



YG Combo^{TAP}

HSS-E, HSS-PM TAPS FOR MULTI-PURPOSE

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YG1YECT190119005

Combo Tap's geometry provides enough flute space resulting in smooth chip evacuation and therefore a continuous production process. Guarantee a high level of process reliability even under unfavorable conditions.

- ▶ For Steels, Stainless Steels, Cast Iron and Non-Ferrous Materials
- ▶ Prevents over & under feeding by its optimized flank geometry
- ▶ Constant threading quality preventing oversized threading



TEST RESULT AGAINST COMPETITOR'S TAP COMBO TAP for Multi-Purpose

▶TEST 1 - M8 x 1.25 (TC804366)

Cutting Condition	
Work Material	Carbon Steel DIN: C45 WR: 1.0503 JIS: S45C
Tapping Depth	20 mm
Coolant	Water Soluble Oil
Tapping Speed	10.0 m/min.

YG-1



Surface Roughness of Work Piece

▲ Total Tapping 204 Holes

COMPETITOR A



▲ Total Tapping 159 Holes

COMPETITOR B



▲ Total Tapping 204 Holes

▶TEST 2 - M10 x 1.5 (TC804426)

Cutting Condition	
Work Material	Carbon Steel DIN: C45 WR: 1.0503 JIS: S45C
Tapping Depth	25 mm
Coolant	Water Soluble Oil
Tapping Speed	10.0 m/min.

YG-1



Surface Roughness of Work Piece

▲ Total Tapping 216 Holes

COMPETITOR A



▲ Total Tapping 99 Holes

COMPETITOR B



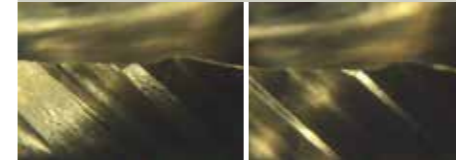
▲ Total Tapping 196 Holes

COMBO TAP for Stainless Steels

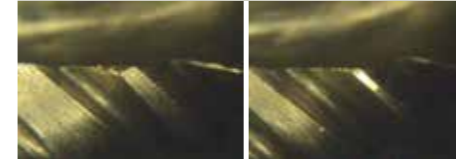
▶TEST 1 - M4 x 0.7 (TQ744246)

Cutting Condition	
Work Material	Stainless Steel DIN: X5CrNi18 10 (X4CrNi18-10) WR: 1.4303 JIS: SUS304
Tapping Depth	10 mm
Coolant	Wet Cut
Tapping Speed	8 m/min.

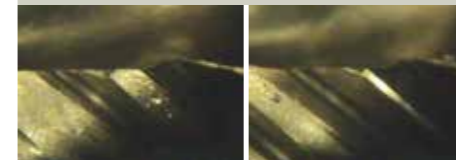
YG-1 (Total Tapping 170 Holes)



YG-1 (Total Tapping 170 Holes)



COMPETITOR A (Total Tapping 170 Holes)



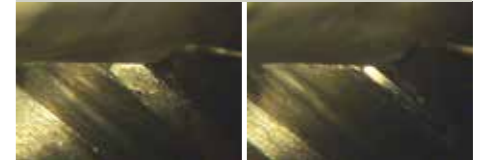
COMPETITOR B

Tool broke after 83 holes tapping

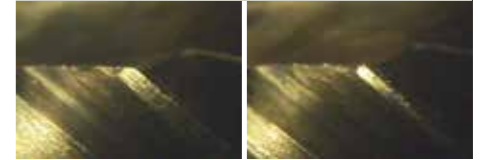
▶TEST 2 - M6 x 1.0 (TQ744316)

Cutting Condition	
Work Material	Stainless Steel DIN: X5CrNi18 10 (X4CrNi18-10) WR: 1.4303 JIS: SUS304
Tapping Depth	15 mm
Coolant	Wet Cut
Tapping Speed	8 m/min.

YG-1 (Total Tapping 230 Holes)



YG-1 (Total Tapping 230 Holes)



COMPETITOR A

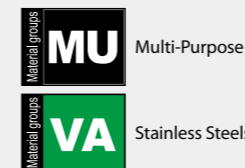
Tool broke after 92 holes tapping

COMPETITOR B

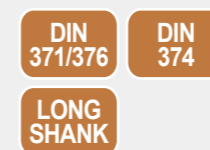
Tool broke after 98 holes tapping

GUIDE LINE TO ICONS

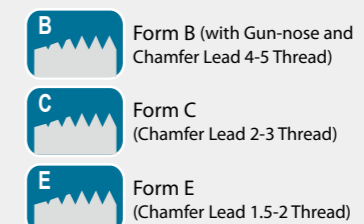
Working Material



Standard of Tools



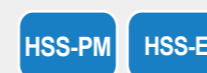
Chamfer Lead



Thread Angle



Tool Raw Material



Class of Thread



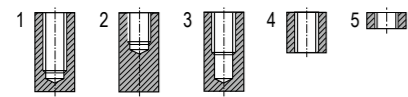
Surface Treatment



Helix Angle



MACHINE TAPS RECOMMENDATION TABLE



MATERIAL GROUPS	MU	MU	MU	MU
SERIES	TBE05 TCE05 TDE05	TB804 TC804 TD804	TBE06 TCE06 TDE06	TBE07 TCE07 TDE07
FLUTE TYPE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE
PAGE	8	9	10	11
TAP MATERIALS	HSS-E	HSS-E	HSS-E	HSS-E
STANDARD	M	M	M	M
DIMENSIONS	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376
TOLERANCE	ISO 1/4H	ISO 2/6H	6H+0.1	ISO 3/6G
SPIRAL FLUTE ANGLE	R40	R40	R40	R40
CHAMFER	C	C	C	C
THREAD DEPTH	2.5D	2.5D	2.5D	2.5D
SURFACE TREATMENT	Vap Bright TiN	Vap Bright TiN	Vap Bright TiN	Vap Bright TiN
HOLE TYPE	1-2-3	1-2-3	1-2-3	1-2-3

Combo TAP
HSS-E, HSS-PM TAPS FOR MULTI-PURPOSE

USE
 ◎ = EXCELLENT
 ○ = GOOD

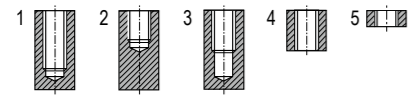
MATERIAL GROUPS	LIST OF MATERIALS	N/mm ²	HB	m/min.	TENSILE STRENGTH	HARDNESS	CUTTING SPEED
10. STEELS	11 Steel	Magnetic Soft Steels	< 400	< 120	15-20	◎	◎
	12 Steel	Structure Steels	< 700	< 200	15-20	◎	◎
	13 Steel	Plain Carbon Steels	< 850	< 250	12-18	◎	◎
	14 St. Alloy	Alloy Steels	< 850	< 250	10-15	◎	◎
	15 St. Alloy	Alloy Steels, Hardened Steels	≤1,200	< 350	6-10	◎	◎
	16 St. Alloy	Alloy Steels, Hardened Steels	> 1,200	> 350	3-5	◎	◎
20. STAINLESS STEELS	21 INOX Free	Free Machining	< 850	< 250	7-10	◎	◎
	22 INOX Aust.	Austenitic	< 850	< 250	5-8	◎	◎
	23 INOX	Ferritic, Ferritic+Austenitic, Martensitic	< 1,000	< 300	4-6	◎	◎
30. CAST IRON	31 GG cast	Grey Cast Iron	< 500	< 150	10-15	◎	◎
	32 GG cast	Grey Cast Iron	< 1,000	< 300	5-8	◎	◎
	33 GGG cast	Nodular Graphite, Malleable Cast Iron	< 700	< 200	10-15	◎	◎
	34 GGG cast	Nodular Graphite, Malleable Cast Iron	< 1,000	< 300	5-8	◎	◎
40. TITANIUM	41 Ti	Titanium, Unalloyed	< 700	< 200	10-15		
	42 Ti Alloy	Titanium, Alloyed	< 900	< 270	8-12		
	43 Ti Alloy	Titanium, Alloyed	≤1,300	< 350	4-6		
50. NICKEL	51 Ni	Nickel, Unalloyed	< 500	< 150	8-12		
	52 Ni Alloy	Nickel, Alloyed	< 900	< 270	10-15		
	53 Ni Alloy	Nickel, Alloyed	≤1,400	< 410	2-4		
60. COPPER, BRASS, BRONZE	61 Cu	Copper, Unalloyed	< 350	< 100	8-12	◎	◎
	62 Cu Alloy (Short)	Short chip Brass, Bronze, Copper	< 700	< 200	25-35	◎	◎
	63 Cu Alloy (Long)	Long chip Brass, Bronze, Copper	< 700	< 200	15-20	◎	◎
	64 Cu-Al-Fe	Cu-Al-Fe Alloys	< 1,500	< 470	3-5		
70. ALUMINUM	71 Al / Mg	Aluminum, Magnesium, Unalloyed	< 350	< 100	10-15		
	72 Al Wrought	Aluminum, Alloyed, Si < 1.5%	< 500	< 150	25-35	◎	◎
	73 Al (Si ≤ 10%)	Aluminum, Alloyed, Si ≤ 10%	< 400	< 120	15-20	◎	◎
	74 Al (Si > 10%)	Aluminum, Alloyed, Si > 10%	< 400	< 120	10-15	◎	◎
80. PLASTICS	81 Thermosoft	Thermoplastics			20-30		
	82 Thermoset	Thermosetting Plastics			8-12		
	83 FRP	Fiber Reinforced Plastics			5-7		

MU	MU	MU	MU	MU	MU	VA	VA	MU	MU	MU	MU
TBE08 TCE08 TDE08	TB844 TC844 TD844	TCE09 TDE09	TC814-IC	TC807	TC633	TQ744 TB744	TQ754 TB754	TB824 TC824 TD824	TCE01 TDE01	TB864 TC864 TD864	TCE02 TDE02
SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE	SPIRAL FLUTE
12	13	15	17	18	19	20	21	23	24	25	26
HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-PM HSS-E	HSS-PM HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
M	MF	MF	M	M	M	M	MF	UNC	UNC	UNF	UNF
DIN 371/376	DIN 374	DIN 374	DIN 371/376	DIN 371/376	LONG SHANK	DIN 371/376	DIN 374	DIN 371/376	DIN 371/376	DIN 371/374	DIN 371/374
7G	ISO 2/6H	ISO 3/6G	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	2B	3B	2B	3B
R40	R40	R40	R40	R40	R40	R45	R45	R40	R40	R40	R40
C	C	C	C	E	C	C	C	C	C	C	C
2.5D	2.5D	2.5D	2.5D	2.5D	2.5D	2.5D	2.5D	2.5D	2.5D	2.5D	2.5D
Vap Bright TiN	Vap Bright TiN	Bright TiN	Bright	Bright	Bright	Vap	Vap	Vap Bright TiN	Bright TiN	Vap Bright TiN	Bright TiN
1-2-3	1-2-3	1-2-3	1-2-3	1-2-3	1-2-3	1-2-3	1-2-3	1-2-3	1-2-3	1-2-3	1-2-3



