

TDC *manigley*



N° 100

Katalog | Catalogue

Katalog N°100

Gültig ab März 2017

Sehr geehrte Kunden

TDC Manigley bringt die Farb-codierung zurück zum Gewinde-bohrer. Ihre Wünsche und Anregungen haben wir im über-arbeiteten Programm einfließen lassen. Weiterentwicklungen und neueste Technologien haben wir ebenso berücksichtigt. Das daraus entwickelte Programm ist somit eine Symbiose aus Erfahrung und neuester Technologie.

TDC Manigley bietet ihnen auch zukünftig Mehrwert, dies nicht nur beim Gewindeherstellen.

Für das entgegengebrachte Ver-trauen bedanken wir uns herzlich und freuen uns auf eine gemein-same Zukunft.

Lagercode Stock

- Lagerstandard, sofort lieferbar
- teilweise ab Lager lieferbar
- △ Verfügbarkeit auf Anfrage

AGB

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Catalogue N°100

Valide dès mars 2017

Chère clientèle

TDC Manigley relance le codage couleur des tarauds. Vos sugges-tions et exigences y ont été prise en considération. Pour réaliser cette nouvelle gamme de tarauds, les technologies les plus récentes ainsi que les derniers développements ont été respecté. Le résultat est donc un pro-gramme qui sort d'une symbiose d'expérience et de la dernière technologie.

A l'avenir TDC Manigley vous offre une plus-value, non seulement lors de la fabrication de tarauds.

Merci de votre confiance en nos produits. C'est avec plaisir que nous envisageons notre future collaboration.

Code stockage Stock

- Stock standard, livrable du stock
- partiellement disponibles du stock
- △ disponibilité sur demande

CGV

Nos conditions générales de vente et de livraison vous les trouvez sous www.manigley.ch

Des changements ou erreurs d'im-pression ne justifient aucun droit. Les représentations graphiques ne sont pas contraignantes.

Catalogue N°100

Valid from March 2017

Dear customer

TDC Manigley returns to color coding taps. We have incorporated your wishes and suggestions into our revised program. We also have taken into consideration further developments and the latest tech-nologies. The resulting program is thus a symbiosis of experience and the latest technology.

TDC Manigley offers you added value in the future, not just for threading.

We thank you for your trust in our products and services and look forward to a common future.

Stock code






















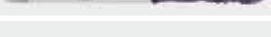
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- partially available from stock
- △ Availability on request

GTC

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Inhaltsverzeichnis / Table des matières / Table of contents







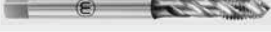






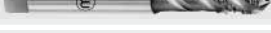



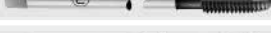

				M DIN 371/376		Seite Page
•	•				105/4	12
		•	•		131/3	12
•	•				105/4 Duo	14
		•	•		131/3 Duo	14
•	•				105/4	15
		•	•		131/3	15
•	•				105/4 Duo	17
		•	•		131/3 Duo	17
•	•				105/4	18
		•	•		131/3	18
•	•				105/4 Duo	19
		•	•		131/3 Duo	19
•	•				105/4	20
		•	•		131/3	20
•	•				105/4 Duo	21
		•	•		131/3 Duo	21
•	•				105/3	22
		•	•		105/3 Duo	23
•	•				103/3 Titan	24
		•	•		132/3 Titan	24
•	•				103/3 Titan Plus	25
		•	•		132/3 Titan Plus	25





M DIN 371/376

Seite
Page

•	•				105/4 Aero MJ	26
		•	•		130/3 Aero MJ	26
	•				105/4 Ultra Cu	27
		•	•		131/3 Ultra Cu	27
•	•				105/4 Ultra EG	 28
		•	•		131/3 Ultra EG	 28
•	•	•	•		105/3 Ultra	29
•	•	•	•		128/3 Ultra	29
•	•				123/4 Ultra Vap	30
•	•				123/4a Ultra Vap	30
	•				103/4 Ultra	31
		•			132/3 Ultra	31
•	•				151/3 Ultra Combi	32
•	•				105/4 Ultra EL	33
		•	•		131/3 Ultra EL	33
•	•				105/4 Ultra Vap EL	34
		•	•		131/3 Ultra Vap EL	34

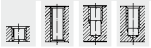
Steel

extra long

M DIN 352





















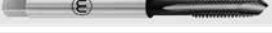
•	•	•	•		101/1 HSS-E	35
•	•	•	•		101/2 HSS-E	35
•	•	•	•		101/3 HSS-E	35
•	•	•	•		101/S HSS-E Set	35
•	•	•	•		101/1 Ultra	37
•	•	•	•		101/2 Ultra	37
•	•	•	•		101/3 Ultra	37
•	•	•	•		101/S Ultra Set	37

Hand Tap



M ISO 2283

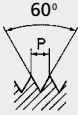
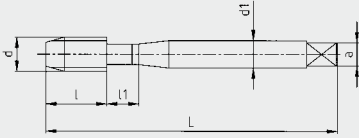
Seite
Page

•	•					105/4 Ultra	38
•	•					105/4 Ultra Vap	38
						M DIN 371/376	
•	•	•	•		Former	116 Ultra	39
•	•	•	•			116 Ultra Vap	40
•	•	•	•			116a Ultra Vap	40
•	•	•	•			116 Ultra TiN	41
•	•	•	•			116a Ultra TiN	41
•	•	•	•			116 Ultra TiCN	42
•	•	•	•			116a Ultra TiCN	42
•	•					105/4 Ultra 6G	43
		•	•		Oversize	131/3 Ultra 6G	43
•	•					105/4 Ultra Inox 6G	44
		•	•			131/3 Ultra Inox 6G	44
•	•					105/4 Ultra 7G	45
		•	•			131/3 Ultra 7G	45
•	•					105/4 Ultra + 0.1	46
		•	•			131/3 Ultra + 0.1	46
•	•				Left Hand	105/4 Ultra LH	47
		•	•			131/3 Ultra LH	47
•	•					105/4 Ultra Vap LH	48
		•	•			131/3 Ultra Vap LH	48





DIN 371/376



105/4
HSS-E



DIN 371
ISO 2 (6H)

B/4

105/4
HSS-E



DIN 376
ISO 2 (6H)

B/4

131/3
HSS-E



DIN 371
ISO 2 (6H)

C/2.5

131/3
HSS-E



DIN 376
ISO 2 (6H)

C/2.5

Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		DIN 371		DIN 376		d	P		Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
	l	l1	l	l1	d1	a	d1	a											
40	5.5				2.5	2.1			M 1	0.25	0.75	22201	●						
40	5.5				2.5	2.1			M 1.2	0.25	0.95	22202	●						
40	7				2.5	2.1			M 1.4	0.30	1.1	22203	●						
40	8				2.5	2.1			M 1.6	0.35	1.25	22204	●						
40	8				2.5	2.1			M 1.8	0.35	1.45	22205	●						
45	8		8		2.8	2.1			M 2	0.40	1.6	22462	●			78484	●		
50	9		9		2.8	2.1			M 2.5	0.45	2.05	22497	●			78506	●		
56	11	7	6	11	3.5	2.7	2.2	1.8	M 3	0.50	2.5	22519	●	61077	●	78514	●		
63	13	8	7.5	13	4.5	3.4	2.8	2.1	M 4	0.70	3.3	22535	●	61093	●	78530	●	78450	●
70	16	9	9	16	6	4.9	3.5	2.7	M 5	0.80	4.2	22543	●	61107	●	78549	●	78451	●
80	19	11	11	18	6	4.9	4.5	3.4	M 6	1.00	5	22551	●	61115	●	78557	●	78452	●
90	22	13	13	21	8	6.2	6	4.9	M 8	1.25	6.8	22578	●	61123	●	78565	●	78453	●
100	24	15	16	22	10	8	7	5.5	M 10	1.50	8.5	22586	●	61131	●	78573	●	78454	●
110	29		18				9	7	M 12	1.75	10.2			22594	●			78581	●
110	30		20				11	9	M 14	2.00	12			22608	●			78603	●
110	32		20				12	9	M 16	2.00	14			22616	●			78611	●

D

105/4 Gelbring
131/3 Gelbring

Speziell geeignet für G20 Kupfer, **G21** Hartmessing (Ms 58, kurzspanend), **G22** Weichmessing (Ms 63, langspanend), **G23** Rotguss, **G24** Guss-Zinnbronze, **G25** Aluminium-Knetlegierungen, **G29** Magnesium-Knetlegierungen, **G34** Thermoplaste Kunststoffe

F

105/4 Anneau jaune
131/3 Anneau jaune

Spécialement conçu pour G20 cuivre, **G21** laiton dur (Ms 58, copeaux courts), **G22** laiton tendre (Ms 63, copeaux longs), **G23** laiton rouge, **G24** bronze au zinc, **G25** alliages corroyés d'aluminium, **G29** alliages corroyés de magnésium, **G34** matières thermoplastiques

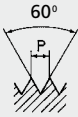
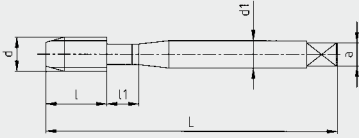
E

105/4 Yellow ring
131/3 Yellow ring

Specific suitable for G20 copper, **G21** hard brass (Ms 58, short chipping), **G22** soft brass (Ms 63, long chipping), **G23** red brass, **G24** phosphor bronze, **G25** wrought alloy of aluminium, **G29** wrought alloy of magnesium, **G34** thermoplastic compounds/synthetics



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		DIN 371		DIN 376		d	P	
	l	l1	l	l1	d1	a	d1	a			
125	34		22				14	11	M 18	2.50	15.5
140	34		25				16	12	M 20	2.50	17.5
140	34		25				18	14,5	M 22	2.5	19.5
160	38		28				18	14,5	M 24	3	21
160	38		32				20	16	M 27	3	24
180	45		36				22	18	M 30	3.5	26.5
180	50		38				25	20	M 33	3.5	29.5
200	56		43				28	22	M 36	4	32
200	60		43				32	24	M 39	4	35
200	60		45				32	24	M 42	4.5	37.5
220	65		45				36	29	M 45	4.5	40.5
250	70		50				36	29	M 48	5	43

105/4
HSS-E



DIN 371
ISO 2 (6H)

B/4

Art. Stock

105/4
HSS-E



DIN 376
ISO 2 (6H)

B/4

Art. Stock

131/3
HSS-E



DIN 371
ISO 2 (6H)

C/2.5

Art. Stock

131/3
HSS-E



DIN 376
ISO 2 (6H)

C/2.5

Art. Stock

D

105/4 Gelbring
131/3 Gelbring

Speziell geeignet für G20 Kupfer, G21 Hartmessing (Ms 58, kurzspanend), G22 Weichmessing (Ms 63, langspanend), G23 Rotguss, G24 Guss-Zinnbronze, G25 Aluminium-Knetlegierungen, G29 Magnesium-Knetlegierungen, G34 Thermoplaste Kunststoffe

F

105/4 Anneau jaune
131/3 Anneau jaune

Spécialement conçu pour G20 cuivre, G21 laiton dur (Ms 58, copeaux courts), G22 laiton tendre (Ms 63, copeaux longs), G23 laiton rouge, G24 bronze au zinc, G25 alliages corroyés d'aluminium, G29 alliages corroyés de magnésium, G34 matières thermoplastiques

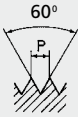
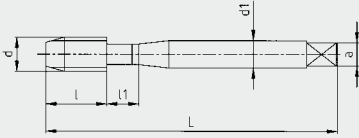
E

105/4 Yellow ring
131/3 Yellow ring

Specific suitable for G20 copper, G21 hard brass (Ms 58, short chipping), G22 soft brass (Ms 63, long chipping), G23 red brass, G24 phosphor bronze, G25 wrought alloy of aluminium, G29 wrought alloy of magnesium, G34 thermoplastic compounds/synthetics



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		DIN 371		DIN 376		d	P	
	l	l1	l	l1	d1	a	d1	a			
56	11	7	6	11	3.5	2.7			M 3	0.50	2.5
63	13	8	7.5	13	4.5	3.4			M 4	0.70	3.3
70	16	9	9	16	6	4.9			M 5	0.80	4.2
80	19	11	11	18	6	4.9			M 6	1.00	5
90	22	13	13	21	8	6.2			M 8	1.25	6.8
100	24	15	16	22	10	8			M 10	1.50	8.5
110	29		18				9	7	M 12	1.75	10.2
110	30		20				11	9	M 14	2.00	12
110	32		20				12	9	M 16	2.00	14
125	34		22				14	11	M 18	2.50	15.5
140	34		25				16	12	M 20	2.50	17.5

105/4
PM



DIN 371
ISO 2 (6H)

B/4

105/4
PM



DIN 376
ISO 2 (6H)

B/4

131/3
PM



DIN 371
ISO 2 (6H)

C/2.5

131/3
PM



DIN 376
ISO 2 (6H)

C/2.5

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
43403	●			43422	●		
43404	●			43423	●		
43405	●			43424	●		
43406	●			43425	●		
43407	●			43426	●		
43408	●			43428	●		
		43409	●			43429	●
		43410	○			43430	○
		43411	●			43431	●
		43412	○			43432	○
		43413	●			43433	●

D

105/4 Duo Gelbring
131/3 Duo Gelbring

Speziell geeignet für G20 Kupfer, **G21** Hartmessing (Ms 58, kurzspanend), **G22** Weichmessing (Ms 63, langspanend), **G23** Rotguss, **G24** Guss-Zinnbronze, **G25** Aluminium-Knetlegierungen, **G29** Magnesium-Knetlegierungen, **G34** Thermoplaste Kunststoffe

F

105/4 Duo anneau jaune
131/3 Duo anneau jaune

Spécialement conçu pour G20 cuivre, **G21** laiton dur (Ms 58, copeaux courts), **G22** laiton tendre (Ms 63, copeaux longs), **G23** laiton rouge, **G24** bronze au zinc, **G25** alliages corroyés d'aluminium, **G29** alliages corroyés de magnésium, **G34** matières thermoplastiques

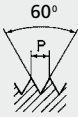
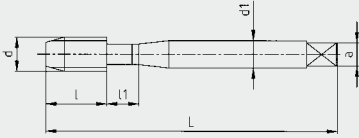
E

105/4 Duo yellow ring
131/3 Duo yellow ring

Specific suitable for G20 copper, **G21** hard brass (Ms 58, short chipping), **G22** soft brass (Ms 63, long chipping), **G23** red brass, **G24** phosphor bronze, **G25** wrought alloy of aluminium, **G29** wrought alloy of magnesium, **G34** thermoplastic compounds/synthetics



DIN 371/376



105/4
HSS-E

105/4
HSS-E

131/3
HSS-E

131/3
HSS-E



DIN 371

DIN 376

DIN 371

DIN 376

ISO 2 (6H)

ISO 2 (6H)

ISO 2 (6H)

ISO 2 (6H)

B/4

B/4

C/2.5

C/2.5

Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	l	l1	l	l1	d1	a	d1	a	d	P		Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
40	5.5				2.5	2.1			M 1	0.25	0.75	11585	●						
40	5.5				2.5	2.1			M 1.2	0.25	0.95	11586	●						
40	7				2.5	2.1			M 1.4	0.30	1.1	11587	●						
40	8				2.5	2.1			M 1.6	0.35	1.25	11588	●						
40	8				2.5	2.1			M 1.8	0.35	1.45	11599	●						
45	8		8		2.8	2.1			M 2	0.40	1.6	52000	●			73040	●		
50	9		9		2.8	2.1			M 2.5	0.45	2.05	52035	●			71560	●		
56	11	7	6	11	3.5	2.7	2.2	1.8	M 3	0.50	2.5	56707	●	52051	●	44245	●		
63	13	8	7.5	13	4.5	3.4	2.8	2.1	M 4	0.70	3.3	37176	●	52078	●	45500	●	12299	●
70	16	9	9	16	6	4.9	3.5	2.7	M 5	0.80	4.2	37184	●	52086	●	45659	●	71609	●
80	19	11	11	18	6	4.9	4.5	3.4	M 6	1.00	5	37192	●	52094	●	51829	●	71617	●
90	22	13	13	21	8	6.2	6	4.9	M 8	1.25	6.8	37206	●	52108	●	65285	●	71625	●
100	24	15	16	22	10	8	7	5.5	M 10	1.50	8.5	37214	●	52116	●	65293	●	71633	●
110	29			18			9	7	M 12	1.75	10.2			37222	●			57150	●
110	30			20			11	9	M 14	2.00	12			37230	●			57177	●
110	32			20			12	9	M 16	2.00	14			37249	●			57193	●

D

105/4 Schwarzring

131/3 Schwarzring

Speziell geeignet für G01 Baustähle < 1000 N/mm², **G03** Einsatzstähle < 1000 N/mm²,

G08 Werkzeugstähle, **G10** Rostfreie Cr-Stähle, geschwefelt, **G13** Automatenstähle, **G14** Stahlguss < 1000 N/mm²

F

105/4 Anneau noir

131/3 Anneau noir

Spécialement conçu pour G01 aciers de construction < 1000 N/mm², **G03** aciers de cémentation < 1000 N/mm², **G08** aciers à outils, **G10** aciers inoxydables Cr, sulfuré, **G13** aciers de décolletage, **G14** aciers moulés < 1000 N/mm²

E

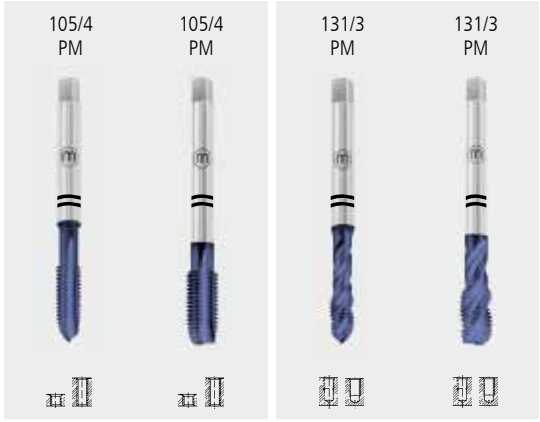
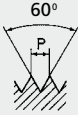
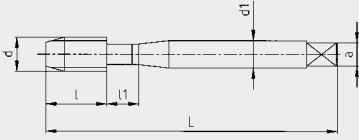
105/4 Black ring

131/3 Black ring

Specific suitable for G01 structural steels < 1000 N/mm², **G03** case hardening steels < 1000 N/mm², **G08** carbon tool steels, **G10** Cr stainless steels, sulphured, **G13** free-cutting steels, **G14** cast steels < 1000 N/mm²



DIN 371/376



DIN 371	DIN 376	DIN 371	DIN 376
ISO 2 (6H)	ISO 2 (6H)	ISO 2 (6H)	ISO 2 (6H)
B/4	B/4	C/2.5	C/2.5

Norm / Norme / Norm
Toleranzklasse / Classe de tolérance / Class of tolerance



L	l	l1	l	l1	d1	a	d1	a	d	P	
56	11	7	6	11	3.5	2.7			M 3	0.50	2.5
63	13	8	7.5	13	4.5	3.4			M 4	0.70	3.3
70	16	9	9	16	6	4.9			M 5	0.80	4.2
80	19	11	11	18	6	4.9			M 6	1.00	5
90	22	13	13	21	8	6.2			M 8	1.25	6.8
100	24	15	16	22	10	8			M 10	1.50	8.5
110	29		18				9	7	M 12	1.75	10.2
110	30		20				11	9	M 14	2.00	12
110	32		20				12	9	M 16	2.00	14
125	34		22				14	11	M 18	2.50	15.5
140	34		25				16	12	M 20	2.50	17.5
160	38		28				18	15.4	M 24	3.00	21.0

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
43217	●			43239	●		
43218	●			43240	●		
43219	●			43241	●		
43220	●			43242	●		
43221	●			43243	●		
43231	●			43244	●		
		43232	●			43245	●
		43233	○			43246	○
		43234	●			43247	●
		43235	○			43248	○
		43236	●			43250	●
		43801	●			43252	●

D

105/4 Duo Schwarzring
131/3 Duo Schwarzring
Speziell geeignet für **G01** Baustähle < 1000 N/mm², **G03** Einsatzstähle < 1000 N/mm², **G08** Werkzeugstähle, **G10** Rostfreie Cr-Stähle, geschwefelt, **G13** Automatenstähle, **G14** Stahlguss < 1000 N/mm²

F

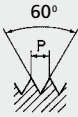
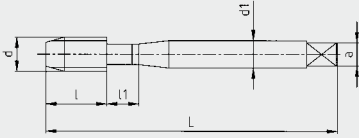
105/4 Duo anneau noir
131/3 Duo anneau noir
Spécialement conçu pour **G01** aciers de construction < 1000 N/mm², **G03** aciers de cémentation < 1000 N/mm², **G08** aciers à outils, **G10** aciers inoxydables Cr, sulfuré, **G13** aciers de décolletage, **G14** aciers moulés < 1000 N/mm²

E

105/4 Duo black ring
131/3 Duo black ring
Specific suitable for **G01** structural steels < 1000 N/mm², **G03** case hardening steels < 1000 N/mm², **G08** carbon tool steels, **G10** Cr stainless steels, sulphured, **G13** free-cutting steels, **G14** cast steels < 1000 N/mm²



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		DIN 371		DIN 376		d	P	Toleranzklasse
	l	l1	l	l1	d1	a	d1	a			
45	8		8		2.8	2.1			M 2	0.40	1.6
50	9		9		2.8	2.1			M 2.5	0.45	2.05
56	11	7	6	11	3.5	2.7			M 3	0.50	2.5
63	13	8	7.5	13	4.5	3.4			M 4	0.70	3.3
70	16	9	9	16	6	4.9			M 5	0.80	4.2
80	19	11	11	18	6	4.9			M 6	1.00	5
90	22	13	13	21	8	6.2			M 8	1.25	6.8
100	24	15	16	22	10	8			M 10	1.50	8.5
110	29		18				9	7	M 12	1.75	10.2
110	30		20				11	9	M 14	2.00	12
110	32		20				12	9	M 16	2.00	14
125	34		22				14	11	M 18	2.50	15.5
140	34		25				16	12	M 20	2.50	17.5
160	38		28				18	14.5	M 24	3.00	21.0
180	45		36				22	18	M 30	3.50	26.5

105/4
HSS-E



DIN 371
ISO 2 (6H)

B/4

105/4
HSS-E



DIN 376
ISO 2 (6H)

B/4

131/3
HSS-E



DIN 371
ISO 2 (6H)

C/2.5

131/3
HSS-E



DIN 376
ISO 2 (6H)

C/2.5

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
93556	●			25828	●		
93572	●			25925	●		
93580	●			26034	●		
93599	●			26085	●		
93602	●			26123	●		
93610	●			26212	●		
93629	●			26247	●		
		93637	●			26298	●
		93645	●			54852	●
		93653	●			54860	●
		93661	●			54879	●
		93688	●			54887	●
		93718	●			54909	●
		83976	●			84182	●

D

105/4 Blauring
131/3 Blauring

Speziell geeignet für G07 Nitrierstähle,
G09 Hitzebeständige Stähle, **G11** Rostfreie
Cr-Stähle, ferritisch und martensitisch,
G12 Rostfreie Cr-Ni Stähle, austenitisch,
G31 Nickellegierungen, **G32** Titan und
Titanlegierungen

F

105/4 Anneau bleu
131/3 Anneau bleu

Spécialement conçu pour G07 aciers pour
nituration, **G09** aciers réfractaires, **G11** aciers
inoxydables Cr, ferritique et martensitique,
G12 aciers inoxydables Cr-Ni, austénitique,
G31 alliages de nickel, **G32** titane et alliages
de titane

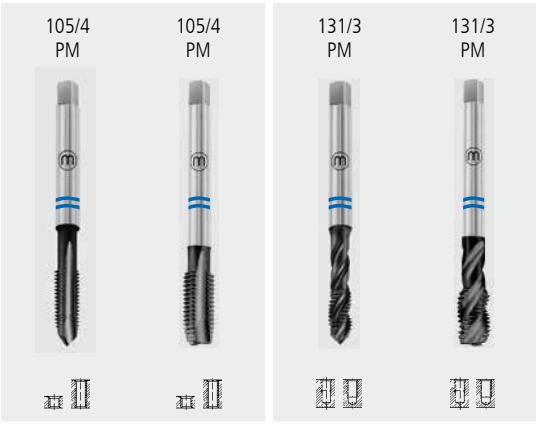
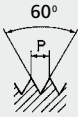
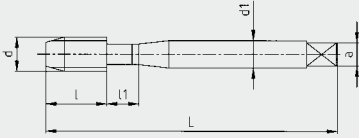
E

105/4 Blue ring
131/3 Blue ring

Specific suitable for G07 nitriding steels,
G09 heat resisting steels, **G11** Cr stainless
steels, ferritic and martensitic, **G12** Cr-Ni stain-
less steels, austenitic, **G31** alloy of nickel,
G32 titanium and alloy of titanium



DIN 371/376



DIN 371	DIN 376	DIN 371	DIN 376
ISO 2 (6H)	ISO 2 (6H)	ISO 2 (6H)	ISO 2 (6H)
B/4	B/4	C/2.5	C/2.5

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
43285	●			43299	●		
43286	●			43300	●		
43287	●			43301	●		
43289	●			43302	●		
43290	●			43304	●		
43291	●			43305	●		
		43292	●			43306	●
		43293	○			43307	○
		43294	●			43308	●
		43295	○			43309	○
		43296	●			43310	●
		43821	●			43852	●

