Gewindebohrer
Taps

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			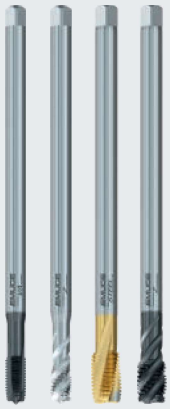		
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Rekord B-STEEL-L TIN

Rekord B-VA NT

Rekord B-VA TIN

Rekord B-VA GLT-1

Rekord B-Z PM-TIN-70

Rekord B-Z PM-GLT-1

Rekord B-Z-IKZN PM-TIN-70

Rekord B-Z-IKZN PM-GLT-1

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	6HX +0,1										
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	2B +0,05										
G (BSP)	„X“ +0,05										
	„X“ +0,1										
Rp (BSPP)	„X“ +0,05										

Enorm Z PM-GLT-1

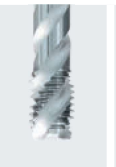
Enorm Z-IKZ PM-GLT-1

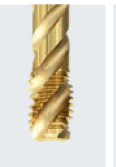
Enorm Z/E PM-GLT-1

Enorm Z/E-IKZ PM-GLT-1

Enorm Z

Enorm Z GLT-1


Enorm Z/E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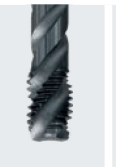
Enorm Z/E GLT-1

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						237		237	242	„X“ +0,05	G (BSP)
									242	„X“ +0,1	
									245	„X“ +0,05	Rp (BSPP)

IKZ

	Rekord A-GJV-IKZ PM-TICN	Rekord A-GJV/E-IKZ PM-TICN	HM-Rekord A-GJV-IKZ TICN	HM-Rekord A-GJV/E-IKZ TICN	Rekord A-GAL/E-IKZ TICN
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G (BSP)					

IKZ

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G (BSP)					

IKZ

	HM-Rekord A-H-IKZ	HM-Rekord A-H/E-IKZ	HM-Rekord A-HCUT/D-IKZ TICN	HM-Rekord A-HCUT/C-IKZ TICN	Rekord A-Z-IKZ TICN
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IKZ

	Rekord A-Z/E-IKZ TICN	Rekord D-Z-IKZ TIN	Rekord D-Z/E-IKZ TIN	Rekord D-Z-BF-IKZ TIN	Rekord D-Z/E-BF-IKZ TIN
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Enorm Z-IKZ PM-GLT-1	Enorm Z/E-IKZ PM-GLT-1	Enorm Z-IKZ	Enorm Z-IKZ GLT-1	Enorm Z/E-IKZ	IKZ
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					G (BSP)

Rekord A-GJV-IKZN PM-TICN	Rekord A-GJV/E-IKZN PM-TICN	Rekord A-GAL/E-IKZN TICN	Rekord A-H-IKZN TICN	Rekord A-Z-IKZN TICN	IKZN
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					G (BSP)

Rekord A-Z/E-IKZN TICN	Rekord B-Z-IKZN PM-TIN-70	Rekord B-Z-IKZN PM-GLT-1			IKZN
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181	181	181			MF
					G (BSP)

Einsatzempfehlungen und Schnittwerte

Bitte beachten:
Die in den jeweiligen Spalten angegebenen Schnittgeschwindigkeiten (v_c in m/min) sind Richtwerte, welche je nach Einsatzbedingungen (Material, Schmierung, Maschine, usw.) angepasst werden müssen.

Die empfohlenen Schnittgeschwindigkeiten sind bezogen auf einen Gewinde-Nenndurchmesser von 10 mm.

= DIN-Form / Gänge (Anschnittlänge)

Internationaler Werkstoffvergleich siehe Seite 764 - 785

Application recommendation and cutting data

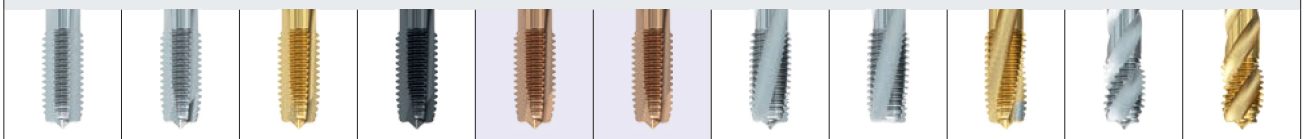
Please note:
The cutting speeds (v_c in m/min) listed in the respective columns are standard values which have to be adjusted to individual work conditions (material, lubrication, machine etc.).

The recommended cutting speeds are related to a nominal thread diameter of 10 mm.

= DIN form / threads (chamfer length)

International comparison of materials, see page 764 - 785

		Einsatzgebiete – Material Applications – material			Material-Beispiele Material examples	Material-Nummern Material numbers
P		**Stahlwerkstoffe**	**Steel materials**			
	1.1	Kaltfließpressstähle, Baustähle, Automatenstähle, u.a.	Cold-extrusion steels, Construction steels, Free-cutting steels, etc.	≤ 600 N/mm²	Cq15	1.1132
					S235JR (St37-2)	1.0037
					10SPb20	1.0722
	2.1	Baustähle, Einsatzstähle, Stahlguss, u.a.	Construction steels, Cementation steels, Steel castings, etc.	≤ 800 N/mm²	E360 (St70-2)	1.0070
					16MnCr5	1.7131
					GS-25CrMo4	1.7218
	3.1	Einsatzstähle, Vergütungsstähle, Kaltarbeitsstähle, u.a.	Cementation steels, Heat-treatable steels, Cold work steels, etc.	≤ 1000 N/mm²	20MoCr3	1.7320
					42CrMo4	1.7225
					102Cr6	1.2067
	4.1	Vergütungsstähle, Kaltarbeitsstähle, Nitrierstähle, u.a.	Heat-treatable steels, Cold work steels, Nitriding steels, etc.	≤ 1200 N/mm²	50CrMo4	1.7228
					X45NiCrMo4	1.2767
					31CrMo12	1.8515
	5.1	Hochlegierte Stähle, Kaltarbeitsstähle, Warmarbeitsstähle, u.a.	High-alloyed steels, Cold work steels, Hot work steels, etc.	≤ 1400 N/mm²	X38CrMoV5-3	1.2367
					X100CrMoV8-1-1	1.2990
					X40CrMoV5-1	1.2344
M		**Nichtrostende Stahlwerkstoffe**	**Stainless steel materials**			
	1.1	Ferritisch, martensitisch	Ferritic, martensitic	≤ 950 N/mm²	X2CrTi12	1.4512
	2.1	Austenitisch	Austenitic	≤ 950 N/mm²	X6CrNiMoTi17-12-2	1.4571
	3.1	Austenitisch-ferritisch (Duplex)	Austenitic-ferritic (Duplex)	≤ 1100 N/mm²	X2CrNiMoN22-5-3	1.4462
	4.1	Austenitisch-ferritisch hitzebeständig (Super Duplex)	Austenitic-ferritic heat-resistant (Super Duplex)	≤ 1250 N/mm²	X2CrNiMoN25-7-4	1.4410
K		**Gusswerkstoffe**	**Cast materials**			
	1.1	Gusseisen mit Lamellengrafit (GJL)	Cast iron with lamellar graphite (GJL)	100-250 N/mm²	EN-GJL-200 (GG20)	EN-JL-1030
	1.2			250-450 N/mm²	EN-GJL-300 (GG30)	EN-JL-1050
	2.1	Gusseisen mit Kugelgrafit (GJS)	Cast iron with nodular graphite (GJS)	350-500 N/mm²	EN-GJS-400-15 (GGG40)	EN-JS-1030
	2.2			500-900 N/mm²	EN-GJS-700-2 (GGG70)	EN-JS-1070
	3.1	Gusseisen mit Vermiculargrafit (GJV)	Cast iron with vermicular graphite (GJV)	300-400 N/mm²	GJV 300	
	3.2			400-500 N/mm²	GJV 450	
	4.1	Temperguss (GTMW, GTMB)	Malleable cast iron (GTMW, GTMB)	250-500 N/mm²	EN-GJMW-350-4 (GTW-35)	EN-JM-1010
	4.2			500-800 N/mm²	EN-GJMB-450-6 (GTS-45)	EN-JM-1140
N		**Nichteisenwerkstoffe**	**Non ferrous materials**			
		Aluminium-Legierungen	**Aluminium alloys**			
	1.1	Aluminium-Knetlegierungen	Aluminium wrought alloys	≤ 200 N/mm²	EN AW-AlMn1	EN AW-3103
	1.2			≤ 350 N/mm²	EN AW-AlMgSi	EN AW-6060
	1.3			≤ 550 N/mm²	EN AW-AlZn5Mg3Cu	EN AW-7022
	1.4	Aluminium-Gusslegierungen	Aluminium cast alloys	Si ≤ 7%	EN AC-AlMg5	EN AC-51300
	1.5			7% < Si ≤ 12%	EN AC-AlSi9Cu3	EN AC-46500
	1.6			12% < Si ≤ 17%	GD-AlSi17Cu4FeMg	
		Kupfer-Legierungen	**Copper alloys**			
	2.1	Reinkupfer, niedriglegiertes Kupfer	Pure copper, low-alloyed copper	≤ 400 N/mm²	E-Cu 57	EN CW 004 A
	2.2	Kupfer-Zink-Legierungen (Messing, langspanend)	Copper-zinc alloys (brass, long-chipping)	≤ 550 N/mm²	CuZn37 (Ms63)	EN CW 508 L
	2.3	Kupfer-Zink-Legierungen (Messing, kurzspanend)	Copper-zinc alloys (brass, short-chipping)	≤ 550 N/mm²	CuZn36Pb3 (Ms58)	EN CW 603 N
	2.4	Kupfer-Aluminium-Legierungen (Alubronze, langspanend)	Copper-aluminium alloys (alu bronze, long-chipping)	≤ 800 N/mm²	CuAl10Ni5Fe4	EN CW 307 G
	2.5	Kupfer-Zinn-Legierungen (Zinnbronze, langspanend)	Copper-tin alloys (tin bronze, long-chipping)	≤ 700 N/mm²	CuSn8P	EN CW 459 K
	2.6	Kupfer-Zinn-Legierungen (Zinnbronze, kurzspanend)	Copper-tin alloys (tin bronze, short-chipping)	≤ 400 N/mm²	CuSn7 ZnPb (Rg7)	2.1090
	2.7	Kupfer-Sonderlegierungen	Special copper alloys	≤ 600 N/mm²	(AMPCO® 8)	
	2.8			≤ 1400 N/mm²	(AMPCO® 45)	
		Magnesium-Legierungen	**Magnesium alloys**			
	3.1	Magnesium-Knetlegierungen	Magnesium wrought alloys	≤ 500 N/mm²	MgAl6Zn	3.5612
	3.2	Magnesium-Gusslegierungen	Magnesium cast alloys	≤ 500 N/mm²	EN-MCMgAl9Zn1	EN-MC21120
		Kunststoffe	**Synthetics**			
	4.1	Duroplaste (kurzspanend)	Duroplastics (short-chipping)		Bakelit, Pertinax	
	4.2	Thermoplaste (langspanend)	Thermoplastics (long-chipping)		PMMA, POM, PVC	
	4.3	Faserverstärkte Kunststoffe (Faseranteil ≤ 30%)	Fibre-reinforced synthetics (fibre content ≤ 30%)		GFK, CFK, AFK	
	4.4	Faserverstärkte Kunststoffe (Faseranteil > 30%)	Fibre-reinforced synthetics (fibre content > 30%)		GFK, CFK, AFK	
		Besondere Werkstoffe	**Special materials**			
	5.1	Grafit	Graphite		C 8000	
	5.2	Wolfram-Kupfer-Legierungen	Tungsten-copper alloys		W-Cu 80/20	
	5.3	Verbundwerkstoffe	Composite materials		Hylite, Alucobond	
S		**Spezialwerkstoffe**	**Special materials**			
		Titan-Legierungen	**Titanium alloys**			
	1.1	Reintitan	Pure titanium	≤ 450 N/mm²	Ti1	3.7025
	1.2	Titan-Legierungen	Titanium alloys	≤ 900 N/mm²	TiAl6V4	3.7165
	1.3			≤ 1250 N/mm²	TiAl4Mo4Sn2	3.7185
		Nickel-, Kobalt- und Eisen-Legierungen	**Nickel alloys, cobalt alloys and iron alloys**			
	2.1	Reinnickel	Pure nickel	≤ 600 N/mm²	Ni 99,6	2.4060
	2.2	Nickel-Basis-Legierungen	Nickel-base alloys	≤ 1000 N/mm²	Monel 400	2.4360
	2.3			≤ 1600 N/mm²	Inconel 718	2.4668
	2.4	Kobalt-Basis-Legierungen	Cobalt-base alloys	≤ 1000 N/mm²	Udimet 605	
	2.5			≤ 1600 N/mm²	Haynes 25	2.4964
	2.6	Eisen-Basis-Legierungen	Iron-base alloys	≤ 1500 N/mm²	Incoloy 800	1.4958
H		**Harte Werkstoffe**	**Hard materials**			
	1.1	Hochfeste Stähle, gehärtete Stähle, Hartguss	High strength steels, hardened steels, hard castings	44 - 50 HRC	Weldox 1100	
	1.2			50 - 55 HRC	Hardox 550	
	1.3			55 - 60 HRC	Armox 600T	
	1.4			60 - 63 HRC	Ferro-Titanit	
	1.5			63 - 66 HRC	HSSE	



Rekord A-STEEL	Rekord B-STEEL-L	Rekord B-STEEL-L TIN	Rekord B-STEEL-L GLT-1	Rekord B-STEEL-H PM-ALCR-102	Rekord B-STEEL-H PM-ALCR-101	Rekord D-STEEL	Rekord D-STEEL/E	Rekord DF-STEEL TIN	Enorm STEEL	Enorm STEEL TIN	
C / 2-3	B / 4-5	B / 4-5	B / 4-5	B ≈6	B ≈6	C / 2-3	E / 1,5-2	C / 2-3	C / 2-3	C / 2-3	
max. 2 x d_1	max. 3 x d_1					max. 2 x d_1			max. 2,5 x d_1		Gewindetiefe und Lochform Thread depth and hole type
92,120,150	92,117,120,143,150	92,120	92	94,122	94,122	94,122,150	94,117,122,143	95,117,123,143	95,123	95,123	M
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											NPT, NPTF, Rc
											W
270,271									267		BSW, BSF
273											Pg
											MJ
											UNJC, UNJF
											EG (STI)
											LK-M
											Tr, Tr-F, Rd

min. **empf.** max. rec.	min. **empf.** max. rec.	min. **empf.** max. rec.	min. **empf.** max. rec.	min. **empf.** max. rec.	min. **empf.** max. rec.	min. **empf.** max. rec.	min. **empf.** max. rec.	min. **empf.** max. rec.	min. **empf.** max. rec.	min. **empf.** max. rec.	vc [m/min]	
	5 **15** 25	15 **25** 45	15 **25** 45						5 **15** 25	15 **25** 45	1.1	P
	5 **10** 20	10 **20** 40	10 **20** 40			5 **10** 20	5 **10** 20		5 **10** 20	10 **20** 40	2.1	
	2 **8** 15	5 **15** 25	5 **15** 25	15 **35** 45	15 **35** 45	2 **8** 15	2 **8** 15	5 **15** 20	2 **8** 15	5 **15** 25	3.1	
		5 **10** 15	5 **10** 15	15 **35** 45	15 **35** 45			5 **10** 15			4.1	
				5 **10** 15	5 **10** 15						5.1	
											1.1	M
											2.1	
											3.1	
											4.1	
5 **15** 25											1.1	K
5 **15** 25											1.2	
5 **10** 20											2.1	
5 **10** 20											2.2	
5 **10** 20											3.1	
5 **10** 20											3.2	
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											1.3	
											1.4	
											1.5	
											1.6	
											2.1	
	10 **20** 40								10 **20** 40	10 **25** 40	2.2	
10 **20** 40											2.3	
											2.4	
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											1.5	

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vc in m/min

EMUGE VA — EMUGE INOX

	Rekord B-VA NT	Rekord B-VA TIN	Rekord B-VA GLT-1	Enorm VA	Robust 2X-VA NE2	Robust 2X-VA TIN	Robust 2ST-VA NE2	Robust 2ST-VA TIN	Enorm INOX GLT-201
	B / 4-5	B / 4-5	B / 4-5	C / 2-3	C / 2-3	C / 2-3	C / 2-3	C / 2-3	C / 2-3
Gewindetiefe und Lochform Thread depth and hole type		max. 3 x d_1		max. 2,5 x d_1		max. 1,5 x d_1			max. 2,5 x d_1
M	95,118,123,144,151	95,123	95,118,123,144	97,118,125,144	148	148	149	149	98,126
MF	174	163,174	163,174	175	190	190	192	192	175
UNC	205,209	205,209	205,209	205,209					205,209
UNF	217,221	217,221	217,221	217,221					217,221
UNEF, UN-8		228	229						
G, Rp	233	233	233	234					234
NPSM, NPSF									
NPT, NPTF, Rc									
W									
BSW, BSF			266,267						
Pg									
MJ									
UNJC, UNJF									
EG (STI)			280-289						
LK-M			290,292						
Tr, Tr-F, Rd									

		v_c [m/min]	min.	empf. rec.	max.	min.	empf. rec.	max.	min.	empf. rec.	max.	min.	empf. rec.	max.	min.	empf. rec.	max.	min.	empf. rec.	max.	min.	empf. rec.	max.
P	1.1					15	**25**	45	15	**25**	45	5	**15**	25	2	**3**	8	2	**3**	8	2	**3**	8	
	2.1		5	**10**	20	10	**20**	40	10	**20**	40	5	**10**	20	2	**3**	6	2	**3**	6	2	**3**	6	
	3.1		2	**8**	15	5	**15**	25	5	**15**	25	2	**8**	15	1	**3**	6	1	**3**	6	1	**3**	6	
	4.1					5	**10**	15	5	**10**	15													
	5.1																							
M	1.1								5	**8**	12										5	**8**	12
	2.1								2	**5**	8										2	**5**	8
	3.1								2	**5**	8												
	4.1								2	**5**	8												
K	1.1														2	**5**	10	2	**5**	10	2	**5**	10	
	1.2														2	**5**	10	2	**5**	10	2	**5**	10	
	2.1														2	**3**	8	2	**3**	8	2	**3**	8	
	2.2														2	**3**	8	2	**3**	8	2	**3**	8	
	3.1														2	**3**	8	2	**3**	8	2	**3**	8	
	3.2														2	**3**	8	2	**3**	8	2	**3**	8	
	4.1														2	**5**	10	2	**5**	10	2	**5**	10	
	4.2														2	**5**	10	2	**5**	10	2	**5**	10	
N	1.1																							
	1.2																							
	1.3																							
	1.4																							
	1.5																							
	1.6																							
	2.1																							
	2.2		10	**20**	40				10	**25**	40													
	2.3																							
	2.4																							
	2.5		2	**5**	10																			
	2.6																							
	2.7																							
	2.8																							
	3.1																							
	3.2																							
	4.1																							
	4.2																							
	4.3																							
	4.4																							
	5.1																							
	5.2																							
	5.3																							
S	1.1																							
	1.2																							
	1.3																							
	2.1																							
	2.2																							
	2.3																							
	2.4																							
	2.5																							
	2.6																							
H	1.1																							
	1.2																							
	1.3																							
	1.4																							
	1.5																							

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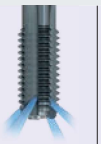
EMUGE GG		EMUGE GJV								EMUGE AL	
											
Rekord A-GG NT	**Rekord A-GG TICN**	**Rekord A-GJV PM-TICN**	**Rekord A-GJV-IKZ PM-TICN**	**Rekord A-GJV-IKZN PM-TICN**	**Rekord A-GJV/E PM-TICN**	**Rekord A-GJV/E-IKZ PM-TICN**	**Rekord A-GJV/E-IKZN PM-TICN**	**HM-Rekord A-GJV-IKZ TICN**	**HM-Rekord A-GJV/E-IKZ TICN**	**Rekord B-AL**	
C / 2-3	C / 2-3	C / 2-3	C / 2-3	C / 2-3	E / 1,5-2	E / 1,5-2	E / 1,5-2	C / 2-3	E / 1,5-2	B / ≈3	
max. 2 x d_1		max. 2 x d_1	max. 2 x d_1 [1]	max. 2 x d_1	max. 2 x d_1	max. 2 x d_1 [1]	max. 2 x d_1	max. 2 x d_1 [1]		max. 3 x d_1	Gewindetiefe und Lochform Thread depth and hole type
98,126 176	98,126 176	99,127 176	99,127 177	99,127 177	99,127 177	99,127 177	99,127 177	99,127 177	99,127 177	100,128	**M** **MF**
											UNC **UNF**
											UNEF, UN-8
											G, Rp
											NPSM, NPSF
											NPT, NPTF, Rc
											W
											BSW, BSF
											Pg
											MJ
											UNJC, UNJF
290,292										280	**EG (STI)**
											LK-M
											Tr, Tr-F, Rd
min. **empf.** max.	min. **empf.** max.	min. **empf.** max.	min. **empf.** max.	min. **empf.** max.	min. **empf.** max.	min. **empf.** max.	min. **empf.** max.	min. **empf.** max.	min. **empf.** max.	min. **empf.** max.	v_c [m/min]
											1.1
											2.1
											3.1 **P**
											4.1
											5.1
											1.1
											2.1 **M**
											3.1
											4.1
10 **15** 25	15 **30** 45	15 **45** 60	15 **45** 60	15 **45** 60	15 **45** 60	15 **45** 60	15 **45** 60	40 **60** 80	40 **60** 80		1.1
10 **15** 20	10 **25** 40	10 **40** 60	10 **40** 60	10 **40** 60	10 **40** 60	10 **40** 60	10 **40** 60	30 **45** 60	30 **45** 60		1.2
		10 **30** 60	10 **30** 60	10 **30** 60	10 **30** 60	10 **30** 60	10 **30** 60	30 **45** 60	30 **45** 60		2.1
		10 **20** 40	10 **20** 40	10 **20** 40	10 **20** 40	10 **20** 40	10 **20** 40	10 **20** 40	10 **20** 40		2.2 **K**
		10 **30** 60	10 **30** 60	10 **30** 60	10 **30** 60	10 **30** 60	10 **30** 60	20 **30** 40	20 **30** 40		3.1
		10 **30** 60	10 **30** 60	10 **30** 60	10 **30** 60	10 **30** 60	10 **30** 60	20 **30** 40	20 **30** 40		3.2
		15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	40 **60** 80	40 **60** 80		4.1
		15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	30 **45** 60	30 **45** 60		4.2
											1.1
											1.2
											1.3
										5 **15** 25	1.4
											1.5
											1.6
											2.1
											2.2
											2.3
											2.4
											2.5
											2.6 **N**
											2.7
											2.8
											3.1
											3.2
											4.1
											4.2
											4.3
											4.4
											5.1
											5.2
											5.3
											1.1
											1.2
											1.3
											2.1
											2.2
											2.3
											2.4
											2.5
											2.6 **S**
											1.1
											1.2
											1.3
											1.4 **H**
											1.5

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[1] Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

		EMUGE AL				EMUGE GAL				EMUGE MG	EMUGE FK	
		Rekord B-AL GLT-104	**Enorm AL**	**Enorm AL GLT-104**	**Enorm AL/E GLT-104**	**Rekord A-GAL/E-IKZ TICN**	**Rekord A-GAL/E-IKZN TICN**	**Rekord D-GAL/E-IKZ TICN**	**HM-Rekord D-GAL/E-IKZ TICN**	**Rekord A-MG GLT-1**	**Rekord A-FK NT**	**HM-Rekord A-FK-IKZ**
		B / ≈3	C / 2-3	C / 2-3	E / 1,5-2	E / 1,5-2	E / 1,5-2	E / 1,5-2	E / 1,5-2	C / 2-3	C / 2-3	C / 2-3
	Gewindetiefe und Lochform Thread depth and hole type	max. 3 x d_1		max. 2,5 x d_1		max. 2 x d_1 1)	max. 2 x d_1	max. 2 x d_1		max. 2 x d_1	max. 2 x d_1	max. 2 x d_1 1)
	M	100,128	100,128	100,128	101	101	101	101	101	101	102	102
	MF		178									
	UNC											
	UNF											
	UNEF, UN-8											
	G, Rp											
	NPSM, NPSF											
	NPT, NPTF, Rc											
	W											
	BSW, BSF											
	Pg											
	MJ			274								
	UNJC, UNJF			276,278								
	EG (STI)	280		281,282,284,287								
	LK-M			291								
	Tr, Tr-F, Rd											
	v_c [m/min]	min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.
P	1.1											
	2.1											
	3.1											
	4.1											
	5.1											
M	1.1											
	2.1											
	3.1											
	4.1											
K	1.1											40 **60** 80
	1.2											30 **45** 60
	2.1											30 **45** 60
	2.2											10 **20** 40
	3.1											20 **30** 40
	3.2											20 **30** 40
	4.1											40 **60** 80
	4.2											30 **45** 60
N	1.1	15 **25** 40		15 **25** 40	15 **25** 40							
	1.2	15 **25** 40		15 **25** 40	15 **25** 40							
	1.3	15 **25** 40		15 **25** 40	15 **25** 40							
	1.4	15 **25** 40	5 **15** 25	15 **25** 40	15 **25** 40			15 **30** 45	20 **40** 80			
	1.5					30 **50** 80	30 **50** 80	30 **50** 80	40 **70** 100			20 **40** 60
	1.6					10 **20** 30	10 **20** 30	10 **20** 30	20 **30** 40			20 **30** 40
	2.1	5 **15** 30		5 **15** 30	5 **15** 30							
	2.2											
	2.3											
	2.4											
	2.5											
	2.6											10 **20** 30
	2.7											5 **10** 15
	2.8											1 **5** 8
	3.1									20 **40** 60		
	3.2									20 **40** 60		
	4.1										5 **10** 25	20 **40** 60
	4.2											
	4.3										2 **7** 10	10 **15** 25
	4.4											5 **10** 15
	5.1											20 **40** 60
	5.2											5 **10** 20
	5.3											
S	1.1											
	1.2											
	1.3											
	2.1											
	2.2											
	2.3											
	2.4											
	2.5											
	2.6											
H	1.1											
	1.2											
	1.3											
	1.4											
	1.5											

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Rekord D-PVC/E CRN	Rekord A-MS	Rekord C-TI NT2	Rekord C-TI TICN	Rekord D-TI NT2	Rekord D-TI TICN	Rekord DF-TILEG TICN	Rekord C-NI PM-TICN	Rekord DF-NI PM-TICN	Rekord A-H NT	Rekord A-H TICN	
E / 1,5-2	C / 2-3	D / 4-5	D / 4-5	C / 2-3	C / 2-3	C / 2-3	D / 4-5	C / 2-3	C / 2-3	C / 2-3	
max. 2 x d_1	max. 2 x d_1	max. 3 x d_1		max. 2 x d_1		max. 2 x d_1	max. 3 x d_1	max. 2 x d_1	max. 2 x d_1		Gewindetiefe und Lochform Thread depth and hole type
102	103,151	103,129	103,129	103,129	103,129	103	104,129	104,129	104,119,130,145	105,130	M
									163,178	178	MF
									205,209		UNC
									217,221		UNF
											UNEF, UN-8
									235	235	G, Rp
											NPSM, NPSF
											NPT, NPTF, Rc
	264										W
											BSW, BSF
									273		Pg
			274		274		275	275			MJ
			276,278		276,278		277,279	277,279			UNJC, UNJF
											EG (STI)
											LK-M
											Tr, Tr-F, Rd

min. empf. rec. max.	min. empf. rec. max.	min. empf. rec. max.	min. empf. rec. max.	min. empf. rec. max.	min. empf. rec. max.	min. empf. rec. max.	min. empf. rec. max.	min. empf. rec. max.	min. empf. rec. max.	min. empf. rec. max.	v_c [m/min]	
											1.1	P
											2.1	
											3.1	
		2 **5** 10	5 **10** 15	2 **5** 10	5 **10** 15						4.1	
		1 **3** 5	2 **5** 10	1 **3** 5	2 **5** 10						5.1	
											1.1	M
											2.1	
		1 **4** 8	2 **5** 8	1 **4** 8	2 **5** 8						3.1	
		1 **3** 5	2 **5** 8	1 **3** 5	2 **5** 8						4.1	
									10 **15** 25	15 **30** 45	1.1	K
									10 **15** 25	15 **30** 45	1.2	
									10 **15** 25	15 **30** 45	2.1	
									5 **10** 15	10 **20** 40	2.2	
									5 **10** 15	15 **30** 45	3.1	
									5 **10** 15	15 **30** 45	3.2	
									10 **15** 25	10 **20** 30	4.1	
									10 **15** 25	10 **20** 30	4.2	
											1.1	N
											1.2	
											1.3	
											1.4	
										30 **50** 80	1.5	
										10 **20** 30	1.6	
											2.1	
											2.2	
	10 **25** 40										2.3	
		2 **5** 10	5 **15** 25	2 **5** 10	5 **15** 25						2.4	
		2 **5** 10	5 **15** 25	2 **5** 10	5 **15** 25						2.5	
										10 **20** 30	2.6	
		1 **3** 5	2 **5** 10	1 **3** 5	2 **5** 10						2.7	
							1 **3** 5	1 **3** 5			2.8	
											3.1	
											3.2	
									5 **10** 25	10 **20** 40	4.1	
10 **20** 40											4.2	
											4.3	
											4.4	
										10 **25** 40	5.1	
											5.2	
											5.3	
		2 **5** 10	1 **5** 7	2 **5** 10	1 **5** 7						1.1	S
		1 **4** 8	1 **3** 5	1 **4** 8	1 **3** 5	1 **4** 8					1.2	
		1 **3** 5	1 **4** 8	1 **3** 5	1 **4** 8	1 **3** 5					1.3	
		1 **3** 5	1 **3** 5	1 **3** 5	1 **3** 5						2.1	
		1 **3** 5	1 **3** 5	1 **3** 5	1 **3** 5						2.2	
							1 **4** 8	1 **4** 8			2.3	
		1 **3** 5	1 **3** 5	1 **3** 5	1 **3** 5						2.4	
							1 **4** 8	1 **4** 8			2.5	
							1 **4** 8	1 **4** 8			2.6	
											1.1	H
											1.2	
											1.3	
											1.4	
											1.5	

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1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

		EMUGE H					EMUGE HCUT					EMUGE Z
		Rekord A-H-IKZ NT	Rekord A-H-IKZ TICN	Rekord A-H-IKZN TICN	HM-Rekord A-H-IKZ	HM-Rekord A-H/E-IKZ	Rekord A-HCUT PM-TICN	HM-Rekord A-HCUT/D TICN	HM-Rekord A-HCUT/D-IKZ TICN	HM-Rekord A-HCUT/C TICN	HM-Rekord A-HCUT/C-IKZ TICN	Rekord A-Z TICN
		C / 2-3	C / 2-3	C / 2-3	C / 2-3	E / 1,5-2	C / 2-3	D / 4-5	D / 4-5	C / 2-3	C / 2-3	C / 2-3
Gewindetiefe und Lochform Thread depth and hole type		max. 2 x d_1 1)	max. 2 x d_1	max. 2 x d_1	max. 2 x d_1 1)		max. 1,5 x d_1		max. 1,5 x d_1 1)	max. 1,5 x d_1		max. 2 x d_1
M		105,130	105,130	105,131	105,131		105,131	106	132	106	132	107,133
MF		179	179	179	163,179		164,179	165		165		180
UNC												
UNF												
UNEF, UN-8												
G, Rp						235	230,235	231		231		
NPSM, NPSF												
NPT, NPTF, Rc												
W												
BSW, BSF												
Pg												
MJ												
UNJC, UNJF												
EG (STI)												
LK-M												
Tr, Tr-F, Rd												
v_c [m/min]		min. **empf.** rec. max.	min. **empf.** rec. max.	min. **empf.** rec. max.	min. **empf.** rec. max.	min. **empf.** rec. max.	min. **empf.** rec. max.	min. **empf.** rec. max.	min. **empf.** rec. max.	min. **empf.** rec. max.	min. **empf.** rec. max.	min. **empf.** rec. max.
P	1.1											
	2.1											
	3.1											
	4.1											
	5.1											
M	1.1											
	2.1											
	3.1											
	4.1											
K	1.1	10 **15** 25	15 **30** 45	15 **30** 45	40 **60** 80	40 **60** 80						15 **30** 45
	1.2	10 **15** 25	15 **30** 45	15 **30** 45	30 **45** 60	30 **45** 60						15 **30** 45
	2.1	10 **15** 25	15 **30** 45	15 **30** 45	30 **45** 60	30 **45** 60						15 **30** 45
	2.2	5 **10** 15	10 **20** 40	10 **20** 40	10 **20** 40	10 **20** 40						10 **20** 40
	3.1	5 **10** 15	15 **30** 45	15 **30** 45	20 **30** 40	20 **30** 40						15 **30** 45
	3.2	5 **10** 15	15 **30** 45	15 **30** 45	20 **30** 40	20 **30** 40						15 **30** 45
	4.1	10 **15** 25	10 **20** 30	10 **20** 30	40 **60** 80	40 **60** 80						10 **20** 30
	4.2	10 **15** 25	10 **20** 30	10 **20** 30	30 **45** 60	30 **45** 60						10 **20** 30
N	1.1											
	1.2											
	1.3											
	1.4											
	1.5		30 **50** 80	30 **50** 80	20 **40** 60	20 **40** 60						30 **50** 80
	1.6		10 **20** 30	10 **20** 30	20 **30** 40	20 **30** 40						10 **20** 30
	2.1											
	2.2											
	2.3											
	2.4											
	2.5											
	2.6		10 **20** 30	10 **20** 30	10 **20** 30	10 **20** 30						10 **20** 30
	2.7				5 **10** 15	5 **10** 15						
	2.8				1 **5** 8	1 **5** 8						
	3.1											
	3.2											
	4.1	5 **10** 25	10 **20** 40	10 **20** 40	20 **40** 60	20 **40** 60						10 **20** 40
	4.2											
	4.3				10 **15** 25	10 **15** 25						
	4.4				5 **10** 15	5 **10** 15						
	5.1		10 **25** 40	10 **25** 40	20 **40** 60	20 **40** 60						
	5.2				5 **10** 20	5 **10** 20						
	5.3											
S	1.1											
	1.2											
	1.3											
	2.1											
	2.2											
	2.3											
	2.4											
	2.5											
	2.6											
H	1.1						1 **3** 5					
	1.2						1 **2** 3					
	1.3							1 **2** 3	1 **2** 3	1 **2** 3	1 **2** 3	
	1.4							1 **1,5** 2	1 **1,5** 2	1 **1,5** 2	1 **1,5** 2	
	1.5											

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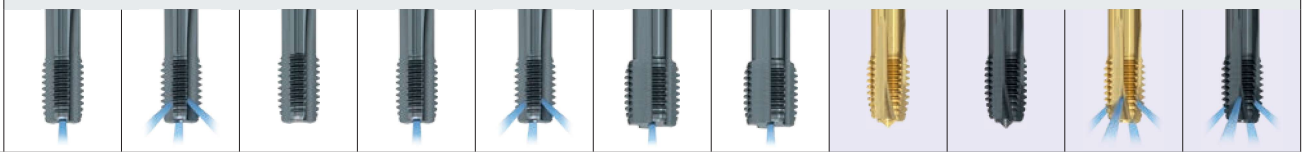

Rekord A-Z-IKZ TICN	Rekord A-Z-IKZN TICN	Rekord A-Z/E TICN	Rekord A-Z/E-IKZ TICN	Rekord A-Z/E-IKZN TICN	Rekord A-Z-IKZ-LF3 TICN	Rekord A-Z-IKZ-LF4 TICN	Rekord B-Z PM-TIN-70	Rekord B-Z PM-GLT-1	Rekord B-Z-IKZN PM-TIN-70	Rekord B-Z-IKZN PM-GLT-1	
C / 2-3	C / 2-3	E / 1,5-2	E / 1,5-2	E / 1,5-2	C / 2-3	C / 2-3	B / 4-5	B / 4-5	B / 4-5	B / 4-5	
max. 2 x d_1 [1]	max. 2 x d_1	max. 2 x d_1	max. 2 x d_1 [1]	max. 2 x d_1	max. 3 x d_1 [1]	max. 4 x d_1 [1]	max. 3 x d_1				Gewindetiefe und Lochform Thread depth and hole type
107,133 180	107,133 180	107,133 180	108,134 181	108,134 181	146 188	147 189	108,134 166,181	108,134 166,181	109,135 181	109,135 181	M MF
											UNC UNF
											UNEF, UN-8 G, Rp
											NPSM, NPSF NPT, NPTF, Rc
											W BSW, BSF
											Pg MJ
											UNJC, UNJF EG (STI)
											LK-M Tr, Tr-F, Rd

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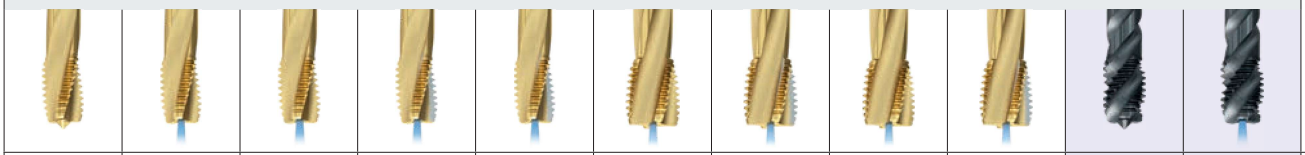
min. empf. rec. max.	min. empf. rec. max.	min. empf. rec. max.	min. empf. rec. max.	min. empf. rec. max.	min. empf. rec. max.	min. empf. rec. max.	min. empf. rec. max.	min. empf. rec. max.	min. empf. rec. max.	min. empf. rec. max.	v_c [m/min]	
								15 **25** 45		15 **25** 45	1.1	
							10 **20** 40	10 **20** 40	10 **20** 40	10 **20** 40	2.1	
					5 **15** 25	5 **15** 25	5 **15** 25	5 **15** 25	5 **15** 25	5 **15** 25	3.1	P
					5 **10** 15	5 **10** 15	5 **10** 15	5 **10** 15	5 **10** 15	5 **10** 15	4.1	
							2 **8** 10	2 **8** 10	2 **8** 10	2 **8** 10	5.1	
								5 **8** 12		5 **8** 12	1.1	
								5 **8** 12		5 **8** 12	2.1	M
								2 **5** 8		2 **5** 8	3.1	
								2 **5** 8		2 **5** 8	4.1	
15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45		5 **15** 25		5 **15** 25	1.1	
15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45		5 **15** 25		5 **15** 25	1.2	
15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45		5 **10** 20		5 **10** 20	2.1	
10 **20** 40	10 **20** 40	10 **20** 40	10 **20** 40	10 **20** 40	10 **20** 40	10 **20** 40		5 **10** 20		5 **10** 20	2.2	K
15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45		5 **10** 20		5 **10** 20	3.1	
15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45	15 **30** 45		5 **10** 20		5 **10** 20	3.2	
10 **20** 30	10 **20** 30	10 **20** 30	10 **20** 30	10 **20** 30	10 **20** 30	10 **20** 30					4.1	
10 **20** 30	10 **20** 30	10 **20** 30	10 **20** 30	10 **20** 30	10 **20** 30	10 **20** 30					4.2	
											1.1	
											1.2	
											1.3	
								15 **30** 40		15 **30** 40	1.4	
30 **50** 80	30 **50** 80	30 **50** 80	30 **50** 80	30 **50** 80							1.5	
10 **20** 30	10 **20** 30	10 **20** 30	10 **20** 30	10 **20** 30							1.6	
								5 **15** 30		5 **15** 30	2.1	
								10 **25** 40		10 **25** 40	2.2	
											2.3	
								5 **15** 25		5 **15** 25	2.4	
								5 **15** 25		5 **15** 25	2.5	
10 **20** 30	10 **20** 30	10 **20** 30	10 **20** 30	10 **20** 30							2.6	N
											2.7	
											2.8	
											3.1	
											3.2	
10 **20** 40	10 **20** 40	10 **20** 40	10 **20** 40	10 **20** 40							4.1	
											4.2	
											4.3	
											4.4	
											5.1	
											5.2	
											5.3	
								1 **5** 7		1 **5** 7	1.1	
											1.2	
											1.3	
											2.1	
								1 **3** 5		1 **3** 5	2.2	S
								1 **3** 5		1 **3** 5	2.3	
											2.4	
											2.5	
											2.6	
											1.1	
											1.2	
											1.3	H
											1.4	
											1.5	

vc in m/min

[1] Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

EMUGE Z



	Rekord D-Z TIN	Rekord D-Z-IKZ TIN	Rekord D-Z/E-IKZ TIN	Rekord D-Z-BF-IKZ TIN	Rekord D-Z/E-BF-IKZ TIN	Rekord D-Z-IKZ-LF3 TIN	Rekord D-Z-BF-IKZ-LF3 TIN	Rekord D-Z-IKZ-LF4 TIN	Rekord D-Z-BF-IKZ-LF4 TIN	Enorm Z-PM GLT-1	Enorm Z-IKZ-PM GLT-1
	C / 2-3	C / 2-3	E / 1,5-2	C / 2-3	E / 1,5-2	C / 2-3	C / 2-3	C / 2-3	C / 2-3	C / 2-3	C / 2-3
Gewindetiefe und Lochform Thread depth and hole type	max. 2 x d_1					max. 3 x d_1		max. 4 x d_1		max. 3 x d_1	
M	109,135	109,135	110,136	110,119,136,145	110,136	146	146	147	147	111,137	111,137
MF	181	181	182	182	182	188	188	189	189	183	183
UNC										206,210	
UNF										218	
UNEF, UN-8											
G, Rp										235	
NPSM, NPSF											
NPT, NPTF, Rc											
W											
BSW, BSF											
Pg											
MJ											
UNJC, UNJF											
EG (STI)											
LK-M											
Tr, Tr-F, Rd											

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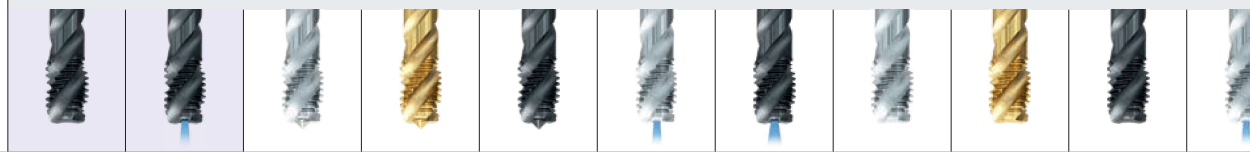
v_c [m/min]	min.	empf. rec.	max.	min.	empf. rec.	max.	min.	empf. rec.	max.	min.	empf. rec.	max.	min.	empf. rec.	max.	min.	empf. rec.	max.	min.	empf. rec.	max.	min.	empf. rec.	max.
P 1.1																						15	**25**	45	15	**25**	45
P 2.1																						10	**20**	40	10	**20**	40
P 3.1	5	**15**	20	5	**15**	20	5	**15**	20	5	**15**	20	5	**15**	20	5	**15**	20	5	**15**	20	5	**15**	25	5	**15**	25
P 4.1	5	**10**	15	5	**10**	15	5	**10**	15	5	**10**	15	5	**10**	15	5	**10**	15	5	**10**	15	5	**10**	15	5	**10**	15
P 5.1	2	**7**	10	2	**7**	10	2	**7**	10	2	**7**	10	2	**7**	10	2	**7**	10	2	**7**	10	2	**7**	10			
M 1.1																						5	**8**	12	5	**8**	12
M 2.1																						2	**5**	8	2	**5**	8
M 3.1																						2	**5**	8	2	**5**	8
M 4.1																						2	**5**	8	2	**5**	8
K 1.1																						5	**15**	25	5	**15**	25
K 1.2																						5	**15**	25	5	**15**	25
K 2.1																						5	**10**	20	5	**10**	20
K 2.2																						5	**10**	20	5	**10**	20
K 3.1																						5	**10**	20	5	**10**	20
K 3.2																						5	**10**	20	5	**10**	20
K 4.1																											
K 4.2																											
N 1.1																											
N 1.2																											
N 1.3																											
N 1.4																						15	**25**	40	15	**25**	40
N 1.5																											
N 1.6																											
N 2.1																						5	**15**	30	5	**15**	30
N 2.2																						10	**25**	40	10	**25**	40
N 2.3																											
N 2.4	5	**15**	25	5	**15**	25	5	**15**	25	5	**15**	25	5	**15**	25	5	**15**	25	5	**15**	25	5	**15**	25	5	**15**	25
N 2.5	5	**15**	25	5	**15**	25	5	**15**	25	5	**15**	25	5	**15**	25	5	**15**	25	5	**15**	25	5	**15**	25	5	**15**	25
N 2.6																											
N 2.7																											
N 2.8																											
N 3.1																											
N 3.2																											
N 4.1																											
N 4.2																											
N 4.3																											
N 4.4																											
N 5.1																											
N 5.2																											
N 5.3																											
S 1.1																						1	**3**	5	1	**3**	5
S 1.2																											
S 1.3																											
S 2.1																											
S 2.2																											
S 2.3																											
S 2.4																											
S 2.5																											
S 2.6																											
H 1.1																											
H 1.2																											
H 1.3																											
H 1.4																											
H 1.5																											

v_c in m/min



Enorm Z/E PM-GLT-1	Enorm Z/E-IKZ PM-GLT-1	Enorm Z	Enorm Z TIN	Enorm Z GLT-1	Enorm Z-IKZ	Enorm Z-IKZ GLT-1	Enorm Z/E	Enorm Z/E TIN	Enorm Z/E GLT-1	Enorm Z/E-IKZ	
E / 1,5-2	E / 1,5-2	C / 2-3	C / 2-3	C / 2-3	C / 2-3	C / 2-3	E / 1,5-2	E / 1,5-2	E / 1,5-2	E / 1,5-2	
					max. 3 x d_1						Gewindetiefe und Lochform Thread depth and hole type
111,137	111,137	112,119,138,145	112,138	112,119,138,145	138	112,139	113,139,151	113,139	113,139	113	M
183		166,183		166,185			167,185	185	167,185	186	MF
		206,210		206,210			206,210	207,211	207,211		UNC
		218,222		218,222			218,222	219,222	219,223		UNF
		212,229		229							UNEF, UN-8
235	236	236		236			236,244	237	237,244		G, Rp
							246,247		246,247		NPSM, NPSF
											NPT, NPTF, Rc
											W
		266,268		266,268							BSW, BSF
											Pg
											MJ
		277,279		277,279							UNJC, UNJF
		281,283		281,283			281-289		281-289		EG (STI)
							291,293		291,293		LK-M
											Tr, Tr-F, Rd
min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.	v_c [m/min]	
15 **25** 45	15 **25** 45	5 **15** 25	15 **25** 45	15 **25** 45	5 **15** 25	15 **25** 45	5 **15** 25	15 **25** 45	15 **25** 45	5 **15** 25	1.1	P
10 **20** 40	10 **20** 40	5 **10** 20	10 **20** 40	10 **20** 40	5 **10** 20	10 **20** 40	5 **10** 20	10 **20** 40	10 **20** 40	5 **10** 20	2.1	
5 **15** 25	5 **15** 25	2 **8** 15	5 **15** 25	5 **15** 25	2 **8** 15	5 **15** 25	2 **8** 15	5 **15** 25	5 **15** 25	2 **8** 15	3.1	
5 **10** 15	5 **10** 15		5 **10** 15	5 **10** 15		5 **10** 15		5 **10** 15	5 **10** 15		4.1	
											5.1	
5 **8** 12	5 **8** 12			5 **8** 12		5 **8** 12			5 **8** 12		1.1	M
2 **5** 8	2 **5** 8			2 **5** 8		2 **5** 8			2 **5** 8		2.1	
2 **5** 8	2 **5** 8			2 **5** 8		2 **5** 8			2 **5** 8		3.1	
2 **5** 8	2 **5** 8			2 **5** 8		2 **5** 8			2 **5** 8		4.1	
5 **15** 25	5 **15** 25										1.1	K
5 **15** 25	5 **15** 25										1.2	
5 **10** 20	5 **10** 20										2.1	
5 **10** 20	5 **10** 20										2.2	
5 **10** 20	5 **10** 20										3.1	
5 **10** 20	5 **10** 20										3.2	
											4.1	
											4.2	
											1.1	N
											1.2	
											1.3	
15 **25** 40	15 **25** 40			15 **25** 40		15 **25** 40			15 **25** 40		1.4	
											1.5	
											1.6	
5 **15** 30	5 **15** 30			5 **15** 30		5 **15** 30			5 **15** 30		2.1	
10 **25** 40	10 **25** 40		10 **25** 40	10 **25** 40		10 **25** 40		10 **25** 40	10 **25** 40		2.2	
											2.3	
5 **15** 25	5 **15** 25		5 **15** 25	5 **15** 25		5 **15** 25		5 **15** 25	5 **15** 25		2.4	
5 **15** 25	5 **15** 25		5 **15** 25	5 **15** 25		5 **15** 25		5 **15** 25	5 **15** 25		2.5	
											2.6	
											2.7	
											2.8	
											3.1	
											3.2	
											4.1	
											4.2	
											4.3	
											4.4	
											5.1	
											5.2	
											5.3	
1 **3** 5	1 **3** 5		1 **3** 5	1 **3** 5		1 **3** 5		1 **3** 5	1 **3** 5		1.1	S
											1.2	
											1.3	
											2.1	
											2.2	
											2.3	
											2.4	
											2.5	
											2.6	
											1.1	H
											1.2	
											1.3	
											1.4	
											1.5	

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EMUGE

		Enorm Z/E-IKZ TIN	Enorm Z/E-IKZ GLT-1	Enorm Z50	Enorm Z50 GLT-1	SET	HGB-Set	HM-Set	WM-Set
		E / 1,5-2	E / 1,5-2	C / 2-3	C / 2-3		C / 2-3	C / ≈3	C / 2-3
Gewindetiefe und Lochform Thread depth and hole type		max. 3 x d_1						max. 2 x d_1	
M		113,139	113,139	116,142	116,142		152	153	154
MF		186	186				196	199	200
UNC							213		214
UNF							225		226
UNEF, UN-8									
G, Rp							239		240
NPSM, NPSF									
NPT, NPTF, Rc									
W									
BSW, BSF							269,272		
Pg									
MJ									
UNJC, UNJF									
EG (STI)									
LK-M									
Tr, Tr-F, Rd									
v_c [m/min]		min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.		min. **empf. rec.** max.	min. **empf. rec.** max.	min. **empf. rec.** max.
P	1.1	15 **25** 45	15 **25** 45	5 **15** 25	15 **25** 45		1 **2** 3		1 **2** 3
	2.1	10 **20** 40	10 **20** 40	5 **10** 20	10 **20** 40		1 **2** 3		1 **2** 3
	3.1	5 **15** 25	5 **15** 25	2 **8** 15	5 **15** 25		1 **2** 3		1 **2** 3
	4.1	5 **10** 15	5 **10** 15		5 **10** 15				1 **2** 3
	5.1							1 **2** 3	1 **2** 3
M	1.1		5 **8** 12		5 **8** 12				1 **2** 3
	2.1		2 **5** 8		2 **5** 8				1 **2** 3
	3.1		2 **5** 8		2 **5** 8				1 **2** 3
	4.1		2 **5** 8		2 **5** 8				1 **2** 3
K	1.1								1 **2** 3
	1.2								1 **2** 3
	2.1								1 **2** 3
	2.2								1 **2** 3
	3.1								1 **2** 3
	3.2								1 **2** 3
	4.1								1 **2** 3
	4.2								1 **2** 3
N	1.1								1 **2** 3
	1.2								1 **2** 3
	1.3								1 **2** 3
	1.4		15 **25** 40		15 **25** 40				1 **2** 3
	1.5								1 **2** 3
	1.6								1 **2** 3
	2.1		5 **15** 30		5 **15** 30				1 **2** 3
	2.2	10 **25** 40	10 **25** 40		10 **25** 40				1 **2** 3
	2.3								1 **2** 3
	2.4	5 **15** 25	5 **15** 25		5 **15** 25				1 **2** 3
	2.5	5 **15** 25	5 **15** 25		5 **15** 25				1 **2** 3
	2.6								1 **2** 3
	2.7								
	2.8							1 **2** 3	
	3.1								
	3.2								
	4.1								
	4.2								
	4.3								
	4.4								
	5.1								
	5.2							1 **2** 3	
	5.3								
S	1.1	1 **3** 5	1 **3** 5		1 **3** 5				
	1.2								
	1.3								
	2.1								1 **2** 3
	2.2								1 **2** 3
	2.3								
	2.4								1 **2** 3
	2.5								
	2.6								
H	1.1							1 **2** 3	
	1.2							1 **2** 3	
	1.3							1 **2** 3	
	1.4								
	1.5								

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	WM-Set TIN	WM-F-TIC-Set NT	AUT-A	AUT-A MS-R	KOMBI	KOMBI	MMB	MMB DIN 357	
	C / 2-3	C / 2-3		max. 1		C / 2-3		–	
	max. 2 x d_1			max. 1 x d_1		max. 1 x d_1		max. 1,5 x d_1	Gewindetiefe und Lochform Thread depth and hole type
	156	158				160		161	M
				202		203			MF
									UNC
									UNF
									UNEF, UN-8
				242,245					G, Rp
									NPSM, NPSF
									NPT, NPTF, Rc
									W
									BSW, BSF
									Pg
									MJ
									UNJC, UNJF
									EG (STI)
									LK-M
									Tr, Tr-F, Rd
	min. **empf. rec.** max.	min. **empf. rec.** max.		min. **empf. rec.** max.		min. **empf. rec.** max.		min. **empf. rec.** max.	v_c [m/min]
	1 **2** 3							5 **15** 25	1.1
	1 **2** 3					5 **10** 20		5 **10** 20	2.1
	1 **2** 3	1 **2** 3						2 **8** 15	3.1
	1 **2** 3	1 **2** 3							4.1
	1 **2** 3	1 **2** 3							5.1
	1 **2** 3								1.1
	1 **2** 3								2.1
	1 **2** 3								3.1
	1 **2** 3								4.1
	1 **2** 3								1.1
	1 **2** 3								1.2
	1 **2** 3								2.1
	1 **2** 3								2.2
	1 **2** 3								3.1
	1 **2** 3								3.2
	1 **2** 3								4.1
	1 **2** 3								4.2
	1 **2** 3								1.1
	1 **2** 3								1.2
	1 **2** 3								1.3
	1 **2** 3								1.4
	1 **2** 3								1.5
	1 **2** 3								1.6
	1 **2** 3								2.1
	1 **2** 3					10 **20** 40		10 **20** 40	2.2
	1 **2** 3			10 **25** 40					2.3
	1 **2** 3								2.4
	1 **2** 3								2.5
	1 **2** 3			5 **10** 20					2.6
	1 **2** 3	1 **2** 3							2.7
									2.8
									3.1
									3.2
									4.1
									4.2
									4.3
									4.4
									5.1
									5.2
									5.3
									1.1
									1.2
									1.3
	1 **2** 3								2.1
	1 **2** 3								2.2
	1 **2** 3	1 **2** 3							2.3
	1 **2** 3								2.4
	1 **2** 3	1 **2** 3							2.5
	1 **2** 3	1 **2** 3							2.6
									1.1
									1.2
									1.3
									1.4
									1.5

P M K N S H

Seite · Page
v_c in m/min

KEG	EMUGE STEEL		EMUGE VA				EMUGE NI
	Rekord KEG STEEL	Rekord KEG STEEL-AZ	Rekord KEG VA	Rekord KEG VA-AZ	Rekord KEG R35-VA	Rekord KEG R35-VA-AZ	Rekord KEG R10-NI PM-TICN
	C / 2-3	C / 2-3	C / 2-3	C / 2-3	C / 2-3	C / 2-3	C / 2-3
Gewindetiefe und Lochform Thread depth and hole type	—	—	—	—	—	—	—
M							
MF							
UNC							
UNF							
UNEF, UN-8							
G, Rp							
NPSM, NPSF							
NPT, NPTF, Rc	249,251,253,255,257,262 263	253	249,251,255,257,261	249,251	250,252,255,257	250,252	250,256
W							
BSW, BSF							
Pg							
MJ							
UNJC, UNJF							
EG (STI)							
LK-M							
Tr, Tr-F, Rd							
v_c [m/min]	min. **empf.** rec. max.	min. **empf.** rec. max.	min. **empf.** rec. max.	min. **empf.** rec. max.	min. **empf.** rec. max.	min. **empf.** rec. max.	min. **empf.** rec. max.
P 1.1					2 **5** 8	2 **5** 8	
P 2.1			2 **3** 6	2 **3** 6	2 **4** 6	2 **4** 6	
P 3.1	1 **3** 8	1 **3** 8	1 **4** 8	1 **4** 8	1 **5** 8	1 **5** 8	
P 4.1			1 **3** 5	1 **3** 5			
P 5.1							
M 1.1					1 **5** 8	1 **5** 8	
M 2.1					1 **5** 8	1 **5** 8	
M 3.1					1 **3** 5	1 **3** 5	
M 4.1							
K 1.1	2 **4** 10	2 **4** 10					
K 1.2	2 **4** 10	2 **4** 10					
K 2.1			1 **3** 5	1 **3** 5			
K 2.2			1 **3** 5	1 **3** 5			
K 3.1			1 **3** 5	1 **3** 5			
K 3.2			1 **3** 5	1 **3** 5			
K 4.1			1 **3** 5	1 **3** 5			
K 4.2			1 **3** 5	1 **3** 5			
N 1.1							
N 1.2							
N 1.3							
N 1.4							
N 1.5			1 **3** 5	1 **3** 5			
N 1.6							
N 2.1							
N 2.2							
N 2.3	2 **4** 10	2 **4** 10					
N 2.4							
N 2.5							
N 2.6			1 **3** 5	1 **3** 5			
N 2.7							
N 2.8							1 **3** 5
N 3.1							
N 3.2							
N 4.1							
N 4.2							
N 4.3							
N 4.4							
N 5.1							
N 5.2							
N 5.3							
S 1.1							
S 1.2							
S 1.3							
S 2.1							
S 2.2							
S 2.3							1 **4** 8
S 2.4							
S 2.5							1 **4** 8
S 2.6							1 **4** 8
H 1.1							
H 1.2							
H 1.3							
H 1.4							
H 1.5							

Seite · Page
V_c in m/min

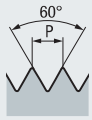
TRAPEZ	EMUGE STEEL		EMUGE VA		EMUGE MS	RUND	EMUGE STEEL		
	TRAPEZ-2Stuf STEEL	TRAPEZ-Rekord C-STEEL	TRAPEZ AM-VA NT	TRAPEZ-Rekord C-VA NT	TRAPEZ AUT-A-MS		RUND-Rekord A-STEEL		
	—	—	—		E / 1,5-2		C / 2-3		
	max. 2 x d_1 1)	max. 2 x d_1 1)	max. 1,5 x d_1	max. 2 x d_1	max. 1 x d_1		max. 1 x d_1		Gewindetiefe und Lochform Thread depth and hole type
									M
									MF
									UNC
									UNF
									UNEF, UN-8
									G, Rp
									NPSM, NPSF
									NPT, NPTF, Rc
									W
									BSW, BSF
									Pg
									MJ
									UNJC, UNJF
									EG (STI)
									LK-M
	294	297	295	297	296,298		299		Tr, Tr-F, Rd
	min. **empf.** max.	min. **empf.** max.	min. **empf.** max.	min. **empf.** max.	min. **empf.** max.		min. **empf.** max.		v_c [m/min]
		2 **4** 8		2 **4** 8				1.1	P
	2 **4** 6	2 **3** 6	2 **4** 6	2 **3** 6				2.1	
	1 **4** 8		1 **4** 8	2 **3** 6				3.1	
								4.1	
								5.1	
								1.1	M
								2.1	
								3.1	
								4.1	
	2 **5** 10		2 **5** 10				10 **15** 25	1.1	K
	2 **4** 8		2 **4** 8				10 **15** 25	1.2	
	2 **4** 8		2 **4** 8	2 **4** 8			10 **15** 25	2.1	
	2 **4** 8		2 **4** 8	2 **4** 8			5 **10** 15	2.2	
	2 **4** 8		2 **4** 8	2 **4** 8			5 **10** 15	3.1	
	2 **4** 8		2 **4** 8	2 **4** 8			5 **10** 15	3.2	
	2 **5** 10		2 **5** 10	2 **5** 10			10 **15** 25	4.1	
	2 **5** 10		2 **5** 10	2 **4** 8			10 **15** 25	4.2	
								1.1	N
								1.2	
								1.3	
								1.4	
								1.5	
								1.6	
								2.1	
								2.2	
					2 **5** 10		10 **25** 40	2.3	
	1 **4** 8		1 **4** 8	2 **4** 8				2.4	
	1 **4** 8		1 **4** 8	2 **4** 8				2.5	
	1 **4** 8		1 **4** 8	2 **4** 8				2.6	
								2.7	
								2.8	
								3.1	
								3.2	
								4.1	
								4.2	
								4.3	
								4.4	
								5.1	
								5.2	
								5.3	
								1.1	S
								1.2	
								1.3	
								2.1	
								2.2	
								2.3	
								2.4	
								2.5	
								2.6	
								1.1	H
								1.2	
								1.3	
								1.4	
								1.5	

Seite · Page
v_c in m/min

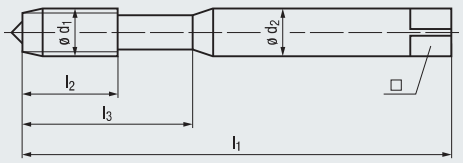
1) Bei entsprechender Einspannlänge bis ca. 2,5 x d_1
With sufficient clamping length up to approx. 2.5 x d_1

M

DIN 13



DIN 371



STEEL
Steel materials

Technische Informationen Technical information	Toleranz · Tolerance	6HX *)	ISO 2/6H *)	ISO 2/6H	ISO 2/6H *)
	Beschichtung · Coating			TIN	GLT-1
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
		C / 2-3	B / 4-5	B / 4-5	B / 4-5
		E / O	E / O	E / O	E / O
Gewindetiefe und Lochform Thread depth and hole type		max. 2 x d_1		max. 3 x d_1	
Einsatzgebiete – Material Applications – material		K 1.1-4.2 N 2.3	P 1.1-3.1 N 2.2	P 1.1-4.1	P 1.1-4.1

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	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Rekord 1A-STEEL	Rekord 1B-STEEL-L	Rekord 1B-STEEL-L TIN	Rekord 1B-STEEL-L GLT-1
M	1	0,25	40	5	–	2,5	2,1	0,75	B0101001.0010	B0208900.0010		B020K500.0010
	1,1	0,25	40	5	–	2,5	2,1	0,85	B0101001.0011	B0208900.0011		B020K500.0011
	1,2	0,25	40	5	–	2,5	2,1	0,95	B0101001.0012	B0208900.0012		B020K500.0012
	1,4	0,3	40	6	–	2,5	2,1	1,1	B0101001.0014	B0208900.0014		B020K500.0014
	1,6	0,35	40	6	11	2,5	2,1	1,25	B0101001.0016	B0208900.0016		**B020K500.0016**
	1,7	0,35	40	6	11	2,5	2,1	1,35	B0101001.0017	B0208900.0017		B020K500.0017
	1,8	0,35	40	6	11	2,5	2,1	1,45	B0101001.0018	B0208900.0018		B020K500.0018
	2	0,4	45	7	12	2,8	2,1	1,6	B0101001.0020	B0208900.0020		**B020K500.0020**
	2,2	0,45	45	7	12	2,8	2,1	1,75	B0101001.0022	B0208900.0022		B020K500.0022
	2,3	0,4	45	7	12	2,8	2,1	1,9	B0101001.0023	B0208900.0023		B020K500.0023
	2,5	0,45	50	9	14	2,8	2,1	2,05	B0101001.0025	B0208900.0025	**B0208400.0025**	**B020K500.0025**
	2,6	0,45	50	9	14	2,8	2,1	2,15	B0101001.0026	B0208900.0026	B0208400.0026	B020K500.0026
	3	0,5	56	11	18	3,5	2,7	2,5	B0101001.0030	B0208900.0030	**B0208400.0030**	
	3,5	0,6	56	12	20	4	3	2,9	B0101001.0035	B0208900.0035	**B0208400.0035**	
	4	0,7	63	13	21	4,5	3,4	3,3	B0101001.0040	B0208900.0040	**B0208400.0040**	
	4,5	0,75	70	14	25	6	4,9	3,7	B0101001.0045	B0208900.0045	B0208400.0045	
	5	0,8	70	15	25	6	4,9	4,2	B0101001.0050	B0208900.0050	**B0208400.0050**	
	5,5	0,9	80	16	30	6	4,9	4,6	B0101001.0055	B0208900.0055	B0208400.0055	
	6	1	80	17	30	6	4,9	5	B0101001.0060	B0208900.0060	**B0208400.0060**	
	7	1	80	17	30	7	5,5	6	B0101001.0070	B0208900.0070	B0208400.0070	
	8	1,25	90	20	35	8	6,2	6,8	B0101001.0080	B0208900.0080	**B0208400.0080**	
	9	1,25	90	20	35	9	7	7,8	B0101001.0090	B0208900.0090	B0208400.0090	
	10	1,5	100	22	39	10	8	8,5	B0101001.0100	B0208900.0100	**B0208400.0100**	
	12	1,75	110	24	44	12	9	10,2		B0208900.0112	B0208400.0112	
								DIN 376	120	120	120	
								DIN 352	150	150		

*) ≤ M1,4 Tol. 4H(X)/5H(X)

STEEL
Steel materials

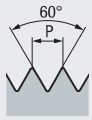
ISO 1/4H	ISO 1/4H	ISO 3/6G	ISO 3/6G	7G	7G	ISO 2/6H	ISO 2/6H
	TIN		TIN		TIN		TIN
HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE
						LH	LH
B / 4-5	B / 4-5	B / 4-5	B / 4-5	B / 4-5	B / 4-5	B / 4-5	B / 4-5
E / 0	E / 0	E / 0	E / 0	E / 0	E / 0	E / 0	E / 0

max. 3 x d_1

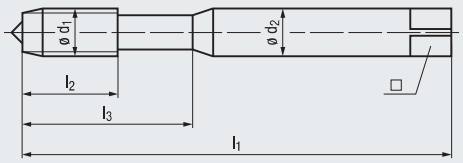
P 1.1-3.1 N 2.2	P 1.1-4.1	P 1.1-3.1 N 2.2	P 1.1-4.1	P 1.1-3.1 N 2.2	P 1.1-4.1	P 1.1-3.1 N 2.2	P 1.1-4.1
Rekord 1B-STEEL-L	**Rekord 1B-STEEL-L TIN**	**Rekord 1B-STEEL-L**	**Rekord 1B-STEEL-L TIN**	**Rekord 1B-STEEL-L**	**Rekord 1B-STEEL-L TIN**	**Rekord 1B-STEEL-L-LH**	**Rekord 1B-STEEL-L-LH TIN**
								M 1
								1,1
								1,2
								1,4
								1,6
								1,7
								1,8
B0208910.0020		**B0208920.0020**		**B0208930.0020**		**B0208950.0020**		2
								2,2
								2,3
B0208910.0025		**B0208920.0025**		**B0208930.0025**		**B0208950.0025**		2,5
								2,6
B0208910.0030	B0208410.0030	**B0208920.0030**	B0208420.0030	**B0208930.0030**	B0208430.0030	**B0208950.0030**	B0208450.0030	3
		B0208920.0035	B0208420.0035					3,5
B0208910.0040	B0208410.0040	**B0208920.0040**	B0208420.0040	**B0208930.0040**	B0208430.0040	**B0208950.0040**	B0208450.0040	4
								4,5
B0208910.0050	B0208410.0050	**B0208920.0050**	B0208420.0050	**B0208930.0050**	B0208430.0050	**B0208950.0050**	B0208450.0050	5
								5,5
B0208910.0060	B0208410.0060	**B0208920.0060**	B0208420.0060	**B0208930.0060**	B0208430.0060	**B0208950.0060**	B0208450.0060	6
								7
B0208910.0080	B0208410.0080	**B0208920.0080**	B0208420.0080	**B0208930.0080**	B0208430.0080	**B0208950.0080**	B0208450.0080	8
								9
B0208910.0100	B0208410.0100	**B0208920.0100**	B0208420.0100	**B0208930.0100**	B0208430.0100	**B0208950.0100**	B0208450.0100	10
								12
120	121	121	121	121	121	121	121	

M

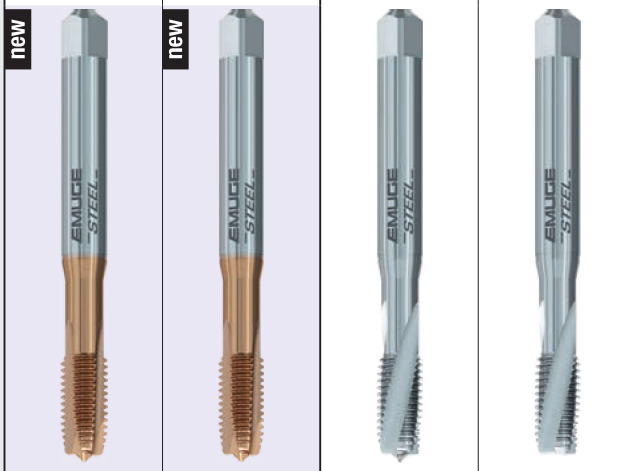
DIN 13



DIN 371



STEEL
Steel materials



Technische Informationen
Technical information

Toleranz · Tolerance	6HX	6HX	ISO 2/6H	ISO 2/6H
Beschichtung · Coating	ALCR-102	ALCR-101		
Schneidstoff · Cutting material	HSSE-PM	HSSE-PM	HSSE	HSSE
			R15	R15
	B / ≈6	B / ≈6	C / 2-3	E / 1,5-2
	E / O	E / O	E / O	E / O

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1		max. 2 x d_1	

Einsatzgebiete – Material
Applications – material ▸▸ 78

P 3.1-5.1	P 3.1-5.1	P 2.1-3.1	P 2.1-3.1

	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Rekord 1B-STEEL-H PM-ALCR-102	Rekord 1B-STEEL-H PM-ALCR-101	Rekord 1D-STEEL	Rekord 1D-STEEL/E
M	1	0,25	40	5	–	2,5	2,1	0,75				
	1,1	0,25	40	5	–	2,5	2,1	0,85				
	1,2	0,25	40	5	–	2,5	2,1	0,95				
	1,4	0,3	40	6	–	2,5	2,1	1,1				
	1,6	0,35	40	6	11	2,5	2,1	1,25				
	1,7	0,35	40	6	11	2,5	2,1	1,35				
	1,8	0,35	40	6	11	2,5	2,1	1,45				
	2	0,4	45	7	12	2,8	2,1	1,6	B0209J01.0020	B0208J01.0020	B0451000.0020	B0461000.0020
	2,2	0,45	45	7	12	2,8	2,1	1,75				
	2,3	0,4	45	7	12	2,8	2,1	1,9				
	2,5	0,45	50	9	14	2,8	2,1	2,05	B0209J01.0025	B0208J01.0025	B0451000.0025	B0461000.0025
	2,6	0,45	50	9	14	2,8	2,1	2,15				
	3	0,5	56	11	18	3,5	2,7	2,5	B0209J01.0030	B0208J01.0030	B0451000.0030	B0461000.0030
	3,5	0,6	56	12	20	4	3	2,9				
	4	0,7	63	13	21	4,5	3,4	3,3	B0209J01.0040	B0208J01.0040	B0451000.0040	B0461000.0040
	4,5	0,75	70	14	25	6	4,9	3,7				
	5	0,8	70	15	25	6	4,9	4,2	B0209J01.0050	B0208J01.0050	B0451000.0050	B0461000.0050
	5,5	0,9	80	16	30	6	4,9	4,6				
	6	1	80	17	30	6	4,9	5	B0209J01.0060	B0208J01.0060	B0451000.0060	B0461000.0060
	7	1	80	17	30	7	5,5	6				
	8	1,25	90	20	35	8	6,2	6,8	B0209J01.0080	B0208J01.0080	B0451000.0080	B0461000.0080
	9	1,25	90	20	35	9	7	7,8				
	10	1,5	100	22	39	10	8	8,5	B0209J01.0100	B0208J01.0100	B0451000.0100	B0461000.0100
	12	1,75	110	24	44	12	9	10,2				

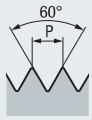
DIN 376	122	122	122	122
DIN 352			150	

STEEL Steel materials				**VA** Stainless steel materials			
ISO 2/6H	ISO 2/6H	ISO 2/6H		ISO 2/6H *)	ISO 2/6H	ISO 2/6H *)	**ISO 1/4H**
TIN		TIN		NT	TIN	GLT-1	NT
HSSE	HSSE	HSSE		HSSE	HSSE	HSSE	HSSE
R15	R35	R35					
C / 2-3	C / 2-3	C / 2-3		B / 4-5	B / 4-5	B / 4-5	B / 4-5
E / O	E / O	E / O		E / O / P	E / O / P	E / O / P	E / O / P
max. 2 x d_1	max. 2,5 x d_1			max. 3 x d_1			
P 3.1-4.1	P 1.1-3.1 N 2.2	P 1.1-3.1 N 2.2		P 2.1-3.1 N 2.2, 2.5	P 1.1-4.1	P 1.1-4.1 M 1.1-4.1 N 2.2	P 2.1-3.1 N 2.2, 2.5
Rekord 1DF-STEEL TIN	**Enorm 1 STEEL**	**Enorm 1 STEEL TIN**		**Rekord 1B-VA NT**	**Rekord 1B-VA TIN**	**Rekord 1B-VA GLT-1**	**Rekord 1B-VA NT**	
				B0203000.0010		B020C300.0010		M 1
				B0203000.0011		B020C300.0011		1,1
				B0203000.0012		B020C300.0012		1,2
				B0203000.0014		B020C300.0014		1,4
				B0203000.0016		B020C300.0016		1,6
				B0203000.0017		B020C300.0017		1,7
				B0203000.0018		B020C300.0018		1,8
	B0501000.0020	B0501400.0020		B0203000.0020		B020C300.0020	B0203010.0020	2
				B0203000.0022		B020C300.0022		2,2
				B0203000.0023		B020C300.0023		2,3
	B0501000.0025	B0501400.0025		B0203000.0025		B020C300.0025	B0203010.0025	2,5
				B0203000.0026		B020C300.0026		2,6
B0401400.0030	B0501000.0030	B0501400.0030		B0203000.0030	B0203100.0030	B020C300.0030	B0203010.0030	3
				B0203000.0035				3,5
B0401400.0040	B0501000.0040	B0501400.0040		B0203000.0040	B0203100.0040	B020C300.0040	B0203010.0040	4
				B0203000.0045	B0203100.0045	B020C300.0045		4,5
B0401400.0050	B0501000.0050	B0501400.0050		B0203000.0050	B0203100.0050	B020C300.0050	B0203010.0050	5
				B0203000.0055	B0203100.0055	B020C300.0055		5,5
B0401400.0060	B0501000.0060	B0501400.0060		B0203000.0060	B0203100.0060	B020C300.0060	B0203010.0060	6
				B0203000.0070	B0203100.0070	B020C300.0070		7
B0401400.0080	B0501000.0080	B0501400.0080		B0203000.0080	B0203100.0080	B020C300.0080	B0203010.0080	8
				B0203000.0090	B0203100.0090	B020C300.0090		9
B0401400.0100	B0501000.0100	B0501400.0100		B0203000.0100	B0203100.0100	B020C300.0100	B0203010.0100	10
				B0203000.0112	B0203100.0112	B020C300.0112		12
123	123	123		123	123	123	123	
				151				

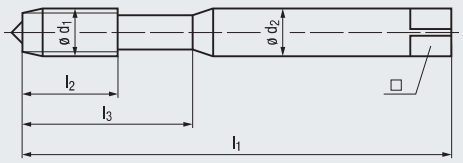
*) ≤ M1,4 Tol. 4H/5H

M

DIN 13



DIN 371



VA
Stainless steel materials

Toleranz · Tolerance	ISO 1/4H	ISO 1/4H	ISO 3/6G	ISO 3/6G
Beschichtung · Coating	TIN	GLT-1	NT	TIN
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
	B / 4-5	B / 4-5	B / 4-5	B / 4-5
	E / O / P	E / O / P	E / O / P	E / O / P

Technische Informationen
Technical information

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1

Einsatzgebiete – Material
Applications – material

78

	P 1.1-4.1	P 1.1-4.1 M 1.1-4.1 N 2.2	P 2.1-3.1 N 2.2, 2.5	P 1.1-4.1

	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Rekord 1B-VA TIN	Rekord 1B-VA GLT-1	Rekord 1B-VA NT	Rekord 1B-VA TIN
M	1	0,25	40	5	–	2,5	2,1	0,75				
	1,1	0,25	40	5	–	2,5	2,1	0,85				
	1,2	0,25	40	5	–	2,5	2,1	0,95				
	1,4	0,3	40	6	–	2,5	2,1	1,1				
	1,6	0,35	40	6	11	2,5	2,1	1,25				
	1,7	0,35	40	6	11	2,5	2,1	1,35				
	1,8	0,35	40	6	11	2,5	2,1	1,45				
	2	0,4	45	7	12	2,8	2,1	1,6		B020C310.0020	**B0203020.0020**	
	2,2	0,45	45	7	12	2,8	2,1	1,75				
	2,3	0,4	45	7	12	2,8	2,1	1,9				
	2,5	0,45	50	9	14	2,8	2,1	2,05		B020C310.0025	**B0203020.0025**	
	2,6	0,45	50	9	14	2,8	2,1	2,15				
	3	0,5	56	11	18	3,5	2,7	2,5	B0203110.0030	B020C310.0030	**B0203020.0030**	B0203120.0030
	3,5	0,6	56	12	20	4	3	2,9			B0203020.0035	B0203120.0035
	4	0,7	63	13	21	4,5	3,4	3,3	B0203110.0040	B020C310.0040	**B0203020.0040**	B0203120.0040
	4,5	0,75	70	14	25	6	4,9	3,7				
	5	0,8	70	15	25	6	4,9	4,2	B0203110.0050	B020C310.0050	**B0203020.0050**	B0203120.0050
	5,5	0,9	80	16	30	6	4,9	4,6				
	6	1	80	17	30	6	4,9	5	B0203110.0060	B020C310.0060	**B0203020.0060**	B0203120.0060
	7	1	80	17	30	7	5,5	6				
	8	1,25	90	20	35	8	6,2	6,8	B0203110.0080	B020C310.0080	**B0203020.0080**	B0203120.0080
	9	1,25	90	20	35	9	7	7,8				
	10	1,5	100	22	39	10	8	8,5	B0203110.0100	B020C310.0100	**B0203020.0100**	B0203120.0100
	12	1,75	110	24	44	12	9	10,2				

