Leading Through Innovation

SOLID CARBIDE & HSS-E

YG TAP HARDENED

YG HAHN GEHÄRTET

- For Hardened Steels Applications to Control the Continuous and Red-glowing Chips
- Für gehärtete Stähle zur Kontrolle der kontinuierlichen und rotglühenden Späne

SELECTION GUIDE

YG THREADING TOOLS

SOLID CARBIDE & HSS-E
YG TAP HARDENED

For Hardened Steels Applications
to Control the Continuous and Red-glowing Chips

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : P.201

HOLE TYPE			Max. 2.0xD Blind / Through Hole	
TOOL MATERIAL			CARBIDE	
CHAMFER LEAD ACC. TO DIN2197			C	D
FLUTE TYPE			Straight Flute	Straight Flute
SPIRAL FLUTE ANGLE			-	-
	M	DIN371/376	T0997-TIC (P.194)	T0999-TIC (P.195)
		DIN352		
		DIN357/LONG		
	MF	DIN—374		
		DIN2181		
	UNC	DIN371/376		
		DIN351		
	UNF	DIN371/374		
		DIN2181		
	BSW	DIN2182/2183		
		DIN351		
	G(BSP)	DIN5156/5157		
	EG-M	DIN371/376		
	EG-UNC	DIN371/376		
	EG-UNF	DIN371/374		
SURFACE TREATMENT			TiCN	TiCN
MODEL				

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRc		
P	1	Non-alloy steel	About 0.15% C	Annealed	125			
	2		About 0.45% C	Annealed	190	13		
	3		About 0.45% C	Quenched & Tempered	250	25		
	4		About 0.75% C	Annealed	270	28		
	5		About 0.75% C	Quenched & Tempered	300	32		
	6	Low alloy steel		Annealed	180	10		
	7			Quenched & Tempered	275	29		
	8			Quenched & Tempered	300	32		
	9			Quenched & Tempered	350	38	○	○
	10	High alloyed steel, and tool steel		Annealed	200	15		
	11			Quenched & Tempered	325	35		
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15		
	13		Martensitic	Quenched & Tempered	240	23		
	14		Austenitic		180	10		
K	15	Grey cast iron	Pearlitic / ferritic		180	10		
	16		Pearlitic (Martensitic)		260	26		
	17	Nodular cast iron	Ferritic		160	3		
	18		Pearlitic		250	25		
	19	Malleable cast iron	Ferritic		130			
	20		Pearlitic		230	21		
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	30		
	33		Ni or Co Based	Annealed	250	25		
	34			Cured	350	38		
	35			Cast	320	34		
	36	Titanium Alloys	Pure Titanium		400 Rm			
	37		Alpha + Beta Alloys	Hardened	1050 Rm			
H	38	Hardened steel		Hardened	550	55	◎	◎
	39			Hardened	630	60	◎	◎
	40	Chilled Cast Iron		Cast	400	42	◎	◎
	41	Hardened Cast Iron		Hardened	550	55	◎	◎

	Max. 2.5xD Blind Hole			Max. 3.0xD Through Hole	
	HSS-E			HSS-E	
	C	C	C	B	B
	Spiral Flute	Spiral Flute	Spiral Flute	Spiral Point	Spiral Point
	R40	R40	R40	-	-
	TC313 (P.196)	TB313 (P.197)	TY313 (P.198)	TC283 (P.199)	TY283 (P.200)
M					
MF					
UNC					
UNF					
BSW					
G(BSP)					
EG-M					
EG-UNC					
EG-UNF					
	Bright	VAP	TiAlN	Bright	TiAlN
1					
2					
3					
4					
5					
6					
7	○	○	○	○	○
8	○	○	○	○	○
9	◎	◎	◎	◎	◎
10					
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14	○	○	○	○	○
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41					