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**MACHINE TAPS
RECOMMENDATION TABLE**



MATERIAL GROUPS	MU	MU	MU	MU
SERIES	TBJ05 TCJ05 TDJ05	TB814 TC814 TD814	TBJ06 TCJ06 TDJ06	TBJ07 TCJ07 TDJ07
FLUTE TYPE	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT
PAGE	27	28	29	30
TAP MATERIALS	HSS-E	HSS-E	HSS-E	HSS-E
STANDARD	M	M	M	M
DIMENSIONS	DIN 371/376	DIN 371/376	DIN 371/376	DIN 371/376
TOLERANCE	ISO 1/4H	ISO 2/6H	6H+0.1	ISO 3/6G
SPIRAL FLUTE ANGLE	-	-	-	-
CHAMFER	B	B	B	B
THREAD DEPTH	3.0D	3.0D	3.0D	3.0D
SURFACE TREATMENT	Vap Bright TiN	Vap Bright TiN	Vap Bright TiN	Vap Bright TiN
SOLE TYPE	4-5	4-5	4-5	4-5

Combo TAP

HSS-E, HSS-PM TAPS FOR MULTI-PURPOSE

USE

- ⊙ = EXCELLENT
- = GOOD

MATERIAL GROUPS	LIST OF MATERIALS	N/mm ²	HB	m/min.	TENSILE STRENGTH	HARDNESS	CUTTING SPEED	T1	T2	T3	T4
10. STEELS	11 Steel	Magnetic Soft Steels	< 400	< 120	15-20	⊙	⊙	⊙	⊙		
	12 Steel	Structure Steels	< 700	< 200	15-20	⊙	⊙	⊙	⊙		
	13 Steel	Plain Carbon Steels	< 850	< 250	12-18	⊙	⊙	⊙	⊙		
	14 St. Alloy	Alloy Steels	< 850	< 250	10-15	⊙	⊙	⊙	⊙		
	15 St. Alloy	Alloy Steels, Hardened Steels	≤1,200	< 350	6-10	⊙	⊙	⊙	⊙		
	16 St. Alloy	Alloy Steels, Hardened Steels	> 1,200	> 350	3-5						
20. STAINLESS STEELS	21 INOX Free	Free Machining	< 850	< 250	7-10	⊙	⊙	⊙	⊙		
	22 INOX Aust.	Austenitic	< 850	< 250	5-8	⊙	⊙	⊙	⊙		
	23 INOX	Ferritic, Ferritic+Austenitic, Martensitic	< 1,000	< 300	4-6	⊙	⊙	⊙	⊙		
30. CAST IRON	31 GG cast	Grey Cast Iron	< 500	< 150	10-15	⊙	⊙	⊙	⊙		
	32 GG cast	Grey Cast Iron	< 1,000	< 300	5-8	⊙	⊙	⊙	⊙		
	33 GGG cast	Nodular Graphite, Malleable Cast Iron	< 700	< 200	10-15	⊙	⊙	⊙	⊙		
	34 GGG cast	Nodular Graphite, Malleable Cast Iron	< 1,000	< 300	5-8	⊙	⊙	⊙	⊙		
40. TITANIUM	41 Ti	Titanium, Unalloyed	< 700	< 200	10-15						
	42 Ti Alloy	Titanium, Alloyed	< 900	< 270	8-12						
	43 Ti Alloy	Titanium, Alloyed	≤1,300	< 350	4-6						
50. NICKEL	51 Ni	Nickel, Unalloyed	< 500	< 150	8-12						
	52 Ni Alloy	Nickel, Alloyed	< 900	< 270	10-15						
	53 Ni Alloy	Nickel, Alloyed	≤1,400	< 410	2-4						
60. COPPER, BRASS, BRONZE	61 Cu	Copper, Unalloyed	< 350	< 100	8-12	⊙	⊙	⊙	⊙		
	62 Cu Alloy (Short)	Short chip Brass, Bronze, Copper	< 700	< 200	25-35	⊙	⊙	⊙	⊙		
	63 Cu Alloy (Long)	Long chip Brass, Bronze, Copper	< 700	< 200	15-20	⊙	⊙	⊙	⊙		
	64 Cu-Al-Fe	Cu-Al-Fe Alloys	< 1,500	< 470	3-5						
70. ALUMINUM	71 Al / Mg	Aluminum, Magnesium, Unalloyed	< 350	< 100	10-15						
	72 Al Wrought	Aluminum, Alloyed, Si < 1.5%	< 500	< 150	25-35	⊙	⊙	⊙	⊙		
	73 Al (Si ≤ 10%)	Aluminum, Alloyed, Si ≤ 10%	< 400	< 120	15-20	⊙	⊙	⊙	⊙		
	74 Al (Si > 10%)	Aluminum, Alloyed, Si > 10%	< 400	< 120	10-15	⊙	⊙	⊙	⊙		
80. PLASTICS	81 Thermosoft	Thermoplastics			20-30						
	82 Thermoset	Thermosetting Plastics			8-12						
	83 FRP	Fiber Reinforced Plastics			5-7						

MU	MU	MU	MU	MU	VA	VA	MU	MU	MU	MU
TBJ08 TCJ08 TDJ08	TB854 TC854 TD854	TCJ09 TDJ09	TC814-IC	TC445	TQ428 TB428	TQ438 TB438	TB834 TC834 TD834	TCJ01 TDJ01	TB874 TC874 TD874	TCJ02 TDJ02
SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT	SPIRAL POINT
31	32	34	36	37	38	39	41	42	43	44
HSS-E	HSS-E	HSS-E	HSS-E	HSS-E	HSS-PM HSS-E	HSS-PM HSS-E	HSS-E	HSS-E	HSS-E	HSS-E
M	MF	MF	M	M	M	MF	UNC	UNC	UNF	UNF
DIN 371/376	DIN 374	DIN 374	DIN 371/376	LONG SHANK	DIN 371/376	DIN 374	DIN 371/376	DIN 371/376	DIN 371/374	DIN 371/374
7G	ISO 2/6H	ISO 3/6G	ISO 2/6H	ISO 2/6H	ISO 2/6H	ISO 2/6H	2B	3B	2B	3B
-	-	-	-	-	-	-	-	-	-	-
B	B	B	B	B	B	B	B	B	B	B
3.0D	3.0D	3.0D	3.0D	3.0D	3.0D	3.0D	3.0D	3.0D	3.0D	3.0D
Vap Bright TiN	Vap Bright TiN	Bright TiN	Bright	Bright	Vap	Vap	Vap Bright TiN	Bright TiN	Vap Bright TiN	Bright TiN
4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5

T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12
⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙	⊙	○	○	⊙	⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙	⊙	○	○	⊙	⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙	⊙	○	○	⊙	⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙	⊙	○	○	⊙	⊙	⊙	⊙	⊙
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M SPIRAL FLUTE TAPS for Multi-Purpose

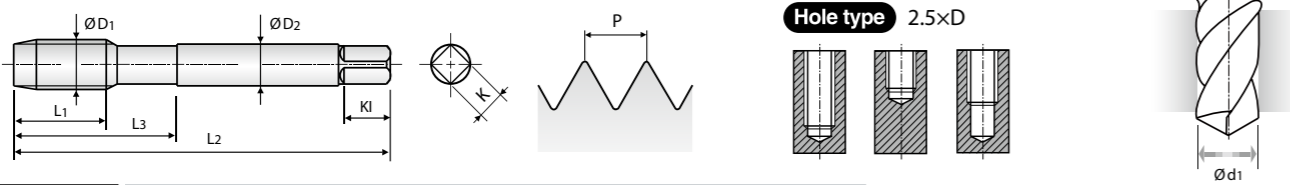
ISO Metric coarse threads DIN 13

Vap
Bright
TiN

TBE05 SERIES
TCE05 SERIES
TDE05 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups: **MU** HSS-E DIN 371/376 4H 60° C Vap Bright TiN R40

Unit : mm

Size	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Vap	Bright	TiN								
ØD1	P	L1	L2	L3	ØD2	K	KI	Z	Ød1			
M2	× 0.4	TBE05136	TCE05136	TDE05136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TBE05156	TCE05156	TDE05156	8	45	13	2.8	2.1	5	3	1.75
M2.3	× 0.4	TBE05196	TCE05196	TDE05196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TBE05176	TCE05176	TDE05176	9	50	15	2.8	2.1	5	3	2.05
M2.6	× 0.45	TBE05496	TCE05496	TDE05496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TBE05206	TCE05206	TDE05206	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TBE05226	TCE05226	TDE05226	7	56	20	4	3	6	3	2.9
M4	× 0.7	TBE05246	TCE05246	TDE05246	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TBE05266	TCE05266	TDE05266	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	TBE05286	TCE05286	TDE05286	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	TBE05316	TCE05316	TDE05316	10	80	30	6	4.9	8	3	5
M7	× 1.0	TBE05346	TCE05346	TDE05346	10	80	30	7	5.5	8	3	6
M8	× 1.25	TBE05366	TCE05366	TDE05366	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	TBE05396	TCE05396	TDE05396	13	90	35	9	7	10	3	7.8
M10	× 1.5	TBE05426	TCE05426	TDE05426	15	100	39	10	8	11	3	8.5
M11	× 1.5	TBE05466	TCE05466	TDE05466	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	TBE05506	TCE05506	TDE05506	18	110	44	9	7	10	3	10.2
M14	× 2.0	TBE05546	TCE05546	TDE05546	20	110	44	11	9	12	3	12
M16	× 2.0	TBE05606	TCE05606	TDE05606	20	110	44	12	9	12	3	14
M18	× 2.5	TBE05656	TCE05656	TDE05656	25	125	50	14	11	14	4	15.5
M20	× 2.5	TBE05706	TCE05706	TDE05706	25	140	54	16	12	15	4	17.5
M22	× 2.5	TBE05746	TCE05746	TDE05746	25	140	54	18	14.5	17	4	19.5
M24	× 3.0	TBE05786	TCE05786	TDE05786	30	160	60	18	14.5	17	4	21
M27	× 3.0	TBE05866	TCE05866	TDE05866	30	160	60	20	16	19	4	24
M30	× 3.5	TBE05946	TCE05946	TDE05946	35	180	70	22	18	21	4	26.5

► DIN 371 (M2~M10) and DIN 376 (M11~M30)
► The other coating (TiCN or TiAlN) is available on your request.

