
for Tapered Pipe thread
according to JIS B 0203
Taper 1:16
Ground thread
Form C 2-3 threads chamfered

Maschinengewindebohrer

für kegeliges Rohrgewinde
nach JIS B 0203
Kegel 1:16
Geschliffenes Gewinde
Form C 2-3 Gang Anschnitt

Метчици машинни

за тръбна конусна резба
по JIS B 0203
Конус 1:16
Шлифована резба
Форма С 2-3 навивки конус



PT JIS B 4446

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 4443*..
PT 1/16	28	55	17.5	8.0	6	4	6.5	4443PT1/16x28
PT 1/8	28	55	19	8.0	6	4	8.6	4443PT1/8x28
PT 1/4	19	62	28	11.0	9	4	11.5	4443PT1/4x19
PT 3/8	19	65	28	14.0	11	4	15.0	4443PT3/8x19
PT 1/2	14	80	35	18.0	14	4	18.5	4443PT1/2x14
PT 3/4	14	85	35	23.0	17	4	24.0	4443PT3/4x14
PT 1"	11	95	45	26.0	21	5	30.25	4443PT1"x11
PT 1"1/4	11	105	45	32.0	26	5	39.0	4443PT1"1/4x11
PT 1"1/2	11	110	45	38.0	29	6	45.0	4443PT1"1/2x11
PT 2"	11	120	50	46.0	35	6	56.5	4443PT2"x11

Ordering example: Machine taps 4443PT1/16x28 HSSE
Bestellbeispiel: Maschinengewindebohrer 4443PT1/16x28 HSSE
Начин на заявяване: Метчици машинни 4443PT1/16x28 HSSE

Machine Taps

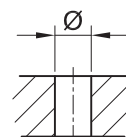
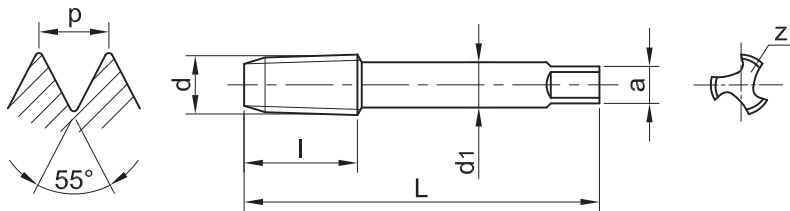
with spiral point
for Tapered Pipe thread
according to JIS B 0203
Taper 1:16
Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer

mit Schälanschnitt
für kegeliges Rohrgewinde
nach JIS B 0203
Kegel 1:16
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни

с подточени канали
за тръбна конусна резба
по JIS B 0203
Конус 1:16
Шлифована резба
Форма В 4-5 навивки конус



PT JIS B 4446 B

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 4442*..
PT 1/16	28	55	17.5	8.0	6	3	6.5	4442PT1/16x28
PT 1/8	28	55	19	8.0	6	3	8.6	4442PT1/8x28
PT 1/4	19	62	28	11.0	9	3	11.5	4442PT1/4x19
PT 3/8	19	65	28	14.0	11	3	15.0	4442PT3/8x19
PT 1/2	14	80	35	18.0	14	4	18.5	4442PT1/2x14
PT 3/4	14	85	35	23.0	17	4	24.0	4442PT3/4x14
PT 1"	11	95	45	26.0	21	4	30.25	4442PT1"x11
PT 1"1/4	11	105	45	32.0	26	6	39.0	4442PT1"1/4x11
PT 1"1/2	11	110	45	38.0	29	6	45.0	4442PT1"1/2x11
PT 2"	11	120	50	46.0	35	8	56.5	4442PT2"x11

Ordering example: Machine taps 4442PT1/16x28 HSSE
Bestellbeispiel: Maschinengewindebohrer 4442PT1/16x28 HSSE
Начин на заявяване: Метчици машинни 4442PT1/16x28 HSSE

Machine Taps

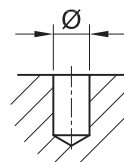
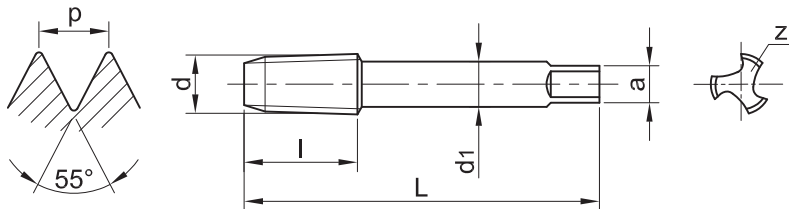
with helical flutes R39°
for Tapered Pipe thread
according to JIS B 0203
Taper 1:16
Ground thread
Form C 2-3 threads chamfered

Maschinengewindebohrer

drallgenutet R39°
für kegeliges Rohrgewinde
nach JIS B 0203
Kegel 1:16
Geschliffenes Gewinde
Form C 2-3 Gang Anschnitt

Метчици машинни

с винтови канали R39°
за тръбна конусна резба
по JIS B 0203
Конус 1:16
Шлифована резба
Форма С 2-3 навивки конус



PT JIS B 4446 R39°

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 4447*..
PT 1/16	28	55	17.5	8.0	6	3	6.5	4447PT1/16x28
PT 1/8	28	55	19	8.0	6	3	8.6	4447PT1/8x28
PT 1/4	19	62	28	11.0	9	3	11.5	4447PT1/4x19
PT 3/8	19	65	28	14.0	11	3	15.0	4447PT3/8x19
PT 1/2	14	80	35	18.0	14	4	18.5	4447PT1/2x14
PT 3/4	14	85	35	23.0	17	4	24.0	4447PT3/4x14
PT 1"	11	95	45	26.0	21	4	30.25	4447PT1"x11
PT 1"1/4	11	105	45	32.0	26	4	39.0	4447PT1"1/4x11
PT 1"1/2	11	110	45	38.0	29	4	45.0	4447PT1"1/2x11
PT 2"	11	120	50	46.0	35	4	56.5	4447PT2"x11

Ordering example: Machine taps 4447PT1/16x28 HSSE
Bestellbeispiel: Maschinengewindebohrer 4447PT1/16x28 HSSE
Начин на заявяване: Метчици машинни 4447PT1/16x28 HSSE

Hand Taps

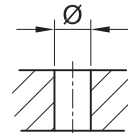
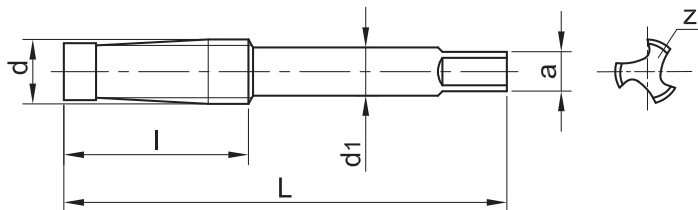
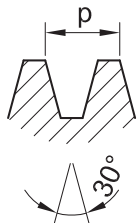
Set of 3 pieces for
ISO metric Trapezoidal thread
according to DIN 103
Ground thread

Handgewindebohrer

Dreiteiliger Satz für
metrisches ISO-Trapezgewinde
nach DIN 103
Geschliffenes Gewinde

Метчици ръчни

Комплект от 3 броя за метрична
трапецовидна ISO резба
по DIN 103
Шлифована резба



d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 118*..
Tr 10	2	90	34	7	5.5	4	8.2	118Tr10x2
Tr 10	3	100	40	7	5.5	4	7.25	118Tr10x3
Tr 12	3	110	40	8	6.2	4	9.25	118Tr12x3
Tr 14	3	130	45	10	8.0	4	11.25	118Tr14x3
Tr 14	4	130	55	10	8.0	4	10.3	118Tr14x4
Tr 16	4	140	55	11	9.0	4	12.3	118Tr16x4
Tr 18	4	150	55	12	9.0	4	14.3	118Tr18x4
Tr 20	4	160	55	14	11.0	4	16.3	118Tr20x4
Tr 22	5	175	65	16	12.0	4	17.3	118Tr22x5
Tr 24	5	190	65	18	14.5	4	19.3	118Tr24x5
Tr 26	5	210	70	20	16.0	4	21.3	118Tr26x5
Tr 28	5	220	70	22	18.0	4	23.3	118Tr28x5
Tr 30	6	240	80	22	18.0	4	24.3	118Tr30x6
Tr 32	6	255	80	25	20.0	4	26.3	118Tr32x6

Ordering example: Hand taps 118Tr10x2 HSS - for 1 set /I, II, III/
Bestellbeispiel: Handgewindebohrer 118Tr10x2 HSS - für 1 Satz /I, II, III/
Начин на заявяване: Метчици ръчни 118Tr10x2 HSS - за 1 комплект /I, II, III/

Machine Nut Taps

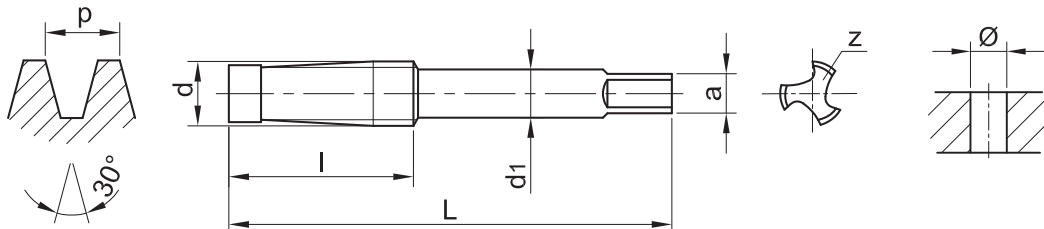
for ISO metric Trapezoidal thread according to DIN 103
Ground thread
Piloted

Maschinen-Muttergewindebohrer

für metrisches ISO-Trapezgewinde nach DIN 103
Geschliffenes Gewinde mit Führungzapfen

Метчици машинни гайкови

за метрична трапецовидна ISO резба по DIN 103
Шлифована резба
С водач



d	p mm	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2189*..
Tr 10	2	110	63	7	5.5	4	8.2	2189Tr10x2
Tr 10	3	125	75	7	5.5	4	7.25	2189Tr10x3
Tr 12	3	165	111	8	6.2	4	9.25	2189Tr12x3
Tr 14	3	140	85	10	8.0	4	11.25	2189Tr14x3
Tr 14	4	170	112	10	8.0	4	10.3	2189Tr14x4
Tr 16	4	180	116	11	9.0	4	12.3	2189Tr16x4
Tr 18	4	190	120	12	9.0	4	14.3	2189Tr18x4
Tr 20	4	200	124	14	11.0	4	16.3	2189Tr20x4
Tr 22	5	235	155	16	12.0	4	17.3	2189Tr22x5
Tr 24	5	245	160	18	14.5	4	19.3	2189Tr24x5
Tr 26	5	255	165	20	16.0	4	21.3	2189Tr26x5
Tr 28	5	265	170	22	18.0	4	23.3	2189Tr28x5
Tr 30	6	290	185	22	18.0	4	24.3	2189Tr30x6
Tr 32	6	300	191	25	20.0	4	26.3	2189Tr32x6
Tr 36	6	310	200	28	22.0	4	30.3	2189Tr36x6

Ordering example: Machine nut taps 2189Tr10x2 HSSE
Bestellbeispiel: Maschinen-Muttergewindebohrer 2189Tr10x2 HSSE
Начин на заявяване: Метчици машинни гайкови 2189Tr10x2 HSSE

Hand Taps

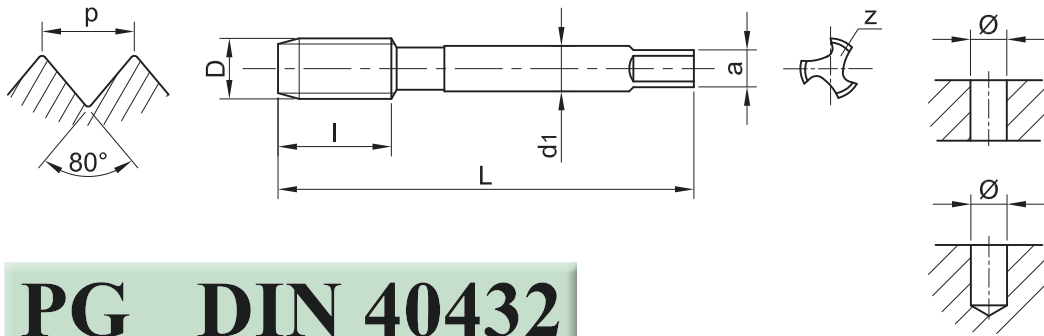
Set of 2 pieces
for Steel Conduit thread
according to DIN 40430
Ground thread

Handgewindebohrer

Zweiteiliger Satz
für Stahlpanzerrohrgewinde
nach DIN 40430
Geschliffenes Gewinde

Метчици ръчни

Комплект от 2 броя за
електроарматурна резба
по DIN 40430
Шлифована резба



PG DIN 40432

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 117*..
PG 7	20	70	22	9	7	4	11.4	117PG7x20
PG 9	18	70	22	12	9	4	14.0	117PG9x18
PG 11	18	80	22	14	11	4	17.25	117PG11x18
PG 13.5	18	80	22	16	12	4	19.0	117PG13.5x18
PG 16	18	80	22	18	14.5	4	21.25	117PG16x18
PG 21	16	90	22	22	18	4	27.0	117PG21x16
PG 29	16	100	25	28	22	6	35.5	117PG29x16
PG 36	16	140	40	36	29	6	45.5	117PG36x16
PG 42	16	140	40	40	32	6	52.5	117PG42x16
PG 48	16	160	40	45	35	6	58.0	117PG48x16

Ordering example: Hand taps 117PG7x20 HSS - for 1 set /I, II/
Bestellbeispiel: Handgewindebohrer 117PG7x20 HSS - für 1 Satz /I, II/
Начин на заявяване: Метчици ръчни 117PG7x20 HSS - за 1 комплект /I, II/

Machine Taps

for Steel Conduit thread
according to DIN 40430

Ground thread

Form D 4-5 threads chamfered

Maschinengewindebohrer

für Stahlpanzerrohrgewinde
nach DIN 40430

Geschliffenes Gewinde

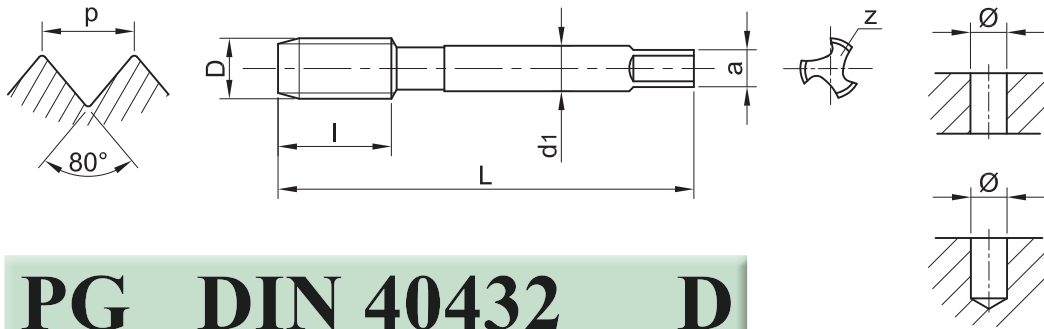
Form D 4-5 Gang Anschnitt

Метчици машинни

за електроарматурна резба
по DIN 40430

Шлифована резба

Форма D 4-5 навивки конус



PG DIN 40432 D

d	p / inch	L mm	l mm	d1 mm	a mm	z	Ø	Art. No. 2674*..
PG 7	20	70	22	9	7	4	11.4	2674PG7x20
PG 9	18	70	22	12	9	4	14.0	2674PG9x18
PG 11	18	80	22	14	11	4	17.25	2674PG11x18
PG 13.5	18	80	22	16	12	4	19.0	2674PG13.5x18
PG 16	18	80	22	18	14.5	4	21.25	2674PG16x18
PG 21	16	90	22	22	18	4	27.0	2674PG21x16
PG 29	16	100	25	28	22	6	35.5	2674PG29x16
PG 36	16	140	40	36	29	6	45.5	2674PG36x16
PG 42	16	140	40	40	32	6	52.5	2674PG42x16
PG 48	16	160	40	45	35	6	58.0	2674PG48x16

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Short machine taps 2674PG7x20 HSS

Einschnittgewindebohrer 2674PG7x20 HSS

Метчици машинни къси 2674PG7x20 HSS

Hand Taps

for British Association screw thread according to BS 93

Ground thread

Form A 6-8 threads chamfered

Form D 4-5 threads chamfered

Form C 2-3 threads chamfered

Handgewindebohrer

für British Association Gewinde nach BS 93

Geschliffenes Gewinde

Form A 6-8 Gang Anschnitt

Form D 4-5 Gang Anschnitt

Form C 2-3 Gang Anschnitt

Метчици ръчни

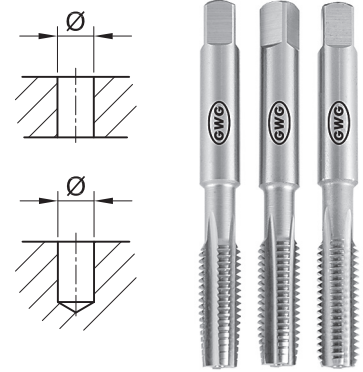
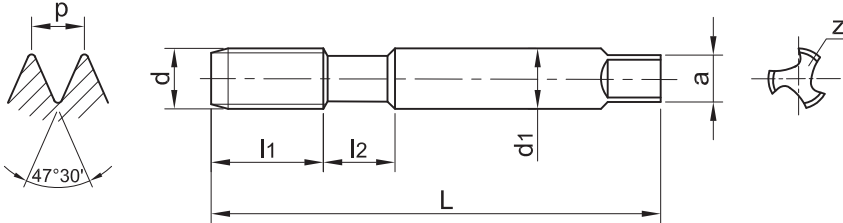
за резба на Британската асоциация по BS 93

Шлифована резба

Форма А 6-8 навивки конус

Форма D 4-5 навивки конус

Форма C 2-3 навивки конус



BA ISO 529

d	p mm	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Ø	Art. No. A 3161*.. Art. No. D 3164*.. Art. No. C 3163*..
BA 0	1.0	66	19	11	6.3	5.0	3	5.0	..*BA0
BA 1	0.9	62	17	9	5.6	4.5	3	4.4	..*BA1
BA 2	0.81	58	16	9	5.0	4.0	3	3.9	..*BA2
BA 3	0.73	53	13	8	4.5	3.55	3	3.4	..*BA3
BA 4	0.66	50	13	7	3.55	2.8	3	2.95	..*BA4
BA 5	0.59	48	11	7	3.15	2.5	3	2.6	..*BA5
BA 6	0.53	44.5	9.5	6	2.8	2.24	3	2.3	..*BA6
BA 7	0.48	44.5	9.5		2.8	2.24	3	2.0	..*BA7
BA 8	0.43	44.5	9.5		2.8	2.24	3	1.8	..*BA8

Ordering example:

Hand taps 3161BA0 HSS

Bestellbeispiel:

Handgewindebohrer 3161BA0 HSS

Начин на заявяване:

Метчици ръчни 3161BA0 HSS

TAPS FOR WIRE-THREAD-INSERTS

This technology allows thread producing in materials with low shearing strength, which, after screwing of a special thread - insert into the thread, guarantees strength of extension over 1400 N/mm².

The technology finds a wide application in productions, using soft materials, for example Aluminium and Alu-Magnesium-Alloys. The wire-thread-inserts are irreplaceable instruments for restoring of wearing or damaged threads.

This catalogue includes only the taps, needed for realizing this technology.

The correctly threading and the assembling of the wire-thread-inserts guarantee thread cutting with grade of fit ISO2 (6H), even ISO1 (4H).

GEWINDEBOHRER FÜR GEWINDEEINSÄTZE

Diese Gewindetechnologie wird zum Gewindeschneiden in Werkstoffen mit geringer Scherfestigkeit und nachfolgender Gewindefestigung durch Verwendung eines speziellen Gewindeeinsatzes, der eine Zugfestigkeit von min. 1400 N/mm² gewährleistet, angewendet.

Einen breiten Einsatz findet sie dort, wo weiche Metalle, wie z.B. Aluminium und Alu-Magnesium-Legierungen bearbeitet werden müssen. Die Gewindeeinsätze sind ein unentbehrliches Hilfsmittel für die Instandsetzung beschädigter oder abgenutzter Gewinde.

In unserem Katalog werden nur die Gewindebohrer, die zur Realisierung dieser Gewindetechnologie notwendig sind, angegeben.

Bei richtiger Gewindeausführung und nachfolgendem Einbau der Gewindeeinsätze können Gewinde mit Toleranzfeld ISO2 (6H) und sogar ISO1 (4H) gewährleistet werden.

МЕТЧИЦИ ЗА РЕЗБОВИ ВЛОЖКИ

Това е технология, при която се нарязва резба в материали с малка якост на срязване и последващо навиване в резбата на специална резбова вложка, осигуряваща якост на опън над 1400 N/mm².

Технологията намира широко приложение в производства, които използват меки материали - например алуминий и алуминиево-магнезиеви сплави. Резбовите вложки са незаменимо средство за възстановяване на повредени или износени резби.

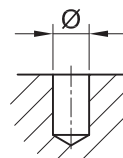
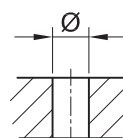
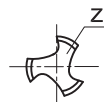
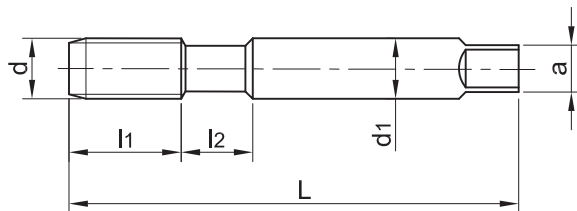
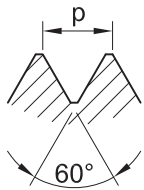
В нашия каталог са разгледани само метчиците, необходими за реализацията на тази технология.

При правилно изпълнение на резбите и съответното монтиране на резбовите вложки се осигуряват резби с точност ISO2 (6H), а в някои случаи ISO1 (4H).

Taps for Wire Thread

Inserts

for ISO metric thread
according to DIN 13
Grade of fit: ISO 1 (4H)
Ground thread
Form D 4-5 threads chamfered



Einschnittgewindebohrer

für Gewindeeinsätze

für metrisches ISO-Gewinde nach
DIN 13
Toleranzfeld: ISO 1 (4H)
Geschliffenes Gewinde
Form D 4-5 Gang Anschnitt

Метчици за резбови

ВЛОЖКИ

за метрична ISO резба
по DIN 13
Клас на точност: ISO 1 (4H)
Шлифована резба
Форма D 4-5 навивки конус

M ISO 529

d	p mm	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Art. No. 5404HC*..
M2	0.4	44.5	9.5		2.8	2.24	3	5404HCM2x0.4
M2.2	0.45	44.5	9.5		2.8	2.24	3	5404HCM2.2x0.45
M2.5	0.45	48.0	11.0	7	3.15	2.5	3	5404HCM2.5x0.45
M3	0.5	53.0	13.0	8	4.0	3.15	3	5404HCM3x0.5
M3.5	0.6	53.0	13.0	8	4.5	3.55	3	5404HCM3.5x0.6
M4	0.7	58.0	16.0	9	5.0	4.0	3	5404HCM4x0.7
M5	0.8	66.0	19.0	11	6.3	5.0	3	5404HCM5x0.8
M6	1.0	72.0	22.0	13	8.0	6.3	3	5404HCM6x1
M7	1.0	72.0	22.0	14	9.0	7.1	3	5404HCM7x1
M8	1.25	80.0	24.0	15	10.0	8.0	3	5404HCM8x1.25
M8	1.0	80.0	24.0	15	10.0	8.0	3	5404HCM8x1
M9	1.25	85.0	25.0		8.0	6.3	3	5404HCM9x1.25
M10	1.5	89.0	29.0		9.0	7.1	3	5404HCM10x1.5
M10	1.25	85.0	25.0		8.0	6.3	3	5404HCM10x1.25
M10	1.0	85.0	25.0		8.0	6.3	3	5404HCM10x1
M11	1.5	89.0	29.0		9.0	7.1	3	5404HCM11x1.5
M12	1.75	95.0	30.0		11.2	9.0	3	5404HCM12x1.75
M12	1.5	95.0	30.0		11.2	9.0	3	5404HCM12x1.5
M12	1.25	95.0	30.0		11.2	9.0	3	5404HCM12x1.25
M12	1.0	95.0	30.0		11.2	9.0	3	5404HCM12x1
M14	2.0	102.0	32.0		12.5	10.0	3	5404HCM14x2
M14	1.5	102.0	32.0		12.5	10.0	3	5404HCM14x1.5
M14	1.25	102.0	32.0		12.5	10.0	3	5404HCM14x1.25
M14	1.0	102.0	32.0		12.5	10.0	3	5404HCM14x1
M15	2.0	112.0	37.0		14.0	11.2	3	5404HCM15x2
M15	1.5	102.0	32.0		12.5	10.0	3	5404HCM15x1.5
M16	2.0	112.0	37.0		14.0	11.2	4	5404HCM16x2
M16	1.5	104.0	29.0		14.0	11.2	4	5404HCM16x1.5
M18	2.5	118.0	38.0		16.0	12.5	4	5404HCM18x2.5
M18	2.0	104.0	29.0		14.0	11.2	4	5404HCM18x2
M18	1.5	104.0	29.0		14.0	11.2	4	5404HCM18x1.5
M20	2.5	118.0	38.0		16.0	12.5	4	5404HCM20x2.5
M20	2.0	113.0	33.0		16.0	12.5	4	5404HCM20x2
M20	1.5	113.0	33.0		16.0	12.5	4	5404HCM20x1.5
M22	2.5	130.0	45.0		18.0	14.0	4	5404HCM22x2.5
M22	2.0	120.0	35.0		18.0	14.0	4	5404HCM22x2
M22	1.5	120.0	35.0		18.0	14.0	4	5404HCM22x1.5
M24	3.0	138.0	48.0		20.0	16.0	4	5404HCM24x3
M24	2.0	127.0	37.0		20.0	16.0	4	5404HCM24x2
M24	1.5	120.0	35.0		18.0	14.0	4	5404HCM24x1.5

Ordering example: Taps for wire thread inserts 5404HCM2x0.4 HSS
Bestellbeispiel: Einschnittgewindebohrer für Gewindeeinsätze 5404HCM2x0.4 HSS
Начин на заявяване: Метчици за резбови вложки 5404HCM2x0.4 HSS

Taps for Wire Thread

Inserts

for Whitworth thread

according to BS 84

Grade of fit: medium class

Ground thread

Form D 4-5 threads chamfered

Einschnittgewindebohrer

für Gewindeeinsätze

für Whitworth-Gewinde

nach BS 84

Toleranzfeld: medium class

Geschliffenes Gewinde

Form D 4-5 Gang Anschnitt

Метчици за резбови

вложки

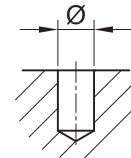
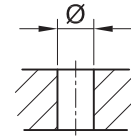
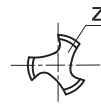
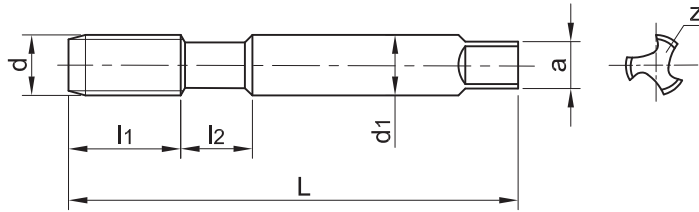
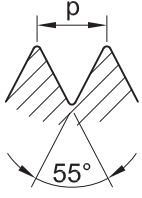
за Витвортова резба

по BS 84

Клас на точност: medium

Шлифована резба

Форма D 4-5 навивки конус



BSW ISO 529

d	p / inch	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Art. No. 5424HC*..
BSW 1/8	40	53	13	8	4.0	3.15	3	..*BSW1/8x40
BSW 3/16	24	66	19	11	6.3	5.0	3	..*BSW3/16x24
BSW 1/4	20	72	22	13	8.0	6.3	3	..*BSW1/4x20
BSW 5/16	18	80	24	15	10.0	8.0	3	..*BSW5/16x18
BSW 3/8	16	85	25		8.0	6.3	3	..*BSW3/8x16
BSW 7/16	14	95	30		11.2	9.0	3	..*BSW7/16x14
BSW 1/2	12	102	32		12.5	10.0	3	..*BSW1/2x12
BSW 9/16	12	102	32		12.5	10.0	3	..*BSW9/16x12
BSW 5/8	11	112	37		14.0	11.2	4	..*BSW5/8x11
BSW 11/16	11	112	37		14.0	11.2	4	..*BSW11/16x11
BSW 3/4	10	118	38		16.0	12.5	4	..*BSW3/4x10
BSW 7/8	9	130	45		18.0	14.0	4	..*BSW7/8x9
BSW 1"	8	138	48		20.0	16.0	4	..*BSW1"x8

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Taps for wire thread inserts 5424HCBSW3/32x48 HSS

Einschnittgewindebohrer für Gewindeeinsätze 5424HCBSW3/32x48 HSS

Метчици за резбови вложки 5424HCBSW3/32x48 HSS

Taps for Wire Thread

Inserts

for Whitworth Fine thread
according to BS 84

Grade of fit: medium class

Ground thread

Form D 4-5 threads chamfered

Einschnittgewindebohrer

für Gewindeeinsätze

für Whitworth-Feingewinde
nach BS 84

Toleranzfeld: medium class

Geschliffenes Gewinde

Form D 4-5 Gang Anschnitt

Метчици за резбови

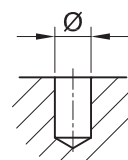
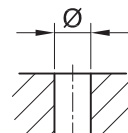
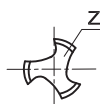
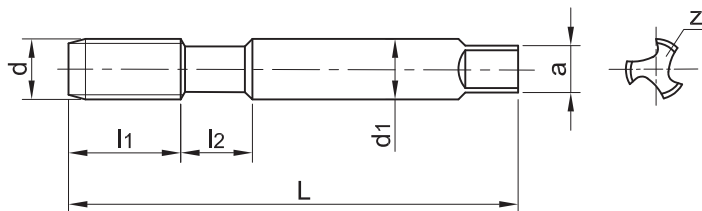
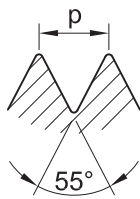
вложки

за Витвортова ситна резба
по BS 84

Клас на точност: medium

Шлифована резба

Форма D 4-5 навивки конус



BSF ISO 529

d	p / inch	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Art. No. 5524HC*..
BSF 3/16	32	66	19	11	6.3	5.0	3	..*BSF3/16x32
BSF 1/4	26	72	22	13	8.0	6.3	3	..*BSF1/4x26
BSF 5/16	22	80	24	15	10.0	8.0	3	..*BSF5/16x22
BSF 3/8	20	85	25		8.0	6.3	3	..*BSF3/8x20
BSF 7/16	18	89	29		9.0	7.1	3	..*BSF7/16x18
BSF 1/2	16	95	30		11.2	9.0	3	..*BSF1/2x16
BSF 9/16	16	102	32		12.5	10.0	3	..*BSF9/16x16
BSF 5/8	14	112	37		14.0	11.2	4	..*BSF5/8x14
BSF 11/16	14	112	37		14.0	11.2	4	..*BSF11/16x14
BSF 3/4	12	118	38		16.0	12.5	4	..*BSF3/4x12
BSF 7/8	11	130	45		18.0	14.0	4	..*BSF7/8x11
BSF 1"	10	138	48		20.0	16.0	4	..*BSF1"x10

Ordering example:

Taps for wire thread inserts 5524HCBSF3/16x32 HSS

Bestellbeispiel:

Einschnittgewindebohrer für Gewindeeinsätze 5524HCBSF3/16x32 HSS

Начин на заявяване:

Метчици за резбови вложки 5524HCBSF3/16x32 HSS

Taps for Wire Thread

Inserts

for American Unified Coarse thread according to ANSI B1.1

Grade of fit: 3B

Ground thread

Form D 4-5 threads chamfered

Einschnittgewindebohrer für Gewindeeinsätze

für amerikanisches unifiziertes Grobgewinde nach ANSI B1.1

Toleranzfeld: 3B

Geschliffenes Gewinde

Form D 4-5 Gang Anschnitt

Метчици за резбови

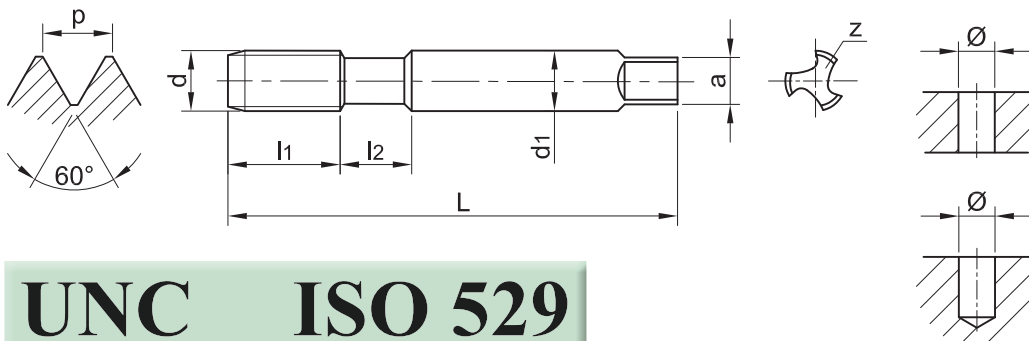
ВЛОЖКИ

за американска унифицирана резба едра стъпка по ANSI B1.1

Клас на точност: 3B

Шлифована резба

Форма D 4-5 навивки конус



UNC ISO 529

d	p / inch	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Art. No. 5414HC*..
UNC Nr.2	56	48	9.5		3.15	2.5	3	..*UNCNr.2x56
UNC Nr.4	40	53	13	8	4.0	3.15	3	..*UNCNr.4x40
UNC Nr.5	40	53	13	8	4.0	3.15	3	..*UNCNr.5x40
UNC Nr.6	32	58	16	9	5.0	4.0	3	..*UNCNr.6x32
UNC Nr.8	32	62	17	9	5.6	4.5	3	..*UNCNr.8x32
UNC Nr.10	24	66	19	11	6.3	5.0	3	..*UNCNr.10x24
UNC Nr.12	24	66	19	11	7.1	5.6	3	..*UNCNr.12x24
UNC 1/4	20	72	22	13	8.0	6.3	3	..*UNC1/4x20
UNC 5/16	18	80	24	15	10.0	8.0	3	..*UNC5/16x18
UNC 3/8	16	85	25		8.0	6.3	3	..*UNC3/8x16
UNC 7/16	14	95	30		11.2	9.0	3	..*UNC7/16x14
UNC 1/2	13	102	32		12.5	10.0	3	..*UNC1/2x13
UNC 9/16	12	112	37		14.0	11.2	3	..*UNC9/16x12
UNC 5/8	11	112	37		14.0	11.2	4	..*UNC5/8x11
UNC 11/16	11	112	37		14.0	11.2	4	..*UNC11/16x11
UNC 3/4	10	118	38		16.0	12.5	4	..*UNC3/4x10
UNC 7/8	9	130	45		18.0	14.0	4	..*UNC7/8x9
UNC 1"	8	138	48		20.0	16.0	4	..*UNC1"x8
UNC 1"1/8	7	151	51		22.4	18.0	4	..*UNC1"1/8x7
UNC 1"1/4	7	162	57		25.0	20.0	4	..*UNC1"1/4x7
UNC 1"1/2	6	187	67		31.5	25.0	6	..*UNC1"1/2x6

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Taps for wire thread inserts 5414HCUNCNr.2x56 HSS

Einschnittgewindebohrer für Gewindeeinsätze 5414HCUNCNr.2x56 HSS

Метчици за резбови вложки 5414HCUNCNr.2x56 HSS

Taps for Wire Thread

Inserts

for American Unified Fine thread according to ANSI B1.1

Grade of fit: 3B

Ground thread

Form D 4-5 threads chamfered

Einschnittgewindebohrer für Gewindeeinsätze

für amerikanisches unifiziertes Feingewinde nach ANSI B1.1

Toleranzfeld: 3B

Geschliffenes Gewinde

Form D 4-5 Gang Anschnitt

Метчици за резбови

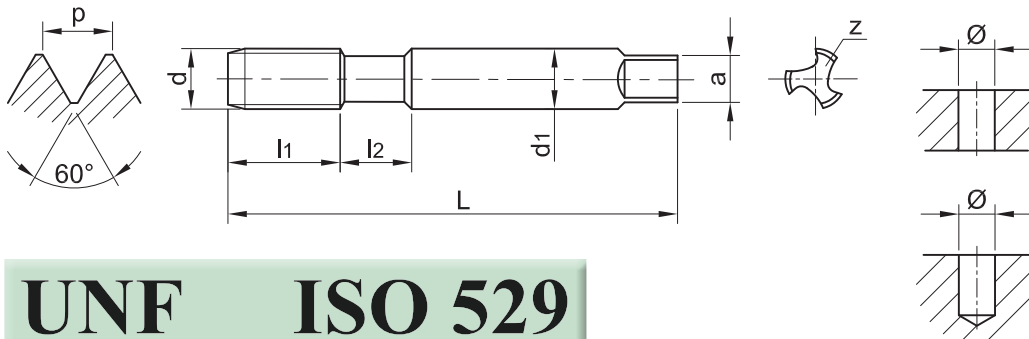
ВЛОЖКИ

за американска унифицирана резба ситна стъпка по ANSI B1.1

Клас на точност: 3B

Шлифована резба

Форма D 4-5 НАВИВКИ КОНУС



UNF ISO 529

d	p / inch	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Art. No. 5514HC*..
UNF Nr.4	48	53	13	8	4.0	3.15	3	..*UNFNr.4x48
UNF Nr.6	40	53	13	8	4.5	3.55	3	..*UNFNr.6x40
UNF Nr.8	36	62	17	9	5.6	4.5	3	..*UNFNr.8x36
UNF Nr.10	32	66	19	11	6.3	5.0	3	..*UNFNr.10x32
UNF 1/4	28	69	19	13	8.0	6.3	3	..*UNF1/4x28
UNF 5/16	24	76	20	15	10.0	8.0	3	..*UNF5/16x24
UNF 3/8	24	82	22		8.0	6.3	3	..*UNF3/8x24
UNF 7/16	20	84	24		9.0	7.1	3	..*UNF7/16x20
UNF 1/2	20	90	25		11.2	9.0	3	..*UNF1/2x20
UNF 9/16	18	104	29		12.5	10.0	3	..*UNF9/16x18
UNF 5/8	18	104	29		14.0	11.2	4	..*UNF5/8x18
UNF 3/4	16	104	29		14.0	11.2	4	..*UNF3/4x16
UNF 7/8	14	120	35		18.0	14.0	4	..*UNF7/8x14
UNF 1"	12	127	37		20.0	16.0	4	..*UNF1"x12

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Taps for wire thread inserts 5514HCUNFNr.4x48 HSS

Einschnittgewindebohrer für Gewindeeinsätze 5514HCUNFNr.4x48 HSS

Метчици за резбови вложки 5514HCUNFNr.4x48 HSS



Machine Taps for Wire Thread Inserts

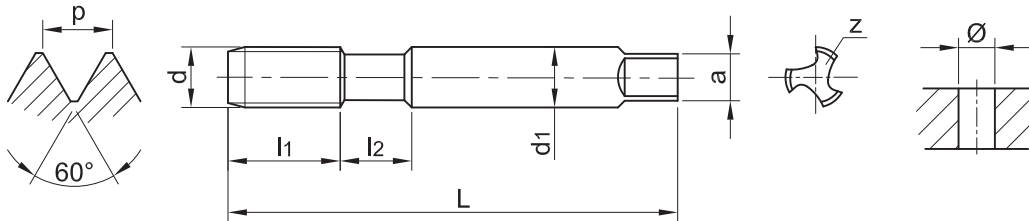
with spiral point
for ISO metric thread
according to DIN 13
Grade of fit: ISO 1 (4H)
Ground thread
Form B 4-5 threads chamfered

Maschinengewindebohrer für Gewindeeinsätze

mit Schälanschnitt
für metrisches ISO-Gewinde
nach DIN 13
Toleranzfeld: ISO 1 (4H)
Geschliffenes Gewinde
Form B 4-5 Gang Anschnitt

Метчици машинни за резбови вложки

с подточени канали
за метрична ISO резба
по DIN 13
Клас на точност: ISO 1 (4H)
Шлифована резба
Форма В 4-5 навивки конус



M ISO 529 B

d	p mm	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Art. No. 5402HC*..
M2	0.4	44.5	9.5		2.8	2.24	3	5402HCM2x0.4
M3	0.5	53.0	13.0	8	4.0	3.15	3	5402HCM3x0.5
M3.5	0.6	53.0	13.0	8	4.5	3.55	3	5402HCM3.5x0.6
M4	0.7	58.0	16.0	9	5.0	4.0	3	5402HCM4x0.7
M5	0.8	66.0	19.0	11	6.3	5.0	3	5402HCM5x0.8
M6	1.0	72.0	22.0	13	8.0	6.3	3	5402HCM6x1
M7	1.0	72.0	22.0	14	9.0	7.1	3	5402HCM7x1
M8	1.25	80.0	24.0	15	10.0	8.0	3	5402HCM8x1.25
M8	1.0	80.0	24.0	15	10.0	8.0	3	5402HCM8x1
M10	1.5	89.0	29.0		9.0	7.1	3	5402HCM10x1.5
M10	1.0	85.0	25.0		8.0	6.3	3	5402HCM10x1
M12	1.75	95.0	30.0		11.2	9.0	3	5402HCM12x1.75
M12	1.5	95.0	30.0		11.2	9.0	3	5402HCM12x1.5
M12	1.25	95.0	30.0		11.2	9.0	3	5402HCM12x1.25
M14	2.0	102.0	32.0		12.5	10.0	3	5402HCM14x2
M14	1.5	102.0	32.0		12.5	10.0	3	5402HCM14x1.5
M14	1.25	102.0	32.0		12.5	10.0	3	5402HCM14x1.25
M16	2.0	112.0	37.0		14.0	11.2	3	5402HCM16x2

Ordering example: Machine taps for wire thread inserts 5402HCM2x0.4 HSSE
Bestellbeispiel: Maschinengewindebohrer für Gewindeeinsätze 5402HCM2x0.4 HSSE
Начин на заявяване: Метчици машинни за резбови вложки 5402HCM2x0.4 HSSE

Machine Taps for Wire Thread Inserts

with helical flutes R35°
for ISO metric thread
according to DIN 13
Grade of fit: ISO 1 (4H)
Ground thread

Form C 2-3 threads chamfered

Maschinengewindebohrer für Gewindeeinsätze

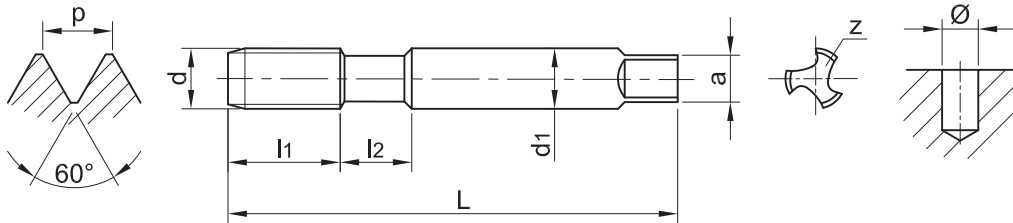
drallgenutet R35°
für metrisches ISO-Gewinde
nach DIN 13
Toleranzfeld: ISO 1 (4H)
Geschliffenes Gewinde

Form C 2-3 Gang Anschnitt

Метчици машинни за резбови вложки

с винтови канали R35°
за метрична ISO резба
по DIN 13
Клас на точност: ISO 1 (4H)
Шлифована резба

Форма С 2-3 навивки конус



M ISO 529 R35°

d	p mm	L mm	l1 mm	l2 mm	d1 mm	a mm	z	Art. No. 5406HC*..
M2	0.4	44.5	9.5		2.8	2.24	3	5406HCM2x0.4
M3	0.5	53.0	13.0	8	4.0	3.15	3	5406HCM3x0.5
M3.5	0.6	53.0	13.0	8	4.5	3.55	3	5406HCM3.5x0.6
M4	0.7	58.0	16.0	9	5.0	4.0	3	5406HCM4x0.7
M5	0.8	66.0	19.0	11	6.3	5.0	3	5406HCM5x0.8
M6	1.0	72.0	22.0	13	8.0	6.3	3	5406HCM6x1
M7	1.0	72.0	22.0	14	9.0	7.1	3	5406HCM7x1
M8	1.25	80.0	24.0	15	10.0	8.0	3	5406HCM8x1.25
M8	1.0	80.0	24.0	15	10.0	8.0	3	5406HCM8x1
M10	1.5	89.0	29.0		9.0	7.1	3	5406HCM10x1.5
M10	1.0	85.0	25.0		8.0	6.3	3	5406HCM10x1
M12	1.75	95.0	30.0		11.2	9.0	3	5406HCM12x1.75
M12	1.5	95.0	30.0		11.2	9.0	3	5406HCM12x1.5
M12	1.25	95.0	30.0		11.2	9.0	3	5406HCM12x1.25
M14	2.0	102.0	32.0		12.5	10.0	3	5406HCM14x2
M14	1.5	102.0	32.0		12.5	10.0	3	5406HCM14x1.5
M14	1.25	102.0	32.0		12.5	10.0	3	5406HCM14x1.25
M16	2.0	112.0	37.0		14.0	11.2	3	5406HCM16x2

Ordering example: Machine taps for wire thread inserts 5406HCM2x0.4 HSSE
Bestellbeispiel: Maschinengewindebohrer für Gewindeeinsätze 5406HCM2x0.4 HSSE
Начин на заявяване: Метчици машинни за резбови вложки 5406HCM2x0.4 HSSE

Extensions for Taps Verlängerer für Gewindebohrer Удължители за метчици

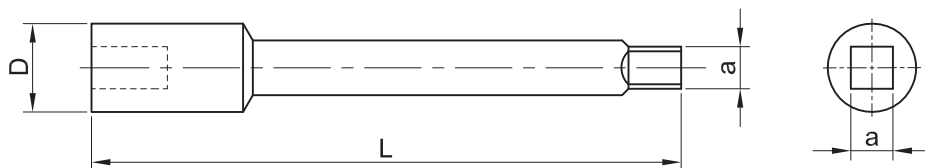
according to DIN 377

nach DIN 377

по DIN 377

Square according to DIN 10 Vierkant nach DIN 10

Квадрат по DIN 10



DIN 377

a mm	D mm	L mm	Tap / Gewindebohrer / Метчик (DIN 352)			Art. No. 5000*..
			M	BSW (UNC)	BSP (G)	
2.1	5	60	1 - 2.6	1/16 - 3/32		5000K2.1
2.4	6	70				5000K2.4
2.7	7	80	3	1/8		5000K2.7
3.0	7	90	3.5			5000K3.0
3.4	8	95	4	5/32		5000K3.4
3.8	9	100	4.5			5000K3.8
4.3	10	105		3/16		5000K4.3
4.9	11	110	5 - 8	7/32 - 5/16		5000K4.9
5.5	12	115	9 - 10	3/8	1/16 - 1/8	5000K5.5
6.2	14	120	11	7/16		5000K6.2
7.0	15	125	12	1/2		5000K7.0
8.0	17	125				5000K8.0
9.0	19	130	13 - 16	9/16 - 5/8	1/4 - 3/8	5000K9.0
10.0	21	140				5000K10.0
11.0	23	150	18	11/16 - 3/4		5000K11.0
12.0	25	155	20	13/16	1/2	5000K12.0
13.0	27	165				5000K13.0
14.5	29	175	22 - 24	7/8 - 15/16	5/8	5000K14.5
16.0	30	180	27	1"	3/4	5000K16.0
18.0	33	200	30	1"1/8	7/8	5000K18.0
20.0	36	220	33	1"1/4	1"	5000K20.0
22.0	38	220	36	1"3/8	1"1/8	5000K22.0
24.0	42	235	39 - 42	1"1/2 - 1"5/8	1"1/4	5000K24.0
26.0	45	250				5000K26.0
29.0	50	265	45 - 48	1"3/4 - 1"7/8	1"3/8 - 2"	5000K29.0
32.0	55	285	52	2"	2"1/4	5000K32.0

Ordering example: Extension 5000K2.1
 Bestellbeispiel: Verlängerer 5000K2.1
 Начин на заявяване: Удължител 5000K2.1

THREAD TOLERANCES GEWINDETOLERANZEN ДОПУСКИ НА РЕЗБАТА

Field Tolerances of DIN EN 22 857 (DIN 802)

The standard specifies the tap thread tolerances used for making ISO metric threads with a field tolerance from 4H to 8H and from 4G to 6G. A significant change is the change in the taps designation on classes of application.

The following example shows thread designation after the dropped out DIN 802, part 1 and DIN EN 22 857:

M10, field tolerance of the produced nut thread 6H

after DIN EN 22 857 - M10 ISO 2

after DIN 802, part 1 (dropped out) - M10 6H

Gewindetoleranzfeld DIN EN 22 857 (DIN 802)

Die Norm legt die Fertigungstoleranzen für das Gewindeteil von Gewindebohrern fest, die zur Herstellung von metrischen ISO-Gewinde mit Toleranzfeld 4H bis 8H und von 4G bis 6G verwendet werden. Eine wesentliche Änderung ist dabei die Umstellung der Kennzeichnung der Gewindebohrer nach Anwendungsklassen.

Das folgende Beispiel zeigt die Zusammenhänge von der zurückgezogenen DIN 802, Teil 1 und der DIN EN 22 857. Damit ist in der Anwendung eine eindeutige Zuordnung des Gewindebohrers gewährleistet:

M10, Toleranzfeld des zu schneidenden Muttergewindes 6H

nach DIN EN 22 857 - M10 ISO 2

nach DIN 802, Teil 1 (zurückgezogen) - M10 6H

Допусково поле на резбата DIN EN 22 857 (DIN 802)

Стандартът определя допуските за изработка на резбата на метчиците, които се използват за нарязване на метрични ISO резби с допусково поле от 4H до 8H и от 4G до 6G. Една значителна промяна е промяната на означението на метчиците по класове на приложение.

Следният пример показва означението на метчиците по отпадналия DIN 802, част 1 и DIN EN 22 857. Така, на практика се осигурява ясно класифициране на метчиците:

M10, допусково поле на нарязваната гайкова резба 6H

по DIN EN 22 857 - M10 ISO 2

по DIN 802, част 1 (отпаднал) - M10 6H

DIN EN 22 857							DIN 802, Teil 1
Class of tap application Anwendungsklasse des Gewindebohrers Клас на приложение на метчика		Field tolerance of the produced nut thread Toleranzfeld des zu schneidenden Muttergewindes Допусково поле на нарязваната гайкова резба					Class tolerance of the tap Toleranzklasse des Gewindebohrers Клас на допуск на метчика
Name Benennung Название	Designation Kennzeichnung Означение						
Class 1 Klasse 1 Клас 1	ISO 1	4H	5H			4H	
Class 2 Klasse 2 Клас 2	ISO 2	4G	5G	6H		6H	
Class 3 Klasse 3 Клас 3	ISO 3			6G	7H	8H	6G

Location of the field tolerances of nuts and taps for ISO metric thread - coarse and fine pitch according to DIN EN 22 857

Lage der Toleranzfelder der Mutter und der Gewindebohrer für metrisches ISO-Regelgewinde und metrisches ISO-Feingewinde nach DIN EN 22857

Разположение на допусковите полета на гайки и метчици за метрична ISO резба - едра и ситна стъпка по DIN EN 22 857

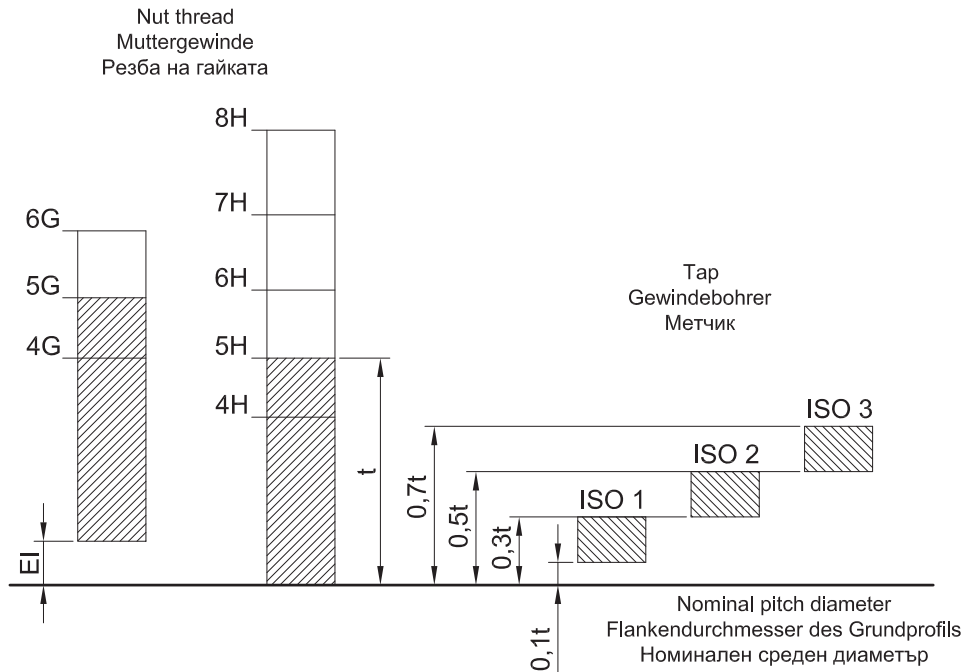


Table of taps application according to field tolerance

Tabelle zur Anwendung der Gewindebohrer nach Toleranzfeld

Таблица за приложение на метчиците според класа на точност

Field tolerance of the tap Toleranzfeld des Gewindebohrers Допусково поле на метчика	Field tolerance of the nut Toleranzfeld der Mutter Допусково поле на гайката	Technical application Technische Anwendung Техническо приложение
ISO 1 (4H, 5H)	4H, 5H	Threads with an interference fit. Threaded joint with a small clearance Festsitzgewinde, Gewindeverbindung mit wenig Spiel Резби със стегната сглобка, резбово съединение с малка хлабина
ISO 2 (6H)	4G, 5G, 6H	Normal threaded joint Normale Gewindewerbindung Нормално резбово съединение
ISO 3 (6G)	6G, 7H, 8H	Threaded joint with a large clearance Gewindewerbindung mit großem Spiel Резбово съединение с голяма хлабина

Recommended Cutting Speed, Rake Angle, Coolants

Empfohlene Schnittgeschwindigkeit, Spanwinkel, Kühl- und Schmiermittel

Препоръчителни скорости на рязане, преден ъгъл, охлаждане и мазане

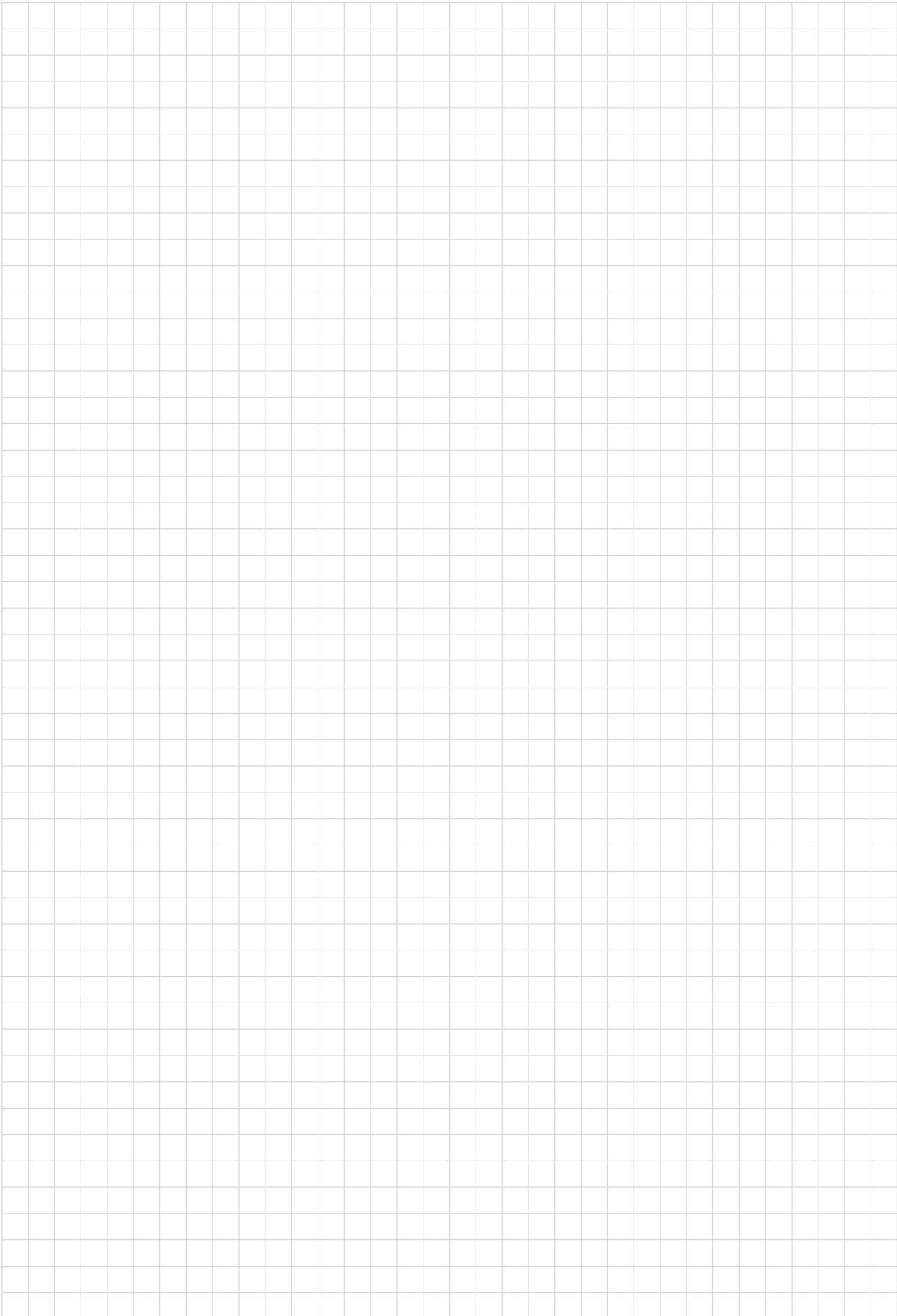
Material-Group	Material	Rake Angle	Cutting Speed	Coolants and Lubricants	
Werkstoff-Gruppe	Werkstoff-Benennung	Spanwinkel	Schnittgeschwindigkeit	Kühl- und Schmiermittel	
Групи материали	Наименование на материала	Ъгъл на рязане	Скорост на рязане, m/min	Мазане и охлаждане	
Steels Stähle Стомани	Unalloyed Steels Unlegierte Stähle Нелегирани стомани			Emulsion / емулсия	
	up to/bis/до 500 N/mm ²	12° - 15°	10 - 15		
	up to/bis/до 700 N/mm ²	8° - 10°	8 - 12		
		up to/bis/до 900 N/mm ²	6° - 10°	5 - 10	
	Alloyed Steels Legierte Stähle Легирани стомани				
	700 - 900 N/mm ²	6° - 10°	5 - 10	Emulsion / емулсия	
	over/über/над 900 N/mm ²	6° - 8°	3 - 8	Oil / Öl / масло	
	Stainless Steels Nicht rostende Stähle Неръждаеми стомани				
	Nonabrasive Freischneidend Лекообработваеми	8° - 12°	3 - 6	Oil / Öl / масло	
Hard work steels Schwerbearbeitbar Труднообработваеми	6° - 8°	3 - 8			
Steel casting Stahlguss Стоманена отливка	Steel casting Stahlguss Стоманена отливка	8° - 10°	5 - 8	Emulsion / емулсия	
Cast iron Gusseisen Чугун	Grey cast iron Grauguss Сив чугун	2° - 3°	8 - 10	dry / trocken / сухо	
	Malleable cast iron Temperguss Темперован чугун	6° - 8°	8 - 12		
Aluminium Алуминий	Tough / zäh / жилав	20° - 25°	25 - 30	Emulsion / емулсия	
	Brittle / spröde / чуплив	12° - 15°	20 - 25		
Metals Metalle Метали	Brass Messing Месинг	tough / zäh / жилав	3° - 8°	12 - 20	Emulsion / емулсия
		Brittle / spröde / чуплив	0° - 5°	20 - 30	dry / trocken / сухо
	Bronze / Бронз	5° - 8°	8 - 12	dry / trocken / сухо	
	Cooper / Kupfer / Мед	15° - 20°	8 - 15	dry / trocken / сухо	
	Zinc / Zink / Цинк	15° - 20°	15 - 20	Emulsion / емулсия	
Non-metals Nicht-Metalle Неметали	Bakelite / Бакелит	0° - 3°	10 - 15	dry / trocken / сухо	
	Thermoplastics Kunststoffe Пластмаси	15° - 20°	12 - 20		

Conversion Table of Cutting Speed m/min. to r/min.

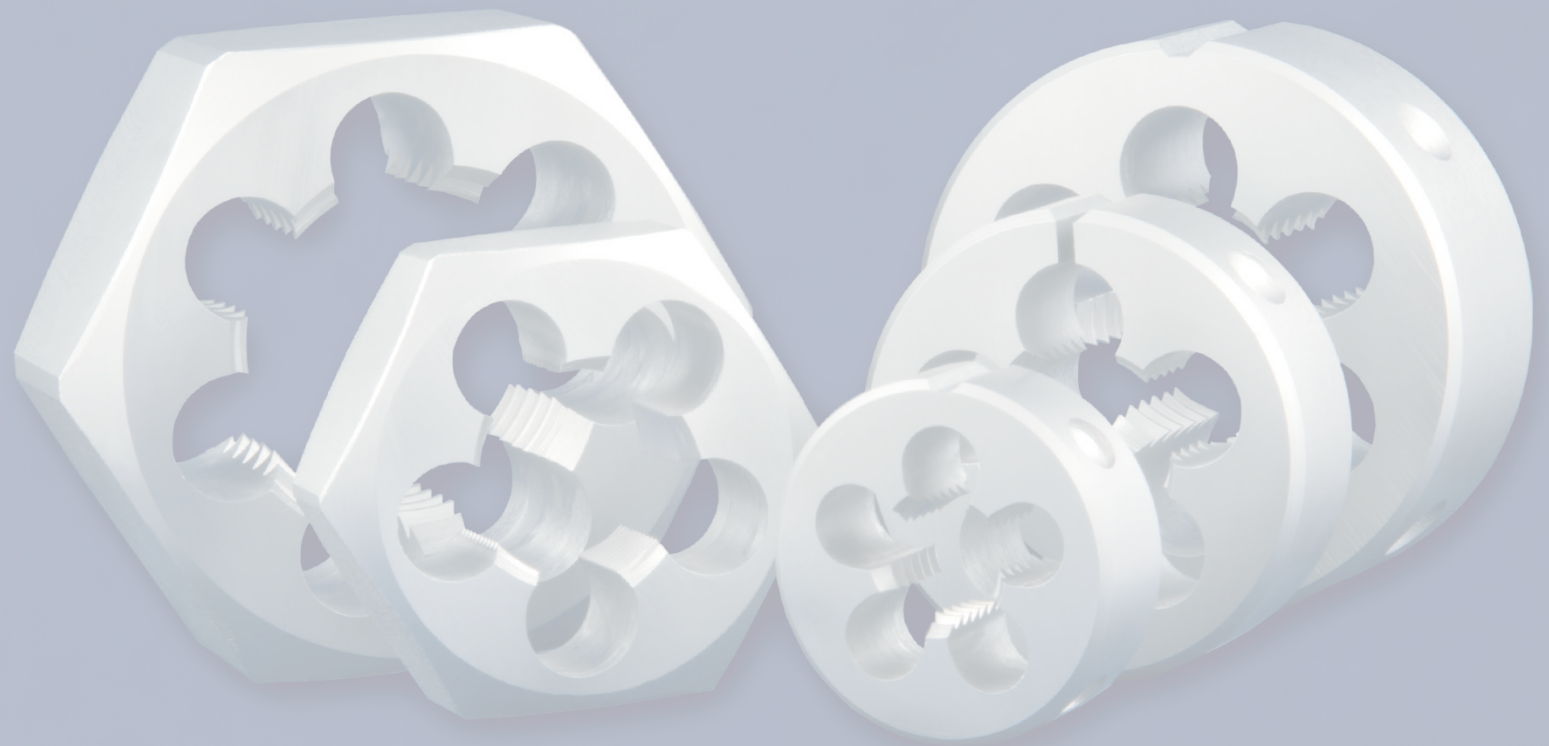
Umrechnung der Schnittgeschwindigkeit von m/min. in U/min.

