



Leading Through Innovation

SOLID CARBIDE & HSS-E

YG TAP CAST IRON

HSS YG Gewindebohrer Guss

- For Cast Iron or Similar Work Materials
- Für Gusseisen oder ähnliche Werkstoffe

CARBIDE

HSS

THREAD MILL

SYNCHRO TAP

PRIME TAP

COMBO TAP

YG TAP STEEL

YG TAP CHIP BREAKER

YG TAP INOX

YG TAP CAST IRON

YG TAP HARDENED STEEL

YG TAP Ti Ni

YG TAP ALU

YG TAP FORMING

YG TAP GENERAL

PIPE TAP

STI TAP

NUT TAP

SELECTION GUIDE

THREADING TOOLS

SOLID CARBIDE & HSS-E

YG TAP

CAST IRON

For Cast Iron or Similar Work Materials

Please visit globalyg1.com/mat for material search

© : Excellent ○ : Good

Recommended cutting conditions : p.B205

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRc						
P	1	Non-alloy steel	About 0.15% C	Annealed	125	13					
	2		About 0.45% C	Annealed	190	25					
	3		About 0.45% C	Quenched & Tempered	250	28					
	4		About 0.75% C	Annealed	270	32					
	5		About 0.75% C	Quenched & Tempered	300	10					
	6	Low alloy steel		Annealed	180	29					
	7			Quenched & Tempered	275	32					
	8			Quenched & Tempered	300	38					
	9			Quenched & Tempered	350	15					
	10		High alloyed steel, and tool steel	Annealed	200	35					
	11		Quenched & Tempered	325							
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	23					
	13		Martensitic	Quenched & Tempered	240	10					
	14		Austenitic		180						
K	15	Grey cast iron	Pearlitic / ferritic		180	10	⊙	⊙	⊙	⊙	⊙
	16		Pearlitic (Martensitic)		260	3	⊙	⊙	⊙	⊙	⊙
	17	Nodular cast iron	Ferritic		160	25	⊙	⊙	⊙	⊙	⊙
	18		Pearlitic		250		○	○	○	○	○
	19	Malleable cast iron	Ferritic		130		○	○	○	○	○
	20		Pearlitic		230						
N	21	Aluminum-wrought alloy	Not Curable		60						
	22		Curable	Hardened	100						
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable		75	⊙					
	24		≤ 12% Si, Curable	Hardened	90						
	25		> 12% Si, Not Curable		130	⊙					
	26	Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%		110						
	27		CuZn, CuSnZn (Brass)		90		○	⊙	⊙	⊙	
	28		CuSn, lead-free copper and electrolytic copper		100						
	29	Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic								
	30		Rubber, Wood, etc.								
S	31	Heat Resistant Super Alloys	Fe Based	Annealed	200	15					
	32			Cured	280	25					
	33			Annealed	250	38					
	34		Ni or Co Based	Cured	350	34					
	35			Cast	320						
	36	Titanium Alloys	Pure Titanium		400 Rm						
37	Alpha + Beta Alloys		Hardened	1050 Rm							
H	38	Hardened steel		Hardened	550	55					
	39			Hardened	630	42	⊙				
	40		Chilled Cast Iron	Cast	400						
	41		Hardened Cast Iron	Hardened	550						

B196

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YG TAP
CAST IRON

T0993

SERIES

M

ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13

ISO MÉTRIQUE DIN13

ISO Metrico passo grosso DIN 13

Machine taps
Maschinengewindebohrer

► Carbide tap can increase tool life longer than HSS taps due to higher hardness. Suitable for cast iron and high silicon aluminiums.

► Der VHM-Gewindebohrer kann die Lebensdauer gegenüber HSS-Gewindebohrern erhöhen dank der größeren Härte. Geeignet für Guss und Aluminium mit hohem Siliziumanteil