Unit : N/mm² ©: Excellent ○: Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

M SPIRAL FLUTE TAPS for Multi-Purpose

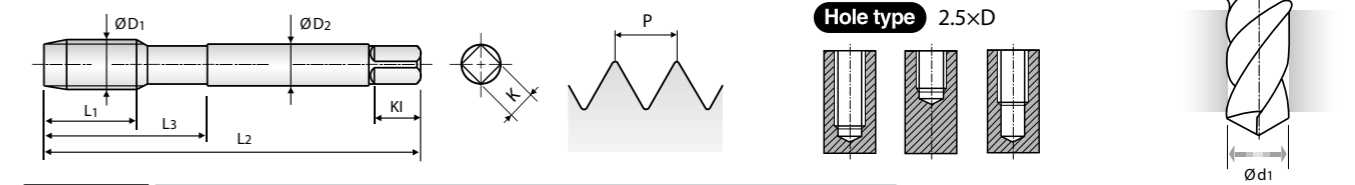
ISO Metric coarse threads DIN 13

Vap
Bright
TiN

TB804 SERIES
TC804 SERIES
TD804 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups: **MU** HSS-E DIN 371/376 6H 60° C Vap Bright TiN R40

Unit : mm

Size	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Vap	Bright	TiN								
ØD1	P	L1	L2	L3	ØD2	K	KI	Z	Ød1			
M2	× 0.4	TB804136	TC804136	TD804136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TB804156	TC804156	TD804156	8	45	13	2.8	2.1	5	3	1.75
M2.3	× 0.4	TB804196	TC804196	TD804196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TB804176	TC804176	TD804176	9	50	15	2.8	2.1	5	3	2.05
M2.6	× 0.45	TB804496	TC804496	TD804496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TB804206	TC804206	TD804206	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TB804226	TC804226	TD804226	7	56	20	4	3	6	3	2.9
M4	× 0.7	TB804246	TC804246	TD804246	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TB804266	TC804266	TD804266	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	TB804286	TC804286	TD804286	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	TB804316	TC804316	TD804316	10	80	30	6	4.9	8	3	5
M7	× 1.0	TB804346	TC804346	TD804346	10	80	30	7	5.5	8	3	6
M8	× 1.25	TB804366	TC804366	TD804366	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	TB804396	TC804396	TD804396	13	90	35	9	7	10	3	7.8
M10	× 1.5	TB804426	TC804426	TD804426	15	100	39	10	8	11	3	8.5
M11	× 1.5	TB804466	TC804466	TD804466	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	TB804506	TC804506	TD804506	18	110	44	9	7	10	3	10.2
M14	× 2.0	TB804546	TC804546	TD804546	20	110	44	11	9	12	3	12
M16	× 2.0	TB804606	TC804606	TD804606	20	110	44	12	9	12	3	14
M18	× 2.5	TB804656	TC804656	TD804656	25	125	50	14	11	14	4	15.5
M20	× 2.5	TB804706	TC804706	TD804706	25	140	54	16	12	15	4	17.5
M22	× 2.5	TB804746	TC804746	TD804746	25	140	54	18	14.5	17	4	19.5
M24	× 3.0	TB804786	TC804786	TD804786	30	160	60	18	14.5	17	4	21
M27	× 3.0	TB804866	TC804866	TD804866	30	160	60	20	16	19	4	24
M30	× 3.5	TB804946	TC804946	TD804946	35	180	70	22	18	21	4	26.5

► DIN 371 (M2~M10) and DIN 376 (M11~M30)
► The other coating (TiCN or TiAlN) is available on your request.

Unit : N/mm² ©: Excellent ○: Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

M SPIRAL FLUTE TAPS for Multi-Purpose

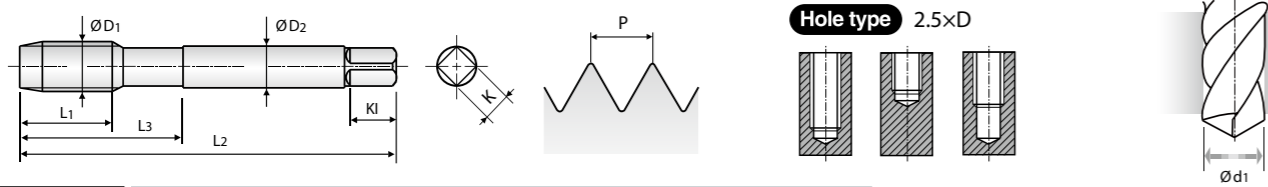
ISO Metric coarse threads DIN 13

Vap
Bright
TiN

TBE06 SERIES
TCE06 SERIES
TDE06 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups **MU** HSS-E DIN 371/376 6H+0.1 60° C Vap Bright TiN R40

Unit : mm

Size	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Vap	Bright	TiN								
ØD1	P	L1	L2	L3	ØD2	K	KI	Z	Ød1			
M2	× 0.4	TBE06136	TCE06136	TDE06136	8	45	13	2.8	2.1	5	3	1.7
M2.2	× 0.45	TBE06156	TCE06156	TDE06156	8	45	13	2.8	2.1	5	3	1.85
M2.3	× 0.4	TBE06196	TCE06196	TDE06196	8	45	13	2.8	2.1	5	3	2
M2.5	× 0.45	TBE06176	TCE06176	TDE06176	9	50	15	2.8	2.1	5	3	2.15
M2.6	× 0.45	TBE06496	TCE06496	TDE06496	9	50	15	2.8	2.1	5	3	2.2
M3	× 0.5	TBE06206	TCE06206	TDE06206	6	56	18	3.5	2.7	6	3	2.6
M3.5	× 0.6	TBE06226	TCE06226	TDE06226	7	56	20	4	3	6	3	3
M4	× 0.7	TBE06246	TCE06246	TDE06246	7	63	21	4.5	3.4	6	3	3.4
M4.5	× 0.75	TBE06266	TCE06266	TDE06266	8	70	25	6	4.9	8	3	3.8
M5	× 0.8	TBE06286	TCE06286	TDE06286	8	70	25	6	4.9	8	3	4.3
M6	× 1.0	TBE06316	TCE06316	TDE06316	10	80	30	6	4.9	8	3	5.1
M7	× 1.0	TBE06346	TCE06346	TDE06346	10	80	30	7	5.5	8	3	6.1
M8	× 1.25	TBE06366	TCE06366	TDE06366	13	90	35	8	6.2	9	3	6.9
M9	× 1.25	TBE06396	TCE06396	TDE06396	13	90	35	9	7	10	3	7.9
M10	× 1.5	TBE06426	TCE06426	TDE06426	15	100	39	10	8	11	3	8.6
M11	× 1.5	TBE06466	TCE06466	TDE06466	17	100	40	8	6.2	9	3	9.6
M12	× 1.75	TBE06506	TCE06506	TDE06506	18	110	44	9	7	10	3	10.3
M14	× 2.0	TBE06546	TCE06546	TDE06546	20	110	44	11	9	12	3	12.1
M16	× 2.0	TBE06606	TCE06606	TDE06606	20	110	44	12	9	12	3	14.1
M18	× 2.5	TBE06656	TCE06656	TDE06656	25	125	50	14	11	14	4	15.6
M20	× 2.5	TBE06706	TCE06706	TDE06706	25	140	54	16	12	15	4	17.6
M22	× 2.5	TBE06746	TCE06746	TDE06746	25	140	54	18	14.5	17	4	19.6
M24	× 3.0	TBE06786	TCE06786	TDE06786	30	160	60	18	14.5	17	4	21.1
M27	× 3.0	TBE06866	TCE06866	TDE06866	30	160	60	20	16	19	4	24.1
M30	× 3.5	TBE06946	TCE06946	TDE06946	35	180	70	22	18	21	4	26.6

► DIN 371 (M2~M10) and DIN 376 (M11~M30)
► The other coating (TiCN or TiAlN) is available on your request.

Unit : N/mm² ◎: Excellent ○: Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy >1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
Ti Alloy ≤1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP

M SPIRAL FLUTE TAPS for Multi-Purpose

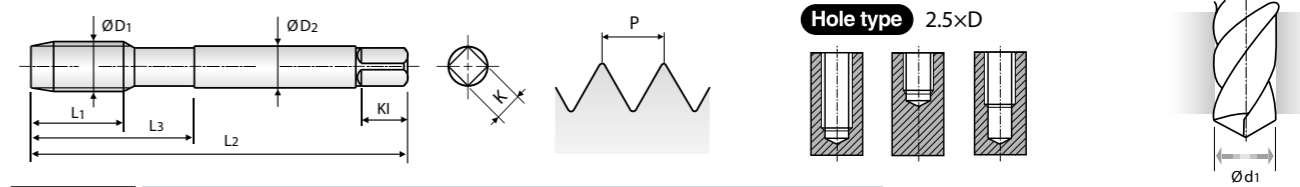
ISO Metric coarse threads DIN 13

Vap
Bright
TiN

TBE07 SERIES
TCE07 SERIES
TDE07 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups **MU** HSS-E DIN 371/376 6G 60° C Vap Bright TiN R40