Norm / Norme / Norm
 Toleranzklasse / Classe de tolérance / Class of tolerance

L	l	l1	l	l1	d1	a	d1	a	d	P	
56	11	7	6	11	3.5	2.7			M 3	0.50	2.5
63	13	8	7.5	13	4.5	3.4			M 4	0.70	3.3
70	16	9	9	16	6	4.9			M 5	0.80	4.2
80	19	11	11	18	6	4.9			M 6	1.00	5
90	22	13	13	21	8	6.2			M 8	1.25	6.8
100	24	15	16	22	10	8			M 10	1.50	8.5
110	29		18				9	7	M 12	1.75	10.2
110	30		20				11	9	M 14	2.00	12
110	32		20				12	9	M 16	2.00	14
125	34		22				14	11	M 18	2.50	15.5
140	34		25				16	12	M 20	2.50	17.5
160	38		28				18	14.5	M 24	3.00	21.0

D

105/4 Duo Blauring 131/3 Duo Blauring

Speziell geeignet für G07 Nitrierstähle, G09 Hitzebeständige Stähle, G11 Rostfreie Cr-Stähle, ferritisch und martensitisch, G12 Rostfreie Cr-Ni Stähle, austenitisch, G31 Nickellegierungen, G32 Titan und Titanlegierungen

F

105/4 Duo anneau bleu 131/3 Duo anneau bleu

Spécialement conçu pour G07 aciers pour nitruration, G09 aciers réfractaires, G11 aciers inoxydables Cr, ferritique et martensitique, G12 aciers inoxydables Cr-Ni, austénitique, G31 alliages de nickel, G32 titane et alliages de titane

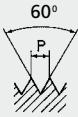
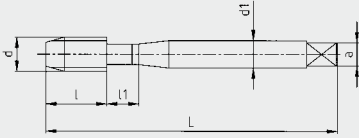
E

105/4 Duo blue ring 131/3 Duo blue ring

Specific suitable for G07 nitriding steels, G09 heat resisting steels, G11 Cr stainless steels, ferritic and martensitic, G12 Cr-Ni stainless steels, austenitic, G31 alloy of nickel, G32 titanium and alloy of titanium



DIN 371/376



105/4
HSS-E



DIN 371
ISO 2 (6H)

B/4

105/4
HSS-E



DIN 376
ISO 2 (6H)

B/4

131/3
HSS-E



DIN 371
ISO 2 (6H)

C/2.5

131/3
HSS-E



DIN 376
ISO 2 (6H)

C/2.5

Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		DIN 371		DIN 376		d	P		Art.	Stock	Art.	Stock	Art.	Stock	
	l	l1	l	l1	d1	a	d1	a										
45	8		8		2.8	2.1			M 2	0.40	1.6	75000	●			76007	●	
50	9		9		2.8	2.1			M 2.5	0.45	2.05	75027	●			76023	●	
56	11	7	6	11	3.5	2.7			M 3	0.50	2.5	75035	●			76031	●	
63	13	8	7.5	13	4.5	3.4			M 4	0.70	3.3	75043	●			76058	●	
70	16	9	9	16	6	4.9			M 5	0.80	4.2	75051	●			76066	●	
80	19	11	11	18	6	4.9			M 6	1.00	5	75078	●			76074	●	
90	22	13	13	21	8	6.2			M 8	1.25	6.8	75086	●			76082	●	
100	24	15	16	22	10	8			M 10	1.50	8.5	75094	●			76090	●	
110	29		18				9	7	M 12	1.75	10.2			75108	●		76104	●
110	30		20				11	9	M 14	2.00	12			75116	○		76112	○
110	32		20				12	9	M 16	2.00	14			75124	●		76120	●
125	34		22				14	11	M 18	2.50	15.5			75132	○		76139	○
140	34		25				16	12	M 20	2.50	17.5			75140	●		76147	●
160	38		28				18	14.5	M 24	3.00	21.0			83909	●		84204	●
180	45		36				22	18	M 30	3.50	26.5			83925	○		84220	○

D

105/4 Rotring

131/3 Rotring

Speziell geeignet für G02 Baustähle > 900

N/mm², **G04** Einsatzstähle > 900 N/mm²,

G05 Vergütungsstähle < 1000 N/mm²,

G06 Vergütungsstähle > 900 N/mm², **G15**

Stahlguß > 900 N/mm², **G35** HoStockeste

Feinkornbaustähle

F

105/4 Anneau rouge

131/3 Anneau rouge

Spécialement conçu pour G02 aciers de

construction > 900 N/mm², **G04** aciers de cémen-

tation > 900 N/mm², **G05** aciers d'amélioration

< 1000 N/mm², **G06** aciers d'amélioration > 900

N/mm², **G15** aciers moulés > 900 N/mm²,

G35 Aciers de construction à haute résistance et

à grains fins

E

105/4 Red ring

131/3 Red ring

Specific suitable for G02 structural steels

> 900 N/mm², **G04** case hardening steels

> 900 N/mm², **G05** heat treatable steels

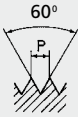
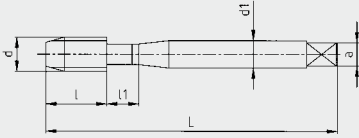
< 1000 N/mm², **G06** heat treatable steels > 900

N/mm², **G15** cast steels > 900 N/mm²,

G35 High strength structural steels fine grained



DIN 371/376



105/4
PM



105/4
PM



131/3
PM



131/3
PM



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		DIN 371		DIN 376		d	P	
	l	l1	l	l1	d1	a	d1	a			
56	11	7	6	11	3.5	2.7			M 3	0.50	2.5
63	13	8	7.5	13	4.5	3.4			M 4	0.70	3.3
70	16	9	9	16	6	4.9			M 5	0.80	4.2
80	19	11	11	18	6	4.9			M 6	1.00	5
90	22	13	13	21	8	6.2			M 8	1.25	6.8
100	24	15	16	22	10	8			M 10	1.50	8.5
110	29		18				9	7	M 12	1.75	10.2
110	30		20				11	9	M 14	2.00	12
110	32		20				12	9	M 16	2.00	14
125	34		22				14	11	M 18	2.50	15.5
140	34		25				16	12	M 20	2.50	17.5

DIN 371

ISO 2 (6H)

B/4

DIN 376

ISO 2 (6H)

B/4

DIN 371

ISO 2 (6H)

C/2.5

DIN 376

ISO 2 (6H)

C/2.5

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
43314	●			43327	●		
43315	●			43328	●		
43316	●			43329	●		
43317	●			43330	●		
43318	●			43331	●		
43319	●			43332	●		
		43320	●			43333	●
		43321	○			43334	○
		43322	●			43335	●
		43323	○			43336	○
		43324	●			43337	●

D

105/4 Duo Rotring

131/3 Duo Rotring

Speziell geeignet für G02 Baustähle > 900

N/mm², G04 Einsatzstähle > 900 N/mm²,

G05 Vergütungsstähle < 1000 N/mm², G06 Ver-

gütungsstähle > 900 N/mm², G15 Stahlguss

> 900 N/mm², G35 HoStockeste

Feinkornbaustähle

F

105/4 Duo anneau rouge

131/3 Duo anneau rouge

Spécialement conçu pour G02 aciers de

construction > 900 N/mm², G04 aciers de cémenta-

tion > 900 N/mm², G05 aciers d'amélioration

< 1000 N/mm², G06 aciers d'amélioration > 900

N/mm², G15 aciers moulés > 900 N/mm²,

G35 Aciers de construction à haute résistance et

à grains fins

E

105/4 Duo red ring

131/3 Duo red ring

Specific suitable for G02 structural steels

> 900 N/mm², G04 case hardening steels > 900

N/mm², G05 heat treatable steels < 1000

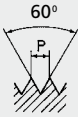
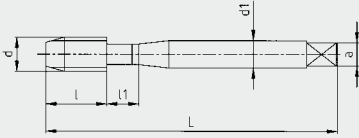
N/mm², G6 heat treatable steels > 900 N/mm²,

G15 cast steels > 900 N/mm², G35 High

strength structural steels fine grained



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/3		DIN 371		DIN 376		d	P	
	l	l1	d1	a	d1	a			
45	8		2.8	2.1			M 2	0.40	1.6
50	9		2.8	2.1			M 2.5	0.45	2.05
56	11	7	3.5	2.7			M 3	0.50	2.5
63	13	8	4.5	3.4			M 4	0.70	3.3
70	16	9	6	4.9			M 5	0.80	4.2
80	19	11	6	4.9			M 6	1.00	5
90	22	13	8	6.2	6	4.9	M 8	1.25	6.8
100	24	15	10	8	7	5.5	M 10	1.50	8.5
110	29				9	7	M 12	1.75	10.2
110	32				12	9	M 16	2.00	14
140	34				16	12	M 20	2.50	17.5

105/3
HSS-E



DIN 371

ISO 2 (6H)

C/2.5

Art.	Stock
71374	●
71382	●
37257	●
37273	●
37281	●
56715	●
37303	●
37311	●

105/3
HSS-E



DIN 376

ISO 2 (6H)

C/2.5

Art.	Stock
71412	●
74985	●
56723	●
52159	●
52175	●

D

105/3 Grünring

Speziell geeignet für G16 Temperguss,
G17 Gusseisen mit Kugelgraphit (Sphäroguss),
G18 Gusseisen mit Lamellengraphit (Grauguss),
G19 Gusseisen mit Vermikulargraphit,
G26 Aluminium-Gusslegierungen Si 0.5%–5%,
G27 Aluminium-Gusslegierungen Si 5%–10%,
G28 Aluminium-Gusslegierungen Si > 10%,
G30 Magnesium-Gusslegierungen, **G33** Ferro-Tic

F

105/3 Anneau vert

Spécialement conçu pour G16 fonte malléable,
G17 fonte à graphite sphéroïdal, **G18** fonte à graphite lamellaire (fonte grise), **G19** fonte à graphite vermculaire, **G26** alliages de fonte d'aluminium Si 0.5%–5%, **G27** alliages de fonte d'aluminium Si 5%–10%, **G28** alliages de fonte d'aluminium Si > 10%, **G30** alliages de fonte de magnésium, **G33** ferro-Tic

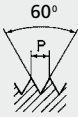
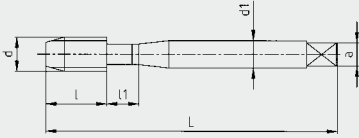
E

105/3 Green ring

Specific suitable for G16 malleable cast iron, **G17** nodular graphite cast iron, **G18** lamellar graphite cast iron (grey cast iron), **G19** vermicular graphite cast iron, **G26** aluminium cast alloy Si 0.5%–5%, **G27** aluminium cast alloy Si 5%–10%, **G28** aluminium cast alloy Si > 10%, **G30** cast alloy of magnesium, **G33** ferro-Tic



DIN 371/376



105/3
HSS-E



DIN 371
ISO 2 (6H)

C/2.5

105/3
HSS-E



DIN 376
ISO 2 (6H)

C/2.5

Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/3		DIN 371		DIN 376		d	P	
	l	l1	d1	a	d1	a			
56	11	7	3.5	2.7			M 3	0.50	2.5
63	13	8	4.5	3.4			M 4	0.70	3.3
70	16	9	6	4.9			M 5	0.80	4.2
80	19	11	6	4.9			M 6	1.00	5
90	22	13	8	6.2			M 8	1.25	6.8
100	24	15	10	8			M 10	1.50	8.5
110	29				9	7	M 12	1.75	10.2
110	32				12	9	M 16	2.00	14
140	34				16	12	M 20	2.50	17.5

Art.	Stock
43446	●
43447	●
43448	●
43449	●
43452	●
43453	●

Art.	Stock
43454	●
43456	●
43458	●

D

105/3 Duo Grünring

Speziell geeignet für G16 Temperguss,
G17 Gusseisen mit Kugelgraphit (Sphäroguss),
G18 Gusseisen mit Lamellengraphit (Grauguss),
G19 Gusseisen mit Vermikulargraphit,
G26 Aluminium-Gusslegierungen Si 0.5%–5%,
G27 Aluminium-Gusslegierungen Si 5%–10%,
G28 Aluminium-Gusslegierungen Si > 10%,
G30 Magnesium-Gusslegierungen, **G33** Ferro-Tic

F

105/3 Duo anneau vert

Spécialement conçu pour G16 fonte malléable,
G17 fonte à graphite sphéroïdal, **G18** fonte à graphite lamellaire (fonte grise), **G19** fonte à graphite vermiculaire, **G26** alliages de fonte d'aluminium Si 0.5%–5%, **G27** alliages de fonte d'aluminium Si 5%–10%, **G28** alliages de fonte d'aluminium Si > 10%, **G30** alliages de fonte de magnésium, **G33** ferro-Tic

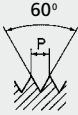
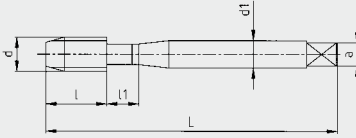
E

105/3 Duo green ring

Specific suitable for G16 malleable cast iron, **G17** nodular graphite cast iron, **G18** lamellar graphite cast iron (grey cast iron), **G19** vermicular graphite cast iron, **G26** aluminium cast alloy Si 0.5%–5%, **G27** aluminium cast alloy Si 5%–10%, **G28** aluminium cast alloy Si > 10%, **G30** cast alloy of magnesium, **G33** ferro-Tic



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	103/3		132/3		DIN 371		DIN 376		d	P	f
	l	l1	l	l1	d1	a	d1	a			
45	8		8		2.8	2.1			M 2	0.40	1.6
50	9		9		2.8	2.1			M 2.5	0.45	2.05
56	11	7	6	11	3.5	2.7			M 3	0.50	2.5
63	13	8	7.5	13	4.5	3.4			M 4	0.70	3.3
70	16	9	9	16	6	4.9			M 5	0.80	4.2
80	19	11	11	18	6	4.9			M 6	1.00	5
90	22	13	13	21	8	6.2			M 8	1.25	6.8
100	24	15	16	22	10	8			M 10	1.50	8.5
110	29		18				9	7	M 12	1.75	10.2
110	32		20				12	9	M 16	2.00	14
140	34		25				16	12	M 20	2.50	17.5

103/3 Titan
PM



DIN 371
ISO 6HX

D/4

Art. Stock

69256 ●

103/3 Titan
PM



DIN 376
ISO 6HX

D/4

Art. Stock

69264 ●

132/3 Titan
PM



DIN 371
ISO 6HX

C/2.5-3

Art. Stock

69345 ●

132/3 Titan
PM



DIN 376
ISO 6HX

C/2.5-3

Art. Stock

69353 ●

69272 ●

69280 ●

69299 ●

69302 ●

69310 ●

69329 ●

69337 ●

69338 ○

69339 ○

69361 ●

69388 ●

69396 ●

69418 ●

69426 ●

69434 ●

69442 ●

69443 ○

69444 ○

D

103/3 Titan für kleine Serien
132/3 Titan für kleine Serien

Speziell geeignet für G24 Guss-Zinnbronze,
G32 Titan und Titanlegierungen, **G33** Ferro-Tic

F

103/3 Titan pour des petites séries
132/3 Titan pour des petites séries

Spécialement conçu pour G24 bronze au zinc,
G32 titane et alliages de titane, **G33** ferro-Tic

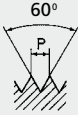
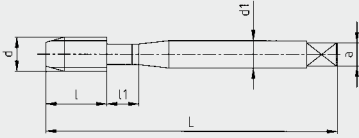
E

103/3 Titan for small series
132/3 Titan for small series

Specific suitable for G24 phosphor bronze,
G32 titanium and alloy of titanium,
G33 ferro-Tic



DIN 371/376



103/3 Titan Plus PM 103/3 Titan Plus PM 132/3 Titan Plus PM 132/3 Titan Plus PM



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



DIN 371

DIN 376

DIN 371

DIN 376

ISO 6HX

ISO 6HX

ISO 6HX

ISO 6HX

D/4

D/4

C/2.5-3

C/2.5-3

L	103/3		132/3		DIN 371		DIN 376		d	P		Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
	l	l1	l	l1	d1	a	d1	a											
45	8		8		2.8	2.1			M 2	0.40	1.6	69710	●			69790	●		
50	9		9		2.8	2.1			M 2.5	0.45	2.05	69711	●			69791	●		
56	11	7	6	11	3.5	2.7			M 3	0.50	2.5	69712	●			69792	●		
63	13	8	7.5	13	4.5	3.4			M 4	0.70	3.3	69713	●			69793	●		
70	16	9	9	16	6	4.9			M 5	0.80	4.2	69714	●			69794	●		
80	19	11	11	18	6	4.9			M 6	1.00	5	69715	●			69795	●		
90	22	13	13	21	8	6.2			M 8	1.25	6.8	69716	●			69796	●		
100	24	15	16	22	10	8			M 10	1.50	8.5	69717	●			69797	●		
110	29		18				9	7	M 12	1.75	10.2			69718	●			69798	●
110	32		20				12	9	M 16	2.00	14			69719	○			69799	○
140	34		25				16	12	M 20	2.50	17.5			69720	○			69800	○

D

103/3 Titan Plus für grosse Serien
132/3 Titan Plus für grosse Serien
Speziell geeignet für G24 Guss-Zinnbronze,
G32 Titan und Titanlegierungen, **G33** Ferro-TiC

F

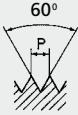
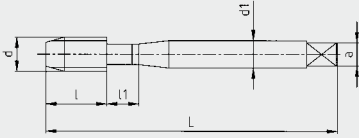
103/3 Titan Plus pour des grandes séries
132/3 Titan Plus pour des grandes séries
Spécialement conçu pour G24 bronze au zinc,
G32 titane et alliages de titane, **G33** ferro-tiC

E

103/3 Titan Plus for big series
132/3 Titan Plus for big series
Specific suitable for G24 phosphor bronze,
G32 titanium and alloy of titanium,
G33 ferro-TiC



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		130/131		DIN 371		DIN 376		Aero MJ		P	Hatched
	l	l ₁	l	l ₁	d ₁	a	d ₁	a	d	P		
56	11	7	6	11	3.5	2.7			MJ 3	0.50	2.6	
63	13	8	7.5	13	4.5	3.4			MJ 4	0.70	3.4	
70	16	9	9	16	6	4.9			MJ 5	0.80	4.3	
80	19	11	11	18	6	4.6			MJ 6	1.00	5.1	
90	22	13	13	21	8	6.2			MJ 8	1.00	7.1	
100	24	15	16	22	10	8			MJ 10	1.25	8.9	
110	29		18						MJ 12	1.25	10.9	

105/4 Aero MJ PM 105/4 Aero MJ PM 130/3 Aero MJ PM 130/3 Aero MJ PM



DIN 371

DIN 376

DIN 371

DIN 376

ISO 4HX

ISO 4HX

ISO 4HX

ISO 4HX

B/4-5

B/4-5

C/2.5-3

C/2.5-3

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
10473	○			10475	○		
10474	●			10476	●		
10461	●			11461	●		
10462	●			11462	●		
10465	●			11465	●		
10466	●			11466	●		
		10467	●			10469	●

D

105/4 Aero MJ
130/3 Aero MJ

Speziell geeignet für G09 Hitzebeständige Stähle, **G31** Nickellegierungen

Geht auch für Werkstoffe mit Zugfestigkeit 900 – 1400 N/mm²

F

105/4 Aero MJ
130/3 Aero MJ

Spécialement conçu pour G09 aciers réfractaires, **G31** alliages de nickel

Conçu aussi pour des matériaux avec une résistance de 900 – 1400 N/mm²

E

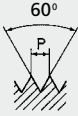
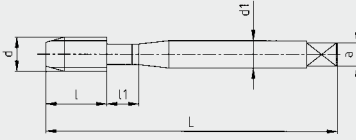
105/4 Aero MJ
130/3 Aero MJ

Specific suitable for G09 heat resisting steels, **G31** alloy of nickel

Gose also for materials with strength of extension of 900 – 1400 N/mm²



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		DIN 371		DIN 376		d	P	
	l	l1	l	l1	d1	a	d1	a			
50	9		9		2.8	2.1			M 2.5	0.45	2.05
56	11	7	6	11	3.5	2.7			M 3	0.50	2.5
63	13	8	7.5	13	4.5	3.4			M 4	0.70	3.3
70	16	9	9	16	6	4.9			M 5	0.80	4.2
80	19	11	11	18	6	4.9			M 6	1.00	5
90	22	13	13	21	8	6.2			M 8	1.25	6.8
100	24	15	16	22	10	8			M 10	1.50	8.5
110	29		18				9	7	M 12	1.75	10.2

105/4 Ultra **CU**
HSS-E



DIN 371
ISO 2 (6H)

B/4

Art. Stock

11001 ○

105/4 Ultra **CU**
HSS-E



DIN 376
ISO 2 (6H)

B/4

Art. Stock

11003 ○

131/3 Ultra **CU**
HSS-E



DIN 371
ISO 2 (6H)

C/2.5

Art. Stock

11079 ○

131/3 Ultra **CU**
HSS-E



DIN 376
ISO 2 (6H)

C/2.5

Art. Stock

11015 ○

11016 ○

11017 ○

11018 ○

11019 ○

11020 ○

11009 ○

11021 ○

D

105/4 Ultra Cu
131/3 Ultra Cu

Speziell geeignet für G20 Kupfer,
G22 Weichmessing (Ms 63, langspanend)

F

105/4 Ultra Cu
131/3 Ultra Cu

Spécialement conçu pour G20 cuivre,
G22 laiton tendre (Ms 63, copeaux longs)

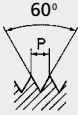
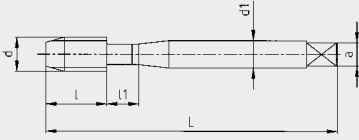
E

105/4 Ultra Cu
131/3 Ultra Cu

Specific suitable for G20 copper,
G22 soft brass (MS 63, long chipping)



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	l	l1	l	l1	d1	a	d1	a	d Nom.	d	P	
56	11	6	6		3.5	2.7			3.085	M 2.5	0.45	2.65
63	10	7	6	11	4.5	3.4			3.650	M 3	0.50	3.15
70	13	8	8	12	6	4.9			4.910	M 4	0.70	4.2
80	13	12	8	17	6	4.9			6.040	M 5	0.80	5.25
90	17	11	10	18	8	6.2			7.300	M 6	1.00	6.3
100	18	13	16	22	10	8			9.624	M 8	1.25	8.4
110	21	15	15	19	12	9			11.948	M 10	1.50	10.5
110	26	17	20		11	9			14.274	M 12	1.75	12.
125	27	22			14	11			18.598	M 16	2.00	16.5
160	34	30			18	14.5			23.248	M 20	2.50	20.75

D

105/4 Ultra EG

131/3 Ultra EG

Speziell geeignet für G01 Baustähle < 1000 N/mm², **G03** Einsatzstähle < 1000 N/mm², **G05** Vergütungsstähle < 1000 N/mm², **G08** Werkzeugstähle, **G13** Automatenstähle, **G14** Stahlguss < 1000 N/mm², **G21** Hartmessing (Ms 58, kurzspanend), **G22** Weichmessing (Ms 63, langspanend), **G25** Aluminium-Knetlegierungen, **G29** Magnesium-Knetlegierungen, **G34** Thermoplaste Kunststoffe

Geht auch für G07 Nitrierstähle, **G10** Rostfreie Cr-Stähle, geschwefelt, **G11** Rostfreie Cr-Stähle, ferritisch und martensitisch, **G12** Rostfreie Cr-Ni Stähle, austenitisch, **G16** Temporguss, **G17** Gusseisen mit Kugelgraphit (Sphäroguss), **G18** Gusseisen mit Lamellengraphit (Grauguss), **G19** Gusseisen mit Vermikulargraphit, **G23** Rotguss, **G26** Aluminium-Gusslegierungen Si 0.5% – 5%, **G27** Aluminium-Gusslegierungen Si 5% – 10%, **G28** Aluminium-Gusslegierungen Si > 10%, **G30** Magnesium-Gusslegierungen

F

105/4 Ultra EG

131/3 Ultra EG

Spécialement conçu pour G01 aciers de construction < 1000 N/mm², **G03** aciers de cémentation < 1000 N/mm², **G05** aciers d'amélioration < 1000 N/mm², **G08** aciers à outils, **G13** aciers de décolletage, **G14** aciers moulés < 1000 N/mm², **G21** laiton dur (Ms 58, copeaux courts), **G22** laiton tendre (Ms 63, copeaux longs), **G25** alliages corroyés d'aluminium, **G29** alliages corroyés de magnésium, **G34** matières thermoplastiques

Conçu aussi pour G07 aciers pour nituration, **G10** aciers inoxydables Cr, sulfuré, **G11** aciers inoxydables Cr, ferritique et martensitique, **G12** aciers inoxydables Cr-Ni, austénitique, **G16** fonte malléable, **G17** fonte à graphite sphéroïdal, **G18** fonte à graphite lamellaire (fonte grise), **G19** fonte à graphite vermiculaire, **G23** laiton rouge, **G26** alliages de fonte d'aluminium Si 0.5% – 5%, **G27** alliages de fonte d'aluminium Si 5% – 10%, **G28** alliages de fonte d'aluminium Si > 10%, **G30** alliages de fonte de magnésium