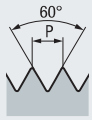
DIN 376		124	124	124	124
DIN 352					

VA
Stainless steel materials

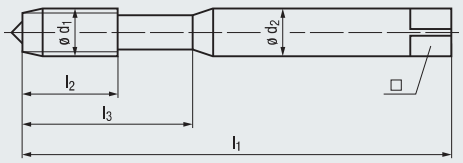
ISO 3/6G	7G	7G	7G	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H
GLT-1	NT	TIN	GLT-1	NT	TIN	GLT-1	
HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE
				LH	LH	LH	R35
B / 4-5	B / 4-5	B / 4-5	B / 4-5	B / 4-5	B / 4-5	B / 4-5	C / 2-3
E / O / P	E / O / P	E / O / P	E / O / P	E / O / P	E / O / P	E / O / P	E / O / P
			max. 3 x d_1				max. 2,5 x d_1
P 1.1-4.1 M 1.1-4.1 N 2.2	P 2.1-3.1 N 2.2, 2.5	P 1.1-4.1	P 1.1-4.1 M 1.1-4.1 N 2.2	P 2.1-3.1 N 2.2, 2.5	P 1.1-4.1	P 1.1-4.1 M 1.1-4.1 N 2.2	P 1.1-3.1
Rekord 1B-VA GLT-1	**Rekord 1B-VA NT**	**Rekord 1B-VA TIN**	**Rekord 1B-VA GLT-1**	**Rekord 1B-VA-LH NT**	**Rekord 1B-VA-LH TIN**	**Rekord 1B-VA-LH GLT-1**	**Enorm 1 VA**	
								M 1
								1,1
								1,2
								1,4
								1,6
								1,7
								1,8
B020C320.0020	**B0203030.0020**		B020C330.0020	**B0203050.0020**		B020C350.0020	**B0503000.0020**	2
								2,2
								2,3
B020C320.0025	**B0203030.0025**		B020C330.0025	**B0203050.0025**		B020C350.0025	**B0503000.0025**	2,5
								2,6
B020C320.0030	**B0203030.0030**	B0203130.0030	B020C330.0030	**B0203050.0030**	B0203150.0030	B020C350.0030	**B0503000.0030**	3
B020C320.0035								3,5
B020C320.0040	**B0203030.0040**	B0203130.0040	B020C330.0040	**B0203050.0040**	B0203150.0040	B020C350.0040	**B0503000.0040**	4
								4,5
B020C320.0050	**B0203030.0050**	B0203130.0050	B020C330.0050	**B0203050.0050**	B0203150.0050	B020C350.0050	**B0503000.0050**	5
								5,5
B020C320.0060	**B0203030.0060**	B0203130.0060	B020C330.0060	**B0203050.0060**	B0203150.0060	B020C350.0060	**B0503000.0060**	6
								7
B020C320.0080	**B0203030.0080**	B0203130.0080	B020C330.0080	**B0203050.0080**	B0203150.0080	B020C350.0080	**B0503000.0080**	8
								9
B020C320.0100	**B0203030.0100**	B0203130.0100	B020C330.0100	**B0203050.0100**	B0203150.0100	B020C350.0100	**B0503000.0100**	10
								12
125	125	125	125	125	125	125	125	

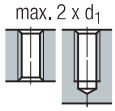
M

DIN 13



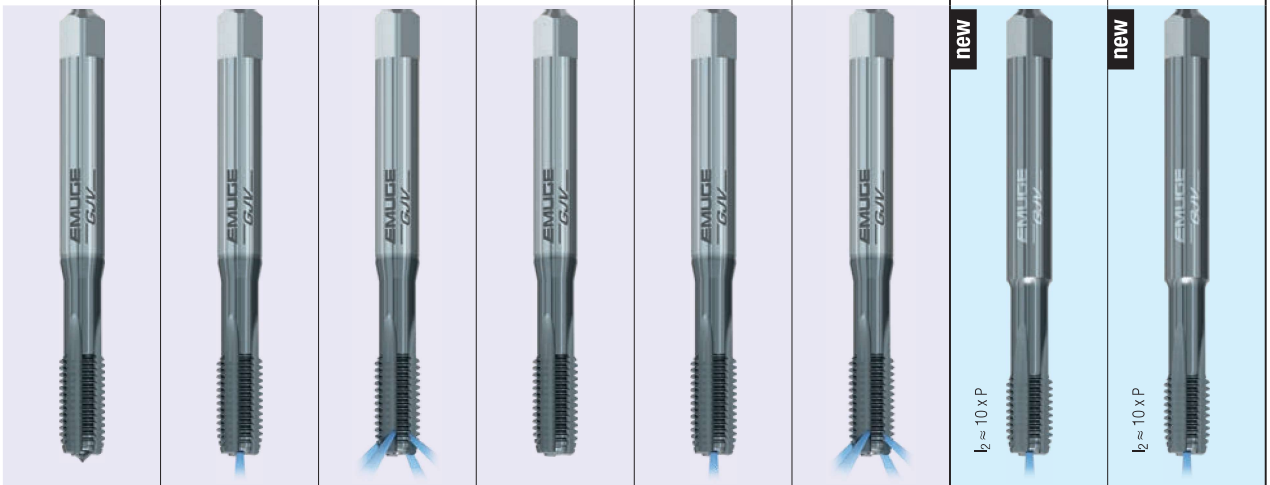
DIN 371



	INOX Stainless steel materials		GG Cast iron	
	new			
Technische Informationen Technical information — Toleranz · Tolerance	ISO 2/6H		6HX	6HX
Beschichtung · Coating	GLT-201		NT	TICN
Schneidstoff · Cutting material	HSSE		HSSE	HSSE
	R45			
	C / 2-3		C / 2-3	C / 2-3
	E / O		E	E
Gewindetiefe und Lochform Thread depth and hole type	max. 2,5 x d_1		max. 2 x d_1 	
Einsatzgebiete – Material Applications – material ▸▸ 78	M 1.1-2.1		K 1.1-1.2	K 1.1-1.2

	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Enorm 1 INOX GLT-201	Rekord 1A-GG NT	Rekord 1A-GG TICN
M	1	0,25	40	5	–	2,5	2,1	0,75			
	1,1	0,25	40	5	–	2,5	2,1	0,85			
	1,2	0,25	40	5	–	2,5	2,1	0,95			
	1,4	0,3	40	6	–	2,5	2,1	1,1			
	1,6	0,35	40	6	11	2,5	2,1	1,25			
	1,7	0,35	40	6	11	2,5	2,1	1,35			
	1,8	0,35	40	6	11	2,5	2,1	1,45			
	2	0,4	45	7	12	2,8	2,1	1,6	B050J300.0020		
	2,2	0,45	45	7	12	2,8	2,1	1,75			
	2,3	0,4	45	7	12	2,8	2,1	1,9			
	2,5	0,45	50	9	14	2,8	2,1	2,05	B050J300.0025		
	2,6	0,45	50	9	14	2,8	2,1	2,15			
	3	0,5	56	11	18	3,5	2,7	2,5	B050J300.0030	B0102001.0030	
	3,5	0,6	56	12	20	4	3	2,9			
	4	0,7	63	13	21	4,5	3,4	3,3	B050J300.0040	B0102001.0040	B0109201.0040
	4,5	0,75	70	14	25	6	4,9	3,7			
	5	0,8	70	15	25	6	4,9	4,2	B050J300.0050	B0102001.0050	B0109201.0050
	5,5	0,9	80	16	30	6	4,9	4,6			
	6	1	80	17	30	6	4,9	5	B050J300.0060	B0102001.0060	B0109201.0060
	7	1	80	17	30	7	5,5	6			
	8	1,25	90	20	35	8	6,2	6,8	B050J300.0080	B0102001.0080	B0109201.0080
	9	1,25	90	20	35	9	7	7,8			
	10	1,5	100	22	39	10	8	8,5	B050J300.0100	B0102001.0100	B0109201.0100
	12	1,75	110	24	44	12	9	10,2			
								DIN 376	126	126	126
								DIN 352			

GJV
Cast iron vermicular

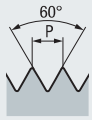


6HX	6HX	6HX	6HX	6HX	6HX	6HX	6HX
TICN	TICN	TICN	TICN	TICN	TICN	TICN	TICN
HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	VHM	VHM
C / 2-3	C / 2-3	C / 2-3	E / 1,5-2	E / 1,5-2	E / 1,5-2	C / 2-3	E / 1,5-2
E	E	E	E	E	E	E	E
max. 2 x d_1	max. 2 x d_1	max. 2 x d_1	max. 2 x d_1	max. 2 x d_1	max. 2 x d_1	max. 2 x d_1	
	1)			1)		1)	
K 1.1-4.2	K 1.1-4.2	K 1.1-4.2	K 1.1-4.2	K 1.1-4.2	K 1.1-4.2	K 1.1-4.2	K 1.1-4.2
Rekord 1A-GJV PM-TICN	**Rekord 1A-GJV-IKZ PM-TICN**	**Rekord 1A-GJV-IKZN PM-TICN**	**Rekord 1A-GJV/E PM-TICN**	**Rekord 1A-GJV/E-IKZ PM-TICN**	**Rekord 1A-GJV/E-IKZN PM-TICN**	**VHM-Rekord 1A-GJV-IKZ TICN**	**VHM-Rekord 1A-GJV/E-IKZ TICN**	M 1
								1,1
								1,2
								1,4
								1,6
								1,7
								1,8
								2
								2,2
								2,3
								2,5
								2,6
								3
								3,5
B010R501.0040	B195R501.0040		**B011R501.0040**	B196R501.0040		**B1951P01.0040**	**B1961P01.0040**	4
								4,5
B010R501.0050	**B195R501.0050**	B106R501.0050	**B011R501.0050**	**B196R501.0050**	B109R501.0050	**B1951P01.0050**	**B1961P01.0050**	5
								5,5
B010R501.0060	**B195R501.0060**	B106R501.0060	**B011R501.0060**	**B196R501.0060**	B109R501.0060	**B1951P01.0060**	**B1961P01.0060**	6
B010R501.0070	**B195R501.0070**	B106R501.0070	**B011R501.0070**	**B196R501.0070**	B109R501.0070	**B1951P01.0070**	**B1961P01.0070**	7
B010R501.0080	**B195R501.0080**	B106R501.0080	**B011R501.0080**	**B196R501.0080**	B109R501.0080	**B1951P01.0080**	**B1961P01.0080**	8
								9
B010R501.0100	**B195R501.0100**	B106R501.0100	**B011R501.0100**	**B196R501.0100**	B109R501.0100	**B1951P01.0100**	**B1961P01.0100**	10
								12
127	127	127	127	127	127	127	127	

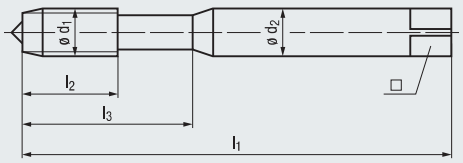
1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

M

DIN 13



DIN 371

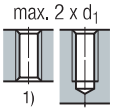
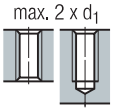


AL
Aluminium wrought alloys

Technische Informationen Technical information	Toleranz · Tolerance	ISO 2/6H *)	ISO 2/6H *)	ISO 2/6H *)	ISO 2/6H *)
	Beschichtung · Coating		GLT-104		GLT-104
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
				R45	R45
		B / ≈3	B / ≈3	C / 2-3	C / 2-3
		E / O	E / O	E / O	E / O
Gewindetiefe und Lochform Thread depth and hole type		max. 3 x d_1		max. 2,5 x d_1	
Einsatzgebiete – Material Applications – material ▸▸ 78		N 1.4	N 1.1-1.4, 2.1	N 1.4	N 1.1-1.4, 2.1

	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Rekord 1B-AL	Rekord 1B-AL GLT-104	Enorm 1-AL	Enorm 1-AL GLT-104
M	1	0,25	40	5	–	2,5	2,1	0,75				
	1,1	0,25	40	5	–	2,5	2,1	0,85				
	1,2	0,25	40	5	–	2,5	2,1	0,95				
	1,4	0,3	40	6	–	2,5	2,1	1,1	B0204500.0014	B0203G00.0014	B0504500.0014	B0503G00.0014
	1,6	0,35	40	6	11	2,5	2,1	1,25	B0204500.0016	B0203G00.0016	B0504500.0016	B0503G00.0016
	1,7	0,35	40	6	11	2,5	2,1	1,35				
	1,8	0,35	40	6	11	2,5	2,1	1,45				
	2	0,4	45	7	12	2,8	2,1	1,6	B0204500.0020	B0203G00.0020	B0504500.0020	B0503G00.0020
	2,2	0,45	45	7	12	2,8	2,1	1,75				
	2,3	0,4	45	7	12	2,8	2,1	1,9				
	2,5	0,45	50	9	14	2,8	2,1	2,05	B0204500.0025	B0203G00.0025	B0504500.0025	B0503G00.0025
	2,6	0,45	50	9	14	2,8	2,1	2,15				
	3	0,5	56	11	18	3,5	2,7	2,5	B0204500.0030	B0203G00.0030	B0504500.0030	B0503G00.0030
	3,5	0,6	56	12	20	4	3	2,9	B0204500.0035	B0203G00.0035	B0504500.0035	B0503G00.0035
	4	0,7	63	13	21	4,5	3,4	3,3	B0204500.0040	B0203G00.0040	B0504500.0040	B0503G00.0040
	4,5	0,75	70	14	25	6	4,9	3,7				
	5	0,8	70	15	25	6	4,9	4,2	B0204500.0050	B0203G00.0050	B0504500.0050	B0503G00.0050
	5,5	0,9	80	16	30	6	4,9	4,6				
	6	1	80	17	30	6	4,9	5	B0204500.0060	B0203G00.0060	B0504500.0060	B0503G00.0060
	7	1	80	17	30	7	5,5	6				
	8	1,25	90	20	35	8	6,2	6,8	B0204500.0080	B0203G00.0080	B0504500.0080	B0503G00.0080
	9	1,25	90	20	35	9	7	7,8				
	10	1,5	100	22	39	10	8	8,5	B0204500.0100	B0203G00.0100	B0504500.0100	B0503G00.0100
	12	1,75	110	24	44	12	9	10,2				
								DIN 376	128	128	128	128
								DIN 352				

*) ≤ M1,4 Tol. 4H/5H

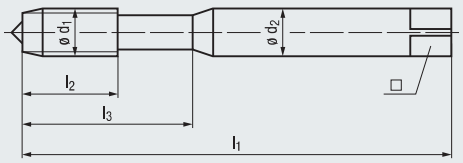
	AL Aluminium wrought alloys		GAL Aluminium cast alloys					MG Magnesium alloys	
	new								
	ISO 2/6H		6HX	6HX	6HX	6HX		6HX	
	GLT-104		TICN	TICN	TICN	TICN		GLT-1	
	HSSE		HSSE	HSSE	HSSE	VHM		HSSE	
	R45				R15	R15			
	E / 1,5-2		E / 1,5-2	E / 1,5-2	E / 1,5-2	E / 1,5-2		C / 2-3	
	E / O		E / M	E / M	E / M	E / M		E	
	max. 2,5 x d_1		max. 2 x d_1 	max. 2 x d_1	max. 2 x d_1			max. 2 x d_1 	
	N 1.1-1.4, 2.1		N 1.5-1.6	N 1.5-1.6	N 1.4-1.6	N 1.4-1.6		N 3.1-3.2	
	Enorm 1-AL/E GLT-104		**Rekord 1A-GAL/E-IKZ TICN**	**Rekord 1A-GAL/E-IKZN TICN**	**Rekord 1D-GAL/E-IKZ TICN**	**VHM-Rekord 1D-GAL/E-IKZ TICN**		**Rekord 1A-MG GLT-1**	
									M 1
									1,1
									1,2
									1,4
									1,6
									1,7
									1,8
									2
									2,2
									2,3
									2,5
									2,6
	B0513G00.0030							**B010J601.0030**	3
									3,5
	B0513G00.0040		**B1969501.0040**		**B0989501.0040**	**B098Q801.0040**		**B010J601.0040**	4
									4,5
	B0513G00.0050		**B1969501.0050**	B1099501.0050	**B0989501.0050**	**B098Q801.0050**		**B010J601.0050**	5
									5,5
	B0513G00.0060		**B1969501.0060**	B1099501.0060	**B0989501.0060**	**B098Q801.0060**		**B010J601.0060**	6
									7
	B0513G00.0080		**B1969501.0080**	B1099501.0080	**B0989501.0080**	**B098Q801.0080**		**B010J601.0080**	8
									9
	B0513G00.0100		**B1969501.0100**	B1099501.0100	**B0989501.0100**	**B098Q801.0100**		**B010J601.0100**	10
									12

1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

M

DIN 13

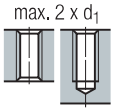
DIN 371



	FK Short-chipping synthetics			**PVC** Long-chipping synthetics
Technische Informationen Technical information Toleranz · Tolerance	6HX	6HX		6HX
Beschichtung · Coating	NT			CRN
Schneidstoff · Cutting material	HSSE	VHM		HSSE R15
	C / 2-3	C / 2-3		E / 1,5-2
	E	E		E
Gewindetiefe und Lochform Thread depth and hole type	max. 2 x d_1	max. 2 x d_1 1)		max. 2 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	N 4.1, 4.3	K 1.1-4.2 N 1.5-1.6 N 2.6-2.8 N 4.1, 4.3-5.2		N 4.2

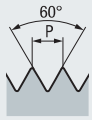
	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Rekord 1A-FK NT	VHM-Rekord 1A-FK-IKZ		Rekord 1D-PVC/E CRN
M	1	0,25	40	5	–	2,5	2,1	0,75				
	1,1	0,25	40	5	–	2,5	2,1	0,85				
	1,2	0,25	40	5	–	2,5	2,1	0,95				
	1,4	0,3	40	6	–	2,5	2,1	1,1				
	1,6	0,35	40	6	11	2,5	2,1	1,25				
	1,7	0,35	40	6	11	2,5	2,1	1,35				
	1,8	0,35	40	6	11	2,5	2,1	1,45				
	2	0,4	45	7	12	2,8	2,1	1,6				
	2,2	0,45	45	7	12	2,8	2,1	1,75				
	2,3	0,4	45	7	12	2,8	2,1	1,9				
	2,5	0,45	50	9	14	2,8	2,1	2,05				
	2,6	0,45	50	9	14	2,8	2,1	2,15				
	3	0,5	56	11	18	3,5	2,7	2,5	B010T001.0030	B8170901.0030		B046L801.0030
	3,5	0,6	56	12	20	4	3	2,9				
	4	0,7	63	13	21	4,5	3,4	3,3	B010T001.0040	B8170901.0040		B046L801.0040
	4,5	0,75	70	14	25	6	4,9	3,7				
	5	0,8	70	15	25	6	4,9	4,2	B010T001.0050	B8170901.0050		B046L801.0050
	5,5	0,9	80	16	30	6	4,9	4,6				
	6	1	80	17	30	6	4,9	5	B010T001.0060	B8170901.0060		B046L801.0060
	7	1	80	17	30	7	5,5	6				
	8	1,25	90	20	35	8	6,2	6,8	B010T001.0080	B8170901.0080		B046L801.0080
	9	1,25	90	20	35	9	7	7,8				
	10	1,5	100	22	39	10	8	8,5	B010T001.0100	B8170901.0100		B046L801.0100
	12	1,75	110	24	44	12	9	10,2				
								DIN 376				
								DIN 352				

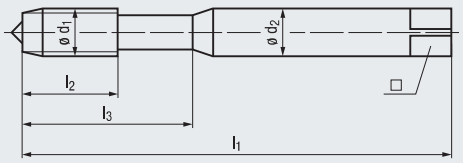
1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

MS Copper-zinc alloys		**TI** Titanium					**TILEG** Titanium alloys	
6HX		6HX	6HX	6HX	6HX		6HX	
		NT2	TICN	NT2	TICN		TICN	
HSSE		HSSE	HSSE	HSSE	HSSE		HSSE	
		L15	L15	R15	R15		R15	
C / 2-3		D / 4-5	D / 4-5	C / 2-3	C / 2-3		C / 2-3	
E		E / O / P	E / O / P	E / O / P	E / O / P		E / O / P	
max. 2 x d_1 		max. 3 x d_1		max. 2 x d_1			max. 2 x d_1	
N 2.3		P 4.1-5.1 M 3.1-4.1 N 2.4-2.5, 2.7 S 1.1-2.2, 2.4	P 4.1-5.1 M 3.1-4.1 N 2.4-2.5, 2.7 S 1.1-2.2, 2.4	P 4.1-5.1 M 3.1-4.1 N 2.4-2.5, 2.7 S 1.1-2.2, 2.4	P 4.1-5.1 M 3.1-4.1 N 2.4-2.5, 2.7 S 1.1-2.2, 2.4		S 1.2-1.3	
Rekord 1A-MS		**Rekord 1C-TI NT2**	**Rekord 1C-TI TICN**	**Rekord 1D-TI NT2**	**Rekord 1D-TI TICN**		**Rekord 1DF-TILEG TICN**	
								M 1
								1,1
								1,2
								1,4
								1,6
								1,7
								1,8
B0102501.0020		**B0306001.0020**	**B0309601.0020**	**B0456001.0020**	**B0459601.0020**			2
								2,2
								2,3
B0102501.0025		**B0306001.0025**	**B0309601.0025**	**B0456001.0025**	**B0459601.0025**			2,5
								2,6
B0102501.0030		**B0306001.0030**	**B0309601.0030**	**B0456001.0030**	**B0459601.0030**		**B040V401.0030**	3
		B0306001.0035	B0309601.0035	B0456001.0035	B0459601.0035			3,5
B0102501.0040		**B0306001.0040**	**B0309601.0040**	**B0456001.0040**	**B0459601.0040**		**B040V401.0040**	4
								4,5
B0102501.0050		**B0306001.0050**	**B0309601.0050**	**B0456001.0050**	**B0459601.0050**		**B040V401.0050**	5
								5,5
B0102501.0060		**B0306001.0060**	**B0309601.0060**	**B0456001.0060**	**B0459601.0060**		**B040V401.0060**	6
								7
B0102501.0080		**B0306001.0080**	**B0309601.0080**	**B0456001.0080**	**B0459601.0080**		**B040V401.0080**	8
								9
B0102501.0100		**B0306001.0100**	**B0309601.0100**	**B0456001.0100**	**B0459601.0100**		**B040V401.0100**	10
								12
		129	129	129	129			
151								

M

DIN 13





DIN 371

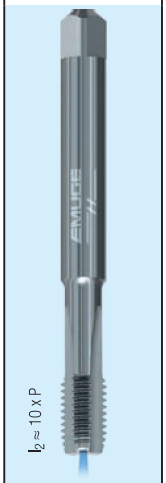
NI Nickel alloys

H Materials of high tensile strength

	NI Nickel alloys	NI Nickel alloys		H Materials of high tensile strength
Toleranz · Tolerance	6HX	6HX		6HX
Beschichtung · Coating	TICN	TICN		NT
Schneidstoff · Cutting material	HSSE-PM	HSSE-PM		HSSE
	L08	R10		
	D / 4-5	C / 2-3		C / 2-3
	O / P	O / P		E / O / P
Technische Informationen Technical information				
Gewindetiefe und Lochform Thread depth and hole type	max. 3 x d_1	max. 2 x d_1		max. 2 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	N 2.8 S 2.3, 2.5-2.6	N 2.8 S 2.3, 2.5-2.6		K 1.1-4.2 N 4.1

	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Rekord 1C-NI PM-TICN	Rekord 1DF-NI PM-TICN		Rekord 1A-H NT
M	1	0,25	40	5	–	2,5	2,1	0,75				
	1,1	0,25	40	5	–	2,5	2,1	0,85				
	1,2	0,25	40	5	–	2,5	2,1	0,95				
	1,4	0,3	40	6	–	2,5	2,1	1,1				
	1,6	0,35	40	6	11	2,5	2,1	1,25				
	1,7	0,35	40	6	11	2,5	2,1	1,35				
	1,8	0,35	40	6	11	2,5	2,1	1,45				
	2	0,4	45	7	12	2,8	2,1	1,6				B0100501.0020
	2,2	0,45	45	7	12	2,8	2,1	1,75				
	2,3	0,4	45	7	12	2,8	2,1	1,9				
	2,5	0,45	50	9	14	2,8	2,1	2,05				B0100501.0025
	2,6	0,45	50	9	14	2,8	2,1	2,15				
	3	0,5	56	11	18	3,5	2,7	2,5	B030J401.0030	B438J401.0030		B0100501.0030
	3,5	0,6	56	12	20	4	3	2,9				B0100501.0035
	4	0,7	63	13	21	4,5	3,4	3,3 [2]	B030J401.0040	B438J401.0040		B0100501.0040
	4,5	0,75	70	14	25	6	4,9	3,7				
	5	0,8	70	15	25	6	4,9	4,2 [2]	B030J401.0050	B438J401.0050		B0100501.0050
	5,5	0,9	80	16	30	6	4,9	4,6				
	6	1	80	17	30	6	4,9	5 [2]	B030J401.0060	B438J401.0060		B0100501.0060
	7	1	80	17	30	7	5,5	6				B0100501.0070
	8	1,25	90	20	35	8	6,2	6,8 [2]	B030J401.0080	B438J401.0080		B0100501.0080
	9	1,25	90	20	35	9	7	7,8				
	10	1,5	100	22	39	10	8	8,5 [2]	B030J401.0100	B438J401.0100		B0100501.0100
	12	1,75	110	24	44	12	9	10,2				
								DIN 376	129	129		130
								DIN 352				

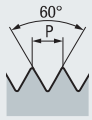
[2] Vorbohrdurchmesser für Gewindebohrer Rekord 1A-HCUT-PM-TICN um 0,1 mm anheben
Increase drill diameter for taps Rekord 1A-HCUT-PM-TICN by 0,1 mm

	H Materials of high tensile strength					**HCUT** Hardened steels	
							
	6HX TICN HSSE C / 2-3 E / O / P	6HX NT HSSE C / 2-3 E / O	6HX TICN HSSE C / 2-3 E / O	6HX TICN HSSE C / 2-3 E / O	6HX **VHM** C / 2-3 E / O	6HX TICN **HSSE-PM** C / 2-3 O / P	
	max. 2 x d_1	max. 2 x d_1 1)	max. 2 x d_1	max. 2 x d_1 1)	max. 1,5 x d_1		
	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1, 5.1	K 1.1-4.2 N 4.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1, 5.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1, 5.1	K 1.1-4.2 N 1.5-1.6 N 2.6-2.8 N 4.1, 4.3-4.4 N 5.1-5.2	H 1.1-1.2	
	Rekord 1A-H TICN	**Rekord 1A-H-IKZ NT**	**Rekord 1A-H-IKZ TICN**	**Rekord 1A-H-IKZN TICN**	**VHM-Rekord 1A-H-IKZ**	**Rekord 1A-HCUT PM-TICN**	
M 1							
1,1							
1,2							
1,4							
1,6							
1,7							
1,8							
2	**B0109101.0020**						
2,2							
2,3							
2,5	**B0109101.0025**						
2,6							
3	**B0109101.0030**				**B1950901.0030**		
3,5	**B0109101.0035**						
4	**B0109101.0040**				**B1950901.0040**	B010J901.0040	
4,5							
5	**B0109101.0050**	**B1950501.0050**	**B1959101.0050**	B1069101.0050	**B1950901.0050**	B010J901.0050	
5,5							
6	**B0109101.0060**	**B1950501.0060**	**B1959101.0060**	B1069101.0060	**B1950901.0060**	**B010J901.0060**	
7	**B0109101.0070**						
8	**B0109101.0080**	**B1950501.0080**	**B1959101.0080**	B1069101.0080	**B1950901.0080**	**B010J901.0080**	
9							
10	**B0109101.0100**	**B1950501.0100**	**B1959101.0100**	B1069101.0100	**B1950901.0100**	**B010J901.0100**	
12							
	130	130	130	131	131	131	

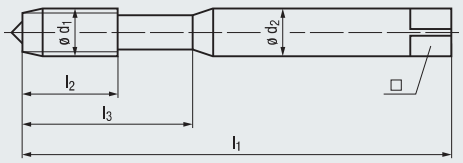
1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

M

DIN 13

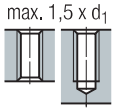


≈ DIN 371



HCUT
Hardened steels

2)

		HCUT Hardened steels	
Technische Informationen Technical information	Toleranz · Tolerance	6HX	6HX
	Beschichtung · Coating	TICN	TICN
	Schneidstoff · Cutting material	VHM	VHM
		D / 4-5	C / 2-3
		O / P	O / P
Gewindetiefe und Lochform Thread depth and hole type		max. 1,5 x d_1 	max. 1,5 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78		H 1.3-1.4	H 1.3-1.4

	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		VHM-Rekord 1A-HCUT/D TICN	VHM-Rekord 1A-HCUT/C TICN
M	3	0,5	63	6	18	4,5	3,4	2,55	**B016K101.0030**	**B010K101.0030**
	4	0,7	63	8	20	4,5	3,4	3,4	**B016K101.0040**	**B010K101.0040**
	5	0,8	70	10	26	6	4,9	4,3	**B016K101.0050**	**B010K101.0050**
	6	1	80	12	28	6	4,9	5,1	**B016K101.0060**	**B010K101.0060**
	8	1,25	90	15	35	8	6,2	6,9	**B016K101.0080**	**B010K101.0080**
	10	1,5	100	18	38	10	8	8,6	**B016K101.0100**	**B010K101.0100**
	12	1,75	110	21	41	12	9	10,4	**B016K101.0112**	**B010K101.0112**
	14	2	110	24	44	14	11	12,2	B016K101.0114	B010K101.0114
	16	2	110	24	44	16	12	14,2	**B016K101.0116**	**B010K101.0116**

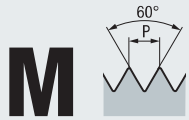
2) Achtung: VHM-Rekord 1A-HCUT/D-TICN als Vorschneider verwenden!
Please note: Use solid carbide tap VHM-Rekord 1A-HCUT/D-TICN as No.1 tap!

Spiralbohrer Typ EF-Drill-HCUT
siehe Seite 62

Twist drills type EF-Drill-HCUT,
see page 62

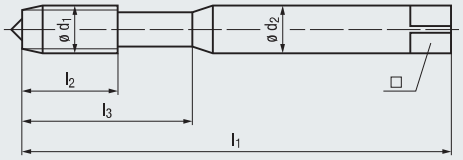
M

DIN 13



DIN 371

Z
CNC-controlled machines



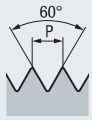
Technische Informationen Technical information				
Toleranz · Tolerance	6HX	6HX	6HX	6HX
Beschichtung · Coating	TICN	TICN	TICN	TICN
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
	C / 2-3 E / O / P	C / 2-3 E / O	C / 2-3 E / O	E / 1,5-2 E / O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 2 x d_1	max. 2 x d_1 1)	max. 2 x d_1	max. 2 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1

	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Rekord 1A-Z TICN	Rekord 1A-Z-IKZ TICN	Rekord 1A-Z-IKZN TICN	Rekord 1A-Z/E TICN
M	1	0,25	40	2,5	–	2,5	2,1	0,75				
	1,1	0,25	40	2,5	–	2,5	2,1	0,85				
	1,2	0,25	40	2,5	–	2,5	2,1	0,95				
	1,4	0,3	40	3	–	2,5	2,1	1,1				
	1,6	0,35	40	4	11	2,5	2,1	1,25				
	1,7	0,35	40	4	11	2,5	2,1	1,35				
	1,8	0,35	40	4	11	2,5	2,1	1,45				
	2	0,4	45	4	12	2,8	2,1	1,6				
	2,2	0,45	45	4,5	12	2,8	2,1	1,75				
	2,3	0,4	45	4,5	12	2,8	2,1	1,9				
	2,5	0,45	50	5	14	2,8	2,1	2,05				
	2,6	0,45	50	5	14	2,8	2,1	2,15				
	3	0,5	56	6	18	3,5	2,7	2,5	**B0109401.0030**			**B0119401.0030**
	3,5	0,6	56	7	20	4	3	2,9				
	4	0,7	63	7	21	4,5	3,4	3,3	**B0109401.0040**	**B1959401.0040**		**B0119401.0040**
	4,5	0,75	70	8	25	6	4,9	3,7				
	5	0,8	70	8	25	6	4,9	4,2	**B0109401.0050**	**B1959401.0050**	B1069401.0050	**B0119401.0050**
	5,5	0,9	80	10	30	6	4,9	4,6				
	6	1	80	10	30	6	4,9	5	**B0109401.0060**	**B1959401.0060**	B1069401.0060	**B0119401.0060**
	7	1	80	10	30	7	5,5	6				
	8	1,25	90	14	35	8	6,2	6,8	**B0109401.0080**	**B1959401.0080**	B1069401.0080	**B0119401.0080**
	9	1,25	90	14	35	9	7	7,8				
	10	1,5	100	16	39	10	8	8,5	**B0109401.0100**	**B1959401.0100**	B1069401.0100	**B0119401.0100**
	12	1,75	110	18	44	12	9	10,2				
								DIN 376	133	133	133	133
								DIN 352				

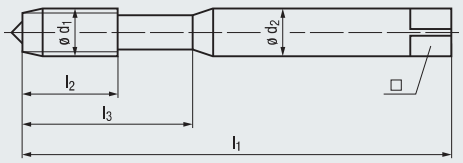
1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

M

DIN 13



DIN 371



Z
CNC-controlled machines

Toleranz · Tolerance	6HX	6HX	6HX	6HX
Beschichtung · Coating	TICN	TICN	TIN-70	GLT-1
Technische Informationen Technical information — Schneidstoff · Cutting material	HSSE	HSSE	HSSE-PM	HSSE-PM
	E / 1,5-2	E / 1,5-2	B / 4-5	B / 4-5
	E / O	E / O	E / O / P	E / O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 2 x d_1 1)	max. 2 x d_1	max. 3 x d_1	
Einsatzgebiete – Material Applications – material ▸▸ 78	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1	P 2.1-5.1	P 1.1-5.1 M 1.1-4.1 K 1.1-3.2 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1, 2.2-2.3

	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Rekord 1A-Z/E-IKZ TICN	Rekord 1A-Z/E-IKZN TICN	Rekord 1B-Z PM-TIN-70	Rekord 1B-Z PM-GLT-1
M	1	0,25	40	2,5	–	2,5	2,1	0,75				
	1,1	0,25	40	2,5	–	2,5	2,1	0,85				
	1,2	0,25	40	2,5	–	2,5	2,1	0,95				
	1,4	0,3	40	3	–	2,5	2,1	1,1				
	1,6	0,35	40	4	11	2,5	2,1	1,25				
	1,7	0,35	40	4	11	2,5	2,1	1,35				
	1,8	0,35	40	4	11	2,5	2,1	1,45				
	2	0,4	45	4	12	2,8	2,1	1,6			B0208F01.0020	B020A601.0020
	2,2	0,45	45	4,5	12	2,8	2,1	1,75				
	2,3	0,4	45	4,5	12	2,8	2,1	1,9				
	2,5	0,45	50	5	14	2,8	2,1	2,05			B0208F01.0025	B020A601.0025
	2,6	0,45	50	5	14	2,8	2,1	2,15				
	3	0,5	56	6	18	3,5	2,7	2,5			B0208F01.0030	B020A601.0030
	3,5	0,6	56	7	20	4	3	2,9			B0208F01.0035	B020A601.0035
	4	0,7	63	7	21	4,5	3,4	3,3	B1969401.0040		B0208F01.0040	B020A601.0040
	4,5	0,75	70	8	25	6	4,9	3,7				
	5	0,8	70	8	25	6	4,9	4,2	B1969401.0050	B1099401.0050	B0208F01.0050	B020A601.0050
	5,5	0,9	80	10	30	6	4,9	4,6				
	6	1	80	10	30	6	4,9	5	B1969401.0060	B1099401.0060	B0208F01.0060	B020A601.0060
	7	1	80	10	30	7	5,5	6				
	8	1,25	90	14	35	8	6,2	6,8	B1969401.0080	B1099401.0080	B0208F01.0080	B020A601.0080
	9	1,25	90	14	35	9	7	7,8				
	10	1,5	100	16	39	10	8	8,5	B1969401.0100	B1099401.0100	B0208F01.0100	B020A601.0100
	12	1,75	110	18	44	12	9	10,2				
								DIN 376	134	134	134	134
								DIN 352				

1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

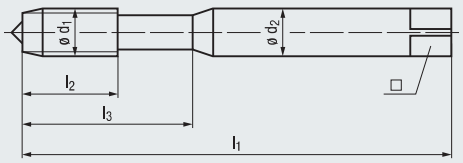
Z
CNC-controlled machines

6HX	6HX	6GX	6GX	6GX	6GX	6HX	6HX
TIN-70	GLT-1	TIN-70	GLT-1	TIN-70	GLT-1	TIN	TIN
HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE	HSSE
						R15	R15
B / 4-5	B / 4-5	B / 4-5	B / 4-5	B / 4-5	B / 4-5	C / 2-3	C / 2-3
E / O	E / O	E / O / P	E / O / P	E / O	E / O	E / O / P	E / O
		max. 3 x d_1				max. 2 x d_1	
P 2.1-5.1	P 1.1-5.1 M 1.1-4.1 K 1.1-3.2 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1, 2.2-2.3	P 2.1-5.1	P 1.1-5.1 M 1.1-4.1 K 1.1-3.2 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1, 2.2-2.3	P 2.1-5.1	P 1.1-5.1 M 1.1-4.1 K 1.1-3.2 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1, 2.2-2.3	P 3.1-5.1 N 2.4-2.5	P 3.1-5.1 N 2.4-2.5
Rekord 1B-Z-IKZN PM-TIN-70	**Rekord 1B-Z-IKZN PM-GLT-1**	**Rekord 1B-Z PM-TIN-70**	**Rekord 1B-Z PM-GLT-1**	**Rekord 1B-Z-IKZN PM-TIN-70**	**Rekord 1B-Z-IKZN PM-GLT-1**	**Rekord 1D-Z TIN**	**Rekord 1D-Z-IKZ TIN**	
								M 1
								1,1
								1,2
								1,4
								1,6
								1,7
								1,8
		B0208F21.0020	**B020A621.0020**					2
								2,2
								2,3
		B0208F21.0025	**B020A621.0025**					2,5
								2,6
		B0208F21.0030	**B020A621.0030**			**B0453701.0030**		3
								3,5
		B0208F21.0040	**B020A621.0040**			**B0453701.0040**	**B0963701.0040**	4
								4,5
B1088F01.0050	B108A601.0050	**B0208F21.0050**	**B020A621.0050**	B1088F21.0050	B108A621.0050	**B0453701.0050**	**B0963701.0050**	5
								5,5
B1088F01.0060	B108A601.0060	**B0208F21.0060**	**B020A621.0060**	B1088F21.0060	B108A621.0060	**B0453701.0060**	**B0963701.0060**	6
								7
B1088F01.0080	B108A601.0080	**B0208F21.0080**	**B020A621.0080**	B1088F21.0080	B108A621.0080	**B0453701.0080**	**B0963701.0080**	8
								9
B1088F01.0100	B108A601.0100	**B0208F21.0100**	**B020A621.0100**	B1088F21.0100	B108A621.0100	**B0453701.0100**	**B0963701.0100**	10
								12
135	135	135	135	135	135	135	135	

M

DIN 13

DIN 371



Z
CNC-controlled machines

Toleranz · Tolerance	6HX	6HX	6HX
Beschichtung · Coating	TIN	TIN	TIN
Schneidstoff · Cutting material	HSSE	HSSE	HSSE
	R15	R15	R15
	E / 1,5-2	C / 2-3	E / 1,5-2
	E / 0	E / 0	E / 0

Technische Informationen
Technical information

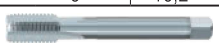
Gewindetiefe und Lochform
Thread depth and hole type

max. 2 x d_1

	P 3.1-5.1	P 3.1-5.1	P 3.1-5.1
	N 2.4-2.5	N 2.4-2.5	N 2.4-2.5

Einsatzgebiete – Material
Applications – material

78

	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Rekord 1D-Z/E-IKZ TIN	Rekord 1D-Z-BF IKZ-TIN	Rekord 1D-Z/E-BF IKZ-TIN
M	1	0,25	40	2,5	–	2,5	2,1	0,75			
	1,1	0,25	40	2,5	–	2,5	2,1	0,85			
	1,2	0,25	40	2,5	–	2,5	2,1	0,95			
	1,4	0,3	40	3	–	2,5	2,1	1,1			
	1,6	0,35	40	4	11	2,5	2,1	1,25			
	1,7	0,35	40	4	11	2,5	2,1	1,35			
	1,8	0,35	40	4	11	2,5	2,1	1,45			
	2	0,4	45	4	12	2,8	2,1	1,6			
	2,2	0,45	45	4,5	12	2,8	2,1	1,75			
	2,3	0,4	45	4,5	12	2,8	2,1	1,9			
	2,5	0,45	50	5	14	2,8	2,1	2,05			
	2,6	0,45	50	5	14	2,8	2,1	2,15			
	3	0,5	56	6	18	3,5	2,7	2,5			
	3,5	0,6	56	7	20	4	3	2,9			
	4	0,7	63	7	21	4,5	3,4	3,3	B0983701.0040	B4253701.0040	B4053701.0040
	4,5	0,75	70	8	25	6	4,9	3,7			
	5	0,8	70	8	25	6	4,9	4,2	B0983701.0050	B4253701.0050	B4053701.0050
	5,5	0,9	80	10	30	6	4,9	4,6			
	6	1	80	10	30	6	4,9	5	B0983701.0060	B4253701.0060	B4053701.0060
	7	1	80	10	30	7	5,5	6			
	8	1,25	90	14	35	8	6,2	6,8	B0983701.0080	B4253701.0080	B4053701.0080
	9	1,25	90	14	35	9	7	7,8			
	10	1,5	100	16	39	10	8	8,5	B0983701.0100	B4253701.0100	B4053701.0100
	12	1,75	110	18	44	12	9	10,2			
								DIN 376 	136	136	136
								DIN 352			

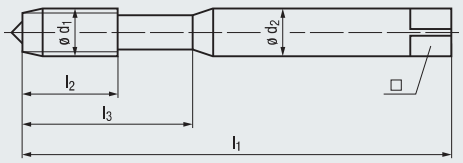
Z
CNC-controlled machines

new	new	new	new	new	new	new	new
6HX	6HX	6HX	6HX	6GX	6GX	6GX	6GX
GLT-1	GLT-1	GLT-1	GLT-1	GLT-1	GLT-1	GLT-1	GLT-1
HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM
R45	R45	R45	R45	R45	R45	R45	R45
C / 2-3	C / 2-3	E / 1,5-2	E / 1,5-2	C / 2-3	C / 2-3	E / 1,5-2	E / 1,5-2
E / O / P	E / O	E / O / P	E / O	E / O / P	E / O	E / O / P	E / O
			max. 3 x d_1				
P 1.1-4.1	P 1.1-4.1	P 1.1-4.1	P 1.1-4.1	P 1.1-4.1	P 1.1-4.1	P 1.1-4.1	P 1.1-4.1
M 1.1-4.1	M 1.1-4.1	M 1.1-4.1	M 1.1-4.1	M 1.1-4.1	M 1.1-4.1	M 1.1-4.1	M 1.1-4.1
K 1.1-3.2	K 1.1-3.2	K 1.1-3.2	K 1.1-3.2	K 1.1-3.2	K 1.1-3.2	K 1.1-3.2	K 1.1-3.2
N 1.4, 2.1-2.2	N 1.4, 2.1-2.2	N 1.4, 2.1-2.2	N 1.4, 2.1-2.2	N 1.4, 2.1-2.2	N 1.4, 2.1-2.2	N 1.4, 2.1-2.2	N 1.4, 2.1-2.2
N 2.4-2.5	N 2.4-2.5	N 2.4-2.5	N 2.4-2.5	N 2.4-2.5	N 2.4-2.5	N 2.4-2.5	N 2.4-2.5
S 1.1	S 1.1	S 1.1	S 1.1	S 1.1	S 1.1	S 1.1	S 1.1
Enorm 1-Z PM-GLT-1	**Enorm 1-Z-IKZ PM-GLT-1**	**Enorm 1-Z/E PM-GLT-1**	**Enorm 1-Z/E-IKZ PM-GLT-1**	**Enorm 1-Z PM-GLT-1**	**Enorm 1-Z-IKZ PM-GLT-1**	**Enorm 1-Z/E PM-GLT-1**	**Enorm 1-Z/E-IKZ PM-GLT-1**	
								M 1
								1,1
								1,2
								1,4
								1,6
								1,7
								1,8
B616A601.0020		B498A601.0020						2
								2,2
								2,3
B616A601.0025		B498A601.0025						2,5
								2,6
B616A601.0030		**B498A601.0030**		**B616A621.0030**		**B498A621.0030**		3
B616A601.0035		B498A601.0035						3,5
B616A601.0040	**B591A601.0040**	**B498A601.0040**	**B590A601.0040**	**B616A621.0040**	**B591A621.0040**	**B498A621.0040**	**B590A621.0040**	4
								4,5
B616A601.0050	**B591A601.0050**	**B498A601.0050**	**B590A601.0050**	**B616A621.0050**	**B591A621.0050**	**B498A621.0050**	**B590A621.0050**	5
								5,5
B616A601.0060	**B591A601.0060**	**B498A601.0060**	**B590A601.0060**	**B616A621.0060**	**B591A621.0060**	**B498A621.0060**	**B590A621.0060**	6
								7
B616A601.0080	**B591A601.0080**	**B498A601.0080**	**B590A601.0080**	**B616A621.0080**	**B591A621.0080**	**B498A621.0080**	**B590A621.0080**	8
								9
B616A601.0100	**B591A601.0100**	**B498A601.0100**	**B590A601.0100**	**B616A621.0100**	**B591A621.0100**	**B498A621.0100**	**B590A621.0100**	10
								12
137	137	137	137	137	137	137	137	

M

DIN 13

DIN 371



Z
CNC-controlled machines

Technische Informationen Technical information	Toleranz · Tolerance	ISO 2/6H *)	ISO 2/6H	ISO 2/6H	ISO 2/6H
	Beschichtung · Coating		TIN	GLT-1	GLT-1
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
		R45	R45	R45	R45
		C / 2-3	C / 2-3	C / 2-3	C / 2-3
		E / O / P	E / O / P	E / O / P	E / O

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1

P 1.1-3.1	P 1.1-4.1 N 2.2, 2.4-2.5 S 1.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1

Einsatzgebiete – Material
Applications – material

78

	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Enorm 1-Z	Enorm 1-Z TIN	Enorm 1-Z GLT-1	Enorm 1-Z-IKZ GLT-1
M	1	0,25	40	2,5	–	2,5	2,1	0,75				
	1,1	0,25	40	2,5	–	2,5	2,1	0,85				
	1,2	0,25	40	2,5	–	2,5	2,1	0,95				
	1,4	0,3	40	3	–	2,5	2,1	1,1	B0503500.0014			
	1,6	0,35	40	4	11	2,5	2,1	1,25	B0503500.0016			
	1,7	0,35	40	4	11	2,5	2,1	1,35	B0503500.0017			
	1,8	0,35	40	4	11	2,5	2,1	1,45	B0503500.0018			
	2	0,4	45	4	12	2,8	2,1	1,6	**B0503500.0020**		**B050C400.0020**	
	2,2	0,45	45	4,5	12	2,8	2,1	1,75	**B0503500.0022**			
	2,3	0,4	45	4,5	12	2,8	2,1	1,9	**B0503500.0023**			
	2,5	0,45	50	5	14	2,8	2,1	2,05	**B0503500.0025**		**B050C400.0025**	
	2,6	0,45	50	5	14	2,8	2,1	2,15	**B0503500.0026**			
	3	0,5	56	6	18	3,5	2,7	2,5	**B0503500.0030**	**B0503700.0030**	**B050C400.0030**	
	3,5	0,6	56	7	20	4	3	2,9	**B0503500.0035**	**B0503700.0035**		
	4	0,7	63	7	21	4,5	3,4	3,3	**B0503500.0040**	**B0503700.0040**	**B050C400.0040**	
	4,5	0,75	70	8	25	6	4,9	3,7	**B0503500.0045**			
	5	0,8	70	8	25	6	4,9	4,2	**B0503500.0050**	**B0503700.0050**	**B050C400.0050**	**B099C400.0050**
	5,5	0,9	80	10	30	6	4,9	4,6	**B0503500.0055**			
	6	1	80	10	30	6	4,9	5	**B0503500.0060**	**B0503700.0060**	**B050C400.0060**	**B099C400.0060**
	7	1	80	10	30	7	5,5	6	**B0503500.0070**			
	8	1,25	90	14	35	8	6,2	6,8	**B0503500.0080**	**B0503700.0080**	**B050C400.0080**	**B099C400.0080**
	9	1,25	90	14	35	9	7	7,8	**B0503500.0090**			
	10	1,5	100	16	39	10	8	8,5	**B0503500.0100**	**B0503700.0100**	**B050C400.0100**	**B099C400.0100**
	12	1,75	110	18	44	12	9	10,2	**B0503500.0112**			

DIN 376		138	138	138	139
DIN 352					

*) ≤ M1,4 Tol. 4H/5H

Z
CNC-controlled machines

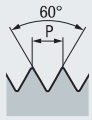
					new	new	new
ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 1/4H	ISO 1/4H
	TIN	GLT-1		TIN	GLT-1		GLT-1
HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE
R45	R45	R45	R45	R45	R45	R45	R45
E / 1,5-2	E / 1,5-2	E / 1,5-2	E / 1,5-2	E / 1,5-2	E / 1,5-2	C / 2-3	C / 2-3
E / O / P	E / O / P	E / O / P	E / O	E / O	E / O	E / O / P	E / O / P

max. 3 x d_1

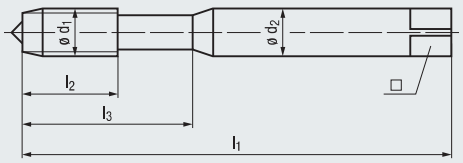
P 1.1-3.1	P 1.1-4.1 N 2.2, 2.4-2.5 S 1.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 N 2.2, 2.4-2.5 S 1.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1
Enorm 1-Z/E	**Enorm 1-Z/E TIN**	**Enorm 1-Z/E GLT-1**	**Enorm 1-Z/E-IKZ**	**Enorm 1-Z/E-IKZ TIN**	**Enorm 1-Z/E-IKZ GLT-1**	**Enorm 1-Z**	**Enorm 1-Z GLT-1**	
								M 1
								1,1
								1,2
								1,4
								1,6
								1,7
								1,8
B0513500.0020						**B0503510.0020**		2
								2,2
								2,3
B0513500.0025						**B0503510.0025**		2,5
								2,6
B0513500.0030	**B0513700.0030**	**B051C400.0030**				**B0503510.0030**	**B050C410.0030**	3
B0513500.0035	B0513700.0035							3,5
B0513500.0040	**B0513700.0040**	**B051C400.0040**				**B0503510.0040**	**B050C410.0040**	4
								4,5
B0513500.0050	**B0513700.0050**	**B051C400.0050**	**B0973500.0050**	**B0973700.0050**	**B097C400.0050**	**B0503510.0050**	**B050C410.0050**	5
								5,5
B0513500.0060	**B0513700.0060**	**B051C400.0060**	**B0973500.0060**	**B0973700.0060**	**B097C400.0060**	**B0503510.0060**	**B050C410.0060**	6
B0513500.0070								7
B0513500.0080	**B0513700.0080**	**B051C400.0080**	**B0973500.0080**	**B0973700.0080**	**B097C400.0080**	**B0503510.0080**	**B050C410.0080**	8
								9
B0513500.0100	**B0513700.0100**	**B051C400.0100**	**B0973500.0100**	**B0973700.0100**	**B097C400.0100**	**B0503510.0100**	**B050C410.0100**	10
								12
139	139	139		139	139	139	139	
151								

M

DIN 13



DIN 371



Z
CNC-controlled machines

Technische Informationen
Technical information

Toleranz · Tolerance	ISO 3/6G	ISO 3/6G	ISO 3/6G	ISO 3/6G
Beschichtung · Coating		GLT-1		TIN
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
	R45	R45	R45	R45
	C / 2-3	C / 2-3	E / 1,5-2	E / 1,5-2
	E / O / P	E / O / P	E / O / P	E / O / P

Gewindetiefe und Lochform
Thread depth and hole type

Einsatzgebiete – Material
Applications – material

78

P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 N 2.2, 2.4-2.5 S 1.1

	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Enorm 1-Z	Enorm 1-Z GLT-1	Enorm 1-Z/E	Enorm 1-Z/E TIN
M	1	0,25	40	2,5	–	2,5	2,1	0,75				
	1,1	0,25	40	2,5	–	2,5	2,1	0,85				
	1,2	0,25	40	2,5	–	2,5	2,1	0,95				
	1,4	0,3	40	3	–	2,5	2,1	1,1				
	1,6	0,35	40	4	11	2,5	2,1	1,25				
	1,7	0,35	40	4	11	2,5	2,1	1,35				
	1,8	0,35	40	4	11	2,5	2,1	1,45				
	2	0,4	45	4	12	2,8	2,1	1,6	**B0503520.0020**	**B050C420.0020**	B0513520.0020	
	2,2	0,45	45	4,5	12	2,8	2,1	1,75				
	2,3	0,4	45	4,5	12	2,8	2,1	1,9				
	2,5	0,45	50	5	14	2,8	2,1	2,05	**B0503520.0025**	**B050C420.0025**	B0513520.0025	
	2,6	0,45	50	5	14	2,8	2,1	2,15				
	3	0,5	56	6	18	3,5	2,7	2,5	**B0503520.0030**	**B050C420.0030**	**B0513520.0030**	**B0513720.0030**
	3,5	0,6	56	7	20	4	3	2,9				
	4	0,7	63	7	21	4,5	3,4	3,3	**B0503520.0040**	**B050C420.0040**	**B0513520.0040**	**B0513720.0040**
	4,5	0,75	70	8	25	6	4,9	3,7				
	5	0,8	70	8	25	6	4,9	4,2	**B0503520.0050**	**B050C420.0050**	**B0513520.0050**	**B0513720.0050**
	5,5	0,9	80	10	30	6	4,9	4,6				
	6	1	80	10	30	6	4,9	5	**B0503520.0060**	**B050C420.0060**	**B0513520.0060**	**B0513720.0060**
	7	1	80	10	30	7	5,5	6				
	8	1,25	90	14	35	8	6,2	6,8	**B0503520.0080**	**B050C420.0080**	**B0513520.0080**	**B0513720.0080**
	9	1,25	90	14	35	9	7	7,8				
	10	1,5	100	16	39	10	8	8,5	**B0503520.0100**	**B050C420.0100**	**B0513520.0100**	**B0513720.0100**
	12	1,75	110	18	44	12	9	10,2				

DIN 376	140	140	140	140
DIN 352				

Z
CNC-controlled machines

new	new	new	new	new	new	new
ISO 3/6G	**7G**	**7G**	**6H +0,1** [2]	**6H +0,1** [2]	ISO 2/6H	ISO 2/6H
GLT-1		GLT-1		GLT-1		GLT-1
HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE
R45	R45	R45	R45	R45	**LH, L45**	**LH, L45**
E / 1,5-2	C / 2-3	C / 2-3	C / 2-3	C / 2-3	C / 2-3	C / 2-3
E / O / P	E / O / P	E / O / P	E / O / P	E / O / P	E / O / P	E / O / P

max. 3 x d_1

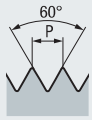
P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1
Enorm 1-Z/E GLT-1	**Enorm 1-Z**	**Enorm 1-Z GLT-1**	**Enorm 1-Z**	**Enorm 1-Z GLT-1**	**Enorm 1-Z-LH**	**Enorm 1-Z-LH GLT-1**
	B0503530.0020	B050C430.0020			B0503550.0020	
	B0503530.0025	B050C430.0025			B0503550.0025	
B051C420.0030	B0503530.0030	B050C430.0030	B0503540.0030	B050C440.0030	B0503550.0030	B050C450.0030
B051C420.0040	B0503530.0040	B050C430.0040	B0503540.0040	B050C440.0040	B0503550.0040	B050C450.0040
B051C420.0050	B0503530.0050	B050C430.0050	B0503540.0050	B050C440.0050	B0503550.0050	B050C450.0050
B051C420.0060	B0503530.0060	B050C430.0060			B0503550.0060	B050C450.0060
B051C420.0080	B0503530.0080	B050C430.0080			B0503550.0080	B050C450.0080
B051C420.0100	B0503530.0100	B050C430.0100			B0503550.0100	B050C450.0100
141	141	141	141	141	141	141

M	1
	1,1
	1,2
	1,4
	1,6
	1,7
	1,8
	2
	2,2
	2,3
	2,5
	2,6
	3
	3,5
	4
	4,5
	5
	5,5
	6
	7
	8
	9
	10
	12

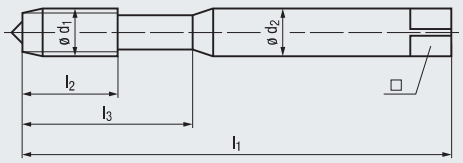
[2] Vorbohrdurchmesser für Gewindebohrer mit Übermaß um 0,1 mm anheben
Increase drill diameter for taps with oversize by 0.1 mm

M

DIN 13



DIN 371



Z
CNC-controlled machines

new

Toleranz · Tolerance	6HX	6HX
Beschichtung · Coating		GLT-1
Schneidstoff · Cutting material	HSSE	HSSE
	R50	R50
	C / 2-3	C / 2-3
	E / O / P	E / O / P

Technische Informationen
Technical information

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1

Einsatzgebiete – Material
Applications – material

78

P 1.1-3.1	P 1.1-4.1
	M 1.1-4.1
	N 1.4, 2.1-2.2
	N 2.4-2.5
	S 1.1

	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Enorm 1-Z50	Enorm 1-Z50 GLT-1
M	1	0,25	40	2,5	–	2,5	2,1	0,75		
	1,1	0,25	40	2,5	–	2,5	2,1	0,85		
	1,2	0,25	40	2,5	–	2,5	2,1	0,95		
	1,4	0,3	40	3	–	2,5	2,1	1,1		
	1,6	0,35	40	4	11	2,5	2,1	1,25		
	1,7	0,35	40	4	11	2,5	2,1	1,35		
	1,8	0,35	40	4	11	2,5	2,1	1,45		
	2	0,4	45	4	12	2,8	2,1	1,6	B0653501.0020	
	2,2	0,45	45	4,5	12	2,8	2,1	1,75		
	2,3	0,4	45	4,5	12	2,8	2,1	1,9		
	2,5	0,45	50	5	14	2,8	2,1	2,05	B0653501.0025	
	2,6	0,45	50	5	14	2,8	2,1	2,15		
	3	0,5	56	6	18	3,5	2,7	2,5	**B0653501.0030**	**B065C401.0030**
	3,5	0,6	56	7	20	4	3	2,9		
	4	0,7	63	7	21	4,5	3,4	3,3	**B0653501.0040**	**B065C401.0040**
	4,5	0,75	70	8	25	6	4,9	3,7		
	5	0,8	70	8	25	6	4,9	4,2	**B0653501.0050**	**B065C401.0050**
	5,5	0,9	80	10	30	6	4,9	4,6		
	6	1	80	10	30	6	4,9	5	**B0653501.0060**	**B065C401.0060**
	7	1	80	10	30	7	5,5	6		
	8	1,25	90	14	35	8	6,2	6,8	**B0653501.0080**	**B065C401.0080**
	9	1,25	90	14	35	9	7	7,8		
	10	1,5	100	16	39	10	8	8,5	**B0653501.0100**	**B065C401.0100**
	12	1,75	110	18	44	12	9	10,2		

DIN 376

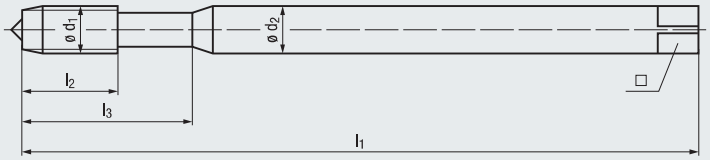
142 142

DIN 352

M

DIN 13

Mit extra langem Schaft
With extra long shank

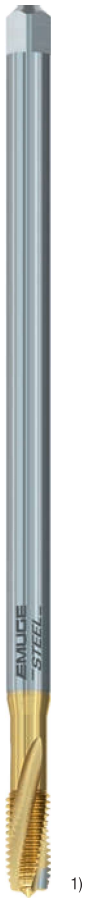


STEEL
Steel materials

new

2)

1)



1)

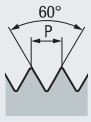
Technische Informationen · Technical information			
Toleranz · Tolerance	ISO 2/6H	ISO 2/6H	ISO 2/6H
Beschichtung · Coating			TIN
Schneidstoff · Cutting material	HSSE	HSSE	HSSE
		R15	R15
	B / 4-5	**E / 1,5-2**	C / 2-3
	E / 0	E / 0	E / 0
Gewindetiefe und Lochform · Thread depth and hole type	max. 3 x d_1	max. 2 x d_1	
Einsatzgebiete – Material · Applications – material ▸▸ 78	P 1.1-3.1 N 2.2	P 2.1-3.1	P 3.1-4.1

	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Rekord 1B-STEEL-L LS	Rekord 1D-STEEL/E LS	Rekord 1DF-STEEL LS-TIN
M	3	0,5	100	11	18	3,5	2,7	2,5	B2208900.0030	B2461000.0030	B2401400.0030
	4	0,7	125	13	21	4,5	3,4	3,3	B2208900.0040	B2461000.0040	B2401400.0040
	5	0,8	140	15	25	6	4,9	4,2	B2208900.0050	B2461000.0050	B2401400.0050
	6	1	160	17	30	6	4,9	5	B2208900.0060	B2461000.0060	B2401400.0060
	8	1,25	180	20	35	8	6,2	6,8	B2208900.0080	B2461000.0080	B2401400.0080
	10	1,5	200	22	39	10	8	8,5			B2401400.0100
									143	143	143

1) Ab M4 auch mit innerer Kühlschmierstoff-Zufuhr IKZ möglich
From M4 also available with internal coolant supply IKZ

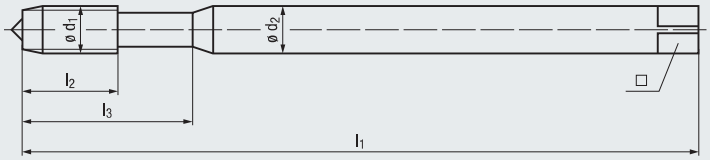
2) Ab M5 auch mit innerer Kühlschmierstoff-Zufuhr IKZN möglich
From M5 also available with internal coolant supply IKZN

M



DIN 13

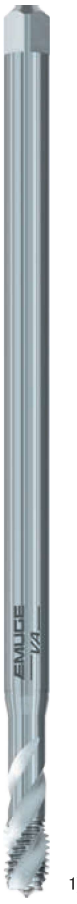
Mit extra langem Schaft
With extra long shank



VA
Stainless steel materials

2)

2)



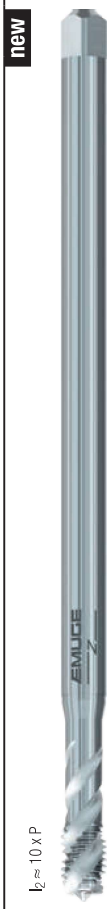
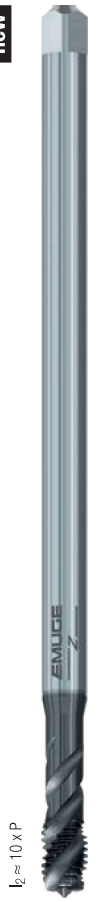
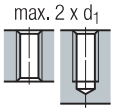
1)

Technische Informationen Technical information	Toleranz · Tolerance	ISO 2/6H	ISO 2/6H	ISO 2/6H
	Beschichtung · Coating	NT	GLT-1	
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE
				R35
		B / 4-5	B / 4-5	C / 2-3
		E / O / P	E / O / P	E / O / P
Gewindetiefe und Lochform Thread depth and hole type			max. 3 x d_1	max. 2,5 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78		P 2.1-3.1 N 2.2, 2.5	P 1.1-4.1 M 1.1-4.1 N 2.2	P 1.1-3.1

	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Rekord 1B-VA LS-NT	Rekord 1B-VA LS-GLT-1	Enorm 1-VA LS
M	3	0,5	100	11	18	3,5	2,7	2,5	B2203000.0030	B220C300.0030	B2503000.0030
	4	0,7	125	13	21	4,5	3,4	3,3	B2203000.0040	B220C300.0040	B2503000.0040
	5	0,8	140	15	25	6	4,9	4,2	B2203000.0050	B220C300.0050	B2503000.0050
	6	1	160	17	30	6	4,9	5	B2203000.0060	B220C300.0060	B2503000.0060
	8	1,25	180	20	35	8	6,2	6,8	B2203000.0080	B220C300.0080	B2503000.0080
	10	1,5	200	22	39	10	8	8,5			
									144	144	144

1) Ab M4 auch mit innerer Kühlschmierstoff-Zufuhr IKZ möglich
From M4 also available with internal coolant supply IKZ

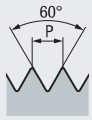
2) Ab M5 auch mit innerer Kühlschmierstoff-Zufuhr IKZN möglich
From M5 also available with internal coolant supply IKZN

H Materials of high tensile strength		**Z** CNC-controlled machines						
1) 2)		$l_2 \approx 10 \times P$	new  $l_2 \approx 10 \times P$ 1)	new  $l_2 \approx 10 \times P$ 1)				
6HX		6HX	ISO 2/6H	ISO 2/6H				
NT		TIN		GLT-1				
HSSE		HSSE	HSSE	HSSE				
		R15	R45	R45				
C / 2-3		C / 2-3	C / 2-3	C / 2-3				
E / O / P		E / O	E / O / P	E / O / P				
max. 2 x d_1 		max. 2 x d_1	max. 3 x d_1					
K 1.1-4.2 N 4.1		P 3.1-5.1 N 2.4-2.5	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1				
Rekord 1A-H LS-NT		**Rekord 1D-Z-BF-IKZ LS-TIN**	**Enorm 1-Z LS**	**Enorm 1-Z-LS GLT-1**				
B2100501.0030			**B2503500.0030**	**B250C400.0030**			**M**	3
B2100501.0040		B4093701.0040	**B2503500.0040**	**B250C400.0040**				4
B2100501.0050		B4093701.0050	**B2503500.0050**	**B250C400.0050**				5
B2100501.0060		B4093701.0060	**B2503500.0060**	**B250C400.0060**				6
B2100501.0080		B4093701.0080	**B2503500.0080**	**B250C400.0080**				8
		B4093701.0100						10
145		145	145	145				

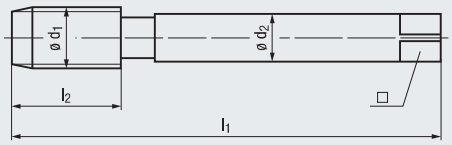
Spezial-Schaftverlängerungen zur Aufnahme von Standard-Gewindebohrern siehe Seite 302 - 304
Special shank extensions for using standard taps, see page 302 - 304

M

DIN 13



DIN 376



STEEL
Steel materials

Toleranz · Tolerance	6HX	ISO 2/6H	ISO 2/6H	ISO 1/4H
Beschichtung · Coating			TIN	
Technische Informationen Technical information Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
	C / 2-3	B / 4-5	B / 4-5	B / 4-5
	E / O	E / O	E / O	E / O
Gewindetiefe und Lochform Thread depth and hole type	max. 2 x d_1		max. 3 x d_1	
Einsatzgebiete – Material Applications – material ▸▸ 78	K 1.1-4.2 N 2.3	P 1.1-3.1 N 2.2	P 1.1-4.1	P 1.1-3.1 N 2.2

	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Rekord 2A-STEEL	Rekord 2B-STEEL-L	Rekord 2B-STEEL-L TIN	Rekord 2B-STEEL-L
M	3	0,5	56	11	2,2	–	2,5				
	4	0,7	63	13	2,8	2,1	3,3	C0101001.0040			
	5	0,8	70	15	3,5	2,7	4,2	C0101001.0050	C0208900.0050	C0208400.0050	
	6	1	80	17	4,5	3,4	5	C0101001.0060	C0208900.0060	C0208400.0060	
	7	1	80	17	5,5	4,3	6				
	8	1,25	90	20	6	4,9	6,8	C0101001.0080	C0208900.0080	C0208400.0080	
	9	1,25	90	20	7	5,5	7,8				
	10	1,5	100	22	7	5,5	8,5	C0101001.0100	C0208900.0100	C0208400.0100	
	11	1,5	100	22	8	6,2	9,5	C0101001.0111	C0208900.0111	C0208400.0111	
	12	1,75	110	24	9	7	10,2	C0101001.0112	C0208900.0112	C0208400.0112	C0208910.0112
	14	2	110	26	11	9	12	C0101001.0114	C0208900.0114	C0208400.0114	C0208910.0114
	16	2	110	27	12	9	14	C0101001.0116	C0208900.0116	C0208400.0116	C0208910.0116
	18	2,5	125	30	14	11	15,5	C0101001.0118	C0208900.0118	C0208400.0118	C0208910.0118
	20	2,5	140	32	16	12	17,5	C0101001.0120	C0208900.0120	C0208400.0120	C0208910.0120
	22	2,5	140	32	18	14,5	19,5	C0101001.0122	C0208900.0122	C0208400.0122	C0208910.0122
	24	3	160	34	18	14,5	21	C0101001.0124	C0208900.0124	C0208400.0124	C0208910.0124
	27	3	160	36	20	16	24	C0101001.0127	C0208900.0127	C0208400.0127	
	30	3,5	180	40	22	18	26,5	C0101001.0130	C0208900.0130	C0208400.0130	
	33	3,5	180	40	25	20	29,5	C0101001.0133	C0208900.0133	C0208400.0133	
	36	4	200	50	28	22	32	C0101001.0136	C0208900.0136	C0208400.0136	
	39	4	200	50	32	24	35	C0101001.0139	C0208900.0139	C0208400.0139	
	42	4,5	200	56	32	24	37,5	C0101001.0142	C0208900.0142	C0208400.0142	
	45	4,5	220	58	36	29	40,5	C0101001.0145	C0208900.0145	C0208400.0145	
	48	5	250	65	36	29	43	C0101001.0148	C0208900.0148	C0208400.0148	
	52	5	250	65	40	32	47	C0101001.0152	C0208900.0152	C0208400.0152	
					DIN 371			▸ 92	▸ 92	▸ 92	▸ 93
					DIN 352			▸ 150	▸ 150		

STEEL
Steel materials

ISO 1/4H	ISO 3/6G	ISO 3/6G	7G	7G	ISO 2/6H	ISO 2/6H
TIN	TIN	TIN	TIN	TIN	TIN	TIN
HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE
					LH	LH
B / 4-5	B / 4-5	B / 4-5	B / 4-5	B / 4-5	B / 4-5	B / 4-5
E / O	E / O	E / O	E / O	E / O	E / O	E / O

max. 3 x d_1

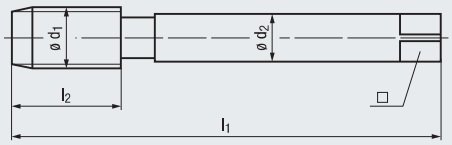
P 1.1-4.1	P 1.1-3.1 N 2.2	P 1.1-4.1	P 1.1-3.1 N 2.2	P 1.1-4.1	P 1.1-3.1 N 2.2	P 1.1-4.1

Rekord 2B-STEEL-L TIN	Rekord 2B-STEEL-L	Rekord 2B-STEEL-L TIN	Rekord 2B-STEEL-L	Rekord 2B-STEEL-L TIN	Rekord 2B-STEEL-L-LH	Rekord 2B-STEEL-L-LH TIN		
								M 3
								4
								5
								6
								7
								8
								9
								10
								11
C0208410.0112	**C0208920.0112**	**C0208420.0112**	**C0208930.0112**	**C0208430.0112**	**C0208950.0112**	**C0208450.0112**		12
C0208410.0114	C0208920.0114	C0208420.0114	C0208930.0114	C0208430.0114	C0208950.0114	C0208450.0114		14
C0208410.0116	**C0208920.0116**	**C0208420.0116**	**C0208930.0116**	**C0208430.0116**	**C0208950.0116**	**C0208450.0116**		16
C0208410.0118	C0208920.0118	C0208420.0118	C0208930.0118	C0208430.0118	C0208950.0118	C0208450.0118		18
C0208410.0120	**C0208920.0120**	**C0208420.0120**	**C0208930.0120**	**C0208430.0120**	**C0208950.0120**	**C0208450.0120**		20
C0208410.0122	C0208920.0122	C0208420.0122	C0208930.0122	C0208430.0122	C0208950.0122	C0208450.0122		22
C0208410.0124	**C0208920.0124**	**C0208420.0124**	**C0208930.0124**	**C0208430.0124**	**C0208950.0124**	**C0208450.0124**		24
								27
								30
								33
								36
								39
								42
								45
								48
								52
93	93	93	93	93	93	93		

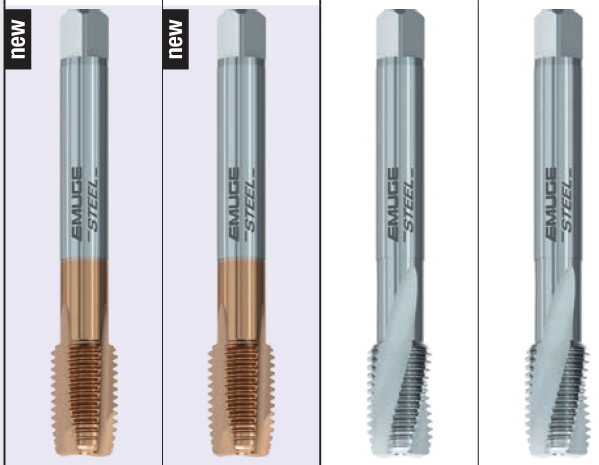
M

DIN 13

DIN 376



STEEL
Steel materials



Technische Informationen Technical information	Toleranz · Tolerance	6HX	6HX	ISO 2/6H	ISO 2/6H
	Beschichtung · Coating	ALCR-102	ALCR-101		
	Schneidstoff · Cutting material	HSSE-PM	HSSE-PM	HSSE	HSSE
				R15	R15
		B / ≈6	B / ≈6	C / 2-3	E / 1,5-2
		E / O	E / O	E / O	E / O
Gewindetiefe und Lochform Thread depth and hole type				max. 3 x d_1	max. 2 x d_1
Einsatzgebiete – Material Applications – material		P 3.1-5.1	P 3.1-5.1	P 2.1-3.1	P 2.1-3.1

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	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Rekord 2B-STEEL-H PM-ALCR-102	Rekord 2B-STEEL-H PM-ALCR-101	Rekord 2D-STEEL	Rekord 2D-STEEL/E
M	3	0,5	56	11	2,2	–	2,5				
	4	0,7	63	13	2,8	2,1	3,3				
	5	0,8	70	15	3,5	2,7	4,2				
	6	1	80	17	4,5	3,4	5			C0451000.0060	
	7	1	80	17	5,5	4,3	6				
	8	1,25	90	20	6	4,9	6,8			C0451000.0080	
	9	1,25	90	20	7	5,5	7,8				
	10	1,5	100	22	7	5,5	8,5			C0451000.0100	
	11	1,5	100	22	8	6,2	9,5				
	12	1,75	110	24	9	7	10,2	C0209J01.0112	C0208J01.0112	C0451000.0112	C0461000.0112
	14	2	110	26	11	9	12				
	16	2	110	27	12	9	14	C0209J01.0116	C0208J01.0116	C0451000.0116	C0461000.0116
	18	2,5	125	30	14	11	15,5				
	20	2,5	140	32	16	12	17,5	C0209J01.0120	C0208J01.0120	C0451000.0120	C0461000.0120
	22	2,5	140	32	18	14,5	19,5				
	24	3	160	34	18	14,5	21	C0209J01.0124	C0208J01.0124	C0451000.0124	C0461000.0124
	27	3	160	36	20	16	24			C0451000.0127	
	30	3,5	180	40	22	18	26,5			C0451000.0130	
	33	3,5	180	40	25	20	29,5				
	36	4	200	50	28	22	32				
	39	4	200	50	32	24	35				
	42	4,5	200	56	32	24	37,5				
	45	4,5	220	58	36	29	40,5				
	48	5	250	65	36	29	43				
	52	5	250	65	40	32	47				
					DIN 371			94	94	94	94
					DIN 352					150	

STEEL
Steel materials

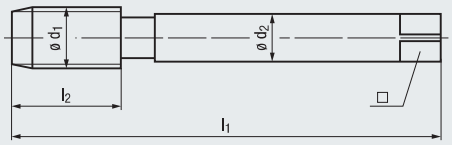
VA
Stainless steel materials

ISO 2/6H	ISO 2/6H	ISO 2/6H		ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 1/4H	
TIN		TIN		NT	TIN	GLT-1	NT	
HSSE	HSSE	HSSE		HSSE	HSSE	HSSE	HSSE	
R15	R35	R35						
C / 2-3	C / 2-3	C / 2-3		B / 4-5	B / 4-5	B / 4-5	B / 4-5	
E / O	E / O	E / O		E / O / P	E / O / P	E / O / P	E / O / P	
max. 2 x d_1	max. 2,5 x d_1			max. 3 x d_1				
P 3.1-4.1	P 1.1-3.1 N 2.2	P 1.1-3.1 N 2.2		P 2.1-3.1 N 2.2, 2.5	P 1.1-4.1	P 1.1-4.1 M 1.1-4.1 N 2.2	P 2.1-3.1 N 2.2, 2.5	
Rekord 2DF-STEEL TIN	**Enorm 2-STEEL**	**Enorm 2-STEEL TIN**		**Rekord 2B-VA NT**	**Rekord 2B-VA TIN**	**Rekord 2B-VA GLT-1**	**Rekord 2B-VA NT**	
								M 3
								4
				C0203000.0050	C0203100.0050	C020C300.0050		5
				C0203000.0060	C0203100.0060	C020C300.0060		6
								7
				C0203000.0080	C0203100.0080	C020C300.0080		8
								9
				C0203000.0100	C0203100.0100	C020C300.0100		10
				C0203000.0111	C0203100.0111	C020C300.0111		11
C0401400.0112	C0501000.0112	C0501400.0112		C0203000.0112	C0203100.0112	C020C300.0112	C0203010.0112	12
	C0501000.0114	C0501400.0114		C0203000.0114	C0203100.0114	C020C300.0114	C0203010.0114	14
C0401400.0116	C0501000.0116	C0501400.0116		C0203000.0116	C0203100.0116	C020C300.0116	C0203010.0116	16
	C0501000.0118	C0501400.0118		C0203000.0118	C0203100.0118	C020C300.0118	C0203010.0118	18
C0401400.0120	C0501000.0120	C0501400.0120		C0203000.0120	C0203100.0120	C020C300.0120	C0203010.0120	20
	C0501000.0122	C0501400.0122		C0203000.0122	C0203100.0122	C020C300.0122	C0203010.0122	22
C0401400.0124	C0501000.0124	C0501400.0124		C0203000.0124	C0203100.0124	C020C300.0124	C0203010.0124	24
				C0203000.0127	C0203100.0127	C020C300.0127		27
	C0501000.0130	C0501400.0130		C0203000.0130	C0203100.0130	C020C300.0130		30
	C0501000.0133	C0501400.0133		C0203000.0133	C0203100.0133	C020C300.0133		33
	C0501000.0136	C0501400.0136		C0203000.0136	C0203100.0136	C020C300.0136		36
	C0501000.0139	C0501400.0139		C0203000.0139	C0203100.0139	C020C300.0139		39
	C0501000.0142	C0501400.0142		C0203000.0142	C0203100.0142	C020C300.0142		42
	C0501000.0145	C0501400.0145		C0203000.0145	C0203100.0145	C020C300.0145		45
	C0501000.0148	C0501400.0148		C0203000.0148	C0203100.0148	C020C300.0148		48
	C0501000.0152	C0501400.0152		C0203000.0152	C0203100.0152	C020C300.0152		52
95	95	95		95	95	95	95	
				151				

M

DIN 13

DIN 376



VA
Stainless steel materials

Technische Informationen · Technical information				
Toleranz · Tolerance	ISO 1/4H	ISO 1/4H	ISO 3/6G	ISO 3/6G
Beschichtung · Coating	TIN	GLT-1	NT	TIN
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
	B / 4-5	B / 4-5	B / 4-5	B / 4-5
	E / O / P	E / O / P	E / O / P	E / O / P