CARBIDE
HSS
THREAD MILLS
SYNCHRO TAPS
COMBO TAPS
YG TAP GENERAL
YG TAP STEEL
YG TAP HARDENED
YG TAP INOX
YG TAP CAST IRON
YG TAP ALU
YG TAP Ti Ni
YG TAP FORMING
NUT TAPS
STI TAPS
PIPE TAPS
TECHNICAL DATA

YG TAP HARDENED

T0997-TIC SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

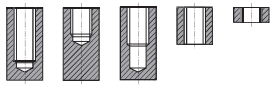
▶ Carbide tap can increase tool life longer than HSS taps due to higher hardness. Suitable for hardened steels (HRc50~60)

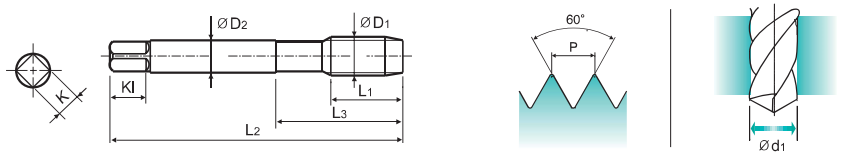
▶ VHM-Gewindebohrer ermöglichen aufgrund ihrer höheren Härte bessere Standzeiten als HSS-Gewindebohrer. Geeignet für gehärtete Stähle (HRc50~60)

DIN 371

DIN 376

Hole type
2.0×D





Material groups **HR** | CARBIDE | DIN 371/376 | 6HX | 60° | C | TiCN

Machine taps
Maschinengewindebohrer

Recommended Cutting Page : P.201

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	TiCN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3	× 0.5	T0997206TIC	11	56	18	3.5	2.7	6	4	2.55
M4	× 0.7	T0997246TIC	13	63	21	4.5	3.4	6	4	3.4
M5	× 0.8	T0997286TIC	15	70	25	6	4.9	8	4	4.3
M6	× 1	T0997316TIC	17	80	30	6	4.9	8	5	5.1
M8	× 1.25	T0997366TIC	20	90	35	8	6.2	9	5	6.9
M10	× 1.5	T0997426TIC	22	100	39	10	8	11	5	8.6
M12	× 1.75	T0997506TIC	24	110	–	9	7	12	5	10.4
M14	× 2	T0997546TIC	26	110	–	11	9	12	6	12.2
M16	× 2	T0997606TIC	27	110	–	12	9	12	6	14.2
M18	× 2.5	T0997656TIC	30	125	–	14	11	14	6	15.7
M20	× 2.5	T0997706TIC	32	140	–	16	12	15	6	17.7

▶DIN 371(M3~M10) and DIN 376(M12~M20)

◎ : 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	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)			Non Metallic Materials		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																		◎	◎	◎	◎

YG TAP HARDENED

T0999-TIC SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

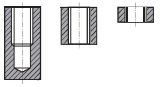
▶ Carbide tap can increase tool life longer than HSS taps due to higher hardness. Suitable for hardened steels (HRc50~60)

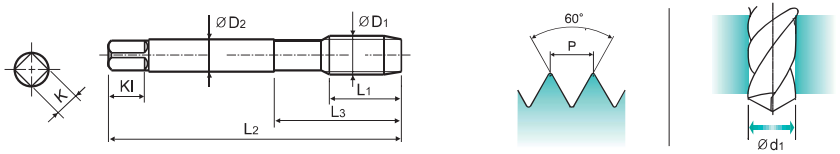
▶ VHM-Gewindebohrer ermöglichen aufgrund ihrer höheren Härte bessere Standzeiten als HSS-Gewindebohrer. Geeignet für gehärtete Stähle (HRc50~60)

