



■ Made
■ in
■ Germany



EMUGE

Neue Gewindebohrer Enorm-Z-X-PM
New Taps Enorm-Z-X-PM

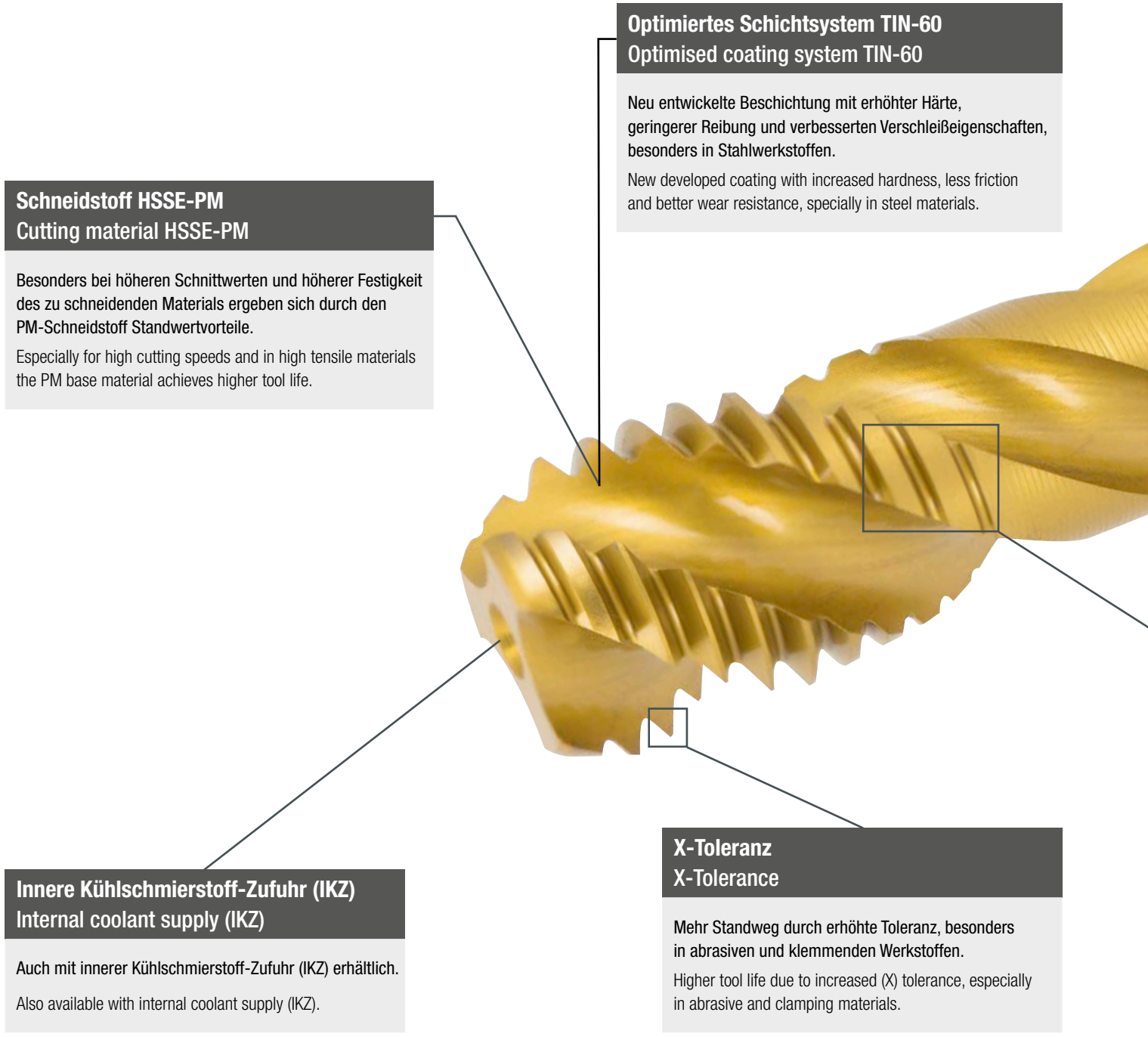
jetzt auch in • now also available in
UNC | UNF
G

Für CNC-gesteuerte Maschinen

Die sehr schneidfreudige Z-Geometrie mit höherem Span- und Freiwinkel ist für zahlreiche langspanende Werkstoffe geeignet. Sie wurde speziell für CNC-gesteuerte Werkzeugmaschinen konstruiert. Bei synchron gesteuertem Vorschub kommt die Leistungsfähigkeit besonders in Verbindung mit unseren Spannzangen-Aufnahmen der Typenreihe Softsynchro® zum Tragen.

For CNC-controlled machines

This very keen cutting geometry with elevated rake and relief angles is suitable for a multitude of long-chipping materials. It is designed especially for CNC-controlled machine tools. Synchronous feed control, especially in connection with our collet holders of the Softsynchro® series, will bring out the full performance potential of these tools.



Schneidstoff HSSE-PM
Cutting material HSSE-PM

Besonders bei höheren Schnittwerten und höherer Festigkeit des zu schneidenden Materials ergeben sich durch den PM-Schneidstoff Standwertvorteile.
Especially for high cutting speeds and in high tensile materials the PM base material achieves higher tool life.

Optimiertes Schichtsystem TIN-60
Optimised coating system TIN-60

Neu entwickelte Beschichtung mit erhöhter Härte, geringerer Reibung und verbesserten Verschleißigenschaften, besonders in Stahlwerkstoffen.
New developed coating with increased hardness, less friction and better wear resistance, specially in steel materials.

Innere Kühlschmierstoff-Zufuhr (IKZ)
Internal coolant supply (IKZ)

Auch mit innerer Kühlschmierstoff-Zufuhr (IKZ) erhältlich.
Also available with internal coolant supply (IKZ).

X-Toleranz
X-Tolerance

Mehr Standweg durch erhöhte Toleranz, besonders in abrasiven und klemmenden Werkstoffen.
Higher tool life due to increased (X) tolerance, especially in abrasive and clamping materials.

Neue Beschriftung
New marking

Hervorhebung der Werkzeuggeometrie am EMUGE-Logo.
Highlighting the tool geometry with the EMUGE Logo.



Längere Nuten
Longer flutes

Längere Nuten ermöglichen eine bessere Spanabfuhr bei tiefen Gewinden.

Longer flutes allow a better chip evacuation in deep threads.

Konisch abgesetztes Führungsgewinde
Back taper

Durch Abschleifen der Zahnschneiden im Führungsgewinde werden Zahnausbrüche auf Grund von Spanverklammerung vermieden.