Таблица за преобразуване на скоростта на рязане от м/мин. в об/мин.

m/min. d, mm	d, inch	4	6	8	9	10	12	15	18	21	25	27	30	36	
		Revolutions per Minute (rpm) / Umdrehungen per Minute (U/min.) / Обороти в минута (об/мин.)													
1.6	1/16	800	1194	1592	1791	1988	2386	2983	3579	4176	4971	5369	5965	7158	
1.8		708	1065	1415	1598	1768	2121	2652	3182	3712	4419	4743	5303	6364	
2	3/32	637	955	1274	1433	1591	1909	2386	2863	3341	3977	4295	4773	5727	
2.2		579	869	1158	1303	1446	1736	2169	2603	3037	3616	3905	4339	5207	
2.5		510	764	1019	1147	1274	1527	1909	2291	2673	3182	3436	3818	4582	
3	1/8	425	637	849	955	1061	1273	1591	1909	2227	2651	2864	3182	3818	
3.5		364	546	728	819	909	1091	1364	1636	1909	2273	2455	2727	3273	
4	5/32	318	478	637	718	796	955	1193	1432	1671	1989	2148	2387	2864	
4.5		283	425	566	637	707	849	1061	1273	1485	1768	1909	2122	2546	
5	3/16	255	382	510	573	635	764	955	1146	1337	1591	1719	1909	2292	
6	1/4	212	319	425	477	530	636	795	954	1113	1326	1432	1592	1909	
7	9/32	182	273	364	409	455	546	682	818	955	1136	1227	1364	1636	
8		159	239	319	358	398	477	597	716	835	994	1074	1193	1432	
9	5/16	142	212	283	318	354	425	531	637	742	885	955	1061	1293	
10	3/8	127	191	255	286	318	382	477	573	668	795	859	955	1146	
11		116	174	232	260	289	347	434	521	608	723	781	868	1041	
12	1/2	106	159	212	238	265	318	398	477	557	663	716	796	955	
13		98	147	196	220	245	294	367	441	514	612	661	734	881	
14	9/16	91	136	182	205	227	273	341	409	477	568	614	682	818	
16	5/8	80	119	159	179	199	239	298	358	418	497	537	597	716	
18		71	106	141	159	177	212	265	318	371	442	477	530	636	
20	3/4	64	96	127	143	159	191	239	286	334	398	430	477	573	
22	7/8	58	87	116	130	145	174	217	260	304	362	391	434	521	
24	1	53	80	106	119	133	159	199	239	275	331	353	398	477	
27		47	71	94	106	118	141	177	212	245	295	318	354	424	
30	1 1/8	43	64	85	95	106	127	159	191	223	265	286	318	382	
33	1 1/4	39	58	77	87	96	116	145	174	203	241	260	289	347	
36		35	53	71	80	88	106	133	159	186	221	239	265	318	
39	1 1/2	33	49	65	73	82	98	122	147	171	204	220	245	294	
42		30	46	61	68	76	91	114	136	159	189	205	227	273	
45	1 3/4	28	42	57	64	71	85	106	127	149	177	191	212	255	
48		27	40	53	60	66	80	99	119	139	166	179	199	239	
52		24	37	49	55	61	73	92	110	129	153	165	184	220	
56	2	23	34	46	51	57	68	85	102	119	142	153	170	205	



Dies
Schneideisen
Плашки



CONTENTS

INHALTSVERZEICHNIS

Dies
Schneideisen
Плашки

СЪДЪРЖАНИЕ

Thread Gewinde Резба	Description Beschreibung Описание	Standard Стандарт	Form Форма	Page Seite Страница
M	Circular Dies Schneideisen Плашки кръгли	DIN EN 22 568 (DIN 223)	B	141
		BS 1127	A	142
	Hexagon Die Nuts Sechskant-Schneidmuttern Плашки шестостенни	DIN 382		144
	Circular Dies Schneideisen Плашки кръгли	JIS B 4451		145
Mf	Circular Dies Schneideisen Плашки кръгли	DIN EN 22 568 (DIN 223)	B	146
		BS 1127	A	149
	Hexagon Die Nuts Sechskant-Schneidmuttern Плашки шестостенни	DIN 382		150
	Circular Dies Schneideisen Плашки кръгли	JIS B 4451		153
UNC	Circular Dies Schneideisen Плашки кръгли	DIN EN 22 568 (DIN 223)	B	154
		BS 1127	A	155
	Hexagon Die Nuts Sechskant-Schneidmuttern Плашки шестостенни	DIN 382		156
UNF	Circular Dies Schneideisen Плашки кръгли	DIN EN 22 568 (DIN 223)	B	157
		BS 1127	A	158
	Hexagon Die Nuts Sechskant-Schneidmuttern Плашки шестостенни	DIN 382		159
UNEF	Circular Dies Schneideisen Плашки кръгли	DIN EN 22 568 (DIN 223)	B	160
BSW	Circular Dies Schneideisen Плашки кръгли	DIN EN 22 568 (DIN 223)	B	161
		BS 1127	A	162
	Hexagon Die Nuts Sechskant-Schneidmuttern Плашки шестостенни	DIN 382		163
	Circular Dies Schneideisen Плашки кръгли	JIS B 4451		164
BSF	Circular Dies Schneideisen Плашки кръгли	DIN EN 22 568 (DIN 223)	B	165
		BS 1127	A	166
	Hexagon Die Nuts Sechskant-Schneidmuttern Плашки шестостенни	DIN 382		167
G (BSPF)	Circular Dies Schneideisen Плашки кръгли	DIN EN 24 231 (DIN 5158)	B	168
		BS 1127	A	169
	Hexagon Die Nuts Sechskant-Schneidmuttern Плашки шестостенни	DIN 382		170
PF (G)	Circular Dies Schneideisen Плашки кръгли	JIS B 4451		171

Thread Gewinde Резба	Description Beschreibung Описание	Standard Стандарт	Form Форма	Page Seite Страница
PS (Rp)	Circular Dies Schneideisen Плашки кръгли	JIS B 4451		172
BSPT	Circular Dies Schneideisen Плашки кръгли	BS 1127	B	173
	Hexagon Die Nuts Sechskant-Schneidmuttern Плашки шестостенни	DIN 382		174
NPS	Circular Dies Schneideisen Плашки кръгли	JIS B 4451		175
NPT	Circular Dies Schneideisen Плашки кръгли	DIN EN 22 568 (DIN 223)	B	176
	Circular Dies Schneideisen Плашки кръгли	BS 1127	A	177
	Hexagon Die Nuts Sechskant-Schneidmuttern Плашки шестостенни	DIN 382		178
	Circular Dies Schneideisen Плашки кръгли	JIS B 4451		179
NPTF	Circular Dies Schneideisen Плашки кръгли	JIS B 4451		180
PT	Circular Dies Schneideisen Плашки кръгли	JIS B 4451		181
PG	Circular Dies Schneideisen Плашки кръгли	DIN 40434		182
BA	Circular Dies Schneideisen Плашки кръгли	BS 1127	A	183
	Hexagon Die Nuts Sechskant-Schneidmuttern Плашки шестостенни	DIN 382		184

GRADE OF FIT

The standard execution of the dies is with grade of fit of the thread 6g. The thread profile is polished - surface roughness class Ra<1.6.

RAKE ANGLE

In order to get better cutting results it is important to choose a suitable front angle for the specific material. A bigger rake angle is chosen for long chipping materials and a smaller one - for short chipping materials.

If the processed material is not specified by the client, we supply our dies with angles for processing of steels of average hardness (for general purposes).

CHAMFER

HSS dies for general purposes have a chamfer length of 1.75 x P (the pitch). For special materials and cuttings this taper can be 1.25 x P, say by cutting of brass, or 2.25 x P for hard processed materials.

SPIRAL POINT

The spiral point allows for free discharge of the shavings forward, prevents clamping of shavings in the shaving's flute and helps for reduction of the cutting force. For machine cutting of threads we recommend to our clients dies, made of HSS-E steels (with 5%Co) and with spiral point. We produce this model in the range 3 - 30 mm.

COOLANTS AND LUBRICANTS

For better leading away of the heat, discharged by cutting and for diminution of friction, a possibly greatest volume of coolant and lubricant should be directed at the spot of cutting. The cooling stream should clean the shaving flutes from shavings and then the next cutting with the die should take place. Thus we achieve better quality of the performed threads and a greater durability of the instrument.

STEEL

Our instruments are made of the following high speed steels:

HSS (1.3343, S6 - 5 - 2 DIN)

HSSE - Co 5% (1.3243, S6 - 5 - 2 - 5 DIN)

PM 30 - Co 8% (HS 6 - 5 - 3 - 8 DIN)

LEFT HAND THREAD

In this catalogue dies implementation is shown only with a right-hand (normal) thread. The instruments can be produced with a left-hand thread too (designation LH).

*Way of ordering of left-hand dies, made of HSSE: **Dies 6101 M3 LH HSSE***

VAPORISATION

Improves the adhesion and keeps more of the cooling liquid on the tool's surface.

TOLERANZKLASSE

Wir fertigen Schneideisen mit Toleranzklasse 6g, die Gewindeflanke ist geläpft und hat eine Rauigkeitsklasse Ra<1.6.

SPANWINKEL

Um gute Schneidergebnisse zu erhalten, ist es wichtig, daß man einen passenden Spanwinkel zu dem entsprechenden Werkstoff wählt. Bei langspanenden Werkstoffen wählt man einen größeren Spanwinkel, kurzspannende Werkstoffe erfordern einen kleineren Spanwinkel. Wenn in der Bestellung des Kunden keine Werkstoffangaben enthalten sind, liefern wir unsere Schneideisen mit einem Spanwinkel für Stahl mittlerer Festigkeit (für den allgemeinen Gebrauch).

ANSCHNITT

Die Schneideisen aus HSS für den allgemeinen Gebrauch haben einen Anschnitt von 1.75 x P (Steigung). Für Sonderwerkstoffe und Sonderschneiden kann dieser Anschnitt 1.25 x P sein, wie z. B. bei Bearbeitung von Messing, oder 2.25 x P bei Bearbeitung von schwer zerspanbaren Werkstoffen.

SCHÄLANSCHNITT

Der Schälanschnitt bewirkt ein freies Abfließen der Späne nach vorne, Spänestauungen in den Spanlöchern werden dadurch vermieden und die Schneidkräfte verringert. Zum Gewindeschneiden auf Maschinen empfehlen wir unseren Kunden Schneideisen aus HSS-E (mit 5% Co) und Schälanschnitt. Diese Ausführung fertigen wir im Bereich von 3 bis 30 mm.

KÜHL- UND SCHMIERMITTEL

Um die Zerspanungswärme abzuleiten und die Reibung zu vermindern, ist ein möglichst großes Kühl- und Schmiermittelvolumen auf die Zerspanungsstelle zu richten. Der Kühlmittelstrahl muß die Späne aus den Spannuten ausspülen und dann soll der wiederholte Gewindeschneidvorgang eingeleitet werden. Dadurch wird eine gute Qualität der zu schneidenden Gewinde erzielt und die Standzeit des Werkzeugs wird verlängert.

STAHLARTEN

- HSS (1.3343, S6 - 5 - 2 DIN)
- HSSE - Co 5% (1.3243, S6 - 5 - 2 - 5 DIN)
- PM 30 - Co 8% (HS 6 - 5 - 3 - 8 DIN)

LINKSGEWINDE

Im Katalog für die Schneideisen werden diese Werkzeuge nur mit Rechtsgewinde angegeben. Die Werkzeuge können auch mit Linksgewinde ausgeführt werden (Kennzeichnung LH).

*Bestellbeispiel für Schneideisen mit Linksgewinde, aus HSSE: **Schneideisen 6101 M3 LH HSSE***

DAMPFANGELASSEN

Die Wärmebehandlung mit Wasserdampf verbessert die Adhäsion und hält mehr Kühl-und-Schmiermittel an der Werkzeugoberfläche fest.



Технически данни и информация

КЛАС НА ТОЧНОСТ

Стандартното изпълнение на плашките е с клас на точност на резбата 6g. Профилът на резбата е притрит и е с клас на грапавост Ra<1.6.

ПРЕДЕН (СТРУЖКОВ) ЪГЪЛ

За да се получат добри резултати при рязане е важно да се подбере подходящ преден ъгъл за съответния материал. При материали с дълга стружка се избира по-голям преден ъгъл, а при материали с къса стружка - по-малък. Ако в поръчката на клиента не е посочен обработваемия материал, доставяме плашките с ъгли, подходящи за обработка на стомани със средна здравина (за общо предназначение).

ВРЯЗВАЩ (ЗАХВАЩАЩ) КОНУС

Плашките от HSS стомана за общо предназначение имат връзвач конус 1.75 x P (стъпката на резбата). За специални материали и нарязвания този конус може да бъде 1.25 x P - например при нарязване на месинг, или 2.25 x P - при трудно обработваеми материали.

ПОДТОЧВАНЕ

Подточването позволява свободно отвеждане на стружките напред. Предотвратява се натрупването на стружки в стружковите канали и се намаляват силите на рязане. За машинно нарязване на резби препоръчваме на нашите клиенти плашки, изработени от HSS-E стомана (с 5% Co) и с подточване. Произвеждаме това изпълнение в обхвата от 3 до 30 мм.

ОХЛАЖДАЩИ И СМАЗОЧНИ СРЕДСТВА

За доброто отвеждане на топлината отделяща се при рязането и за намаляване на триенето, трябва към мястото на рязане да се насочи възможно най-голям обем охлаждаща и смазваща течност. Охлаждащата струя трябва да изчисти стружките от стружковите канали и тогава да започне повторно нарязване с плашката. Така се постига добро качество на изработваните резби и се удължава експлоатацията на инструмента.

СТОМАНА

Нашите инструменти се изработват от следните бързорезни стомани:

- HSS (1.3343, S6 - 5 - 2 DIN)
- HSSE - Co 5% (1.3243, S6 - 5 - 2 - 5 DIN)
- PM 30 - Co 8% (HS 6 - 5 - 3 - 8 DIN)

ЛЯВА РЕЗБА

В каталога е показано изпълнението на инструментите само с дясна (нормална) резба. Има възможност те да бъдат изработени и с лява резба (символично означение LH).

*Начин на заявяване на плашки с лява резба, произведени от HSSE: **Плашки 6101 M3 LH HSSE***

ВАПОРИЗАЦИЯ

Термообработката с водна пара подобрява адхезията и задържа повече смазочно-охлаждаща течност по повърхността на инструмента.

Circular Dies

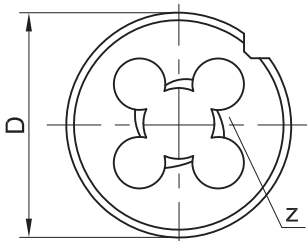
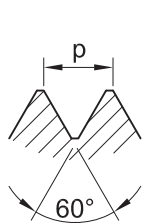
for ISO metric thread
according to DIN 13
Grade of fit: 6g
Form B - closed

Runde Schneideisen

für metrisches ISO Regelgewinde
nach DIN 13
Toleranzfeld: 6g
Form B - geschlossen

Плашки кръгли

за метрична ISO резба
по DIN 13
Клас на точност: 6g
Форма В - затворени



M DIN EN 22 568 (DIN 223)

Thread Gewinde Резба	p mm	D mm	L mm	z	Art. No. 6101*..
M2	0.4	16	5	3	6101M2
M2.2	0.45	16	5	3	6101M2.2
M2.5	0.45	16	5	3	6101M2.5
M3	0.5	20	5	3	6101M3
M3.5	0.6	20	5	3	6101M3.5
M4	0.7	20	5	3	6101M4
M4.5	0.75	20	7	3	6101M4.5
M5	0.8	20	7	4	6101M5
M5.5	0.9	20	7	4	6101M5.5
M6	1.0	20	7	4	6101M6
M7	1.0	25	9	4	6101M7
M8	1.25	25	9	4	6101M8
M9	1.25	25	9	4	6101M9
M10	1.5	30	11	4	6101M10
M11	1.5	30	11	5	6101M11
M12	1.75	38	14	4	6101M12
M14	2.0	38	14	5	6101M14
M16	2.0	45	18	5	6101M16
M18	2.5	45	18	5	6101M18
M20	2.5	45	18	6	6101M20
M22	2.5	55	22	5	6101M22
M24	3.0	55	22	5	6101M24
M27	3.0	65	25	6	6101M27
M30	3.5	65	25	6	6101M30
M33	3.5	65	25	7	6101M33
M36	4.0	65	25	7	6101M36
M39	4.0	75	30	7	6101M39
M42	4.5	75	30	7	6101M42
M45	4.5	90	36	7	6101M45
M48	5.0	90	36	7	6101M48
M52	5.0	90	36	8	6101M52
M56	5.5	105	36	7	6101M56
M60	5.5	105	36	8	6101M60
M64	6	120	36	8	6101M64
M68	6	120	36	9	6101M68

Ordering example: Circular dies 6101M2 HSS
Bestellbeispiel: Runde Schneideisen 6101M2 HSS
Начин на заявяване: Плашки кръгли 6101M2 HSS

Circular Dies

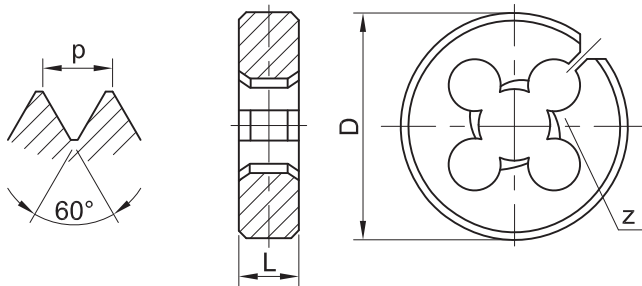
for ISO metric thread
according to DIN 13
Form A - cut

Runde Schneideisen

für metrisches ISO Regelgewinde
nach DIN 13
Form A - geschlitzt

Плашки кръгли

за метрична ISO резба
по DIN 13
Форма А - прорязани



M BS 1127

Thread Gewinde Резба	p mm	D		L		z	Art. No. 6403*..
		inch	mm	inch	mm		
M2	0.4	13/16	20.6	1/4	6.35	3	6403M2
M3	0.5	13/16	20.6	1/4	6.35	3	6403M3
M3.5	0.6	13/16	20.6	1/4	6.35	3	6403M3.5
M4	0.7	13/16	20.6	1/4	6.35	3	6403M4
M4.5	0.75	13/16	20.6	1/4	6.35	3	6403M4.5
M5	0.8	13/16	20.6	1/4	6.35	4	6403M5
M6	1.0	13/16	20.6	1/4	6.35	4	6403M6
M7	1.0	13/16	20.6	1/4	6.35	4	6403M7
M3	0.5	1"	25.4	3/8	9.5	3	6403M3-1
M4	0.7	1"	25.4	3/8	9.5	3	6403M4-1
M5	0.8	1"	25.4	3/8	9.5	3	6403M5-1
M6	1.0	1"	25.4	3/8	9.5	4	6403M6-1
M7	1.0	1"	25.4	3/8	9.5	4	6403M7-1
M8	1.25	1"	25.4	3/8	9.5	4	6403M8
M9	1.25	1"	25.4	3/8	9.5	4	6403M9
M10	1.5	1"	25.4	3/8	9.5	5	6403M10
M12	1.75	1"	25.4	3/8	9.5	6	6403M12
M6	1.0	1" 5/16	33.4	7/16	11.1	4	6403M6-2
M7	1.0	1" 5/16	33.4	7/16	11.1	4	6403M7-2
M8	1.25	1" 5/16	33.4	7/16	11.1	4	6403M8-1
M9	1.25	1" 5/16	33.4	7/16	11.1	4	6403M9-1
M10	1.5	1" 5/16	33.4	7/16	11.1	4	6403M10-1
M11	1.5	1" 5/16	33.4	7/16	11.1	5	6403M11
M12	1.75	1" 5/16	33.4	7/16	11.1	4	6403M12-1
M14	2.0	1" 5/16	33.4	7/16	11.1	5	6403M14
M8	1.25	1" 1/2	38.1	1/2	12.7	4	6403M8-2
M10	1.5	1" 1/2	38.1	1/2	12.7	4	6403M10-2
M11	1.5	1" 1/2	38.1	1/2	12.7	5	6403M11-1
M12	1.75	1" 1/2	38.1	1/2	12.7	4	6403M12-2
M14	2.0	1" 1/2	38.1	1/2	12.7	5	6403M14-1
M16	2.0	1" 1/2	38.1	1/2	12.7	5	6403M16
M18	2.5	1" 1/2	38.1	1/2	12.7	5	6403M18
M20	2.5	1" 1/2	38.1	1/2	12.7	6	6403M20

Ordering example: Circular dies 6403M2 HSS
 Bestellbeispiel: Runde Schneideisen 6403M2 HSS
 Начин на заявяване: Плашки кръгли 6403M2 HSS

Circular Dies

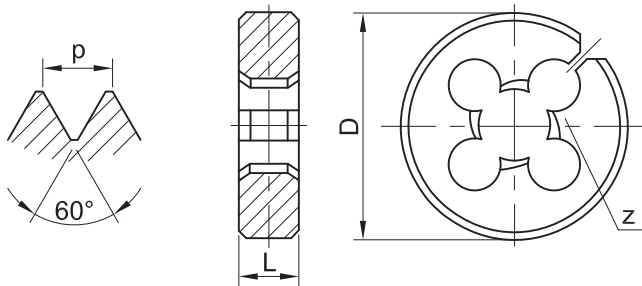
for ISO metric thread
according to DIN 13
Form A - cut

Runde Schneideisen

für metrisches ISO Regelgewinde
nach DIN 13
Form A - geschlitzt

Плашки кръгли

за метрична ISO резба
по DIN 13
Форма А - прорязани



M BS 1127

Thread Gewinde Резба	p mm	D		L		z	Art. No. 6403*..
		inch	mm	inch	mm		
M12	1.75	2"	50.8	5/8	15.9	4	6403M12-3
M14	2.0	2"	50.8	5/8	15.9	5	6403M14-2
M16	2.0	2"	50.8	5/8	15.9	5	6403M16-1
M18	2.5	2"	50.8	5/8	15.9	5	6403M18-1
M20	2.5	2"	50.8	5/8	15.9	6	6403M20-1
M22	2.5	2"	50.8	5/8	15.9	5	6403M22
M24	3.0	2"	50.8	5/8	15.9	5	6403M24
M27	3.0	3"	76.2	7/8	22.2	6	6403M27
M30	3.5	3"	76.2	7/8	22.2	6	6403M30
M33	3.5	3"	76.2	7/8	22.2	7	6403M33
M36	4.0	3"	76.2	7/8	22.2	7	6403M36
M39	4.0	3"	76.2	7/8	22.2	7	6403M39
M42	4.5	4"	101.6	1"	25.4	7	6403M42
M45	4.5	4"	101.6	1"	25.4	7	6403M45
M48	5.0	4"	101.6	1"	25.4	7	6403M48

Ordering example:
Bestellbeispiel:
Начин на заявяване:

Circular dies 6403M12-3 HSS
Runde Schneideisen 6403M12-3 HSS
Плашки кръгли 6403M12-3 HSS

Hexagon Die Nuts

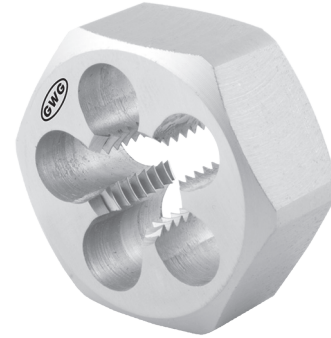
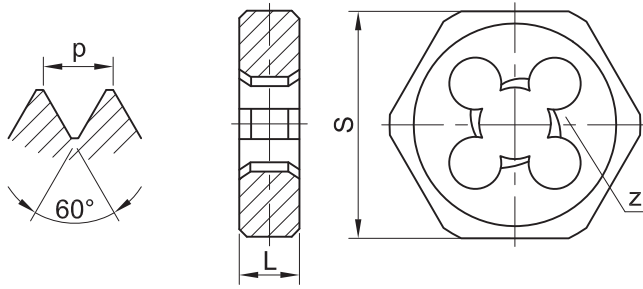
for ISO metric thread
according to DIN 13
Grade of fit: 6g

Sechskant-Schneidmuttern

für metrisches ISO Regelgewinde
nach DIN 13
Toleranzfeld: 6g

Плашки шестостенни

за метрична ISO резба
по DIN 13
Клас на точност: 6g



M DIN 382

Thread Gewinde Резба	p mm	S mm	L mm	z	Art. No. 7101*..
M3	0.5	19	5	3	7101M3
M4	0.7	19	5	3	7101M4
M5	0.8	19	7	4	7101M5
M6	1.0	19	7	4	7101M6
M7	1.0	22	9	4	7101M7
M8	1.25	22	9	4	7101M8
M10	1.5	27	11	4	7101M10
M12	1.75	36	14	4	7101M12
M14	2.0	36	14	5	7101M14
M16	2.0	41	18	5	7101M16
M18	2.5	41	18	5	7101M18
M20	2.5	41	18	6	7101M20
M22	2.5	50	22	5	7101M22
M24	3.0	50	22	5	7101M24
M27	3.0	60	25	6	7101M27
M30	3.5	60	25	6	7101M30
M33	3.5	60	25	7	7101M33
M36	4.0	60	25	7	7101M36
M39	4.0	70	30	7	7101M39
M42	4.5	70	30	7	7101M42
M45	4.5	85	36	7	7101M45
M48	5.0	85	36	7	7101M48
M52	5.0	85	36	8	7101M52
M56	5.5	100	36	7	7101M56
M60	5.5	100	36	8	7101M60
M64	6.0	100	36	9	7101M64
M68	6.0	115	36	9	7101M68

Ordering example:

Hexagon die nuts 7101M3 HSS

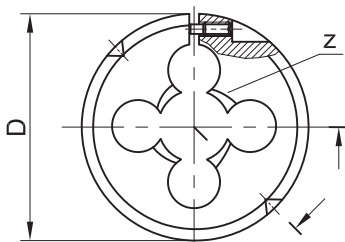
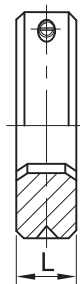
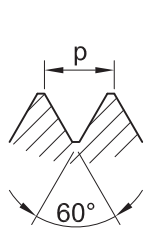
Bestellbeispiel:

Sechskant Schneidmuttern 7101M3 HSS

Начин на заявяване:

Плашки шестостенни 7101M3 HSS

M	Mf	UNC	UNF	UNEF	BSW	BSF	G	PS	BSPT	NPS	NPT	NPTF	PT	PG	BA
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M JIS B 4451

Thread Gewinde Резба	p mm	D mm	L mm	z	Art. No. 6703*..
M3	0.5	25	9	3	6703M3
M3.5	0.6	25	9	3	6703M3.5
M4	0.7	25	9	3	6703M4
M5	0.8	25	9	3	6703M5
M6	1.0	25	9	4	6703M6
M7	1.0	25	9	4	6703M7
M8	1.25	25	9	4	6703M8
M10	1.5	25	9	4	6703M10
M5	0.8	38	13	4	6703M5-1
M6	1.0	38	13	4	6703M6-1
M7	1.0	38	13	4	6703M7-1
M8	1.25	38	13	4	6703M8-1
M10	1.5	38	13	4	6703M10-1
M12	1.75	38	13	4	6703M12
M14	2.0	38	13	5	6703M14
M16	2.0	38	13	5	6703M16
M8	1.25	50	16	4	6703M8-2
M10	1.5	50	16	4	6703M10-2
M12	1.75	50	16	4	6703M12-1
M14	2.0	50	16	4	6703M14-1
M16	2.0	50	16	4	6703M16-1
M18	2.5	50	16	5	6703M18
M20	2.5	50	16	5	6703M20
M22	2.5	50	16	6	6703M22
M24	3.0	50	16	6	6703M24
M22	2.5	63	20	6	6703M22-1
M24	3.0	63	20	6	6703M24-1
M27	3.0	63	20	6	6703M27
M30	3.5	63	20	6	6703M30
M33	3.5	63	20	6	6703M33
M36	4.0	63	20	6	6703M36

Ordering example: Circular dies 6703M3 HSS
 Bestellbeispiel: Runde Schneideisen 6703M3 HSS
 Начин на заявяване: Плашки кръгли 6703M3 HSS

Circular Dies

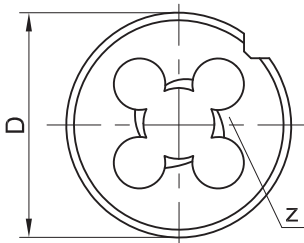
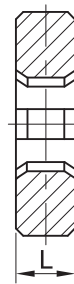
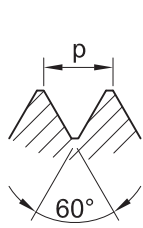
for ISO metric Fine thread
according to DIN 13
Grade of fit: 6g
Form B - closed

Runde Schneideisen

für metrisches ISO Feingewinde
nach DIN 13
Toleranzfeld: 6g
Form B - geschlossen

Плашки кръгли

за метрична ISO резба
ситна стъпка по DIN 13
Клас на точност: 6g
Форма В - затворени



Mf DIN EN 22 568 (DIN 223)

Thread Gewinde Резба	p mm	D mm	L mm	z	Art. No. 6201*..
M4	0.35	20	5	3	6201M4x0.35
M4	0.5	20	5	3	6201M4x0.5
M5	0.5	20	5	4	6201M5x0.5
M5	0.75	20	7	4	6201M5x0.75
M6	0.5	20	5	4	6201M6x0.5
M6	0.75	20	7	4	6201M6x0.75
M7	0.75	25	9	4	6201M7x0.75
M8	0.5	25	9	4	6201M8x0.5
M8	0.75	25	9	4	6201M8x0.75
M8	1.0	25	9	4	6201M8x1
M9	0.75	25	9	4	6201M9x0.75
M9	1.0	25	9	4	6201M9x1
M10	0.75	30	11	4	6201M10x0.75
M10	1.0	30	11	4	6201M10x1
M10	1.25	30	11	4	6201M10x1.25
M11	1.0	30	11	5	6201M11x1
M11	1.25	30	11	5	6201M11x1.25
M12	0.75	38	10	4	6201M12x0.75
M12	1.0	38	10	4	6201M12x1
M12	1.25	38	10	4	6201M12x1.25
M12	1.5	38	10	4	6201M12x1.5
M13	1.0	38	10	5	6201M13x1
M13	1.5	38	10	5	6201M13x1.5
M14	0.75	38	10	5	6201M14x0.75
M14	1.0	38	10	5	6201M14x1
M14	1.25	38	10	5	6201M14x1.25
M14	1.5	38	10	5	6201M14x1.5
M15	1.0	38	10	5	6201M15x1
M15	1.5	38	10	5	6201M15x1.5
M16	1.0	45	14	5	6201M16x1
M16	1.25	45	14	5	6201M16x1.25
M16	1.5	45	14	5	6201M16x1.5
M18	1.0	45	14	5	6201M18x1
M18	1.25	45	14	5	6201M18x1.25
M18	1.5	45	14	5	6201M18x1.5
M18	2.0	45	14	5	6201M18x2
M20	1.0	45	14	6	6201M20x1
M20	1.25	45	14	6	6201M20x1.25

Ordering example:
Bestellbeispiel:
Начин на заявяване:

Circular dies 6201M4x0.35 HSS
Runde Schneideisen 6201M4x0.35 HSS
Плашки кръгли 6201M4x0.35 HSS

Circular Dies

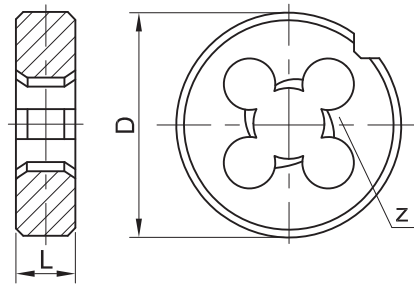
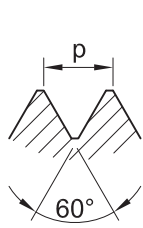
for ISO metric Fine thread
according to DIN 13
Grade of fit: 6g
Form B - closed

Runde Schneideisen

für metrisches ISO Feingewinde
nach DIN 13
Toleranzfeld: 6g
Form B - geschlossen

Плашки кръгли

за метрична ISO резба
ситна стъпка по DIN 13
Клас на точност: 6g
Форма В - затворени



Mf DIN EN 22 568 (DIN 223)

Thread Gewinde Резба	p mm	D mm	L mm	z	Art. No. 6201*..
M20	1.5	45	14	6	6201M20x1.5
M20	2.0	45	14	6	6201M20x2
M21	1.5	45	14	6	6201M21x1.5
M22	1.0	55	16	5	6201M22x1
M22	1.25	55	16	5	6201M22x1.25
M22	1.5	55	16	5	6201M22x1.5
M22	2.0	55	16	5	6201M22x2
M24	1.0	55	16	5	6201M24x1
M24	1.25	55	16	5	6201M24x1.25
M24	1.5	55	16	5	6201M24x1.5
M24	2.0	55	16	5	6201M24x2
M25	1.0	55	16	5	6201M25x1
M25	1.5	55	16	5	6201M25x1.5
M26	1.0	55	16	6	6201M26x1
M26	1.5	55	16	6	6201M26x1.5
M26	2.0	55	16	6	6201M26x2
M27	1.0	65	18	6	6201M27x1
M27	1.5	65	18	6	6201M27x1.5
M27	2.0	65	18	6	6201M27x2
M28	1.0	65	18	6	6201M28x1
M28	1.5	65	18	6	6201M28x1.5
M28	2.0	65	18	6	6201M28x2
M29	1.5	65	18	6	6201M29x1.5
M30	1.0	65	18	6	6201M30x1
M30	1.5	65	18	6	6201M30x1.5
M30	2.0	65	18	6	6201M30x2
M30	2.5	65	18	6	6201M30x2.5
M30	3.0	65	25	6	6201M30x3
M32	1.5	65	18	7	6201M32x1.5
M32	2.0	65	18	7	6201M32x2
M32	3.0	65	25	7	6201M32x3
M33	1.5	65	18	7	6201M33x1.5
M33	2.0	65	18	7	6201M33x2
M33	3.0	65	25	7	6201M33x3
M34	1.5	65	18	7	6201M34x1.5
M34	2.0	65	18	7	6201M34x2
M35	1.5	65	18	7	6201M35x1.5
M36	1.5	65	18	7	6201M36x1.5

Ordering example:
Bestellbeispiel:
Начин на заявяване:

Circular dies 6201M20x1.5 HSS
Runde Schneideisen 6201M20x1.5 HSS
Плашки кръгли 6201M20x1.5 HSS

Circular Dies

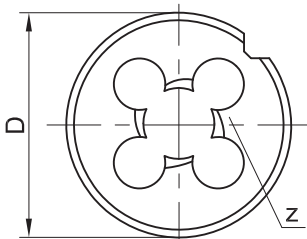
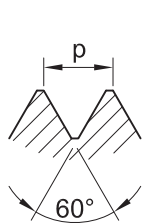
for ISO metric Fine thread
according to DIN 13
Grade of fit: 6g
Form B - closed

Runde Schneideisen

für metrisches ISO Feingewinde
nach DIN 13
Toleranzfeld: 6g
Form B - geschlossen

Плашки кръгли

за метрична ISO резба
ситна стъпка по DIN 13
Клас на точност: 6g
Форма В - затворени



Mf DIN EN 22 568 (DIN 223)

Thread Gewinde Резба	p mm	D mm	L mm	z	Art. No. 6201*..
M36	2.0	65	18	7	6201M36x2
M36	3.0	65	25	7	6201M36x3
M38	1.5	75	20	7	6201M38x1.5
M39	1.5	75	20	7	6201M39x1.5
M39	2.0	75	20	7	6201M39x2
M39	3.0	75	30	7	6201M39x3
M40	1.5	75	20	7	6201M40x1.5
M40	2.0	75	20	7	6201M40x2
M40	3.0	75	30	7	6201M40x3
M42	1.5	75	20	7	6201M42x1.5
M42	2.0	75	20	7	6201M42x2
M42	3.0	75	30	7	6201M42x3
M45	1.5	90	22	7	6201M45x1.5
M45	2.0	90	22	7	6201M45x2
M45	3.0	90	36	7	6201M45x3
M48	1.5	90	22	7	6201M48x1.5
M48	2.0	90	22	7	6201M48x2
M48	3.0	90	36	7	6201M48x3
M50	1.5	90	22	8	6201M50x1.5
M50	2.0	90	22	8	6201M50x2
M50	3.0	90	36	8	6201M50x3
M52	1.5	90	22	8	6201M52x1.5
M52	2.0	90	22	8	6201M52x2
M52	3.0	90	36	8	6201M52x3

Ordering example:
Bestellbeispiel:
Начин на заявяване:

Circular dies 6201M36x2 HSS
Runde Schneideisen 6201M36x2 HSS
Плашки кръгли 6201M36x2 HSS

Circular Dies

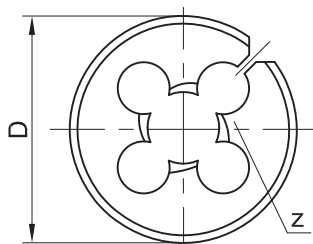
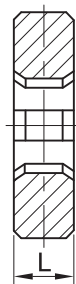
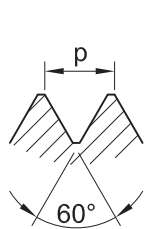
for ISO metric Fine thread
according to DIN 13
Form A - cut

Runde Schneideisen

für metrisches ISO Feingewinde
nach DIN 13
Form A - geschlitzt

Плашки кръгли

за метрична ISO резба
ситна стъпка по DIN 13
Форма А - прорязани



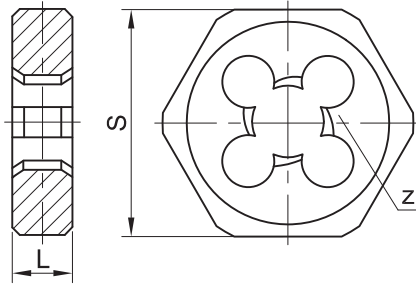
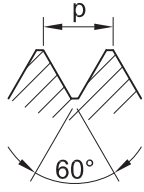
Mf BS 1127

Thread Gewinde Резба	p mm	D		L		z	Art. No. 6403*..
		inch	mm	inch	mm		
M3	0.35	13/16	20.6	1/4	6.35	3	6403M3x0.35
M4	0.5	13/16	20.6	1/4	6.35	3	6403M4x0.5
M5	0.5	13/16	20.6	1/4	6.35	3	6403M5x0.5
M6	0.75	13/16	20.6	1/4	6.35	4	6403M6x0.75
M6	0.75	1"	25.4	3/8	9.5	4	6403M6x0.75-1
M8	1.0	1"	25.4	3/8	9.5	4	6403M8x1
M10	1.0	1"	25.4	3/8	9.5	4	6403M10x1
M10	1.25	1"	25.4	3/8	9.5	4	6403M10x1.25
M12	1.0	1" 5/16	33.4	7/16	11.1	5	6403M12x1
M12	1.25	1" 5/16	33.4	7/16	11.1	5	6403M12x1.25
M12	1.5	1" 5/16	33.4	7/16	11.1	5	6403M12x1.5
M14	1.25	1" 1/2	38.1	1/2	12.7	5	6403M14x1.25
M14	1.5	1" 1/2	38.1	1/2	12.7	5	6403M14x1.5
M16	1.5	1" 1/2	38.1	1/2	12.7	5	6403M16x1.5
M18	1.5	1" 1/2	38.1	1/2	12.7	5	6403M18x1.5
M20	1.0	1" 1/2	38.1	1/2	12.7	6	6403M20x1
M20	1.5	2"	50.8	5/8	15.9	6	6403M20x1.5
M22	1.5	2"	50.8	5/8	15.9	5	6403M22x1.5
M24	1.5	2"	50.8	5/8	15.9	5	6403M24x1.5
M25	1.5	2"	50.8	5/8	15.9	5	6403M25x1.5

Ordering example: Circular dies 6403M3x0.35 HSS
Bestellbeispiel: Runde Schneideisen 6403M3x0.35 HSS
Начин на заявяване: Плашки кръгли 6403M3x0.35 HSS

Hexagon Die Nuts

for ISO metric Fine thread
according to DIN 13
Grade of fit: 6g

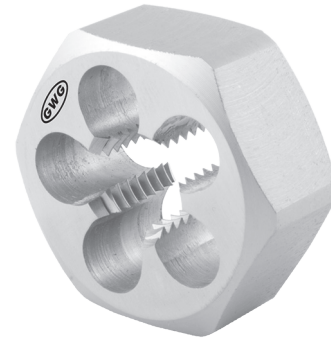


Sechskant-Schneidmuttern

für metrisches ISO Feingewinde
nach DIN 13
Toleranzfeld: 6g

Плашки шестостенни

за метрична ISO резба
ситна стъпка по DIN 13
Клас на точност: 6g



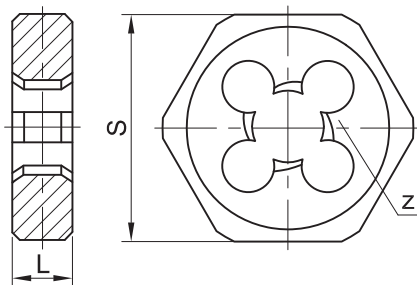
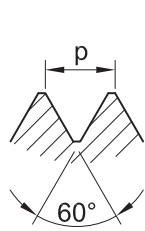
Mf DIN 382

Thread Gewinde Резба	p mm	S mm	L mm	z	Art. No. 7201*..
M3	0.35	19	5	3	7201M3x0.35
M4	0.35	19	5	3	7201M4x0.35
M4	0.5	19	5	3	7201M4x0.5
M5	0.5	19	5	4	7201M5x0.5
M5	0.75	19	7	4	7201M5x0.75
M6	0.5	19	5	4	7201M6x0.5
M6	0.75	19	7	4	7201M6x0.75
M7	0.75	22	9	4	7201M7x0.75
M8	0.5	22	9	4	7201M8x0.5
M8	0.75	22	9	4	7201M8x0.75
M8	1.0	22	9	4	7201M8x1
M9	0.75	22	9	4	7201M9x0.75
M9	1.0	22	9	4	7201M9x1
M10	0.75	27	11	4	7201M10x0.75
M10	1.0	27	11	4	7201M10x1
M10	1.25	27	11	4	7201M10x1.25
M11	1.0	27	11	4	7201M11x1
M11	1.25	27	11	5	7201M11x1.25
M12	0.75	36	10	4	7201M12x0.75
M12	1.0	36	10	4	7201M12x1
M12	1.25	36	10	4	7201M12x1.25
M12	1.5	36	10	4	7201M12x1.5
M13	1.0	36	10	5	7201M13x1
M13	1.5	36	10	5	7201M13x1.5
M14	0.75	36	10	5	7201M14x0.75
M14	1.0	36	10	5	7201M14x1
M14	1.25	36	10	5	7201M14x1.25
M14	1.5	36	10	5	7201M14x1.5
M15	1.0	36	10	5	7201M15x1
M15	1.5	36	10	5	7201M15x1.5
M16	1.0	41	14	5	7201M16x1
M16	1.25	41	14	5	7201M16x1.25
M16	1.5	41	14	5	7201M16x1.5
M18	1.0	41	14	5	7201M18x1
M18	1.25	41	14	5	7201M18x1.25
M18	1.5	41	14	5	7201M18x1.5
M18	2.0	41	14	5	7201M18x2
M20	1.0	41	14	6	7201M20x1
M20	1.25	41	14	6	7201M20x1.25
M20	1.5	41	14	6	7201M20x1.5
M20	2.0	41	14	6	7201M20x2

Ordering example: Hexagon die nuts 7201M3x0.35 HSS
Bestellbeispiel: Sechskant Schneidmuttern 7201M3x0.35 HSS
Начин на заявяване: Плашки шестостенни 7201M3x0.35 HSS

Hexagon Die Nuts

for ISO metric Fine thread
according to DIN 13
Grade of fit: 6g

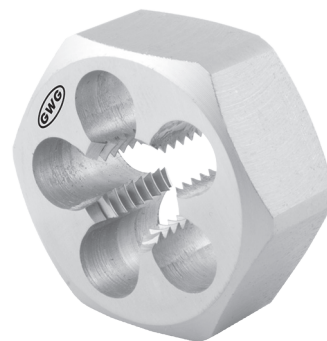


Sechskant-Schneidmuttern

für metrisches ISO Feingewinde
nach DIN 13
Toleranzfeld: 6g

Плашки шестостенни

за метрична ISO резба
ситна стъпка по DIN 13
Клас на точност: 6g



Mf DIN 382

Thread Gewinde Резба	p mm	S mm	L mm	z	Art. No. 7201*..
M21	1.5	41	14	6	7201M21x1.5
M22	1.0	50	16	5	7201M22x1
M22	1.25	50	16	5	7201M22x1.25
M22	1.5	50	16	5	7201M22x1.5
M22	2.0	50	16	5	7201M22x2
M23	1.5	50	16	5	7201M23x1.5
M24	1.0	50	16	5	7201M24x1
M24	1.25	50	16	5	7201M24x1.25
M24	1.5	50	16	5	7201M24x1.5
M24	2.0	50	16	5	7201M24x2
M25	1.0	50	16	5	7201M25x1
M25	1.5	50	16	5	7201M25x1.5
M26	1.0	50	16	6	7201M26x1
M26	1.5	50	16	6	7201M26x1.5
M26	2.0	50	16	6	7201M26x2
M27	1.5	60	18	6	7201M27x1.5
M27	2.0	60	18	6	7201M27x2
M28	1.0	60	18	6	7201M28x1
M28	1.5	60	18	6	7201M28x1.5
M28	2.0	60	18	6	7201M28x2
M29	1.5	60	18	6	7201M29x1.5
M30	1.0	60	18	6	7201M30x1
M30	1.5	60	18	6	7201M30x1.5
M30	2.0	60	18	6	7201M30x2
M30	3.0	60	25	6	7201M30x3
M32	1.5	60	18	7	7201M32x1.5
M32	2.0	60	18	7	7201M32x2
M32	3.0	60	25	7	7201M32x3
M33	1.5	60	18	7	7201M33x1.5
M33	2.0	60	18	7	7201M33x2
M33	3.0	60	25	7	7201M33x3
M34	1.5	60	18	7	7201M34x1.5
M34	2.0	60	18	7	7201M34x2
M35	1.5	60	18	7	7201M35x1.5
M36	1.5	60	18	7	7201M36x1.5
M36	2.0	60	18	7	7201M36x2
M36	3.0	60	25	7	7201M36x3
M38	1.5	70	20	7	7201M38x1.5
M39	1.5	70	20	7	7201M39x1.5
M39	2.0	70	20	7	7201M39x2
M39	3.0	70	30	7	7201M39x3

Ordering example:

Hexagon die nuts 7201M21x1.5 HSS

Bestellbeispiel:

Sechskant Schneidmuttern 7201M21x1.5 HSS

Начин на заявяване:

Плашки шестостенни 7201M21x1.5 HSS

Hexagon Die Nuts

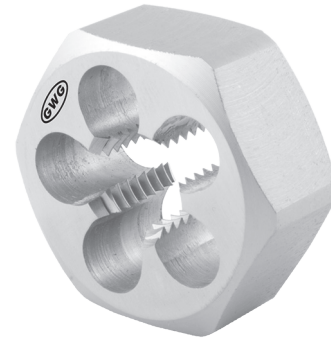
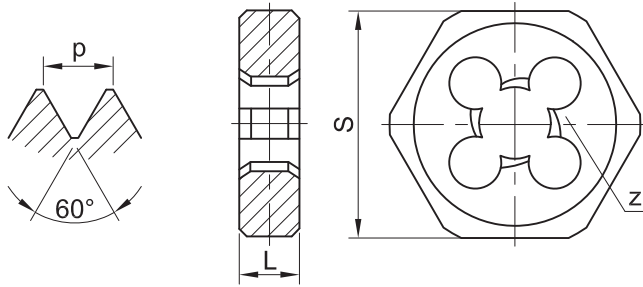
for ISO metric Fine thread
according to DIN 13
Grade of fit: 6g

Sechskant-Schneidmuttern

für metrisches ISO Feingewinde
nach DIN 13
Toleranzfeld: 6g

Плашки шестостенни

за метрична ISO резба
ситна стъпка по DIN 13
Клас на точност: 6g



Mf DIN 382

Thread Gewinde Резба	p mm	S mm	L mm	z	Art. No. 7201*..
M40	1.5	70	20	7	7201M40x1.5
M40	2.0	70	20	7	7201M40x2
M40	3.0	70	30	7	7201M40x3
M42	1.5	70	20	7	7201M42x1.5
M42	2.0	70	20	7	7201M42x2
M42	3.0	70	30	7	7201M42x3
M45	1.5	85	22	7	7201M45x1.5
M45	2.0	85	22	7	7201M45x2
M45	3.0	85	36	7	7201M45x3
M48	1.5	85	22	7	7201M48x1.5
M48	2.0	85	22	7	7201M48x2
M48	3.0	85	36	7	7201M48x3
M50	1.5	85	22	7	7201M50x1.5
M50	2.0	85	22	8	7201M50x2
M50	3.0	85	36	7	7201M50x3
M52	1.5	85	22	8	7201M52x1.5
M52	2.0	85	22	8	7201M52x2
M52	3.0	85	36	8	7201M52x3

Ordering example:

Hexagon die nuts 7201M40x1.5 HSS

Bestellbeispiel:

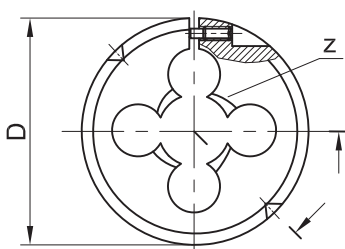
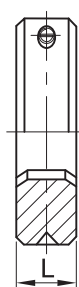
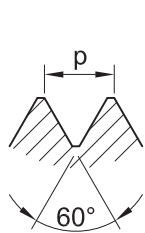
Sechskant Schneidmuttern 7201M40x1.5 HSS

Начин на заявяване:

Плашки шестостенни 7201M40x1.5 HSS

Circular Dies

for ISO metric Fine thread
according to DIN 13



Runde Schneideisen

für metrisches ISO Feingewinde
nach DIN 13

Плашки кръгли

за метрична ISO резба
ситна стъпка по DIN 13



Mf JIS B 4451

Thread Gewinde Резба	p mm	D mm	L mm	z	Art. No. 6803*..
M8	0.75	25	9	4	6803M8x0.75
M8	1.0	25	9	4	6803M8x1
M10	1.0	25	9	4	6803M10x1
M10	1.25	25	9	4	6803M10x1.25
M8	0.75	38	13	4	6803M8x0.75-1
M8	1.0	38	13	4	6803M8x1-1
M10	1.0	38	13	4	6803M10x1-1
M10	1.25	38	13	4	6803M10x1.25-1
M12	1.0	38	13	4	6803M12x1
M12	1.5	38	13	4	6803M12x1.5
M14	1.0	38	13	5	6803M14x1
M14	1.5	38	13	5	6803M14x1.5
M16	1.0	38	13	5	6803M16x1
M16	1.5	38	13	5	6803M16x1.5
M10	1.0	50	16	4	6803M10x1-2
M10	1.25	50	16	4	6803M10x1.25-2
M12	1.0	50	16	4	6803M12x1-1
M12	1.25	50	16	4	6803M12x1.25
M12	1.5	50	16	4	6803M12x1.5-1
M14	1.0	50	16	4	6803M14x1-1
M14	1.25	50	16	4	6803M14x1.25
M14	1.5	50	16	4	6803M14x1.5-1
M16	1.0	50	16	4	6803M16x1-1
M16	1.5	50	16	4	6803M16x1.5-1
M18	1.0	50	16	5	6803M18x1
M18	1.5	50	16	5	6803M18x1.5
M20	1.0	50	16	5	6803M20x1
M20	1.5	50	16	5	6803M20x1.5
M22	1.0	50	16	6	6803M22x1
M22	1.5	50	16	6	6803M22x1.5
M24	1.0	50	16	6	6803M24x1
M24	1.5	50	16	6	6803M24x1.5
M22	1.0	63	20	6	6803M22x1-1
M22	1.5	63	20	6	6803M22x1.5-1
M24	1.0	63	20	6	6803M24x1-1
M24	1.5	63	20	6	6803M24x1.5-1
M27	1.5	63	20	6	6803M27x1.5
M27	2.0	63	20	6	6803M27x2
M30	1.5	63	20	6	6803M30x1.5
M33	1.5	63	20	6	6803M33x1.5
M36	1.5	63	20	6	6803M36x1.5

Ordering example:

Circular dies 6803M8x0.75 HSS

Bestellbeispiel:

Runde Schneideisen 6803M8x0.75 HSS

Начин на заявяване:

Плашки кръгли 6803M8x0.75 HSS

Circular Dies

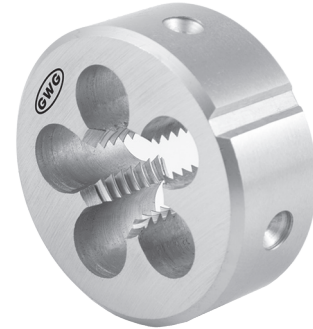
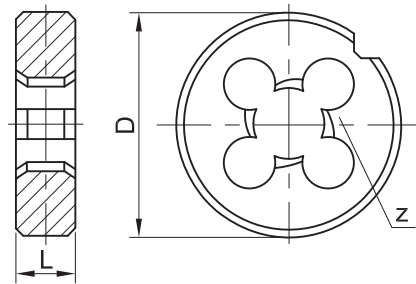
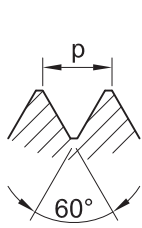
for American Unified Coarse
thread according to ANSI B1.1
Form B - closed

Runde Schneideisen

für amerikanisches unifiziertes
Grobgewinde nach ANSI B1.1
Form B - geschlossen

Плашки кръгли

за американска унифицирана
резба едра стъпка по ANSI B1.1
Форма В - затворени



UNC DIN EN 22 568 (DIN 223)

Thread Gewinde Резба	p / inch	D mm	L mm	z	Art. No. 6111*..
UNC Nr.4	40	20	5	3	6111UNCNr.4x40
UNC Nr.5	40	20	5	3	6111UNCNr.5x40
UNC Nr.6	32	20	7	3	6111UNCNr.6x32
UNC Nr.8	32	20	7	3	6111UNCNr.8x32
UNC Nr.10	24	20	7	3	6111UNCNr.10x24
UNC Nr.12	24	20	7	4	6111UNCNr.12x24
UNC 1/4	20	20	7	4	6111UNC1/4x20
UNC 5/16	18	25	9	4	6111UNC5/16x18
UNC 3/8	16	30	11	4	6111UNC3/8x16
UNC 7/16	14	30	11	4	6111UNC7/16x14
UNC 1/2	13	38	14	4	6111UNC1/2x13
UNC 9/16	12	38	14	4	6111UNC9/16x12
UNC 5/8	11	45	18	4	6111UNC5/8x11
UNC 3/4	10	45	18	5	6111UNC3/4x10
UNC 7/8	9	55	22	5	6111UNC7/8x9
UNC 1"	8	55	22	5	6111UNC1"x8
UNC 1"1/8	7	65	25	6	6111UNC1"1/8x7
UNC 1"1/4	7	65	25	6	6111UNC1"1/4x7
UNC 1"3/8	6	65	25	7	6111UNC1"3/8x6
UNC 1"1/2	6	65	25	7	6111UNC1"1/2x6
UNC 1"1/2	6	75	30	7	6111UNC1"1/2x6-1
UNC 1"5/8	5	75	30	7	6111UNC1"5/8x5
UNC 1"3/4	5	90	36	7	6111UNC1"3/4x5
UNC 1"7/8	4.5	90	36	7	6111UNC1"7/8x4.5
UNC 2"	4.5	90	36	7	6111UNC2"x4.5

Ordering example:
Bestellbeispiel:
Начин на заявяване:

Circular dies 6111UNCNr.4x40 HSS
Runde Schneideisen 6111UNCNr.4x40 HSS
Плашки кръгли 6111UNCNr.4x40 HSS

Circular Dies

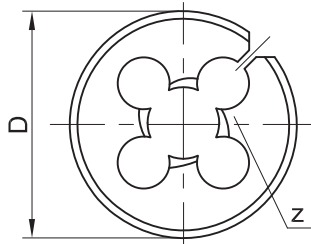
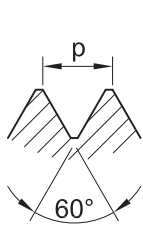
for American Unified Coarse
thread according to ANSI B1.1
Form A - cut

Runde Schneideisen

für amerikanisches unifiziertes
Grobgewinde nach ANSI B1.1
Form A - geschlitzt

Плашки кръгли

за американска унифицирана
резба едра стъпка по ANSI B1.1
Форма А - прорязани



UNC BS 1127

Thread Gewinde Резба	p / inch	D		L		Z	Art. No. 6413*..
		inch	mm	inch	mm		
Nr. 4	40	13/16	20.6	1/4	6.35	3	6413Nr.4x40
Nr. 5	40	13/16	20.6	1/4	6.35	3	6413Nr.5x40
Nr. 6	32	13/16	20.6	1/4	6.35	3	6413Nr.6x32
Nr. 8	32	13/16	20.6	1/4	6.35	3	6413Nr.8x32
Nr. 10	24	13/16	20.6	1/4	6.35	3	6413Nr.10x24
Nr. 12	24	13/16	20.6	1/4	6.35	4	6413Nr.12x24
UNC 1/4	20	1"	25.4	3/8	9.5	4	6413UNC1/4x20
UNC 5/16	18	1"	25.4	3/8	9.5	4	6413UNC5/16x18
UNC 3/8	16	1"	25.4	3/8	9.5	4	6413UNC3/8x16
UNC 1/4	20	1" 5/16	33.4	7/16	11.1	4	6413UNC1/4x20-1
UNC 5/16	18	1" 5/16	33.4	7/16	11.1	4	6413UNC5/16x18-1
UNC 3/8	16	1" 5/16	33.4	7/16	11.1	4	6413UNC3/8x16-1
UNC 7/16	14	1" 5/16	33.4	7/16	11.1	4	6413UNC7/16x14
UNC 1/2	13	1" 5/16	33.4	7/16	11.1	4	6413UNC1/2x13
UNC 9/16	12	1" 5/16	33.4	7/16	11.1	5	6413UNC9/16x12
UNC 3/8	16	1" 1/2	38.1	1/2	12.7	4	6413UNC3/8x16-2
UNC 7/16	14	1" 1/2	38.1	1/2	12.7	4	6413UNC7/16x14-1
UNC 1/2	13	1" 1/2	38.1	1/2	12.7	4	6413UNC1/2x13-1
UNC 9/16	12	1" 1/2	38.1	1/2	12.7	5	6413UNC9/16x12-1
UNC 5/8	11	1" 1/2	38.1	1/2	12.7	4	6413UNC5/8x11
UNC 3/4	10	1" 1/2	38.1	1/2	12.7	5	6413UNC3/4x10
UNC 7/8	9	2"	50.8	5/8	15.9	5	6413UNC7/8x9
UNC 1"	8	2"	50.8	5/8	15.9	5	6413UNC1"x8

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Circular dies 6413UNCNr.4x40 HSS

Runde Schneideisen 6413UNCNr.4x40 HSS

Плашки кръгли 6413UNCNr.4x40 HSS

Hexagon Die Nuts

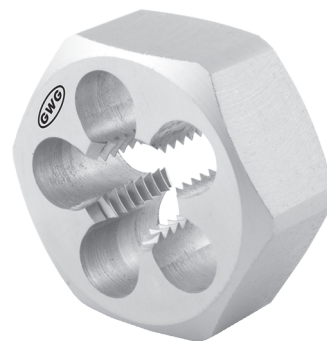
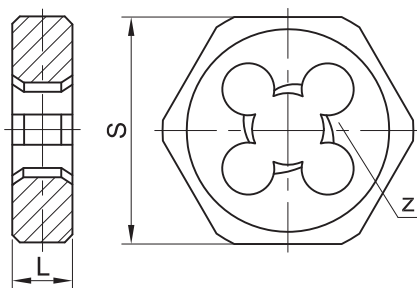
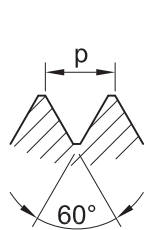
for American Unified Coarse
thread according to ANSI B1.1

Sechskant-Schneidmuttern

für amerikanisches unifiziertes
Grobgewinde nach ANSI B1.1

Плашки шестостенни

за американска унифицирана
резба едра стъпка по ANSI B1.1



UNC DIN 382

Thread Gewinde Резба	p / inch	S mm	L mm	z	Art. No. 7111*..
UNC 1/4	20	19	7	4	7111UNC1/4x20
UNC 5/16	18	22	9	4	7111UNC5/16x18
UNC 3/8	16	27	11	4	7111UNC3/8x16
UNC 7/16	14	27	11	4	7111UNC7/16x14
UNC 1/2	13	36	14	4	7111UNC1/2x13
UNC 9/16	12	36	14	4	7111UNC9/16x12
UNC 5/8	11	41	18	4	7111UNC5/8x11
UNC 3/4	10	41	18	5	7111UNC3/4x10
UNC 7/8	9	50	22	5	7111UNC7/8x9
UNC 1"	8	50	22	5	7111UNC1"x8
UNC 1"1/8	7	60	25	6	7111UNC1"1/8x7
UNC 1"1/4	7	60	25	6	7111UNC1"1/4x7
UNC 1"3/8	6	60	25	7	7111UNC1"3/8x6
UNC 1"1/2	6	70	30	7	7111UNC1"1/2x6
UNC 1"3/4	5	85	36	7	7111UNC1"3/4x5
UNC 2"	4.5	85	36	7	7111UNC2"x4.5

Ordering example:

Hexagon die nuts 7111UNC1/4x20 HSS

Bestellbeispiel:

Sechskant Schneidmuttern 7111UNC1/4x20 HSS

Начин на заявяване:

Плашки шестостенни 7111UNC1/4x20 HSS

Circular Dies

for American Unified Fine thread
according to ANSI B1.1

Form B - closed

Runde Schneideisen

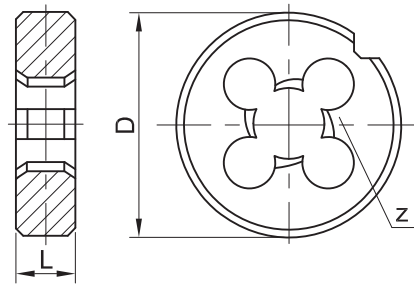
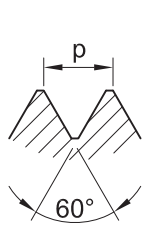
für amerikanisches unifiziertes
Feingewinde nach ANSI B1.1

Form B - geschlossen

Плашки кръгли

за американска унифицирана
резба ситна стъпка по ANSI B1.1

Форма В - затворени



UNF DIN EN 22 568 (DIN 223)

Thread Gewinde Резба	p / inch	D mm	L mm	z	Art. No. 6211*..
UNF Nr.4	48	20	5	3	6211UNFNr.4x48
UNF Nr.5	44	20	5	3	6211UNFNr.5x44
UNF Nr.6	40	20	5	3	6211UNFNr.6x40
UNF Nr.8	36	20	7	3	6211UNFNr.8x36
UNF Nr.10	32	20	7	3	6211UNFNr.10x32
UNF Nr.12	28	20	7	4	6211UNFNr.12x28
UNF 1/4	28	20	7	4	6211UNF1/4x28
UNF 5/16	24	25	9	4	6211UNF5/16x24
UNF 3/8	24	30	11	4	6211UNF3/8x24
UNF 7/16	20	30	11	4	6211UNF7/16x20
UNF 1/2	20	38	10	5	6211UNF1/2x20
UNF 9/16	18	38	10	5	6211UNF9/16x18
UNF 5/8	18	45	14	5	6211UNF5/8x18
UNF 3/4	16	45	14	5	6211UNF3/4x16
UNF 7/8	14	55	16	6	6211UNF7/8x14
UNF 1"	12	55	16	6	6211UNF1"x12
UNF 1"	14	55	16	6	6211UNF1"x14
UNF 1"1/8	12	65	18	6	6211UNF1"1/8x12
UNF 1"1/4	12	65	18	6	6211UNF1"1/4x12
UNF 1"3/8	12	65	18	7	6211UNF1"3/8x12
UNF 1"1/2	12	65	18	8	6211UNF1"1/2x12
UNF 1"1/2	12	75	20	8	6211UNF1"1/2x12-1

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Circular dies 6211UNFNr.4x48 HSS

Runde Schneideisen 6211UNFNr.4x48 HSS

Плашки кръгли 6211UNFNr.4x48 HSS

Circular Dies

for American Unified Fine thread
according to ANSI B1.1

Form A - cut

Runde Schneideisen

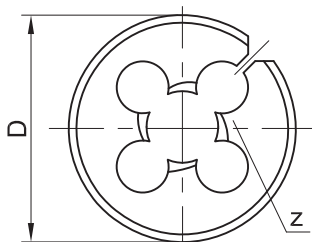
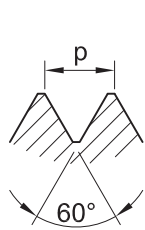
für amerikanisches unifiziertes
Feingewinde nach ANSI B1.1

Form A - geschlitzt

Плашки кръгли

за американска унифицирана
резба ситна стъпка по ANSI B1.1

Форма А - прорязани



UNF BS 1127

Thread Gewinde Резба	p / inch	D		L		z	Art. No. 6513*..
		inch	mm	inch	mm		
UNF Nr.4	48	13/16	20.6	1/4	6.35	3	6513Nr.4x48
UNF Nr.5	44	13/16	20.6	1/4	6.35	3	6513Nr.5x44
UNF Nr.6	40	13/16	20.6	1/4	6.35	3	6513Nr.6x40
UNF Nr.8	36	13/16	20.6	1/4	6.35	3	6513Nr.8x36
UNF Nr.10	32	13/16	20.6	1/4	6.35	3	6513Nr.10x32
UNF Nr.12	28	13/16	20.6	1/4	6.35	4	6513Nr.12x28
UNF 1/4	28	13/16	20.6	1/4	6.35	4	6513UNF1/4x28
UNF 1/4	28	1"	25.4	3/8	9.5	4	6513UNF1/4x28-1
UNF 5/16	24	1"	25.4	3/8	9.5	4	6513UNF5/16x24
UNF 3/8	24	1"	25.4	3/8	9.5	4	6513UNF3/8x24
UNF 1/4	28	1" 5/16	33.4	7/16	11.1	4	6513UNF1/4x28-2
UNF 5/16	24	1" 5/16	33.4	7/16	11.1	4	6513UNF5/16x24-1
UNF 3/8	24	1" 5/16	33.4	7/16	11.1	4	6513UNF3/8x24-1
UNF 7/16	20	1" 5/16	33.4	7/16	11.1	4	6513UNF7/16x20
UNF 1/2	20	1" 5/16	33.4	7/16	11.1	5	6513UNF1/2x20
UNF 9/16	18	1" 5/16	33.4	7/16	11.1	5	6513UNF9/16x18
UNF 3/8	24	1" 1/2	38.1	1/2	12.7	4	6513UNF3/8x24-2
UNF 7/16	20	1" 1/2	38.1	1/2	12.7	4	6513UNF7/16x20-1
UNF 1/2	20	1" 1/2	38.1	1/2	12.7	5	6513UNF1/2x20-1
UNF 9/16	18	1" 1/2	38.1	1/2	12.7	4	6513UNF9/16x18-1
UNF 5/8	18	1" 1/2	38.1	1/2	12.7	5	6513UNF5/8x18
UNF 3/4	16	1" 1/2	38.1	1/2	12.7	5	6513UNF3/4x16
UNF 5/8	18	2"	50.8	5/8	15.9	4	6513UNF5/8x18-1
UNF 3/4	16	2"	50.8	5/8	15.9	6	6513UNF3/4x16-1
UNF 7/8	14	2"	50.8	5/8	15.9	6	6513UNF7/8x14
UNF 1"	12	2"	50.8	5/8	15.9	6	6513UNF1"x12
UNF 1"1/8	12	3"	76.2	7/8	22.2	6	6513UNF1"1/8x12
UNF 1"1/4	12	3"	76.2	7/8	22.2	6	6513UNF1"1/4x12
UNF 1"3/8	12	3"	76.2	7/8	22.2	7	6513UNF1"3/8x12
UNF 1"1/2	12	3"	76.2	7/8	22.2	8	6513UNF1"1/2x12

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Circular dies 6513Nr.4x48 HSS