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1

Einsatzgebiete – Material
Applications – material

78

	P 1.1-4.1	P 1.1-4.1 M 1.1-4.1 N 2.2	P 2.1-3.1 N 2.2, 2.5	P 1.1-4.1

	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Rekord 2B-VA TIN	Rekord 2B-VA GLT-1	Rekord 2B-VA NT	Rekord 2B-VA TIN
M	3	0,5	56	11	2,2	–	2,5				
	4	0,7	63	13	2,8	2,1	3,3				
	5	0,8	70	15	3,5	2,7	4,2				
	6	1	80	17	4,5	3,4	5				
	7	1	80	17	5,5	4,3	6				
	8	1,25	90	20	6	4,9	6,8				
	9	1,25	90	20	7	5,5	7,8				
	10	1,5	100	22	7	5,5	8,5				
	11	1,5	100	22	8	6,2	9,5				
	12	1,75	110	24	9	7	10,2	C0203110.0112	C020C310.0112	**C0203020.0112**	C0203120.0112
	14	2	110	26	11	9	12	C0203110.0114	C020C310.0114	C0203020.0114	C0203120.0114
	16	2	110	27	12	9	14	C0203110.0116	C020C310.0116	**C0203020.0116**	C0203120.0116
	18	2,5	125	30	14	11	15,5	C0203110.0118	C020C310.0118	C0203020.0118	C0203120.0118
	20	2,5	140	32	16	12	17,5	C0203110.0120	C020C310.0120	**C0203020.0120**	C0203120.0120
	22	2,5	140	32	18	14,5	19,5	C0203110.0122	C020C310.0122	C0203020.0122	C0203120.0122
	24	3	160	34	18	14,5	21	C0203110.0124	C020C310.0124	**C0203020.0124**	C0203120.0124
	27	3	160	36	20	16	24				
	30	3,5	180	40	22	18	26,5				
	33	3,5	180	40	25	20	29,5				
	36	4	200	50	28	22	32				
	39	4	200	50	32	24	35				
	42	4,5	200	56	32	24	37,5				
	45	4,5	220	58	36	29	40,5				
	48	5	250	65	36	29	43				
	52	5	250	65	40	32	47				
					DIN 371			96	96	96	96
					DIN 352						

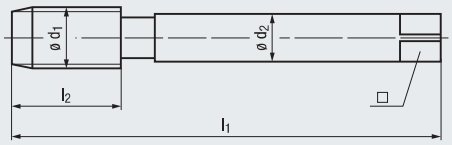
VA
Stainless steel materials

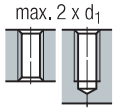
ISO 3/6G	7G	7G	7G	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H
GLT-1	NT	TIN	GLT-1	NT	TIN	GLT-1	
HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE
				LH	LH	LH	R35
B / 4-5	B / 4-5	B / 4-5	B / 4-5	B / 4-5	B / 4-5	B / 4-5	C / 2-3
E / O / P	E / O / P	E / O / P	E / O / P	E / O / P	E / O / P	E / O / P	E / O / P
			max. 3 x d_1				max. 2,5 x d_1
P 1.1-4.1 M 1.1-4.1 N 2.2	P 2.1-3.1 N 2.2, 2.5	P 1.1-4.1	P 1.1-4.1 M 1.1-4.1 N 2.2	P 2.1-3.1 N 2.2, 2.5	P 1.1-4.1	P 1.1-4.1 M 1.1-4.1 N 2.2	P 1.1-3.1
Rekord 2B-VA GLT-1	**Rekord 2B-VA NT**	**Rekord 2B-VA TIN**	**Rekord 2B-VA GLT-1**	**Rekord 2B-VA-LH NT**	**Rekord 2B-VA-LH TIN**	**Rekord 2B-VA-LH GLT-1**	**Enorm 2 VA**	
								M 3
								4
								5
								6
								7
								8
								9
								10
								11
C020C320.0112	**C0203030.0112**	C0203130.0112	C020C330.0112	**C0203050.0112**	C0203150.0112	C020C350.0112	**C0503000.0112**	12
C020C320.0114	C0203030.0114	C0203130.0114	C020C330.0114	C0203050.0114	C0203150.0114	C020C350.0114	**C0503000.0114**	14
C020C320.0116	**C0203030.0116**	C0203130.0116	C020C330.0116	**C0203050.0116**	C0203150.0116	C020C350.0116	**C0503000.0116**	16
C020C320.0118	C0203030.0118	C0203130.0118	C020C330.0118	C0203050.0118	C0203150.0118	C020C350.0118	**C0503000.0118**	18
C020C320.0120	**C0203030.0120**	C0203130.0120	C020C330.0120	**C0203050.0120**	C0203150.0120	C020C350.0120	**C0503000.0120**	20
C020C320.0122	C0203030.0122	C0203130.0122	C020C330.0122	C0203050.0122	C0203150.0122	C020C350.0122	**C0503000.0122**	22
C020C320.0124	**C0203030.0124**	C0203130.0124	C020C330.0124	**C0203050.0124**	C0203150.0124	C020C350.0124	**C0503000.0124**	24
								27
								30
								33
								36
								39
								42
								45
								48
								52
97	97	97	97	97	97	97	97	

M

DIN 13

DIN 376



	INOX Stainless steel materials		**GG** Cast iron	
	new			
Toleranz · Tolerance	ISO 2/6H		6HX	6HX
Beschichtung · Coating	GLT-201		NT	TICN
Schneidstoff · Cutting material	HSSE		HSSE	HSSE
	R45			
	C / 2-3		C / 2-3	C / 2-3
	E / O		E	E
Gewindetiefe und Lochform Thread depth and hole type	max. 2,5 x d_1		max. 2 x d_1 	
Einsatzgebiete – Material Applications – material ▸▸ 78	M 1.1-2.1		K 1.1-1.2	K 1.1-1.2

	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Enorm 2 INOX GLT-201	Rekord 2A-GG NT	Rekord 2A-GG TICN
M	3	0,5	56	11	2,2	–	2,5			
	4	0,7	63	13	2,8	2,1	3,3			
	5	0,8	70	15	3,5	2,7	4,2			
	6	1	80	17	4,5	3,4	5		**C0102001.0060**	**C0109201.0060**
	7	1	80	17	5,5	4,3	6			
	8	1,25	90	20	6	4,9	6,8		**C0102001.0080**	**C0109201.0080**
	9	1,25	90	20	7	5,5	7,8			
	10	1,5	100	22	7	5,5	8,5		**C0102001.0100**	**C0109201.0100**
	11	1,5	100	22	8	6,2	9,5			
	12	1,75	110	24	9	7	10,2	**C050J300.0112**	**C0102001.0112**	**C0109201.0112**
	14	2	110	26	11	9	12	**C050J300.0114**	C0102001.0114	C0109201.0114
	16	2	110	27	12	9	14	**C050J300.0116**	**C0102001.0116**	**C0109201.0116**
	18	2,5	125	30	14	11	15,5	**C050J300.0118**	C0102001.0118	C0109201.0118
	20	2,5	140	32	16	12	17,5	**C050J300.0120**	**C0102001.0120**	**C0109201.0120**
	22	2,5	140	32	18	14,5	19,5	**C050J300.0122**	C0102001.0122	C0109201.0122
	24	3	160	34	18	14,5	21	**C050J300.0124**	**C0102001.0124**	**C0109201.0124**
	27	3	160	36	20	16	24		C0102001.0127	
	30	3,5	180	40	22	18	26,5		**C0102001.0130**	
	33	3,5	180	40	25	20	29,5			
	36	4	200	50	28	22	32			
	39	4	200	50	32	24	35			
	42	4,5	200	56	32	24	37,5			
	45	4,5	220	58	36	29	40,5			
	48	5	250	65	36	29	43			
	52	5	250	65	40	32	47			
					DIN 371			98	98	98
					DIN 352					

GJV
Cast iron vermicular

6HX	6HX	6HX	6HX	6HX	6HX	6HX	6HX
TICN	TICN	TICN	TICN	TICN	TICN	TICN	TICN
HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	KHM	KHM
C / 2-3	C / 2-3	C / 2-3	E / 1,5-2	E / 1,5-2	E / 1,5-2	C / 2-3	E / 1,5-2
E	E	E	E	E	E	E	E
max. 2 x d_1	max. 2 x d_1	max. 2 x d_1	max. 2 x d_1	max. 2 x d_1	max. 2 x d_1	max. 2 x d_1	
	1)			1)		1)	
K 1.1-4.2	K 1.1-4.2	K 1.1-4.2	K 1.1-4.2	K 1.1-4.2	K 1.1-4.2	K 1.1-4.2	K 1.1-4.2
Rekord 2A-GJV PM-TICN	**Rekord 2A-GJV-IKZ PM-TICN**	**Rekord 2A-GJV-IKZN PM-TICN**	**Rekord 2A-GJV/E PM-TICN**	**Rekord 2A-GJV/E-IKZ PM-TICN**	**Rekord 2A-GJV/E-IKZN PM-TICN**	**KHM-Rekord 2A-GJV-IKZ TICN**	**KHM-Rekord 2A-GJV/E-IKZ TICN**

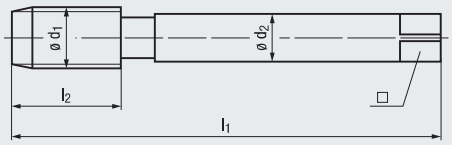
								M 3
								4
								5
								6
								7
								8
								9
								10
								11
C010R501.0112	**C195R501.0112**	C106R501.0112	**C011R501.0112**	**C196R501.0112**	C109R501.0112	**C1951P01.0112**	**C1961P01.0112**	12
								14
C010R501.0116	**C195R501.0116**	C106R501.0116	**C011R501.0116**	**C196R501.0116**	C109R501.0116	**C1951P01.0116**	**C1961P01.0116**	16
								18
	C195R501.0120	C106R501.0120		**C196R501.0120**	C109R501.0120	**C1951P01.0120**	**C1961P01.0120**	20
								22
								24
								27
								30
								33
								36
								39
								42
								45
								48
								52
99	99	99	99	99	99	99	99	

1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

M

DIN 13

DIN 376



AL
Aluminium wrought alloys

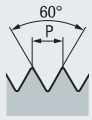
Technische Informationen Technical information	Toleranz · Tolerance	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H
	Beschichtung · Coating		GLT-104		GLT-104
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
				R35	R35
		B / ≈3	B / ≈3	C / 2-3	C / 2-3
		E / O	E / O	E / O	E / O
Gewindetiefe und Lochform Thread depth and hole type			max. 3 x d_1		max. 2,5 x d_1
Einsatzgebiete – Material Applications – material	▸▸ 78		N 1.4	N 1.1-1.4, 2.1	N 1.4	N 1.1-1.4, 2.1

	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Rekord 2B-AL	Rekord 2B-AL GLT-104	Enorm 2-AL	Enorm 2-AL GLT-104
M	3	0,5	56	11	2,2	–	2,5				
	4	0,7	63	13	2,8	2,1	3,3				
	5	0,8	70	15	3,5	2,7	4,2				
	6	1	80	17	4,5	3,4	5				
	7	1	80	17	5,5	4,3	6				
	8	1,25	90	20	6	4,9	6,8				
	9	1,25	90	20	7	5,5	7,8				
	10	1,5	100	22	7	5,5	8,5				
	11	1,5	100	22	8	6,2	9,5				
	12	1,75	110	24	9	7	10,2	**C0204500.0112**	**C0203G00.0112**	**C0504500.0112**	**C0503G00.0112**
	14	2	110	26	11	9	12	C0204500.0114	C0203G00.0114	C0504500.0114	C0503G00.0114
	16	2	110	27	12	9	14	**C0204500.0116**	**C0203G00.0116**	**C0504500.0116**	**C0503G00.0116**
	18	2,5	125	30	14	11	15,5				
	20	2,5	140	32	16	12	17,5	C0204500.0120	C0203G00.0120	C0504500.0120	C0503G00.0120
	22	2,5	140	32	18	14,5	19,5				
	24	3	160	34	18	14,5	21				
	27	3	160	36	20	16	24				
	30	3,5	180	40	22	18	26,5				
	33	3,5	180	40	25	20	29,5				
	36	4	200	50	28	22	32				
	39	4	200	50	32	24	35				
	42	4,5	200	56	32	24	37,5				
	45	4,5	220	58	36	29	40,5				
	48	5	250	65	36	29	43				
	52	5	250	65	40	32	47				
					DIN 371			100	100	100	100
					DIN 352						

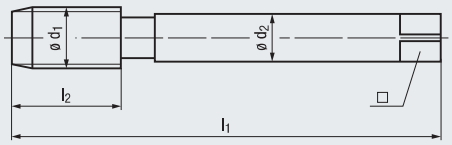
TI Titanium					**NI** Nickel alloys		
6HX	6HX	6HX	6HX		6HX	6HX	
NT2	TICN	NT2	TICN		TICN	TICN	
HSSE	HSSE	HSSE	HSSE		HSSE-PM	HSSE-PM	
L15	L15	R15	R15		L08	R10	
D / 4-5	D / 4-5	C / 2-3	C / 2-3		D / 4-5	C / 2-3	
E / O / P	E / O / P	E / O / P	E / O / P		O / P	O / P	
max. 3 x d_1		max. 2 x d_1			max. 3 x d_1	max. 2 x d_1	
P 4.1-5.1 M 3.1-4.1 N 2.4-2.5, 2.7 S 1.1-2.2, 2.4	P 4.1-5.1 M 3.1-4.1 N 2.4-2.5, 2.7 S 1.1-2.2, 2.4	P 4.1-5.1 M 3.1-4.1 N 2.4-2.5, 2.7 S 1.1-2.2, 2.4	P 4.1-5.1 M 3.1-4.1 N 2.4-2.5, 2.7 S 1.1-2.2, 2.4		N 2.8 S 2.3, 2.5-2.6	N 2.8 S 2.3, 2.5-2.6	
Rekord 2C-TI NT2	**Rekord 2C-TI TICN**	**Rekord 2D-TI NT2**	**Rekord 2D-TI TICN**		**Rekord 2C-NI PM-TICN**	**Rekord 2DF-NI PM-TICN**	
							M 3
							4
							5
							6
							7
							8
							9
							10
							11
C0306001.0112	**C0309601.0112**	**C0456001.0112**	**C0459601.0112**		**C030J401.0112**	**C438J401.0112**	12
		C0456001.0114	C0459601.0114		**C030J401.0114**	**C438J401.0114**	14
C0306001.0116	**C0309601.0116**	**C0456001.0116**	**C0459601.0116**		**C030J401.0116**	**C438J401.0116**	16
		C0456001.0118	C0459601.0118				18
C0306001.0120	**C0309601.0120**	**C0456001.0120**	**C0459601.0120**		**C030J401.0120**	**C438J401.0120**	20
		C0456001.0122	C0459601.0122				22
C0306001.0124	**C0309601.0124**	**C0456001.0124**	**C0459601.0124**				24
							27
							30
							33
							36
							39
							42
							45
							48
							52
103	103	103	103		104	104	

M

DIN 13



DIN 376



H
Materials of high tensile strength

Technische Informationen
Technical information

Toleranz · Tolerance	6HX	6HX	6HX	6HX
Beschichtung · Coating	NT	TICN	NT	TICN
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
	C / 2-3	C / 2-3	C / 2-3	C / 2-3
	E / O / P	E / O / P	E / O	E / O

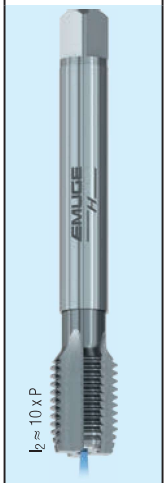
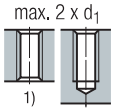
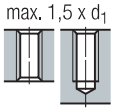
Gewindetiefe und Lochform
Thread depth and hole type

Einsatzgebiete – Material
Applications – material
▸▸ 78

								K 1.1-4.2 N 4.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1, 5.1	K 1.1-4.2 N 4.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1, 5.1
	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		**Rekord 2A-H NT**	**Rekord 2A-H TICN**	**Rekord 2A-H-IKZ NT**	**Rekord 2A-H-IKZ TICN**
M	3	0,5	56	11	2,2	–	2,5				
	4	0,7	63	13	2,8	2,1	3,3				
	5	0,8	70	15	3,5	2,7	4,2				
	6	1	80	17	4,5	3,4	5				
	7	1	80	17	5,5	4,3	6				
	8	1,25	90	20	6	4,9	6,8				
	9	1,25	90	20	7	5,5	7,8				
	10	1,5	100	22	7	5,5	8,5				
	11	1,5	100	22	8	6,2	9,5				
	12	1,75	110	24	9	7	10,2 [2]	**C0100501.0112**	**C0109101.0112**	**C1950501.0112**	**C1959101.0112**
	14	2	110	26	11	9	12 [2]	**C0100501.0114**	**C0109101.0114**	**C1950501.0114**	**C1959101.0114**
	16	2	110	27	12	9	14 [2]	**C0100501.0116**	**C0109101.0116**	**C1950501.0116**	**C1959101.0116**
	18	2,5	125	30	14	11	15,5	C0100501.0118	C0109101.0118	C1950501.0118	C1959101.0118
	20	2,5	140	32	16	12	17,5 [2]	**C0100501.0120**	**C0109101.0120**	**C1950501.0120**	**C1959101.0120**
	22	2,5	140	32	18	14,5	19,5	C0100501.0122	C0109101.0122	C1950501.0122	C1959101.0122
	24	3	160	34	18	14,5	21	**C0100501.0124**	**C0109101.0124**	C1950501.0124	C1959101.0124
	27	3	160	36	20	16	24	C0100501.0127	C0109101.0127		
	30	3,5	180	40	22	18	26,5	C0100501.0130	C0109101.0130		
	33	3,5	180	40	25	20	29,5	C0100501.0133			
	36	4	200	50	28	22	32	C0100501.0136			
	39	4	200	50	32	24	35				
	42	4,5	200	56	32	24	37,5				
	45	4,5	220	58	36	29	40,5				
	48	5	250	65	36	29	43				
	52	5	250	65	40	32	47				

DIN 371		104	105	105	105
DIN 352					

[2] Vorbohrdurchmesser für Gewindebohrer Rekord 2A-HCUT-PM-TICN um 0,2 mm anheben
Increase drill diameter for taps Rekord 2A-HCUT-PM-TICN by 0.2 mm

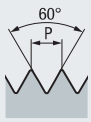
H Materials of high tensile strength			**HCUT** Hardened steels					
								
6HX TICN HSSE C / 2-3 E / O	6HX **KHM** C / 2-3 E / O		6HX TICN **HSSE-PM** C / 2-3 O / P					
max. 2 x d_1	max. 2 x d_1  1)		max. 1,5 x d_1 					
K 1.1-4.2 **N** 1.5-1.6, 2.6 **N** 4.1, 5.1	**K** 1.1-4.2 **N** 1.5-1.6 **N** 2.6-2.8 **N** 4.1, 4.3-4.4 **N** 5.1-5.2		H 1.1-1.2					
Rekord 2A-H-IKZN TICN	**KHM-Rekord 2A-H-IKZ**		**Rekord 2A-HCUT PM-TICN**					
								M 3
								4
								5
								6
								7
								8
								9
								10
								11
C1069101.0112	**C1950901.0112**		**C010J901.0112**					12
C1069101.0114	**C1950901.0114**		C010J901.0114					14
C1069101.0116	**C1950901.0116**		**C010J901.0116**					16
C1069101.0118	**C1950901.0118**							18
C1069101.0120	**C1950901.0120**		**C010J901.0120**					20
C1069101.0122	**C1950901.0122**							22
C1069101.0124	**C1950901.0124**							24
	C1950901.0127							27
								30
								33
								36
								39
								42
								45
								48
								52
105	105		105					

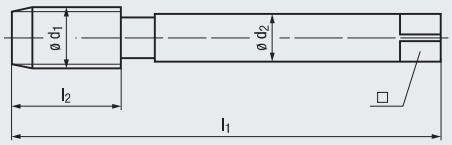
1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

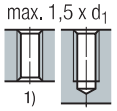
M

DIN 13

≈ DIN 376





	HCUT Hardened steels	
	new	new
		2)
Toleranz · Tolerance	6HX	6HX
Beschichtung · Coating	TICN	TICN
Schneidstoff · Cutting material	KHM	KHM
	D / 4-5	C / 2-3
	O / P	O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 1,5 x d_1  1)	max. 1,5 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	H 1.3-1.4	H 1.3-1.4

	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		KHM-Rekord 2A-HCUT/D IKZ-TICN	KHM-Rekord 2A-HCUT/C IKZ-TICN
M	20	2,5	140	30	16	12	17,7	C130K101.0120	C195K101.0120
	24	3	160	36	18	14,5	21,2	C130K101.0124	C195K101.0124
	30	3,5	180	42	22	18	26,7	C130K101.0130	C195K101.0130

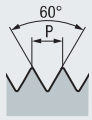
1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

2) Achtung: KHM-Rekord 2A-HCUT/D-IKZ-TICN als Vorschneider verwenden!
Please note: Use solid carbide tap KHM-Rekord 2A-HCUT/D-IKZ-TICN as No.1 tap!

Spiralbohrer Typ EF-Drill-HCUT
siehe Seite 62

Twist drills type EF-Drill-HCUT,
see page 62

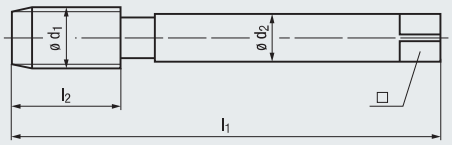
M



DIN 13

DIN 376

Z
CNC-controlled machines



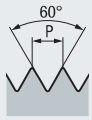
Technische Informationen Technical information	Toleranz · Tolerance	6HX	6HX	6HX	6HX
	Beschichtung · Coating	TICN	TICN	TICN	TICN
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
		C / 2-3 E / O / P	C / 2-3 E / O	C / 2-3 E / O	E / 1,5-2 E / O / P
Gewindetiefe und Lochform Thread depth and hole type		max. 2 x d_1	max. 2 x d_1 1)	max. 2 x d_1	max. 2 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78		K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1

	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Rekord 2A-Z TICN	Rekord 2A-Z-IKZ TICN	Rekord 2A-Z-IKZN TICN	Rekord 2A-Z/E TICN
M	3	0,5	56	6	2,2	–	2,5				
	4	0,7	63	7	2,8	2,1	3,3				
	5	0,8	70	8	3,5	2,7	4,2				
	6	1	80	10	4,5	3,4	5				
	7	1	80	10	5,5	4,3	6				
	8	1,25	90	14	6	4,9	6,8				
	9	1,25	90	14	7	5,5	7,8				
	10	1,5	100	16	7	5,5	8,5				
	11	1,5	100	18	8	6,2	9,5				
	12	1,75	110	18	9	7	10,2	**C0109401.0112**	**C1959401.0112**	C1069401.0112	**C0119401.0112**
	14	2	110	20	11	9	12	**C0109401.0114**	**C1959401.0114**	C1069401.0114	**C0119401.0114**
	16	2	110	22	12	9	14	**C0109401.0116**	**C1959401.0116**	C1069401.0116	**C0119401.0116**
	18	2,5	125	25	14	11	15,5	C0109401.0118	C1959401.0118	C1069401.0118	C0119401.0118
	20	2,5	140	25	16	12	17,5	**C0109401.0120**	**C1959401.0120**	C1069401.0120	**C0119401.0120**
	22	2,5	140	27	18	14,5	19,5				
	24	3	160	30	18	14,5	21		**C1959401.0124**	C1069401.0124	
	27	3	160	30	20	16	24				
	30	3,5	180	35	22	18	26,5				
	33	3,5	180	35	25	20	29,5				
	36	4	200	40	28	22	32				
	39	4	200	40	32	24	35				
	42	4,5	200	45	32	24	37,5				
	45	4,5	220	45	36	29	40,5				
	48	5	250	50	36	29	43				
	52	5	250	50	40	32	47				
							DIN 371	▸ 107	▸ 107	▸ 107	▸ 107
							DIN 352				

1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

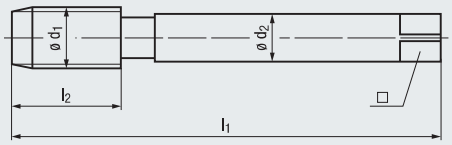
M

DIN 13



DIN 376

Z
CNC-controlled machines



Technische Informationen Technical information	Toleranz · Tolerance	6HX	6HX	6HX	6HX
	Beschichtung · Coating	TICN	TICN	TIN-70	GLT-1
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE-PM	HSSE-PM
		E / 0	E / 0	E / 0 / P	E / 0 / P
Gewindetiefe und Lochform Thread depth and hole type		max. 2 x d_1 1)	max. 2 x d_1	max. 3 x d_1	
Einsatzgebiete – Material Applications – material ▸▸ 78		K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1	P 2.1-5.1	P 1.1-5.1 M 1.1-4.1 K 1.1-3.2 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1, 2.2-2.3

	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Rekord 2A-Z/E-IKZ TICN	Rekord 2A-Z/E-IKZN TICN	Rekord 2B-Z PM-TIN-70	Rekord 2B-Z PM-GLT-1
M	3	0,5	56	6	2,2	–	2,5				
	4	0,7	63	7	2,8	2,1	3,3				
	5	0,8	70	8	3,5	2,7	4,2				
	6	1	80	10	4,5	3,4	5				
	7	1	80	10	5,5	4,3	6				
	8	1,25	90	14	6	4,9	6,8				
	9	1,25	90	14	7	5,5	7,8				
	10	1,5	100	16	7	5,5	8,5				
	11	1,5	100	18	8	6,2	9,5				
	12	1,75	110	18	9	7	10,2	**C1969401.0112**	C1099401.0112	**C0208F01.0112**	**C020A601.0112**
	14	2	110	20	11	9	12	**C1969401.0114**	C1099401.0114	**C0208F01.0114**	**C020A601.0114**
	16	2	110	22	12	9	14	**C1969401.0116**	C1099401.0116	**C0208F01.0116**	**C020A601.0116**
	18	2,5	125	25	14	11	15,5	C1969401.0118	C1099401.0118	C0208F01.0118	
	20	2,5	140	25	16	12	17,5	**C1969401.0120**	C1099401.0120	**C0208F01.0120**	**C020A601.0120**
	22	2,5	140	27	18	14,5	19,5			C0208F01.0122	
	24	3	160	30	18	14,5	21			**C0208F01.0124**	**C020A601.0124**
	27	3	160	30	20	16	24				
	30	3,5	180	35	22	18	26,5			**C0208F01.0130**	**C020A601.0130**
	33	3,5	180	35	25	20	29,5				
	36	4	200	40	28	22	32				
	39	4	200	40	32	24	35				
	42	4,5	200	45	32	24	37,5				
	45	4,5	220	45	36	29	40,5				
	48	5	250	50	36	29	43				
	52	5	250	50	40	32	47				

DIN 371		108	108	108	108
DIN 352					

1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

Z
CNC-controlled machines

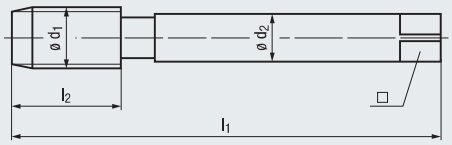
6HX	6HX	6GX	6GX	6GX	6GX	6HX	6HX
TIN-70	GLT-1	TIN-70	GLT-1	TIN-70	GLT-1	TIN	TIN
HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE	HSSE
						R15	R15
B / 4-5	B / 4-5	B / 4-5	B / 4-5	B / 4-5	B / 4-5	C / 2-3	C / 2-3
E / O	E / O	E / O / P	E / O / P	E / O	E / O	E / O / P	E / O
		max. 3 x d_1				max. 2 x d_1	
P 2.1-5.1	P 1.1-5.1 M 1.1-4.1 K 1.1-3.2 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1, 2.2-2.3	P 2.1-5.1	P 1.1-5.1 M 1.1-4.1 K 1.1-3.2 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1, 2.2-2.3	P 2.1-5.1	P 1.1-5.1 M 1.1-4.1 K 1.1-3.2 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1, 2.2-2.3	P 3.1-5.1 N 2.4-2.5	P 3.1-5.1 N 2.4-2.5
Rekord 2B-Z-IKZN PM-TIN-70	**Rekord 2B-Z-IKZN PM-GLT-1**	**Rekord 2B-Z PM-TIN-70**	**Rekord 2B-Z PM-GLT-1**	**Rekord 2B-Z-IKZN PM-TIN-70**	**Rekord 2B-Z-IKZN PM-GLT-1**	**Rekord 2D-Z TIN**	**Rekord 2D-Z-IKZ TIN**	
								M 3
								4
								5
								6
								7
								8
								9
								10
								11
C1088F01.0112	C108A601.0112	**C0208F21.0112**	**C020A621.0112**	C1088F21.0112	C108A621.0112	**C0453701.0112**	**C0963701.0112**	12
C1088F01.0114	C108A601.0114	C0208F21.0114	C020A621.0114	C1088F21.0114	C108A621.0114		C0963701.0114	14
C1088F01.0116	C108A601.0116	**C0208F21.0116**	**C020A621.0116**	C1088F21.0116	C108A621.0116	**C0453701.0116**	**C0963701.0116**	16
C1088F01.0118		C0208F21.0118		C1088F21.0118			C0963701.0118	18
C1088F01.0120	C108A601.0120	**C0208F21.0120**	**C020A621.0120**	C1088F21.0120	C108A621.0120	**C0453701.0120**	**C0963701.0120**	20
C1088F01.0122		C0208F21.0122		C1088F21.0122			C0963701.0122	22
C1088F01.0124	C108A601.0124	**C0208F21.0124**	**C020A621.0124**	C1088F21.0124	C108A621.0124		**C0963701.0124**	24
							C0963701.0127	27
							C0963701.0130	30
								33
								36
								39
								42
								45
								48
								52
109	109	109	109	109	109	109	109	

M

DIN 13

DIN 376

Z
CNC-controlled machines



Technische Informationen · Technical information			
Toleranz · Tolerance	6HX	6HX	6HX
Beschichtung · Coating	TIN	TIN	TIN
Schneidstoff · Cutting material	HSSE	HSSE	HSSE
	R15	R15	R15
	E / 1,5-2	C / 2-3	E / 1,5-2
	E / 0	E / 0	E / 0

Gewindetiefe und Lochform
Thread depth and hole type

Einsatzgebiete – Material
Applications – material

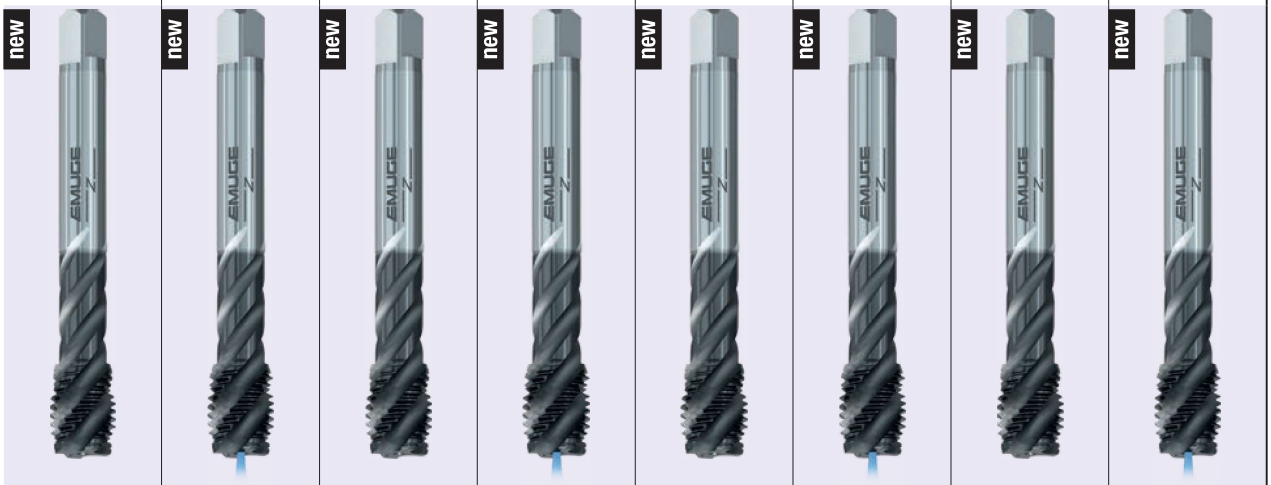
78

	P	N
	3.1-5.1	3.1-5.1	3.1-5.1
	2.4-2.5	2.4-2.5	2.4-2.5

	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Rekord 2D-Z/E-IKZ TIN	Rekord 2D-Z-BF IKZ-TIN	Rekord 2D-Z/E-BF IKZ-TIN
M	3	0,5	56	6	2,2	–	2,5			
	4	0,7	63	7	2,8	2,1	3,3			
	5	0,8	70	8	3,5	2,7	4,2			
	6	1	80	10	4,5	3,4	5			
	7	1	80	10	5,5	4,3	6			
	8	1,25	90	14	6	4,9	6,8			
	9	1,25	90	14	7	5,5	7,8			
	10	1,5	100	16	7	5,5	8,5			
	11	1,5	100	18	8	6,2	9,5			
	12	1,75	110	18	9	7	10,2	**C0983701.0112**	**C4253701.0112**	**C4053701.0112**
	14	2	110	20	11	9	12		C4253701.0114	
	16	2	110	22	12	9	14	**C0983701.0116**	**C4253701.0116**	**C4053701.0116**
	18	2,5	125	25	14	11	15,5		C4253701.0118	
	20	2,5	140	25	16	12	17,5	**C0983701.0120**	**C4253701.0120**	**C4053701.0120**
	22	2,5	140	27	18	14,5	19,5		C4253701.0122	
	24	3	160	30	18	14,5	21		C4253701.0124	
	27	3	160	30	20	16	24		C4253701.0127	
	30	3,5	180	35	22	18	26,5		C4253701.0130	
	33	3,5	180	35	25	20	29,5			
	36	4	200	40	28	22	32			
	39	4	200	40	32	24	35			
	42	4,5	200	45	32	24	37,5			
	45	4,5	220	45	36	29	40,5			
	48	5	250	50	36	29	43			
	52	5	250	50	40	32	47			

DIN 371		110	110	110
DIN 352				

Z
CNC-controlled machines



6HX	6HX	6HX	6HX	6GX	6GX	6GX	6GX
GLT-1	GLT-1	GLT-1	GLT-1	GLT-1	GLT-1	GLT-1	GLT-1
HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM
R45	R45	R45	R45	R45	R45	R45	R45
C / 2-3	C / 2-3	E / 1,5-2	E / 1,5-2	C / 2-3	C / 2-3	E / 1,5-2	E / 1,5-2
E / O / P	E / O	E / O / P	E / O	E / O / P	E / O	E / O / P	E / O

max. 3 x d_1

P 1.1-4.1	P 1.1-4.1	P 1.1-4.1	P 1.1-4.1	P 1.1-4.1	P 1.1-4.1	P 1.1-4.1	P 1.1-4.1
M 1.1-4.1	M 1.1-4.1	M 1.1-4.1	M 1.1-4.1	M 1.1-4.1	M 1.1-4.1	M 1.1-4.1	M 1.1-4.1
K 1.1-3.2	K 1.1-3.2	K 1.1-3.2	K 1.1-3.2	K 1.1-3.2	K 1.1-3.2	K 1.1-3.2	K 1.1-3.2
N 1.4, 2.1-2.2	N 1.4, 2.1-2.2	N 1.4, 2.1-2.2	N 1.4, 2.1-2.2	N 1.4, 2.1-2.2	N 1.4, 2.1-2.2	N 1.4, 2.1-2.2	N 1.4, 2.1-2.2
N 2.4-2.5	N 2.4-2.5	N 2.4-2.5	N 2.4-2.5	N 2.4-2.5	N 2.4-2.5	N 2.4-2.5	N 2.4-2.5
S 1.1	S 1.1	S 1.1	S 1.1	S 1.1	S 1.1	S 1.1	S 1.1
Enorm 2-Z PM-GLT-1	**Enorm 2-Z-IKZ PM-GLT-1**	**Enorm 2-Z/E PM-GLT-1**	**Enorm 2-Z/E-IKZ PM-GLT-1**	**Enorm 2-Z PM-GLT-1**	**Enorm 2-Z-IKZ PM-GLT-1**	**Enorm 2-Z/E PM-GLT-1**	**Enorm 2-Z/E-IKZ PM-GLT-1**	
								M 3
								4
								5
								6
								7
								8
								9
								10
								11
C616A601.0112	**C591A601.0112**	**C498A601.0112**	**C590A601.0112**	**C616A621.0112**	**C591A621.0112**	**C498A621.0112**	**C590A621.0112**	12
C616A601.0114	**C591A601.0114**	**C498A601.0114**	**C590A601.0114**					14
C616A601.0116	**C591A601.0116**	**C498A601.0116**	**C590A601.0116**	**C616A621.0116**	**C591A621.0116**	**C498A621.0116**	**C590A621.0116**	16
								18
C616A601.0120	**C591A601.0120**	**C498A601.0120**	**C590A601.0120**	**C616A621.0120**	**C591A621.0120**	**C498A621.0120**	**C590A621.0120**	20
								22
C616A601.0124	**C591A601.0124**	**C498A601.0124**	**C590A601.0124**	**C616A621.0124**	**C591A621.0124**	**C498A621.0124**	**C590A621.0124**	24
								27
C616A601.0130	**C591A601.0130**	**C498A601.0130**	**C590A601.0130**	**C616A621.0130**	**C591A621.0130**	**C498A621.0130**	**C590A621.0130**	30
								33
								36
								39
								42
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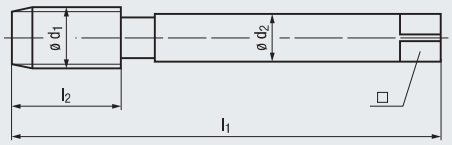
								48
								52
111	111	111	111	111	111	111	111	

M

DIN 13

DIN 376



Z
CNC-controlled machines

Technische Informationen Technical information					
	Toleranz · Tolerance	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H
	Beschichtung · Coating		TIN	GLT-1	
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
		R45	R45	R45	R45
		C / 2-3	C / 2-3	C / 2-3	C / 2-3
		E / O / P	E / O / P	E / O / P	E / O

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1

Einsatzgebiete – Material
Applications – material

78

	P 1.1-3.1	P 1.1-4.1 N 2.2, 2.4-2.5 S 1.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1

	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Enorm 2-Z	Enorm 2-Z TIN	Enorm 2-Z GLT-1	Enorm 2-Z-IKZ
M	3	0,5	56	6	2,2	–	2,5	**C0503500.0030**			
	4	0,7	63	7	2,8	2,1	3,3	**C0503500.0040**			
	5	0,8	70	8	3,5	2,7	4,2	**C0503500.0050**			
	6	1	80	10	4,5	3,4	5	**C0503500.0060**			
	7	1	80	10	5,5	4,3	6	**C0503500.0070**			
	8	1,25	90	14	6	4,9	6,8	**C0503500.0080**			
	9	1,25	90	14	7	5,5	7,8	**C0503500.0090**			
	10	1,5	100	16	7	5,5	8,5	**C0503500.0100**			
	11	1,5	100	18	8	6,2	9,5	**C0503500.0111**			
	12	1,75	110	18	9	7	10,2	**C0503500.0112**	**C0503700.0112**	**C050C400.0112**	**C0993500.0112**
	14	2	110	20	11	9	12	**C0503500.0114**	C0503700.0114	C050C400.0114	
	16	2	110	22	12	9	14	**C0503500.0116**	**C0503700.0116**	**C050C400.0116**	**C0993500.0116**
	18	2,5	125	25	14	11	15,5	**C0503500.0118**	C0503700.0118	C050C400.0118	
	20	2,5	140	25	16	12	17,5	**C0503500.0120**	**C0503700.0120**	**C050C400.0120**	**C0993500.0120**
	22	2,5	140	27	18	14,5	19,5	**C0503500.0122**	C0503700.0122	C050C400.0122	
	24	3	160	30	18	14,5	21	**C0503500.0124**	**C0503700.0124**	**C050C400.0124**	
	27	3	160	30	20	16	24	C0503500.0127		C050C400.0127	
	30	3,5	180	35	22	18	26,5	C0503500.0130			
	33	3,5	180	35	25	20	29,5	C0503500.0133			
	36	4	200	40	28	22	32	C0503500.0136			
	39	4	200	40	32	24	35	C0503500.0139			
	42	4,5	200	45	32	24	37,5	C0503500.0142			
	45	4,5	220	45	36	29	40,5	C0503500.0145			
	48	5	250	50	36	29	43				
	52	5	250	50	40	32	47				
					DIN 371			112	112	112	
					DIN 352						

Z
CNC-controlled machines

					new	new	new
ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 1/4H	ISO 1/4H
GLT-1		TIN	GLT-1	TIN	GLT-1		GLT-1
HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE
R45	R45	R45	R45	R45	R45	R45	R45
C / 2-3	E / 1,5-2	E / 1,5-2	E / 1,5-2	E / 1,5-2	E / 1,5-2	C / 2-3	C / 2-3
E / O	E / O / P	E / O / P	E / O / P	E / O	E / O	E / O / P	E / O / P

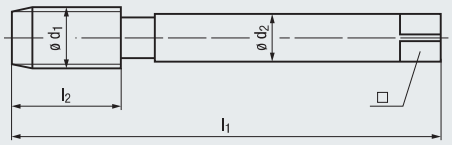
max. 3 x d_1

P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 N 2.2, 2.4-2.5 S 1.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-4.1 N 2.2, 2.4-2.5 S 1.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1
Enorm 2-Z-IKZ GLT-1	**Enorm 2-Z/E**	**Enorm 2-Z/E TIN**	**Enorm 2-Z/E GLT-1**	**Enorm 2-Z/E-IKZ TIN**	**Enorm 2-Z/E-IKZ GLT-1**	**Enorm 2-Z**	**Enorm 2-Z GLT-1**	
								M 3
								4
								5
								6
								7
								8
								9
								10
								11
C099C400.0112	**C0513500.0112**	**C0513700.0112**	**C051C400.0112**	**C0973700.0112**	**C097C400.0112**	**C0503510.0112**	**C050C410.0112**	12
	C0513500.0114	C0513700.0114		**C0973700.0114**	**C097C400.0114**	C0503510.0114	C050C410.0114	14
C099C400.0116	**C0513500.0116**	**C0513700.0116**	**C051C400.0116**	**C0973700.0116**	**C097C400.0116**	**C0503510.0116**	**C050C410.0116**	16
	C0513500.0118	C0513700.0118				C0503510.0118	C050C410.0118	18
C099C400.0120	**C0513500.0120**	**C0513700.0120**	**C051C400.0120**	**C0973700.0120**	**C097C400.0120**	**C0503510.0120**	**C050C410.0120**	20
	C0513500.0122	C0513700.0122				C0503510.0122	C050C410.0122	22
	C0513500.0124	**C0513700.0124**				C0503510.0124	C050C410.0124	24
	C0513500.0127							27
	C0513500.0130							30
	C0513500.0133							33
	C0513500.0136							36
	C0513500.0139							39
	C0513500.0142							42
								45
	C0513500.0148							48
								52
112	113	113	113	113	113	113	113	
	151							

M

DIN 13

DIN 376



Z
CNC-controlled machines

Technische Informationen Technical information	Toleranz · Tolerance	ISO 3/6G	ISO 3/6G	ISO 3/6G	ISO 3/6G
	Beschichtung · Coating		GLT-1		TIN
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
		R45	R45	R45	R45
		C / 2-3	C / 2-3	E / 1,5-2	E / 1,5-2
		E / O / P	E / O / P	E / O / P	E / O / P

Gewindetiefe und Lochform
Thread depth and hole type

Einsatzgebiete – Material Applications – material 78	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 N 2.2, 2.4-2.5 S 1.1

	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Enorm 2-Z	Enorm 2-Z GLT-1	Enorm 2-Z/E	Enorm 2-Z/E TIN
M	3	0,5	56	6	2,2	–	2,5				
	4	0,7	63	7	2,8	2,1	3,3				
	5	0,8	70	8	3,5	2,7	4,2				
	6	1	80	10	4,5	3,4	5				
	7	1	80	10	5,5	4,3	6				
	8	1,25	90	14	6	4,9	6,8				
	9	1,25	90	14	7	5,5	7,8				
	10	1,5	100	16	7	5,5	8,5				
	11	1,5	100	18	8	6,2	9,5				
	12	1,75	110	18	9	7	10,2	**C0503520.0112**	**C050C420.0112**	**C0513520.0112**	**C0513720.0112**
	14	2	110	20	11	9	12	C0503520.0114	C050C420.0114	C0513520.0114	C0513720.0114
	16	2	110	22	12	9	14	**C0503520.0116**	**C050C420.0116**	**C0513520.0116**	**C0513720.0116**
	18	2,5	125	25	14	11	15,5	C0503520.0118	C050C420.0118	C0513520.0118	C0513720.0118
	20	2,5	140	25	16	12	17,5	**C0503520.0120**	**C050C420.0120**	**C0513520.0120**	**C0513720.0120**
	22	2,5	140	27	18	14,5	19,5	C0503520.0122	C050C420.0122		
	24	3	160	30	18	14,5	21	**C0503520.0124**	**C050C420.0124**		
	27	3	160	30	20	16	24				
	30	3,5	180	35	22	18	26,5				
	33	3,5	180	35	25	20	29,5				
	36	4	200	40	28	22	32				
	39	4	200	40	32	24	35				
	42	4,5	200	45	32	24	37,5				
	45	4,5	220	45	36	29	40,5				
	48	5	250	50	36	29	43				
	52	5	250	50	40	32	47				

DIN 371	114	114	114	114
DIN 352				

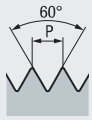
Z
CNC-controlled machines

new	new	new	new	new	new	new	
ISO 3/6G	7G	7G	6H +0,1 [2]	6H +0,1 [2]	ISO 2/6H	ISO 2/6H	
GLT-1		GLT-1		GLT-1		GLT-1	
HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	
R45	R45	R45	R45	R45	LH, L45	LH, L45	
E / 1,5-2	C / 2-3	C / 2-3	C / 2-3	C / 2-3	C / 2-3	C / 2-3	
E / O / P	E / O / P	E / O / P	E / O / P	E / O / P	E / O / P	E / O / P	
			max. 3 x d_1				
P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	
Enorm 2-Z/E GLT-1	**Enorm 2-Z**	**Enorm 2-Z GLT-1**	**Enorm 2-Z**	**Enorm 2-Z GLT-1**	**Enorm 2-Z-LH**	**Enorm 2-Z-LH GLT-1**	
							M 3
							4
							5
			C0503540.0060	**C050C440.0060**			6
							7
			C0503540.0080	**C050C440.0080**			8
							9
			C0503540.0100	**C050C440.0100**			10
							11
C051C420.0112	**C0503530.0112**	**C050C430.0112**	**C0503540.0112**	**C050C440.0112**	**C0503550.0112**	**C050C450.0112**	12
C051C420.0114	C0503530.0114	C050C430.0114			C0503550.0114	C050C450.0114	14
C051C420.0116	**C0503530.0116**	**C050C430.0116**	**C0503540.0116**	**C050C440.0116**	**C0503550.0116**	**C050C450.0116**	16
C051C420.0118	C0503530.0118	C050C430.0118			C0503550.0118	C050C450.0118	18
C051C420.0120	**C0503530.0120**	**C050C430.0120**	**C0503540.0120**	**C050C440.0120**	**C0503550.0120**	C050C450.0120	20
	C0503530.0122	C050C430.0122			C0503550.0122	C050C450.0122	22
	C0503530.0124	**C050C430.0124**	C0503540.0124	C050C440.0124	**C0503550.0124**	C050C450.0124	24
							27
							30
							33
							36
							39
							42
							45
							48
							52
115	115	115	115	115	115	115	

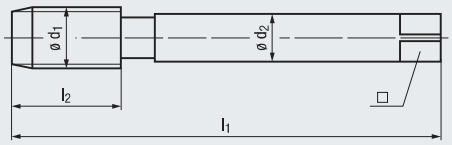
[2] Vorbohrdurchmesser für Gewindebohrer mit Übermaß um 0,1 mm anheben
Increase drill diameter for taps with oversize by 0.1 mm

M

DIN 13



DIN 376



Z
CNC-controlled machines

new

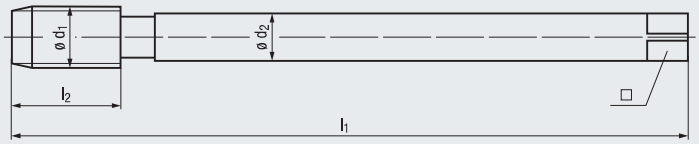
Technische Informationen Technical information	Toleranz · Tolerance	6HX / 6HX
	Beschichtung · Coating	GLT-1
	Schneidstoff · Cutting material	HSSE / HSSE
		R50 / R50
		C / 2-3 / C / 2-3
		E / O / P / E / O / P
Gewindetiefe und Lochform Thread depth and hole type		max. 3 x d_1
Einsatzgebiete – Material Applications – material	78	P 1.1-3.1 / P 1.1-4.1, M 1.1-4.1, N 1.4, 2.1-2.2, N 2.4-2.5, S 1.1

	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Enorm 2-Z50	Enorm 2-Z50 GLT-1
M	3	0,5	56	6	2,2	–	2,5		
	4	0,7	63	7	2,8	2,1	3,3		
	5	0,8	70	8	3,5	2,7	4,2		
	6	1	80	10	4,5	3,4	5		
	7	1	80	10	5,5	4,3	6		
	8	1,25	90	14	6	4,9	6,8		
	9	1,25	90	14	7	5,5	7,8		
	10	1,5	100	16	7	5,5	8,5		
	11	1,5	100	18	8	6,2	9,5		
	12	1,75	110	18	9	7	10,2	C0653501.0112	C065C401.0112
	14	2	110	20	11	9	12		
	16	2	110	22	12	9	14	C0653501.0116	C065C401.0116
	18	2,5	125	25	14	11	15,5		
	20	2,5	140	25	16	12	17,5	C0653501.0120	C065C401.0120
	22	2,5	140	27	18	14,5	19,5		
	24	3	160	30	18	14,5	21		
	27	3	160	30	20	16	24		
	30	3,5	180	35	22	18	26,5		
	33	3,5	180	35	25	20	29,5		
	36	4	200	40	28	22	32		
	39	4	200	40	32	24	35		
	42	4,5	200	45	32	24	37,5		
	45	4,5	220	45	36	29	40,5		
	48	5	250	50	36	29	43		
	52	5	250	50	40	32	47		
					DIN 371			116	116
					DIN 352				

M

DIN 13

Mit extra langem Schaft
With extra long shank



STEEL
Steel materials

new

2)

1)

1)

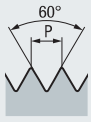
Technische Informationen · Technical information			
Toleranz · Tolerance	ISO 2/6H	ISO 2/6H	ISO 2/6H
Beschichtung · Coating			TIN
Schneidstoff · Cutting material	HSSE	HSSE	HSSE
		R15	R15
	B / 4-5	**E / 1,5-2**	C / 2-3
	E / 0	E / 0	E / 0
Gewindetiefe und Lochform · Thread depth and hole type	max. 3 x d_1	max. 2 x d_1	
Einsatzgebiete – Material · Applications – material ▸▸ 78	P 1.1-3.1 N 2.2	P 2.1-3.1	P 3.1-4.1

	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Rekord 2B-STEEL-L LS	Rekord 2D-STEEL/E LS	Rekord 2DF-STEEL LS-TIN
M	6	1	160	17	4,5	3,4	5	C2208900.0060	C2461000.0060	
	8	1,25	180	20	6	4,9	6,8	C2208900.0080	C2461000.0080	
	10	1,5	200	22	7	5,5	8,5	C2208900.0100	C2461000.0100	
	12	1,75	224	24	9	7	10,2	C2208900.0112	C2461000.0112	C2401400.0112
	14	2	224	26	11	9	12	C2208900.0114	C2461000.0114	
	16	2	224	27	12	9	14	C2208900.0116	C2461000.0116	C2401400.0116
	18	2,5	250	30	14	11	15,5	C2208900.0118	C2461000.0118	
	20	2,5	280	32	16	12	17,5	C2208900.0120	C2461000.0120	
								117	117	117

1) Auch mit innerer Kühlschmierstoff-Zufuhr IKZ möglich
Also available with internal coolant supply IKZ

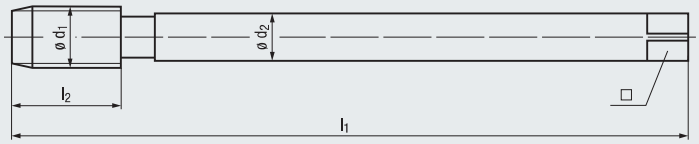
2) Auch mit innerer Kühlschmierstoff-Zufuhr IKZN möglich
Also available with internal coolant supply IKZN

M



DIN 13

Mit extra langem Schaft
With extra long shank



VA
Stainless steel materials

2)

2)

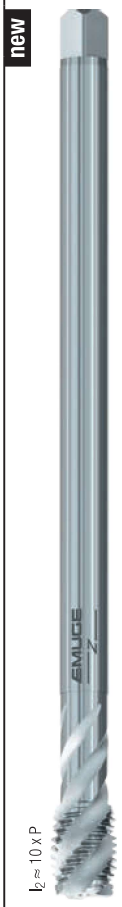
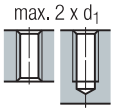
1)

Technische Informationen Technical information	Toleranz · Tolerance	ISO 2/6H	ISO 2/6H	ISO 2/6H
	Beschichtung · Coating	NT	GLT-1	
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE
				R35
		B / 4-5	B / 4-5	C / 2-3
		E / O / P	E / O / P	E / O / P
Gewindetiefe und Lochform Thread depth and hole type		max. 3 x d_1		max. 2,5 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78		P 2.1-3.1 N 2.2, 2.5	P 1.1-4.1 M 1.1-4.1 N 2.2	P 1.1-3.1

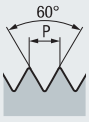
	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Rekord 2B-VA LS-NT	Rekord 2B-VA LS-GLT-1	Enorm 2-VA LS
M	6	1	160	17	4,5	3,4	5	**C2203000.0060**	C220C300.0060	
	8	1,25	180	20	6	4,9	6,8	**C2203000.0080**	C220C300.0080	
	10	1,5	200	22	7	5,5	8,5	**C2203000.0100**	C220C300.0100	
	12	1,75	224	24	9	7	10,2	**C2203000.0112**	C220C300.0112	**C2503000.0112**
	14	2	224	26	11	9	12	**C2203000.0114**	C220C300.0114	**C2503000.0114**
	16	2	224	27	12	9	14	**C2203000.0116**	C220C300.0116	**C2503000.0116**
	18	2,5	250	30	14	11	15,5	**C2203000.0118**	C220C300.0118	**C2503000.0118**
	20	2,5	280	32	16	12	17,5	**C2203000.0120**	C220C300.0120	**C2503000.0120**
								118	118	118

1) Auch mit innerer Kühlschmierstoff-Zufuhr IKZ möglich
Also available with internal coolant supply IKZ

2) Auch mit innerer Kühlschmierstoff-Zufuhr IKZN möglich
Also available with internal coolant supply IKZN

H Materials of high tensile strength		**Z** CNC-controlled machines						
1) 2)		$l_2 \approx 10 \times P$	new  $l_2 \approx 10 \times P$ 1)	new $l_2 \approx 10 \times P$ 1)				
6HX		6HX	ISO 2/6H	ISO 2/6H				
NT		TIN		GLT-1				
HSSE		HSSE	HSSE	HSSE				
		R15	R45	R45				
C / 2-3		C / 2-3	C / 2-3	C / 2-3				
E / O / P		E / O	E / O / P	E / O / P				
max. 2 x d_1 		max. 2 x d_1	max. 3 x d_1					
K 1.1-4.2 N 4.1		P 3.1-5.1 N 2.4-2.5	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1				
Rekord 2A-H LS-NT		**Rekord 2D-Z-BF-IKZ LS-TIN**	**Enorm 2-Z LS**	**Enorm 2-Z-LS GLT-1**				
C2100501.0060			**C2503500.0060**	C250C400.0060				M 6
C2100501.0080			**C2503500.0080**	C250C400.0080				8
C2100501.0100			**C2503500.0100**	C250C400.0100				10
C2100501.0112		C4093701.0112	**C2503500.0112**	C250C400.0112				12
C2100501.0114			**C2503500.0114**	C250C400.0114				14
C2100501.0116		C4093701.0116	**C2503500.0116**	C250C400.0116				16
C2100501.0118			**C2503500.0118**	C250C400.0118				18
C2100501.0120			**C2503500.0120**	C250C400.0120				20
119		119	119	119				

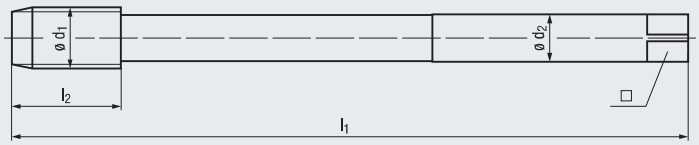
M



DIN 13

Z
CNC-controlled machines

Mit langen Nuten und langem Schaft für Gewindetiefen bis max. 3 x d_1
With long flutes and long shank for thread depths up to max. 3 x d_1



Technische Informationen Technical information	Toleranz · Tolerance	6HX	6HX	6HX
	Beschichtung · Coating	TICN	TIN	TIN
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE
			R15	R15
		C / 2-3	C / 2-3	C / 2-3
		E / O	E / O	E / O
Gewindetiefe und Lochform Thread depth and hole type		max. 3 x d_1 1)	max. 3 x d_1	
Einsatzgebiete – Material Applications – material	▸▸ 78	P 3.1-4.1 K 1.1-4.2	P 3.1-5.1 N 2.4-2.5	P 3.1-5.1 N 2.4-2.5

	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Rekord 2A-Z-IKZ-LF3 TICN	Rekord 2D-Z-IKZ-LF3 TIN	Rekord 2D-Z-BF-IKZ-LF3 TIN
M	24	3	215	30	18	14,5	21	**C0579401.0124**	**C4963701.0124**	C4973701.0124
	30	3,5	240	35	22	18	26,5	**C0579401.0130**	**C4963701.0130**	C4973701.0130
	33	3,5	255	35	25	20	29,5	**C0579401.0133**	**C4963701.0133**	C4973701.0133
	36	4	275	40	28	22	32	**C0579401.0136**	**C4963701.0136**	C4973701.0136
	42	4,5	295	45	32	24	37,5	**C0579401.0142**	**C4963701.0142**	C4973701.0142

1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

Zum Spannen von Gewindebohrern für die Herstellung großer Gewinde empfehlen wir die Verwendung von Aufnahmen der Typenreihen Softsynchro® und HF. Diese finden Sie auf den Seiten 620 - 621, 629 - 630 und 709 - 715.

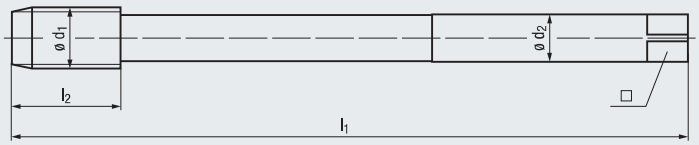
For the clamping of taps for the production of large threads, we recommend using our holders of the Softsynchro® and HF series. You will find these on pages 620 - 621, 629 - 630 and 709 - 715.

M

DIN 13

Z
CNC-controlled machines

Mit langen Nuten und langem Schaft für Gewindetiefen bis max. 4 x d_1
With long flutes and long shank for thread depths up to max. 4 x d_1



Technische Informationen Technical information	Toleranz · Tolerance	6HX	6HX	6HX
	Beschichtung · Coating	TICN	TIN	TIN
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE
			R15	R15
		C / 2-3	C / 2-3	C / 2-3
		E / O	E / O	E / O
Gewindetiefe und Lochform Thread depth and hole type		max. 4 x d_1 1)		max. 4 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78		P 3.1-4.1 K 1.1-4.2	P 3.1-5.1 N 2.4-2.5	P 3.1-5.1 N 2.4-2.5

	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Rekord 2A-Z-IKZ-LF4 TICN	Rekord 2D-Z-IKZ-LF4 TIN	Rekord 2D-Z-BF-IKZ-LF4 TIN
M	20	2,5	190	25	16	12	17,5	**C0539401.0120**	**C4283701.0120**	C4063701.0120
	22	2,5	230	27	18	14,5	19,5	**C0539401.0122**	**C4283701.0122**	C4063701.0122
	24	3	240	30	18	14,5	21	**C0539401.0124**	**C4283701.0124**	C4063701.0124
	27	3	250	30	20	16	24	**C0539401.0127**	**C4283701.0127**	C4063701.0127
	30	3,5	270	35	22	18	26,5	**C0539401.0130**	**C4283701.0130**	C4063701.0130
	33	3,5	290	35	25	20	29,5	**C0539401.0133**	**C4283701.0133**	C4063701.0133
	36	4	310	40	28	22	32	**C0539401.0136**	**C4283701.0136**	C4063701.0136
	42	4,5	340	45	32	24	37,5	**C0539401.0142**	**C4283701.0142**	C4063701.0142
	45	4,5	360	45	36	29	40,5	**C0539401.0145**	**C4283701.0145**	C4063701.0145
	48	5	380	50	36	29	43	**C0539401.0148**		

1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

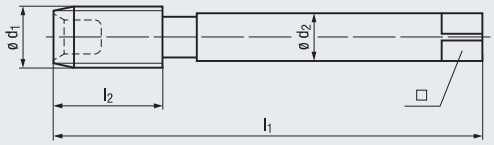
M

DIN 13

DIN 376

VA
Stainless steel materials

Mit Spanglocke
With internal chip collector



Technische Informationen Technical information	Toleranz · Tolerance	6HX / 6HX
	Beschichtung · Coating	NE2 / TIN
	Schneidstoff · Cutting material	HSSE / HSSE
		C / 2-3 / C / 2-3
		P / O [1] / P / O [1]
Gewindetiefe und Lochform Thread depth and hole type		max. 1,5 x d_1
Einsatzgebiete – Material Applications – material	▸▸ 78	P 1.1-3.1 / K 1.1-4.2 / P 1.1-3.1 / K 1.1-4.2

	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Robust 2X-VA NE2	Robust 2X-VA TIN
M	24	3	160	34	18	14,5	21	**C0803001.0124**	C0803101.0124
	27	3	160	36	20	16	24	**C0803001.0127**	C0803101.0127
	30	3,5	180	40	22	18	26,5	**C0803001.0130**	C0803101.0130
	33	3,5	180	40	25	20	29,5	**C0803001.0133**	C0803101.0133
	36	4	200	50	28	22	32	**C0803001.0136**	C0803101.0136
	39	4	200	50	32	24	35	**C0803001.0139**	C0803101.0139
	42	4,5	200	56	32	24	37,5	**C0803001.0142**	C0803101.0142
	45	4,5	220	58	36	29	40,5	**C0803001.0145**	C0803101.0145
	48	5	250	65	36	29	43	**C0803001.0148**	C0803101.0148
	52	5	250	65	40	32	47	**C0803001.0152**	C0803101.0152
	56	5,5	250	70	40	32	50,5	**C0803001.0156**	C0803101.0156
	60	5,5	280	70	45	35	54,5	**C0803001.0160**	C0803101.0160
	64	6	315	75	50	39	58	**C0803001.0164**	C0803101.0164

[1] Bevorzugt mit Pastenschmierung einsetzen, neben Werkzeug auch Bohrungswandung einstreichen.
Ölschmierung ist nur bei senkrechter Grundlochbearbeitung möglich, wenn das Grundloch mit Öl vollgefüllt ist.
If possible, use paste lubrication, coating both the tool and the walls of the drilled hole.
Lubrication with oil is possible only in the vertical machining of blind holes, if the hole is entirely filled with oil.

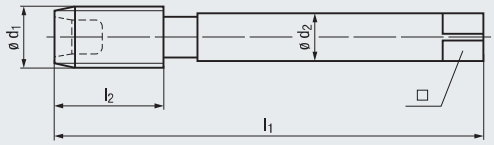
M

DIN 13

DIN 376

VA
Stainless steel materials

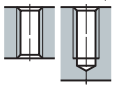
Mit Spanglocke
With internal chip collector



Technische Informationen
Technical information

Toleranz · Tolerance	6HX	6HX
Beschichtung · Coating	NE2	TIN
Schneidstoff · Cutting material	HSSE	HSSE
	C / 2-3	C / 2-3
	P / O [1]	P / O [1]

Gewindetiefe und Lochform
Thread depth and hole type



Einsatzgebiete – Material
Applications – material

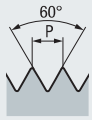
78

	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Robust 2ST-VA NE2	Robust 2ST-VA TIN
								P 1.1-3.1 K 1.1-4.2	P 1.1-3.1 K 1.1-4.2
M	24	3	160	34	18	14,5	21	**C2023001.0124**	C2023101.0124
	27	3	160	36	20	16	24	**C2023001.0127**	C2023101.0127
	30	3,5	180	40	22	18	26,5	**C2023001.0130**	C2023101.0130
	33	3,5	180	40	25	20	29,5	**C2023001.0133**	C2023101.0133
	36	4	200	50	28	22	32	**C2023001.0136**	C2023101.0136
	39	4	200	50	32	24	35	**C2023001.0139**	C2023101.0139
	42	4,5	200	56	32	24	37,5	**C2023001.0142**	C2023101.0142
	45	4,5	220	58	36	29	40,5	**C2023001.0145**	C2023101.0145
	48	5	250	65	36	29	43	**C2023001.0148**	C2023101.0148
	52	5	250	65	40	32	47	**C2023001.0152**	C2023101.0152
	56	5,5	250	70	40	32	50,5	**C2023001.0156**	C2023101.0156
	60	5,5	280	70	45	35	54,5	**C2023001.0160**	C2023101.0160
	64	6	315	75	50	39	58	**C2023001.0164**	C2023101.0164

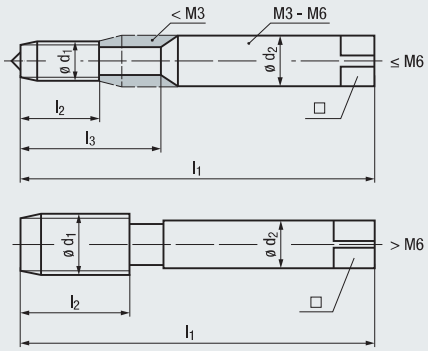
[1] Bevorzugt mit Pastenschmierung einsetzen, neben Werkzeug auch Bohrungswandung einstreichen.
Ölschmierung ist nur bei senkrechter Grundlochbearbeitung möglich, wenn das Grundloch mit Öl vollgefüllt ist.
If possible, use paste lubrication, coating both the tool and the walls of the drilled hole.
Lubrication with oil is possible only in the vertical machining of blind holes, if the hole is entirely filled with oil.

M

DIN 13



DIN 352



STEEL
Steel materials

new

Technische Informationen
Technical information

Toleranz · Tolerance	6HX *)	6HX	ISO 2/6H	ISO 2/6H
Beschichtung · Coating				
Schneidstoff · Cutting material	HSSE	HSSE LH	HSSE	HSSE R15
	C / 2-3 E / O	C / 2-3 E / O	B / 4-5 E / O	C / 2-3 E / O

Gewindetiefe und Lochform
Thread depth and hole type

max. 2 x d_1	max. 2 x d_1	max. 3 x d_1	max. 2 x d_1

Einsatzgebiete – Material
Applications – material

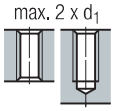
78

	K 1.1-4.2 N 2.3	K 1.1-4.2 N 2.3	P 1.1-3.1 N 2.2	P 2.1-3.1

	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Rekord A-STEEL	Rekord A-STEEL-LH	Rekord B-STEEL-L	Rekord D-STEEL
M	1	0,25	32	5	–	2,5	2,1	0,75	A0101001.0010			
	1,1	0,25	32	5	–	2,5	2,1	0,85				
	1,2	0,25	32	5	–	2,5	2,1	0,95	A0101001.0012			
	1,4	0,3	32	7	–	2,5	2,1	1,1	A0101001.0014			
	1,6	0,35	32	8	–	2,5	2,1	1,25	A0101001.0016			
	1,8	0,35	32	8	–	2,5	2,1	1,45				
	2	0,4	36	8	–	2,8	2,1	1,6	A0101001.0020			
	2,2	0,45	36	9	–	2,8	2,1	1,75	A0101001.0022			
	2,3	0,4	36	9	–	2,8	2,1	1,9	A0101001.0023			
	2,5	0,45	40	9	–	2,8	2,1	2,05	A0101001.0025			
	2,6	0,45	40	9	–	2,8	2,1	2,15	A0101001.0026			
	3	0,5	40	10	18	3,5	2,7	2,5	**A0101001.0030**	**A0101051.0030**	**A0208900.0030**	**A0451000.0030**
	3,5	0,6	45	11	20	4	3	2,9	A0101001.0035		A0208900.0035	
	4	0,7	45	12	22	4,5	3,4	3,3	**A0101001.0040**	**A0101051.0040**	**A0208900.0040**	**A0451000.0040**
	4,5	0,75	50	13	24	6	4,9	3,7				
	5	0,8	50	14	25	6	4,9	4,2	**A0101001.0050**	**A0101051.0050**	**A0208900.0050**	**A0451000.0050**
	6	1	56	16	28	6	4,9	5	**A0101001.0060**	**A0101051.0060**	**A0208900.0060**	**A0451000.0060**
	7	1	56	18	–	6	4,9	6				
	8	1,25	63	20	–	6	4,9	6,8	**A0101001.0080**	**A0101051.0080**	**A0208900.0080**	**A0451000.0080**
	9	1,25	63	20	–	7	5,5	7,8				
	10	1,5	70	22	–	7	5,5	8,5	**A0101001.0100**	**A0101051.0100**	**A0208900.0100**	**A0451000.0100**
	11	1,5	70	22	–	8	6,2	9,5				
	12	1,75	75	24	–	9	7	10,2	**A0101001.0112**	**A0101051.0112**	**A0208900.0112**	**A0451000.0112**
	14	2	80	26	–	11	9	12	A0101001.0114	A0101051.0114		
	16	2	80	27	–	12	9	14	A0101001.0116	A0101051.0116		
	18	2,5	95	30	–	14	11	15,5	A0101001.0118	A0101051.0118		
	20	2,5	95	32	–	16	12	17,5	A0101001.0120	A0101051.0120		
	22	2,5	100	32	–	18	14,5	19,5	A0101001.0122			
	24	3	110	34	–	18	14,5	21	A0101001.0124	A0101051.0124		
	27	3	110	36	–	20	16	24	A0101001.0127			
	30	3,5	125	40	–	22	18	26,5	A0101001.0130			

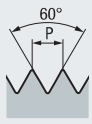
DIN 371		92		92	94
DIN 376		120		120	122

*) ≤ M1,4 Tol. 4H(X)/5H(X)

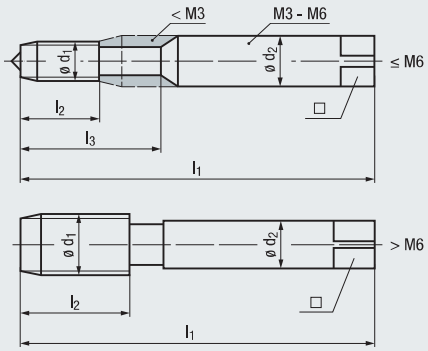
VA Stainless steel materials		**MS** Copper-zinc alloys			**Z** CNC-controlled machines			
ISO 2/6H NT HSSE B / 4-5 E / O / P		6HX HSSE C / 2-3 E	**6GX** HSSE C / 2-3 E		ISO 2/6H HSSE R45 **E / 1,5-2** E / O / P			
max. 3 x d_1		max. 2 x d_1 			max. 3 x d_1			
P 2.1-3.1 **N** 2.2, 2.5		**N** 2.3	**N** 2.3		**P** 1.1-3.1			
Rekord B-VA NT		**Rekord A-MS**	**Rekord A-MS**		**Enorm Z/E**			**M** 1
								1,1
								1,2
								1,4
								1,6
								1,8
		A0102501.0020						2
		A0102501.0022						2,2
		A0102501.0023						2,3
		A0102501.0025						2,5
		A0102501.0026						2,6
A0203000.0030		**A0102501.0030**	**A0102521.0030**		A0513500.0030			3
		A0102501.0035	A0102521.0035					3,5
A0203000.0040		**A0102501.0040**	**A0102521.0040**		A0513500.0040			4
								4,5
A0203000.0050		**A0102501.0050**	**A0102521.0050**		A0513500.0050			5
A0203000.0060		**A0102501.0060**	**A0102521.0060**		A0513500.0060			6
								7
A0203000.0080		**A0102501.0080**	**A0102521.0080**		A0513500.0080			8
								9
A0203000.0100		**A0102501.0100**	**A0102521.0100**		A0513500.0100			10
								11
A0203000.0112					A0513500.0112			12
								14
					A0513500.0116			16
								18
					A0513500.0120			20
								22
								24
								27
								30
95		103			113			
123					139			

M

DIN 13



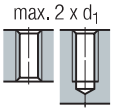
DIN 352



Toleranz · Tolerance		6HX *)	6HX *)
Beschichtung · Coating			
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
	A / 5-6	D / 3-4	C / 2-3	C / 2-3
	O / P	O / P	O / P	O / P

Technische Informationen
Technical information

Gewindetiefe und Lochform
Thread depth and hole type



Einsatzgebiete – Material
Applications – material

78

	P 1.1-3.1	P 1.1-3.1	P 1.1-3.1	P 1.1-3.1

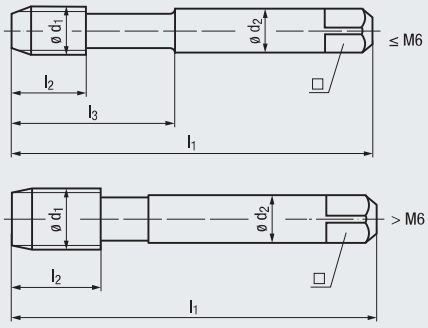
	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		HGB-Set V-Nr.1	HGB-Set M-Nr.2	HGB-Set F	HGB-Set-3S (Nr.1, Nr.2, F)
M	1	0,25	32	5	–	2,5	2,1	0,75	H0111019.0010	H0111029.0010	H0111001.0010	H0101001.0010
	1,1	0,25	32	5	–	2,5	2,1	0,85				
	1,2	0,25	32	5	–	2,5	2,1	0,95				
	1,4	0,3	32	7	–	2,5	2,1	1,1	H0111019.0014	H0111029.0014	H0111001.0014	H0101001.0014
	1,6	0,35	32	8	–	2,5	2,1	1,25	H0111019.0016	H0111029.0016	H0111001.0016	H0101001.0016
	1,7	0,35	32	8	–	2,5	2,1	1,35				
	1,8	0,35	32	8	–	2,5	2,1	1,45				
	2	0,4	36	8	–	2,8	2,1	1,6	H0111019.0020	H0111029.0020	H0111001.0020	H0101001.0020
	2,2	0,45	36	9	–	2,8	2,1	1,75				
	2,3	0,4	36	9	–	2,8	2,1	1,9				
	2,5	0,45	40	9	–	2,8	2,1	2,05	H0111019.0025	H0111029.0025	H0111001.0025	H0101001.0025
	2,6	0,45	40	9	–	2,8	2,1	2,15				
	3	0,5	40	10	18	3,5	2,7	2,5	H0111019.0030	H0111029.0030	H0111001.0030	H0101001.0030
	3,5	0,6	45	11	20	4	3	2,9	H0111019.0035	H0111029.0035	H0111001.0035	H0101001.0035
	4	0,7	45	12	22	4,5	3,4	3,3	H0111019.0040	H0111029.0040	H0111001.0040	H0101001.0040
	4,5	0,75	50	13	24	6	4,9	3,7				
	5	0,8	50	14	25	6	4,9	4,2	H0111019.0050	H0111029.0050	H0111001.0050	H0101001.0050
	6	1	56	16	28	6	4,9	5	H0111019.0060	H0111029.0060	H0111001.0060	H0101001.0060
	7	1	56	18	–	6	4,9	6	H0111019.0070	H0111029.0070	H0111001.0070	H0101001.0070
	8	1,25	63	20	–	6	4,9	6,8	H0111019.0080	H0111029.0080	H0111001.0080	H0101001.0080
	9	1,25	63	20	–	7	5,5	7,8				
	10	1,5	70	22	–	7	5,5	8,5	H0111019.0100	H0111029.0100	H0111001.0100	H0101001.0100
	11	1,5	70	22	–	8	6,2	9,5	H0111019.0111	H0111029.0111	H0111001.0111	H0101001.0111
	12	1,75	75	24	–	9	7	10,2	H0111019.0112	H0111029.0112	H0111001.0112	H0101001.0112
	14	2	80	26	–	11	9	12	H0111019.0114	H0111029.0114	H0111001.0114	H0101001.0114
	16	2	80	27	–	12	9	14	H0111019.0116	H0111029.0116	H0111001.0116	H0101001.0116
	18	2,5	95	30	–	14	11	15,5				
	20	2,5	95	32	–	16	12	17,5	H0111019.0120	H0111029.0120	H0111001.0120	H0101001.0120
	22	2,5	100	32	–	18	14,5	19,5				
	24	3	110	34	–	18	14,5	21	H0111019.0124	H0111029.0124	H0111001.0124	H0101001.0124
	27	3	110	36	–	20	16	24	H0111019.0127	H0111029.0127	H0111001.0127	H0101001.0127
	30	3,5	125	40	–	22	18	26,5	H0111019.0130	H0111029.0130	H0111001.0130	H0101001.0130
	33	3,5	125	40	–	25	20	29,5	H0111019.0133	H0111029.0133	H0111001.0133	H0101001.0133
	36	4	150	50	–	28	22	32	H0111019.0136	H0111029.0136	H0111001.0136	H0101001.0136

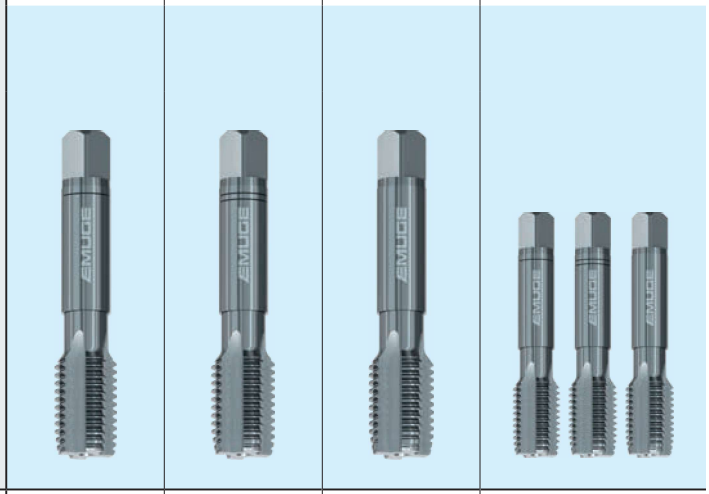
*) ≤ M1,4 Tol. 4HX/5HX

M

DIN 13

≈ DIN 352





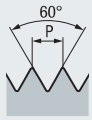
Toleranz · Tolerance			6HX	6HX
Beschichtung · Coating				
Technische Informationen Technical information — Schneidstoff · Cutting material	VHM/KHM	VHM/KHM	VHM/KHM	VHM/KHM
	C / ≈3	C / ≈3	C / ≈3	C / ≈3
	O / P	O / P	O / P	O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 2 x d_1			
Einsatzgebiete – Material Applications – material ▸▸ 78	P 5.1 N 2.8, 5.2 H 1.1-1.3	P 5.1 N 2.8, 5.2 H 1.1-1.3	P 5.1 N 2.8, 5.2 H 1.1-1.3	P 5.1 N 2.8, 5.2 H 1.1-1.3

	ø d_1 mm	P mm	l_1	l_2	max. l_3	ø d_2	□		VHM/KHM-Set V-Nr.1	VHM/KHM-Set M-Nr.2	VHM/KHM-Set F	VHM/KHM-Set-3S (Nr.1, Nr.2, F)
M	3	0,5	40	6	18	3,5	2,7	2,5	H0310919.0030	H0310929.0030	H0310901.0030	H0300901.0030
	4	0,7	45	7	19	4,5	3,4	3,3	H0310919.0040	H0310929.0040	H0310901.0040	H0300901.0040
	5	0,8	50	9	25	6	4,9	4,2	H0310919.0050	H0310929.0050	H0310901.0050	H0300901.0050
	6	1	56	10	26	6	4,9	5	H0310919.0060	H0310929.0060	H0310901.0060	H0300901.0060
	8	1,25	63	14	–	6	4,9	6,8	H0310919.0080	H0310929.0080	H0310901.0080	H0300901.0080
	10	1,5	70	16	–	7	5,5	8,5	H0310919.0100	H0310929.0100	H0310901.0100	H0300901.0100
	12	1,75	75	18	–	9	7	10,2	H0310919.0112	H0310929.0112	H0310901.0112	H0300901.0112
	14	2	80	20	–	11	9	12	H0310919.0114	H0310929.0114	H0310901.0114	H0300901.0114
	16	2	80	22	–	12	9	14	H0310919.0116	H0310929.0116	H0310901.0116	H0300901.0116
	20	2,5	95	25	–	16	12	17,5	H0310919.0120	H0310929.0120	H0310901.0120	H0300901.0120

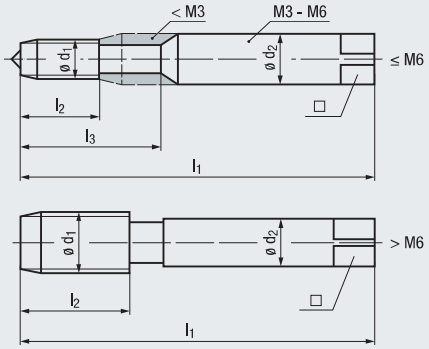
Kühlschmierstoffe siehe Seite 300 - 301 Coolant-lubricants, see page 300 - 301

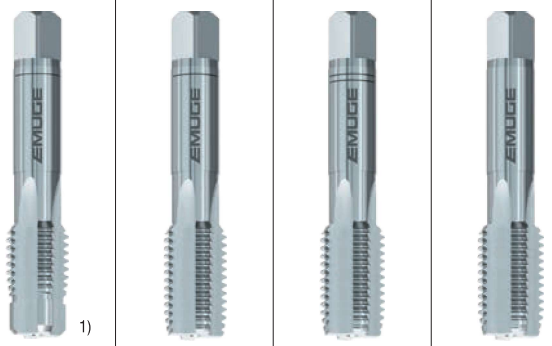
M

DIN 13



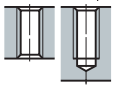
DIN 352





Technische Informationen Technical information					
Toleranz · Tolerance					6HX
Beschichtung · Coating					
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE	
	C / 2-3	C / 2-3	C / 2-3	C / 2-3	
	O / P	O / P	O / P	O / P	

Gewindetiefe und Lochform
Thread depth and hole type



Einsatzgebiete – Material
Applications – material

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	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		WM-Set V-Nr.1Z	WM-Set V-Nr.1	WM-Set M-Nr.2	WM-Set F
P	1.1-5.1											
M	1.1-4.1											
K	1.1-4.2											
N	1.1-2.6											
S	2.1-2.2, 2.4											
M	2	0,4	36	8	–	2,8	2,1	1,6	H0413019.0020	H0423019.0020	H0423029.0020	H0423001.0020
	2,2	0,45	36	9	–	2,8	2,1	1,75				
	2,3	0,4	36	9	–	2,8	2,1	1,9				
	2,5	0,45	40	9	–	2,8	2,1	2,05	H0413019.0025	H0423019.0025	H0423029.0025	H0423001.0025
	2,6	0,45	40	9	–	2,8	2,1	2,15				
	3	0,5	40	10	18	3,5	2,7	2,5	H0413019.0030	H0423019.0030	H0423029.0030	H0423001.0030
	3,5	0,6	45	11	20	4	3	2,9	H0413019.0035	H0423019.0035	H0423029.0035	H0423001.0035
	4	0,7	45	12	22	4,5	3,4	3,3	H0413019.0040	H0423019.0040	H0423029.0040	H0423001.0040
	5	0,8	50	14	25	6	4,9	4,2	H0413019.0050	H0423019.0050	H0423029.0050	H0423001.0050
	6	1	56	16	28	6	4,9	5	H0413019.0060	H0423019.0060	H0423029.0060	H0423001.0060
	8	1,25	63	20	–	6	4,9	6,8	H0413019.0080	H0423019.0080	H0423029.0080	H0423001.0080
	10	1,5	70	22	–	7	5,5	8,5	H0413019.0100	H0423019.0100	H0423029.0100	H0423001.0100
	12	1,75	75	24	–	9	7	10,2	H0413019.0112	H0423019.0112	H0423029.0112	H0423001.0112
	14	2	80	26	–	11	9	12	H0413019.0114	H0423019.0114	H0423029.0114	H0423001.0114
	16	2	80	27	–	12	9	14	H0413019.0116	H0423019.0116	H0423029.0116	H0423001.0116
	18	2,5	95	30	–	14	11	15,5				
	20	2,5	95	32	–	16	12	17,5	H0413019.0120	H0423019.0120	H0423029.0120	H0423001.0120
	22	2,5	100	32	–	18	14,5	19,5				
	24	3	110	34	–	18	14,5	21	H0413019.0124	H0423019.0124	H0423029.0124	H0423001.0124
	27	3	110	36	–	20	16	24				
	30	3,5	125	40	–	22	18	26,5				

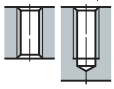
1) Der Vorschneider Nr.1Z mit Führungszapfen ist eine zusätzliche Hilfe zum winkelrechten Anschneiden von Hand. Er kann z.B. auf der Maschine weggelassen werden. Die Profilabstufung von Nr.1Z und Nr.1 ist gleich.
The taper tap No. 1Z with cylindrical pilot is an additional aid for true alignment especially when tapping by hand. It can be deleted when tapping by machine. The profile graduation of No.1Z, and No.1 is the same.