Tooth chipping due to chip jams can be prevented by grinding off the tooth crests in the guide thread area.

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 Eignung ist folgendermaßen gekennzeichnet:

- Gewindebohrer sehr gut geeignet
- Gewindebohrer gut geeignet

 = geeigneter Kühlschmierstoff

- E = Emulsion
- O = Gewindefschneidöl
- P = Gewindefschneidpaste


 = DIN-Form / Gänge (Anschnittlänge)

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 suitability is marked as follows:

- Tap is very suitable
- Tap is suitable

 = suitable coolant-lubricant

- E = Emulsion
- O = Thread cutting oil
- P = Thread cutting paste

 = DIN form / threads (chamfer length)

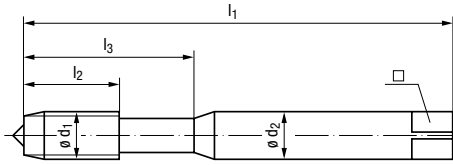
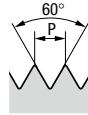
	Stahlwerkstoffe	Steel materials				
P	1.1	Kaltfließpressstähle, Baustähle, Automatenstähle, u.a.	Cold-extrusion steels, Construction steels, Free-cutting steels, etc.	≤ 600 N/mm ²	Cq15 1.1132 S235JR (St37-2) 1.0037 10SPb20 1.0722 E360 (St70-2) 1.0070 16MnCr5 1.7131 GS-25CrMo4 1.7218	
	2.1	Baustähle, Einsatzstähle, Stahlguss, u.a.	Construction steels, Cementation steels, Steel castings, etc.	≤ 800 N/mm ²	20MoCr3 1.7320 42CrMo4 1.7225 102Cr6 1.2067 50CrMo4 1.7228 X45NiCrMo4 1.2767 31CrMo12 1.8515	
	3.1	Einsatzstähle, Vergütungsstähle, Kaltarbeitsstähle, u.a.	Cementation steels, Heat-treatable steels, Cold work steels, etc.	≤ 1000 N/mm ²	X38CrMoV5-3 1.2367 X100CrMoV8-1-1 1.2990 X40CrMoV5-1 1.2344	
	4.1	Vergütungsstähle, Kaltarbeitsstähle, Nitrierstähle, u.a.	Heat-treatable steels, Cold work steels, Nitriding steels, etc.	≤ 1200 N/mm ²		
	5.1	Hochlegierte Stähle, Kaltarbeitsstähle, Warmarbeitsstähle, u.a.	High-alloyed steels, Cold work steels, Hot work steels, etc.	≤ 1400 N/mm ²		
	Nichtrostende Stahlwerkstoffe	Stainless steel materials				
M	1.1	Ferritisch, martensitisch	Ferritic, martensitic	≤ 950 N/mm ²	X2CrTi12 1.4512	
	2.1	Austenitisch	Austenitic	≤ 950 N/mm ²	X6CrNiMoTi17-12-2 1.4571	
	3.1	Austenitisch-ferritisch (Duplex)	Austenitic-ferritic (Duplex)	≤ 1100 N/mm ²	X2CrNiMoN22-5-3 1.4462	
	4.1	Austenitisch-ferritisch hitzebeständig (Super Duplex)	Austenitic-ferritic heat-resistant (Super Duplex)	≤ 1250 N/mm ²	X2CrNiMoN25-7-4 1.4410	
	Gusswerkstoffe	Cast materials				
K	1.1	Gusseisen mit Lamellengrafit (GJL)	Cast iron with lamellar graphite (GJL)	100-250 N/mm ²	EN-GJL-200 (GG20) EN-JL-1030	
	1.2			250-450 N/mm ²	EN-GJL-300 (GG30) EN-JL-1050	
	2.1	Gusseisen mit Kugelgrafit (GJS)	Cast iron with nodular graphite (GJS)	350-500 N/mm ²	EN-GJS-400-15 (GGG40) EN-JS-1030	
	2.2			500-900 N/mm ²	EN-GJS-700-2 (GGG70) EN-JS-1070	
	3.1	Gusseisen mit Vermiculargrafit (GJV)	Cast iron with vermicular graphite (GJV)	300-400 N/mm ²	GJV 300	
	3.2			400-500 N/mm ²	GJV 450	
	4.1	Temperguss (GTMW, GTMB)	Malleable cast iron (GTMW, GTMB)	250-500 N/mm ²	EN-GJMW-350-4 (GTW-35) EN-JM-1010	
4.2			500-800 N/mm ²	EN-GJMB-450-6 (GTS-45) EN-JM-1140		
	Nichteisenwerkstoffe	Non ferrous materials				
	Aluminium-Legierungen	Aluminium alloys				
	1.1			≤ 200 N/mm ²	EN AW-AlMn1 EN AW-3103	
	1.2	Aluminium-Knetlegierungen	Aluminium wrought alloys	≤ 350 N/mm ²	EN AW-AlMgSi EN AW-6060	
	1.3			≤ 550 N/mm ²	EN AW-AlZn5Mg3Cu EN AW-7022	
	1.4			Si ≤ 7%	EN AC-AlMg5 EN AC-51300	
	1.5	Aluminium-Gusslegierungen	Aluminium cast alloys	7% < Si ≤ 12%	EN AC-AISi9Cu3 EN AC-46500	
	1.6			12% < Si ≤ 17%	GD-AISi17Cu4FeMg	
N	Kupfer-Legierungen		Copper alloys			
	2.1	Reinkupfer, niedriglegiertes Kupfer	Pure copper, low-alloyed copper	≤ 400 N/mm ²	E-Cu 57 EN CW 004 A	
	2.2	Kupfer-Zink-Legierungen (Messing, langspanend)	Copper-zinc alloys (brass, long-chipping)	≤ 550 N/mm ²	CuZn37 (Ms63) EN CW 508 L	
	2.3	Kupfer-Zink-Legierungen (Messing, kurzspanend)	Copper-zinc alloys (brass, short-chipping)	≤ 550 N/mm ²	CuZn36Pb3 (Ms58) EN CW 603 N	
	2.4	Kupfer-Aluminium-Legierungen (Alubronze, langspanend)	Copper-aluminium alloys (alu bronze, long-chipping)	≤ 800 N/mm ²	CuAl10Ni5Fe4 EN CW 307 G	
	2.5	Kupfer-Zinn-Legierungen (Zinnbronze, langspanend)	Copper-tin alloys (tin bronze, long-chipping)	≤ 700 N/mm ²	CuSn8P EN CW 459 K	
	2.6	Kupfer-Zinn-Legierungen (Zinnbronze, kurzspanend)	Copper-tin alloys (tin bronze, short-chipping)	≤ 400 N/mm ²	CuSn7 ZnPb (Rg7) 2.1090	
	2.7			≤ 600 N/mm ²	(AMP/CO® 8)	
	2.8	Kupfer-Sonderlegierungen	Special copper alloys	≤ 1400 N/mm ²	(AMP/CO® 45)	
		Magnesium-Legierungen	Magnesium alloys			
3.1	Magnesium-Knetlegierungen	Magnesium wrought alloys	≤ 500 N/mm ²	MgAl6Zn 3.5612		
3.2	Magnesium-Gusslegierungen	Magnesium cast alloys	≤ 500 N/mm ²	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	
	Spezialwerkstoffe	Special materials				
	Titan-Legierungen	Titanium alloys				
S	1.1	Reintitan	Pure titanium	≤ 450 N/mm ²	Ti1 3.7025	
	1.2			≤ 900 N/mm ²	TiAl6V4 3.7165	
	1.3	Titan-Legierungen	Titanium alloys	≤ 1250 N/mm ²	TiAl4Mo4Sn2 3.7185	
	2.1	Nickel-, Kobalt- und Eisen-Legierungen	Nickel alloys, cobalt alloys and iron alloys			
	2.2	Reinnickel	Pure nickel	≤ 600 N/mm ²	Ni 99.6 2.4060	
	2.3	Nickel-Basis-Legierungen	Nickel-base alloys	≤ 1000 N/mm ²	Monel 400 2.4360	
2.4			≤ 1600 N/mm ²	Inconel 718 2.4668		
2.5	Kobalt-Basis-Legierungen	Cobalt-base alloys	≤ 1000 N/mm ²	Udimet 605		
2.6	Eisen-Basis-Legierungen	Iron-base alloys	≤ 1600 N/mm ²	Haynes 25 2.4964		
			≤ 1500 N/mm ²	Incoloy 800 1.4958		
	Harte Werkstoffe	Hard materials				
H	1.1			44 - 50 HRC	Weldox 1100	
	1.2			50 - 55 HRC	Hardox 550	
	1.3	Hochfeste Stähle, gehärtete Stähle, Hartguss	High strength steels, hardened steels, hard castings	55 - 60 HRC	Armox 600T	
	1.4			60 - 63 HRC	Ferro-Titanit	
	1.5			63 - 66 HRC	HSSE	