DIN 371

DIN 376

Hole type
2.0×D





Material groups **HR** | CARBIDE | DIN 371/376 | 6HX | 60° | D | TiCN

Machine taps
Maschinengewindebohrer

Recommended Cutting Page : P.201

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	TiCN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M3	× 0.5	T0999206TIC	11	56	18	3.5	2.7	6	4	2.55
M4	× 0.7	T0999246TIC	13	63	21	4.5	3.4	6	4	3.4
M5	× 0.8	T0999286TIC	15	70	25	6	4.9	8	4	4.3
M6	× 1	T0999316TIC	17	80	30	6	4.9	8	5	5.1
M8	× 1.25	T0999366TIC	20	90	35	8	6.2	9	5	6.9
M10	× 1.5	T0999426TIC	22	100	39	10	8	11	5	8.6
M12	× 1.75	T0999506TIC	24	110	–	9	7	12	5	10.4
M14	× 2	T0999546TIC	26	110	–	11	9	12	6	12.2
M16	× 2	T0999606TIC	27	110	–	12	9	12	6	14.2
M18	× 2.5	T0999656TIC	30	125	–	14	11	14	6	15.7
M20	× 2.5	T0999706TIC	32	140	–	16	12	15	6	17.7

▶DIN 371(M3~M10) and DIN 376(M12~M20)

◎ : 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	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)			Non Metallic Materials		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																		◎	◎	◎	◎

CARBIDE
HSS
THREAD MILLS
SYNCHRO TAPS
COMBO TAPS
YG TAP GENERAL
YG TAP STEEL
YG TAP HARDENED
YG TAP INOX
YG TAP CAST IRON
YG TAP ALU
YG TAP Ti Ni
YG TAP FORMING
NUT TAPS
STI TAPS
PIPE TAPS
TECHNICAL DATA

YG TAP HARDENED

TC313 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

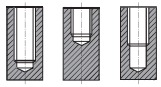
▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

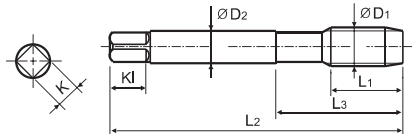
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

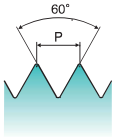
DIN 371

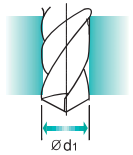
DIN 376

Hole type
2.5×D









Material groups **HR** | HSS-E | DIN 371/376 | 6H | 60° | C | Bright | R40

Machine taps
Maschinengewindebohrer

Recommended Cutting Page : P.201

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
M2	× 0.4	TC313136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TC313156	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	TC313196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TC313176	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	TC313496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TC313206	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TC313226	7	56	20	4	3	6	3	2.9
M4	× 0.7	TC313246	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TC313266	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	TC313286	8	70	25	6	4.9	8	3	4.2
M6	× 1	TC313316	10	80	30	6	4.9	8	3	5
M7	× 1	TC313346	10	80	30	7	5.5	8	3	6
M8	× 1.25	TC313366	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	TC313396	13	90	35	9	7	10	3	7.8
M10	× 1.5	TC313426	15	100	39	10	8	11	3	8.5
M11	× 1.5	TC313466	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	TC313506	18	110	44	9	7	10	3	10.2
M14	× 2	TC313546	20	110	44	11	9	12	3	12
M16	× 2	TC313606	20	110	44	12	9	12	3	14
M18	× 2.5	TC313656	25	125	50	14	11	14	4	15.5
M20	× 2.5	TC313706	25	140	54	16	12	15	4	17.5
M22	× 2.5	TC313746	25	140	54	18	14.5	17	4	19.5
M24	× 3	TC313786	30	160	60	18	14.5	17	4	21
M27	× 3	TC313866	30	160	60	20	16	19	4	24
M30	× 3.5	TC313946	35	180	70	22	18	21	4	26.5

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

◎ : 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	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)			Non Metallic Materials		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						○															

YG TAP HARDENED

TB313 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

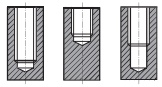
▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

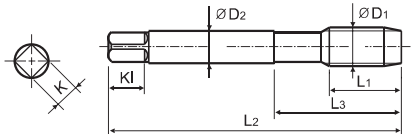
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