Unit : mm

Size	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Vap	Bright	TiN								
ØD1	P	L1	L2	L3	ØD2	K	KI	Z	Ød1			
M2	× 0.4	TBE07136	TCE07136	TDE07136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TBE07156	TCE07156	TDE07156	8	45	13	2.8	2.1	5	3	1.75
M2.3	× 0.4	TBE07196	TCE07196	TDE07196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TBE07176	TCE07176	TDE07176	9	50	15	2.8	2.1	5	3	2.05
M2.6	× 0.45	TBE07496	TCE07496	TDE07496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TBE07206	TCE07206	TDE07206	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TBE07226	TCE07226	TDE07226	7	56	20	4	3	6	3	2.9
M4	× 0.7	TBE07246	TCE07246	TDE07246	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TBE07266	TCE07266	TDE07266	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	TBE07286	TCE07286	TDE07286	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	TBE07316	TCE07316	TDE07316	10	80	30	6	4.9	8	3	5
M7	× 1.0	TBE07346	TCE07346	TDE07346	10	80	30	7	5.5	8	3	6
M8	× 1.25	TBE07366	TCE07366	TDE07366	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	TBE07396	TCE07396	TDE07396	13	90	35	9	7	10	3	7.8
M10	× 1.5	TBE07426	TCE07426	TDE07426	15	100	39	10	8	11	3	8.5
M11	× 1.5	TBE07466	TCE07466	TDE07466	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	TBE07506	TCE07506	TDE07506	18	110	44	9	7	10	3	10.2
M14	× 2.0	TBE07546	TCE07546	TDE07546	20	110	44	11	9	12	3	12
M16	× 2.0	TBE07606	TCE07606	TDE07606	20	110	44	12	9	12	3	14
M18	× 2.5	TBE07656	TCE07656	TDE07656	25	125	50	14	11	14	4	15.5
M20	× 2.5	TBE07706	TCE07706	TDE07706	25	140	54	16	12	15	4	17.5
M22	× 2.5	TBE07746	TCE07746	TDE07746	25	140	54	18	14.5	17	4	19.5
M24	× 3.0	TBE07786	TCE07786	TDE07786	30	160	60	18	14.5	17	4	21
M27	× 3.0	TBE07866	TCE07866	TDE07866	30	160	60	20	16	19	4	24
M30	× 3.5	TBE07946	TCE07946	TDE07946	35	180	70	22	18	21	4	26.5

► DIN 371 (M2~M10) and DIN 376 (M11~M30)
► The other coating (TiCN or TiAlN) is available on your request.

Unit : N/mm² ◎: Excellent ○: Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy >1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
Ti Alloy ≤1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP

M SPIRAL FLUTE TAPS for Multi-Purpose

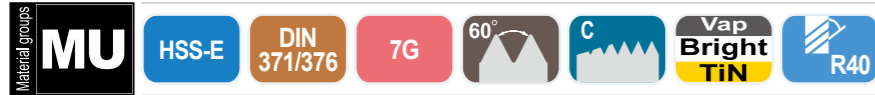
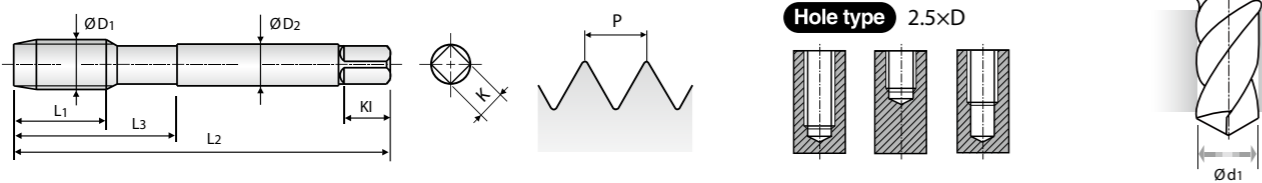
ISO Metric coarse threads DIN 13

Vap
Bright
TiN

TBE08 SERIES
TCE08 SERIES
TDE08 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Unit : mm

Size	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Vap	Bright	TiN								
ØD1	P	L1	L2	L3	ØD2	K	KI	Z	Ød1			
M2	× 0.4	TBE08136	TCE08136	TDE08136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TBE08156	TCE08156	TDE08156	8	45	13	2.8	2.1	5	3	1.75
M2.3	× 0.4	TBE08196	TCE08196	TDE08196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TBE08176	TCE08176	TDE08176	9	50	15	2.8	2.1	5	3	2.05
M2.6	× 0.45	TBE08496	TCE08496	TDE08496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TBE08206	TCE08206	TDE08206	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TBE08226	TCE08226	TDE08226	7	56	20	4	3	6	3	2.9
M4	× 0.7	TBE08246	TCE08246	TDE08246	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TBE08266	TCE08266	TDE08266	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	TBE08286	TCE08286	TDE08286	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	TBE08316	TCE08316	TDE08316	10	80	30	6	4.9	8	3	5
M7	× 1.0	TBE08346	TCE08346	TDE08346	10	80	30	7	5.5	8	3	6
M8	× 1.25	TBE08366	TCE08366	TDE08366	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	TBE08396	TCE08396	TDE08396	13	90	35	9	7	10	3	7.8
M10	× 1.5	TBE08426	TCE08426	TDE08426	15	100	39	10	8	11	3	8.5
M11	× 1.5	TBE08466	TCE08466	TDE08466	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	TBE08506	TCE08506	TDE08506	18	110	44	9	7	10	3	10.2
M14	× 2.0	TBE08546	TCE08546	TDE08546	20	110	44	11	9	12	3	12
M16	× 2.0	TBE08606	TCE08606	TDE08606	20	110	44	12	9	12	3	14
M18	× 2.5	TBE08656	TCE08656	TDE08656	25	125	50	14	11	14	4	15.5
M20	× 2.5	TBE08706	TCE08706	TDE08706	25	140	54	16	12	15	4	17.5
M22	× 2.5	TBE08746	TCE08746	TDE08746	25	140	54	18	14.5	17	4	19.5
M24	× 3.0	TBE08786	TCE08786	TDE08786	30	160	60	18	14.5	17	4	21
M27	× 3.0	TBE08866	TCE08866	TDE08866	30	160	60	20	16	19	4	24
M30	× 3.5	TBE08946	TCE08946	TDE08946	35	180	70	22	18	21	4	26.5

► DIN 371 (M2~M10) and DIN 376 (M11~M30)
► The other coating (TiCN or TiAlN) is available on your request.

Unit : N/mm² ©: Excellent ○: Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy >1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎		◎	◎	◎	◎	◎	◎	◎		
Ti Alloy ≤1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				◎	◎	◎			◎	◎	◎			

MF SPIRAL FLUTE TAPS for Multi-Purpose

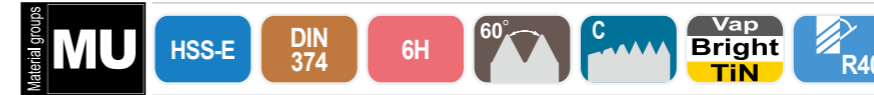
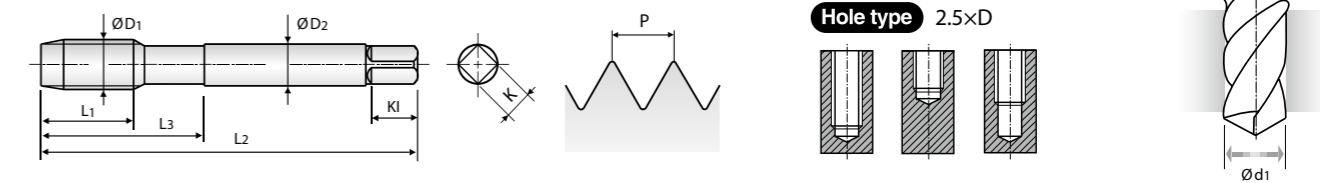
ISO Metric fine threads DIN 13

Vap
Bright
TiN

TB844 SERIES
TC844 SERIES
TD844 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Unit : mm

Size	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Vap	Bright	TiN								
ØD1	P	L1	L2	L3	ØD2	K	KI	Z	Ød1			
M4	× 0.5	TB844256	TC844256	TD844256	5	63	21	2.8	2.1	5	3	3.5
M5	× 0.5	TB844296	TC844296	TD844296	5	70	25	3.5	2.7	6	3	4.5
M6	× 0.75	TB844326	TC844326	TD844326	8	80	30	4.5	3.4	6	3	5.2
M6	× 0.5	TB844336	TC844336	TD844336	5	80	30	4.5	3.4	6	3	5.5
M7	× 0.75	TB844356	TC844356	TD844356	10	80	30	5.5	4.3	7	3	6.2
M8	× 1.0	TB844376	TC844376	TD844376	10	90	36	6	4.9	8	3	7
M8	× 0.75	TB844386	TC844386	TD844386	8	80	30	6	4.9	8	3	7.2
M10	× 1.25	TB844436	TC844436	TD844436	16	100	40	7	5.5	8	3	8.8
M10	× 1.0	TB844446	TC844446	TD844446	10	90	36	7	5.5	8	3	9
M10	× 0.75	TB844456	TC844456	TD844456	10	90	36	7	5.5	8	3	9.2
M12	× 1.5	TB844516	TC844516	TD844516	15	100	40	9	7	10	3	10.5
M12	× 1.25	TB844526	TC844526	TD844526	15	100	40	9	7	10	3	10.8
M12	× 1.0	TB844536	TC844536	TD844536	11	100	40	9	7	10	3	11
M14	× 1.5	TB844556	TC844556	TD844556	15	100	40	11	9	12	3	12.5
M14	× 1.25	TB844566	TC844566	TD844566	15	100	40	11	9	12	3	12.8
M14	× 1.0	TB844576	TC844576	TD844576	11	100	40	11	9	12	3	13
M16	× 1.5	TB844616	TC844616	TD844616	15	100	40	12	9	12	3	14.5
M16	× 1.0	TB844626	TC844626	TD844626	12	100	40	12	9	12	3	15
M18	× 1.5	TB844676	TC844676	TD844676	17	110	44	14	11	14	4	16.5
M18	× 1.0	TB844686	TC844686	TD844686	13	110	44	14	11	14	4	17
M20	× 1.5	TB844726	TC844726	TD844726	17	125	50	16	12	15	4	18.5
M20	× 1.0	TB844736	TC844736	TD844736	14	125	50	16	12	15	4	19
M22	× 1.5	TB844766	TC844766	TD844766	17	125	50	18	14.5	17	4	20.5
M22	× 1.0	TB844776	TC844776	TD844776	14	125	50	18	14.5	17	4	21

► The other coating (TiCN or TiAlN) is available on your request.