2)

2)

6HX	6HX	6HX	6HX
HSSE	HSSE	HSSE	HSSE
C / 2-3	C / 2-3	C / 2-3	C / 2-3
O / P	O / P	O / P	O / P

max. 2 x d_1



P 1.1-5.1 M 1.1-4.1 K 1.1-4.2 N 1.1-2.6 S 2.1-2.2, 2.4	P 1.1-5.1 M 1.1-4.1 K 1.1-4.2 N 1.1-2.6 S 2.1-2.2, 2.4	P 1.1-5.1 M 1.1-4.1 K 1.1-4.2 N 1.1-2.6 S 2.1-2.2, 2.4	P 1.1-5.1 M 1.1-4.1 K 1.1-4.2 N 1.1-2.6 S 2.1-2.2, 2.4	
WM-Set-3S (Nr.1Z, Nr.1, F)	**WM-Set-2S (Nr.1, F)**	**WM-Set-4S (Nr.1Z, Nr.1, Nr.2, F)**	**WM-Set-3S (Nr.1, Nr.2, F)**	
H0453001.0020	**H0483001.0020**	**H0403001.0020**	**H0433001.0020**	M 2
				2,2
				2,3
H0453001.0025	**H0483001.0025**	**H0403001.0025**	**H0433001.0025**	2,5
				2,6
H0453001.0030	**H0483001.0030**	**H0403001.0030**	**H0433001.0030**	3
H0453001.0035	**H0483001.0035**	**H0403001.0035**	**H0433001.0035**	3,5
H0453001.0040	**H0483001.0040**	**H0403001.0040**	**H0433001.0040**	4
H0453001.0050	**H0483001.0050**	**H0403001.0050**	**H0433001.0050**	5
H0453001.0060	**H0483001.0060**	**H0403001.0060**	**H0433001.0060**	6
H0453001.0080	**H0483001.0080**	**H0403001.0080**	**H0433001.0080**	8
H0453001.0100	**H0483001.0100**	**H0403001.0100**	**H0433001.0100**	10
H0453001.0112	**H0483001.0112**	**H0403001.0112**	**H0433001.0112**	12
H0453001.0114	**H0483001.0114**	**H0403001.0114**	**H0433001.0114**	14
H0453001.0116	**H0483001.0116**	**H0403001.0116**	**H0433001.0116**	16
				18
H0453001.0120	**H0483001.0120**	**H0403001.0120**	**H0433001.0120**	20
				22
H0453001.0124	**H0483001.0124**	**H0403001.0124**	**H0433001.0124**	24
				27
				30

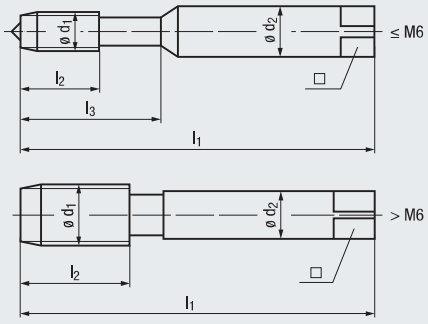
2) Beim Gewindebohren von Hand in Durchgangslöcher entfällt Nr.1
No.1 is not needed when tapping in through holes by hand

M

60° P

DIN 13

DIN 352



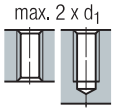
1)

Technische Informationen
Technical information

Toleranz · Tolerance				6HX
Beschichtung · Coating	TIN	TIN	TIN	TIN
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
	C / 2-3	C / 2-3	C / 2-3	C / 2-3
	O / P	O / P	O / P	O / P

Gewindetiefe und Lochform
Thread depth and hole type

max. 2 x d_1



Einsatzgebiete – Material
Applications – material

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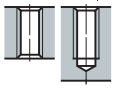
	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		WM-Set V-Nr.1Z TIN	WM-Set V-Nr.1 TIN	WM-Set M-Nr.2 TIN	WM-Set F TIN
P	1.1-5.1											
M	1.1-4.1											
K	1.1-4.2											
N	1.1-2.7											
S	2.1-2.6											
M	3	0,5	40	10	18	3,5	2,7	2,5	H0413119.0030	H0423119.0030	H0423129.0030	H0423101.0030
	4	0,7	45	12	22	4,5	3,4	3,3	H0413119.0040	H0423119.0040	H0423129.0040	H0423101.0040
	5	0,8	50	14	25	6	4,9	4,2	H0413119.0050	H0423119.0050	H0423129.0050	H0423101.0050
	6	1	56	16	28	6	4,9	5	H0413119.0060	H0423119.0060	H0423129.0060	H0423101.0060
	8	1,25	63	20	–	6	4,9	6,8	H0413119.0080	H0423119.0080	H0423129.0080	H0423101.0080
	10	1,5	70	22	–	7	5,5	8,5	H0413119.0100	H0423119.0100	H0423129.0100	H0423101.0100
	12	1,75	75	24	–	9	7	10,2	H0413119.0112	H0423119.0112	H0423129.0112	H0423101.0112
	14	2	80	26	–	11	9	12				
	16	2	80	27	–	12	9	14	H0413119.0116	H0423119.0116	H0423129.0116	H0423101.0116

1) Der Vorschneider Nr.1Z mit Führungszapfen ist eine zusätzliche Hilfe zum winkelrechten Anschneiden von Hand. Er kann z.B. auf der Maschine weggelassen werden. Die Profilabstufung von Nr.1Z und Nr.1 ist gleich.
The taper tap No. 1Z with cylindrical pilot is an additional aid for true alignment especially when tapping by hand. It can be deleted when tapping by machine. The profile graduation of No.1Z, and No.1 is the same.

2)

6HX	6HX	6HX	6HX
TIN	TIN	TIN	TIN
HSSE	HSSE	HSSE	HSSE
C / 2-3	C / 2-3	C / 2-3	C / 2-3
O / P	O / P	O / P	O / P

max. 2 x d_1



P 1.1-5.1 M 1.1-4.1 K 1.1-4.2 N 1.1-2.7 S 2.1-2.6	P 1.1-5.1 M 1.1-4.1 K 1.1-4.2 N 1.1-2.7 S 2.1-2.6	P 1.1-5.1 M 1.1-4.1 K 1.1-4.2 N 1.1-2.7 S 2.1-2.6	P 1.1-5.1 M 1.1-4.1 K 1.1-4.2 N 1.1-2.7 S 2.1-2.6	
WM-Set-3S TIN (Nr.1Z, Nr.1, F)	**WM-Set-2S TIN (Nr.1, F)**	**WM-Set-4S TIN (Nr.1Z, Nr.1, Nr.2, F)**	**WM-Set-3S TIN (Nr.1, Nr.2, F)**	
H0453101.0030	**H0483101.0030**	**H0403101.0030**	**H0433101.0030**	M 3
H0453101.0040	**H0483101.0040**	**H0403101.0040**	**H0433101.0040**	4
H0453101.0050	**H0483101.0050**	**H0403101.0050**	**H0433101.0050**	5
H0453101.0060	**H0483101.0060**	**H0403101.0060**	**H0433101.0060**	6
H0453101.0080	**H0483101.0080**	**H0403101.0080**	**H0433101.0080**	8
H0453101.0100	**H0483101.0100**	**H0403101.0100**	**H0433101.0100**	10
H0453101.0112	**H0483101.0112**	**H0403101.0112**	**H0433101.0112**	12
				14
H0453101.0116	**H0483101.0116**	**H0403101.0116**	**H0433101.0116**	16

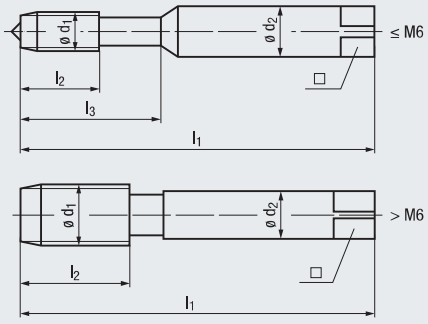
2) Beim Gewindebohren von Hand in Durchgangslöcher entfällt Nr.1
No.1 is not needed when tapping in through holes by hand

Verstellbare Windeisen siehe Seite 305 Adjustable tap wrenches, see page 305

M

DIN 13

DIN 352

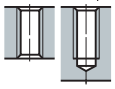


1)

Technische Informationen
Technical information

Toleranz · Tolerance				6HX
Beschichtung · Coating	NT	NT	NT	NT
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
	C / 2-3	C / 2-3	C / 2-3	C / 2-3
	O / P	O / P	O / P	O / P

Gewindetiefe und Lochform
Thread depth and hole type



Einsatzgebiete – Material
Applications – material

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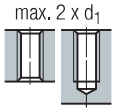
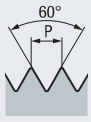
	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		WM-F-TIC-Set V-Nr.1Z NT	WM-F-TIC-Set V-Nr.1 NT	WM-F-TIC-Set M-Nr.2 NT	WM-F-TIC-Set F NT
									P 3.1-5.1 N 2.7 S 2.3, 2.5-2.6	P 3.1-5.1 N 2.7 S 2.3, 2.5-2.6	P 3.1-5.1 N 2.7 S 2.3, 2.5-2.6	P 3.1-5.1 N 2.7 S 2.3, 2.5-2.6
M	3	0,5	40	10	18	3,5	2,7	2,5	H0417119.0030	H0427119.0030	H0427129.0030	H0427101.0030
	4	0,7	45	12	22	4,5	3,4	3,3	H0417119.0040	H0427119.0040	H0427129.0040	H0427101.0040
	5	0,8	50	14	25	6	4,9	4,2	H0417119.0050	H0427119.0050	H0427129.0050	H0427101.0050
	6	1	56	16	28	6	4,9	5	H0417119.0060	H0427119.0060	H0427129.0060	H0427101.0060
	8	1,25	63	20	–	6	4,9	6,8	H0417119.0080	H0427119.0080	H0427129.0080	H0427101.0080
	10	1,5	70	22	–	7	5,5	8,5	H0417119.0100	H0427119.0100	H0427129.0100	H0427101.0100
	12	1,75	75	24	–	9	7	10,2	H0417119.0112	H0427119.0112	H0427129.0112	H0427101.0112
	16	2	80	27	–	12	9	14	H0417119.0116	H0427119.0116	H0427129.0116	H0427101.0116
	20	2,5	95	32	–	16	12	17,5	H0417119.0120	H0427119.0120	H0427129.0120	H0427101.0120

1) Der Vorschneider Nr.1Z mit Führungszapfen ist eine zusätzliche Hilfe zum winkelrechten Anschneiden von Hand. Er kann z.B. auf der Maschine weggelassen werden. Die Profilabstufung von Nr.1Z und Nr.1 ist gleich.
The taper tap No. 1Z with cylindrical pilot is an additional aid for true alignment especially when tapping by hand. It can be deleted when tapping by machine. The profile graduation of No.1Z, and No.1 is the same.

2)				
6HX NT HSSE C / 2-3 O / P	6HX NT HSSE C / 2-3 O / P			
max. 2 x d_1 				
P 3.1-5.1 N 2.7 S 2.3, 2.5-2.6	P 3.1-5.1 N 2.7 S 2.3, 2.5-2.6			
WM-F-TIC-Set-4S NT (Nr.1Z, Nr.1, Nr.2, F)	**WM-F-TIC-Set-3S NT (Nr.1, Nr.2, F)**			
H0407101.0030	**H0437101.0030**			M 3
H0407101.0040	**H0437101.0040**			4
H0407101.0050	**H0437101.0050**			5
H0407101.0060	**H0437101.0060**			6
H0407101.0080	**H0437101.0080**			8
H0407101.0100	**H0437101.0100**			10
H0407101.0112	**H0437101.0112**			12
H0407101.0116	**H0437101.0116**			16
H0407101.0120	**H0437101.0120**			20

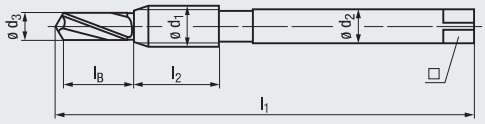
2) Beim Gewindebohren von Hand in Durchgangslöcher entfällt Nr.1
No.1 is not needed when tapping in through holes by hand

M



DIN 13

Normal lang und extra lang
Standard length and extra long



Technische Informationen
Technical information

Toleranz · Tolerance	ISO 2/6H	ISO 2/6H
Beschichtung · Coating		
Schneidstoff · Cutting material	HSSE	HSSE
	C / 2-3	C / 2-3
	E / O	E / O

Gewindetiefe und Lochform
Thread depth and hole type

max. 1 x d_1

Einsatzgebiete – Material
Applications – material

78

P 2.1	P 2.1
N 2.2	N 2.2

Normal lang · Standard length

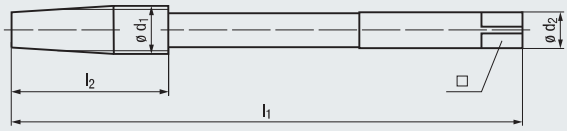
	ø d_1 mm	P mm	l_1	l_2	l_B	ø d_2	□	ø d_3	KOMBI Normal-lg
M	3	0,5	62	11	8,2	3,5	2,7	2,55	M0601000.0030
	3,5	0,6	66	12	9,1	4	3	2,95	
	4	0,7	66	13	9	4,5	3,4	3,36	M0601000.0040
	5	0,8	75	15	10,7	6	4,9	4,26	M0601000.0050
	6	1	81	20	12,5	6	4,9	5,05	M0601000.0060
	8	1,25	93	12	17,9	6	4,9	6,8	M0601000.0080
	10	1,5	99	14	19,4	7	5,5	8,55	M0601000.0100
	12	1,75	106	16	21,8	9	7	10,3	M0601000.0112
	14	2	114	18	24,3	11	9	12,1	
	16	2	123	20	27,7	12	9	14,1	M0601000.0116
	18	2,5	132	22	31,2	14	11	15,6	
	20	2,5	132	22	30,6	16	12	17,6	M0601000.0120

Extra lang · Extra long

	ø d_1 mm	P mm	l_1	l_2	l_B	ø d_2	□	ø d_3	KOMBI Extra-lg
M	3	0,5	71	11	17,2	3,5	2,7	2,55	M0621000.0030
	4	0,7	77	13	20	4,5	3,4	3,36	M0621000.0040
	5	0,8	87	13,7	24	6	4,9	4,26	M0621000.0050
	6	1	94	20	25,5	6	4,9	5,05	M0621000.0060
	8	1,25	109	12	33,9	6	4,9	6,8	M0621000.0080
	10	1,5	118	14	38,4	7	5,5	8,55	M0621000.0100
	12	1,75	127	16	42,8	9	7	10,3	M0621000.0112

M

DIN 13



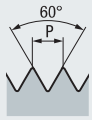
Haben Sie Bedarf an Automaten-Mutter-Gewindebohrern?
Bitte sprechen Sie uns an!
Do you need tapper taps?
Please contact us!

Technische Informationen Technical information	Toleranz · Tolerance: ISO 2/6H Beschichtung · Coating Schneidstoff · Cutting material: HSSE E / O
Gewindetiefe und Lochform Thread depth and hole type	max. 1,5 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	P 1.1-3.1 N 2.2

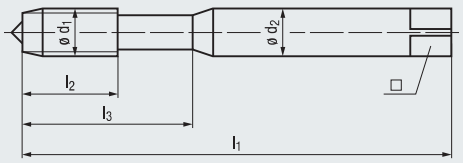
	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		MMB DIN 357
M	3	0,5	70	16	2,2	–	2,5	M0101000.0030
	4	0,7	90	22	2,8	2,1	3,3	M0101000.0040
	5	0,8	100	24	3,5	2,7	4,2	M0101000.0050
	6	1	110	30	4,5	3,4	5	M0101000.0060
	7	1	110	30	5,5	4,3	6	M0101000.0070
	8	1,25	125	38	6	4,9	6,8	M0101000.0080
	10	1,5	140	45	7	5,5	8,5	M0101000.0100
	12	1,75	180	50	9	7	10,2	M0101000.0112
	14	2	200	56	11	9	12	
	16	2	200	63	12	9	14	M0101000.0116
	18	2,5	220	63	14	11	15,5	
	20	2,5	250	70	16	12	17,5	
	22	2,5	280	80	18	14,5	19,5	
	24	3	280	80	18	14,5	21	
	27	3	315	90	20	16	24	
	30	3,5	315	100	22	18	26,5	

MF

DIN 13



DIN 371



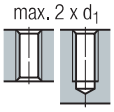
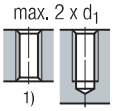
STEEL
Steel materials

Technische Informationen Technical information	Toleranz · Tolerance	6HX	6HX	ISO 2/6H
	Beschichtung · Coating			TIN
	Schneidstoff · Cutting material	HSSE	HSSE LH	HSSE
		C / 2-3 E / O	C / 2-3 E / O	B / 4-5 E / O
				B / 4-5 E / O
Gewindetiefe und Lochform Thread depth and hole type			max. 2 x d_1	max. 3 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78		K 1.1-4.2 N 2.3	K 1.1-4.2 N 2.3	P 1.1-3.1 N 2.2
				P 1.1-4.1

	ø d_1 mm		P mm	l_1	l_2	l_3	ø d_2	□		Rekord 1A-STEEL	Rekord 1A-STEEL-LH	Rekord 1B-STEEL-L	Rekord 1B-STEEL-L TIN
M	2,5	x	0,35	50	7	12	2,8	2,1	2,15	B0101001.0196			
	2,6	x	0,35	50	7	12	2,8	2,1	2,25	B0101001.0199			
	3	x	0,35	56	8	18	3,5	2,7	2,65	B0101001.0202	B0101051.0202		
	3,5	x	0,35	56	9	20	4	3	3,15	B0101001.0205		**B0208900.0205**	B0208400.0205
	4	x	0,5	63	10	21	4,5	3,4	3,5	**B0101001.0210**	**B0101051.0210**	**B0208900.0210**	**B0208400.0210**
	5	x	0,5	70	11	25	6	4,9	4,5	**B0101001.0218**	**B0101051.0218**	**B0208900.0218**	**B0208400.0218**
	6	x	0,5	80	13	30	6	4,9	5,5	**B0101001.0228**	**B0101051.0228**	**B0208900.0228**	**B0208400.0228**
	6	x	0,75	80	13	30	6	4,9	5,2	**B0101001.0229**	**B0101051.0229**	**B0208900.0229**	**B0208400.0229**
	7	x	0,75	80	13	30	7	5,5	6,2	B0101001.0239		**B0208900.0239**	B0208400.0239
	8	x	0,75	80	14	30	8	6,2	7,2	**B0101001.0250**		**B0208900.0250**	**B0208400.0250**
	8	x	1	90	17	35	8	6,2	7	**B0101001.0251**	**B0101051.0251**	**B0208900.0251**	**B0208400.0251**
	9	x	0,75	90	14	35	9	7	8,2	B0101001.0262		**B0208900.0262**	B0208400.0262
	9	x	1	90	17	35	9	7	8	B0101001.0263		**B0208900.0263**	B0208400.0263
	10	x	0,75	90	15	35	10	8	9,2	B0101001.0275		**B0208900.0275**	**B0208400.0275**
	10	x	1	90	18	35	10	8	9	**B0101001.0276**	**B0101051.0276**	**B0208900.0276**	**B0208400.0276**
	10	x	1,25	100	18	39	10	8	8,8	B0101001.0277		**B0208900.0277**	**B0208400.0277**
									DIN 374	168		168	168
									DIN 2181	194	194		

Werkzeug-Aufnahmen der Typenreihe Softsynchro® siehe Seite 617 - 644

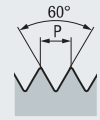
Tool holders of our Softsynchro® series, see page 617 - 644

STEEL Steel materials			**VA** Stainless steel materials			**H** Materials of high tensile strength		
new	new							
6HX	6HX		ISO 2/6H	ISO 2/6H		6HX	6HX	
ALCR-102	ALCR-101		TIN	GLT-1		NT		
HSSE-PM	**HSSE-PM**		HSSE	HSSE		HSSE	**VHM**	
B / ≈6	B / ≈6		B / 4-5	B / 4-5		C / 2-3	C / 2-3	
E / O	E / O		E / O / P	E / O / P		E / O / P	E / O	
max. 3 x d_1			max. 3 x d_1			max. 2 x d_1 	max. 2 x d_1 1) 	
P 3.1-5.1	P 3.1-5.1		P 1.1-4.1	P 1.1-4.1 M 1.1-4.1 N 2.2		K 1.1-4.2 N 4.1	K 1.1-4.2 N 1.5-1.6 N 2.6-2.8 N 4.1, 4.3-4.4 N 5.1-5.2	
Rekord 1B-STEEL-H PM-ALCR-102	**Rekord 1B-STEEL-H PM-ALCR-101**		**Rekord 1B-VA TIN**	**Rekord 1B-VA GLT-1**		**Rekord 1A-H NT**	**VHM-Rekord 1A-H-IKZ**	
						B0100501.0196		M 2,5 x 0,35
						B0100501.0199		2,6 x 0,35
						B0100501.0202		3 x 0,35
						B0100501.0205		3,5 x 0,35
			B0203100.0210	B020C300.0210		**B0100501.0210**		4 x 0,5
			B0203100.0218	B020C300.0218		**B0100501.0218**		5 x 0,5
						B0100501.0228		6 x 0,5
						B0100501.0229	**B1950901.0229**	6 x 0,75
								7 x 0,75
								8 x 0,75
B0209J01.0251	**B0208J01.0251**						**B1950901.0251**	8 x 1
								9 x 0,75
B0209J01.0263	**B0208J01.0263**							9 x 1
								10 x 0,75
B0209J01.0276	**B0208J01.0276**						**B1950901.0276**	10 x 1
							B1950901.0277	10 x 1,25
171	171		174	174		178	179	

1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

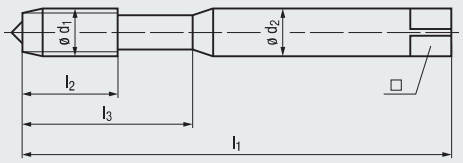
MF

DIN 13



DIN 371

HCUT
Hardened steels



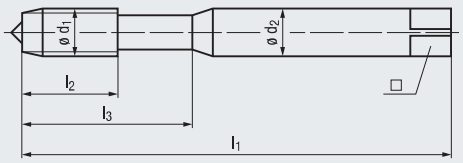
Toleranz · Tolerance	6HX
Beschichtung · Coating	TICN
Schneidstoff · Cutting material	HSSE-PM
Technische Informationen Technical information	C / 2-3 O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 1,5 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	H 1.1-1.2

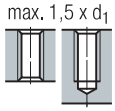
	ø d_1 mm		P mm	l_1	l_2	l_3	ø d_2	□		Rekord 1A-HCUT PM-TICN
M	8	x	1	90	10	35	8	6,2	7,1	B010J901.0251
	10	x	1	90	10	35	10	8	9,1	B010J901.0276
						DIN 374				179

MF

DIN 13

DIN 371



	HCUT Hardened steels	
		2)
Toleranz · Tolerance	6HX	6HX
Beschichtung · Coating	TICN	TICN
Schneidstoff · Cutting material	VHM	VHM
	D / 4-5	C / 2-3
	O / P	O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 1,5 x d_1 	max. 1,5 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	H 1.3-1.4	H 1.3-1.4

	ø d_1 mm		P mm	l_1	l_2	l_3	ø d_2	□		VHM-Rekord 1A-HCUT/D TICN	VHM-Rekord 1A-HCUT/C TICN
M	8	x	1	90	15	35	8	6,2	7,1	**B016K101.0251**	**B010K101.0251**
	10	x	1	100	18	38	10	8	9,1	**B016K101.0276**	**B010K101.0276**
	12	x	1,5	110	21	41	12	9	10,6	**B016K101.0303**	**B010K101.0303**
	14	x	1,5	110	24	44	14	11	12,6	**B016K101.0331**	**B010K101.0331**
	16	x	1,5	110	24	44	16	12	14,6	**B016K101.0359**	**B010K101.0359**

2) Achtung: VHM-Rekord 1A-HCUT/D-TICN als Vorschneider verwenden!
Please note: Use solid carbide tap VHM-Rekord 1A-HCUT/D-TICN as No.1 tap!

Spiralbohrer Typ EF-Drill-HCUT
siehe Seite 62

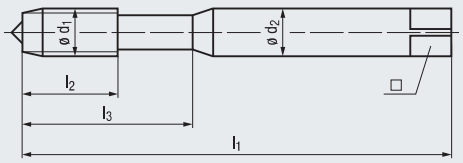
Twist drills type EF-Drill-HCUT,
see page 62

MF

DIN 13

DIN 371

Z
CNC-controlled machines



Technische Informationen
Technical information

Toleranz · Tolerance	6HX	6HX	ISO 2/6H	ISO 2/6H
Beschichtung · Coating	TIN-70	GLT-1		GLT-1
Schneidstoff · Cutting material	HSSE-PM	HSSE-PM	HSSE	HSSE
			R45	R45
	B / 4-5	B / 4-5	C / 2-3	C / 2-3
	E / O / P	E / O / P	E / O / P	E / O / P

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1		max. 3 x d_1	

Einsatzgebiete – Material
Applications – material

78

P 2.1-5.1	P 1.1-5.1 M 1.1-4.1 K 1.1-3.2 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1, 2.2-2.3	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1

	ø d_1 mm		P mm	l_1	l_2	l_3	ø d_2	□		Rekord 1B-Z PM-TIN-70	Rekord 1B-Z PM-GLT-1	Enorm 1-Z	Enorm 1-Z GLT-1
M	2,5	x	0,35	50	5	12	2,8	2,1	2,15			B0503500.0196	
	2,6	x	0,35	50	5	12	2,8	2,1	2,25			B0503500.0199	
	3	x	0,35	56	4,5	18	3,5	2,7	2,65			B0503500.0202	
	3,5	x	0,35	56	5	20	4	3	3,15			B0503500.0205	
	4	x	0,5	63	5	21	4,5	3,4	3,5	B0208F01.0210	B020A601.0210	B0503500.0210	B050C400.0210
	5	x	0,5	70	5	25	6	4,9	4,5	B0208F01.0218	B020A601.0218	B0503500.0218	B050C400.0218
	6	x	0,5	80	5	30	6	4,9	5,5			B0503500.0228	B050C400.0228
	6	x	0,75	80	8	30	6	4,9	5,2			B0503500.0229	B050C400.0229
	7	x	0,75	80	10	30	7	5,5	6,2			B0503500.0239	
	8	x	0,75	80	8	30	8	6,2	7,2			B0503500.0250	
	8	x	1	90	10	35	8	6,2	7			B0503500.0251	B050C400.0251
	9	x	0,75	90	10	35	9	7	8,2			B0503500.0262	
	9	x	1	90	10	35	9	7	8			B0503500.0263	
	10	x	0,75	90	10	35	10	8	9,2			B0503500.0275	
	10	x	1	90	10	35	10	8	9			B0503500.0276	B050C400.0276
	10	x	1,25	100	16	39	10	8	8,8			B0503500.0277	B050C400.0277

DIN 374	181	181	183	185
DIN 2181				

Z
CNC-controlled machines

ISO 2/6H	ISO 2/6H	ISO 1/4H	ISO 1/4H	ISO 3/6G	ISO 3/6G
	GLT-1		GLT-1		GLT-1
HSSE	HSSE	HSSE	HSSE	HSSE	HSSE
R45	R45	R45	R45	R45	R45
E / 1,5-2	E / 1,5-2	C / 2-3	C / 2-3	E / 1,5-2	E / 1,5-2
E / O / P	E / O / P	E / O / P	E / O / P	E / O / P	E / O / P

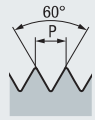
max. 3 x d_1

P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1
Enorm 1-Z/E	**Enorm 1-Z/E GLT-1**	**Enorm 1-Z**	**Enorm 1-Z GLT-1**	**Enorm 1-Z/E**	**Enorm 1-Z/E GLT-1**
B0513500.0210	**B051C400.0210**	**B0503510.0210**	**B050C410.0210**	**B0513520.0210**	**B051C420.0210**
B0513500.0218	**B051C400.0218**	**B0503510.0218**	**B050C410.0218**	**B0513520.0218**	**B051C420.0218**
B0513500.0228	**B051C400.0228**	B0503510.0228	B050C410.0228	**B0513520.0228**	**B051C420.0228**
B0513500.0229	**B051C400.0229**	**B0503510.0229**	**B050C410.0229**	**B0513520.0229**	**B051C420.0229**
185	185	186		187	187

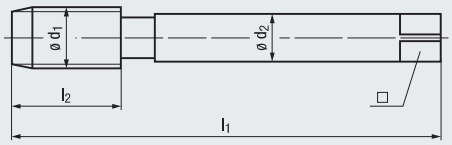
M	2,5 x 0,35
	2,6 x 0,35
	3 x 0,35
	3,5 x 0,35
	4 x 0,5
	5 x 0,5
	6 x 0,5
	6 x 0,75
	7 x 0,75
	8 x 0,75
	8 x 1
	9 x 0,75
	9 x 1
	10 x 0,75
	10 x 1
	10 x 1,25

MF

DIN 13



DIN 374

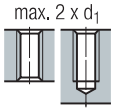


STEEL
Steel materials

Toleranz · Tolerance	6HX	ISO 2/6H	ISO 2/6H	ISO 1/4H
Beschichtung · Coating			TIN	
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
	C / 2-3	B / 4-5	B / 4-5	B / 4-5
	E / O	E / O	E / O	E / O

Technische Informationen
Technical information

Gewindetiefe und Lochform
Thread depth and hole type



K 1.1-4.2	P 1.1-3.1	P 1.1-4.1	P 1.1-3.1
N 2.3	N 2.2		N 2.2

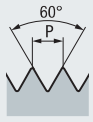
Einsatzgebiete – Material
Applications – material
» 78

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		Rekord 2A-STEEL	Rekord 2B-STEEL-L	Rekord 2B-STEEL-L TIN	Rekord 2B-STEEL-L
M	4	x	0,35	63	10	2,8	2,1	3,65	C0101001.0209	C0208900.0209	C0208400.0209	
	4	x	0,5	63	10	2,8	2,1	3,5	C0101001.0210	C0208900.0210	C0208400.0210	
	5	x	0,5	70	11	3,5	2,7	4,5	C0101001.0218	C0208900.0218	C0208400.0218	
	6	x	0,5	80	13	4,5	3,4	5,5	C0101001.0228	C0208900.0228	C0208400.0228	
	6	x	0,75	80	13	4,5	3,4	5,2	C0101001.0229	C0208900.0229	C0208400.0229	
	8	x	0,75	80	14	6	4,9	7,2	C0101001.0250	C0208900.0250	C0208400.0250	
	8	x	1	90	17	6	4,9	7	C0101001.0251	C0208900.0251	C0208400.0251	C0208910.0251
	9	x	1	90	17	7	5,5	8	C0101001.0263	C0208900.0263	C0208400.0263	
	10	x	0,75	90	18	7	5,5	9,2	C0101001.0275	C0208900.0275	C0208400.0275	
	10	x	1	90	18	7	5,5	9	C0101001.0276	C0208900.0276	C0208400.0276	C0208910.0276
	10	x	1,25	100	22	7	5,5	8,8	C0101001.0277	C0208900.0277	C0208400.0277	
	11	x	1	90	18	8	6,2	10	C0101001.0288	C0208900.0288	C0208400.0288	
	12	x	1	100	18	9	7	11	C0101001.0301	C0208900.0301	C0208400.0301	C0208910.0301
	12	x	1,25	100	22	9	7	10,8	C0101001.0302	C0208900.0302	C0208400.0302	
	12	x	1,5	100	22	9	7	10,5	C0101001.0303	C0208900.0303	C0208400.0303	C0208910.0303
	14	x	1	100	18	11	9	13	C0101001.0329	C0208900.0329	C0208400.0329	
	14	x	1,25	100	22	11	9	12,8	C0101001.0330	C0208900.0330	C0208400.0330	
	14	x	1,5	100	22	11	9	12,5	C0101001.0331	C0208900.0331	C0208400.0331	C0208910.0331
	15	x	1	100	18	12	9	14	C0101001.0343	C0208900.0343	C0208400.0343	
	16	x	1	100	18	12	9	15	C0101001.0357	C0208900.0357	C0208400.0357	
	16	x	1,5	100	22	12	9	14,5	C0101001.0359	C0208900.0359	C0208400.0359	C0208910.0359
	18	x	1	110	20	14	11	17	C0101001.0388	C0208900.0388	C0208400.0388	
	18	x	1,5	110	25	14	11	16,5	C0101001.0390	C0208900.0390	C0208400.0390	C0208910.0390
	18	x	2	125	26	14	11	16	C0101001.0391	C0208900.0391	C0208400.0391	
	20	x	1	125	20	16	12	19	C0101001.0420	C0208900.0420	C0208400.0420	
	20	x	1,5	125	25	16	12	18,5	C0101001.0422	C0208900.0422	C0208400.0422	C0208910.0422
	20	x	2	140	27	16	12	18	C0101001.0423	C0208900.0423	C0208400.0423	
	22	x	1	125	20	18	14,5	21	C0101001.0436	C0208900.0436	C0208400.0436	
	22	x	1,5	125	25	18	14,5	20,5	C0101001.0438	C0208900.0438	C0208400.0438	
	22	x	2	140	27	18	14,5	20	C0101001.0439	C0208900.0439	C0208400.0439	
	24	x	1	140	20	18	14,5	23	C0101001.0450	C0208900.0450	C0208400.0450	
	24	x	1,5	140	27	18	14,5	22,5	C0101001.0452	C0208900.0452	C0208400.0452	
	24	x	2	140	27	18	14,5	22	C0101001.0453	C0208900.0453	C0208400.0453	
	25	x	1,5	140	28	18	14,5	23,5	C0101001.0458	C0208900.0458	C0208400.0458	
	26	x	1,5	140	28	18	14,5	24,5	C0101001.0464	C0208900.0464	C0208400.0464	

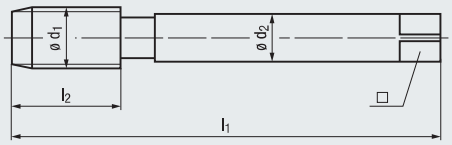
DIN 371		162	162	162	
DIN 2181		194			

MF

DIN 13



DIN 374



STEEL
Steel materials

Technische Informationen Technical information	Toleranz · Tolerance	6HX	ISO 2/6H	ISO 2/6H TIN	ISO 1/4H
	Beschichtung · Coating				
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
		C / 2-3 E / O	B / 4-5 E / O	B / 4-5 E / O	B / 4-5 E / O
Gewindetiefe und Lochform Thread depth and hole type		max. 2 x d_1	max. 3 x d_1		
Einsatzgebiete – Material Applications – material ▸▸ 78		K 1.1-4.2 N 2.3	P 1.1-3.1 N 2.2	P 1.1-4.1	P 1.1-3.1 N 2.2

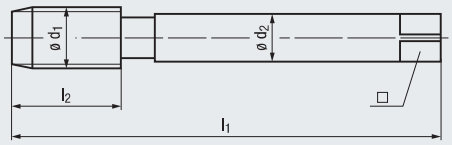
	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		Rekord 2A-STEEL	Rekord 2B-STEEL-L	Rekord 2B-STEEL-L TIN	Rekord 2B-STEEL-L
M	27	x	1,5	140	28	20	16	25,5	C0101001.0470	C0208900.0470	C0208400.0470	
	27	x	2	140	28	20	16	25	C0101001.0471	C0208900.0471	C0208400.0471	
	28	x	1,5	140	28	20	16	26,5	C0101001.0476	C0208900.0476	C0208400.0476	
	28	x	2	140	28	20	16	26	C0101001.0477	C0208900.0477	C0208400.0477	
	30	x	1,5	150	28	22	18	28,5	C0101001.0490	C0208900.0490	C0208400.0490	
	30	x	2	150	28	22	18	28	C0101001.0491	C0208900.0491	C0208400.0491	
	32	x	1,5	150	28	22	18	30,5	C0101001.0504	C0208900.0504	C0208400.0504	
	32	x	2	150	28	22	18	30	C0101001.0505	C0208900.0505	C0208400.0505	
	33	x	1,5	160	30	25	20	31,5	C0101001.0511	C0208900.0511	C0208400.0511	
	33	x	2	160	30	25	20	31	C0101001.0512	C0208900.0512	C0208400.0512	
	34	x	1,5	170	30	28	22	32,5	C0101001.0518	C0208900.0518	C0208400.0518	
	35	x	1,5	170	30	28	22	33,5	C0101001.0525	C0208900.0525	C0208400.0525	
	36	x	1,5	170	30	28	22	34,5	C0101001.0532	C0208900.0532	C0208400.0532	
	36	x	2	170	30	28	22	34	C0101001.0533	C0208900.0533	C0208400.0533	
	36	x	3	200	42	28	22	33	C0101001.0534	C0208900.0534	C0208400.0534	
	38	x	1,5	170	30	28	22	36,5	C0101001.0546	C0208900.0546	C0208400.0546	
	39	x	1,5	170	30	32	24	37,5	C0101001.0553	C0208900.0553	C0208400.0553	
	39	x	2	170	30	32	24	37	C0101001.0554	C0208900.0554	C0208400.0554	
	40	x	1,5	170	30	32	24	38,5	C0101001.0560	C0208900.0560	C0208400.0560	
	40	x	2	170	30	32	24	38	C0101001.0561	C0208900.0561	C0208400.0561	
	42	x	1,5	170	30	32	24	40,5	C0101001.0574	C0208900.0574	C0208400.0574	
	42	x	2	170	30	32	24	40	C0101001.0575	C0208900.0575	C0208400.0575	
	42	x	3	200	45	32	24	39	C0101001.0576	C0208900.0576	C0208400.0576	
	45	x	1,5	180	32	36	29	43,5	C0101001.0595	C0208900.0595	C0208400.0595	
	45	x	2	180	32	36	29	43	C0101001.0596	C0208900.0596	C0208400.0596	
	45	x	3	200	45	36	29	42	C0101001.0597	C0208900.0597	C0208400.0597	
	48	x	1,5	190	32	36	29	46,5	C0101001.0616	C0208900.0616	C0208400.0616	
	48	x	2	190	32	36	29	46	C0101001.0617	C0208900.0617	C0208400.0617	
	48	x	3	225	50	36	29	45	C0101001.0618	C0208900.0618	C0208400.0618	
	50	x	1,5	190	32	36	29	48,5	C0101001.0630	C0208900.0630	C0208400.0630	
	50	x	2	190	32	36	29	48	C0101001.0631	C0208900.0631	C0208400.0631	
	52	x	1,5	190	32	40	32	50,5	C0101001.0644	C0208900.0644	C0208400.0644	
	52	x	2	190	32	40	32	50	C0101001.0645	C0208900.0645	C0208400.0645	
	52	x	3	225	50	40	32	49	C0101001.0646	C0208900.0646	C0208400.0646	

DIN 371		162	162	162	
DIN 2181		194			

MF

DIN 13

DIN 374



STEEL
Steel materials

Technische Informationen
Technical information

ISO 1/4H	ISO 3/6G	ISO 3/6G	ISO 2/6H
TIN		TIN	
HSSE	HSSE	HSSE	HSSE
			LH
B / 4-5	B / 4-5	B / 4-5	B / 4-5
E / O	E / O	E / O	E / O

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1

Einsatzgebiete – Material
Applications – material

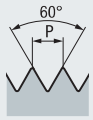
78

	P 1.1-4.1	P 1.1-3.1 N 2.2	P 1.1-4.1	P 1.1-3.1 N 2.2

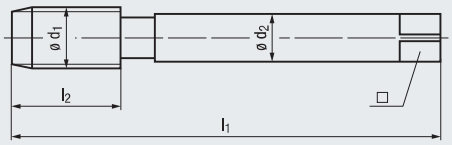
	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		Rekord 2B-STEEL-L TIN	Rekord 2B-STEEL-L	Rekord 2B-STEEL-L TIN	Rekord 2B-STEEL-L-LH
M	6	x	0,5	80	13	4,5	3,4	5,5				
	6	x	0,75	80	13	4,5	3,4	5,2				
	8	x	0,75	80	14	6	4,9	7,2				
	8	x	1	90	17	6	4,9	7	C0208410.0251	C0208920.0251	C0208420.0251	C0208950.0251
	9	x	1	90	17	7	5,5	8				
	10	x	0,75	90	18	7	5,5	9,2				
	10	x	1	90	18	7	5,5	9	C0208410.0276	C0208920.0276	C0208420.0276	C0208950.0276
	10	x	1,25	100	22	7	5,5	8,8				
	11	x	1	90	18	8	6,2	10				
	12	x	1	100	18	9	7	11	C0208410.0301	C0208920.0301	C0208420.0301	C0208950.0301
	12	x	1,25	100	22	9	7	10,8				
	12	x	1,5	100	22	9	7	10,5	C0208410.0303	C0208920.0303	C0208420.0303	C0208950.0303
	14	x	1	100	18	11	9	13				
	14	x	1,25	100	22	11	9	12,8				
	14	x	1,5	100	22	11	9	12,5	C0208410.0331	C0208920.0331	C0208420.0331	C0208950.0331
	15	x	1	100	18	12	9	14				
	16	x	1	100	18	12	9	15				
	16	x	1,5	100	22	12	9	14,5	C0208410.0359	C0208920.0359	C0208420.0359	C0208950.0359
	18	x	1	110	20	14	11	17				
	18	x	1,5	110	25	14	11	16,5	C0208410.0390	C0208920.0390	C0208420.0390	C0208950.0390
	18	x	2	125	26	14	11	16				
	20	x	1	125	20	16	12	19				
	20	x	1,5	125	25	16	12	18,5	C0208410.0422	C0208920.0422	C0208420.0422	C0208950.0422
	20	x	2	140	27	16	12	18				
	22	x	1	125	20	18	14,5	21				
	22	x	1,5	125	25	18	14,5	20,5				
	22	x	2	140	27	18	14,5	20				
	24	x	1	140	20	18	14,5	23				
	24	x	1,5	140	27	18	14,5	22,5				
	24	x	2	140	27	18	14,5	22				

MF

DIN 13



DIN 374



STEEL
Steel materials

Technische Informationen Technical information	ISO 2/6H TIN HSSE LH B / 4-5 E / O	6HX ALCR-102 HSSE-PM B / ≈6 E / O	6HX ALCR-101 HSSE-PM B / ≈6 E / O
Gewindetiefe und Lochform Thread depth and hole type	max. 3 x d_1		
Einsatzgebiete – Material Applications – material ▸▸ 78	P 1.1-4.1	P 3.1-5.1	P 3.1-5.1

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		Rekord 2B-STEEL-L-LH TIN	Rekord 2B-STEEL-H PM-ALCR-102	Rekord 2B-STEEL-H PM-ALCR-101
M	6	x	0,5	80	13	4,5	3,4	5,5			
	6	x	0,75	80	13	4,5	3,4	5,2			
	8	x	0,75	80	14	6	4,9	7,2			
	8	x	1	90	17	6	4,9	7	C0208450.0251		
	9	x	1	90	17	7	5,5	8			
	10	x	0,75	90	18	7	5,5	9,2			
	10	x	1	90	18	7	5,5	9	C0208450.0276		
	10	x	1,25	100	22	7	5,5	8,8			
	11	x	1	90	18	8	6,2	10			
	12	x	1	100	18	9	7	11	C0208450.0301		
	12	x	1,25	100	22	9	7	10,8			
	12	x	1,5	100	22	9	7	10,5	C0208450.0303	C0209J01.0303	C0208J01.0303
	14	x	1	100	18	11	9	13			
	14	x	1,25	100	22	11	9	12,8			
	14	x	1,5	100	22	11	9	12,5	C0208450.0331	C0209J01.0331	C0208J01.0331
	15	x	1	100	18	12	9	14			
	16	x	1	100	18	12	9	15			
	16	x	1,5	100	22	12	9	14,5	C0208450.0359	C0209J01.0359	C0208J01.0359
	18	x	1	110	20	14	11	17			
	18	x	1,5	110	25	14	11	16,5	C0208450.0390		
	18	x	2	125	26	14	11	16			
	20	x	1	125	20	16	12	19			
	20	x	1,5	125	25	16	12	18,5	C0208450.0422		
	20	x	2	140	27	16	12	18			
	22	x	1	125	20	18	14,5	21			
	22	x	1,5	125	25	18	14,5	20,5			
	22	x	2	140	27	18	14,5	20			
	24	x	1	140	20	18	14,5	23			
	24	x	1,5	140	27	18	14,5	22,5			
	24	x	2	140	27	18	14,5	22			
						DIN 371				163	163
						DIN 2181					

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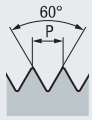
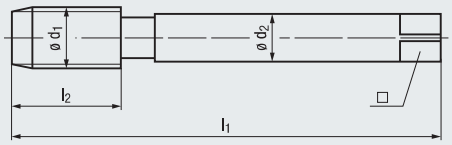
DIN 13



DIN 374



STEEL
Steel materials

Technische Informationen · Technical information				
Toleranz · Tolerance	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H
Beschichtung · Coating				TIN
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
	R15	R15	R35	R35
	C / 2-3	**E / 1,5-2**	C / 2-3	C / 2-3
	E / O	E / O	E / O	E / O

Gewindetiefe und Lochform
Thread depth and hole type

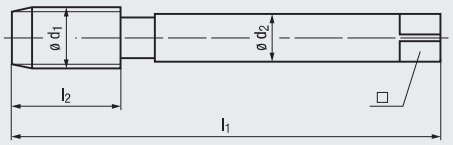
Einsatzgebiete – Material · Applications – material	▸▸ 78			
	P 2.1-3.1	P 2.1-3.1	P 1.1-3.1 N 2.2	P 1.1-3.1 N 2.2

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		Rekord 2D-STEEL	Rekord 2D-STEEL/E	Enorm 2-STEEL	Enorm 2-STEEL TIN
M	4	x	0,35	63	10	2,8	2,1	3,65				
	4	x	0,5	63	10	2,8	2,1	3,5				
	5	x	0,5	70	11	3,5	2,7	4,5				
	6	x	0,5	80	13	4,5	3,4	5,5				
	6	x	0,75	80	13	4,5	3,4	5,2	C0451000.0229		**C0501000.0229**	**C0501400.0229**
	8	x	0,75	80	14	6	4,9	7,2	C0451000.0250			
	8	x	1	90	17	6	4,9	7	**C0451000.0251**	**C0461000.0251**	**C0501000.0251**	**C0501400.0251**
	9	x	1	90	17	7	5,5	8	**C0451000.0263**			
	10	x	0,75	90	18	7	5,5	9,2	C0451000.0275			
	10	x	1	90	18	7	5,5	9	**C0451000.0276**	**C0461000.0276**	**C0501000.0276**	**C0501400.0276**
	10	x	1,25	100	22	7	5,5	8,8	**C0451000.0277**			
	11	x	1	90	18	8	6,2	10	C0451000.0288			
	12	x	1	100	18	9	7	11	**C0451000.0301**	**C0461000.0301**	**C0501000.0301**	**C0501400.0301**
	12	x	1,25	100	22	9	7	10,8	**C0451000.0302**			
	12	x	1,5	100	22	9	7	10,5	**C0451000.0303**	**C0461000.0303**	**C0501000.0303**	**C0501400.0303**
	14	x	1	100	18	11	9	13	**C0451000.0329**			
	14	x	1,25	100	22	11	9	12,8	C0451000.0330			
	14	x	1,5	100	22	11	9	12,5	**C0451000.0331**	**C0461000.0331**	**C0501000.0331**	**C0501400.0331**
	15	x	1	100	18	12	9	14	**C0451000.0343**			
	16	x	1	100	18	12	9	15	**C0451000.0357**			
	16	x	1,5	100	22	12	9	14,5	**C0451000.0359**	**C0461000.0359**	**C0501000.0359**	**C0501400.0359**
	18	x	1	110	20	14	11	17	**C0451000.0388**			
	18	x	1,5	110	25	14	11	16,5	**C0451000.0390**	**C0461000.0390**	**C0501000.0390**	**C0501400.0390**
	18	x	2	125	26	14	11	16	C0451000.0391			
	20	x	1	125	20	16	12	19	C0451000.0420			
	20	x	1,5	125	25	16	12	18,5	**C0451000.0422**	**C0461000.0422**	**C0501000.0422**	**C0501400.0422**
	20	x	2	140	27	16	12	18	**C0451000.0423**			
	22	x	1	125	20	18	14,5	21	C0451000.0436			
	22	x	1,5	125	25	18	14,5	20,5	**C0451000.0438**	**C0461000.0438**	**C0501000.0438**	**C0501400.0438**
	22	x	2	140	27	18	14,5	20	C0451000.0439			
	24	x	1	140	20	18	14,5	23	C0451000.0450			
	24	x	1,5	140	27	18	14,5	22,5	**C0451000.0452**	**C0461000.0452**	**C0501000.0452**	**C0501400.0452**
	24	x	2	140	27	18	14,5	22	**C0451000.0453**			
	25	x	1,5	140	28	18	14,5	23,5	C0451000.0458			
	26	x	1,5	140	28	18	14,5	24,5	C0451000.0464			

MF

DIN 13

DIN 374



STEEL
Steel materials

Toleranz · Tolerance	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H
Beschichtung · Coating				TIN
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
	R15	R15	R35	R35
	C / 2-3	E / 1,5-2	C / 2-3	C / 2-3
	E / 0	E / 0	E / 0	E / 0

Technische Informationen
Technical information

Gewindetiefe und Lochform
Thread depth and hole type

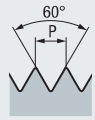
max. 2 x d_1 | max. 2,5 x d_1

Einsatzgebiete – Material Applications – material ▸▸ 78	P 2.1-3.1	P 2.1-3.1	P 1.1-3.1 N 2.2	P 1.1-3.1 N 2.2

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		Rekord 2D-STEEL	Rekord 2D-STEEL/E	Enorm 2-STEEL	Enorm 2-STEEL TIN
M	27	x	1,5	140	28	20	16	25,5	C0451000.0470			
	27	x	2	140	28	20	16	25	C0451000.0471			
	28	x	1,5	140	28	20	16	26,5	C0451000.0476			
	28	x	2	140	28	20	16	26	C0451000.0477			
	30	x	1,5	150	28	22	18	28,5	**C0451000.0490**		**C0501000.0490**	**C0501400.0490**
	30	x	2	150	28	22	18	28	**C0451000.0491**		**C0501000.0491**	**C0501400.0491**
	32	x	1,5	150	28	22	18	30,5	C0451000.0504		**C0501000.0504**	**C0501400.0504**
	32	x	2	150	28	22	18	30			C0501000.0505	
	33	x	1,5	160	30	25	20	31,5	C0451000.0511		**C0501000.0511**	**C0501400.0511**
	33	x	2	160	30	25	20	31	C0451000.0512		**C0501000.0512**	**C0501400.0512**
	34	x	1,5	170	30	28	22	32,5	C0451000.0518		**C0501000.0518**	**C0501400.0518**
	35	x	1,5	170	30	28	22	33,5	C0451000.0525		**C0501000.0525**	**C0501400.0525**
	36	x	1,5	170	30	28	22	34,5	C0451000.0532		**C0501000.0532**	**C0501400.0532**
	36	x	2	170	30	28	22	34	C0451000.0533		**C0501000.0533**	**C0501400.0533**
	36	x	3	200	42	28	22	33	C0451000.0534		**C0501000.0534**	**C0501400.0534**
	38	x	1,5	170	30	28	22	36,5	C0451000.0546		**C0501000.0546**	**C0501400.0546**
	39	x	1,5	170	30	32	24	37,5			C0501000.0553	
	39	x	2	170	30	32	24	37	C0451000.0554		C0501000.0554	
	40	x	1,5	170	30	32	24	38,5	C0451000.0560		**C0501000.0560**	**C0501400.0560**
	40	x	2	170	30	32	24	38	C0451000.0561		C0501000.0561	
	42	x	1,5	170	30	32	24	40,5	C0451000.0574		**C0501000.0574**	**C0501400.0574**
	42	x	2	170	30	32	24	40	C0451000.0575		**C0501000.0575**	**C0501400.0575**
	42	x	3	200	45	32	24	39	C0451000.0576		**C0501000.0576**	**C0501400.0576**
	45	x	1,5	180	32	36	29	43,5	C0451000.0595		**C0501000.0595**	**C0501400.0595**
	45	x	2	180	32	36	29	43	C0451000.0596		C0501000.0596	
	45	x	3	200	45	36	29	42	C0451000.0597		C0501000.0597	
	48	x	1,5	190	32	36	29	46,5	C0451000.0616		**C0501000.0616**	**C0501400.0616**
	48	x	2	190	32	36	29	46	C0451000.0617		**C0501000.0617**	**C0501400.0617**
	48	x	3	225	50	36	29	45	C0451000.0618		**C0501000.0618**	**C0501400.0618**
	50	x	1,5	190	32	36	29	48,5	C0451000.0630		**C0501000.0630**	**C0501400.0630**
	50	x	2	190	32	36	29	48	C0451000.0631			
	52	x	1,5	190	32	40	32	50,5	C0451000.0644		**C0501000.0644**	**C0501400.0644**
	52	x	2	190	32	40	32	50	C0451000.0645		**C0501000.0645**	**C0501400.0645**
	52	x	3	225	50	40	32	49	C0451000.0646		C0501000.0646	

MF

DIN 13



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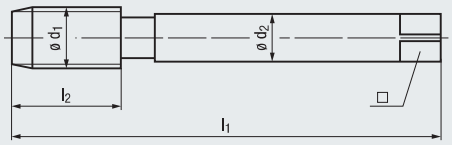


VA
Stainless steel materials

Technische Informationen Technical information	ISO 2/6H NT HSSE B / 4-5 E / 0 / P	ISO 2/6H TIN HSSE B / 4-5 E / 0 / P	ISO 2/6H GLT-1 HSSE B / 4-5 E / 0 / P	ISO 1/4H NT HSSE B / 4-5 E / 0 / P
Gewindetiefe und Lochform Thread depth and hole type	max. 3 x d_1			
Einsatzgebiete – Material Applications – material ▸▸ 78	P 2.1-3.1 N 2.2, 2.5	P 1.1-4.1	P 1.1-4.1 M 1.1-4.1 N 2.2	P 2.1-3.1 N 2.2, 2.5

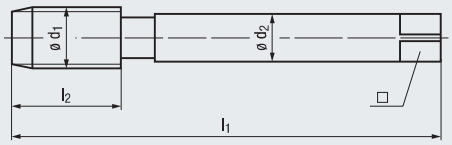
	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		Rekord 2B-VA NT	Rekord 2B-VA TIN	Rekord 2B-VA GLT-1	Rekord 2B-VA NT
M	6	x	0,5	80	13	4,5	3,4	5,5	**C0203000.0228**	**C0203100.0228**	**C020C300.0228**	
	6	x	0,75	80	13	4,5	3,4	5,2	**C0203000.0229**	**C0203100.0229**	**C020C300.0229**	
	8	x	0,75	80	14	6	4,9	7,2	**C0203000.0250**	**C0203100.0250**	**C020C300.0250**	
	8	x	1	90	17	6	4,9	7	**C0203000.0251**	**C0203100.0251**	**C020C300.0251**	C0203010.0251
	9	x	1	90	17	7	5,5	8				
	10	x	0,75	90	18	7	5,5	9,2				
	10	x	1	90	18	7	5,5	9	**C0203000.0276**	**C0203100.0276**	**C020C300.0276**	C0203010.0276
	10	x	1,25	100	22	7	5,5	8,8				
	11	x	1	90	18	8	6,2	10				
	12	x	1	100	18	9	7	11	**C0203000.0301**	**C0203100.0301**	**C020C300.0301**	C0203010.0301
	12	x	1,25	100	22	9	7	10,8				
	12	x	1,5	100	22	9	7	10,5	**C0203000.0303**	**C0203100.0303**	**C020C300.0303**	C0203010.0303
	14	x	1	100	18	11	9	13	C0203000.0329	C0203100.0329	C020C300.0329	
	14	x	1,25	100	22	11	9	12,8	C0203000.0330	C0203100.0330	C020C300.0330	
	14	x	1,5	100	22	11	9	12,5	**C0203000.0331**	**C0203100.0331**	**C020C300.0331**	C0203010.0331
	15	x	1	100	18	12	9	14				
	16	x	1	100	18	12	9	15	C0203000.0357	C0203100.0357	C020C300.0357	
	16	x	1,5	100	22	12	9	14,5	**C0203000.0359**	**C0203100.0359**	**C020C300.0359**	C0203010.0359
	18	x	1	110	20	14	11	17				
	18	x	1,5	110	25	14	11	16,5	**C0203000.0390**	**C0203100.0390**	**C020C300.0390**	C0203010.0390
	18	x	2	125	26	14	11	16				
	20	x	1	125	20	16	12	19	C0203000.0420	C0203100.0420	C020C300.0420	
	20	x	1,5	125	25	16	12	18,5	**C0203000.0422**	**C0203100.0422**	**C020C300.0422**	C0203010.0422
	20	x	2	140	27	16	12	18	C0203000.0423	C0203100.0423	C020C300.0423	
	22	x	1	125	20	18	14,5	21				
	22	x	1,5	125	25	18	14,5	20,5	**C0203000.0438**	**C0203100.0438**	**C020C300.0438**	
	22	x	2	140	27	18	14,5	20	C0203000.0439	C0203100.0439	C020C300.0439	
	24	x	1	140	20	18	14,5	23				
	24	x	1,5	140	27	18	14,5	22,5	**C0203000.0452**	**C0203100.0452**	**C020C300.0452**	
	24	x	2	140	27	18	14,5	22				
	25	x	1,5	140	28	18	14,5	23,5	C0203000.0458	C0203100.0458	C020C300.0458	
	26	x	1,5	140	28	18	14,5	24,5	C0203000.0464	C0203100.0464	C020C300.0464	
	27	x	1,5	140	28	20	16	25,5				
	27	x	2	140	28	20	16	25				
	28	x	1,5	140	28	20	16	26,5	**C0203000.0476**	**C0203100.0476**	**C020C300.0476**	
								DIN 371		▸▸ 163	▸▸ 163	
								DIN 2181				

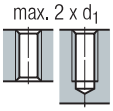
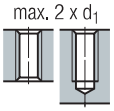
VA Stainless steel materials							INOX Stainless steel materials	
							new	
ISO 1/4H	ISO 1/4H	ISO 3/6G	ISO 3/6G	ISO 3/6G	ISO 2/6H		ISO 2/6H	
TIN	GLT-1	NT	TIN	GLT-1			GLT-201	
HSSE	HSSE	HSSE	HSSE	HSSE	HSSE		HSSE	
					R35		R45	
B / 4-5	B / 4-5	B / 4-5	B / 4-5	B / 4-5	C / 2-3		C / 2-3	
E / O / P	E / O / P	E / O / P	E / O / P	E / O / P	E / O / P		E / O	
		max. 3 x d_1			max. 2,5 x d_1		max. 2,5 x d_1	
P 1.1-4.1	P 1.1-4.1 M 1.1-4.1 N 2.2	P 2.1-3.1 N 2.2, 2.5	P 1.1-4.1	P 1.1-4.1 M 1.1-4.1 N 2.2	P 1.1-3.1		M 1.1-2.1	
Rekord 2B-VA TIN	**Rekord 2B-VA GLT-1**	**Rekord 2B-VA NT**	**Rekord 2B-VA TIN**	**Rekord 2B-VA GLT-1**	**Enorm 2 VA**		**Enorm 2 INOX GLT-201**	
								M 6 x 0,5
					C0503000.0229		**C050J300.0229**	6 x 0,75
								8 x 0,75
C0203110.0251	C020C310.0251	C0203020.0251	C0203120.0251	C020C320.0251	**C0503000.0251**		**C050J300.0251**	8 x 1
								9 x 1
								10 x 0,75
C0203110.0276	C020C310.0276	C0203020.0276	C0203120.0276	C020C320.0276	**C0503000.0276**		**C050J300.0276**	10 x 1
								10 x 1,25
								11 x 1
C0203110.0301	C020C310.0301	C0203020.0301	C0203120.0301	C020C320.0301	**C0503000.0301**		**C050J300.0301**	12 x 1
								12 x 1,25
C0203110.0303	C020C310.0303	C0203020.0303	C0203120.0303	C020C320.0303	**C0503000.0303**		**C050J300.0303**	12 x 1,5
								14 x 1
								14 x 1,25
C0203110.0331	C020C310.0331	C0203020.0331	C0203120.0331	C020C320.0331	**C0503000.0331**		**C050J300.0331**	14 x 1,5
								15 x 1
								16 x 1
C0203110.0359	C020C310.0359	C0203020.0359	C0203120.0359	C020C320.0359	**C0503000.0359**		**C050J300.0359**	16 x 1,5
								18 x 1
C0203110.0390	C020C310.0390	C0203020.0390	C0203120.0390	C020C320.0390	**C0503000.0390**		**C050J300.0390**	18 x 1,5
								18 x 2
								20 x 1
C0203110.0422	C020C310.0422	C0203020.0422	C0203120.0422	C020C320.0422	**C0503000.0422**		**C050J300.0422**	20 x 1,5
								20 x 2
								22 x 1
					C0503000.0438		**C050J300.0438**	22 x 1,5
								22 x 2
								24 x 1
					C0503000.0452		**C050J300.0452**	24 x 1,5
								24 x 2
								25 x 1,5
								26 x 1,5
								27 x 1,5
								27 x 2
								28 x 1,5

MF

DIN 13

DIN 374



	GG Cast iron	GG Cast iron		GJV Cast iron vermicular
Technische Informationen Technical information	6HX NT HSSE C / 2-3 E	6HX TICN HSSE C / 2-3 E		6HX TICN HSSE-PM C / 2-3 E
Gewindetiefe und Lochform Thread depth and hole type	max. 2 x d_1 			max. 2 x d_1 
Einsatzgebiete – Material Applications – material ▸▸ 78	K 1.1-1.2	K 1.1-1.2		K 1.1-4.2

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		Rekord 2A-GG NT	Rekord 2A-GG TICN		Rekord 2A-GJV PM-TICN
M	6	x	0,5	80	13	4,5	3,4	5,5				
	6	x	0,75	80	13	4,5	3,4	5,2				
	8	x	0,75	80	14	6	4,9	7,2				
	8	x	1	90	17	6	4,9	7	**C0102001.0251**	C0109201.0251		
	9	x	1	90	17	7	5,5	8				
	10	x	0,75	90	18	7	5,5	9,2				
	10	x	1	90	18	7	5,5	9	**C0102001.0276**	C0109201.0276		
	10	x	1,25	100	22	7	5,5	8,8				
	11	x	1	90	18	8	6,2	10				
	12	x	1	100	18	9	7	11	**C0102001.0301**	C0109201.0301		
	12	x	1,25	100	22	9	7	10,8				
	12	x	1,5	100	22	9	7	10,5	**C0102001.0303**	C0109201.0303		**C010R501.0303**
	14	x	1	100	18	11	9	13				
	14	x	1,25	100	22	11	9	12,8				
	14	x	1,5	100	22	11	9	12,5	**C0102001.0331**	C0109201.0331		**C010R501.0331**
	15	x	1	100	18	12	9	14				
	16	x	1	100	18	12	9	15				
	16	x	1,5	100	22	12	9	14,5	**C0102001.0359**	C0109201.0359		**C010R501.0359**
	18	x	1	110	20	14	11	17				
	18	x	1,5	110	25	14	11	16,5	**C0102001.0390**	C0109201.0390		**C010R501.0390**
	18	x	2	125	26	14	11	16				
	20	x	1	125	20	16	12	19				
	20	x	1,5	125	25	16	12	18,5	**C0102001.0422**	C0109201.0422		**C010R501.0422**
	20	x	2	140	27	16	12	18				
	22	x	1	125	20	18	14,5	21				
	22	x	1,5	125	25	18	14,5	20,5				
	22	x	2	140	27	18	14,5	20				
	24	x	1	140	20	18	14,5	23				
	24	x	1,5	140	27	18	14,5	22,5				
	24	x	2	140	27	18	14,5	22				
	25	x	1,5	140	28	18	14,5	23,5				
	26	x	1,5	140	28	18	14,5	24,5				
	27	x	1,5	140	28	20	16	25,5				
	27	x	2	140	28	20	16	25				
	28	x	1,5	140	28	20	16	26,5				

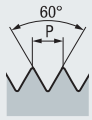
GJV
Cast iron
vermicular

6HX	6HX	6HX	6HX	6HX	6HX	6HX
TICN	TICN	TICN	TICN	TICN	TICN	TICN
HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	KHM	KHM
C / 2-3	C / 2-3	E / 1,5-2	E / 1,5-2	E / 1,5-2	C / 2-3	E / 1,5-2
E	E	E	E	E	E	E
max. 2 x d_1 1)	max. 2 x d_1	max. 2 x d_1	max. 2 x d_1 1)	max. 2 x d_1	max. 2 x d_1 1)	
K 1.1-4.2	K 1.1-4.2	K 1.1-4.2	K 1.1-4.2	K 1.1-4.2	K 1.1-4.2	K 1.1-4.2
Rekord 2A-GJV-IKZ PM-TICN	**Rekord 2A-GJV-IKZN PM-TICN**	**Rekord 2A-GJV/E PM-TICN**	**Rekord 2A-GJV/E-IKZ PM-TICN**	**Rekord 2A-GJV/E-IKZN PM-TICN**	**KHM-Rekord 2A-GJV-IKZ TICN**	**KHM-Rekord 2A-GJV/E-IKZ TICN**		
								M 6 x 0,5
								6 x 0,75
								8 x 0,75
								8 x 1
								9 x 1
								10 x 0,75
								10 x 1
								10 x 1,25
								11 x 1
								12 x 1
								12 x 1,25
C195R501.0303	C106R501.0303	**C011R501.0303**	**C196R501.0303**	C109R501.0303	**C1951P01.0303**	**C1961P01.0303**		12 x 1,5
								14 x 1
								14 x 1,25
C195R501.0331	C106R501.0331	**C011R501.0331**	**C196R501.0331**	C109R501.0331	**C1951P01.0331**	**C1961P01.0331**		14 x 1,5
								15 x 1
								16 x 1
C195R501.0359	C106R501.0359	**C011R501.0359**	**C196R501.0359**	C109R501.0359	**C1951P01.0359**	**C1961P01.0359**		16 x 1,5
								18 x 1
C195R501.0390	C106R501.0390	**C011R501.0390**	**C196R501.0390**	C109R501.0390	**C1951P01.0390**	**C1961P01.0390**		18 x 1,5
								18 x 2
								20 x 1
C195R501.0422	C106R501.0422	**C011R501.0422**	**C196R501.0422**	C109R501.0422	**C1951P01.0422**	**C1961P01.0422**		20 x 1,5
								20 x 2
								22 x 1
								22 x 1,5
								22 x 2
								24 x 1
								24 x 1,5
								24 x 2
								25 x 1,5
								26 x 1,5
								27 x 1,5
								27 x 2
								28 x 1,5

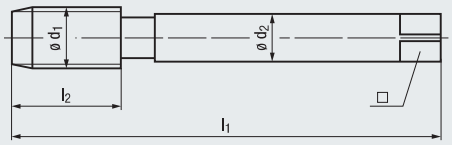
1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

MF

DIN 13



DIN 374



AL Aluminium wrought alloys

H Materials of high tensile strength

	AL	H	H
Technische Informationen Technical information	ISO 2/6H HSSE R35 C / 2-3 E / O	6HX NT HSSE C / 2-3 E / O / P	6HX TICN HSSE C / 2-3 E / O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 2,5 x d_1	max. 2 x d_1	
Einsatzgebiete – Material Applications – material ▸▸ 78	N 1.4	K 1.1-4.2 N 4.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1, 5.1

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		Enorm 2-AL	Rekord 2A-H NT	Rekord 2A-H TICN
M	6	x	0,5	80	13	4,5	3,4	5,5			
	6	x	0,75	80	13	4,5	3,4	5,2			
	8	x	0,75	80	14	6	4,9	7,2		C0100501.0250	
	8	x	1	90	17	6	4,9	7		**C0100501.0251**	**C0109101.0251**
	9	x	1	90	17	7	5,5	8		C0100501.0263	
	10	x	0,75	90	18	7	5,5	9,2			
	10	x	1	90	18	7	5,5	9		**C0100501.0276**	**C0109101.0276**
	10	x	1,25	100	22	7	5,5	8,8		**C0100501.0277**	**C0109101.0277**
	11	x	1	90	18	8	6,2	10			
	12	x	1	100	18	9	7	11		**C0100501.0301**	**C0109101.0301**
	12	x	1,25	100	22	9	7	10,8		C0100501.0302	
	12	x	1,5	100	22	9	7	10,5 [2]	**C0504500.0303**	**C0100501.0303**	**C0109101.0303**
	14	x	1	100	18	11	9	13			
	14	x	1,25	100	22	11	9	12,8		C0100501.0330	
	14	x	1,5	100	22	11	9	12,5 [2]	**C0504500.0331**	**C0100501.0331**	**C0109101.0331**
	15	x	1	100	18	12	9	14		C0100501.0343	
	16	x	1	100	18	12	9	15		C0100501.0357	
	16	x	1,5	100	22	12	9	14,5 [2]	**C0504500.0359**	**C0100501.0359**	**C0109101.0359**
	18	x	1	110	20	14	11	17			
	18	x	1,5	110	25	14	11	16,5		**C0100501.0390**	**C0109101.0390**
	18	x	2	125	26	14	11	16		C0100501.0391	
	20	x	1	125	20	16	12	19		C0100501.0420	
	20	x	1,5	125	25	16	12	18,5		**C0100501.0422**	**C0109101.0422**
	20	x	2	140	27	16	12	18			
	22	x	1	125	20	18	14,5	21			
	22	x	1,5	125	25	18	14,5	20,5		**C0100501.0438**	**C0109101.0438**
	22	x	2	140	27	18	14,5	20			
	24	x	1	140	20	18	14,5	23		C0100501.0450	
	24	x	1,5	140	27	18	14,5	22,5		**C0100501.0452**	**C0109101.0452**
	24	x	2	140	27	18	14,5	22		C0100501.0453	
								DIN 371		▸▸ 163	
								DIN 2181			

[2] Vorbohrdurchmesser für Gewindebohrer Rekord 2A-HCUT-PM-TICN um 0,2 mm anheben
Increase drill diameter for taps Rekord 2A-HCUT-PM-TICN by 0.2 mm

H Materials of high tensile strength					**HCUT** Hardened steels			
6HX NT HSSE C / 2-3 E / O	6HX TICN HSSE C / 2-3 E / O	6HX TICN HSSE C / 2-3 E / O	6HX KHM C / 2-3 E / O		6HX TICN HSSE-PM C / 2-3 O / P			
max. 2 x d_1 1)		max. 2 x d_1	max. 2 x d_1 1)		max. 1,5 x d_1			
K 1.1-4.2 N 4.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1, 5.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1, 5.1	K 1.1-4.2 N 1.5-1.6 N 2.6-2.8 N 4.1, 4.3-4.4 N 5.1-5.2		H 1.1-1.2			
Rekord 2A-H-IKZ NT	**Rekord 2A-H-IKZ TICN**	**Rekord 2A-H-IKZN TICN**	**KHM-Rekord 2A-H-IKZ**		**Rekord 2A-HCUT PM-TICN**			
								M 6 x 0,5
								6 x 0,75
								8 x 0,75
								8 x 1
								9 x 1
								10 x 0,75
								10 x 1
								10 x 1,25
								11 x 1
								12 x 1
								12 x 1,25
C1950501.0303	**C1959101.0303**	C1069101.0303	**C1950901.0303**		**C010J901.0303**			12 x 1,5
								14 x 1
								14 x 1,25
C1950501.0331	**C1959101.0331**	C1069101.0331	**C1950901.0331**		**C010J901.0331**			14 x 1,5
								15 x 1
								16 x 1
C1950501.0359	**C1959101.0359**	C1069101.0359	**C1950901.0359**		**C010J901.0359**			16 x 1,5
								18 x 1
								18 x 1,5
								18 x 2
								20 x 1
C1950501.0422	**C1959101.0422**	C1069101.0422	**C1950901.0422**					20 x 1,5
								20 x 2
								22 x 1
								22 x 1,5
								22 x 2
								24 x 1
								24 x 1,5
								24 x 2
			163		164			

1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

MF

60° P

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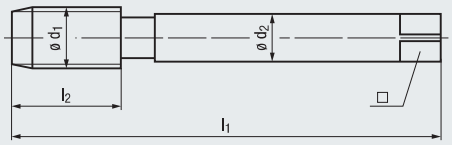
Z
CNC-controlled machines