E

105/4 Ultra EG

131/3 Ultra EG

Specific suitable for G01 structural steels < 1000 N/mm², **G03** case hardening steels < 1000 N/mm², **G05** heat treatable steels < 1000 N/mm², **G08** carbon tool steels, **G13** free-cutting steels, **G14** cast steels < 1000 N/mm², **G21** hard brass (Ms 58, short chipping), **G22** soft brass (MS 63, long chipping), **G25** wrought alloy of aluminium, **G29** wrought alloy of magnesium, **G34** thermoplastic compounds/synthetics

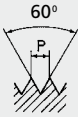
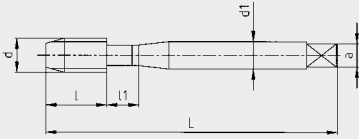
Goes also for G07 nitriding steels, **G10** Cr stainless steels, sulphured, **G11** Cr stainless steels, ferritic and martensitic, **G12** Cr-Ni stainless steels, austenitic, **G16** malleable cast iron, **G17** nodular graphite cast iron, **G18** lamellar graphite cast iron (grey cast iron), **G19** vermicular graphite cast iron, **G23** red brass, **G26** aluminium cast alloy Si 0.5% – 5%, **G27** aluminium cast alloy Si 5% – 10%, **G28** aluminium cast alloy Si > 10%, **G30** cast alloy of magnesium

105/4 Ultra EG HSS-E		105/4 Ultra EG HSS-E		131/3 Ultra EG HSS-E		131/3 Ultra EG HSS-E	
DIN 371	DIN 376	DIN 371	DIN 376	DIN 371	DIN 376	DIN 371	DIN 376
6H mod.	6H mod.	6H mod.	6H mod.	6H mod.	6H mod.	6H mod.	6H mod.
B/4	B/4	C/2.5	C/2.5	C/2.5	C/2.5	C/2.5	C/2.5

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
11500	○			11511	○		
11501	●			11512	●		
11502	●			11513	●		
11503	●			11514	●		
11504	●			11515	●		
11505	●			11516	●		
11506	●			11518	●		
		11507	●			11519	●
		11508	○			11520	○
		11510	○			11521	○



DIN 371/376



105/3 Ultra
HSS-E



105/3 Ultra
HSS-E



128/3 Ultra
HSS-E



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



DIN 371

DIN 376

DIN 371

ISO 2 (6H)

ISO 2 (6H)

ISO 2 (6H)

Art.		Stock		Art.		Stock	
				23566	●		
				23590	●		
82279	○			23612	●		
82287	○			23639	●		
85359	○			23655	●		
85367	○			23663	●		
85375	○			10756	●		
85383	○			10757	●		
		82333	○				
		82341	△				
		82368	○				
		82376	△				
		82384	○				
		82392	△				
		82406	○				
		82414	△				
		82422	△				
		82430	△				
		82449	△				
		82457	△				
		82465	△				
		82473	△				
		82481	△				

L	l	l1	l	l1	DIN 371 d1	a	DIN 376 d1	a	d	P	Lead
45			9		2.8	2.1			M 2	0.40	1.6
50			9		2.8	2.1			M 2.5	0.45	2.05
56	11	7			3.5	2.7			M 3	0.50	2.5
63	13	8			4.5	3.4			M 4	0.70	3.3
70	16	9			6	4.9	3.5	2.7	M 5	0.80	4.2
80	19	11			6	4.9	4.5	3.4	M 6	1.00	5
90	22	13			8	6.2	6	4.9	M 8	1.25	6.8
100	24	15			10	8	7	5.5	M 10	1.50	8.5
110	29						9	7	M 12	1.75	10.2
110	30						11	9	M 14	2.00	12
110	32						12	9	M 16	2.00	14
125	34						14	11	M 18	2.50	15.5
140	34						16	12	M 20	2.50	17.5
140	34						18	14.5	M 22	2.50	19.5
160	38						18	14.5	M 24	3.00	21
160	38						20	16	M 27	3.00	24
180	45						22	18	M 30	3.50	26.5
180	50						25	20	M 33	3.50	29.5
200	56						28	22	M 36	4.00	32
200	60						32	24	M 39	4.00	35
200	60						32	24	M 42	4.50	37.5
220	65						36	29	M 45	4.50	40.5
250	70						36	29	M 48	5.00	43

D

105/3 Ultra für beschädigte Gewinde nachzuschneiden. Für Grundloch 1 x d.

F

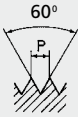
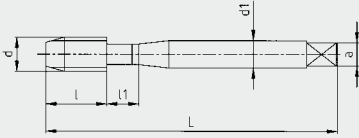
105/3 Ultra pour repasser des filetages endommagés. Pour trou borgne 1 x d.

E

105/3 Ultra for repairing damaged threads. Blind hole 1 x d.



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	l	l ₁	DIN 371		DIN 376		d	P	Z
			d ₁	a	d ₁	a			
40	5.5		2.5	2.1			M 1	0.25	0.75
40	5.5		2.5	2.1			M 1.2	0.25	0.95
40	7		2.5	2.1			M 1.4	0.30	1.1
40	8		2.5	2.1			M 1.6	0.35	1.25
40	8		2.5	2.1			M 1.8	0.35	1.45
45	8		2.8	2.1			M 2	0.40	1.6
50	9		2.8	2.1			M 2.5	0.45	2.05
56	10	7	3.5	2.7			M 3	0.50	2.5
63	12	8	4.5	3.4			M 4	0.70	3.3
70	14	9	6	4.9			M 5	0.80	4.2
80	16	11	6	4.9			M 6	1.00	5
90	18	13	8	6.2			M 8	1.25	6.8
100	20	15	10	8			M 10	1.50	8.5
110	22				9	7	M 12	1.75	10.2

123/4 Ultra Vap HSS-E



DIN 371

ISO 2 (6H)

B/4

123a/4 Ultra Vap HSS-E



DIN 371

ISO 2 (6H)

B/4

123a/4 Ultra Vap HSS-E



DIN 376

ISO 2 (6H)

B/4

Art.	Stock	Art.	Stock	Art.	Stock
10616	●				
10617	●				
10619	●				
10620	●				
		10621	●		
		10624	●		
		10627	●		
		10629	●		
		10630	●		
		10631	●		
		10632	●		
		10633	●		
				10635	●

D

123/4 Ultra Vap
123a/4 Ultra Vap

Speziell geeignet für G01 Baustähle < 1000 N/mm², **G03** Einsatzstähle < 1000 N/mm², **G05** Vergütungsstähle < 1000 N/mm², **G08** Werkzeugstähle, **G13** Automatenstähle, **G14** Stahlguss < 1000 N/mm²

F

123/4 Ultra Vap
123a/4 Ultra Vap

Spécialement conçu pour G01 aciers de construction < 1000 N/mm², **G03** aciers de cémentation < 1000 N/mm², **G05** aciers d'amélioration < 1000 N/mm², **G08** aciers à outils, **G13** aciers de décolletage, **G14** aciers moulés < 1000 N/mm²

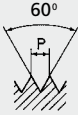
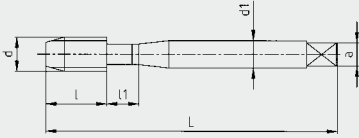
E

123/4 Ultra Vap
123a/4 Ultra Vap

Specific suitable for G01 structural steels < 1000 N/mm², **G03** case hardening steels < 1000 N/mm², **G05** heat treatable steels < 1000 N/mm², **G08** carbon tool steels, **G13** free-cutting steels, **G14** cast steels < 1000 N/mm²



DIN 371/376



103/4 Ultra HSS-E 103/4 Ultra HSS-E 132/3 Ultra HSS-E 132/3 Ultra HSS-E



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



DIN 371	DIN 376	DIN 371	DIN 376
ISO 2 (6H)	ISO 2 (6H)	ISO 2 (6H)	ISO 2 (6H)
B/4	B/4	C/2.5	C/2.5

L	103/4		132/3		DIN 371		DIN 376		d	P		Art.	Stock	Art.	Stock	Art.	Stock	
	l	l1	l	l1	d1	a	d1	a										
45	8		8		2.8	2.1			M 2	0.40	1.6	58033	●			74403	●	
50	9		9		2.8	2.1			M 2.5	0.45	2.05	52574	●			74411	●	
56	11	7	6	11	3.5	2.7			M 3	0.50	2.5	52590	●	52663	○	74438	●	
63	13	8	7.5	13	4.5	3.4			M 4	0.70	3.3	52612	●	58041	○	74446	●	
70	16	9	9	16	6	4.9			M 5	0.80	4.2	52620	●	52698	○	74454	●	
80	19	11	11	18	6	4.9			M 6	1.00	5	52639	●	52701	●	71714	●	
90	22	13	13	21	8	6.2			M 8	1.25	6.8	52647	●	58068	●	71722	●	
100	24	15	16	22	10	8			M 10	1.50	8.5	52655	●	52728	●	71730	●	
110	29		18				9	7	M 12	1.75	10.2			52736	●		78115	●

D

103/4 Ultra min 1.5 x D
132/3 Ultra min 1.5 x D
Speziell geeignet für G01 Baustähle < 1000 N/mm², **G05** Vergütungsstähle < 1000 N/mm², **G14** Stahlguss < 1000 N/mm², **G20** Kupfer, **G22** Weichmessing (Ms 63, langspanend)

Geht auch für G03 Einsatzstähle < 1000 N/mm², **G25** Aluminium-Knetlegierungen

F

103/4 Ultra min 1.5 x D
132/3 Ultra min 1.5 x D
Spécialement conçu pour G01 aciers de construction < 1000 N/mm², **G05** aciers d'amélioration < 1000 N/mm², **G14** aciers moulés < 1000 N/mm², **G20** cuivre, **G22** laiton tendre (Ms 63, copeaux longs)

Conçu aussi pour G03 aciers de cémentation < 1000 N/mm², **G25** alliages corroyés d'aluminium

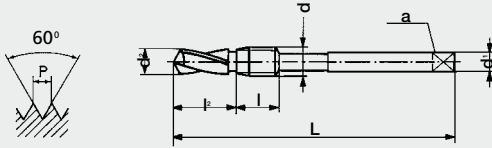
E

103/4 Ultra min 1.5 x D
132/3 Ultra min 1.5 x D
Specific suitable for G01 structural steels < 1000 N/mm², **G05** heat treatable steels < 1000 N/mm², **G14** cast steels < 1000 N/mm², **G20** copper, **G22** soft brass (MS 63, long chipping),

Goes also for G03 case hardening steels < 1000 N/mm², **G25** wrought alloy of aluminium



Werksnorm mit DIN Schaft
Norme usine avec tige selon DIN
Company standard with shank
as per DIN



151/3 Ultra Combi
HSS-E



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



Werksnorm / Norme usine / Company Standard

ISO 2 (6H)

C/2.5

L	l	d1	a	d2	l2	d	P
62	12.5	3.5	2.7	2.55	9	M 3	0.50
66	16	4.5	3.4	3.36	10	M 4	0.70
75.5	18	6	4.9	4.26	12.5	M 5	0.80
81	20	6	4.9	5.05	14	M 6	1.00
93	12	6	4.9	6.8	20	M 8	1.25
99	14	7	5.5	8.55	22	M 10	1.50
106	16	9	7	10.3	25	M 12	1.75
123	20	12	9	14.1	32	M 16	2.00

Art.	Stock
88641	●
88676	●
88684	●
88692	●
88706	●
88714	●
88722	●
88749	○

D

151/3 Ultra Combi max 1.2 x D
Speziell geeignet für G01 Baustähle < 1000 N/mm², **G14** Stahlguss < 1000 N/mm², **G25** Aluminium-Knetlegierungen

F

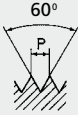
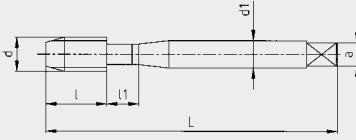
151/3 Ultra Combi max 1.2 x D
Spécialement conçu pour G01 aciers de construction < 1000 N/mm², **G14** aciers moulés < 1000 N/mm², **G25** alliages corroyés d'aluminium

E

151/3 Ultra Combi max 1.2 x D
Specific suitable for G01 structural steels < 1000 N/mm², **G14** cast steels < 1000 N/mm², **G25** wrought alloy of aluminium



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		DIN 371		DIN 376		d	P	
	l	l1	l	l1	d1	a	d1	a			
110	13	7.5	13	4.5	3.4	2.8	2.1	M 4	0.70	3.3	
117	15	9	16	6	4.9	3.5	2.7	M 5	0.80	4.2	
124	17	11	18	6	4.9	4.5	3.4	M 6	1.00	5	
137	20	13	21	8	6.2	6	4.9	M 8	1.25	6.8	
151	22	16	22	10	8	7	5.5	M 10	1.50	8.5	
165	24	18				9	7	M 12	1.75	10.2	
200	30	20				12	9	M 16	2.00	14	

105/4 Ultra EL
HSS-E



DIN 376
ISO 2 (6H)

B/4

Art.	Stock
19879	●
19887	●
19909	●
19917	●
19925	●
19941	●
83755	●

131/3 Ultra EL
HSS-E



DIN 371
ISO 2 (6H)

C/2.5

131/3 Ultra EL
HSS-E



DIN 376
ISO 2 (6H)

C/2.5

Art.	Stock	Art.	Stock
11390	●		
11391	●		
11392	●		
11393	●		
11394	●		
		11395	●
		11397	●

D

105/4 Ultra EL
131/3 Ultra EL

Speziell geeignet für G21 Hartmessing (Ms 58, kurzspanend), **G22** Weichmessing (Ms 63, langspanend), **G25** Aluminium-Knetlegierungen, **G29** Magnesium-Knetlegierungen, **G34** Thermo-plaste Kunststoffe

Geht auch für G01 Baustähle < 1000 N/mm², **G03** Einsatzstähle < 1000 N/mm², **G05** Vergütungsstähle < 1000 N/mm²

F

105/4 Ultra EL
131/3 Ultra EL

Spécialement conçu pour G21 laiton dur (Ms 58, copeaux courts), **G22** laiton tendre (Ms 63, copeaux longs), **G25** alliages corroyés d'aluminium, **G29** alliages corroyés de magnésium, **G34** matières thermoplastiques

Conçu aussi pour G01 aciers de construction < 1000 N/mm², **G03** aciers de cémentation < 1000 N/mm², **G05** aciers d'amélioration < 1000 N/mm²

E

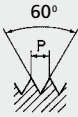
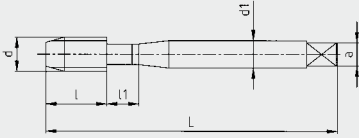
105/4 Ultra EL
131/3 Ultra EL

Specific suitable for G21 hard brass (Ms 58, short chipping), **G22** soft brass (MS 63, long chipping), **G25** wrought alloy of aluminium, **G29** wrought alloy of magnesium, **G34** thermo-plastic compounds/synthetics

Goes also for G01 structural steels < 1000 N/mm², **G03** case hardening steels < 1000 N/mm², **G05** heat treatable steels < 1000 N/mm²



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		DIN 371		DIN 376		d	P	
	l	l1	l	l1	d1	a	d1	a			
110	13		7.5	13	4.5	3.4	2.8	2.1	M 4	0.70	3.3
117	15		9	16	6	4.9	3.5	2.7	M 5	0.80	4.2
124	17		11	18	6	4.9	4.5	3.4	M 6	1.00	5
137	20		13	21	8	6.2	6	4.9	M 8	1.25	6.8
151	22		16	22	10	8	7	5.5	M 10	1.50	8.5
165	24		18				9	7	M 12	1.75	10.2
200	30		20				12	9	M 16	2.00	14

105/4 Ultra Vap EL HSS-E



DIN 376
ISO 2 (6H)

B/4

131/3 Ultra Vap EL HSS-E



DIN 371
ISO 2 (6H)

C/2.5

131/3 Ultra Vap EL HSS-E



DIN 376
ISO 2 (6H)

C/2.5

Art.	Stock	Art.	Stock	Art.	Stock
11403	●	11416	●		
11404	●	11417	●		
11405	●	11419	●		
11406	●	11420	●		
11407	●			11421	●
11409	●			11423	●

D

105/4 Ultra Vap EL
131/3 Ultra Vap EL

Speziell geeignet für G01 Baustähle < 1000 N/mm², G03 Einsatzstähle < 1000 N/mm², G05 Vergütungsstähle < 1000 N/mm², G08 Werkzeugstähle, G13 Automatenstähle, G14 Stahlguss < 1000 N/mm²

F

105/4 Ultra Vap EL
131/3 Ultra Vap EL

Spécialement conçu pour G01 aciers de construction < 1000 N/mm², G03 aciers de cémentation < 1000 N/mm², G05 aciers d'amélioration < 1000 N/mm², G08 aciers à outils, G13 aciers de décolletage, G14 aciers moulés < 1000 N/mm²

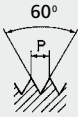
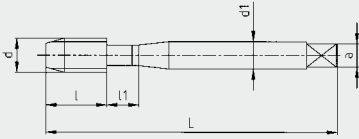
E

105/4 Ultra Vap EL
131/3 Ultra Vap EL

Specific suitable for G01 structural steels < 1000 N/mm², G03 case hardening steels < 1000 N/mm², G05 heat treatable steels < 1000 N/mm², G08 carbon tool steels, G13 free-cutting steels, G14 cast steels < 1000 N/mm²



DIN 352



101/1
HSS-E



101/2
HSS-E



101/3
HSS-E



101/S HSS-E
Satz / jeu / set



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



DIN 352

ISO 2 (6H)

A/5

DIN 352

ISO 2 (6H)

D/3.5

DIN 352

ISO 2 (6H)

C/2

DIN 352

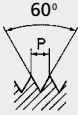
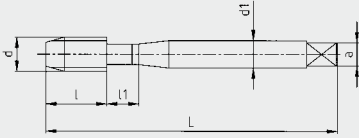
ISO 2 (6H)

L	l	l ₁	d ₁	a	d	P	
32	5		2.5	2.10	M 1	0.25	0.75
32	7		2.5	2.10	M 1.4	0.3	1.1
32	8		2.5	2.10	M 1.6	0.35	1.25
36	8		2.8	2.10	M 2	0.4	1.6
40	9		2.8	2.10	M 2.5	0.45	2.05
40	10	8	3.5	2.7	M 3	0.5	2.5
45	11	9	4	3	M 3.5	0.6	2.9
45	12	10	4.5	3.4	M 4	0.7	3.3
50	14	11	6	4.9	M 5	0.8	4.2
56	16	12	6	4.9	M 6	1	5
63	20		6	4.9	M 8	1.25	6.8
70	22		7	5.5	M 10	1.5	8.5
75	24		9	7	M 12	1.75	10.2
80	26		11	9	M 14	2	12
80	27		12	9	M 16	2	14

Stück/pce/piece				Satz/jeu/set	
Art.	Art.	Art.	Stock	Art.	Stock
83101	83102	83116	●	83117	●
83128	83129	83130	●	83131	●
83132	83133	83134	●	83135	●
83144	83145	83146	●	83147	●
83157	83158	83159	●	83160	●
83165	83166	83167	●	83168	●
83169	83170	83171	○	83172	○
83173	83174	83175	●	83176	●
83182	83183	83184	●	83185	●
83191	83192	83193	●	83195	●
83200	83201	83202	●	83203	●
83209	83210	83211	●	83212	●
83217	83218	83219	●	83220	●
83221	83222	83223	●	83225	●
83226	83227	83228	●	83229	●



DIN 352



101/1 HSS-E	101/2 HSS-E	101/3 HSS-E	101/S HSS-E Satz / jeu / set
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Norm / Norme / Norm
Toleranzklasse / Classe de tolérance / Class of tolerance

DIN 352 ISO 2 (6H)	DIN 352 ISO 2 (6H)	DIN 352 ISO 2 (6H)	DIN 352 ISO 2 (6H)
A/5	D/3.5	C/2	



L	l	l ₁	d ₁	a	d	P	
95	32		16	12	M 20	2.5	17.5
110	34		18	14.5	M 24	3	21
110	36		20	16	M 27	3	24
125	40		22	18	M 30	3.5	26.5
125	40		25	20	M 33	3.5	29.5
150	50		28	22	M 36	4	32

Stück/pce/piece			Satz/jeu/set	Stück/pce/piece	
Art.	Art.	Art.	Stock	Art.	Stock
83235	83236	83237	●	83238	●
83243	83244	83245	●	83246	●
83247	83248	83249	○	83250	○
83251	83252	83253	○	83254	○
83255	83256	83257	○	83258	○
83260	83261	83262	○	83263	○

D

101/S HSS-E

Speziell geeignet für G01 Baustähle <1000 N/mm², **G03** Einsatzstähle <1000 N/mm², **G05** Vergütungsstähle <1000 N/mm², **G13** Automatenstähle, **G14** Stahlguss <1000 N/mm², **G20** Kupfer, **G22** Weichmessing (Ms 63, langspanend), **G23** Rotguss, **G24** Guss-Zinnbronze

101/4 Ultra

Speziell geeignet für G01 Baustähle <1000 N/mm², **G03** Einsatzstähle <1000 N/mm², **G05** Vergütungsstähle <1000 N/mm², **G08** Werkzeugstähle, **G13** Automatenstähle, **G14** Stahlguss <1000 N/mm², **G20** Kupfer, **G22** Weichmessing (Ms 63, langspanend), **G23** Rotguss, **G25** Aluminium-Knetlegierungen

F

101/S HSS-E

Spécialement conçu pour G01 aciers de construction <1000 N/mm², **G03** aciers de cimentation <1000 N/mm², **G05** aciers d'amélioration <1000 N/mm², **G13** aciers de décolletage, **G14** aciers moulés <1000 N/mm², **G20** cuivre, **G22** laiton tendre (Ms 63, copeaux longs), **G23** laiton rouge, **G24** bronze au zinc

101/4 Ultra

Spécialement conçu pour G01 aciers de construction <1000 N/mm², **G03** aciers de cimentation <1000 N/mm², **G05** aciers d'amélioration <1000 N/mm², **G08** aciers à outils, **G13** aciers de décolletage, **G14** aciers moulés <1000 N/mm², **G20** cuivre, **G22** laiton tendre (Ms 63, copeaux longs), **G23** laiton rouge, **G25** alliages corroyés d'aluminium

E

101/S HSS-E

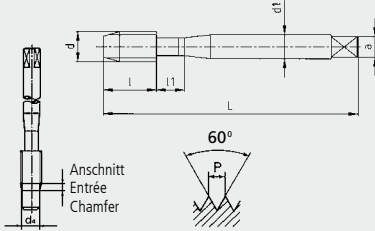
Specific suitable for G01 structural steels <1000 N/mm², **G03** case hardening steels <1000 N/mm², **G05** heat treatable steels <1000 N/mm², **G13** free-cutting steels, **G14** cast steels <1000 N/mm², **G20** copper, **G22** soft brass (MS 63, long chipping), **G23** red brass, **G24** phosphor bronze

101/4 Ultra

Specific suitable for G01 structural steels <1000 N/mm², **G03** case hardening steels <1000 N/mm², **G05** heat treatable steels <1000 N/mm², **G08** carbon tool steels, **G13** free-cutting steels, **G14** cast steels <1000 N/mm², **G20** copper, **G22** soft brass (MS 63, long chipping), **G23** red brass, **G25** wrought alloy of aluminium



DIN 352



101/1 Ultra
Vorschneider mit zylindrischem Führungszapfen (Ø d₁) erlaubt ein einwandfreies Anschneiden.

101/1 Ultra
Ebaucheur avec pivot cylindrique de centrage (Ø d₁) garantissant une ébauche irréprochable du filet.

101/1 Ultra
The taper tap number 1 with cylindrical pilot (Ø d₁) guarantee additional aid for true alignment.

Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	l	d ₁	a	d	P	
36	8	2.8	2.10	M 2	0.4	1.6
40	9	2.8	2.10	M 2.5	0.45	2.05
40	10	3.5	2.70	M 3	0.5	2.5
45	12	4.15	3.40	M 4	0.7	3.3
50	14	6	4.9	M 5	0.8	4.2
56	16	6	4.9	M 6	1	5
63	20	6	4.9	M 8	1.25	6.8
70	22	7	5.5	M 10	1.5	8.5
75	24	9	7	M 12	1.75	10.2
80	26	11	9	M 14	2	12
80	27	12	9	M 16	2	14
95	32	16	12	M 20	2.5	17.5
110	34	18	14.5	M 24	3	21

101/1 Ultra HSS-E 101/2 Ultra HSS-E 101/3 Ultra HSS-E



101/S Ultra HSS-E Satz / jeu / set



DIN 352 DIN 352 DIN 352
ISO 2 (6H) ISO 2 (6H) ISO 2 (6H)
D/3.5 D/3.5 C/3



Art.	Art.	Art.	Stück/pce/piece		Satz/jeu/set	
			Stock		Art.	Stock
38060	38061	38062	●		38063	●
38072	38073	38074	●		38076	●
38079	38080	38081	●		38082	●
38084	38085	38086	●		38087	●
38088	38089	38090	●		38092	●
38093	38094	38095	●		38096	●
38097	38098	38099	●		38100	●
38101	38102	38103	●		38104	●
38106	38107	38108	●		38109	●
38110	38111	38112	○		38114	○
38115	38116	38117	●		38118	●
38124	38125	38126	●		38127	●
38122	38133	38134	○		38135	○

D

101/S Ultra

Speziell geeignet für G01 Baustähle <1000 N/mm², **G03** Einsatzstähle <1000 N/mm², **G05** Vergütungsstähle <1000 N/mm², **G13** Automatenstähle, **G14** Stahlguss <1000 N/mm², **G20** Kupfer, **G22** Weichmessing (Ms 63, langspanend), **G23** Rotguss, **G24** Guss-Zinnbronze

F

101/S Ultra

Spécialement conçu pour G01 aciers de construction <1000 N/mm², **G03** aciers de cémentation <1000 N/mm², **G05** aciers d'amélioration <1000 N/mm², **G13** aciers de décolletage, **G14** aciers moulés <1000 N/mm², **G20** cuivre, **G22** laiton tendre (Ms 63, copeaux longs), **G23** laiton rouge, **G24** bronze au zinc

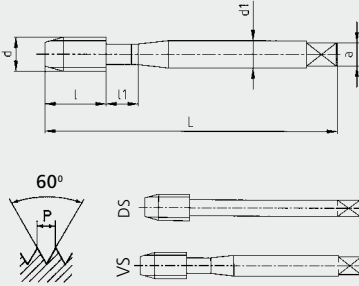
E

101/S Ultra

Specific suitable for G01 structural steels <1000 N/mm², **G03** case hardening steels <1000 N/mm², **G05** heat treatable steels <1000 N/mm², **G13** free-cutting steels, **G14** cast steels <1000 N/mm², **G20** copper, **G22** soft brass (MS 63, long chipping), **G23** red brass, **G24** phosphor bronze



ISO 2283



105/4 Ultra HSS-E



105/4 Ultra Vap HSS-E



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



ISO 2283

ISO 2 (6H)

B/4

ISO 2283

ISO 2 (6H)

B/4

L	l	l ₁	d ₁	a	d	P	
57	8		2.5	2	M 2	0.4	1.6
62	9.5		2.8	2.24	M 2.5	0.45	2.05
66	11	7	3.15	2.5	M 3	0.5	2.5
68	13	7	3.55	2.8	M 3.5	0.6	2.9
73	13		3.15	2.5	M 4	0.7	3.3
79	16		4	3.15	M 5	0.8	4.2
89	19		4.5	3.55	M 6	1	5
97	22		6.3	5	M 8	1.25	6.8
108	24		8	6.3	M 10	1.5	8.5
119	29		9	7.1	M 12	1.75	10.2
137	32		12.5	10	M 16	2	14

Stück/pce/piece

Art.	Stock
74705	●
10154	●
10170	●
10189	○
10200	●
10227	●
10243	●
10251	●
10278	●
10286	●
10308	●

Stück/pce/piece

Art.	Stock
75361	●
70394	●
70416	●
70424	○
70432	●
70440	●
70459	●
70475	●
70483	●
70491	●
70513	●

D

105/4 Ultra

Speziell geeignet für G21 Hartmessing (Ms 58, kurzspanend), **G22** Weichmessing (Ms 63, langspanend), **G25** Aluminium-Knetlegierungen, **G29** Magnesium-Knetlegierungen, **G34** Thermoplaste Kunststoffe

Geht auch für G01 Baustähle <1000 N/mm², **G03** Einsatzstähle <1000 N/mm², **G05** Vergütungsstähle <1000 N/mm²

105/4 Ultra Vap

Speziell geeignet für G01 Baustähle <1000 N/mm², **G03** Einsatzstähle <1000 N/mm², **G05** Vergütungsstähle <1000 N/mm², **G08** Werkzeugstähle, **G13** Automatenstähle, **G14** Stahlguss <1000 N/mm²

F

105/4 Ultra

Spécialement conçu pour G21 laiton dur (Ms 58, copeaux courts), **G22** laiton tendre (Ms 63, copeaux longs), **G25** alliages corroyés d'aluminium, **G29** alliages corroyés de magnésium, **G34** matières thermoplastiques

Conçu aussi pour G01 aciers de construction <1000 N/mm², **G03** aciers de cémentation <1000 N/mm², **G05** aciers d'amélioration <1000 N/mm²

105/4 Ultra Vap

Spécialement conçu pour G01 aciers de construction <1000 N/mm², **G03** aciers de cémentation <1000 N/mm², **G05** aciers d'amélioration <1000 N/mm², **G08** aciers à outils, **G13** aciers de décolletage, **G14** aciers moulés <1000 N/mm²

E

105/4 Ultra

Specific suitable for G21 hard brass (Ms 58, short chipping), **G22** soft brass (MS 63, long chipping), **G25** wrought alloy of aluminium, **G29** wrought alloy of magnesium, **G34** thermoplastic compounds/synthetics

Goes also for G01 structural steels <1000 N/mm², **G03** case hardening steels <1000 N/mm², **G05** heat treatable steels <1000 N/mm²

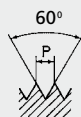
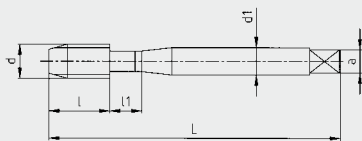
105/4 Ultra Vap

Specific suitable for G01 structural steels <1000 N/mm², **G03** case hardening steels <1000 N/mm², **G05** heat treatable steels <1000 N/mm², **G08** carbon tool steels, **G13** free-cutting steels, **G14** cast steels <1000 N/mm²

Former



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	l	l ₁	DIN 371		DIN 376		d	P	
			d ₁	a	d ₁	a			
40	5.5	7.5	2.5	2.1			M 1	0.25	0.9
40	5.5	7.5	2.5	2.1			M 1.2	0.25	1.1
40	7	10	2.5	2.1			M 1.4	0.30	1.26
40	8	11	2.5	2.1			M 1.6	0.35	1.45
40	8	11	2.6	2.1			M 1.8	0.35	1.65
45	8	12.5	2.8	2.1			M 2	0.40	1.85
50	9		2.8	2.1			M 2.5	0.45	2.3
56	11	7	3.5	2.7			M 3	0.50	2.8
63	13	8	4.5	3.4			M 4	0.70	3.7
70	16	9	6	4.9			M 5	0.80	4.65
80	19	11	6	4.9			M 6	1.00	5.55
90	22	13	8	6.2			M 8	1.25	7.4
100	24	15	10	8			M 10	1.50	9.3
110	29				9	7	M 12	1.75	11.2

116 Ultra
HSS-E



DIN 371

ISO 6HX

C/3

116 Ultra
HSS-E



DIN 376

ISO 6HX

C/3

Art.	Stock	Art.	Stock
54489	●		
54490	●		
54491	●		
54492	●		
54493	●		
56597	●		
56599	●		
56600	●		
56601	●		
56602	●		
56603	●		
56604	●		
56605	●		
		56608	●

D

116 Ultra
Speziell geeignet für G25 Aluminium-
Knetlegierungen

F

116 Ultra
Spécialement conçu pour G25 alliages
corroyés d'aluminium

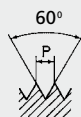
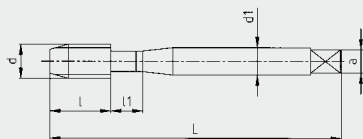
E

116 Ultra
Specific suitable for G25 wrought alloy
of aluminium

Former



DIN 371/376



116 Ultra Vap HSS-E

116 Ultra Vap HSS-E

116a Ultra Vap HSS-E

116a Ultra Vap HSS-E



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



DIN 371

DIN 376

DIN 371

DIN 376

ISO 6HX

ISO 6HX

ISO 6HX

ISO 6HX

C/3

C/3

C/3

C/3

L	l	l ₁	DIN 371		DIN 376		d	P	
			d ₁	a	d ₁	a			
40	5.5	7.5	2.5	2.1			M 1	0.25	0.9
40	5.5	7.5	2.5	2.1			M 1.2	0.25	1.1
40	7	10	2.5	2.1			M 1.4	0.30	1.26
40	8	11	2.5	2.1			M 1.6	0.35	1.45
40	8	11	2.6	2.1			M 1.8	0.35	1.65
45	8	12.5	2.8	2.1			M 2	0.40	1.85
50	9		2.8	2.1			M 2.5	0.45	2.3
56	11	7	3.5	2.7			M 3	0.50	2.8
63	13	8	4.5	3.4			M 4	0.70	3.7
70	16	9	6	4.9			M 5	0.80	4.65
80	19	11	6	4.9			M 6	1.00	5.55
90	22	13	8	6.2			M 8	1.25	7.4
100	24	15	10	8			M 10	1.50	9.3
110	29				9	7	M 12	1.75	11.2

DIN 371		DIN 376		DIN 371		DIN 376	
Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
73180	●						
73199	●						
73202	●						
74470	●						
74489	●						
53317	●			11540	●		
53341	●			11544	●		
53368	●			11545	●		
53384	●			11546	●		
53392	●			11547	●		
53406	●			11548	●		
12235	●			12239	●		
12236	●			12240	●		
		53430	●			11551	●

D

116 Ultra Vap
116a Ultra Vap

Speziell geeignet für G01 Baustähle < 1000 N/mm², **G10** Rostfreie Cr-Stähle, geschwefelt, **G11** Rostfreie Cr-Stähle, ferritisch und martensitisch, **G13** Automatenstähle

F

116 Ultra Vap
116a Ultra Vap

Spécialement conçu pour G01 aciers de construction < 1000 N/mm², **G10** aciers inoxydables Cr, sulfuré, **G11** aciers inoxydables Cr, ferritique et martensitique, **G13** aciers de décolletage

E

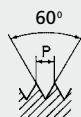
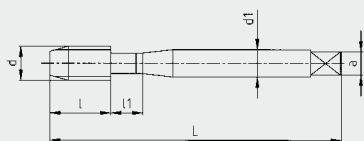
116 Ultra Vap
116a Ultra Vap

Specific suitable for G01 structural steels < 1000 N/mm², **G10** Cr stainless steels, sulphured, **G11** Cr stainless steels, ferritic and martensitic, **G13** free-cutting steels

Former



DIN 371/376



116 Ultra
Tin HSS-E

116 Ultra
Tin HSS-E

116a Ultra
Tin HSS-E

116a Ultra
Tin HSS-E



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



DIN 371

DIN 376

DIN 371

DIN 376

ISO 6HX

ISO 6HX

ISO 6HX

ISO 6HX

C/3

C/3

C/3

C/3

L	l	l ₁	DIN 371		DIN 376		d	P	
			d ₁	a	d ₁	a			
45	8		2.8	2.1			M 2	0.40	1.85
50	9		2.8	2.1			M 2.5	0.45	2.3
56	11	7	3.5	2.7			M 3	0.50	2.8
63	13	8	4.5	3.4			M 4	0.70	3.7
70	16	9	6	4.9			M 5	0.80	4.65
80	19	11	6	4.9			M 6	1.00	5.55
90	22	13	8	6.2			M 8	1.25	7.4
100	24	15	10	8			M 10	1.50	9.3
110	29				9	7	M 12	1.75	11.2

DIN 371		DIN 376		DIN 371		DIN 376	
Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
11555	●						
11556	●			13212	●		
11557	●			13213	●		
11558	●			13214	●		
11559	●			13215	●		
11560	●			13216	●		
13219	●			13220	●		
13222	●			13223	●		
		11563	●			13224	●

D

116 Ultra Tin
116a Ultra Tin

Speziell geeignet für G01 Baustähle < 1000 N/mm², **G10** Rostfreie Cr-Stähle, geschwefelt, **G11** Rostfreie Cr-Stähle, ferritisch und martensitisch, **G13** Automatenstähle, **G20** Kupfer, **G22** Weichmessing (Ms 63, langspanend), **G25** Aluminium-Knetlegierungen

F

116 Ultra Tin
116a Ultra Tin

Spécialement conçu pour G01 aciers de construction < 1000 N/mm², **G10** aciers inoxydables Cr, sulfuré, **G11** aciers inoxydables Cr, ferritique et martensitique, **G13** aciers de décolletage, **G20** cuivre, **G22** laiton tendre (Ms 63, copeaux longs), **G25** alliages corroyés d'aluminium

E

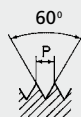
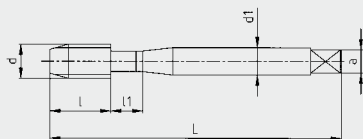
116 Ultra Tin
116a Ultra Tin

Specific suitable for G01 structural steels < 1000 N/mm², **G10** Cr stainless steels, sulphured, **G11** Cr stainless steels, ferritic and martensitic, **G13** free-cutting steels, **G20** copper, **G22** soft brass (MS 63, long chipping), **G25** wrought alloy of aluminium

Former



DIN 371/376



116 Ultra TiCN HSS-E 116 Ultra TiCN HSS-E 116a Ultra TiCN HSS-E 116a Ultra TiCN HSS-E



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



DIN 371	DIN 376	DIN 371	DIN 376
ISO 6HX	ISO 6HX	ISO 6HX	ISO 6HX
C/3	C/3	C/3	C/3

L	l	l ₁	DIN 371		DIN 376		d	P		116 Ultra TiCN HSS-E		116a Ultra TiCN HSS-E			
			d ₁	a	d ₁	a				Art.	Stock	Art.	Stock		
45	8		2.8	2.1			M 2	0.40	1.85	11564	●				
50	9		2.8	2.1			M 2.5	0.45	2.3	11565	●	13225	●		
56	11	7	3.5	2.7			M 3	0.50	2.8	11566	●	13227	●		
63	13	8	4.5	3.4			M 4	0.70	3.7	11564	●	13228	●		
70	16	9	6	4.9			M 5	0.80	4.65	11569	●	13229	●		
80	19	11	6	4.9			M 6	1.00	5.55	11570	●	13230	●		
90	22	13	8	6.2			M 8	1.25	7.4	13235	●	13236	●		
100	24	15	10	8			M 10	1.50	9.3	13237	●	13238	●		
110	29				9	7	M 12	1.75	11.2			11573	●	13233	●

D

116 Ultra TiCN
116a Ultra TiCN

Speziell geeignet für G01 Baustähle < 1000 N/mm², **G10** Rostfreie Cr-Stähle, geschwefelt, **G11** Rostfreie Cr-Stähle, ferritisch und martensitisch, **G13** Automatenstähle, **G20** Kupfer, **G22** Weichmessing (Ms 63, langspanend), **G25** Aluminium-Knetlegierungen

F

116 Ultra TiCN
116a Ultra TiCN

Spécialement conçu pour G01 aciers de construction < 1000 N/mm², **G10** aciers inoxydables Cr, sulfuré, **G11** aciers inoxydables Cr, ferritique et martensitique, **G13** aciers de décolletage, **G20** cuivre, **G22** laiton tendre (Ms 63, copeaux longs), **G25** alliages corroyés d'aluminium

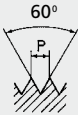
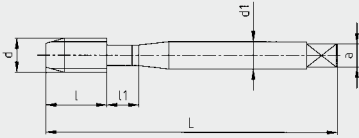
E

116 Ultra TiCN
116a Ultra TiCN

Specific suitable for G01 structural steels < 1000 N/mm², **G10** Cr stainless steels, sulphured, **G11** Cr stainless steels, ferritic and martensitic, **G13** free-cutting steels, **G20** copper, **G22** soft brass (MS 63, long chipping), **G25** wrought alloy of aluminium



DIN 371/376



105/4 Ultra **6G** HSS-E 105/4 Ultra **6G** HSS-E 131/3 Ultra **6G** HSS-E 131/3 Ultra **6G** HSS-E



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		DIN 371		DIN 376		d	P		Art.	Stock	Art.	Stock	Art.	Stock	
	l	l1	l	l1	d1	a	d1	a										
45	8		8		2.8	2.1			M 2	0.45	1.6	72222	●			73059	●	
56	11	7	6	11	3.5	2.7			M 3	0.50	2.5	72036	●			66397	●	
63	13	8	7.5	13	4.5	3.4			M 4	0.70	3.3	72052	●			66419	●	
70	16	9	9	16	6	4.9			M 5	0.80	4.2	72060	●			66427	●	
80	19	11	11	18	6	4.9			M 6	1.00	5	72079	●			66435	●	
90	22	13	13	21	8	6.2			M 8	1.25	6.8	72087	●			66443	●	
100	24	15	16	22	10	8			M 10	1.50	8.5	72095	●			66451	●	
110	29		18				9	7	M 12	1.75	10.2			72109	●		73105	●
110	32						12	9	M 16	2.00	14			82724	●			

D

105/4 Ultra 6G
131/3 Ultra 6G

Speziell geeignet für G21 Hartmessing (Ms 58, kurzspanend), **G22** Weichmessing (Ms 63, langspanend), **G25** Aluminium-Knetlegierungen, **G29** Magnesium-Knetlegierungen, **G34** Thermo-plaste Kunststoffe

Geht auch für G01 Baustähle < 1000 N/mm², **G03** Einsatzstähle < 1000 N/mm², **G05** Vergütungsstähle < 1000 N/mm²

F

105/4 Ultra 6G
131/3 Ultra 6G

Spécialement conçu pour G21 laiton dur (Ms 58, copeaux courts), **G22** laiton tendre (Ms 63, copeaux longs), **G25** alliages corroyés d'aluminium, **G29** alliages corroyés de magnésium, **G34** matières thermoplastiques

Conçu aussi pour G01 aciers de construction < 1000 N/mm², **G03** aciers de cémentation < 1000 N/mm², **G05** aciers d'amélioration < 1000 N/mm²

E

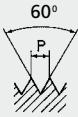
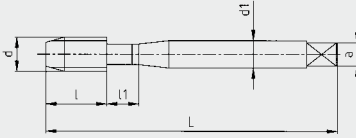
105/4 Ultra 6G
131/3 Ultra 6G

Specific suitable for G21 hard brass (Ms 58, short chipping), **G22** soft brass (Ms 63, long chipping), **G25** wrought alloy of aluminium, **G29** wrought alloy of magnesium, **G34** thermo-plastic compounds/synthetics

Goes also for G01 structural steels < 1000 N/mm², **G03** case hardening steels < 1000 N/mm², **G05** heat treatable steels < 1000 N/mm²



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		d ₁	a	d	P	
	l	l ₁	l	l ₁					
45	8				2.8	2.1	M 2	0.45	1.6
56	11	7	6	11	3.5	2.7	M 3	0.50	2.5
63	13	8	7.5	13	4.5	3.4	M 4	0.70	3.3
70	16	9	9	16	6	4.9	M 5	0.80	4.2
80	19	11	11	18	6	4.9	M 6	1.00	5
90	22	13	13	21	8	6.2	M 8	1.25	6.8
100	24	15	16	22	10	8	M 10	1.50	8.5
110	29				9	7	M 12	1.75	10.2

105/4 Ultra
Inox 6G HSS-E



DIN 371

ISO 3 (6G)

B/4

Art. 10890

Stock ○

105/4 Ultra
Inox 6G HSS-E



DIN 376

ISO 3 (6G)

B/4

Art. 10895

Stock ●

131/3 Ultra
Inox 6G HSS-E



DIN 371

ISO 3 (6G)

C/2.5

Art. 67113

Stock ○

131/3 Ultra
Inox 6G HSS-E



DIN 376

ISO 3 (6G)

C/2.5

Art. 67172

Stock ●

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
10890	○			67113	○		
10895	●			67172	●		
10897	●			67199	●		
10899	●			67202	●		
10900	●			67210	●		
10903	●			67237	●		
10904	●			67245	●		
		10905	●			67253	●

D

105/4 Ultra Inox 6G

131/3 Ultra Inox 6G

Speziell geeignet für G07 Nitrierstähle, G09 Hitzebeständige Stähle, G10 Rostfreie Cr-Stähle, geschwefelt, G11 Rostfreie Cr-Stähle, ferritisch und martensitisch, G12 Rostfreie Cr-Ni Stähle, austenitisch, G31 Nickellegierungen

Geht auch für G01 Baustähle <1000

N/mm², G03 Einsatzstähle <1000 N/mm², G05 Vergütungsstähle <1000 N/mm², G14 Stahlguss <1000 N/mm²

F

105/4 Ultra Inox 6G

131/3 Ultra Inox 6G

Spécialement conçu pour G07 aciers pour nituration, G09 aciers réfractaires, G10 aciers inoxydables A Cr, sulfuré, G11 aciers inoxydables Cr, ferritique et martensitique G12 aciers inoxydables Cr-Ni, austénitique, G31 alliages de nickel

Conçu aussi pour G01 aciers de construction

<1000 N/mm², G03 aciers de cémentation <1000 N/mm², G05 aciers d'amélioration <1000 N/mm², G14 aciers moulés <1000 N/mm²

E

105/4 Ultra Inox 6G

131/3 Ultra Inox 6G

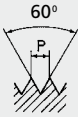
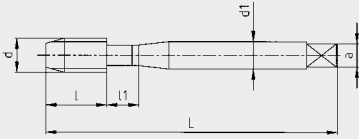
Specific suitable for G07 nitriding steels, G09 heat resisting steels, G10 Cr stainless steels, sulphured, G11 Cr stainless steels, ferritic and martensitic, G12 Cr-Ni stainless steels, austenitic, G31 alloy of nickel

Goes also for G01 structural steels

<1000 N/mm², G03 case hardening steels <1000 N/mm², G05 heat treatable steels <1000 N/mm², G14 cast steels <1000 N/mm²



DIN 371/376



105/4 Ultra 7G HSS-E	105/4 Ultra 7G HSS-E	131/3 Ultra 7G HSS-E	131/3 Ultra 7G HSS-E
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Norm / Norme / Norm
Toleranzklasse / Classe de tolérance / Class of tolerance



DIN 371	DIN 376	DIN 371	DIN 376
ISO (7G)	ISO (7G)	ISO (7G)	ISO (7G)
B/4	B/4	C/2.5	C/2.5

L	105/4			131/3			d1	a	d	P	
	l	l1		l	l1						
45	8			8			2.8	2.1	M 2	0.4	1.6
56	11	7		6	11		3.5	2.7	M 3	0.50	2.5
63	13	8		7.5	13		4.5	3.4	M 4	0.70	3.3
70	16	9		9	16		6	4.9	M 5	0.80	4.2
80	19	11		11	18		6	4.9	M 6	1.00	5
90	22	13		13	21		8	6.2	M 8	1.25	6.8
100	24	15		16	22		10	8	M 10	1.50	8.5
110	29			18			9	7	M 12	1.75	10.2

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
10920	○						
10923	○			12387	○		
10924	○			12388	○		
10925	○			12389	○		
10926	○			12390	○		
10927	○			12391	○		
10929	○			12392	○		
		12380	○			10930	○

D

105/4 Ultra 7G
131/3 Ultra 7G

Speziell geeignet für G21 Hartmessing (Ms 58, kurzspanend), **G22** Weichmessing (Ms 63, langspanend), **G25** Aluminium-Knetlegierungen, **G29** Magnesium-Knetlegierungen, **G34** Thermoplaste Kunststoffe

Geht auch für G01 Baustähle <1000 N/mm², **G03** Einsatzstähle <1000 N/mm², **G05** Vergütungsstähle <1000 N/mm²

F

105/4 Ultra 7G
131/3 Ultra 7G

Spécialement conçu pour G21 laiton dur (Ms 58, copeaux courts), **G22** laiton tendre (Ms 63, copeaux longs), **G25** alliages corroyés d'aluminium, **G29** alliages corroyés de magnésium, **G34** matières thermoplastiques

Conçu aussi pour G01 aciers de construction <1000 N/mm², **G03** aciers de cémentation <1000 N/mm², **G05** aciers d'amélioration <1000 N/mm²

E

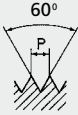
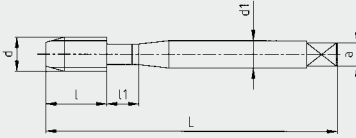
105/4 Ultra 7G
131/3 Ultra 7G

Specific suitable for G21 hard brass (Ms 58, short chipping), **G22** soft brass (Ms 63, long chipping), **G25** wrought alloy of aluminium, **G29** wrought alloy of magnesium, **G34** thermoplastic compounds/synthetics

Goes also for G01 structural steels <1000 N/mm², **G03** case hardening steels <1000 N/mm², **G05** heat treatable steels <1000 N/mm²



DIN 371/376



105/4 Ultra +0.1 HSS-E



105/4 Ultra +0.1 HSS-E



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



DIN 371

DIN 376

DIN 371

DIN 376

ISO 2 (6H)+0.1

ISO 2 (6H)+0.1

ISO 2 (6H)+0.1

ISO 2 (6H)+0.1

B/4

B/4

C/2.5

C/2.5

L	105/4			131/3			d1	a	d	P	
	l	l1	l	l1	l	l1					
56	11	7	6	11	3.5	2.7	M 3	0.50	2.5		
63	13	8	7.5	13	4.5	3.4	M 4	0.70	3.3		
70	16	9	9	16	6	4.9	M 5	0.80	4.2		
80	19	11	11	18	6	4.9	M 6	1.00	5		
90	22	13	13	21	8	6.2	M 8	1.25	6.8		
100	24	15	16	22	10	8	M 10	1.50	8.5		
110	29		18	9	7		M 12	1.75	10.2		