► NEXT PAGE

Unit : N/mm² ©: Excellent ○: Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy >1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎		◎	◎	◎	◎	◎	◎	◎		
Ti Alloy ≤1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				◎	◎	◎			◎	◎	◎			

MF SPIRAL FLUTE TAPS for Multi-Purpose

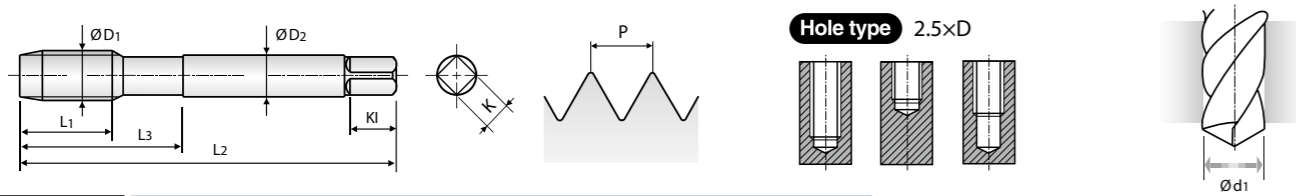
ISO Metric fine threads DIN 13

Vap
Bright
TiN

TB844 SERIES
TC844 SERIES
TD844 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Unit : mm

Size	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Vap	Bright	TiN								
ØD1	P				L1	L2	L3	ØD2	K	KI	Z	Ød1
M24	× 2.0	TB844796	TC844796	TD844796	20	140	54	18	14.5	17	4	22
M24	× 1.5	TB844806	TC844806	TD844806	20	140	54	18	14.5	17	4	22.5
M26	× 1.5	TB844856	TC844856	TD844856	20	140	54	18	14.5	17	4	24.5
M27	× 2.0	TB844876	TC844876	TD844876	20	140	54	20	16	19	4	25
M27	× 1.5	TB844886	TC844886	TD844886	20	140	54	20	16	19	4	25.5
M28	× 1.5	TB844916	TC844916	TD844916	20	140	54	20	16	19	4	26.5
M30	× 2.0	TB844966	TC844966	TD844966	22	150	57	22	18	21	4	28
M30	× 1.5	TB844976	TC844976	TD844976	22	150	57	22	18	21	4	28.5

► The other coating (TiCN or TiAlN) is available on your request.

Unit : N/mm² ©:Excellent ○:Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎		◎	◎	◎	◎	◎	◎	◎		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				◎	◎	◎			◎	◎	◎			

MF SPIRAL FLUTE TAPS for Multi-Purpose

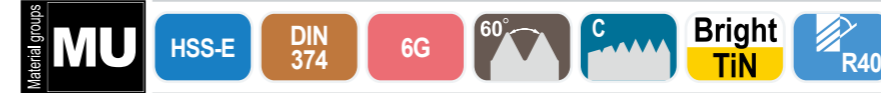
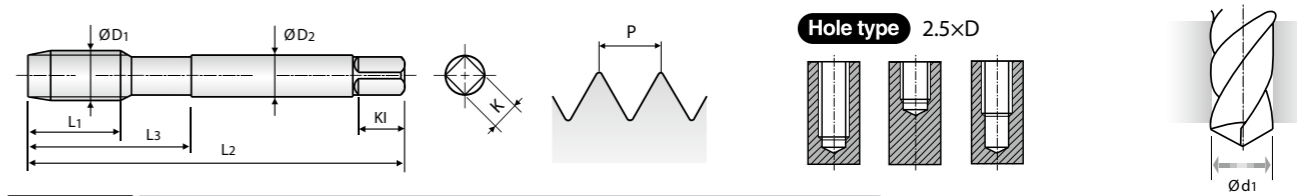
ISO Metric fine threads DIN 13

Bright
TiN

TCE09 SERIES
TDE09 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Unit : mm

Size	Pitch	EDP No.		Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Bright	TiN								
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Ød1
M4	× 0.5	TCE09256	TDE09256	5	63	21	2.8	2.1	5	3	3.5
M5	× 0.5	TCE09296	TDE09296	5	70	25	3.5	2.7	6	3	4.5
M6	× 0.75	TCE09326	TDE09326	8	80	30	4.5	3.4	6	3	5.2
M6	× 0.5	TCE09336	TDE09336	5	80	30	4.5	3.4	6	3	5.5
M7	× 0.75	TCE09356	TDE09356	10	80	30	5.5	4.3	7	3	6.2
M8	× 1.0	TCE09376	TDE09376	10	90	36	6	4.9	8	3	7
M8	× 0.75	TCE09386	TDE09386	8	80	30	6	4.9	8	3	7.2
M10	× 1.25	TCE09436	TDE09436	16	100	40	7	5.5	8	3	8.8
M10	× 1.0	TCE09446	TDE09446	10	90	36	7	5.5	8	3	9
M10	× 0.75	TCE09456	TDE09456	10	90	36	7	5.5	8	3	9.2
M12	× 1.5	TCE09516	TDE09516	15	100	40	9	7	10	3	10.5
M12	× 1.25	TCE09526	TDE09526	15	100	40	9	7	10	3	10.8
M12	× 1.0	TCE09536	TDE09536	11	100	40	9	7	10	3	11
M14	× 1.5	TCE09556	TDE09556	15	100	40	11	9	12	3	12.5
M14	× 1.25	TCE09566	TDE09566	15	100	40	11	9	12	3	12.8
M14	× 1.0	TCE09576	TDE09576	11	100	40	11	9	12	3	13
M16	× 1.5	TCE09616	TDE09616	15	100	40	12	9	12	3	14.5
M16	× 1.0	TCE09626	TDE09626	12	100	40	12	9	12	3	15
M18	× 1.5	TCE09676	TDE09676	17	110	44	14	11	14	4	16.5
M18	× 1.0	TCE09686	TDE09686	13	110	44	14	11	14	4	17
M20	× 1.5	TCE09726	TDE09726	17	125	50	16	12	15	4	18.5
M20	× 1.0	TCE09736	TDE09736	14	125	50	16	12	15	4	19
M22	× 1.5	TCE09766	TDE09766	17	125	50	18	14.5	17	4	20.5
M22	× 1.0	TCE09776	TDE09776	14	125	50	18	14.5	17	4	21

► The other coating (TiCN or TiAlN) or Surface Treatment (Steam Homo) is available on your request.

► NEXT PAGE

Unit : N/mm² ©:Excellent ○:Good

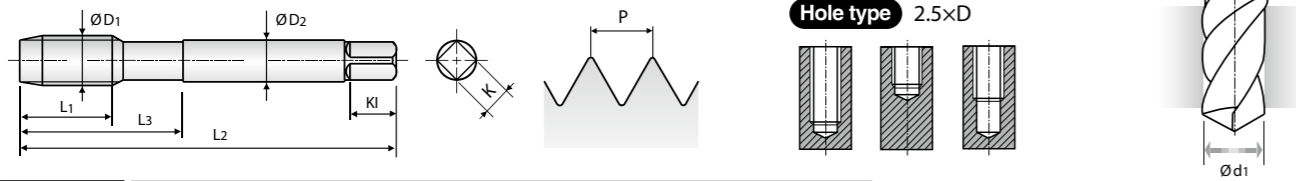
Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎		◎	◎	◎	◎	◎	◎	◎		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				◎	◎	◎			◎	◎	◎			

MF SPIRAL FLUTE TAPS for Multi-Purpose

ISO Metric fine threads DIN 13

Bright
TiN **TCE09** SERIES
TDE09 SERIES

► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups: **MU** HSS-E DIN 374 6G 60° C Bright TiN R40

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	TiN	L1	L2	L3	ØD2	K	KI	Z	Ød1
M24	× 2.0	TCE09796	TDE09796	20	140	54	18	14.5	17	4	22
M24	× 1.5	TCE09806	TDE09806	20	140	54	18	14.5	17	4	22.5
M26	× 1.5	TCE09856	TDE09856	20	140	54	18	14.5	17	4	24.5
M27	× 2.0	TCE09876	TDE09876	20	140	54	20	16	19	4	25
M27	× 1.5	TCE09886	TDE09886	20	140	54	20	16	19	4	25.5
M28	× 1.5	TCE09916	TDE09916	20	140	54	20	16	19	4	26.5
M30	× 2.0	TCE09966	TDE09966	22	150	57	22	18	21	4	28
M30	× 1.5	TCE09976	TDE09976	22	150	57	22	18	21	4	28.5

► The other coating (TiCN or TiAlN) or Surface Treatment (Steam Homo) is available on your request.

Unit : N/mm² ©:Excellent ○:Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
○	○	○	○	○		○	○	○	○	○	○	○		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				○	○	○			○	○	○			

M SPIRAL FLUTE TAPS for Multi-Purpose

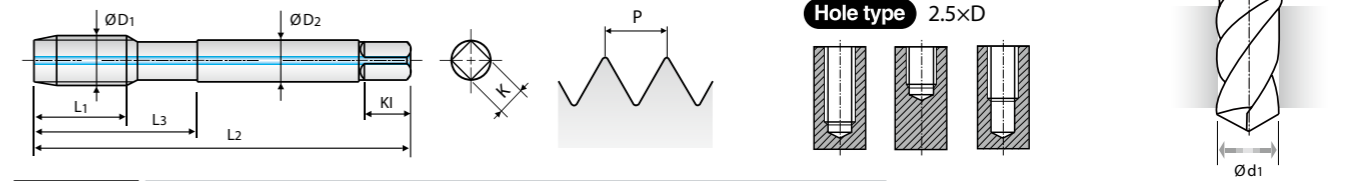
ISO Metric coarse threads DIN 13

Bright **TC804-IC** SERIES

► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



with Internal Coolant



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

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
M6	× 1.0	TC8043161C	10	80	30	6	4.9	8	3	5
M8	× 1.25	TC8043661C	13	90	35	8	6.2	9	3	6.8
M10	× 1.5	TC8044261C	15	100	39	10	8	11	3	8.5
M12	× 1.75	TC8045061C	18	110	44	9	7	10	3	10.2
M14	× 2.0	TC8045461C	20	110	44	11	9	12	3	12
M16	× 2.0	TC8046061C	20	110	44	12	9	12	3	14
M18	× 2.5	TC8046561C	25	125	50	14	11	14	4	15.5
M20	× 2.5	TC8047061C	25	140	54	16	12	15	4	17.5

► DIN 371 (M6~M10) and DIN 376 (M12~M20)

► The other coating (TiN, TiCN or TiAlN) or Surface Treatment (Steam Homo) is available on your request.