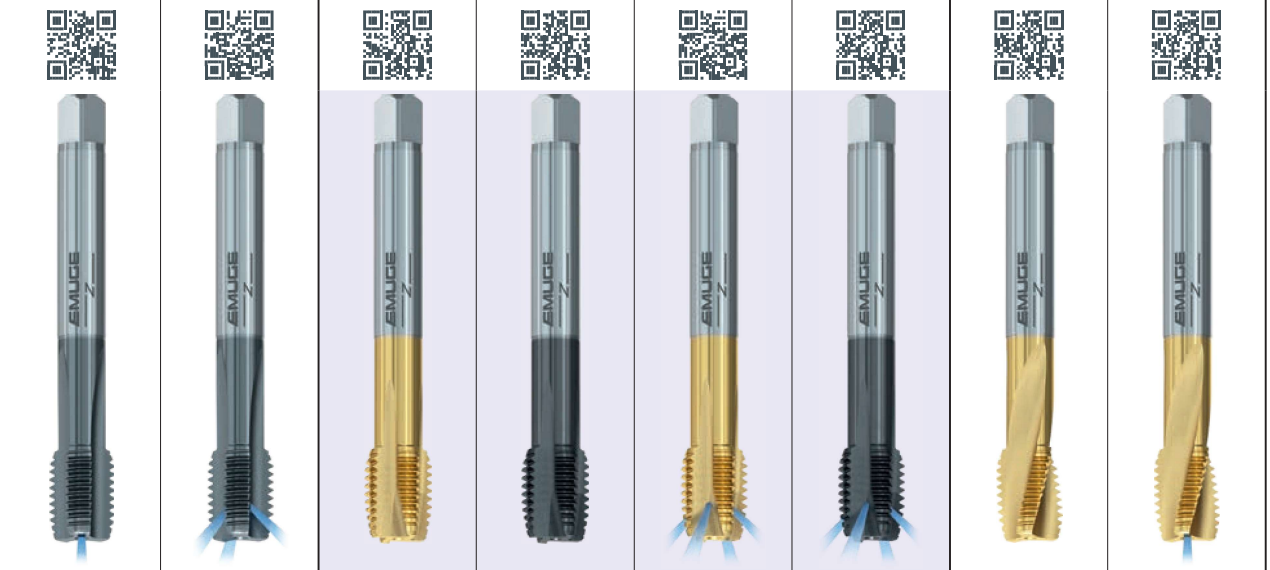


Technische Informationen / Technical information				
	6HX	6HX	6HX	6HX
	TICN	TICN	TICN	TICN
	HSSE	HSSE	HSSE	HSSE
	C / 2-3	C / 2-3	C / 2-3	E / 1,5-2
	E / O / P	E / O	E / O	E / O / P
Gewindetiefe und Lochform / Thread depth and hole type	max. 2 x d_1	max. 2 x d_1 1)	max. 2 x d_1	max. 2 x d_1
Einsatzgebiete – Material / Applications – material ▸▸ 78	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		Rekord 2A-Z TICN	Rekord 2A-Z-IKZ TICN	Rekord 2A-Z-IKZN TICN	Rekord 2A-Z/E TICN
M	6	x	0,5	80	5	4,5	3,4	5,5				
	6	x	0,75	80	8	4,5	3,4	5,2				
	8	x	0,75	80	8	6	4,9	7,2				
	8	x	1	90	10	6	4,9	7	**C0109401.0251**	**C1959401.0251**	C1069401.0251	**C0119401.0251**
	9	x	1	90	10	7	5,5	8				
	10	x	0,75	90	10	7	5,5	9,2				
	10	x	1	90	10	7	5,5	9	**C0109401.0276**	**C1959401.0276**	C1069401.0276	**C0119401.0276**
	10	x	1,25	100	16	7	5,5	8,8	**C0109401.0277**	**C1959401.0277**	C1069401.0277	**C0119401.0277**
	11	x	1	90	11	8	6,2	10				
	12	x	1	100	11	9	7	11				
	12	x	1,25	100	15	9	7	10,8				
	12	x	1,5	100	15	9	7	10,5	**C0109401.0303**	**C1959401.0303**	C1069401.0303	**C0119401.0303**
	14	x	1	100	11	11	9	13				
	14	x	1,25	100	15	11	9	12,8				
	14	x	1,5	100	15	11	9	12,5	**C0109401.0331**	**C1959401.0331**	C1069401.0331	**C0119401.0331**
	15	x	1	100	12	12	9	14				
	16	x	1	100	12	12	9	15				
	16	x	1,5	100	15	12	9	14,5	**C0109401.0359**	**C1959401.0359**	C1069401.0359	**C0119401.0359**
	18	x	1	110	13	14	11	17				
	18	x	1,5	110	17	14	11	16,5				
	18	x	2	125	20	14	11	16				
	20	x	1	125	14	16	12	19				
	20	x	1,5	125	17	16	12	18,5				
	20	x	2	140	20	16	12	18				
	22	x	1	125	14	18	14,5	21				
	22	x	1,5	125	17	18	14,5	20,5				
	22	x	2	140	20	18	14,5	20				
	24	x	1	140	15	18	14,5	23				
	24	x	1,5	140	20	18	14,5	22,5				
	24	x	2	140	20	18	14,5	22				
						DIN 371						
						DIN 2181						

1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

Z
CNC-controlled machines



6HX	6HX	6HX	6HX	6HX	6HX	6HX	6HX
TICN	TICN	TIN-70	GLT-1	TIN-70	GLT-1	TIN	TIN
HSSE	HSSE	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE	HSSE
						R15	R15
E / 1,5-2	E / 1,5-2	B / 4-5	B / 4-5	B / 4-5	B / 4-5	C / 2-3	C / 2-3
E / O	E / O	E / O / P	E / O / P	E / O	E / O	E / O / P	E / O
max. 2 x d_1 1)	max. 2 x d_1	max. 3 x d_1				max. 2 x d_1	
K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1	K 1.1-4.2 N 1.5-1.6, 2.6 N 4.1	P 2.1-5.1	P 1.1-5.1 M 1.1-4.1 K 1.1-3.2 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1, 2.2-2.3	P 2.1-5.1	P 1.1-5.1 M 1.1-4.1 K 1.1-3.2 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1, 2.2-2.3	P 3.1-5.1 N 2.4-2.5	P 3.1-5.1 N 2.4-2.5
Rekord 2A-Z/E-IKZ TICN	**Rekord 2A-Z/E-IKZN TICN**	**Rekord 2B-Z PM-TIN-70**	**Rekord 2B-Z PM-GLT-1**	**Rekord 2B-Z-IKZN PM-TIN-70**	**Rekord 2B-Z-IKZN PM-GLT-1**	**Rekord 2D-Z TIN**	**Rekord 2D-Z-IKZ TIN**	
								M 6 x 0,5
								6 x 0,75
								8 x 0,75
C1969401.0251	C1099401.0251	**C0208F01.0251**	**C020A601.0251**	C1088F01.0251	C108A601.0251	**C0453701.0251**	**C0963701.0251**	8 x 1
								9 x 1
								10 x 0,75
C1969401.0276	C1099401.0276	**C0208F01.0276**	**C020A601.0276**	C1088F01.0276	C108A601.0276	**C0453701.0276**	**C0963701.0276**	10 x 1
C1969401.0277	C1099401.0277	**C0208F01.0277**	**C020A601.0277**	C1088F01.0277	C108A601.0277	**C0453701.0277**	**C0963701.0277**	10 x 1,25
								11 x 1
		C0208F01.0301	**C020A601.0301**	C1088F01.0301	C108A601.0301			12 x 1
		C0208F01.0302	**C020A601.0302**	C1088F01.0302	C108A601.0302			12 x 1,25
C1969401.0303	C1099401.0303	**C0208F01.0303**	**C020A601.0303**	C1088F01.0303	C108A601.0303	**C0453701.0303**	**C0963701.0303**	12 x 1,5
								14 x 1
								14 x 1,25
C1969401.0331	C1099401.0331	**C0208F01.0331**	**C020A601.0331**	C1088F01.0331	C108A601.0331		**C0963701.0331**	14 x 1,5
								15 x 1
								16 x 1
C1969401.0359	C1099401.0359	**C0208F01.0359**	**C020A601.0359**	C1088F01.0359	C108A601.0359		**C0963701.0359**	16 x 1,5
								18 x 1
		C0208F01.0390	**C020A601.0390**	C1088F01.0390	C108A601.0390			18 x 1,5
								18 x 2
								20 x 1
		C0208F01.0422	**C020A601.0422**	C1088F01.0422	C108A601.0422			20 x 1,5
								20 x 2
								22 x 1
								22 x 1,5
								22 x 2
								24 x 1
								24 x 1,5
								24 x 2
		166	166					

MF

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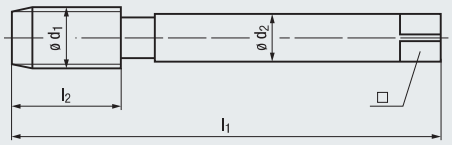
Z CNC-controlled machines



Technische Informationen Technical information	6HX TIN HSSE R15 **E / 1,5-2** E / O	6HX TIN HSSE R15 C / 2-3 E / O	6HX TIN HSSE R15 **E / 1,5-2** E / O
Gewindetiefe und Lochform Thread depth and hole type	max. 2 x d_1		
Einsatzgebiete – Material Applications – material ▸▸ 78	**P** 3.1-5.1 **N** 2.4-2.5	**P** 3.1-5.1 **N** 2.4-2.5	**P** 3.1-5.1 **N** 2.4-2.5

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		Rekord 2D-Z/E-IKZ TIN	Rekord 2D-Z-BF IKZ-TIN	Rekord 2D-Z/E-BF IKZ-TIN
M	6	x	0,5	80	5	4,5	3,4	5,5			
	6	x	0,75	80	8	4,5	3,4	5,2			
	8	x	0,75	80	8	6	4,9	7,2			
	8	x	1	90	10	6	4,9	7	C0983701.0251	C4253701.0251	C4053701.0251
	9	x	1	90	10	7	5,5	8			
	10	x	0,75	90	10	7	5,5	9,2			
	10	x	1	90	10	7	5,5	9	C0983701.0276	C4253701.0276	C4053701.0276
	10	x	1,25	100	16	7	5,5	8,8	C0983701.0277	C4253701.0277	C4053701.0277
	11	x	1	90	11	8	6,2	10			
	12	x	1	100	11	9	7	11			
	12	x	1,25	100	15	9	7	10,8			
	12	x	1,5	100	15	9	7	10,5	C0983701.0303	C4253701.0303	C4053701.0303
	14	x	1	100	11	11	9	13			
	14	x	1,25	100	15	11	9	12,8			
	14	x	1,5	100	15	11	9	12,5	C0983701.0331	C4253701.0331	C4053701.0331
	15	x	1	100	12	12	9	14			
	16	x	1	100	12	12	9	15			
	16	x	1,5	100	15	12	9	14,5	C0983701.0359	C4253701.0359	C4053701.0359
	18	x	1	110	13	14	11	17			
	18	x	1,5	110	17	14	11	16,5			
	18	x	2	125	20	14	11	16			
	20	x	1	125	14	16	12	19			
	20	x	1,5	125	17	16	12	18,5			
	20	x	2	140	20	16	12	18			
	22	x	1	125	14	18	14,5	21			
	22	x	1,5	125	17	18	14,5	20,5			
	22	x	2	140	20	18	14,5	20			
	24	x	1	140	15	18	14,5	23			
	24	x	1,5	140	20	18	14,5	22,5			
	24	x	2	140	20	18	14,5	22			

MF

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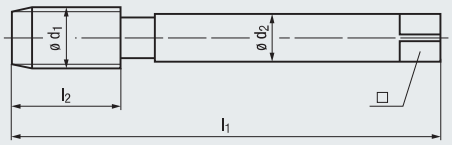
Z
CNC-controlled machines



Toleranz · Tolerance	6HX	6HX	6HX	ISO 2/6H
Beschichtung · Coating	GLT-1	GLT-1	GLT-1	
Schneidstoff · Cutting material	HSSE-PM	HSSE-PM	HSSE-PM	HSSE
	R45	R45	R45	R45
	C / 2-3	C / 2-3	E / 1,5-2	C / 2-3
	E / O / P	E / O	E / O / P	E / O / P

Technische Informationen
Technical information

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1

Einsatzgebiete – Material
Applications – material

▸▸ 78

	P 1.1-4.1	P 1.1-4.1	P 1.1-4.1	P 1.1-3.1
	M 1.1-4.1	M 1.1-4.1	M 1.1-4.1	
	K 1.1-3.2	K 1.1-3.2	K 1.1-3.2	
	N 1.4, 2.1-2.2	N 1.4, 2.1-2.2	N 1.4, 2.1-2.2	
	N 2.4-2.5	N 2.4-2.5	N 2.4-2.5	
	S 1.1	S 1.1	S 1.1	

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		Enorm 2-Z PM-GLT-1	Enorm 2-Z-IKZ PM-GLT-1	Enorm 2-Z/E PM-GLT-1	Enorm 2-Z
M	4	x	0,5	63	5	2,8	2,1	3,5				
	5	x	0,5	70	5	3,5	2,7	4,5				
	6	x	0,5	80	5	4,5	3,4	5,5				
	6	x	0,75	80	8	4,5	3,4	5,2	C616A601.0229	C591A601.0229	C498A601.0229	C0503500.0229
	8	x	0,75	80	8	6	4,9	7,2				C0503500.0250
	8	x	1	90	10	6	4,9	7	C616A601.0251	C591A601.0251	C498A601.0251	C0503500.0251
	9	x	1	90	10	7	5,5	8				C0503500.0263
	10	x	0,75	90	10	7	5,5	9,2				C0503500.0275
	10	x	1	90	10	7	5,5	9	C616A601.0276	C591A601.0276	C498A601.0276	C0503500.0276
	10	x	1,25	100	16	7	5,5	8,8	C616A601.0277	C591A601.0277	C498A601.0277	C0503500.0277
	11	x	1	90	11	8	6,2	10				C0503500.0288
	12	x	1	100	11	9	7	11	C616A601.0301	C591A601.0301	C498A601.0301	C0503500.0301
	12	x	1,25	100	15	9	7	10,8	C616A601.0302	C591A601.0302	C498A601.0302	C0503500.0302
	12	x	1,5	100	15	9	7	10,5	C616A601.0303	C591A601.0303	C498A601.0303	C0503500.0303
	14	x	1	100	11	11	9	13				C0503500.0329
	14	x	1,25	100	15	11	9	12,8				C0503500.0330
	14	x	1,5	100	15	11	9	12,5	C616A601.0331	C591A601.0331	C498A601.0331	C0503500.0331
	15	x	1	100	12	12	9	14				C0503500.0343
	16	x	1	100	12	12	9	15				C0503500.0357
	16	x	1,5	100	15	12	9	14,5	C616A601.0359	C591A601.0359	C498A601.0359	C0503500.0359
	18	x	1	110	13	14	11	17				C0503500.0388
	18	x	1,5	110	17	14	11	16,5	C616A601.0390	C591A601.0390	C498A601.0390	C0503500.0390
	18	x	2	125	20	14	11	16				C0503500.0391
	20	x	1	125	14	16	12	19				C0503500.0420
	20	x	1,5	125	17	16	12	18,5	C616A601.0422	C591A601.0422	C498A601.0422	C0503500.0422
	20	x	2	140	20	16	12	18				C0503500.0423
	22	x	1	125	14	18	14,5	21				C0503500.0436
	22	x	1,5	125	17	18	14,5	20,5	C616A601.0438	C591A601.0438	C498A601.0438	C0503500.0438
	22	x	2	140	20	18	14,5	20				C0503500.0439
	24	x	1	140	15	18	14,5	23				C0503500.0450
	24	x	1,5	140	20	18	14,5	22,5	C616A601.0452	C591A601.0452	C498A601.0452	C0503500.0452
	24	x	2	140	20	18	14,5	22				C0503500.0453
	25	x	1,5	140	20	18	14,5	23,5				C0503500.0458
	26	x	1,5	140	20	18	14,5	24,5				C0503500.0464

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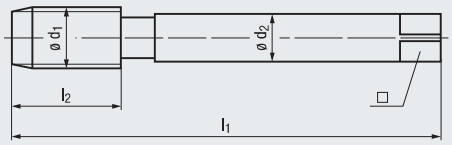
M27 x 1,5 - M52 x 3 ➟

MF

DIN 13

DIN 374



Z
CNC-controlled machines

Technische Informationen
Technical information

Toleranz · Tolerance	6HX	6HX	6HX	ISO 2/6H
Beschichtung · Coating	GLT-1	GLT-1	GLT-1	
Schneidstoff · Cutting material	HSSE-PM	HSSE-PM	HSSE-PM	HSSE
	R45	R45	R45	R45
	C / 2-3	C / 2-3	E / 1,5-2	C / 2-3
	E / O / P	E / O	E / O / P	E / O / P

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1

Einsatzgebiete – Material
Applications – material

78

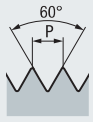
P	1.1-4.1	1.1-4.1	1.1-4.1	1.1-3.1
M	1.1-4.1	1.1-4.1	1.1-4.1	
K	1.1-3.2	1.1-3.2	1.1-3.2	
N	1.4, 2.1-2.2	1.4, 2.1-2.2	1.4, 2.1-2.2	
N	2.4-2.5	2.4-2.5	2.4-2.5	
S	1.1	1.1	1.1	

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		Enorm 2-Z PM-GLT-1	Enorm 2-Z-IKZ PM-GLT-1	Enorm 2-Z/E PM-GLT-1	Enorm 2-Z
M	27	x	1,5	140	20	20	16	25,5				C0503500.0470
	27	x	2	140	20	20	16	25				C0503500.0471
	28	x	1,5	140	20	20	16	26,5				C0503500.0476
	28	x	2	140	20	20	16	26				C0503500.0477
	30	x	1,5	150	22	22	18	28,5				
	30	x	2	150	22	22	18	28				
	32	x	1,5	150	22	22	18	30,5				
	32	x	2	150	22	22	18	30				
	33	x	1,5	160	24	25	20	31,5				
	33	x	2	160	24	25	20	31				
	34	x	1,5	170	24	28	22	32,5				
	35	x	1,5	170	24	28	22	33,5				
	36	x	1,5	170	24	28	22	34,5				
	36	x	2	170	24	28	22	34				
	36	x	3	200	30	28	22	33				
	38	x	1,5	170	24	28	22	36,5				
	39	x	1,5	170	25	32	24	37,5				
	39	x	2	170	25	32	24	37				
	40	x	1,5	170	25	32	24	38,5				
	40	x	2	170	25	32	24	38				
	42	x	1,5	170	25	32	24	40,5				
	42	x	2	170	25	32	24	40				
	42	x	3	200	30	32	24	39				
	45	x	1,5	180	27	36	29	43,5				
	45	x	2	180	27	36	29	43				
	45	x	3	200	30	36	29	42				
	48	x	1,5	190	27	36	29	46,5				
	48	x	2	190	27	36	29	46				
	48	x	3	225	33	36	29	45				
	50	x	1,5	190	27	36	29	48,5				
	50	x	2	190	27	36	29	48				
	52	x	1,5	190	27	40	32	50,5				
	52	x	2	190	27	40	32	50				
	52	x	3	225	33	40	32	49				
						DIN 371						166
						DIN 2181						

M4 x 0,5 - M26 x 1,5

MF

DIN 13



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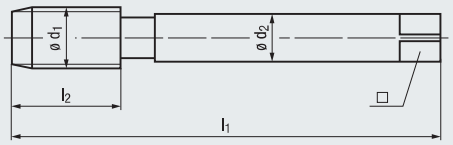

Z
CNC-controlled machines

Toleranz · Tolerance	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H
Beschichtung · Coating	GLT-1		TIN	GLT-1
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
	R45	R45	R45	R45
	C / 2-3	E / 1,5-2	E / 1,5-2	E / 1,5-2
	E / O / P	E / O / P	E / O / P	E / O / P

Technische Informationen
Technical information

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1

Einsatzgebiete – Material
Applications – material

▸▸ 78

P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 N 2.2, 2.4-2.5 S 1.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		Enorm 2-Z GLT-1	Enorm 2-Z/E	Enorm 2-Z/E TIN	Enorm 2-Z/E GLT-1
M	8	x	0,75	80	8	6	4,9	7,2		C0513500.0250		
	8	x	1	90	10	6	4,9	7	C050C400.0251	C0513500.0251	C0513700.0251	C051C400.0251
	9	x	1	90	10	7	5,5	8				
	10	x	0,75	90	10	7	5,5	9,2				
	10	x	1	90	10	7	5,5	9	C050C400.0276	C0513500.0276	C0513700.0276	C051C400.0276
	10	x	1,25	100	16	7	5,5	8,8		C0513500.0277		
	11	x	1	90	11	8	6,2	10				
	12	x	1	100	11	9	7	11	C050C400.0301	C0513500.0301	C0513700.0301	C051C400.0301
	12	x	1,25	100	15	9	7	10,8		C0513500.0302	C0513700.0302	C051C400.0302
	12	x	1,5	100	15	9	7	10,5	C050C400.0303	C0513500.0303	C0513700.0303	C051C400.0303
	14	x	1	100	11	11	9	13		C0513500.0329		
	14	x	1,25	100	15	11	9	12,8				
	14	x	1,5	100	15	11	9	12,5	C050C400.0331	C0513500.0331	C0513700.0331	C051C400.0331
	15	x	1	100	12	12	9	14		C0513500.0343		
	16	x	1	100	12	12	9	15		C0513500.0357		
	16	x	1,5	100	15	12	9	14,5	C050C400.0359	C0513500.0359	C0513700.0359	C051C400.0359
	18	x	1	110	13	14	11	17		C0513500.0388		
	18	x	1,5	110	17	14	11	16,5	C050C400.0390	C0513500.0390	C0513700.0390	C051C400.0390
	18	x	2	125	20	14	11	16				
	20	x	1	125	14	16	12	19		C0513500.0420		
	20	x	1,5	125	17	16	12	18,5	C050C400.0422	C0513500.0422	C0513700.0422	C051C400.0422
	20	x	2	140	20	16	12	18				
	22	x	1	125	14	18	14,5	21				
	22	x	1,5	125	17	18	14,5	20,5		C0513500.0438	C0513700.0438	C051C400.0438
	22	x	2	140	20	18	14,5	20				
	24	x	1	140	15	18	14,5	23				
	24	x	1,5	140	20	18	14,5	22,5		C0513500.0452	C0513700.0452	C051C400.0452
	24	x	2	140	20	18	14,5	22	C050C400.0453			
	25	x	1,5	140	20	18	14,5	23,5				
	26	x	1,5	140	20	18	14,5	24,5		C0513500.0464	C0513700.0464	C051C400.0464
	27	x	1,5	140	20	20	16	25,5				
	27	x	2	140	20	20	16	25				
	28	x	1,5	140	20	20	16	26,5		C0513500.0476		
	28	x	2	140	20	20	16	26				
	30	x	1,5	150	22	22	18	28,5		C0513500.0490		

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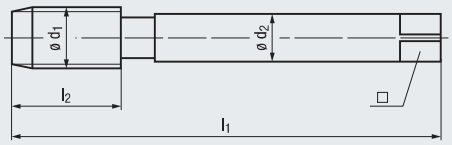
MF

60° P

DIN 13

DIN 374

Z
CNC-controlled machines



new

new

Technische Informationen Technical information				
	ISO 2/6H	ISO 2/6H TIN	ISO 2/6H GLT-1	ISO 1/4H
	HSSE	HSSE	HSSE	HSSE
	R45	R45	R45	R45
	E / 1,5-2	E / 1,5-2	E / 1,5-2	C / 2-3
	E / O	E / O	E / O	E / O / P

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1

Einsatzgebiete – Material Applications – material ▸▸ 78				
	P 1.1-3.1	P 1.1-4.1 N 2.2, 2.4-2.5 S 1.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		Enorm 2-Z/E-IKZ	Enorm 2-Z/E-IKZ TIN	Enorm 2-Z/E-IKZ GLT-1	Enorm 2-Z
M	8	x	0,75	80	8	6	4,9	7,2				
	8	x	1	90	10	6	4,9	7	C0973500.0251			**C0503510.0251**
	9	x	1	90	10	7	5,5	8				
	10	x	0,75	90	10	7	5,5	9,2				
	10	x	1	90	10	7	5,5	9	C0973500.0276			**C0503510.0276**
	10	x	1,25	100	16	7	5,5	8,8				
	11	x	1	90	11	8	6,2	10				
	12	x	1	100	11	9	7	11				**C0503510.0301**
	12	x	1,25	100	15	9	7	10,8				
	12	x	1,5	100	15	9	7	10,5	**C0973500.0303**	**C0973700.0303**	**C097C400.0303**	**C0503510.0303**
	14	x	1	100	11	11	9	13				
	14	x	1,25	100	15	11	9	12,8				
	14	x	1,5	100	15	11	9	12,5	**C0973500.0331**	**C0973700.0331**	**C097C400.0331**	**C0503510.0331**
	15	x	1	100	12	12	9	14				
	16	x	1	100	12	12	9	15				
	16	x	1,5	100	15	12	9	14,5	**C0973500.0359**	**C0973700.0359**	**C097C400.0359**	**C0503510.0359**
	18	x	1	110	13	14	11	17				
	18	x	1,5	110	17	14	11	16,5				C0503510.0390
	18	x	2	125	20	14	11	16				
	20	x	1	125	14	16	12	19				
	20	x	1,5	125	17	16	12	18,5	**C0973500.0422**	**C0973700.0422**	**C097C400.0422**	C0503510.0422
	20	x	2	140	20	16	12	18				
	22	x	1	125	14	18	14,5	21				
	22	x	1,5	125	17	18	14,5	20,5				C0503510.0438
	22	x	2	140	20	18	14,5	20				
	24	x	1	140	15	18	14,5	23				
	24	x	1,5	140	20	18	14,5	22,5				C0503510.0452
	24	x	2	140	20	18	14,5	22				
	25	x	1,5	140	20	18	14,5	23,5				
	26	x	1,5	140	20	18	14,5	24,5				
	27	x	1,5	140	20	20	16	25,5				
	27	x	2	140	20	20	16	25				
	28	x	1,5	140	20	20	16	26,5				
	28	x	2	140	20	20	16	26				
	30	x	1,5	150	22	22	18	28,5				

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Z
CNC-controlled machines

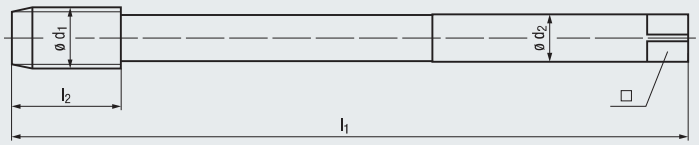
		new	new	new
ISO 3/6G	ISO 3/6G	ISO 3/6G	ISO 2/6H	ISO 2/6H
	TIN	GLT-1		GLT-1
HSSE	HSSE	HSSE	HSSE	HSSE
R45	R45	R45	LH, L45	LH, L45
E / 1,5-2	E / 1,5-2	E / 1,5-2	C / 2-3	C / 2-3
E / O / P	E / O / P	E / O / P	E / O / P	E / O / P
		max. 3 x d_1		
P 1.1-3.1	P 1.1-4.1 N 2.2, 2.4-2.5 S 1.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1
Enorm 2-Z/E	**Enorm 2-Z/E TIN**	**Enorm 2-Z/E GLT-1**	**Enorm 2-Z-LH**	**Enorm 2-Z-LH GLT-1**				
C0513520.0250	C0513720.0250	C051C420.0250						M 8 x 0,75
C0513520.0251	**C0513720.0251**	**C051C420.0251**	**C0503550.0251**	**C050C450.0251**				8 x 1
								9 x 1
								10 x 0,75
C0513520.0276	**C0513720.0276**	**C051C420.0276**	**C0503550.0276**	**C050C450.0276**				10 x 1
C0513520.0277								10 x 1,25
C0513520.0288								11 x 1
C0513520.0301	**C0513720.0301**	**C051C420.0301**	**C0503550.0301**	**C050C450.0301**				12 x 1
C0513520.0302			C0503550.0302					12 x 1,25
C0513520.0303	**C0513720.0303**	**C051C420.0303**	**C0503550.0303**	**C050C450.0303**				12 x 1,5
C0513520.0329			C0503550.0329					14 x 1
								14 x 1,25
C0513520.0331	**C0513720.0331**	**C051C420.0331**	**C0503550.0331**	**C050C450.0331**				14 x 1,5
								15 x 1
C0513520.0357			C0503550.0357					16 x 1
C0513520.0359	**C0513720.0359**	**C051C420.0359**	**C0503550.0359**	**C050C450.0359**				16 x 1,5
C0513520.0388								18 x 1
C0513520.0390	C0513720.0390	C051C420.0390	**C0503550.0390**	**C050C450.0390**				18 x 1,5
								18 x 2
C0513520.0420								20 x 1
C0513520.0422	C0513720.0422	C051C420.0422	**C0503550.0422**	**C050C450.0422**				20 x 1,5
								20 x 2
C0513520.0436								22 x 1
C0513520.0438								22 x 1,5
								22 x 2
C0513520.0450								24 x 1
C0513520.0452								24 x 1,5
								24 x 2
								25 x 1,5
C0513520.0464								26 x 1,5
								27 x 1,5
								27 x 2
C0513520.0476								28 x 1,5
								28 x 2
C0513520.0490								30 x 1,5
167		167						

MF

DIN 13

Z
CNC-controlled machines

Mit langen Nuten und langem Schaft für Gewindetiefen bis max. 3 x d_1
With long flutes and long shank for thread depths up to max. 3 x d_1



Technische Informationen Technical information	Toleranz · Tolerance	6HX	6HX	6HX
	Beschichtung · Coating	TICN	TIN	TIN
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE
			R15	R15
		C / 2-3	C / 2-3	C / 2-3
		E / O	E / O	E / O
Gewindetiefe und Lochform Thread depth and hole type		max. 3 x d_1 1)	max. 3 x d_1	
Einsatzgebiete – Material Applications – material	▸▸ 78	P 3.1-4.1 K 1.1-4.2	P 3.1-5.1 N 2.4-2.5	P 3.1-5.1 N 2.4-2.5

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		Rekord 2A-Z-IKZ-LF3 TICN	Rekord 2D-Z-IKZ-LF3 TIN	Rekord 2D-Z-BF-IKZ-LF3 TIN
M	24	x	2	215	20	18	14,5	22	C0579401.0453	C4963701.0453	C4973701.0453
	30	x	2	240	22	22	18	28	C0579401.0491	C4963701.0491	C4973701.0491
	36	x	3	270	30	28	22	33	C0579401.0534	C4963701.0534	C4973701.0534

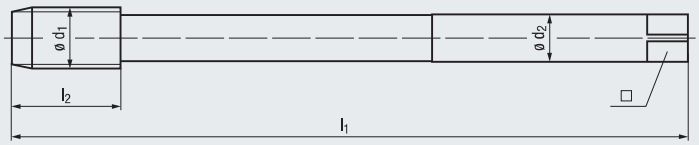
1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

MF

DIN 13

Z
CNC-controlled machines

Mit langen Nuten und langem Schaft für Gewindetiefen bis max. 4 x d_1
With long flutes and long shank for thread depths up to max. 4 x d_1



Technische Informationen Technical information	Toleranz · Tolerance	6HX	6HX	6HX
	Beschichtung · Coating	TICN	TIN	TIN
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE
			R15	R15
		C / 2-3	C / 2-3	C / 2-3
		E / O	E / O	E / O
Gewindetiefe und Lochform Thread depth and hole type		max. 4 x d_1 1)		max. 4 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78		P 3.1-4.1 K 1.1-4.2	P 3.1-5.1 N 2.4-2.5	P 3.1-5.1 N 2.4-2.5

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		Rekord 2A-Z-IKZ-LF4 TICN	Rekord 2D-Z-IKZ-LF4 TIN	Rekord 2D-Z-BF-IKZ-LF4 TIN
M	24	x	2	240	20	18	14,5	22	C0539401.0453	C4283701.0453	C4063701.0453
	30	x	2	270	22	22	18	28	C0539401.0491	C4283701.0491	C4063701.0491
	36	x	3	310	30	28	22	33	C0539401.0534	C4283701.0534	C4063701.0534

1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

Spannzangen-Aufnahmen der Typenreihe Softsynchro® zur synchronen Herstellung von großen Gewinden siehe Seite 621 und 630

Collet holders of our Softsynchro® series for the synchronous production of large threads, see pages 621 and 630

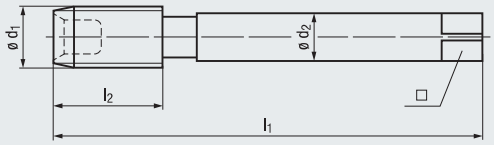
MF

DIN 13

DIN 374

VA
Stainless steel materials

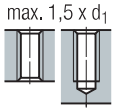
Mit Spanglocke
With internal chip collector



Technische Informationen
Technical information

Toleranz · Tolerance	6HX	6HX
Beschichtung · Coating	NE2	TIN
Schneidstoff · Cutting material	HSSE	HSSE
	C / 2-3	C / 2-3
	P / O [1]	P / O [1]

Gewindetiefe und Lochform
Thread depth and hole type



Einsatzgebiete – Material
Applications – material

78

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		**Robust 2X-VA NE2**	**Robust 2X-VA TIN**
M	20	x	1,5	125	25	16	12	18,5	C0803001.0422	C0803101.0422
	22	x	1,5	125	25	18	14,5	20,5	C0803001.0438	C0803101.0438
	24	x	1,5	140	27	18	14,5	22,5	C0803001.0452	C0803101.0452
	24	x	2	140	27	18	14,5	22	C0803001.0453	C0803101.0453
	27	x	1,5	140	28	20	16	25,5	C0803001.0470	C0803101.0470
	27	x	2	140	28	20	16	25	C0803001.0471	C0803101.0471
	30	x	1,5	150	28	22	18	28,5	C0803001.0490	C0803101.0490
	33	x	1,5	160	30	25	20	31,5	C0803001.0511	C0803101.0511
	33	x	2	160	30	25	20	31	C0803001.0512	C0803101.0512
	36	x	1,5	170	30	28	22	34,5	C0803001.0532	C0803101.0532
	36	x	2	170	30	28	22	34	C0803001.0533	C0803101.0533
	36	x	3	200	42	28	22	33	C0803001.0534	C0803101.0534
	38	x	1,5	170	30	28	22	36,5	C0803001.0546	C0803101.0546
	39	x	3	200	42	32	24	36	C0803001.0555	C0803101.0555
	40	x	2	170	30	32	24	38	C0803001.0561	C0803101.0561
	42	x	1,5	170	30	32	24	40,5	C0803001.0574	C0803101.0574
	42	x	2	170	30	32	24	40	C0803001.0575	C0803101.0575
	42	x	3	200	45	32	24	39	C0803001.0576	C0803101.0576
	45	x	3	200	45	36	29	42	C0803001.0597	C0803101.0597
	48	x	1,5	190	32	36	29	46,5	C0803001.0616	C0803101.0616
	48	x	2	190	32	36	29	46	C0803001.0617	C0803101.0617
	48	x	3	225	50	36	29	45	C0803001.0618	C0803101.0618
	52	x	3	225	50	40	32	49	C0803001.0646	C0803101.0646
	56	x	3	225	50	40	32	53	C0803001.0661	C0803101.0661
	56	x	4	250	60	40	32	52	C0803001.0662	C0803101.0662
	60	x	4	280	60	45	35	56	C0803001.0672	C0803101.0672
	64	x	3	275	55	50	39	61	C0803001.0681	C0803101.0681
	64	x	4	315	65	50	39	60	C0803001.0682	C0803101.0682

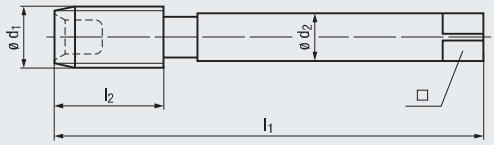
MF

DIN 13

DIN 374

VA
Stainless steel materials

Mit Spanglocke
With internal chip collector



Technische Informationen Technical information	Toleranz · Tolerance	6HX / 6HX
	Beschichtung · Coating	NE2 / TIN
	Schneidstoff · Cutting material	HSSE / HSSE
		C / 2-3 / C / 2-3
		P / O [1] / P / O [1]
Gewindetiefe und Lochform Thread depth and hole type		max. 1,5 x d_1
Einsatzgebiete – Material Applications – material	▸▸ 78	P 1.1-3.1 / K 1.1-4.2 / P 1.1-3.1 / K 1.1-4.2

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		Robust 2X-VA NE2	Robust 2X-VA TIN
M	68	x	4	315	65	50	39	64	C0803001.0692	C0803101.0692
	70	x	3	275	55	50	39	67	C0803001.0696	C0803101.0696
	70	x	4	340	65	50	39	66	C0803001.0697	C0803101.0697
	72	x	3	275	55	50	39	69	C0803001.0702	C0803101.0702
	72	x	4	340	65	50	39	68	C0803001.0703	C0803101.0703
	72	x	6	340	80	50	39	66	C0803001.0704	C0803101.0704
	76	x	3	275	55	50	39	73	C0803001.0714	C0803101.0714
	76	x	4	340	65	50	39	72	C0803001.0715	C0803101.0715
	76	x	6	340	80	50	39	70	C0803001.0716	C0803101.0716
	80	x	4	360	65	50	39	76	C0803001.0727	C0803101.0727
	80	x	6	360	80	50	39	74	C0803001.0728	C0803101.0728
	85	x	3	325	60	50	39	82	C0803001.0736	C0803101.0736
	85	x	4	380	70	50	39	81	C0803001.0737	C0803101.0737
	90	x	3	325	60	50	39	87	C0803001.0746	C0803101.0746
	90	x	4	380	70	50	39	86	C0803001.0747	C0803101.0747
	90	x	6	380	80	50	39	84	C0803001.0748	C0803101.0748
	95	x	6	400	85	56	44	89	C0803001.0758	C0803101.0758
	100	x	4	400	70	56	44	96	C0803001.0767	C0803101.0767
	100	x	6	400	85	56	44	94	C0803001.0768	C0803101.0768
	110	x	6	400	85	56	44	104	C0803001.0788	C0803101.0788
	115	x	3	350	65	56	44	112	C0803001.0791	C0803101.0791
	120	x	4	400	75	56	44	116	C0803001.0797	C0803101.0797
	120	x	6	400	90	56	44	114	C0803001.0798	C0803101.0798

[1] Bevorzugt mit Pastenschmierung einsetzen, neben Werkzeug auch Bohrungswandung einstreichen.
Ölschmierung ist nur bei senkrechter Grundlochbearbeitung möglich, wenn das Grundloch mit Öl vollgefüllt ist.
If possible, use paste lubrication, coating both the tool and the walls of the drilled hole.
Lubrication with oil is possible only in the vertical machining of blind holes, if the hole is entirely filled with oil.

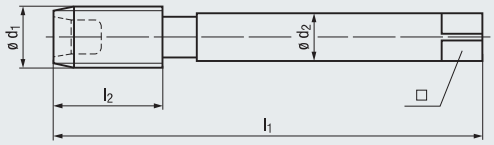
MF

DIN 13

DIN 374

VA
Stainless steel materials

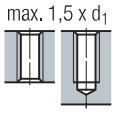
Mit Spanglocke
With internal chip collector



Technische Informationen
Technical information

Toleranz · Tolerance	6HX	6HX
Beschichtung · Coating	NE2	TIN
Schneidstoff · Cutting material	HSSE	HSSE
	C / 2-3	C / 2-3
	P / O [1]	P / O [1]

Gewindetiefe und Lochform
Thread depth and hole type



Einsatzgebiete – Material
Applications – material

78

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		**Robust 2ST-VA NE2**	**Robust 2ST-VA TIN**
M	20	x	1,5	125	25	16	12	18,5	C2023001.0422	C2023101.0422
	22	x	1,5	125	25	18	14,5	20,5	C2023001.0438	C2023101.0438
	24	x	1,5	140	27	18	14,5	22,5	C2023001.0452	C2023101.0452
	24	x	2	140	27	18	14,5	22	C2023001.0453	C2023101.0453
	27	x	1,5	140	28	20	16	25,5	C2023001.0470	C2023101.0470
	27	x	2	140	28	20	16	25	C2023001.0471	C2023101.0471
	30	x	1,5	150	28	22	18	28,5	C2023001.0490	C2023101.0490
	33	x	1,5	160	30	25	20	31,5	C2023001.0511	C2023101.0511
	33	x	2	160	30	25	20	31	C2023001.0512	C2023101.0512
	36	x	1,5	170	30	28	22	34,5	C2023001.0532	C2023101.0532
	36	x	2	170	30	28	22	34	C2023001.0533	C2023101.0533
	36	x	3	200	42	28	22	33	C2023001.0534	C2023101.0534
	38	x	1,5	170	30	28	22	36,5	C2023001.0546	C2023101.0546
	39	x	3	200	42	32	24	36	C2023001.0555	C2023101.0555
	40	x	2	170	30	32	24	38	C2023001.0561	C2023101.0561
	42	x	1,5	170	30	32	24	40,5	C2023001.0574	C2023101.0574
	42	x	2	170	30	32	24	40	C2023001.0575	C2023101.0575
	42	x	3	200	45	32	24	39	C2023001.0576	C2023101.0576
	45	x	3	200	45	36	29	42	C2023001.0597	C2023101.0597
	48	x	1,5	190	32	36	29	46,5	C2023001.0616	C2023101.0616
	48	x	2	190	32	36	29	46	C2023001.0617	C2023101.0617
	48	x	3	225	50	36	29	45	C2023001.0618	C2023101.0618
	52	x	3	225	50	40	32	49	C2023001.0646	C2023101.0646
	56	x	3	225	50	40	32	53	C2023001.0661	C2023101.0661
	56	x	4	250	60	40	32	52	C2023001.0662	C2023101.0662
	60	x	4	280	60	45	35	56	C2023001.0672	C2023101.0672
	64	x	3	275	55	50	39	61	C2023001.0681	C2023101.0681
	64	x	4	315	65	50	39	60	C2023001.0682	C2023101.0682

MF

DIN 13

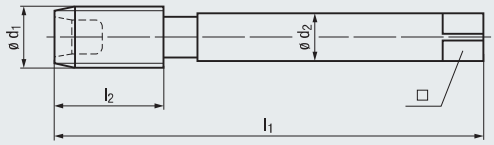
DIN 374

VA
Stainless steel materials

new

new

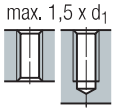
Mit Spanglocke
With internal chip collector



Technische Informationen
Technical information

Toleranz · Tolerance	6HX	6HX
Beschichtung · Coating	NE2	TIN
Schneidstoff · Cutting material	HSSE	HSSE
	C / 2-3	C / 2-3
	P / O [1]	P / O [1]

Gewindetiefe und Lochform
Thread depth and hole type



Einsatzgebiete – Material
Applications – material

▸▸ 78

									Robust 2ST-VA NE2	Robust 2ST-VA TIN
	ø d_1 mm		P mm	l_1	l_2	ø d_2	□			
									P 1.1-3.1 K 1.1-4.2	P 1.1-3.1 K 1.1-4.2
M	68	x	4	315	65	50	39	64	C2023001.0692	C2023101.0692
	70	x	3	275	55	50	39	67	C2023001.0696	C2023101.0696
	70	x	4	340	65	50	39	66	C2023001.0697	C2023101.0697
	72	x	3	275	55	50	39	69	C2023001.0702	C2023101.0702
	72	x	4	340	65	50	39	68	C2023001.0703	C2023101.0703
	72	x	6	340	80	50	39	66	C2023001.0704	C2023101.0704
	76	x	3	275	55	50	39	73	C2023001.0714	C2023101.0714
	76	x	4	340	65	50	39	72	C2023001.0715	C2023101.0715
	76	x	6	340	80	50	39	70	C2023001.0716	C2023101.0716
	80	x	4	360	65	50	39	76	C2023001.0727	C2023101.0727
	80	x	6	360	80	50	39	74	C2023001.0728	C2023101.0728
	85	x	3	325	60	50	39	82	C2023001.0736	C2023101.0736
	85	x	4	380	70	50	39	81	C2023001.0737	C2023101.0737
	90	x	3	325	60	50	39	87	C2023001.0746	C2023101.0746
	90	x	4	380	70	50	39	86	C2023001.0747	C2023101.0747
	90	x	6	380	80	50	39	84	C2023001.0748	C2023101.0748
	95	x	6	400	85	56	44	89	C2023001.0758	C2023101.0758
	100	x	4	400	70	56	44	96	C2023001.0767	C2023101.0767
	100	x	6	400	85	56	44	94	C2023001.0768	C2023101.0768
	110	x	6	400	85	56	44	104	C2023001.0788	C2023101.0788
	115	x	3	350	65	56	44	112	C2023001.0791	C2023101.0791
	120	x	4	400	75	56	44	116	C2023001.0797	C2023101.0797
	120	x	6	400	90	56	44	114	C2023001.0798	C2023101.0798

[1] Bevorzugt mit Pastenschmierung einsetzen, neben Werkzeug auch Bohrungswandung einstreichen.
Ölschmierung ist nur bei senkrechter Grundlochbearbeitung möglich, wenn das Grundloch mit Öl vollgefüllt ist.
If possible, use paste lubrication, coating both the tool and the walls of the drilled hole.
Lubrication with oil is possible only in the vertical machining of blind holes, if the hole is entirely filled with oil.

MF

DIN 13

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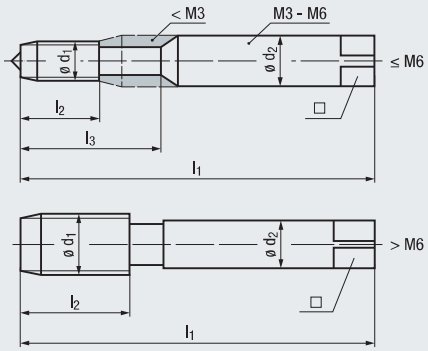
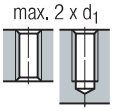


STEEL
Steel materials

Technische Informationen
Technical information

Toleranz · Tolerance	6HX	6HX
Beschichtung · Coating	HSSE	HSSE LH
Schneidstoff · Cutting material	C / 2-3 E / O	C / 2-3 E / O

Gewindetiefe und Lochform
Thread depth and hole type



Einsatzgebiete – Material
Applications – material

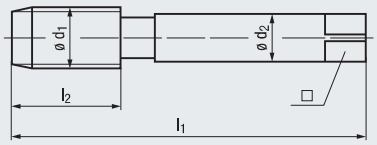
78

										Rekord A-STEEL	Rekord A-STEEL-LH
	ø d_1 mm		P mm	l_1	l_2	l_3	ø d_2	□			
M	2,5	x	0,35	40	9	–	2,8	2,1	2,15	A0101001.0196	
	2,6	x	0,35	40	9	–	2,8	2,1	2,25	A0101001.0199	
	3	x	0,35	40	8	18	3,5	2,7	2,65	A0101001.0202	A0101051.0202
	3,5	x	0,35	45	8	20	4	3	3,15	A0101001.0205	A0101051.0205
	4	x	0,35	45	9	22	4,5	3,4	3,65	**A0101001.0209**	A0101051.0209
	4	x	0,5	45	9	22	4,5	3,4	3,5	**A0101001.0210**	A0101051.0210
	4,5	x	0,5	50	10	24	6	4,9	4	**A0101001.0214**	
	5	x	0,5	50	11	25	6	4,9	4,5	**A0101001.0218**	A0101051.0218
	6	x	0,5	56	12	27	6	4,9	5,5	**A0101001.0228**	A0101051.0228
	6	x	0,75	56	12	27	6	4,9	5,2	**A0101001.0229**	A0101051.0229
	7	x	0,75	56	14	–	6	4,9	6,2	**A0101001.0239**	A0101051.0239
	8	x	0,5	56	14	–	6	4,9	7,5	**A0101001.0249**	A0101051.0249
	8	x	0,75	56	14	–	6	4,9	7,2	**A0101001.0250**	A0101051.0250
	8	x	1	63	17	–	6	4,9	7	**A0101001.0251**	A0101051.0251
	9	x	1	63	17	–	7	5,5	8	**A0101001.0263**	A0101051.0263
	10	x	0,75	63	18	–	7	5,5	9,2	**A0101001.0275**	A0101051.0275
	10	x	1	63	18	–	7	5,5	9	**A0101001.0276**	A0101051.0276
	10	x	1,25	70	22	–	7	5,5	8,8	**A0101001.0277**	A0101051.0277
	11	x	1	63	18	–	8	6,2	10	**A0101001.0288**	A0101051.0288
	12	x	1	70	18	–	9	7	11	**A0101001.0301**	A0101051.0301
	12	x	1,25	70	20	–	9	7	10,8	**A0101001.0302**	A0101051.0302
	12	x	1,5	70	20	–	9	7	10,5	**A0101001.0303**	A0101051.0303
	13	x	1	70	18	–	11	9	12	**A0101001.0315**	A0101051.0315
	14	x	1	70	18	–	11	9	13	**A0101001.0329**	A0101051.0329
	14	x	1,25	70	20	–	11	9	12,8	**A0101001.0330**	A0101051.0330
	14	x	1,5	70	20	–	11	9	12,5	**A0101001.0331**	A0101051.0331
	15	x	1	70	18	–	12	9	14	**A0101001.0343**	A0101051.0343
	15	x	1,5	70	20	–	12	9	13,5	A0101001.0345	
	16	x	1	70	18	–	12	9	15	**A0101001.0357**	A0101051.0357
	16	x	1,5	70	20	–	12	9	14,5	**A0101001.0359**	A0101051.0359
	18	x	1	80	18	–	14	11	17	**A0101001.0388**	A0101051.0388
	18	x	1,5	80	22	–	14	11	16,5	**A0101001.0390**	A0101051.0390
	18	x	2	80	22	–	14	11	16	**A0101001.0391**	
	20	x	1	80	18	–	16	12	19	A0101001.0420	A0101051.0420
	20	x	1,5	80	22	–	16	12	18,5	**A0101001.0422**	A0101051.0422
	20	x	2	80	22	–	16	12	18	**A0101001.0423**	
	22	x	1	80	18	–	18	14,5	21	A0101001.0436	A0101051.0436
	22	x	1,5	80	22	–	18	14,5	20,5	**A0101001.0438**	A0101051.0438
	22	x	2	80	22	–	18	14,5	20	**A0101001.0439**	
	24	x	1	90	18	–	18	14,5	23	A0101001.0450	A0101051.0450
	24	x	1,5	90	22	–	18	14,5	22,5	**A0101001.0452**	A0101051.0452
	24	x	2	90	22	–	18	14,5	22	**A0101001.0453**	A0101051.0453

MF

DIN 13

DIN 2181



STEEL
Steel materials

Technische Informationen Technical information	Toleranz · Tolerance	6HX / 6HX
	Beschichtung · Coating	HSSE / HSSE LH
	Schneidstoff · Cutting material	C / 2-3 / E / O
Gewindetiefe und Lochform Thread depth and hole type		max. 2 x d_1
Einsatzgebiete – Material Applications – material	▸▸ 78	K 1.1-4.2 / N 2.3

	ø d_1 mm		P mm	l_1	l_2	l_3	ø d_2	□		Rekord A-STEEL	Rekord A-STEEL-LH
M	25	x	1,5	90	22	–	18	14,5	23,5	A0101001.0458	
	26	x	1,5	90	22	–	18	14,5	24,5	A0101001.0464	A0101051.0464
	27	x	1,5	90	22	–	20	16	25,5	A0101001.0470	A0101051.0470
	27	x	2	90	22	–	20	16	25	A0101001.0471	
	28	x	1,5	90	22	–	20	16	26,5	A0101001.0476	
	30	x	1	90	18	–	22	18	29	A0101001.0488	
	30	x	1,5	90	22	–	22	18	28,5	A0101001.0490	A0101051.0490
	30	x	2	90	22	–	22	18	28	A0101001.0491	A0101051.0491
	32	x	1,5	90	22	–	22	18	30,5	A0101001.0504	
	33	x	1,5	100	25	–	25	20	31,5	A0101001.0511	
	33	x	2	100	25	–	25	20	31	A0101001.0512	
	34	x	1,5	100	25	–	28	22	32,5	A0101001.0518	
	35	x	1,5	100	25	–	28	22	33,5	A0101001.0525	
	36	x	1,5	100	25	–	28	22	34,5	A0101001.0532	
	36	x	2	125	30	–	28	22	34	A0101001.0533	A0101051.0533
	36	x	3	125	36	–	28	22	33	A0101001.0534	
	38	x	1,5	100	25	–	28	22	36,5	A0101001.0546	
	39	x	2	125	30	–	32	24	37	A0101001.0554	
	39	x	3	125	36	–	32	24	36	A0101001.0555	
	40	x	1,5	110	25	–	32	24	38,5	A0101001.0560	A0101051.0560
	40	x	2	125	30	–	32	24	38	A0101001.0561	
	40	x	3	125	36	–	32	24	37	A0101001.0562	
	42	x	1,5	110	25	–	32	24	40,5	A0101001.0574	
	42	x	2	125	30	–	32	24	40	A0101001.0575	
	42	x	3	125	36	–	32	24	39	A0101001.0576	
	45	x	1,5	110	25	–	36	29	43,5	A0101001.0595	
	45	x	2	125	30	–	36	29	43	A0101001.0596	
	45	x	3	125	36	–	36	29	42	A0101001.0597	
	48	x	1,5	140	25	–	36	29	46,5	A0101001.0616	
	48	x	2	140	30	–	36	29	46	A0101001.0617	
	48	x	3	140	36	–	36	29	45	A0101001.0618	
	50	x	1,5	140	25	–	36	29	48,5	A0101001.0630	
	50	x	2	140	30	–	36	29	48	A0101001.0631	
	50	x	3	140	36	–	36	29	47	A0101001.0632	
	52	x	1,5	140	25	–	40	32	50,5	A0101001.0644	
	52	x	2	140	32	–	40	32	50	A0101001.0645	
	52	x	3	140	40	–	40	32	49	A0101001.0646	

DIN 371		162	162
DIN 374		168	

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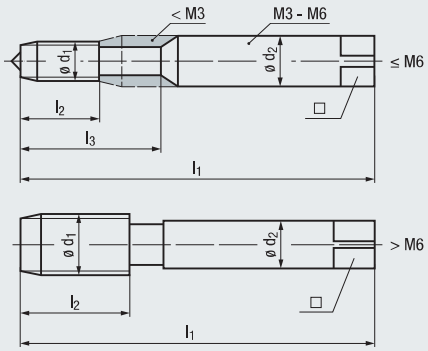
DIN 13

DIN 2181



Technische Informationen Technical information	Toleranz · Tolerance		6HX		6HX
	Beschichtung · Coating				
	Schneidstoff · Cutting material	HSSE	HSSE		HSSE
		D / 3-4	C / 2-3		C / 2-3
		O / P	O / P		O / P
Gewindetiefe und Lochform Thread depth and hole type		max. 2 x d_1			max. 2 x d_1
Einsatzgebiete – Material Applications – material		P 1.1-3.1	P 1.1-3.1		P 1.1-3.1

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	ø d_1 mm		P mm	l_1	l_2	l_3	ø d_2	□		HGB-Set V-Nr.1	HGB-Set F		HGB-Set-2S (Nr.1, F)
M	2,5	x	0,35	40	9	–	2,8	2,1	2,15	H0211009.0196	H0211001.0196		H0201001.0196
	2,6	x	0,35	40	9	–	2,8	2,1	2,25				
	3	x	0,35	40	8	18	3,5	2,7	2,65	H0211009.0202	H0211001.0202		H0201001.0202
	3,5	x	0,35	45	8	20	4	3	3,15				
	4	x	0,35	45	9	22	4,5	3,4	3,65	**H0211009.0209**	**H0211001.0209**		**H0201001.0209**
	4	x	0,5	45	9	22	4,5	3,4	3,5	**H0211009.0210**	**H0211001.0210**		**H0201001.0210**
	4,5	x	0,5	50	10	24	6	4,9	4				
	5	x	0,5	50	11	25	6	4,9	4,5	**H0211009.0218**	**H0211001.0218**		**H0201001.0218**
	6	x	0,5	56	12	27	6	4,9	5,5	**H0211009.0228**	**H0211001.0228**		**H0201001.0228**
	6	x	0,75	56	12	27	6	4,9	5,2	**H0211009.0229**	**H0211001.0229**		**H0201001.0229**
	7	x	0,75	56	14	–	6	4,9	6,2				
	8	x	0,5	56	14	–	6	4,9	7,5	**H0211009.0249**	**H0211001.0249**		**H0201001.0249**
	8	x	0,75	56	14	–	6	4,9	7,2	**H0211009.0250**	**H0211001.0250**		**H0201001.0250**
	8	x	1	63	17	–	6	4,9	7	**H0211009.0251**	**H0211001.0251**		**H0201001.0251**
	9	x	1	63	17	–	7	5,5	8				
	10	x	0,75	63	18	–	7	5,5	9,2	**H0211009.0275**	**H0211001.0275**		**H0201001.0275**
	10	x	1	63	18	–	7	5,5	9	**H0211009.0276**	**H0211001.0276**		**H0201001.0276**
	10	x	1,25	70	22	–	7	5,5	8,8	**H0211009.0277**	**H0211001.0277**		**H0201001.0277**
	11	x	1	63	18	–	8	6,2	10				
	12	x	1	70	18	–	9	7	11	**H0211009.0301**	**H0211001.0301**		**H0201001.0301**
	12	x	1,25	70	20	–	9	7	10,8	**H0211009.0302**	**H0211001.0302**		**H0201001.0302**
	12	x	1,5	70	20	–	9	7	10,5	**H0211009.0303**	**H0211001.0303**		**H0201001.0303**
	13	x	1	70	18	–	11	9	12				
	14	x	1	70	18	–	11	9	13	**H0211009.0329**	**H0211001.0329**		**H0201001.0329**
	14	x	1,25	70	20	–	11	9	12,8	**H0211009.0330**	**H0211001.0330**		**H0201001.0330**
	14	x	1,5	70	20	–	11	9	12,5	**H0211009.0331**	**H0211001.0331**		**H0201001.0331**
	15	x	1	70	18	–	12	9	14				
	15	x	1,5	70	20	–	12	9	13,5				
	16	x	1	70	18	–	12	9	15	**H0211009.0357**	**H0211001.0357**		**H0201001.0357**
	16	x	1,5	70	20	–	12	9	14,5	**H0211009.0359**	**H0211001.0359**		**H0201001.0359**
	18	x	1	80	18	–	14	11	17	**H0211009.0388**	**H0211001.0388**		**H0201001.0388**
	18	x	1,5	80	22	–	14	11	16,5	**H0211009.0390**	**H0211001.0390**		**H0201001.0390**
	18	x	2	80	22	–	14	11	16	**H0211009.0391**	**H0211001.0391**		**H0201001.0391**
	20	x	1	80	18	–	16	12	19	**H0211009.0420**	**H0211001.0420**		**H0201001.0420**
	20	x	1,5	80	22	–	16	12	18,5	**H0211009.0422**	**H0211001.0422**		**H0201001.0422**
	20	x	2	80	22	–	16	12	18	**H0211009.0423**	**H0211001.0423**		**H0201001.0423**
	22	x	1	80	18	–	18	14,5	21	**H0211009.0436**	**H0211001.0436**		**H0201001.0436**
	22	x	1,5	80	22	–	18	14,5	20,5	**H0211009.0438**	**H0211001.0438**		**H0201001.0438**
	22	x	2	80	22	–	18	14,5	20	**H0211009.0439**	**H0211001.0439**		**H0201001.0439**
	24	x	1	90	18	–	18	14,5	23	**H0211009.0450**	**H0211001.0450**		**H0201001.0450**

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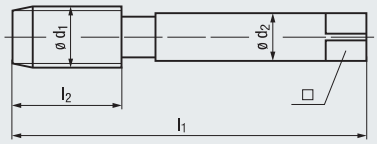

Technische Informationen Technical information	Toleranz · Tolerance		6HX		6HX
	Beschichtung · Coating				
	Schneidstoff · Cutting material	HSSE	HSSE		HSSE
		D / 3-4	C / 2-3		C / 2-3
		0 / P	0 / P		0 / P
Gewindetiefe und Lochform Thread depth and hole type		max. 2 x d_1			max. 2 x d_1
Einsatzgebiete – Material Applications – material	▸▸ 78	P 1.1-3.1	P 1.1-3.1		P 1.1-3.1

	ø d_1 mm		P mm	l_1	l_2	l_3	ø d_2	□		HGB-Set V-Nr.1	HGB-Set F		HGB-Set-2S (Nr.1, F)
M	24	x	1,5	90	22	–	18	14,5	22,5	H0211009.0452	H0211001.0452		H0201001.0452
	24	x	2	90	22	–	18	14,5	22	H0211009.0453	H0211001.0453		H0201001.0453
	25	x	1,5	90	22	–	18	14,5	23,5	H0211009.0458	H0211001.0458		H0201001.0458
	26	x	1,5	90	22	–	18	14,5	24,5	H0211009.0464	H0211001.0464		H0201001.0464
	27	x	1,5	90	22	–	20	16	25,5	H0211009.0470	H0211001.0470		H0201001.0470
	27	x	2	90	22	–	20	16	25	H0211009.0471	H0211001.0471		H0201001.0471
	28	x	1,5	90	22	–	20	16	26,5	H0211009.0476	H0211001.0476		H0201001.0476
	30	x	1	90	18	–	22	18	29				
	30	x	1,5	90	22	–	22	18	28,5	H0211009.0490	H0211001.0490		H0201001.0490
	30	x	2	90	22	–	22	18	28	H0211009.0491	H0211001.0491		H0201001.0491
	32	x	1,5	90	22	–	22	18	30,5	H0211009.0504	H0211001.0504		H0201001.0504
	33	x	1,5	100	25	–	25	20	31,5	H0211009.0511	H0211001.0511		H0201001.0511
	33	x	2	100	25	–	25	20	31	H0211009.0512	H0211001.0512		H0201001.0512
	34	x	1,5	100	25	–	28	22	32,5	H0211009.0518	H0211001.0518		H0201001.0518
	35	x	1,5	100	25	–	28	22	33,5	H0211009.0525	H0211001.0525		H0201001.0525
	36	x	1,5	100	25	–	28	22	34,5	H0211009.0532	H0211001.0532		H0201001.0532
	36	x	2	125	30	–	28	22	34	H0211009.0533	H0211001.0533		H0201001.0533
	36	x	3	125	36	–	28	22	33	H0211009.0534	H0211001.0534		H0201001.0534
	38	x	1,5	100	25	–	28	22	36,5	H0211009.0546	H0211001.0546		H0201001.0546
	39	x	2	125	30	–	32	24	37	H0211009.0554	H0211001.0554		H0201001.0554
	39	x	3	125	36	–	32	24	36	H0211009.0555	H0211001.0555		H0201001.0555
	40	x	1,5	110	25	–	32	24	38,5	H0211009.0560	H0211001.0560		H0201001.0560
	40	x	2	125	30	–	32	24	38	H0211009.0561	H0211001.0561		H0201001.0561
	40	x	3	125	36	–	32	24	37	H0211009.0562	H0211001.0562		H0201001.0562
	42	x	1,5	110	25	–	32	24	40,5	H0211009.0574	H0211001.0574		H0201001.0574
	42	x	2	125	30	–	32	24	40	H0211009.0575	H0211001.0575		H0201001.0575
	42	x	3	125	36	–	32	24	39	H0211009.0576	H0211001.0576		H0201001.0576
	45	x	1,5	110	25	–	36	29	43,5	H0211009.0595	H0211001.0595		H0201001.0595
	45	x	2	125	30	–	36	29	43	H0211009.0596	H0211001.0596		H0201001.0596
	45	x	3	125	36	–	36	29	42	H0211009.0597	H0211001.0597		H0201001.0597
	48	x	1,5	140	25	–	36	29	46,5	H0211009.0616	H0211001.0616		H0201001.0616
	48	x	2	140	30	–	36	29	46	H0211009.0617	H0211001.0617		H0201001.0617
	48	x	3	140	36	–	36	29	45	H0211009.0618	H0211001.0618		H0201001.0618
	50	x	1,5	140	25	–	36	29	48,5	H0211009.0630	H0211001.0630		H0201001.0630
	50	x	2	140	30	–	36	29	48	H0211009.0631	H0211001.0631		H0201001.0631
	50	x	3	140	36	–	36	29	47	H0211009.0632	H0211001.0632		H0201001.0632
	52	x	1,5	140	25	–	40	32	50,5	H0211009.0644	H0211001.0644		H0201001.0644
	52	**x**	**2**	**140**	**32**	**–**	**40**	**32**	**50**	H0211009.0645	H0211001.0645		H0201001.0645
	52	x	3	140	40	–	40	32	49	H0211009.0646	H0211001.0646		H0201001.0646

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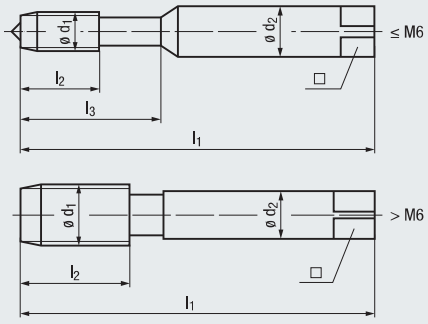
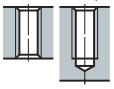
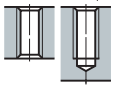


Technische Informationen
Technical information

Toleranz · Tolerance		6HX	6HX
Beschichtung · Coating			
Schneidstoff · Cutting material	HSSE	HSSE	HSSE
	LH	LH	LH
	D / 3-4	C / 2-3	C / 2-3
	O / P	O / P	O / P

Gewindetiefe und Lochform
Thread depth and hole type





P 1.1-3.1	P 1.1-3.1	P 1.1-3.1

Einsatzgebiete – Material
Applications – material

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ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		HGB-Set LH-V-Nr.1	HGB-Set LH-F		HGB-Set-LH-2S (Nr.1, F)
M 6	x 0,5	56	12	27	6	4,9	5,5				
6	x 0,75	56	12	27	6	4,9	5,2				
7	x 0,75	56	14	–	6	4,9	6,2				
8	x 0,5	56	14	–	6	4,9	7,5				
8	x 0,75	56	14	–	6	4,9	7,2				
8	x 1	63	17	–	6	4,9	7	H0211059.0251	H0211051.0251		H0201051.0251
9	x 1	63	17	–	7	5,5	8				
10	x 0,75	63	18	–	7	5,5	9,2				
10	x 1	63	18	–	7	5,5	9	H0211059.0276	H0211051.0276		H0201051.0276
10	x 1,25	70	22	–	7	5,5	8,8				
11	x 1	63	18	–	8	6,2	10				
12	x 1	70	18	–	9	7	11	H0211059.0301	H0211051.0301		H0201051.0301
12	x 1,25	70	20	–	9	7	10,8				
12	x 1,5	70	20	–	9	7	10,5	H0211059.0303	H0211051.0303		H0201051.0303
13	x 1	70	18	–	11	9	12				
14	x 1	70	18	–	11	9	13				
14	x 1,25	70	20	–	11	9	12,8				
14	x 1,5	70	20	–	11	9	12,5	H0211059.0331	H0211051.0331		H0201051.0331
15	x 1	70	18	–	12	9	14				
15	x 1,5	70	20	–	12	9	13,5				
16	x 1	70	18	–	12	9	15				
16	x 1,5	70	20	–	12	9	14,5	H0211059.0359	H0211051.0359		H0201051.0359
18	x 1	80	18	–	14	11	17				
18	x 1,5	80	22	–	14	11	16,5	H0211059.0390	H0211051.0390		H0201051.0390
18	x 2	80	22	–	14	11	16				
20	x 1	80	18	–	16	12	19				
20	x 1,5	80	22	–	16	12	18,5	H0211059.0422	H0211051.0422		H0201051.0422
20	x 2	80	22	–	16	12	18				
22	x 1	80	18	–	18	14,5	21				
22	x 1,5	80	22	–	18	14,5	20,5	H0211059.0438	H0211051.0438		H0201051.0438
22	x 2	80	22	–	18	14,5	20				
24	x 1	90	18	–	18	14,5	23				
24	x 1,5	90	22	–	18	14,5	22,5	H0211059.0452	H0211051.0452		H0201051.0452
24	x 2	90	22	–	18	14,5	22				

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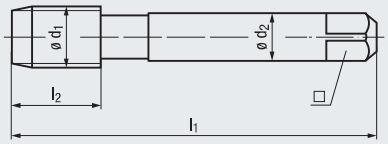

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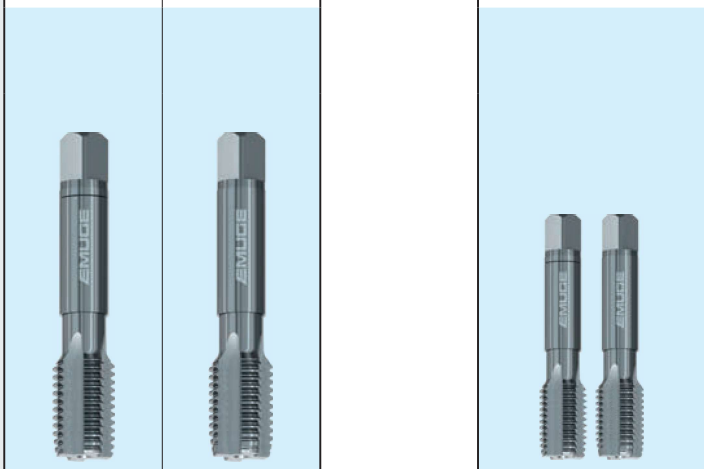

Toleranz · Tolerance		6HX		6HX
Beschichtung · Coating				
Technische Informationen Technical information — Schneidstoff · Cutting material	VHM/KHM	VHM/KHM		VHM/KHM
	C / ≈3 O / P	C / ≈3 O / P		C / ≈3 O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 2 x d_1			max. 2 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	P 5.1 N 2.8, 5.2 H 1.1-1.3	P 5.1 N 2.8, 5.2 H 1.1-1.3		P 5.1 N 2.8, 5.2 H 1.1-1.3

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		VHM/KHM-Set V-Nr.1	VHM/KHM-Set F		VHM/KHM-Set-2S (Nr.1, F)
M	8	x	1	63	10	6	4,9	7	H0330909.0251	H0330901.0251		H0320901.0251
	10	x	1	63	10	7	5,5	9	H0330909.0276	H0330901.0276		H0320901.0276
	12	x	1,5	70	15	9	7	10,5	H0330909.0303	H0330901.0303		H0320901.0303
	14	x	1,5	70	15	11	9	12,5	H0330909.0331	H0330901.0331		H0320901.0331
	16	x	1,5	70	15	12	9	14,5	H0330909.0359	H0330901.0359		H0320901.0359

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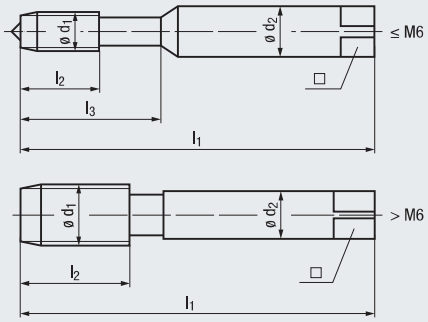
DIN 13

DIN 2181



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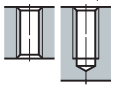
Technische Informationen Technical information				
Toleranz · Tolerance			6HX
Beschichtung · Coating			
Schneidstoff · Cutting material	HSSE	HSSE	HSSE
	C / 2-3	C / 2-3	C / 2-3
	O / P	O / P	O / P

Gewindetiefe und Lochform
Thread depth and hole type



Einsatzgebiete – Material
Applications – material

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	WM-Set V-Nr.1Z	WM-Set V-Nr.1	WM-Set F
P	1.1-5.1	1.1-5.1	1.1-5.1
M	1.1-4.1	1.1-4.1	1.1-4.1
K	1.1-4.2	1.1-4.2	1.1-4.2
N	1.1-2.6	1.1-2.6	1.1-2.6
S	2.1-2.2, 2.4	2.1-2.2, 2.4	2.1-2.2, 2.4

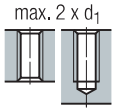
	ø d_1 mm		P mm	l_1	l_2	l_3	ø d_2	□		WM-Set V-Nr.1Z	WM-Set V-Nr.1	WM-Set F
M	6	x	0,75	56	12	27	6	4,9	5,2	H0463009.0229	H0473009.0229	H0473001.0229
	8	x	0,75	56	14	–	6	4,9	7,2	H0463009.0250	H0473009.0250	H0473001.0250
	8	x	1	63	17	–	6	4,9	7	**H0463009.0251**	**H0473009.0251**	**H0473001.0251**
	10	x	1	63	18	–	7	5,5	9	**H0463009.0276**	**H0473009.0276**	**H0473001.0276**
	12	x	1	70	18	–	9	7	11	H0463009.0301	H0473009.0301	H0473001.0301
	12	x	1,5	70	20	–	9	7	10,5	**H0463009.0303**	**H0473009.0303**	**H0473001.0303**
	14	x	1,5	70	20	–	11	9	12,5	**H0463009.0331**	**H0473009.0331**	**H0473001.0331**
	16	x	1,5	70	20	–	12	9	14,5	**H0463009.0359**	**H0473009.0359**	**H0473001.0359**
	18	x	1,5	80	22	–	14	11	16,5	H0463009.0390	H0473009.0390	H0473001.0390
	20	x	1,5	80	22	–	16	12	18,5	H0463009.0422	H0473009.0422	H0473001.0422
	22	x	1,5	80	22	–	18	14,5	20,5	H0463009.0438	H0473009.0438	H0473001.0438
	24	x	1,5	90	22	–	18	14,5	22,5	H0463009.0452	H0473009.0452	H0473001.0452

1) Der Vorschneider Nr.1Z mit Führungszapfen ist eine zusätzliche Hilfe zum winkelrechten Anschneiden von Hand. Er kann z.B. auf der Maschine weggelassen werden. Die Profilabstufung von Nr.1Z und Nr.1 ist gleich.
The taper tap No. 1Z with cylindrical pilot is an additional aid for true alignment especially when tapping by hand. It can be deleted when tapping by machine. The profile graduation of No.1Z, and No.1 is the same.