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
11471	○			11481	○		
11472	○			11482	○		
11473	○			11483	○		
11474	○			11484	○		
11475	○			11485	○		
		11476	○			11488	○

D

105/4 Ultra +0.1

131/3 Ultra +0.1

Speziell geeignet für G21 Hartmessing (Ms 58, kurzspanend), G22 Weichmessing (Ms 63, langspanend), G25 Aluminium-Knetlegierungen, G29 Magnesium-Knetlegierungen, G34 Thermoplaste Kunststoffe

Geht auch für G01 Baustähle <1000 N/mm², G03 Einsatzstähle <1000 N/mm², G05 Vergütungsstähle <1000 N/mm²

F

105/4 Ultra +0.1

131/3 Ultra +0.1

Spécialement conçu pour G21 laiton dur (Ms 58, copeaux courts), G22 laiton tendre (Ms 63, copeaux longs), G25 alliages corroyés d'aluminium, G29 alliages corroyés de magnésium, G34 matières thermoplastiques

Conçu aussi pour G01 aciers de construction <1000 N/mm², G03 aciers de cémentation <1000 N/mm², G05 aciers d'amélioration <1000 N/mm²

E

105/4 Ultra +0.1

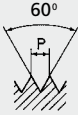
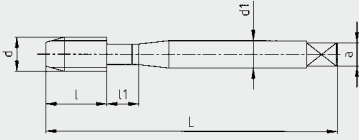
131/3 Ultra +0.1

Specific suitable for G21 hard brass (Ms 58, short chipping), G22 soft brass (MS 63, long chipping), G25 wrought alloy of aluminium, G29 wrought alloy of magnesium, G34 thermoplastic compounds/synthetics

Goes also for G01 structural steels <1000 N/mm², G03 case hardening steels <1000 N/mm², G05 heat treatable steels <1000 N/mm²



DIN 371/376



105/4 Ultra LH HSS-E 105/4 Ultra LH HSS-E 131/3 Ultra LH HSS-E 131/3 Ultra LH HSS-E



Norm / Norme / Norm
Toleranzklasse / Classe de tolérance / Class of tolerance



DIN 371 ISO 2 (6H) LH	DIN 376 ISO 2 (6H) LH	DIN 371 ISO 2 (6H) LH	DIN 376 ISO 2 (6H) LH
B/4	B/4	C/2.5	C/2.5

L	105/4		131/3		d ₁	a	d	P	f	Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
	l	l ₁	l	l ₁													
45	8		8		2.8	2.1	M 2	0.40	1.6	82503	●						
50	9		9		2.8	2.1	M 2.5	0.45	2.05	82546	●						
56	11	7	6	11	3.5	2.7	M 3	0.50	2.5	82562	●			83984	●		
63	13	8	7.5	13	4.5	3.4	M 4	0.70	3.3	82589	●			83992	●		
70	16	9	9	16	6	4.9	M 5	0.80	4.2	82600	●			84018	●		
80	19	11	11	18	6	4.9	M 6	1.00	5	82619	●			84026	●		
90	22	13	13	21	8	6.2	M 8	1.25	6.8	82635	●			84034	●		
100	24	15	16	22	10	8	M 10	1.50	8.5	82643	●			84042	●		
110	29		18		9	7	M 12	1.75	10.2			82651	●			84050	●
110	30		20		11	9	M 14	2.00	12			82678	△			84069	△
110	32		20		12	9	M 16	2.00	14			82686	●			84077	●

D

105/4 Ultra LH
131/3 Ultra LH

Speziell geeignet für G21 Hartmessing (Ms 58, kurzspanend), G22 Weichmessing (Ms 63, langspanend), G25 Aluminium-Knetlegierungen, G29 Magnesium-Knetlegierungen, G34 Thermoplaste Kunststoffe

Geht auch für G01 Baustähle <1000 N/mm², G03 Einsatzstähle <1000 N/mm², G05 Vergütungsstähle <1000 N/mm²

F

105/4 Ultra LH
131/3 Ultra LH

Spécialement conçu pour G21 laiton dur (Ms 58, copeaux courts), G22 laiton tendre (Ms 63, copeaux longs), G25 alliages corroyés d'aluminium, G29 alliages corroyés de magnésium, G34 matières thermoplastiques

Conçu aussi pour G01 aciers de construction <1000 N/mm², G03 aciers de cémentation <1000 N/mm², G05 aciers d'amélioration <1000 N/mm²

E

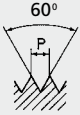
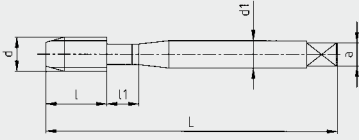
105/4 Ultra LH
131/3 Ultra LH

Specific suitable for G21 hard brass (Ms 58, short chipping), G22 soft brass (Ms 63, long chipping), G25 wrought alloy of aluminium, G29 wrought alloy of magnesium, G34 thermoplastic compounds/synthetics

Goes also for G01 structural steels <1000 N/mm², G03 case hardening steels <1000 N/mm², G05 heat treatable steels <1000 N/mm²



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		d ₁	a	d	P	Surface texture
	l	l ₁	l	l ₁					
45	8		8		2.8	2.1	M 2	0.40	1.6
50	9		9		2.8	2.1	M 2.5	0.45	2.05
56	11	7	6	11	3.5	2.7	M 3	0.50	2.5
63	13	8	7.5	13	4.5	3.4	M 4	0.70	3.3
70	16	9	9	16	6	4.9	M 5	0.80	4.2
80	19	11	11	18	6	4.9	M 6	1.00	5
90	22	13	13	21	8	6.2	M 8	1.25	6.8
100	24	15	16	22	10	8	M 10	1.50	8.5
110	29		18		9	7	M 12	1.75	10.2
110	32		20		12	9	M 16	2.00	14

105/4 Ultra
Vap LH HSS-E



DIN 371

ISO 2 (6H) LH

B/4

Art.

Stock

11949

●

11950

●

11951

●

11952

●

11953

●

11954

●

11955

●

11956

●

105/4 Ultra
Vap LH HSS-E



DIN 376

ISO 2 (6H) LH

B/4

Art.

Stock

11957

●

11960

●

131/3 Ultra
Vap LH HSS-E



DIN 371

ISO 2 (6H) LH

C/2.5

Art.

Stock

11962

●

11963

●

11964

●

11965

●

11966

●

11968

●

131/3 Ultra
Vap LH HSS-E



DIN 376

ISO 2 (6H) LH

C/2.5

Art.

Stock

11969

●

11971

●

D

105/4 Ultra Vap LH
131/3 Ultra Vap LH

Speziell geeignet für G01 Baustähle <1000 N/mm², **G03** Einsatzstähle <1000 N/mm², **G05** Vergütungsstähle <1000 N/mm², **G08** Werkzeugstähle, **G13** Automatenstähle, **G14** Stahlguss <1000 N/mm²

F

105/4 Ultra Vap LH
131/3 Ultra Vap LH


















Spécialement conçu pour G01 aciers de construction <1000 N/mm², **G03** aciers de cémentation <1000 N/mm², **G05** aciers d'amélioration <1000 N/mm², **G08** aciers à outils, **G13** aciers de décolletage, **G14** aciers moulés <1000 N/mm²

E

105/4 Ultra Vap LH
131/3 Ultra Vap LH

Specific suitable for G01 structural steels <1000 N/mm², **G03** case hardening steels <1000 N/mm², **G05** heat treatable steels <1000 N/mm², **G08** carbon tool steels, **G13** free-cutting steels, **G14** cast steels <1000 N/mm²

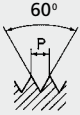
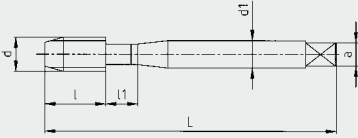
Inhaltsverzeichnis / Table des matières / Table of contents

					Seite Page	
MF DIN 371/374						
•	•				105/4 50	
		•	•		131/3 50	
•	•				105/4 52	
		•	•		131/3 52	
•	•				105/4 54	
		•	•		131/3 54	
•	•				105/4 55	
		•	•		131/3 55	
•	•	•	•		105/3 56	
MF DIN 2181						
•	•	•	•		Hand Tap 101/1 HSS-E 57	
•	•	•	•			101/3 HSS-E 57
•	•	•	•			101/S HSS-E Set 57
MF DIN 371/374						
•	•				Left Hand 105/4 Ultra LH 60	
		•	•			131/3 Ultra LH 60
•	•					105/4 Ultra Vap LH 60
		•	•			131/3 Ultra Vap LH 60
•	•	•	•		105/3 Ultra Sub Pg 61	

MF



DIN 374



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4 l	131/3 l	d ₁	a	d	P	
63	10	7.5	2.8	2.1	MF 4	0.5	3.5
70	12	7.5	3.5	2.7	MF 5	0.5	4.5
80	14	8	4.5	3.4	MF 6	0.5	5.5
80	14	8	4.5	3.4	MF 6	0.75	5.25
80	17	10	6	4.9	MF 8	0.5	7.5
80	18	10	6	4.9	MF 8	0.75	7.25
90	22	10	6	4.9	MF 8	1	7
90	17	12	7	5.5	MF 10	0.5	9.5
90	20	12	7	5.5	MF 10	0.75	9.25
90	20	12	7	5.5	MF 10	1	9
100	24	14	7	5.5	MF 10	1.25	8.8
100	22	14	9	7	MF 12	1	11
100	22	14	9	7	MF 12	1.25	10.8
100	22	14	9	7	MF 12	1.5	10.5
100	22	16	11	9	MF 14	1	13
100	22	20	11	9	MF 14	1.5	12.5
100	22	16	12	9	MF 16	1	15
100	22	20	12	9	MF 16	1.5	14.5
110	25	18	14	11	MF 18	1	17
110	25	25	14	11	MF 18	1.5	16.5
125	34	25	14	11	MF 18	2	16
125	25	25	16	12	MF 20	1.5	18.5
125	25	17	18	14.5	MF 22	1.5	20.5
140	25	20	18	14.5	MF 24	1.5	22.5
140	28	20	18	14.5	MF 24	2	22
140	28	20	18	14.5	MF 25	1.5	23.5
140	28	20	18	14.5	MF 26	1.5	24.5
140	28	22	20	16	MF 27	1.5	25.5
140	28	22	20	16	MF 27	2	25

105/4



DIN 374

ISO 2 (6H)

B/4

Art.	Stock
64170	●
64171	●
64173	●
64174	●
64175	●
64176	●
64177	●
64178	○
64179	●
64180	●
64181	●
64183	●
64184	●
64185	●
64186	○
64187	●
64188	●
64190	●
64191	●
64192	●
64193	○
64195	●
64198	●
64200	●
64201	●
64202	●
64204	●
64205	●
64206	○

131/3



DIN 374

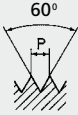
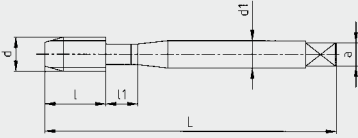
ISO 2 (6H)

C/2.5

Art.	Stock
65600	●
65601	●
65603	●
65604	●
65605	●
65606	●
65607	●
65608	○
65609	●
65610	●
65611	●
65613	●
65614	●
65615	●
65616	○
65617	●
65618	●
65620	●
65621	●
65622	●
65623	○
65625	●
65627	●
65628	●
65629	●
65630	●
65631	●
65632	●
65633	○



DIN 374



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4 l	131/3 l	d1	a	d	P	
150	28	22	22	18	MF 30	1.5	28.5
150	28	22	22	18	MF 30	2	28
150	28	22	22	18	MF 32	1.5	30.5
150	28	22	22	18	MF 32	2	30
160	30	22	25	20	MF 33	2	31
170	30	25	28	22	MF 35	1.5	33.5
170	30	25	28	22	MF 36	1.5	34.5

105/4



DIN 374

ISO 2 (6H)

B/4

Art.	Stock
64209	○
64210	○
64211	○
64212	△
64214	△
64216	△
64217	○

131/3



DIN 374

ISO 2 (6H)

C/2.5

Art.	Stock
65635	○
65636	○
65637	○
65638	△
65639	△
65640	○

D

105/4 Gelbring

131/3 Gelbring

Speziell geeignet für G20 Kupfer, G21

Hartmessing (Ms 58, kurzspanend), G22 Weich-

messing (Ms 63, langspanend), G23 Rotguss,

G24 Guss-Zinnbronze, G25 Aluminium-Knet-

legierungen, G29 Magnesium-Knetlegierungen,

G34 Thermoplaste Kunststoffe

F

105/4 Anneau jaune

131/3 Anneau jaune

Spécialement conçu pour G20 cuivre,

G21 laiton dur (Ms 58, copeaux courts),

G22 laiton tendre (Ms 63, copeaux longs),

G23 laiton rouge, G24 bronze au zinc, G25 al-

liages corroyés d'aluminium, G29 alliages corroyés

de magnésium, G34 matières thermoplastiques

E

105/4 Yellow ring

131/3 Yellow ring

Specific suitable for G20 copper, G21 hard

brass (Ms 58, short chipping), G22 soft brass

(Ms 63, long chipping), G23 red brass,

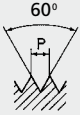
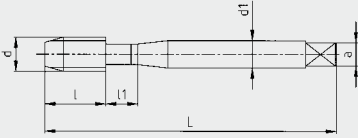
G24 phosphor bronze, G25 wrought alloy of

aluminium, G29 wrought alloy of magnesium,

G34 thermoplastic compounds/synthetics



DIN 374



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4 l	131/3 l	d ₁	a	d	P	
63	10	7.5	2.8	2.1	MF 4	0.5	3.5
70	12	7.5	3.5	2.7	MF 5	0.5	4.5
80	14	8	4.5	3.4	MF 6	0.5	5.5
80	14	8	4.5	3.4	MF 6	0.75	5.25
80	17	10	6	4.9	MF 8	0.5	7.5
80	18	10	6	4.9	MF 8	0.75	7.25
90	22	10	6	4.9	MF 8	1	7
90	17	12	7	5.5	MF 10	0.5	9.5
90	20	12	7	5.5	MF 10	0.75	9.25
90	20	12	7	5.5	MF 10	1	9
90	24	14	7	5.5	MF 10	1.25	8.8
100	22	14	9	7	MF 12	1	11
100	22	14	9	7	MF 12	1.25	10.8
100	22	14	9	7	MF 12	1.5	10.5
100	22	16	11	9	MF 14	1	13
100	22	20	11	9	MF 14	1.5	12.5
100	22	16	12	9	MF 16	1	15
100	22	20	12	9	MF 16	1.5	14.5
110	25	18	14	11	MF 18	1	17
110	25	25	14	11	MF 18	1.5	16.5
110	34	25	14	11	MF 18	2	16
125	25	25	16	12	MF 20	1.5	18.5
125	25	17	18	14.5	MF 22	1.5	20.5
140	25	20	18	14.5	MF 24	1.5	22.5
140	28	20	18	14.5	MF 24	2	22
140	28	20	18	14.5	MF 25	1.5	23.5
140	28	18	18	14.5	MF 26	1.5	24.5

105/4



DIN 374

ISO 2 (6H)

B/4

Art.	Stock
66300	●
66301	●
66302	●
66303	●
66304	●
66305	●
66306	●
66307	○
66308	●
66309	●
66310	●
66311	●
66312	●
66313	●
66314	○
66315	●
66316	●
66318	●
66319	●
66320	●
66321	○
66323	●
66324	●
66325	●
66326	●
66327	●
66328	●

131/3



DIN 374

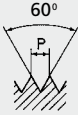
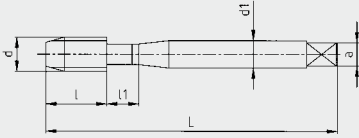
ISO 2 (6H)

C/2.5

Art.	Stock
66600	●
66601	●
66603	●
66604	●
66605	●
66606	●
66607	●
66608	○
66609	●
66610	●
66611	●
66613	●
66614	●
66615	●
66616	○
66617	●
66618	●
66620	●
66621	●
66622	●
66623	○
66625	●
66626	●
66627	●
66628	●
66629	●



DIN 374



105/4



DIN 374

ISO 2 (6H)

B/4

Art. Stock

66329

○

66330

○

66331

○

131/3



DIN 374

ISO 2 (6H)

C/2.5

Art. Stock

66630

○

66631

○

66632

○

Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4 l	131/3 l	d1	a	d	P	
150	28	22	22	18	MF 30	1.5	28.5
150	28	22	22	18	MF 30	2	28
150	28	22	22	18	MF 32	1.5	30.5



D

105/4 Schwarzring

131/3 Schwarzring

Speziell geeignet für **G01** Baustähle < 1000 N/mm², **G03** Einsatzstähle < 1000 N/mm²,

G08 Werkzeugstähle, **G10** Rostfreie Cr-Stähle, geschwefelt, **G13** Automatenstähle, **G14** Stahlguss < 1000 N/mm²

F

105/4 Anneau noir

131/3 Anneau noir

Spécialement conçu pour **G01** aciers de construction < 1000 N/mm², **G03** aciers de cémentation < 1000 N/mm², **G08** aciers à outils, **G10** aciers inoxydables Cr, sulfuré, **G13** aciers de décolletage, **G14** aciers moulés < 1000 N/mm²

E

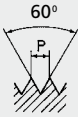
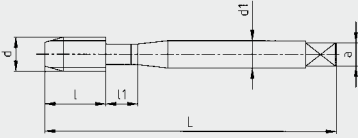
105/4 Black ring

131/3 Black ring

Specific suitable for **G01** structural steels < 1000 N/mm², **G03** case hardening steels < 1000 N/mm², **G08** carbon tool steels, **G10** Cr stainless steels, sulphured, **G13** free-cutting steels, **G14** cast steels < 1000 N/mm²



DIN 371/374



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		d ₁	a	d	P	H
	l	l ₁	l	l ₁					
63	10	8	7.5	13	4.5	3.4	MF 4	0.50	3.5
70	12	11	7.5	16	6	4.9	MF 5	0.50	4.5
80	14	11	8	18	6	4.9	MF 6	0.75	5.25
80	18	13	10	21	8	6.2	MF 8	0.75	7.25
90	22	13	10	21	8	6.2	MF 8	1.00	7
90	20	15	12	22	10	8	MF 10	0.75	9.25
90	20	15	12	22	10	8	MF 10	1.00	9
100	24	15	14		10	8	MF 10	1.25	8.8
100	22		14		9	7	MF 12	1.00	11
100	22		14		9	7	MF 12	1.25	10.8
100	22		14		9	7	MF 12	1.50	10.5
100	22		16		11	9	MF 14	1.00	13
100	22		20		11	9	MF 14	1.50	12.5
100	22		16		12	9	MF 16	1.00	15
100	22		20		12	9	MF 16	1.50	14.5
110	22		18		14	11	MF 18	1.00	17
110	25		25		14	11	MF 18	1.50	16.5
125	25		18		16	12	MF 20	1.00	19
125	25		25		16	12	MF 20	1.50	18.5
125			17		18	14.5	MF 22	1.50	20.5
140			20		18	14.5	MF 24	1.50	22.5

105/4

105/4

131/3

131/3



DIN 371
ISO 2 (6H)

DIN 374
ISO 2 (6H)

DIN 371
ISO 2 (6H)

DIN 374
ISO 2 (6H)

B/4

B/4

C/2.5

C/2.5

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
11871	●			84883	●		
11872	●			84891	●		
11873	●			84905	●		
11874	●			84913	●		
11875	●			84921	●		
11876	●			84948	●		
12350	●			12352	●		
		11877	●			84956	●
		11879	●			84964	●
		11880	●			84972	●
		11881	○			84980	○
		11882	●			84999	●
		11883	●			85006	●
		11884	●			85014	●
		11885	△			85022	△
		11887	●			85030	●
		11888	△			84778	△
		11889	●			84786	●
						84787	△
						84788	●

D

105/4 Blauring

131/3 Blauring

Speziell geeignet für G07 Nitrierstähle, **G09** Hitzebeständige Stähle, **G11** Rostfreie Cr-Stähle, ferritisch und martensitisch, **G12** Rostfreie Cr-Ni Stähle, austenitisch, **G31** Nickellegierungen, **G32** Titan und Titanlegierungen

F

105/4 Anneau bleu

131/3 Anneau bleu

Spécialement conçu pour G07 aciers pour nitruration, **G09** aciers réfractaires, **G11** aciers inoxydables Cr, ferritique et martensitique, **G12** aciers inoxydables Cr-Ni, austénitique, **G31** alliages de nickel, **G32** titane et alliages de titane

E

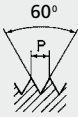
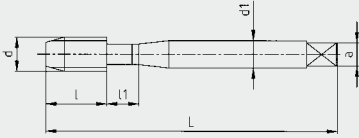
105/4 Blue ring

131/3 Blue ring

Specific suitable for G07 nitriding steels, **G09** heat resisting steels, **G11** Cr stainless steels, ferritic and martensitic, **G12** Cr-Ni stainless steels, austenitic, **G31** alloy of nickel, **G32** titanium and alloy of titanium



DIN 371/374



Norm / Norme / Norm
Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		d ₁	a	d	P	
L	l	l ₁	l	l ₁					
63	10	8	7.5	13	4.5	3.4	MF 4	0.50	3.5
70	12	11	7.5	16	6	4.9	MF 5	0.50	4.5
80	14	11	8	18	6	4.9	MF 6	0.75	5.25
80	18	13	10	21	8	6.2	MF 8	0.75	7.25
90	22	13	10	21	8	6.2	MF 8	1.00	7
90	20	15	12	22	10	8	MF 10	0.75	9.25
90	20	15	12	22	10	8	MF 10	1.00	9
100	22		14		9	7	MF 12	1.00	11
100	22		14		9	7	MF 12	1.25	10.8
100	22		14		9	7	MF 12	1.50	10.5
100	22		16		11	9	MF 14	1.00	13
100	22		20		11	9	MF 14	1.50	12.5
100	22		16		12	9	MF 16	1.00	15
100	22		20		12	9	MF 16	1.50	14.5
110	22		18		14	11	MF 18	1.00	17
110	25		25		14	11	MF 18	1.50	16.5
125	25		18		16	12	MF 20	1.00	19
125	25		25		16	12	MF 20	1.50	18.5

105/4		105/4		131/3		131/3	
DIN 371 ISO 2 (6H)		DIN 374 ISO 2 (6H)		DIN 371 ISO 2 (6H)		DIN 374 ISO 2 (6H)	
B/4		B/4		C/2.5		C/2.5	
Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
85065	●			87610	●		
85073	●			87629	●		
85081	●			87637	●		
85103	●			87645	●		
85111	●			87653	●		
85138	●			87661	●		
85146	●			87688	●		
		85154	○			87696	○
		85162	○			87718	○
		85170	●			87726	●
		85189	△			87734	△
		85197	●			87742	●
		85200	△			87750	△
		85219	●			87769	●
		85227	△			87777	△
		85235	●			87785	●
		85243	△			87793	△
		85251	●			87807	●

D

105/4 Rotring

131/3 Rotring

Speziell geeignet für G02 Baustähle > 900

N/mm², G04 Einsatzstähle > 900 N/mm²,

G05 Vergütungsstähle < 1000 N/mm²,

G06 Vergütungsstähle > 900 N/mm², G15

Stahlguss > 900 N/mm², G35 HoStockeste

Feinkornbaustähle

F

105/4 Anneau rouge

131/3 Anneau rouge

Spécialement conçu pour G02 aciers de

construction > 900 N/mm², G04 aciers de cémen-

tation > 900 N/mm², G05 aciers d'amélioration

< 1000 N/mm², G06 aciers d'amélioration > 900

N/mm², G15 aciers moulés > 900 N/mm²,

G35 Aciers de construction à haute résistance et

à grains fins

E

105/4 Red ring

131/3 Red ring

Specific suitable for G02 structural steels

> 900 N/mm², G04 case hardening steels

> 900 N/mm², G05 heat treatable steels

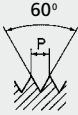
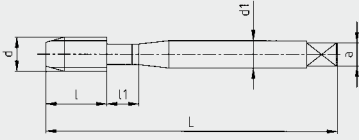
< 1000 N/mm², G06 heat treatable steels > 900

N/mm², G15 cast steels > 900 N/mm²,

G35 High strength structural steels fine grained



DIN 374



105/3



DIN 374

ISO 2 (6H)

C/2.5

Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



Art.