Neue Gewindebohrer Enorm-Z-X-PM
New Taps Enorm-Z-X-PM

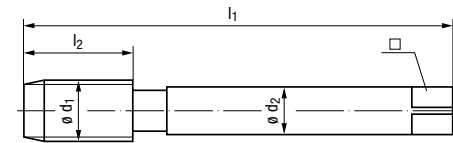
Enorm-Z X-PM GLT-1	Enorm-Z/E X-PM GLT-1	Enorm-Z X-IKZ-PM GLT-1	Enorm-Z/E X-IKZ-PM GLT-1	Enorm-Z X-PM TIN-60	Enorm-Z/E X-PM TIN-60	Enorm-Z X-IKZ-PM TIN-60	Enorm-Z/E X-IKZ-PM TIN-60	
C / 2-3	E / 1,5-2	C / 2-3	E / 1,5-2	C / 2-3	E / 1,5-2	C / 2 - 3	E / 1,5-2	
E	E	E	E	E / 0 / P	E / 0 / P	E / 0	E / 0	
max. 3 x d ₁ 								Gewindetiefe und Lochform Thread depth and hole type
6	6	7	7	8	8	9	9	M
10	10	10	10	11	11	11	11	MF
12	12	–	–	12	12	–	–	UNC
13	13	–	–	13	13	–	–	UNF
14	14	14	14	15	15	15	15	G
15 - 80	15 - 80	15 - 80	15 - 80	15 - 80	15 - 80	15 - 80	15 - 80	1.1
10 - 60	10 - 60	10 - 60	10 - 60	10 - 60	10 - 60	10 - 60	10 - 60	2.1
5 - 40	5 - 40	5 - 40	5 - 40	5 - 40	5 - 40	5 - 40	5 - 40	3.1
5 - 30	5 - 30	5 - 30	5 - 30	5 - 30	5 - 30	5 - 30	5 - 30	4.1
								5.1
5 - 20	5 - 20	5 - 20	5 - 20					1.1
5 - 20	5 - 20	5 - 20	5 - 20					2.1
5 - 15	5 - 15	5 - 15	5 - 15					3.1
								4.1
								1.1
								1.2
								2.1
								2.2
								3.1
								3.2
								4.1
								4.2
								1.1
								1.2
								1.3
15 - 40	15 - 40	15 - 40	15 - 40					1.4
15 - 40	15 - 40	15 - 40	15 - 40					1.5
10 - 30	10 - 30	10 - 30	10 - 30					1.6
5 - 30	5 - 30	5 - 30	5 - 30					2.1
20 - 60	20 - 60	20 - 60	20 - 60					2.2
								2.3
5 - 25	5 - 25	5 - 25	5 - 25					2.4
5 - 25	5 - 25	5 - 25	5 - 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
5 - 15	5 - 15	5 - 15	5 - 15					1.1
								1.2
								1.3
								2.1
								2.2
								2.3
								2.4
								2.5
								2.6
								1.1
								1.2
								1.3
								1.4
								1.5

Schnittgeschwindigkeit v_c in m/min – Gewindebohrer sehr gut geeignet - Cutting speed v_c in m/min – tap is very suitable
 Schnittgeschwindigkeit v_c in m/min – Gewindebohrer gut geeignet - Cutting speed v_c in m/min – tap is suitable