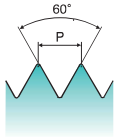
DIN 371

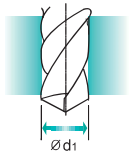
DIN 376

Hole type
2.5×D









Material groups **HR** | HSS-E | DIN 371/376 | 6H | 60° | C | Vap | R40

Machine taps
Maschinengewindebohrer

Recommended Cutting Page : P.201

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	Vap	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	TB313136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TB313156	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	TB313196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TB313176	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	TB313496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TB313206	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TB313226	7	56	20	4	3	6	3	2.9
M4	× 0.7	TB313246	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TB313266	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	TB313286	8	70	25	6	4.9	8	3	4.2
M6	× 1	TB313316	10	80	30	6	4.9	8	3	5
M7	× 1	TB313346	10	80	30	7	5.5	8	3	6
M8	× 1.25	TB313366	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	TB313396	13	90	35	9	7	10	3	7.8
M10	× 1.5	TB313426	15	100	39	10	8	11	3	8.5
M11	× 1.5	TB313466	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	TB313506	18	110	44	9	7	10	3	10.2
M14	× 2	TB313546	20	110	44	11	9	12	3	12
M16	× 2	TB313606	20	110	44	12	9	12	3	14
M18	× 2.5	TB313656	25	125	50	14	11	14	4	15.5
M20	× 2.5	TB313706	25	140	54	16	12	15	4	17.5
M22	× 2.5	TB313746	25	140	54	18	14.5	17	4	19.5
M24	× 3	TB313786	30	160	60	18	14.5	17	4	21
M27	× 3	TB313866	30	160	60	20	16	19	4	24
M30	× 3.5	TB313946	35	180	70	22	18	21	4	26.5

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

◎ : 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	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)			Non Metallic Materials		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						○															

CARBIDE
HSS
THREAD MILLS
SYNCHRO TAPS
COMBO TAPS
YG TAP GENERAL
YG TAP STEEL
YG TAP HARDENED
YG TAP INOX
YG TAP CAST IRON
YG TAP ALU
YG TAP Ti Ni
YG TAP FORMING
NUT TAPS
STI TAPS
PIPE TAPS
TECHNICAL DATA

YG TAP HARDENED

TY313 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

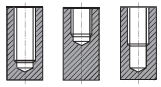
▶ Suitable for tapping blind holes due to special flute geometry and excellent chip evacuation.

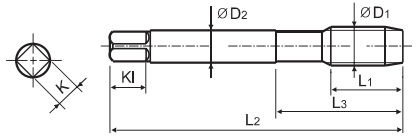
▶ Geeignet zum Gewinden von Sacklöchern dank besonderer Nutengeometrie und ausgezeichneter Spanabfuhr.

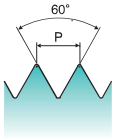
DIN 371

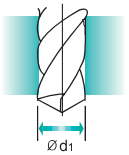
DIN 376

Hole type
2.5×D









Material groups **HR** | HSS-E | DIN 371/376 | 6H | 60° | C | TiAlN | R40

Machine taps
Maschinengewindebohrer

Recommended Cutting Page : P.201

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	TiAlN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	TY313136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TY313156	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	TY313196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TY313176	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	TY313496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TY313206	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TY313226	7	56	20	4	3	6	3	2.9
M4	× 0.7	TY313246	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TY313266	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	TY313286	8	70	25	6	4.9	8	3	4.2
M6	× 1	TY313316	10	80	30	6	4.9	8	3	5
M7	× 1	TY313346	10	80	30	7	5.5	8	3	6
M8	× 1.25	TY313366	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	TY313396	13	90	35	9	7	10	3	7.8
M10	× 1.5	TY313426	15	100	39	10	8	11	3	8.5
M11	× 1.5	TY313466	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	TY313506	18	110	44	9	7	10	3	10.2
M14	× 2	TY313546	20	110	44	11	9	12	3	12
M16	× 2	TY313606	20	110	44	12	9	12	3	14
M18	× 2.5	TY313656	25	125	50	14	11	14	4	15.5
M20	× 2.5	TY313706	25	140	54	16	12	15	4	17.5
M22	× 2.5	TY313746	25	140	54	18	14.5	17	4	19.5
M24	× 3	TY313786	30	160	60	18	14.5	17	4	21
M27	× 3	TY313866	30	160	60	20	16	19	4	24
M30	× 3.5	TY313946	35	180	70	22	18	21	4	26.5

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

◎ : 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	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)			Non Metallic Materials		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						○															

YG TAP HARDENED

TC283 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

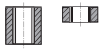
▶ Suitable for through hole in more cutting speed than other taps due to thick web.