Runde Schneideisen 6513Nr.4x48 HSS

Плашки кръгли 6513Nr.4x48 HSS

Hexagon Die Nuts

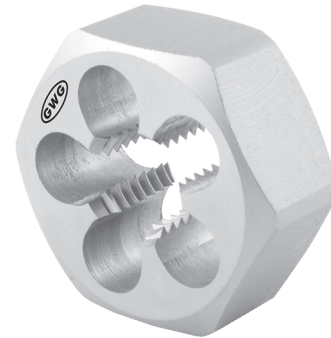
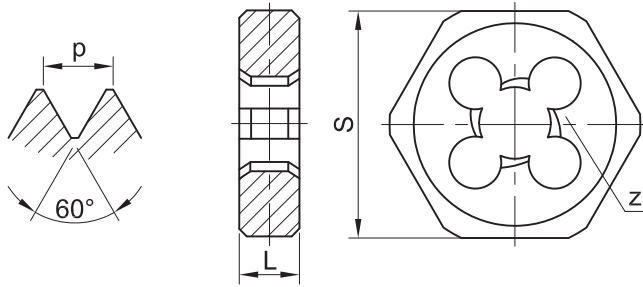
for American Unified Fine thread
according to ANSI B1.1

Sechskant-Schneidmuttern

für amerikanisches unifiziertes
Feingewinde nach ANSI B1.1

Плашки шестостенни

за американска унифицирана
резба ситна стъпка по ANSI B1.1



UNF DIN 382

Thread Gewinde Резба	p / inch	S mm	L mm	z	Art. No. 7211*..
UNF 1/4	28	19	7	4	7211UNF1/4x28
UNF 5/16	24	22	9	4	7211UNF5/16x24
UNF 3/8	24	27	11	4	7211UNF3/8x24
UNF 7/16	20	27	11	4	7211UNF7/16x20
UNF 1/2	20	36	10	5	7211UNF1/2x20
UNF 9/16	18	36	10	5	7211UNF9/16x18
UNF 5/8	18	41	14	5	7211UNF5/8x18
UNF 3/4	16	41	14	5	7211UNF3/4x16
UNF 7/8	14	50	16	6	7211UNF7/8x14
UNF 1"	12	50	16	6	7211UNF1"x12
UNF 1"1/8	12	60	18	6	7211UNF1"1/8x12
UNF 1"1/4	12	60	18	6	7211UNF1"1/4x12
UNF 1"3/8	12	60	18	7	7211UNF1"3/8x12
UNF 1"1/2	12	70	20	7	7211UNF1"1/2x12

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Hexagon die nuts 7211UNF1/4x20 HSS

Sechskant Schneidmuttern 7211UNF1/4x20 HSS

Плашки шестостенни 7211UNF1/4x20 HSS

Circular Dies

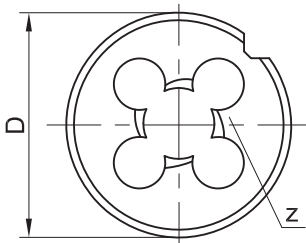
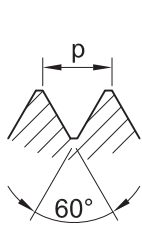
for American Unified Extra Fine thread according to ANSI B1.1
Form B - closed

Runde Schneideisen

für amerikanisches unifiziertes Extra-Feingewinde nach ANSI B1.1
Form B - geschlossen

Плашки кръгли

за американска унифицирана резба ситна стъпка по ANSI B1.1
Форма В - затворени



UNEF DIN EN 22 568 (DIN 223)

Thread Gewinde Резба	p / inch	D mm	L mm	z	Art. No. 6911*..
UNEF Nr.12	32	20	7	4	6911UNEFNr.12x32
UNEF 1/4	32	20	7	4	6911UNEF1/4x32
UNEF 5/16	32	25	9	4	6911UNEF5/16x32
UNEF 3/8	32	30	11	4	6911UNEF3/8x32
UNEF 7/16	28	30	11	4	6911UNEF7/16x28
UNEF 1/2	28	38	10	5	6911UNEF1/2x28
UNEF 9/16	24	38	10	5	6911UNEF9/16x24
UNEF 5/8	24	45	14	5	6911UNEF5/8x24
UNEF 11/16	24	45	14	5	6911UNEF11/16x24
UNEF 3/4	20	45	14	5	6911UNEF3/4x20
UNEF 13/16	20	55	16	5	6911UNEF13/16x20
UNEF 7/8	20	55	16	6	6911UNEF7/8x20
UNEF 15/16	20	55	16	6	6911UNEF15/16x20
UNEF 1"	20	55	16	6	6911UNEF1"x20
UNEF 1 1/16	18	65	18	6	6911UNEF1 1/16x18
UNEF 1 1/8	18	65	18	6	6911UNEF1 1/8x18
UNEF 1 3/16	18	65	18	6	6911UNEF1 3/16x18
UNEF 1 1/4	18	65	18	6	6911UNEF1 1/4x18
UNEF 1 5/16	18	65	18	7	6911UNEF1 5/16x18
UNEF 1 3/8	18	65	18	7	6911UNEF1 3/8x18
UNEF 1 7/16	18	75	20	7	6911UNEF1 7/16x18
UNEF 1 1/2	18	75	20	8	6911UNEF1 1/2x18

Ordering example:

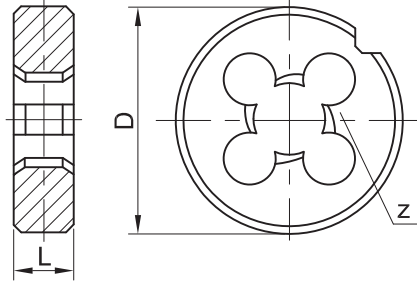
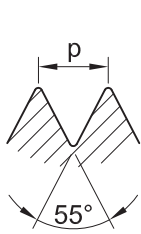
Bestellbeispiel:

Начин на заявяване:

Circular dies 6911UNEFNr.12x32 HSS

Runde Schneideisen 6911UNEFNr.12x32 HSS

Плашки кръгли 6911UNEFNr.12x32 HSS



BSW DIN EN 22 568 (DIN 223)

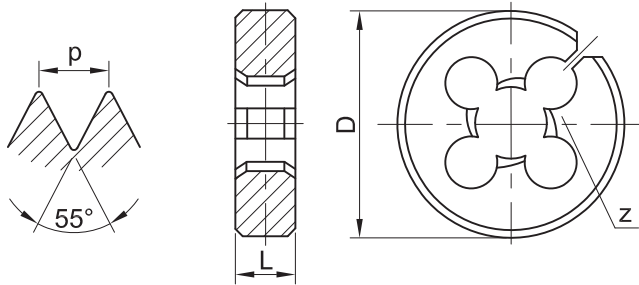
Thread Gewinde Резба	p / inch	D mm	L mm	z	Art. No. 6121*..
BSW 1/8	40	20	5	3	6121BSW1/8x40
BSW 5/32	32	20	5	3	6121BSW5/32x32
BSW 3/16	24	20	7	3	6121BSW3/16x24
BSW 7/32	24	20	7	4	6121BSW7/32x24
BSW 1/4	20	20	7	4	6121BSW1/4x20
BSW 5/16	18	25	9	4	6121BSW5/16x18
BSW 3/8	16	30	11	4	6121BSW3/8x16
BSW 7/16	14	30	11	4	6121BSW7/16x14
BSW 1/2	12	38	14	4	6121BSW1/2x12
BSW 9/16	12	38	14	4	6121BSW9/16x12
BSW 5/8	11	45	18	4	6121BSW5/8x11
BSW 3/4	10	45	18	5	6121BSW3/4x10
BSW 7/8	9	55	22	5	6121BSW7/8x9
BSW 1"	8	55	22	5	6121BSW1"x8
BSW 1"1/8	7	65	25	6	6121BSW1"1/8x7
BSW 1"1/4	7	65	25	7	6121BSW1"1/4x7
BSW 1"3/8	6	65	25	7	6121BSW1"3/8x6
BSW 1"1/2	6	65	25	7	6121BSW1"1/2x6-1
BSW 1"1/2	6	75	30	7	6121BSW1"1/2x6
BSW 1"5/8	5	75	30	7	6121BSW1"5/8x5
BSW 1"3/4	5	90	36	7	6121BSW1"3/4x5
BSW 1"7/8	4.5	90	36	7	6121BSW1"7/8x4.5
BSW 2"	4.5	90	36	8	6121BSW2"x4.5

Ordering example: Circular dies 6121BSW1/8x40 HSS
 Bestellbeispiel: Runde Schneideisen 6121BSW1/8x40 HSS
 Начин на заявяване: Плашки кръгли 6121BSW1/8x40 HSS

Circular Dies
for Whitworth thread
according to BS 84
Form A - cut

Runde Schneideisen
für Whitworth-Gewinde
nach BS 84
Form A - geschlitzt

Плашки кръгли
за Витвортова резба
по BS 84
Форма А - прорязани



BSW BS 1127

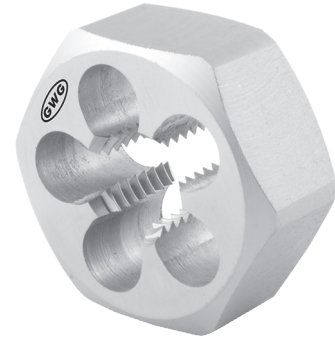
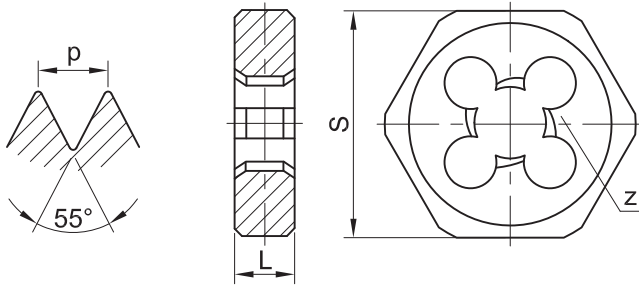
Thread Gewinde Резба	p / inch	D		L		z	Art. No. 6423*..
		inch	mm	inch	mm		
BSW 3/32	48	13/16	20.6	1/4	6.35	3	6423BSW3/32x48
BSW 1/8	40	13/16	20.6	1/4	6.35	3	6423BSW1/8x40
BSW 5/32	32	13/16	20.6	1/4	6.35	3	6423BSW5/32x32
BSW 3/16	24	13/16	20.6	1/4	6.35	3	6423BSW3/16x24
BSW 1/4	20	13/16	20.6	1/4	6.35	4	6423BSW1/4x20
BSW 1/4	20	1"	25.4	3/8	9.5	4	6423BSW1/4x20-1
BSW 5/16	18	1"	25.4	3/8	9.5	4	6423BSW5/16x18
BSW 3/8	16	1"	25.4	3/8	9.5	4	6423BSW3/8x16
BSW 3/8	16	1" 5/16	33.4	7/16	11.1	4	6423BSW3/8x16-1
BSW 7/16	14	1" 5/16	33.4	7/16	11.1	4	6423BSW7/16x14
BSW 1/2	12	1" 5/16	33.4	7/16	11.1	4	6423BSW1/2x12
BSW 3/8	16	1" 1/2	38.1	1/2	12.7	4	6423BSW3/8x16-2
BSW 7/16	14	1" 1/2	38.1	1/2	12.7	4	6423BSW7/16x14-1
BSW 1/2	12	1" 1/2	38.1	1/2	12.7	4	6423BSW1/2x12-1
BSW 9/16	12	1" 1/2	38.1	1/2	12.7	4	6423BSW9/16x12
BSW 5/8	11	1" 1/2	38.1	1/2	12.7	4	6423BSW5/8x11
BSW 3/4	10	1" 1/2	38.1	1/2	12.7	5	6423BSW3/4x10
BSW 5/8	11	2"	50.8	5/8	15.9	4	6423BSW5/8x11-1
BSW 3/4	10	2"	50.8	5/8	15.9	5	6423BSW3/4x10-1
BSW 7/8	9	2"	50.8	5/8	15.9	5	6423BSW7/8x9
BSW 1"	8	2"	50.8	5/8	15.9	5	6423BSW1"x8

Ordering example: Circular dies 6423BSW3/32x48 HSS
Bestellbeispiel: Runde Schneideisen 6423BSW3/32x48 HSS
Начин на заявяване: Плашки кръгли 6423BSW3/32x48 HSS

Hexagon Die Nuts
for Whitworth thread
according to BS 84

Sechskant-Schneidmuttern
für Whitworth-Gewinde
nach BS 84

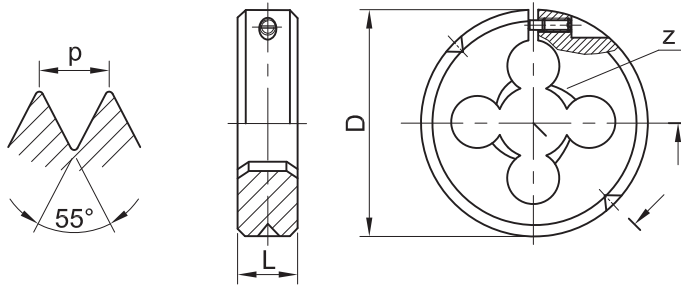
Плашки шестостенни
за Витвортова резба
по BS 84



BSW DIN 382

Thread Gewinde Резба	p / inch	S mm	L mm	Z	Art. No. 7121*..
BSW 1/8	40	19	5	3	7121BSW1/8x40
BSW 3/16	24	19	7	3	7121BSW3/16x24
BSW 1/4	20	19	7	4	7121BSW1/4x20
BSW 5/16	18	22	9	4	7121BSW5/16x18
BSW 3/8	16	27	11	4	7121BSW3/8x16
BSW 7/16	14	27	11	5	7121BSW7/16x14
BSW 1/2	12	36	14	4	7121BSW1/2x12
BSW 9/16	12	36	14	4	7121BSW9/16x12
BSW 5/8	11	41	18	4	7121BSW5/8x11
BSW 3/4	10	41	18	5	7121BSW3/4x10
BSW 7/8	9	50	22	5	7121BSW7/8x9
BSW 1"	8	50	22	5	7121BSW1"x8
BSW 1"1/8	7	60	25	6	7121BSW1"1/8x7
BSW 1"1/4	7	60	25	7	7121BSW1"1/4x7
BSW 1"3/8	6	60	25	7	7121BSW1"3/8x6
BSW 1"1/2	6	70	30	7	7121BSW1"1/2x6-1
BSW 1"5/8	5	70	30	7	7121BSW1"5/8x5
BSW 1"3/4	5	85	36	7	7121BSW1"3/4x5
BSW 2"	4.5	85	36	7	7121BSW2"x4.5

Ordering example: Hexagon die nuts 7121BSW1/8x40 HSS
 Bestellbeispiel: Sechskant Schneidmuttern 7121BSW1/8x40 HSS
 Начин на заявяване: Плашки шестостенни 7121BSW1/8x40 HSS



BSW JIS B 4451

Thread Gewinde Резба	p / inch	D mm	L mm	z	Art. No. 6723*..
BSW 1/8	40	25	9	3	6723BSW1/8x40
BSW 5/32	32	25	9	3	6723BSW5/32x32
BSW 3/16	24	25	9	3	6723BSW3/16x24
BSW 1/4	20	25	9	4	6723BSW1/4x20
BSW 5/16	18	25	9	4	6723BSW5/16x18
BSW 3/8	16	25	9	5	6723BSW3/8x16
BSW 1/8	40	38	13	3	6723BSW1/8x40-1
BSW 5/32	32	38	13	3	6723BSW5/32x32-1
BSW 3/16	24	38	13	3	6723BSW3/16x24-1
BSW 1/4	20	38	13	4	6723BSW1/4x20-1
BSW 5/16	18	38	13	4	6723BSW5/16x18-1
BSW 3/8	16	38	13	4	6723BSW3/8x16-1
BSW 7/16	14	38	13	4	6723BSW7/16x14
BSW 1/2	12	38	13	4	6723BSW1/2x12
BSW 1/4	20	50	16	4	6723BSW1/4x20-2
BSW 5/16	18	50	16	4	6723BSW5/16x18-2
BSW 3/8	16	50	16	4	6723BSW3/8x16-2
BSW 7/16	14	50	16	4	6723BSW7/16x14-1
BSW 1/2	12	50	16	4	6723BSW1/2x12-1
BSW 9/16	12	50	16	5	6723BSW9/16x12
BSW 5/8	11	50	16	5	6723BSW5/8x11
BSW 3/4	10	50	16	5	6723BSW3/4x10
BSW 7/8	9	50	16	6	6723BSW7/8x9
BSW 1"	8	50	16	6	6723BSW1"x8
BSW 7/8	9	63	20	6	6723BSW7/8x9-1
BSW 1"	8	63	20	6	6723BSW1"x8

Ordering example: Circular dies 6723BSW1/8x40 HSS
 Bestellbeispiel: Runde Schneideisen 6723BSW1/8x40 HSS
 Начин на заявяване: Плашки кръгли 6723BSW1/8x40 HSS

Circular Dies

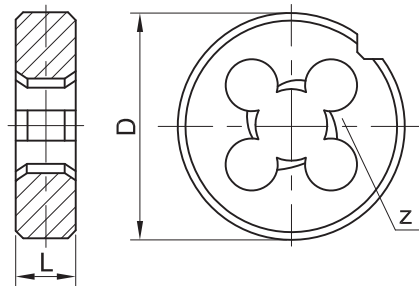
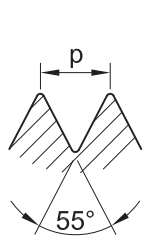
for Whitworth Fine thread
according to BS 84
Form B - closed

Runde Schneideisen

für Whitworth-Feingewinde
nach BS 84
Form B - geschlossen

Плашки кръгли

за Витвортова резба
ситна стъпка по BS 84
Форма В - затворени



BSF DIN EN 22 568 (DIN 223)

Thread Gewinde Резба	p / inch	D mm	L mm	z	Art. No. 6221*..
BSF 3/16	32	20	7	3	6221BSF3/16x32
BSF 1/4	26	20	7	4	6221BSF1/4x26
BSF 5/16	22	25	9	4	6221BSF5/16x22
BSF 3/8	20	30	11	4	6221BSF3/8x20
BSF 7/16	18	30	11	4	6221BSF7/16x18
BSF 1/2	16	38	10	5	6121BSW1/2x16
BSF 9/16	16	38	10	5	6221BSF9/16x16
BSF 5/8	14	45	14	5	6221BSF5/8x14
BSF 3/4	12	45	14	5	6221BSF3/4x12
BSF 7/8	11	55	22	5	6221BSF7/8x11
BSF 1"	10	55	22	6	6221BSF1"x10

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Circular dies 6221BSF3/16x32 HSS

Runde Schneideisen 6221BSF3/16x32 HSS

Плашки кръгли 6221BSF3/16x32 HSS

Circular Dies

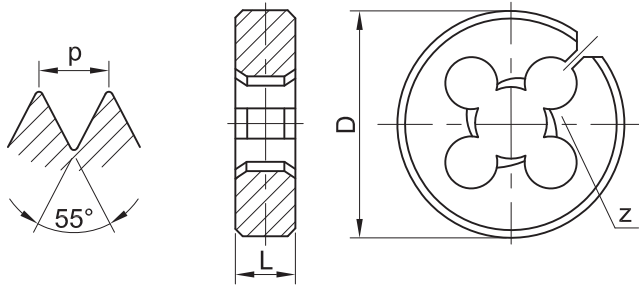
for Whitworth Fine thread
according to BS 84
Form A - cut

Runde Schneideisen

für Whitworth-Feingewinde
nach BS 84
Form A - geschlitzt

Плашки кръгли

за Витвортова резба
ситна стъпка по BS 84
Форма А - прорязани



BSF BS 1127

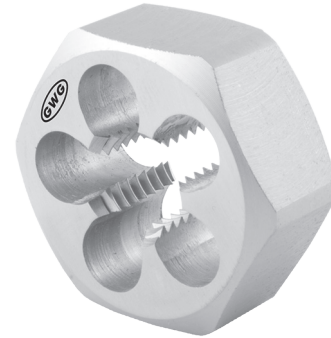
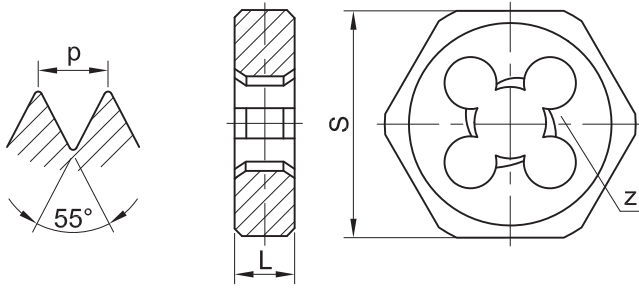
Thread Gewinde Резба	p / inch	D		L		z	Art. No. 6523*..
		inch	mm	inch	mm		
BSF 3/16	32	13/16	20.6	1/4	6.35	3	6523BSF3/16x32
BSF 1/4	26	13/16	20.6	1/4	6.35	4	6523BSF1/4x26
BSF 1/4	26	1"	25.4	3/8	9.5	4	6523BSF1/4x26-1
BSF 5/16	22	1"	25.4	3/8	9.5	4	6523BSF5/16x22
BSF 3/8	20	1"	25.4	3/8	9.5	4	6523BSF3/8x20
BSF 3/8	20	1" 5/16	33.4	7/16	11.1	4	6523BSF3/8x20-1
BSF 7/16	18	1" 5/16	33.4	7/16	11.1	4	6523BSF7/16x18
BSF 1/2	16	1" 5/16	33.4	7/16	11.1	5	6523BSF1/2x16
BSF 3/8	20	1" 1/2	38.1	1/2	12.7	4	6523BSF3/8x20-2
BSF 7/16	18	1" 1/2	38.1	1/2	12.7	4	6523BSF7/16x18-1
BSF 1/2	16	1" 1/2	38.1	1/2	12.7	5	6523BSF1/2x16-1
BSF 9/16	16	1" 1/2	38.1	1/2	12.7	4	6523BSF9/16x16
BSF 5/8	14	1" 1/2	38.1	1/2	12.7	5	6523BSF5/8x14
BSF 3/4	12	1" 1/2	38.1	1/2	12.7	6	6523BSF3/4x12
BSF 5/8	14	2"	50.8	5/8	15.9	5	6523BSF5/8x14-1
BSF 3/4	12	2"	50.8	5/8	15.9	6	6523BSF3/4x12-1
BSF 7/8	11	2"	50.8	5/8	15.9	5	6523BSF7/8x11

Ordering example: Circular dies 6523BSF3/16x32 HSS
Bestellbeispiel: Runde Schneideisen 6523BSF3/16x32 HSS
Начин на заявяване: Плашки кръгли 6523BSF3/16x32 HSS

Hexagon Die Nuts
for Whitworth Fine thread
according to BS 84

Sechskant-Schneidmuttern
für Whitworth-Feingewinde
nach BS 84

Плашки шестостенни
за Витвортова резба
ситна стъпка по BS 84



BSF DIN 382

Thread Gewinde Резба	p / inch	S mm	L mm	z	Art. No. 7221*..
BSF 1/4	26	19	7	4	7221BSF1/4x26
BSF 5/16	22	22	9	4	7221BSF5/16x22
BSF 3/8	20	27	11	4	7221BSF3/8x20
BSF 7/16	18	27	11	4	7221BSF7/16x18
BSF 1/2	16	36	10	5	7221BSF1/2x16
BSF 9/16	16	36	10	5	7221BSF9/16x16
BSF 5/8	14	41	14	5	7221BSF5/8x14
BSF 3/4	12	41	14	5	7221BSF3/4x12
BSF 7/8	11	50	16	5	7221BSF7/8x11
BSF 1"	10	50	16	6	7221BSF1"x10

Ordering example:

Hexagon die nuts 7221BSF1/4x26 HSS

Bestellbeispiel:

Sechskant Schneidmuttern 7221BSF1/4x26 HSS

Начин на заявяване:

Плашки шестостенни 7221BSF1/4x26 HSS

Circular Dies

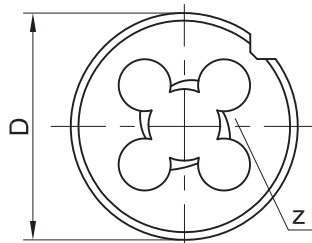
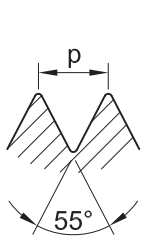
for Whitworth Pipe thread
according to DIN ISO 228
Form B - closed

Runde Schneideisen

für Whitworth-Rohrgewinde
nach DIN ISO 228
Form B - geschlossen

Плашки кръгли

за тръбна цилиндрична резба
по DIN ISO 228
Форма В - затворени



G (BSPF) DIN EN 24 231 (DIN 5158)

Thread Gewinde Резба	p / inch	D mm	L mm	z	Art. No. 6131*..
G 1/8	28	30	11	4	6131G1/8x28
G 1/4	19	38	10	4	6131G1/4x19
G 3/8	19	45	14	5	6131G3/8x19
G 1/2	14	45	14	5	6131G1/2x14
G 5/8	14	55	16	5	6131G5/8x14
G 3/4	14	55	16	6	6131G3/4x14
G 7/8	14	65	18	6	6131G7/8x14
G 1"	11	65	18	6	6131G1"x11
G 1"1/8	11	75	20	7	6131G1"1/8x11
G 1"1/4	11	75	20	7	6131G1"1/4x11
G 1"3/8	11	90	22	7	6131G1"3/8x11
G 1"1/2	11	90	22	7	6131G1"1/2x11
G 1"5/8	11	90	22	7	6131G1"5/8x11
G 1"3/4	11	105	22	7	6131G1"3/4x11
G 2"	11	90	22	10	6131G2"x11
G 2"	11	105	22	9	6131G2"x11-1
G 2"1/4	11	120	22	10	6131G2"1/4x11
G 2"1/2	11	120	22	10	6131G2"1/2x11
G 2"3/4	11	120	22	12	6131G2"3/4x11
G 3"	11	130	25	10	6131G3"x11
G 3"1/2	11	150	25	12	6131G3"1/2x11
G 4"	11	160	25	13	6131G4"x11

Ordering example:
Bestellbeispiel:
Начин на заявяване:

Circular dies 6131G1/8x28 HSS
Runde Schneideisen 6131G1/8x28 HSS
Плашки кръгли 6131G1/8x28 HSS

Circular Dies

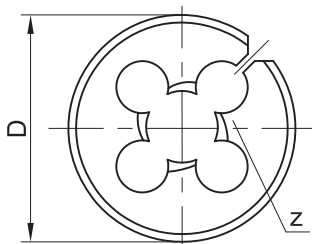
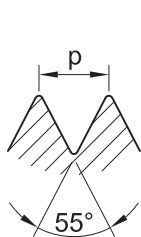
for Whitworth Pipe thread
according to DIN ISO 228
Form A - cut

Runde Schneideisen

für Whitworth-Rohrgewinde
nach DIN ISO 228
Form A - geschlitzt

Плашки кръгли

за тръбна цилиндрична резба
по DIN ISO 228
Форма А - прорязани



G (BSPF) BS 1127

Thread Gewinde Резба	p / inch	D		L		Z	Art. No. 6433*..
		inch	mm	inch	mm		
G 1/8	28	1"	25.4	3/8	9.5	5	6433G1/8x28
G 1/8	28	1" 5/16	33.4	7/16	11.1	4	6433G1/8x28-1
G 1/4	19	1" 5/16	33.4	7/16	11.1	5	6433G1/4x19
G 1/8	28	1" 1/2	38.1	1/2	12.7	4	6433G1/8x28-2
G 1/4	19	1" 1/2	38.1	1/2	12.7	4	6433G1/4x19-1
G 3/8	19	1" 1/2	38.1	1/2	12.7	5	6433G3/8x19
G 1/2	14	1" 1/2	38.1	1/2	12.7	7	6433G1/2x14
G 1/4	19	2"	50.8	5/8	15.9	4	6433G1/4x19-2
G 3/8	19	2"	50.8	5/8	15.9	5	6433G3/8x19-1
G 1/2	14	2"	50.8	5/8	15.9	5	6433G1/2x14-1
G 5/8	14	2"	50.8	5/8	15.9	5	6433G5/8x14
G 3/4	14	2"	50.8	5/8	15.9	6	6433G3/4x14
G 1"	11	3"	76.2	7/8	22.2	6	6433G1"x11
G 1"1/4	11	3"	76.2	7/8	22.2	7	6433G1"1/4x11
G 1"1/2	11	4"	101.6	1"	25.4	7	6433G1"1/2x11
G 2"	11	4"	101.6	1"	25.4	9	6433G2"x11

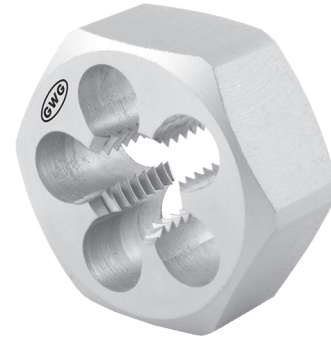
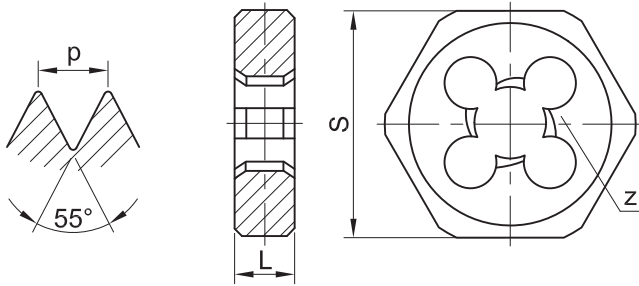
Ordering example:
Bestellbeispiel:
Начин на заявяване:

Circular dies 6433G1/8x28 HSS
Runde Schneideisen 6433G1/8x28 HSS
Плашки кръгли 6433G1/8x28 HSS

Hexagon Die Nuts
for Whitworth Pipe thread
according to DIN ISO 228

Sechskant-Schneidmuttern
für Whitworth-Rohrgewinde
nach DIN ISO 228

Плашки шестостенни
за тръбна цилиндрична резба
по DIN ISO 228



G (BSPF) DIN 382

Thread Gewinde Резба	p / inch	S mm	L mm	z	Art. No. 7131*..
G 1/8	28	27	11	4	7131G1/8x28
G 1/4	19	36	10	4	7131G1/4x19
G 3/8	19	41	14	5	7131G3/8x19
G 1/2	14	41	14	5	7131G1/2x14
G 5/8	14	50	16	5	7131G5/8x14
G 3/4	14	50	16	6	7131G3/4x14
G 7/8	14	60	18	6	7131G7/8x14
G 1"	11	60	18	6	7131G1"x11
G 1"1/8	11	70	20	7	7131G1"1/8x11
G 1"1/4	11	70	20	7	7131G1"1/4x11
G 1"3/8	11	85	22	7	7131G1"3/8x11
G 1"1/2	11	85	22	7	7131G1"1/2x11
G 1"5/8	11	85	22	7	7131G1"5/8x11
G 1"3/4	11	100	22	7	7131G1"3/4x11
G 2"	11	100	22	9	7131G2"x11
G 2"1/4	11	115	22	10	7131G2"1/4x11
G 2"1/2	11	115	22	10	7131G2"1/2x11

Ordering example: Hexagon die nuts 7131G1/8x28 HSS
Bestellbeispiel: Sechskant Schneidmuttern 7131G1/8x28 HSS
Начин на заявяване: Плашки шестостенни 7131G1/8x28 HSS

Circular Dies

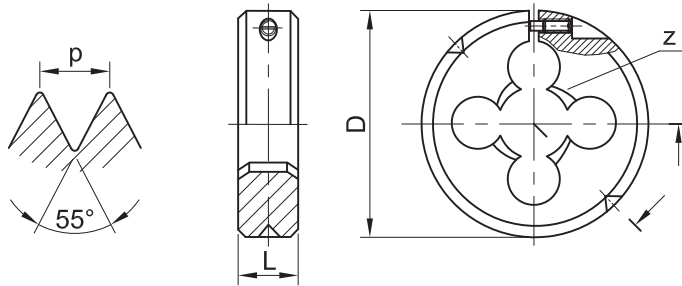
for Whitworth Pipe thread
according to DIN ISO 228

Runde Schneideisen

für Whitworth-Rohrgewinde
nach DIN ISO 228

Плашки кръгли

за тръбна цилиндрична резба
по DIN ISO 228



PF (G) JIS B 4451

Thread Gewinde Резба	p / inch	D mm	L mm	z	Art. No. 6733*..
PF 1/8	28	38	13	4	6733PF1/8x28
PF 1/4	19	38	13	5	6733PF1/4x19
PF 3/8	19	38	13	5	6733PF3/8x19
PF 1/8	28	50	16	4	6733PF1/8x28-1
PF 1/4	19	50	16	5	6733PF1/4x19-1
PF 3/8	19	50	16	5	6733PF3/8x19-1
PF 1/2	14	50	16	5	6733PF1/2x14
PF 3/4	14	50	16	6	6733PF3/4x14
PF 1"	11	50	16	10	6733PF1"x11
PF 3/4	14	63	20	6	6733PF3/4x14-1
PF 1"	11	63	20	6	6733PF1"x11-1
PF 1"1/4	11	63	20	10	6733PF1"1/4x11

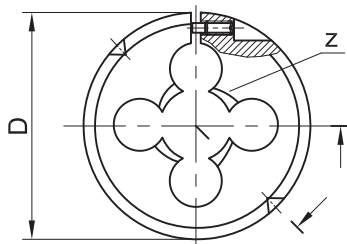
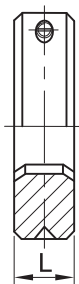
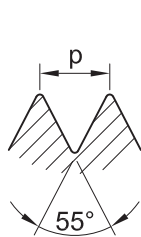
Ordering example:
Bestellbeispiel:
Начин на заявяване:

Circular dies 6733PF1/8x28 HSS
Runde Schneideisen 6733PF1/8x28 HSS
Плашки кръгли 6733PF1/8x28 HSS

Circular Dies
for Parallel Pipe thread
according to JIS B 0203

Runde Schneideisen
für paralleles Rohrgewinde
nach JIS B 0203

Плашки кръгли
за тръбна цилиндрична резба
по JIS B 0203



PS (Rp) JIS B 4451

Thread Gewinde Резба	p / inch	D mm	L mm	z	Art. No. 6743*..
PS 1/8	28	38	11	4	67431PS1/8x28
PS 1/4	19	38	16	5	67431PS1/4x19
PS 3/8	19	38	18	7	67431PS3/8x19
PS 1/8	28	50	11	4	67431PS1/8x28-1
PS 1/4	19	50	16	5	67431PS1/4x19-1
PS 3/8	19	50	18	5	67431PS3/8x19-1
PS 1/2	14	50	22	6	67431PS1/2x14
PS 3/4	14	50	24	8	67431PS3/4x14
PS 1"	11	50	28	10	67431PS1"x11
PS 1"1/4	11	63	31.75	10	67431PS1"1/4x11

Ordering example: Circular dies 6743PS1/8x28 HSS
Bestellbeispiel: Runde Schneideisen 6743PS1/8x28 HSS
Начин на заявяване: Плашки кръгли 6743PS1/8x28 HSS

Circular Dies

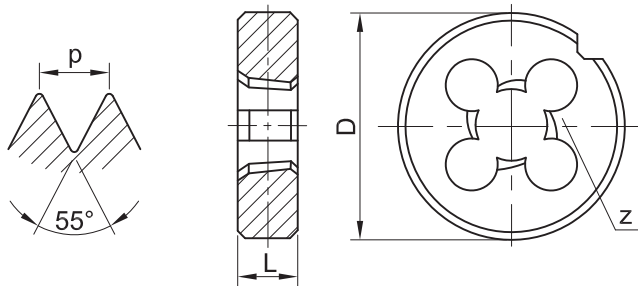
for Tapered Withworth
Pipe thread according to BS 21
Taper 1:16
Form B - closed

Runde Schneideisen

für Whithworth kegeliges
Rohrgewinde nach BS 21
Kegel 1:16
Form B - geschlossen

Плашки кръгли

за Витвортова тръбна
конусна резба по BS 21
Конус 1:16
Форма В - затворени



BSPT BS 1127

Thread Gewinde Резба	p / inch	D		L		z	Art. No. 6443*..
		inch	mm	inch	mm		
BSPT 1/8	28	1"	25.4	3/8	9.5	5	6443BSPT1/8x28
BSPT 1/8	28	1" 5/16	33.4	7/16	11.1	5	6443BSPT1/8x28-1
BSPT 1/4	19	1" 5/16	33.4	7/16	11.1	5	6443BSPT1/4x19
BSPT 1/8	28	1" 1/2	38.1	1/2	12.7	5	6443BSPT1/8x28-2
BSPT 1/4	19	1" 1/2	38.1	1/2	12.7	5	6443BSPT1/4x19-1
BSPT 3/8	19	1" 1/2	38.1	1/2	12.7	5	6443BSPT3/8x19
BSPT 1/4	19	2"	50.8	5/8	15.9	5	6443BSPT1/4x19-2
BSPT 3/8	19	2"	50.8	5/8	15.9	5	6443BSPT3/8x19-1
BSPT 1/2	14	2"	50.8	5/8	15.9	6	6443BSPT1/2x14
BSPT 3/4	14	2"	50.8	5/8	15.9	6	6443BSPT3/4x14
BSPT 3/4	14	3"	76.2	7/8	22.2	6	6443BSPT3/4x14-1
BSPT 1"	11	3"	76.2	7/8	22.2	7	6443BSPT1"x11
BSPT 1"1/4	11	3"	76.2	7/8	22.2	8	6443BSPT1"1/4x11
BSPT 1"1/2	11	4"	101.6	1"	25.4	8	6443BSPT1"1/2x11
BSPT 2"	11	4"	101.6	1"	25.4	9	6443BSPT2"x11

Ordering example: Circular dies 6443BSPT1/8x28 HSS
Bestellbeispiel: Runde Schneideisen 6443BSPT1/8x28 HSS
Начин на заявяване: Плашки кръгли 6443BSPT1/8x28 HSS

Hexagon Die Nuts

for Tapered Withworth

Pipe thread according to BS 21

Tapet 1:16

Sechskant-Schneidmuttern

für Whithworth kegeliges

Rohrgewinde nach BS 21

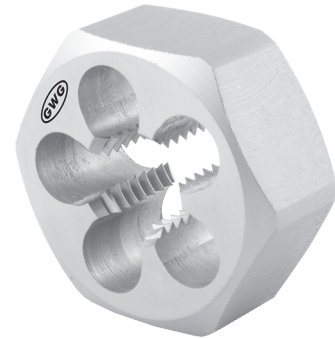
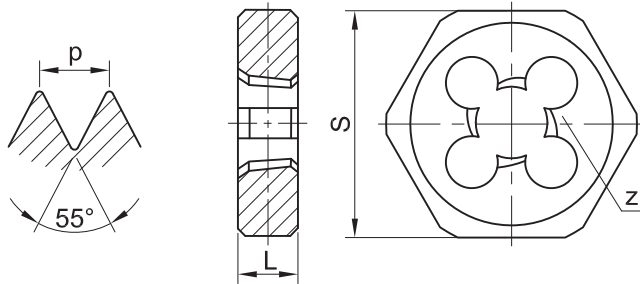
Kegel 1:16

Плашки шестостенни

за Витвортова тръбна

конусна резба по BS 21

Конус 1:16



BSPT DIN 382

Thread Gewinde Резба	p / inch	S mm	L mm	Z	Art. No. 7143*..
BSPT 1/16	28	22	10	4	7143BSPT1/16x28
BSPT 1/8	28	27	10	5	7143BSPT1/8x28
BSPT 1/4	19	36	14	5	7143BSPT1/4x19
BSPT 3/8	19	41	15	5	7143BSPT3/8x19
BSPT 1/2	14	50	19	6	7143BSPT1/2x14
BSPT 3/4	14	60	20	6	7143BSPT3/4x14
BSPT 5/8	14	50	19	6	7143BSPT5/8x14
BSPT 7/8	14	60	20	6	7143BSPT7/8x14
BSPT 1"	11	60	24	7	7143BSPT1"x11
BSPT 1"1/4	11	85	26	8	7143BSPT1"1/4x11
BSPT 1"1/2	11	85	26	8	7143BSPT1"1/2x11
BSPT1"3/4	11	100	31	8	7143BSPT1"3/4x11
BSPT 2"	11	100	31	9	7143BSPT2"x11

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Hexagon die nuts 7143BSPT1/16x28 HSS

Sechskant Schneidmuttern 7143BSPT1/16x28 HSS

Плашки шестостенни 7143BSPT1/16x28 HSS

Circular Dies

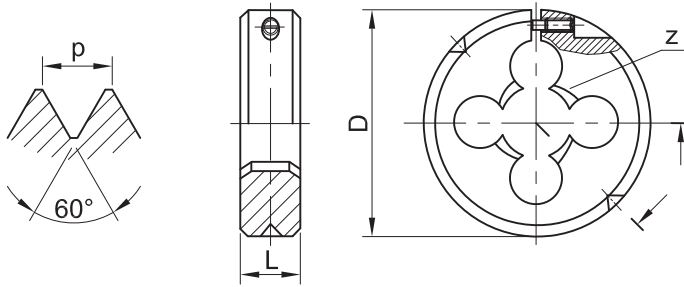
for American Parallel
Pipe thread
according to ANSI B1.20.1

Runde Schneideisen

für Amerikanisches paralleles
Rohrgewinde
nach ANSI B1.20.1

Плашки кръгли

за американска тръбна
цилиндрична резба
по ANSI B1.20.1



NPS JIS B 4451

Thread Gewinde Резба	p / inch	D mm	L mm	z	Art. No. 6793*..
NPS 1/8	27	50	11	4	6793NPS1/8x27
NPS 1/4	18	50	14	5	6793NPS1/4x18
NPS 3/8	18	50	14	5	6793NPS3/8x18
NPS 1/2	14	50	18	6	6793NPS1/2x14
NPS 3/4	14	50	22	8	6793NPS3/4x14
NPS 1"	11.5	50	25	10	6793NPS1"x11.5

Ordering example:
Bestellbeispiel:
Начин на заявяване:

Circular dies 6793NPS1/8x27 HSS
Runde Schneideisen 6793NPS1/8x27 HSS
Плашки кръгли 6793NPS1/8x27 HSS

Circular Dies

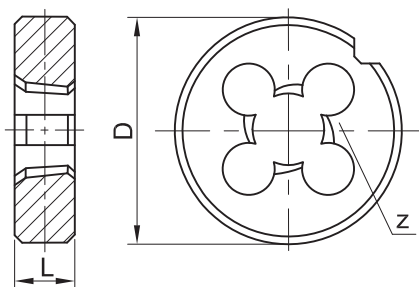
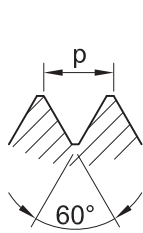
for American Tapered Pipe thread
according to ANSI / ASME B1.20.1
Taper 1:16
Form B - closed

Runde Schneideisen

für Amerikanisches kegeliges Rohr-
gewinde nach ANSI / ASME B1.20.1
Kegel 1:16
Form B - geschlossen

Плашки кръгли

за американска тръбна конусна
резба по ANSI / ASME B1.20.1
Конус 1:16
Форма В - затворени



NPT DIN EN 22 568 (DIN 223)

Thread Gewinde Резба	p / inch	D mm	L mm	z	Art. No. 6151*..
NPT 1/16	27	25	9	4	6151NPT1/16x27
NPT 1/8	27	30	11	5	6151NPT1/8x27
NPT 1/4	18	38	14	5	6151NPT1/4x18
NPT 3/8	18	45	14	5	6151NPT3/8x18
NPT 1/2	14	45	18	6	6151NPT1/2x14
NPT 3/4	14	55	22	6	6151NPT3/4x14
NPT 1"	11.5	65	25	7	6151NPT1"x11.5
NPT 1"1/4	11.5	75	26	8	6151NPT1"1/4x11.5
NPT 1"1/2	11.5	90	27	8	6151NPT1"1/2x11.5
NPT 2"	11.5	105	28	9	6151NPT2"x11.5

Ordering example:
Bestellbeispiel:
Начин на заявяване:

Circular dies 6151NPT1/16x27 HSS
Runde Schneideisen 6151NPT1/16x27 HSS
Плашки кръгли 6151NPT1/16x27 HSS

Circular Dies

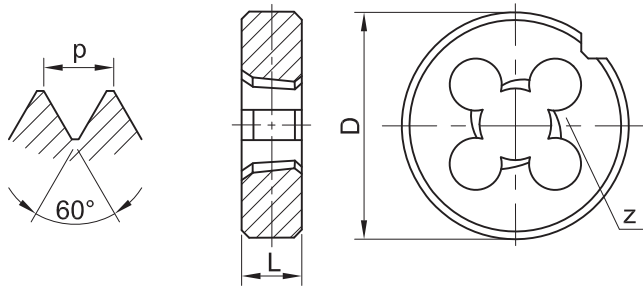
for American Tapered Pipe thread
according to ANSI / ASME B1.20.1
Taper 1:16
Form B - closed

Runde Schneideisen

für Amerikanisches kegeliges Rohr-
gewinde nach ANSI / ASME B1.20.1
Kegel 1:16
Form B - geschlossen

Плашки кръгли

за американска тръбна конусна
резба по ANSI / ASME B1.20.1
Конус 1:16
Форма В - затворени



NPT BS 1127

Thread Gewinde Резба	p / inch	D		L		z	Art. No. 6453*..
		inch	mm	inch	mm		
NPT 1/8	27	1"	25.4	3/8	9.5	5	6453NPT1/8x27
NPT 1/8	27	1" 5/16	33.4	7/16	11.1	5	6453NPT1/8x27-1
NPT 1/4	18	1" 5/16	33.4	7/16	11.1	5	6453NPT1/4x18
NPT 1/8	27	1" 1/2	38.1	1/2	12.7	5	6453NPT1/8x27-2
NPT 1/4	18	1" 1/2	38.1	1/2	12.7	5	6453NPT1/4x18-1
NPT 3/8	18	1" 1/2	38.1	1/2	12.7	5	6453NPT3/8x18
NPT 1/4	18	2"	50.8	5/8	15.9	5	6453NPT1/4x18-2
NPT 3/8	18	2"	50.8	5/8	15.9	5	6453NPT3/8x18-1
NPT 1/2	14	2"	50.8	5/8	15.9	6	6453NPT1/2x14
NPT 3/4	14	2"	50.8	5/8	15.9	6	6453NPT3/4x14
NPT 1"	11.5	3"	76.2	7/8	22.2	7	6453NPT1"x11.5
NPT 1"1/4	11.5	3"	76.2	7/8	22.2	8	6453NPT1"1/4x11.5
NPT 1"1/2	11.5	4"	101.6	1"	25.4	8	6453NPT1"1/2x11.5
NPT 2"	11.5	4"	101.6	1"	25.4	9	6453NPT2"x11.5
NPT 2"1/2	8	5"	127.0	1" 1/2	38.1	10	6453NPT2"1/2x8
NPT 3"	8	5"	127.0	1" 1/2	38.1	12	6453NPT3"x8

Ordering example:
Bestellbeispiel:
Начин на заявяване:

Circular dies 6453NPT1/8x27 HSS
Runde Schneideisen 6453NPT1/8x27 HSS
Плашки кръгли 6453NPT1/8x27 HSS

Hexagon Die Nuts

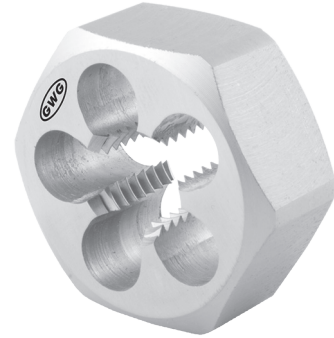
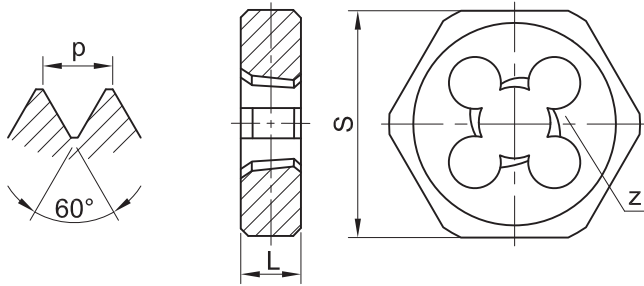
for American Tapered Pipe thread
according to ANSI / ASME B1.20.1
Taper 1:16

Sechskant-Schneidmuttern

für Amerikanisches kegeliges Rohr-
gewinde nach ANSI / ASME B1.20.1
Kegel 1:16

Плашки шестостенни

за американска тръбна конусна
резба по ANSI / ASME B1.20.1
Конус 1:16



NPT DIN 382

Thread Gewinde Резба	p / inch	S mm	L mm	z	Art. No. 7151*..
NPT 1/16	27	22	9	4	7151NPT1/16x27
NPT 1/8	27	27	11	5	7151NPT1/8x27
NPT 1/4	18	36	14	5	7151NPT1/4x18
NPT 3/8	18	41	14	5	7151NPT3/8x18
NPT 1/2	14	41	18	6	7151NPT1/2x14
NPT 3/4	14	50	22	6	7151NPT3/4x14
NPT 5/8	14	50	22	6	7151NPT5/8x14
NPT 7/8	14	60	25	6	7151NPT7/8x14
NPT 1"	11.5	60	25	7	7151NPT1"x11.5
NPT 1"1/4	11.5	70	26	8	7151NPT1"1/4x11.5
NPT 1"1/2	11.5	85	27	8	7151NPT1"1/2x11.5
NPT 2"	11.5	100	28	9	7151NPT2"x11.5

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Hexagon die nuts 7151NPT1/16x27 HSS

Sechskant Schneidmuttern 7151NPT1/16x27 HSS

Плашки шестостенни 7151NPT1/16x27 HSS

Circular Dies

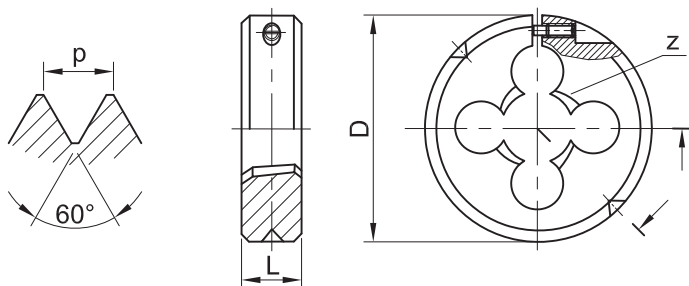
for American Tapered Pipe thread
according to ANSI / ASME B1.20.1
Taper 1:16

Runde Schneideisen

für Amerikanisches kegeliges Rohr-
gewinde nach ANSI / ASME B1.20.1
Kegel 1:16

Плашки кръгли

за американска тръбна конусна
резба по ANSI / ASME B1.20.1
Конус 1:16



NPT JIS B 4451

Thread Gewinde Резба	p / inch	D mm	L mm	z	Art. No. 6753*..
NPT 1/8	27	38	11	4	6753NPT1/8x27
NPT 1/4	18	38	14	5	6753NPT1/4x18
NPT 3/8	18	38	14	7	6753NPT3/8x18
NPT 1/8	27	50	11	4	6753NPT1/8x27-1
NPT 1/4	18	50	14	5	6753NPT1/4x18-1
NPT 3/8	18	50	14	5	6753NPT3/8x18-1
NPT 1/2	14	50	18	6	6753NPT1/2x14
NPT 3/4	14	50	22	8	6753NPT3/4x14
NPT 1"	11.5	50	25	10	6753NPT1"x11.5
NPT 1 1/4"	11.5	63	26	10	6753NPT1 1/4"x11.5

Ordering example:
Bestellbeispiel:
Начин на заявяване:

Circular dies 6753NPT1/8x27 HSS
Runde Schneideisen 6753NPT1/8x27 HSS
Плашки кръгли 6753NPT1/8x27 HSS

Circular Dies

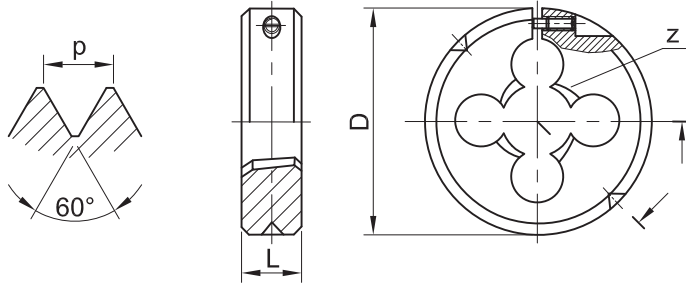
for Dryseal American Tapered
Pipe thread
according to ANSI / ASME B1.20.3
Taper 1:16

Runde Schneideisen

für Amerikanisches kegeliges
Rohrgewinde, selbstdichtend
nach ANSI / ASME B1.20.3
Kegel 1:16

Плашки кръгли

за американска тръбна плътна
конусна резба
по ANSI / ASME B1.20.3
Конус 1:16



NPTF JIS B 4451

Thread Gewinde Резба	p / inch	D mm	L mm	z	Art. No. 67531*..
NPTF 1/8	27	50	11	4	67531NPTF1/8x27
NPTF 1/4	18	50	14	5	67531NPTF1/4x18
NPTF 3/8	18	50	14	5	67531NPTF3/8x18
NPTF 1/2	14	50	18	6	67531NPTF1/2x14
NPTF 3/4	14	50	22	8	67531NPTF3/4x14
NPTF 1"	11.5	50	25	10	67531NPTF1"x11.5

Ordering example:
Bestellbeispiel:
Начин на заявяване:

Circular dies 67531NPTF1/8x27 HSS
Runde Schneideisen 67531NPTF1/8x27 HSS
Плашки кръгли 67531NPTF1/8x27 HSS

Circular Dies

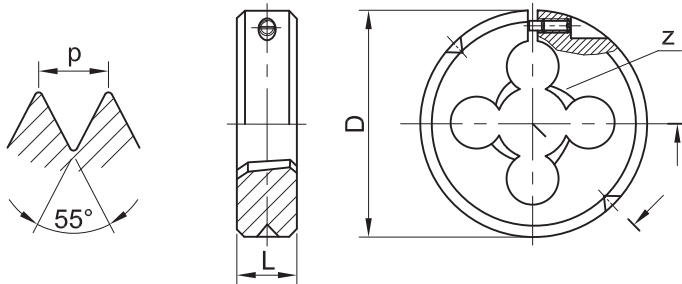
for Tapered Pipe thread
according to JIS B 0203
Taper 1:16

Runde Schneideisen

für kegeliges Rohrgewinde
nach JIS B 0203
Kegel 1:16

Плашки кръгли

за тръбна конусна резба
по JIS B 0203
Конус 1:16



PT JIS B 4451

Thread Gewinde Резба	p / inch	D mm	L mm	z	Art. No. 6743*..
PT 1/8	28	38	11	4	6743PT1/8x28
PT 1/4	19	38	16	5	6743PT1/4x19
PT 3/8	19	38	18	7	6743PT3/8x19
PT 1/8	28	50	11	4	6743PT1/8x28-1
PT 1/4	19	50	16	5	6743PT1/4x19-1
PT 3/8	19	50	18	5	6743PT3/8x19-1
PT 1/2	14	50	22	6	6743PT1/2x14
PT 3/4	14	50	24	8	6743PT3/4x14
PT 1"	11	50	28	10	6743PT1"x11
PT 1"	11	63	28	8	6743PT1"x11
PT 1"1/4	11	63	31.75	11	6743PT1"1/4x11
PT 1"1/4	11	75	31.75	10	6743PT1"1/4x11-1

Ordering example:
Bestellbeispiel:
Начин на заявяване:

Circular dies 6743PT1/8x28 HSS
Runde Schneideisen 6743PT1/8x28 HSS
Плашки кръгли 6743PT1/8x28 HSS

Circular Dies

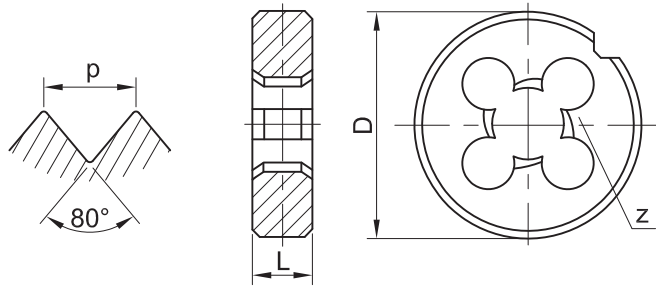
for Steel Conduit thread
according to DIN 40430
Form B - closed

Runde Schneideisen

für Stahlpanzerrohrgewinde
nach DIN 40430
Form B - geschlossen

Плашки кръгли

за електроарматурна резба
по DIN 40430
Форма В - затворени



PG DIN 40434

Thread Gewinde Резба	p / inch	D mm	L mm	z	Art. No. 6171*..
PG 7	20	38	10	4	6171PG7x20
PG 9	18	45	14	5	6171PG9x18
PG 11	18	45	14	5	6171PG11x18
PG 13.5	18	45	14	5	6171PG13.5x18
PG 16	18	55	16	5	6171PG16x18
PG 21	16	65	18	5	6171PG21x16
PG 29	16	65	18	7	6171PG29x16
PG 36	16	90	22	7	6171PG36x16
PG 42	16	105	22	8	6171PG42x16
PG 48	16	105	22	8	6171PG48x16

Ordering example:
Bestellbeispiel:
Начин на заявяване:

Circular dies 6171PG7x20 HSS
Runde Schneideisen 6171PG7x20 HSS
Плашки кръгли 6171PG7x20 HSS

Circular Dies

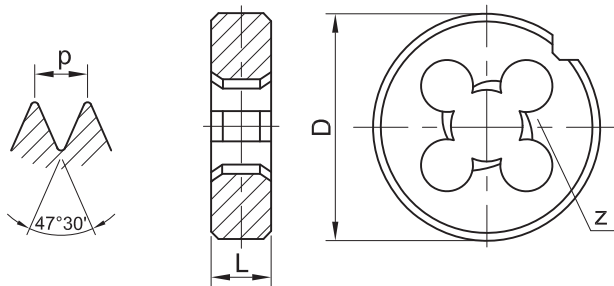
for British Association screw thread
according to BS 93
Form A - cut

Runde Schneideisen

für British Association Gewinde
nach BS 93
Form A - geschlitzt

Плашки кръгли

за резба на Британската
асоциация по BS 93
Форма А - прорязани



BA BS 1127

Thread Gewinde Резба	p mm	D		L		z	Art. No. 6463*..
		inch	mm	inch	mm		
BA 0	1.0	13/16	20.6	1/4	6.35	4	6463BA0
BA 1	0.9	13/16	20.6	1/4	6.35	4	6463BA1
BA 2	0.81	13/16	20.6	1/4	6.35	3	6463BA2
BA 3	0.73	13/16	20.6	1/4	6.35	3	6463BA3
BA 4	0.66	13/16	20.6	1/4	6.35	3	6463BA4
BA 5	0.59	13/16	20.6	1/4	6.35	3	6463BA5
BA 6	0.53	13/16	20.6	1/4	6.35	3	6463BA6
BA 7	0.48	13/16	20.6	1/4	6.35	3	6463BA7

Ordering example: Circular dies 6463BA0 HSS
Bestellbeispiel: Runde Schneideisen 6463BA0 HSS
Начин на заявяване: Плашки кръгли 6463BA0 HSS

Hexagon Die Nuts

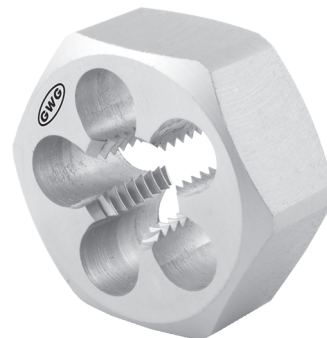
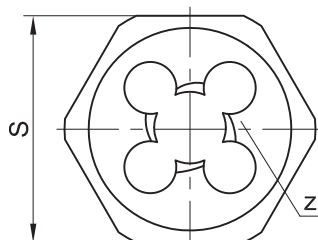
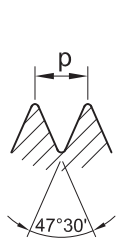
for British Association screw thread
according to BS 93

Sechskant-Schneidmuttern

für British Association Gewinde
nach BS 93

Плашки шестостенни

за резба на Британската
асоциация по BS 93

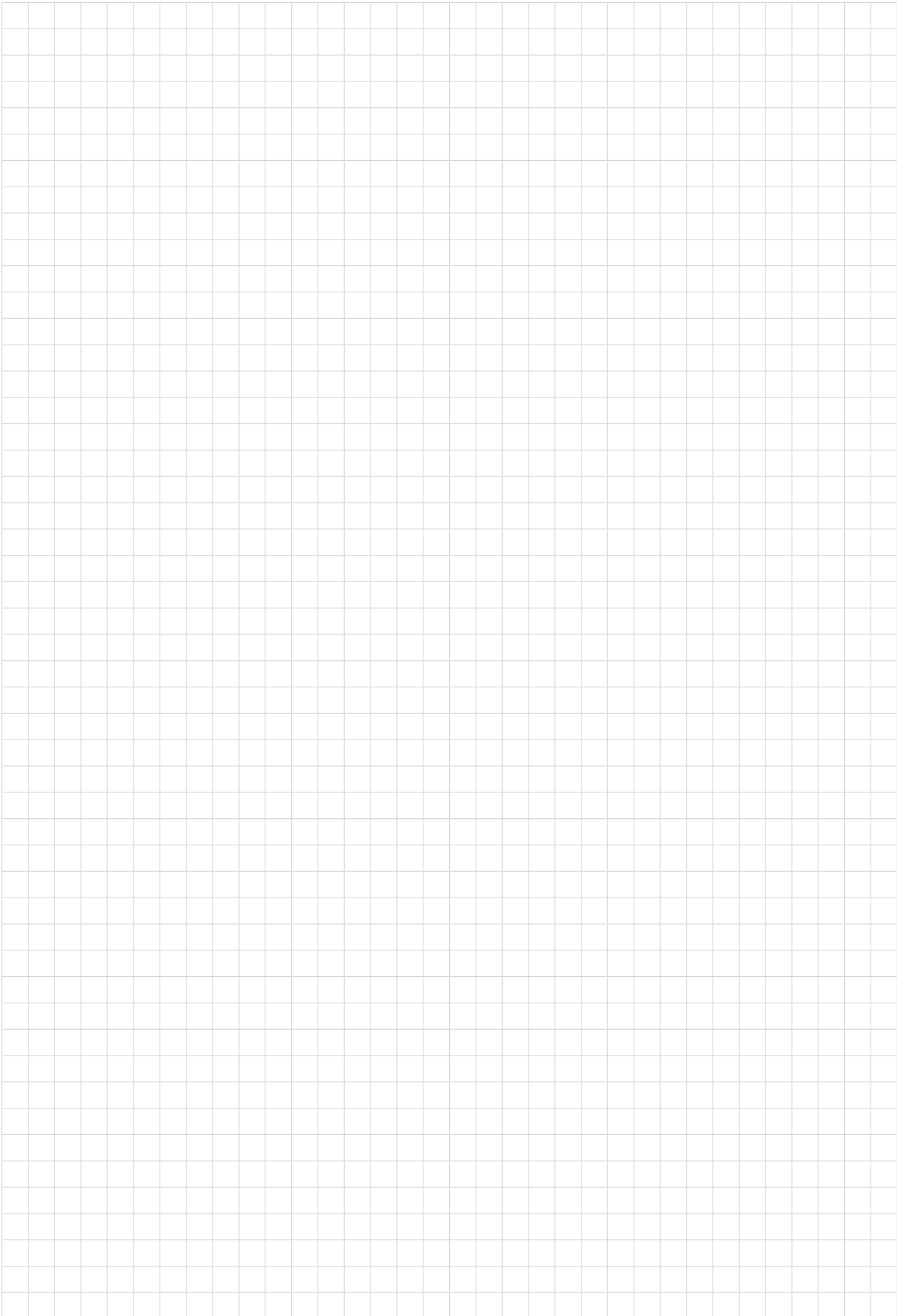


BA DIN 382

Thread Gewinde Резба	p mm	S mm	L mm	z	Art. No. 7161*..
BA 0	1.0	19	7	4	7161BA0
BA 1	0.9	19	7	4	7161BA1
BA 2	0.81	19	7	3	7161BA2
BA 3	0.73	19	7	3	7161BA3
BA 4	0.66	19	5	3	7161BA4
BA 5	0.59	19	5	3	7161BA5

Ordering example:
Bestellbeispiel:
Начин на заявяване:

Hexagon die nuts 7161BA0 HSS
Sechskant Schneidmuttern 7161BA0 HSS
Плашки шестостенни 7161BA0 HSS



Drills
Bohrer
Свердла



CONTENTS
INHALTSVERZEICHNIS
СЪДЪРЖАНИЕ

<i>Drills</i> <i>Bohrer</i> <i>Свердла</i>	Page Seite Страница
Spiral Drills Spiralbohrer Свердла спирални	188
Step Drills Stufenbohrer Свердла стъпални	192
Tube and Sheet Drills Blechsälbohrer Свердла за разширяване на отвори	193
Drill-milling Cutter Fräsbohrer Свердло-фреза	194
Spiral Drill Bits Spiralbohrer mit Sechskant Свердла с опашка шестостен	195
Drill and Countersink hexagonal shank Bohrer und Senker mit Sechskant Свердло зенкер с опашка шестостен	197
Special Drills for metal sheets Spezialbohrer für Bleche Свердла специални за метални листове	198
Spiral Drills for NC-machines Spiralbohrer für NC-Maschinen Свердла за NC-машини	199
Drills for Wood Bohrer für Holz Свердла за дърво	200

Our instruments are made of the following high speed steels:

Unsere Werkzeuge werden aus folgenden HSS-Stahlsorten gefertigt:

Нашите инструменти се изработват от следните бързорезни стомани:

HSS (1.3343, S6 - 5 - 2 DIN)

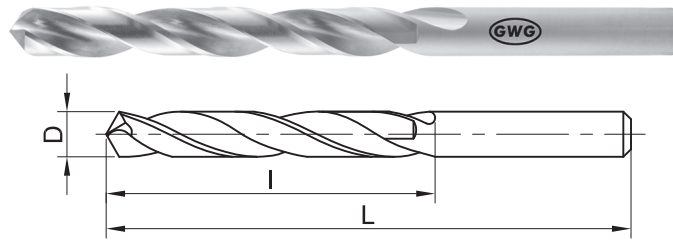
HSSE - Co 5% (1.3243, S6 - 5 - 2 - 5 DIN)

PM 30 - Co 8% (HS 6 - 5 - 3 - 8 DIN)