M Metrisches ISO-Regelgewinde DIN 13
ISO Metric coarse thread DIN 13



DIN 371



DIN 376

Technische Informationen
Technical information

Toleranz · Tolerance
Beschichtung · Coating



Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d₁



Einsatzgebiete – Material
Applications – material

» 4

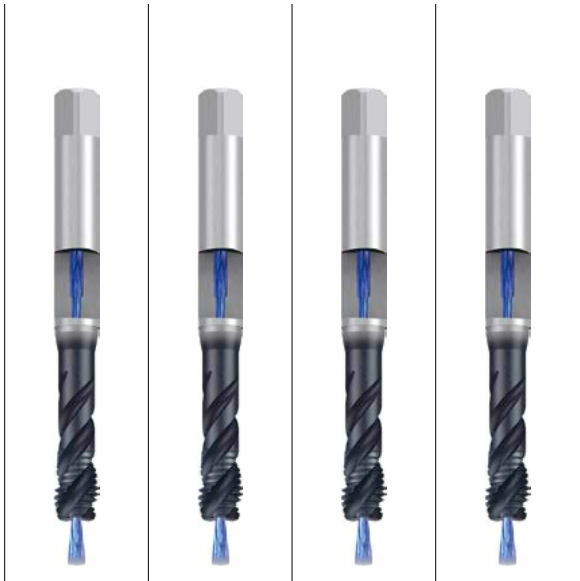
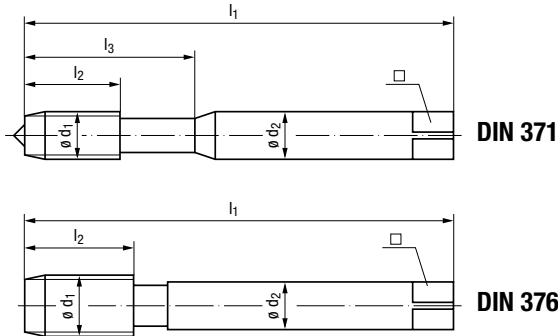
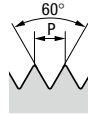
- P** 1.1-4.1
- M** 1.1-3.1
- N** 1.4-6, 2.1-2, 2.4-5
- S** 1.1

DIN 371		Werkzeug-Ident · Tool ident								Dimens.-Ident	B576A601	B576A621	B582A601	B582A621
∅ d ₁ mm	P mm	l ₁	l ₂	l ₃	∅ d ₂	□				Enorm 1-Z X-PM GLT-1	Enorm 1-Z X-PM GLT-1 „6GX“	Enorm 1-Z/E X-PM GLT-1	Enorm 1-Z/E X-PM GLT-1 „6GX“	
M 2	0,4	45	4	12	2,8	2,1	1,6	.0020	○			○		
2,5	0,45	50	5	14	2,8	2,1	2,05	.0025	○			○		
3	0,5	56	6	18	3,5	2,7	2,5	.0030	●	●	●	●		
3,5	0,6	56	7	20	4	3	2,9	.0035	○		○			
4	0,7	63	7	21	4,5	3,4	3,3	.0040	●	●	●	●		
5	0,8	70	8	25	6	4,9	4,2	.0050	●	●	●	●		
6	1	80	10	30	6	4,9	5	.0060	●	●	●	●		
8	1,25	90	14	35	8	6,2	6,8	.0080	●	●	●	●		
10	1,5	100	16	39	10	8	8,5	.0100	●	●	●	●		

DIN 376		Werkzeug-Ident · Tool ident							Dimens.-Ident	C576A601	C576A621	C582A601	C582A621
∅ d ₁ mm	P mm	l ₁	l ₂	∅ d ₂	□				Enorm 2-Z X-PM GLT-1	Enorm 2-Z X-PM GLT-1 „6GX“	Enorm 2-Z/E X-PM GLT-1	Enorm 2-Z/E X-PM GLT-1 „6GX“	
M 12	1,75	110	18	9	7	10,2	.0112	●	●	●	●	●	
14	2	110	20	11	9	12	.0114	●	●	●	●	●	
16	2	110	22	12	9	14	.0116	●	●	●	●	●	
20	2,5	140	25	16	12	17,5	.0120	●	●	●	●	●	
24	3	160	30	18	14,5	21	.0124	●	●	●	●	●	
30	3,5	180	35	22	18	26,5	.0130	●	●	●	●	●	

Bestell-Beispiel · Ordering example: **B576A601.0030**

M Metrisches ISO-Regelgewinde DIN 13
ISO Metric coarse thread DIN 13



Technische Informationen
Technical information

Toleranz · Tolerance
Beschichtung · Coating



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

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d₁



Einsatzgebiete – Material
Applications – material



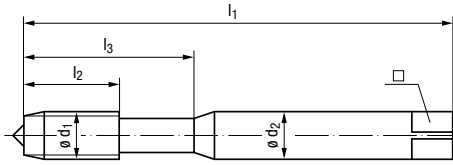
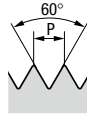
- P** 1.1-4.1
- M** 1.1-3.1
- N** 1.4-6, 2.1-2, 2.4-5
- S** 1.1

DIN 371									Werkzeug-Ident · Tool ident			
Ø d ₁ mm	P mm	l ₁	l ₂	l ₃	Ø d ₂	□		Dimens.- Ident	B581A601	B581A621	B583A601	B583A621
									Enorm 1-Z X-IKZ-PM GLT-1	Enorm 1-Z X-IKZ-PM GLT-1 „6GX“	Enorm 1-Z/E X-IKZ-PM GLT-1	Enorm 1-Z/E X-IKZ-PM GLT-1 „6GX“
M 4	0,7	63	7	21	4,5	3,4	3,3	.0040	●	●	●	●
5	0,8	70	8	25	6	4,9	4,2	.0050	●	●	●	●
6	1	80	10	30	6	4,9	5	.0060	●	●	●	●
8	1,25	90	14	35	8	6,2	6,8	.0080	●	●	●	●
10	1,5	100	16	39	10	8	8,5	.0100	●	●	●	●

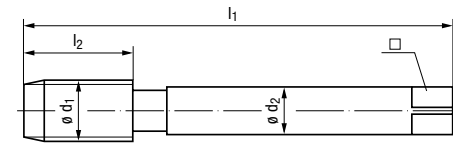
DIN 376									Werkzeug-Ident · Tool ident			
Ø d ₁ mm	P mm	l ₁	l ₂	Ø d ₂	□		Dimens.- Ident	C581A601	C581A621	C583A601	C583A621	
								Enorm 2-Z X-IKZ-PM GLT-1	Enorm 2-Z X-IKZ-PM GLT-1 „6GX“	Enorm 2-Z/E X-IKZ-PM GLT-1	Enorm 2-Z/E X-IKZ-PM GLT-1 „6GX“	
M 12	1,75	110	18	9	7	10,2	.0112	●	●	●	●	
14	2	110	20	11	9	12	.0114	●	●	●	●	
16	2	110	22	12	9	14	.0116	●	●	●	●	
20	2,5	140	25	16	12	17,5	.0120	●	●	●	●	
24	3	160	30	18	14,5	21	.0124	●	●	●	●	
30	3,5	180	35	22	18	26,5	.0130	●	●	●	●	