Stock

66700

●

66701

●

66702

●

66703

○

66704

●

66705

●

66706

○

66707

●

66708

●

66709

●

66710

○

66711

●

L	l	d ₁	a	d	P	
63	10	2.8	2.1	MF 4	0.5	3.5
70	12	3.5	2.7	MF 5	0.5	4.5
80	14	4.5	3.4	MF 6	0.75	5.25
80	18	6	4.9	MF 8	0.75	7.25
90	22	6	4.9	MF 8	1	7
90	20	7	5.5	MF 10	1	9
100	22	9	7	MF 12	1	11
100	22	9	7	MF 12	1.5	10.5
100	22	11	9	MF 14	1.5	12.5
100	22	12	9	MF 16	1.5	14.5
110	25	14	11	MF 18	1.5	16.5
125	25	16	12	MF 20	1.5	18.5

D

105/3 Grünring

Speziell geeignet für G16 Temperguss,
G17 Gusseisen mit Kugelgraphit (Sphäroguss),
G18 Gusseisen mit Lamellengraphit (Grauguss),
G19 Gusseisen mit Vermikulargraphit,
G26 Aluminium-Gusslegierungen Si 0.5%–5%,
G27 Aluminium-Gusslegierungen Si 5%–10%,
G28 Aluminium-Gusslegierungen Si > 10%,
G30 Magnesium-Gusslegierungen, **G33** Ferro-TiC

F

105/3 Anneau vert

Spécialement conçu pour G16 fonte malléable,
G17 fonte à graphite sphéroïdal, **G18** fonte à graphite lamellaire (fonte grise), **G19** fonte à graphite vermiculaire, **G26** alliages de fonte d'aluminium Si 0.5%–5%, **G27** alliages de fonte d'aluminium Si 5%–10%, **G28** alliages de fonte d'aluminium Si > 10%, **G30** alliages de fonte de magnésium, **G33** ferro-TiC

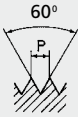
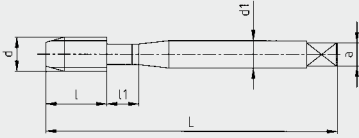
E

105/3 Green ring

Specific suitable for G16 malleable cast iron, **G17** nodular graphite cast iron, **G18** lamellar graphite cast iron (grey cast iron), **G19** vermicular graphite cast iron, **G26** aluminium cast alloy Si 0.5%–5%, **G27** aluminium cast alloy Si 5%–10%, **G28** aluminium cast alloy Si > 10%, **G30** cast alloy of magnesium, **G33** ferro-TiC



DIN 2181



101/1 Ultra
HSS-E

101/3 Ultra
HSS-E

101/S Ultra HSS-E
Satz / jeu / set



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



DIN 13
ISO 2 (6H)

DIN 13
ISO 2 (6H)

DIN 13
ISO 2 (6H)

A/5

C/2

Stück/pce/piece

Satz/jeu/set

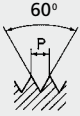
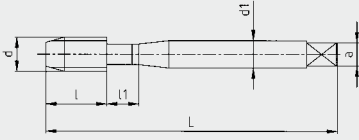
L	l	l ₁	d ₁	a	d	P	
40	9		2.8	2.10	MF 2.5	0.35	2.15
40	8	10	3.5	2.70	MF 3	0.35	2.65
45	9	13	4.5	3.4	MF 4	0.5	3.5
50	11	14	6	4.9	MF 5	0.5	4.5
56	12	15	6	4.9	MF 6	0.5	5.5
56	12	15	6	4.9	MF 6	0.75	5.25
56	14		6	4.9	MF 8	0.5	7.5
56	17		6	4.9	MF 8	0.75	7.25
63	17		6	4.9	MF 8	1	7
63	18		7	5.5	MF 10	0.75	9
63	18		7	5.5	MF 10	1	8.8
70	22		7	5.5	MF 10	1.25	11
70	18		9	7	MF 12	1	10.8
70	20		9	7	MF 12	1.25	10.5
70	20		9	7	MF 12	1.5	13
70	18		11	9	MF 14	1	12.8
70	20		11	9	MF 14	1.25	12.5
70	20		11	9	MF 14	1.5	12.5

Art.	Art.	Stock	Art.	Stock
86600	86601	○	86602	○
86627	86604	●	86605	●
86832	86607	●	86608	●
86609	86610	●	86611	●
86612	86613	●	86628	●
86615	86616	●	86617	●
86618	86619	●	86620	●
86621	86629	●	86623	●
86624	86625	●	86626	●
86636	86637	●	86638	●
86639	86640	●	86641	●
86642	86643	●	86644	●
86654	86655	●	86656	●
86645	86658	●	86659	●
86660	86661	●	86662	●
86663	86664	○	86646	○
86666	86667	●	86668	●
86669	86670	●	86671	●





DIN 2181



101/1 Ultra
HSS-E

101/3 Ultra
HSS-E

101/S Ultra HSS-E
Satz / jeu / set



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



DIN 13
ISO 2 (6H)

DIN 13
ISO 2 (6H)

DIN 13
ISO 2 (6H)

A/5

C/2

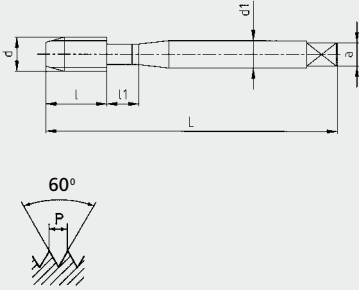
Stück/pce/piece

Satz/jeu/set

L	l	l ₁	d ₁	a	d	P		Art.	Art.	Stock	Art.	Stock
70	18		12	9	MF 16	1	15	86678	86679	○	86680	●
70	20		12	9	MF 16	1.5	14.5	86684	86682	●	86683	●
80	18		14	11	MF 18	1.5	16.5	86687	86688	●	86689	●
80	18		16	12	MF 20	1	19	86693	86694	●	86695	●
80	22		16	12	MF 20	1.5	18.5	86696	86697	●	86698	●
80	22		16	12	MF 20	2	18	86699	86700	●	86701	●
80	18		18	14.5	MF 22	1.5	20.5	86705	86706	●	86707	●
90	18		18	14.5	MF 24	1	23	86712	86713	△	86714	●
90	22		18	14.5	MF 24	1.5	22.5	86715	86716	●	86717	●
90	22		18	14.5	MF 24	2	22	86718	86719	●	86720	●
90	22		18	14.5	MF 25	1.5	23.5	86724	86725	○	86726	●
90	22		18	14.5	MF 26	1.5	24.5	86730	86731	○	86732	●
90	22		20	16	MF 27	1.5	25.5	86741	86742	○	86743	●
90	22		20	16	MF 27	2	25	86744	86745	○	86747	●
90	22		20	16	MF 28	1.5	26.5	86751	86752	○	86753	●
90	22		22	18	MF 30	1.5	28.5	86763	86764	○	86765	●



DIN 2181



101/1 Ultra
HSS-E



101/3 Ultra
HSS-E



101/S Ultra HSS-E
Satz / jeu / set



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



DIN 13
ISO 2 (6H)

DIN 13
ISO 2 (6H)

DIN 13
ISO 2 (6H)

A/5

C/2

L	l	l ₁	d ₁	a	d	P	
90	22		22	18	MF 30	2	28
90	22		22	18	MF 32	1.5	30.5
100	25		25	20	MF 33	1.5	31.5
100	25		25	20	MF 33	2	31
100	25		28	22	MF 35	1.5	33.5
125	30		28	22	MF 36	2	34
100	25		28	22	MF 38	1.5	36.5
110	25		32	24	MF 40	1.5	38.5
110	25		32	24	MF 42	1.5	40.5
110	25		36	29	MF 45	1.5	43.5
125	30		36	29	MF 45	2	43
140	25		36	29	MF 48	1.5	46.5
140	30		36	29	MF 48	2	46
140	25		36	29	MF 50	1.5	48.5
140	30		36	29	MF 50	2	48

Stück/pce/piece

Satz/jeu/set

Art.	Art.	Stock	Art.	Stock
86766	86767	○	86768	○
86832	86833	○	86834	○
86773	86774	△	86775	○
86776	86777	○	86778	○
86779	86780	△	86781	○
86790	86791	△	86792	○
86793	86794	△	86795	○
86801	86802	○	86803	○
86807	86808	○	86809	○
86813	86814	△	86815	○
86816	86817	△	86818	○
86820	86821	△	86822	○
86823	86824	△	86825	○
86826	86827	○	86828	○
86829	86830	△	86831	○

D

101/S Ultra

Speziell geeignet für G01 Baustähle <1000 N/mm², **G03** Einsatzstähle <1000 N/mm², **G05** Vergütungsstähle <1000 N/mm², **G13** Automatenstähle, **G14** Stahlguss <1000 N/mm², **G20** Kupfer, **G22** Weichmessing (Ms 63, langspanend), **G23** Rotguss, **G24** Guss-Zinnbronze

F

101/S Ultra

Spécialement conçu pour G01 aciers de construction <1000 N/mm², **G03** aciers de cémentation <1000 N/mm², **G05** aciers d'amélioration <1000 N/mm², **G13** aciers de décolletage, **G14** aciers moulés <1000 N/mm², **G20** cuivre, **G22** laiton tendre (Ms 63, copeaux longs), **G23** laiton rouge, **G24** bronze au zinc

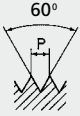
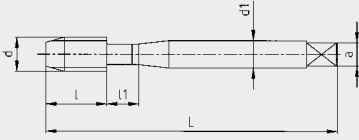
E

101/S Ultra

Specific suitable for G01 structural steels <1000 N/mm², **G03** case hardening steels <1000 N/mm², **G05** heat treatable steels <1000 N/mm², **G13** free-cutting steels, **G14** cast steels <1000 N/mm², **G20** copper, **G22** soft brass (MS 63, long chipping), **G23** red brass, **G24** phosphor bronze



DIN 374



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



105/4 Ultra
LH HSS-E

131/3 Ultra
LH HSS-E

105/4 Ultra
Vap LH HSS-E

131/3 Ultra
Vap LH HSS-E



DIN 374 DIN 374

ISO 2 (6H) ISO 2 (6H)

DIN 374 DIN 374

ISO 2 (6H) ISO 2 (6H)

B/4

B/4

C/2.5

C/2.5

L	105/4		131/3		d ₁	a	d	P		Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
	l	l	l	l													
90	22	10	6	4.9	MF 8	1	7	11895	●	11905	●	11918	●	11928	●		
90	20	12	7	5.5	MF 10	1	9	11896	●	11906	●	11919	●	11929	●		
100	22	14	9	7	MF 12	1	11			11907	○			11930	○		
100	22	14	9	7	MF 12	1.5	10.5	11899	●	11909	●	11922	●	11931	●		
100	22	20	11	9	MF 14	1.5	12.5	11900	●	11910	●	11923	●	11933	●		
100	22	20	12	9	MF 16	1.5	14.5	11901	●	11911	●	11925	○	11934	○		
110	25	22	14	11	MF 18	1.5	16.5			11912	○			11935	○		
125	25	22	16	12	MF 20	1.5	18.5			11913	●			11936	○		

D

105/4 Ultra LH
131/3 Ultra LH

Speziell geeignet für G21 Hartmessing (Ms58, kurzspanend), **G22** Weichmessing (Ms63, langspanend), **G25** Aluminium-Knetlegierungen, **G29** Magnesium-Knetlegierungen, **G34** Thermoplaste Kunststoffe

Geht auch für G01 Baustähle <1000 N/mm², **G03** Einsatzstähle <1000 N/mm², **G05** Vergütungsstähle <1000 N/mm²

105/4 Ultra Vap LH
131/3 Ultra Vap LH

Speziell geeignet für G01 Baustähle <1000 N/mm², **G03** Einsatzstähle <1000 N/mm², **G05** Vergütungsstähle <1000 N/mm², **G08** Werkzeugstähle, **G13** Automatenstähle, **G14** Stahlguss <1000 N/mm²

F

105/4 Ultra LH
131/3 Ultra LH

Spécialement conçu pour G21 laiton dur (Ms58, copeaux courts), **G22** laiton tendre (Ms63, copeaux longs), **G25** alliages corroyés d'aluminium, **G29** alliages corroyés de magnésium, **G34** matières thermoplastiques

Conçu aussi pour G01 aciers de construction <1000 N/mm², **G03** aciers de cémentation <1000 N/mm², **G05** aciers d'amélioration <1000 N/mm²

105/4 Ultra Vap LH
131/3 Ultra Vap LH

Spécialement conçu pour G01 aciers de construction <1000 N/mm², **G03** aciers de cémentation <1000 N/mm², **G05** aciers d'amélioration <1000 N/mm², **G08** aciers à outils, **G13** aciers de décolletage, **G14** aciers moulés <1000 N/mm²

E

105/4 Ultra LH
131/3 Ultra LH

Specific suitable for G21 hard brass (Ms58, short chipping), **G22** soft brass (Ms63, long chipping), **G25** wrought alloy of aluminium, **G29** wrought alloy of magnesium, **G34** thermoplastic compounds/synthetics

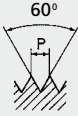
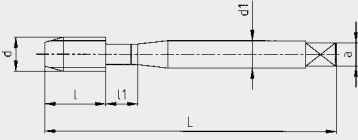
Goese also for G01 structural steels <1000 N/mm², **G03** case hardening steels <1000 N/mm², **G05** heat treatable steels <1000 N/mm²

105/4 Ultra Vap LH
131/3 Ultra Vap LH

Specific suitable for G01 structural steels <1000 N/mm², **G03** case hardening steels <1000 N/mm², **G05** heat treatable steels <1000 N/mm², **G08** carbon tool steels, **G13** free-cutting steels, **G14** cast steels <1000 N/mm²



DIN EN 60423



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	l	d ₁	a	d	P	
90	20	6	4.9	MF 8	1.00	7
90	20	7	5.5	MF 10	1.00	9
100	22	9	7	MF 12	1.50	10.5
100	22	12	9	MF 16	1.50	14.5
125	25	16	12	MF 20	1.50	18.5
140	28	18	14.5	MF 25	1.50	23.5
150	28	22	18	MF 32	1.50	30.5
170	30	32	24	MF 40	1.50	38.5
190	32	36	29	MF 50	1.50	48.5
275	38	50	39	MF 63	1.50	61.5

105/3 Ultra Sub Pg HSS-E



DIN 374

ISO 3 (7H)

C/2.5

Art. Stock

84718	△
84720	△
84701	△
84702	△
84703	△
84704	△
84705	△
84706	△
84707	△
84708	△

105/4 Ultra Sub Pg HSS-E



DIN 374

ISO 3 (7H)

B/4

Art. Stock

84722	●
84723	●
84709	●
84710	●
84711	●
84712	●
84713	●
84714	●
84715	○
84716	○

Richtwert / Valeur indicative / Standard value

Pg 7 = MF 12 x 1.5

Pg 8 = MF 12 x 1.5 (*16 x 1.5)

Pg 11 = MF 16 x 1.5

Pg 13.5 = MF 20 x 1.5

Pg 16 = MF 20 x 1.5 (*25 X 1.5)

Pg 21 = MF 25 x 1.5 (*32 X 1.5)

Pg 29 = MF 32 x 1.5 (*40 X 1.5)

Pg 36 = MF 40 x 1.5 (*50 X 1.5)

Pg 42 = MF 50 x 1.5 (*63 X 1.5)

Pg 48 = MF 63 x 1.5

*bei maximalem Kabeldurchmesser
avec un diamètre de câble maximal
with the maximum diameter of cable

D

105/3 Ultra Sub Pg

Für langspanend max 1 x D

Speziell geeignet für G01 Baustähle <1000 N/mm², **G14** Stahlguss <1000 N/mm², **G19** Gusseisen mit Vermikulargraphit, **G21** Hartmessing (Ms 58 kurzspanend),

Geht auch für G03, G05, G13, G16, G17, G18, G25, G26, G27 und G28

Siehe Seite 9

105/4 Ultra Sub Pg

Speziell geeignet für G21 Hartmessing (Ms 58, kurzspanend), **G22** Weichmessing (Ms 63, langspanend), **G25** Aluminium-Knetlegierungen, **G29** Magnesium-Knetlegierungen, **G34** Thermoplaste Kunststoffe

Geht auch für G01 Baustähle <1000 N/mm², **G03** Einsatzstähle <1000 N/mm², **G05** Vergütungsstähle <1000 N/mm²

F

105/3 Ultra Sub Pg

Pour copeaux longs max 1 x D

Spécialement conçu pour G01 aciers de construction <1000 N/mm², **G14** aciers moulés <1000 N/mm², **G19** fonte à graphite vermiculaire, **G21** laiton dur (Ms 58, copeaux courts)

Conçu aussi pour G03, G05, G13, G16, G17, G18, G25, G26, G27 et G28

Voir page 9

105/4 Ultra Sub Pg

Spécialement conçu pour G21 laiton dur (Ms 58, copeaux courts), **G22** laiton tendre (Ms 63, copeaux longs), **G25** alliages corroyés d'aluminium, **G29** alliages corroyés de magnésium, **G34** matières thermoplastiques

Conçu aussi pour G01 aciers de construction <1000 N/mm², **G03** aciers de cémentation <1000 N/mm², **G05** aciers d'amélioration <1000 N/mm²

E

105/3 Ultra Sub Pg

For long chips max 1 x D

Specific suitable for G01 structural steels <1000 N/mm², **G14** cast steels <1000 N/mm², **G19** vermicular graphite cast iron, **G21** hard brass (Ms 58, short chipping)

Goes also for G03, G05, G13, G16, G17, G18, G25, G26, G27 and G28








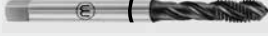






















See page 9

105/4 Ultra Sub Pg

Specific suitable for G21 hard brass (Ms 58, short chipping), **G22** soft brass (Ms 63, long chipping), **G25** wrought alloy of aluminium, **G29** wrought alloy of magnesium, **G34** thermo-plastic compounds/synthetics

Goes also for G01 structural steels <1000 N/mm², **G03** case hardening steels <1000 N/mm², **G05** heat treatable steels <1000 N/mm²

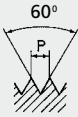
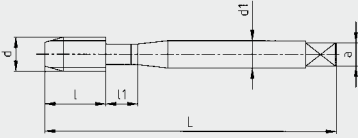
Inhaltsverzeichnis / Table des matières / Table of contents

				UNC DIN 371/376		Seite Page
•	•				105/4	64
		•	•		131/3	64
•	•				105/4	65
		•	•		131/3	65
•	•				105/4	66
		•	•		131/3	66
•	•				105/4	67
		•	•		131/3	67
•	•	•	•		105/4 Ultra EG	 68
					131/3 Ultra EG	 68
				UNF DIN 371/374		
•	•				105/4	69
		•	•		131/3	69
•	•				105/4	70
		•	•		131/3	70
•	•				105/4	71
		•	•		131/3	71
•	•				105/4	72
		•	•		131/3	72
•	•				105/4 Ultra EG	 73
		•	•		131/3 Ultra EG	 73
				UNJF DIN 371/374		
•	•				105/4 Aero	74
		•	•		130/3 Aero	74

UNC...



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		d ₁	a	d Nom.	d P ^(TP)	mm
45	9		9		2.8	2.1	2.184	2 - 56 UNC	1.8
50	9		9		2.8	2.1	2.515	3 - 48 UNC	2
56	11	9	7	9	3.5	2.7	2.845	4 - 40 UNC	2.3
56	11	9	7	9	3.5	2.7	3.175	5 - 40 UNC	2.6
56	13	10	8	10	4	3	3.505	6 - 32 UNC	2.7
63	13	11	8	11	4.5	3.4	4.166	8 - 32 UNC	3.4
70	16	13	9	13	6	4.9	4.826	10 - 24 UNC	3.8
80	19	14	13	17	7	5.5	6.35	1/4 - 20 UNC	5.1
90	22	15	15	19	8	6.2	7.938	5/16 - 18 UNC	6.5
100	24	15	16	21	10	8	9.525	3/8 - 16 UNC	7.9
100	24		18		8	6.2	11.112	7/16 - 14 UNC	9.3
110	29		20		9	7	12.7	1/2 - 13 UNC	10.7
110	32		22		12	9	15.875	5/8 - 11 UNC	13.5
125	34		25		14	11	19.05	3/4 - 10 UNC	16.5
140	34		28		18	14.5	22.225	7/8 - 9 UNC	19.3
160	38		31		18	14.5	25.4	1 - 8 UNC	22.25

105/4

105/4

131/3

131/3



DIN 371

DIN 376

DIN 371

DIN 376

-2B

-2B

-2B

-2B

B/4

B/4

C/2.5

C/2.5

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
68601	●			68650	●		
68602	○			68651	○		
68603	●			68652	●		
68604	○			68653	○		
68605	●			68654	●		
68606	●			68655	●		
68607	●			68656	●		
68609	●			68658	●		
68610	●			68659	●		
68611	●			68660	●		
		68612	●			68661	●
		68613	●			68662	●
		68615	●			68664	●
		68616	●			68665	●
		68617	●			68666	●
		68618	●			68667	●

D

105/4 Gelbring
131/3 Gelbring

Speziell geeignet für G20 Kupfer, G21 Hartmessing (Ms 58, kurzspanend), G22 Weichmessing (Ms 63, langspanend), G23 Rotguss, G24 Guss-Zinnbronze, G25 Aluminium-Knetlegierungen, G29 Magnesium-Knetlegierungen, G34 Thermoplaste Kunststoffe

F

105/4 Anneau jaune
131/3 Anneau jaune

Spécialement conçu pour G20 cuivre, G21 laiton dur (Ms 58, copeaux courts), G22 laiton tendre (Ms 63, copeaux longs), G23 laiton rouge, G24 bronze au zinc, G25 alliages corroyés d'aluminium, G29 alliages corroyés de magnésium, G34 matières thermoplastiques

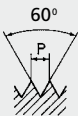
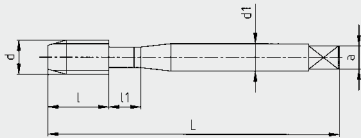
E

105/4 Yellow ring
131/3 Yellow ring

Specific suitable for G20 copper, G21 hard brass (Ms 58, short chipping), G22 soft brass (Ms 63, long chipping), G23 red brass, G24 phosphor bronze, G25 wrought alloy of aluminium, G29 wrought alloy of magnesium, G34 thermoplastic compounds/synthetics



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		d ₁	a	d Nom.	d P ^(TP)	mm
	l	l ₁	l	l ₁					
45	9		9		2.8	2.1	2.184	2 - 56 UNC	1.8
50	9		9		2.8	2.1	2.515	3 - 48 UNC	2
56	11	9	7	9	3.5	2.7	2.845	4 - 40 UNC	2.3
56	11	9	7	9	3.5	2.7	3.175	5 - 40 UNC	2.6
56	13	10	8	10	4	3	3.505	6 - 32 UNC	2.7
63	13	11	8	11	4.5	3.4	4.166	8 - 32 UNC	3.4
70	16	13	11	13	6	4.9	4.826	10 - 24 UNC	3.8
80	19	14	13	17	7	5.5	6.35	1/4 - 20 UNC	5.1
90	22	15	15	19	8	6.2	7.938	5/16 - 18 UNC	6.5
100	24	15	16	21	10	8	9.525	3/8 - 16 UNC	7.9
100	24		18		8	6.2	11.112	7/16 - 14 UNC	9.3
110	29		20		9	7	12.7	1/2 - 13 UNC	10.7
110	32		22		12	9	15.875	5/8 - 11 UNC	13.5
125	34		25		14	11	19.05	3/4 - 10 UNC	16.5
140	34		28		18	14.5	22.225	7/8 - 9 UNC	19.3
160	38		30		18	14.5	25.4	1 - 8 UNC	22.25

105/4

105/4

131/3

131/3



DIN 371

DIN 376

DIN 371

DIN 376

-2B

-2B

-2B

-2B

B/4

B/4

C/2.5

C/2.5

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
69611	●			69650	●		
69612	△			69651	△		
69613	●			69652	●		
69614	○			69653	○		
69615	●			69654	●		
69616	●			69655	●		
69617	●			69656	●		
69619	●			69658	●		
69620	●			69659	●		
69621	●			69660	●		
		69622	●			69661	●
		69623	●			69662	●
		69625	●			69664	●
		69626	●			69665	●
		69627	○			69666	○
		69628	●			69667	●

D

105/4 Schwarzring

131/3 Schwarzring

Speziell geeignet für G01 Baustähle < 1000 N/mm², **G03** Einsatzstähle < 1000 N/mm²,

G08 Werkzeugstähle, **G10** Rostfreie Cr-Stähle, geschwefelt, **G13** Automatenstähle, **G14** Stahlguss < 1000 N/mm²

F

105/4 Anneau noir

131/3 Anneau noir

Spécialement conçu pour G01 aciers de construction < 1000 N/mm², **G03** aciers de cémentation < 1000 N/mm², **G08** aciers à outils, **G10** aciers inoxydables Cr, sulfuré, **G13** aciers de décolletage, **G14** aciers moulés < 1000 N/mm²

E

105/4 Black ring

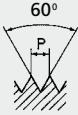
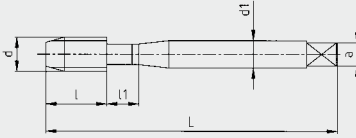
131/3 Black ring

Specific suitable for G01 structural steels < 1000 N/mm², **G03** case hardening steels < 1000 N/mm², **G08** carbon tool steels, **G10** Cr stainless steels, sulphured, **G13** free-cutting steels, **G14** cast steels < 1000 N/mm²





DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		d ₁	a	d Nom.	d P ^(TP)	mm
	l	l ₁	l	l ₁					
45	9		9		2.8	2.1	2.184	2 - 56 UNC	1.8
56	11	9	7	7	3.5	2.7	2.845	4 - 40 UNC	2.3
56	13	10	8	10	4	3	3.505	6 - 32 UNC	2.7
63	13	11	8	11	4.5	3.4	4.166	8 - 32 UNC	3.4
70	16	13	11	13	6	4.9	4.826	10 - 24 UNC	3.8
80	19	14	13	17	7	5.5	6.350	1/4 - 20 UNC	5.1
90	22	15	15	19	8	6.2	7.938	5/16 - 18 UNC	6.5
100	24		16	21	10	8	9.525	3/8 - 16 UNC	7.9
100	24		18		8	6.2	11.113	7/16 - 14 UNC	9.3
110	29		20		9	7	12.700	1/2 - 13 UNC	10.7
110	32		22		12	9	15.875	5/8 - 11 UNC	13.5
125	34		25		14	11	19.050	3/4 - 10 UNC	16.5
140	34		28		18	14.5	22.225	7/8 - 9 UNC	19.3
160	38		30		18	14.5	25.400	1 - 8 UNC	22.25

105/4

105/4

131/3

131/3



DIN 371

DIN 376

DIN 371

DIN 376

-2B

-2B

-2B

-2B

B/4

B/4

C/2.5

C/2.5

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
11674	●			86290	●		
11676	●			86304	●		
11678	●			86312	●		
11679	●			86320	●		
11682	●			86339	●		
				86347	●		
11684	●			86355	●		
						86363	●
		11686	●			86371	●
		11688	●			86398	●
		11689	●			86401	●
						86428	○
						86436	●

D

105/4 Blauring
131/3 Blauring

Speziell geeignet für G07 Nitrierstähle, **G09** Hitzebeständige Stähle, **G11** Rostfreie Cr-Stähle, ferritisch und martensitisch, **G12** Rostfreie Cr-Ni Stähle, austenitisch, **G31** Nickellegierungen, **G32** Titan und Titanlegierungen

F

105/4 Anneau bleu
131/3 Anneau bleu

Spécialement conçu pour G07 aciers pour nitruration, **G09** aciers réfractaires, **G11** aciers inoxydables Cr, ferritique et martensitique, **G12** aciers inoxydables Cr-Ni, austénitique, **G31** alliages de nickel, **G32** titane et alliages de titane

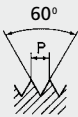
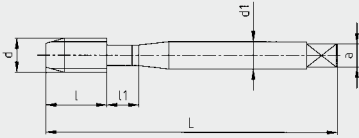
E

105/4 Blue ring
131/3 Blue ring

Specific suitable for G07 nitriding steels, **G09** heat resisting steels, **G11** Cr stainless steels, ferritic and martensitic, **G12** Cr-Ni stainless steels, austenitic, **G31** alloy of nickel, **G32** titanium and alloy of titanium



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		d ₁	a	d Nom.	d P ^(TP)	mm
45	9		9		2.8	2.1	2.184	2 - 56 UNC	1.8
56	11	9	7	7	3.5	2.7	2.845	4 - 40 UNC	2.3
56	13	10	8	10	4	3	3.505	6 - 32 UNC	2.7
63	13	11	8	11	4.5	3.4	4.166	8 - 32 UNC	3.4
70	16	13	11	13	6	4.9	4.826	10 - 24 UNC	3.8
80	19	14	13	17	7	5.5	6.350	1/4 - 20 UNC	5.1
90	22	15	15	19	8	6.2	7.938	5/16 - 18 UNC	6.5
100	24		16	21	10	8	9.525	3/8 - 16 UNC	7.9
100	24		18		8	6.2	11.113	7/16 - 14 UNC	9.3
110	29		20		9	7	12.700	1/2 - 13 UNC	10.7
110	32		22		12	9	15.875	5/8 - 11 UNC	13.5
125	34		25		14	11	19.050	3/4 - 10 UNC	16.5
140	34		28		18	14.5	22.225	7/8 - 9 UNC	19.3
160	38		30		18	14.5	25.400	1 - 8 UNC	22.25

105/4

105/4

131/3

131/3



DIN 371

DIN 376

DIN 371

DIN 376

-2B

-2B

-2B

-2B

B/4

B/4

C/2.5

C/2.5

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
85839	○			86452	○		
85847	○			86460	○		
85855	●			86479	●		
85863	●			86487	●		
85871	●			86495	●		
85898	●			86509	●		
85901	○			86517	○		
85928	●			86525	●		
		85936	○			86533	○
		85944	●			86541	●
		85952	●			86568	●
		85960	●			86576	●
						86584	△
						86592	●



D

105/4 Rotring

131/3 Rotring

Speziell geeignet für G02 Baustähle > 900

N/mm², **G04** Einsatzstähle > 900 N/mm²,

G05 Vergütungsstähle < 1000 N/mm²,

G06 Vergütungsstähle > 900 N/mm², **G15**

Stahlguss > 900 N/mm², **G35** HoStockeste

Feinkornbaustähle

F

105/4 Anneau rouge

131/3 Anneau rouge

Spécialement conçu pour G02 aciers de

construction > 900 N/mm², **G04** aciers de cémenta-

tion > 900 N/mm², **G05** aciers d'amélioration

< 1000 N/mm², **G06** aciers d'amélioration > 900

N/mm², **G15** aciers moulés > 900 N/mm²,

G35 Aciers de construction à haute résistance et à grains fins

E

105/4 Red ring

131/3 Red ring

Specific suitable for G02 structural steels

> 900 N/mm², **G04** case hardening steels

> 900 N/mm², **G05** heat treatable steels

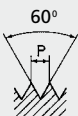
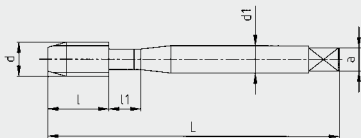
< 1000 N/mm², **G06** heat treatable steels > 900

N/mm², **G15** cast steels > 900 N/mm²,

G35 High strength structural steels fine grained



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	l	l ₁	l	l ₁	d ₁	a	d Nom.	d P ^(TP)	mm
63	13	8	7	13	4.5	3.4	3.67	4 - 40 UNC	3.1
70	14	10	8	15	6	4.9	4.536	6 - 32 UNC	3.8
80	16	12	8	16	6	4.9	5.197	8 - 32 UNC	4.4
80	17	13	10	19	7	5.5	6.2	10 - 24 UNC	5.2
90	20	15	14	24	8	6.2	8.001	1/4 - 20 UNC	6.7
100	22	17	16	25	10	8	9.771	5/16 - 18 UNC	8.4
110	22	-	16	-	9	7	11.587	3/8 - 16 UNC	10
110	26	-	20	-	11	9	13.47	7/16 - 14 UNC	11.6
110	27	-	22	-	12	9	15.237	1/2 - 13 UNC	13.3
110	26	-	22	-	14	11	17.038	9/16 - 12 UNC	14.9
125	30	-	25	-	14	11	18.875	5/8 - 11 UNC	16.5
140	32	-	27	-	18	14.5	22.349	3/4 - 10 UNC	19.75

105/4 Ultra
EG HSS-E



DIN 371

-2B

B/4

Art.

11715

○

11716

○

11717

○

11718

○

11719

○

11720

○

105/4 Ultra
EG HSS-E



DIN 376

-2B

B/4

Art.

11721

△

11722

○

11723

△

11724

△

11725

△

131/3 Ultra
EG HSS-E



DIN 371

-2B

C/2.5

Art.

11730

○

11731

○

11732

○

11733

○

11734

○

11735

○

11736

○

131/3 Ultra
EG HSS-E



DIN 376

-2B

C/2.5

Art.

11737

△

11739

○

11740

△

11741

△

11742

△

D

105/4 Ultra EG
131/3 Ultra EG

Speziell geeignet für G01 Baustähle <1000 N/mm², **G03** Einsatzstähle <1000 N/mm²,

G05 Vergütungsstähle <1000 N/mm², **G08** Werkzeugstähle, **G13** Automatenstähle, **G14** Stahlguss <1000 N/mm², **G21** Hartmessing (Ms 58, kurzspanend), **G22** Weichmessing (Ms 63, langspanend), **G25** Aluminium-Knetlegierungen, **G29** Magnesium-Knetlegierungen, **G34** Thermoplaste Kunststoffe

Geht auch für **G07, G10, G11, G12, G16, G17, G18, G19, G23, G26, G27, G28 und G30**

Siehe Seite 9

F

105/4 Ultra EG
131/3 Ultra EG

Spécialement conçu pour G01 aciers de construction <1000 N/mm², **G03** aciers de cimentation <1000 N/mm², **G05** aciers d'amélioration <1000 N/mm², **G08** aciers à outils, **G13** aciers de décolletage, **G14** aciers moulés <1000 N/mm², **G21** laiton dur (Ms 58, copeaux courts), **G22** laiton tendre (Ms 63, copeaux longs), **G25** alliages corroyés d'aluminium, **G29** alliages corroyés de magnésium, **G34** matières thermoplastiques

Conçu aussi pour **G07, G10, G11, G12, G16, G17, G18, G19, G23, G26, G27, G28 et G30**

Voir page 9

E

105/4 Ultra EG
131/3 Ultra EG

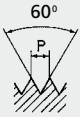
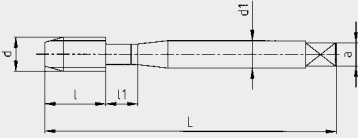
Specific suitable for G01 structural steels <1000 N/mm², **G03** case hardening steels <1000 N/mm², **G05** heat treatable steels <1000 N/mm², **G08** carbon tool steels, **G13** free-cutting steels, **G14** cast steels <1000 N/mm², **G21** hard brass (Ms 58, short chipping), **G22** soft brass (MS 63, long chipping), **G25** wrought alloy of aluminium, **G29** wrought alloy of magnesium, **G34** thermoplastic compounds/synthetics

Goes also for **G07, G10, G11, G12, G16, G17, G18, G19, G23, G26, G27, G28 and G30**

See page 9



DIN 371/374



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4 l	131/3 l	l1	d1	a	d Nom.	d P ^(TP)	
56	11	7	10	3.5	2.7	3.175	5 - 44 UNF	2.60
56	13	8	11	4	3	3.505	6 - 40 UNF	2.9
63	13	8	13	4.5	3.4	4.166	8 - 36 UNF	3.5
70	16	9	16	6	4.9	4.826	10 - 32 UNF	4.00
80	16	9	17	6	4.9	5.486	12 - 28 UNF	4.6
80	19	10	20	7	5.5	6.350	1/4 - 28 UNF	5.4
90	22	11	24	8	6.2	7.938	5/16 - 24 UNF	6.9
100	24	13	25	10	8	9.525	3/8 - 24 UNF	8.4
100	22	13		8	6.2	11.112	7/16 - 20 UNF	9.9
100	22	15		9	7	12.700	1/2 - 20 UNF	11.5
100	22	17		12	9	15.875	5/8 - 18 UNF	14.5
125	29	20		14	11	19.050	3/4 - 16 UNF	17.4

105/4

105/4

131/3

131/3



DIN 371

DIN 374

DIN 371

DIN 374

-2B

-2B

-2B

-2B

B/4

B/4

C/2.5

C/2.5

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
71751	○			71800	○		
71752	●			71801	●		
71753	●			71802	●		
71754	●			71803	●		
71755	●			71804	●		
71756	●			71805	●		
71757	●			71806	●		
71758	●			71807	●		
		71759	●			71808	●
		71760	●			71809	●
						71811	●
						71812	●

UNC...

D

105/4 Gelbring

131/3 Gelbring

Speziell geeignet für G20 Kupfer, G21 Hartmessing (Ms 58, kurzspanend), G22 Weichmessing (Ms 63, langspanend), G23 Rotguss, G24 Guss-Zinnbronze, G25 Aluminium-Knetlegierungen, G29 Magnesium-Knetlegierungen, G34 Thermoplaste Kunststoff

F

105/4 Anneau jaune

131/3 Anneau jaune

Spécialement conçu pour G20 cuivre, G21 laiton dur (Ms 58, copeaux courts), G22 laiton tendre (Ms 63, copeaux longs), G23 laiton rouge, G24 bronze au zinc, G25 alliages corroyés d'aluminium, G29 alliages corroyés de magnésium, G34 matières thermoplastiques

E

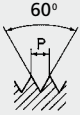
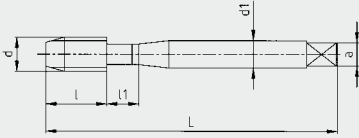
105/4 Yellow ring

131/3 Yellow ring

Specific suitable for G20 copper, G21 hard brass (Ms 58, short chipping), G22 soft brass (Ms 63, long chipping), G23 red brass, G24 phosphor bronze, G25 wrought alloy of aluminium, G29 wrought alloy of magnesium, G34 thermoplastic compounds/synthetics



DIN 371/374



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	l	l1	d1	a	d Nom.	d P ^(TP)	
56	11	7	10	3.5	2.7	3.175	5 - 44 UNF
56	13	8	11	4	3	3.505	6 - 40 UNF
63	13	8	13	4.5	3.4	4.166	8 - 36 UNF
70	16	9	16	6	4.9	4.826	10 - 32 UNF
80	16	9	17	6	4.9	5.486	12 - 28 UNF
80	19	10	20	7	5.5	6.350	1/4 - 28 UNF
90	22	11	24	8	6.2	7.938	5/16 - 24 UNF
100	24	13	25	10	8	9.525	3/8 - 24 UNF
100	22	13		8	6.2	11.112	7/16 - 20 UNF
100	22	15		9	7	12.700	1/2 - 20 UNF
100	22	17		12	9	15.875	5/8 - 18 UNF
125	29	20		14	11	19.050	3/4 - 16 UNF

105/4

105/4

131/3

131/3



DIN 371

DIN 374

DIN 371

DIN 374

-2B

-2B

-2B

-2B

B/4

B/4

C/2.5

C/2.5

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
71901	△			71950	△		
71902	△			71951	△		
71903	△			71952	△		
71904	●			71953	●		
71905	○			71954	○		
71906	●			71955	●		
71907	○			71956	○		
71908	●			71957	●		
		71909	○			71958	○
		71910	●			71959	●
		71912	△			71961	△
		71913	△			71962	△

D

105/4 Schwarzing

131/3 Schwarzing

Speziell geeignet für G01 Baustähle < 1000 N/mm², **G03** Einsatzstähle < 1000 N/mm²,

G08 Werkzeugstähle, **G10** Rostfreie Cr-Stähle, geschwefelt, **G13** Automatenstähle, **G14** Stahlguss < 1000 N/mm²

F

105/4 Anneau noir

131/3 Anneau noir

Spécialement conçu pour G01 aciers de construction < 1000 N/mm², **G03** aciers de cémentation < 1000 N/mm², **G08** aciers à outils, **G10** aciers inoxydables Cr, sulfuré, **G13** aciers de décolletage, **G14** aciers moulés < 1000 N/mm²

E

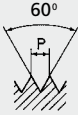
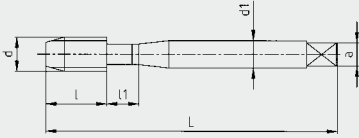
105/4 Black ring

131/3 Black ring

Specific suitable for G01 structural steels < 1000 N/mm², **G03** case hardening steels < 1000 N/mm², **G08** carbon tool steels, **G10** Cr stainless steels, sulphured, **G13** free-cutting steels, **G14** cast steels < 1000 N/mm²



DIN 371/374



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4 l	131/3 l	l ₁	d ₁	a	d Nom.	d P ^(TP)	
40	8			2.5	2.1	1.524	0 - 80 UNF	1.2
40	8			2.5	2.1	1.854	1 - 72 UNF	1.5
45	9	9		2.8	2.1	2.184	2 - 64 UNF	1.8
70	16	9	16	6	4.9	4.826	10 - 32 UNF	4
80	19	10	20	7	5.5	6.350	1/4 - 28 UNF	5.4
90	22	11	24	8	6.2	7.938	5/16 - 24 UNF	6.9
100	24	13	25	10	8	9.525	3/8 - 24 UNF	8.4
100	22	13		8	6.2	11.112	7/16 - 20 UNF	9.9
100	22	15		9	7	12.700	1/2 - 20 UNF	11.5
100	22	17		12	9	15.875	5/8 - 18 UNF	14.5
125	29	20		14	11	19.050	3/4 - 16 UNF	17.4
140	34	22		18	14.5	22.225	7/8 - 14 UNF	20.4
140	34	24		18	14.5	25.400	1 - 12 UNF	23.25

105/4

105/4

131/3

131/3



DIN 371

DIN 374

DIN 371

DIN 374

-2B

-2B

-2B

-2B

B/4

B/4

C/2.5

C/2.5

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
11976	○						
11977	○						
11978	●						
11985	●			87173	●		
11987	●			87203	●		
11988	○			87211	●		
11989	●			87238	●		
						87246	○
		11992	●			87254	●
		11993	○			87270	●
		11994	○			87289	●
						87297	○
						87300	○

UNC...

D

105/4 Blauring
131/3 Blauring

Speziell geeignet für G07 Nitrierstähle, **G09** Hitzebeständige Stähle, **G11** Rostfreie Cr-Stähle, ferritisch und martensitisch, **G12** Rostfreie Cr-Ni Stähle, austenitisch, **G31** Nickellegierungen, **G32** Titan und Titanlegierungen

F

105/4 Anneau bleu
131/3 Anneau bleu

Spécialement conçu pour G07 aciers pour nitruration, **G09** aciers réfractaires, **G11** aciers inoxydables Cr, ferritique et martensitique, **G12** aciers inoxydables Cr-Ni, austénitique, **G31** alliages de nickel, **G32** titane et alliages de titane

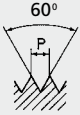
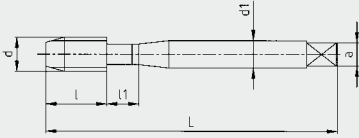
E

105/4 Blue ring
131/3 Blue ring

Specific suitable for G07 nitriding steels, **G09** heat resisting steels, **G11** Cr stainless steels, ferritic and martensitic, **G12** Cr-Ni stainless steels, austenitic, **G31** alloy of nickel, **G32** titanium and alloy of titanium



DIN 371/374



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	l	l1	d1	a	d Nom.	d P ^(TP)	
40	8		2.5	2.1	1.524	0 - 80 UNF	1.2
40	8		2.5	2.1	1.854	1 - 72 UNF	1.5
45	9	9	2.8	2.1	2.184	2 - 64 UNF	1.8
70	16	9	6	4.9	4.826	10 - 32 UNF	4
80	19	10	7	5.5	6.350	1/4 - 28 UNF	5.4
90	22	11	8	6.2	7.938	5/16 - 24 UNF	6.9
100	24	13	25	10	8	3/8 - 24 UNF	8.4
100	22	13	8	6.2	11.112	7/16 - 20 UNF	9.9
100	22	15	9	7	12.700	1/2 - 20 UNF	11.5
100	22	17	12	9	15.875	5/8 - 18 UNF	14.5
125	29	20	14	11	19.050	3/4 - 16 UNF	17.4
140	34	22	18	14.5	22.225	7/8 - 14 UNF	20.4
140	34	24	18	14.5	25.400	1 - 12 UNF	23.25

105/4

105/4

131/3

131/3



DIN 371

DIN 374

DIN 371

DIN 374

-2B

-2B

-2B

-2B

B/4

B/4

C/2.5

C/2.5

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
68995	○						
68996	○						
68997	●						
69001	●			69281	●		
69002	●			69282	●		
69003	○			69283	●		
69004	●			69284	●		
		69005	○			69285	○
		69006	●			69286	●
		69007	○			69287	●
		69008	○			69288	●
						69289	○
						69300	○

D

105/4 Rotring

131/3 Rotring

Speziell geeignet für G02 Baustähle > 900

N/mm², **G04** Einsatzstähle > 900 N/mm²,

G05 Vergütungsstähle < 1000 N/mm²,

G06 Vergütungsstähle > 900 N/mm², **G15**

Stahlguss > 900 N/mm², **G35** HoStockeste

Feinkornbaustähle

F

105/4 Anneau rouge

131/3 Anneau rouge

Spécialement conçu pour G02 aciers de

construction > 900 N/mm², **G04** aciers de cémenta-

tion > 900 N/mm², **G05** aciers d'amélioration

< 1000 N/mm², **G06** aciers d'amélioration > 900

N/mm², **G15** aciers moulés > 900 N/mm²,

G35 Aciers de construction à haute résistance et

à grains fins

E

105/4 Red ring

131/3 Red ring

Specific suitable for G02 structural steels

> 900 N/mm², **G04** case hardening steels

> 900 N/mm², **G05** heat treatable steels

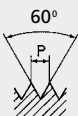
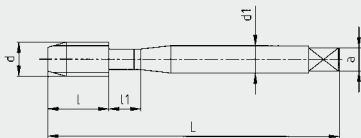
< 1000 N/mm², **G06** heat treatable steels > 900

N/mm², **G15** cast steels > 900 N/mm²,

G35 High strength structural steels fine grained



DIN 371/374



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



105/4 Ultra EG HSS-E 105/4 Ultra EG HSS-E 131/3 Ultra EG HSS-E 131/3 Ultra EG HSS-E



DIN 371
-2B mod.

DIN 374
-2B mod.

DIN 371
-2B mod.

DIN 374
-2B mod.

B/4

B/4

C/2.5

C/2.5

L	105/4		131/3		d ₁	a	d Nom.	d P ^(TP)	mm
	l	l ₁	l	l ₁					
56	9	8	7	13	4	3	3.533	4 - 48 UNF	3
70	11	10	8	15	6	4.9	4.331	6 - 40 UNF	3.7
80	13	12	8	16	6	4.9	5.083	8 - 36 UNF	4.4
80	13	13	8	19	6	4.9	5.857	10 - 32 UNF	5.1
90	17	15	10	24	8	6.2	7.529	1/4 - 28 UNF	6.6
90	18	17	10	25	10	8	9.312	5/16 - 24 UNF	8.25
100	18	26	11	33	8	6.2	10.899	3/8 - 24 UNF	9.8
100	22	-	13	-	9	7	12.764	7/16 - 20 UNF	11.5
100	22	-	15	-	11	9	14.351	1/2 - 20 UNF	13.1
100	22	-	15	-	12	9	16.121	9/16 - 18 UNF	14.7
110	25	-	17	-	14	11	17.709	5/8 - 18 UNF	16.25
125	25	-	17	-	16	12	21.112	3/4 - 16 UNF	19.5

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
11251	△			11264	△		
11252	△			12330	△		
11253	○			12331	○		
11254	○			12332	○		
11255	△			12333	△		
		11256	○			11275	○
		11257	△			12334	△
		11259	○			11277	○
		11260	△			12336	△
		11261	△			11279	△
		11262	△				

UNC...

D

105/4 Ultra EG
131/3 Ultra EG

Speziell geeignet für G21 Hartmessing (Ms 58, kurzspanend), **G22** Weichmessing (Ms 63, langspanend), **G25** Aluminium-Knetlegierungen, **G29** Magnesium-Knetlegierungen, **G34** Thermoplaste Kunststoffe

Geht auch für G01 Baustähle <1000 N/mm², **G03** Einsatzstähle <1000 N/mm², **G05** Vergütungsstähle <1000 N/mm²

F

105/4 Ultra EG
131/3 Ultra EG

Spécialement conçu pour G21 laiton dur (Ms 58, copeaux courts), **G22** laiton tendre (Ms 63, copeaux longs), **G25** alliages corroyés d'aluminium, **G29** alliages corroyés de magnésium, **G34** matières thermoplastiques

Conçu aussi pour G01 aciers de construction <1000 N/mm², **G03** aciers de cémentation <1000 N/mm², **G05** aciers d'amélioration <1000 N/mm²

E

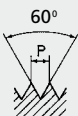
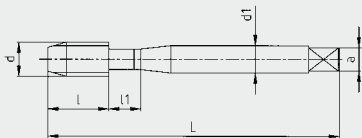
105/4 Ultra EG
131/3 Ultra EG

Specific suitable for G21 hard brass (Ms 58, short chipping), **G22** soft brass (Ms 63, long chipping), **G25** wrought alloy of aluminium, **G29** wrought alloy of magnesium, **G34** thermoplastic compounds/synthetics

Goes also for G01 structural steels <1000 N/mm², **G03** case hardening steels <1000 N/mm², **G05** heat treatable steels <1000 N/mm²



DIN 371/374



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		130/3		d1	a	d Nom.	d P ^(TP)	mm
	l	l1	l	l1					
63	16	8			4.5	3.4	4.166	8 - 36 UNJF	3.55
70	16	9			6	4.9	4.826	10 - 32 UNJF	4.15
80	19	10			7	5.5	6.35	1/4 - 28 UNJF	5.55
90	22	11	13		8	6.2	7.938	5/16 - 24 UNJF	7
100	24	13	15	10	8	6.2	9.525	3/8 - 24 UNJF	8.6
100	22	13			8	6.2	11.112	7/16 - 20 UNJF	10
100	22	15			9	7	12.7	1/2 - 20 UNJF	11.5
100	22	17			11	9	14.288	9/16 - 18 UNJF	13

105/4 Aero
PM

105/4 Aero
PM

130/3 Aero
PM

130/3 Aero
PM



DIN 371

DIN 374

DIN 371

DIN 374

-3BX

-3BX

-3BX

-3BX

B/4-4.5

B/4-4.5

C/2.5-3

C/2.5-3

Art.	Stock	Art.	Stock	Art.	Stock	Art.	Stock
12034	●			12043	●		
12036	●			12044	●		
12037	○			12045	○		
12038	●					12046	●
		12039	△			12047	△
		12040	●			12048	●
		12042	○				

D

105/4 Aero
130/3 Aero

Speziell geeignet für G09 Hitzebeständige Stähle, G31 Nickellegierungen

Geht auch für Werkstoffe mit Zugfestigkeit 900–1400 N/mm²

F

105/4 Aero
130/3 Aero

Spécialement conçu pour G09 aciers réfractaires, G31 alliages de nickel

Conçu aussi pour des matériaux avec une résistance de 900–1400 N/mm²









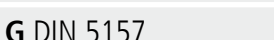





E

105/4 Aero
130/3 Aero

Specific suitable for G09 heat resisting steels, G31 alloy of nickel

Goes also for materials with strength of extension of 900–1400 N/mm²

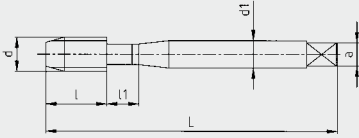
Inhaltsverzeichnis / Table des matières / Table of contents

				G DIN 5156		Seite Page	
•	•				105/4	76	
		•	•		131/3	76	
•	•	•	•		105/3	76	
•	•				105/4	77	
		•	•		131/3	77	
•	•				105/4	78	
		•	•		131/3	78	
•	•				105/4	79	
		•	•		131/3	79	
				G DIN 5157			
•	•	•	•		Hand Tap	101/1 HSS-E	80
•	•	•	•			101/3 HSS-E	80
•	•	•	•			101/S HSS-E Set	80
				W DIN 371/376			
•	•				105/4 Ultra	81	
		•	•		131/3 Ultra	81	

UNC...