Unit : N/mm² ©:Excellent ○:Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
○	○	○	○	○		○	○	○	○	○	○	○		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				○	○	○			○	○	○			

M SPIRAL FLUTE TAPS for Multi-Purpose

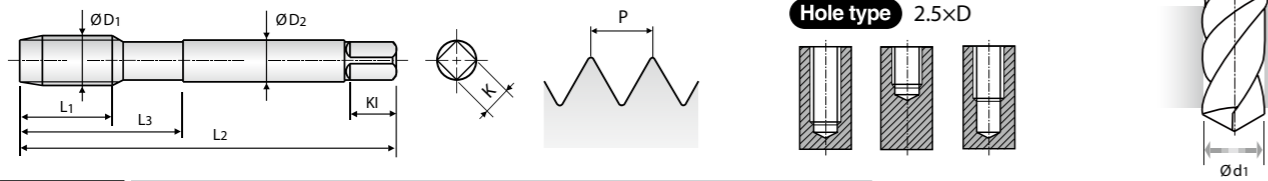
ISO Metric coarse threads DIN 13

Bright **TC807** SERIES

► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Short Chamfer



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

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	TC807136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TC807156	8	45	13	2.8	2.1	5	3	1.75
M2.3	× 0.4	TC807196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TC807176	9	50	15	2.8	2.1	5	3	2.05
M2.6	× 0.45	TC807496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TC807206	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TC807226	7	56	20	4	3	6	3	2.9
M4	× 0.7	TC807246	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TC807266	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	TC807286	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	TC807316	10	80	30	6	4.9	8	3	5
M7	× 1.0	TC807346	10	80	30	7	5.5	8	3	6
M8	× 1.25	TC807366	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	TC807396	13	90	35	9	7	10	3	7.8
M10	× 1.5	TC807426	15	100	39	10	8	11	3	8.5
M11	× 1.5	TC807466	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	TC807506	18	110	44	9	7	10	3	10.2
M14	× 2.0	TC807546	20	110	44	11	9	12	3	12
M16	× 2.0	TC807606	20	110	44	12	9	12	3	14
M18	× 2.5	TC807656	25	125	50	14	11	14	4	15.5
M20	× 2.5	TC807706	25	140	54	16	12	15	4	17.5
M22	× 2.5	TC807746	25	140	54	18	14.5	17	4	19.5
M24	× 3.0	TC807786	30	160	60	18	14.5	17	4	21
M27	× 3.0	TC807866	30	160	60	20	16	19	4	24
M30	× 3.5	TC807946	35	180	70	22	18	21	4	26.5

► DIN371 (M2~M10) and DIN 376 (M11~M30)
 ► The other coating (TiN, TiCN or TiAlN) or Surface Treatment (Steam Homo) is available on your request.

Unit : N/mm² ©:Excellent ○:Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

M SPIRAL FLUTE TAPS for Multi-Purpose

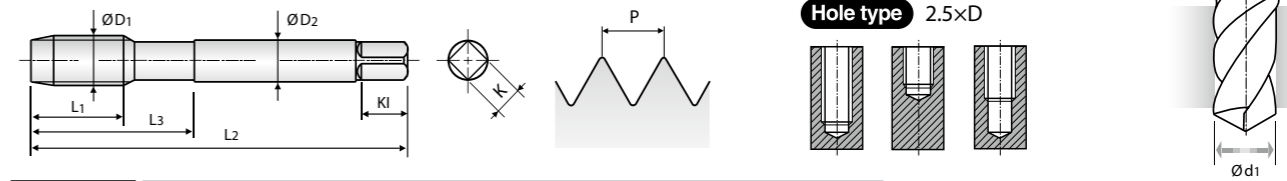
ISO Metric coarse threads DIN 13

Bright **TC633** SERIES

► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Long Shank



Material groups **MU** HSS-E LONG SHANK 6H 60° C Bright R40

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
M3	× 0.5	TC633206	11	100	18	3.5	2.7	6	3	2.5
M4	× 0.7	TC633246	13	125	21	4.5	3.4	6	3	3.3
M5	× 0.8	TC633286	15	140	25	6	4.9	8	3	4.2
M6	× 1.0	TC633316	17	160	30	6	4.9	8	3	5
M8	× 1.25	TC633366	20	180	35	6	4.9	8	3	6.8
M10	× 1.5	TC633426	22	200	39	7	5.5	8	3	8.5
M12	× 1.75	TC633506	24	220	44	9	7	10	3	10.2
M14	× 2.0	TC633546	26	220	44	11	9	12	3	12
M16	× 2.0	TC633606	27	220	44	12	9	12	3	14
M20	× 2.5	TC633706	32	280	54	16	12	15	4	17.5

► The other coating (TiN, TiCN or TiAlN) or Surface Treatment (Steam Homo) is available on your request.

Unit : N/mm² ©:Excellent ○:Good

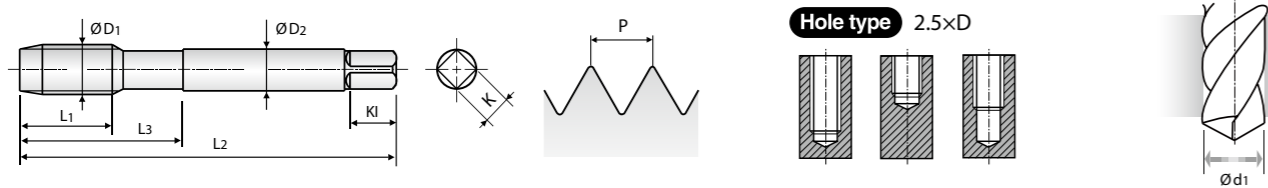
Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
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M SPIRAL FLUTE TAPS for Stainless Steels

ISO Metric coarse threads DIN 13

Vap **TQ744** SERIES
Vap **TB744** SERIES

► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups: **VA** HSS-PM up to M12, HSS-E over M12, DIN 371/376, 6H, 60°, C, Vap, R45

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	KI	Z	Ød1
M2	× 0.4	TQ744136	8	45	13	2.8	2.1	5	2	1.6
M2.2	× 0.45	TQ744156	8	45	13	2.8	2.1	5	2	1.75
M2.3	× 0.4	TQ744196	8	45	13	2.8	2.1	5	2	1.9
M2.5	× 0.45	TQ744176	9	50	15	2.8	2.1	5	2	2.05
M2.6	× 0.45	TQ744496	9	50	15	2.8	2.1	5	2	2.1
M3	× 0.5	TQ744206	6	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TQ744226	7	56	20	4	3	6	3	2.9
M4	× 0.7	TQ744246	7	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TQ744266	8	70	25	6	4.9	8	3	3.7
M5	× 0.8	TQ744286	8	70	25	6	4.9	8	3	4.2
M6	× 1.0	TQ744316	10	80	30	6	4.9	8	3	5
M7	× 1.0	TQ744346	10	80	30	7	5.5	8	3	6
M8	× 1.25	TQ744366	13	90	35	8	6.2	9	3	6.8
M9	× 1.25	TQ744396	13	90	35	9	7	10	3	7.8
M10	× 1.5	TQ744426	15	100	39	10	8	11	3	8.5
M11	× 1.5	TQ744466	17	100	40	8	6.2	9	3	9.5
M12	× 1.75	TQ744506	18	110	44	9	7	10	3	10.2
M14	× 2.0	TB744546	20	110	44	11	9	12	3	12
M16	× 2.0	TB744606	20	110	44	12	9	12	3	14
M18	× 2.5	TB744656	25	125	50	14	11	14	4	15.5
M20	× 2.5	TB744706	25	140	54	16	12	15	4	17.5
M22	× 2.5	TB744746	25	140	54	18	14.5	17	4	19.5
M24	× 3.0	TB744786	30	160	60	18	14.5	17	4	21
M27	× 3.0	TB744866	30	160	60	20	16	19	4	24
M30	× 3.5	TB744946	35	180	70	22	18	21	4	26.5

- DIN 371 (M2~M10) and DIN 376 (M11~M30)
- HSS-PM (M2~M12/TQ744) and HSS-E (M14~M30/TB744)
- The other coating (TiN, TiCN or TiAlN) is available on your request.

Unit : N/mm² ©: Excellent ○: Good

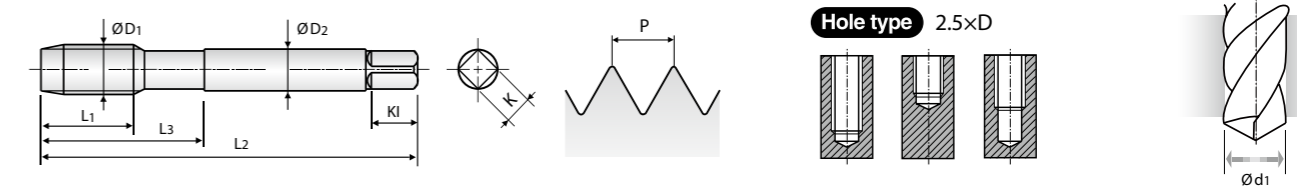
Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
	○		○			◎	◎							
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				○										

MF SPIRAL FLUTE TAPS for Stainless Steels

ISO Metric fine threads DIN 13

Vap **TQ754** SERIES
Vap **TB754** SERIES

► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups: **VA** HSS-PM up to M12, HSS-E over M12, DIN 374, 6H, 60°, C, Vap, R45

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	KI	Z	Ød1
M4	× 0.5	TQ754256	5	63	21	2.8	2.1	5	3	3.5
M5	× 0.5	TQ754296	5	70	25	3.5	2.7	6	3	4.5
M6	× 0.75	TQ754326	8	80	30	4.5	3.4	6	3	5.2
M6	× 0.5	TQ754336	5	80	30	4.5	3.4	6	3	5.5
M7	× 0.75	TQ754356	10	80	30	5.5	4.3	7	3	6.2
M8	× 1.0	TQ754376	10	90	36	6	4.9	8	3	7
M8	× 0.75	TQ754386	8	80	30	6	4.9	8	3	7.2
M10	× 1.25	TQ754436	16	100	40	7	5.5	8	3	8.8
M10	× 1.0	TQ754446	10	90	36	7	5.5	8	3	9
M10	× 0.75	TQ754456	10	90	36	7	5.5	8	3	9.2
M12	× 1.5	TQ754516	15	100	40	9	7	10	3	10.5
M12	× 1.25	TQ754526	15	100	40	9	7	10	3	10.8
M12	× 1.0	TQ754536	11	100	40	9	7	10	3	11
M14	× 1.5	TB754556	15	100	40	11	9	12	3	12.5
M14	× 1.25	TB754566	15	100	40	11	9	12	3	12.8
M14	× 1.0	TB754576	11	100	40	11	9	12	3	13
M16	× 1.5	TB754616	15	100	40	12	9	12	3	14.5
M16	× 1.0	TB754626	12	100	40	12	9	12	3	15
M18	× 1.5	TB754676	17	110	44	14	11	14	4	16.5
M18	× 1.0	TB754686	13	110	44	14	11	14	4	17
M20	× 1.5	TB754726	17	125	50	16	12	15	4	18.5
M20	× 1.0	TB754736	14	125	50	16	12	15	4	19
M22	× 1.5	TB754766	17	125	50	18	14.5	17	4	20.5
M22	× 1.0	TB754776	14	125	50	18	14.5	17	4	21
M24	× 2.0	TB754796	20	140	54	18	14.5	17	4	22

- HSS-PM (M4~M12/TQ754) and HSS-E (M14~M30/TB754)
- The other coating (TiN, TiCN or TiAlN) is available on your request.