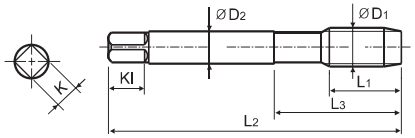
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

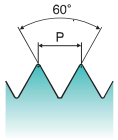
DIN 371

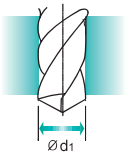
DIN 376

Hole type
3.0×D









Material groups **HR** | HSS-E | DIN 371/376 | 6H | 60° | B | Bright

Machine taps
Maschinengewindebohrer

Recommended Cutting Page : P.201

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
M2	× 0.4	TC283136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TC283156	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	TC283196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TC283176	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	TC283496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TC283206	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TC283226	12	56	20	4	3	6	3	2.9
M4	× 0.7	TC283246	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TC283266	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	TC283286	15	70	25	6	4.9	8	3	4.2
M6	× 1	TC283316	17	80	30	6	4.9	8	3	5
M7	× 1	TC283346	17	80	30	7	5.5	8	3	6
M8	× 1.25	TC283366	20	90	35	8	6.2	9	3	6.8
M9	× 1.25	TC283396	20	90	35	9	7	10	3	7.8
M10	× 1.5	TC283426	22	100	39	10	8	11	3	8.5
M11	× 1.5	TC283466	22	100	40	8	6.2	9	3	9.5
M12	× 1.75	TC283506	24	110	44	9	7	10	3	10.2
M14	× 2	TC283546	26	110	44	11	9	12	3	12
M16	× 2	TC283606	27	110	44	12	9	12	3	14
M18	× 2.5	TC283656	30	125	50	14	11	14	4	15.5
M20	× 2.5	TC283706	32	140	54	16	12	15	4	17.5
M22	× 2.5	TC283746	32	140	54	18	14.5	17	4	19.5
M24	× 3	TC283786	34	160	60	18	14.5	17	4	21
M27	× 3	TC283866	36	160	60	20	16	19	4	24
M30	× 3.5	TC283946	40	180	70	22	18	21	4	26.5

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

◎ : 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	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)			Non Metallic Materials		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						○															

CARBIDE
HSS
THREAD MILLS
SYNCHRO TAPS
COMBO TAPS
YG TAP GENERAL
YG TAP STEEL
YG TAP HARDENED
YG TAP INOX
YG TAP CAST IRON
YG TAP ALU
YG TAP Ti Ni
YG TAP FORMING
NUT TAPS
STI TAPS
PIPE TAPS
TECHNICAL DATA

YG TAP HARDENED

TY283 SERIES

M ISO metric coarse threads DIN 13

Metrisches ISO-Gewinde DIN 13
ISO MÉTRIQUE DIN13
ISO Metrico passo grosso DIN 13

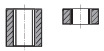
▶ Suitable for through hole in more cutting speed than other taps due to thick web.

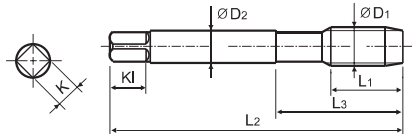
▶ Geeignet für Durchgangslöcher in höherer Schnittgeschwindigkeit als bei anderen Gewindebohrern dank größerer Kerndicke.