Bestell-Beispiel · Ordering example: B581A601.0040

M Metrisches ISO-Regelgewinde DIN 13
ISO Metric coarse thread DIN 13



DIN 371



DIN 376



Technische Informationen
Technical information

Toleranz · Tolerance
Beschichtung · Coating



6HX	6GX	6HX	6GX
TIN-60	TIN-60	TIN-60	TIN-60
HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM
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 d₁



Einsatzgebiete – Material
Applications – material

» 4

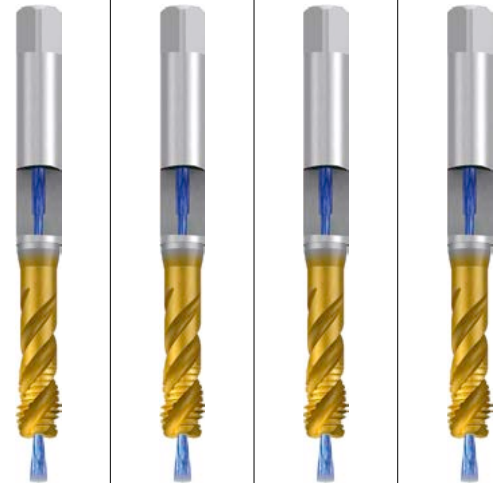
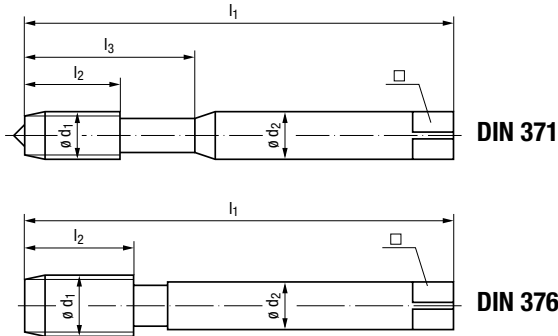
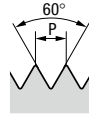
P 1.1-4.1

DIN 371 Werkzeug-Ident · Tool ident										B5760F01	B5760F21	B5820F01	B5820F21
∅ d ₁ mm	P mm	l ₁	l ₂	l ₃	∅ d ₂	□		Dimens.- Ident	Enorm 1-Z X-PM TIN-60	Enorm 1-Z X-PM TIN-60 „6GX“	Enorm 1-Z/E X-PM TIN-60	Enorm 1-Z/E X-PM TIN-60 „6GX“	
M 2	0,4	45	4	12	2,8	2,1	1,6	.0020	○		○		
2,5	0,45	50	5	14	2,8	2,1	2,05	.0025	○		○		
3	0,5	56	6	18	3,5	2,7	2,5	.0030	●	●	●	●	
3,5	0,6	56	7	20	4	3	2,9	.0035	○		○		
4	0,7	63	7	21	4,5	3,4	3,3	.0040	●	●	●	●	
5	0,8	70	8	25	6	4,9	4,2	.0050	●	●	●	●	
6	1	80	10	30	6	4,9	5	.0060	●	●	●	●	
8	1,25	90	14	35	8	6,2	6,8	.0080	●	●	●	●	
10	1,5	100	16	39	10	8	8,5	.0100	●	●	●	●	

DIN 376 Werkzeug-Ident · Tool ident										C5760F01	C5760F21	C5820F01	C5820F21
∅ d ₁ mm	P mm	l ₁	l ₂	∅ d ₂	□		Dimens.- Ident	Enorm 2-Z X-PM TIN-60	Enorm 2-Z X-PM TIN-60 „6GX“	Enorm 2-Z/E X-PM TIN-60	Enorm 2-Z/E X-PM TIN-60 „6GX“		
M 12	1,75	110	18	9	7	10,2	.0112	●	●	●	●		
14	2	110	20	11	9	12	.0114	●	●	●	●		
16	2	110	22	12	9	14	.0116	●	●	●	●		
20	2,5	140	25	16	12	17,5	.0120	●	●	●	●		
24	3	160	30	18	14,5	21	.0124	●	●	●	●		
30	3,5	180	35	22	18	26,5	.0130	●	●	●	●		

Bestell-Beispiel · Ordering example: B5760F01.0030

M Metrisches ISO-Regelgewinde DIN 13
ISO Metric coarse thread DIN 13



Technische Informationen
Technical information

Toleranz · Tolerance
Beschichtung · Coating



6HX	6GX	6HX	6GX
TIN-60	TIN-60	TIN-60	TIN-60
HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM
R45	R45	R45	R45
C / 2-3	C / 2-3	E / 1,5-2	E / 1,5-2
E/0	E/0	E/0	E/0

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d₁



Einsatzgebiete – Material
Applications – material



P 1.1-4.1

DIN 371 Werkzeug-Ident · Tool ident

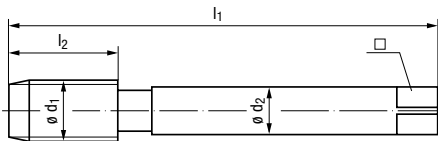
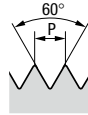
Ø d ₁ mm	P mm	l ₁	l ₂	l ₃	Ø d ₂	□		Dimens.- Ident	B5810F01	B5810F21	B5830F01	B5830F21
									Enorm 1-Z X-IKZ-PM TIN-60	Enorm 1-Z X-IKZ-PM TIN-60 „6GX“	Enorm 1-Z/E X-IKZ-PM TIN-60	Enorm 1-Z/E X-IKZ-PM TIN-60 „6GX“
M 4	0,7	63	7	21	4,5	3,4	3,3	.0040	●	●	●	●
5	0,8	70	8	25	6	4,9	4,2	.0050	●	●	●	●
6	1	80	10	30	6	4,9	5	.0060	●	●	●	●
8	1,25	90	14	35	8	6,2	6,8	.0080	●	●	●	●
10	1,5	100	16	39	10	8	8,5	.0100	●	●	●	●

DIN 376 Werkzeug-Ident · Tool ident

Ø d ₁ mm	P mm	l ₁	l ₂	Ø d ₂	□		Dimens.- Ident	C5810F01	C5810F21	C5830F01	C5830F21
								Enorm 2-Z X-IKZ-PM TIN-60	Enorm 2-Z X-IKZ-PM TIN-60 „6GX“	Enorm 2-Z/E X-IKZ-PM TIN-60	Enorm 2-Z/E X-IKZ-PM TIN-60 „6GX“
M 12	1,75	110	18	9	7	10,2	.0112	●	●	●	●
14	2	110	20	11	9	12	.0114	●	●	●	●
16	2	110	22	12	9	14	.0116	●	●	●	●
20	2,5	140	25	16	12	17,5	.0120	●	●	●	●
24	3	160	30	18	14,5	21	.0124	●	●	●	●
30	3,5	180	35	22	18	26,5	.0130	●	●	●	●