DIN 371

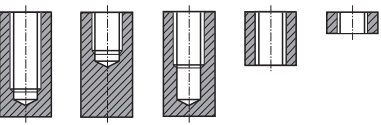


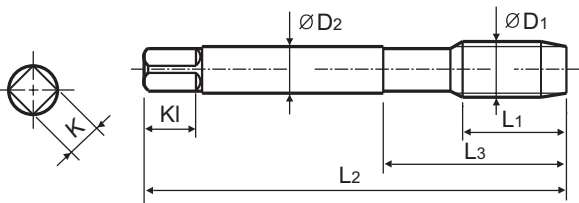
DIN 376

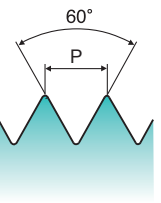


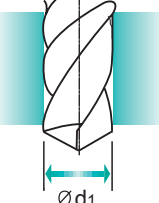
Hole type

2.0×D









Material groups

GG

CARBIDE

DIN 371/376

6HX

60°

C

Bright



p.B205

Unit : mm										
SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Bright	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3 ×0.5		T0993206	11	56	18	3.5	2.7	6	3	2.5
M3.5 ×0.6		T0993226	12	56	20	4	3	6	3	2.9
M4 ×0.7		T0993246	13	63	21	4.5	3.4	6	3	3.3
M5 ×0.8		T0993286	15	70	25	6	4.9	8	4	4.2
M6 ×1.0		T0993316	17	80	30	6	4.9	8	4	5
M8 ×1.25		T0993366	20	90	35	8	6.2	9	4	6.8
M10 ×1.5		T0993426	22	100	39	10	8	11	4	8.5
M12 ×1.75		T0993506	24	110	44	9	7	10	4	10.2
M14 ×2.0		T0993546	26	110	44	11	9	12	4	12
M16 ×2.0		T0993606	27	110	44	12	9	12	4	14
M18 ×2.5		T0993656	30	125	50	14	11	14	4	15.5
M20 ×2.5		T0993706	32	140	54	16	12	15	4	17.5

► DIN 371(M2~M10) and DIN 376(M11~M20)

© : Excellent ○ : Good										
ISO	P									
Material Description	Non-alloy steel					Low alloy steel			High alloyed steel, and tool steel	
VDI 3323	1	2	3	4	5	6	7	8	9	10
HRc	125	13	25	28	32	10	29	32	38	15
HB	190	250	270	300	300	180	275	300	350	200
Recommended										⊙
ISO	M									
Material Description	Stainless steel					Grey cast iron			Nodular cast iron	Malleable cast iron
VDI 3323	12	13	14	15	16	17	18	19	20	21
HRc	20	23	24	25	26	26	25	25	23	23
HB	180	200	210	210	210	160	160	160	130	230
Recommended						⊙	⊙	⊙	○	○
ISO	K									
Material Description	N					S			H	
VDI 3323	21	22	23	24	25	26	27	28	29	30
HRc	31	32	33	34	35	36	37	38	39	40
HB	15	30	25	38	34	400Rm	1050Rm	550	630	400
Recommended			⊙		⊙					⊙

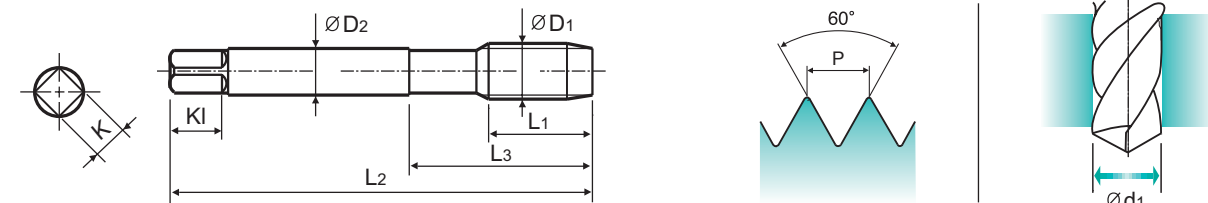
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Machine taps
Maschinengewindebohrer

► Geeignet zum Gewindeschneiden von Guss oder ähnlichen Werkstoffen



Material groups

GG

HSS-E

DIN
371/376

6HX

60°

C

TiN



p.B205

Unit : mm										
SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	TiN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2 × 0.4		TD821136	8	45	13	2.8	2.1	5	3	1.6
M2.5 × 0.45		TD821176	9	50	15	2.8	2.1	5	3	2.05
M4.5 × 0.75		TD821266	14	70	25	6	4.9	8	3	3.7
M5 × 0.8		TD821286	15	70	25	6	4.9	8	4	4.2
M6 × 1.0		TD821316	17	80	30	6	4.9	8	4	5
M7 × 1.0		TD821346	17	80	30	7	5.5	8	4	6
M8 × 1.25		TD821366	20	90	35	8	6.2	9	4	6.8
M10 × 1.5		TD821426	22	100	39	10	8	11	4	8.5
M12 × 1.75		TD821506	24	110	44	9	7	10	4	10.2
M16 × 2.0		TD821606	27	110	44	12	9	12	4	14
M18 × 2.5		TD821656	30	125	50	14	11	14	4	15.5
M20 × 2.5		TD821706	32	140	54	16	12	15	4	17.5