Spiral Drills
short, ground
Type N, H, W

Spiralbohrer
kurz, geschliffen
Typ N, H, W

Свредла спирални
къси, шлифовани
Тип N, H, W



DIN 338 N, H, W

D mm	L mm	I mm	Art. No. 831*..	D mm	L mm	I mm	Art. No. 831*..	D mm	L mm	I mm	Art. No. 831*..
2	49	24	831 2	5.1	86	52	831 5.1	9.1	125	81	831 9.1
2.05	49	24	831 2.05	5.2	86	52	831 5.2	9.2	125	81	831 9.2
2.1	49	24	831 2.1	5.3	86	52	831 5.3	9.3	125	81	831 9.3
2.15	53	27	831 2.15	5.4	93	57	831 5.4	9.4	125	81	831 9.4
2.2	53	27	831 2.2	5.5	93	57	831 5.5	9.5	125	81	831 9.5
2.25	53	27	831 2.25	5.6	93	57	831 5.6	9.6	133	87	831 9.6
2.3	53	27	831 2.3	5.7	93	57	831 5.7	9.7	133	87	831 9.7
2.35	53	27	831 2.35	5.8	93	57	831 5.8	9.8	133	87	831 9.8
2.4	57	30	831 2.4	5.9	93	57	831 5.9	9.9	133	87	831 9.9
2.45	57	30	831 2.45	6	93	57	831 6	10	133	87	831 10
2.5	57	30	831 2.5	6.1	101	63	831 6.1	10.1	133	87	831 10.1
2.55	57	30	831 2.55	6.2	101	63	831 6.2	10.2	133	87	831 10.2
2.6	57	30	831 2.6	6.3	101	63	831 6.3	10.3	133	87	831 10.3
2.65	57	30	831 2.65	6.4	101	63	831 6.4	10.4	133	87	831 10.4
2.7	61	33	831 2.7	6.5	101	63	831 6.5	10.5	133	87	831 10.5
2.75	61	33	831 2.75	6.6	101	63	831 6.6	10.6	133	87	831 10.6
2.8	61	33	831 2.8	6.7	101	63	831 6.7	10.7	142	94	831 10.7
2.85	61	33	831 2.85	6.8	109	69	831 6.8	10.8	142	94	831 10.8
2.9	61	33	831 2.9	6.9	109	69	831 6.9	10.9	142	94	831 10.9
2.95	61	33	831 2.95	7	109	69	831 7	11	142	94	831 11
3	61	33	831 3	7.1	109	69	831 7.1	11.1	142	94	831 11.1
3.1	65	36	831 3.1	7.2	109	69	831 7.2	11.2	142	94	831 11.2
3.2	65	36	831 3.2	7.3	109	69	831 7.3	11.3	142	94	831 11.3
3.3	65	36	831 3.3	7.4	109	69	831 7.4	11.4	142	94	831 11.4
3.4	70	39	831 3.4	7.5	109	69	831 7.5	11.5	142	94	831 11.5
3.5	70	39	831 3.5	7.6	117	75	831 7.6	11.6	142	94	831 11.6
3.6	70	39	831 3.6	7.7	117	75	831 7.7	11.7	142	94	831 11.7
3.7	70	39	831 3.7	7.8	117	75	831 7.8	11.8	142	94	831 11.8
3.8	75	43	831 3.8	7.9	117	75	831 7.9	11.9	151	101	831 11.9
3.9	75	43	831 3.9	8	117	75	831 8	12	151	101	831 12
4	75	43	831 4	8.1	117	75	831 8.1	12.1	151	101	831 12.1
4.1	75	43	831 4.1	8.2	117	75	831 8.2	12.2	151	101	831 12.2
4.2	75	43	831 4.2	8.3	117	75	831 8.3	12.3	151	101	831 12.3
4.3	80	47	831 4.3	8.4	117	75	831 8.4	12.4	151	101	831 12.4
4.5	80	47	831 4.5	8.5	117	75	831 8.5	12.5	151	101	831 12.5
4.6	80	47	831 4.6	8.6	125	81	831 8.6	12.6	151	101	831 12.6
4.7	80	47	831 4.7	8.7	125	81	831 8.7	12.7	151	101	831 12.7
4.8	86	52	831 4.8	8.8	125	81	831 8.8	12.8	151	101	831 12.8
4.9	86	52	831 4.9	8.9	125	81	831 8.9	12.9	151	101	831 12.9
5	86	52	831 5	9	125	81	831 9	13	151	101	831 13

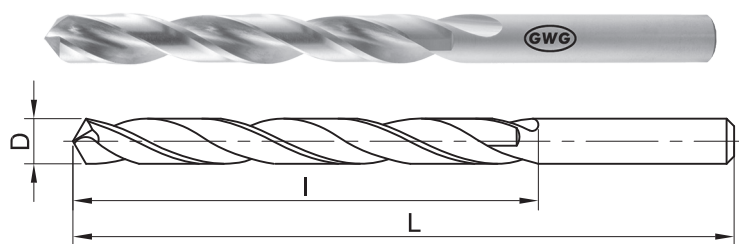
Ordering example: Spiral drill short 831 2 N HSS
 Bestellbeispiel: Spiralbohrer kurz 831 2 N HSS
 Начин на заявяване: Свредел спирален къс 831 2 N HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Spiral Drills
long, ground
Type N, H, W

Spiralbohrer
lang, geschliffen
Typ N, H, W

Свредла спирални
дълги, шлифовани
Тип N, H, W

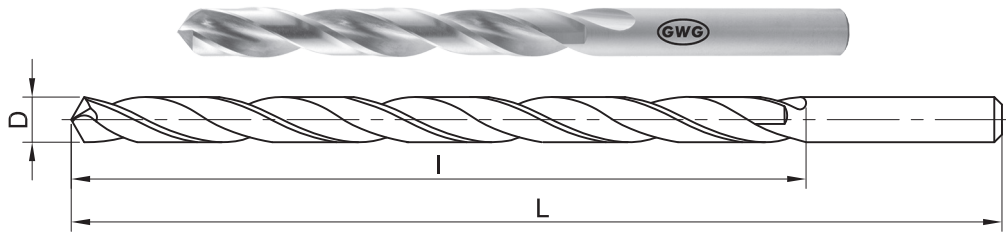


DIN 340 N, H, W

D mm	L mm	I mm	Art. No. 8314*..	D mm	L mm	I mm	Art. No. 8314*..	D mm	L mm	I mm	Art. No. 8314*..
2	85	56	8314 2	5.7	139	91	8314 5.7	9.4	175	115	8314 9.4
2.1	85	56	8314 2.1	5.8	139	91	8314 5.8	9.5	175	115	8314 9.5
2.2	90	59	8314 2.2	5.9	139	91	8314 5.9	9.6	184	121	8314 9.6
2.3	90	59	8314 2.3	6	139	91	8314 6	9.7	184	121	8314 9.7
2.4	95	62	8314 2.4	6.1	148	97	8314 6.1	9.8	184	121	8314 9.8
2.5	95	62	8314 2.5	6.2	148	97	8314 6.2	9.9	184	121	8314 9.9
2.6	95	62	8314 2.6	6.3	148	97	8314 6.3	10	184	121	8314 10
2.7	100	66	8314 2.7	6.4	148	97	8314 6.4	10.1	184	121	8314 10.1
2.8	100	66	8314 2.8	6.5	148	97	8314 6.5	10.2	184	121	8314 10.2
2.9	100	66	8314 2.9	6.6	148	97	8314 6.6	10.3	184	121	8314 10.3
3	100	66	8314 3	6.7	148	97	8314 6.7	10.4	184	121	8314 10.4
3.1	106	69	8314 3.1	6.8	156	102	8314 6.8	10.5	184	121	8314 10.5
3.2	106	69	8314 3.2	6.9	156	102	8314 6.9	10.6	184	121	8314 10.6
3.3	106	69	8314 3.3	7	156	102	8314 7	10.7	195	128	8314 10.7
3.4	112	73	8314 3.4	7.1	156	102	8314 7.1	10.8	195	128	8314 10.8
3.5	112	73	8314 3.5	7.2	156	102	8314 7.2	10.9	195	128	8314 10.9
3.6	112	73	8314 3.6	7.3	156	102	8314 7.3	11	195	128	8314 11
3.7	112	73	8314 3.7	7.4	156	102	8314 7.4	11.1	195	128	8314 11.1
3.8	119	78	8314 3.8	7.5	156	102	8314 7.5	11.2	195	128	8314 11.2
3.9	119	78	8314 3.9	7.6	165	109	8314 7.6	11.3	195	128	8314 11.3
4	119	78	8314 4	7.7	165	109	8314 7.7	11.4	195	128	8314 11.4
4.1	119	78	8314 4.1	7.8	165	109	8314 7.8	11.5	195	128	8314 11.5
4.2	119	78	8314 4.2	7.9	165	109	8314 7.9	11.6	195	128	8314 11.6
4.3	126	82	8314 4.3	8	165	109	8314 8	11.7	195	128	8314 11.7
4.4	126	82	8314 4.4	8.1	165	109	8314 8.1	11.8	195	128	8314 11.8
4.5	126	82	8314 4.5	8.2	165	109	8314 8.2	11.9	205	134	8314 11.9
4.6	126	82	8314 4.6	8.3	165	109	8314 8.3	12	205	134	8314 12
4.7	126	82	8314 4.7	8.4	165	109	8314 8.4	12.1	205	134	8314 12.1
4.8	132	87	8314 4.8	8.5	165	109	8314 8.5	12.2	205	134	8314 12.2
4.9	132	87	8314 4.9	8.6	175	115	8314 8.6	12.3	205	134	8314 12.3
5	132	87	8314 5	8.7	175	115	8314 8.7	12.4	205	134	8314 12.4
5.1	132	87	8314 5.1	8.8	175	115	8314 8.8	12.5	205	134	8314 12.5
5.2	132	87	8314 5.2	8.9	175	115	8314 8.9	12.6	205	134	8314 12.6
5.3	132	87	8314 5.3	9	175	115	8314 9	12.7	205	134	8314 12.7
5.4	139	91	8314 5.4	9.1	175	115	8314 9.1	12.8	205	134	8314 12.8
5.5	139	91	8314 5.5	9.2	175	115	8314 9.2	12.9	205	134	8314 12.9
5.6	139	91	8314 5.6	9.3	175	115	8314 9.3	13	205	134	8314 13

Ordering example: Spiral drill long 8314 2 N HSS
 Bestellbeispiel: Spiralbohrer lang 8314 2 N HSS
 Начин на заявяване: Свредел спирален дълъг 8314 2 N HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

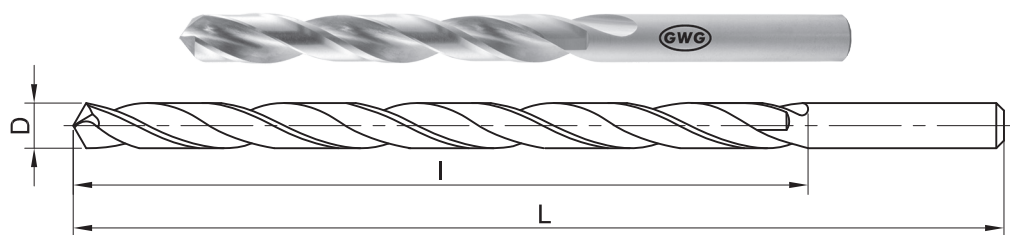


DIN 1869

D mm	Modification / Ausführung / Изпълнение								
	I			II			III		
	L mm	I mm	Art. No. 8321*..	L mm	I mm	Art. No. 8322*..	L mm	I mm	Art. No. 8323*..
2	125	85	8321 2						
2.1	125	85	8321 2.1						
2.2	135	90	8321 2.2						
2.3	135	90	8321 2.3						
2.4	135	90	8321 2.4						
2.5	140	95	8321 2.5						
2.6	140	95	8321 2.6						
2.7	140	95	8321 2.7						
2.8	150	100	8321 2.8	190	130	8322 2.8			
2.9	150	100	8321 2.9	190	130	8322 2.9			
3	150	100	8321 3	190	130	8322 3			
3.1	155	105	8321 3.1	200	135	8322 3.1			
3.2	155	105	8321 3.2	200	135	8322 3.2			
3.3	155	105	8321 3.3	200	135	8322 3.3			
3.4	155	105	8321 3.4	200	135	8322 3.4			
3.5	165	115	8321 3.5	210	140	8322 3.5	265	180	8323 3.5
3.6	165	115	8321 3.6	210	140	8322 3.6	265	180	8323 3.6
3.7	165	115	8321 3.7	210	140	8322 3.7	265	180	8323 3.7
3.8	175	120	8321 3.8	220	150	8322 3.8	280	190	8323 3.8
3.9	175	120	8321 3.9	220	150	8322 3.9	280	190	8323 3.9
4	175	120	8321 4	220	150	8322 4	280	190	8323 4
4.1	175	120	8321 4.1	220	150	8322 4.1	280	190	8323 4.1
4.2	175	120	8321 4.2	220	150	8322 4.2	280	190	8323 4.2
4.3	185	125	8321 4.3	235	160	8322 4.3	295	200	8323 4.3
4.4	185	125	8321 4.4	235	160	8322 4.4	295	200	8323 4.4
4.5	185	125	8321 4.5	235	160	8322 4.5	295	200	8323 4.5
4.6	185	125	8321 4.6	235	160	8322 4.6	295	200	8323 4.6
4.7	185	125	8321 4.7	235	160	8322 4.7	295	200	8323 4.7
4.8	195	135	8321 4.8	245	170	8322 4.8	315	210	8323 4.8
4.9	195	135	8321 4.9	245	170	8322 4.9	315	210	8323 4.9
5	195	135	8321 5	245	170	8322 5	315	210	8323 5
5.1	195	135	8321 5.1	245	170	8322 5.1	315	210	8323 5.1
5.2	195	135	8321 5.2	245	170	8322 5.2	315	210	8323 5.2
5.3	195	135	8321 5.3	245	170	8322 5.3	315	210	8323 5.3
5.4	205	140	8321 5.4	260	180	8322 5.4	330	225	8323 5.4
5.5	205	140	8321 5.5	260	180	8322 5.5	330	225	8323 5.5
5.6	205	140	8321 5.6	260	180	8322 5.6	330	225	8323 5.6
5.7	205	140	8321 5.7	260	180	8322 5.7	330	225	8323 5.7
5.8	205	140	8321 5.8	260	180	8322 5.8	330	225	8323 5.8
5.9	205	140	8321 5.9	260	180	8322 5.9	330	225	8323 5.9
6	205	140	8321 6	260	180	8322 6	330	225	8323 6
6.1	215	150	8321 6.1	275	190	8322 6.1	350	235	8323 6.1
6.2	215	150	8321 6.2	275	190	8322 6.2	350	235	8323 6.2
6.3	215	150	8321 6.3	275	190	8322 6.3	350	235	8323 6.3

Ordering example: Spiral drill extra long 8321 2 HSS
 Bestellbeispiel: Spiralbohrer überlang 8321 2 HSS
 Начин на заявяване: Свредел спирален свръхдълъг 8321 2 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване



DIN 1869

D mm	Modification / Ausführung / Изпълнение								
	I			II			III		
	L mm	I mm	Art. No. 8321*..	L mm	I mm	Art. No. 8322*..	L mm	I mm	Art. No. 8323*..
6.4	215	150	8321 6.4	275	190	8322 6.4	350	235	8323 6.4
6.5	215	150	8321 6.5	275	190	8322 6.5	350	235	8323 6.5
6.6	215	150	8321 6.6	275	190	8322 6.6	350	235	8323 6.6
6.7	215	150	8321 6.7	275	190	8322 6.7	350	235	8323 6.7
6.8	225	155	8321 6.8	290	200	8322 6.8	370	250	8323 6.8
6.9	225	155	8321 6.9	290	200	8322 6.9	370	250	8323 6.9
7	225	155	8321 7	290	200	8322 7	370	250	8323 7
7.1	225	155	8321 7.1	290	200	8322 7.1	370	250	8323 7.1
7.2	225	155	8321 7.2	290	200	8322 7.2	370	250	8323 7.2
7.3	225	155	8321 7.3	290	200	8322 7.3	370	250	8323 7.3
7.4	225	155	8321 7.4	290	200	8322 7.4	370	250	8323 7.4
7.5	225	155	8321 7.5	290	200	8322 7.5	370	250	8323 7.5
7.6	240	165	8321 7.6	305	210	8322 7.6	390	265	8323 7.6
7.7	240	165	8321 7.7	305	210	8322 7.7	390	265	8323 7.7
7.8	240	165	8321 7.8	305	210	8322 7.8	390	265	8323 7.8
7.9	240	165	8321 7.9	305	210	8322 7.9	390	265	8323 7.9
8	240	165	8321 8	305	210	8322 8	390	265	8323 8
8.1	240	165	8321 8.1	305	210	8322 8.1	390	265	8323 8.1
8.2	240	165	8321 8.2	305	210	8322 8.2	390	265	8323 8.2
8.3	240	165	8321 8.3	305	210	8322 8.3	390	265	8323 8.3
8.4	240	165	8321 8.4	305	210	8322 8.4	390	265	8323 8.4
8.5	240	165	8321 8.5	305	210	8322 8.5	390	265	8323 8.5
8.6	250	175	8321 8.6	320	220	8322 8.6	410	280	8323 8.6
8.7	250	175	8321 8.7	320	220	8322 8.7	410	280	8323 8.7
8.8	250	175	8321 8.8	320	220	8322 8.8	410	280	8323 8.8
8.9	250	175	8321 8.9	320	220	8322 8.9	410	280	8323 8.9
9	250	175	8321 9	320	220	8322 9	410	280	8323 9
9.1	250	175	8321 9.1	320	220	8322 9.1	410	280	8323 9.1
9.2	250	175	8321 9.2	320	220	8322 9.2	410	280	8323 9.2
9.3	250	175	8321 9.3	320	220	8322 9.3	410	280	8323 9.3
9.4	250	175	8321 9.4	320	220	8322 9.4	410	280	8323 9.4
9.5	250	175	8321 9.5	320	220	8322 9.5	410	280	8323 9.5
9.6	265	185	8321 9.6	340	235	8322 9.6			
9.7	265	185	8321 9.7	340	235	8322 9.7			
9.8	265	185	8321 9.8	340	235	8322 9.8			
9.9	265	185	8321 9.9	340	235	8322 9.9			
10	265	185	8321 10						
10.5	265	185	8321 10.5						
11	265	185	8321 11						
11.5	265	185	8321 11.5						

Ordering example: Spiral drill extra long 8321 6.4 HSS
 Bestellbeispiel: Spiralbohrer überlang 8321 6.4 HSS
 Начин на заявяване: Свредел спирален свръхдълъг 8321 6.4 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Step Drills

Stufenbohrer

Свредла стъпални

Using of the Step Drills

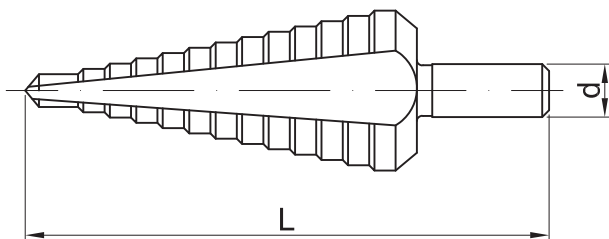
The step drills cut cylindrical holes, which are deburred by the following level (step). A variety of hole diameters can be drilled using only one tool. The centring is not necessary.

Anwendung von Stufenbohrer

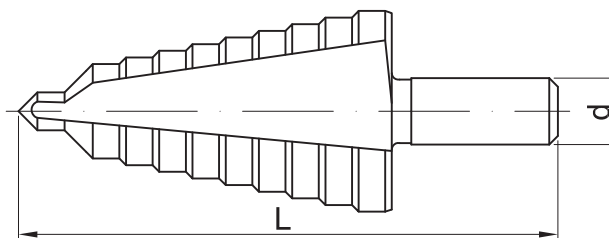
Mit Stufenbohrern werden zylindrische Bohrungen erzeugt, die gleichzeitig von der nächsten Stufe entgratet werden. Ein Stufenbohrer kann einen ganzen Spiralbohrersatz ersetzen. Anbohren und Ankörnen entfallen; der Stufenbohrer körnt selbst an.

Приложение на стъпалното свердело

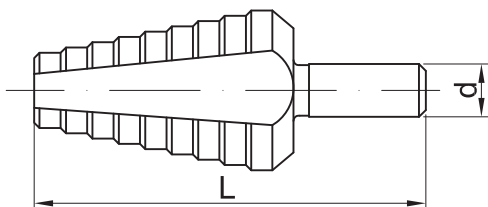
Със стъпалния свердел се пробиват цилиндрични отвори, като едновременно се снемат фаски от следващото стъпало. Един стъпален свердел може да замени цял комплект спирални свердела. Началното центроване отпада.



Drilling range Bohrbereich Обхват mm	L mm	d mm	Steps' diameter Durchmesser der einzelnen Stufen Диаметър на стъпалата mm	Art. No. 840*..
4 - 12	65	6	4, 5, 6, 7, 8, 9, 10, 11, 12	840 4-12
4 - 20	76	8	4, 6, 8, 10, 12, 14, 16, 18, 20	840 4-20
4 - 22	77	8	4, 6, 8, 10, 12, 14, 16, 18, 20, 22	840 4-22
4 - 30	100	9	4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30	840 4-30
4 - 39	107	10	4, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39	840 4-39
6 - 30	95	9	6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30	840 6-30
7 - 29.9	92	12	7, 11.4, 14, 17.25, 19, 21.25, 26.75, 29.9	840 7-29.9
7 - 32.6	85	12	7, 12.7, 15.2, 18.6, 20.4, 22.5, 28.3, 30.5, 32.6	840 7-32.6
7 - 39.6	92	12	7, 12.7, 15.2, 18.6, 20.4, 22.5, 28.3, 33, 37, 39.6	840 7-39.6



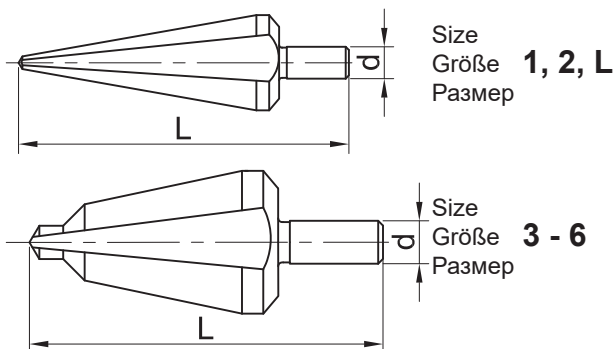
Drilling range Bohrbereich Обхват mm	L mm	d mm	Steps' diameter Durchmesser der einzelnen Stufen Диаметър на стъпалата mm	Art. No. 840*..
30 - 40	100	13	12.3, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40	840 12.3-40
40 - 50	116	13	14.3, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50	840 14.3-50
50 - 60	122	13	14.3, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60	840 14.3-60



Drilling range Bohrbereich Обхват mm	L mm	d mm	Steps' diameter Durchmesser der einzelnen Stufen Диаметър на стъпалата mm	Art. No. 840*..
12 - 20	66	8	12, 13, 14, 15, 16, 17, 18, 19, 20	840 12-20
20 - 30	78	10	20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30	840 20-30
30 - 40	78	10	30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40	840 30-40

Ordering example: Step drills 840 4-12 HSS
 Bestellbeispiel: Stufenbohrer 840 4-12 HSS
 Начин на заявяване: Свредла стъпални 840 4-12 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване



Size Größe Размер	Drilling range Bohrbereich Обхват mm	L mm	d mm	Art. No. 842*..
1	3 - 14	55	6	842 1
2	4 - 20	68	8	842 2
3	16 - 30	73	9	842 3
4	24 - 40	83	10	842 4
5	36 - 50	93	12	842 5
6	40 - 61	98	13	842 6
L	4 - 31	100	9	842 L

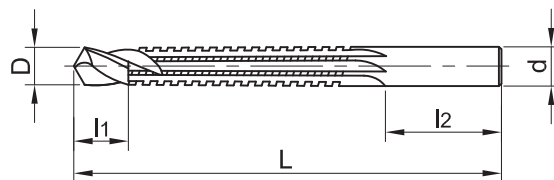
Ordering example: Tube and sheet drills 842 1 HSS
 Bestellbeispiel: Blechsälbohrer 842 1 HSS
 Начин на заявяване: Свредла за разширяване на отвори 842 1 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Drill-milling Cutters
with straight shank

Fräsbohrer
mit Zylinderschaft

Свредло-фреза
с цилиндрична опашка

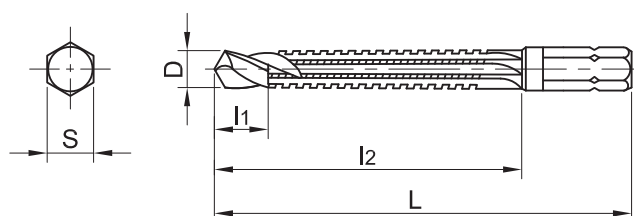


D mm	L mm	l1 mm	l2 mm	d mm	Art. No. 850*..
6.0	90	12	31	6.0	850 6
6.35	94	12	31	6.35	850 6.35
8.0	95	15	31	8.0	850 8
10.0	100	18	31	10.0	850 10

Drill-milling Cutters
with hexagonal shank

Fräsbohrer
mit Sechskant

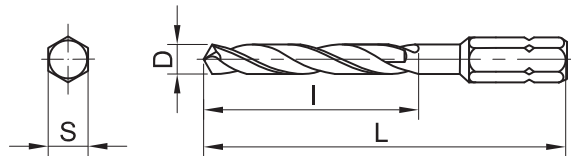
Свредло-фреза
с опашка шестостен



D mm	L mm	l1 mm	l2 mm	S mm	Art. No. 851*..
6.0	50	12	33	6.35	851 6
6.35	50	12	33	6.35	851 6.35
8.0	50	15	33	6.35	851 8
10.0	60	18	43	6.35	851 10
EXTRA LONG		EXTRA LANG		УДЪЛЖЕНИ	Art. No. 852*..
6.0	80	12	62	6.35	852 6
6.35	80	12	62	6.35	852 6.35
8.0	80	15	62	6.35	852 8
10.0	90	18	72	6.35	852 10

Ordering example: Drill-milling Cutter 850 6 HSS
 Bestellbeispiel: Fräsbohrer 850 6 HSS
 Начин на заявяване: Свредло-фреза 850 6 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване



D mm	L mm	I mm	S mm	Art. No. 830*..
2	34	12	6.35	830 2
2.5	36	14	6.35	830 2.5
3	38	16	6.35	830 3
3.3	40	18	6.35	830 3.3
3.5	40	18	6.35	830 3.5
4	43	22	6.35	830 4
4.2	43	22	6.35	830 4.2
4.5	45	24	6.35	830 4.5
5	48	26	6.35	830 5
5.5	48	26	6.35	830 5.5
6	48	26	6.35	830 6
6.5	48	30	6.35	830 6.5
6.8	48	30	6.35	830 6.8
7	48	30	6.35	830 7
7.5	50	32	6.35	830 7.5
8	50	32	6.35	830 8
8.5	51	34	6.35	830 8.5
9	51	34	6.35	830 9
9.5	54	37	6.35	830 9.5
10	54	37	6.35	830 10
10.2	54	37	6.35	830 10.2

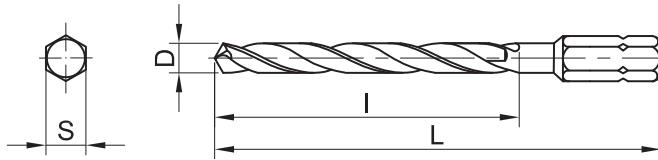
Ordering example: Drill with hexagonal shank 830 2 HSS
 Bestellbeispiel: Spiralbohrer mit Sechskant 830 2 HSS
 Начин на заявяване: Свредло с шестостенна опашка 830 2 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Long Spiral Drills
with hexagonal shank

Lange Spiralbohrer
mit Sechskant

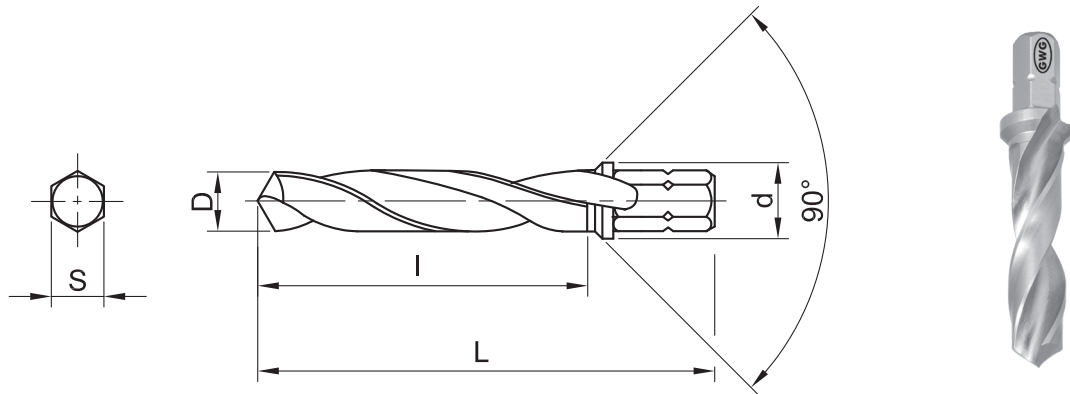
Свердла удължени
с опашка шестостен



D mm	L mm	I mm	S mm	Art. No. 8301*..
2	44	24	6.35	8301 2
2.5	48	28	6.35	8301 2.5
3	52	32	6.35	8301 3
3.3	56	36	6.35	8301 3.3
3.5	56	36	6.35	8301 3.5
4	65	44	6.35	8301 4
4.2	65	44	6.35	8301 4.2
4.5	69	52	6.35	8301 4.5
5	73	48	6.35	8301 5
5.5	73	52	6.35	8301 5.5
6	73	52	6.35	8301 6
6.5	80	60	6.35	8301 6.5
6.8	80	60	6.35	8301 6.8
7	80	60	6.35	8301 7
7.5	85	64	6.35	8301 7.5
8	85	64	6.35	8301 8
8.5	90	68	6.35	8301 8.5
9	90	68	6.35	8301 9
9.5	95	74	6.35	8301 9.5
10	95	74	6.35	8301 10
10.2	95	74	6.35	8301 10.2

Ordering example: Long Drill with hexagonal shank 8301 2 HSS
 Bestellbeispiel: Lange Spiralbohrer mit Sechskant 8301 2 HSS
 Начин на заявяване: Свердло удължено с шестостенна опашка 8301 2 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване



D mm	L mm	I mm	d mm	S mm	Art. No. 8302*..
2	34	17	7.2	6.35	8302 2
2.5	36	20	7.2	6.35	8302 2.5
3	38	22	7.2	6.35	8302 3
3.3	40	24	7.2	6.35	8302 3.3
3.5	40	24	7.2	6.35	8302 3.5
4	43	27	7.2	6.35	8302 4
4.2	43	28	7.2	6.35	8302 4.2
4.5	45	30	7.2	6.35	8302 4.5
5	48	33	7.2	6.35	8302 5
5.5	48	33	7.5	6.35	8302 5.5
6	48	33	8	6.35	8302 6
6.5	48	33	8.8	6.35	8302 6.5
6.8	48	33	9	6.35	8302 6.8
7	48	33	9.5	6.35	8302 7
7.5	50	35	10	6.35	8302 7.5
8	50	35	10.5	6.35	8302 8
8.5	51	36	11	6.35	8302 8.5
9	51	36	11.5	6.35	8302 9
9.5	54	39	12	6.35	8302 9.5
10	54	39	12.5	6.35	8302 10
10.2	54	39	13	6.35	8302 10.2

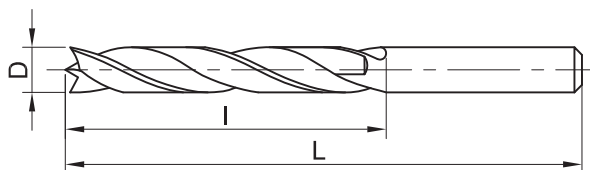
Ordering example: Drill and Countersink with hexagonal shank 8302 2 HSS
 Bestellbeispiel: Bohrer und Senker mit Sechskant 8302 2 HSS
 Начин на заявяване: Свредел-зенкер с шестостенна опашка 8302 2 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Special Drills
for metal sheets
with straight shank

Spezialbohrer
für Bleche
mit Zylinderschaft

Свредла специални
за метални листове
с цилиндрична опашка

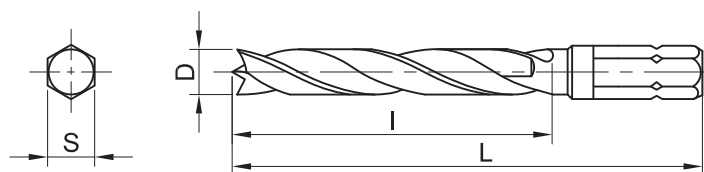


D mm	L mm	I mm	Art. No. 8411*..
6	66	33	8411 6
7	74	37	8411 7
8	80	40	8411 8
10	88	45	8411 10

Special Drills
for metal sheets
with hexagonal shank

Spezialbohrer
für Bleche
mit Sechskant

Свредла специални
за метални листове
с опашка шестостен



D mm	L mm	I mm	S mm	Art. No. 8412*..
6	50	33	6.35	8412 6
7	54	37	6.35	8412 7
8	57	40	6.35	8412 8
10	62	45	6.35	8412 10

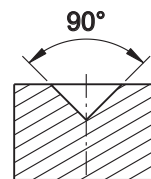
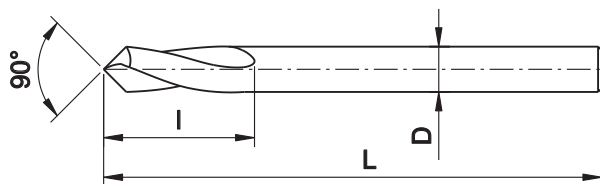
Ordering example: Special drill 8411 6 HSS
Bestellbeispiel: Spezialbohrer 8411 6 HSS
Начин на заявяване: Свредла специални 8411 6 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Spiral Drills 90°
for NC-machines

Spiralbohrer 90°
für NC-Maschinen

Свредла спирални 90°
за NC-машини

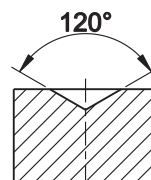
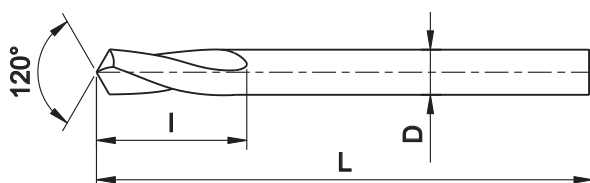


D mm	L mm	l mm	Art. No. 834*..
3	50	10	834 3
4	52	12	834 4
5	60	15	834 5
6	66	20	834 6
8	79	25	834 8
10	89	25	834 10
12	102	30	834 12

Spiral Drills 120°
for NC machines

Spiralbohrer 120°
für NC Maschinen

Свредла спирални 120°
за NC машини



D mm	L mm	l mm	Art. No. 8341*..
3	50	10	8341 3
4	52	12	8341 4
5	60	15	8341 5
6	66	20	8341 6
8	79	25	8341 8
10	89	25	8341 10
12	102	30	8341 12

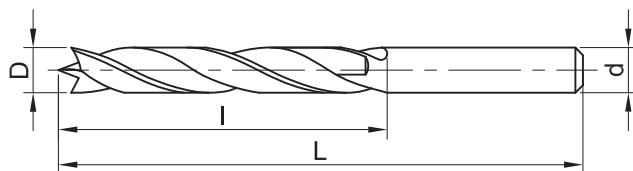
Ordering example: Spiral Drill 90° for NC machines 834 3 HSS
 Bestellbeispiel: Spiralbohrer 90° für NC Maschinen 834 3 HSS
 Начин на заявяване: Свредла спирални 90° за NC машини 834 3 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Drills for Wood
with straight shank

Bohrer für Holz
mit Zylinderschaft

Свердла за дърво
с цилиндрична опашка

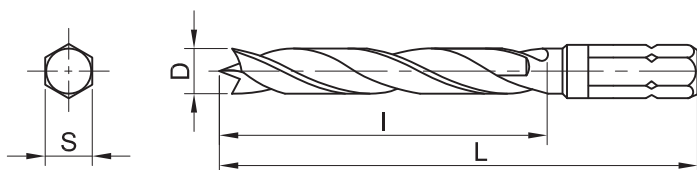


D mm	L mm	l mm	d mm	Art. No. 8331*..
2	49	24	2	8331 2
3	61	33	3	8331 3
4	75	43	4	8331 4
5	86	52	5	8331 5
6	93	57	6	8331 6
7	109	69	7	8331 7
8	117	75	8	8331 8
9	125	81	8.5	8331 9
10	133	87	8.5	8331 10
11	142	94	8.5	8331 11
12	151	101	8.5	8331 12
13	151	101	8.5	8331 13

Drills for Wood
with hexagonal shank

Bohrer für Holz
mit Sechskant

Свердла за дърво
с опашка шестостен



D mm	L mm	l mm	S mm	Art. No. 833*..
2	45	24	6.35	833 2
3	55	33	6.35	833 3
4	65	43	6.35	833 4
5	72	52	6.35	833 5
6	80	57	6.35	833 6
7	90	69	6.35	833 7
8	95	75	6.35	833 8
9	102	81	6.35	833 9
10	110	87	6.35	833 10
11	115	94	6.35	833 11
12	125	101	6.35	833 12
13	125	101	6.35	833 13

Ordering example: Drill for wood 8331 2 HSS
 Bestellbeispiel: Bohrer für Holz 8331 2 HSS
 Начин на заявяване: Свердла за дърво 8331 2 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Centre Drills 60°

Ground flutes

Type A

Zentrierbohrer 60°

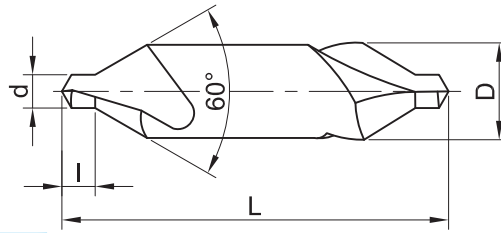
Geschliffene Nuten

Typ A

Свредла центрови 60°

Шлифовани канали

Тип А



DIN 333 A



d mm	l mm	D mm	L mm	Art. No. 8351*..
1	1.3	3.15	31.5	8351 1
1.25	1.6	3.15	31.5	8351 1.25
1.6	2	4	35.5	8351 1.6
2	2.5	5	40	8351 2
2.5	3.1	6.3	45	8351 2.5
3.15	3.9	8	50	8351 3.15
4	5	10	56	8351 4
5	6.3	12.5	63	8351 5
6.3*	8	16	71	8351 6.3
8*	10.1	20	80	8351 8
10*	12.8	25	100	8351 10

Centre Drills 60°

Ground flutes

Type B

Zentrierbohrer 60°

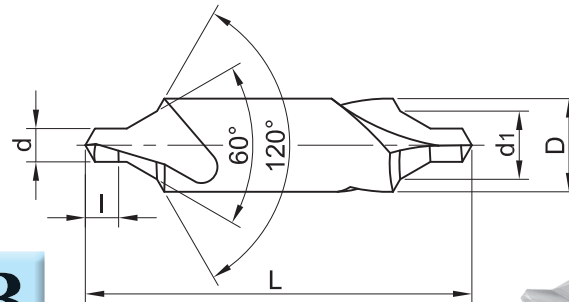
Geschliffene Nuten

Typ B

Свредла центрови 60°

Шлифовани канали

Тип В



DIN 333 B



d mm	l mm	D mm	d1 mm	L mm	Art. No. 8352*..
1	1.3	4	2.12	35.5	8352 1
1.25	1.6	5	2.65	40	8352 1.25
1.6	2	6.3	3.35	45	8352 1.6
2	2.5	8	4.25	50	8352 2
2.5	3.1	10	5.3	56	8352 2.5
3.15	3.9	11.2	6.7	60	8352 3.15
4*	5	14	8.5	67	8352 4
5*	6.3	18	10.6	75	8352 5
6.3*	8	20	13.2	80	8352 6.3
8*	10.1	25	17	100	8352 8

* with milled flutes * mit gefrästen Nuten * с фрезеровани канали

Ordering example: Centre drill 8351 1 HSS
 Bestellbeispiel: Zentrierbohrer 8351 1 HSS
 Начин на заявяване: Центрово свредло 8351 1 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Centre Drills 60°

Ground flutes

Type R

Zentrierbohrer 60°

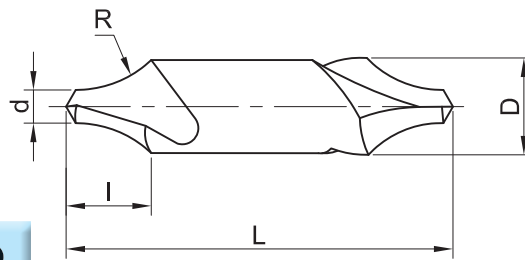
Geschliffene Nuten

Typ R

Свредла центрови 60°

Шлифовани канали

Тип R



DIN 333 R

d mm	I mm	D mm	R mm		L mm	Art. No. 8353*..
			max	min		
1	3	3.15	3.15	2.5	31.5	8353 1
1.25	3.35	3.15	4	3.15	31.5	8353 1.25
1.6	4.25	4	5	4	35.5	8353 1.6
2	5.3	5	6.3	5	40	8353 2
2.5	6.7	6.3	8	6.3	45	8353 2.5
3.15	8.5	8	10	8	50	8353 3.15
4	10.6	10	12.5	10	56	8353 4
5	13.2	12.5	16	12.5	63	8353 5
6.3*	17	16	20	16	71	8353 6.3
8*	21.2	20	25	20	80	8353 8
10*	26.5	25	31.5	25	100	8353 10

* with milled flutes * mit gefrästen Nuten * с фрезовани канали

Ordering example: Centre drill 8353 1 HSS
 Bestellbeispiel: Zentrierbohrer 8353 1 HSS
 Начин на заявяване: Центрово свредло 8353 1 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Centre Drills 60°

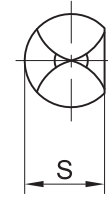
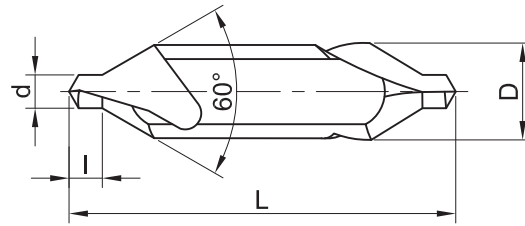
with flatness
Ground flutes
Type A

Zentrierbohrer 60°

mit Fläche
Geschliffene Nuten
Typ A

Свредла центрови 60°

с плоска част
Шлифовани канали
Тип А



DIN 333 A



d mm	l mm	D mm	L mm	S mm	Art. No. 8361*..
1.6	2	4	35.5	3.25	8361 1.6
2	2.5	5	40	4.2	8361 2
2.5	3.1	6.3	45	5.35	8361 2.5
3.15	3.9	8	50	6.95	8361 3.15
4	5	10	56	8.4	8361 4
5	6.3	12.5	63	10.95	8361 5
6.3*	8	16	71	14	8361 6.3
8*	10.1	20	80	17.9	8361 8
10*	12.8	25	100	22.5	8361 10

Centre Drills 60°

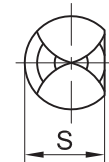
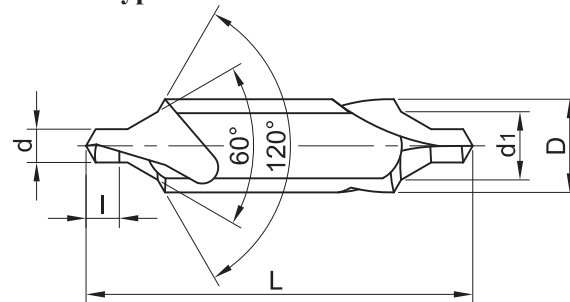
with flatness
Ground flutes
Type B

Zentrierbohrer 60°

mit Fläche
Geschliffene Nuten
Typ B

Свредла центрови 60°

с плоска част
Шлифовани канали
Тип В



DIN 333 B



d mm	l mm	D mm	d1 mm	L mm	S mm	Art. No. 8362*..
1.6	2	6.3	3.35	45	5.35	8362 1.6
2	2.5	8	4.25	50	6.95	8362 2
2.5	3.1	10	5.3	56	8.4	8362 2.5
3.15	3.9	11.2	6.7	60	10	8362 3.15
4*	5	14	8.5	67	12.65	8362 4
5*	6.3	18	10.6	75	16.4	8362 5
6.3*	8	20	13.2	80	17.9	8362 6.3
8*	10.1	25	17	100	22.5	8362 8

* with milled flutes * mit gefrästen Nuten * с фрезовани канали

Ordering example: Centre drill 8361 1.6 HSS
Bestellbeispiel: Zentrierbohrer 8361 1.6 HSS
Начин на заявяване: Центрово свредло 8361 1.6 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Centre Drills 60°

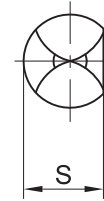
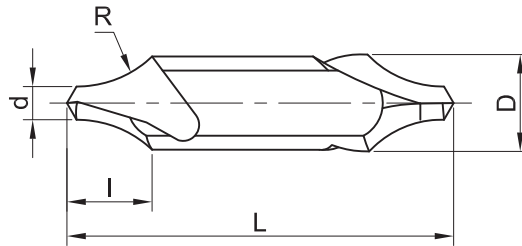
with flatness
Ground flutes
Type R

Zentrierbohrer 60°

mit Fläche
Geschliffene Nuten
Typ R

Свредла центрови 60°

с плоска част
Шлифовани канали
Тип R



DIN 333 R



d mm	l mm	D mm	R mm		L mm	S mm	Art. No. 8363*..
			max	min			
1.6	4.25	4	5	4	35.5	3.25	8363 1.6
2	5.3	5	6.3	5	40	4.2	8363 2
2.5	6.7	6.3	8	6.3	45	5.35	8363 2.5
3.15	8.5	8	10	8	50	6.95	8363 3.15
4	10.6	10	12.5	10	56	8.4	8363 4
5	13.2	12.5	16	12.5	63	10.95	8363 5
6.3*	17	16	20	16	71	14	8363 6.3
8*	21.2	20	25	20	80	17.9	8363 8
10*	26.5	25	31.5	25	100	22.5	8363 10

* with milled flutes * mit gefrästen Nuten * с фрезеровани канали

Ordering example: Centre drill 8363 1.6 HSS
Bestellbeispiel: Zentrierbohrer 8363 1.6 HSS
Начин на заявяване: Центрово свредло 8363 1.6 HSS

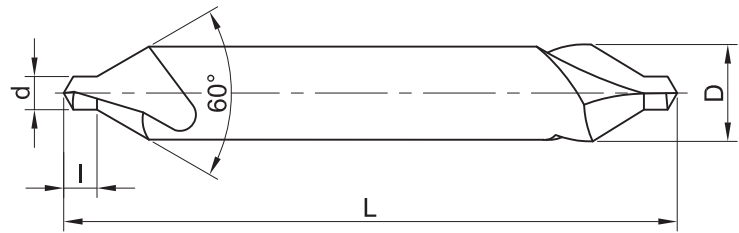
Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Centre Drills 60°
Extra Long
 Ground flutes
 Type A

Zentrierbohrer 60°
Extra lang
 Geschliffene Nuten
 Typ A

Свредла центрови 60°
удължени
 Шлифовани канали
 Тип А

≈ **DIN 333 A**



d mm	l mm	D mm	L mm	Art. No. 8361*..
1	1.3	3.15	60	83611 1
1.25	1.6	3.15	60	83611 1.25
1.6	2	4	60	83611 1.6
1	1.3	3.15	80	83612 1
1.25	1.6	3.15	80	83612 1.25
1.6	2	4	80	83612 1.6
2	2.5	5	80	83612 2
2.5	3.1	6.3	80	83612 2.5
3.15	3.9	8	80	83612 3.15
1.6	2	4	100	83613 1.6
2	2.5	5	100	83613 2
2.5	3.1	6.3	100	83613 2.5
3.15	3.9	8	100	83613 3.15
4	5	10	100	83613 4
5	6.3	12.5	100	83613 5
1.6	2	4	120	83614 1.6
2	2.5	5	120	83614 2
2.5	3.1	6.3	120	83614 2.5
3.15	3.9	8	120	83614 3.15
4	5	10	120	83614 4
5	6.3	12.5	120	83614 5

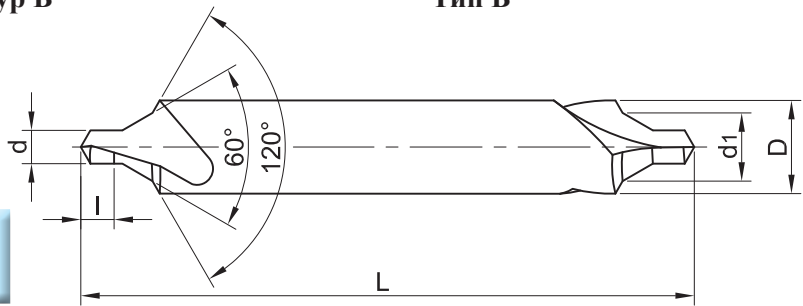
Ordering example: Centre drill 8361 1 HSS
 Bestellbeispiel: Zentrierbohrer 8361 1 HSS
 Начин на заявяване: Центрово свредло 8361 1 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Centre Drills 60°
Extra Long
 Ground flutes
 Type B

Zentrierbohrer 60°
Extra lang
 Geschliffene Nuten
 Typ B

Свредла центрови 60°
удължени
 Шлифовани канали
 Тип B



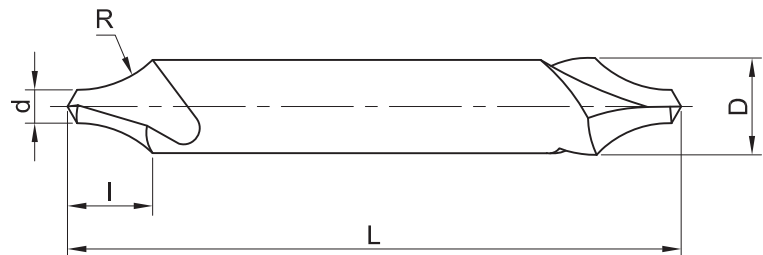
≈ DIN 333 B

d mm	l mm	D mm	d1 mm	L mm	Art. No. 8372*..
1	1.3	4	2.12	80	8372 1
1.25	1.6	5	2.65	80	8372 1.25
1.6	2	6.3	3.35	120	8372 1.6
2	2.5	8	4.25	120	8372 2
2.5	3.1	10	5.3	120	8372 2.5
3.15	3.9	11.2	6.7	120	8372 3.15

Centre Drills 60°
Extra Long
 Ground flutes
 Type R

Zentrierbohrer 60°
Extra lang
 Geschliffene Nuten
 Typ R

Свредла центрови 60°
удължени
 Шлифовани канали
 Тип R

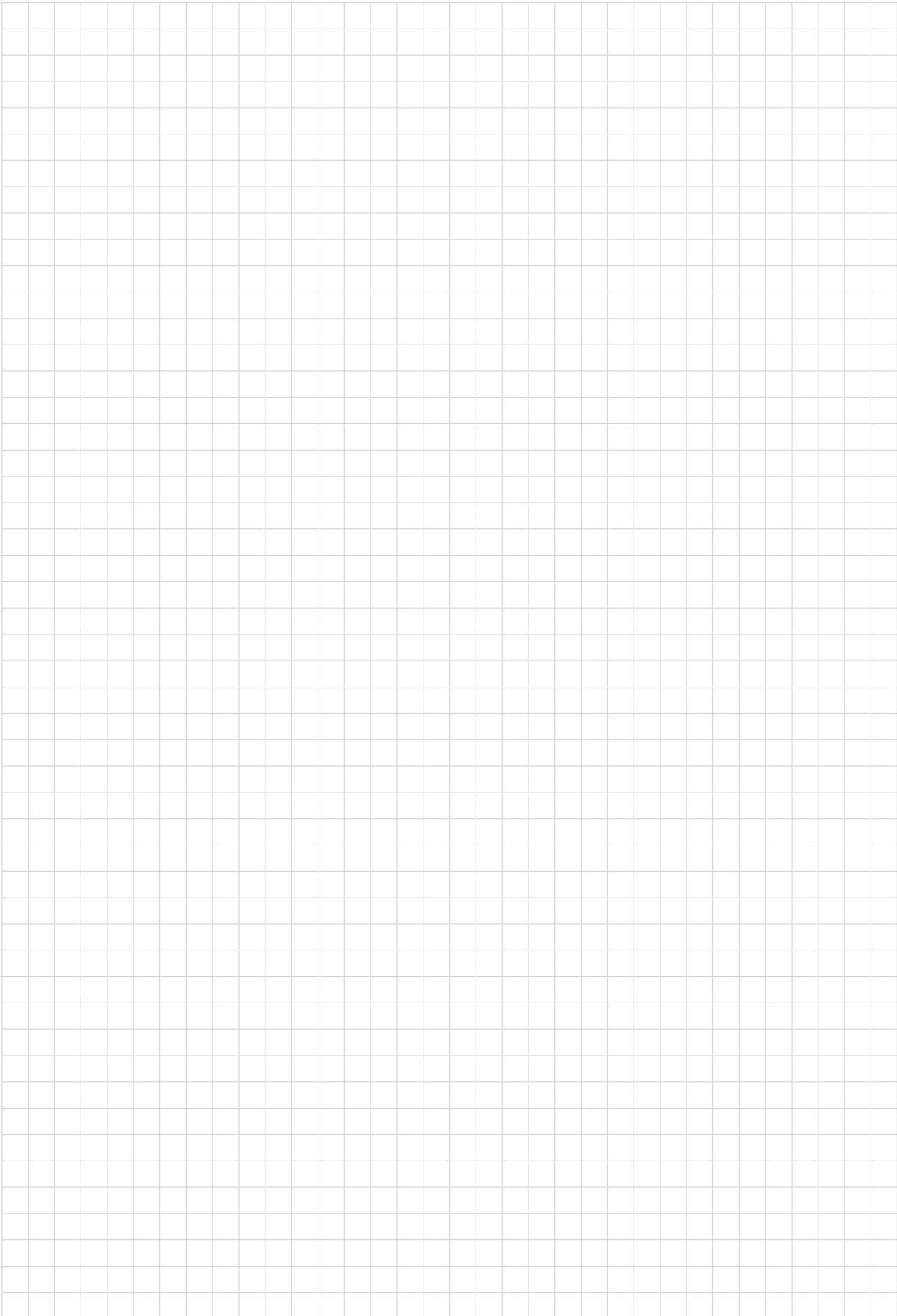


≈ DIN 333 R

d mm	l mm	D mm	R mm		L mm	Art. No. 8373*..
			max	min		
1	3	3.15	3.15	2.5	80	8373 1
1.25	3.35	3.15	4	3.15	80	8373 1.25
1.6	4.25	4	5	4	100	8373 1.6
2	5.3	5	6.3	5	100	8373 2
2.5	6.7	6.3	8	6.3	100	8373 2.5
3.15	8.5	8	10	8	120	8373 3.15
4	10.6	10	12.5	10	120	8373 4
5	13.2	12.5	16	12.5	120	8373 5

Ordering example: Centre drill 8372 1 HSS
 Bestellbeispiel: Zentrierbohrer 8372 1 HSS
 Начин на заявяване: Центрово свредло 8372 1 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване



Sink tools
Senker
Зенкери



CONTENTS

INHALTSVERZEICHNIS

СЪДЪРЖАНИЕ

<i>Sink tools</i> <i>Senker</i> <i>Зенкери</i>	Page Seite Страница
Countersink 90° DIN 335 C Kegelsenker 90° DIN 335 C Конусни зенкери 90° DIN 335 C	211
Countersink 90° with long straight shank Kegelsenker 90° mit langem Zylinderschaft Конусни зенкери 90° с дълга цилиндрична опашка	212
Countersink 60° DIN 334 C Kegelsenker 60° DIN 334 C Конусни зенкери 60° DIN 334 C	213
Countersink 75° DIN 334 C Kegelsenker 75° DIN 334 C Конусни зенкери 75° DIN 334 C	214
Countersink 90° DIN 335 D Kegelsenker 90° DIN 335 D Конусни зенкери 90° DIN 335 D	215
Countersink 60° DIN 334 A Kegelsenker 60° DIN 334 A Конусни зенкери 60° DIN 334 A	216
Countersink 90° DIN 335 A Kegelsenker 90° DIN 335 A Конусни зенкери 90° DIN 335 A	216
Countersink 120° DIN 347 A Kegelsenker 120° DIN 347 A Конусни зенкери 120° DIN 347 A	217
Countersink 60° DIN 334 B Kegelsenker 60° DIN 334 B Конусни зенкери 60° DIN 334 B	217
Countersink 90° DIN 335 B Kegelsenker 90° DIN 335 B Конусни зенкери 90° DIN 335 B	218
Countersink 120° DIN 347 B Kegelsenker 120° DIN 347 B Конусни зенкери 120° DIN 347 B	218
Countersink 120° DIN 334 C Kegelsenker 120° DIN 334 C Конусни зенкери 120° DIN 334 C	219
Countersink 90° with hexagonal shank Kegelsenker 90° mit Sechskant Конусни зенкери 90° с опашка шестостен	220
Countersink 60° with hexagonal shank Kegelsenker 60° mit Sechskant Конусни зенкери 60° с опашка шестостен	220
Slotted Taper and Deburring Countersink 90° Querlochsenker 90° Конусни зенкери 90° с напречен отвор	221
Slotted Taper and Deburring Countersink 60° Querlochsenker 60° Конусни зенкери 60° с напречен отвор	221

<i>Sink tools</i> <i>Senker</i> <i>Зенкери</i>	Page Seite Страница
Countersink 90° with 1 cutting lip Kegelsenker 90° mit 1 Schneide Конусни зенкери 90° с 1 режещ ръб	222
Countersink 60° with 1 cutting lip Kegelsenker 60° mit 1 Schneide Конусни зенкери 60° с 1 режещ ръб	222
Counterbores with Guide DIN 373 Flachsenker mit festem Führungzapfen DIN 373 Челен зенкери с водеща част DIN 373	223
Counterbores with Guide and Morse taper shank Flachsenker mit festem Führungzapfen und Morsekegelschaft Челен зенкери с водеща част и опашка морзов конус	224

Our instruments are made of the following high speed steels:

Unsere Werkzeuge werden aus folgenden HSS-Stahlsorten gefertigt:

Нашите инструменти се изработват от следните бързорезни стомани:

HSS (1.3343, S6 - 5 - 2 DIN)

HSSE - Co 5% (1.3243, S6 - 5 - 2 - 5 DIN)

PM 30 - Co 8% (HS 6 - 5 - 3 - 8 DIN)

Countersinks 90°

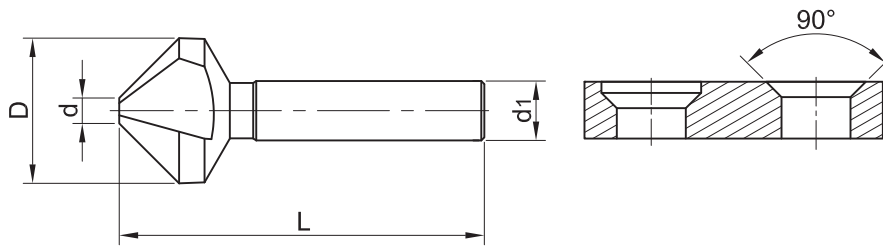
Triple cutting lip
Straight shank
Form C

Kegelsenker 90°

mit 3 Schneiden
Zylinderschaft
Form C

Конусни зенкери 90°

3 режещи ръба
Цилиндрична опашка
Форма С



DIN 335 C

D mm	DIN 74 Af	DIN 74 Bf	DIN 75 Af	DIN 75 Bf	L mm	d mm	d1 mm	Art. No. 861*..
4.3	M2	M1.8	M2		40	1.3	4	861 4.3
5.0	M2.5	M2			40	1.5	4	861 5.0
5.3			M2.6	M2.6	40	1.5	4	861 5.3
5.8			M3		45	1.5	5	861 5.8
6.0	M3	M2.5			45	1.5	5	861 6.0
6.2					45	1.5	5	861 6.2
6.3		M3	M3.5	M3	45	1.5	5	861 6.3
7.0	M3.5	M3			50	1.8	6	861 7.0
7.3			M4	M3.5	50	1.8	6	861 7.3
8.0	M4	M3.5			50	2.0	6	861 8.0
8.3		M4		M4	50	2.0	6	861 8.3
8.4					50	2.0	6	861 8.4
9.4			M4		50	2.2	6	861 9.4
10.0	M5	M4			50	2.5	6	861 10.0
10.4		M5	M6	M5	50	2.5	6	861 10.4
11.5	M6	M5			56	2.8	8	861 11.5
12.4		M6		M6	56	2.8	8	861 12.4
13.4			M8		56	2.9	8	861 13.4
15.0	M8	M6			60	3.2	10	861 15.0
16.5		M8	M10	M8	60	3.2	10	861 16.5
19.0	M10	M8			63	3.5	10	861 19.0
20.5		M10		M10	63	3.5	10	861 20.5
23.0	M12	M10			67	3.8	10	861 23.0
25.0		M12		M12	67	3.8	10	861 25.0
26.0	M14				67	3.8	10	861 26.0
28.0		M14		M14	71	4.0	12	861 28.0
30.0		M16			71	4.2	12	861 30.0
31.0				M16	71	4.2	12	861 31.0

Ordering example: Countersink 861 4.3 HSS
Bestellbeispiel: Kegelsenker 861 4.3 HSS
Начин на заявяване: Конусен зенкер 861 4.3 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Countersinks 90°

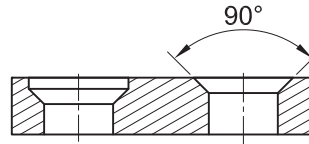
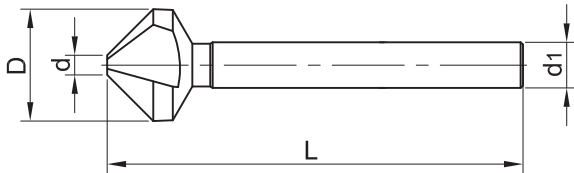
Triple cutting lip
Long straight shank
Form C

Kegelsenker 90°

mit 3 Schneiden
mit langem Zylinderschaft
Form C

Конусни зенкери 90°

3 режещи ръба
Дълга цилиндрична опашка
Form C



≈ **DIN 335** **C**

D mm	DIN 74 Af	DIN 74 Bf	DIN 75 Af	DIN 75 Bf	L mm	d mm	d1 mm	Art. No. 864*..
5.8			M3		130	1.5	5	864 5.8
6.3		M3	M3.5	M3	130	1.5	5	864 6.3
8.3		M4		M4	130	2.0	6	864 8.3
9.4			M4		130	2.2	6	864 9.4
10.4		M5	M6	M5	130	2.5	6	864 10.4
11.5	M6	M5			135	2.8	8	864 11.5
12.4		M6		M6	135	2.8	8	864 12.4
15.0	M8	M6			135	3.2	10	864 15.0
16.5		M8	M10	M8	140	3.2	10	864 16.5
20.5		M10		M10	140	3.5	10	864 20.5
25.0		M12		M12	140	3.8	10	864 25.0

Ordering example: Countersink 864 5.8 HSS
Bestellbeispiel: Kegelsenker 864 5.8 HSS
Начин на заявяване: Конусен зенкер 864 5.8 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Countersinks 60°

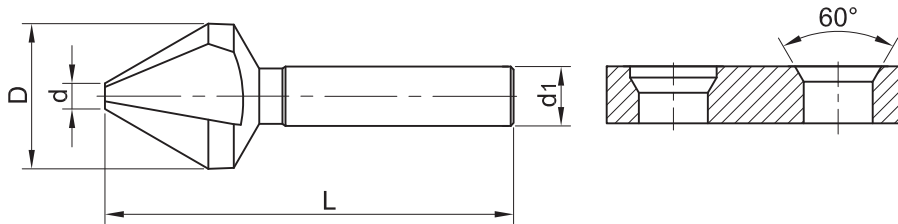
Triple cutting lip
Straight shank
Form C

Kegelsenker 60°

mit 3 Schneiden
Zylinderschaft
Form C

Конусни зенкери 60°

3 режещи ръба
Цилиндрична опашка
Форма С



DIN 334 C

D mm	L mm	d mm	d1 mm	Art. No. 8611*..
6.3	45	1.6	5	8611 6.3
6.4	45	1.6	5	8611 6.4
8.0	50	2.0	6	8611 8.0
8.4	50	2.0	6	8611 8.4
10.4	50	2.5	6	8611 10.4
12.4	56	3.2	8	8611 12.4
12.5	56	3.2	8	8611 12.5
16.0	63	4.0	10	8611 16.0
16.5	63	4.0	10	8611 16.5
20.0	67	5.0	10	8611 20.0
20.5	67	5.0	10	8611 20.5
25.0	71	6.3	10	8611 25.0
30.0	76	10.0	12	8611 30.0
31.5	76	10.0	12	8611 31.5
40.0	88	12.5	15	8611 40.0

Ordering example: Countersink 8611 6.3 HSS
Bestellbeispiel: Kegelsenker 8611 6.3 HSS
Начин на заявяване: Конусен зенкер 8611 6.3 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Countersinks 75°

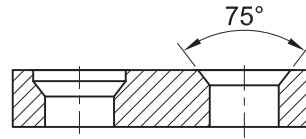
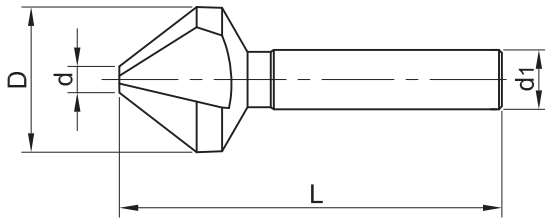
Triple cutting lip
Straight shank
Form C

Kegelsenker 75°

mit 3 Schneiden
Zylinderschaft
Form C

Конусни зенкери 75°

3 режещи ръба
Цилиндрична опашка
Форма С



≈ **DIN 334** **C**

D mm	L mm	d mm	d1 mm	Art. No. 8612*..
6.3	45	1.6	5	8612 6.3
8.0	50	2.0	6	8612 8.0
10.0	50	2.5	6	8612 10.0
12.5	56	3.2	8	8612 12.5
16.5	63	4.0	10	8612 16.5
20.0	67	5.0	10	8612 20.0
25.0	71	6.3	10	8612 25.0

Ordering example: Countersink 8612 6.3 HSS
Bestellbeispiel: Kegelsenker 8612 6.3 HSS
Начин на заявяване: Конусен зенкер 8612 6.3 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Countersinks 90°

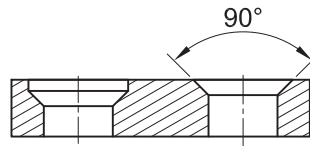
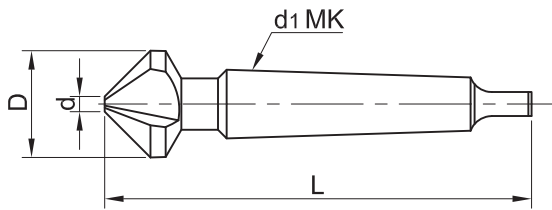
Triple cutting lip
Morse taper shank
Form D