Bestell-Beispiel · Ordering example: B5810F01.0040

MF Metrisches ISO-Feingewinde DIN 13
ISO Metric fine thread DIN 13



DIN 374



Technische Informationen
Technical information

Toleranz · Tolerance
Beschichtung · Coating



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

Gewindetiefe und Lochform
Thread depth and hole type


max. 3 x d₁



Einsatzgebiete – Material
Applications – material

» 4

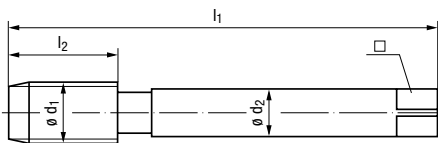
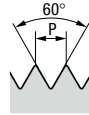
- P** 1.1-4.1
- M** 1.1-3.1
- N** 1.4-6, 2.1-2, 2.4-5
- S** 1.1

DIN 374		Werkzeug-Ident · Tool ident							C576A601	C582A601	C581A601	C583A601
ø d ₁ mm	P mm	l ₁	l ₂	ø d ₂	□		Dimens.- Ident	Enorm 2-Z X-PM GLT-1	Enorm 2-Z/E X-PM GLT-1	Enorm 2-Z X- IKZ -PM GLT-1	Enorm 2-Z/E X- IKZ -PM GLT-1	
M 6	x 0,75	80	8	4,5	3,4	5,2	.0229	●	●	●	●	
8	x 1	90	10	6	4,9	7	.0251	●	●	●	●	
10	x 1	90	10	7	5,5	9	.0276	●	●	●	●	
10	x 1,25	100	16	7	5,5	8,8	.0277	●	●	●	●	
12	x 1	100	11	9	7	11	.0301	●	●	●	●	
12	x 1,25	100	15	9	7	10,8	.0302	●	●	●	●	
12	x 1,5	100	15	9	7	10,5	.0303	●	●	●	●	
14	x 1,5	100	15	11	9	12,5	.0331	●	●	●	●	
16	x 1,5	100	15	12	9	14,5	.0359	●	●	●	●	
18	x 1,5	110	17	14	11	16,5	.0390	●	●	●	●	
20	x 1,5	125	17	16	12	18,5	.0422	●	●	●	●	
22	x 1,5	125	17	18	14,5	20,5	.0438	●	●	●	●	
24	x 1,5	140	20	18	14,5	22,5	.0452	●	●	●	●	

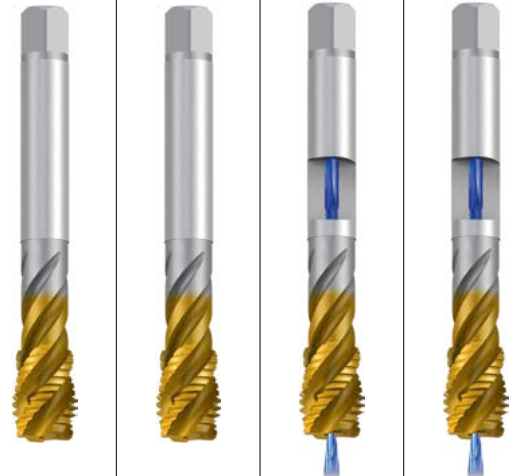
Bestell-Beispiel · Ordering example: **C576A601.0229**

MF

Metrisches ISO-Feingewinde DIN 13
ISO Metric fine thread DIN 13



DIN 374



Technische Informationen
Technical information

Toleranz · Tolerance
Beschichtung · Coating



6HX	6HX	6HX	6HX
TIN-60	TIN-60	TIN-60	TIN-60
HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM
R45	R45	R45	R45
C / 2-3	E/ 1,5-2	C / 2-3	E/ 1,5-2
E/O/P	E/O/P	E/O	E/O

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d₁



Einsatzgebiete – Material
Applications – material



P 1.1-4.1

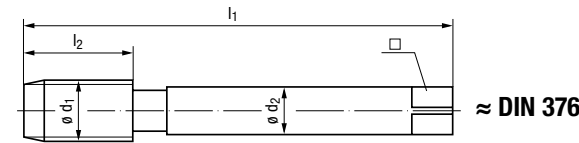
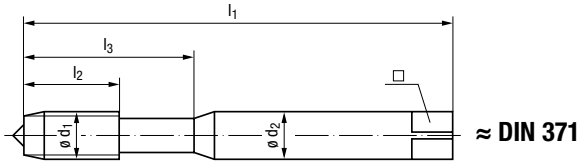
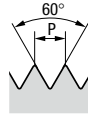
DIN 374

Werkzeug-Ident · Tool ident

Ø d ₁ mm	P mm	l ₁	l ₂	Ø d ₂	□		Dimens.- Ident	C5760F01	C5820F01	C5810F01	C5830F01
								Enorm 2-Z X-PM TIN-60	Enorm 2-Z/E X-PM TIN-60	Enorm 2-Z X- IKZ -PM TIN-60	Enorm 2-Z/E X- IKZ -PM TIN-60
M 6	x 0,75	80	8	4,5	3,4	5,2	.0229	●	●	●	●
8	x 1	90	10	6	4,9	7	.0251	●	●	●	●
10	x 1	90	10	7	5,5	9	.0276	●	●	●	●
10	x 1,25	100	16	7	5,5	8,8	.0277	●	●	●	●
12	x 1	100	11	9	7	11	.0301	●	●	●	●
12	x 1,25	100	15	9	7	10,8	.0302	●	●	●	●
12	x 1,5	100	15	9	7	10,5	.0303	●	●	●	●
14	x 1,5	100	15	11	9	12,5	.0331	●	●	●	●
16	x 1,5	100	15	12	9	14,5	.0359	●	●	●	●
18	x 1,5	110	17	14	11	16,5	.0390	●	●	●	●
20	x 1,5	125	17	16	12	18,5	.0422	●	●	●	●
22	x 1,5	125	17	18	14,5	20,5	.0438	●	●	●	●
24	x 1,5	140	20	18	14,5	22,5	.0452	●	●	●	●

Bestell-Beispiel · Ordering example: C5760F01.0229

UNC Unified-Grobgewinde ASME B1.1
Unified coarse thread ASME B1.1



Technische Informationen
Technical information

Toleranz · Tolerance
Beschichtung · Coating



2BX	2BX	2BX	2BX
GLT-1	GLT-1	TIN-60	TIN-60
HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM
R45	R45	R45	R45
C / 2-3	E / 1,5-2	C / 2-3	E / 1,5-2
E	E	E/O/P	E/O/P