- ▶ DIN 371(M2~M10) and DIN 376(M11~M30)
- ▶ * DIN profile not ISO

[illegible]

CARBIDE

HSS

THREAD MILL

SYNCHRO TAP

PRIME TAP

COMBO TAP

YG TAP STEEL

YG TAP CHIP BREAKER

YG TAP INOX

YG TAP CAST IRON

YG TAP HARDENED STEEL

YG TAP Ti Ni

YG TAP ALU

YG TAP FORMING

YG TAP GENERAL

PIPE TAP

STI TAP

NUT TAP

YG TAP

CAST IRON

TE403

SERIES

MF

ISO metric fine threads DIN 13

Metrisches ISO-Feingewinde DIN 13

ISO MÉTRIQUE PAS FINS DIN13

ISO Metrico passo fine DIN 13

Machine taps

Maschinengewindebohrer

► Suitable for tapping cast iron or similar work materials due to nitriding.

► Geeignet zum Gewindeschneiden von Guss oder ähnlichen Werkstoffen dank der Nitrierung

DIN 374

Hole type

2.0×D

Material groups

GG

HSS-E

DIN 374

6HX

60°

C

Nitride

p.B205

Unit : mm

SIZE	Pitch	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1	P	Ni	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M4	× 0.5	TE403256	10	63	21	2.8	2.1	5	3	3.5
M5	× 0.5	TE403296	11	70	25	3.5	2.7	6	4	4.5
M6	× 0.75	TE403326	13	80	30	4.5	3.4	6	4	5.2
M6	× 0.5	TE403336	13	80	30	4.5	3.4	6	4	5.5
M7	× 0.75	TE403356	14	80	30	5.5	4.3	7	4	6.2
M8	× 1.0	TE403376	17	90	36	6	4.9	8	4	7
M8	× 0.75	TE403386	14	80	30	6	4.9	8	4	7.2
M10	× 1.0	TE403446	18	90	36	7	5.5	8	4	9
M10	× 0.75	TE403456	18	90	36	7	5.5	8	4	9.2
M12	× 1.25	TE403526	22	100	40	9	7	10	4	10.8
M12	× 1.0	TE403536	18	100	40	9	7	10	4	11
M14	× 1.5	TE403556	22	100	40	11	9	12	4	12.5
M18	× 1.5	TE403676	25	110	44	14	11	14	4	16.5
M20	× 1.5	TE403726	25	125	50	16	12	15	4	18.5

◎ : Excellent ○ : Good

ISO	P										M	K								
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel	Stainless steel			Grey cast iron	Nodular cast iron			Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	38	10	29	32	38	15	35	15	23	10	10	26	3	25	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended												◎	◎	◎	◎	◎	◎	◎	○	○

ISO	N										S					H					
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)					Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended																					

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YG TAP

CAST IRON

TE434

SERIES

UNC

Unified coarse threads

Unified Grobgewinde

UNC

Unificato passo grosso

Machine taps

Maschinengewindebohrer

► Suitable for tapping cast iron or similar work materials due to nitriding.

► Geeignet zum Gewindeschneiden von Guss oder ähnlichen Werkstoffen dank der Nitrierung

DIN 371

Hole type

2.0×D

DIN 376

Material groups

GG

HSS-E

DIN 371/376

2BX

60°

C

Nitride

p.B205

Unit : mm

SIZE	TPI	EDP No.	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
ØD1		Ni	L1	L2	L3	ØD2	K	Kl	Z	Ød1
#12	- 24UNC	TE434362	16	80	30	6	4.9	8	3	4.5
1/4	- 20UNC	TE434402	17	80	30	7	5.5	8	4	5.2
1/2	- 13UNC	TE434562	25	110	44	9	7	10	4	10.75
1	- 8UNC	TE434782	36	160	60	20	16	17	4	22.25

► DIN 371(#4~3/8) and DIN 376(7/16~1-1/8)

◎ : Excellent ○ : Good

ISO	P										M	K								
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel	Stainless steel			Grey cast iron	Nodular cast iron			Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	38	10	29	32	38	15	35	15	23	10	10	26	3	25	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended												◎	◎	◎	◎	◎	◎	◎	○	○

ISO	N										S					H					
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)					Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended																					

B203

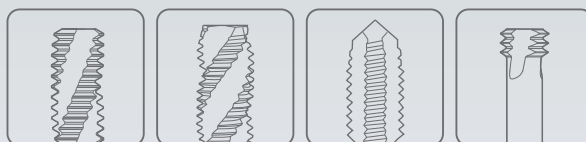
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YG

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THREADING