2)

6HX	6HX
HSSE	HSSE
C / 2-3	C / 2-3
O / P	O / P

max. 2 x d_1



P 1.1-5.1	P 1.1-5.1
M 1.1-4.1	M 1.1-4.1
K 1.1-4.2	K 1.1-4.2
N 1.1-2.6	N 1.1-2.6
S 2.1-2.2, 2.4	S 2.1-2.2, 2.4

WM-Set-3S (Nr.1Z, Nr.1, F)	WM-Set-2S (Nr.1, F)	
H0453001.0229	H0483001.0229	M 6 x 0,75
H0453001.0250	H0483001.0250	8 x 0,75
H0453001.0251	**H0483001.0251**	8 x 1
H0453001.0276	**H0483001.0276**	10 x 1
H0453001.0301	H0483001.0301	12 x 1
H0453001.0303	**H0483001.0303**	12 x 1,5
H0453001.0331	**H0483001.0331**	14 x 1,5
H0453001.0359	**H0483001.0359**	16 x 1,5
H0453001.0390	H0483001.0390	18 x 1,5
H0453001.0422	H0483001.0422	20 x 1,5
H0453001.0438	H0483001.0438	22 x 1,5
H0453001.0452	H0483001.0452	24 x 1,5

2) Beim Gewindebohren von Hand in Durchgangslöcher entfällt Nr.1
No.1 is not needed when tapping in through holes by hand

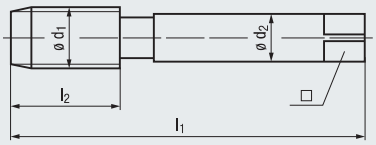
Verstellbare Windeisen siehe Seite 305 Adjustable tap wrenches, see page 305

MF

DIN 13

MS
Copper-zinc alloys

Für dünnwandige Messing-Rohre
For thin-walled brass tubes



Technische Informationen Technical information	Toleranz · Tolerance	6HX	6HX +0,1 [2]	6GX
	Beschichtung · Coating			
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE
		max. 1	max. 1	max. 1
		E	E	E
Gewindetiefe und Lochform Thread depth and hole type			max. 1 x d_1	
Einsatzgebiete – Material Applications – material ▸▸ 78		N 2.3, 2.6	N 2.3, 2.6	N 2.3, 2.6

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		AUT-A MS-R	AUT-A MS-R	AUT-A MS-R
M	8	x	1	63	17	6	4,9	7	A6622501.0251		A6622521.0251
	10	x	1	63	18	7	5,5	9	A6622501.0276	A662254A.0276	A6622521.0276
	12	x	1	70	18	9	7	11	A6622501.0301	A662254A.0301	A6622521.0301
	12	x	1,5	70	20	9	7	10,5	A6622501.0303		A6622521.0303
	14	x	1	70	18	10 [1]	8	13		A662254A.0329	A6622521.0329
	14	x	1,5	70	20	10 [1]	8	12,5	A6622501.0331		A6622521.0331
	15	x	1	70	18	12	9	14			A6622521.0343
	16	x	1,5	70	20	12	9	14,5	A6622501.0359	A662254A.0359	A6622521.0359
	17	x	1	70	18	12	9	16			A6622521.0372
	18	x	1,5	80	22	12 [1]	9	16,5	A6622501.0390		A6622521.0390
	20	x	1,5	80	22	15 [1]	12	18,5	A6622501.0422		A6622521.0422
	22	x	1,5	80	22	15 [1]	12	20,5	A6622501.0438		A6622521.0438
	24	x	1,5	90	22	18	14,5	22,5	A6622501.0452		A6622521.0452
	26	x	1,5	90	22	18	14,5	24,5	A6622501.0464		A6622521.0464
	28	x	1,5	90	22	18 [1]	14,5	26,5	A6622501.0476		A6622521.0476
	30	x	1,5	90	22	18 [1]	14,5	28,5	A6622501.0490		A6622521.0490

[1] Spezieller AUT-Schaft
Special shank for "AUT" taps

[2] Vorbohrdurchmesser für Gewindebohrer mit Übermaß um 0,1 mm anheben
Increase drill diameter for taps with oversize by 0.1 mm

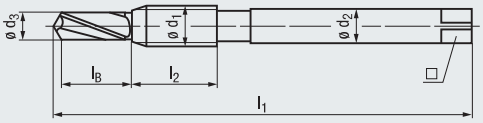
Automatengewindebohrer für Metrisches ISO-Regelgewinde DIN 13 auf Anfrage

Taps for automatic lathes for ISO Metric coarse thread DIN 13, upon request

MF

DIN 13

Normal lang
Standard length



Technische Informationen Technical information	Toleranz · Tolerance: ISO 2/6H Beschichtung · Coating: Schneidstoff · Cutting material: HSSE C / 2-3 E / O
Gewindetiefe und Lochform Thread depth and hole type	max. 1 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	P 2.1 N 2.2

Normal lang · Standard length

	ø d_1 mm		P mm	l_1	l_2	l_B	ø d_2	□	ø d_3	**KOMBI Normal-lg**
M	4	x	0,5	66	13	8,9	4,5	3,4	3,55	M0601000.0210
	5	x	0,5	75	15	10,7	6	4,9	4,55	
	6	x	0,75	81	20	12,4	6	4,9	5,31	M0601000.0229
	8	x	0,75	93	12	17,8	6	4,9	7,31	
	8	x	1	93	12	17,8	6	4,9	7,05	M0601000.0251
	10	x	1	99	14	19,2	7	5,5	9,05	M0601000.0276
	10	x	1,25	99	14	19,3	7	5,5	8,8	
	12	x	1	106	14	21,6	9	7	11,05	
	12	x	1,5	106	14	21,8	9	7	10,55	M0601000.0303
	14	x	1,5	114	15	24,2	11	9	12,55	M0601000.0331
	16	x	1,5	123	16	27,5	12	9	14,55	M0601000.0359
	18	x	1,5	132	18	30,9	14	11	16,55	
	20	x	1,5	132	18	30,3	16	12	18,55	M0601000.0422

UNC

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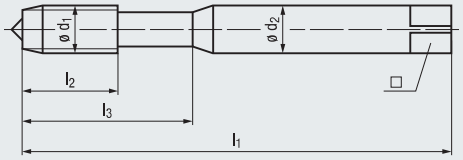


STEEL
Steel materials

Toleranz · Tolerance	2B	3B	2B	2B
Beschichtung · Coating				TIN
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
			R35	R35
	B / 4-5	B / 4-5	C / 2-3	C / 2-3
	E / O	E / O	E / O	E / O

Technische Informationen
Technical information

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1 | max. 2,5 x d_1

Einsatzgebiete – Material
Applications – material

▸▸ 78

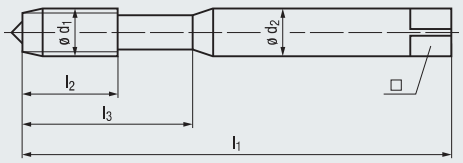
									P 1.1-3.1 N 2.2	P 1.1-3.1 N 2.2	P 1.1-3.1 N 2.2	P 1.1-3.1 N 2.2
ø d_1	inch	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		Rekord 1B-STEEL-L	Rekord 1B-STEEL-L	Enorm 1 STEEL	Enorm 1 STEEL TIN
Nr. 1	0.0730	64	45	7	–	2,8	2,1	1,55				
Nr. 2	0.0860	56	45	7	–	2,8	2,1	1,85	**B0208900.5001**			
Nr. 3	0.0990	48	50	9	14	2,8	2,1	2,1	B0208900.5002	B0208910.5002		
Nr. 4	0.1120	40	56	11	18	3,5	2,7	2,35	**B0208900.5003**	B0208910.5003	**B0501000.5003**	**B0501400.5003**
Nr. 5	0.1250	40	56	11	18	3,5	2,7	2,65	B0208900.5004	B0208910.5004		
Nr. 6	0.1380	32	56	12	20	4	3	2,85	**B0208900.5005**	**B0208910.5005**	**B0501000.5005**	**B0501400.5005**
Nr. 8	0.1640	32	63	13	21	4,5	3,4	3,5	**B0208900.5006**	**B0208910.5006**	**B0501000.5006**	**B0501400.5006**
Nr. 10	0.1900	24	70	15	25	6	4,9	3,9	**B0208900.5007**	**B0208910.5007**	**B0501000.5007**	**B0501400.5007**
Nr. 12	0.2160	24	80	16	30	6	4,9	4,5	B0208900.5008	B0208910.5008		
1/4	0.2500	20	80	17	30	7	5,5	5,1	**B0208900.5009**	**B0208910.5009**	**B0501000.5009**	**B0501400.5009**
5/16	0.3125	18	90	20	35	8	6,2	6,6	**B0208900.5010**	**B0208910.5010**	**B0501000.5010**	**B0501400.5010**
3/8	0.3750	16	100	22	39	10	8	8	**B0208900.5011**	**B0208910.5011**	**B0501000.5011**	**B0501400.5011**
					≈ DIN 376				208	208	208	208

VA Stainless steel materials					**INOX** Stainless steel materials		**H** Materials of high tensile strength	
					new			
2B	2B	2B	2B		2B		2BX	
NT	TIN	GLT-1			GLT-201		NT	
HSSE	HSSE	HSSE	HSSE		HSSE		HSSE	
			R35		R45			
B / 4-5	B / 4-5	B / 4-5	C / 2-3		C / 2-3		C / 2-3	
E / O / P	E / O / P	E / O / P	E / O / P		E / O		E / O / P	
	max. 3 x d_1		max. 2,5 x d_1		max. 2,5 x d_1		max. 2 x d_1	
P 2.1-3.1 N 2.2, 2.5	P 1.1-4.1	P 1.1-4.1 M 1.1-4.1 N 2.2	P 1.1-3.1		M 1.1-2.1		K 1.1-4.2 N 4.1	
Rekord 1B-VA NT	**Rekord 1B-VA TIN**	**Rekord 1B-VA GLT-1**	**Enorm 1 VA**		**Enorm 1 INOX GLT-201**		**Rekord 1A-H NT**	
								Nr. 1 - 64
B0203000.5001	B0203100.5001	B020C300.5001						Nr. 2 - 56
								Nr. 3 - 48
B0203000.5003	B0203100.5003	B020C300.5003	**B0503000.5003**		**B050J300.5003**		**B0100501.5003**	Nr. 4 - 40
							B0100501.5004	Nr. 5 - 40
B0203000.5005	B0203100.5005	B020C300.5005	**B0503000.5005**		**B050J300.5005**		**B0100501.5005**	Nr. 6 - 32
B0203000.5006	B0203100.5006	B020C300.5006	**B0503000.5006**		**B050J300.5006**		**B0100501.5006**	Nr. 8 - 32
B0203000.5007	B0203100.5007	B020C300.5007	**B0503000.5007**		**B050J300.5007**		**B0100501.5007**	Nr. 10 - 24
							B0100501.5008	Nr. 12 - 24
B0203000.5009	B0203100.5009	B020C300.5009	**B0503000.5009**		**B050J300.5009**		**B0100501.5009**	1/4 - 20
B0203000.5010	B0203100.5010	B020C300.5010	**B0503000.5010**		**B050J300.5010**		**B0100501.5010**	5/16 - 18
B0203000.5011	B0203100.5011	B020C300.5011	**B0503000.5011**		**B050J300.5011**		**B0100501.5011**	3/8 - 16
209	209	209	209		209		209	

UNC

ASME B1.1

≈ DIN 371



Z
CNC-controlled machines

Technische Informationen Technical information	Toleranz · Tolerance	2BX	2B	2B	2B
	Beschichtung · Coating	GLT-1		GLT-1	
	Schneidstoff · Cutting material	HSSE-PM	HSSE	HSSE	HSSE
		R45	R45	R45	R45
		C / 2-3	C / 2-3	C / 2-3	E / 1,5-2
		E / O / P	E / O / P	E / O / P	E / O / P

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1

Einsatzgebiete – Material
Applications – material

▸▸ 78

	P 1.1-4.1	P 1.1-3.1	P 1.1-4.1	P 1.1-3.1
	M 1.1-4.1		M 1.1-4.1	
	K 1.1-3.2		N 1.4, 2.1-2.2	
	N 1.4, 2.1-2.2		N 2.4-2.5	
	N 2.4-2.5		S 1.1	
	S 1.1			

ø d_1 inch	inch	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		Enorm 1-Z PM-GLT-1	Enorm 1-Z	Enorm 1-Z GLT-1	Enorm 1-Z/E
Nr. 1	0.0730	64	45	4	–	2,8	2,1	1,55				
Nr. 2	0.0860	56	45	4,5	–	2,8	2,1	1,85		B0503500.5001		B0513500.5001
Nr. 3	0.0990	48	50	5	14	2,8	2,1	2,1		B0503500.5002		B0513500.5002
Nr. 4	0.1120	40	56	6	18	3,5	2,7	2,35	B616A601.5003	B0503500.5003	B050C400.5003	B0513500.5003
Nr. 5	0.1250	40	56	7	18	3,5	2,7	2,65		B0503500.5004		B0513500.5004
Nr. 6	0.1380	32	56	7	20	4	3	2,85	B616A601.5005	B0503500.5005	B050C400.5005	B0513500.5005
Nr. 8	0.1640	32	63	8	21	4,5	3,4	3,5	B616A601.5006	B0503500.5006	B050C400.5006	B0513500.5006
Nr. 10	0.1900	24	70	10	25	6	4,9	3,9	B616A601.5007	B0503500.5007	B050C400.5007	B0513500.5007
Nr. 12	0.2160	24	80	10	30	6	4,9	4,5		B0503500.5008		B0513500.5008
1/4	0.2500	20	80	13	30	7	5,5	5,1	B616A601.5009	B0503500.5009	B050C400.5009	B0513500.5009
5/16	0.3125	18	90	14	35	8	6,2	6,6	B616A601.5010	B0503500.5010	B050C400.5010	B0513500.5010
3/8	0.3750	16	100	16	39	10	8	8	B616A601.5011	B0503500.5011	B050C400.5011	B0513500.5011
					≈ DIN 376				210	210	210	210

Z
CNC-controlled machines

	new	new	new		new			
2B	2B	3B	3B	2B +0,05 [2]	2B +0,05 [2]			
TIN	GLT-1		GLT-1		GLT-1			
HSSE	HSSE	HSSE	HSSE	HSSE	HSSE			
R45	R45	R45	R45	R45	R45			
E / 1,5-2	E / 1,5-2	C / 2-3	C / 2-3	C / 2-3	C / 2-3			
E / O / P	E / O / P	E / O / P	E / O / P	E / O / P	E / O / P			
		max. 3 x d_1						
P 1.1-4.1 N 2.2, 2.4-2.5 S 1.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1			
Enorm 1-Z/E TIN	**Enorm 1-Z/E GLT-1**	**Enorm 1-Z**	**Enorm 1-Z GLT-1**	**Enorm 1-Z**	**Enorm 1-Z GLT-1**			
								Nr. 1 - 64
								Nr. 2 - 56
				B0503530.5002				Nr. 3 - 48
B0513700.5003	**B051C400.5003**	**B0503510.5003**	**B050C410.5003**	B0503530.5003	B050C430.5003			Nr. 4 - 40
		B0503510.5004	B050C410.5004	B0503530.5004	B050C430.5004			Nr. 5 - 40
B0513700.5005	**B051C400.5005**	**B0503510.5005**	**B050C410.5005**	B0503530.5005	B050C430.5005			Nr. 6 - 32
B0513700.5006	**B051C400.5006**	**B0503510.5006**	**B050C410.5006**	B0503530.5006	B050C430.5006			Nr. 8 - 32
B0513700.5007	**B051C400.5007**	**B0503510.5007**	**B050C410.5007**	B0503530.5007	B050C430.5007			Nr. 10 - 24
		B0503510.5008	B050C410.5008	B0503530.5008	B050C430.5008			Nr. 12 - 24
B0513700.5009	**B051C400.5009**	**B0503510.5009**	**B050C410.5009**	**B0503530.5009**	**B050C430.5009**			1/4 - 20
B0513700.5010	**B051C400.5010**	**B0503510.5010**	**B050C410.5010**	**B0503530.5010**	**B050C430.5010**			5/16 - 18
B0513700.5011	**B051C400.5011**	**B0503510.5011**	**B050C410.5011**	**B0503530.5011**	**B050C430.5011**			3/8 - 16
211	211	211	211	211	211			

[2] Vorbohrdurchmesser für Gewindebohrer mit Übermaß um 0,05 mm anheben
Increase drill diameter for taps with oversize by 0.05 mm

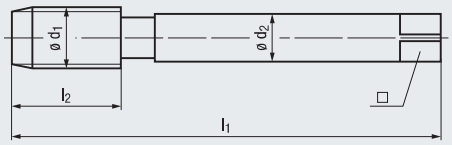
Werkzeug-Aufnahmen der Typenreihe Softsynchro® siehe Seite 617 - 644

Tool holders of our Softsynchro® series, see page 617 - 644

UNC

ASME B1.1

≈ DIN 376



STEEL
Steel materials

Technische Informationen Technical information				
Toleranz · Tolerance	2B	3B	2B	2B
Beschichtung · Coating				TIN
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
			R35	R35
	B / 4-5	B / 4-5	C / 2-3	C / 2-3
	E / O	E / O	E / O	E / O
Gewindetiefe und Lochform Thread depth and hole type		max. 3 x d_1	max. 2,5 x d_1	
Einsatzgebiete – Material Applications – material ▸▸ 78	P 1.1-3.1 N 2.2	P 1.1-3.1 N 2.2	P 1.1-3.1 N 2.2	P 1.1-3.1 N 2.2

ø d_1 inch	inch	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Rekord 2B-STEEL-L	Rekord 2B-STEEL-L	Enorm 2-STEEL	Enorm 2-STEEL TIN
1/4	0.2500	20	80	17	4,5	3,4	5,1	C0208900.5009			
5/16	0.3125	18	90	20	6	4,9	6,6	C0208900.5010			
3/8	0.3750	16	100	22	7	5,5	8	C0208900.5011	C0208910.5011		
7/16	0.4375	14	100	22	8	6,2	9,4	C0208900.5012	C0208910.5012	C0501000.5012	C0501400.5012
1/2	0.5000	13	110	25	9	7	10,8	C0208900.5013	C0208910.5013	C0501000.5013	C0501400.5013
9/16	0.5625	12	110	26	11	9	12,2	C0208900.5014	C0208910.5014	C0501000.5014	C0501400.5014
5/8	0.6250	11	110	27	12	9	13,5	C0208900.5015	C0208910.5015	C0501000.5015	C0501400.5015
3/4	0.7500	10	125	30	14	11	16,5	C0208900.5016	C0208910.5016	C0501000.5016	C0501400.5016
7/8	0.8750	9	140	32	18	14,5	19,5	C0208900.5017			
1"	1.0000	8	160	36	18	14,5	22,25	C0208900.5018		C0501000.5018	C0501400.5018
1 1/8	1.1250	7	180	40	22	18	25	C0208900.5019			
1 1/4	1.2500	7	180	40	22	18	28	C0208900.5020		C0501000.5020	C0501400.5020
1 3/8	1.3750	6	200	50	28	22	30,75	C0208900.5021		C0501000.5021	C0501400.5021
1 1/2	1.5000	6	200	50	28	22	34	C0208900.5022		C0501000.5022	C0501400.5022
1 3/4	1.7500	5	220	58	36	29	39,5	C0208900.5023		C0501000.5023	C0501400.5023
2"	2.0000	4 1/2	250	65	40	32	45	C0208900.5024		C0501000.5024	C0501400.5024
							≈ DIN 371	204	204	204	204

Gewinde-Tiefenlehrdorne
siehe Seite 588 - 591

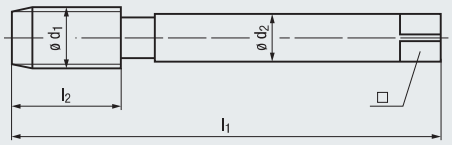
Thread depth plug gauges,
see page 588 - 591

VA Stainless steel materials					**INOX** Stainless steel materials		**H** Materials of high tensile strength	
					new			
2B	2B	2B	2B		2B		2BX	
NT	TIN	GLT-1			GLT-201		NT	
HSSE	HSSE	HSSE	HSSE		HSSE		HSSE	
			R35		R45			
B / 4-5	B / 4-5	B / 4-5	C / 2-3		C / 2-3		C / 2-3	
E / O / P	E / O / P	E / O / P	E / O / P		E / O		E / O / P	
	max. 3 x d_1		max. 2,5 x d_1		max. 2,5 x d_1		max. 2 x d_1	
P 2.1-3.1 N 2.2, 2.5	P 1.1-4.1	P 1.1-4.1 M 1.1-4.1 N 2.2	P 1.1-3.1		M 1.1-2.1		K 1.1-4.2 N 4.1	
Rekord 2B-VA NT	**Rekord 2B-VA TIN**	**Rekord 2B-VA GLT-1**	**Enorm 2 VA**		**Enorm 2 INOX GLT-201**		**Rekord 2A-H NT**	
								1/4 - 20
								5/16 - 18
							C0100501.5011	3/8 - 16
C0203000.5012	C0203100.5012	C020C300.5012	**C0503000.5012**		**C050J300.5012**		**C0100501.5012**	7/16 - 14
C0203000.5013	C0203100.5013	C020C300.5013	**C0503000.5013**		**C050J300.5013**		**C0100501.5013**	1/2 - 13
			C0503000.5014		**C050J300.5014**		**C0100501.5014**	9/16 - 12
C0203000.5015	C0203100.5015	C020C300.5015	**C0503000.5015**		**C050J300.5015**		**C0100501.5015**	5/8 - 11
C0203000.5016	C0203100.5016	C020C300.5016	**C0503000.5016**		**C050J300.5016**		**C0100501.5016**	3/4 - 10
C0203000.5017	C0203100.5017	C020C300.5017					**C0100501.5017**	7/8 - 9
C0203000.5018	C0203100.5018	C020C300.5018	**C0503000.5018**		**C050J300.5018**		**C0100501.5018**	1" - 8
								1 1/8 - 7
								1 1/4 - 7
								1 3/8 - 6
								1 1/2 - 6
								1 3/4 - 5
								2" - 4 1/2
205	205	205	205		205		205	

UNC

ASME B1.1

≈ DIN 376



Z
CNC-controlled machines

Technische Informationen Technical information	Toleranz · Tolerance	2BX	2B	2B	2B
	Beschichtung · Coating	GLT-1		GLT-1	
	Schneidstoff · Cutting material	HSSE-PM	HSSE	HSSE	HSSE
		R45	R45	R45	R45
		C / 2-3	C / 2-3	C / 2-3	E / 1,5-2
		E / O / P	E / O / P	E / O / P	E / O / P

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1

Einsatzgebiete – Material
Applications – material

78

								Enorm 2-Z PM-GLT-1	Enorm 2-Z	Enorm 2-Z GLT-1	Enorm 2-Z/E
								P 1.1-4.1 M 1.1-4.1 K 1.1-3.2 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1
ø d_1 inch	inch	P Gg/1" (tpi)	l_1	l_2	ø d_2	□					
1/4	0.2500	20	80	13	4,5	3,4	5,1		C0503500.5009		
5/16	0.3125	18	90	14	6	4,9	6,6		C0503500.5010		
3/8	0.3750	16	100	16	7	5,5	8		C0503500.5011		C0513500.5011
7/16	0.4375	14	100	18	8	6,2	9,4	C616A601.5012	C0503500.5012	C050C400.5012	C0513500.5012
1/2	0.5000	13	110	20	9	7	10,8	C616A601.5013	C0503500.5013	C050C400.5013	C0513500.5013
9/16	0.5625	12	110	20	11	9	12,2		C0503500.5014	C050C400.5014	C0513500.5014
5/8	0.6250	11	110	22	12	9	13,5	C616A601.5015	C0503500.5015	C050C400.5015	C0513500.5015
3/4	0.7500	10	125	25	14	11	16,5	C616A601.5016	C0503500.5016	C050C400.5016	C0513500.5016
7/8	0.8750	9	140	27	18	14,5	19,5		C0503500.5017	C050C400.5017	C0513500.5017
1"	1.0000	8	160	30	18	14,5	22,25	C616A601.5018	C0503500.5018	C050C400.5018	C0513500.5018
1 1/8	1.1250	7	180	35	22	18	25		C0503500.5019		
1 1/4	1.2500	7	180	35	22	18	28				
1 3/8	1.3750	6	200	40	28	22	30,75				
1 1/2	1.5000	6	200	40	28	22	34				
1 3/4	1.7500	5	220	45	36	29	39,5				
2"	2.0000	4 1/2	250	50	40	32	45				
					≈ DIN 371			206	206	206	206

Z
CNC-controlled machines

2B	2B	3B	3B	2B +0,05 [2]	2B +0,05 [2]
TIN	GLT-1		GLT-1		GLT-1
HSSE	HSSE	HSSE	HSSE	HSSE	HSSE
R45	R45	R45	R45	R45	R45
E / 1,5-2	**E / 1,5-2**	C / 2-3	C / 2-3	C / 2-3	C / 2-3
E / O / P	E / O / P	E / O / P	E / O / P	E / O / P	E / O / P

max. 3 x d_1

P 1.1-4.1	P 1.1-4.1	P 1.1-3.1	P 1.1-4.1	P 1.1-3.1	P 1.1-4.1
N 2.2, 2.4-2.5	M 1.1-4.1		M 1.1-4.1		M 1.1-4.1
S 1.1	N 1.4, 2.1-2.2		N 1.4, 2.1-2.2		N 1.4, 2.1-2.2
	N 2.4-2.5		N 2.4-2.5		N 2.4-2.5
	S 1.1		S 1.1		S 1.1

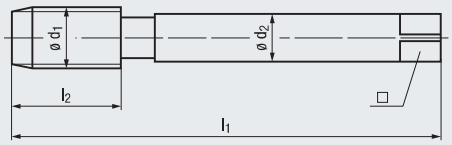
Enorm 2-Z/E TIN	Enorm 2-Z/E GLT-1	Enorm 2-Z	Enorm 2-Z GLT-1	Enorm 2-Z	Enorm 2-Z GLT-1			
								1/4 - 20
								5/16 - 18
		C0503510.5011	C050C410.5011					3/8 - 16
C0513700.5012	**C051C400.5012**	**C0503510.5012**	**C050C410.5012**	C0503530.5012	C050C430.5012			7/16 - 14
C0513700.5013	**C051C400.5013**	**C0503510.5013**	**C050C410.5013**	C0503530.5013	C050C430.5013			1/2 - 13
C0513700.5014	C051C400.5014	C0503510.5014	C050C410.5014	C0503530.5014	C050C430.5014			9/16 - 12
C0513700.5015	**C051C400.5015**	**C0503510.5015**	**C050C410.5015**	C0503530.5015	C050C430.5015			5/8 - 11
C0513700.5016	**C051C400.5016**	C0503510.5016	C050C410.5016	C0503530.5016	C050C430.5016			3/4 - 10
C0513700.5017	C051C400.5017			C0503530.5017	C050C430.5017			7/8 - 9
C0513700.5018	**C051C400.5018**	C0503510.5018	C050C410.5018	C0503530.5018	C050C430.5018			1" - 8
								1 1/8 - 7
								1 1/4 - 7
								1 3/8 - 6
								1 1/2 - 6
								1 3/4 - 5
								2" - 4 1/2
207	207	207	207	207	207			

[2] Vorbohrdurchmesser für Gewindebohrer mit Übermaß um 0,05 mm anheben
Increase drill diameter for taps with oversize by 0.05 mm

UN-8

ASME B1.1

≈ DIN 374



	STEEL Steel materials		**Z** CNC-controlled machines
	new		new
Technische Informationen / Technical information Toleranz · Tolerance	2B		2B
Beschichtung · Coating	TIN		
Schneidstoff · Cutting material	HSSE		HSSE
	R35		R45
	C / 2-3		C / 2-3
	E / O		E / O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 2,5 x d_1		max. 3 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	P 1.1-3.1 N 2.2		P 1.1-3.1

ø d_1 inch	inch	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		**Enorm 2-STEEL TIN**		**Enorm 2-Z**
1 1/8	1.1250	8	180	30	22	18	25,4			**C0503500.5247**
1 1/4	1.2500	8	180	30	22	18	28,6	**C0501400.5249**		
1 3/8	1.3750	8	200	30	28	22	31,8	**C0501400.5251**		
1 1/2	1.5000	8	200	30	28	22	35	**C0501400.5253**		
1 5/8	1.6250	8	200	30	32	24	38,1	**C0501400.5255**		
1 3/4	1.7500	8	200	30	36	29	41,3	**C0501400.5257**		
1 7/8	1.8750	8	225	33	36	29	44,5	C0501400.5259		
2"	2.0000	8	225	33	40	32	47,7	**C0501400.5261**		

Schnellwechsel-Aufnahmen Typ KSN
siehe Seite 652 - 661

Quick-change tap holders type KSN,
see page 652 - 661

UNC

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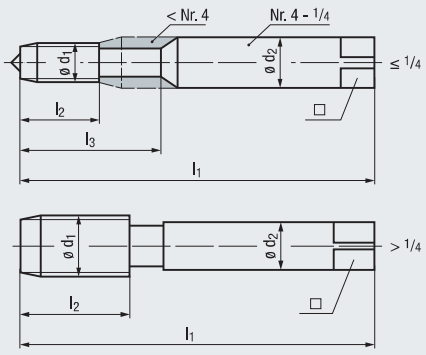
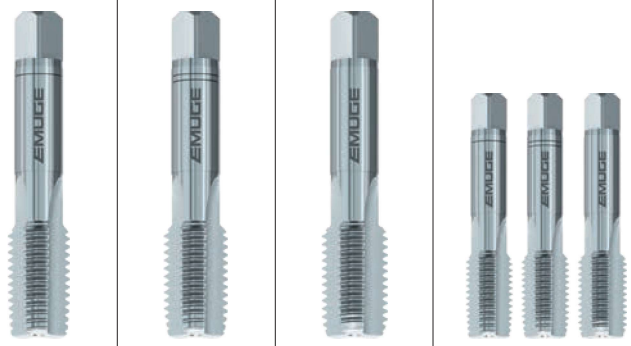
≈ DIN 352





Technische Informationen Technical information				
Toleranz · Tolerance			2BX	2BX
Beschichtung · Coating				
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
	A / 5-6	D / 3-4	C / 2-3	C / 2-3
	O / P	O / P	O / P	O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 2 x d_1			
Einsatzgebiete – Material Applications – material ▸▸ 78	P 1.1-3.1	P 1.1-3.1	P 1.1-3.1	P 1.1-3.1

ø d_1 inch	inch	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		HGB-Set V-Nr.1	HGB-Set M-Nr.2	HGB-Set F	HGB-Set-3S (Nr.1, Nr.2, F)
Nr. 1	0.0730	64	36	8	–	2,8	2,1	1,55	H0111019.5000	H0111029.5000	H0111001.5000	H0101001.5000
Nr. 2	0.0860	56	36	9	–	2,8	2,1	1,85	H0111019.5001	H0111029.5001	H0111001.5001	H0101001.5001
Nr. 3	0.0990	48	40	9	–	2,8	2,1	2,1	H0111019.5002	H0111029.5002	H0111001.5002	H0101001.5002
Nr. 4	0.1120	40	40	10	18	3,5	2,7	2,35	**H0111019.5003**	**H0111029.5003**	**H0111001.5003**	**H0101001.5003**
Nr. 5	0.1250	40	40	10	18	3,5	2,7	2,65				
Nr. 6	0.1380	32	45	11	20	4	3	2,85	**H0111019.5005**	**H0111029.5005**	**H0111001.5005**	**H0101001.5005**
Nr. 8	0.1640	32	45	12	22	4,5	3,4	3,5	**H0111019.5006**	**H0111029.5006**	**H0111001.5006**	**H0101001.5006**
Nr. 10	0.1900	24	50	14	25	6	4,9	3,9	**H0111019.5007**	**H0111029.5007**	**H0111001.5007**	**H0101001.5007**
Nr. 12	0.2160	24	56	16	28	6	4,9	4,5				
1/4	0.2500	20	56	16	28	6	4,9	5,1	**H0111019.5009**	**H0111029.5009**	**H0111001.5009**	**H0101001.5009**
5/16	0.3125	18	63	20	–	6	4,9	6,6	H0111019.5010	H0111029.5010	H0111001.5010	H0101001.5010
3/8	0.3750	16	70	22	–	7	5,5	8	**H0111019.5011**	**H0111029.5011**	**H0111001.5011**	**H0101001.5011**
7/16	0.4375	14	70	22	–	8	6,2	9,4	H0111019.5012	H0111029.5012	H0111001.5012	H0101001.5012
1/2	0.5000	13	75	25	–	9	7	10,8	**H0111019.5013**	**H0111029.5013**	**H0111001.5013**	**H0101001.5013**
9/16	0.5625	12	80	26	–	11	9	12,2				
5/8	0.6250	11	80	27	–	12	9	13,5	H0111019.5015	H0111029.5015	H0111001.5015	H0101001.5015
3/4	0.7500	10	95	32	–	14	11	16,5	H0111019.5016	H0111029.5016	H0111001.5016	H0101001.5016
7/8	0.8750	9	100	32	–	18	14,5	19,5				
1"	1.0000	8	110	36	–	18	14,5	22,25	H0111019.5018	H0111029.5018	H0111001.5018	H0101001.5018
1 1/8	1.1250	7	125	40	–	22	18	25				
1 1/4	1.2500	7	125	40	–	22	18	28	H0111019.5020	H0111029.5020	H0111001.5020	H0101001.5020
1 3/8	1.3750	6	150	50	–	28	22	30,75				
1 1/2	1.5000	6	150	50	–	28	22	34	H0111019.5022	H0111029.5022	H0111001.5022	H0101001.5022
1 3/4	1.7500	5	160	58	–	36	29	39,5	H0111019.5023	H0111029.5023	H0111001.5023	H0101001.5023
2"	2.0000	4 1/2	180	65	–	40	32	45	H0111019.5024	H0111029.5024	H0111001.5024	H0101001.5024

UNC

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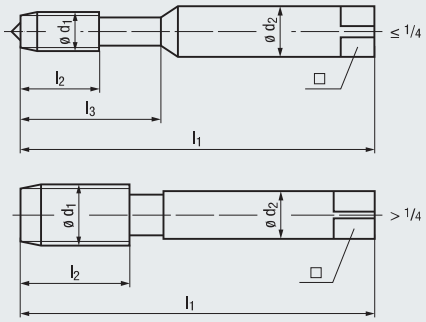
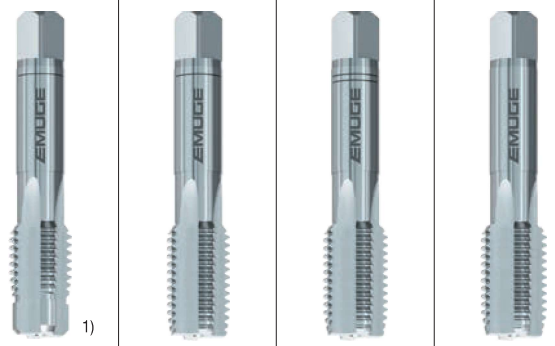
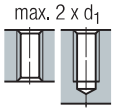
≈ DIN 352





Technische Informationen Technical information	Toleranz · Tolerance			2BX
	Beschichtung · Coating			
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
		C / 2-3	C / 2-3	C / 2-3	C / 2-3
		O / P	O / P	O / P	O / P

Gewindetiefe und Lochform
Thread depth and hole type



Einsatzgebiete – Material
Applications – material

78

P	1.1-5.1	P	1.1-5.1	P	1.1-5.1	P	1.1-5.1
M	1.1-4.1	M	1.1-4.1	M	1.1-4.1	M	1.1-4.1
K	1.1-4.2	K	1.1-4.2	K	1.1-4.2	K	1.1-4.2
N	1.1-2.6	N	1.1-2.6	N	1.1-2.6	N	1.1-2.6
S	2.1-2.2, 2.4	S	2.1-2.2, 2.4	S	2.1-2.2, 2.4	S	2.1-2.2, 2.4

ø d_1 inch	inch	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		WM-Set V-Nr.1Z	WM-Set V-Nr.1	WM-Set M-Nr.2	WM-Set F
1/4	0.2500	20	56	16	28	6	4,9	5,1	**H0413019.5009**	**H0423019.5009**	**H0423029.5009**	**H0423001.5009**
5/16	0.3125	18	63	20	–	6	4,9	6,6	**H0413019.5010**	**H0423019.5010**	**H0423029.5010**	**H0423001.5010**
3/8	0.3750	16	70	22	–	7	5,5	8	**H0413019.5011**	**H0423019.5011**	**H0423029.5011**	**H0423001.5011**
7/16	0.4375	14	70	22	–	8	6,2	9,4	H0413019.5012	H0423019.5012	H0423029.5012	H0423001.5012
1/2	0.5000	13	75	25	–	9	7	10,8	**H0413019.5013**	**H0423019.5013**	**H0423029.5013**	**H0423001.5013**
9/16	0.5625	12	80	26	–	11	9	12,2				
5/8	0.6250	11	80	27	–	12	9	13,5	H0413019.5015	H0423019.5015	H0423029.5015	H0423001.5015
3/4	0.7500	10	95	32	–	14	11	16,5	H0413019.5016	H0423019.5016	H0423029.5016	H0423001.5016
7/8	0.8750	9	100	32	–	18	14,5	19,5				
1"	1.0000	8	110	36	–	18	14,5	22,25	H0413019.5018	H0423019.5018	H0423029.5018	H0423001.5018

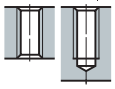
1) Der Vorschneider Nr.1Z mit Führungszapfen ist eine zusätzliche Hilfe zum winkelrechten Anschneiden von Hand. Er kann z.B. auf der Maschine weggelassen werden. Die Profilabstufung von Nr.1Z und Nr.1 ist gleich.
The taper tap No. 1Z with cylindrical pilot is an additional aid for true alignment especially when tapping by hand. It can be deleted when tapping by machine. The profile graduation of No.1Z, and No.1 is the same.

2)

2)

2BX	2BX	2BX	2BX
HSSE	HSSE	HSSE	HSSE
C / 2-3	C / 2-3	C / 2-3	C / 2-3
O / P	O / P	O / P	O / P

max. 2 x d_1



P 1.1-5.1 M 1.1-4.1 K 1.1-4.2 N 1.1-2.6 S 2.1-2.2, 2.4	P 1.1-5.1 M 1.1-4.1 K 1.1-4.2 N 1.1-2.6 S 2.1-2.2, 2.4	P 1.1-5.1 M 1.1-4.1 K 1.1-4.2 N 1.1-2.6 S 2.1-2.2, 2.4	P 1.1-5.1 M 1.1-4.1 K 1.1-4.2 N 1.1-2.6 S 2.1-2.2, 2.4	
WM-Set-3S (Nr.1Z, Nr.1, F)	**WM-Set-2S (Nr.1, F)**	**WM-Set-4S (Nr.1Z, Nr.1, Nr.2, F)**	**WM-Set-3S (Nr.1, Nr.2, F)**	
H0453001.5009	**H0483001.5009**	**H0403001.5009**	**H0433001.5009**	1/4 - 20
H0453001.5010	**H0483001.5010**	**H0403001.5010**	**H0433001.5010**	5/16 - 18
H0453001.5011	**H0483001.5011**	**H0403001.5011**	**H0433001.5011**	3/8 - 16
H0453001.5012	H0483001.5012	H0403001.5012	H0433001.5012	7/16 - 14
H0453001.5013	**H0483001.5013**	**H0403001.5013**	**H0433001.5013**	1/2 - 13
				9/16 - 12
H0453001.5015	H0483001.5015	H0403001.5015	H0433001.5015	5/8 - 11
H0453001.5016	H0483001.5016	H0403001.5016	H0433001.5016	3/4 - 10
				7/8 - 9
H0453001.5018	H0483001.5018	H0403001.5018	H0433001.5018	1" - 8

2) Beim Gewindebohren von Hand in Durchgangslöcher entfällt Nr.1
No.1 is not needed when tapping in through holes by hand

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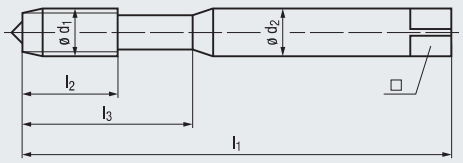

STEEL
Steel materials

Technische Informationen · Technical information				
Toleranz · Tolerance	2B	3B	2B	2B
Beschichtung · Coating				TIN
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
			R35	R35
	B / 4-5	B / 4-5	C / 2-3	C / 2-3
	E / O	E / O	E / O	E / O
Gewindetiefe und Lochform · Thread depth and hole type			max. 3 x d_1	max. 2,5 x d_1
Einsatzgebiete – Material · Applications – material ▸▸ 78	P 1.1-3.1 N 2.2	P 1.1-3.1 N 2.2	P 1.1-3.1 N 2.2	P 1.1-3.1 N 2.2

ø d_1 inch	inch	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		Rekord 1B-STEEL-L	Rekord 1B-STEEL-L	Enorm 1 STEEL	Enorm 1 STEEL TIN
Nr. 2	0.0860	64	45	7	12	2,8	2,1	1,85	**B0208900.5035**			
Nr. 3	0.0990	56	50	9	14	2,8	2,1	2,15	B0208900.5036			
Nr. 4	0.1120	48	56	11	18	3,5	2,7	2,4	**B0208900.5037**			
Nr. 5	0.1250	44	56	11	18	3,5	2,7	2,7	B0208900.5038			
Nr. 6	0.1380	40	56	12	20	4	3	2,95	**B0208900.5039**	**B0208910.5039**		
Nr. 8	0.1640	36	63	13	21	4,5	3,4	3,5	**B0208900.5040**	**B0208910.5040**		
Nr. 10	0.1900	32	70	15	25	6	4,9	4,1	**B0208900.5041**	**B0208910.5041**	**B0501000.5041**	**B0501400.5041**
Nr. 12	0.2160	28	80	16	30	6	4,9	4,6				
1/4	0.2500	28	80	17	30	7	5,5	5,5	**B0208900.5043**	**B0208910.5043**	**B0501000.5043**	**B0501400.5043**
5/16	0.3125	24	90	17	35	8	6,2	6,9	**B0208900.5044**	**B0208910.5044**	**B0501000.5044**	**B0501400.5044**
3/8	0.3750	24	90	18	35	10	8	8,5	**B0208900.5045**	**B0208910.5045**	**B0501000.5045**	**B0501400.5045**
								≈ DIN 374	220	220	220	220

VA Stainless steel materials					**INOX** Stainless steel materials		**H** Materials of high tensile strength	
					new			
2B	2B	2B	2B		2B		2BX	
NT	TIN	GLT-1			GLT-201		NT	
HSSE	HSSE	HSSE	HSSE		HSSE		HSSE	
			R35		R45			
B / 4-5	B / 4-5	B / 4-5	C / 2-3		C / 2-3		C / 2-3	
E / O / P	E / O / P	E / O / P	E / O / P		E / O		E / O / P	
	max. 3 x d_1		max. 2,5 x d_1		max. 2,5 x d_1		max. 2 x d_1	
P 2.1-3.1 N 2.2, 2.5	P 1.1-4.1	P 1.1-4.1 M 1.1-4.1 N 2.2	P 1.1-3.1		M 1.1-2.1		K 1.1-4.2 N 4.1	
Rekord 1B-VA NT	**Rekord 1B-VA TIN**	**Rekord 1B-VA GLT-1**	**Enorm 1 VA**		**Enorm 1 INOX GLT-201**		**Rekord 1A-H NT**	
								Nr. 2 - 64
								Nr. 3 - 56
B0203000.5037	B0203100.5037	B020C300.5037					B0100501.5037	Nr. 4 - 48
							B0100501.5038	Nr. 5 - 44
B0203000.5039	B0203100.5039	B020C300.5039					**B0100501.5039**	Nr. 6 - 40
B0203000.5040	B0203100.5040	B020C300.5040					**B0100501.5040**	Nr. 8 - 36
B0203000.5041	B0203100.5041	B020C300.5041	**B0503000.5041**		**B050J300.5041**		**B0100501.5041**	Nr. 10 - 32
							B0100501.5042	Nr. 12 - 28
B0203000.5043	B0203100.5043	B020C300.5043	**B0503000.5043**		**B050J300.5043**		**B0100501.5043**	1/4 - 28
B0203000.5044	B0203100.5044	B020C300.5044	**B0503000.5044**		**B050J300.5044**		**B0100501.5044**	5/16 - 24
B0203000.5045	B0203100.5045	B020C300.5045	**B0503000.5045**		**B050J300.5045**		**B0100501.5045**	3/8 - 24
221	221	221	221		221		221	

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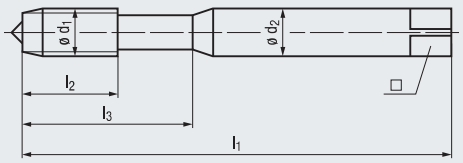

Z
CNC-controlled machines

Technische Informationen Technical information	Toleranz · Tolerance	2BX	2B	2B	2B
	Beschichtung · Coating	GLT-1		GLT-1	
	Schneidstoff · Cutting material	HSSE-PM	HSSE	HSSE	HSSE
		R45	R45	R45	R45
		C / 2-3	C / 2-3	C / 2-3	E / 1,5-2
		E / O / P	E / O / P	E / O / P	E / O / P

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1

Einsatzgebiete – Material
Applications – material

▸▸ 78

P 1.1-4.1 M 1.1-4.1 K 1.1-3.2 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1

ø d_1 inch	inch	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		Enorm 1-Z PM-GLT-1	Enorm 1-Z	Enorm 1-Z GLT-1	Enorm 1-Z/E
Nr. 2	0.0860	64	45	4,5	12	2,8	2,1	1,85		B0503500.5035		B0513500.5035
Nr. 3	0.0990	56	50	5	14	2,8	2,1	2,15		B0503500.5036		B0513500.5036
Nr. 4	0.1120	48	56	6	18	3,5	2,7	2,4		**B0503500.5037**		B0513500.5037
Nr. 5	0.1250	44	56	7	18	3,5	2,7	2,7		B0503500.5038		B0513500.5038
Nr. 6	0.1380	40	56	7	20	4	3	2,95		**B0503500.5039**	**B050C400.5039**	**B0513500.5039**
Nr. 8	0.1640	36	63	8	21	4,5	3,4	3,5		**B0503500.5040**	**B050C400.5040**	**B0513500.5040**
Nr. 10	0.1900	32	70	10	25	6	4,9	4,1	**B616A601.5041**	**B0503500.5041**	**B050C400.5041**	**B0513500.5041**
Nr. 12	0.2160	28	80	10	30	6	4,9	4,6		B0503500.5042		B0513500.5042
1/4	0.2500	28	80	10	30	7	5,5	5,5	**B616A601.5043**	**B0503500.5043**	**B050C400.5043**	**B0513500.5043**
5/16	0.3125	24	90	10	35	8	6,2	6,9	**B616A601.5044**	**B0503500.5044**	**B050C400.5044**	**B0513500.5044**
3/8	0.3750	24	90	10	35	10	8	8,5	**B616A601.5045**	**B0503500.5045**	**B050C400.5045**	**B0513500.5045**
								≈ DIN 374		222	222	222

Werkzeug-Aufnahmen der Typenreihe Softsynchro® siehe Seite 617 - 644

Tool holders of our Softsynchro® series, see page 617 - 644

Z
CNC-controlled machines

	new	new	new		new			
2B	2B	3B	3B	2B +0,05 [2]	2B +0,05 [2]			
TIN	GLT-1		GLT-1		GLT-1			
HSSE	HSSE	HSSE	HSSE	HSSE	HSSE			
R45	R45	R45	R45	R45	R45			
E / 1,5-2	E / 1,5-2	C / 2-3	C / 2-3	E / 1,5-2	E / 1,5-2			
E / O / P	E / O / P	E / O / P	E / O / P	E / O / P	E / O / P			
max. 3 x d_1								
P 1.1-4.1 N 2.2, 2.4-2.5 S 1.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1			
Enorm 1-Z/E TIN	**Enorm 1-Z/E GLT-1**	**Enorm 1-Z**	**Enorm 1-Z GLT-1**	**Enorm 1-Z/E**	**Enorm 1-Z/E GLT-1**			
				B0513530.5035				Nr. 2 - 64
				B0513530.5036				Nr. 3 - 56
B0513700.5037	B051C400.5037			B0513530.5037	B051C430.5037			Nr. 4 - 48
				B0513530.5038				Nr. 5 - 44
B0513700.5039	**B051C400.5039**	**B0503510.5039**	**B050C410.5039**	**B0513530.5039**	**B051C430.5039**			Nr. 6 - 40
B0513700.5040	**B051C400.5040**	**B0503510.5040**	**B050C410.5040**	**B0513530.5040**	**B051C430.5040**			Nr. 8 - 36
B0513700.5041	**B051C400.5041**	**B0503510.5041**	**B050C410.5041**	**B0513530.5041**	**B051C430.5041**			Nr. 10 - 32
		B0503510.5042	B050C410.5042	B0513530.5042				Nr. 12 - 28
B0513700.5043	**B051C400.5043**	**B0503510.5043**	**B050C410.5043**	**B0513530.5043**	**B051C430.5043**			1/4 - 28
B0513700.5044	**B051C400.5044**	**B0503510.5044**	**B050C410.5044**	**B0513530.5044**	**B051C430.5044**			5/16 - 24
B0513700.5045	**B051C400.5045**	**B0503510.5045**	**B050C410.5045**	**B0513530.5045**	**B051C430.5045**			3/8 - 24
222	223	223	223	223	223			

[2] Vorbohrdurchmesser für Gewindebohrer mit Übermaß um 0,05 mm anheben
Increase drill diameter for taps with oversize by 0.05 mm

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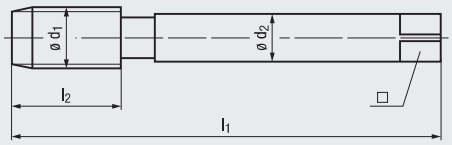
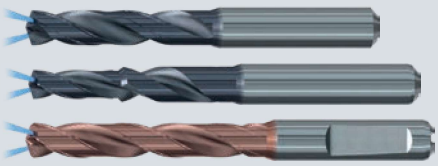


STEEL
Steel materials

Technische Informationen Technical information	Toleranz · Tolerance	2B	3B	2B	2B
	Beschichtung · Coating				TIN
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
				R35	R35
		B / 4-5	B / 4-5	C / 2-3	C / 2-3
		E / O	E / O	E / O	E / O
Gewindetiefe und Lochform Thread depth and hole type				max. 3 x d_1	max. 2,5 x d_1
Einsatzgebiete – Material Applications – material	▸▸ 78	P 1.1-3.1 N 2.2	P 1.1-3.1 N 2.2	P 1.1-3.1 N 2.2	P 1.1-3.1 N 2.2

ø d_1 inch	inch	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Rekord 2B-STEEL-L	Rekord 2B-STEEL-L	Enorm 2-STEEL	Enorm 2-STEEL TIN
1/4	0.2500	28	80	17	4,5	3,4	5,5	C0208900.5043			
5/16	0.3125	24	90	17	6	4,9	6,9	C0208900.5044			
3/8	0.3750	24	90	18	7	5,5	8,5	C0208900.5045	C0208910.5045		
7/16	0.4375	20	100	22	8	6,2	9,9	C0208900.5046	C0208910.5046	C0501000.5046	C0501400.5046
1/2	0.5000	20	100	22	9	7	11,5	C0208900.5047	C0208910.5047	C0501000.5047	C0501400.5047
9/16	0.5625	18	100	22	11	9	12,9	C0208900.5048	C0208910.5048	C0501000.5048	C0501400.5048
5/8	0.6250	18	100	22	12	9	14,5	C0208900.5049	C0208910.5049	C0501000.5049	C0501400.5049
3/4	0.7500	16	110	25	14	11	17,5	C0208900.5050	C0208910.5050	C0501000.5050	C0501400.5050
7/8	0.8750	14	125	25	18	14,5	20,4	C0208900.5051			
1"	1.0000	12	140	28	18	14,5	23,25	C0208900.5052			
1 1/8	1.1250	12	150	28	22	18	26,5	C0208900.5053			
1 1/4	1.2500	12	150	28	22	18	29,5	C0208900.5054		C0501000.5054	C0501400.5054
1 3/8	1.3750	12	170	30	28	22	32,75	C0208900.5055		C0501000.5055	C0501400.5055
1 1/2	1.5000	12	170	30	28	22	36	C0208900.5056		C0501000.5056	C0501400.5056
					≈ DIN 371			216	216	216	216

VA Stainless steel materials					**INOX** Stainless steel materials		**H** Materials of high tensile strength	
					new			
2B	2B	2B	2B		2B		2BX	
NT	TIN	GLT-1			GLT-201		NT	
HSSE	HSSE	HSSE	HSSE		HSSE		HSSE	
			R35		R45			
B / 4-5	B / 4-5	B / 4-5	C / 2-3		C / 2-3		C / 2-3	
E / O / P	E / O / P	E / O / P	E / O / P		E / O		E / O / P	
	max. 3 x d_1		max. 2,5 x d_1		max. 2,5 x d_1		max. 2 x d_1	
P 2.1-3.1 N 2.2, 2.5	P 1.1-4.1	P 1.1-4.1 M 1.1-4.1 N 2.2	P 1.1-3.1		M 1.1-2.1		K 1.1-4.2 N 4.1	
Rekord 2B-VA NT	**Rekord 2B-VA TIN**	**Rekord 2B-VA GLT-1**	**Enorm 2 VA**		**Enorm 2 INOX GLT-201**		**Rekord 2A-H NT**	
								1/4 - 28
								5/16 - 24
								3/8 - 24
C0203000.5046	C0203100.5046	C020C300.5046	**C0503000.5046**		**C050J300.5046**		**C0100501.5046**	7/16 - 20
C0203000.5047	C0203100.5047	C020C300.5047	**C0503000.5047**		**C050J300.5047**		**C0100501.5047**	1/2 - 20
			C0503000.5048		**C050J300.5048**		**C0100501.5048**	9/16 - 18
C0203000.5049	C0203100.5049	C020C300.5049	**C0503000.5049**		**C050J300.5049**		**C0100501.5049**	5/8 - 18
C0203000.5050	C0203100.5050	C020C300.5050	**C0503000.5050**		**C050J300.5050**		**C0100501.5050**	3/4 - 16
C0203000.5051	C0203100.5051	C020C300.5051					**C0100501.5051**	7/8 - 14
C0203000.5052	C0203100.5052	C020C300.5052					**C0100501.5052**	1" - 12
								1 1/8 - 12
								1 1/4 - 12
								1 3/8 - 12
								1 1/2 - 12
217	217	217	217		217		217	



Spiralbohrer siehe Seite 11 - 70

Twist drills, see page 11 - 70

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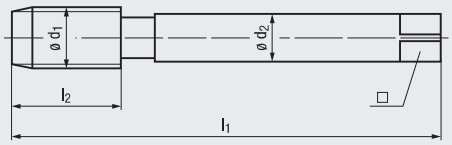

Z
CNC-controlled machines

new new

Technische Informationen / Technical information				
Toleranz · Tolerance	2B	2B	2B	2B
Beschichtung · Coating		GLT-1		TIN
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
	R45	R45	R45	R45
	C / 2-3	C / 2-3	E / 1,5-2	E / 1,5-2
	E / O / P	E / O / P	E / O / P	E / O / P

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1

Einsatzgebiete – Material / Applications – material				
	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 N 2.2, 2.4-2.5 S 1.1

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ø d_1 inch	inch	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Enorm 2-Z	Enorm 2-Z GLT-1	Enorm 2-Z/E	Enorm 2-Z/E TIN
1/4	0.2500	28	80	10	4,5	3,4	5,5	C0503500.5043			
5/16	0.3125	24	90	10	6	4,9	6,9	C0503500.5044			
3/8	0.3750	24	90	10	7	5,5	8,5	C0503500.5045			
7/16	0.4375	20	100	13	8	6,2	9,9	C0503500.5046	C050C400.5046	C0513500.5046	C0513700.5046
1/2	0.5000	20	100	13	9	7	11,5	C0503500.5047	C050C400.5047	C0513500.5047	C0513700.5047
9/16	0.5625	18	100	15	11	9	12,9	C0503500.5048	C050C400.5048	C0513500.5048	C0513700.5048
5/8	0.6250	18	100	15	12	9	14,5	C0503500.5049	C050C400.5049	C0513500.5049	C0513700.5049
3/4	0.7500	16	110	17	14	11	17,5	C0503500.5050	C050C400.5050	C0513500.5050	C0513700.5050
7/8	0.8750	14	125	17	18	14,5	20,4	C0503500.5051	C050C400.5051	C0513500.5051	C0513700.5051
1"	1.0000	12	140	20	18	14,5	23,25	C0503500.5052	C050C400.5052	C0513500.5052	C0513700.5052
1 1/8	1.1250	12	150	22	22	18	26,5	C0503500.5053			
1 1/4	1.2500	12	150	22	22	18	29,5				
1 3/8	1.3750	12	170	24	28	22	32,75				
1 1/2	1.5000	12	170	24	28	22	36				
					≈ DIN 371			218	218	218	219

	Z CNC-controlled machines						
	new	new	new		new		
	2B	3B	3B	2B +0,05 [2]	2B +0,05 [2]		
	GLT-1		GLT-1		GLT-1		
	HSSE	HSSE	HSSE	HSSE	HSSE		
	R45	R45	R45	R45	R45		
	E / 1,5-2	C / 2-3	C / 2-3	E / 1,5-2	E / 1,5-2		
	E / O / P	E / O / P	E / O / P	E / O / P	E / O / P		
			max. 3 x d_1				
	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1		
	Enorm 2-Z/E GLT-1	**Enorm 2-Z**	**Enorm 2-Z GLT-1**	**Enorm 2-Z/E**	**Enorm 2-Z/E GLT-1**		
1/4 - 28							
5/16 - 24							
3/8 - 24		**C0503510.5045**	**C050C410.5045**				
7/16 - 20	**C051C400.5046**	**C0503510.5046**	**C050C410.5046**	C0513530.5046	C051C430.5046		
1/2 - 20	**C051C400.5047**	**C0503510.5047**	**C050C410.5047**	C0513530.5047	C051C430.5047		
9/16 - 18	**C051C400.5048**	**C0503510.5048**	**C050C410.5048**	C0513530.5048	C051C430.5048		
5/8 - 18	**C051C400.5049**	**C0503510.5049**	**C050C410.5049**	C0513530.5049	C051C430.5049		
3/4 - 16	**C051C400.5050**	**C0503510.5050**	**C050C410.5050**	C0513530.5050	C051C430.5050		
7/8 - 14	**C051C400.5051**	C0503510.5051	C050C410.5051	C0513530.5051	C051C430.5051		
1" - 12	**C051C400.5052**			C0513530.5052	C051C430.5052		
1 1/8 - 12							
1 1/4 - 12							
1 3/8 - 12							
1 1/2 - 12							
	219	219	219	219	219		

[2] Vorbohrdurchmesser für Gewindebohrer mit Übermaß um 0,05 mm anheben
Increase drill diameter for taps with oversize by 0.05 mm

Gewinde-Tiefenlehrdorne
siehe Seite 588 - 591

Thread depth plug gauges,
see page 588 - 591

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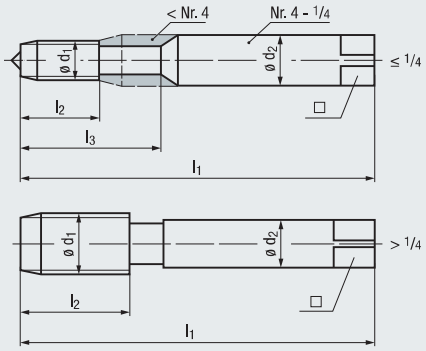
STEEL
Steel materials



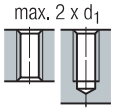
Technische Informationen
Technical information

Toleranz · Tolerance: 2BX
Beschichtung · Coating
Schneidstoff · Cutting material: HSSE

C / 2-3
E / O

Gewindetiefe und Lochform
Thread depth and hole type

max. 2 x d_1



K 1.1-4.2
N 2.3

Einsatzgebiete – Material
Applications – material

78

ø d_1 inch	inch	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		Rekord A-STEEL
Nr. 1	0.0730	72	36	8	–	2,8	2,1	1,55	A0101001.5034
Nr. 2	0.0860	64	36	9	–	2,8	2,1	1,85	A0101001.5035
Nr. 3	0.0990	56	40	9	–	2,8	2,1	2,15	
Nr. 4	0.1120	48	40	10	18	3,5	2,7	2,4	A0101001.5037
Nr. 5	0.1250	44	40	10	18	3,5	2,7	2,7	
Nr. 6	0.1380	40	45	11	20	4	3	2,95	A0101001.5039
Nr. 8	0.1640	36	45	12	22	4,5	3,4	3,5	A0101001.5040
Nr. 10	0.1900	32	50	14	25	6	4,9	4,1	A0101001.5041
Nr. 12	0.2160	28	56	16	28	6	4,9	4,6	
1/4	0.2500	28	56	16	28	6	4,9	5,5	A0101001.5043
5/16	0.3125	24	63	17	–	6	4,9	6,9	A0101001.5044
3/8	0.3750	24	63	18	–	7	5,5	8,5	A0101001.5045
7/16	0.4375	20	70	22	–	8	6,2	9,9	A0101001.5046
1/2	0.5000	20	70	20	–	9	7	11,5	A0101001.5047
9/16	0.5625	18	70	20	–	11	9	12,9	
5/8	0.6250	18	70	20	–	12	9	14,5	A0101001.5049
3/4	0.7500	16	80	22	–	14	11	17,5	A0101001.5050
7/8	0.8750	14	80	22	–	18	14,5	20,4	
1"	1.0000	12	90	22	–	18	14,5	23,25	A0101001.5052
1 1/8	1.1250	12	90	22	–	22	18	26,5	A0101001.5053
1 1/4	1.2500	12	90	22	–	22	18	29,5	A0101001.5054
1 3/8	1.3750	12	125	30	–	28	22	32,75	A0101001.5055
1 1/2	1.5000	12	125	30	–	28	22	36	A0101001.5056

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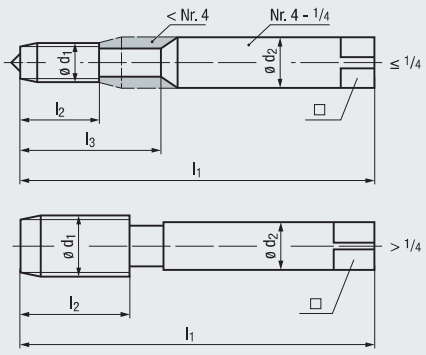

Toleranz · Tolerance		2BX	2BX
Beschichtung · Coating			
Schneidstoff · Cutting material	HSSE	HSSE	HSSE
	D / 3-4	C / 2-3	C / 2-3
	O / P	O / P	O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 2 x d_1		max. 2 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	P 1.1-3.1	P 1.1-3.1	P 1.1-3.1

ø d_1 inch	inch	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		HGB-Set V-Nr.1	HGB-Set F		HGB-Set-2S (Nr.1, F)
Nr. 1	0.0730	72	36	8	–	2,8	2,1	1,55	H0211009.5034	H0211001.5034		H0201001.5034
Nr. 2	0.0860	64	36	9	–	2,8	2,1	1,85	H0211009.5035	H0211001.5035		H0201001.5035
Nr. 3	0.0990	56	40	9	–	2,8	2,1	2,15				
Nr. 4	0.1120	48	40	10	18	3,5	2,7	2,4	H0211009.5037	H0211001.5037		H0201001.5037
Nr. 5	0.1250	44	40	10	18	3,5	2,7	2,7				
Nr. 6	0.1380	40	45	11	20	4	3	2,95	H0211009.5039	H0211001.5039		H0201001.5039
Nr. 8	0.1640	36	45	12	22	4,5	3,4	3,5	H0211009.5040	H0211001.5040		H0201001.5040
Nr. 10	0.1900	32	50	14	25	6	4,9	4,1	H0211009.5041	H0211001.5041		H0201001.5041
Nr. 12	0.2160	28	56	16	28	6	4,9	4,6				
1/4	0.2500	28	56	16	28	6	4,9	5,5	H0211009.5043	H0211001.5043		H0201001.5043
5/16	0.3125	24	63	17	–	6	4,9	6,9	H0211009.5044	H0211001.5044		H0201001.5044
3/8	0.3750	24	63	18	–	7	5,5	8,5	H0211009.5045	H0211001.5045		H0201001.5045
7/16	0.4375	20	70	22	–	8	6,2	9,9	H0211009.5046	H0211001.5046		H0201001.5046
1/2	0.5000	20	70	20	–	9	7	11,5	H0211009.5047	H0211001.5047		H0201001.5047
9/16	0.5625	18	70	20	–	11	9	12,9				
5/8	0.6250	18	70	20	–	12	9	14,5	H0211009.5049	H0211001.5049		H0201001.5049
3/4	0.7500	16	80	22	–	14	11	17,5	H0211009.5050	H0211001.5050		H0201001.5050
7/8	0.8750	14	80	22	–	18	14,5	20,4				
1"	1.0000	12	90	22	–	18	14,5	23,25	H0211009.5052	H0211001.5052		H0201001.5052
1 1/8	1.1250	12	90	22	–	22	18	26,5	H0211009.5053	H0211001.5053		H0201001.5053
1 1/4	1.2500	12	90	22	–	22	18	29,5	H0211009.5054	H0211001.5054		H0201001.5054
1 3/8	1.3750	12	125	30	–	28	22	32,75	H0211009.5055	H0211001.5055		H0201001.5055
1 1/2	1.5000	12	125	30	–	28	22	36	H0211009.5056	H0211001.5056		H0201001.5056

Verstellbare Windeisen siehe Seite 305 Adjustable tap wrenches, see page 305

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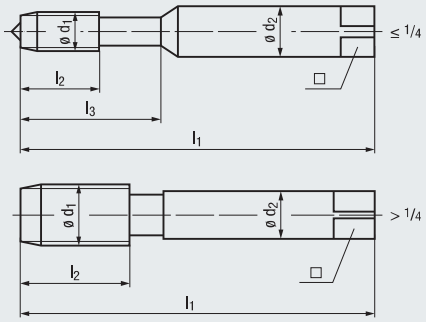


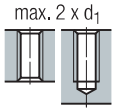
1)

Technische Informationen Technical information	Toleranz · Tolerance		2BX
	Beschichtung · Coating		
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE
		C / 2-3	C / 2-3	C / 2-3
		O / P	O / P	O / P
Gewindetiefe und Lochform Thread depth and hole type			max. 2 x d_1	
Einsatzgebiete – Material Applications – material ▸▸ 78		P 1.1-5.1 M 1.1-4.1 K 1.1-4.2 N 1.1-2.6 S 2.1-2.2, 2.4	P 1.1-5.1 M 1.1-4.1 K 1.1-4.2 N 1.1-2.6 S 2.1-2.2, 2.4	P 1.1-5.1 M 1.1-4.1 K 1.1-4.2 N 1.1-2.6 S 2.1-2.2, 2.4

ø d_1 inch	inch	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		WM-Set V-Nr.1Z	WM-Set V-Nr.1	WM-Set F
1/4	0.2500	28	56	16	28	6	4,9	5,5	**H0463009.5043**	**H0473009.5043**	**H0473001.5043**
5/16	0.3125	24	63	17	–	6	4,9	6,9	**H0463009.5044**	**H0473009.5044**	**H0473001.5044**
3/8	0.3750	24	63	18	–	7	5,5	8,5	**H0463009.5045**	**H0473009.5045**	**H0473001.5045**
7/16	0.4375	20	70	22	–	8	6,2	9,9	**H0463009.5046**	**H0473009.5046**	**H0473001.5046**
1/2	0.5000	20	70	20	–	9	7	11,5	**H0463009.5047**	**H0473009.5047**	**H0473001.5047**
9/16	0.5625	18	70	20	–	11	9	12,9			
5/8	0.6250	18	70	20	–	12	9	14,5	H0463009.5049	H0473009.5049	H0473001.5049
3/4	0.7500	16	80	22	–	14	11	17,5	H0463009.5050	H0473009.5050	H0473001.5050
7/8	0.8750	14	80	22	–	18	14,5	20,4			
1"	1.0000	12	90	22	–	18	14,5	23,25	H0463009.5052	H0473009.5052	H0473001.5052

1) Der Vorschneider Nr.1Z mit Führungszapfen ist eine zusätzliche Hilfe zum winkelrechten Anschneiden von Hand. Er kann z.B. auf der Maschine weggelassen werden. Die Profilabstufung von Nr.1Z und Nr.1 ist gleich.
The taper tap No. 1Z with cylindrical pilot is an additional aid for true alignment especially when tapping by hand. It can be deleted when tapping by machine. The profile graduation of No.1Z, and No.1 is the same.

2BX	2BX
HSSE	HSSE
C / 2-3	C / 2-3
O / P	O / P



P 1.1-5.1	P 1.1-5.1
M 1.1-4.1	M 1.1-4.1
K 1.1-4.2	K 1.1-4.2
N 1.1-2.6	N 1.1-2.6
S 2.1-2.2, 2.4	S 2.1-2.2, 2.4

WM-Set-3S (Nr.1Z, Nr.1, F)	WM-Set-2S (Nr.1, F)	
H0453001.5043	**H0483001.5043**	1/4 - 28
H0453001.5044	**H0483001.5044**	5/16 - 24
H0453001.5045	**H0483001.5045**	3/8 - 24
H0453001.5046	**H0483001.5046**	7/16 - 20
H0453001.5047	**H0483001.5047**	1/2 - 20
		9/16 - 18
H0453001.5049	H0483001.5049	5/8 - 18
H0453001.5050	H0483001.5050	3/4 - 16
		7/8 - 14
H0453001.5052	H0483001.5052	1" - 12

2) Beim Gewindebohren von Hand in Durchgangslöcher entfällt Nr.1
No.1 is not needed when tapping in through holes by hand

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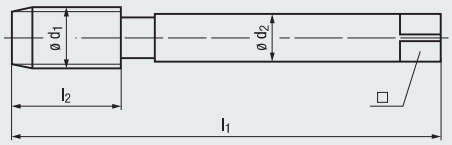
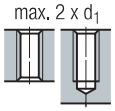


	STEEL Steel materials			VA Stainless steel materials
Technische Informationen Technical information — Toleranz · Tolerance	2BX	2B		2B
Beschichtung · Coating				TIN
Schneidstoff · Cutting material	HSSE	HSSE		HSSE
		R15		
	C / 2-3	**E / 1,5-2**		B / 4-5
	E / O	E / O		E / O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 2 x d_1 	max. 2 x d_1		max. 3 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	K 1.1-4.2 N 2.3	P 2.1-3.1		P 1.1-4.1

ø d_1 inch	inch	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Rekord 2A-STEEL	Rekord 2D-STEEL/E		Rekord 2B-VA TIN
1/4	0.2500	32	80	14	4,5	3,4	5,55	C0101001.5058	**C0461000.5058**		**C0203100.5058**
5/16	0.3125	32	80	14	6	4,9	7,15	C0101001.5059	**C0461000.5059**		**C0203100.5059**
3/8	0.3750	32	90	18	7	5,5	8,7	C0101001.5060	**C0461000.5060**		**C0203100.5060**
7/16	0.4375	28	90	18	8	6,2	10,2	C0101001.5061	**C0461000.5061**		**C0203100.5061**
1/2	0.5000	28	100	18	9	7	11,8	C0101001.5062	**C0461000.5062**		**C0203100.5062**
9/16	0.5625	24	100	18	11	9	13,2	C0101001.5063	**C0461000.5063**		**C0203100.5063**
5/8	0.6250	24	100	18	12	9	14,8	C0101001.5064	**C0461000.5064**		**C0203100.5064**
3/4	0.7500	20	110	25	14	11	17,8	C0101001.5066	**C0461000.5066**		**C0203100.5066**
7/8	0.8750	20	125	25	18	14,5	20,95	C0101001.5068	**C0461000.5068**		**C0203100.5068**
1"	1.0000	20	140	28	18	14,5	24,15	C0101001.5070	**C0461000.5070**		**C0203100.5070**

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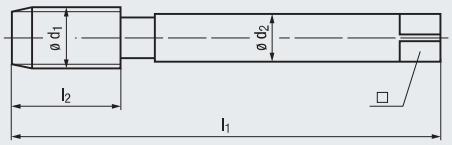
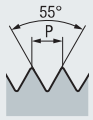


	VA Stainless steel materials		Z CNC-controlled machines	
			new	new
Toleranz · Tolerance	2B		2B	2B
Beschichtung · Coating	GLT-1			GLT-1
Schneidstoff · Cutting material	HSSE		HSSE	HSSE
			R45	R45
	B / 4-5		C / 2-3	C / 2-3
	E / O / P		E / O / P	E / O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 3 x d_1		max. 3 x d_1	
Einsatzgebiete – Material Applications – material ▸▸ 78	P 1.1-4.1 M 1.1-4.1 N 2.2		P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1

ø d_1 inch	inch	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Rekord 2B-VA GLT-1	Enorm 2-Z	Enorm 2-Z GLT-1
1/4	0.2500	32	80	14	4,5	3,4	5,55	C020C300.5058	C0503500.5058	C050C400.5058
5/16	0.3125	32	80	14	6	4,9	7,15	C020C300.5059	C0503500.5059	C050C400.5059
3/8	0.3750	32	90	18	7	5,5	8,7	C020C300.5060	C0503500.5060	C050C400.5060
7/16	0.4375	28	90	18	8	6,2	10,2	C020C300.5061	C0503500.5061	C050C400.5061
1/2	0.5000	28	100	18	9	7	11,8	C020C300.5062	C0503500.5062	C050C400.5062
9/16	0.5625	24	100	18	11	9	13,2	C020C300.5063	C0503500.5063	C050C400.5063
5/8	0.6250	24	100	18	12	9	14,8	C020C300.5064	C0503500.5064	C050C400.5064
3/4	0.7500	20	110	25	14	11	17,8	C020C300.5066	C0503500.5066	C050C400.5066
7/8	0.8750	20	125	25	18	14,5	20,95	C020C300.5068	C0503500.5068	C050C400.5068
1"	1.0000	20	140	28	18	14,5	24,15	C020C300.5070	C0503500.5070	C050C400.5070

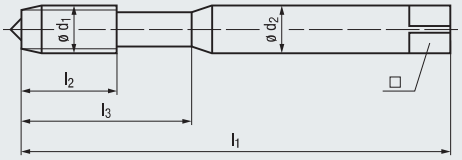
G (BSP)

DIN EN ISO 228



≈ DIN 371

HCUT
Hardened steels



Technische Informationen Technical information	
Toleranz · Tolerance	„X“
Beschichtung · Coating	TICN
Schneidstoff · Cutting material	HSSE-PM
	C / 2-3
	O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 1,5 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	H 1.1-1.2

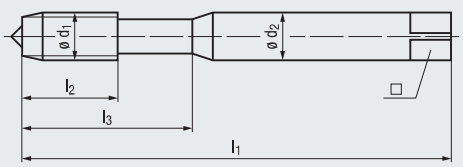
Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		Rekord 1A-HCUT PM-TICN
G 1/8	9,73	28	90	10	35	10	8	8,8	B010J901.4035

DIN 5156 235

G (BSP)

DIN EN ISO 228

≈ DIN 371



HCUT
Hardened steels

Technische Informationen Technical information	Toleranz · Tolerance	„X“	„X“
	Beschichtung · Coating	TICN	TICN
	Schneidstoff · Cutting material	VHM	VHM
		D / 4-5	C / 2-3
		O / P	O / P
Gewindetiefe und Lochform Thread depth and hole type		max. 1,5 x d_1	max. 1,5 x d_1
Einsatzgebiete – Material Applications – material		H 1.3-1.4	H 1.3-1.4

▸▸ 78

	Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		VHM-Rekord 1A-HCUT/D TICN	VHM-Rekord 1A-HCUT/C TICN
G	1/8	9,73	28	100	18	38	10	8	8,8	B016K101.4035	B010K101.4035
	1/4	13,16	19	110	24	44	14	11	11,9	B016K101.4036	B010K101.4036

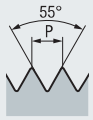
2) Achtung: VHM-Rekord 1A-HCUT/D-TICN als Vorschneider verwenden!
Please note: Use solid carbide tap VHM-Rekord 1A-HCUT/D-TICN as No.1 tap!