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d₁



Einsatzgebiete – Material
Applications – material



P 1.1-4.1	P 1.1-4.1
M 1.1-3.1	
N 1.4-6, 2.1-2, 2.4-5	
S 1.1	

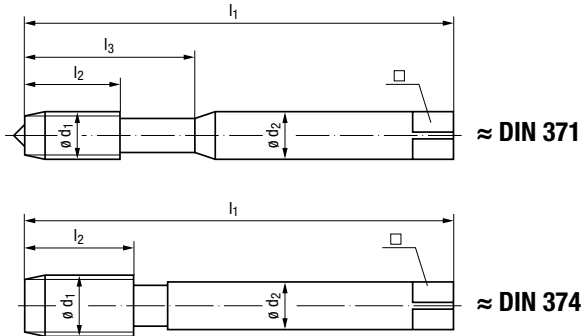
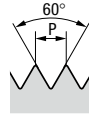
≈ DIN 371		Werkzeug-Ident · Tool ident								B576A601	B582A601	B5760F01	B5820F01
∅ d ₁	P	l ₁	l ₂	l ₃	∅ d ₂	□		Dimens.-Ident	Enorm 1-Z X-PM GLT-1	Enorm 1-Z/E X-PM GLT-1	Enorm 1-Z X-PM TIN-60	Enorm 1-Z/E X-PM TIN-60	
Nr. 4	0.1120	40	56	6	18	3,5	2,7	2,35	.5003	●	●	●	
Nr. 6	0.1380	32	56	7	20	4	3	2,85	.5005	●	●	●	
Nr. 8	0.1640	32	63	8	21	4,5	3,4	3,5	.5006	●	●	●	
Nr. 10	0.1900	24	70	10	25	6	4,9	3,9	.5007	●	●	●	
1/4	0.2500	20	80	13	30	7	5,5	5,1	.5009	●	●	●	
5/16	0.3125	18	90	14	35	8	6,2	6,6	.5010	●	●	●	
3/8	0.3750	16	100	16	39	10	8	8	.5011	●	●	●	

≈ DIN 376		Werkzeug-Ident · Tool ident								C576A601	C582A601	C5760F01	C5820F01
∅ d ₁	P	l ₁	l ₂	∅ d ₂	□		Dimens.-Ident	Enorm 2-Z X-PM GLT-1	Enorm 2-Z/E X-PM GLT-1	Enorm 2-Z X-PM TIN-60	Enorm 2-Z/E X-PM TIN-60		
7/16	0.4375	14	100	18	8	6,2	9,4	.5012	●	●	●		
1/2	0.5000	13	110	20	9	7	10,8	.5013	●	●	●		
5/8	0.6250	11	110	22	12	9	13,5	.5015	●	●	●		
3/4	0.7500	10	125	25	14	11	16,5	.5016	●	●	●		
1"	1.0000	8	160	30	18	14,5	22,25	.5018	●	●	●		

Bestell-Beispiel · Ordering example: **B576A601.5003**

UNF Unified-Feingewinde ASME B1.1

Unified fine thread ASME B1.1



Technische Informationen
Technical information

Toleranz · Tolerance
Beschichtung · Coating



2BX	2BX	2BX	2BX
GLT-1	GLT-1	TIN-60	TIN-60
HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM
R45	R45	R45	R45
C / 2-3	E / 1,5-2	C / 2-3	E / 1,5-2
E	E	E/O/P	E/O/P

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d₁



Einsatzgebiete – Material
Applications – material



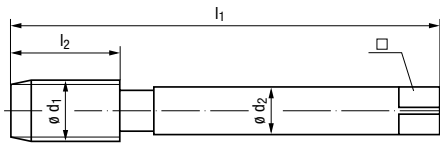
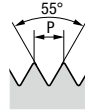
P 1.1-4.1	P 1.1-4.1
M 1.1-3.1	
N 1.4-6, 2.1-2, 2.4-5	
S 1.1	

≈ DIN 371		Werkzeug-Ident · Tool ident								B576A601	B582A601	B5760F01	B5820F01
∅ d ₁	P	l ₁	l ₂	l ₃	∅ d ₂	□		Dimens.-Ident	Enorm 1-Z X-PM GLT-1	Enorm 1-Z/E X-PM GLT-1	Enorm 1-Z X-PM TIN-60	Enorm 1-Z/E X-PM TIN-60	
Nr. 10	0.1900	32	70	10	25	6	4,9	4,1	.5041	●	●	●	●
1/4	0.2500	28	80	10	30	7	5,5	5,5	.5043	●	●	●	●
5/16	0.3125	24	90	10	35	8	6,2	6,9	.5044	●	●	●	●
3/8	0.3750	24	90	10	35	10	8	8,5	.5045	●	●	●	●

≈ DIN 374		Werkzeug-Ident · Tool ident								C576A601	C582A601	C5760F01	C5820F01
∅ d ₁	P	l ₁	l ₂	∅ d ₂	□		Dimens.-Ident	Enorm 2-Z X-PM GLT-1	Enorm 2-Z/E X-PM GLT-1	Enorm 2-Z X-PM TIN-60	Enorm 2-Z/E X-PM TIN-60		
7/16	0.4375	20	100	13	8	6,2	9,9	.5046	●	●	●	●	
1/2	0.5000	20	100	13	9	7	11,5	.5047	●	●	●	●	
5/8	0.6250	18	100	15	12	9	14,5	.5049	●	●	●	●	
3/4	0.7500	16	110	17	14	11	17,5	.5050	●	●	●	●	
1"	1.0000	12	140	20	18	14,5	23,25	.5052	●	●	●	●	

Bestell-Beispiel · Ordering example: **B576A601.5041**

G Whitworth-Rohrgewinde DIN EN ISO 228
Whitworth pipe thread DIN EN ISO 228



DIN 5156



Technische Informationen
Technical information

Toleranz · Tolerance
Beschichtung · Coating



„X“	„X“	„X“	„X“
GLT-1	GLT-1	GLT-1	GLT-1
HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM
R45	R45	R45	R45
C / 2-3	E / 1,5-2	C / 2-3	E / 1,5-2
E	E	E	E

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d₁



Einsatzgebiete – Material
Applications – material

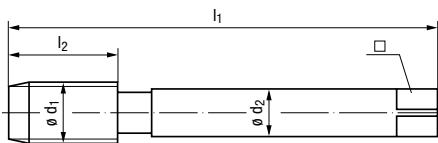
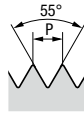
» 4