► NEXT PAGE

Unit : N/mm² ©: Excellent ○: Good

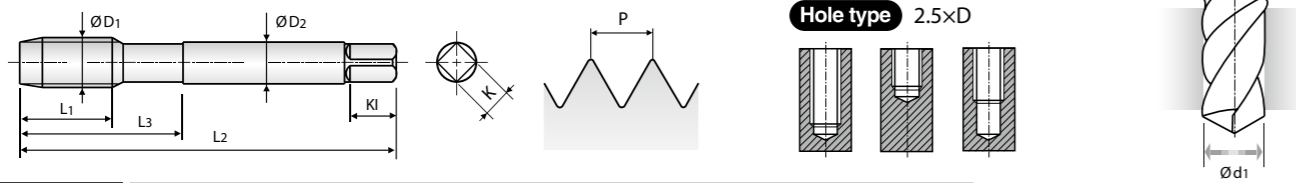
Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
	○		○			◎	◎							
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				○										

MF SPIRAL FLUTE TAPS for Stainless Steels

ISO Metric fine threads DIN 13

Vap **TQ754** SERIES
Vap **TB754** SERIES

► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups: **VA** HSS-PM (up to M12) HSS-E (over M12) DIN 374 6H 60° C Vap R45

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	KI	Z	Ød1
M24 × 1.5		TB754806	20	140	54	18	14.5	17	4	22.5
M26 × 1.5		TB754856	20	140	54	18	14.5	17	4	24.5
M27 × 2.0		TB754876	20	140	54	20	16	19	4	25
M27 × 1.5		TB754886	20	140	54	20	16	19	4	25.5
M28 × 1.5		TB754916	20	140	54	20	16	19	4	26.5
M30 × 2.0		TB754966	22	150	57	22	18	21	4	28
M30 × 1.5		TB754976	22	150	57	22	18	21	4	28.5

► HSS-PM (M4~M12) and HSS-E (M14~M30)
► The other coating (TiN, TiCN or TiAlN) is available on your request.

Unit : N/mm² ©:Excellent ○:Good

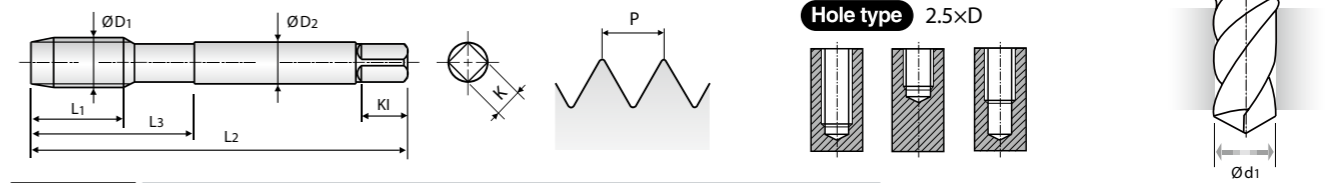
Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy >1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
○	○	○	○	○	○	◎	◎							
Ti Alloy ≤1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP

UNC SPIRAL FLUTE TAPS for Multi-Purpose

Unified coarse threads

Vap **TB824** SERIES
Bright **TC824** SERIES
TiN **TD824** SERIES

► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups: **MU** HSS-E (DIN 371/376) 2B 60° C Vap Bright TiN R40

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		Vap	Bright	TiN	L1	L2	L3	ØD2	K	KI	Z	Ød1
#4 - 40 UNC		TB824162	TC824162	TD824162	6	56	18	3.5	2.7	6	3	2.3
#5 - 40 UNC		TB824202	TC824202	TD824202	7	56	18	3.5	2.7	6	3	2.6
#6 - 32 UNC		TB824242	TC824242	TD824242	7	56	20	4	3	6	3	2.85
#8 - 32 UNC		TB824282	TC824282	TD824282	8	63	21	4.5	3.4	6	3	3.5
#10 - 24 UNC		TB824322	TC824322	TD824322	10	70	25	6	4.9	8	3	3.9
#12 - 24 UNC		TB824362	TC824362	TD824362	10	80	30	6	4.9	8	3	4.5
1/4 - 20 UNC		TB824402	TC824402	TD824402	13	80	30	7	5.5	8	3	5.2
5/16 - 18 UNC		TB824442	TC824442	TD824442	14	90	35	8	6.2	9	3	6.6
3/8 - 16 UNC		TB824482	TC824482	TD824482	16	100	39	9	7	10	3	8
7/16 - 14 UNC		TB824522	TC824522	TD824522	17	100	40	8	6.2	9	3	9.4
1/2 - 13 UNC		TB824562	TC824562	TD824562	20	110	44	9	7	10	3	10.75
9/16 - 12 UNC		TB824602	TC824602	TD824602	20	110	44	11	9	12	3	12.25
5/8 - 11 UNC		TB824642	TC824642	TD824642	22	110	44	12	9	12	3	13.5
3/4 - 10 UNC		TB824702	TC824702	TD824702	25	125	50	14	11	14	4	16.5
7/8 - 9 UNC		TB824742	TC824742	TD824742	27	140	54	18	14.5	17	4	19.5
1 - 8 UNC		TB824782	TC824782	TD824782	30	160	60	20	16	19	4	22.25

► DIN 371 (#4~3/8) and DIN 376 (7/16~1)
► The other coating (TiCN or TiAlN) is available on your request.

Unit : N/mm² ©:Excellent ○:Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy >1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		
Ti Alloy ≤1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP

UNC SPIRAL FLUTE TAPS for Multi-Purpose

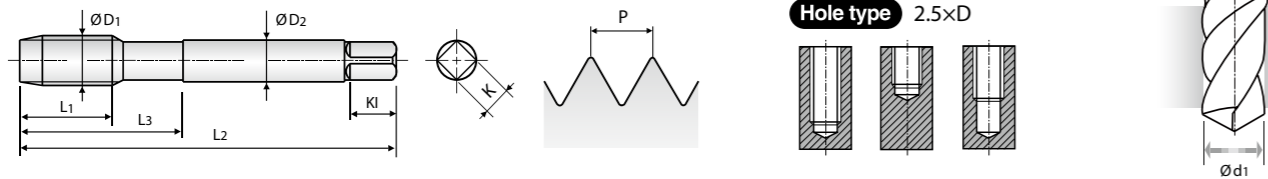
Unified coarse threads

Bright
TiN

TCE01 SERIES
TDE01 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups: **MU** HSS-E DIN 371/376 3B 60° C Bright TiN R40

Unit : mm

Size ØD1	TPI	EDP No.		Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length KI	No. of Flute Z	Tapping Drill Diameter Ød1
		Bright	TiN								
#4 - 40 UNC		TCE01162	TDE01162	6	56	18	3.5	2.7	6	3	2.3
#5 - 40 UNC		TCE01202	TDE01202	7	56	18	3.5	2.7	6	3	2.6
#6 - 32 UNC		TCE01242	TDE01242	7	56	20	4	3	6	3	2.85
#8 - 32 UNC		TCE01282	TDE01282	8	63	21	4.5	3.4	6	3	3.5
#10 - 24 UNC		TCE01322	TDE01322	10	70	25	6	4.9	8	3	3.9
#12 - 24 UNC		TCE01362	TDE01362	10	80	30	6	4.9	8	3	4.5
1/4 - 20 UNC		TCE01402	TDE01402	13	80	30	7	5.5	8	3	5.2
5/16 - 18 UNC		TCE01442	TDE01442	14	90	35	8	6.2	9	3	6.6
3/8 - 16 UNC		TCE01482	TDE01482	16	100	39	9	7	10	3	8
7/16 - 14 UNC		TCE01522	TDE01522	17	100	40	8	6.2	9	3	9.4
1/2 - 13 UNC		TCE01562	TDE01562	20	110	44	9	7	10	3	10.75
9/16 - 12 UNC		TCE01602	TDE01602	20	110	44	11	9	12	3	12.25
5/8 - 11 UNC		TCE01642	TDE01642	22	110	44	12	9	12	3	13.5
3/4 - 10 UNC		TCE01702	TDE01702	25	125	50	14	11	14	4	16.5
7/8 - 9 UNC		TCE01742	TDE01742	27	140	54	18	14.5	17	4	19.5
1 - 8 UNC		TCE01782	TDE01782	30	160	60	20	16	19	4	22.25

► DIN371 (#4~3/8) and DIN 376 (7/16~1)
► The other coating (TiCN or TiAlN) or Surface Treatment (Steam Homo) is available on your request.