Spiralbohrer Typ EF-Drill-HCUT
siehe Seite 62

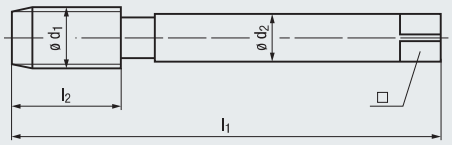
Twist drills type EF-Drill-HCUT,
see page 62

G (BSP)

DIN EN ISO 228



DIN 5156



STEEL
Steel materials

Technische Informationen Technical information	Toleranz · Tolerance	„X“	„X“	„X“	„X“
	Beschichtung · Coating			TIN	
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
					R15
		C / 2-3	B / 4-5	B / 4-5	C / 2-3
		E / O	E / O	E / O	E / O
Gewindetiefe und Lochform Thread depth and hole type		max. 2 x d_1	max. 3 x d_1		max. 2 x d_1
Einsatzgebiete – Material Applications – material		K 1.1-4.2 N 2.3	P 1.1-3.1 N 2.2	P 1.1-4.1	P 2.1-3.1

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Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Rekord 2A-STEEL	Rekord 2B-STEEL-L	Rekord 2B-STEEL-L TIN	Rekord 2D-STEEL
G 1/16	7,72	28	90	17	6	4,9	6,8	**C0101001.4034**			C0451001.4034
1/8	9,73	28	90	18	7	5,5	8,8	**C0101001.4035**	**C0208901.4035**	**C0208401.4035**	**C0451001.4035**
1/4	13,16	19	100	22	11	9	11,8	**C0101001.4036**	**C0208901.4036**	**C0208401.4036**	**C0451001.4036**
3/8	16,66	19	100	22	12	9	15,25	**C0101001.4037**	**C0208901.4037**	**C0208401.4037**	**C0451001.4037**
1/2	20,96	14	125	25	16	12	19	**C0101001.4038**	**C0208901.4038**	**C0208401.4038**	**C0451001.4038**
5/8	22,91	14	125	25	18	14,5	21	C0101001.4039	**C0208901.4039**	C0208401.4039	C0451001.4039
3/4	26,44	14	140	28	20	16	24,5	**C0101001.4040**	**C0208901.4040**	**C0208401.4040**	**C0451001.4040**
7/8	30,20	14	150	28	22	18	28,25	C0101001.4041			C0451001.4041
1"	33,25	11	160	30	25	20	30,75	**C0101001.4042**	**C0208901.4042**	**C0208401.4042**	**C0451001.4042**
1 1/8	37,90	11	170	30	28	22	35,5	C0101001.4043	**C0208901.4043**		C0451001.4043
1 1/4	41,91	11	170	30	32	24	39,5	**C0101001.4044**	**C0208901.4044**		C0451001.4044
1 3/8	44,32	11	180	32	36	29	41,75	C0101001.4045	**C0208901.4045**		C0451001.4045
1 1/2	47,80	11	190	32	36	29	45,25	**C0101001.4046**	**C0208901.4046**		C0451001.4046
1 5/8	52,00	11	190	32	40	32	49,5	C0101001.4047	**C0208901.4047**		
1 3/4	53,75	11	190	32	40	32	51	C0101001.4048	**C0208901.4048**		C0451001.4048
2"	59,61	11	220	40	45	35	57	C0101001.4050	**C0208901.4050**		C0451001.4050

≈ DIN 371

DIN 5157

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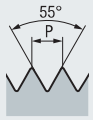
STEEL
Steel materials

VA
Stainless steel materials

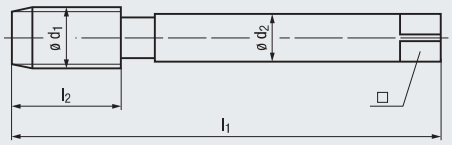
„X“	„X“ TIN	„X“	„X“ TIN		„X“ NT	„X“ TIN	„X“ GLT-1
HSSE	HSSE	HSSE	HSSE		HSSE	HSSE	HSSE
R15	R15	R35	R35				
E / 1,5-2	C / 2-3	C / 2-3	C / 2-3		B / 4-5	B / 4-5	B / 4-5
E / 0	E / 0	E / 0	E / 0		E / 0 / P	E / 0 / P	E / 0 / P
max. 2 x d_1		max. 2,5 x d_1			max. 3 x d_1		
P 2.1-3.1	P 3.1-4.1	P 1.1-3.1 N 2.2	P 1.1-3.1 N 2.2		P 2.1-3.1 N 2.2, 2.5	P 1.1-4.1	P 1.1-4.1 M 1.1-4.1 N 2.2
Rekord 2D-STEEL/E	**Rekord 2DF-STEEL TIN**	**Enorm 2-STEEL**	**Enorm 2-STEEL TIN**		**Rekord 2B-VA NT**	**Rekord 2B-VA TIN**	**Rekord 2B-VA GLT-1**	
C0461001.4034								G 1/16 - 28
C0461001.4035	**C0401401.4035**	**C0501001.4035**	**C0501401.4035**		**C0203001.4035**	C0203101.4035	C020C301.4035	1/8 - 28
C0461001.4036	**C0401401.4036**	**C0501001.4036**	**C0501401.4036**		**C0203001.4036**	C0203101.4036	C020C301.4036	1/4 - 19
C0461001.4037	**C0401401.4037**	**C0501001.4037**	**C0501401.4037**		**C0203001.4037**	C0203101.4037	C020C301.4037	3/8 - 19
C0461001.4038	**C0401401.4038**	**C0501001.4038**	**C0501401.4038**		**C0203001.4038**	C0203101.4038	C020C301.4038	1/2 - 14
C0461001.4039								5/8 - 14
C0461001.4040		**C0501001.4040**	**C0501401.4040**		**C0203001.4040**	C0203101.4040	C020C301.4040	3/4 - 14
C0461001.4041		C0501001.4041	C0501401.4041					7/8 - 14
C0461001.4042		**C0501001.4042**	**C0501401.4042**		**C0203001.4042**	C0203101.4042	C020C301.4042	1" - 11
		C0501001.4043	C0501401.4043					1 1/8 - 11
		C0501001.4044	**C0501401.4044**					1 1/4 - 11
		C0501001.4045	C0501401.4045					1 3/8 - 11
		C0501001.4046	**C0501401.4046**					1 1/2 - 11
		C0501001.4047	C0501401.4047					1 5/8 - 11
		C0501001.4048	C0501401.4048					1 3/4 - 11
		C0501001.4050	C0501401.4050					2" - 11

G (BSP)

DIN EN ISO 228



DIN 5156



VA Stainless steel materials

INOX Stainless steel materials

new

Technische Informationen
Technical information

	VA	INOX
Toleranz · Tolerance	„X“	„X“
Beschichtung · Coating		GLT-201
Schneidstoff · Cutting material	HSSE	HSSE
	R35	R45
	C / 2-3	C / 2-3
	E / O / P	E / O

Gewindetiefe und Lochform
Thread depth and hole type

VA	INOX
max. 2,5 x d_1	max. 2,5 x d_1

VA	INOX
P 1.1-3.1	M 1.1-2.1

Einsatzgebiete – Material
Applications – material

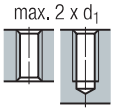
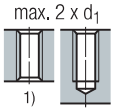
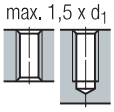
▸▸ 78

Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Enorm 2 VA	Enorm 2 INOX GLT-201
G 1/16	7,72	28	90	17	6	4,9	6,8		
1/8	9,73	28	90	18	7	5,5	8,8	C0503001.4035	C050J301.4035
1/4	13,16	19	100	22	11	9	11,8 [2)]	C0503001.4036	C050J301.4036
3/8	16,66	19	100	22	12	9	15,25 [2)]	C0503001.4037	C050J301.4037
1/2	20,96	14	125	25	16	12	19 [2)]	C0503001.4038	C050J301.4038
5/8	22,91	14	125	25	18	14,5	21		
3/4	26,44	14	140	28	20	16	24,5	C0503001.4040	C050J301.4040
7/8	30,20	14	150	28	22	18	28,25		
1"	33,25	11	160	30	25	20	30,75		
1 1/8	37,90	11	170	30	28	22	35,5		
1 1/4	41,91	11	170	30	32	24	39,5		
1 3/8	44,32	11	180	32	36	29	41,75		
1 1/2	47,80	11	190	32	36	29	45,25		
1 5/8	52,00	11	190	32	40	32	49,5		
1 3/4	53,75	11	190	32	40	32	51		
2"	59,61	11	220	40	45	35	57		

≈ DIN 371

DIN 5157

[2)] Vorbohrdurchmesser für Gewindebohrer Rekord 2A-HCUT-PM-TICN ab G 1/4 um 0,1 mm anheben
Increase drill diameter for taps Rekord 2A-HCUT-PM-TICN from G 1/4 by 0.1 mm

H Materials of high tensile strength				**HCUT** Hardened steels		**Z** CNC-controlled machines		
						new	new	
„X“	„X“	„X“		„X“		„X“	„X“	
NT	TICN			TICN		GLT-1	GLT-1	
HSSE	HSSE	VHM/KHM		HSSE-PM		HSSE-PM	HSSE-PM	
						R45	R45	
C / 2-3	C / 2-3	E / 1,5-2		C / 2-3		C / 2-3	E / 1,5-2	
E / O / P	E / O / P	E / O		O / P		E / O / P	E / O / P	
max. 2 x d_1 		max. 2 x d_1 1) 		max. 1,5 x d_1 		max. 3 x d_1		
K 1.1-4.2	K 1.1-4.2	K 1.1-4.2		H 1.1-1.2		P 1.1-4.1	P 1.1-4.1	
N 4.1	N 1.5-1.6, 2.6	N 1.5-1.6				M 1.1-4.1	M 1.1-4.1	
	N 4.1, 5.1	N 2.6-2.8				K 1.1-3.2	K 1.1-3.2	
		N 4.1, 4.3-4.4				N 1.4, 2.1-2.2	N 1.4, 2.1-2.2	
		N 5.1-5.2				N 2.4-2.5	N 2.4-2.5	
						S 1.1	S 1.1	
Rekord 2A-H NT	**Rekord 2A-H TICN**	**VHM/KHM-Rekord 2A-H/E-IKZ**		**Rekord 2A-HCUT PM-TICN**		**Enorm 2-Z PM-GLT-1**	**Enorm 2-Z/E PM-GLT-1**	
C0100501.4034								G 1/16 - 28
C0100501.4035	**C0109101.4035**	**C1960901.4035**		**C010J901.4035**		**C616A601.4035**	**C498A601.4035**	1/8 - 28
C0100501.4036	**C0109101.4036**	**C1960901.4036**		**C010J901.4036**		**C616A601.4036**	**C498A601.4036**	1/4 - 19
C0100501.4037	**C0109101.4037**	**C1960901.4037**		**C010J901.4037**		**C616A601.4037**	**C498A601.4037**	3/8 - 19
C0100501.4038	**C0109101.4038**	**C1960901.4038**		**C010J901.4038**		**C616A601.4038**	**C498A601.4038**	1/2 - 14
C0100501.4039								5/8 - 14
C0100501.4040	C0109101.4040					**C616A601.4040**	**C498A601.4040**	3/4 - 14
C0100501.4041								7/8 - 14
C0100501.4042	C0109101.4042					**C616A601.4042**	**C498A601.4042**	1" - 11
C0100501.4043								1 1/8 - 11
C0100501.4044								1 1/4 - 11
C0100501.4045								1 3/8 - 11
C0100501.4046								1 1/2 - 11
								1 5/8 - 11
C0100501.4048								1 3/4 - 11
C0100501.4050								2" - 11
				230				

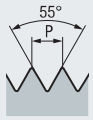
1) Gewindebohren in Durchgangslöcher nur mit externer Kühlschmierung möglich
Threading in through holes is possible only with external cooling/lubrication

Schnellwechsel-Aufnahmen
Typ KSN/HD siehe Seite 662 - 669

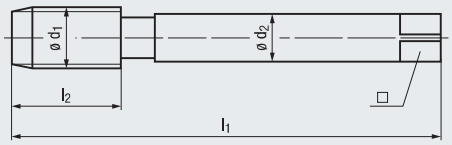
Quick-change tap holders
type KSN/HD, see page 662 - 669

G (BSP)

DIN EN ISO 228



DIN 5156



Z
CNC-controlled machines

Technische Informationen
Technical information

Toleranz · Tolerance	„X“	„X“	„X“	„X“
Beschichtung · Coating	GLT-1		GLT-1	
Schneidstoff · Cutting material	HSSE-PM	HSSE	HSSE	HSSE
	R45	R45	R45	R45
	E / 1,5-2	C / 2-3	C / 2-3	E / 1,5-2
	E / O	E / O / P	E / O / P	E / O / P

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1

Einsatzgebiete – Material
Applications – material

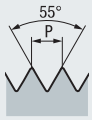
78

P 1.1-4.1	P 1.1-3.1	P 1.1-4.1	P 1.1-3.1
M 1.1-4.1		M 1.1-4.1	
K 1.1-3.2		N 1.4, 2.1-2.2	
N 1.4, 2.1-2.2		N 2.4-2.5	
N 2.4-2.5		S 1.1	
S 1.1			

Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Enorm 2-Z/E-IKZ PM-GLT-1	Enorm 2-Z	Enorm 2-Z GLT-1	Enorm 2-Z/E
G 1/16	7,72	28	90	10	6	4,9	6,8		C0503501.4034		C0513501.4034
1/8	9,73	28	90	10	7	5,5	8,8	**C590A601.4035**	**C0503501.4035**	**C050C401.4035**	**C0513501.4035**
1/4	13,16	19	100	15	11	9	11,8	**C590A601.4036**	**C0503501.4036**	**C050C401.4036**	**C0513501.4036**
3/8	16,66	19	100	15	12	9	15,25	**C590A601.4037**	**C0503501.4037**	**C050C401.4037**	**C0513501.4037**
1/2	20,96	14	125	17	16	12	19	**C590A601.4038**	**C0503501.4038**	**C050C401.4038**	**C0513501.4038**
5/8	22,91	14	125	17	18	14,5	21		C0503501.4039	C050C401.4039	C0513501.4039
3/4	26,44	14	140	20	20	16	24,5	**C590A601.4040**	**C0503501.4040**	**C050C401.4040**	**C0513501.4040**
7/8	30,20	14	150	22	22	18	28,25				C0513501.4041
1"	33,25	11	160	24	25	20	30,75	**C590A601.4042**			**C0513501.4042**
1 1/8	37,90	11	170	24	28	22	35,5				
1 1/4	41,91	11	170	25	32	24	39,5				C0513501.4044
1 3/8	44,32	11	180	27	36	29	41,75				
1 1/2	47,80	11	190	27	36	29	45,25				C0513501.4046
1 5/8	52,00	11	190	27	40	32	49,5				
1 3/4	53,75	11	190	27	40	32	51				
2"	59,61	11	220	32	45	35	57				

G (BSP)

DIN EN ISO 228



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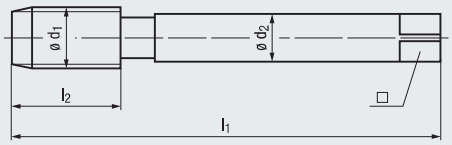


Z
CNC-controlled machines

Toleranz · Tolerance	„X“	„X“	„X“ +0,05 2)	„X“ +0,05 2)
Beschichtung · Coating	TIN	GLT-1		GLT-1
Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
	R45	R45	R45	R45
	E / 1,5-2	E / 1,5-2	E / 1,5-2	E / 1,5-2
	E / O / P	E / O / P	E / O / P	E / O / P

Technische Informationen
Technical information

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1

Einsatzgebiete – Material
Applications – material

78

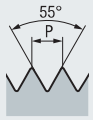
P 1.1-4.1	P 1.1-4.1	P 1.1-3.1	P 1.1-4.1
N 2.2, 2.4-2.5	M 1.1-4.1		M 1.1-4.1
S 1.1	N 1.4, 2.1-2.2		N 1.4, 2.1-2.2
	N 2.4-2.5		N 2.4-2.5
	S 1.1		S 1.1

Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Enorm 2-Z/E TIN	Enorm 2-Z/E GLT-1	Enorm 2-Z/E	Enorm 2-Z/E GLT-1
G 1/16	7,72	28	90	10	6	4,9	6,8				
1/8	9,73	28	90	10	7	5,5	8,8	**C0513701.4035**	**C051C401.4035**	**C0513531.4035**	**C051C431.4035**
1/4	13,16	19	100	15	11	9	11,8	**C0513701.4036**	**C051C401.4036**	**C0513531.4036**	**C051C431.4036**
3/8	16,66	19	100	15	12	9	15,25	**C0513701.4037**	**C051C401.4037**	**C0513531.4037**	**C051C431.4037**
1/2	20,96	14	125	17	16	12	19	**C0513701.4038**	**C051C401.4038**	**C0513531.4038**	**C051C431.4038**
5/8	22,91	14	125	17	18	14,5	21	C0513701.4039	C051C401.4039	C0513531.4039	C051C431.4039
3/4	26,44	14	140	20	20	16	24,5	**C0513701.4040**	**C051C401.4040**	C0513531.4040	C051C431.4040
7/8	30,20	14	150	22	22	18	28,25	C0513701.4041	C051C401.4041		
1"	33,25	11	160	24	25	20	30,75	**C0513701.4042**	**C051C401.4042**	C0513531.4042	C051C431.4042
1 1/8	37,90	11	170	24	28	22	35,5				
1 1/4	41,91	11	170	25	32	24	39,5				
1 3/8	44,32	11	180	27	36	29	41,75				
1 1/2	47,80	11	190	27	36	29	45,25				
1 5/8	52,00	11	190	27	40	32	49,5				
1 3/4	53,75	11	190	27	40	32	51				
2"	59,61	11	220	32	45	35	57				

2) Vorbohrdurchmesser für Gewindebohrer mit Übermaß um 0,05 mm anheben
Increase drill diameter for taps with oversize by 0.05 mm

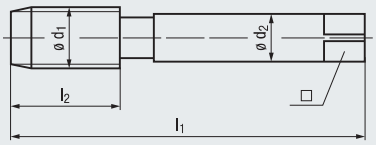
G (BSP)

DIN EN ISO 228



DIN 5157

STEEL
Steel materials



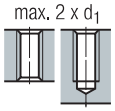
Technische Informationen
Technical information

Toleranz · Tolerance: „X“
Beschichtung · Coating:
Schneidstoff · Cutting material: HSSE

C / 2-3
E / O

Gewindetiefe und Lochform
Thread depth and hole type

max. 2 x d_1



Einsatzgebiete – Material
Applications – material

▸▸ 78

K 1.1-4.2
N 2.3

Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Rekord A-STEEL
G 1/16	7,72	28	63	17	6	4,9	6,8	A0101001.4034
1/8	9,73	28	63	18	7	5,5	8,8	**A0101001.4035**
1/4	13,16	19	70	20	11	9	11,8	**A0101001.4036**
3/8	16,66	19	70	20	12	9	15,25	**A0101001.4037**
1/2	20,96	14	80	22	16	12	19	**A0101001.4038**
5/8	22,91	14	80	22	18	14,5	21	A0101001.4039
3/4	26,44	14	90	22	20	16	24,5	**A0101001.4040**
7/8	30,20	14	90	22	22	18	28,25	A0101001.4041
1"	33,25	11	100	25	25	20	30,75	A0101001.4042
1 1/8	37,90	11	125	30	28	22	35,5	A0101001.4043
1 1/4	41,91	11	125	30	32	24	39,5	A0101001.4044
1 3/8	44,32	11	125	30	36	29	41,75	A0101001.4045
1 1/2	47,80	11	140	30	36	29	45,25	A0101001.4046
1 3/4	53,75	11	140	32	40	32	51	A0101001.4048
2"	59,61	11	160	36	45	35	57	A0101001.4050

≈ DIN 371

DIN 5156

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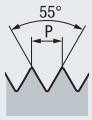
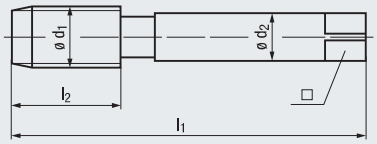
G (BSP)

DIN EN ISO 228



DIN 5157



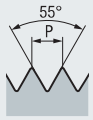
Technische Informationen Technical information	Toleranz · Tolerance		„X“		„X“
	Beschichtung · Coating				
	Schneidstoff · Cutting material	HSSE	HSSE		HSSE
		D / 3-4	C / 2-3		C / 2-3
		O / P	O / P		O / P
Gewindetiefe und Lochform Thread depth and hole type		max. 2 x d_1			max. 2 x d_1
Einsatzgebiete – Material Applications – material	▸▸ 78	P 1.1-3.1	P 1.1-3.1		P 1.1-3.1

Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		HGB-Set V-Nr.1	HGB-Set F		HGB-Set-2S (Nr.1, F)
G 1/16	7,72	28	63	17	6	4,9	6,8				
1/8	9,73	28	63	18	7	5,5	8,8	**H0211009.4035**	**H0211001.4035**		**H0201001.4035**
1/4	13,16	19	70	20	11	9	11,8	**H0211009.4036**	**H0211001.4036**		**H0201001.4036**
3/8	16,66	19	70	20	12	9	15,25	**H0211009.4037**	**H0211001.4037**		**H0201001.4037**
1/2	20,96	14	80	22	16	12	19	**H0211009.4038**	**H0211001.4038**		**H0201001.4038**
5/8	22,91	14	80	22	18	14,5	21	H0211009.4039	H0211001.4039		H0201001.4039
3/4	26,44	14	90	22	20	16	24,5	**H0211009.4040**	**H0211001.4040**		**H0201001.4040**
7/8	30,20	14	90	22	22	18	28,25				
1"	33,25	11	100	25	25	20	30,75	H0211009.4042	H0211001.4042		H0201001.4042
1 1/8	37,90	11	125	30	28	22	35,5	H0211009.4043	H0211001.4043		H0201001.4043
1 1/4	41,91	11	125	30	32	24	39,5	H0211009.4044	H0211001.4044		H0201001.4044
1 3/8	44,32	11	125	30	36	29	41,75	H0211009.4045	H0211001.4045		H0201001.4045
1 1/2	47,80	11	140	30	36	29	45,25	H0211009.4046	H0211001.4046		H0201001.4046
1 3/4	53,75	11	140	32	40	32	51	H0211009.4048	H0211001.4048		H0201001.4048
2"	59,61	11	160	36	45	35	57	H0211009.4050	H0211001.4050		H0201001.4050

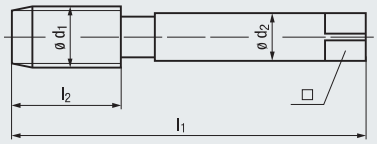
Verstellbare Windeisen siehe Seite 305 Adjustable tap wrenches, see page 305

G (BSP)

DIN EN ISO 228



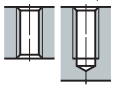
DIN 5157



1)

Technische Informationen Technical information	Toleranz · Tolerance			„X“
	Beschichtung · Coating			
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE
		C / 2-3	C / 2-3	C / 2-3
		O / P	O / P	O / P

Gewindetiefe und Lochform
Thread depth and hole type



Einsatzgebiete – Material
Applications – material

78

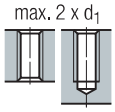
P 1.1-5.1	P 1.1-5.1	P 1.1-5.1
M 1.1-4.1	M 1.1-4.1	M 1.1-4.1
K 1.1-4.2	K 1.1-4.2	K 1.1-4.2
N 1.1-2.6	N 1.1-2.6	N 1.1-2.6
S 2.1-2.2, 2.4	S 2.1-2.2, 2.4	S 2.1-2.2, 2.4

	Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		WM-Set V-Nr.1Z	WM-Set V-Nr.1	WM-Set F
G	1/8	9,73	28	63	18	7	5,5	8,8	**H0463009.4035**	**H0473009.4035**	**H0473001.4035**
	1/4	13,16	19	70	20	11	9	11,8	**H0463009.4036**	**H0473009.4036**	**H0473001.4036**
	3/8	16,66	19	70	20	12	9	15,25	**H0463009.4037**	**H0473009.4037**	**H0473001.4037**
	1/2	20,96	14	80	22	16	12	19	**H0463009.4038**	**H0473009.4038**	**H0473001.4038**
	5/8	22,91	14	80	22	18	14,5	21			
	3/4	26,44	14	90	22	20	16	24,5	**H0463009.4040**	**H0473009.4040**	**H0473001.4040**
	1"	33,25	11	100	25	25	20	30,75	H0463009.4042	H0473009.4042	H0473001.4042

1) Der Vorschneider Nr.1Z mit Führungszapfen ist eine zusätzliche Hilfe zum winkelrechten Anschneiden von Hand. Er kann z.B. auf der Maschine weggelassen werden. Die Profilabstufung von Nr.1Z und Nr.1 ist gleich.
The taper tap No. 1Z with cylindrical pilot is an additional aid for true alignment especially when tapping by hand. It can be deleted when tapping by machine. The profile graduation of No.1Z, and No.1 is the same.

2)

„X“	„X“
HSSE	HSSE
C / 2-3	C / 2-3
O / P	O / P



P 1.1-5.1	P 1.1-5.1
M 1.1-4.1	M 1.1-4.1
K 1.1-4.2	K 1.1-4.2
N 1.1-2.6	N 1.1-2.6
S 2.1-2.2, 2.4	S 2.1-2.2, 2.4

WM-Set-3S (Nr.1Z, Nr.1, F)	WM-Set-2S (Nr.1, F)			
H0453001.4035	**H0483001.4035**			G 1/8 - 28
H0453001.4036	**H0483001.4036**			1/4 - 19
H0453001.4037	**H0483001.4037**			3/8 - 19
H0453001.4038	**H0483001.4038**			1/2 - 14
				5/8 - 14
H0453001.4040	**H0483001.4040**			3/4 - 14
H0453001.4042	H0483001.4042			1" - 11

2) Beim Gewindebohren von Hand in Durchgangslöcher entfällt Nr.1
No.1 is not needed when tapping in through holes by hand

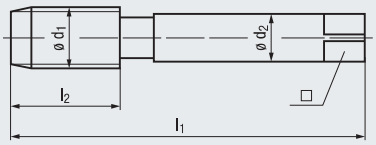
G (BSP)

DIN EN ISO 228

≈ DIN 5157

MS
Copper-zinc alloys

Für dünnwandige Messing-Rohre
For thin-walled brass tubes



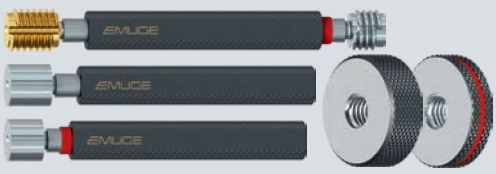
Technische Informationen Technical information	Toleranz · Tolerance	„X“	„X“ +0,05 [2]	„X“ +0,1 [2]
	Beschichtung · Coating	HSSE	HSSE	HSSE
	Schneidstoff · Cutting material	max. 1 E	max. 1 E	max. 1 E
Gewindetiefe und Lochform Thread depth and hole type			max. 1 x d_1	
Einsatzgebiete – Material Applications – material		N 2.3, 2.6	N 2.3, 2.6	N 2.3, 2.6

▸▸ 78

Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		AUT-A MS-R	AUT-A MS-R	AUT-A MS-R
G 1/8	9,73	28	63	18	7	5,5	8,8	**A6622501.4035**	**A6622531.4035**	**A662254A.4035**
1/4	13,16	19	70	20	10 [1]	8	11,8	**A6622501.4036**	**A6622531.4036**	**A662254A.4036**
3/8	16,66	19	70	20	12	9	15,25	**A6622501.4037**	**A6622531.4037**	**A662254A.4037**
1/2	20,96	14	80	22	15 [1]	12	19	**A6622501.4038**	**A6622531.4038**	**A662254A.4038**
3/4	26,44	14	90	22	18 [1]	14,5	24,5	**A6622501.4040**	**A6622531.4040**	**A662254A.4040**
7/8	30,20	14	90	22	18 [1]	14,5	28,25			
1"	33,25	11	100	25	18 [1]	14,5	30,75	A6622501.4042	A6622531.4042	A662254A.4042
1 1/8	37,90	11	125	30	18 [1]	14,5	35,5	A6622501.4043		
1 1/4	41,91	11	125	30	18 [1]	14,5	39,5	A6622501.4044		
1 3/8	44,32	11	125	30	18 [1]	14,5	41,75	A6622501.4045		
1 1/2	47,80	11	140	30	18 [1]	14,5	45,25	A6622501.4046		

[1] Spezieller AUT-Schaft
Special shank for “AUT” taps

[2] Vorbohrdurchmesser für Gewindebohrer mit Übermaß um 0,05 bzw. 0,1 mm anheben
Increase drill diameter for taps with oversize by 0.05 resp. 0.1 mm

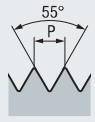


Gewindelehren
siehe Seite 541 - 594

Thread gauges,
see page 541 - 594

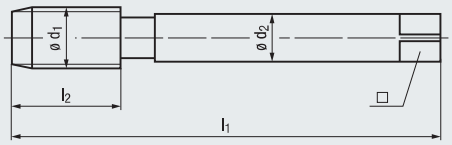
Rp (BSPP)

DIN EN 10226-1, ISO 7-1



DIN 5156

STEEL
Steel materials



Technische Informationen Technical information	Toleranz · Tolerance: „X“ Beschichtung · Coating: HSSE Schneidstoff · Cutting material: C / 2-3, E / O
Gewindetiefe und Lochform Thread depth and hole type	max. 2 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	K 1.1-4.2 N 2.3

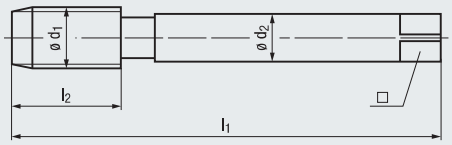
Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Rekord 2A-STEEL
Rp 1/16	7,72	28	90	17	6	4,9	6,55	C0101001.4091
1/8	9,73	28	90	18	7	5,5	8,6	**C0101001.4092**
1/4	13,16	19	100	22	11	9	11,5	**C0101001.4093**
3/8	16,66	19	100	22	12	9	15	**C0101001.4094**
1/2	20,96	14	125	25	16	12	18,5	**C0101001.4095**
3/4	26,44	14	140	28	20	16	24	**C0101001.4096**
1"	33,25	11	160	30	25	20	30,25	**C0101001.4097**

Zugehöriges Außengewinde ist kegelig, siehe Schneideisen Seite 535
The appropriate external thread is tapered, see dies, page 535

Rp (BSPP)

DIN EN 10226-1, ISO 7-1

DIN 5156



Z
CNC-controlled machines

new

Technische Informationen Technical information			
Toleranz · Tolerance			
Beschichtung · Coating		GLT-1	
Schneidstoff · Cutting material	HSSE	HSSE	
	R45	R45	
	E / 0 / P	E / 0 / P	

Gewindetiefe und Lochform Thread depth and hole type	max. 3 x d_1	

Einsatzgebiete – Material Applications – material 78	P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1

Nenngröße Nom. size ø d_1		ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Enorm 2-Z/E	Enorm 2-Z/E GLT-1
Rp	1/16	7,72	28	90	10	6	4,9	6,55	C0513500.4091	C051C400.4091
	1/8	9,73	28	90	10	7	5,5	8,6	**C0513500.4092**	**C051C400.4092**
	1/4	13,16	19	100	15	11	9	11,5	**C0513500.4093**	**C051C400.4093**
	3/8	16,66	19	100	15	12	9	15	**C0513500.4094**	**C051C400.4094**
	1/2	20,96	14	125	17	16	12	18,5	**C0513500.4095**	**C051C400.4095**
	3/4	26,44	14	140	20	20	16	24	**C0513500.4096**	C051C400.4096
	1"	33,25	11	160	24	25	20	30,25	**C0513500.4097**	C051C400.4097

Zugehöriges Außengewinde ist kegelig, siehe Schneideisen Seite 535
The appropriate external thread is tapered, see dies, page 535

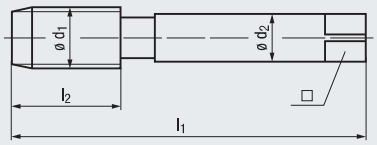
Rp (BSPP)

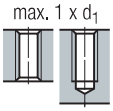
DIN EN 10226-1, ISO 7-1

≈ DIN 352

MS
Copper-zinc alloys

Für dünnwandige Messing-Rohre
For thin-walled brass tubes



Technische Informationen Technical information	Toleranz · Tolerance	„X“	„X“ +0,05 [2]
	Beschichtung · Coating		
	Schneidstoff · Cutting material	HSSE	HSSE
		max. 1	max. 1
		E	E
Gewindetiefe und Lochform Thread depth and hole type		max. 1 x d_1 	
Einsatzgebiete – Material Applications – material ▸▸ 78		N 2.3, 2.6	N 2.3, 2.6

	Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		AUT-A MS-R	AUT-A MS-R
Rp	1/8	9,73	28	63	18	7	5,5	8,6	A6622501.4092	A6622531.4092
	1/4	13,16	19	70	20	10 [1]	8	11,5	A6622501.4093	A6622531.4093
	3/8	16,66	19	70	20	12	9	15	A6622501.4094	A6622531.4094
	1/2	20,96	14	80	22	15 [1]	12	18,5	A6622501.4095	A6622531.4095
	3/4	26,44	14	90	22	18 [1]	14,5	24	A6622501.4096	A6622531.4096
	1"	33,25	11	100	25	18 [1]	14,5	30,25	A6622501.4097	A6622531.4097

Zugehöriges Außengewinde ist kegelig, siehe Schneideisen Seite 535
The appropriate external thread is tapered, see dies, page 535

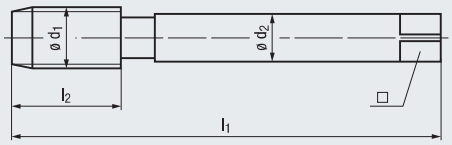
1) Spezieller AUT-Schaft
Special shank for “AUT” taps

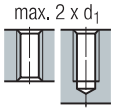
2) Vorbohrdurchmesser für Gewindebohrer mit Übermaß um 0,05 mm anheben
Increase drill diameter for taps with oversize by 0.05 mm

NPSM

ANSI B1.20.1

≈ DIN 5156



	STEEL Steel materials		Z CNC-controlled machines	
				new
Toleranz · Tolerance	„X“			
Beschichtung · Coating			GLT-1	GLT-1
Schneidstoff · Cutting material	HSSE		HSSE	HSSE
			R45	R45
	C / 2-3		E / 1,5-2	E / 1,5-2
	E / O		E / O / P	E / O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 2 x d_1 		max. 3 x d_1	
Einsatzgebiete – Material Applications – material ▸▸ 78	K 1.1-4.2 N 2.3		P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1

Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□	NPSM	NPSC	Rekord 2A-STEEL	Enorm 2-Z/E	Enorm 2-Z/E GLT-1
1/8	10,100	27	90	18	7	5,5	9,1	8,8	**C0101001.5858**	**C0513500.5858**	**C051C400.5858**
1/4	13,404	18	100	22	11	9	12	11,4	**C0101001.5859**	**C0513500.5859**	**C051C400.5859**
3/8	16,843	18	100	22	12	9	15,5	14,9	C0101001.5860	**C0513500.5860**	C051C400.5860
1/2	20,949	14	125	25	16	12	19	18,4	C0101001.5861	**C0513500.5861**	C051C400.5861
3/4	26,296	14	140	28	20	16	24,5	23,7	C0101001.5862	**C0513500.5862**	C051C400.5862
1"	32,895	11 1/2	160	30	25	20	30,5	29,8	C0101001.5863	C0513500.5863	C051C400.5863

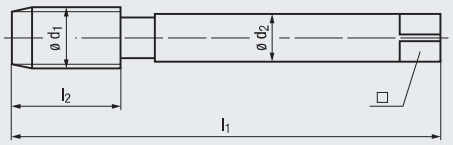
NPSM auch für NPSC verwendbar
NPSM can also be used for NPSC thread

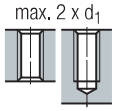
Kühlschmierstoffe siehe Seite 300 - 301 Coolant-lubricants, see page 300 - 301

NPSF

ANSI B1.20.3

≈ DIN 5156



	STEEL Steel materials		Z CNC-controlled machines	
				new
Toleranz · Tolerance	„X“			GLT-1
Technische Informationen Technical information — Beschichtung · Coating	HSSE		HSSE	HSSE
Schneidstoff · Cutting material	R45		R45	R45
	C / 2-3		E / 1,5-2	E / 1,5-2
	E / O		E / O / P	E / O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 2 x d_1 		max. 3 x d_1	
Einsatzgebiete – Material Applications – material ▸▸ 78	K 1.1-4.2 N 2.3		P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1

Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Rekord 2A-STEEL	Enorm 2-Z/E	Enorm 2-Z/E GLT-1
1/16	7,582	27	90	17	6	4,9	6,35	C0101001.5904	C0513500.5904	C051C400.5904
1/8	9,929	27	90	18	7	5,5	8,7	C0101001.5905	C0513500.5905	C051C400.5905
1/4	13,236	18	100	22	11	9	11,3	C0101001.5906	C0513500.5906	C051C400.5906
3/8	16,673	18	100	22	12	9	14,75	C0101001.5907	C0513500.5907	C051C400.5907
1/2	20,819	14	125	25	16	12	18,2	C0101001.5908	C0513500.5908	C051C400.5908
3/4	26,166	14	140	28	20	16	23,5	C0101001.5909	C0513500.5909	C051C400.5909
1"	32,718	11 1/2	160	30	25	20	29,5	C0101001.5910	C0513500.5910	C051C400.5910

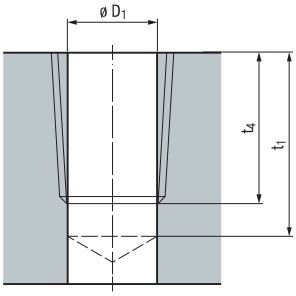
NPT

ANSI/ASME B1.20.1

EMUGE NPT-Gewindebohrer sind für die Lochformen a) bis c) geeignet. Für Gewinde mit höheren Anforderungen, z.B. NPT-Gewinde für die Luftfahrt, empfehlen wir, das Kernloch nach Form b) bzw. c) auszuführen.

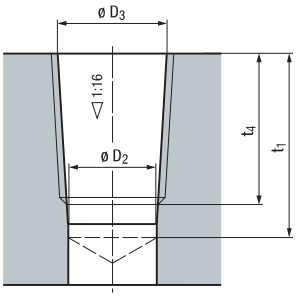
EMUGE NPT taps are suited for the hole forms a) to c). For threads with higher demands, e.g. NPT threads for the aircraft industry, we recommend preparing the thread hole to form b), resp. c).

a) Zylindrisch vorarbeiten
Cylindrical preparation of thread hole



Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø D_1	t_1 1)	t_4
1/16	27	6,15	11,8	9,70
1/8	27	8,50	11,9	9,75
1/4	18	11,00	17,4	14,25
3/8	18	14,40	17,7	14,55
1/2	14	17,80	23,1	19,00
3/4	14	23,15	23,6	19,50
1"	11 1/2	29,05	28,4	23,40
1 1/4	11 1/2	37,80	28,9	23,90
1 1/2	11 1/2	43,85	28,9	23,90
2"	11 1/2	55,85	29,3	24,35

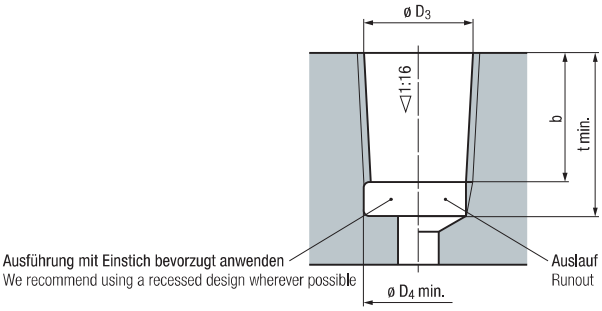
b) Kegelig vorarbeiten
Tapered preparation of thread hole



Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø D_2	ø D_3 +0,05	t_1 1)	t_4
1/16	27	5,95	6,39	11,8	9,70
1/8	27	8,30	8,74	11,9	9,75
1/4	18	10,75	11,36	17,4	14,25
3/8	18	14,15	14,80	17,7	14,55
1/2	14	17,45	18,32	23,1	19,00
3/4	14	22,80	23,67	23,6	19,50
1"	11 1/2	28,65	29,69	28,4	23,40
1 1/4	11 1/2	37,35	38,45	28,9	23,90
1 1/2	11 1/2	43,45	44,52	28,9	23,90
2"	11 1/2	55,45	56,56	29,3	24,35

1) Die Vorbohrtiefe t_1 berücksichtigt die Längen L_1 und L_3 nach ASME-Norm, sowie die Anschnittlänge des Gewindebohrers und 1 bis 2 Gewindegänge Sicherheit. Tiefbohren ist erforderlich, wenn Gewindebohrer mit Maximal-Gewindelängen nach ASME B94.9 angewendet werden sollen.
The drill depth t_1 takes into account the lengths L_1 and L_3 acc. ASME standards, the chamfer length of the tap and 1-2 threads safety margin. Deep drilling is necessary whenever taps with maximum thread length acc. ASME B94.9 are to be used.

c) Vorarbeiten von Grundlöchern
Preparation of blind holes



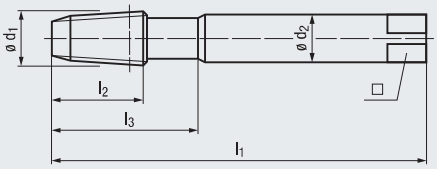
Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø D_3 +0,05	b	t min. 2)	ø D_4 min.
1/16	27	6,39	7,0	10,0	7,6
1/8	27	8,74	7,0	10,0	10,0
1/4	18	11,36	10,2	14,5	13,1
3/8	18	14,80	10,6	15,0	16,5
1/2	14	18,32	13,8	19,0	20,5
3/4	14	23,67	14,2	20,0	25,8
1"	11 1/2	29,69	17,0	24,0	32,2
1 1/4	11 1/2	38,45	17,5	24,5	41,0
1 1/2	11 1/2	44,52	17,5	24,5	47,2
2"	11 1/2	56,56	18,0	25,0	59,2

2) Die Kernlochmaße sind auf Minimallängen nach ASME-Norm aufgebaut. Für Grundlöcher, welche die angegebenen Mindesttiefen t nicht zulassen, sind Sondergewindebohrer erforderlich. Eine bemaßte Grundlochskizze ist zur Beurteilung notwendig.
The thread hole dimensions are based on minimal lengths acc. ASME standards. For blind holes which do not permit the indicated minimal depth t, special taps are necessary. A thread hole sketch with full dimensional specifications is necessary for making a decision.

NPT

ANSI/ASME B1.20.1

≈ DIN 371



	STEEL Steel materials		VA Stainless steel materials	
Technische Informationen Technical information Toleranz · Tolerance Beschichtung · Coating Schneidstoff · Cutting material	HSSE		HSSE	HSSE
	C / 2-3 E / O		C / 2-3 E / O / P	C / 2-3 E / O / P
Einsatzgebiete – Material Applications – material ▸▸ 78	P 3.1 K 1.1-1.2 N 2.3		P 2.1-4.1 K 2.1-4.2 N 1.5, 2.6	P 2.1-4.1 K 2.1-4.2 N 1.5, 2.6

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□	Rekord 1-KEG-STEEL		Rekord 1-KEG-VA	Rekord 1-KEG-VA-AZ
1/16	27	90	12	26	8	6,2	B0181000.5763		B0183000.5763	B0193000.5763
1/8	27	90	12	26	10	8	B0181000.5764		B0183000.5764	B0193000.5764
1/4	18	100	18	34,5	14	11	B0181000.5765		B0183000.5765	B0193000.5765
3/8	18	110	18	37,5	18	14,5				
1/2	14	140	23	45	22	18				
				≈ DIN 374			251		251	251
				≈ DIN 2181			253			

Gewindekernloch-Vorfertigungsdurchmesser für NPT-Gewinde siehe Seite 248
Thread hole preparatory diameters for NPT threads, see page 248

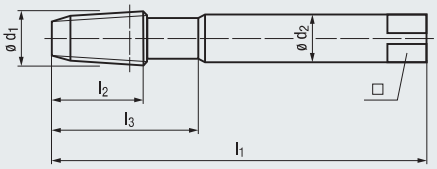
Kegelige Gewindebohrer mit langer Gewindelänge nach ANSI B94.9 auf Anfrage
Tapered taps with long thread length acc. ANSI B94.9 upon request

Kegelreibahlen 1:16 für kegelige Gewinde
Taper reamers 1:16 for tapered threads ▸▸ 265

NPT

ANSI/ASME B1.20.1

≈ DIN 371



VA
Stainless steel materials

NI
Nickel alloys

Technische Informationen
Technical information

Toleranz · Tolerance				
Beschichtung · Coating				TICN
Schneidstoff · Cutting material	HSSE	HSSE		HSSE-PM
	R35	R35		R10
	C / 2-3	C / 2-3		C / 2-3
	E / O / P	E / O / P		O / P
Einsatzgebiete – Material Applications – material ▸▸ 78	P 1.1-3.1 M 1.1-3.1	P 1.1-3.1 M 1.1-3.1		N 2.8 S 2.3, 2.5-2.6

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□	Rekord 1-KEG-R35-VA	Rekord 1-KEG-R35-VA-AZ		Rekord 1-KEG-R10-NI PM-TICN
1/16	27	90	12	26	8	6,2	**B1583000.5763**	**B1593000.5763**		
1/8	27	90	12	26	10	8	**B1583000.5764**	**B1593000.5764**		B670J400.5764
1/4	18	100	18	34,5	14	11	**B1583000.5765**	**B1593000.5765**		B670J400.5765
3/8	18	110	18	37,5	18	14,5				B670J400.5766
1/2	14	140	23	45	22	18				B670J400.5767
				≈ DIN 374			252	252		
				≈ DIN 2181						

Gewindekernloch-Vorfertigungsdurchmesser für NPT-Gewinde siehe Seite 248
Thread hole preparatory diameters for NPT threads, see page 248

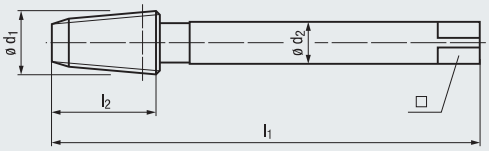
Kegelige Gewindebohrer mit langer Gewindelänge nach ANSI B94.9 auf Anfrage
Tapered taps with long thread length acc. ANSI B94.9 upon request

Kegelreibahlen 1:16 für kegelige Gewinde
Taper reamers 1:16 for tapered threads ▸▸ 265

NPT

ANSI/ASME B1.20.1

≈ DIN 374



	STEEL Steel materials		VA Stainless steel materials	
Technische Informationen Technical information Toleranz · Tolerance Beschichtung · Coating Schneidstoff · Cutting material	HSSE		HSSE	HSSE
	C / 2-3 E / O		C / 2-3 E / O / P	C / 2-3 E / O / P
Einsatzgebiete – Material Applications – material ▸▸ 78	P 3.1 K 1.1-1.2 N 2.3		P 2.1-4.1 K 2.1-4.2 N 1.5, 2.6	P 2.1-4.1 K 2.1-4.2 N 1.5, 2.6

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	l_1	l_2	ø d_2	□	Rekord 2-KEG-STEEL		Rekord 2-KEG-VA	Rekord 2-KEG-VA-AZ
3/8	18	110	18	14	11	**C0181000.5766**		**C0183000.5766**	**C0193000.5766**
1/2	14	140	23	16	12	**C0181000.5767**		**C0183000.5767**	**C0193000.5767**
3/4	14	150	24	20	16	**C0181000.5768**		**C0183000.5768**	**C0193000.5768**
1"	11 1/2	170	30	25	20	**C0181000.5769**		**C0183000.5769**	**C0193000.5769**
1 1/4	11 1/2	190	32	32	24	C0181000.5770			
1 1/2	11 1/2	200	32	36	29	C0181000.5771			
2"	11 1/2	220	34	45	35	C0181000.5772			
			≈ DIN 371			249		249	249
			≈ DIN 2181			253			

Gewindekernloch-Vorfertigungsdurchmesser für NPT-Gewinde siehe Seite 248
Thread hole preparatory diameters for NPT threads, see page 248

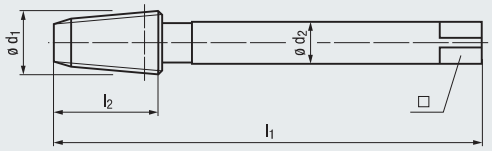
Kegelige Gewindebohrer mit langer Gewindelänge nach ANSI B94.9 auf Anfrage
Tapered taps with long thread length acc. ANSI B94.9 upon request

Kegelreibahlen 1:16 für kegelige Gewinde
Taper reamers 1:16 for tapered threads ▸▸ 265

NPT

ANSI/ASME B1.20.1

≈ DIN 374



VA
Stainless steel materials

Technische Informationen
Technical information

Toleranz · Tolerance		
Beschichtung · Coating		
Schneidstoff · Cutting material	HSSE	HSSE
	R35	R35
	C / 2-3	C / 2-3
	E / O / P	E / O / P
Einsatzgebiete – Material Applications – material ▸▸ 78	P 1.1-3.1 M 1.1-3.1	P 1.1-3.1 M 1.1-3.1

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	l_1	l_2	ø d_2	□	Rekord 2-KEG-R35-VA	Rekord 2-KEG-R35-VA-AZ
3/8	18	110	18	14	11	**C1583000.5766**	**C1593000.5766**
1/2	14	140	23	16	12	**C1583000.5767**	**C1593000.5767**
3/4	14	150	24	20	16	**C1583000.5768**	**C1593000.5768**
1"	11 1/2	170	30	25	20	**C1583000.5769**	**C1593000.5769**
1 1/4	11 1/2	190	32	32	24	C1583000.5770	C1593000.5770
1 1/2	11 1/2	200	32	36	29	C1583000.5771	C1593000.5771
2"	11 1/2	220	34	45	35	C1583000.5772	C1593000.5772
			≈ DIN 371			250	250
			≈ DIN 2181				

Gewindekernloch-Vorfertigungsdurchmesser für NPT-Gewinde siehe Seite 248
Thread hole preparatory diameters for NPT threads, see page 248

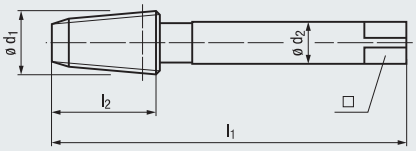
Kegelige Gewindebohrer mit langer Gewindelänge nach ANSI B94.9 auf Anfrage
Tapered taps with long thread length acc. ANSI B94.9 upon request

Kegelreibahlen 1:16 für kegelige Gewinde
Taper reamers 1:16 for tapered threads ▸▸ 265

NPT

ANSI/ASME B1.20.1

≈ DIN 2181



STEEL
Steel materials

Technische Informationen Technical information		
Toleranz · Tolerance	HSSE	HSSE
Beschichtung · Coating	C / 2-3	C / 2-3
Schneidstoff · Cutting material	E / O	E / O
Einsatzgebiete – Material Applications – material ▸▸ 78	P 3.1 K 1.1-1.2 N 2.3	P 3.1 K 1.1-1.2 N 2.3

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	l_1	l_2	ø d_2	□	Rekord KEG-STEEL	Rekord KEG-STEEL-AZ
1/16	27	63	12	6	4,9	**A0181000.5763**	A0191000.5763
1/8	27	63	12	7	5,5	**A0181000.5764**	A0191000.5764
1/4	18	63	18	11	9	**A0181000.5765**	**A0191000.5765**
3/8	18	70	18	12	9	**A0181000.5766**	**A0191000.5766**
1/2	14	80	23	16	12	**A0181000.5767**	**A0191000.5767**
3/4	14	100	24	20	16	**A0181000.5768**	**A0191000.5768**
1"	11 1/2	110	30	25	20	**A0181000.5769**	A0191000.5769
1 1/4	11 1/2	125	32	32	24	A0181000.5770	A0191000.5770
1 1/2	11 1/2	140	32	36	29	A0181000.5771	A0191000.5771
2"	11 1/2	160	34	45	35	A0181000.5772	A0191000.5772
			≈ DIN 371			249	
			≈ DIN 374			251	

Gewindekernloch-Vorfertigungsdurchmesser für NPT-Gewinde siehe Seite 248
Thread hole preparatory diameters for NPT threads, see page 248

Kegelige Gewindebohrer mit langer Gewindelänge nach ANSI B94.9 auf Anfrage
Tapered taps with long thread length acc. ANSI B94.9 upon request

Kegelreibahlen 1:16 für kegelige Gewinde
Taper reamers 1:16 for tapered threads ▸▸ 265

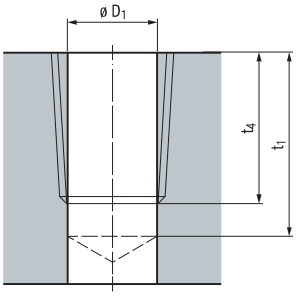
NPTF

ANSI B1.20.3

EMUGE NPTF-Gewindebohrer sind für die Lochformen a) bis c) geeignet. Für Gewinde mit höheren Anforderungen, z.B. NPTF-Gewinde für die Luftfahrt, empfehlen wir, das Kernloch nach Form b) bzw. c) auszuführen.

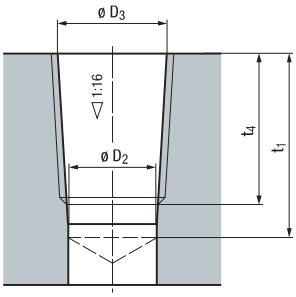
EMUGE NPTF taps are suited for the hole forms a) to c). For threads with higher demands, e.g. NPTF threads for the aircraft industry, we recommend preparing the thread hole to form b), resp. c).

a) Zylindrisch vorarbeiten
Cylindrical preparation of thread hole



Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø D_1	t_1 1)	t_4
1/16	27	6,10	13,0	10,65
1/8	27	8,45	13,0	10,70
1/4	18	10,90	19,2	15,65
3/8	18	14,30	19,5	16,00
1/2	14	17,60	25,4	20,85
3/4	14	23,00	25,9	21,30
1"	11 1/2	28,75	31,1	25,60
1 1/4	11 1/2	37,50	31,7	26,15
1 1/2	11 1/2	43,75	31,7	26,15
2"	11 1/2	55,75	32,1	26,55

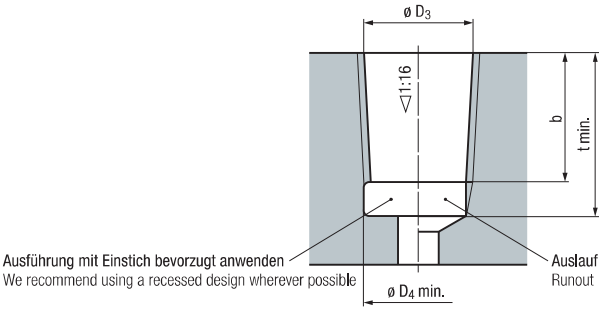
b) Kegelig vorarbeiten
Tapered preparation of thread hole



Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø D_2	ø D_3 +0,05	t_1 1)	t_4
1/16	27	5,95	6,41	13,0	10,65
1/8	27	8,30	8,76	13,0	10,70
1/4	18	10,75	11,40	19,2	15,65
3/8	18	14,15	14,84	19,5	16,00
1/2	14	17,45	18,33	25,4	20,85
3/4	14	22,80	23,68	25,9	21,30
1"	11 1/2	28,65	29,72	31,1	25,60
1 1/4	11 1/2	37,35	38,48	31,7	26,15
1 1/2	11 1/2	43,45	44,55	31,7	26,15
2"	11 1/2	55,45	56,59	32,1	26,55

1) Die Vorbohrtiefe t_1 berücksichtigt die Längen L_1 und L_3 nach ASME-Norm, sowie die Anschnittlänge des Gewindebohrers und 1 bis 2 Gewindegänge Sicherheit. Tiefbohren ist erforderlich, wenn Gewindebohrer mit Maximal-Gewindelängen nach ASME B94.9 angewendet werden sollen.
The drill depth t_1 takes into account the lengths L_1 and L_3 acc. ASME standards, the chamfer length of the tap and 1-2 threads safety margin. Deep drilling is necessary whenever taps with maximum thread length acc. ASME B94.9 are to be used.

c) Vorarbeiten von Grundlöchern
Preparation of blind holes



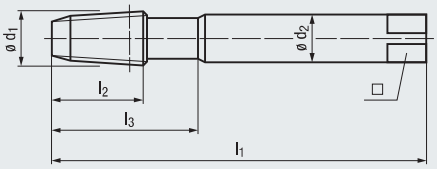
Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø D_3 +0,05	b	t min. 2)	ø D_4 min.
1/16	27	6,41	8,0	11,0	7,4
1/8	27	8,76	8,0	11,0	9,8
1/4	18	11,40	11,6	15,5	12,9
3/8	18	14,84	12,0	16,0	16,3
1/2	14	18,33	15,6	20,5	20,3
3/4	14	23,68	16,0	21,5	25,6
1"	11 1/2	29,72	19,2	26,0	32,0
1 1/4	11 1/2	38,48	19,7	26,5	40,8
1 1/2	11 1/2	44,55	19,7	26,5	47,0
2"	11 1/2	56,59	20,2	27,0	59,0

2) Die Kernlochmaße sind auf Minimallängen nach ASME-Norm aufgebaut. Für Grundlöcher, welche die angegebenen Mindesttiefen t nicht zulassen, sind Sondergewindebohrer erforderlich. Eine bemaßte Grundlochskizze ist zur Beurteilung notwendig.
The thread hole dimensions are based on minimal lengths acc. ASME standards. For blind holes which do not permit the indicated minimal depth t, special taps are necessary. A thread hole sketch with full dimensional specifications is necessary for making a decision.

NPTF

ANSI B1.20.3

≈ DIN 371



	STEEL Steel materials		VA Stainless steel materials	
Toleranz · Tolerance				
Technische Informationen Technical information — Beschichtung · Coating				
Schneidstoff · Cutting material	HSSE		HSSE	HSSE R35
	C / 2-3 E / O		C / 2-3 E / O / P	C / 2-3 E / O / P
Einsatzgebiete – Material Applications – material ▸▸ 78	P 3.1 K 1.1-1.2 N 2.3		P 2.1-4.1 K 2.1-4.2 N 1.5, 2.6	P 1.1-3.1 M 1.1-3.1

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□	Rekord 1-KEG-STEEL		Rekord 1-KEG-VA	Rekord 1-KEG-R35-VA
1/16	27	90	12	26	8	6,2	B0181000.5782		B0183000.5782	B1583000.5782
1/8	27	90	12	26	10	8	B0181000.5783		B0183000.5783	B1583000.5783
1/4	18	100	18	34,5	14	11	B0181000.5784		B0183000.5784	B1583000.5784
3/8	18	110	18	37,5	18	14,5				
1/2	14	140	23	45	22	18				
							≈ DIN 374	257	257	257
							≈ DIN 2181	258		

Gewindekernloch-Vorfertigungsdurchmesser für NPTF-Gewinde siehe Seite 254
Thread hole preparatory diameters for NPTF threads, see page 254

Kegelige Gewindebohrer mit langer Gewindelänge nach ANSI B94.9 auf Anfrage
Tapered taps with long thread length acc. ANSI B94.9 upon request

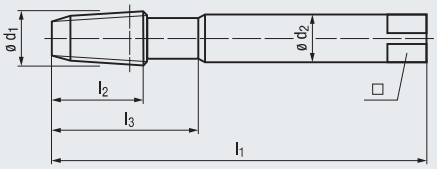
Kegelreibahlen 1:16 für kegelige Gewinde
Taper reamers 1:16 for tapered threads ▸▸ 265

NPTF

ANSI B1.20.3

≈ DIN 371

NI
Nickel alloys



Technische Informationen
Technical information

Toleranz · Tolerance
Beschichtung · Coating
Schneidstoff · Cutting material

TICN
HSSE-PM
R10
C / 2-3
O / P

N 2.8
S 2.3, 2.5-2.6

Einsatzgebiete – Material
Applications – material
▸▸ 78

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□	Rekord 1-KEG-R10-NI PM-TICN
1/16	27	90	12	26	8	6,2	
1/8	27	90	12	26	10	8	B670J400.5783
1/4	18	100	18	34,5	14	11	B670J400.5784
3/8	18	110	18	37,5	18	14,5	B670J400.5785
1/2	14	140	23	45	22	18	B670J400.5786

Gewindekernloch-Vorfertigungsdurchmesser für NPTF-Gewinde siehe Seite 254
Thread hole preparatory diameters for NPTF threads, see page 254

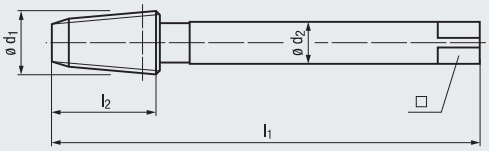
Kegelige Gewindebohrer mit langer Gewindelänge nach ANSI B94.9 auf Anfrage
Tapered taps with long thread length acc. ANSI B94.9 upon request

Kegelreibahlen 1:16 für kegelige Gewinde
Taper reamers 1:16 for tapered threads
▸▸ 265

NPTF

ANSI B1.20.3

≈ DIN 374



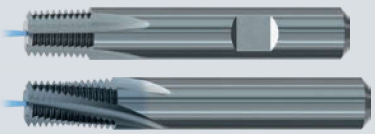
	STEEL Steel materials		VA Stainless steel materials	
Technische Informationen Technical information Toleranz · Tolerance				
Beschichtung · Coating				
Schneidstoff · Cutting material	HSSE		HSSE	HSSE R35
	C / 2-3		C / 2-3	C / 2-3
	E / O		E / O / P	E / O / P
Einsatzgebiete – Material Applications – material ▸▸ 78	P 3.1 K 1.1-1.2 N 2.3		P 2.1-4.1 K 2.1-4.2 N 1.5, 2.6	P 1.1-3.1 M 1.1-3.1

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	l_1	l_2	ø d_2	□	Rekord 2-KEG-STEEL		Rekord 2-KEG-VA	Rekord 2-KEG-R35-VA
3/8	18	110	18	14	11	**C0181000.5785**		**C0183000.5785**	**C1583000.5785**
1/2	14	140	23	16	12	**C0181000.5786**		**C0183000.5786**	**C1583000.5786**
3/4	14	150	24	20	16	**C0181000.5787**		**C0183000.5787**	**C1583000.5787**
1"	11 1/2	170	30	25	20	C0181000.5788		C0183000.5788	C1583000.5788
1 1/4	11 1/2	190	32	32	24	C0181000.5789			C1583000.5789
1 1/2	11 1/2	200	32	36	29	C0181000.5790			C1583000.5790
2"	11 1/2	220	34	45	35	C0181000.5791			C1583000.5791
			≈ DIN 371			255		255	255
			≈ DIN 2181			258			

Gewindekernloch-Vorfertigungsdurchmesser für NPTF-Gewinde siehe Seite 254
Thread hole preparatory diameters for NPTF threads, see page 254

Kegelige Gewindebohrer mit langer Gewindelänge nach ANSI B94.9 auf Anfrage
Tapered taps with long thread length acc. ANSI B94.9 upon request

Kegelreibahlen 1:16 für kegelige Gewinde ▸▸ 265
Taper reamers 1:16 for tapered threads



Gewindefräser für kegelige Gewinde
Typ GF-KEG siehe Seite 449 - 462

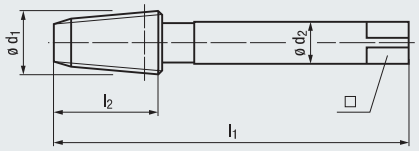
Thread milling cutters for tapered threads
type GF-KEG, see page 449 - 462

NPTF

ANSI B1.20.3

≈ DIN 2181

STEEL
Steel materials



Technische Informationen
Technical information

Toleranz · Tolerance
Beschichtung · Coating
Schneidstoff · Cutting material

HSSE

C / 2-3
E / O

Einsatzgebiete – Material
Applications – material

78

P 3.1
K 1.1-1.2
N 2.3

Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	l_1	l_2	ø d_2	□	Rekord KEG-STEEL
1/16	27	63	12	6	4,9	**A0181000.5782**
1/8	27	63	12	7	5,5	**A0181000.5783**
1/4	18	63	18	11	9	**A0181000.5784**
3/8	18	70	18	12	9	**A0181000.5785**
1/2	14	80	23	16	12	**A0181000.5786**
3/4	14	100	24	20	16	**A0181000.5787**
1"	11 1/2	110	30	25	20	A0181000.5788
1 1/4	11 1/2	125	32	32	24	A0181000.5789
1 1/2	11 1/2	140	32	36	29	A0181000.5790
2"	11 1/2	160	34	45	35	A0181000.5791

≈ DIN 371 255

≈ DIN 374 257

Gewindekernloch-Vorfertigungsdurchmesser für NPTF-Gewinde siehe Seite 254
Thread hole preparatory diameters for NPTF threads, see page 254

Kegelige Gewindebohrer mit langer Gewindelänge nach ANSI B94.9 auf Anfrage
Tapered taps with long thread length acc. ANSI B94.9 upon request

Kegelreibahlen 1:16 für kegelige Gewinde
Taper reamers 1:16 for tapered threads 265

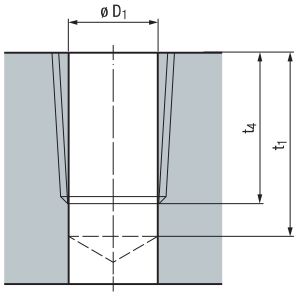
Rc (BSPT)

DIN EN 10226-2, ISO 7-1

EMUGE Rc-Gewindebohrer sind für die Lochformen a) bis c) geeignet. Die Lochform a) kann angewendet werden, wenn keine Dichtprobleme zu befürchten sind.

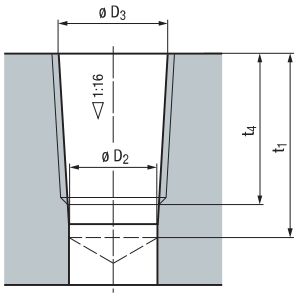
EMUGE Rc taps are suited for the hole forms a) to c).
Hole type a) can be used when there is no reason to worry about sealing problems.

a) Zylindrisch vorarbeiten
Cylindrical preparation of thread hole



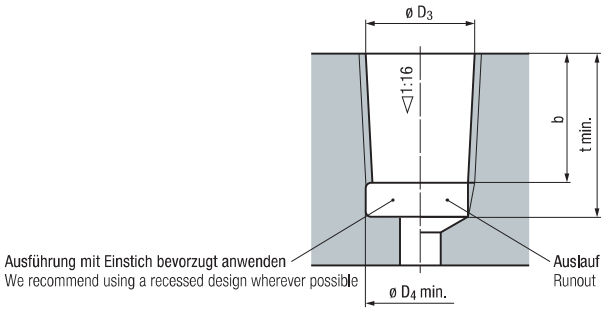
	Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø D_1	t_1	t_4
Rc	1/16	28	6,15	11,1	9,5
	1/8	28	8,15	11,1	9,5
	1/4	19	10,85	16,3	14,0
	3/8	19	14,30	16,7	14,4
	1/2	14	17,80	22,3	19,1
	3/4	14	23,20	23,6	20,4
	1"	11	29,20	28,3	24,3

b) Kegelig vorarbeiten
Tapered preparation of thread hole



	Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø D_2	ø D_3 JS11	t_1	t_4
Rc	1/16	28	6,10	6,56	11,1	9,5
	1/8	28	8,10	8,57	11,1	9,5
	1/4	19	10,75	11,45	16,3	14,0
	3/8	19	14,25	14,95	16,7	14,4
	1/2	14	17,70	18,63	22,3	19,1
	3/4	14	23,10	24,12	23,6	20,4
	1"	11	29,10	30,29	28,3	24,3

c) Vorarbeiten von Grundlöchern
Preparation of blind holes



	Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	ø D_3 JS11	b	t min. [2]	ø D_4 min.
Rc	1/16	28	6,56	5,6	9,9	7,6 +0,3
	1/8	28	8,57	5,6	9,9	9,6 +0,3
	1/4	19	11,45	8,4	14,6	13,0 +0,5
	3/8	19	14,95	8,8	15,0	16,5 +0,5
	1/2	14	18,63	11,4	20,0	20,6 +0,5
	3/4	14	24,12	12,7	21,3	26,0 +0,5
	1"	11	30,29	14,5	25,4	32,8 +0,5

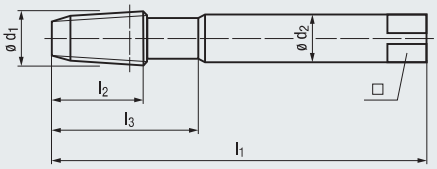
[2] Für Grundlöcher, welche die angegebenen Mindesttiefen t nicht zulassen, sind Sondergewindebohrer erforderlich. Eine bemaßte Grundlochskizze ist zur Beurteilung notwendig.
For blind holes which do not permit the indicated minimal depth t, special taps are necessary. A thread hole sketch with full dimensional specifications is necessary for making a decision.

Rc (BSPT)

DIN EN 10226-2, ISO 7-1

≈ DIN 371

VA
Stainless steel materials



Technische Informationen
Technical information

Toleranz · Tolerance
Beschichtung · Coating
Schneidstoff · Cutting material

HSSE
C / 2-3
E / O / P

P 2.1-4.1
K 2.1-4.2
N 1.5, 2.6

Einsatzgebiete – Material
Applications – material
» 78

	Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□	Rekord 1-KEG-VA
Rc	1/8	28	90	12	26	10	8	B0183000.4115
	1/4	19	100	18	34,5	14	11	B0183000.4116
					≈ DIN 374			261

Gewindekernloch-Vorfertigungsdurchmesser für Rc-Gewinde siehe Seite 259
Thread hole preparatory diameters for Rc threads, see page 259

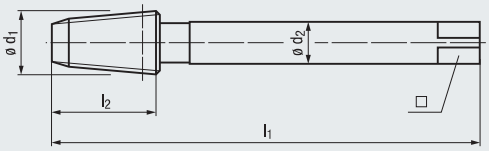
Kegelreibahlen 1:16 für kegelige Gewinde
Taper reamers 1:16 for tapered threads
» 265

Rc (BSPT)

DIN EN 10226-2, ISO 7-1

≈ DIN 374

VA
Stainless steel materials



Technische Informationen
Technical information

Toleranz · Tolerance
Beschichtung · Coating
Schneidstoff · Cutting material

HSSE

C / 2-3
E / O / P

Einsatzgebiete – Material
Applications – material
▸▸ 78

P 2.1-4.1
K 2.1-4.2
N 1.5, 2.6

	Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	l_1	l_2	ø d_2	□	**Rekord 2-KEG-VA**
Rc	1/4	19	100	18	11	9	**C0183000.4116**
	3/8	19	110	18	14	11	**C0183000.4117**
	1/2	14	140	23	16	12	**C0183000.4118**
	3/4	14	150	24	20	16	**C0183000.4119**
	1"	11	170	30	25	20	**C0183000.4120**
				≈ DIN 371			260

Gewindekernloch-Vorfertigungsdurchmesser für Rc-Gewinde siehe Seite 259
Thread hole preparatory diameters for Rc threads, see page 259

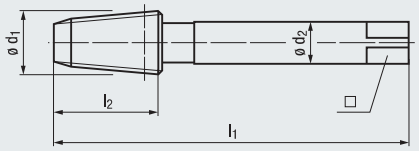
Kegelreibahlen 1:16 für kegelige Gewinde
Taper reamers 1:16 for tapered threads
▸▸ 265

Rc (BSPT)

DIN EN 10226-2, ISO 7-1

≈ DIN 2181

STEEL
Steel materials



Technische Informationen
Technical information

Toleranz · Tolerance
Beschichtung · Coating
Schneidstoff · Cutting material

HSSE

C / 2-3
E / O

P 3.1
K 1.1-1.2
N 2.3

Einsatzgebiete – Material
Applications – material
▸▸ 78

	Nenngröße Nom. size ø d_1	P Gg/1" (tpi)	l_1	l_2	ø d_2	□	Rekord KEG-STEEL
Rc	1/16	28	63	12	6	4,9	A0181000.4114
	1/8	28	63	12	7	5,5	**A0181000.4115**
	1/4	19	63	18	11	9	**A0181000.4116**
	3/8	19	70	18	12	9	**A0181000.4117**
	1/2	14	80	23	16	12	**A0181000.4118**
	3/4	14	100	24	20	16	**A0181000.4119**
	1"	11	110	30	25	20	**A0181000.4120**

Gewindekernloch-Vorfertigungsdurchmesser für Rc-Gewinde siehe Seite 259
Thread hole preparatory diameters for Rc threads, see page 259

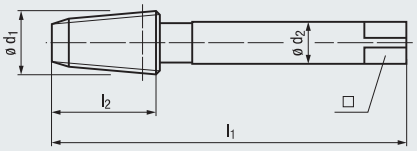
Kegelreibahlen 1:16 für kegelige Gewinde
Taper reamers 1:16 for tapered threads
▸▸ 265

Gewindelehren für kegelige Gewinde siehe Seite 573 - 575

Thread gauges for tapered threads, see page 573 - 575

W keg

DIN EN ISO 11363
DIN 477 kegelig · tapered



STEEL
Steel materials

Technische Informationen
Technical information

Toleranz · Tolerance
Beschichtung · Coating
Schneidstoff · Cutting material

HSSE

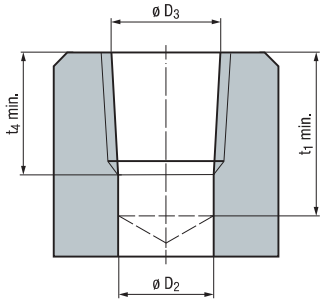
C / 2-3
E / O

Einsatzgebiete – Material
Applications – material

78

P 3.1
K 1.1-1.2
N 2.3

Kegelig vorarbeiten
Tapered preparation of the thread hole



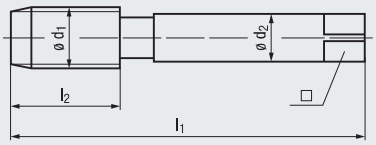
ø d_1	P Gg/1" (tpi)	l_1	l_2	ø d_2	□	**Rekord KEG-STEEL**	ø D_2	ø D_3 ± 0,06	t_1 min.	t_4 min.
17E / **W** 19,8	14	95	30	16	12	A0181000.3286	14,6	16,82	24,5	22,5
25E / **W** 28,8	14	100	35	22	18	A0181000.3287	22,6	25,42	29,5	27,5

W zyl

DIN 477 zylindrisch · cylindrical

≈ DIN 5157

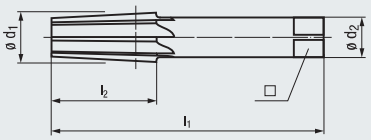
MS
Copper-zinc alloys



Technische Informationen Technical information	Toleranz · Tolerance: „X“ Beschichtung · Coating: Schneidstoff · Cutting material: HSSE
	C / 2-3 E
Gewindetiefe und Lochform Thread depth and hole type	max. 2 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	N 2.3

	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Rekord A-MS
W	21,8	14	80	22	18	14,5	19,8	A0102501.3284
	24,32	14	90	22	18	14,5	22,3	A0102501.3285

Für konische Gewinde NPT, NPTF, Rc (BSPT), Kegel 1:16
For tapered pipe threads NPT, NPTF, Rc (BSPT), taper 1:16



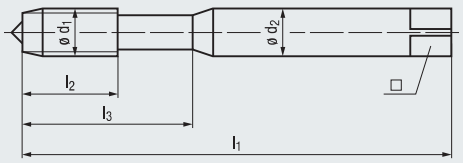
Technische Informationen Technical information				Schneidstoff · Cutting material		HSSE	HSSE L7		
Nenngröße Nom. size ø d_1	l_1	l_2	ø d_2	□	Z (Flutes)	**KEG-RB 1:16 Form A**	**KEG-RB 1:16 Form B**		
1/16	70	17	6	4,9	6	**G0037165.5763**	**G0037175.5763**		
1/8	70	17	7	5,5	6	**G0037165.5764**	**G0037175.5764**		
1/4	80	27	11	9	6	**G0037165.5765**	**G0037175.5765**		
3/8	85	27	12	9	8	**G0037165.5766**	**G0037175.5766**		
1/2	95	35	16	12	8	**G0037165.5767**	**G0037175.5767**		
3/4	105	35	20	16	10	**G0037165.5768**	**G0037175.5768**		
1"	130	43	25	20	10	**G0037165.5769**	**G0037175.5769**		
1 1/4	140	44	32	24	12	**G0037165.5770**	**G0037175.5770**		
1 1/2	150	45	36	29	12	**G0037165.5771**	**G0037175.5771**		
2"	160	46	45	35	14	**G0037165.5772**	**G0037175.5772**		

Achtung! Die Reibahlen sind ggf. durch Kürzung von vorne der aktuellen Lochtiefe anzupassen.
Please note: If needed, the reamers can be fitted to the required hole depth by shortening the cutting part.

BSW

BS 84

≈ DIN 371



VA Stainless steel materials

Z CNC-controlled machines

new

new

Technische Informationen
Technical information

	VA		Z	
Toleranz · Tolerance	med.		med.	med.
Beschichtung · Coating	GLT-1			GLT-1
Schneidstoff · Cutting material	HSSE		HSSE	HSSE
			R45	R45
	B / 4-5		C / 2-3	C / 2-3
	E / O / P		E / O / P	E / O / P

Gewindetiefe und Lochform
Thread depth and hole type

VA		Z	
max. 3 x d_1		max. 3 x d_1	

Einsatzgebiete – Material
Applications – material

78

VA		Z	
P 1.1-4.1		P 1.1-3.1	P 1.1-4.1
M 1.1-4.1			M 1.1-4.1
N 2.2			N 1.4, 2.1-2.2
			N 2.4-2.5
			S 1.1

	ø d_1 inch	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		Rekord 1B-VA GLT-1		Enorm 1-Z	Enorm 1-Z GLT-1
BSW	1/8	3,18	40	56	11	18	3,5	2,7	2,55	**B020C300.3046**		**B0503500.3046**	B050C400.3046
	5/32	3,97	32	63	13	21	4,5	3,4	3,2	**B020C300.3047**		B0503500.3047	B050C400.3047
	3/16	4,76	24	70	15	25	6	4,9	3,7	**B020C300.3048**		**B0503500.3048**	B050C400.3048
	7/32	5,56	24	80	16	30	6	4,9	4,5	**B020C300.3049**		B0503500.3049	B050C400.3049
	1/4	6,35	20	80	17	30	7	5,5	5,1	**B020C300.3050**		**B0503500.3050**	B050C400.3050
	5/16	7,94	18	90	20	35	8	6,2	6,5	**B020C300.3051**		**B0503500.3051**	B050C400.3051
	3/8	9,53	16	100	22	39	10	8	7,9	**B020C300.3052**		**B0503500.3052**	B050C400.3052
								≈ DIN 376		267		268	268

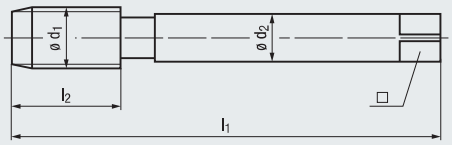
Schnellwechsel-Aufnahmen der Typenreihe SFM siehe Seite 699 - 704

Quick-change tap holders of our SFM series, see page 699 - 704

BSW

BS 84

≈ DIN 376



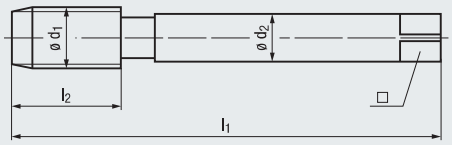
	STEEL Steel materials		VA Stainless steel materials
Toleranz · Tolerance	med.		med.
Beschichtung · Coating			GLT-1
Technische Informationen Technical information Schneidstoff · Cutting material	HSSE		HSSE
	R35		
	C / 2-3		B / 4-5
	E / O		E / O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 2,5 x d_1		max. 3 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	P 1.1-3.1 N 2.2		P 1.1-4.1 M 1.1-4.1 N 2.2

	ø d_1 inch	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Enorm 2-STEEL		Rekord 2B-VA GLT-1
BSW	7/16	11,11	14	100	22	8	6,2	9,25			**C020C300.3053**
	1/2	12,70	12	110	25	9	7	10,5			**C020C300.3054**
	9/16	14,29	12	110	26	11	9	12			**C020C300.3055**
	5/8	15,88	11	110	27	12	9	13,5			**C020C300.3056**
	3/4	19,05	10	125	30	14	11	16,4			**C020C300.3058**
	7/8	22,23	9	140	32	18	14,5	19,25			**C020C300.3060**
	1"	25,40	8	160	36	18	14,5	22			**C020C300.3062**
	1 1/8	28,58	7	180	40	22	18	24,75			
	1 1/4	31,75	7	180	40	22	18	27,75	C0501000.3064		
	1 3/8	34,93	6	200	50	28	22	30,5	C0501000.3065		
	1 1/2	38,10	6	200	50	28	22	33,5	C0501000.3066		
	1 3/4	44,45	5	220	58	36	29	39			
	2"	50,80	4 1/2	250	65	40	32	44,5	C0501000.3070		
					≈ DIN 371						266

BSW

BS 84

≈ DIN 376



Z
CNC-controlled machines

new

new

Technische Informationen Technical information	Toleranz · Tolerance	med.	med.
	Beschichtung · Coating		GLT-1
	Schneidstoff · Cutting material	HSSE	HSSE
		R45	R45
		C / 2-3	C / 2-3
		E / O / P	E / O / P

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d_1

Einsatzgebiete – Material
Applications – material

78

P 1.1-3.1

P 1.1-4.1
M 1.1-4.1
N 1.4, 2.1-2.2
N 2.4-2.5
S 1.1

	ø d_1 inch	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Enorm 2-Z	Enorm 2-Z GLT-1
BSW	7/16	11,11	14	100	18	8	6,2	9,25	C0503500.3053	C050C400.3053
	1/2	12,70	12	110	20	9	7	10,5	C0503500.3054	C050C400.3054
	9/16	14,29	12	110	20	11	9	12		
	5/8	15,88	11	110	22	12	9	13,5	C0503500.3056	C050C400.3056
	3/4	19,05	10	125	25	14	11	16,4	C0503500.3058	C050C400.3058
	7/8	22,23	9	140	27	18	14,5	19,25	C0503500.3060	
	1"	25,40	8	160	30	18	14,5	22	C0503500.3062	C050C400.3062
	1 1/8	28,58	7	180	35	22	18	24,75	C0503500.3063	
	1 1/4	31,75	7	180	35	22	18	27,75		
	1 3/8	34,93	6	200	40	28	22	30,5		
	1 1/2	38,10	6	200	40	28	22	33,5		
	1 3/4	44,45	5	220	45	36	29	39		
	2"	50,80	4 1/2	250	50	40	32	44,5		

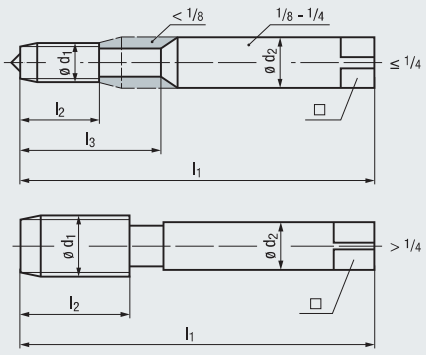
≈ DIN 371

266 266

BSW

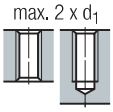
≈ DIN 352

BS 84



Toleranz · Tolerance			med. „X“	med. „X“
Beschichtung · Coating				
Technische Informationen Technical information — Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
	A / 5-6	D / 3-4	C / 2-3	C / 2-3
	0 / P	0 / P	0 / P	0 / P

Gewindetiefe und Lochform
Thread depth and hole type

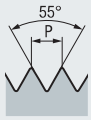


P 1.1-3.1	P 1.1-3.1	P 1.1-3.1	P 1.1-3.1

Einsatzgebiete – Material
Applications – material
▸▸ 78

	ø d_1 inch	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		HGB-Set V-Nr.1	HGB-Set M-Nr.2	HGB-Set F	HGB-Set-3S (Nr.1, Nr.2, F)
BSW	1/16	1,59	60	32	8	–	2,5	2,1	1,15	H0111019.3044	H0111029.3044	H0111001.3044	H0101001.3044
	1/8	3,18	40	40	10	18	3,5	2,7	2,55	H0111019.3046	H0111029.3046	H0111001.3046	H0101001.3046
	5/32	3,97	32	45	12	22	4,5	3,4	3,2				
	3/16	4,76	24	50	14	25	6	4,9	3,7	H0111019.3048	H0111029.3048	H0111001.3048	H0101001.3048
	7/32	5,56	24	56	16	28	6	4,9	4,5				
	1/4	6,35	20	56	16	28	6	4,9	5,1	H0111019.3050	H0111029.3050	H0111001.3050	H0101001.3050
	5/16	7,94	18	63	20	–	6	4,9	6,5	H0111019.3051	H0111029.3051	H0111001.3051	H0101001.3051
	3/8	9,53	16	70	22	–	7	5,5	7,9	H0111019.3052	H0111029.3052	H0111001.3052	H0101001.3052
	7/16	11,11	14	70	22	–	8	6,2	9,25	H0111019.3053	H0111029.3053	H0111001.3053	H0101001.3053
	1/2	12,70	12	75	25	–	9	7	10,5	H0111019.3054	H0111029.3054	H0111001.3054	H0101001.3054
	9/16	14,29	12	80	26	–	11	9	12				
	5/8	15,88	11	80	27	–	12	9	13,5	H0111019.3056	H0111029.3056	H0111001.3056	H0101001.3056
	3/4	19,05	10	95	32	–	14	11	16,4	H0111019.3058	H0111029.3058	H0111001.3058	H0101001.3058
	7/8	22,23	9	100	32	–	18	14,5	19,25				
	1"	25,40	8	110	36	–	18	14,5	22	H0111019.3062	H0111029.3062	H0111001.3062	H0101001.3062
	1 1/8	28,58	7	125	40	–	22	18	24,75	H0111019.3063	H0111029.3063	H0111001.3063	H0101001.3063
	1 1/4	31,75	7	125	40	–	22	18	27,75	H0111019.3064	H0111029.3064	H0111001.3064	H0101001.3064
	1 3/8	34,93	6	150	50	–	28	22	30,5	H0111019.3065	H0111029.3065	H0111001.3065	H0101001.3065
	1 1/2	38,10	6	150	50	–	28	22	33,5	H0111019.3066	H0111029.3066	H0111001.3066	H0101001.3066
	1 3/4	44,45	5	160	58	–	36	29	39				
	2"	50,80	4 1/2	180	65	–	40	32	44,5				

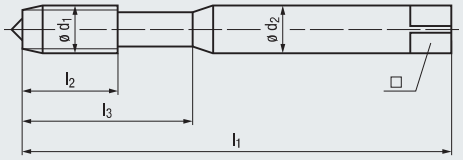
BSF



BS 84

≈ DIN 371

STEEL
Steel materials



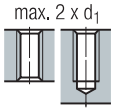
Technische Informationen
Technical information

Toleranz · Tolerance: med. „X“
Beschichtung · Coating:
Schneidstoff · Cutting material: HSSE

C / 2-3
E / O

Gewindetiefe und Lochform
Thread depth and hole type

max. 2 x d_1



Einsatzgebiete – Material
Applications – material

78

K 1.1-4.2
N 2.3

	ø d_1 inch	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		Rekord 1A-STEEL
BSF	1/4	6,35	26	80	17	30	7	5,5	5,3	**B0101001.3090**
	5/16	7,94	22	90	17	35	8	6,2	6,8	**B0101001.3092**
	3/8	9,53	20	100	18	39	10	8	8,3	**B0101001.3093**

≈ DIN 374

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Werkzeug-Aufnahmen der Typenreihe Softsynchro® siehe Seite 617 - 644

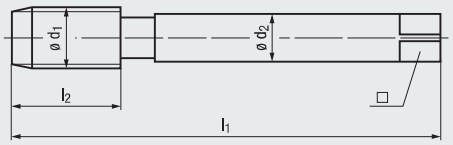
Tool holders of our Softsynchro® series, see page 617 - 644

BSF

BS 84

≈ DIN 374

STEEL
Steel materials



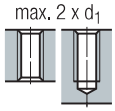
Technische Informationen
Technical information

Toleranz · Tolerance: med. „X“
Beschichtung · Coating
Schneidstoff · Cutting material: HSSE

C / 2-3
E / O

Gewindetiefe und Lochform
Thread depth and hole type

max. 2 x d_1



K 1.1-4.2
N 2.3

Einsatzgebiete – Material
Applications – material

▸▸ 78

	ø d_1 inch	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Rekord 2A-STEEL
BSF	7/16	11,11	18	100	22	8	6,2	9,7	C0101001.3094
	1/2	12,70	16	100	22	9	7	11,1	C0101001.3095
	5/8	15,88	14	110	27	12	9	14	C0101001.3097
	3/4	19,05	12	125	27	14	11	16,75	C0101001.3099
	7/8	22,23	11	140	32	18	14,5	19,75	C0101001.3101
	1"	25,40	10	160	36	18	14,5	22,75	C0101001.3102

≈ DIN 371

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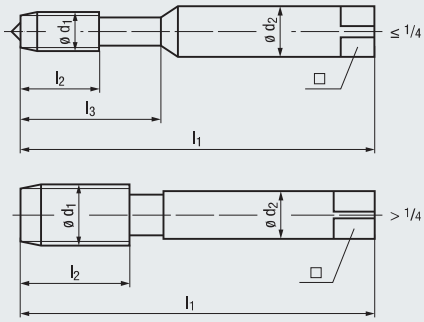
BSF

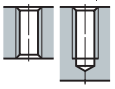
≈ DIN 352

BS 84



Toleranz · Tolerance		med. „X“	med. „X“
Beschichtung · Coating			
Technische Informationen Technical information — Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
	A / 5-6	D / 3-4	C / 2-3	C / 2-3
	O / P	O / P	O / P	O / P

Gewindetiefe und Lochform
Thread depth and hole type



Einsatzgebiete – Material
Applications – material

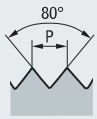
78

	P 1.1-3.1	P 1.1-3.1	P 1.1-3.1	P 1.1-3.1

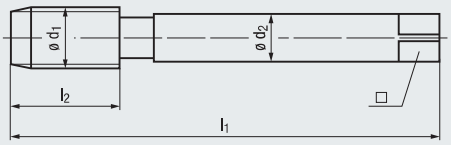
	ø d_1 inch	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		HGB-Set V-Nr.1	HGB-Set M-Nr.2	HGB-Set F	HGB-Set-3S (Nr.1, Nr.2, F)
BSF	3/16	4,76	32	50	14	25	6	4,9	4	H0111019.3088	H0111029.3088	H0111001.3088	H0101001.3088
	1/4	6,35	26	56	16	28	6	4,9	5,3	H0111019.3090	H0111029.3090	H0111001.3090	H0101001.3090
	5/16	7,94	22	63	17	–	6	4,9	6,8	H0111019.3092	H0111029.3092	H0111001.3092	H0101001.3092
	3/8	9,53	20	70	22	–	7	5,5	8,3	H0111019.3093	H0111029.3093	H0111001.3093	H0101001.3093
	7/16	11,11	18	70	22	–	8	6,2	9,7	H0111019.3094	H0111029.3094	H0111001.3094	H0101001.3094
	1/2	12,70	16	70	20	–	9	7	11,1	H0111019.3095	H0111029.3095	H0111001.3095	H0101001.3095
	5/8	15,88	14	80	27	–	12	9	14	H0111019.3097	H0111029.3097	H0111001.3097	H0101001.3097
	3/4	19,05	12	80	22	–	14	11	16,75	H0111019.3099	H0111029.3099	H0111001.3099	H0101001.3099
	7/8	22,23	11	80	22	–	18	14,5	19,75				
	1"	25,40	10	110	36	–	18	14,5	22,75	H0111019.3102	H0111029.3102	H0111001.3102	H0101001.3102