- P** 1.1-4.1
- M** 1.1-3.1
- N** 1.4-6, 2.1-2, 2.4-5
- S** 1.1

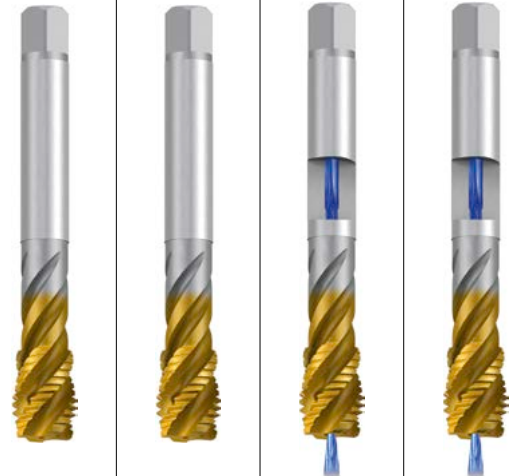
DIN 5156		Werkzeug-Ident · Tool ident							C576A601	C582A601	C581A601	C583A601
Nenngröße Nom. size		P Gg/1" (tpi)	l ₁	l ₂	ø d ₂	□	Ø	Dimens.- Ident	Enorm 2-Z X-PM GLT-1	Enorm 2-Z/E X-PM GLT-1	Enorm 2-Z X-IKZ-PM GLT-1	Enorm 2-Z/E X-IKZ-PM GLT-1
ø d ₁	ø d ₁ mm								●	●	●	●
G 1/8	9,73	28	90	10	7	5,5	8,8	.4035	●	●	●	●
1/4	13,16	19	100	15	11	9	11,8	.4036	●	●	●	●
3/8	16,66	19	100	15	12	9	15,25	.4037	●	●	●	●
1/2	20,96	14	125	17	16	12	19	.4038	●	●	●	●
3/4	26,44	14	140	20	20	16	24,5	.4040	●	●	●	●
1"	33,25	11	160	24	25	20	30,75	.4042	●	●	●	●

Bestell-Beispiel · Ordering example: **C576A601.4035**

G Whitworth-Rohrgewinde DIN EN ISO 228
Whitworth pipe thread DIN EN ISO 228



DIN 5156



Technische Informationen
Technical information

Toleranz · Tolerance
Beschichtung · Coating



„X“	„X“	„X“	„X“
TIN-60	TIN-60	TIN-60	TIN-60
HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM
R45	R45	R45	R45
C / 2-3	E/ 1,5-2	C / 2-3	E/ 1,5-2
E/O/P	E/O/P	E/O	E/O

Gewindetiefe und Lochform
Thread depth and hole type

max. 3 x d₁



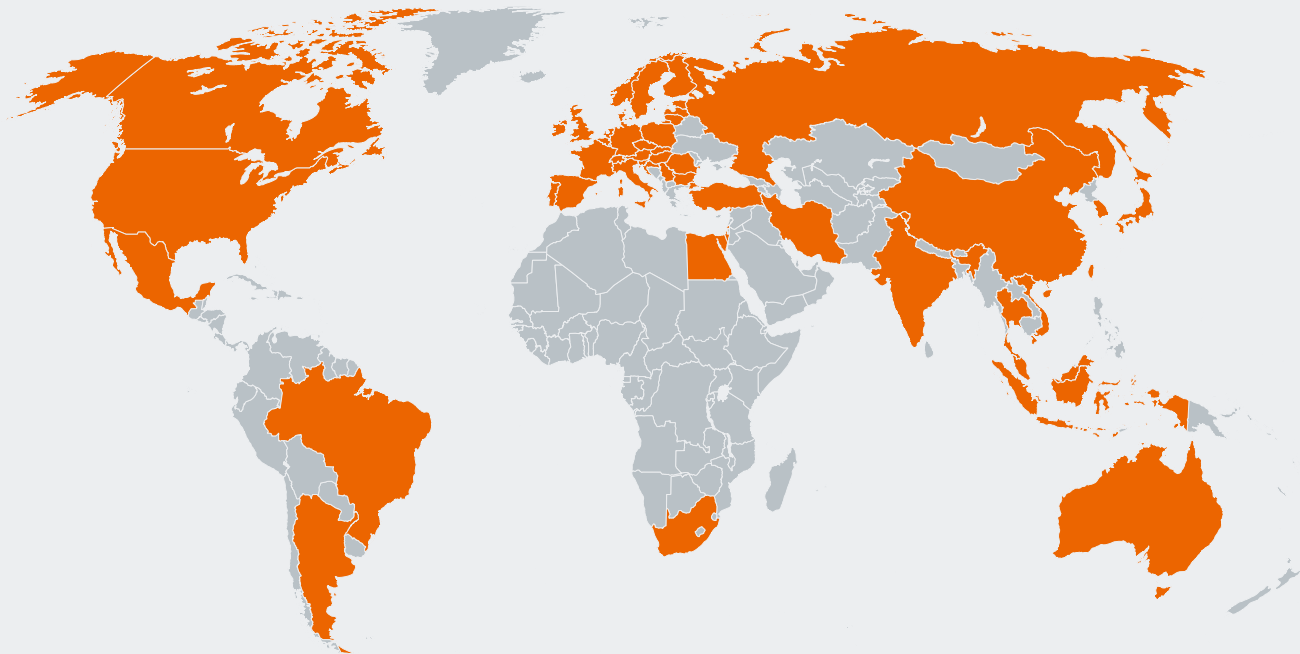
Einsatzgebiete – Material
Applications – material

» 4

P 1.1-4.1

DIN 5156		Werkzeug-Ident · Tool ident							C5760F01	C5820F01	C5810F01	C5830F01
Nenngröße Nom. size		P Gg/1" (tpi)	l ₁	l ₂	ø d ₂	□	Dimens.- Ident	Enorm 2-Z X-PM TIN-60	Enorm 2-Z/E X-PM TIN-60	Enorm 2-Z X-IKZ-PM TIN-60	Enorm 2-Z/E X-IKZ-PM TIN-60	
ø d ₁	ø d ₁ mm											
G	1/8	28	90	10	7	5,5	8,8	●	●	●	●	
	1/4	19	100	15	11	9	11,8	●	●	●	●	
	3/8	19	100	15	12	9	15,25	●	●	●	●	
	1/2	14	125	17	16	12	19	●	●	●	●	
	3/4	14	140	20	20	16	24,5	●	●	●	●	
	1"	11	160	24	25	20	30,75	●	●	●	●	

Bestell-Beispiel · Ordering example: C5760F01.4035



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