Kegelsenker 90°

mit 3 Schneiden
Morsekegelschaft
Form D

Конусни зенкери 90°

3 режещи ръба
Опашка морзов конус
Форма D



DIN 335 D

D mm	DIN 74 Af	DIN 74 Bf	DIN 75 Af	DIN 75 Bf	L mm	d mm	d1 MK	Art. No. 863*..
15.0	M8	M6			85	3.2	1	863 15.0
16.5		M8	M10	M8	85	3.2	1	863 16.5
19.0	M10	M8			100	3.5	2	863 19.0
20.5		M10		M10	100	3.5	2	863 20.5
23.0	M12	M10			106	3.8	2	863 23.0
25.0		M12		M12	106	3.8	2	863 25.0
26.0	M14				106	3.8	2	863 26.0
28.0		M14		M14	112	4.0	2	863 28.0
30.0	M16				112	4.2	2	863 30.0
31.0		M16		M16	112	4.2	2	863 31.0
34.0	M18	M18			118	4.5	2	863 34.0
37.0	M20	M20		M20	118	4.8	2	863 37.0
40.0				M24	140	10	3	863 40.0
50.0					150	14	3	863 50.0
63.0					180	16	4	863 63.0
80.0					190	22	4	863 80.0

Ordering example: Countersink 863 15.0 HSS
Bestellbeispiel: Kegelsenker 863 15.0 HSS
Начин на заявяване: Конусен зенкер 863 15.0 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Countersinks 60°

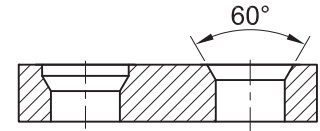
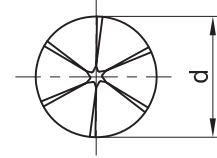
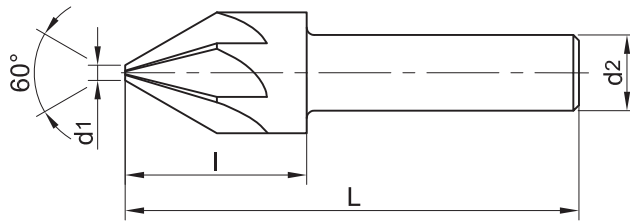
Straight shank
Form A

Kegelsenker 60°

Zylinderschaft
Form A

Конусни зенкери 60°

Цилиндрична опашка
Форма А



DIN 334 A

d mm	d1 mm	d2 mm	l mm	L mm	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 8630*..
12.5	2	8	18	50	5	8630 12.5
16.0	3.2	10	24	60	6	8630 16.0
20.0	5	10	27	63	6	8630 20.0

Countersinks 90°

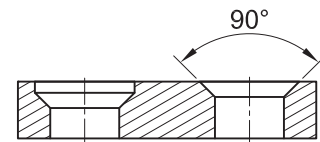
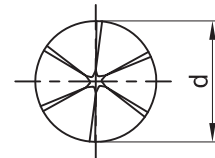
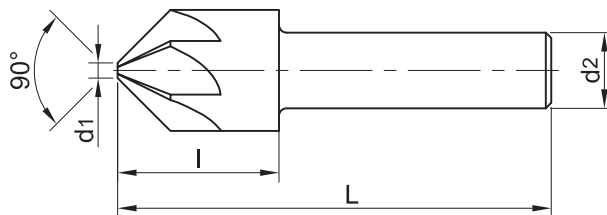
Straight shank
Form A

Kegelsenker 90°

Zylinderschaft
Form A

Конусни зенкери 90°

Цилиндрична опашка
Форма А



DIN 335 A

d mm	d1 mm	d2 mm	l mm	L mm	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 8631*..
12.5	2	8	16	48	5	8631 12.5
16.0	3.2	10	20	56	6	8631 16.0
20.0	5	10	24	60	6	8631 20.0

Ordering example: Countersink 8630 12.5 HSS
Bestellbeispiel: Kegelsenker 8630 12.5 HSS
Начин на заявяване: Конусен зенкер 8630 12.5 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Countersinks 120°

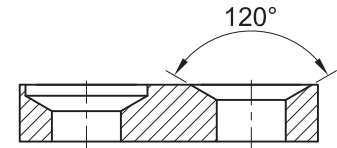
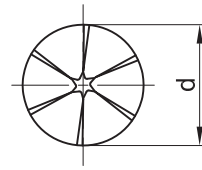
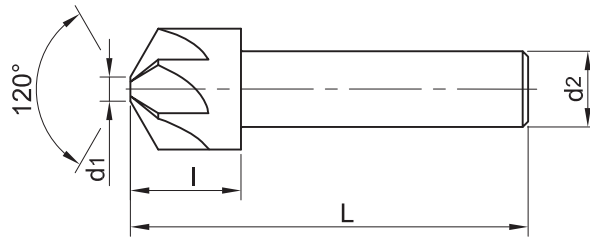
Straight shank
Form A

Kegelsenker 120°

Zylinderschaft
Form A

Конусни зенкери 120°

Цилиндрична опашка
Форма А



DIN 347 A

d mm	d1 mm	d2 mm	l mm	L mm	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 8632*..
16.0	3.2	10	17	53	6	8632 16.0

Countersinks 60°

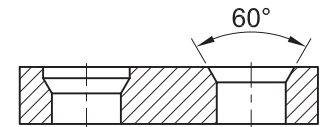
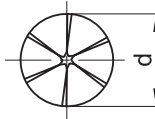
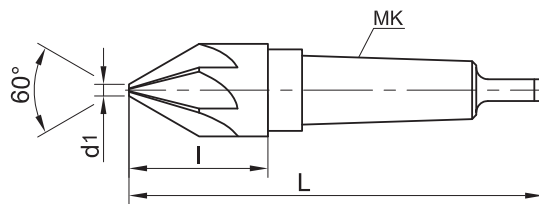
Morse taper shank
Form B

Kegelsenker 60°

Morsekegelschaft
Form B

Конусни зенкери 60°

опашка морзов конус
Форма В



DIN 334 B

d mm	d1 mm	l mm	L mm	MK	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 8634*..
16	3.2	24	100	1	6	8634 16
25	7	33	125	2	8	8634 25
31.5	9	40	132	2	8	8634 31.5
40	12	45	160	3	10	8634 40
50	16	50	170	3	12	8634 50
63	20	58	200	4	14	8634 63

Ordering example: Countersink 8632 16 HSS
Bestellbeispiel: Kegelsenker 8632 16 HSS
Начин на заявяване: Конусен зенкер 8632 16 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Countersinks 90°

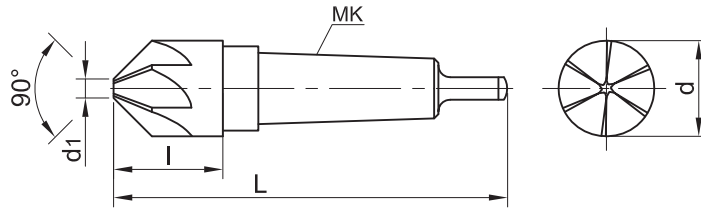
Morse taper shank
Form B

Kegelsenker 90°

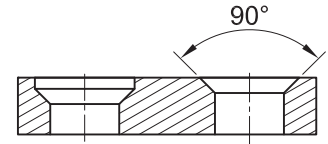
Morsekegelschaft
Form B

Конусни зенкери 90°

опашка морзов конус
Форма В



DIN 335 B



d mm	d1 mm	l mm	L mm	MK	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 8635*..
16	3.2	20	95	1	6	8635 16
25	7	26	118	2	8	8635 25
31.5	9	30	122	2	8	8635 31.5
40	12	35	150	3	10	8635 40
50	16	38	155	3	12	8635 50
63	20	43	185	4	14	8635 63

Countersinks 120°

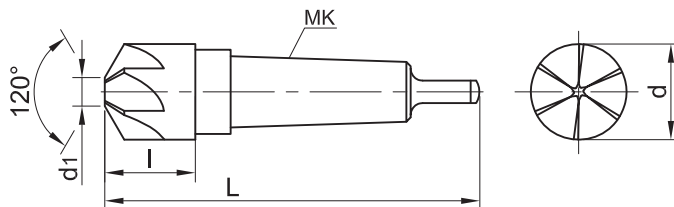
Morse taper shank
Form B

Kegelsenker 120°

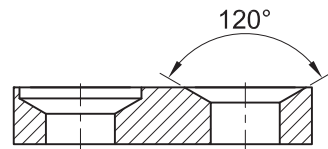
Morsekegelschaft
Form B

Конусни зенкери 120°

опашка морзов конус
Форма В



DIN 347 B



d mm	d1 mm	l mm	L mm	MK	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 8636*..
25	7	20	112	2	8	8636 25
40	12	25	140	3	10	8636 40

Ordering example: Countersink 8635 16 HSS
Bestellbeispiel: Kegelsenker 8635 16 HSS
Начин на заявяване: Конусен зенкер 8635 16 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Countersinks 120°

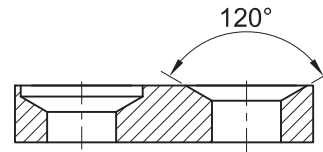
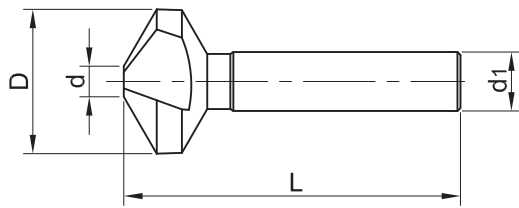
Triple cutting lip
Straight shank
Form C

Kegelsenker 120°

mit 3 Schneiden
Zylinderschaft
Form C

Конусни зенкери 120°

3 режещи ръба
Цилиндрична опашка
Форма С



≈ **DIN 334** **C**

D mm	L mm	d mm	d1 mm	Art. No. 8613*..
6.3	45	1.5	5	8613 6.3
8.3	50	2.0	6	8613 8.3
10.4	50	2.5	6	8613 10.4
12.4	56	3.0	8	8613 12.4
16.5	63	3.5	10	8613 16.5
20.5	67	4.0	10	8613 20.5
25.0	71	5.0	10	8613 25.0

Ordering example: Countersink 8613 6.3 HSS
Bestellbeispiel: Kegelsenker 8613 6.3 HSS
Начин на заявяване: Конусен зенкер 8613 6.3 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Countersinks Bits 90°

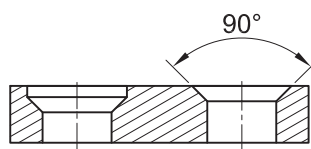
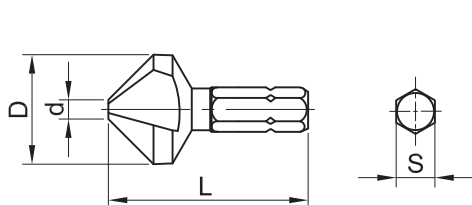
Triple cutting lip
Hexagonal shank

Kegelsenker Bits 90°

mit 3 Schneiden
mit Sechskant

Конусни зенкери 90°

3 режещи ръба
с опашка шестостен



D mm	L mm	d mm	S mm	Art. No. 862*..
6.3	31	1.5	6.35	862 6.3
8.3	32	2.0	6.35	862 8.3
10.4	34	2.5	6.35	862 10.4
12.4	35	2.8	6.35	862 12.4
16.5	40	3.2	6.35	862 16.5
20.5	40	3.5	6.35	862 20.5

Countersinks Bits 60°

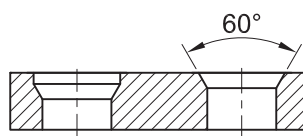
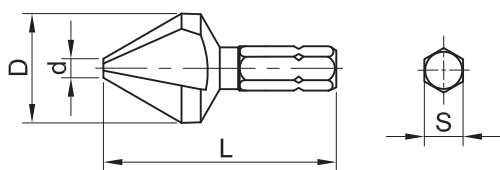
Triple cutting lip
Hexagonal shank

Kegelsenker Bits 60°

mit 3 Schneiden
mit Sechskant

Конусни зенкери 60°

3 режещи ръба
с опашка шестостен



D mm	L mm	d mm	S mm	Art. No. 8621*..
6.3	32	1.5	6.35	8621 6.3
8.3	34	2.0	6.35	8621 8.3
10.4	36	2.0	6.35	8621 10.4
12.4	37	3.2	6.35	8621 12.4
16.5	43	4.0	6.35	8621 16.5
20.5	45	5.0	6.35	8621 20.5

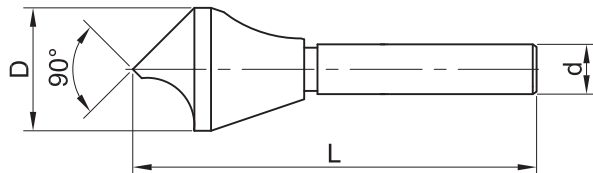
Ordering example: Countersink 862 6.3 HSS
Bestellbeispiel: Kegelsenker 862 6.3 HSS
Начин на заявяване: Конусен зенкер 862 6.3 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

**Slotted Taper and Deburring
Countersinks 90°**
Straight shank

Querlochsenker 90°
mit Zylinderschaft

**Конусни зенкери 90°
с напречен отвор**
Цилиндрична опашка

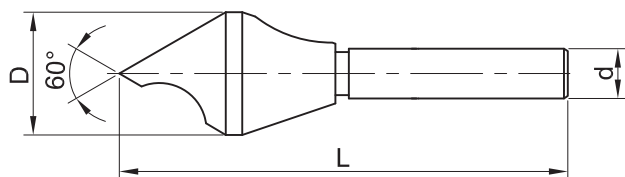


CSK Range Senkbereich Обхват mm	D mm	L mm	d mm	Art. No. 871*..
2 / 5	10	45	6	871 2/5
5 / 10	14	48	8	871 5/10
10 / 15	21	65	10	871 10/15
15 / 20	28	84	12	871 15/20
20 / 25	35	102	12	871 20/25
25 / 30	44	115	15	871 25/30
30 / 35	48	127	15	871 30/35
35 / 40	53	136	15	871 35/40
40 / 50	60	166	20	871 40/50

**Slotted Taper and Deburring
Countersinks 60°**
Straight shank

Querlochsenker 60°
mit Zylinderschaft

**Конусни зенкери 60°
с напречен отвор**
Цилиндрична опашка



CSK Range Senkbereich Обхват mm	D mm	L mm	d mm	Art. No. 8711*..
2 / 5	10	50	6	8711 2/5
5 / 10	14	58	8	8711 5/10
10 / 15	21	80	10	8711 10/15
15 / 20	28	102	12	8711 15/20
20 / 25	35	125	12	8711 20/25

Ordering example: Slotted taper and deburring countersink 871 2/5 HSS
 Bestellbeispiel: Querlochsenker 871 2/5 HSS
 Начин на заявяване: Конусен зенкер с напречен отвор 871 2/5 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Countersinks 90°

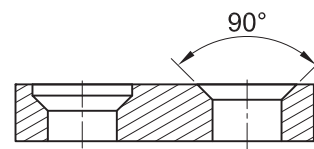
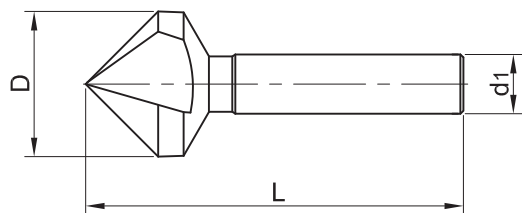
with 1 cutting lip
Straight shank

Kegelsenker 90°

mit 1 Schneide
Zylinderschaft

Конусни зенкери 90°

с 1 режещ ръб
Цилиндрична опашка



D mm	L mm	d mm	Art. No. 8614*..
6.3	46	5	8614 6.3
7.0	51	6	8614 7.0
7.3	51	6	8614 7.3
8.0	51	6	8614 8.0
8.3	51	6	8614 8.3
8.4	51	6	8614 8.4
9.4	51	6	8614 9.4
10.0	51	6	8614 10.0
10.4	51	6	8614 10.4
11.5	58	8	8614 11.5
12.4	58	8	8614 12.4
13.4	58	8	8614 13.4
15.0	62	10	8614 15.0
16.5	62	10	8614 16.5
19.0	65	10	8614 19.0
20.5	65	10	8614 20.5
23.0	69	10	8614 23.0
25.0	69	10	8614 25.0

Countersinks 60°

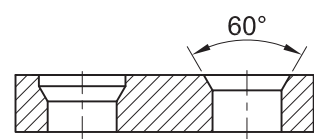
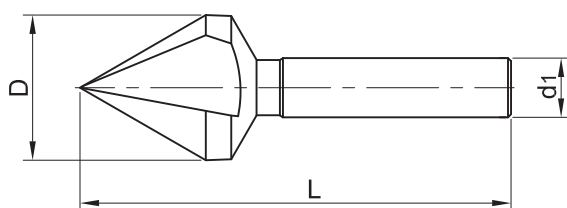
with 1 cutting lip
Straight shank

Kegelsenker 60°

mit 1 Schneide
Zylinderschaft

Конусни зенкери 60°

с 1 режещ ръб
Цилиндрична опашка



D mm	L mm	d mm	Art. No. 86114*..
6.3	46	5	86114 6.3
6.4	46	5	86114 6.4
8.0	52	6	86114 8.0
8.4	52	6	86114 8.4
10.4	52	6	86114 10.4
12.4	59	8	86114 12.4
12.5	59	8	86114 12.5
16.0	66	10	86114 16.0
16.5	66	10	86114 16.5
20.0	71	10	86114 20.0
20.5	71	10	86114 20.5
25.0	76	10	86114 25.0

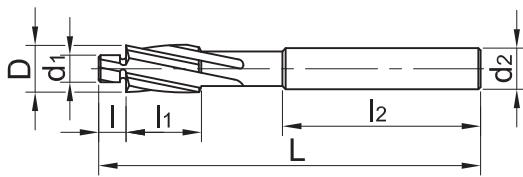
Ordering example: Countersink 8614 6.3 HSS
Bestellbeispiel: Kegelsenker 8614 6.3 HSS
Начин на заявяване: Конусен зенкер 8614 6.3 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Counterbores
with Guide
Straight shank

Flachsenker
mit festem Führungszapfen
Zylinderschaft

Челни зенкери
с водеща част
Цилиндрична опашка



DIN 373

For thread Für Gewinde За резба	D z9 mm	d ₁ e8 mm	d ₂ h9 mm	L mm	l mm	l ₁ mm	l ₂ mm	Art. No. 865*..
M3 f	6	3.2	5.0	71	3.2	14	31.5	865 M3 f
M4 f	8	4.3	5.0	71	4.3	14	31.5	865 M4 f
M5 f	10	5.3	8.0	80	5.3	18	35.5	865 M5 f
M6 f	11	6.4	8.0	80	6.4	18	35.5	865 M6 f
M8 f	15	8.4	12.5	100	8.4	22	40.0	865 M8 f
M10 f	18	10.5	12.5	100	10.5	22	40.0	865 M10 f
M12 f	20	13.0	12.5	100	13.0	22	40.0	865 M12 f
M3 m	6	3.4	5.0	71	3.4	14	31.5	865 M3 m
M4 m	8	4.5	5.0	71	4.5	14	31.5	865 M4 m
M5 m	10	5.5	8.0	80	5.5	18	35.5	865 M5 m
M6 m	11	6.6	8.0	80	6.6	18	35.5	865 M6 m
M8 m	15	9.0	12.5	100	9.0	22	40.0	865 M8 m
M10 m	18	11.0	12.5	100	11.0	22	40.0	865 M10 m
M12 m	20	14.0	12.5	100	14.0	22	40.0	865 M12 m
M3 k	6	2.5	5.0	71	2.5	14	31.5	865 M3 k
M4 k	8	3.3	5.0	71	3.3	14	31.5	865 M4 k
M5 k	10	4.2	8.0	80	4.2	18	35.5	865 M5 k
M6 k	11	5.0	8.0	80	5.0	18	35.5	865 M6 k
M8 k	15	6.8	12.5	100	6.8	22	40.0	865 M8 k
M10 k	18	8.5	12.5	100	8.5	22	40.0	865 M10 k
M12 k	20	10.2	12.5	100	10.2	22	40.0	865 M12 k

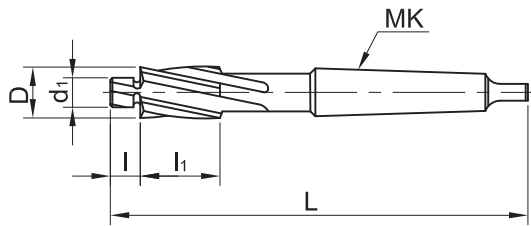
Ordering example: Counterbores With Guide 865 6 3.2 HSS
 Bestellbeispiel: Flachsenker mit festem Führungszapfen 865 6 3.2 HSS
 Начин на заявяване: Челен зенкер с водеща част 865 6 3.2 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Counterbores
with Guide
Morse taper shank

Flachsenker
mit festem Führungzapfen
Morsekegelschaft

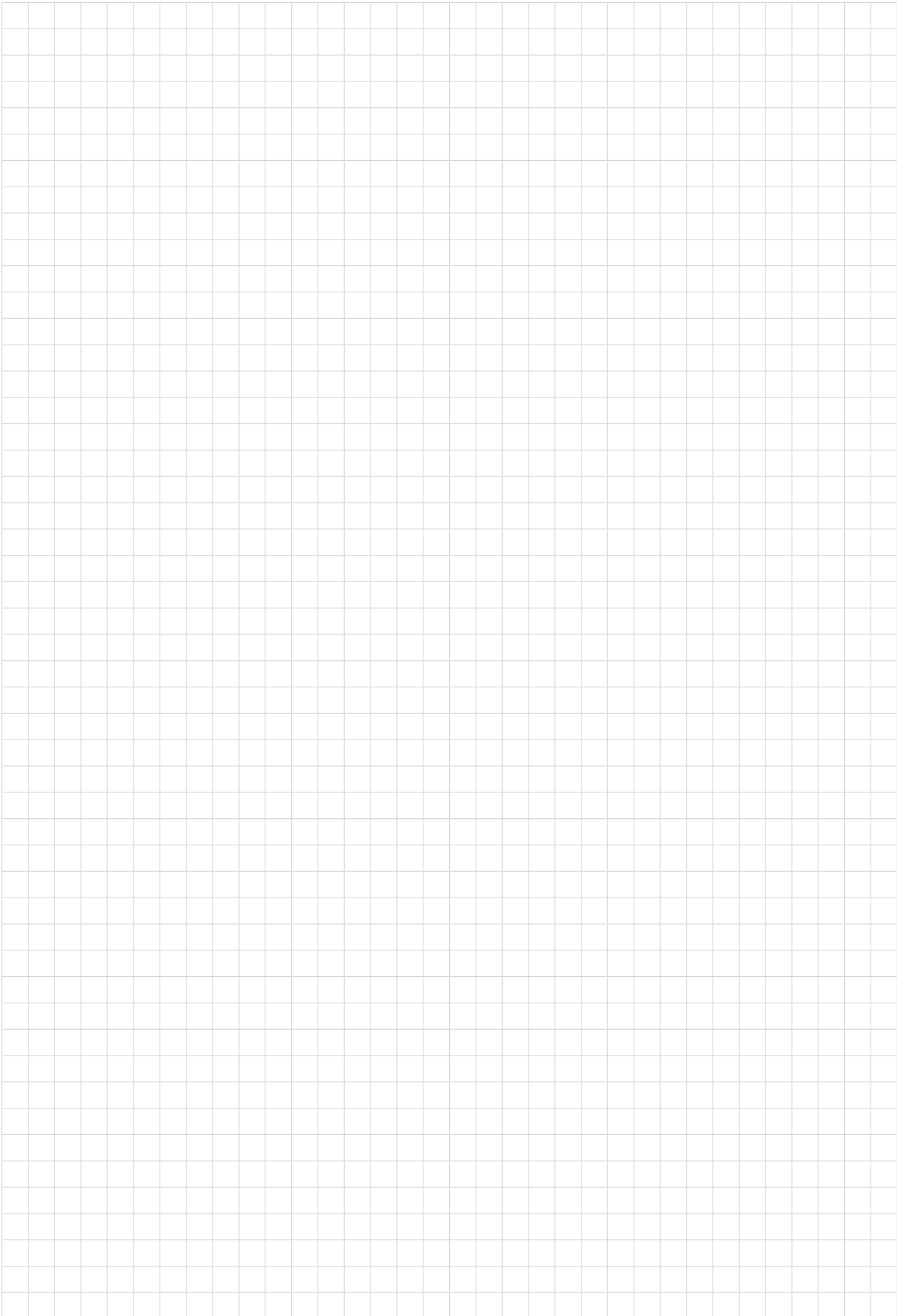
Челни зенкери
с водеща част
опашка морзов конус



For thread Für Gewinde За резба	D mm	d ₁ mm	L mm	l mm	l ₁ mm	МК	Art. No. 8651*..
M10 f	18	10.5	150	10.5	25	2	8651 M10 f
M12 f	20	13	150	13	25	2	8651 M12 f
M14 f	24	15	160	15	30	2	8651 M14 f
M16 f	26	17	190	17	35	3	8651 M16 f
M18 f	30	19	190	19	35	3	8651 M18 f
M20 f	33	21	190	21	40	3	8651 M20 f
M22 f	36	23	205	23	40	3	8651 M22 f
M24 f	40	25	205	25	40	3	8651 M24 f
M10 m	18	11	150	11	25	2	8651 M10 m
M12 m	20	13.5	150	14	25	2	8651 M12 m
M14 m	24	15.5	160	16	30	2	8651 M14 m
M16 m	26	17.5	190	18	35	3	8651 M16 m
M18 m	30	20	190	20	35	3	8651 M18 m
M20 m	33	22	190	22	40	3	8651 M20 m
M22 m	36	24	205	24	40	3	8651 M22 m
M24 m	40	26	205	26	40	3	8651 M24 m
M10 k	18	8.5	150	9	25	2	8651 M10 k
M12 k	20	10.2	150	11	25	2	8651 M12 k
M14 k	24	12	160	14	30	2	8651 M14 k
M16 k	26	14	190	16	35	3	8651 M16 k
M18 k	30	15.5	190	18	35	3	8651 M18 k
M20 k	33	17.5	190	20	40	3	8651 M20 k
M22 k	36	19.5	205	22	40	3	8651 M22 k
M24 k	40	21	205	24	40	3	8651 M24 k

Ordering example: Counterbores With Guide 8651 M10 f HSS
 Bestellbeispiel: Flachsenker mit festem Führungzapfen 8651 M10 f HSS
 Начин на заявяване: Челен зенкер с водеща част 8651 M10 f HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване



End Mills
Schaftfräser
Фрези опашкови



CONTENTS

INHALTSVERZEICHNIS

СЪДЪРЖАНИЕ

<i>End Mills</i> <i>Schaftfräser</i> <i>Фрези опашкови</i>	Form Форма	Shank standard Schaftnorm Стандарт на опашката	Page Seite Страница
Keyway Mill Cutter for general purpose (K) DIN 327 2 cutting edges	B	Form A, DIN 1835	229
Langlochfräser für allgemeine Anwendung (K) DIN 327 2-Schneider	D	Form B, DIN 1835	230
Фрези за шпонкови канали за общо предназначение (K) DIN 327 2 режещи ръба	H	Form D, DIN 1835	231
Keyway Mill Cutter for fine mechanics (KF) DIN 327 Langlochfräser für Feinwerktechnik (KF) DIN 327 Фрези за шпонкови канали за фина механика (KF) DIN 327	B	Form A, DIN 1835	232
Keyway Mill Cutter MK DIN 326 Langlochfräser MK DIN 326 Фрези за шпонкови канали MK DIN 326	D	Form A, DIN 228	233
Keyway Mill Cutter for general purpose (K) DIN 327 3 cutting edges	B	Form A, DIN 1835	234
Langlochfräser für allgemeine Anwendung (K) DIN 327 3-Schneider	D	Form B, DIN 1835	235
Фрези за шпонкови канали за общо предназначение (K) DIN 327 3 режещи ръба	H	Form D, DIN 1835	236
End Mills DIN 844 Schaftfräser DIN 844 Фрези челно-цилиндрични DIN 844	A	Form A, DIN 1835	237
	B	Form B, DIN 1835	239
End Mills MK DIN 845 Schaftfräser MK DIN 845 Фрези челно-цилиндрични MK DIN 845	B	Form A, DIN 228	241
Woodruff Keyseat Cutters DIN 850 Schlitzfräser DIN 850 Фрези за шпонкови канали DIN 850	A	Form A, DIN 1835	243
	E	Form D, DIN 1835	244
	C	Form B, DIN 1835	245
Dovetail Cutters DIN 1833 Winkelfräser DIN 1833 Фрези ъглови DIN 1833	A	Form A, DIN 1835	246
	E	Form D, DIN 1835	247
	C	Form B, DIN 1835	248
	B	Form A, DIN 1835	249
	F	Form D, DIN 1835	250
	D	Form B, DIN 1835	251

<i>End Mills</i> <i>Schaftfräser</i> <i>Фрези опашкови</i>	Form Форма	Shank standard Schaftnorm Стандарт на опашката	Page Seite Страница
Corner-rounding Cutters DIN 6518 Viertelrund-Profilfräser DIN 6518 Фрези радиусни DIN 6518	A	Form A, DIN 1835	252
	D	Form D, DIN 1835	253
	B	Form B, DIN 1835	254
Straight shanks for Cutters DIN 1835 Zylinderschäfte für Fräser nach DIN 1835 Опашки цилиндрични за фрези DIN 1835			255
Taper shanks form A DIN 228 with binding thread Kegelschäfte Form A nach DIN 228 mit Anzugsgewinde Конусни опашки форма А по DIN 228 със скрепителна резба			256

Our instruments are made of the following high speed steels:

Unsere Werkzeuge werden aus folgenden HSS-Stahlorten gefertigt:

Нашите инструменти се изработват от следните бързорезни стомани:

HSS (1.3343, S6 - 5 - 2 DIN)

HSSE - Co 5% (1.3243, S6 - 5 - 2 - 5 DIN)

PM 30 - Co 8% (HS 6 - 5 - 3 - 8 DIN)

Keyway Mill Cutter

Form B

for general purpose (K)

2 cutting edges

Straight shank Form A

according to DIN 1835

Langlochfräser

Form B

für allgemeine Anwendung (K)

2-Schneider

Zylinderschaft Form A

nach DIN 1835

Фрези за шпонкови канали

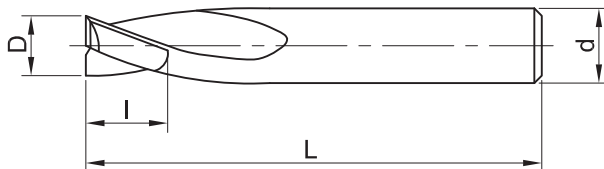
Форма В

за общо предназначение (K)

2 режещи ръба

Цилиндрична опашка форма А

по DIN 1835



DIN 327 B

D mm	d mm	L mm	l mm	Art. No. 550*..
2	6	48	4	550 2
2.5	6	49	5	550 2.5
3	6	49	5	550 3
4	6	51	7	550 4
5	6	52	8	550 5
6	6	52	8	550 6
7	10	60	10	550 7
8	10	61	11	550 8
10	10	63	13	550 10
12	12	73	16	550 12
14	12	73	16	550 14
16	16	79	19	550 16
18	16	79	19	550 18
20	20	88	22	550 20
22	20	88	22	550 22
24	25	102	26	550 24
25	25	102	26	550 25
28	25	102	26	550 28
32	32	112	32	550 32
36	32	112	32	550 36
40	40	130	38	550 40
extended * lange Ausführung * удължени				Art. No. 5501*..
4	6	63	11	5501 4
5	6	68	13	5501 5
6	6	68	13	5501 6
7	10	80	16	5501 7
8	10	88	19	5501 8
10	10	95	22	5501 10
12	12	110	26	5501 12
14	12	110	26	5501 14
16	16	123	32	5501 16
18	16	123	32	5501 18
20	20	141	38	5501 20
22	20	141	38	5501 22
24	25	166	45	5501 24
25	25	166	45	5501 25
28	25	166	45	5501 28
32	32	186	53	5501 32
36	32	186	53	5501 36

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Keyway mill cutter Form B 550 2 HSS

Langlochfräser Form B 550 2 HSS

Фреза за шпонкови канали форма В 550 2 HSS

Other sizes on demand

Andere Abmessungen auf Anfrage

Други размери - при запитване

Keyway Mill Cutter

Form D

for general purpose (K)

2 cutting edges

Straight shank Form B

according to DIN 1835

Langlochfräser

Form D

für allgemeine Anwendung (K)

2-Schneider

Zylinderschaft Form B

nach DIN 1835

Фрези за шпонкови канали

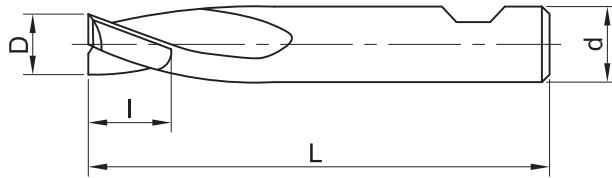
Форма D

за общо предназначение (K)

2 режещи ръба

Цилиндрична опашка форма B

по DIN 1835



DIN 327 D

D mm	d mm	L mm	l mm	Art. No. 552*..
2	6	48	4	552 2
2.5	6	49	5	552 2.5
3	6	49	5	552 3
4	6	51	7	552 4
5	6	52	8	552 5
6	6	52	8	552 6
7	10	60	10	552 7
8	10	61	11	552 8
10	10	63	13	552 10
12	12	73	16	552 12
14	12	73	16	552 14
16	16	79	19	552 16
18	16	79	19	552 18
20	20	88	22	552 20
22	20	88	22	552 22
24	25	102	26	552 24
25	25	102	26	552 25
28	25	102	26	552 28
32	32	112	32	552 32
36	32	112	32	552 36
40	40	130	38	552 40
extended * lange Ausführung * удължени				Art. No. 5521*..
4	6	63	11	5521 4
5	6	68	13	5521 5
6	6	68	13	5521 6
7	10	80	16	5521 7
8	10	88	19	5521 8
10	10	95	22	5521 10
12	12	110	26	5521 12
14	12	110	26	5521 14
16	16	123	32	5521 16
18	16	123	32	5521 18
20	20	141	38	5521 20
22	20	141	38	5521 22
24	25	166	45	5521 24
25	25	166	45	5521 25
28	25	166	45	5521 28
32	32	186	53	5521 32
36	32	186	53	5521 36

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Keyway mill cutter Form D 552 2 HSS

Langlochfräser Form D 552 2 HSS

Фреза за шпонкови канали форма D 552 2 HSS

Other sizes on demand

Andere Abmessungen auf Anfrage

Други размери - при запитване

Keyway Mill Cutter

Form H

for general purpose (K)

2 cutting edges

Straight shank Form D

according to DIN 1835

Langlochfräser

Form H

für allgemeine Anwendung (K)

2-Schneider

Zylinderschaft Form D

nach DIN 1835

Фрези за шпонкови канали

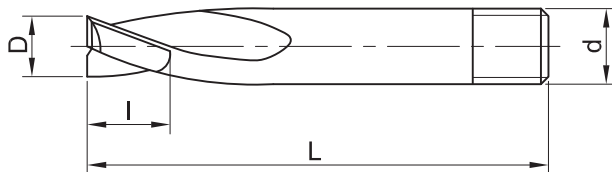
Форма H

за общо предназначение (K)

2 режещи ръба

Цилиндрична опашка форма D

по DIN 1835



DIN 327 H

D mm	d mm	L mm	l mm	Art. No. 553*..
2	6	48	4	553 2
2.5	6	49	5	553 2.5
3	6	49	5	553 3
4	6	51	7	553 4
5	6	52	8	553 5
6	6	52	8	553 6
7	10	60	10	553 7
8	10	61	11	553 8
10	10	63	13	553 10
12	12	73	16	553 12
14	12	73	16	553 14
16	16	79	19	553 16
18	16	79	19	553 18
20	20	88	22	553 20
22	20	88	22	553 22
24	25	102	26	553 24
25	25	102	26	553 25
28	25	102	26	553 28
32	32	112	32	553 32
36	32	112	32	553 36
40	40	130	38	553 40
extended * lange Ausführung * удължени				Art. No. 5531*..
4	6	63	11	5531 4
5	6	68	13	5531 5
6	6	68	13	5531 6
7	10	80	16	5531 7
8	10	88	19	5531 8
10	10	95	22	5531 10
12	12	110	26	5531 12
14	12	110	26	5531 14
16	16	123	32	5531 16
18	16	123	32	5531 18
20	20	141	38	5531 20
22	20	141	38	5531 22
24	25	166	45	5531 24
25	25	166	45	5531 25
28	25	166	45	5531 28
32	32	186	53	5531 32
36	32	186	53	5531 36

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Keyway mill cutter Form H 553 2 HSS

Langlochfräser Form H 553 2 HSS

Фреза за шпонкови канали форма H 553 2 HSS

Other sizes on demand

Andere Abmessungen auf Anfrage

Други размери - при запитване

Keyway Mill Cutter

Form B

for fine mechanics (KF)

2 cutting edges

Straight shank Form A

according to DIN 1835

Langlochfräser

Form B

für Feinwerktechnik (KF)

2-Schneider

Zylinderschaft Form A

nach DIN 1835

Фрези за шпонкови канали

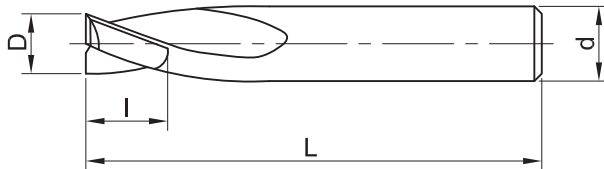
Форма В

за фина механика (KF)

2 режещи ръба

Цилиндрична опашка форма А

по DIN 1835



DIN 327 B

D mm	d mm	L mm	l mm	Art. No. 551*..
2	4	36	4	551 2
2.5	4	37	5	551 2.5
3	4	37	5	551 3
4	4	39	7	551 4
5	5	42	8	551 5
7	8	54	10	551 7
8	8	55	11	551 8

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Keyway mill cutter Form B 551 2 HSS

Langlochfräser Form B 551 2 HSS

Фреза за шпонкови канали форма В 551 2 HSS

Other sizes on demand

Andere Abmessungen auf Anfrage

Други размери - при запитване

Keyway Mill Cutter

Form D

2 cutting edges
Morse taper shank Form A
according to DIN 228

Langlochfräser

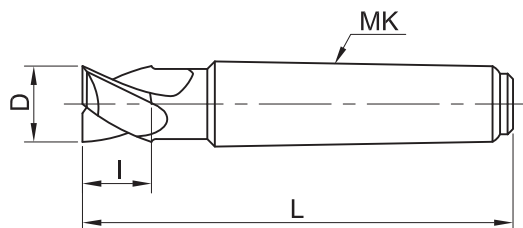
Form D

2-Schneider
Morsekegelschaft Form A
nach DIN 228

Фрези за шпонкови канали

Форма D

2 режещи ръба
Опашка морзов конус форма А
по DIN 228



DIN 326 D

D mm	L mm	I mm	MK	Art. No. 560*..
10	83	13	1	560 10
12	86	16	1	560 12
14	101	16	2	560 14
16	104	19	2	560 16
18	104	19	2	560 18
20	107	22	2	560 20
22	107	22	2	560 22
24	128	26	3	560 24
25	128	26	3	560 25
28	128	26	3	560 28
32	157	32	4	560 32
36	157	32	4	560 36
40	163	38	4	560 40
45	163	38	4	560 45
50	203	45	5	560 50
56	203	45	5	560 56
63	211	53	5	560 63

Ordering example: Keyway mill cutter Form D 560 10 HSS
Bestellbeispiel: Langlochfräser Form D 560 10 HSS
Начин на заявяване: Фреза за шпонкови канали форма D 560 10 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Keyway Mill Cutter

Form B

for general purpose (K)

3 cutting edges

Straight shank Form A

according to DIN 1835

Langlochfräser

Form B

für allgemeine Anwendung (K)

3-Schneider

Zylinderschaft Form A

nach DIN 1835

Фрези за шпонкови канали

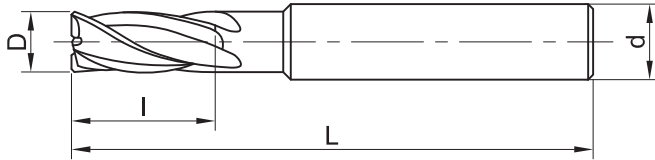
Форма В

за общо предназначение (K)

3 режещи ръба

Цилиндрична опашка форма А

по DIN 1835



DIN 327 B

D mm	d mm	L mm	l mm	Art. No. 554*..
4	6	51	7	554 4
5	6	52	8	554 5
6	6	52	8	554 6
7	10	60	10	554 7
8	10	61	11	554 8
10	10	63	13	554 10
12	12	73	16	554 12
14	12	73	16	554 14
extended * lange Ausführung * удължени				Art. No. 5541*..
4	6	55	11	5541 4
5	6	57	13	5541 5
6	6	57	13	5541 6
7	10	66	16	5541 7
8	10	69	19	5541 8
10	10	72	22	5541 10
12	12	83	26	5541 12
14	12	83	26	5541 14

Ordering example: Keyway mill cutter Form B 554 4 HSS
 Bestellbeispiel: Langlochfräser Form B 554 4 HSS
 Начин на заявяване: Фреза за шпонкови канали форма В 554 4 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Keyway Mill Cutter

Form D

for general purpose (K)

3 cutting edges

Straight shank Form B

according to DIN 1835

Langlochfräser

Form D

für allgemeine Anwendung (K)

3-Schneider

Zylinderschaft Form B

nach DIN 1835

Фрези за шпонкови канали

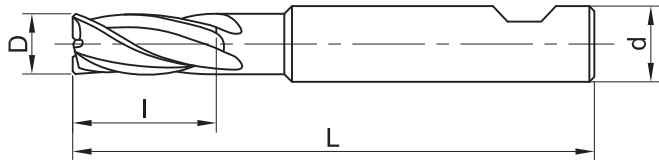
Форма D

за общо предназначение (K)

3 режещи ръба

Цилиндрична опашка форма B

по DIN 1835



DIN 327 D

D mm	d mm	L mm	l mm	Art. No. 555*..
4	6	51	7	555 4
5	6	52	8	555 5
6	6	52	8	555 6
7	10	60	10	555 7
8	10	61	11	555 8
10	10	63	13	555 10
12	12	73	16	555 12
14	12	73	16	555 14
extended * lange Ausführung * удължени				Art. No. 5551*..
4	6	55	11	5551 4
5	6	57	13	5551 5
6	6	57	13	5551 6
7	10	66	16	5551 7
8	10	69	19	5551 8
10	10	72	22	5551 10
12	12	83	26	5551 12
14	12	83	26	5551 14

Ordering example: Keyway mill cutter Form D 555 4 HSS
 Bestellbeispiel: Langlochfräser Form D 555 4 HSS
 Начин на заявяване: Фреза за шпонкови канали форма D 555 4 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Keyway Mill Cutter

Form H

for general purpose (K)

3 cutting edges

Straight shank Form D

according to DIN 1835

Langlochfräser

Form H

für allgemeine Anwendung (K)

3-Schneider

Zylinderschaft Form D

nach DIN 1835

Фрези за шпонкови канали

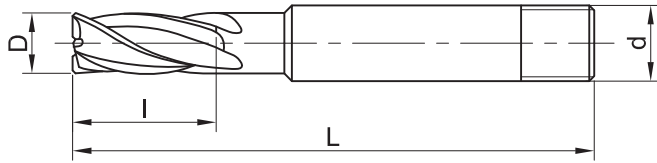
Форма H

за общо предназначение (K)

3 режещи ръба

Цилиндрична опашка форма D

по DIN 1835



DIN 327 H

D mm	d mm	L mm	l mm	Art. No. 556*..
4	6	51	7	556 4
5	6	52	8	556 5
6	6	52	8	556 6
7	10	60	10	556 7
8	10	61	11	556 8
10	10	63	13	556 10
12	12	73	16	556 12
14	12	73	16	556 14
extended * lange Ausführung * удължени				Art. No. 5561*..
4	6	55	11	5561 4
5	6	57	13	5561 5
6	6	57	13	5561 6
7	10	66	16	5561 7
8	10	69	19	5561 8
10	10	72	22	5561 10
12	12	83	26	5561 12
14	12	83	26	5561 14

Ordering example: Keyway mill cutter Form H 556 4 HSS
 Bestellbeispiel: Langlochfräser Form H 556 4 HSS
 Начин на заявяване: Фреза за шпонкови канали форма H 556 4 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

End Mills

Form A

Straight shank Form A
according to DIN 1835

Schaftfräser

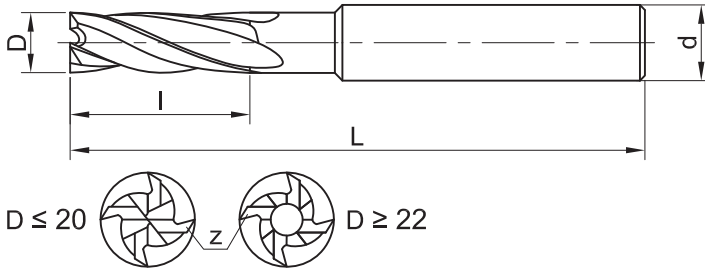
Form A

Zylinderschaft Form A
nach DIN 1835

Фрези челно-цилиндрични

Форма А

Цилиндрична опашка форма А
по DIN 1835



DIN 844 A

D mm	d mm	L mm	l mm	Type N		Type W	
				z	Art. No. 5611*..	z	Art. No. 5612*..
4	6	55	11	4	5611 4	3	5612 4
5	6	57	13	4	5611 5	3	5612 5
6	6	57	13	4	5611 6	3	5612 6
7	10	66	16	4	5611 7	3	5612 7
8	10	69	19	4	5611 8	3	5612 8
9	10	69	19	4	5611 9	3	5612 9
10	10	72	22	4	5611 10	3	5612 10
11	12	79	22	4	5611 11	3	5612 11
12	12	83	26	4	5611 12	3	5612 12
14	12	83	26	4	5611 14	3	5612 14
16	16	92	32	4	5611 16	3	5612 16
18	16	92	32	4	5611 18	3	5612 18
20	20	104	38	4	5611 20	3	5612 20
22	20	104	38	6	5611 22	4	5612 22
25	25	121	45	6	5611 25	4	5612 25
28	25	121	45	6	5611 28	4	5612 28
32	32	133	53	6	5611 32	4	5612 32
36	32	133	53	6	5611 36	4	5612 36
40	40	155	63	6	5611 40	4	5612 40
45	40	155	63	8	5611 45	4	5612 45
extended * lange Ausführung * удължени					Art. No. 5641*..		Art. No. 5642*..
4	6	63	19	4	5641 4	3	5642 4
5	6	68	24	4	5641 5	3	5642 5
6	6	68	24	4	5641 6	3	5642 6
7	10	80	30	4	5641 7	3	5642 7
8	10	88	38	4	5641 8	3	5642 8
9	10	88	38	4	5641 9	3	5642 9
10	10	95	45	4	5641 10	3	5642 10
11	12	102	45	4	5641 11	3	5642 11
12	12	110	53	4	5641 12	3	5642 12
14	12	110	53	4	5641 14	3	5642 14
16	16	123	63	4	5641 16	3	5642 16
18	16	123	63	4	5641 18	3	5642 18
20	20	141	75	4	5641 20	3	5642 20
22	20	141	75	6	5641 22	4	5642 22
25	25	166	90	6	5641 25	4	5642 25
28	25	166	90	6	5641 28	4	5642 28
32	32	186	106	6	5641 32	4	5642 32
36	32	186	106	6	5641 36	4	5642 36
40	40	217	125	6	5641 40	4	5642 40
45	40	217	125	8	5641 45	4	5642 45

Ordering example: End mill Form A 5611 4 HSS
 Bestellbeispiel: Schaftfräser Form A 5611 4 HSS
 Начин на заявяване: Фреза челно-цилиндрична форма А 5611 4 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

High Performance End Mills

Form A

Straight shank Form A
according to DIN 1835

Hochleistungs- Schafffräser

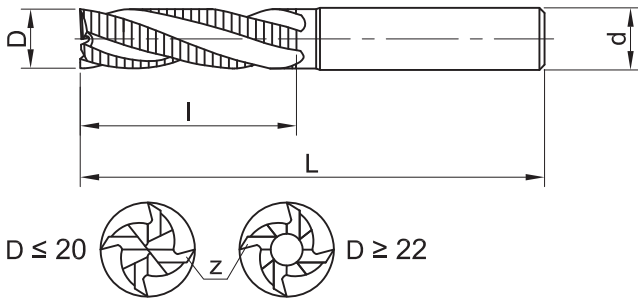
Form A

Zylinderschaft Form A
nach DIN 1835

Фрези челно-цилиндрични високопроизводителни

Форма А

Цилиндрична опашка форма А
по DIN 1835



DIN 844 A

D mm	d mm	L mm	l mm	Type NR		Type NF	
				z	Art. No. 5613*..	z	Art. No. 5614*..
8	10	69	19	4	5613 8	4	5614 8
9	10	69	19	4	5613 9	4	5614 9
10	10	72	22	4	5613 10	4	5614 10
11	12	79	22	4	5613 11	4	5614 11
12	12	83	26	4	5613 12	4	5614 12
14	12	83	26	4	5613 14	4	5614 14
16	16	92	32	4	5613 16	4	5614 16
18	16	92	32	5	5613 18	5	5614 18
20	20	104	38	5	5613 20	5	5614 20
22	20	104	38	5	5613 22	5	5614 22
25	25	121	45	5	5613 25	5	5614 25
28	25	121	45	6	5613 28	6	5614 28
32	32	133	53	6	5613 32	6	5614 32
36	32	133	53	6	5613 36	6	5614 36
40	40	155	63	6	5613 40	6	5614 40
45	40	155	63	8	5613 45	8	5614 45
extended * lange Ausführung * удължени					Art. No. 5643*..		Art. No. 5644*..
8	10	88	38	4	5643 8	4	5644 8
9	10	88	38	4	5643 9	4	5644 9
10	10	95	45	4	5643 10	4	5644 10
11	12	102	45	4	5643 11	4	5644 11
12	12	110	53	4	5643 12	4	5644 12
14	12	110	53	4	5643 14	4	5644 14
16	16	123	63	4	5643 16	4	5644 16
18	16	123	63	5	5643 18	5	5644 18
20	20	141	75	5	5643 20	5	5644 20
22	20	141	75	5	5643 22	5	5644 22
25	25	166	90	5	5643 25	5	5644 25
28	25	166	90	6	5643 28	6	5644 28
32	32	186	106	6	5643 32	6	5644 32
36	32	186	106	6	5643 36	6	5644 36
40	40	217	125	6	5643 40	6	5644 40
45	40	217	125	8	5643 45	8	5644 45

Ordering example: End mill Form A 5613 8 HSS
 Bestellbeispiel: Schafffräser Form A 5613 8 HSS
 Начин на заявяване: Фреза челно-цилиндрична форма А 5613 8 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

End Mills

Form B

Straight shank Form B
according to DIN 1835

Schaftfräser

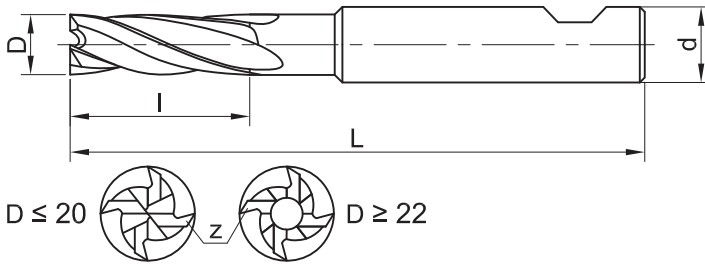
Form B

Zylinderschaft Form B
nach DIN 1835

Фрези челно-цилиндрични

Форма В

Цилиндрична опашка форма В
по DIN 1835



DIN 844 B

D mm	d mm	L mm	l mm	Type N		Type W	
				z	Art. No. 5631*..	z	Art. No. 5632*..
4	6	55	11	4	5631 4	3	5632 4
5	6	57	13	4	5631 5	3	5632 5
6	6	57	13	4	5631 6	3	5632 6
7	10	66	16	4	5631 7	3	5632 7
8	10	69	19	4	5631 8	3	5632 8
9	10	69	19	4	5631 9	3	5632 9
10	10	72	22	4	5631 10	3	5632 10
11	12	79	22	4	5631 11	3	5632 11
12	12	83	26	4	5631 12	3	5632 12
14	12	83	26	4	5631 14	3	5632 14
16	16	92	32	4	5631 16	3	5632 16
18	16	92	32	4	5631 18	3	5632 18
20	20	104	38	4	5631 20	3	5632 20
22	20	104	38	6	5631 22	4	5632 22
25	25	121	45	6	5631 25	4	5632 25
28	25	121	45	6	5631 28	4	5632 28
32	32	133	53	6	5631 32	4	5632 32
36	32	133	53	6	5631 36	4	5632 36
40	40	155	63	6	5631 40	4	5632 40
45	40	155	63	8	5631 45	4	5632 45
extended * lange Ausführung * удължени					Art. No. 5661*..		Art. No. 5662*..
4	6	63	19	4	5661 4	3	5662 4
5	6	68	24	4	5661 5	3	5662 5
6	6	68	24	4	5661 6	3	5662 6
7	10	80	30	4	5661 7	3	5662 7
8	10	88	38	4	5661 8	3	5662 8
9	10	88	38	4	5661 9	3	5662 9
10	10	95	45	4	5661 10	3	5662 10
11	12	102	45	4	5661 11	3	5662 11
12	12	110	53	4	5661 12	3	5662 12
14	12	110	53	4	5661 14	3	5662 14
16	16	123	63	4	5661 16	3	5662 16
18	16	123	63	4	5661 18	3	5662 18
20	20	141	75	4	5661 20	3	5662 20
22	20	141	75	6	5661 22	4	5662 22
25	25	166	90	6	5661 25	4	5662 25
28	25	166	90	6	5661 28	4	5662 28
32	32	186	106	6	5661 32	4	5662 32
36	32	186	106	6	5661 36	4	5662 36
40	40	217	125	6	5661 40	4	5662 40
45	40	217	125	8	5661 45	4	5662 45

Ordering example:

Bestellbeispiel:

Начин на заявяване:

End mill Form B 5631 4 HSS

Schaftfräser Form B 5631 4 HSS

Фреза челно-цилиндрична форма В 5631 4 HSS

Other sizes on demand

Andere Abmessungen auf Anfrage

Други размери - при запитване

High Performance End Mills

Form B

Straight shank Form B
according to DIN 1835

Hochleistungs- Schafffräser

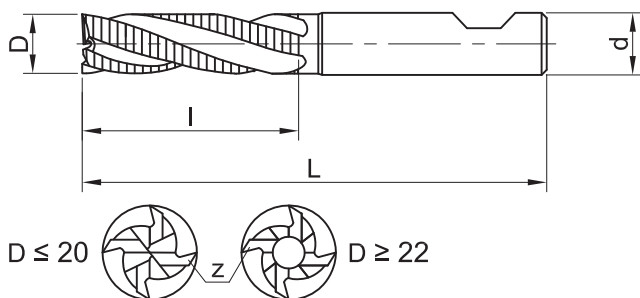
Form B

Zylinderschaft Form B
nach DIN 1835

Фрези челно-цилиндрични високопроизводителни

Форма В

Цилиндрична опашка форма В
по DIN 1835



DIN 844 B

D mm	d mm	L mm	l mm	Type NR		Type NF	
				z	Art. No. 5633*..	z	Art. No. 5634*..
8	10	69	19	4	5633 8	4	5634 8
9	10	69	19	4	5633 9	4	5634 9
10	10	72	22	4	5633 10	4	5634 10
11	12	79	22	4	5633 11	4	5634 11
12	12	83	26	4	5633 12	4	5634 12
14	12	83	26	4	5633 14	4	5634 14
16	16	92	32	4	5633 16	4	5634 16
18	16	92	32	5	5633 18	5	5634 18
20	20	104	38	5	5633 20	5	5634 20
22	20	104	38	5	5633 22	5	5634 22
25	25	121	45	5	5633 25	5	5634 25
28	25	121	45	6	5633 28	6	5634 28
32	32	133	53	6	5633 32	6	5634 32
36	32	133	53	6	5633 36	6	5634 36
40	40	155	63	6	5633 40	6	5634 40
45	40	155	63	8	5633 45	8	5634 45
extended * lange Ausführung * удължени					Art. No. 5663*..		Art. No. 5664*..
8	10	88	38	4	5663 8	4	5664 8
9	10	88	38	4	5663 9	4	5664 9
10	10	95	45	4	5663 10	4	5664 10
11	12	102	45	4	5663 11	4	5664 11
12	12	110	53	4	5663 12	4	5664 12
14	12	110	53	4	5663 14	4	5664 14
16	16	123	63	4	5663 16	4	5664 16
18	16	123	63	5	5663 18	5	5664 18
20	20	141	75	5	5663 20	5	5664 20
22	20	141	75	5	5663 22	5	5664 22
25	25	166	90	5	5663 25	5	5664 25
28	25	166	90	6	5663 28	6	5664 28
32	32	186	106	6	5663 32	6	5664 32
36	32	186	106	6	5663 36	6	5664 36
40	40	217	125	6	5663 40	6	5664 40
45	40	217	125	8	5663 45	8	5664 45

Ordering example: End mill Form B 5633 8 HSS
 Bestellbeispiel: Schafffräser Form B 5633 8 HSS
 Начин на заявяване: Фреза челно-цилиндрична форма В 5633 8 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

End Mills

Form B

Morse taper shank Form A according to DIN 228

Schaftfräser

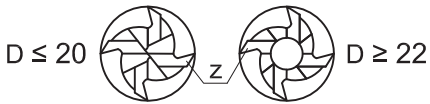
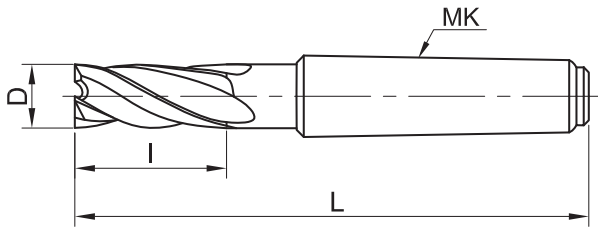
Form B

Morsekegelschaft Form A nach DIN 228

Фрези челно-цилиндрични

Форма В

Опашка морзов конус форма А по DIN 228



DIN 845 B



D mm	L mm	I mm	MK	Type N		Type W	
				Z	Art. No. 5671*..	Z	Art. No. 5672*..
10	92	22	1	4	5671 10	3	5672 10
11	92	22	1	4	5671 11	3	5672 11
12	96	26	1	4	5671 12	3	5672 12
14	111	26	2	4	5671 14	3	5672 14
16	117	32	2	4	5671 16	3	5672 16
18	117	32	2	4	5671 18	3	5672 18
20	123	38	2	4	5671 20	3	5672 20
22	123	38	2	6	5671 22	4	5672 22
25	147	45	3	6	5671 25	4	5672 25
28	147	45	3	6	5671 28	4	5672 28
32	178	53	4	6	5671 32	4	5672 32
36	178	53	4	6	5671 36	4	5672 36
40	188	63	4	6	5671 40	4	5672 40
45	188	63	4	6	5671 45	4	5672 45
50	233	75	5	8	5671 50	4	5672 50
56	233	75	5	8	5671 56	4	5672 56
63	248	90	5	8	5671 63	4	5672 63
extended * lange Ausführung * удължени				Art. No. 5681*..		Art. No. 5682*..	
10	115	45	1	4	5681 10	3	5682 10
11	115	45	1	4	5681 11	3	5682 11
12	123	53	1	4	5681 12	3	5682 12
14	123	53	2	4	5681 14	3	5682 14
16	148	63	2	4	5681 16	3	5682 16
18	148	63	2	4	5681 18	3	5682 18
20	160	75	2	4	5681 20	3	5682 20
22	160	75	2	6	5681 22	4	5682 22
25	192	90	3	6	5681 25	4	5682 25
28	192	90	3	6	5681 28	4	5682 28
32	231	106	4	6	5681 32	4	5682 32
36	231	106	4	6	5681 36	4	5682 36
40	250	125	4	6	5681 40	4	5682 40
45	250	125	4	6	5681 45	4	5682 45
50	308	150	5	8	5681 50	4	5682 50
56	308	150	5	8	5681 56	4	5682 56
63	308	180	5	8	5681 63	4	5682 63

Ordering example: End mill Form B 5671 10 HSS
 Bestellbeispiel: Schaftfräser Form B 5671 10 HSS
 Начин на заявяване: Фреза челно-цилиндрична форма В 5671 10 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване



High Performance End Mills

Form B

Morse taper shank Form A
according to DIN 228

Hochleistungs- Schaftfräser

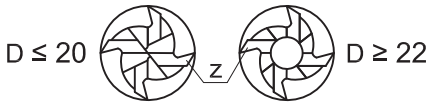
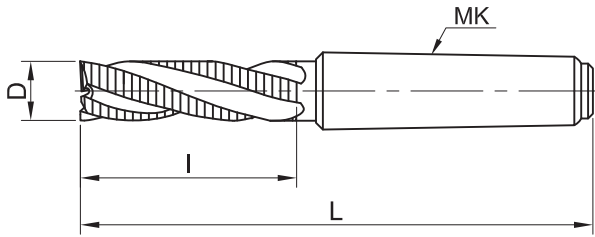
Form B

Morsekegelschaft Form A
nach DIN 228

Фрези челно-цилиндрични високопроизводителни

Форма В

Опашка морзов конус форма А
по DIN 228



DIN 845 B



D mm	L mm	I mm	MK	Type NR		Type NF	
				z	Art. No. 5673*..	z	Art. No. 5674*..
10	92	22	1	4	5673 10	4	5674 10
11	92	22	1	4	5673 11	4	5674 11
12	96	26	1	4	5673 12	4	5674 12
14	111	26	2	4	5673 14	4	5674 14
16	117	32	2	4	5673 16	4	5674 16
18	117	32	2	5	5673 18	5	5674 18
20	123	38	2	5	5673 20	5	5674 20
22	123	38	2	5	5673 22	5	5674 22
25	147	45	3	5	5673 25	5	5674 25
28	147	45	3	6	5673 28	6	5674 28
32	178	53	4	6	5673 32	6	5674 32
36	178	53	4	6	5673 36	6	5674 36
40	188	63	4	6	5673 40	6	5674 40
45	188	63	4	8	5673 45	8	5674 45
50	233	75	5	8	5673 50	8	5674 50
56	233	75	5	8	5673 56	8	5674 56
63	248	90	5	10	5673 63	10	5674 63
extended * lange Ausführung * удължени					Art. No. 5683*..		Art. No. 5684*..
10	115	45	1	4	5683 10	4	5684 10
11	115	45	1	4	5683 11	4	5684 11
12	123	53	1	4	5683 12	4	5684 12
14	123	53	2	4	5683 14	4	5684 14
16	148	63	2	4	5683 16	4	5684 16
18	148	63	2	5	5683 18	5	5684 18
20	160	75	2	5	5683 20	5	5684 20
22	160	75	2	5	5683 22	5	5684 22
25	192	90	3	5	5683 25	5	5684 25
28	192	90	3	6	5683 28	6	5684 28
32	231	106	4	6	5683 32	6	5684 32
36	231	106	4	6	5683 36	6	5684 36
40	250	125	4	6	5683 40	6	5684 40
45	250	125	4	8	5683 45	8	5684 45
50	308	150	5	8	5683 50	8	5684 50
56	308	150	5	8	5683 56	8	5684 56
63	308	180	5	10	5683 63	10	5684 63

Ordering example: End mill 5673 Form B 10 HSS
 Bestellbeispiel: Schaftfräser Form B 5673 10 HSS
 Начин на заявяване: Фреза челно-цилиндрична форма В 5673 10 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Woodruff Keyseat Cutters

Form A

Type H

Straight teeth

Straight shank Form A

according to DIN 1835

Schlitzfräser

Form A

Typ H

Geradeverzahnt

Zylinderschaft Form A

nach DIN 1835

Фрези за шпонкови канали

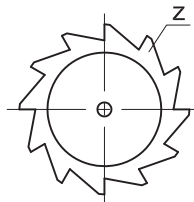
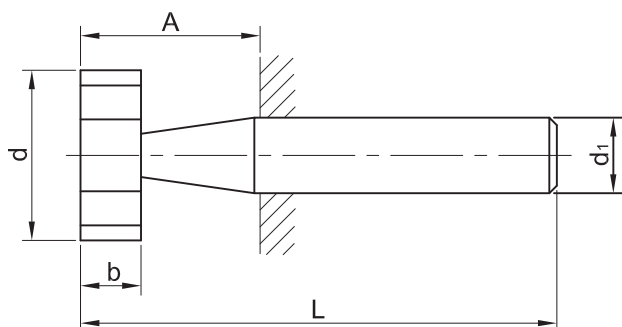
Форма А

Тип Н

Прави зъби

Цилиндрична опашка форма А

по DIN 1835



DIN 850 A

d mm	b mm	L mm	d1 mm	≈ A	z	Art. No. 571*..
16.5	3	56	10	16	12	571 165 3
16.5	4	56	10	16	12	571 165 4
16.5	5	56	10	16	12	571 165 5
19.5	4	63	10	23	12	571 195 4
19.5	5	63	10	23	12	571 195 5
19.5	6	63	10	23	12	571 195 6
22.5	5	63	10	23	12	571 225 5
22.5	6	63	10	23	12	571 225 6
22.5	8	63	10	23	12	571 225 8
25.5	6	63	10	23	14	571 255 6
28.5	6	63	10	23	16	571 285 6
28.5	8	63	10	23	16	571 285 8
28.5	10	71	12	26	16	571 285 10
32.5	8	71	12	26	18	571 325 8
32.5	10	71	12	26	18	571 325 10
45.5	10	71	12	26	20	571 455 10

Ordering example: Woodruff keyseat cutter Form A 571 165 3 HSS
 Bestellbeispiel: Schlitzfräser Form A 571 165 3 HSS
 Начин на заявяване: Фреза за шпонкови канали форма А 571 165 3 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Woodruff Keyseat Cutters

