



Leading Through Innovation

SOLID CARBIDE & HSS-E

YG TAP HARDENED

YG GEWINDEBOHRER FÜR GEHÄRTET

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

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



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.B217

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.B212)	TB313 (p.B213)	TY313 (p.B214)	TC283 (p.B215)	TY283 (p.B216)	M
					MF
					UNC
					UNF
					BSW
					G(BSP)
					EG-M
					EG-UNC
					EG-UNF
Bright	VAP	TiAIN	Bright	TiAIN	
					1
					2
					3
					4
					5
					6
○	○	○	○	○	7
○	○	○	○	○	8
◎	◎	◎	◎	◎	9
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CARBIDE

HSS

THREAD MILL

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PRIME TAP

COMBO TAP

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PIPE TAP

STI TAP

NUT TAP



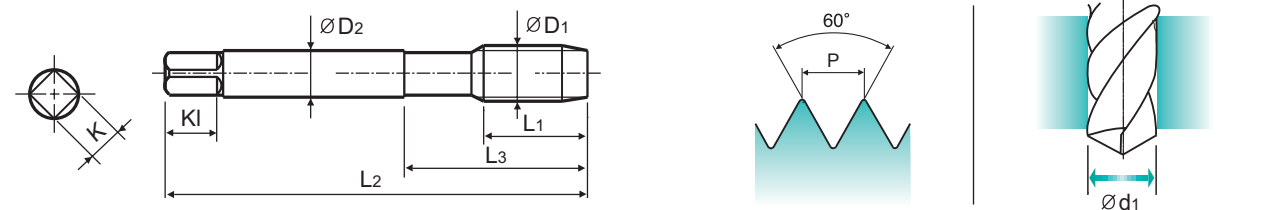
T0997-TIC SERIES

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)



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	× 1.0	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	× 2.0	T0997546TIC	26	110	—	11	9	12	6	12.2
M16	× 2.0	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)

ISO	P										M					K				
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	125	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21	
HB	190	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				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400
Recommended																				



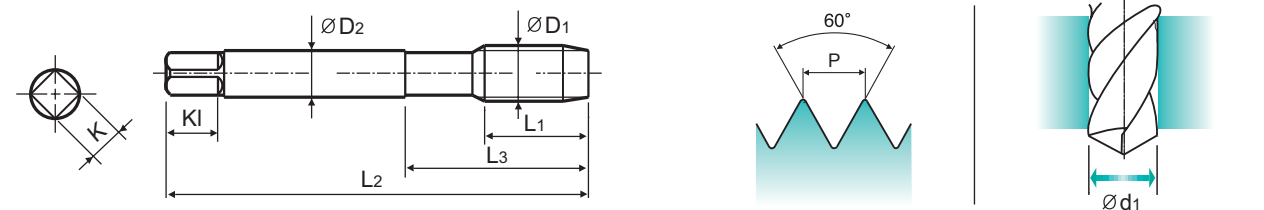
T0999-TIC SERIES

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)



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	× 1.0	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	× 2.0	T0999546TIC	26	110	—	11	9	12	6	12.2
M16	× 2.0	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)

ISO	P										M					K				
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	125	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21	
HB	190	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				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400
Recommended																				

CARBIDE

HSS

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

Machine taps
Maschinengewindebohrer

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

60°

P

Ø d1

ØD2

ØD1

KI

L1

L2

L3

60°

P

Ø d1

Material groups

HR

HSS-E

DIN 371/376

6H

60°

C

R40

TiAlN

p.B217

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	KI	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
M2.5	× 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	× 1.0	TY313316	10	80	30	6	4.9	8	3	5
M7	× 1.0	TY313346	10	80	30	7	5.5	8	3	6
M8	× 1.25	TY313366	13	90	35	8	6.2	9	3	6.8
M10	× 1.5	TY313426	15	100	39	10	8	11	3	8.5
M12	× 1.75	TY313506	18	110	44	9	7	10	3	10.2
M14	× 2.0	TY313546	20	110	44	11	9	12	3	12
M16	× 2.0	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
M24	× 3.0	TY313786	30	160	60	18	14.5	17	4	21
M30	× 3.5	TY313946	35	180	70	22	18	21	4	26.5

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(M2~M10) and DIN 376(M11~M30)

* DIN profile not ISO

ISO

Material Description

VDI 3323

HRC

HB

Recommended

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

ISO

Material Description

VDI 3323

HRC

HB

Recommended

N										S						H					
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	
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
15	30	25	38	34	15	30	25	38	34	15	30	25	38	34	400Rm	1050Rm	550	630	400	550	
60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	
						○															

◎ : Excellent ○ : Good

B214

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YG-1 CO., LTD.

CARBIDE

HSS

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

Machine taps
Maschinengewindebohrer

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

60°

P

Ø d1

ØD2

ØD1

KI

L1

L2

L3

60°

P

Ø d1

Material groups

HR

HSS-E

DIN 371/376

6H

60°

B

Bright

p.B217

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	KI	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
M2.5	× 0.45	TC283176	9	50	15	2.8	2.1	5	3	2.05
M3	× 0.5	TC283206	11	56	18	3.5	2.7	6	3	2.5
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	× 1.0	TC283316	17	80	30	6	4.9	8	3	5
M7	× 1.0	TC283346	17	80	30	7	5.5	8	3	6
M8	× 1.25	TC283366	20	90	35	8	6.2	9	3	6.8
M10	× 1.5	TC283426	22	100	39	10	8	11	3	8.5
M12	× 1.75	TC283506	24	110	44	9	7	10	3	10.2
M14	× 2.0	TC283546	26	110	44	11	9	12	3	12
M16	× 2.0	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	× 3.0	TC283786	34	160	60	18	14.5	17	4	21
M27	× 3.0	TC283866	36	160	60	20	16	19	4	24
M30	× 3.5	TC283946	40	180	70	22	18	21	4	26.5

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(M2~M10) and DIN 376(M11~M30)

* DIN profile not ISO

ISO

Material Description

VDI 3323

HRC

HB

Recommended

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

ISO

Material Description

VDI 3323

HRC

HB

Recommended

N										S						H					
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	
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
15	30	25	38	34	15	30	25	38	34	15	30	25	38	34	400Rm	1050Rm	550	630	400	550	
60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	
						○															

◎ : Excellent ○ : Good

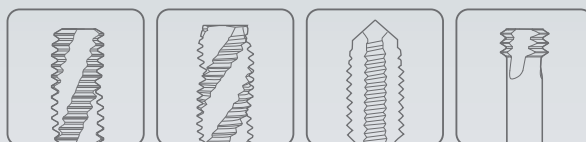
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YG-1 CO., LTD.



Global Cutting Tool Leader **YG-1**



THREADING