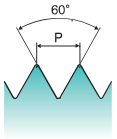
DIN 371

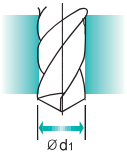
DIN 376

Hole type
3.0×D









Material groups **HR** | HSS-E | DIN 371/376 | 6H | 60° | B | TiAlN

Machine taps
Maschinengewindebohrer

Recommended Cutting Page : P.201

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	TiAlN	L1	L2	L3	ØD2	K	Kl	Z	Ød1
M2	× 0.4	TY283136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TY283156	8	45	13	2.8	2.1	5	3	1.75
*M2.3	× 0.4	TY283196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TY283176	9	50	15	2.8	2.1	5	3	2.05
*M2.6	× 0.45	TY283496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TY283206	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TY283226	12	56	20	4	3	6	3	2.9
M4	× 0.7	TY283246	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TY283266	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	TY283286	15	70	25	6	4.9	8	3	4.2
M6	× 1	TY283316	17	80	30	6	4.9	8	3	5
M7	× 1	TY283346	17	80	30	7	5.5	8	3	6
M8	× 1.25	TY283366	20	90	35	8	6.2	9	3	6.8
M9	× 1.25	TY283396	20	90	35	9	7	10	3	7.8
M10	× 1.5	TY283426	22	100	39	10	8	11	3	8.5
M11	× 1.5	TY283466	22	100	40	8	6.2	9	3	9.5
M12	× 1.75	TY283506	24	110	44	9	7	10	3	10.2
M14	× 2	TY283546	26	110	44	11	9	12	3	12
M16	× 2	TY283606	27	110	44	12	9	12	3	14
M18	× 2.5	TY283656	30	125	50	14	11	14	4	15.5
M20	× 2.5	TY283706	32	140	54	16	12	15	4	17.5
M22	× 2.5	TY283746	32	140	54	18	14.5	17	4	19.5
M24	× 3	TY283786	34	160	60	18	14.5	17	4	21
M27	× 3	TY283866	36	160	60	20	16	19	4	24
M30	× 3.5	TY283946	40	180	70	22	18	21	4	26.5

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

◎ : 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	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)			Non Metallic Materials		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						○															

YG TAP HARDENED

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

ISO	VDI 3323	Material Description	HB	HRc	T0997-TIC	T0999-TIC	TC313 TB313 TY313	TC283 TY283
					Vc (m/min)			
P	1	Non-alloy steel	125					
	2		190	13				
	3		250	25				
	4		270	28				
	5		300	32				
	6	Low alloy steel	180	10				
	7		275	29			10-15	10-15
	8		300	32			6-10	6-10
	9		350	38	5-8	5-8	3-5	3-5
	10	High alloyed steel, and tool steel	200	15				
	11		325	35				
M	12	Stainless steel	200	15				
	13		240	23				
	14		180	10			4-6	4-6
K	15	Grey cast iron	180	10				
	16		260	26				
	17	Nodular cast iron	160	3				
	18		250	25				
	19	Malleable cast iron	130					
	20		230	21				
N	21	Aluminum-wrought alloy	60					
	22		100					
	23	Aluminum-cast, alloyed	75					
	24		90					
	25		130					
	26	Copper and Copper Alloys (Bronze / Brass)	110				25-35	25-35
	27		90					
	28		100					
	29	Non Metallic Materials						
	30							
S	31	Heat Resistant Super Alloys	200	15				
	32		280	30				
	33		250	25				
	34		350	38				
	35		320	34				
	36	Titanium Alloys	400 Rm					
	37		1050 Rm					
H	38	Hardened steel	550	55	3-7	3-7		
	39		630	60	3-7	3-7		
	40	Chilled Cast Iron	400	42	3-7	3-7		
	41	Hardened Cast Iron	550	55	3-7	3-7		

CARBIDE
HSS
THREAD MILLS
SYNCHRO TAPS
COMBO TAPS
YG TAP GENERAL
YG TAP STEEL
YG TAP HARDENED
YG TAP INOX
YG TAP CAST IRON
YG TAP ALU
YG TAP Ti Ni
YG TAP FORMING
NUT TAPS
STI TAPS
PIPE TAPS
TECHNICAL DATA