Form E

Type H

Straight teeth

Straight shank Form D

according to DIN 1835

Schlitzfräser

Form E

Typ H

Geradeverzahnt

Zylinderschaft Form D

nach DIN 1835

Фрези за шпонкови канали

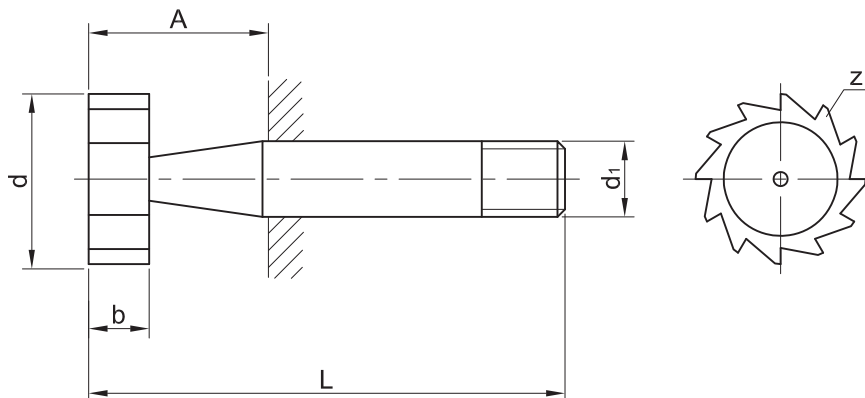
Форма Е

Тип Н

Прави зъби

Цилиндрична опашка форма D

по DIN 1835



DIN 850 E

d mm	b mm	L mm	d1 mm	≈ A	z	Art. No. 572*..
16.5	3	56	10	16	12	572 165 3
16.5	4	56	10	16	12	572 165 4
16.5	5	56	10	16	12	572 165 5
19.5	4	63	10	23	12	572 195 4
19.5	5	63	10	23	12	572 195 5
19.5	6	63	10	23	12	572 195 6
22.5	5	63	10	23	12	572 225 5
22.5	6	63	10	23	12	572 225 6
22.5	8	63	10	23	12	572 225 8
25.5	6	63	10	23	14	572 255 6
28.5	6	63	10	23	16	572 285 6
28.5	8	63	10	23	16	572 285 8
28.5	10	71	12	26	16	572 285 10
32.5	8	71	12	26	18	572 325 8
32.5	10	71	12	26	18	572 325 10
45.5	10	71	12	26	20	572 455 10

Ordering example: Woodruff keyseat cutter Form E 572 165 3 HSS
 Bestellbeispiel: Schlitzfräser Form E 572 165 3 HSS
 Начин на заявяване: Фреза за шпонкови канали форма Е 572 165 3 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Woodruff Keyseat Cutters

Form C

Type H

Straight teeth

Straight shank Form B
according to DIN 1835

Schlitzfräser

Form C

Typ H

Geradeverzahnt

Zylinderschaft Form B
nach DIN 1835

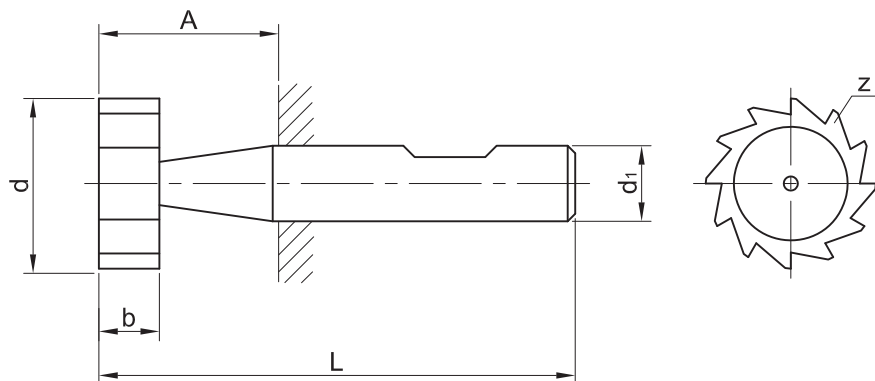
Фрези за шпонкови канали

Форма С

Тип Н

Прави зъби

Цилиндрична опашка форма В
по DIN 1835



DIN 850 C

d mm	b mm	L mm	d1 mm	≈ A	z	Art. No. 573*..
16.5	3	56	10	16	12	573 165 3
16.5	4	56	10	16	12	573 165 4
16.5	5	56	10	16	12	573 165 5
19.5	4	63	10	23	12	573 195 4
19.5	5	63	10	23	12	573 195 5
19.5	6	63	10	23	12	573 195 6
22.5	5	63	10	23	12	573 225 5
22.5	6	63	10	23	12	573 225 6
22.5	8	63	10	23	12	573 225 8
25.5	6	63	10	23	14	573 255 6
28.5	6	63	10	23	16	573 285 6
28.5	8	63	10	23	16	573 285 8
28.5	10	71	12	26	16	573 285 10
32.5	8	71	12	26	18	573 325 8
32.5	10	71	12	26	18	573 325 10
45.5	10	71	12	26	20	573 455 10

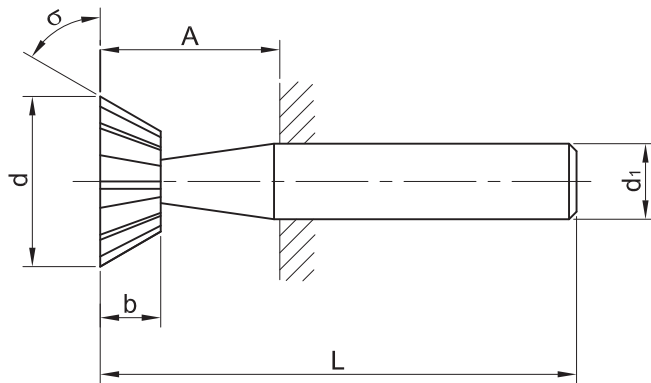
Ordering example: Woodruff keyseat cutter Form C 573 165 3 HSS
Bestellbeispiel: Schlitzfräser Form C 573 165 3 HSS
Начин на заявяване: Фреза за шпонкови канали форма С 573 165 3 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Dovetail Cutters

Form A

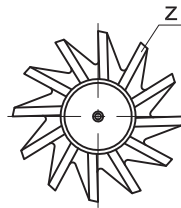
Straight shank Form A
according to DIN 1835



Winkelfräser

Form A

Zylinderschaft Form A
nach DIN 1835



Фрези ъГЛОВИ

Форма А

Цилиндрична опашка форма А
по DIN 1835



DIN 1833 A

σ	d mm	b mm	L mm	d1 mm	$\approx A$	z	Art. No. 5571*..
45°	20	5	63	12	18	8	5571 20 45
45°	25	6.3	67	12	22	10	5571 25 45
45°	32	8	71	16	25	12	5571 32 45
50°	20	6.3	63	12	18	8	5571 20 50
50°	25	8	67	12	22	10	5571 25 50
50°	32	10	71	16	25	12	5571 32 50
55°	20	7.1	63	12	18	8	5571 20 55
55°	25	9	67	12	22	10	5571 25 55
55°	32	11.2	71	16	25	12	5571 32 55
60°	20	8	63	12	18	8	5571 20 60
60°	25	10	67	12	22	10	5571 25 60
60°	32	12.5	71	16	25	12	5571 32 60

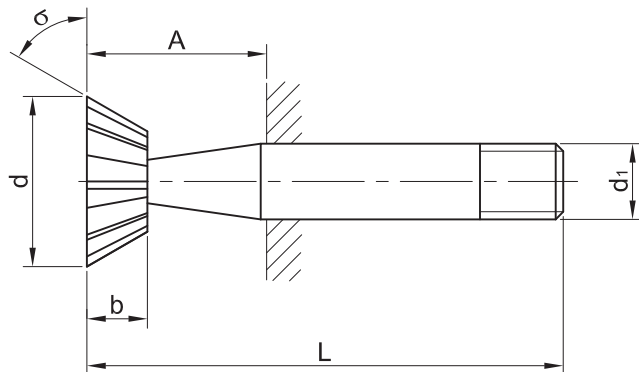
Ordering example: Dovetail cutter Form A 5571 20 45 HSS
Bestellbeispiel: Winkelfräser Form A 5571 20 45 HSS
Начин на заявяване: Фреза ъглова форма А 5571 20 45 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Dovetail Cutters

Form E

Straight shank Form D
according to DIN 1835



Winkelfräser

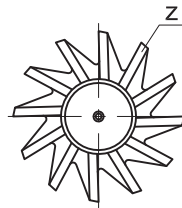
Form E

Zylinderschaft Form D
nach DIN 1835

Фрези ъглови

Форма Е

Цилиндрична опашка форма D
по DIN 1835



DIN 1833 E

σ	d mm	b mm	L mm	d1 mm	$\approx A$	z	Art. No. 5572*..
45°	20	5	63	12	18	8	5572 20 45
45°	25	6.3	67	12	22	10	5572 25 45
45°	32	8	71	16	25	12	5572 32 45
50°	20	6.3	63	12	18	8	5572 20 50
50°	25	8	67	12	22	10	5572 25 50
50°	32	10	71	16	25	12	5572 32 50
55°	20	7.1	63	12	18	8	5572 20 55
55°	25	9	67	12	22	10	5572 25 55
55°	32	11.2	71	16	25	12	5572 32 55
60°	20	8	63	12	18	8	5572 20 60
60°	25	10	67	12	22	10	5572 25 60
60°	32	12.5	71	16	25	12	5572 32 60

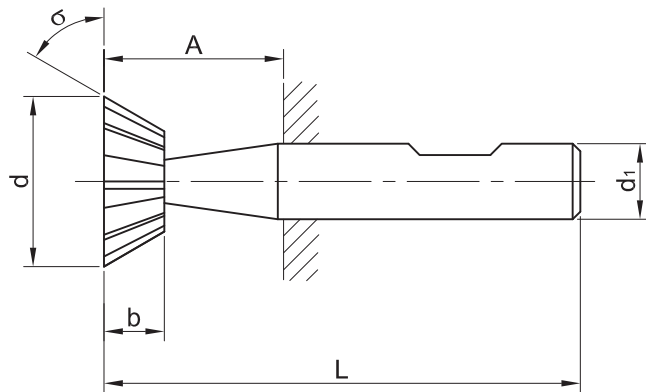
Ordering example: Dovetail cutter Form E 5572 20 45 HSS
Bestellbeispiel: Winkelfräser Form E 5572 20 45 HSS
Начин на заявяване: Фреза ъглова форма Е 5572 20 45 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Dovetail Cutters

Form C

Straight shank Form B
according to DIN 1835



Winkelfräser

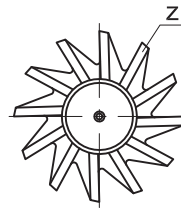
Form C

Zylinderschaft Form B
nach DIN 1835

Фрези ъГЛОВИ

Форма С

Цилиндрична опашка форма В
по DIN 1835



DIN 1833 C

σ	d mm	b mm	L mm	d1 mm	$\approx A$	z	Art. No. 5573*..
45°	20	5	63	12	18	8	5573 20 45
45°	25	6.3	67	12	22	10	5573 25 45
45°	32	8	71	16	25	12	5573 32 45
50°	20	6.3	63	12	18	8	5573 20 50
50°	25	8	67	12	22	10	5573 25 50
50°	32	10	71	16	25	12	5573 32 50
55°	20	7.1	63	12	18	8	5573 20 55
55°	25	9	67	12	22	10	5573 25 55
55°	32	11.2	71	16	25	12	5573 32 55
60°	20	8	63	12	18	8	5573 20 60
60°	25	10	67	12	22	10	5573 25 60
60°	32	12.5	71	16	25	12	5573 32 60

Ordering example: Dovetail cutter Form C 5573 20 45 HSS
Bestellbeispiel: Winkelfräser Form C 5573 20 45 HSS
Начин на заявяване: Фреза ъглова форма С 5573 20 45 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Dovetail Cutters

Form B

Straight shank Form A
according to DIN 1835

Winkelfräser

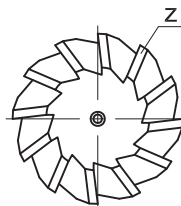
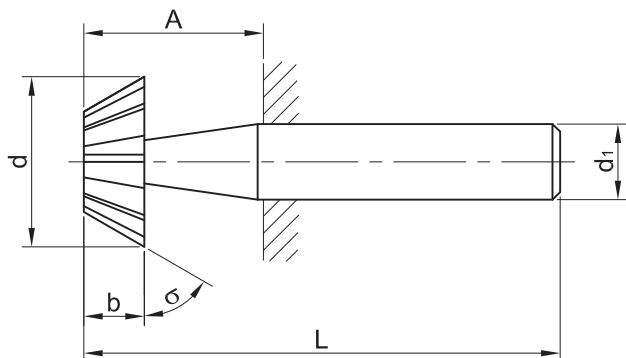
Form B

Zylinderschaft Form A
nach DIN 1835

Фрези ъглови

Форма В

Цилиндрична опашка форма А
по DIN 1835



DIN 1833 B

σ	d mm	b mm	L mm	d1 mm	$\approx A$	z	Art. No. 5581*..
45°	20	5	63	12	18	8	5581 20 45
45°	25	6.3	67	12	22	10	5581 25 45
45°	32	8	71	16	25	12	5581 32 45
60°	20	8	63	12	18	8	5581 20 60
60°	25	10	67	12	22	10	5581 25 60
60°	32	12.5	71	16	25	12	5581 32 60

Ordering example: Dovetail cutter Form B 5581 20 45 HSS
Bestellbeispiel: Winkelfräser Form B 5581 20 45 HSS
Начин на заявяване: Фреза ъглова форма В 5581 20 45 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Dovetail Cutters

Form F

Straight shank Form D
according to DIN 1835

Winkelfräser

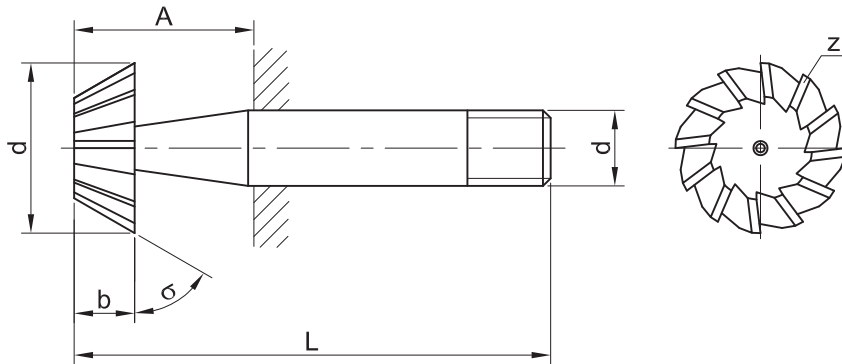
Form F

Zylinderschaft Form D
nach DIN 1835

Фрези ъглови

Форма F

Цилиндрична опашка форма D
по DIN 1835



DIN 1833 F

σ	d mm	b mm	L mm	d1 mm	$\approx A$	z	Art. No. 5582*..
45°	20	5	63	12	18	8	5582 20 45
45°	25	6.3	67	12	22	10	5582 25 45
45°	32	8	71	16	25	12	5582 32 45
60°	20	8	63	12	18	8	5582 20 60
60°	25	10	67	12	22	10	5582 25 60
60°	32	12.5	71	16	25	12	5582 32 60

Ordering example: Dovetail cutter Form F 5582 20 45 HSS
 Bestellbeispiel: Winkelfräser Form F 5582 20 45 HSS
 Начин на заявяване: Фреза ъглова форма F 5582 20 45 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Dovetail Cutters

Form D

Straight shank Form B
according to DIN 1835

Winkelfräser

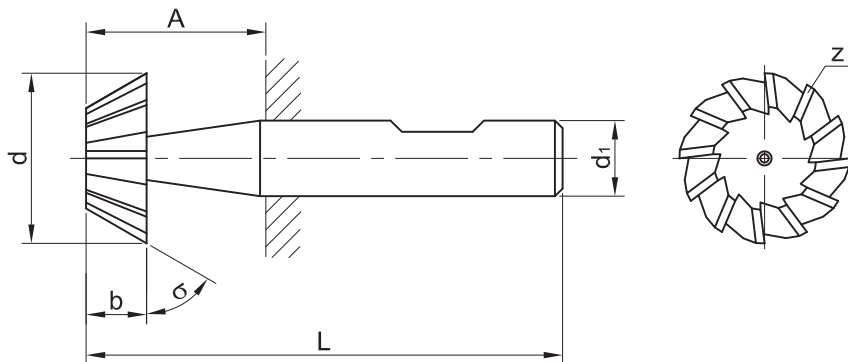
Form D

Zylinderschaft Form B
nach DIN 1835

Фрези ъглови

Форма D

Цилиндрична опашка форма B
по DIN 1835



DIN 1833 D

σ	d mm	b mm	L mm	d1 mm	$\approx A$	z	Art. No. 5583*..
45°	20	5	63	12	18	8	5583 20 45
45°	25	6.3	67	12	22	10	5583 25 45
45°	32	8	71	16	25	12	5583 32 45
60°	20	8	63	12	18	8	5583 20 60
60°	25	10	67	12	22	10	5583 25 60
60°	32	12.5	71	16	25	12	5583 32 60

Ordering example: Dovetail cutter Form D 5583 20 45 HSS
 Bestellbeispiel: Winkelfräser Form D 5583 20 45 HSS
 Начин на заявяване: Фреза ъглова форма D 5583 20 45 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Corner-rounding Cutters

Concave
Form A

Straight shank Form A
according to DIN 1835

Viertelrund-Profilfräser

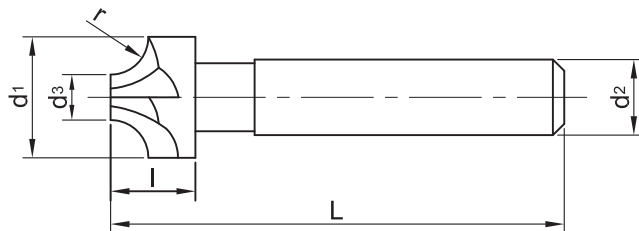
Konkav
Form A

Zylinderschaft Form A
nach DIN 1835

Фрези радиусни

Вдлъбнати
Форма А

Цилиндрична опашка форма А
по DIN 1835



DIN 6518 A

r	d1 mm	d3 mm	L mm	l mm	d2	Art. No. 5801*..
2	10	6	60	8	10	5801 2
2.5	11	6	60	8	10	5801 2.5
3	12	6	60	8	12	5801 3
3.15	12.3	6	60	8	12	5801 3.15
4	14	6	60	10	12	5801 4
5	16	6	60	10	12	5801 5
6	20	8	67	12	16	5801 6
6.3	20.6	8	71	16	16	5801 6.3
8	24	8	71	16	16	5801 8
10	28	8	85	18	25	5801 10
12	34	10	90	24	25	5801 12

Ordering example: Corner-rounding cutter, concave Form A 5801 2 HSS
 Bestellbeispiel: Viertelrund-Profilfräser, konkav Form A 5801 2 HSS
 Начин на заявяване: Фреза радиусна, вдлъбнатата форма А 5801 2 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Corner-rounding Cutters

Concave
Form D

Straight shank Form D
according to DIN 1835

Viertelrund-Profilfräser

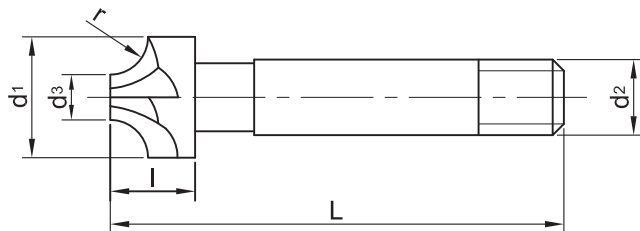
Konkav
Form D

Zylinderschaft Form D
nach DIN 1835

Фрези радиусни

Вдлъбнати
Форма D

Цилиндрична опашка форма D
по DIN 1835



DIN 6518 D

r	d1 mm	d3 mm	L mm	l mm	d2	Art. No. 5802*..
2	10	6	60	8	10	5802 2
2.5	11	6	60	8	10	5802 2.5
3	12	6	60	8	12	5802 3
3.15	12.3	6	60	8	12	5802 3.15
4	14	6	60	10	12	5802 4
5	16	6	60	10	12	5802 5
6	20	8	67	12	16	5802 6
6.3	20.6	8	71	16	16	5802 6.3
8	24	8	71	16	16	5802 8
10	28	8	85	18	25	5802 10
12	34	10	90	24	25	5802 12

Ordering example: Corner-rounding cutter, concave Form D 5802 2 HSS
 Bestellbeispiel: Viertelrund-Profilfräser, konkav Form D 5802 2 HSS
 Начин на заявяване: Фреза радиусна, вдлъбнатата форма D 5802 2 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Corner-rounding Cutters

Concave
Form B

Straight shank Form B
according to DIN 1835

Viertelrund-Profilfräser

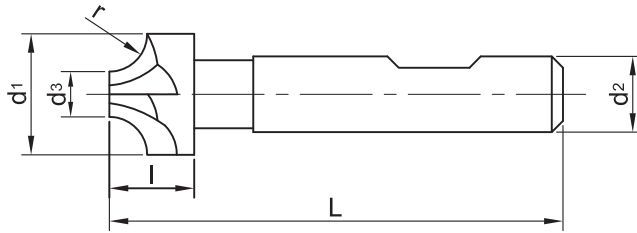
Konkav
Form B

Zylinderschaft Form B
nach DIN 1835

Фрези радиусни

Вдлъбнати
Форма В

Цилиндрична опашка форма В
по DIN 1835



DIN 6518 B

r	d1 mm	d3 mm	L mm	l mm	d2	Art. No. 5803*..
2	10	6	60	8	10	5803 2
2.5	11	6	60	8	10	5803 2.5
3	12	6	60	8	12	5803 3
3.15	12.3	6	60	8	12	5803 3.15
4	14	6	60	10	12	5803 4
5	16	6	60	10	12	5803 5
6	20	8	67	12	16	5803 6
6.3	20.6	8	71	16	16	5803 6.3
8	24	8	71	16	16	5803 8
10	28	8	85	18	25	5803 10
12	34	10	90	24	25	5803 12

Ordering example: Corner-rounding cutter, concave Form B 5803 2 HSS
Bestellbeispiel: Viertelrund-Profilfräser, konkav Form B 5803 2 HSS
Начин на заявяване: Фреза радиусна, вдлъбнатата форма В 5803 2 HSS

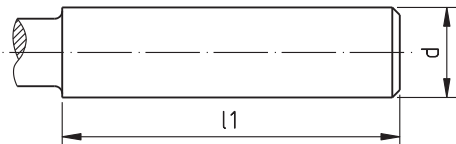
Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Straight shanks for Cutters DIN 1835

Zylinderschäfte für Fräser nach DIN 1835

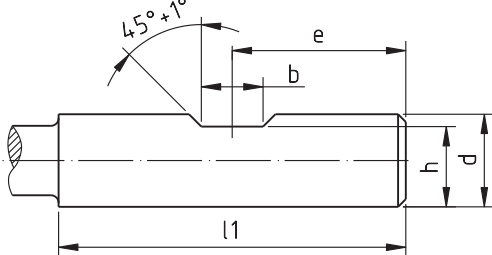
Опашки цилиндрични за фрези DIN 1835

- Form A** Smooth straight shank
- Form A** Glatter Zylinderschaft
- Форма А** Гладка цилиндрична опашка



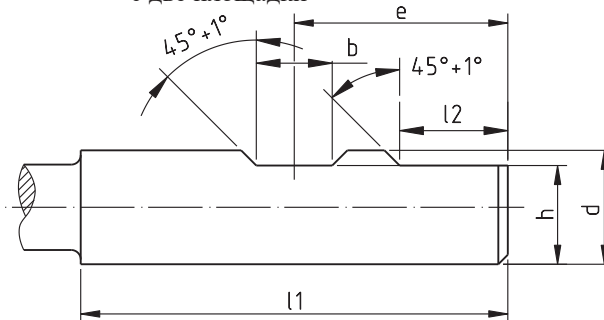
d mm	l1 mm	d mm	l1 mm
$\begin{matrix} h8 \\ 3 \\ 4 \\ 5 \\ 6 \\ 8 \\ 10 \\ 12 \end{matrix}$	$\begin{matrix} +2 \\ 0 \\ 28 \\ 28 \\ 28 \\ 36 \\ 36 \\ 40 \\ 45 \end{matrix}$	$\begin{matrix} h8 \\ 16 \\ 20 \\ 25 \\ 32 \\ 40 \\ 50 \\ 63 \end{matrix}$	$\begin{matrix} +2 \\ 0 \\ 48 \\ 50 \\ 56 \\ 60 \\ 70 \\ 80 \\ 90 \end{matrix}$

- Form B** Straight shank with one notch
- Form B** Zylinderschaft mit einer seitlichen Mitnahmefläche
- Форма В** Цилиндрична опашка с една площадка



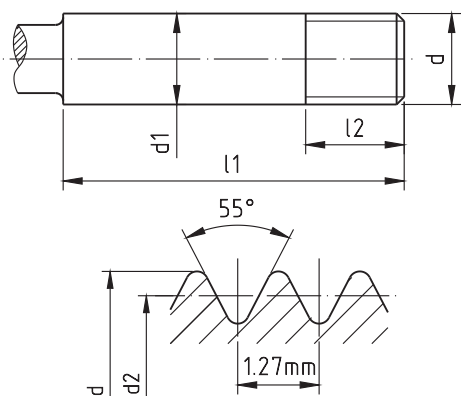
d mm	b mm	e mm	h mm	l1 mm
$\begin{matrix} h6 \\ 6 \\ 8 \\ 10 \\ 12 \\ 16 \\ 20 \end{matrix}$	$\begin{matrix} +0.05 \\ 0 \\ 4.2 \\ 5.5 \\ 7 \\ 8 \\ 10 \\ 11 \end{matrix}$	$\begin{matrix} 0 \\ -1 \\ 18 \\ 18 \\ 20 \\ 22.5 \\ 24 \\ 25 \end{matrix}$	$\begin{matrix} h13 \\ 4.8 \\ 6.6 \\ 8.4 \\ 10.4 \\ 14.2 \\ 18.2 \end{matrix}$	$\begin{matrix} +2 \\ 0 \\ 36 \\ 36 \\ 40 \\ 45 \\ 48 \\ 50 \end{matrix}$

- Form B** Straight shank with two notches
- Form B** Zylinderschaft mit zwei seitlichen Mitnahmeflächen
- Форма В** Цилиндрична опашка с две площадки



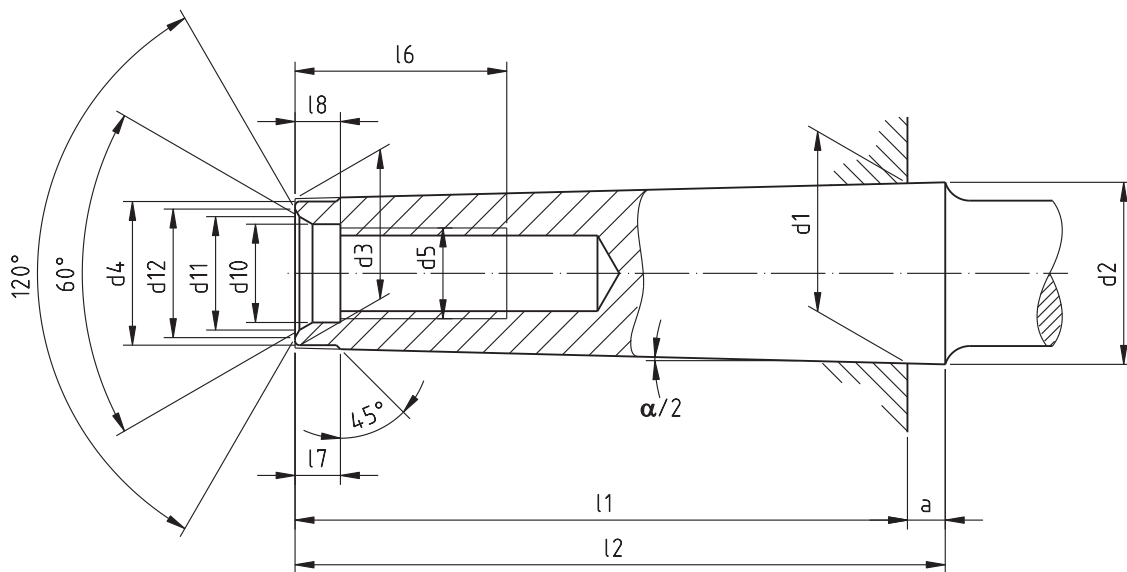
d mm	b mm	e mm	h mm	l1 mm	l2 mm
$\begin{matrix} h6 \\ 25 \\ 32 \\ 40 \\ 50 \\ 63 \end{matrix}$	$\begin{matrix} +0.05 \\ 0 \\ 12 \\ 14 \\ 14 \\ 18 \\ 18 \end{matrix}$	$\begin{matrix} 0 \\ -1 \\ 32 \\ 36 \\ 40 \\ 45 \\ 50 \end{matrix}$	$\begin{matrix} h13 \\ 23 \\ 30 \\ 38 \\ 47.8 \\ 60.8 \end{matrix}$	$\begin{matrix} +2 \\ 0 \\ 56 \\ 60 \\ 70 \\ 80 \\ 90 \end{matrix}$	$\begin{matrix} +1 \\ 0 \\ 17 \\ 19 \\ 19 \\ 23 \\ 23 \end{matrix}$

- Form D** Straight shank with thread
- Form D** Zylinderschaft mit Anzugsgewinde
- Форма D** Цилиндрична опашка с резба

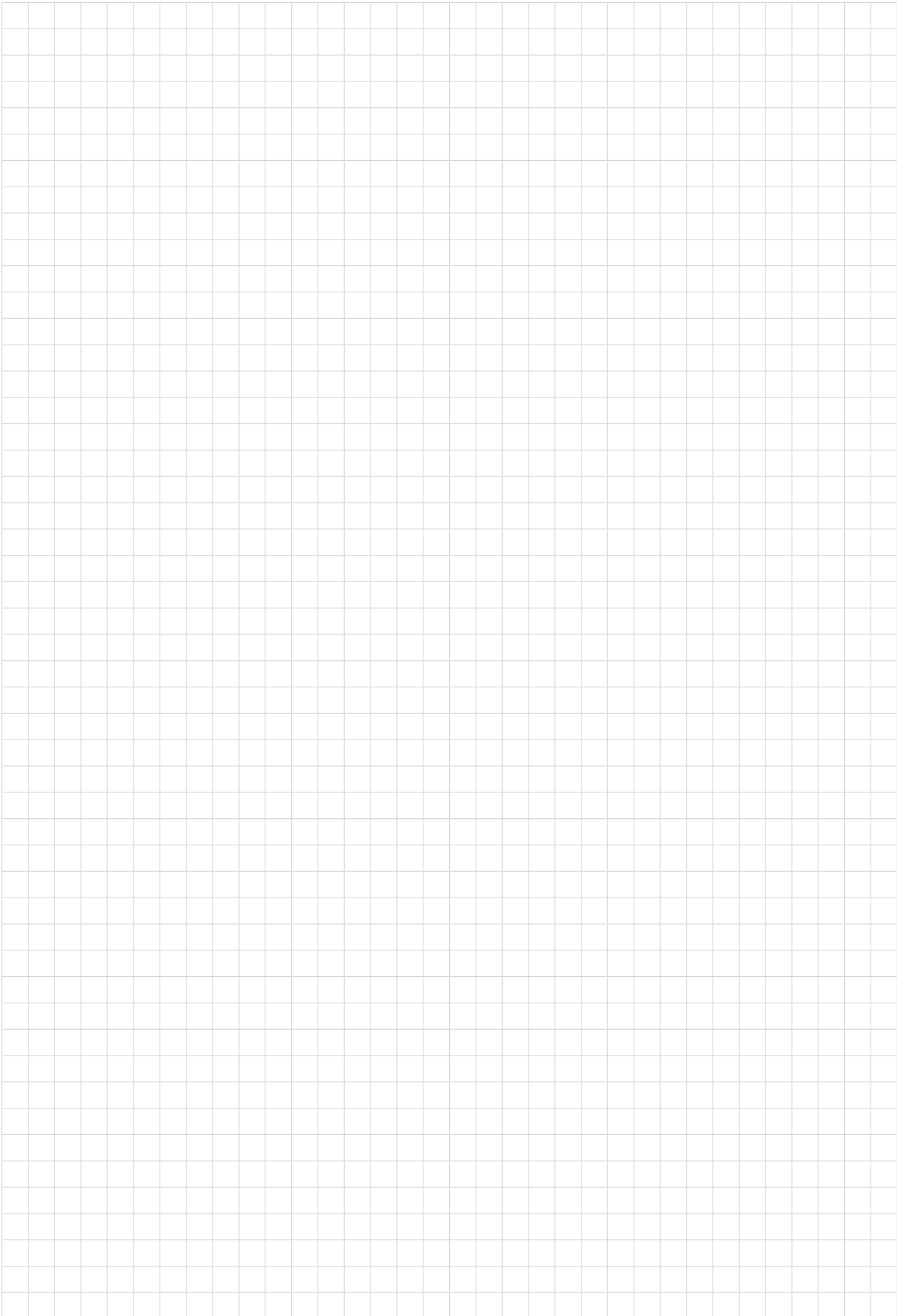


d1 mm	d mm	d2 mm	l1 mm	l2 mm
$\begin{matrix} h8 \\ 6 \\ 10 \\ 12 \\ 16 \\ 20 \\ 25 \\ 32 \end{matrix}$	$\begin{matrix} 5.9 \\ 9.9 \\ 11.9 \\ 15.9 \\ 19.9 \\ 24.9 \\ 31.9 \end{matrix}$	$\begin{matrix} 5.087 \\ 9.087 \\ 11.087 \\ 15.087 \\ 19.087 \\ 24.087 \\ 31.087 \end{matrix}$	$\begin{matrix} +2 \\ 36 \\ 40 \\ 45 \\ 50 \\ 56 \\ 60 \end{matrix}$	$\begin{matrix} +2 \\ 0 \\ 10 \\ 10 \\ 10 \\ 10 \\ 15 \\ 15 \\ 15 \end{matrix}$

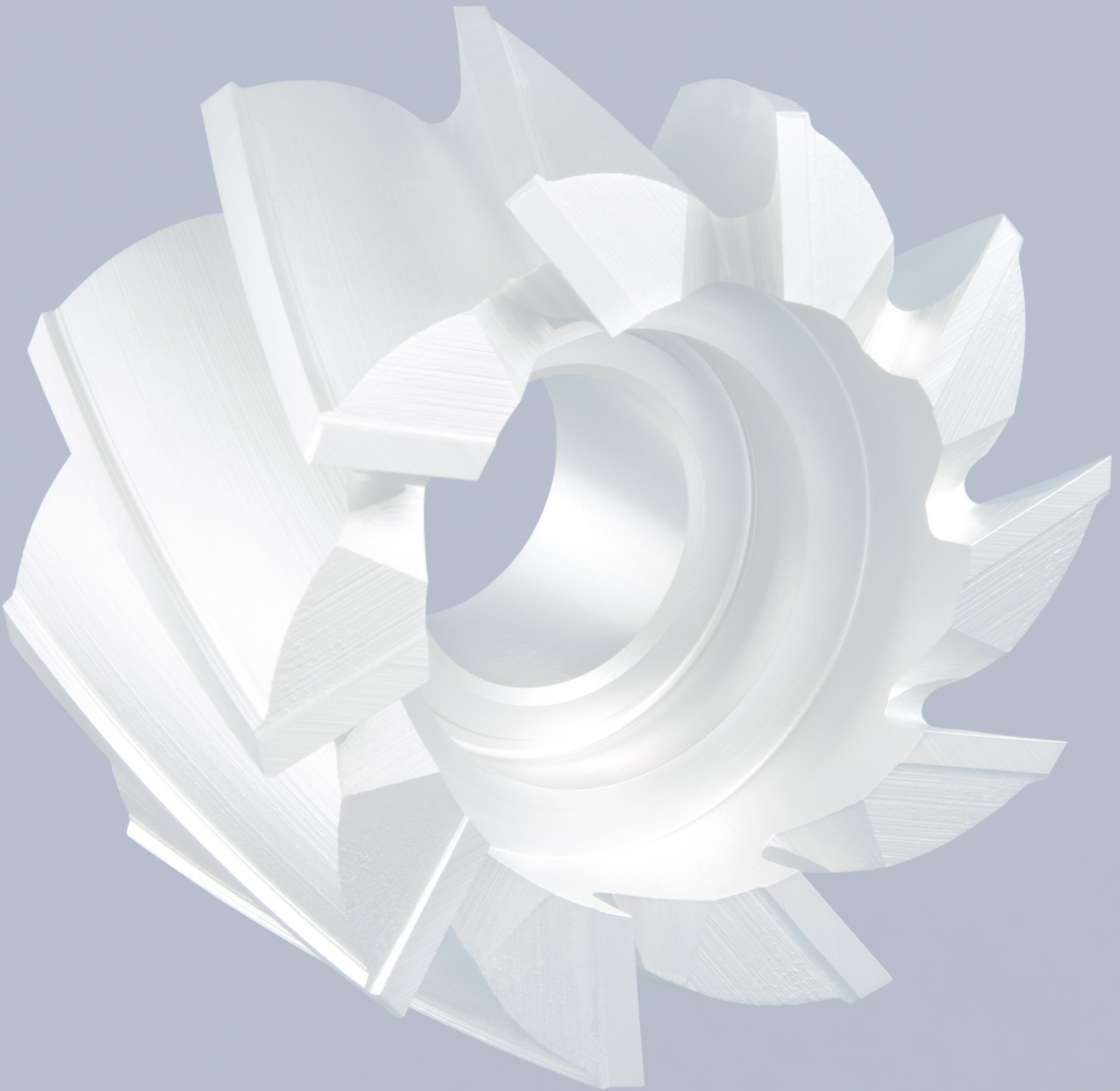
Taper shanks form A DIN 228 with binding thread
 Kegelschäfte Form A nach DIN 228 mit Anzugsgewinde
 Конусни опашки форма А по DIN 228 със скрепителна резба



Size	Größe	Размер	$\alpha/2$	a	d1	d2	d3	d4	d5	d10	d11	d12	l1	l2	l6	l7	l8
				mm	mm	mm	mm	mm		mm	mm	mm	mm	mm	mm	mm	mm
ME	4	1°25'56"	2	4	4.1	2.9	2.5	-	-	-	-	-	23	25	-	2	-
	6	1°25'56"	3	6	6.2	4.4	4	-	-	-	-	-	32	35	-	3	-
	0	1°29'27"	3	9.045	9.2	6.4	6	-	-	-	-	-	50	53	-	4	-
MK	1	1°25'43"	3.5	12.065	12.2	9.4	9	M6	6.4	8	8.5	53.5	57	16	5	4	
	2	1°25'50"	5	17.780	18	14.6	14	M10	10.5	12.5	13.2	64	69	24	5	5	
	3	1°26'16"	5	23.825	24.1	19.8	19	M12	13	15	17	81	86	28	7	6	
	4	1°29'15"	6.5	31.267	31.6	25.9	25	M16	17	20	22	102.5	109	32	9	8	
	5	1°30'26"	6.5	44.399	44.7	37.6	36	M20	21	26	30	129.5	136	40	10	11	
	6	1°29'36"	8	63.348	63.8	53.9	51	M24	25	31	3	182	190	50	16	12	



Mill Cutters
Aufsteckfräser
Фрези дорникови



CONTENTS
INHALTSVERZEICHNIS
СЪДЪРЖАНИЕ

<i>Mill Cutters</i> <i>Aufsteckfräser</i> <i>Фрези дорникови</i>	Page Seite Страница
Solid Cylindrical Cutters DIN 884 Walzenfräser DIN 884 Фрези цилиндрични DIN 884	260
Shell End Mills with keyslot DIN 1880 Walzenstirnfräser mit Längskeilnut DIN 1880 Фрези челноцилиндрични с надлъжен шпонков канал DIN 1880	261
Shell End Mills with tenon drive DIN 1880 Walzenstirnfräser mit Quernut DIN 1880 Фрези челноцилиндрични с челен шпонков канал DIN 1880	262
Double Equal-angle Cutters DIN 847 Prismenfräser DIN 847 Фрези двуъглови симетрични DIN 847	263
Angular Cutters for toolmaking DIN 1823 Winkelfräser für Werkzeuge DIN 1823 Фрези ъглови за производство на инструменти DIN 1823	264
Angular Cutters with plain bore DIN 842 Aufsteck-Winkelfräser DIN 842 Фрези ъглови за направляващи DIN 842	266
Convex Milling Cutters DIN 856 Halbrund-Profilfräser konvex DIN 856 Фрези полукръгли изпъкнали DIN 856	267
Concave Milling Cutters DIN 855 Halbrund-Profilfräser konkav DIN 855 Фрези полукръгли вдлъбнати DIN 855	268
Side and Face Milling Cutters DIN 885 Scheibenfräser DIN 885 Фрези дискови тристранни DIN 885	269

Our instruments are made of the following high speed steels:

Unsere Werkzeuge werden aus folgenden HSS-Stahlsorten gefertigt:

Нашите инструменти се изработват от следните бързорезни стомани:

HSS (1.3343, S6 - 5 - 2 DIN)

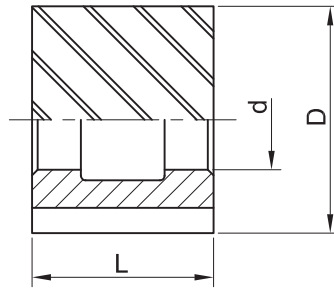
HSSE - Co 5% (1.3243, S6 - 5 - 2 - 5 DIN)

PM 30 - Co 8% (HS 6 - 5 - 3 - 8 DIN)

Solid Cylindrical Cutters
with keyslot

Walzenfräser
mit Längskeilnut

Фрези цилиндрични
с надлъжен шпонков канал



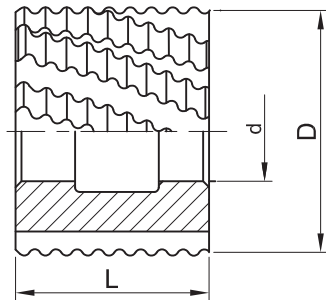
DIN 884

D mm	d mm	L mm	Type N		Type H		Type W	
			Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 501*..	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 502*..	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 503*..
50	22	40	6	501 50 40	12	502 50 40	5	503 50 40
50	22	63	6	501 50 63	12	502 50 63	5	503 50 63
50	22	80	6	501 50 80	12	502 50 80	5	503 50 80
63	27	50	6	501 63 50	14	502 63 50	6	503 63 50
63	27	70	6	501 63 70	14	502 63 70	6	503 63 70
80	32	63	8	501 80 63	16	502 80 63	6	503 80 63
80	32	80	8	501 80 80	16	502 80 80	6	503 80 80
100	40	70	10	501 100 70	18	502 100 70	6	503 100 70
100	40	125	10	501 100 125	18	502 100 125	6	503 100 125

High Performance
Solid Cylindrical Cutters
with keyslot

Hochleistungs-
Walzenfräser
mit Längskeilnut

Фрези цилиндрични
високопроизводителни
с надлъжен шпонков канал



DIN 884

D mm	d mm	L mm	Type NR		Type NF	
			Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 504*..	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 505*..
50	22	40	8	504 50 40	8	505 50 40
50	22	63	8	504 50 63	8	505 50 63
50	22	80	8	504 50 80	8	505 50 80
63	27	50	8	504 63 50	8	505 63 50
63	27	70	8	504 63 70	8	505 63 70
80	32	63	10	504 80 63	10	505 80 63
80	32	80	10	504 80 80	10	505 80 80
100	40	70	10	504 100 70	10	505 100 70
100	40	125	10	504 100 125	10	505 100 125

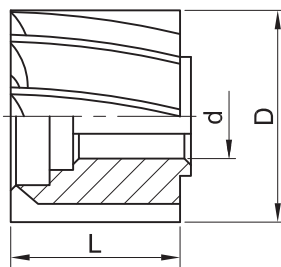
Ordering example: Solid Cylindrical Cutter 501 50 40 HSS
Bestellbeispiel: Walzenfräser 501 50 40 HSS
Начин на заявяване: Фреза цилиндрична 501 50 40 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Shell End Mills with keyslot

Walzenstirnfräser mit Längskeilnut

Фрези челноцилиндрични с надлъжен шпонков канал



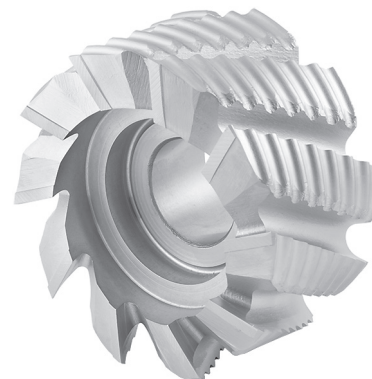
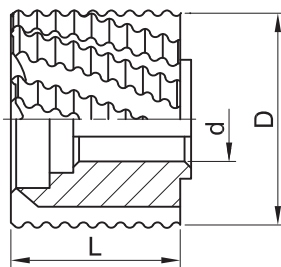
DIN 1880

D mm	d mm	L mm	Type N		Type H		Type W	
			Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 511*..	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 512*..	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 513*..
40	16	32	8	511 40	12	512 40	4	513 40
50	22	36	8	511 50	12	512 50	6	513 50
63	27	40	10	511 63	14	512 63	6	513 63
80	27	45	10	511 80	16	512 80	6	513 80
100	32	50	12	511 100	18	512 100	8	513 100
125	40	56	14	511 125	22	512 125	8	513 125
160	50	63	16	511 160	24	512 160	10	513 160

High Performance Shell End Mills with keyslot

Hochleistungs- Walzenstirnfräser mit Längskeilnut

Фрези челноцилиндрични високопроизводителни с надлъжен шпонков канал



DIN 1880

D mm	d mm	L mm	Type NR		Type NF	
			Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 514*..	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 515*..
40	16	32	8	514 40	8	515 40
50	22	36	8	514 50	8	515 50
63	27	40	10	514 63	10	515 63
80	27	45	10	514 80	10	515 80
100	32	50	12	514 100	12	515 100
125	40	56	14	514 125	14	515 125
160	50	63	16	514 160	16	515 160

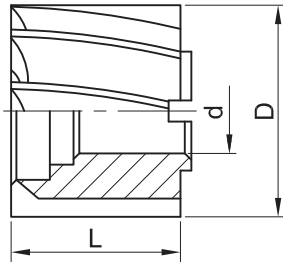
Ordering example: Shell End Mills 511 40 HSS
 Bestellbeispiel: Walzenstirnfräser 511 40 HSS
 Начин на заявяване: Фреза челноцилиндрична 511 40 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Shell End Mills with tenon drive

Walzenstirnfräser mit Quernut

Фрези челноцилиндрични с челен шпонков канал



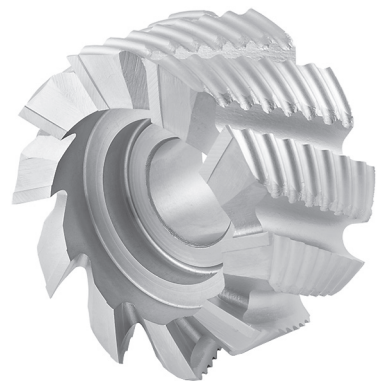
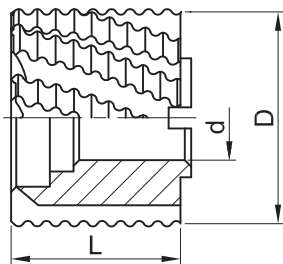
DIN 1880

D mm	d mm	L mm	Type N		Type H		Type W	
			Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 521*..	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 522*..	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 523*..
40	16	32	8	521 40	12	522 40	4	523 40
50	22	36	8	521 50	12	522 50	6	523 50
63	27	40	10	521 63	14	522 63	6	523 63
80	27	45	10	521 80	16	522 80	6	523 80
100	32	50	12	521 100	18	522 100	8	523 100
125	40	56	14	521 125	22	522 125	8	523 125
160	50	63	16	521 160	24	522 160	10	523 160

High Performance Shell End Mills with tenon drive

Hochleistungs- Walzenstirnfräser mit Quernut

Фрези челноцилиндрични високопроизводителни с челен шпонков канал



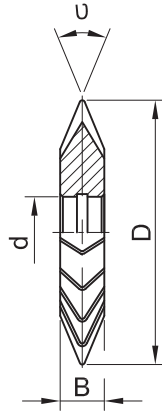
DIN 1880

D mm	d mm	L mm	Type NR		Type NF	
			Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 524*..	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 525*..
40	16	32	8	524 40	8	525 40
50	22	36	8	524 50	8	525 50
63	27	40	10	524 63	10	525 63
80	27	45	10	524 80	10	525 80
100	32	50	12	524 100	12	525 100
125	40	56	14	524 125	14	525 125
160	50	63	16	524 160	16	525 160

Ordering example: Shell End Mills 521 40 HSS
 Bestellbeispiel: Walzenstirnfräser 521 40 HSS
 Начин на заявяване: Фреза челноцилиндрична 521 40 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

DIN 847



D mm	d mm	B mm	u °	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 531*..
50	16	8	45	20	531 50 45
50	16	10	60	18	531 50 60
50	16	14	90	16	531 50 90
63	22	10	45	22	531 63 45
63	22	14	60	20	531 63 60
63	22	20	90	18	531 63 90
80	27	12	45	24	531 80 45
80	27	18	60	22	531 80 60
80	27	22	90	20	531 80 90
100	32	18	45	26	531 100 45
100	32	25	60	24	531 100 60
100	32	32	90	22	531 100 90

Ordering example: Double Equal-angle Cutters 531 50 45 HSS
 Bestellbeispiel: Prismenfräser 531 50 45 HSS
 Начин на заявяване: Фрези двуъглови симетрични 531 50 45 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Angular Cutters

for toolmaking

Form A for straight flutes

Execution:

R /right hand cutter/

L /left hand cutter/

Winkelfräser

für Werkzeuge

Form A für gerade Spannuten

Ausführung:

R /rechtsschneidend/

L /linksschneidend/

Фрези едноъглови

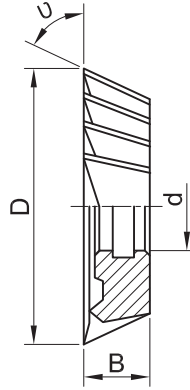
за производство на инструменти

Форма А за прави канали

Изпълнение:

Р /дяснорежещи/

Л /ляворежещи/



DIN 1823 A

D mm	d mm	B mm	α °	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 530*..
50	16	12	60	16	530 50 60 R/L
50	16	12	65	16	530 50 65 R/L
50	16	12	75	16	530 50 75 R/L
63	22	18	60	18	530 63 60 R/L
63	22	18	70	18	530 63 70 R/L
63	22	18	75	18	530 63 75 R/L
63	27	18	80	18	530 63 80 R/L

Ordering example: Angular cutters 530 50 60 R HSS
 Bestellbeispiel: Winkelfräser 530 50 60 R HSS
 Начин на заявяване: Фрези едноъглови 530 50 60 R HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Angular Cutters

for toolmaking

Form B for spiral flutes

Typ H

Execution:

R /right hand cutter/

L /left hand cutter/

Winkelfräser

für Werkzeuge

Form B für Spannuten mit Drall

Typ H

Ausführung:

R /rechtsschneidend/

L /linksschneidend/

Фрези двуъглови

за производство на инструменти

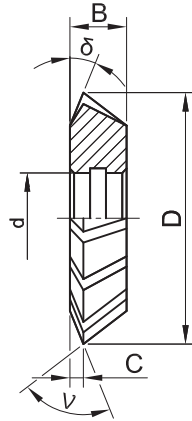
Форма В за винтови канали

Тип H

Изпълнение:

R /дяснорежещи/

L /ляворежещи/



DIN 1823 B

D mm	d mm	B mm	C mm	v °	δ °	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 532*..
50	16	14	2	70	15	16	532 50 70 R/L
50	16	16	2	75	15	16	532 50 75 R/L
50	16	16	2	80	15	16	532 50 80 R/L
50	16	18	2	90	15	16	532 50 90 R/L
63	22	14	3	60	15	18	532 63 60 R/L
63	22	18	3	70	15	18	532 63 70 R/L
63	22	18	3	75	15	18	532 63 75 R/L
63	27	20	3	80	15	18	532 63 80 R/L

Ordering example: Angular cutters 532 50 70 R HSS
 Bestellbeispiel: Winkelfräser 532 50 70 R HSS
 Начин на заявяване: Фрези двуъглови 532 50 70 R HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Angular Cutters with plain bore

Type H

Execution:

R /right hand cutter/

L /left hand cutter/

Aufsteck- Winkelstirnfräser

Typ H

Ausführung:

R /rechtsschneidend/

L /linksschneidend/

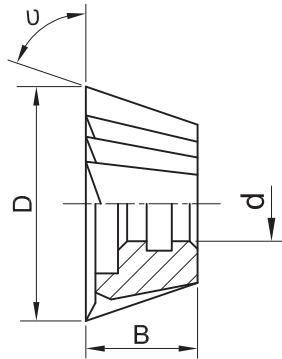
Фрези ъглови за направляващи

Тип H

Изпълнение:

R /дяснорежещи/

L /ляворежещи/

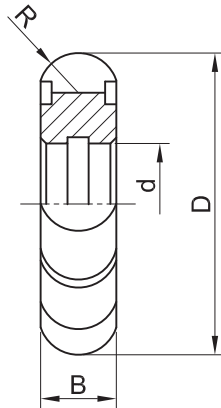


DIN 842

D mm	d mm	B mm	α °	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 533*..
40	10	10	45	14	533 40 45 R/L
40	10	13	50	14	533 40 50 R/L
40	10	13	55	14	533 40 55 R/L
40	10	13	60	14	533 40 60 R/L
50	13	13	45	16	533 50 45 R/L
50	13	16	50	16	533 50 50 R/L
50	13	16	55	16	533 50 55 R/L
50	13	16	60	16	533 50 60 R/L
63	16	18	45	18	533 63 45 R/L
63	16	20	50	18	533 63 50 R/L
63	16	20	55	18	533 63 55 R/L
63	16	20	60	18	533 63 60 R/L
80	22	22	45	20	533 80 45 R/L
80	22	25	50	20	533 80 50 R/L
80	22	25	55	20	533 80 55 R/L
80	22	25	60	20	533 80 60 R/L
100	27	28	45	22	533 100 45 R/L
100	27	32	50	22	533 100 50 R/L
100	27	32	55	22	533 100 55 R/L
100	27	32	60	22	533 100 60 R/L
125	32	36	45	24	533 125 45 R/L
125	32	40	50	24	533 125 50 R/L
125	32	40	55	24	533 125 55 R/L
125	32	40	60	24	533 125 60 R/L
160	40	45	45	28	533 160 45 R/L
160	40	50	50	28	533 160 50 R/L
160	40	50	55	28	533 160 55 R/L
160	40	50	60	28	533 160 60 R/L

Ordering example: Angular cutters 533 40 45 R HSS
 Bestellbeispiel: Winkelstirnfräser 533 40 45 R HSS
 Начин на заявяване: Фрези ъглови 533 40 45 R HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване



DIN 856

R mm	D mm	d mm	B mm	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 540*..
1	50	16	2	16	540 1
1.25	50	16	2.5	16	540 1.25
1.6	50	16	3.2	16	540 1.6
2	50	16	4	14	540 2
2.5	63	22	5	14	540 2.5
3	63	22	6	14	540 3
3.15	63	22	6.3	14	540 3.15
4	63	22	8	14	540 4
5	63	22	10	12	540 5
6	80	27	12	14	540 6
6.3	80	27	12.6	12	540 6.3
8	80	27	16	12	540 8
10	100	32	20	12	540 10
12	100	32	24	10	540 12
12.5	100	32	25	10	540 12.5
16	125	32	32	12	540 16
20	125	32	40	10	540 20

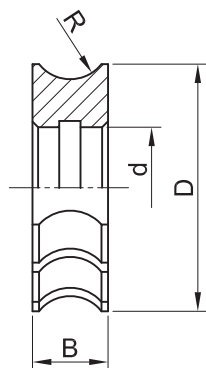
Ordering example: Convex milling cutters 540 1 HSS
 Bestellbeispiel: Halbrund-Profilfräser konvex 540 1 HSS
 Начин на заявяване: Фреза полукръгла изпъкнала 540 1 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Concave Milling Cutters
Type N

Halbrund-Profilfräser
konkav
Typ N

Фрези полукръгли
вдлъбнати
Тип N



DIN 855

R mm	D mm	d mm	B mm	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 541*..
1	50	16	6	14	541 1
1.25	50	16	6	14	541 1.25
1.6	50	16	8	14	541 1.6
2	50	16	9	14	541 2
2.5	63	22	10	14	541 2.5
3	63	22	12	12	541 3
3.15	63	22	12	12	541 3.15
4	63	22	16	12	541 4
5	63	22	20	12	541 5
6	80	27	24	12	541 6
6.3	80	27	24	10	541 6.3
8	80	27	32	10	541 8
10	100	32	36	10	541 10
12	100	32	40	10	541 12
12.5	100	32	40	10	541 12.5
16	125	32	50	10	541 16
20	125	32	60	10	541 20

Ordering example: Concave milling cutters 541 1 HSS
 Bestellbeispiel: Halbrund-Profilfräser konkav 541 1 HSS
 Начин на заявяване: Фреза полукръгла вдлъбната 541 1 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Side and Face Milling Cutters

Form A

Type N

Staggered teeth

Scheibenfräser

Form A

Typ N

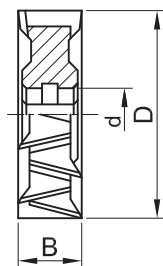
Kreuzverzahnt

Фрези дискови тристранни

Форма А

Тип N

Кръстосани зъби



DIN 885 A

D mm	d mm	B mm	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 544* ..
50	16	5	10	544 50 5
50	16	6	10	544 50 6
50	16	8	10	544 50 8
50	16	10	10	544 50 10
63	22	5	10	544 63 5
63	22	6	10	544 63 6
63	22	8	10	544 63 8
63	22	10	10	544 63 10
63	22	12	10	544 63 12
63	22	14	10	544 63 14
63	22	16	10	544 63 16
80	27	6	12	544 80 6
80	27	8	12	544 80 8
80	27	10	12	544 80 10
80	27	12	12	544 80 12
80	27	14	12	544 80 14
80	27	16	12	544 80 16
80	27	18	12	544 80 18
80	27	20	12	544 80 20
100	32	8	14	544 100 8
100	32	10	14	544 100 10
100	32	12	14	544 100 12
100	32	14	14	544 100 14
100	32	16	14	544 100 16
100	32	18	14	544 100 18
100	32	20	14	544 100 20
100	32	22	14	544 100 22
100	32	25	14	544 100 25
125	32	10	16	544 125 10
125	32	12	16	544 125 12
125	32	14	16	544 125 14
125	32	16	16	544 125 16
125	32	18	16	544 125 18
125	32	20	16	544 125 20
125	32	22	16	544 125 22
125	32	25	16	544 125 25
125	32	28	16	544 125 28

Ordering example: Side and face milling cutters Form A 544 50 5 HSS
 Bestellbeispiel: Scheibenfräser Form A 544 50 5 HSS
 Начин на заявяване: Фрези дискови тристранни форма А 544 50 5 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Side and Face Milling Cutters

Form B

Type H

Straight teeth

Scheibenfräser

Form B

Typ H

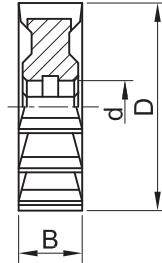
Geradeverzahnt

Фрези дискови тристранни

Форма В

Тип Н

Прави зъби

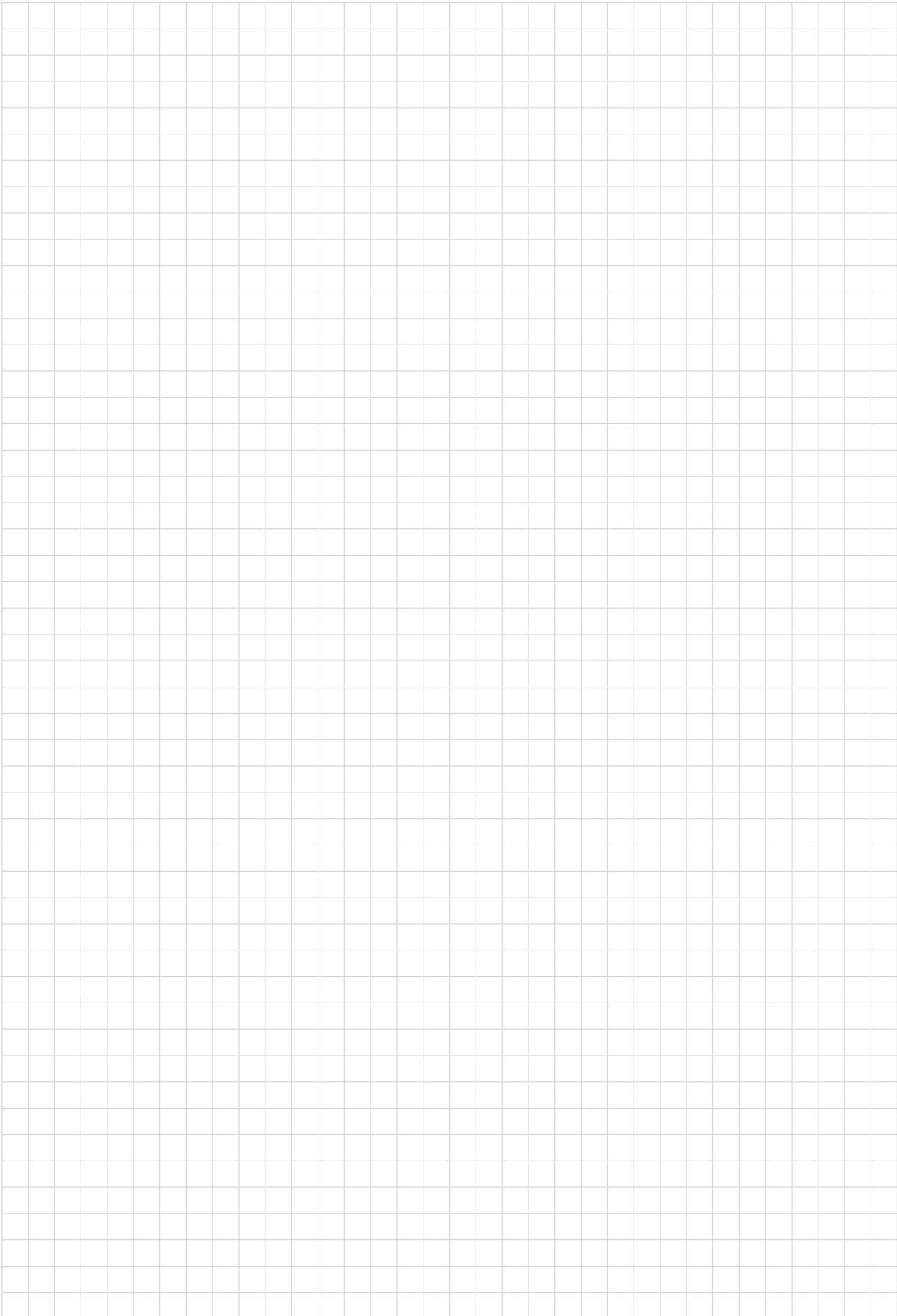


DIN 885 B

D mm	d mm	B mm	Number of teeth Anzahl der Zähne Брой на зъбите	Art. No. 546*..
50	16	5	14	546 50 5
50	16	6	14	546 50 6
50	16	8	14	546 50 8
50	16	10	14	546 50 10
63	22	5	16	546 63 5
63	22	6	16	546 63 6
63	22	8	16	546 63 8
63	22	10	16	546 63 10
63	22	12	16	546 63 12
63	22	14	16	546 63 14
63	22	16	16	546 63 16
80	27	6	18	546 80 6
80	27	8	18	546 80 8
80	27	10	18	546 80 10
80	27	12	18	546 80 12
80	27	14	18	546 80 14
80	27	16	18	546 80 16
80	27	18	18	546 80 18
80	27	20	18	546 80 20
100	32	8	20	546 100 8
100	32	10	20	546 100 10
100	32	12	20	546 100 12
100	32	14	20	546 100 14
100	32	16	20	546 100 16
100	32	18	20	546 100 18
100	32	20	20	546 100 20
100	32	22	20	546 100 22
100	32	25	20	546 100 25
125	32	10	24	546 125 10
125	32	12	24	546 125 12
125	32	14	24	546 125 14
125	32	16	24	546 125 16
125	32	18	24	546 125 18
125	32	20	24	546 125 20
125	32	22	24	546 125 22
125	32	25	24	546 125 25
125	32	28	24	546 125 28

Ordering example: Side and face milling cutters Form B 546 50 5 HSS
 Bestellbeispiel: Scheibenfräser Form B 546 50 5 HSS
 Начин на заявяване: Фрези дискови тристранни форма В 546 50 5 HSS

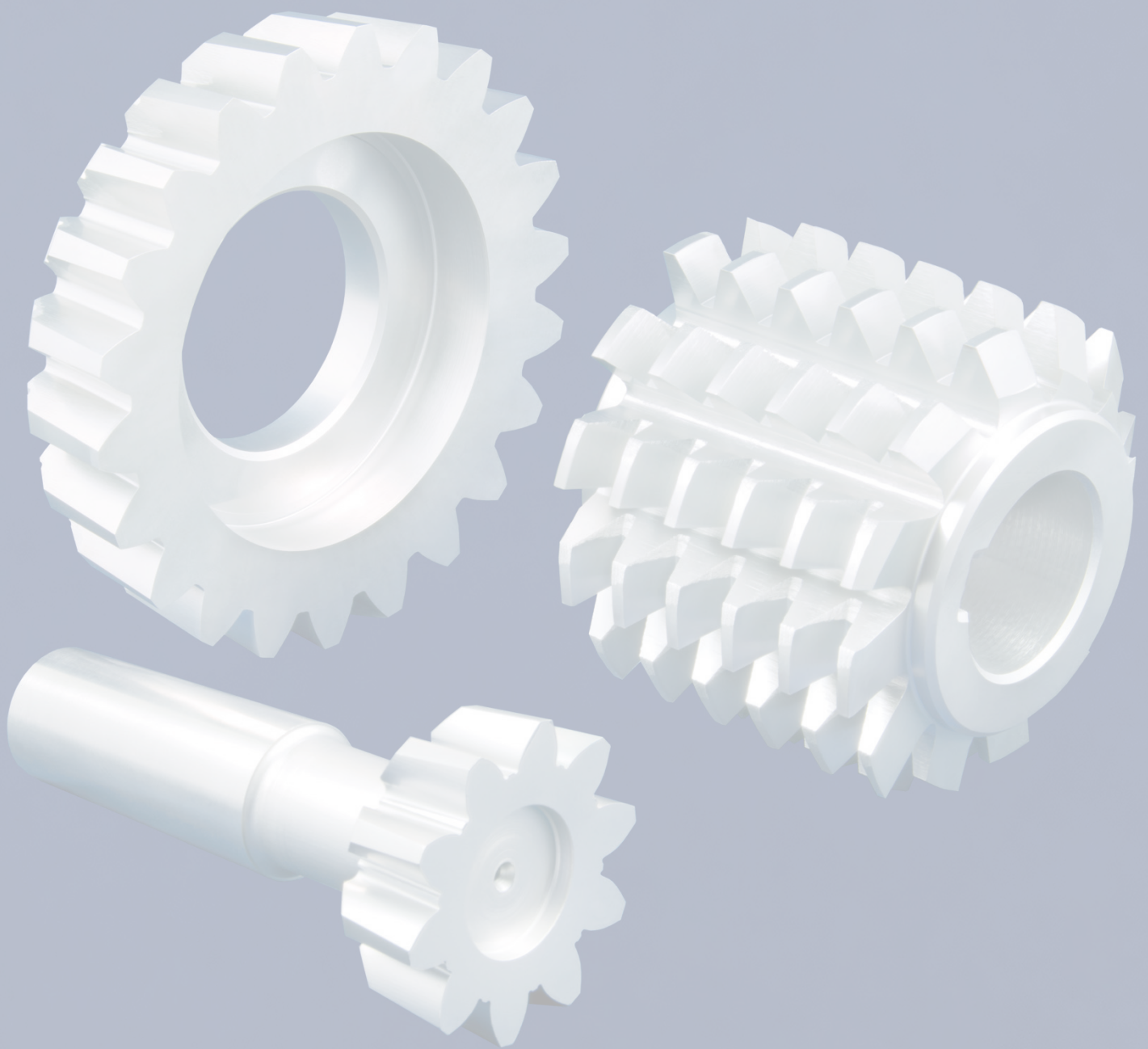
Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване



Gear Cutters

Verzahnungstechnik

Зъбообработващи инструменти



CONTENTS

INHALTSVERZEICHNIS

СЪДЪРЖАНИЕ

Gear Cutters Verzahnungstechnik Зъбообработващи инструменти	Page Seite Страница
Involute Gear Cutters Zahnformfräser Фрези дискови модулни	274
Gear tooth side milling cutters for chain wheels Kettenrad - Scheibenfräser Фрези дискови за верижни зъбни колела	275
Form cutters for spline shaft profiles Formfräser für Keilwellenprofile Фрези дискови за правостенни шлицеви валове	276
Gear Hobs for spur and angular gears DIN 8002 Wälzfräser für gerade und schrägverzahnte Stirnräder DIN 8002 Фрези червячни за цилиндрични зъбни колела с прави и наклонени зъби DIN 8002	281
Gear Hobs for spur and angular gears DIN 858 Wälzfräser für gerade und schrägverzahnte Stirnräder DIN 858 Фрези червячни за цилиндрични зъбни колела с прави и наклонени зъби DIN 858	285
Gear Hobs for machining of chain wheels Wälzfräser für Kettenräder Фрези червячни за верижни зъбни колела	287
Gear Hobs for involute spline shafts Wälzfräser für Zahnwellen mit Längsnut Фрези червячни за еволвентно-шлицеви валове	288
Gear Hobs for spline shafts, relief-ground, with standard keyway Wälzfräser für Keilwellen, hinterschliften, mit Längsnut Фрези червячни за правостенни шлицеви валове, шлифован профил с надл. шпонков канал	289
Disc-gear cutters with straight teeth DIN 1825 Schneidräder scheibenförmig geradeverzahnt DIN 1825 Колела зъбодълбачни дискови с прави зъби DIN 1825	293
Extended hub gear cutters with straight teeth DIN 1826 Schneidräder glockenförmig geradeverzahnt DIN 1826 Колела зъбодълбачни чашковидни с прави зъби DIN 1826	294
Gear cutters with taper shank and straight teeth Zahnstoßrad geradeverzahnt mit Morsekegelschaft Колела зъбодълбачни с прави зъби и конусна опашка (скъсен морзов конус)	295
Special Tools Cards Sonderwerkzeuge - Karten Карти за специални инструменти	296

Our instruments are made of the following high speed steels:

Unsere Werkzeuge werden aus folgenden HSS-Stahlorten gefertigt:

Нашите инструменти се изработват от следните бързорезни стомани:

HSS (1.3343, S6 - 5 - 2 DIN)

HSSE - Co 5% (1.3243, S6 - 5 - 2 - 5 DIN)

PM 30 - Co 8% (HS 6 - 5 - 3 - 8 DIN)

Involute Gear Cutters

Pressure angle 20°

Profile II DIN 3972

Up to module 8 the set is with 8 numbers of cutters.