DIN 5156



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		d Nom.	d P ^(TR)	Ø
	l	l	d1	a			
90	20	12	7	5.5	9.728	G 1/8 28	8.7
100	22	16	11	9	13.157	G 1/4 19	11.6
100	22	16	12	9	16.662	G 3/8 19	15
125	25	22	16	12	20.955	G 1/2 14	19
125	25	22	18	14.5	22.911	G 5/8 14	20.75
140	28	24	20	16	26.441	G 3/4 14	24.5
150	28	24	22	18	30.201	G 7/8 14	28
160	30	27	25	20	33.294	G 1 11	30
170	30	27	28	22	37.897	G 1 1/8 11	35
170	30	27	32	24	41.910	G 1 1/4 11	39.5
190	32	27	36	29	47.803	G 1 1/2 11	45
190	32	30	40	32	53.826	G 1 3/4 11	51
220	40	30	45	35	59.614	G 2 11	57

105/4



DIN 5156

B/4

Art.	Stock
51242	●
51244	●
51245	●
51246	●
51247	○
51248	●
51249	●
51250	○
51251	○
51252	△
51253	△
51243	△

131/3



DIN 5156

C/2.5

Art.	Stock
51260	●
51261	●
51262	●
51263	●
51264	○
51265	●
51266	○
51267	●
51268	○
51269	○
51270	△
51271	△
51272	△

105/3



DIN 5156

C/2.5

Art.	Stock
51500	●
51501	●
51502	●
51503	●
51504	△
51505	○
51506	△
51507	○

D

105/4 Gelbring 131/3 Gelbring

Speziell geeignet für G20 Kupfer, **G21** Hartmessing (Ms 58, kurzspanend), **G22** Weichmessing (Ms 63, langspanend), **G23** Rotguss, **G24** Guss-Zinnbronze, **G25** Aluminium-Knetlegierungen, **G29** Magnesium-Knetlegierungen, **G34** Thermoplaste Kunststoffe

105/3 Grünring

Speziell geeignet für G16 Temperguss, **G17** Gusseisen mit Kugelgraphit (Sphäroguss), **G18** Gusseisen mit Lamellengraphit (Grauguss), **G19** Gusseisen mit Vermikulargraphit, **G26** Aluminium-Gusslegierungen Si 0.5%–5%, **G27** Aluminium-Gusslegierungen Si 5%–10%, **G28** Aluminium-Gusslegierungen Si > 10%, **G30** Magnesium-Gusslegierungen, **G33** Ferro-Tic

F

105/4 Anneau jaune 131/3 Anneau jaune

Spécialement conçu pour G20 cuivre, **G21** laiton dur (Ms 58, copeaux courts), **G22** laiton tendre (Ms 63, copeaux longs), **G23** laiton rouge, **G24** bronze au zinc, **G25** alliages corroyés d'aluminium, **G29** alliages corroyés de magnésium, **G34** matières thermoplastiques

105/3 Anneau vert

Spécialement conçu pour G16 fonte malléable, **G17** fonte à graphite sphéroïdal, **G18** fonte à graphite lamellaire (fonte grise), **G19** fonte à graphite vermiculaire, **G26** alliages de fonte d'aluminium Si 0.5%–5%, **G27** alliages de fonte d'aluminium Si 5%–10%, **G28** alliages de fonte d'aluminium Si > 10%, **G30** alliages de fonte de magnésium, **G33** ferro-Tic

E

105/4 Yellow ring 131/3 Yellow ring

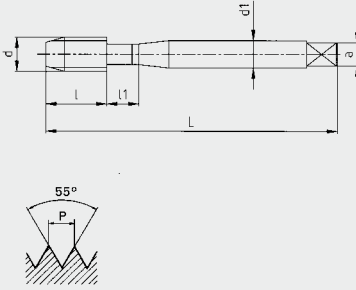
Specific suitable for G20 copper, **G21** hard brass (Ms 58, short chipping), **G22** soft brass (MS 63, long chipping), **G23** red brass, **G24** phosphor bronze, **G25** wrought alloy of aluminium, **G29** wrought alloy of magnesium, **G34** thermoplastic compounds/synthetics

105/3 Green ring

Specific suitable for G16 malleable cast iron, **G17** nodular graphite cast iron, **G18** lamellar graphite cast iron (grey cast iron), **G19** vermicular graphite cast iron, **G26** aluminium cast alloy Si 0.5%–5%, **G27** aluminium cast alloy Si 5%–10%, **G28** aluminium cast alloy Si > 10%, **G30** cast alloy of magnesium, **G33** ferro-Tic



DIN 5156



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105		131		d Nom.	d P ^(TR)	mm
	l	l	d1	a			
90	20	12	7	5.5	9.728	G 1/8 28	8.7
100	22	16	11	9	13.157	G 1/4 19	11.6
100	22	16	12	9	16.662	G 3/8 19	15
125	25	22	16	12	20.955	G 1/2 14	19
125	25	22	18	14.5	22.911	G 5/8 14	20.75
140	28	24	20	16	26.441	G 3/4 14	24.5
150	28	24	22	18	30.201	G 7/8 14	28
160	30	27	25	20	33.294	G 1 11	30.5
170	30	27	28	22	37.897	G 1 1/8 11	35
170	30	27	32	24	41.91	G 1 1/4 11	39.5
190	32	27	36	29	47.803	G 1 1/2 11	45
190	32	30	40	32	53.746	G 1 3/4 11	51
220	40	30	45	35	59.614	G 2 11	57

105/4



DIN 5156

–

B/4

Art.	Stock
51280	●
51281	●
51282	●
51283	●
51284	○
51285	●
51286	△
51287	●
51288	○
51289	○
51290	△
51291	△
51292	△

131/3



DIN 5156

–

C/2.5

Art.	Stock
51300	●
51301	●
51302	●
51303	●
51304	○
51305	●
51307	△
51308	●
51309	△
51310	△
51311	△
51312	△
51313	△

D

105/4 Schwarzring

131/3 Schwarzring

Speziell geeignet für G01 Baustähle < 1000 N/mm², **G03** Einsatzstähle < 1000 N/mm²,

G08 Werkzeugstähle, **G10** Rostfreie Cr-Stähle, geschwefelt, **G13** Automatenstähle, **G14** Stahlguss < 1000 N/mm²

F

105/4 Anneau noir

131/3 Anneau noir

Spécialement conçu pour G01 aciers de construction < 1000 N/mm², **G03** aciers de cémentation < 1000 N/mm², **G08** aciers à outils, **G10** aciers inoxydables Cr, sulfuré, **G13** aciers de décolletage, **G14** aciers moulés < 1000 N/mm²

E

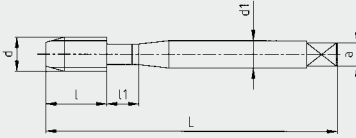
105/4 Black ring

131/3 Black ring

Specific suitable for G01 structural steels < 1000 N/mm², **G03** case hardening steels < 1000 N/mm², **G08** carbon tool steels, **G10** Cr stainless steels, sulphured, **G13** free-cutting steels, **G14** cast steels < 1000 N/mm²



DIN 5156



105/4



DIN 5156

—

B/4

131/3



DIN 5156

—

C/2.5

Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		d Nom.	d P ^(TR)	8
	l	l	d1	a			
90	20	12	7	5.5	9.728	G 1/8 28	8.7
100	22	16	11	9	13.157	G 1/4 19	11.6
100	22	16	12	9	16.662	G 3/8 19	15
125	25	22	16	12	20.955	G 1/2 14	19
140	28	24	20	16	26.441	G 3/4 14	24.5
160	30	27	25	20	33.294	G 1 11	30.5

Art.	Stock	Art.	Stock
11271	●	83224	●
11272	●	83232	●
11273	●	83240	●
11276	●	83267	●
11278	●	83283	●

D

105/4 Blauring
131/3 Blauring

Speziell geeignet für G07 Nitrierstähle, **G09** Hitzebeständige Stähle, **G11** Rostfreie Cr-Stähle, ferritisch und martensitisch, **G12** Rostfreie Cr-Ni Stähle, austenitisch, **G31** Nickellegierungen, **G32** Titan und Titanlegierungen

F

105/4 Anneau bleu
131/3 Anneau bleu

Spécialement conçu pour G07 aciers pour nitruration, **G09** aciers réfractaires, **G11** aciers inoxydables Cr, ferritique et martensitique, **G12** aciers inoxydables Cr-Ni, austénitique, **G31** alliages de nickel, **G32** titane et alliages de titane

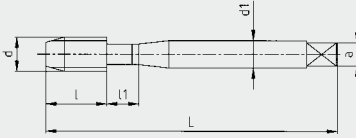
E

105/4 Blue ring
131/3 Blue ring

Specific suitable for G07 nitriding steels, **G09** heat resisting steels, **G11** Cr stainless steels, ferritic and martensitic, **G12** Cr-Ni stainless steels, austenitic, **G31** alloy of nickel, **G32** titanium and alloy of titanium



DIN 5156



105/4



DIN 5156

B/4

Art.	Stock
63380	●
63381	●
63382	●
63383	●
63384	●
63385	●

131/3



DIN 5156

C/2.5

Art.	Stock
65480	●
65481	●
65482	●
65483	●
65484	●
65485	●

Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	105/4		131/3		d Nom.	d P ^(TR)	28	11.6	15	19	24.5	30.5
	l	l	d1	a								
90	20	12	7	5.5	9.728	G 1/8	28	8.7				
100	22	16	11	9	13.157	G 1/4	19	11.6				
100	22	16	12	9	16.662	G 3/8	19	15				
125	25	22	16	12	20.955	G 1/2	14	19				
140	28	24	20	16	26.441	G 3/4	14	24.5				
160	30	27	25	20	33.294	G 1	11	30.5				

UNC...

D

105/4 Rotring

131/3 Rotring

Speziell geeignet für G02 Baustähle > 900 N/mm², **G04** Einsatzstähle > 900 N/mm²,

G05 Vergütungsstähle < 1000 N/mm²,

G06 Vergütungsstähle > 900 N/mm², **G15**

Stahlguss > 900 N/mm², **G35** HoStockeste

Feinkornbaustähle

F

105/4 Anneau rouge

131/3 Anneau rouge

Spécialement conçu pour G02 aciers de

construction > 900 N/mm², **G04** aciers de cémen-

tation > 900 N/mm², **G05** aciers d'amélioration

< 1000 N/mm², **G06** aciers d'amélioration > 900

N/mm², **G15** aciers moulés > 900 N/mm²,

G35 Aciers de construction à haute résistance et

à grains fins

E

105/4 Red ring

131/3 Red ring

Specific suitable for G02 structural steels

> 900 N/mm², **G04** case hardening steels

> 900 N/mm², **G05** heat treatable steels

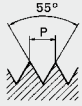
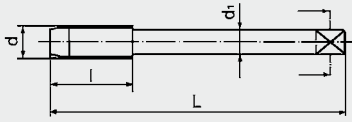
< 1000 N/mm², **G06** heat treatable steels > 900

N/mm², **G15** cast steels > 900 N/mm²,

G35 High strength structural steels fine grained



DIN 5157



101/1 Ultra
HSS-E



101/3 Ultra
HSS-E



101/S Ultra HSS-E
Satz / jeu / set



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



DIN EN ISO 228

DIN EN ISO 228

DIN EN ISO 228

A/5

C/2

L	l	d1	a	d Nom.	d	P ^(TPI)	mm
63	18	7	5.5	9.728	G 1/8	28	8.7
70	20	11	9	13.157	G 1/4	19	11.6
70	20	12	9	16.662	G 3/8	19	15
80	22	16	12	20.955	G 1/2	14	19
80	22	18	14.5	22.911	G 5/8	14	20.75
90	22	20	16	26.441	G 3/4	14	24.5
100	25	25	20	33.249	G 1	11	30.5

DIN EN ISO 228

DIN EN ISO 228

DIN EN ISO 228

A/5

C/2

Stück/pce/piece

Satz/jeu/set

Art.	Art.	Stock	Art.	Stock
37530	37531	●	37532	●
37533	37534	●	37535	●
37536	37537	●	37538	●
37539	37540	●	37541	●
37542	37543	○	37544	○
37545	37546	●	37547	●
37551	37552	●	37553	●

D

101/S Ultra

Speziell geeignet für G01 Baustähle <1000 N/mm², **G03** Einsatzstähle <1000 N/mm², **G05** Vergütungsstähle <1000 N/mm², **G13** Automatenstähle, **G14** Stahlguss <1000 N/mm², **G20** Kupfer, **G22** Weichmessing (Ms 63, langspannend), **G23** Rotguss, **G24** Guss-Zinnbronze

F

101/S Ultra

Spécialement conçu pour G01 aciers de construction <1000 N/mm², **G03** aciers de cémentation <1000 N/mm², **G05** aciers d'amélioration <1000 N/mm², **G13** aciers de décolletage, **G14** aciers moulés <1000 N/mm², **G20** cuivre, **G22** laiton tendre (Ms 63, copeaux longs), **G23** laiton rouge, **G24** bronze au zinc

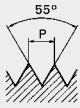
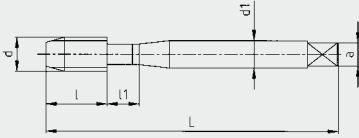
E

101/S Ultra

Specific suitable for G01 structural steels <1000 N/mm², **G03** case hardening steels <1000 N/mm², **G05** heat treatable steels <1000 N/mm², **G13** free-cutting steels, **G14** cast steels <1000 N/mm², **G20** copper, **G22** soft brass (MS 63, long chipping), **G23** red brass, **G24** phosphor bronze



DIN 371/376



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance

L	105/4		131/3		d1	a	d Nom.	d P ^(TP)	
	l	l1	l	l1					
56	11	7	11	3.5	2.7	3.18	W 1/8 - 40	2.55	
80	17	13	17	7	5.5	6.35	W 1/4 - 20	5.1	
90	20	14	21	8	6.2	7.94	W 5/16 - 18	6.5	
100	22	16	23	10	8	9.530	W 3/8 - 16	7.9	
100	22	18		8	6.2	11.110	W 7/16 - 14	9.25	
110	25	20		9	7	12.700	W 1/2 - 12	10.5	
125	30	25		14	11	19.050	W 3/4 - 10	16.4	
160	36	30		18	14.5	25.400	W 1" - 8	22	

105/4 Ultra
HSS-E



DIN 371

B/4

Art. Stock

47070	○
47071	●
47072	○
47073	●
	47074 △
	47075 ●
	47076 ○
	47077 ○

105/4 Ultra
HSS-E



DIN 376

B/4

Art. Stock

131/3 Ultra
HSS-E



DIN 371

C/2.5

Art. Stock

61001	○
61002	●
61003	○
61004	●
	61005 △
	61006 ●
	61007 ○
	61008 ○

131/3 Ultra
HSS-E



DIN 376

C/2.5

Art. Stock

D

105/4 Ultra
131/3 Ultra

Speziell geeignet für G21 Hartmessing (Ms 58, kurzspanend), **G22** Weichmessing (Ms 63, langspanend), **G25** Aluminium-Knetlegierungen, **G29** Magnesium-Knetlegierungen, **G34** Thermoplaste Kunststoffe

Geht auch für G01 Baustähle <1000 N/mm², **G03** Einsatzstähle <1000 N/mm², **G05** Vergütungsstähle <1000 N/mm²

F

105/4 Ultra
131/3 Ultra

Spécialement conçu pour G21 laiton dur (Ms 58, copeaux courts), **G22** laiton tendre (Ms 63, copeaux longs), **G25** alliages corroyés d'aluminium, **G29** alliages corroyés de magnésium, **G34** matières thermoplastiques

Conçu aussi pour G01 aciers de construction <1000 N/mm², **G03** aciers de cémentation <1000 N/mm², **G05** aciers d'amélioration <1000 N/mm²








E

105/4 Ultra
131/3 Ultra

Specific suitable for G21 hard brass (Ms 58, short chipping), **G22** soft brass (MS 63, long chipping), **G25** wrought alloy of aluminium, **G29** wrought alloy of magnesium, **G34** thermoplastic compounds/synthetics

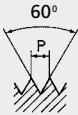
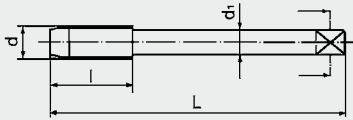
Goes also for G01 structural steels <1000 N/mm², **G03** case hardening steels <1000 N/mm², **G05** heat treatable steels <1000 N/mm²

Inhaltsverzeichnis / Table des matières / Table of contents

		NPT DIN 374	Seite Page
•	•		84
•	•		85
•	•		85
		NPTF DIN 374	
•	•		84
•	•		85



DIN 374



105/3 Ultra NPT HSS-E



105/3 Ultra NPTF HSS-E



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	l	d ₁	a	d P ^(TP)
80	17.5	7	5.5	1/16 - 27 NPT/NPTF
90	19	8	6.2	1/8 - 27 NPT/NPTF
100	27	11	9	1/4 - 18 NPT/NPTF
110	27	14	11	3/8 - 18 NPT/NPTF
125	35	18	14.5	1/2 - 14 NPT/NPTF
140	35	20	16	3/4 - 14 NPT/NPTF
170	44.5	28	22	1 - 11 1/2 NPT/NPTF

DIN 374

–

C/2.5–3

DIN 374

–

C/2.5–3

Art. Stock

83100	○
83127	●
83143	●
83151	●
83178	●
83186	○
83194	△

Art. Stock

83291	○
83305	●
83313	●
83321	●
83348	●
83356	○
87920	△

Bei zähen Werkstoffen wird eine konische Vorbohrung 1:16 empfohlen.
Pour les matières tenaces nous recommandons un pré-perçage conique de 1:16.
For tenacious materials we recommend a taper core hole drill 1:16.

NPT = Gewinde mit Dichtmittel nach / filetages devant recevoir une garniture d'étanchéité selon / threads with dryseal material according ANSI/ASME B1.20.1

NPTF = Gewinde ohne Dichtmittel nach / filetages ne devant pas recevoir une garniture d'étanchéité selon / threads without dryseal material according ANSI/ASME B1.20.3

D

105/3 Ultra

Speziell geeignet für G01 Baustähle <1000 N/mm², **G13** Automatenstähle, **G14** Stahlguss <1000 N/mm², **G20** Kupfer, **G22** Weichmessing (Ms 63, langspanend), **G23** Rotguss, **G24** Guss-Zinnbronze, **G25** Aluminium-Knetlegierungen

105/3 Ultra Vap

Speziell geeignet für G01 Baustähle <1000 N/mm², **G13** Automatenstähle, **G14** Stahlguss <1000 N/mm²

103/3 Ultra Vap

Speziell geeignet für G01 Baustähle <1000 N/mm², **G03** Einsatzstähle <1000 N/mm², **G05** Vergütungsstähle <1000 N/mm², **G08** Werkzeugstähle, **G12** Rostfreie Cr-Ni Stähle, austenitisch, **G13** Automatenstähle, **G14** Stahlguss <1000 N/mm²

F

105/3 Ultra

Spécialement conçu pour G01 aciers de construction <1000 N/mm², **G13** aciers de décolletage, **G14** aciers moulés <1000 N/mm², **G20** cuivre, **G22** laiton tendre (Ms 63, copeaux longs), **G23** laiton rouge, **G24** bronze au zinc, **G25** alliages corroyés d'aluminium

105/3 Ultra Vap

Spécialement conçu pour G01 aciers de construction <1000 N/mm², **G13** aciers de décolletage, **G14** aciers moulés <1000 N/mm²

103/3 Ultra Vap

Spécialement conçu pour G01 aciers de construction <1000 N/mm², **G03** aciers de cémentation <1000 N/mm², **G05** aciers d'amélioration <1000 N/mm², **G12** aciers inoxydables Cr-Ni, austénitique, **G13** aciers de décolletage, **G14** aciers moulés <1000 N/mm²

E

105/3 Ultra

Specific suitable for G01 structural steels <1000 N/mm², **G13** free-cutting steels, **G14** cast steels <1000 N/mm², **G20** copper, **G22** soft brass (MS 63, long chipping), **G23** red brass, **G24** phosphor bronze, **G25** wrought alloy of aluminium

105/3 Ultra Vap

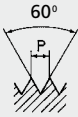
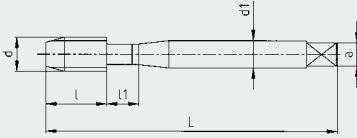
Specific suitable for G01 structural steels <1000 N/mm², **G13** free-cutting steels, **G14** cast steels <1000 N/mm²

103/3 Ultra Vap

Specific suitable for G01 structural steels <1000 N/mm², **G03** case hardening steels <1000 N/mm², **G05** heat treatable steels <1000 N/mm², **G12** Cr-Ni stainless steels, austenitic, **G13** free-cutting steels, **G14** cast steels <1000 N/mm²



DIN 374



Norm / Norme / Norm

Toleranzklasse / Classe de tolérance / Class of tolerance



L	l	d ₁	a	d P ^(TP)
80	17.5	7	5.5	1/16 - 27 NPT/NPTF
90	19	8	6.2	1/8 - 27 NPT/NPTF
100	27	11	9	1/4 - 18 NPT/NPTF
110	27	14	11	3/8 - 18 NPT/NPTF
125	35	18	14.5	1/2 - 14 NPT/NPTF
140	35	20	16	3/4 - 14 NPT/NPTF
170	44.5	28	22	1 - 11 1/2 NPT/NPTF

105/3 Ultra Vap
NPT HSS-E



DIN 374

C/2.5-3

Art. Stock

89389	○
89400	●
89419	●
89427	●
89435	●
89443	○
89451	△

105/3 Ultra Vap
NPTF HSS-E



DIN 374

C/2.5-3

Art. Stock

89397	○
89508	●
89516	●
89524	●
89532	●
89540	○
89559	△

103/3 Ultra Vap
NPT HSS-E



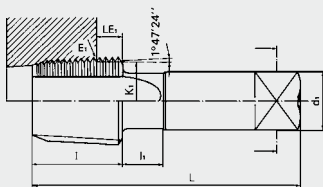
DIN 374

C/2.5-3

Art. Stock

87955	○
87963	●
87319	●
87327	●
87335	●
87343	○
87351	△

Technische Daten Informations techniques Technical datas



Rohr tube nom Ø	Steigung pas pitch G/1"e	LE1	K1				Kernloch avant-trou Ø core hole diameter NPT / NPTF
			NPT		NPTF		
			mini	maxi	mini	maxi	
1/16	27	6.3	6.387	6.509	6.414	6.505	6.3
1/8	27	7.8	8.735	8.857	8.761	8.852	8.5
1/4	18	10.5	11.357	11.513	11.397	11.483	11
3/8	18	10.5	14.796	14.952	14.836	14.922	14.5
1/2	14	13	18.323	18.485	18.333	18.419	18
3/4	14	13	23.668	23.83	23.678	23.764	23
1	11 1/2	18	29.696	29.868	29.726	29.812	29
1 1/4	11 1/2	18	38.453	38.625	38.483	38.569	38
1 1/2	11 1/2	18	44.522	44.694	44.552	44.638	44
2	11 1/2	18	56.372	56.56	56.59	56.676	56

E1 = Punkt am Beginn des Innengewindes und Lage des Gewindebohrers beim fertig geschnittenen Gewinde.

Point au début du filet intérieur et position du taraud à la fin du taraudage.

Point at the beginning of the internal thread and also final position of the tap after the cutting process.



Since 1918