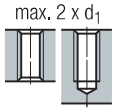
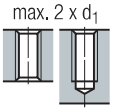
Pg

DIN 40430



DIN 40433



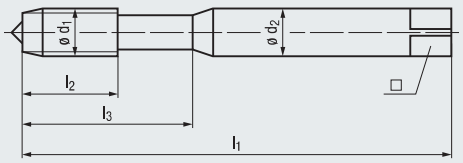
	STEEL Steel materials		**H** Materials of high tensile strength
Toleranz · Tolerance	„X“		„X“
Beschichtung · Coating			NT
Schneidstoff · Cutting material	HSSE		HSSE
	C / 2-3		C / 2-3
	E / O		E / O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 2 x d_1 		max. 2 x d_1 
Einsatzgebiete – Material Applications – material ▸▸ 78	K 1.1-4.2 N 2.3		K 1.1-4.2 N 4.1

	Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		**Rekord 2A-STEEL**		**Rekord 2A-H NT**
Pg	7	12,5	20	100	22	9	7	11,35	**C0101001.4153**		**C0100501.4153**
	9	15,2	18	100	22	12	9	13,95	**C0101001.4154**		**C0100501.4154**
	11	18,6	18	110	25	14	11	17,35	**C0101001.4155**		**C0100501.4155**
	13,5	20,4	18	125	25	16	12	19,15	**C0101001.4156**		**C0100501.4156**
	16	22,5	18	125	25	18	14,5	21,25	**C0101001.4157**		**C0100501.4157**
	21	28,3	16	150	28	22	18	26,95	C0101001.4158		C0100501.4158
	29	37,0	16	170	30	28	22	35,6	C0101001.4159		C0100501.4159
	36	47,0	16	190	32	36	29	45,6	C0101001.4160		
	42	54,0	16	190	32	40	32	52,6	C0101001.4161		
	48	59,3	16	220	36	45	35	57,9	C0101001.4162		

MJ

DIN ISO 5855

DIN 371



	AL Aluminium wrought alloys		TI Titanium	
	new			
Toleranz · Tolerance	4H		4HX	4HX
Beschichtung · Coating	GLT-104		TICN	TICN
Schneidstoff · Cutting material	HSSE		HSSE	HSSE
	R45		L15	R15
	C / 2-3		D / 4-5	C / 2-3
	E / O		E / O / P	E / O / P
Technische Informationen Technical information				
Gewindetiefe und Lochform Thread depth and hole type	max. 2,5 x d_1		max. 3 x d_1	max. 2 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	N 1.1-1.4, 2.1		P 4.1-5.1 M 3.1-4.1 N 2.4-2.5, 2.7 S 1.1-2.2, 2.4	P 4.1-5.1 M 3.1-4.1 N 2.4-2.5, 2.7 S 1.1-2.2, 2.4

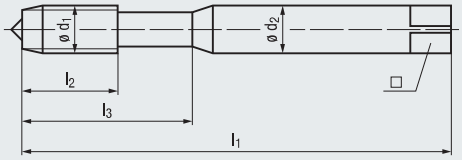
	ø d_1 mm		P mm	l_1	l_2	l_3	ø d_2	□		Enorm 1-AL GLT-104	Rekord 1C-TI TICN	Rekord 1D-TI TICN
MJ	3	x	0,5	56	11	18	3,5	2,7	2,6	B0503G10.1229	B0309611.1229	B0459611.1229
	4	x	0,7	63	13	21	4,5	3,4	3,4	B0503G10.1231	B0309611.1231	B0459611.1231
	5	x	0,8	70	15	25	6	4,9	4,3	B0503G10.1232	B0309611.1232	B0459611.1232
	6	x	1	80	17	30	6	4,9	5,1	B0503G10.1233	B0309611.1233	B0459611.1233
	8	x	1	90	17	35	8	6,2	7,1	B0503G10.1235	B0309611.1235	B0459611.1235
	8	x	1,25	90	20	35	8	6,2	6,9	B0503G10.2026	B0309611.2026	B0459611.2026
	10	x	1,25	100	18	39	10	8	8,9	B0503G10.1236	B0309611.1236	B0459611.1236
	10	x	1,5	100	22	39	10	8	8,6	B0503G10.2308	B0309611.2308	B0459611.2308

MJ

DIN ISO 5855

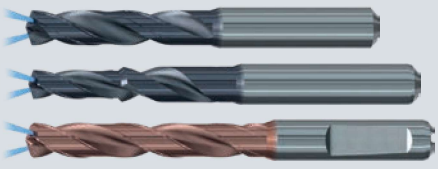
DIN 371

NI Nickel alloys



Technische Informationen Technical information	Toleranz · Tolerance	4HX / 4HX
	Beschichtung · Coating	TICN / TICN
	Schneidstoff · Cutting material	HSSE-PM / HSSE-PM
		L08 / R10
		D / 4-5 / C / 2-3
		O / P / O / P
Gewindetiefe und Lochform Thread depth and hole type		max. 3 x d_1 / max. 2 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78		N 2.8 / S 2.3, 2.5-2.6 / N 2.8 / S 2.3, 2.5-2.6

	ø d_1 mm		P mm	l_1	l_2	l_3	ø d_2	□		Rekord 1C-NI PM-TICN	Rekord 1DF-NI PM-TICN
MJ	3	x	0,5	56	11	18	3,5	2,7	2,6	B030J411.1229	B438J411.1229
	4	x	0,7	63	13	21	4,5	3,4	3,4	B030J411.1231	B438J411.1231
	5	x	0,8	70	15	25	6	4,9	4,3	B030J411.1232	B438J411.1232
	6	x	1	80	17	30	6	4,9	5,1	B030J411.1233	B438J411.1233
	8	x	1	90	17	35	8	6,2	7,1	B030J411.1235	B438J411.1235
	8	x	1,25	90	20	35	8	6,2	6,9	B030J411.2026	B438J411.2026
	10	x	1,25	100	18	39	10	8	8,9	B030J411.1236	B438J411.1236
	10	x	1,5	100	22	39	10	8	8,6	B030J411.2308	B438J411.2308



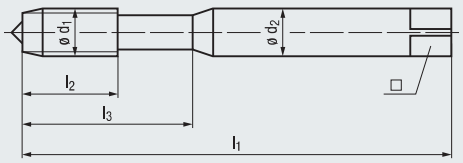
Spiralbohrer siehe Seite 11 - 70

Twist drills, see page 11 - 70

UNJC

ASME B1.1 [1)]

≈ DIN 371



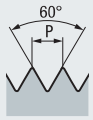
	AL Aluminium wrought alloys		TI Titanium	
	new			
Technische Informationen Technical information Toleranz · Tolerance	3B		3BX	3BX
Beschichtung · Coating	GLT-104		TICN	TICN
Schneidstoff · Cutting material	HSSE		HSSE	HSSE
	R45		L15	R15
	C / 2-3		D / 4-5	C / 2-3
	E / O		E / O / P	E / O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 2,5 x d_1		max. 3 x d_1	max. 2 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	N 1.1-1.4, 2.1		P 4.1-5.1 M 3.1-4.1 N 2.4-2.5, 2.7 S 1.1-2.2, 2.4	P 4.1-5.1 M 3.1-4.1 N 2.4-2.5, 2.7 S 1.1-2.2, 2.4

ø d_1 inch	inch	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		Enorm 1-AL GLT-104	Rekord 1C-TI TICN	Rekord 1D-TI TICN
Nr. 4	0.1120	40	56	11	18	3,5	2,7	2,3	B0503G10.5479	B0309611.5479	B0459611.5479
Nr. 6	0.1380	32	56	12	20	4	3	2,85	B0503G10.5481	B0309611.5481	B0459611.5481
Nr. 8	0.1640	32	63	13	21	4,5	3,4	3,5	B0503G10.5482	B0309611.5482	B0459611.5482
Nr. 10	0.1900	24	70	15	25	6	4,9	3,9	B0503G10.5483	B0309611.5483	B0459611.5483
1/4	0.2500	20	80	17	30	7	5,5	5,25	B0503G10.5485	B0309611.5485	B0459611.5485
5/16	0.3125	18	90	20	35	8	6,2	6,7	B0503G10.5486	B0309611.5486	B0459611.5486
3/8	0.3750	16	100	22	39	10	8	8,1	B0503G10.5487	B0309611.5487	B0459611.5487

[1)] früher ASME B1.15
formerly ASME B1.15

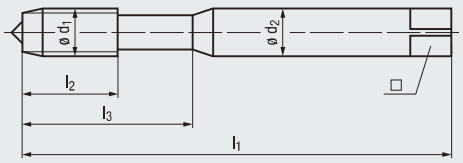
NI Nickel alloys			**Z** CNC-controlled machines					
			new	new				
3BX	3BX		3B	3B				
TICN	TICN			GLT-1				
HSSE-PM	**HSSE-PM**		HSSE	HSSE				
L08	R10		R45	R45				
D / 4-5	C / 2-3		C / 2-3	C / 2-3				
O / P	O / P		E / O / P	E / O / P				
max. 3 x d_1	max. 2 x d_1		max. 3 x d_1					
N 2.8 S 2.3, 2.5-2.6	N 2.8 S 2.3, 2.5-2.6		P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1				
Rekord 1C-NI PM-TICN	**Rekord 1DF-NI PM-TICN**		**Enorm 1-Z**	**Enorm 1-Z GLT-1**				
B030J411.5479	B438J411.5479		**B0503510.5479**	**B050C410.5479**				Nr. 4 - 40
B030J411.5481	B438J411.5481		**B0503510.5481**	**B050C410.5481**				Nr. 6 - 32
B030J411.5482	B438J411.5482		**B0503510.5482**	**B050C410.5482**				Nr. 8 - 32
B030J411.5483	B438J411.5483		**B0503510.5483**	**B050C410.5483**				Nr. 10 - 24
B030J411.5485	B438J411.5485		**B0503510.5485**	**B050C410.5485**				1/4 - 20
B030J411.5486	B438J411.5486		**B0503510.5486**	**B050C410.5486**				5/16 - 18
B030J411.5487	B438J411.5487		**B0503510.5487**	**B050C410.5487**				3/8 - 16

UNJF



ASME B1.1 [1]

≈ DIN 371



	AL Aluminium wrought alloys		TI Titanium	
	new			
Toleranz · Tolerance	3B		3BX	3BX
Beschichtung · Coating	GLT-104		TICN	TICN
Schneidstoff · Cutting material	HSSE		HSSE	HSSE
	R45		L15	R15
	C / 2-3		D / 4-5	C / 2-3
	E / O		E / O / P	E / O / P
Technische Informationen Technical information				
Gewindetiefe und Lochform Thread depth and hole type	max. 2,5 x d_1		max. 3 x d_1	max. 2 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	N 1.1-1.4, 2.1		P 4.1-5.1 M 3.1-4.1 N 2.4-2.5, 2.7 S 1.1-2.2, 2.4	P 4.1-5.1 M 3.1-4.1 N 2.4-2.5, 2.7 S 1.1-2.2, 2.4

ø d_1 inch	inch	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		Enorm 1-AL GLT-104	Rekord 1C-TI TICN	Rekord 1D-TI TICN
Nr. 4	0.1120	48	56	11	18	3,5	2,7	2,4	B0503G10.5505	B0309611.5505	B0459611.5505
Nr. 6	0.1380	40	56	12	20	4	3	3	B0503G10.5507	B0309611.5507	B0459611.5507
Nr. 8	0.1640	36	63	13	21	4,5	3,4	3,55	B0503G10.5508	B0309611.5508	B0459611.5508
Nr. 10	0.1900	32	70	15	25	6	4,9	4,15	B0503G10.5509	B0309611.5509	B0459611.5509
1/4	0.2500	28	80	17	30	7	5,5	5,55	B0503G10.5511	B0309611.5511	B0459611.5511
5/16	0.3125	24	90	17	35	8	6,2	7	B0503G10.5512	B0309611.5512	B0459611.5512
3/8	0.3750	24	90	18	35	10	8	8,6	B0503G10.5513	B0309611.5513	B0459611.5513

[1] früher ASME B1.15
formerly ASME B1.15

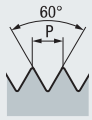
Spannzangen-Aufnahmen mit integrierter Übersetzung der Typenreihe Speedsynchro® Modular NFC
siehe Seite 646 - 648

Collet holders with integrated transmission of our Speedsynchro® Modular NFC series,
see page 646 - 648

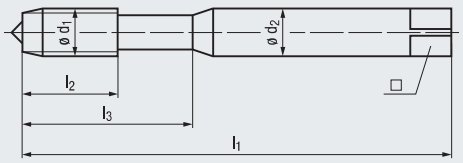
NI Nickel alloys			**Z** CNC-controlled machines					
3BX	3BX		3B	3B				
TICN	TICN			GLT-1				
HSSE-PM	**HSSE-PM**		HSSE	HSSE				
L08	R10		R45	R45				
D / 4-5	C / 2-3		C / 2-3	C / 2-3				
O / P	O / P		E / O / P	E / O / P				
max. 3 x d_1	max. 2 x d_1		max. 3 x d_1					
N 2.8 S 2.3, 2.5-2.6	N 2.8 S 2.3, 2.5-2.6		P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1				
Rekord 1C-NI PM-TICN	**Rekord 1DF-NI PM-TICN**		**Enorm 1-Z**	**Enorm 1-Z GLT-1**				
B030J411.5505	B438J411.5505		**B0503510.5505**	**B050C410.5505**				Nr. 4 - 48
B030J411.5507	B438J411.5507		**B0503510.5507**	**B050C410.5507**				Nr. 6 - 40
B030J411.5508	B438J411.5508		**B0503510.5508**	**B050C410.5508**				Nr. 8 - 36
B030J411.5509	B438J411.5509		**B0503510.5509**	**B050C410.5509**				Nr. 10 - 32
B030J411.5511	B438J411.5511		**B0503510.5511**	**B050C410.5511**				1/4 - 28
B030J411.5512	B438J411.5512		**B0503510.5512**	**B050C410.5512**				5/16 - 24
B030J411.5513	B438J411.5513		**B0503510.5513**	**B050C410.5513**				3/8 - 24

EG M (STI)

DIN 8140-2



DIN 40435



VA Stainless steel materials

AL Aluminium wrought alloys

new

	VA	AL	AL
Toleranz · Tolerance	6H mod.	6H mod.	6H mod.
Beschichtung · Coating	GLT-1		GLT-104
Schneidstoff · Cutting material	HSSE	HSSE	HSSE
	B / 4-5	B / ≈3	B / ≈3
	E / O / P	E / O	E / O
Gewindetiefe und Lochform Thread depth and hole type	max. 3 x d_1	max. 3 x d_1	
Einsatzgebiete – Material Applications – material ▸▸ 78	P 1.1-4.1 M 1.1-4.1 N 2.2	N 1.4	N 1.1-1.4, 2.1

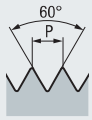
Nenngröße Nom. size ø d_1	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Rekord 1B-VA GLT-1	Rekord 1B-AL	Rekord 1B-AL GLT-104
EG M 2,5	3,085	0,45	56	11	18	3,5	2,7	2,65	B020C300.0965	B0204500.0965	B0203G00.0965
3	3,650	0,5	63	10	21	4,5	3,4	3,15	B020C300.0966	B0204500.0966	B0203G00.0966
4	4,910	0,7	70	12	25	6	4,9	4,2	B020C300.0968	B0204500.0968	B0203G00.0968
5	6,040	0,8	80	13	30	6	4,9	5,25	B020C300.0970	B0204500.0970	B0203G00.0970
6	7,300	1	90	17	35	8	6,2	6,3	B020C300.0971	B0204500.0971	B0203G00.0971
8	9,624	1,25	100	18	39	10	8	8,4	B020C300.0973	B0204500.0973	B0203G00.0973

DIN 40435 282

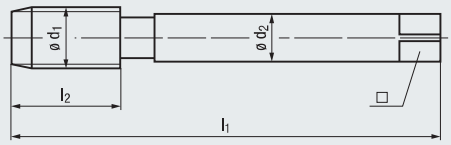
AL Aluminium wrought alloys		**Z** CNC-controlled machines						
new			new		new			
6H mod.		6H mod.	6H mod.	6H mod.	6H mod.			
GLT-104			GLT-1		GLT-1			
HSSE		HSSE	HSSE	HSSE	HSSE			
R45		R45	R45	R45	R45			
C / 2-3		C / 2-3	C / 2-3	**E / 1,5-2**	**E / 1,5-2**			
E / O		E / O / P	E / O / P	E / O / P	E / O / P			
max. 2,5 x d_1		max. 3 x d_1						
N 1.1-1.4, 2.1		**P** 1.1-3.1	**P** 1.1-4.1 **M** 1.1-4.1 **N** 1.4, 2.1-2.2 **N** 2.4-2.5 **S** 1.1	**P** 1.1-3.1	**P** 1.1-4.1 **M** 1.1-4.1 **N** 1.4, 2.1-2.2 **N** 2.4-2.5 **S** 1.1			
Enorm 1-AL GLT-104		**Enorm 1-Z**	**Enorm 1-Z GLT-1**	**Enorm 1-Z/E**	**Enorm 1-Z/E GLT-1**			
B0503G00.0965		**B0503500.0965**	**B050C400.0965**	**B0513500.0965**	**B051C400.0965**			**EG M** 2,5
B0503G00.0966		**B0503500.0966**	**B050C400.0966**	**B0513500.0966**	**B051C400.0966**			3
B0503G00.0968		**B0503500.0968**	**B050C400.0968**	**B0513500.0968**	**B051C400.0968**			4
B0503G00.0970		**B0503500.0970**	**B050C400.0970**	**B0513500.0970**	**B051C400.0970**			5
B0503G00.0971		**B0503500.0971**	**B050C400.0971**	**B0513500.0971**	**B051C400.0971**			6
B0503G00.0973		**B0503500.0973**	**B050C400.0973**	**B0513500.0973**	**B051C400.0973**			8
282		283	283	283	283			

EG M (STI)

DIN 8140-2



DIN 40435



VA Stainless steel materials

AL Aluminium wrought alloys

new

		VA		AL
Technische Informationen Technical information	Toleranz · Tolerance	6H mod.		6H mod.
	Beschichtung · Coating	GLT-1		GLT-104
	Schneidstoff · Cutting material	HSSE		HSSE
				R35
		B / 4-5		C / 2-3
		E / O / P		E / O
Gewindetiefe und Lochform Thread depth and hole type		max. 3 x d_1		max. 2,5 x d_1
Einsatzgebiete – Material Applications – material	▸▸ 78	P 1.1-4.1 M 1.1-4.1 N 2.2		N 1.1-1.4, 2.1

Nenngröße Nom. size ø d_1	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		VA Rekord 2B-VA GLT-1	AL Enorm 2-AL GLT-104
EG M 10	11,948	1,5	100	22	9	7	10,5	C020C300.0975	C0503G00.0975
12	14,274	1,75	110	26	11	9	12,5	C020C300.0977	C0503G00.0977
14	16,598	2	110	27	12	9	14,5		
16	18,598	2	125	27	14	11	16,5	C020C300.0979	
18	21,248	2,5	140	32	18	14,5	18,75		
20	23,248	2,5	160	34	18	14,5	20,75	C020C300.0981	
				DIN 40435				280	281

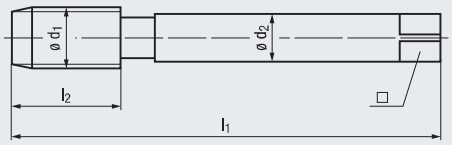
Bohrgewindefräser für Metrisches EG-Gewinde
siehe Seite 386 - 387

Drill thread mills for Metric STI thread,
see page 386 - 387

EG M (STI)

DIN 8140-2

DIN 40435



Z
CNC-controlled machines

new

new

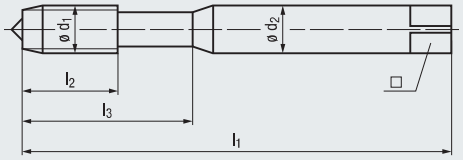
Technische Informationen Technical information	Toleranz · Tolerance	6H mod.	6H mod.	6H mod.	6H mod.
	Beschichtung · Coating		GLT-1		GLT-1
	Schneidstoff · Cutting material	HSSE	HSSE	HSSE	HSSE
		R45	R45	R45	R45
		C / 2-3	C / 2-3	**E / 1,5-2**	**E / 1,5-2**
		E / O / P	E / O / P	E / O / P	E / O / P
Gewindetiefe und Lochform Thread depth and hole type			max. 3 x d_1		
Einsatzgebiete – Material Applications – material	▸▸ 78	**P** 1.1-3.1	**P** 1.1-4.1 **M** 1.1-4.1 **N** 1.4, 2.1-2.2 **N** 2.4-2.5 **S** 1.1	**P** 1.1-3.1	**P** 1.1-4.1 **M** 1.1-4.1 **N** 1.4, 2.1-2.2 **N** 2.4-2.5 **S** 1.1

	Nenngröße Nom. size ø d_1	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Enorm 2-Z	Enorm 2-Z GLT-1	Enorm 2-Z/E	Enorm 2-Z/E GLT-1
EG M	10	11,948	1,5	100	15	9	7	10,5	**C0503500.0975**	**C050C400.0975**	**C0513500.0975**	**C051C400.0975**
	12	14,274	1,75	110	20	11	9	12,5	**C0503500.0977**	**C050C400.0977**	**C0513500.0977**	**C051C400.0977**
	14	16,598	2	110	20	12	9	14,5				
	16	18,598	2	125	20	14	11	16,5	**C0503500.0979**	**C050C400.0979**	**C0513500.0979**	**C051C400.0979**
	18	21,248	2,5	140	27	18	14,5	18,75				
	20	23,248	2,5	160	30	18	14,5	20,75	**C0503500.0981**	**C050C400.0981**	**C0513500.0981**	**C051C400.0981**
					DIN 40435				281	281	281	281

EG UNC (STI)

ASME B18.29.1

≈ DIN 371



VA Stainless steel materials

AL Aluminium wrought alloys

new

		VA		AL
Technische Informationen Technical information	Toleranz · Tolerance	2B		2B
	Beschichtung · Coating	GLT-1		GLT-104
	Schneidstoff · Cutting material	HSSE		HSSE
				R45
		B / 4-5		C / 2-3
		E / O / P		E / O
Gewindetiefe und Lochform Thread depth and hole type		max. 3 x d_1		max. 2,5 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78		P 1.1-4.1 M 1.1-4.1 N 2.2		N 1.1-1.4, 2.1

Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		Rekord 1B-VA GLT-1	Enorm 1-AL GLT-104
EG Nr. 4	3,671	40	63	13	21	4,5	3,4	3,1	B020C300.5611	B0503G00.5611
Nr. 6	4,536	32	70	14	25	6	4,9	3,8	B020C300.5613	B0503G00.5613
Nr. 8	5,197	32	80	16	30	6	4,9	4,4	B020C300.5614	B0503G00.5614
Nr. 10	6,200	24	80	17	30	7	5,5	5,2	B020C300.5615	B0503G00.5615
1/4	8,002	20	90	20	35	8	6,2	6,7	B020C300.5617	B0503G00.5617
5/16	9,771	18	100	22	39	10	8	8,4	B020C300.5618	B0503G00.5618

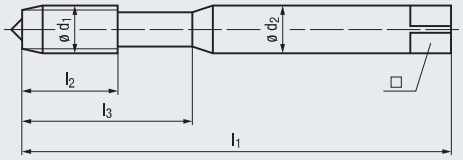
≈ DIN 376 286

EG UNC (STI)

ASME B18.29.1

60° P

≈ DIN 371



Z
CNC-controlled machines

new

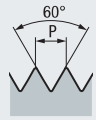
Technische Informationen Technical information	Toleranz · Tolerance	2B / 2B
	Beschichtung · Coating	GLT-1
	Schneidstoff · Cutting material	HSSE / HSSE
		R45 / R45
		E / 1,5-2 / E / 1,5-2
		E / O / P / E / O / P
Gewindetiefe und Lochform Thread depth and hole type		max. 3 x d_1
Einsatzgebiete – Material Applications – material	▸▸ 78	P 1.1-3.1 / P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1

Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		Enorm 1-Z/E	Enorm 1-Z/E GLT-1
EG Nr. 4	3,671	40	63	7	21	4,5	3,4	3,1	B0513500.5611	B051C400.5611
Nr. 6	4,536	32	70	8	25	6	4,9	3,8	B0513500.5613	B051C400.5613
Nr. 8	5,197	32	80	8	30	6	4,9	4,4	B0513500.5614	B051C400.5614
Nr. 10	6,200	24	80	10	30	7	5,5	5,2	B0513500.5615	B051C400.5615
1/4	8,002	20	90	14	35	8	6,2	6,7	B0513500.5617	B051C400.5617
5/16	9,771	18	100	16	39	10	8	8,4	B0513500.5618	B051C400.5618
					≈ DIN 376				286	286

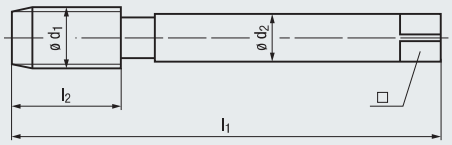
Kühlschmierstoffe siehe Seite 300 - 301 Coolant-lubricants, see page 300 - 301

EG UNC (STI)

ASME B18.29.1

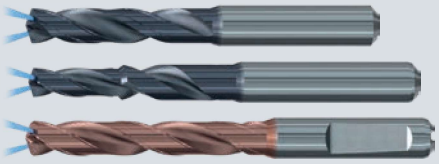


≈ DIN 376



	VA Stainless steel materials		Z CNC-controlled machines	
				new
			$l_2 \approx 10 \times P$	$l_2 \approx 10 \times P$
Toleranz · Tolerance	2B		2B	2B
Beschichtung · Coating	GLT-1			GLT-1
Schneidstoff · Cutting material	HSSE		HSSE	HSSE
			R45	R45
	B / 4-5		E / 1,5-2	E / 1,5-2
	E / O / P		E / O / P	E / O / P
Gewindetiefe und Lochform Thread depth and hole type	max. 3 x d_1		max. 3 x d_1	
Einsatzgebiete – Material Applications – material ▸▸ 78	P 1.1-4.1 M 1.1-4.1 N 2.2		P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1

Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Rekord 2B-VA GLT-1	Enorm 2-Z/E	Enorm 2-Z/E GLT-1
EG 3/8	11,587	16	100	22	9	7	10	C020C300.5619	C0513500.5619	C051C400.5619
7/16	13,469	14	110	26	11	9	11,6	C020C300.5620	C0513500.5620	C051C400.5620
1/2	15,237	13	110	27	12	9	13,3	C020C300.5621	C0513500.5621	C051C400.5621
9/16	17,039	12	110	27	12	9	14,9	C020C300.5622	C0513500.5622	C051C400.5622
5/8	18,875	11	125	30	14	11	16,5	C020C300.5623	C0513500.5623	C051C400.5623
3/4	22,349	10	140	32	18	14,5	19,75	C020C300.5624	C0513500.5624	C051C400.5624
				≈ DIN 371				284	285	285



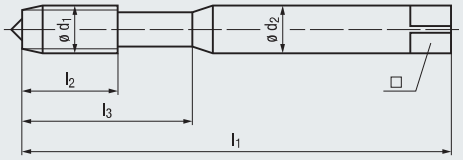
Spiralbohrer siehe Seite 11 - 70

Twist drills, see page 11 - 70

EG UNF (STI)

ASME B18.29.1

≈ DIN 371



VA Stainless steel materials

AL Aluminium wrought alloys

new

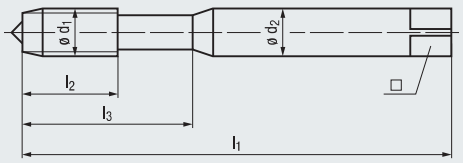
		VA		AL
Technische Informationen Technical information	Toleranz · Tolerance	2B		2B
	Beschichtung · Coating	GLT-1		GLT-104
	Schneidstoff · Cutting material	HSSE		HSSE
				R45
		B / 4-5		C / 2-3
		E / O / P		E / O
Gewindetiefe und Lochform Thread depth and hole type		max. 3 x d_1		max. 2,5 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78		P 1.1-4.1 M 1.1-4.1 N 2.2		N 1.1-1.4, 2.1

Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		Rekord 1B-VA GLT-1		Enorm 1-AL GLT-104
EG Nr. 4	3,533	48	56	9	20	4	3	3	B020C300.5633		B0503G00.5633
Nr. 6	4,330	40	70	11	25	6	4,9	3,7	B020C300.5635		B0503G00.5635
Nr. 8	5,083	36	80	13	30	6	4,9	4,4	B020C300.5636		B0503G00.5636
Nr. 10	5,858	32	80	13	30	6	4,9	5,1	B020C300.5637		B0503G00.5637
1/4	7,528	28	90	17	35	8	6,2	6,6	B020C300.5639		B0503G00.5639
5/16	9,312	24	90	18	35	10	8	8,25	B020C300.5640		B0503G00.5640
				≈ DIN 374					289		

EG UNF (STI)

ASME B18.29.1

≈ DIN 371



Z CNC-controlled machines

new

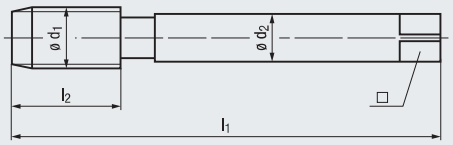
Technische Informationen Technical information	Toleranz · Tolerance	2B / 2B
	Beschichtung · Coating	– / GLT-1
	Schneidstoff · Cutting material	HSSE / HSSE
		R45 / R45
		E / 1,5-2 / **E / 1,5-2**
		E / O / P / E / O / P
Gewindetiefe und Lochform Thread depth and hole type		max. 3 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78		**P 1.1-3.1** / **P 1.1-4.1**, **M 1.1-4.1**, **N 1.4, 2.1-2.2**, **N 2.4-2.5**, **S 1.1**

	Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	l_3	ø d_2	□		Enorm 1-Z/E	Enorm 1-Z/E GLT-1
EG	Nr. 4	3,533	48	56	7	20	4	3	3	**B0513500.5633**	**B051C400.5633**
	Nr. 6	4,330	40	70	8	25	6	4,9	3,7	**B0513500.5635**	**B051C400.5635**
	Nr. 8	5,083	36	80	8	30	6	4,9	4,4	**B0513500.5636**	**B051C400.5636**
	Nr. 10	5,858	32	80	8	30	6	4,9	5,1	**B0513500.5637**	**B051C400.5637**
	1/4	7,528	28	90	10	35	8	6,2	6,6	**B0513500.5639**	**B051C400.5639**
	5/16	9,312	24	90	10	35	10	8	8,25	**B0513500.5640**	**B051C400.5640**
									≈ DIN 374	289	289

EG UNF (STI)

ASME B18.29.1

≈ DIN 374



VA Stainless steel materials

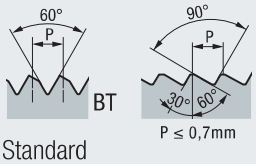
Z CNC-controlled machines

new

		VA		Z	
Technische Informationen Technical information	Toleranz · Tolerance	2B		2B	2B
	Beschichtung · Coating	GLT-1			GLT-1
	Schneidstoff · Cutting material	HSSE		HSSE	HSSE
				R45	R45
		B / 4-5		**E / 1,5-2**	**E / 1,5-2**
		E / O / P		E / O / P	E / O / P
Gewindetiefe und Lochform Thread depth and hole type		max. 3 x d_1		max. 3 x d_1	
Einsatzgebiete – Material Applications – material	▸▸ 78	P 1.1-4.1 M 1.1-4.1 N 2.2		P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1

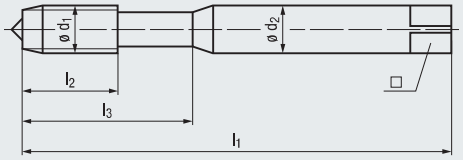
	Nenngröße Nom. size ø d_1	ø d_1 mm	P Gg/1" (tpi)	l_1	l_2	ø d_2	□		Rekord 2B-VA GLT-1		Enorm 2-Z/E	Enorm 2-Z/E GLT-1
EG	3/8	10,899	24	90	18	8	6,2	9,8	**C020C300.5641**		**C0513500.5641**	**C051C400.5641**
	7/16	12,763	20	100	22	9	7	11,5	**C020C300.5642**		C0513500.5642	C051C400.5642
	1/2	14,352	20	100	22	11	9	13,1	**C020C300.5643**		**C0513500.5643**	**C051C400.5643**
	9/16	16,121	18	100	22	12	9	14,7	**C020C300.5644**		C0513500.5644	C051C400.5644
	5/8	17,709	18	110	25	14	11	16,25	**C020C300.5645**		**C0513500.5645**	**C051C400.5645**
	3/4	21,112	16	125	25	16	12	19,5	**C020C300.5646**		**C0513500.5646**	**C051C400.5646**
					≈ DIN 371				287		288	288

LK-M



EMUGE-Norm · EMUGE Standard

DIN 371



VA Stainless steel materials

GG Cast iron

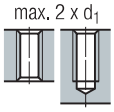
Technische Informationen
Technical information

	VA	GG
Toleranz · Tolerance		
Beschichtung · Coating	GLT-1	NT
Schneidstoff · Cutting material	HSSE	HSSE
	B / 4-5	C / 2-3
	E / O / P	E

Gewindetiefe und Lochform
Thread depth and hole type

VA: max. 3 x d_1

GG: max. 2 x d_1



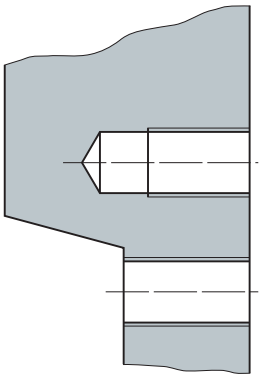
Einsatzgebiete – Material
Applications – material

78

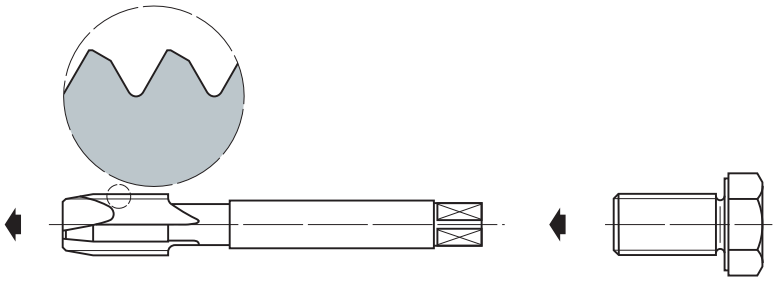
VA:
- P 1.1-4.1
- M 1.1-4.1
- N 2.2

GG:
- K 1.1-1.2

	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Rekord 1B-VA GLT-1	Rekord 1A-GG NT
LK-M	3	0,5	56	11	18	3,5	2,7	2,7		
	4	0,7	63	13	21	4,5	3,4	3,55		B0102000.1048
	5	0,8	70	15	25	6	4,9	4,4	**B020C300.1050**	B0102000.1050
	6	1	80	17	30	6	4,9	5,2	**B020C300.1052**	**B0102000.1052**
	8	1,25	90	20	35	8	6,2	7	**B020C300.1054**	**B0102000.1054**
	10	1,5	100	22	39	10	8	8,8	**B020C300.1056**	**B0102000.1056**
					DIN 376				292	292

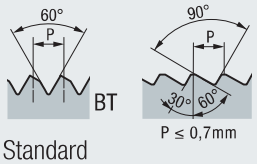


Ausführung BT
Type BT



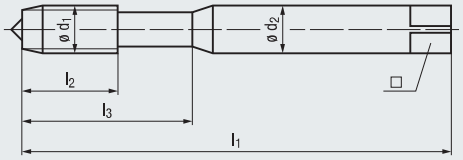
BT = Keilfäche nach hinten geneigt
BT = Wedge ramp inclined backwards

LK-M



EMUGE-Norm · EMUGE Standard

DIN 371



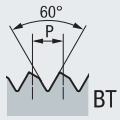
	AL Aluminium wrought alloys		Z CNC-controlled machines	
	new			new
Toleranz · Tolerance				
Beschichtung · Coating	GLT-104			GLT-1
Schneidstoff · Cutting material	HSSE		HSSE	HSSE
	R45		R45	R45
	C / 2-3		E / 1,5-2	E / 1,5-2
	E / O		E / O / P	E / O / P
Technische Informationen Technical information				
Gewindetiefe und Lochform Thread depth and hole type	max. 2,5 x d_1		max. 3 x d_1	
Einsatzgebiete – Material Applications – material ▸▸ 78	N 1.1-1.4, 2.1		P 1.1-3.1	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1

	ø d_1 mm	P mm	l_1	l_2	l_3	ø d_2	□		Enorm 1-AL GLT-104		Enorm 1-Z/E	Enorm 1-Z/E GLT-1
LK-M	3	0,5	56	6	18	3,5	2,7	2,7	**B0503G00.1046**		**B0513500.1046**	B051C400.1046
	4	0,7	63	7	21	4,5	3,4	3,55	**B0503G00.1048**		**B0513500.1048**	B051C400.1048
	5	0,8	70	8	25	6	4,9	4,4	**B0503G00.1050**		**B0513500.1050**	B051C400.1050
	6	1	80	10	30	6	4,9	5,2	**B0503G00.1052**		**B0513500.1052**	**B051C400.1052**
	8	1,25	90	14	35	8	6,2	7	**B0503G00.1054**		**B0513500.1054**	**B051C400.1054**
	10	1,5	100	16	39	10	8	8,8	**B0503G00.1056**		**B0513500.1056**	**B051C400.1056**
					DIN 376						293	293

Werkzeug-Aufnahmen der Typenreihe Softsynchro® siehe Seite 617 - 644

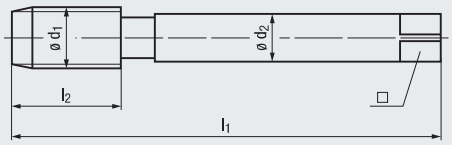
Tool holders of our Softsynchro® series, see page 617 - 644

LK-M



EMUGE-Norm · EMUGE Standard

DIN 376



VA Stainless steel materials

GG Cast iron

Technische Informationen
Technical information

	VA	GG
Toleranz · Tolerance		
Beschichtung · Coating	GLT-1	NT
Schneidstoff · Cutting material	HSSE	HSSE
	B / 4-5	C / 2-3
	E / O / P	E

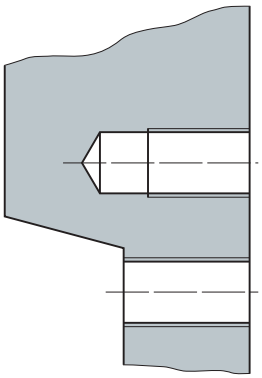
Gewindetiefe und Lochform
Thread depth and hole type

VA	GG
max. 3 x d_1	max. 2 x d_1

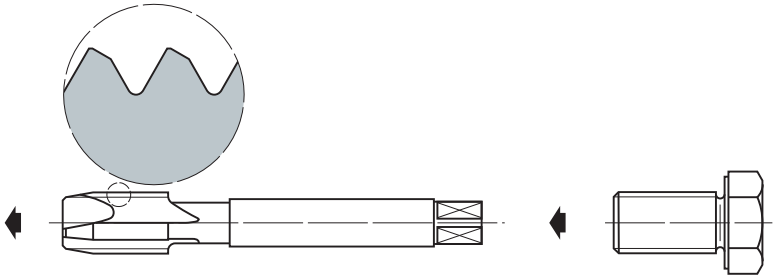
Einsatzgebiete – Material
Applications – material
78

	VA	GG
P	1.1-4.1	
M	1.1-4.1	
N	2.2	
K		1.1-1.2

	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Rekord 2B-VA GLT-1	Rekord 2A-GG NT
LK-M	12	1,75	110	24	9	7	10,7	**C020C300.1058**	C0102000.1058
	14	2	110	26	11	9	12,5		
	16	2	110	27	12	9	14,5	**C020C300.1060**	C0102000.1060
	20	2,5	140	32	16	12	18	**C020C300.1062**	C0102000.1062
	24	3	160	34	18	14,5	21,5		C0102000.1064
					DIN 371			290	290



Ausführung BT
Type BT



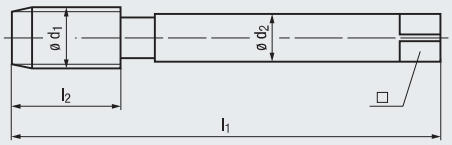
BT = Keilfläche nach hinten geneigt
BT = Wedge ramp inclined backwards

LK-M

BT

EMUGE-Norm · EMUGE Standard

DIN 376



Z
CNC-controlled machines

new

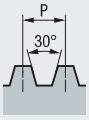
Technische Informationen Technical information	Toleranz · Tolerance	
	Beschichtung · Coating	GLT-1
	Schneidstoff · Cutting material	HSSE
		R45
		E / 1,5-2
		E / O / P

Gewindetiefe und Lochform Thread depth and hole type	max. 3 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	P 1.1-3.1

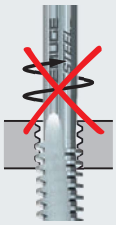
	P 1.1-4.1 M 1.1-4.1 N 1.4, 2.1-2.2 N 2.4-2.5 S 1.1

	ø d_1 mm	P mm	l_1	l_2	ø d_2	□		Enorm 2-Z/E	Enorm 2-Z/E GLT-1
LK-M	12	1,75	110	18	9	7	10,7	**C0513500.1058**	**C051C400.1058**
	14	2	110	20	11	9	12,5		
	16	2	110	22	12	9	14,5	**C0513500.1060**	**C051C400.1060**
	20	2,5	140	25	16	12	18	C0513500.1062	C051C400.1062
	24	3	160	30	18	14,5	21,5	C0513500.1064	C051C400.1064
					DIN 371			291	291

Tr

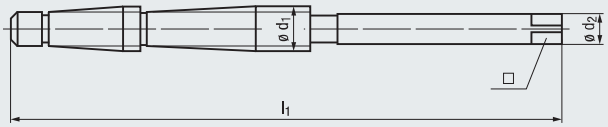


DIN 103



Nicht reversieren!
No reversal!

2-Stufen-Ausführung
2-step design



STEEL
Steel materials

Technische Informationen
Technical information

Toleranz · Tolerance	7H	7H
Beschichtung · Coating		
Schneidstoff · Cutting material	HSSE	HSSE
	L05	**LH, R05**
	0	0

Gewindetiefe und Lochform
Thread depth and hole type

max. 2 x d_1 [1)]

Einsatzgebiete – Material
Applications – material

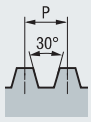
78

P	**2.1-3.1**	**P** **2.1-3.1**
K	**1.1-4.2**	**K** **1.1-4.2**
N	**2.4-2.6**	**N** **2.4-2.6**

	ø d_1 mm		P mm	l_1	ø d_2	□		**TRAPEZ 2Stuf STEEL**	**TRAPEZ 2Stuf STEEL-LH**
Tr	8	x	1,5	105	6	4,9	6,6	G0351000.7040	G0351050.7040
	9	x	2	130	7	5,5	7,2	G0351000.7042	G0351050.7042
	10	x	2	130	7	5,5	8,2	G0351000.7043	G0351050.7043
	10	x	3	155	7	5,5	7,25	G0351000.7044	G0351050.7044
	11	x	3	155	8	6,2	8,25	G0351000.7045	G0351050.7045
	12	x	3	160	9	7	9,25	G0351000.7046	G0351050.7046
	14	x	3	170	10	8	11,25	G0351000.7047	G0351050.7047
	14	x	4	195	10	8	10,25	G0351000.7048	G0351050.7048
	16	x	4	225	12	9	12,25	G0351000.7051	G0351050.7051
	18	x	4	225	14	11	14,25	G0351000.7052	G0351050.7052
	20	x	4	225	16	12	16,25	G0351000.7053	G0351050.7053
	22	x	5	260	16	12	17,25	G0351000.7054	G0351050.7054
	24	x	5	285	18	14,5	19,25	G0351000.7055	G0351050.7055
	26	x	5	285	20	16	21,25	G0351000.7057	G0351050.7057
	28	x	5	300	22	18	23,25	G0351000.7058	G0351050.7058
	30	x	6	335	22	18	24,25	G0351000.7059	G0351050.7059
	32	x	6	335	25	20	26,25	G0351000.7060	G0351050.7060
	34	x	6	350	28	22	28,25	G0351000.7061	G0351050.7061
	36	x	6	350	28	22	30,25	G0351000.7062	G0351050.7062
	38	x	7	385	28	22	31,5	G0351000.7063	G0351050.7063
	40	x	7	400	32	24	33,5	G0351000.7064	G0351050.7064
	42	x	7	400	32	24	35,5	G0351000.7065	G0351050.7065
	44	x	7	410	36	29	37,5	G0351000.7066	G0351050.7066
	46	x	8	440	36	29	38,5	G0351000.7067	G0351050.7067
	48	x	8	455	40	32	40,5	G0351000.7068	G0351050.7068
	50	x	8	470	40	32	42,5	G0351000.7069	G0351050.7069
	52	x	8	470	40	32	44,5	G0351000.7070	G0351050.7070

[1)] Bei entsprechender Einspannlänge bis ca. 2,5 x d_1
With sufficient clamping length up to approx. 2,5 x d_1

Tr

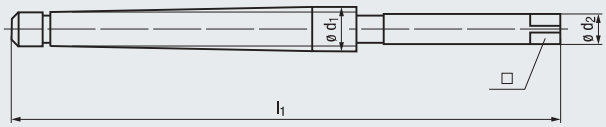


DIN 103

NC

VA
Stainless steel materials

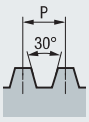
Muss mit zwangsläufiger Steigung geschnitten werden
Positive feed control is necessary



Technische Informationen Technical information	Toleranz · Tolerance	7H / 7H
	Beschichtung · Coating	NT / NT
	Schneidstoff · Cutting material	HSSE / HSSE
		L25 / LH, R25
		0 / 0
Gewindetiefe und Lochform Thread depth and hole type		max. 1,5 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78		P 2.1-3.1 / P 2.1-3.1 K 1.1-4.2 / K 1.1-4.2 N 2.4-2.6 / N 2.4-2.6

	ø d_1 mm		P mm	l_1	ø d_2	□		TRAPEZ AM-VA NT	TRAPEZ AM-VA-LH NT
Tr	8	x	1,5	90	6	4,9	6,6	G0303000.7040	G0303050.7040
	9	x	2	110	7	5,5	7,2	G0303000.7042	G0303050.7042
	10	x	2	110	7	5,5	8,2	G0303000.7043	G0303050.7043
	10	x	3	130	7	5,5	7,25	G0303000.7044	G0303050.7044
	11	x	3	130	8	6,2	8,25	G0303000.7045	G0303050.7045
	12	x	3	140	9	7	9,25	G0303000.7046	G0303050.7046
	14	x	3	145	10	8	11,25	G0303000.7047	G0303050.7047
	14	x	4	165	10	8	10,25	G0303000.7048	G0303050.7048
	16	x	4	190	12	9	12,25	G0303000.7051	G0303050.7051
	18	x	4	195	14	11	14,25	G0303000.7052	G0303050.7052
	20	x	4	195	16	12	16,25	G0303000.7053	G0303050.7053
	22	x	5	220	16	12	17,25	G0303000.7054	G0303050.7054
	24	x	5	245	18	14,5	19,25	G0303000.7055	G0303050.7055
	26	x	5	245	20	16	21,25	G0303000.7057	G0303050.7057
	28	x	5	260	22	18	23,25	G0303000.7058	G0303050.7058
	30	x	6	285	22	18	24,25	G0303000.7059	G0303050.7059

Tr

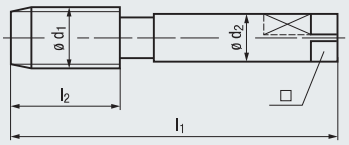


DIN 103

≈ DIN 352

MS
Copper-zinc alloys

Speziell für Drehautomaten
Specially made for automatic lathes



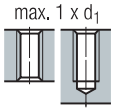
Technische Informationen
Technical information

Toleranz · Tolerance: 7H
Beschichtung · Coating
Schneidstoff · Cutting material: HSSE

E / 1,5-2
0

Gewindetiefe und Lochform
Thread depth and hole type

max. 1 x d_1



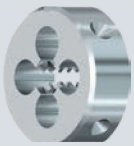
Einsatzgebiete – Material
Applications – material

78

N 2.3

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		TRAPEZ AUT-A MS-R
Tr	8	x	1,5	70	22	8 [1]	6,2	6,6	G0442500.7040
	8	x	2	70	22	8 [1]	6,2	6,2	G0442500.7041
	9	x	2	70	22	8 [1]	6,2	7,2	G0442500.7042
	10	x	2	70	22	8 [1]	6,2	8,2	G0442500.7043
	10	x	3	70	22	8 [1]	6,2	7,25	G0442500.7044
	11	x	3	75	24	9	7	8,25	G0442500.7045
	12	x	3	75	25	9	7	9,25	G0442500.7046
	14	x	3	80	26	10 [1]	8	11,25	G0442500.7047
	14	x	4	80	26	10 [1]	8	10,25	G0442500.7048
	16	x	4	80	27	12	9	12,25	G0442500.7051
	18	x	4	95	32	12 [1]	9	14,25	G0442500.7052
	20	x	4	95	32	15 [1]	12	16,25	G0442500.7053

[1] Spezieller AUT-Schaft
Special shank for "AUT" taps

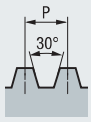


Schneideisen für Trapez-Gewinde
siehe Seite 538 - 539

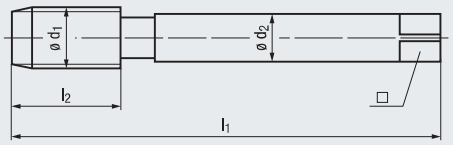
Dies for trapezoidal threads,
see page 538 - 539

Tr-F

DIN 103



≈ DIN 374/376



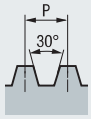
	STEEL Steel materials			VA Stainless steel materials
				3)
Technische Informationen Technical information Toleranz · Tolerance	7H	7H		7H
Beschichtung · Coating				NT
Schneidstoff · Cutting material	HSSE	HSSE		HSSE
	L15	LH, R15		L25
	0	0		0
Gewindetiefe und Lochform Thread depth and hole type	max. 2 x d_1 2)			max. 2 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	P 1.1-2.1	P 1.1-2.1		P 1.1-3.1 K 2.1-4.2 N 2.4-2.6

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		TRAPEZ Rekord 2C-STEEL	TRAPEZ Rekord 2C-STEEL-LH		TRAPEZ Rekord 2C-VA-NT
Tr	9	x	1,5	100	22	7	5,5	7,6	G0321000.7111	G0321050.7111		G0323000.7111
	10	x	1,5	100	22	7	5,5	8,6	G0321000.7112	G0321050.7112		G0323000.7112
	11	x	2	100	22	8	6,2	9,2	G0321000.7128	G0321050.7128		G0323000.7128
	12	x	2	110	25	9	7	10,2	G0321000.7129	G0321050.7129		G0323000.7129
	14	x	2	110	26	11	9	12,2	G0321000.7130	G0321050.7130		G0323000.7130
	16	x	2	110	27	12	9	14,2	G0321000.7132	G0321050.7132		G0323000.7132
	18	x	2	125	27	14	11	16,2	G0321000.7133	G0321050.7133		G0323000.7133
	20	x	2	140	27	16	12	18,2	G0321000.7134	G0321050.7134		G0323000.7134
	22	x	3	160	34	18	14,5	19,25	G0321000.7156	G0321050.7156		G0323000.7156
	24	x	3	160	36	18	14,5	21,25	G0321000.7157	G0321050.7157		G0323000.7157
	26	x	3	160	36	20	16	23,25	G0321000.7159	G0321050.7159		G0323000.7159
	28	x	3	180	40	22	18	25,25	G0321000.7160	G0321050.7160		G0323000.7160
	30	x	3	180	40	22	18	27,25	G0321000.7161	G0321050.7161		G0323000.7161

2) Bei entsprechender Einspannlänge bis ca. 2,5 x d_1
With sufficient clamping length up to approx. 2,5 x d_1

3) Muss mit zwangsläufiger Steigung geschnitten werden
Positive feed control is necessary

Tr-F

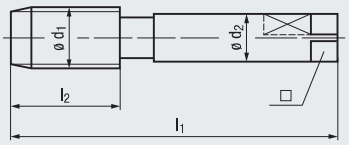


DIN 103

≈ DIN 352

MS
Copper-zinc alloys

Speziell für Drehautomaten
Specially made for automatic lathes

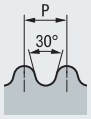


Technische Informationen Technical information	Toleranz · Tolerance: 7H Beschichtung · Coating: HSSE Schneidstoff · Cutting material: E / 1,5-2 0
Gewindetiefe und Lochform Thread depth and hole type	max. 1 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	N 2.3

	ø d_1 mm		P mm	l_1	l_2	ø d_2	□		TRAPEZ AUT-A MS-R
Tr	9	x	1,5	70	22	8 [1]	6,2	7,6	G0442500.7111
	10	x	1,5	70	22	8 [1]	6,2	8,6	G0442500.7112
	11	x	2	75	24	9	7	9,2	G0442500.7128
	12	x	2	75	25	9	7	10,2	G0442500.7129
	14	x	2	80	26	10 [1]	8	12,2	G0442500.7130
	16	x	2	80	27	12	9	14,2	G0442500.7132
	18	x	2	80	22	12 [1]	9	16,2	G0442500.7133
	20	x	2	80	22	15 [1]	12	18,2	G0442500.7134
	22	x	3	100	32	15 [1]	12	19,25	G0442500.7156
	24	x	3	110	36	18	14,5	21,25	G0442500.7157
	26	x	3	110	36	18	14,5	23,25	G0442500.7159
	28	x	3	125	36	18 [1]	14,5	25,25	G0442500.7160
	30	x	3	125	34	18 [1]	14,5	27,25	G0442500.7161

[1] Spezieller AUT-Schaft
Special shank for "AUT" taps

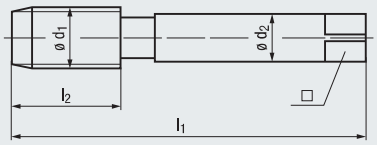
Rd



DIN 405

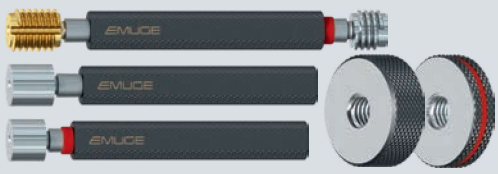
≈ DIN 352

STEEL
Steel materials



Technische Informationen Technical information	Toleranz · Tolerance: 7H Beschichtung · Coating Schneidstoff · Cutting material: HSSE C / 2-3 O
Gewindetiefe und Lochform Thread depth and hole type	max. 1 x d_1
Einsatzgebiete – Material Applications – material ▸▸ 78	K 1.1-4.2 N 2.3

	ø d_1 mm		P Gg/1" (tpi)	l_1	l_2	ø d_2	□		RUND Rekord A-STEEL
Rd	8	x	10	70	22	8	6,2	6	G0401000.7287
	9	x	10	70	22	8	6,2	7	G0401000.7288
	10	x	10	70	22	8	6,2	8	G0401000.7289
	11	x	10	70	22	8	6,2	9	G0401000.7290
	12	x	10	75	25	9	7	10	G0401000.7291
	14	x	8	80	26	11	9	11,5	G0401000.7293
	16	x	8	80	27	12	9	13,5	G0401000.7294
	18	x	8	95	32	14	11	15,5	G0401000.7295
	20	x	8	95	32	16	12	17,5	G0401000.7296
	22	x	8	100	32	18	14,5	19,5	G0401000.7297
	24	x	8	110	36	18	14,5	21,5	G0401000.7298
	26	x	8	110	36	20	16	23,5	G0401000.7299
	28	x	8	125	34	22	18	25,5	G0401000.7300
	30	x	8	125	34	22	18	27,5	G0401000.7301



Gewindelehren
siehe Seite 541 - 594

Thread gauges,
see page 541 - 594

Gewindeschneidöle und -pasten

Mit seinen chlorfreien Gewindeschneidölen und -pasten erbringt EMUGE-FRANKEN einen weiteren Beitrag zum Thema Umweltschutz.

Die Kühlschmierstoffe sind überwiegend kennzeichnungsfrei und erfüllen alle Anforderungen der aktuellen EU-Verordnung zur Registrierung, Bewertung, Zulassung und Beschränkung chemischer Stoffe (REACH).

Besondere Bedeutung sollte bei der Herstellung von Gewinden dem Kühlschmierstoff zugeordnet werden. EMUGE-Kühlschmierstoffe sind speziell auf den zu bearbeitenden Werkstoff bzw. auf die vorhandenen Arbeitsbedingungen abgestimmt.

Thread cutting oils and pastes

EMUGE-FRANKEN makes another contribution to the protection of the environment with its chlorine-free cutting oils and pastes.

Most coolant-lubricants do not require a hazard classification and meet all the requirements of the current EU Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

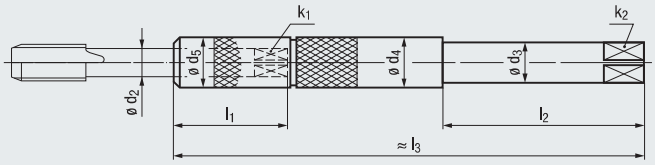
In the production of threads, special attention should always be paid to the use of coolant-lubricant. EMUGE coolant-lubricants are specially designed for the materials they are recommended for, and for typical modern work conditions as known from our experience.

		Gewindeschneidöle, chlorfrei	Thread cutting oils, chlorine-free
1+ STEEL	P M K N S H	**Für Stahlwerkstoffe** Kann sowohl für Pinsel- als auch für Umlaufschmierung verwendet werden. Für die Bearbeitung von Buntmetallen nur bedingt geeignet!	**For steel materials** Can be used for brush and circulation lubrication. Limited suitability for the machining of non-ferrous materials!
2+ CAST IRON	P M **K** N S H	**Für Gusswerkstoffe** Kann sowohl für Pinsel- als auch für Umlaufschmierung verwendet werden.	**For cast materials** Can be used for brush and circulation lubrication.
3+ EMULSION	**P M K N S** H	**Für nahezu alle Werkstoffe** Als Emulsion im Mischungsverhältnis 1:8 einzusetzen. Kann auch im unverdünnten Zustand verwendet werden. Für die Bearbeitung von Buntmetallen nur bedingt geeignet!	**For almost all materials** For use as emulsion in a mixing ratio of 1:8. Can be used in undiluted state also. Limited suitability for the machining of non-ferrous materials!
4+ NON FERROUS	P M K **N** S H	**Für Nichteisen-Werkstoffe** Kann sowohl für Pinsel- als auch für Umlaufschmierung verwendet werden.	**For non ferrous materials** Can be used for brush and circulation lubrication.
5+ HIGH ALLOY	**P M K N S H**	**Für schwer zerspanbare Werkstoffe** Zum Gewindeformen hervorragend geeignet. Kann sowohl für Pinsel- als auch für Umlaufschmierung verwendet werden. Für die Bearbeitung von Buntmetallen nicht geeignet!	**For difficult materials** Perfectly suitable for the cold forming of threads. Can be used for brush and circulation lubrication. Limited suitability for the machining of non-ferrous materials!
		Gewindeschneidpaste, chlorfrei	**Thread cutting paste, chlorine-free**
6+ PASTE	**P M K N S H**	**Für schwer zerspanbare Werkstoffe** Zum Gewindeformen hervorragend geeignet. Besonders vorteilhaft bei waagrechter Bearbeitung, großen Abmessungen und Durchgangslochgewinden. Kann nur für Pinselschmierung verwendet werden. Für die Bearbeitung von Buntmetallen nur bedingt geeignet!	**For difficult materials** Perfectly suitable for the cold forming of threads. Especially useful in horizontal machining, with large thread sizes and through hole threads. To be used only for brush lubrication. Limited suitability for the machining of non-ferrous materials!

Nr. No.	Gebinde Container size	
1+ STEEL	1 kg	FZ191015.01
	5 kg	FZ191015.05
	10 kg	FZ191015.10
	20 kg	FZ191015.20
2+ CAST IRON	1 kg	FZ191115.01
	5 kg	FZ191115.05
	10 kg	FZ191115.10
	20 kg	FZ191115.20
3+ EMULSION	1 kg	FZ191215.01
	5 kg	FZ191215.05
	10 kg	FZ191215.10
	20 kg	FZ191215.20
4+ NON FERROUS	1 kg	FZ191315.01
	5 kg	FZ191315.05
	10 kg	FZ191315.10
	20 kg	FZ191315.20
5+ HIGH ALLOY	1 kg	FZ191415.01
	5 kg	FZ191415.05
	10 kg	FZ191415.10
	20 kg	FZ191415.20
6+ PASTE	0,26 kg [1]	FZ191515.003
	0,45 kg	FZ191515.005
	4,5 kg	FZ191515.05

[1] 310 ml Kartusche für den Einsatz in Kartuschenpresse
310 ml Cartridge for use in cartridge press

Kurze Ausführung
Short design

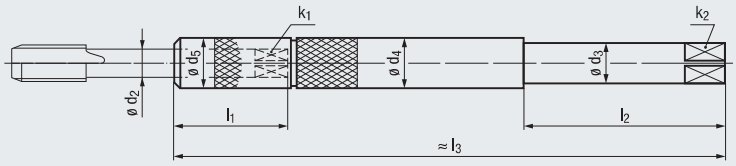


Für den Einsatz auf CNC-Maschinen und herkömmlichen Gewindeschneideinrichtungen

For use on CNC machines and conventional thread cutting machinery

Größe Size	Baumaße Gewindebohrer / Gewindeformer Dimensions of tap / cold-forming tap				Baumaße Schaftverlängerung Dimensions of extension						
	ø d_2	k_1			l_1	ø d_3 h9	k_2 h12	l_2	ø d_4 / d_5	l_3	
1	**2,8**	2,1	M 2 - M2,6	M 4	21	6	4,9	60	6,1	130	**FZ111300.01**
2	**3,5**	2,7	M 3	M 4,5 - M5	22	6	4,9	60	7,5	130	**FZ111300.02**
3	**4**	3	M 3,5	M 5,5	22	6	4,9	60	8,4	130	**FZ111300.03**
4	**4,5**	3,4	M 4	M 6	22	6	4,9	60	8,4	130	**FZ111300.04**
5	**6**	4,9	M 4,5 - M6	M 8	25	7	5,5	60	12,1	130	**FZ111300.05**
6	**7**	5,5	M 7	M 9 - M10	25	7	5,5	60	12,1	130	**FZ111300.06**
7	**8**	6,2	M 8	M11	29	8	6,2	60	13	130	**FZ111300.07**
8	**9**	7	M 9	M12	30	9	7	60	15	130	**FZ111300.08**
9	**10**	8	M10	–	32	10	8	60	15	130	**FZ111300.09**
10	**11**	9	–	M14	35	11	9	90	18	180	**FZ111300.10**
11	**12**	9	(M12)	M16	35	12	9	90	18	180	**FZ111300.11**
12	**14**	11	–	M18	39	14	11	90	22	180	**FZ111300.12**
13	**16**	12	–	M20	40	16	12	90	22	180	**FZ111300.13**
14	**18**	14,5	–	M22 - M24	42	18	14,5	100	26	200	**FZ111300.14**
15	**20**	16	–	M27	44	20	16	100	28	200	**FZ111300.15**
16	**22**	18	–	M30	46	22	18	100	30	200	**FZ111300.16**
17	**25**	20	–	M33	49	25	20	100	35	200	**FZ111300.17**

Lange Ausführung
Long design

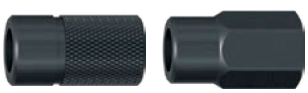


Für den Einsatz auf CNC-Maschinen und herkömmlichen Gewindeschneideinrichtungen

For use on CNC machines and conventional thread cutting machinery

Größe Size	Baumaße Gewindebohrer / Gewindeformer Dimensions of tap / cold-forming tap				Baumaße Schaftverlängerung Dimensions of extension						
	ø d_2	k_1			l_1	ø d_3 h9	k_2 h12	l_2	ø d_4 / d_5	l_3	
1	**2,8**	2,1	M 2 - M2,6	M 4	21	6	4,9	65	6,1	230	**FZ111310.01**
2	**3,5**	2,7	M 3	M 4,5 - M5	22	6	4,9	70	7,5	230	**FZ111310.02**
3	**4**	3	M 3,5	M 5,5	22	6	4,9	70	8,4	230	**FZ111310.03**
4	**4,5**	3,4	M 4	M 6	22	6	4,9	70	8,4	230	**FZ111310.04**
5	**6**	4,9	M 4,5 - M6	M 8	25	7	5,5	70	12,1	230	**FZ111310.05**
6	**7**	5,5	M 7	M 9 - M10	25	7	5,5	70	12,1	230	**FZ111310.06**
7	**8**	6,2	M 8	M11	29	8	6,2	80	13	230	**FZ111310.07**
8	**9**	7	M 9	M12	30	9	7	80	15	230	**FZ111310.08**
9	**10**	8	M10	–	32	10	8	80	15	230	**FZ111310.09**
10	**11**	9	–	M14	35	11	9	90	18	330	**FZ111310.10**
11	**12**	9	(M12)	M16	35	12	9	90	18	330	**FZ111310.11**
12	**14**	11	–	M18	39	14	11	90	22	330	**FZ111310.12**
13	**16**	12	–	M20	40	16	12	90	22	330	**FZ111310.13**
14	**18**	14,5	–	M22 - M24	42	18	14,5	100	26	330	**FZ111310.14**
15	**20**	16	–	M27	44	20	16	100	28	330	**FZ111310.15**
16	**22**	18	–	M30	46	22	18	100	30	330	**FZ111310.16**
17	**25**	20	–	M33	49	25	20	100	35	330	**FZ111310.17**

Weitere Ausführungen auf Anfrage
Further designs upon request



Ersatz-Spannkappen oder Sechskant-Spannkappen auf Anfrage
Spare clamping nuts or hexagon clamping nuts are available upon request

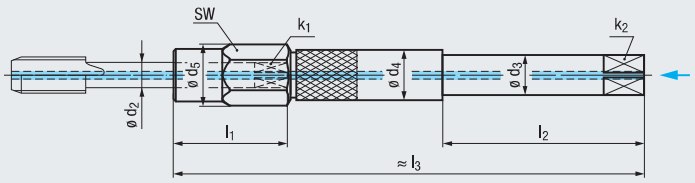
Kurze Ausführung, mit innerer Kühlschmierstoff-Zufuhr
Short design, with internal coolant supply

IKZ

p_{max} 50 bar (700 psi)

Für den Einsatz auf CNC-Maschinen und herkömmlichen Gewindeschneideinrichtungen

For use on CNC machines and conventional thread cutting machinery



Größe Size	Baumaße Gewindebohrer / Gewindeformer Dimensions of tap / cold-forming tap				Baumaße Schaftverlängerung Dimensions of extension							Spannkappe Clamping nut		
	ø d_2	k_1			l_1	ø d_3 h9	k_2 h12	l_2	ø d_4	ø d_5	l_3	SW (W/F)	M_d [1] Nm	
1	**2,8**	2,1	M 2 - M2,6	M 4	21	6	4,9	60	6,1	6,5	130	6	2	**FZ112600.01**
2	**3,5**	2,7	M 3	M 4,5 - M5	22	6	4,9	60	7,5	9	130	8	2	**FZ112600.02**
3	**4**	3	M 3,5	M 5,5	22	6	4,9	60	8,4	10	130	9	2,5	**FZ112600.03**
4	**4,5**	3,4	M 4	M 6	22	6	4,9	60	8,4	10	130	9	3	**FZ112600.04**
5	**6**	4,9	M 4,5 - M6	M 8	25	7	5,5	60	12,1	13,5	130	12	3,5	**FZ112600.05**
6	**7**	5,5	M 7	M 9 - M10	25	7	5,5	60	12,1	13,5	130	12	5	**FZ112600.06**
7	**8**	6,2	M 8	M11	29	8	6,2	60	13	14,5	130	13	6	**FZ112600.07**
8	**9**	7	M 9	M12	30	9	7	60	15	16,5	130	15	8	**FZ112600.08**
9	**10**	8	M10	–	32	10	8	60	15	16,5	130	15	11	**FZ112600.09**
10	**11**	9	–	M14	35	11	9	90	18	20	180	18	15	**FZ112600.10**
11	**12**	9	(M12)	M16	35	12	9	90	18	20	180	18	20	**FZ112600.11**
12	**14**	11	–	M18	39	14	11	90	22	25	180	22	25	**FZ112600.12**
13	**16**	12	–	M20	40	16	12	90	22	25	180	22	33	**FZ112600.13**
14	**18**	14,5	–	M22 - M24	42	18	14,5	100	26	29	200	26	45	**FZ112600.14**
15	**20**	16	–	M27	44	20	16	100	28	32	200	28	60	**FZ112600.15**
16	**22**	18	–	M30	46	22	18	100	30	34	200	30	77	**FZ112600.16**
17	**25**	20	–	M33	49	25	20	100	35	41	200	36	100	**FZ112600.17**

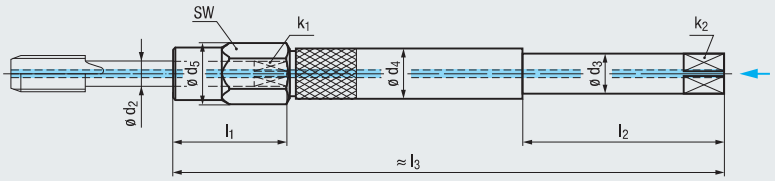
Lange Ausführung, mit innerer Kühlschmierstoff-Zufuhr
Long design, with internal coolant supply

IKZ

p_{max} 50 bar (700 psi)

Für den Einsatz auf CNC-Maschinen und herkömmlichen Gewindeschneideinrichtungen

For use on CNC machines and conventional thread cutting machinery



Größe Size	Baumaße Gewindebohrer / Gewindeformer Dimensions of tap / cold-forming tap				Baumaße Schaftverlängerung Dimensions of extension							Spannkappe Clamping nut		
	ø d_2	k_1			l_1	ø d_3 h9	k_2 h12	l_2	ø d_4	ø d_5	l_3	SW (W/F)	M_d [1] Nm	
1	**2,8**	2,1	M 2 - M2,6	M 4	21	6	4,9	65	6,1	6,5	230	6	2	**FZ112610.01**
2	**3,5**	2,7	M 3	M 4,5 - M5	22	6	4,9	70	7,5	9	230	8	2	**FZ112610.02**
3	**4**	3	M 3,5	M 5,5	22	6	4,9	70	8,4	10	230	9	2,5	**FZ112610.03**
4	**4,5**	3,4	M 4	M 6	22	6	4,9	70	8,4	10	230	9	3	**FZ112610.04**
5	**6**	4,9	M 4,5 - M6	M 8	25	7	5,5	70	12,1	13,5	230	12	3,5	**FZ112610.05**
6	**7**	5,5	M 7	M 9 - M10	25	7	5,5	70	12,1	13,5	230	12	5	**FZ112610.06**
7	**8**	6,2	M 8	M11	29	8	6,2	80	13	14,5	230	13	6	**FZ112610.07**
8	**9**	7	M 9	M12	30	9	7	80	15	16,5	230	15	8	**FZ112610.08**
9	**10**	8	M10	–	32	10	8	80	15	16,5	230	15	11	**FZ112610.09**
10	**11**	9	–	M14	35	11	9	90	18	20	330	18	15	**FZ112610.10**
11	**12**	9	(M12)	M16	35	12	9	90	18	20	330	18	20	**FZ112610.11**
12	**14**	11	–	M18	39	14	11	90	22	25	330	22	25	**FZ112610.12**
13	**16**	12	–	M20	40	16	12	90	22	25	330	22	33	**FZ112610.13**
14	**18**	14,5	–	M22 - M24	42	18	14,5	100	26	29	330	26	45	**FZ112610.14**
15	**20**	16	–	M27	44	20	16	100	28	32	330	28	60	**FZ112610.15**
16	**22**	18	–	M30	46	22	18	100	30	34	330	30	77	**FZ112610.16**
17	**25**	20	–	M33	49	25	20	100	35	41	330	36	100	**FZ112610.17**

[1] empfohlenes Anzugsdrehmoment
Recommend tightening torque

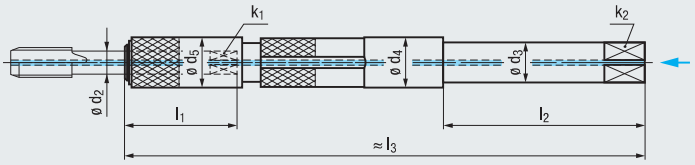
Ersatz-Sechskant-Spannkappen auf Anfrage
Spare hexagon clamping nuts are available upon request

Kurze Ausführung E-Lock/IKZ, mit innerer Kühlschmierstoff-Zufuhr
Short design E-Lock/IKZ, with internal coolant supply

E-Lock

IKZ

p_{max} 50 bar (700 psi)



Für den Einsatz auf CNC-Maschinen und herkömmlichen Gewindeschneideinrichtungen

For use on CNC machines and conventional thread cutting machinery

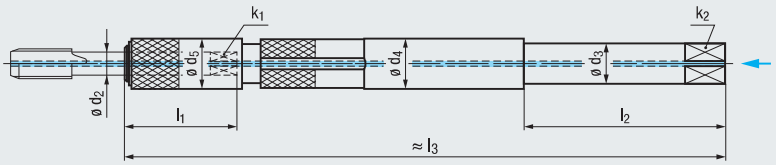
Größe Size	Baumaße Gewindebohrer / Gewindeformer Dimensions of tap / cold-forming tap				Baumaße Schaftverlängerung Dimensions of extension						Rillenform Slot shape	
	ø d_2	k_1			l_1	ø d_3 h9	k_2 h12	l_2	ø d_4 / d_5	l_3		
4	**4,5**	3,4	M 4	M 6	23	10	8	60	12,1	160	A	FZ115490.04
5	**6**	4,9	M 4,5 - M6	M 8	25	10	8	60	12,1	160	A	FZ115490.05
7	**8**	6,2	M 8	M11	29	12	9	60	13	160	A	FZ115510.07
8	**9**	7	M 9	M12	30	12	9	60	15	160	A	FZ115510.08
9	**10**	8	M10	–	32	12	9	60	15	160	A	FZ115510.09
11	**12**	9	(M12)	M16	35	16	12	60	18	160	B	FZ115530.11

Lange Ausführung E-Lock/IKZ, mit innerer Kühlschmierstoff-Zufuhr
Long design E-Lock/IKZ, with internal coolant supply

E-Lock

IKZ

p_{max} 50 bar (700 psi)



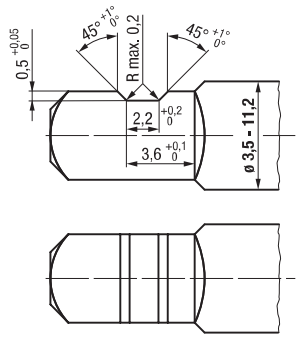
Für den Einsatz auf CNC-Maschinen und herkömmlichen Gewindeschneideinrichtungen

For use on CNC machines and conventional thread cutting machinery

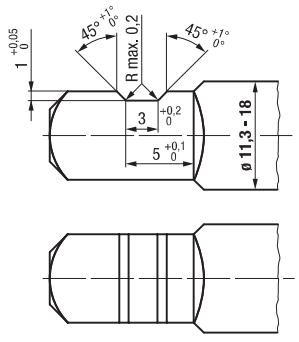
Größe Size	Baumaße Gewindebohrer / Gewindeformer Dimensions of tap / cold-forming tap				Baumaße Schaftverlängerung Dimensions of extension						Rillenform Slot shape	
	ø d_2	k_1			l_1	ø d_3 h9	k_2 h12	l_2	ø d_4 / d_5	l_3		
4	**4,5**	3,4	M 4	M 6	23	10	8	100	12,1	230	A	FZ115480.04
5	**6**	4,9	M 4,5 - M6	M 8	25	10	8	100	12,1	230	A	FZ115480.05
7	**8**	6,2	M 8	M11	29	12	9	100	13	230	A	FZ115500.07
8	**9**	7	M 9	M12	30	12	9	100	15	230	A	FZ115500.08
9	**10**	8	M10	–	32	12	9	100	15	230	A	FZ115500.09
11	**12**	9	(M12)	M16	35	16	12	100	18	230	B	FZ115520.11

Bearbeitungsmaße für Rillenform am Gewindebohrer- / Gewindeformer-Vierkant
Machining specifications for the slot shape on the driving square of taps / cold-forming taps

Form A



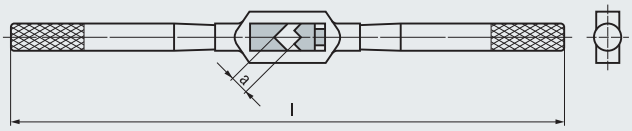
Form B



Lehren für E-Lock-Rillenform siehe Seite 725
Gauges for E-Lock slots, see page 725

Für normale Beanspruchung
For normal use

≈ DIN 1814

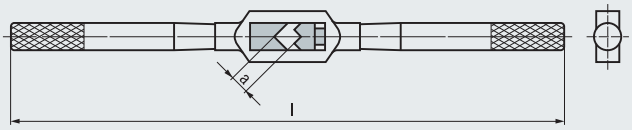


Größe Size	Baumaße Dimensions $a_{min.}$ - $a_{max.}$ mm	l	
0	2 - 5	125	**FZ111010.0**
1	2 - 6	180	**FZ111010.01**
1 1/2	2,5 - 8	200	**FZ111010.01.5**
2	4 - 9	280	**FZ111010.02**
3	4,9 - 12	375	**FZ111010.03**
4	5,5 - 16	500	**FZ111010.04**
5	7 - 20	750	**FZ111010.05**

Für starke Beanspruchung
For heavy use

Aus gehärtetem Stahl (Gehäuse: Temperguss oder Stahl geschmiedet)
Made of hardened steel (casing: malleable iron or forged steel)

≈ DIN 1814



Größe Size	Baumaße Dimensions $a_{min.}$ - $a_{max.}$ mm	l	
0	2 - 5	125	**FZ111000.0**
1	2 - 6	180	**FZ111000.01**
1 1/2	2,5 - 8	200	**FZ111000.01.5**
2	4 - 9	280	**FZ111000.02**
3	4,9 - 12	375	**FZ111000.03**
4	5,5 - 16	500	**FZ111000.04**
5	7 - 20	750	**FZ111000.05**
6	9 - 25	1000	**FZ111000.06**
7	16 - 32	1250	**FZ111000.07**

Für Gewindebohrer mit 3 geraden Nuten
For taps with 3 straight flutes

für Gewinde for thread size	
M 3	**FZ111100.03/3**
M 4	**FZ111100.04/3**
M 5	**FZ111100.05/3**
M 6	**FZ111100.06/3**
M 8	**FZ111100.08/3**
M10	**FZ111100.10/3**
M12	**FZ111100.12/3**
M14	**FZ111100.14/3**
M16	**FZ111100.16/3**
M20	**FZ111100.20/3**

Weitere Ausführungen auf Anfrage
Further designs upon request

Für Gewindebohrer mit 4 geraden Nuten
For taps with 4 straight flutes

für Gewinde for thread size	
M 8	**FZ111100.08/4**
M10	**FZ111100.10/4**
M12	**FZ111100.12/4**
M16	**FZ111100.16/4**
M20	**FZ111100.20/4**