Module 9 up to 16 are in a set with 15 number of cutters

Zahnformfräser

Eingriffswinkel 20°

Bezugsprofil II nach DIN 3972

Bis einschließlich Modul 8 besteht der Satz aus 8 Fräsern.

Ab Modul 9 bis 16 ist er 15-teilig.

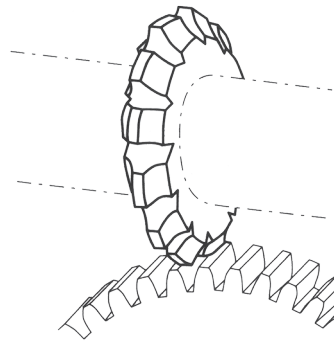
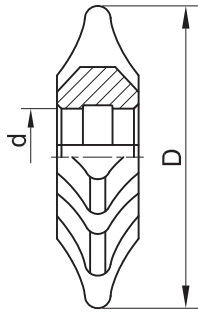
Фрези дискови модулни

Ъгъл на изход. контур 20°

Изходен профил II DIN 3972

За модули до 8 фрезите са по 8 в комплект.

За модули от 9 до 16 фрезите са по 15 в комплект.



Module Modul Модул mm	D mm	d mm	Art. No. 910*..
1	50	16	910 1
1.25	50	16	910 1.25
1.5	55	22	910 1.5
1.75	55	22	910 1.75
2	63	22	910 2
2.25	63	22	910 2.25
2.5	70	22	910 2.5
2.75	70	22	910 2.75
3	80	27	910 3
3.25	80	27	910 3.25
3.5	80	27	910 3.5
3.75	80	27	910 3.75
4	90	27	910 4
4.25	90	27	910 4.25
4.5	90	27	910 4.5
5	100	27	910 5
5.5	100	27	910 5.5
6	110	32	910 6
6.5	110	32	910 6.5
7	110	32	910 7
8	125	32	910 8
9	125	32	910 9
10	140	40	910 10
11	140	40	910 11
12	160	40	910 12
14	160	40	910 14
16	180	50	910 16

Ordering example: Involute Gear Cutters 910 1 HSS
 Bestellbeispiel: Zahnformfräser 910 1 HSS
 Начин на заявяване: Фреза дискова модулна 910 1 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Gear Tooth Side Milling Cutters

for chain wheels

Profile according to DIN 8198

The cutters are produced in set of 3 numbers.

Kettenrad - Scheibenfräser

Profil nach DIN 8198

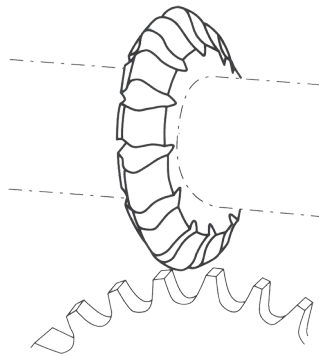
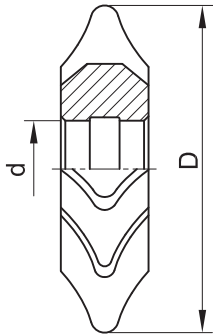
Die Kettenrad - Scheibenfräser werden in einem 3-teiligen Satz gefertigt.

Фрези дискови

за верижни зъбни колела

Профилът е по DIN 8198

Фрезите са по 3 в комплект.



Chain pitch Ketten-Teilung Стъпка на веригата		Chain roller Rolle Ролка	D mm	d mm	Art. No. 920*..
Inch, Zoll	mm	mm			
1/4	6.35	3.3	63	22	920 14
5/16	8	5	63	22	920 516
3/8	9.525	5.08	71	22	920 38 1
3/8	9.525	6	71	22	920 38 2
3/8	9.525	6.35	71	22	920 38 3
1/2	12.7	7.75	71	22	920 12 1
1/2	12.7	7.77	71	22	920 12 2
1/2	12.7	7.95	71	22	920 12 3
1/2	12.7	8.51	71	22	920 12 4
5/8	15.875	10.16	90	27	920 58
3/4	19.05	11.91	90	27	920 34 1
3/4	19.05	12.07	90	27	920 34 2
1"	25.4	15.88	100	27	920 1
1 1/4"	31.75	19.05	112	32	920 114

Each cutter number machines chain wheel with number of teeth according the following table:

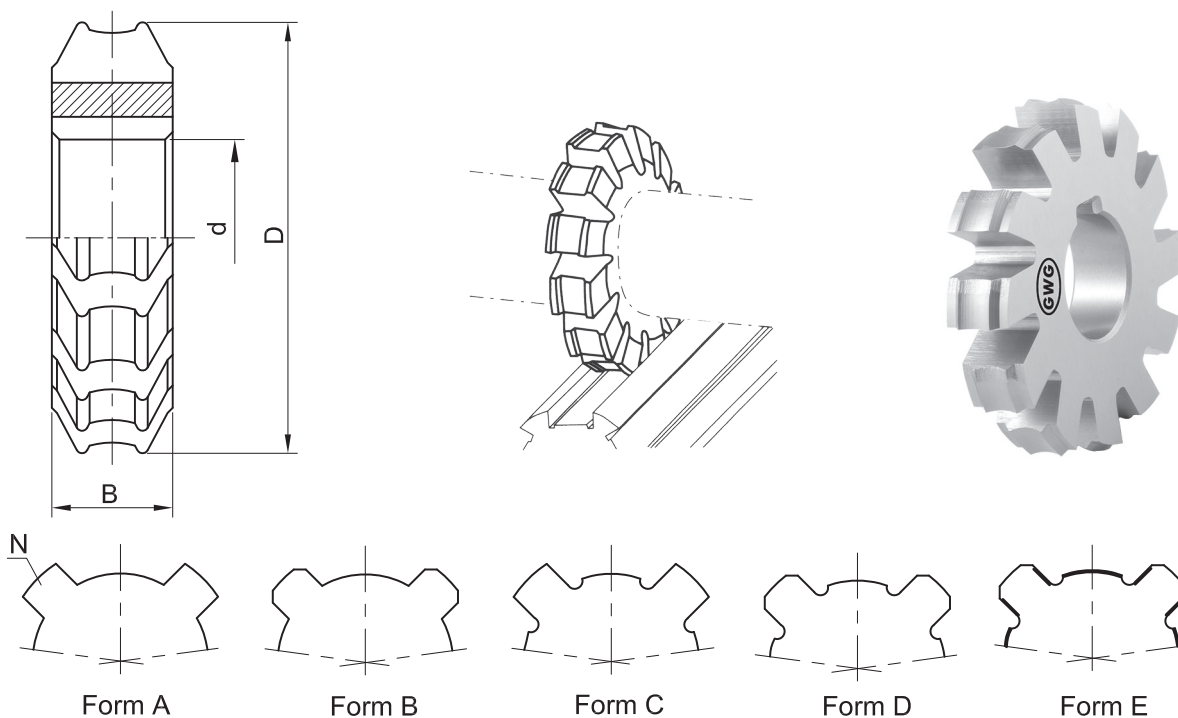
Jeder Fräser-Nr. bearbeitet ein Kettenrad mit einer bestimmten Zähnezahllaut folgender Tabelle:

Всеки номер фреза е предназначен за фрезование на верижно зъбно колело с определен брой зъби, съгласно следната таблица:

Cutter number Fräser Nr Фреза №	Chainwheels - Teeth Kettenrad - Zähne Зъбно колело - бр. зъби
1	9 - 12
2	13 - 19
3	20 - 150

Ordering example: Gear tooth side milling cutters 920 14 Nr. 1 HSS
 Bestellbeispiel: Kettenrad-Scheibenfräser 920 14 Nr. 1 HSS
 Начин на заявяване: Фреза дискова за верижни зъбни колела 920 14 № 1 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване



Spline shaft / Keilwelle / Вал		Form cutter / Formfräser / Фреза			Art. No. A 9751* ... Art. No. B 9752* ... Art. No. C 9753* ... Art. No. D 9754* ... Art. No. E 9755* ...
DIN 5462	N	D mm	B mm	d mm	
23 x 26 x 6	6	63	10	22	... * 1
26 x 30 x 6	6	63	12	22	... * 2
28 x 32 x 6	6	63	13	22	... * 3
32 x 36 x 6	8	63	11	22	... * 4
36 x 40 x 7	8	63	12	22	... * 5
42 x 46 x 8	8	63	13	22	... * 6
46 x 50 x 9	8	70	14	27	... * 7
52 x 58 x 10	8	70	16	27	... * 8
56 x 62 x 10	8	70	18	27	... * 9
62 x 68 x 12	8	70	18	27	... * 10
72 x 78 x 12	10	70	16	27	... * 11
82 x 88 x 12	10	80	19	32	... * 12
92 x 98 x 14	10	80	20	32	... * 13

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Form cutter for spline shaft profiles 9751 1 HSS

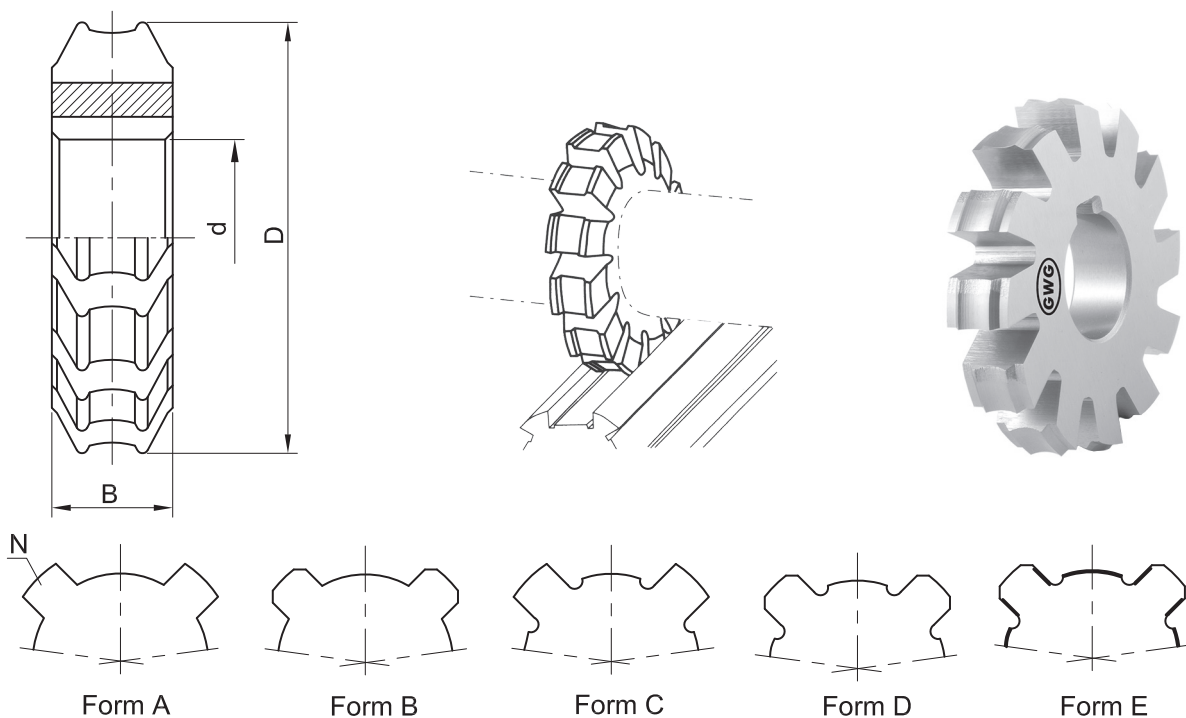
Formfräser für Keilwellenprofile 9751 1 HSS

Фрези дискови за правостенни шлицеви валове 9751 1 HSS

Other sizes on demand

Andere Abmessungen auf Anfrage

Други размери - при запитване

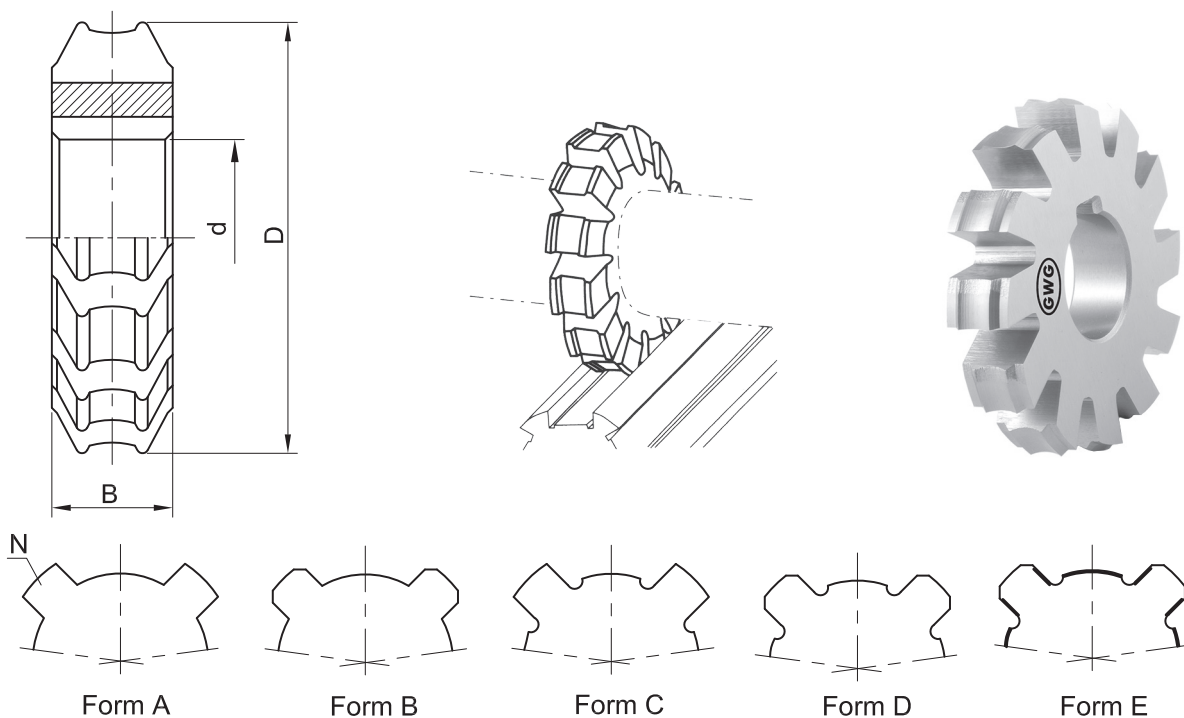


Spline shaft / Keilwelle / Вал		Form cutter / Formfräser / Фреза			Art. No. A 9761* ... Art. No. B 9762* ... Art. No. C 9763* ... Art. No. D 9764* ... Art. No. E 9765* ...
DIN 5463	N	D mm	B mm	d mm	
16 x 20 x 4	6	56	8	22	...* 1
18 x 22 x 5	6	56	8	22	...* 2
21 x 25 x 5	6	63	9	22	...* 3
23 x 28 x 6	6	63	10	22	...* 4
26 x 32 x 6	6	63	12	22	...* 5
28 x 43 x 7	6	63	13	22	...* 6
32 x 38 x 6	8	63	11	22	...* 7
36 x 42 x 7	8	63	12	22	...* 8
42 x 48 x 8	8	63	13	22	...* 9
46 x 54 x 9	8	70	14	27	...* 10
52 x 60 x 10	8	70	16	27	...* 11
56 x 65 x 10	8	70	18	27	...* 12
62 x 72 x 12	8	70	18	27	...* 13
72 x 82 x 12	10	70	16	27	...* 14
82 x 92 x 12	10	80	19	32	...* 15
92 x 102 x 14	10	80	20	32	...* 16

Ordering example:
Bestellbeispiel:
Начин на заявяване:

Form cutter for spline shaft profiles 9761 1 HSS
Formfräser für Keilwellenprofile 9761 1 HSS
Фрези дискови за правостенни шлицеви валове 9761 1 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване



Spline shaft / Keilwelle / Вал		Form cutter / Formfräser / Фреза			Art. No. A 9771* ... Art. No. B 9772* ... Art. No. C 9773* ... Art. No. D 9774* ... Art. No. E 9775* ...
DIN 5464	N	D mm	B mm	d mm	
16 x 20 x 2.5	10	56	5	22	...* 1
18 x 23 x 3	10	56	5	22	...* 2
21 x 26 x 3	10	56	7	22	...* 3
23 x 29 x 4	10	63	7	22	...* 4
26 x 32 x 4	10	63	8	22	...* 5
28 x 35 x 4	10	63	8	22	...* 6
32 x 40 x 5	10	70	10	27	...* 7
36 x 45 x 5	10	70	12	27	...* 8
42 x 52 x 6	10	70	13	27	...* 9
46 x 56 x 7	10	70	13	27	...* 10
52 x 60 x 5	16	80	9	32	...* 11
56 x 65 x 5	16	80	10	32	...* 12
62 x 72 x 6	16	80	11	32	...* 13
72 x 82 x 7	16	80	11	32	...* 14
82 x 92 x 6	20	90	11	32	...* 15
92 x 102 x 7	20	90	12	32	...* 16

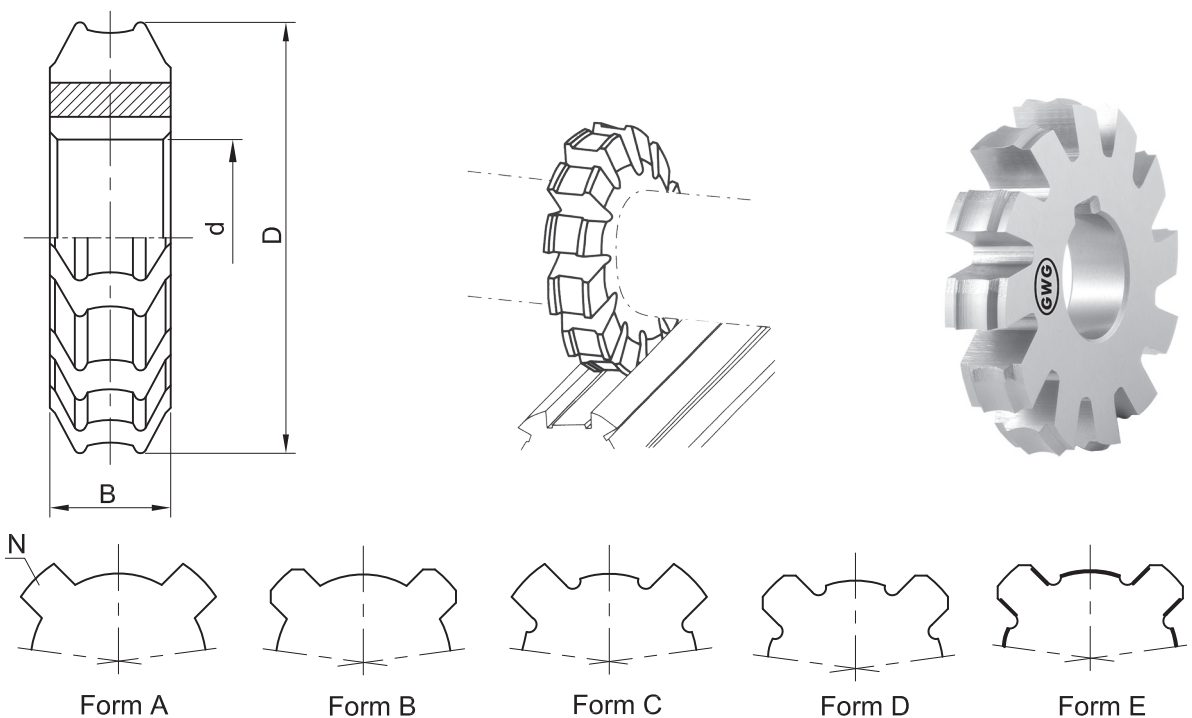
Ordering example: Form cutter for spline shaft profiles 9771 1 HSS
 Bestellbeispiel: Formfräser für Keilwellenprofile 9771 1 HSS
 Начин на заявяване: Фрези дискови за правостенни шлицеви валове 9771 1 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Form Cutters
for spline shaft profiles

Formfräser
für Keilwellenprofile

Фрези дискови
за правостенни шлицеви
валове



Spline shaft / Keilwelle / Вал		Form cutter / Formfräser / Фреза			Art. No. A 9781* ... Art. No. B 9782* ... Art. No. C 9783* ... Art. No. D 9784* ... Art. No. E 9785* ...
DIN 5471	N	D mm	B mm	d mm	
16 x 20 x 6	4	56	12	22	...* 1
18 x 22 x 6	4	63	14	22	...* 2
21 x 25 x 8	4	63	14	22	...* 3
24 x 28 x 8	4	63	16	22	...* 4
28 x 32 x 10	4	63	17	22	...* 5
32 x 38 x 10	4	70	22	27	...* 6
36 x 42 x 12	4	70	23	27	...* 7
42 x 48 x 12	4	70	27	27	...* 8
46 x 52 x 14	4	70	28	27	...* 9
52 x 60 x 14	4	80	34	32	...* 10
58 x 65 x 16	4	80	38	32	...* 11
62 x 70 x 16	4	80	40	32	...* 12
68 x 78 x 16	4	80	45	32	...* 13

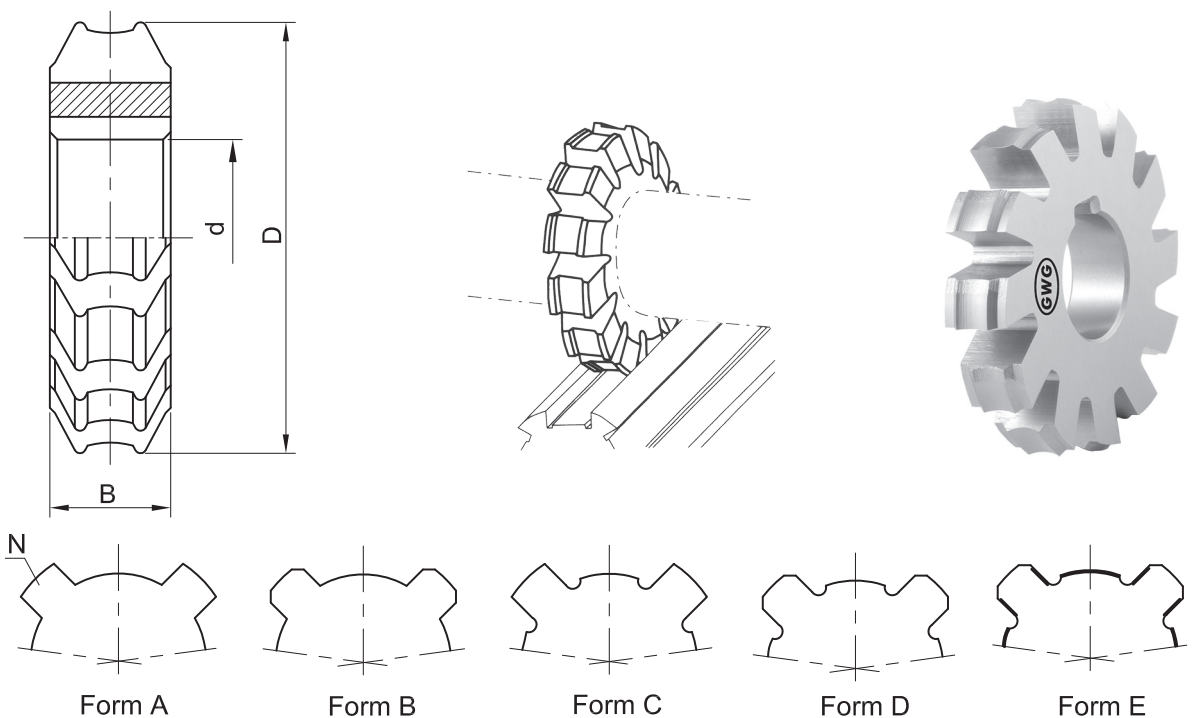
Ordering example: Form cutter for spline shaft profiles 9781 1 HSS
 Bestellbeispiel: Formfräser für Keilwellenprofile 9781 1 HSS
 Начин на заявяване: Фрези дискови за правостенни шлицеви валове 9781 1 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Form Cutters
for spline shaft profiles

Formfräser
für Keilwellenprofile

Фрези дискови
за правостенни шлицеви
валове



Spline shaft / Keilwelle / Вал		Form cutter / Formfräser / Фреза			Art. No. A 9791* ... Art. No. B 9792* ... Art. No. C 9793* ... Art. No. D 9794* ... Art. No. E 9795* ...
DIN 5472	N	D mm	B mm	d mm	
21 x 25 x 5	6	63	9	22	...* 1
23 x 28 x 6	6	63	10	22	...* 2
26 x 32 x 6	6	63	12	22	...* 3
28 x 34 x 7	6	63	13	22	...* 4
32 x 38 x 8	6	70	14	27	...* 5
36 x 42 x 8	6	70	16	27	...* 6
42 x 48 x 10	6	70	17	27	...* 7
46 x 52 x 12	6	80	18	32	...* 8
52 x 60 x 14	6	80	20	32	...* 9
58 x 65 x 14	6	80	22	32	...* 10
62 x 70 x 16	6	80	23	32	...* 11
68 x 78 x 16	6	90	27	32	...* 12
72 x 82 x 16	6	90	29	32	...* 13
78 x 90 x 16	6	90	33	32	...* 14
82 x 95 x 16	6	90	36	32	...* 15
88 x 100 x 16	6	90	38	32	...* 16
92 x 105 x 20	6	90	38	32	...* 17
98 x 110 x 20	6	90	40	32	...* 18

Ordering example: Form cutter for spline shaft profiles 9791 1 HSS
 Bestellbeispiel: Formfräser für Keilwellenprofile 9791 1 HSS
 Начин на заявяване: Фрези дискови за правостенни шлицеви валове 9791 1 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Gear Hobs for spur gears

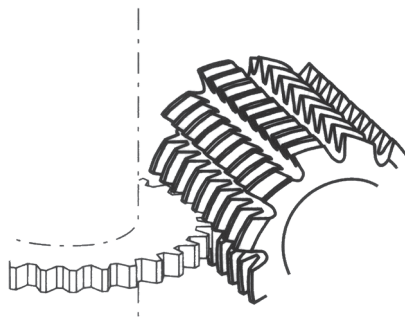
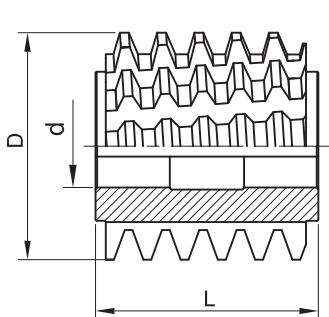
Designation **B** - with keyway
Profile **I**, **II** - DIN 3972
Accuracy grades **A**, **B**, **C** -
DIN 3968

Wälzfräser für Stirnräder

Ausführung **B** - mit Längsnut
Bezugsprofil **I** - **II** - DIN 3972
Güteklassen **A**, **B**, **C** -
DIN 3968

Фрези червячни за цилиндрични зъбни коелела

Изпълнение **B** - с надлъжен
шпонков канал
Изходен профил **I** - **II** - DIN 3972
Клас на точност **A**, **B**, **C** -DIN 3968



DIN 8002

Profile / Bezugsprofil / Профил >>				I			II		
Accuracy grades / Güteklassen >> / Клас на точност				A	B	C	A	B	C
Module Modul Модул	D mm	L mm	d mm	Art. No. 9311*...	Art. No. 9312*...	Art. No. 9313*...	Art. No. 9321*...	Art. No. 9322*...	Art. No. 9323*...
1	50	31	22	9311 1	9312 1	9313 1	9321 1	9322 1	9323 1
1.25	50	31	22	9311 1.25	9312 1.25	9313 1.25	9321 1.25	9322 1.25	9323 1.25
1.5	56	38	22	9311 1.5	9312 1.5	9313 1.5	9321 1.5	9322 1.5	9323 1.5
1.75	56	38	22	9311 1.75	9312 1.75	9313 1.75	9321 1.75	9322 1.75	9323 1.75
2	63	46	27	9311 2	9312 2	9313 2	9321 2	9322 2	9323 2
2.25	70	56	27	9311 2.25	9312 2.25	9313 2.25	9321 2.25	9322 2.25	9323 2.25
2.5	70	56	27	9311 2.5	9312 2.5	9313 2.5	9321 2.5	9322 2.5	9323 2.5
2.75	70	56	27	9311 2.75	9312 2.75	9313 2.75	9321 2.75	9322 2.75	9323 2.75
3	80	69	32	9311 3	9312 3	9313 3	9321 3	9322 3	9323 3
3.25	80	69	32	9311 3.25	9312 3.25	9313 3.25	9321 3.25	9322 3.25	9323 3.25
3.5	80	69	32	9311 3.5	9312 3.5	9313 3.5	9321 3.5	9322 3.5	9323 3.5
3.75	90	78	32	9311 3.75	9312 3.75	9313 3.75	9321 3.75	9322 3.75	9323 3.75
4	90	78	32	9311 4	9312 4	9313 4	9321 4	9322 4	9323 4
4.5	90	78	32	9311 4.5	9312 4.5	9313 4.5	9321 4.5	9322 4.5	9323 4.5
5	100	88	32	9311 5	9312 5	9313 5	9321 5	9322 5	9323 5
5.5	100	88	32	9311 5.5	9312 5.5	9313 5.5	9321 5.5	9322 5.5	9323 5.5
6	110	108	40	9311 6	9312 6	9313 6	9321 6	9322 6	9323 6
6.5	110	108	40	9311 6.5	9312 6.5	9313 6.5	9321 6.5	9322 6.5	9323 6.5
7	110	108	40	9311 7	9312 7	9313 7	9321 7	9322 7	9323 7
8	125	138	40	9311 8	9312 8	9313 8	9321 8	9322 8	9323 8
9	125	138	40	9311 9	9312 9	9313 9	9321 9	9322 9	9323 9
10	140	170	40	9311 10	9312 10	9313 10	9321 10	9322 10	9323 10
11	160	180	50	9311 11	9312 11	9313 11	9321 11	9322 11	9323 11
12	170	195	50	9311 12	9312 12	9313 12	9321 12	9322 12	9323 12

Ordering example: Gear Hobs 9311 1 HSS
Bestellbeispiel: Wälzfräser 9311 1 HSS
Начин на заявяване: Фрези червячни 9311 1 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Gear Hobs for spur gears

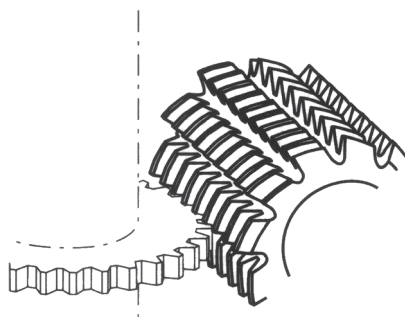
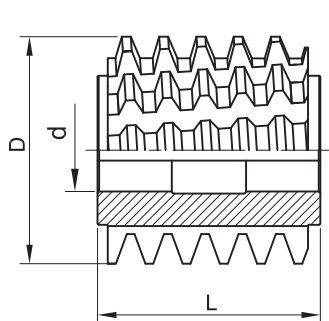
Designation **B** - with keyway
Profile **III**, **IV** - DIN 3972
Accuracy grades **A**, **B**, **C** -
DIN 3968

Wälzfräser für Stirnräder

Ausführung **B** - mit Längsnut
Bezugsprofil **III**, **IV** - DIN 3972
Güteklassen **A**, **B**, **C** -
DIN 3968

Фрези червячни за цилиндрични зъбни колела

Изпълнение **B** - с надлъжен
шпонков канал
Изходен профил **III**, **IV** - DIN 3972
Клас на точност **A**, **B**, **C** - DIN 3968



DIN 8002

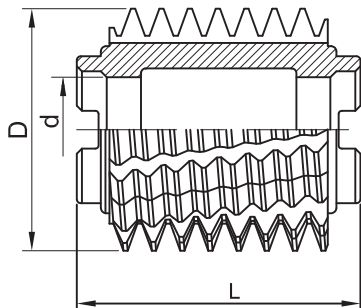
Profile / Bezugsprofil / Профил >>				III			IV		
Accuracy grades / Güteklassen >> / Клас на точност				A	B	C	A	B	C
Module Modul Модул	D mm	L mm	d mm	Art. No. 9331*...	Art. No. 9332*...	Art. No. 9333*...	Art. No. 9341*...	Art. No. 9342*...	Art. No. 9343*...
1	50	31	22	9331 1	9332 1	9333 1	9341 1	9342 1	9343 1
1.25	50	31	22	9331 1.25	9332 1.25	9333 1.25	9341 1.25	9342 1.25	9343 1.25
1.5	56	38	22	9331 1.5	9332 1.5	9333 1.5	9341 1.5	9342 1.5	9343 1.5
1.75	56	38	22	9331 1.75	9332 1.75	9333 1.75	9341 1.75	9342 1.75	9343 1.75
2	63	46	27	9331 2	9332 2	9333 2	9341 2	9342 2	9343 2
2.25	70	56	27	9331 2.25	9332 2.25	9333 2.25	9341 2.25	9342 2.25	9343 2.25
2.5	70	56	27	9331 2.5	9332 2.5	9333 2.5	9341 2.5	9342 2.5	9343 2.5
2.75	70	56	27	9331 2.75	9332 2.75	9333 2.75	9341 2.75	9342 2.75	9343 2.75
3	80	69	32	9331 3	9332 3	9333 3	9341 3	9342 3	9343 3
3.25	80	69	32	9331 3.25	9332 3.25	9333 3.25	9341 3.25	9342 3.25	9343 3.25
3.5	80	69	32	9331 3.5	9332 3.5	9333 3.5	9341 3.5	9342 3.5	9343 3.5
3.75	90	78	32	9331 3.75	9332 3.75	9333 3.75	9341 3.75	9342 3.75	9343 3.75
4	90	78	32	9331 4	9332 4	9333 4	9341 4	9342 4	9343 4
4.5	90	78	32	9331 4.5	9332 4.5	9333 4.5	9341 4.5	9342 4.5	9343 4.5
5	100	88	32	9331 5	9332 5	9333 5	9341 5	9342 5	9343 5
5.5	100	88	32	9331 5.5	9332 5.5	9333 5.5	9341 5.5	9342 5.5	9343 5.5
6	110	108	40	9331 6	9332 6	9333 6	9341 6	9342 6	9343 6
6.5	110	108	40	9331 6.5	9332 6.5	9333 6.5	9341 6.5	9342 6.5	9343 6.5
7	110	108	40	9331 7	9332 7	9333 7	9341 7	9342 7	9343 7
8	125	138	40	9331 8	9332 8	9333 8	9341 8	9342 8	9343 8
9	125	138	40	9331 9	9332 9	9333 9	9341 9	9342 9	9343 9
10	140	170	40	9331 10	9332 10	9333 10	9341 10	9342 10	9343 10
11	160	180	50	9331 11	9332 11	9333 11	9341 11	9342 11	9343 11
12	170	195	50	9331 12	9332 12	9333 12	9341 12	9342 12	9343 12

Ordering example: Gear Hobs 9331 1 HSS
Bestellbeispiel: Wälzfräser 9331 1 HSS
Начин на заявяване: Фрези червячни 9331 1 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Gear Hobs for spur gears

Designation **A** - with radial slot
Profile **I, II** - DIN 3972
Accuracy grades **A, B, C** -
DIN 3968

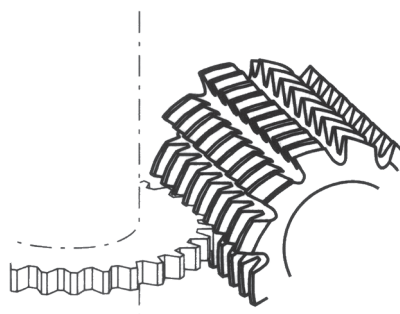


Wälzfräser für Stirnräder

Ausführung **A** - mit Quernut
Bezugsprofil **I - II** - DIN 3972
Güteklassen **A, B, C** -
DIN 3968

Фрези червячни

за цилиндрични зъбни колела
Изпълнение **A** - с напречен
шпонков канал
Изходен профил **I - II** - DIN 3972
Клас на точност **A, B, C** - DIN 3968



DIN 8002

Profile / Bezugsprofil / Профил >>				I			II		
Accuracy grades / Güteklassen >> / Клас на точност				A	B	C	A	B	C
Module Modul Модул	D mm	L mm	d mm	Art. No. 9411*...	Art. No. 9412*...	Art. No. 9413*...	Art. No. 9421*...	Art. No. 9422*...	Art. No. 9423*...
1	50	44	22	9411 1	9412 1	9413 1	9421 1	9422 1	9423 1
1.25	50	44	22	9411 1.25	9412 1.25	9413 1.25	9421 1.25	9422 1.25	9423 1.25
1.5	56	51	22	9411 1.5	9412 1.5	9413 1.5	9421 1.5	9422 1.5	9423 1.5
1.75	56	51	22	9411 1.75	9412 1.75	9413 1.75	9421 1.75	9422 1.75	9423 1.75
2	63	60	27	9411 2	9412 2	9413 2	9421 2	9422 2	9423 2
2.25	70	70	27	9411 2.25	9412 2.25	9413 2.25	9421 2.25	9422 2.25	9423 2.25
2.5	70	70	27	9411 2.5	9412 2.5	9413 2.5	9421 2.5	9422 2.5	9423 2.5
2.75	70	70	27	9411 2.75	9412 2.75	9413 2.75	9421 2.75	9422 2.75	9423 2.75
3	80	85	32	9411 3	9412 3	9413 3	9421 3	9422 3	9423 3
3.25	80	85	32	9411 3.25	9412 3.25	9413 3.25	9421 3.25	9422 3.25	9423 3.25
3.5	80	85	32	9411 3.5	9412 3.5	9413 3.5	9421 3.5	9422 3.5	9423 3.5
3.75	90	94	32	9411 3.75	9412 3.75	9413 3.75	9421 3.75	9422 3.75	9423 3.75
4	90	94	32	9411 4	9412 4	9413 4	9421 4	9422 4	9423 4
4.5	90	94	32	9411 4.5	9412 4.5	9413 4.5	9421 4.5	9422 4.5	9423 4.5
5	100	104	32	9411 5	9412 5	9413 5	9421 5	9422 5	9423 5
5.5	100	104	32	9411 5.5	9412 5.5	9413 5.5	9421 5.5	9422 5.5	9423 5.5
6	110	126	40	9411 6	9412 6	9413 6	9421 6	9422 6	9423 6
6.5	110	126	40	9411 6.5	9412 6.5	9413 6.5	9421 6.5	9422 6.5	9423 6.5
7	110	126	40	9411 7	9412 7	9413 7	9421 7	9422 7	9423 7
8	125	156	40	9411 8	9412 8	9413 8	9421 8	9422 8	9423 8
9	125	156	40	9411 9	9412 9	9413 9	9421 9	9422 9	9423 9
10	140	188	40	9411 10	9412 10	9413 10	9421 10	9422 10	9423 10
11	160	200	50	9411 11	9412 11	9413 11	9421 11	9422 11	9423 11

Ordering example: Gear Hobs 9411 1 HSS
Bestellbeispiel: Wälzfräser 9411 1 HSS
Начин на заявяване: Фрези червячни 9411 1 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Gear Hobs for spur gears

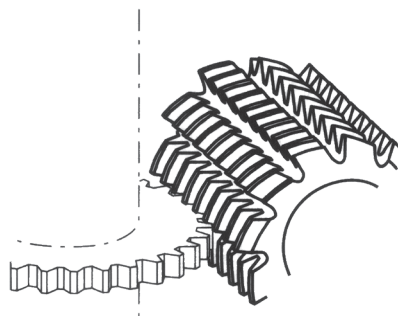
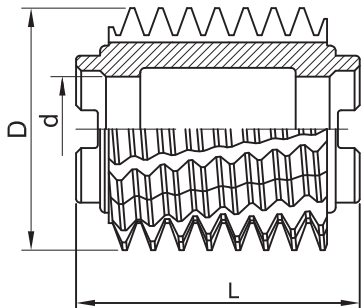
Designation **A** - with radial slot
Profile **III**, **IV** - DIN 3972
Accuracy grades **A**, **B**, **C** -
DIN 3968

Wälzfräser für Stirnräder

Ausführung **A** - mit Quernut
Bezugsprofil **III**, **IV** - DIN 3972
Güteklassen **A**, **B**, **C** -
DIN 3968

Фрези червячни за цилиндрични зъбни козела

Изпълнение **A** - с напречен
шпонков канал
Изходен профил **III**, **IV** - DIN 3972
Клас на точност **A**, **B**, **C** - DIN 3968



DIN 8002

Profile / Bezugsprofil / Профил >>				III			IV		
Accuracy grades / Güteklassen >> / Клас на точност				A	B	C	A	B	C
Module Modul Модул	D mm	L mm	d mm	Art. No. 9431*...	Art. No. 9432*...	Art. No. 9433*...	Art. No. 9441*...	Art. No. 9442*...	Art. No. 9443*...
1	50	44	22	9431 1	9432 1	9433 1	9441 1	9442 1	9443 1
1.25	50	44	22	9431 1.25	9432 1.25	9433 1.25	9441 1.25	9442 1.25	9443 1.25
1.5	56	51	22	9431 1.5	9432 1.5	9433 1.5	9441 1.5	9442 1.5	9443 1.5
1.75	56	51	22	9431 1.75	9432 1.75	9433 1.75	9441 1.75	9442 1.75	9443 1.75
2	63	60	27	9431 2	9432 2	9433 2	9441 2	9442 2	9443 2
2.25	70	70	27	9431 2.25	9432 2.25	9433 2.25	9441 2.25	9442 2.25	9443 2.25
2.5	70	70	27	9431 2.5	9432 2.5	9433 2.5	9441 2.5	9442 2.5	9443 2.5
2.75	70	70	27	9431 2.75	9432 2.75	9433 2.75	9441 2.75	9442 2.75	9443 2.75
3	80	85	32	9431 3	9432 3	9433 3	9441 3	9442 3	9443 3
3.25	80	85	32	9431 3.25	9432 3.25	9433 3.25	9441 3.25	9442 3.25	9443 3.25
3.5	80	85	32	9431 3.5	9432 3.5	9433 3.5	9441 3.5	9442 3.5	9443 3.5
3.75	90	94	32	9431 3.75	9432 3.75	9433 3.75	9441 3.75	9442 3.75	9443 3.75
4	90	94	32	9431 4	9432 4	9433 4	9441 4	9442 4	9443 4
4.5	90	94	32	9431 4.5	9432 4.5	9433 4.5	9441 4.5	9442 4.5	9443 4.5
5	100	104	32	9431 5	9432 5	9433 5	9441 5	9442 5	9443 5
5.5	100	104	32	9431 5.5	9432 5.5	9433 5.5	9441 5.5	9442 5.5	9443 5.5
6	110	126	40	9431 6	9432 6	9433 6	9441 6	9442 6	9443 6
6.5	110	126	40	9431 6.5	9432 6.5	9433 6.5	9441 6.5	9442 6.5	9443 6.5
7	110	126	40	9431 7	9432 7	9433 7	9441 7	9442 7	9443 7
8	125	156	40	9431 8	9432 8	9433 8	9441 8	9442 8	9443 8
9	125	156	40	9431 9	9432 9	9433 9	9441 9	9442 9	9443 9
10	140	188	40	9431 10	9432 10	9433 10	9441 10	9442 10	9443 10
11	160	200	50	9431 11	9432 11	9433 11	9441 11	9442 11	9443 11

Ordering example: Gear Hobs 9431 1 HSS
Bestellbeispiel: Wälzfräser 9431 1 HSS
Начин на заявяване: Фрези червячни 9431 1 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Gear Hobs

for spur gears

with keyway

Profile I, II - DIN 3972

Accuracy grades A, B, C -

DIN 3968

Wälzfräser

für Stirnräder

mit Längsnut

Bezugsprofil I - II - DIN 3972

Güteklassen A, B, C -

DIN 3968

Фрези червячни

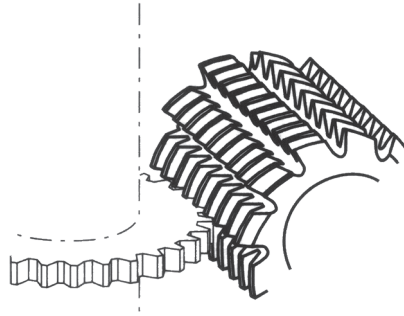
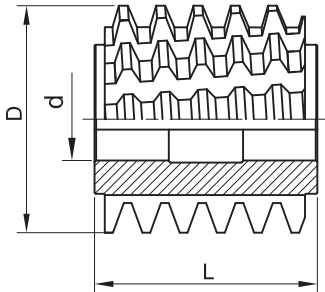
за цилиндрични зъбни козела

с надлъжен шпонков канал

Изходен профил I - II - DIN 3972

Клас на точност A, B, C -

DIN 3968



DIN 858

Profile / Bezugsprofil / Профил >>				I			II		
Accuracy grades / Güteklassen >> / Клас на точност				A	B	C	A	B	C
Module Modul Модул	D mm	L mm	d mm	Art. No. 9511*...	Art. No. 9512*...	Art. No. 9513*...	Art. No. 9521*...	Art. No. 9522*...	Art. No. 9523*...
1	50	50	22	9511 1	9512 1	9513 1	9521 1	9522 1	9523 1
1.25	50	50	22	9511 1.25	9512 1.25	9513 1.25	9521 1.25	9522 1.25	9523 1.25
1.5	55	55	22	9511 1.5	9512 1.5	9513 1.5	9521 1.5	9522 1.5	9523 1.5
1.75	55	55	22	9511 1.75	9512 1.75	9513 1.75	9521 1.75	9522 1.75	9523 1.75
2	60	60	22	9511 2	9512 2	9513 2	9521 2	9522 2	9523 2
2.25	60	60	22	9511 2.25	9512 2.25	9513 2.25	9521 2.25	9522 2.25	9523 2.25
2.5	65	65	22	9511 2.5	9512 2.5	9513 2.5	9521 2.5	9522 2.5	9523 2.5
2.75	65	65	22	9511 2.75	9512 2.75	9513 2.75	9521 2.75	9522 2.75	9523 2.75
3	70	70	27	9511 3	9512 3	9513 3	9521 3	9522 3	9523 3
3.25	75	70	27	9511 3.25	9512 3.25	9513 3.25	9521 3.25	9522 3.25	9523 3.25
3.5	75	75	27	9511 3.5	9512 3.5	9513 3.5	9521 3.5	9522 3.5	9523 3.5
3.75	80	75	27	9511 3.75	9512 3.75	9513 3.75	9521 3.75	9522 3.75	9523 3.75
4	80	80	27	9511 4	9512 4	9513 4	9521 4	9522 4	9523 4
4.5	85	85	27	9511 4.5	9512 4.5	9513 4.5	9521 4.5	9522 4.5	9523 4.5
5	95	90	27	9511 5	9512 5	9513 5	9521 5	9522 5	9523 5
5.5	100	95	32	9511 5.5	9512 5.5	9513 5.5	9521 5.5	9522 5.5	9523 5.5
6	105	100	32	9511 6	9512 6	9513 6	9521 6	9522 6	9523 6
6.5	110	110	32	9511 6.5	9512 6.5	9513 6.5	9521 6.5	9522 6.5	9523 6.5
7	115	115	32	9511 7	9512 7	9513 7	9521 7	9522 7	9523 7
8	120	130	32	9511 8	9512 8	9513 8	9521 8	9522 8	9523 8
9	125	145	32	9511 9	9512 9	9513 9	9521 9	9522 9	9523 9
10	140	160	32	9511 10	9512 10	9513 10	9521 10	9522 10	9523 10
11	145	175	40	9511 11	9512 11	9513 11	9521 11	9522 11	9523 11
12	150	190	40	9511 12	9512 12	9513 12	9521 12	9522 12	9523 12
13	160	200	40	9511 13	9512 13	9513 13	9521 13	9522 13	9523 3

Ordering example: Gear Hobs 9511 1 HSS
 Bestellbeispiel: Wälzfräser 9511 1 HSS
 Начин на заявяване: Фрези червячни 9511 1 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Gear Hobs for spur gears

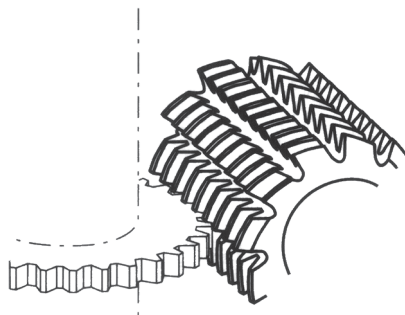
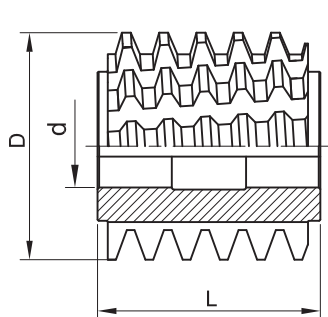
with keyway
Profile **III**, **IV** - DIN 3972
Accuracy grades **A**, **B**, **C** -
DIN 3968

Wälzfräser für Stirnräder

mit Längsnut
Bezugsprofil **III**, **IV** - DIN 3972
Güteklassen **A**, **B**, **C** -
DIN 3968

Фрези червячни за цилиндрични зъбни козела

с надлъжен шпонков канал
Изходен профил **III**, **IV** - DIN 3972
Клас на точност **A**, **B**, **C** -
DIN 3968



DIN 858

Profile / Bezugsprofil / Профил >>				III			IV		
Accuracy grades / Güteklassen >> / Клас на точност				A	B	C	A	B	C
Module Modul Модул	D mm	L mm	d mm	Art. No. 9531*...	Art. No. 9532*...	Art. No. 9533*...	Art. No. 9541*...	Art. No. 9542*...	Art. No. 9543*...
1	50	50	22	9531 1	9532 1	9533 1	9541 1	9542 1	9543 1
1.25	50	50	22	9531 1.25	9532 1.25	9533 1.25	9541 1.25	9542 1.25	9543 1.25
1.5	55	55	22	9531 1.5	9532 1.5	9533 1.5	9541 1.5	9542 1.5	9543 1.5
1.75	55	55	22	9531 1.75	9532 1.75	9533 1.75	9541 1.75	9542 1.75	9543 1.75
2	60	60	22	9531 2	9532 2	9533 2	9541 2	9542 2	9543 2
2.25	60	60	22	9531 2.25	9532 2.25	9533 2.25	9541 2.25	9542 2.25	9543 2.25
2.5	65	65	22	9531 2.5	9532 2.5	9533 2.5	9541 2.5	9542 2.5	9543 2.5
2.75	65	65	22	9531 2.75	9532 2.75	9533 2.75	9541 2.75	9542 2.75	9543 2.75
3	70	70	27	9531 3	9532 3	9533 3	9541 3	9542 3	9543 3
3.25	75	70	27	9531 3.25	9532 3.25	9533 3.25	9541 3.25	9542 3.25	9543 3.25
3.5	75	75	27	9531 3.5	9532 3.5	9533 3.5	9541 3.5	9542 3.5	9543 3.5
3.75	80	75	27	9531 3.75	9532 3.75	9533 3.75	9541 3.75	9542 3.75	9543 3.75
4	80	80	27	9531 4	9532 4	9533 4	9541 4	9542 4	9543 4
4.5	85	85	27	9531 4.5	9532 4.5	9533 4.5	9541 4.5	9542 4.5	9543 4.5
5	95	90	27	9531 5	9532 5	9533 5	9541 5	9542 5	9543 5
5.5	100	95	32	9531 5.5	9532 5.5	9533 5.5	9541 5.5	9542 5.5	9543 5.5
6	105	100	32	9531 6	9532 6	9533 6	9541 6	9542 6	9543 6
6.5	110	110	32	9531 6.5	9532 6.5	9533 6.5	9541 6.5	9542 6.5	9543 6.5
7	115	115	32	9531 7	9532 7	9533 7	9541 7	9542 7	9543 7
8	120	130	32	9531 8	9532 8	9533 8	9541 8	9542 8	9543 8
9	125	145	32	9531 9	9532 9	9533 9	9541 9	9542 9	9543 9
10	140	160	32	9531 10	9532 10	9533 10	9541 10	9542 10	9543 10
11	145	175	40	9531 11	9532 11	9533 11	9541 11	9542 11	9543 11
12	150	190	40	9531 12	9532 12	9533 12	9541 12	9542 12	9543 12
13	160	200	40	9531 13	9532 13	9533 13	9541 13	9542 13	9543 13

Ordering example: Gear Hobs 9531 1 HSS
Bestellbeispiel: Wälzfräser 9531 1 HSS
Начин на заявяване: Фрези червячни 9531 1 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Gear Hobs for chain wheels

Profile according to DIN 8197

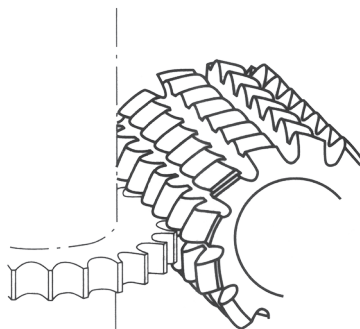
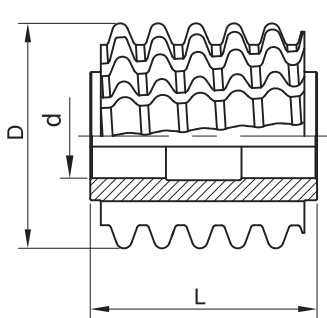
Wälzfräser für Kettenrader

Profil nach DIN 8197

Фрези червячни

за верижни зъбни кола

Профил по DIN 8197



Chain pitch Ketten-Teilung Стъпка на веригата		Chain roller Rolle Ролка mm	D mm	d mm	L mm	Art. No. 960*..
Inch, Zoll	mm					
5/16		5	63	27	50	960 516
3/8	9.525	5.08	71	27	56	960 38 1
3/8	9.525	6	71	27	56	960 38 2
3/8	9.525	6.35	71	27	56	960 38 3
1/2	12.7	7.75	80	32	71	960 12 1
1/2	12.7	8.51	80	32	71	960 12 2
5/8	15.875	10.16	90	32	80	960 58
3/4	19.05	11.91	100	32	100	960 34 1
3/4	19.05	12.07	100	32	100	960 34 2
1"	25.4	15.88	112	40	112	960 1
1"1/4	31.75	19.05	125	40	132	960 114
1"1/2	38.1	22.23	140	40	150	960 112 1
1"1/2	38.1	25.4	140	40	150	960 112 2
1"3/4	44.45	25.4	160	50	180	960 134 1
1" 3/4	44.45	27.94	160	50	180	960 134 2
2"	50.8	28.58	170	50	200	960 2 1
2"	50.8	29.21	170	50	200	960 2 2

Ordering example: Gear Hobs 960 516 HSS
 Bestellbeispiel: Wälzfräser 960 516 HSS
 Начин на заявяване: Фрези червячни 960 516 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Gear Hobs

for involute spline shafts

Pressure angle 30°

Accuracy grades A, B, C -

DIN 3968

Wälzfräser

für Zahnwellen

Eingriffswinkel 30°

Güteklassen A, B, C -

DIN 3968

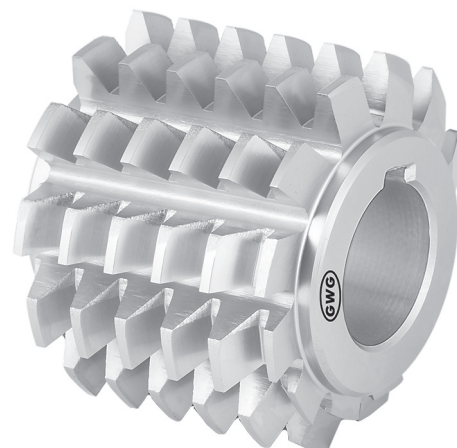
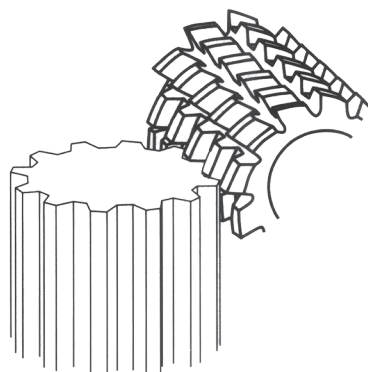
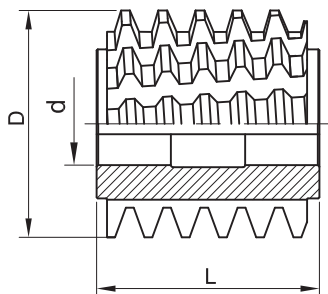
Фрези червячни

за еволвентно-шлицеви валове

Ъгъл на изходния контур 30°

Клас на точност А, В, С -

DIN 3968



Accuracy grades / Güteklassen / Клас на точност >>				A	B	C
Module Modul Модул	D mm	L mm	d mm	Art. No. 971*...	Art. No. 972*...	Art. No. 973*...
1	50	32	22	971 1	972 1	973 1
1.25	50	40	22	971 1.25	972 1.25	973 1.25
1.5	56	45	22	971 1.5	972 1.5	973 1.5
2	63	50	27	971 2	972 2	973 2
2.5	71	63	27	971 2.5	972 2.5	973 2.5
3	80	71	32	971 3	972 3	973 3
3.5	80	71	32	971 3.5	972 3.5	973 3.5
4	90	80	32	971 4	972 4	973 4
5	90	90	32	971 5	972 5	973 5
6	112	112	40	971 6	972 6	973 6
8	118	118	40	571 8	972 8	973 8
10	140	150	40	971 10	972 10	973 10

Ordering example: Gear Hobs 971 1 HSS
 Bestellbeispiel: Wälzfräser 971 1 HSS
 Начин на заявяване: Фрези червячни 971 1 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Gear Hobs

for spline shafts

Relief ground profile

with keyway according to DIN 138

Wälzfräser

für Keilwellen

Hinterschliffen

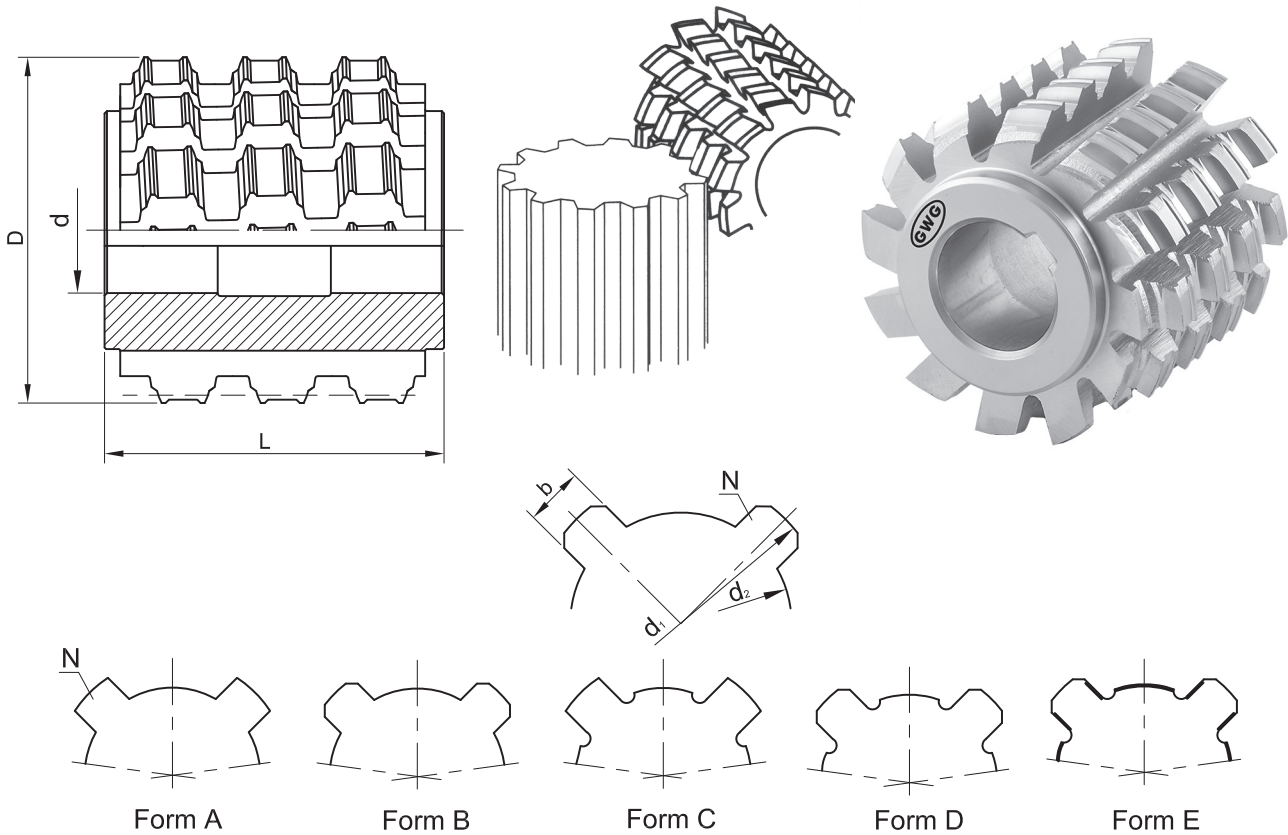
mit längsnut nach DIN 138

Фрези червячни

за правостенни шлицеви валове

Шлифован профил

Надлъжен шпонков канал по DIN 138



Spline shaft / Keilwelle / Вал DIN 5472				Form cutter / Formfräser / Фреза				Art. No. A 9751* ...
d1 mm a11*	d2 mm g6*	b mm h9*	N	D mm	L mm	d mm	Z mm	Art. No. B 9752* ...
25	21	5	6	63	46	27	12	Art. No. C 9753* ...
28	23	6	6	63	46	27	12	Art. No. D 9754* ...
32	26	6	6	63	46	27	12	Art. No. E 9755* ...
34	28	7	6	63	46	27	12	...
38	32	8	6	70	56	27	12	...
42	36	8	6	70	56	27	12	...
48	42	10	6	80	69	32	12	...
52	46	12	6	80	69	32	12	...
60	52	14	6	90	78	32	12	...
65	58	14	6	100	88	32	14	...
70	62	16	6	100	88	32	14	...
78	68	16	6	115	88	40	14	...
82	72	16	6	115	88	40	14	...
90	78	16	6	125	90	40	14	...
95	82	16	6	125	90	40	14	...

*Gear Hobs with the indicated tolerances are not possible for form E.

*Wälzfräser mit den angegebenen Toleranzen sind nicht möglich für Form E.

*Фрези червячни с посочените допуски не се изработват за форма E.

Ordering example: Gear Hobs 9751 1 HSS
 Bestellbeispiel: Wälzfräser 9751 1 HSS
 Начин на заявяване: Фрези червячни 9751 1 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Gear Hobs

for spline shafts

Relief ground profile

with keyway according to DIN 138

Wälzfräser

für Keilwellen

Hinterschliffen

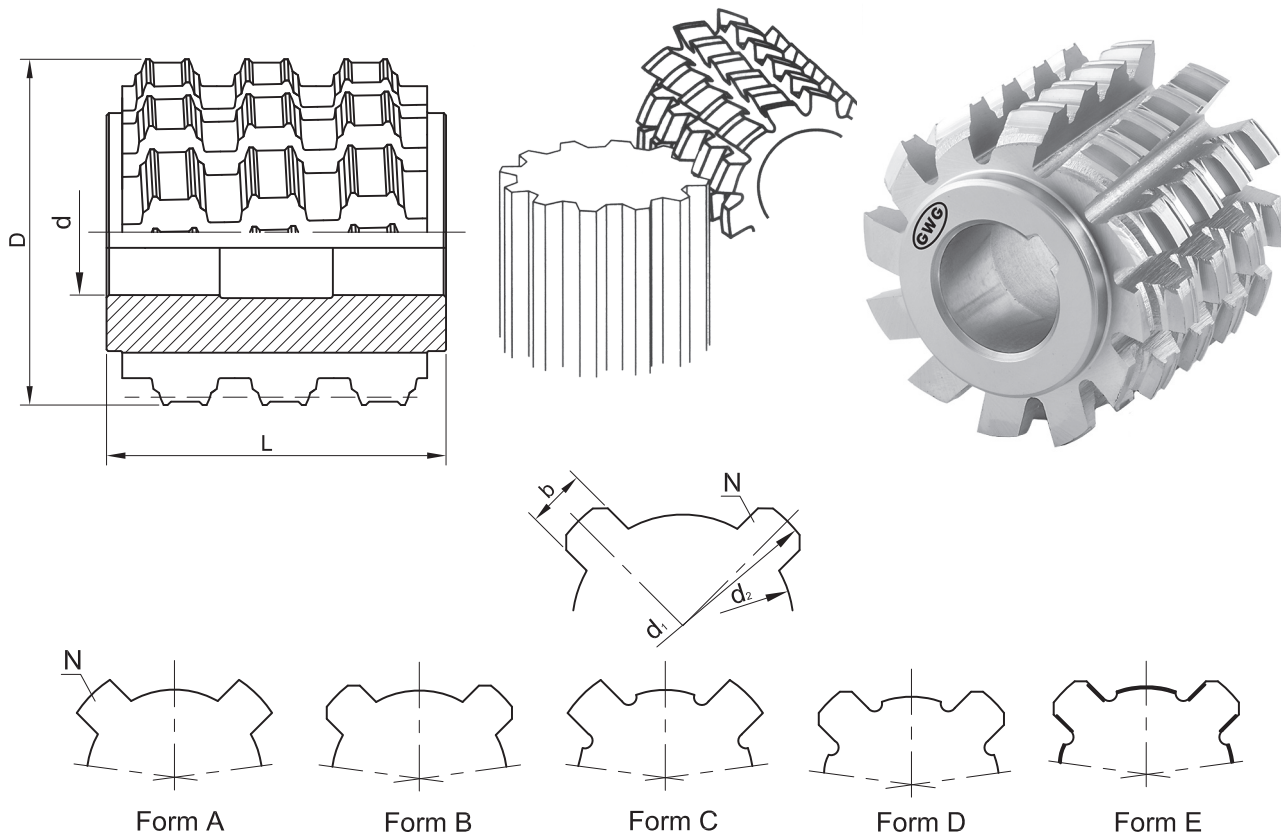
mit längsnut nach DIN 138

Фрези червячни

за правостенни шлицеви валове

Шлифован профил

Надлъжен шпонков канал по DIN 138



Spline shaft / Keilwelle / Вал DIN 5462				Form cutter / Formfräser / Фреза				Art. No. A 9761* ...
d1 mm a11*	d2 mm g6*	b mm h9*	N	D mm	L mm	d mm	Z mm	Art. No. B 9762* ...
26	23	6	6	56	38	22	12	Art. No. C 9763* ...
30	26	6	6	63	46	27	12	Art. No. D 9764* ...
32	28	7	6	63	46	27	12	Art. No. E 9765* ...
36	32	6	8	63	46	27	12	
40	36	7	8	63	46	27	12	
46	42	8	8	63	46	27	12	
50	46	9	8	70	56	27	12	
58	52	10	8	70	56	27	12	
62	56	10	8	70	56	27	12	
68	62	12	8	70	56	27	12	
78	72	12	10	70	56	27	12	
88	82	12	10	80	69	32	12	
98	92	14	10	90	78	32	12	
108	102	16	10	90	78	32	12	
120	112	18	10	100	88	32	12	

*Gear Hobs with the indicated tolerances are not possible for form E.

*Wälzfräser mit den angegebenen Toleranzen sind nicht möglich für Form E.

*Фрези червячни с посочените допуски не се изработват за форма E.

Ordering example: Gear Hobs 9761 1 HSS
 Bestellbeispiel: Wälzfräser 9761 1 HSS
 Начин на заявяване: Фрези червячни 9761 1 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Gear Hobs

for spline shafts

Relief ground profile

with keyway according to DIN 138

Wälzfräser

für Keilwellen

Hinterschliffen

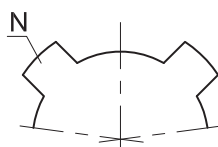
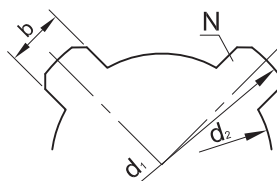
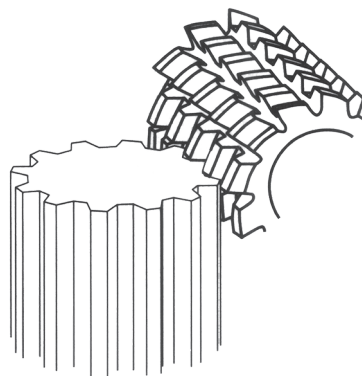
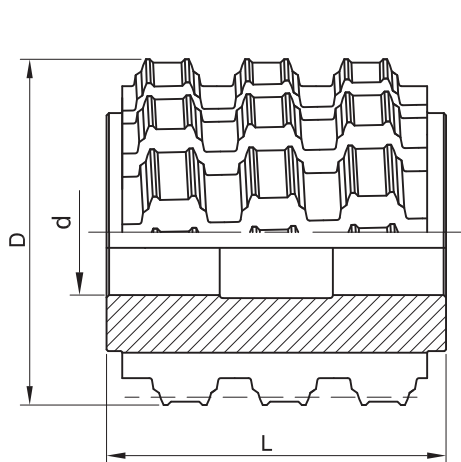
mit längsnut nach DIN 138

Фрези червячни

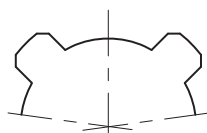
за правостенни шлицеви валове

Шлифован профил

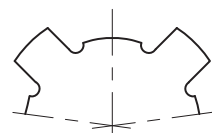
Надлъжен шпонков канал по DIN 138



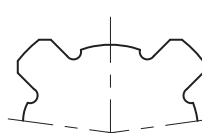
Form A



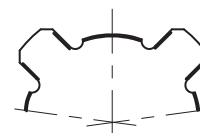
Form B



Form C



Form D



Form E

Spline shaft / Keilwelle / Вал DIN 5463				Form cutter / Formfräser / Фреза				Art. No. A 9771* ...
d1 mm a11*	d2 mm g6*	b mm h9*	N	D mm	L mm	d mm	Z mm	Art. No. B 9772* ...
								Art. No. C 9773* ...
								Art. No. D 9774* ...
								Art. No. E 9775* ...
20	16	4	6	56	38	22	12	...* 1
22	18	5	6	56	38	22	12	...* 2
25	21	5	6	63	46	27	12	...* 3
28	23	6	6	63	46	27	12	...* 4
32	26	6	6	63	46	27	12	...* 5
34	28	7	6	63	46	27	12	...* 6
38	32	6	8	63	46	27	12	...* 7
42	36	7	8	63	46	27	12	...* 8
48	42	8	8	70	56	27	12	...* 9
54	46	9	8	70	56	27	12	...* 10
60	52	10	8	70	56	27	12	...* 11
65	56	10	8	80	69	32	12	...* 12
72	62	12	8	80	69	32	12	...* 13
82	72	12	10	90	78	32	12	...* 14
92	82	12	10	90	78	32	12	...* 15
102	92	14	10	100	88	32	12	...* 16

*Gear Hobs with the indicated tolerances are not possible for form E.

*Wälzfräser mit den angegebenen Toleranzen sind nicht möglich für Form E.

*Фрези червячни с посочените допуски не се изработват за форма E.

Ordering example: Gear Hobs 9771 1 HSS
 Bestellbeispiel: Wälzfräser 9771 1 HSS
 Начин на заявяване: Фрези червячни 9771 1 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Gear Hobs

for spline shafts

Relief ground profile

with keyway according to DIN 138

Wälzfräser

für Keilwellen

Hinterschliffen

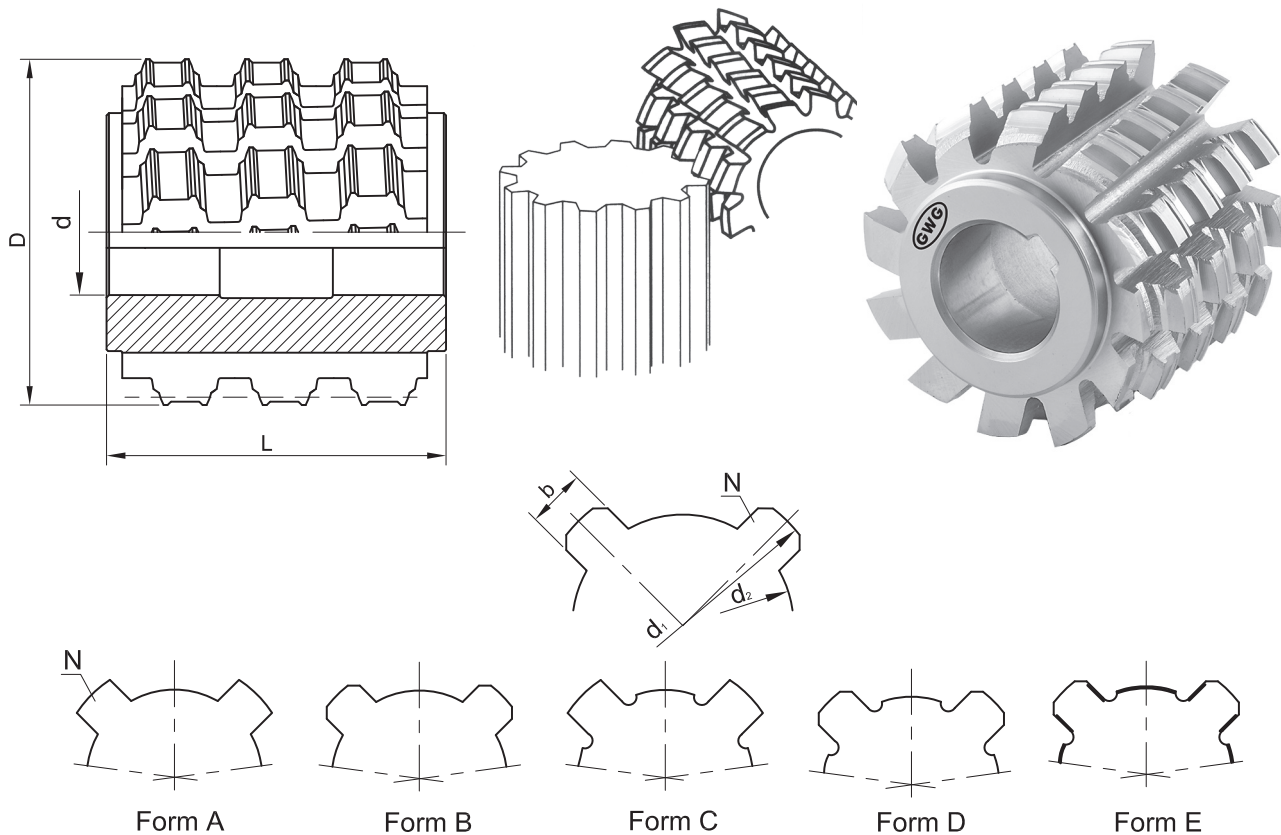
mit längsnut nach DIN 138

Фрези червячни

за правостенни шлицеви валове

Шлифован профил

Надлъжен шпонков канал по DIN 138



Spline shaft / Keilwelle / Вал DIN 5462				Form cutter / Formfräser / Фреза				Art. No. A 9781* ...
d1 mm a11*	d2 mm g6*	b mm h9*	N	D mm	L mm	d mm	Z mm	Art. No. B 9782* ...
20	16	2.5	10	56	38	22	12	Art. No. C 9783* ...
23	18	3	10	63	46	27	12	Art. No. D 9784* ...
26	21	3	10	63	46	27	12	Art. No. E 9785* ...
29	23	4	10	63	46	27	12	...
32	26	4	10	63	46	27	12	...
35	28	4	10	70	56	27	12	...
40	32	5	10	70	56	27	12	...
45	36	5	10	80	69	32	12	...
52	42	6	10	80	69	32	12	...
56	46	7	10	80	69	32	12	...
60	52	5	16	80	69	32	12	...
65	56	5	16	80	69	32	12	...
72	62	6	16	90	78	32	12	...
82	72	7	16	90	78	32	12	...
92	82	6	20	90	78	32	12	...
102	92	7	20	90	78	32	12	...
115	102	8	20	112	90	40	12	...
125	112	9	20	112	90	40	12	...

*Gear Hobs with the indicated tolerances are not possible for form E.

*Wälzfräser mit den angegebenen Toleranzen sind nicht möglich für Form E.

*Фрези червячни с посочените допуски не се изработват за форма E.

Ordering example: Gear Hobs 9781 1 HSS
 Bestellbeispiel: Wälzfräser 9781 1 HSS
 Начин на заявяване: Фрези червячни 9781 1 HSS

Other sizes on demand
 Andere Abmessungen auf Anfrage
 Други размери - при запитване

Disc-gear Cutters

with straight teeth

Profile II according to DIN 3972

Accuracy grades A, B

Schneidräder scheibenförmig

geradeverzahnt

Bezugsprofil II nach DIN 3972

Güteklassen A, B

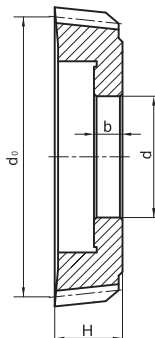
Колела зъбодълбачни

ДИСКОВИ

с прави зъби

Изходен профил II по DIN 3972

Клас на точност А, В



DIN 1825

Accuracy grades / Güteklassen / Клас на точност >>						A	B
Module Modul Модул	Number of teeth Zähneanzahl Брой зъби	d _o mm	H mm	b mm	d mm	Art. No.	Art. No.
Base - circle diameter 75 mm / Teilkreisdurchmesser 75 mm / Номинален диаметър 75 mm							
1.5	51	76.5	18	8	31.745	9811 1.5	9812 1.5
1.75	43	75.25	18	8	31.745	9811 1.75	9812 1.75
2	38	76	20	9	31.745	9811 2	9812 2
2.25	34	76.5	20	9	31.745	9811 2.25	9812 2.25
2.5	30	75	20	9	31.745	9811 2.5	9812 2.5
2.75	28	77	22	9	31.745	9811 2.75	9812 2.75
3	25	75	22	9	31.745	9811 3	9812 3
3.5	22	77	22	9	31.745	9811 3.5	9812 3.5
4	19	76	24	10	31.745	9811 4	9812 4
4.5	17	76.5	24	10	31.745	9811 4.5	9812 4.5
Base - circle diameter 100 mm / Teilkreisdurchmesser 100 mm / Номинален диаметър 100 mm							
1.5	68	102	18	9	44.45	9821 1.5	9822 1.5
1.75	58	101.5	20	9	44.45	9821 1.75	9822 1.75
2	50	100	20	9	44.45	9821 2	9822 2
2.25	45	101.25	20	9	44.45	9821 2.25	9822 2.25
2.5	40	100	20	9	44.45	9821 2.5	9822 2.5
2.75	36	99	24	10	44.45	9821 2.75	9822 2.75
3	33	99	24	10	44.45	9821 3	9822 3
3.5	29	101.5	24	10	44.45	9821 3.5	9822 3.5
4	25	100	24	10	44.45	9821 4	9822 4
4.5	22	99	24	10	44.45	9821 4.5	9822 4.5
5	20	100	24	10	44.45	9821 5	9822 5
5.5	18	99	24	11	44.45	9821 5.5	9822 5.5
6	17	102	24	11	44.45	9821 6	9822 6
Base - circle diameter 125 mm / Teilkreisdurchmesser 125 mm / Номинален диаметър 125 mm							
2	64	128	24	10	44.45	9831 2	9832 2
2.25	56	126	24	10	44.45	9831 2.25	9832 2.25
2.5	50	125	24	10	44.45	9831 2.5	9832 2.5
2.75	46	126.5	24	10	44.45	9831 2.75	9832 2.75
3	42	126	24	10	44.45	9831 3	9832 3
3.5	36	126	24	10	44.45	9831 3.5	9832 3.5
4	32	128	24	10	44.45	9831 4	9832 4
4.5	28	126	24	11	44.45	9831 4.5	9832 4.5
5	26	130	26	11	44.45	9831 5	9832 5
5.5	24	132	26	12	44.45	9831 5.5	9832 5.5
6	22	132	26	12	44.45	9831 6	9832 6

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Disc-gear cutters 9811 1.5 HSS

Schneidräder scheibenförmig 9811 1.5 HSS

Колела зъбодълбачни дискови 9811 1.5 HSS

Other sizes on demand

Andere Abmessungen auf Anfrage

Други размери - при запитване

Extended hub

Gear Cutters

with straight teeth

Profile II according to DIN 3972

Accuracy grades A, B

Schneidräder glockenförmig

geradeverzahnt

Bezugsprofil II nach DIN 3972

Güteklassen A, B

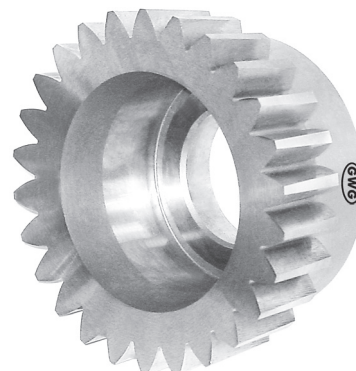
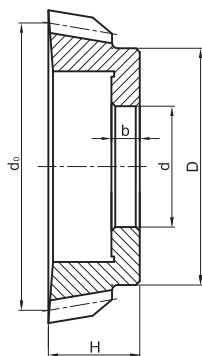
Колела зъбодълбачни

чашковидни

с прави зъби

Изходен профил II по DIN 3972

Клас на точност А, В



DIN 1826

Accuracy grades / Güteklassen / Клас на точност >>							A	B
Module Modul Модул	Number of teeth Zähneanzahl Брой зъби	d ₀ mm	H mm	b mm	D mm	d mm	Art. No.	Art. No.
Base - circle diameter 75 mm / Teilkreisdurchmesser 75 mm / Номинален диаметър 75 mm								
1.5	51	76.5	41	9	65	31.745	9841 1.5	9842 1.5
1.75	43	75.25	41	9	65	31.745	9841 1.75	9842 1.75
2	38	76	41	9	65	31.745	9841 2	9842 2
2.25	34	76.5	41	9	65	31.745	9841 2.25	9842 2.25
2.5	30	75	41	9	62	31.745	9841 2.5	9842 2.5
2.75	28	77	41	9	62	31.745	9841 2.75	9842 2.75
3	25	75	43	10	62	31.745	9841 3	9842 3
3.5	22	77	43	10	62	31.745	9841 3.5	9842 3.5
Base - circle diameter 100 mm / Teilkreisdurchmesser 100 mm / Номинален диаметър 100 mm								
1.5	68	102	46	11	90	44.45	9851 1.5	9852 1.5
1.75	58	101.5	46	11	90	44.45	9851 1.75	9852 1.75
2	50	100	46	11	90	44.45	9851 2	9852 2
2.25	45	101.25	46	11	85	44.45	9851 2.25	9852 2.25
2.5	40	100	46	11	85	44.45	9851 2.5	9852 2.5
2.75	36	99	46	11	85	44.45	9851 2.75	9852 2.75
3	33	99	46	11	85	44.45	9851 3	9852 3
3.5	29	101.5	46	11	85	44.45	9851 3.5	9852 3.5
4	25	100	46	12	82	44.45	9851 4	9852 4
4.5	22	99	46	12	80	44.45	9851 4.5	9852 4.5
5	20	100	46	12	82	44.45	9851 5	9852 5
5.5	18	99	46	12	78	44.45	9851 5.5	9852 5.5
6	17	102	46	12	82	44.45	9851 6	9852 6
Base - circle diameter 125 mm / Teilkreisdurchmesser 125 mm / Номинален диаметър 125 mm								
2	64	128	48	12	96	44.45	9861 2	9862 2
2.5	50	125	48	12	96	44.45	9861 2.5	9862 2.5
3	42	126	48	12	96	44.45	9861 3	9862 3
4	32	128	48	12	96	44.45	9861 4	9862 4
5	26	130	48	12	96	44.45	9861 5	9862 5
6	22	132	48	12	96	44.45	9861 6	9862 6
7	18	126	48	12	96	44.45	9861 7	9862 7

Ordering example:

Bestellbeispiel:

Начин на заявяване:

Extended hub gear cutters 9841 1.5 HSS

Schneidräder glockenförmig 9841 1.5 HSS

Колела зъбодълбачни чашковидни 9841 1.5 HSS

Other sizes on demand

Andere Abmessungen auf Anfrage

Други размери - при запитване

Gear Cutters

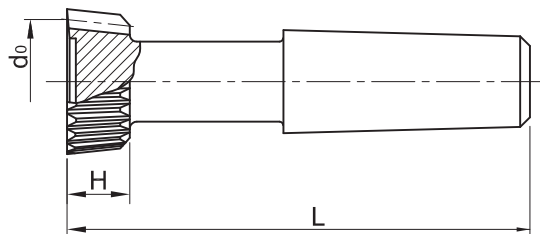
with straight teeth
Shortened Morse taper shank
Profile II according to DIN 3972
Accuracy grade B

Zahnstoßräder

geradeverzahnt
Morsekegelschaft verkürzt
Bezugsprofil II nach DIN 3972
Güteklasse B

Колела зъбодълбачни

с прави зъби
Опашка скъсен морзов конус
Изходен профил II по DIN 3972
Клас на точност B



Module Modul Модул	Number of teeth Zähneanzahl Брой зъби	d _o mm	L mm	H mm	МК	Art. No.
Base - circle diameter 25 mm / Teilkreisdurchmesser 25 mm / Номинален диаметър 25 mm						
1.5	18	27	80	14	B18	9871 1.5
1.75	14	24.5	80	14	B18	9871 1.75
2	12	24	80	14	B18	9871 2
2.25	12	27	80	14	B18	9871 2.25
2.5	10	25	80	14	B18	9871 2.5
2.75	10	27.5	80	14	B18	9871 2.75
3	9	27	80	14	B18	9871 3
Base - circle diameter 38 mm / Teilkreisdurchmesser 38 mm / Номинален диаметър 38 mm						
1.5	25	37.5	100	14	B24	9881 1.5
1.75	22	38.5	100	16	B24	9881 1.75
2	19	38	100	16	B24	9881 2
2.25	16	36	100	16	B24	9881 2.25
2.5	15	37.5	100	16	B24	9881 2.5
2.75	14	38.5	100	16	B24	9881 2.75
3	12	36	100	16	B24	9881 3
3.25	12	39	100	16	B24	9881 3.5
3.5	11	38.5	100	16	B24	9881 4
3.75	10	37.5	100	16	B24	9881 4.5
4	10	40	100	16	B24	9881 5

Ordering example: Gear cutters 9871 1.5 HSS
Bestellbeispiel: Zahnstoßräder 9871 1.5 HSS
Начин на заявяване: Колела зъбодълбачни 9871 1.5 HSS

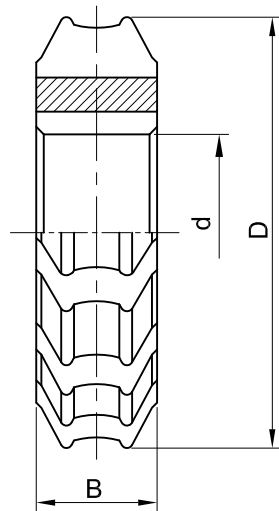
Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Special Tools - Card No. 1
Sonderwerkzeuge - Karte Nr. 1
Специални инструменти - Карта № 1

By ordering special form cutters for spline shaft profiles please point to D and d; d1, d2, b, N and f (for the spline shaft) and to the executions A, B, C, D, or E (see the drawings):

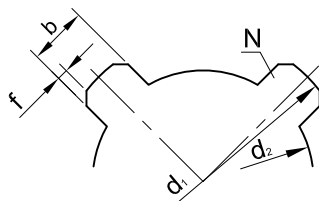
Bei Bestellungen von Sonderformfräsern für Keilwellenprofile bitte die Maße von D und d; d1, d2, b, N und f (für die Keilwelle), sowie die Ausführung A, B, C, D oder E angeben (siehe die Schemata):

При заявяване на нестандартна (специална) фреза дискова за правостенен шлицев вал е необходимо да предоставите данни за фрезата D и d и за шлицев вал d1, d2, b, N, f и формата на изпълнение A, B, C, D или E (моля, виж схемите):



Form cutter / Formfräser / Фреза

D= , d=



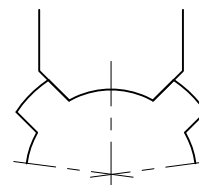
Spline shaft / Keiwelle / Шлицев вал

d1 = , d2 = , b = ,

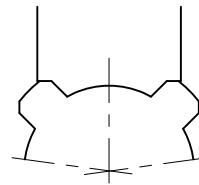
N= , f= ,

Form / Form / Форма

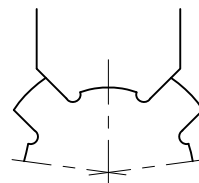
A/ B/ C/ D/ E



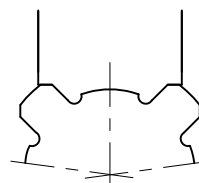
Form A
Form A
Форма А



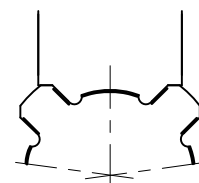
Form B
Form B
Форма В



Form C
Form C
Форма С



Form D
Form D
Форма D



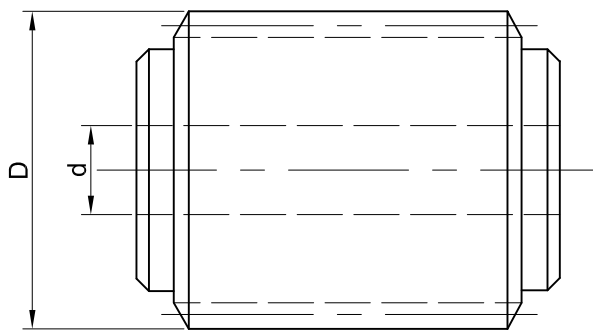
Form E
with grinding
allowance
Form E
mit Aufmaß
zum Schleifen
Форма E
с прибавка за
шлифоване

Special Tools - Card No. 2
Sonderwerkzeuge - Karte Nr. 2
Специални инструменти - Карта № 2

By ordering special gear hobs please point to D and d; d1, d2, b, N and f (for the spline shaft) and to the executions A, B, C, D, or E (see the drawings):

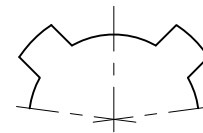
Bei Bestellungen von Sonderwälzfräsern bitte die Maße von D und d ; d1, d2, b, N und f (für die Keilwelle), sowie die Ausführung A, B, C, D oder E angeben (siehe die Schemata):

При заявяване на нестандартна(специална) фреза червячна за правостенен шлицев вал е необходимо да предоставите данни за фрезата D и d и за шлицев вал d1, d2, b, N, f и формата на изпълнение A, B, C, D или E (моля, виж схемите):

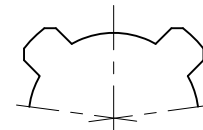


Gear hob / Wälzfräser / Фреза

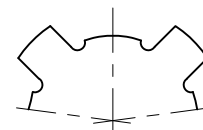
D= , d=



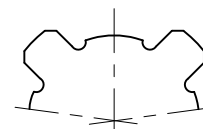
Form A
Form A
Форма А



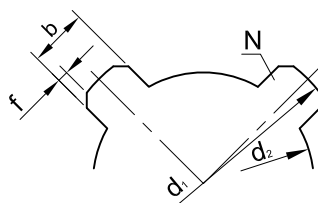
Form B
Form B
Форма В



Form C
Form C
Форма С



Form D
Form D
Форма D



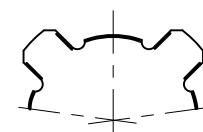
Spline shaft / Keiwelle / Шлицев вал

d1 = , d2 = , b = ,

N= , f= ,

Form / Form / Форма

A/ B/ C/ D/ E



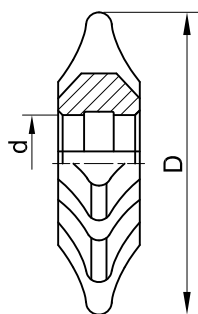
Form E
with grinding
allowance
Form E
mit Aufmaß
zum Schleifen
Форма E
с прибавка за
шлифование

Special Tools - Card No. 3
Sonderwerkzeuge - Karte Nr. 3
Специални инструменти - Карта № 3

By ordering special involute gear cutters for cylindrical gears, please point to D_f and d , and also to the gear (see the drawings):

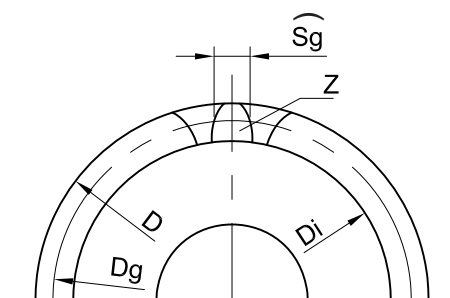
Bei Bestellungen von Sonderzahnformfräsern für zylindrische Zahnräder, bitte die Maße D_f und d des Fräsers, sowie Maße von dem Zahnrad angeben (siehe die Schemata):

При заявяване на нестандартна (специална) фреза дискова модулна за цилиндрично зъбно колело с прави зъби е необходимо да предоставите данни за фрезата D_f и d и за зъбното колело (моля, виж схемите):



Involute Gear Cutters / Zahnformfräser / Фреза дискова модулна

$D = \dots\dots\dots$, $d = \dots\dots\dots$



Gear / Zahnrad / Зъбно колело

module / Modul / модул $m = \dots\dots\dots$

Pressure angle
 Eingriffswinkel $\alpha = \dots\dots\dots$

Ъгъл на изходен контур

$Z = \dots\dots\dots$, $D = \dots\dots\dots$, $D_g = \dots\dots\dots$, $D_i = \dots\dots\dots$, $\widehat{S_g} = \dots\dots\dots$

Special Tools - Card No. 4
Sonderwerkzeuge - Karte Nr. 4
Специални инструменти - Карта № 4

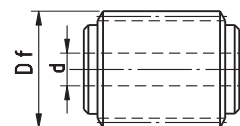
By ordering special gear hobs for cylindrical gears, please point to D_f and d , and also to the gear (see the drawings):

Bei Bestellungen von Sonderwälzfräsern für zylindrische Zahnräder, bitte die Maße D_f und d des Fräasers, sowie Maße von dem Zahnrad angeben (siehe die Schemata):

При заявяване на нестандартна (специална) фреза червячна за цилиндрично зъбно колело с прави или наклонени зъби е необходимо да предоставите данни за червячната фреза D_f и d и данни за зъбното колело (моля, виж схемите):

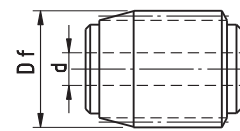
Execution / Ausführung / Изпълнение

Gear Hob
Wälzfräser
Фреза червячна



Cross feed
 Querststellung
 С радиално подаване A

$D_f = \dots\dots\dots$, $d = \dots\dots\dots$



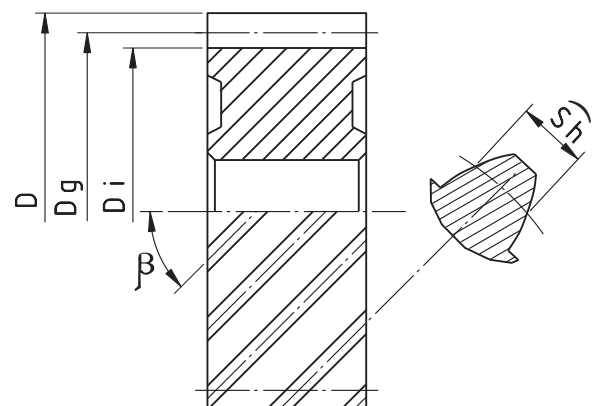
Tangential feed
 Tangentialzustellung
 С тангенциално подаване B

Gear
Zahnrad
Зъбно колело

module / Modul / модул $m = \dots\dots\dots$

Pressure angle
 Eingriffswinkel $\alpha = \dots\dots\dots$

Ъгъл на изходен контур



$D = \dots\dots\dots$, $D_g = \dots\dots\dots$, $D_i = \dots\dots\dots$, $\widehat{Sh} = \dots\dots\dots$, $\beta = \dots\dots\dots$

Special Tools - Card No. 5 Sonderwerkzeuge - Karte Nr. 5 Специални инструменти - Карта № 5

By ordering special gear hobs for screw gears, please point to the following dates (see the drawings):

Bei Bestellungen von Sonderwälzfräsern für Schneckenräder, bitte folgende Daten angeben (siehe die Schemata):

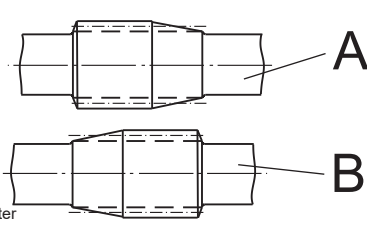
При заявяване на нестандартна (специална) фреза червячна за червячно зъбно колело, поради голямото разнообразие в зъбообработващите машини е необходимо да предоставите следните данни (моля, виж схемите):

Solid Type Hobs
/ Wälzfräser /
Фреза червячна

Worm
/ Schnecke /
Червяк

Execution
Ausführung
Изпълнение

A / B

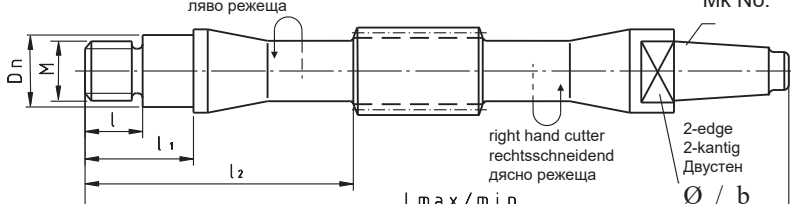


left hand cutter
linksschneidend
ляво режеща

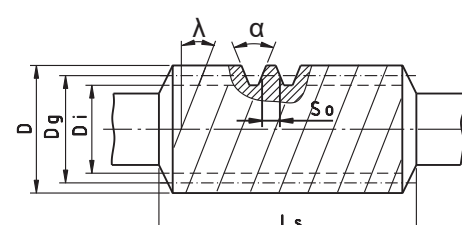
right hand cutter
rechtsschneidend
дясно режеща

Mk No:

2-edge
2-kantig
Двустен

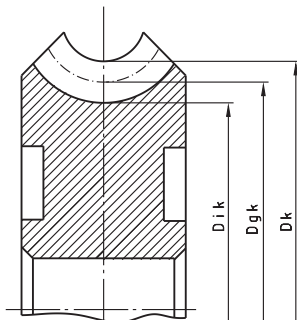


Dn = , l = , l1 = , l2 =
L max/min = , Ø = , b =
M = RH LH



modul / Modul / модул ms=
D = , Dg = , Di = ,
Ls = , So = , α = ,
λ = (left, right) / (links, rechts) /
(ляв , десен)
Nr. of strokes / Hubanzahl /
брой ходове n =

Screw gear / Schneckenzahnrad / Червячно зъбно колело

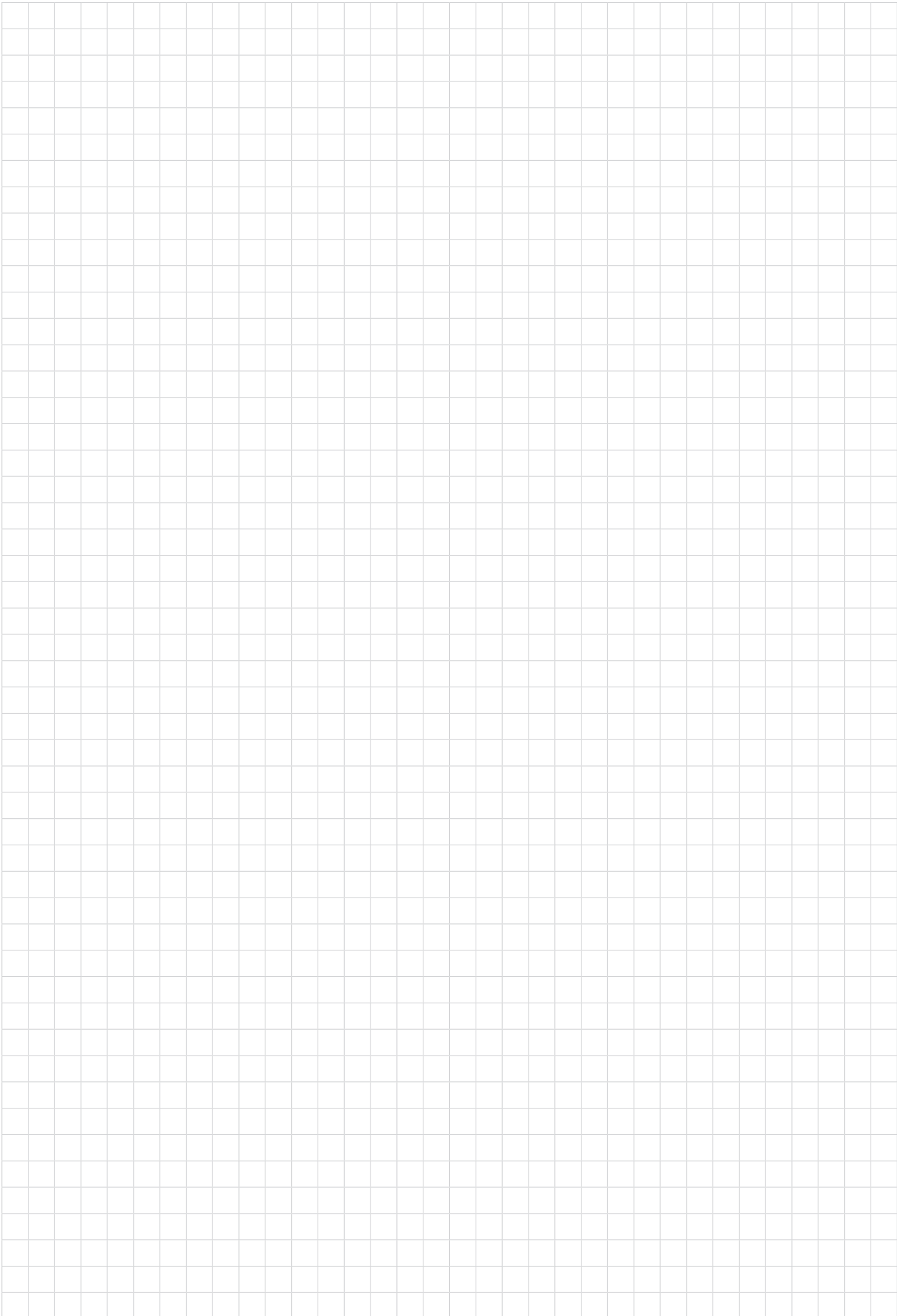


module / Modul / модул ms=

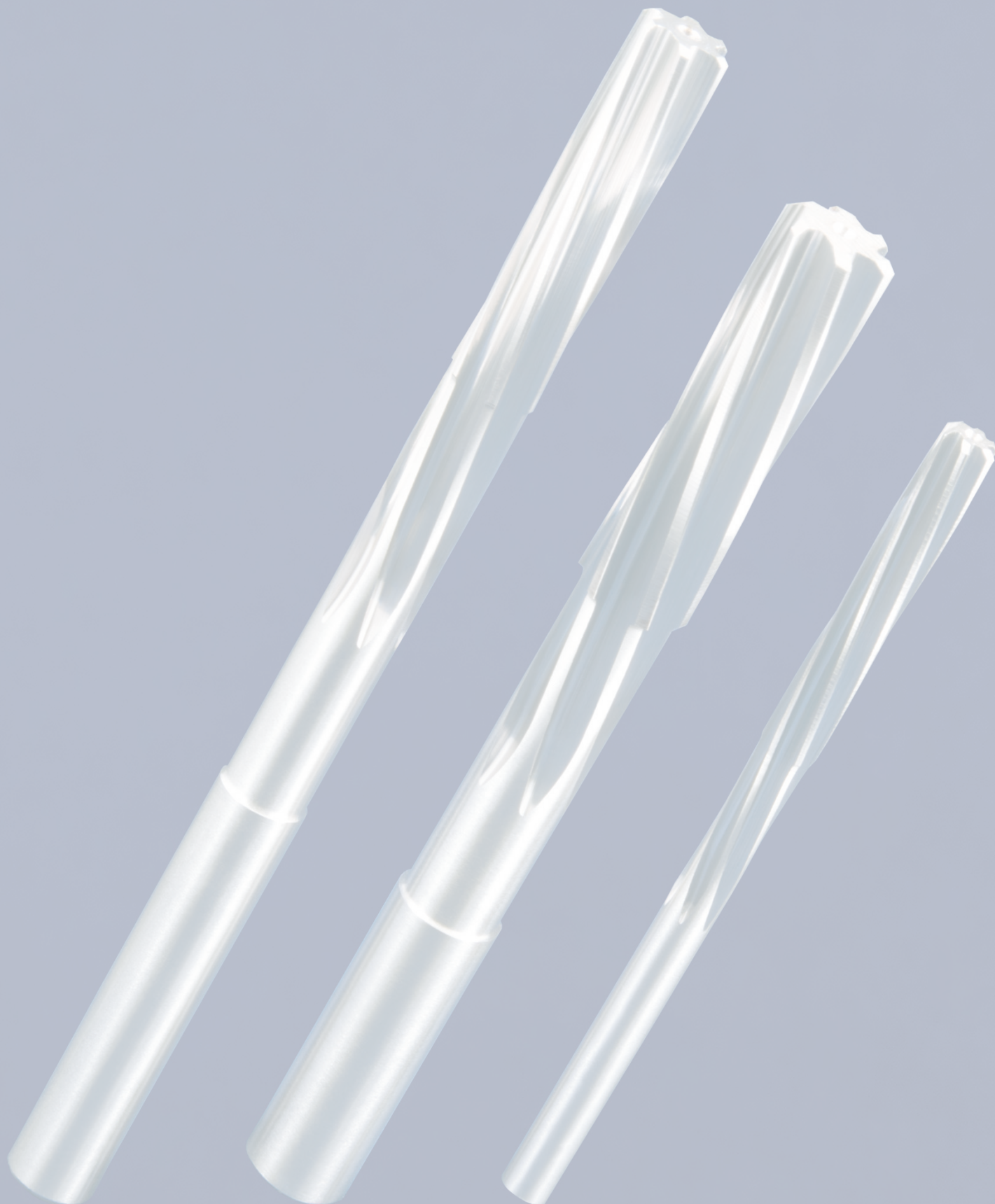
Nr. of teeth / Zähnezahl / брой зъби Zk =
Dk = , Dg k= , Dik =

Angle of teeth inclination
Zahnschrägungswinkel λ = (left, right) / (links, rechts) /
Ъгъл на наклона по зъбите (ляв, десен)

Centre distance of the gear
Spitzenabstand des Getriebes L =
Междучентрово разстояние на предавката



Machine Reamers
Maschinenreibahlen
Райбери машинни



CONTENTS
INHALTSVERZEICHNIS
СЪДЪРЖАНИЕ

<i>Machine Reamers</i> <i>Maschinenreibahlen</i> <i>Райбери машинни</i>	Page Seite Страница
Short type Kurze Ausführung Късо изпълнение	305
Type 100 mm Ausführung 100 mm Изпълнение 100 mm	306
Long type Lange Ausführung Дълго изпълнение	306
Machine Reamers DIN 212 Maschinenreibahlen DIN 212 Райбери машинни DIN 212	307
Technical data Technische Daten Технически данни	308

Our instruments are made of the following high speed steels:

Unsere Werkzeuge werden aus folgenden HSS-Stahlsorten gefertigt:

Нашите инструменти се изработват от следните бързорезни стомани:

HSS (1.3343, S6 - 5 - 2 DIN)

HSSE - Co 5% (1.3243, S6 - 5 - 2 - 5 DIN)

PM 30 - Co 8% (HS 6 - 5 - 3 - 8 DIN)

Machine reamers

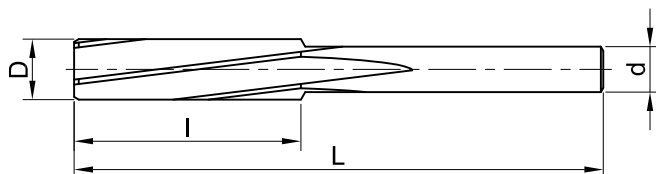
Steps of 5/1000mm
Tolerance $\pm 0.0015\text{mm}$
Cylindrical shank
Right-hand cutting
Left-hand twist
4 bits up to $\text{Ø } 2.05\text{mm}$,
6 bits for larger diameter

Maschinenreibahlen

Abstufung 5/1000mm
Toleranz $\pm 0.0015\text{mm}$
Zylinderschaft
Rechtsschneidend
Linksdrall
4 Schneiden bis $\text{Ø } 2.05\text{mm}$,
6 Schneiden bei größeren
Durchmesser

Машинни райбери

Стъпка от 5/1000мм
Допуск $\pm 0.0015\text{мм}$
Цилиндрична опашка
Дясно режещи
Лява спирала
4 режещи ръба до $\text{Ø } 2.05\text{мм}$,
6 режещи ръба при по-големи
диаметри



Short type Kurze Ausführung Късо изпълнение

D mm	L mm	l mm	d mm	Art. No. 6901*..
0.60 ÷ 0.89	38	15	1.0	00600 ÷ 00890
0.90 ÷ 1.05	38	16	1.1	00900 ÷ 01050
1.06 ÷ 1.15	38	16	1.2	01060 ÷ 01150
1.16 ÷ 1.25	38	16	1.3	01160 ÷ 01250
1.26 ÷ 1.35	38	16	1.4	01260 ÷ 01350
1.36 ÷ 1.60	42	16	1.4	01360 ÷ 01600
1.61 ÷ 1.70	42	16	1.5	01610 ÷ 01700
1.71 ÷ 1.80	42	16	1.6	01710 ÷ 01800
1.81 ÷ 1.90	42	16	1.7	01810 ÷ 01900
1.91 ÷ 2.05	48	20	1.8	01910 ÷ 02050
2.06 ÷ 2.45	48	20	2.0	02060 ÷ 02450
2.46 ÷ 2.65	48	20	2.3	02460 ÷ 02650
2.66 ÷ 2.94	54	23	2.5	02660 ÷ 02940
2.95 ÷ 3.25	54	23	2.8	02950 ÷ 03250
3.26 ÷ 3.75	60	24	3.0	03260 ÷ 03750
3.76 ÷ 3.94	60	24	3.5	03760 ÷ 03940
3.95 ÷ 4.45	70	28	3.5	03950 ÷ 04450
4.46 ÷ 4.95	70	28	4.0	04460 ÷ 04950
4.96 ÷ 5.45	80	33	4.5	04960 ÷ 05450
5.46 ÷ 6.05	80	33	5.0	05460 ÷ 06050

Ordering example: Machine reamers 6901 – 00600 HSS
Bestellbeispiel: Maschinenreibahlen 6901 – 00600 HSS
Начин на заявяване: Машинни райбери 6901 – 00600 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Machine reamers

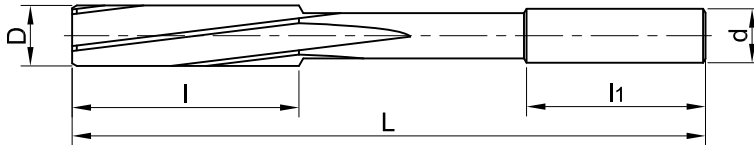
Steps of 5/1000mm
Tolerance $\pm 0.0015\text{mm}$
Cylindrical shank
Right-hand cutting
Left-hand twist
6 bits

Maschinenreibahlen

Abstufung 5/1000mm
Toleranz $\pm 0.0015\text{mm}$
Zylinderschaft
Rechtsschneidend
Linksdrall
6 Schneiden

Машинни райбери

Стъпка от 5/1000мм
Допуск $\pm 0.0015\text{мм}$
Цилиндрична опашка
Дясно режещи
Лява спирала
6 режещи ръба



Type 100 mm Ausführung 100 mm Изпълнение 100 mm

D mm	L mm	l mm	l1 mm	d mm	Art. No. 6902*..
5.98 ÷ 6.60	100	36	30	6.0	05980 ÷ 06600
6.61 ÷ 7.10				6.5	06610 ÷ 07100
7.11 ÷ 7.60				7.0	07110 ÷ 07600
7.61 ÷ 8.10				7.5	07610 ÷ 08100
8.11 ÷ 8.60				8.0	08110 ÷ 08600
8.61 ÷ 9.10				8.5	08610 ÷ 09100
9.11 ÷ 9.60				9.0	09110 ÷ 09600
9.61 ÷ 10.10				9.5	09610 ÷ 10100
10.11 ÷ 10.60				10.0	10110 ÷ 10600
10.61 ÷ 11.10				10.5	10610 ÷ 11100
11.11 ÷ 11.60				11.0	11110 ÷ 11600
11.61 ÷ 12.10				11.5	11610 ÷ 12100
12.11 ÷ 12.80				12.0	12110 ÷ 12800
12.81 ÷ 13.20				12.0	12810 ÷ 13200

Long type Lange Ausführung Дълго изпълнение

D mm	L mm	l mm	l1 mm	d mm	Art. No. 6903*..
11.66 ÷ 12.15	130	40	45	11.5	11660 ÷ 12150
12.16 ÷ 12.65	130	40	45	12.0	12160 ÷ 12650
12.66 ÷ 13.15	130	40	45	12.5	12660 ÷ 13150
13.16 ÷ 13.65	130	40	45	12.5	13160 ÷ 13650
13.66 ÷ 14.15	130	40	45	12.5	13660 ÷ 14150
14.16 ÷ 14.65	150	45	45	12.5	14160 ÷ 14650
14.66 ÷ 15.15	150	45	45	12.5	14660 ÷ 15150
15.16 ÷ 15.65	150	45	45	12.5	15160 ÷ 15650
15.66 ÷ 16.15	150	45	45	12.5	15660 ÷ 16150

Ordering example: Machine reamers 6902 – 05980 HSS
Bestellbeispiel: Maschinenreibahlen 6902 – 05980 HSS
Начин на заявяване: Машинни райбери 6902 – 05980 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Machine reamers

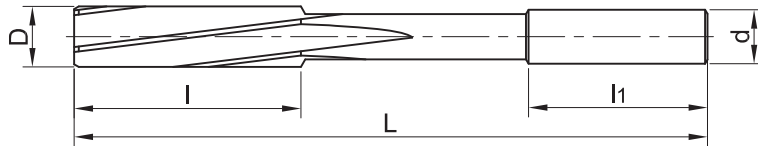
Cylindrical shank
Right-hand cutting
Left-hand twist
6 bits

Maschinenreibahlen

Zylinderschaft
Rechtsschneidend
Linksdrall
6 Schneiden

Машинни райбери

Цилиндрична опашка
Дясно режещи
Лява спирала
6 режещи ръба



DIN 212

	D mm		L mm	l mm	l1 mm	d mm	Art. No. 6904*..
	from über от	to bis до					
3.2	3	3.35	65	16	-	-	03000 ÷ 03350
3.5	3.35	3.75	70	18	-	-	03350 ÷ 03750
4	3.75	4.25	75	19	32	4	03750 ÷ 04250
4.5	4.25	4.75	80	21	33	4.5	04250 ÷ 04750
5	4.75	5.3	86	23	34	5	04750 ÷ 05300
5.5	5.3	6	93	26	36	5.6	05300 ÷ 06000
6	5.3	6	93	26	36	5.6	05300 ÷ 06000
6.5	6	6.7	101	28	38	6.3	06000 ÷ 06700
7	6.7	7.5	109	31	40	7.1	06700 ÷ 07500
8	7.5	8.5	117	33	42	8	07500 ÷ 08500
9	8.5	9.5	125	36	44	9	08500 ÷ 09500
10	9.5	10.6	133	38	46	10	09500 ÷ 10600
11	10.6	11.8	142	41	46	10	10600 ÷ 11800
12	11.8	13.2	151	44	46	10	11800 ÷ 13200
13	11.8	13.2	151	44	46	10	11800 ÷ 13200
14	13.2	14	160	47	50	12.5	13200 ÷ 14000
15	14	15	162	50	50	12.5	14000 ÷ 15000
16	15	16	170	52	50	12.5	15000 ÷ 16000

Ordering example: Machine reamers 6904 – 03000 HSS
Bestellbeispiel: Maschinenreibahlen 6904 – 03000 HSS
Начин на заявяване: Машинни райбери 6904 – 03000 HSS

Other sizes on demand
Andere Abmessungen auf Anfrage
Други размери - при запитване

Tolerances for machine reamers

Toleranzen für Maschinenreibahlen

Допуски за машинни райбери

Basic information for establishing the manufacturing tolerance of reamers:

The manufacturing tolerances given in the opposite table are grouped into tolerance fields in respect to the holes to be reamed.

They guarantee in general that the reamed hole is within the respective tolerance field and that the reamer can be used economically at the same time.

It is to be noted that the size of the reamed hole depends not only of the manufacturing tolerance of the reamer but also of other factors as:

- the angles on the bits
- the start of the cut of the reamer
- the workpiece clamping fixture
- the tool holder
- the condition of the machine
- the lubrication
- the materials quality of the workpiece in which a hole have to be reamed

Therefore special cases can arise, so that other manufacturing tolerances will be more favourable.

How to get the admissible max. and min. size of reamers:

The admissible max. size of the reamers ($\varnothing D$ max.) is around 15 % below the respective max. size of the hole tolerance. The admissible min. size of the reamers ($\varnothing D$ min.) is around 35 % of the hole tolerance below the admissible max. size of the reamer ($\varnothing D$ max.).

Example:

Reamer for hole $\varnothing 12 H7$
Tolerance of hole
12 H7 0 / +0.018
Max. size of hole = 12.018
15 % of 0.018 = 0.0027
Or approx. 0.003
Admissible max. size
($\varnothing D$ max.) of reamer = 12.015
35 % of 0.018 = 0.0063
or approx. 0.007
Admissible min. size
($\varnothing D$ min.) of reamer = 12.008

Grundsätzliches zur Festlegung der Herstellungstoleranz von Reibahlen:

Die in der nachstehenden Tabelle angegebenen Herstellungstoleranzen sind bestimmten Toleranzfeldern der zu reibenden Bohrungen zugeordnet.

Sie gewährleisten im allgemeinen, dass die geriebene Bohrung innerhalb des zugehörigen Toleranzfeldes liegt und dass gleichzeitig die Reibahle wirtschaftlich ausgenutzt werden kann.

Es ist jedoch zu berücksichtigen, dass die effektive Grösse der geriebenen Bohrung, ausser von der Herstellungstoleranz der Reibahle, noch von anderen Faktoren abhängt, wie zum Beispiel von:

- den Winkeln an der Schneide
- Anschnitt der Reibahle
- der Aufspannung des Werkstückes
- der Werkzeugaufnahme
- Zustand der Werkzeugmaschine
- der Schmierung
- dem Werkstoff des Werkstückes in dem gerieben wird.

Demzufolge können Sonderfälle auftreten, in denen andere Herstellungstoleranzen günstiger sind.

Ermittlung der zulässigen Größt- und Kleinmaße von Reibahlen:

Das zulässige Größtmaß der Reibahlen ($\varnothing D$ max.) liegt um 15 % unter dem jeweiligen Größtmaß der Bohrungstoleranz. Das zulässige Kleinmaß der Reibahlen ($\varnothing D$ min.) liegt um 35 % der Bohrungstoleranz unter dem zulässigen Größtmaß der Reibahle ($\varnothing D$ max.).

Beispiel:

Reibahle für Bohrung $\varnothing 12 H7$
Toleranz der Bohrung
12 H7 0 / +0.018
Größtmaß der Bohrung = 12.018
15 % von 0.018 = 0.0027
oder zirka 0.003
Zulässiges Größtmaß
($\varnothing D$ max.) der Reibahle = 12.015
35 % von 0.018 = 0.0063
oder zirka 0.007
Zulässiges Kleinmaß
($\varnothing D$ min.) der Reibahle = 12.008

Принципно определяне на производствените допуски на райберите:

Дадените в следващите таблици производствени допуски съответстват на определените допускови полета на отворите за райбероване.

Те гарантират въобще, че райберованият отвор е в съответното допусково поле и райберът може да бъде използван икономично.

Трябва да се има предвид, че ефективният размер на отвора освен от производствения допуск на райбера зависи и от други фактори, като:

- ъгъла на режещия ръб
- захващащия конус на райбера
- закрепването на детайла
- приспособлението за закрепване на детайла
- състоянието на машината
- смазването

- материала на райберования детайл
В тази връзка може да се появят особени случаи, при които са благоприятни други производствени допуски.

Определяне на най-големите и най-малките пределни размери на райбери:

Най-големият прилежащ диаметър ($\varnothing D$ max.) на райбера съответства на 15 % под горна граница от допуска на отвора .

Най-малкият диаметър ($\varnothing D$ min.) на райбера съответства на 35 % от допуска на отвора под $\varnothing D$ max. на райбера.

Пример:

Райбер за отвор $\varnothing 12 H7$
Допуск на отвора
12 H7 0 / +0.018
Най-голям размер на отвора = 12.018
15 % от 0.018 = 0.0027,
или приблизително 0.003
Най-голям пределен размер
($\varnothing D$ max.) на райбера = 12.015
35 % от 0.018 = 0.0063,
или приблизително 0.007
Най-малък пределен размер на райбера
($\varnothing D$ min.) = 12.008

over über над	to bis до	A9	A11	B8	B9	B10	B11	C8	C9	C10	C11	D8	D9	D10	D11	E7	E8	E9
0.7	3	+291 +282	+321 +300	+151 +146	+161 +152	+174 +160	+191 +170	+71 +66	+81 +72	+94 +80	+111 +90	+31 +26	+41 +32	+54 40	+71 50	+22 +18	+25 +20	+35 +26
3	6	+295 +284	+333 +306	+155 +148	+165 +154	+180 +163	+203 +176	+85 +78	+95 +84	+110 +93	+133 +106	+45 +38	+55 +44	+70 +53	+93 +66	+30 +25	+35 +28	+45 +34
6	10	+310 +297	+356 +324	+168 +160	+180 +167	+199 +178	+226 +194	+98 +90	+110 +97	+129 +108	+156 +124	+58 +50	+70 +57	+89 +68	+116 +84	+37 +31	+43 +35	+55 +42
10	18	+326 +310	+383 +344	+172 +162	+186 +170	+209 +184	+243 +204	+117 +107	+131 +115	+154 +129	+188 +149	+72 +62	+86 +70	+109 +84	+143 +104	+47 +40	+54 +44	+68 +52

over über над	to bis до	F6	F7	F8	F9	G6	G7	H6	H7	H8	H9	H10	H11	H12	J6	J7	J8
0.7	3	+11 +8	+14 +10	+17 +12	+27 +18	+7 +4	+10 +6	+5 +2	+8 +4	+11 +6	+21 +12	+34 +20	+51 +30	+85 +50	+1 -2	+3 -2	+3 -2
3	6	+16 +13	+20 +15	+25 +18	+35 +24	+10 +7	+14 +9	+6 +3	+10 +5	+15 +8	+25 +14	+40 +23	+63 +36	+102 +60	+3 0	+4 -1	+7 0
6	10	+20 +16	+25 +19	+31 +23	+43 +30	+12 +8	+17 +11	+7 +3	+12 +6	+18 +10	+30 +17	+49 +28	+76 +44	+127 +74	+3 -1	+5 1	+8 0
10	18	+25 +21	+31 +24	+38 +28	+52 +36	+15 +11	+21 +14	+9 +5	+15 +8	+22 +12	+36 +20	+59 +34	+93 +54	+153 +90	+4 0	+7 0	+10 0

over über над	to bis до	JS6	JS7	JS8	JS9	K6	K7	K8	M6	M7	M8	N6	N7	N8	N9	N10	N11
0.7	3	+2 -1	+3 -1	+4 -1	+8 -1	-1 -4	-2 -6	-3 -8	-3 -6	-4 -7	-4 -9	-5 -8	-6 -10	-7 -12	-8 -17	-10 -24	-13 -34
3	6	+2 -1	+4 -1	+6 -1	+10 -1	0 -3	+1 -4	+2 -5	-3 -6	-2 -7	-1 -8	-7 -10	-6 -11	-5 -12	-5 -16	-8 -25	-12 -39
6	10	+3 -1	+5 -1	+7 -1	+12 -1	0 -4	+2 -4	+2 -6	-5 -9	-3 -11	-3 -11	-9 -13	-7 -13	-7 -15	-6 -19	-9 -30	-14 -46
10	18	+3 -1	+6 -1	+9 -1	+15 -1	0 -4	+3 -4	+3 -7	-6 -10	-3 -10	-3 -13	-11 -15	-8 -15	-8 -18	-7 -23	-11 -36	-17 -56

over über над	to bis до	P6	P7	R6	R7	S6	S7	U6	U7	U10	X10	Z10
0.7	3	-7 -10	-8 -12	-11 -14	-12 -16	-15 -18	-16 -20	-19 -22	-20 -24	-24 -38		-32 -46
3	6	-11 -14	-10 -15	-14 -17	-13 -18	-18 -21	-17 -22	-22 -25	-21 -26	-31 -48		-43 -60
6	10	-14 -18	-12 -18	-18 -22	-16 -22	-22 -26	-20 -26	-27 -31	-25 -31	-37 -58		-51 -72
10	18	-17 -21	-14 -21	-22 -26	-19 -26	-27 -31	-24 -31	-32 -36	-29 -36	-43 -69	-56 -81	-61 -86

**Cutting speeds and
feed rates for HSS
machine reamers**
**Schnittgeschwindigkeiten
und Vorschübe für
Maschinenreibahlen aus HSS**
**Скорост на рязане
и подаване за машинни
райбери от HSS**

Material Werkstoff Материал	Reamer Reibahlen Райбер Ø mm	Cutting Speed Schnittgeschwindigkeit Скорост на рязане m/min	Feed Rate Vorschub Подаване mm/min ⁻¹	Reaming allowance OD based Reibzugabe auf Ø bezogen Прибавка за райбероване по Ø mm	Coolants and Lubricants Kühl- und Schmiermittel Мазане и охлаждане
Steel <700N/mm ² Steel casting <500 N/mm ² Stahl <700N/mm ² Stahlguss <500 N/mm ² Стомана <700N/mm ² Стоманена отливка <500 N/mm ²	< 5 5 ÷ 10 10 ÷ 20	8 ÷ 12	< 0.10 0.10 ÷ 0.15 0.15 ÷ 0.20	0.10 ÷ 0.20 0.20 0.20 ÷ 0.30	Emulsion / емулсия Cutting oil / Schneidöl / масло
Steel 800 ÷ 1100N/mm ² Steel casting <700 N/mm ² Stahl 800 ÷ 1100N/mm ² Stahlguss <700 N/mm ² Стомана 800 ÷ 1100N/mm ² Стоманена отливка <700 N/mm ²	< 5 5 ÷ 10 10 ÷ 20	4 ÷ 6	< 0.08 0.08 ÷ 0.10 0.10 ÷ 0.20	0.10 ÷ 0.20 0.20 0.20 ÷ 0.30	Cutting oil / Schneidöl / масло
Cast iron 100 ÷ 250 N/mm ² Grauguss 100 ÷ 250 N/mm ² Сив чугун 100 ÷ 250 N/mm ²	< 5 5 ÷ 10 10 ÷ 20	7 ÷ 10	< 0.15 0.15 ÷ 0.20 0.20 ÷ 0.30	0.10 ÷ 0.20 0.20 0.20 ÷ 0.30	dry / trocken / сухо Emulsion / емулсия
Cast iron 250 ÷ 450 N/mm ² Grauguss 250 ÷ 450 N/mm ² Сив чугун 250 ÷ 450 N/mm ²	< 5 5 ÷ 10 10 ÷ 20	4 ÷ 6	< 0.12 0.12 ÷ 0.17 0.17 ÷ 0.25	0.10 ÷ 0.20 0.20 0.20 ÷ 0.30	Emulsion / емулсия
Cooper Kupfer Мед	< 5 5 ÷ 10 10 ÷ 20	8 ÷ 16	< 0.15 0.15 ÷ 0.20 0.20 ÷ 0.30	0.10 ÷ 0.20 0.20 0.20 ÷ 0.30	Emulsion / емулсия
Brass, bronze Messing, bronze Месинг, бронз	< 5 5 ÷ 10 10 ÷ 20	10 ÷ 20	< 0.20 0.20 ÷ 0.30 0.30 ÷ 0.40	0.10 ÷ 0.20 0.20 0.20 ÷ 0.30	Emulsion / емулсия
Aluminium, alloys Aluminium, Legierungen Алуминий, сплави	< 5 5 ÷ 10 10 ÷ 20	15 ÷ 30	< 0.15 0.15 ÷ 0.20 0.20 ÷ 0.30	0.10 ÷ 0.20 0.20 ÷ 0.30 0.20 ÷ 0.40	Emulsion / емулсия
Plastic Kunststoff (Duroplaste) Пластмаса	< 5 5 ÷ 10 10 ÷ 20	4 ÷ 10	< 0.20 0.20 ÷ 0.30 0.30 ÷ 0.40	0.10 ÷ 0.20 0.20 ÷ 0.30 0.20 ÷ 0.30	Air / Luft / Въздух dry / trocken / сухо