Unit : N/mm² ◎:Excellent ○:Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy >1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎		◎	◎	◎	◎	◎	◎	◎		
Ti Alloy ≤1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				◎	◎	◎			◎	◎	◎			

UNF SPIRAL FLUTE TAPS for Multi-Purpose

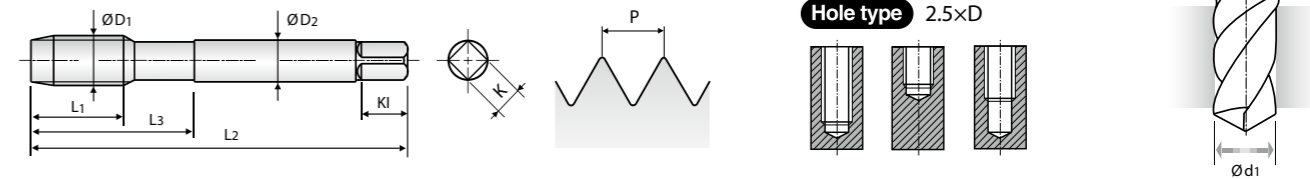
Unified fine threads

Vap
Bright
TiN

TB864 SERIES
TC864 SERIES
TD864 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups: **MU** HSS-E DIN 371/374 2B 60° C Vap Bright TiN R40

Unit : mm

Size ØD1	TPI	EDP No.			Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length KI	No. of Flute Z	Tapping Drill Diameter Ød1
		Vap	Bright	TiN								
#4 - 48 UNF		TB864182	TC864182	TD864182	6	56	18	3.5	2.7	6	3	2.4
#5 - 44 UNF		TB864222	TC864222	TD864222	7	56	18	3.5	2.7	6	3	2.7
#6 - 40 UNF		TB864262	TC864262	TD864262	7	56	20	4	3	6	3	3
#8 - 36 UNF		TB864302	TC864302	TD864302	8	63	21	4.5	3.4	6	3	3.5
#10 - 32 UNF		TB864342	TC864342	TD864342	10	70	25	6	4.9	8	3	4.1
#12 - 28 UNF		TB864382	TC864382	TD864382	10	80	30	6	4.9	8	3	4.7
1/4 - 28 UNF		TB864422	TC864422	TD864422	10	80	30	7	5.5	8	3	5.5
5/16 - 24 UNF		TB864462	TC864462	TD864462	10	90	35	8	6.2	9	3	6.9
3/8 - 24 UNF		TB864502	TC864502	TD864502	10	100	39	9	7	10	3	8.5
7/16 - 20 UNF		TB864542	TC864542	TD864542	13	100	40	8	6.2	9	3	9.9
1/2 - 20 UNF		TB864582	TC864582	TD864582	13	100	40	9	7	10	3	11.5
9/16 - 18 UNF		TB864622	TC864622	TD864622	15	100	40	11	9	12	3	12.9
5/8 - 18 UNF		TB864662	TC864662	TD864662	15	100	40	12	9	12	3	14.5
3/4 - 16 UNF		TB864722	TC864722	TD864722	17	110	44	14	11	14	4	17.5
7/8 - 14 UNF		TB864762	TC864762	TD864762	17	125	50	18	14.5	17	4	20.5
1 - 12 UNF		TB864802	TC864802	TD864802	20	140	54	20	16	19	4	23.25

► DIN 371 (#4~3/8) and DIN 374 (7/16~1)
► The other coating (TiCN or TiAlN) is available on your request.

Unit : N/mm² ◎:Excellent ○:Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤1200	St. Alloy >1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎		◎	◎	◎	◎	◎	◎	◎		
Ti Alloy ≤1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si≤10%	Al Si>10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				◎	◎	◎			◎	◎	◎			

UNF SPIRAL FLUTE TAPS for Multi-Purpose

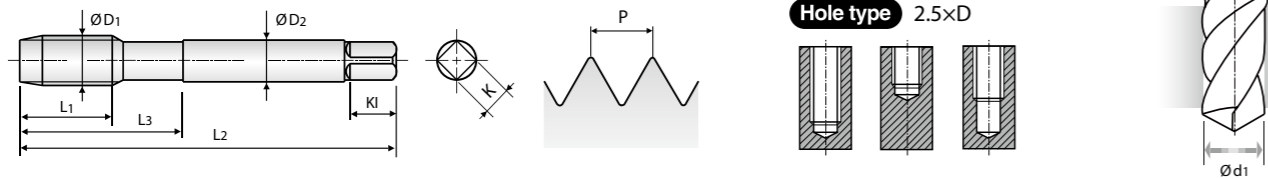
Unified fine threads

Bright
TiN

TCE02 SERIES
TDE02 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups: **MU** HSS-E DIN 371/374 3B 60° C Bright TiN R40

Unit : mm

Size ØD1	TPI	EDP No.		Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length KI	No. of Flute Z	Tapping Drill Diameter Ød1
		Bright	TiN								
#4 - 48 UNF		TCE02182	TDE02182	6	56	18	3.5	2.7	6	3	2.4
#5 - 44 UNF		TCE02222	TDE02222	7	56	18	3.5	2.7	6	3	2.7
#6 - 40 UNF		TCE02262	TDE02262	7	56	20	4	3	6	3	3
#8 - 36 UNF		TCE02302	TDE02302	8	63	21	4.5	3.4	6	3	3.5
#10 - 32 UNF		TCE02342	TDE02342	10	70	25	6	4.9	8	3	4.1
#12 - 28 UNF		TCE02382	TDE02382	10	80	30	6	4.9	8	3	4.7
1/4 - 28 UNF		TCE02422	TDE02422	10	80	30	7	5.5	8	3	5.5
5/16 - 24 UNF		TCE02462	TDE02462	10	90	35	8	6.2	9	3	6.9
3/8 - 24 UNF		TCE02502	TDE02502	10	100	39	9	7	10	3	8.5
7/16 - 20 UNF		TCE02542	TDE02542	13	100	40	8	6.2	9	3	9.9
1/2 - 20 UNF		TCE02582	TDE02582	13	100	40	9	7	10	3	11.5
9/16 - 18 UNF		TCE02622	TDE02622	15	100	40	11	9	12	3	12.9
5/8 - 18 UNF		TCE02662	TDE02662	15	100	40	12	9	12	3	14.5
3/4 - 16 UNF		TCE02722	TDE02722	17	110	44	14	11	14	4	17.5
7/8 - 14 UNF		TCE02762	TDE02762	17	125	50	18	14.5	17	4	20.5
1 - 12 UNF		TCE02802	TDE02802	20	140	54	20	16	19	4	23.25

► DIN 371 (#4~3/8) and DIN 374 (7/16~1)
► The other coating (TiCN or TiAlN) or Surface Treatment (Steam Homo) is available on your request.

Unit : N/mm² ©: Excellent ○: Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
○	○	○	○	○		○	○	○	○	○	○	○		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP

M SPIRAL POINT TAPS for Multi-Purpose

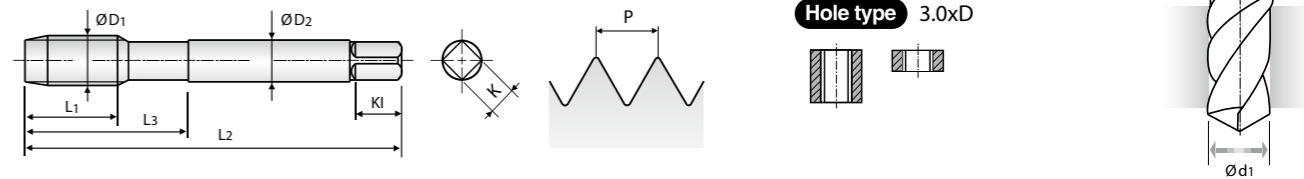
ISO Metric coarse threads DIN 13

Vap
Bright
TiN

TBJ05 SERIES
TCJ05 SERIES
TDJ05 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups: **MU** HSS-E DIN 371/376 4H 60° B Vap Bright TiN

Unit : mm

Size ØD1	Pitch P	EDP No.			Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length KI	No. of Flute Z	Tapping Drill Diameter Ød1
		Vap	Bright	TiN								
M2 × 0.4		TBJ05136	TCJ05136	TDJ05136	8	45	13	2.8	2.1	5	3	1.6
M2.2 × 0.45		TBJ05156	TCJ05156	TDJ05156	8	45	13	2.8	2.1	5	3	1.75
M2.3 × 0.4		TBJ05196	TCJ05196	TDJ05196	8	45	13	2.8	2.1	5	3	1.9
M2.5 × 0.45		TBJ05176	TCJ05176	TDJ05176	9	50	15	2.8	2.1	5	3	2.05
M2.6 × 0.45		TBJ05496	TCJ05496	TDJ05496	9	50	15	2.8	2.1	5	3	2.1
M3 × 0.5		TBJ05206	TCJ05206	TDJ05206	11	56	18	3.5	2.7	6	3	2.5
M3.5 × 0.6		TBJ05226	TCJ05226	TDJ05226	12	56	20	4	3	6	3	2.9
M4 × 0.7		TBJ05246	TCJ05246	TDJ05246	13	63	21	4.5	3.4	6	3	3.3
M4.5 × 0.75		TBJ05266	TCJ05266	TDJ05266	14	70	25	6	4.9	8	3	3.7
M5 × 0.8		TBJ05286	TCJ05286	TDJ05286	15	70	25	6	4.9	8	3	4.2
M6 × 1.0		TBJ05316	TCJ05316	TDJ05316	17	80	30	6	4.9	8	3	5
M7 × 1.0		TBJ05346	TCJ05346	TDJ05346	17	80	30	7	5.5	8	3	6
M8 × 1.25		TBJ05366	TCJ05366	TDJ05366	20	90	35	8	6.2	9	3	6.8
M9 × 1.25		TBJ05396	TCJ05396	TDJ05396	20	90	35	9	7	10	3	7.8
M10 × 1.5		TBJ05426	TCJ05426	TDJ05426	22	100	39	10	8	11	3	8.5
M11 × 1.5		TBJ05466	TCJ05466	TDJ05466	22	100	40	8	6.2	9	3	9.5
M12 × 1.75		TBJ05506	TCJ05506	TDJ05506	24	110	44	9	7	10	3	10.2
M14 × 2.0		TBJ05546	TCJ05546	TDJ05546	26	110	44	11	9	12	3	12
M16 × 2.0		TBJ05606	TCJ05606	TDJ05606	27	110	44	12	9	12	3	14
M18 × 2.5		TBJ05656	TCJ05656	TDJ05656	30	125	50	14	11	14	4	15.5
M20 × 2.5		TBJ05706	TCJ05706	TDJ05706	32	140	54	16	12	15	4	17.5
M22 × 2.5		TBJ05746	TCJ05746	TDJ05746	32	140	54	18	14.5	17	4	19.5
M24 × 3.0		TBJ05786	TCJ05786	TDJ05786	34	160	60	18	14.5	17	4	21
M27 × 3.0		TBJ05866	TCJ05866	TDJ05866	36	160	60	20	16	19	4	24
M30 × 3.5		TBJ05946	TCJ05946	TDJ05946	40	180	70	22	18	21	4	26.5

► DIN 371 (M2~M10) and DIN 376 (M11~M30)
► The other coating (TiCN or TiAlN) is available on your request.

Unit : N/mm² ©: Excellent ○: Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
○	○	○	○	○		○	○	○	○	○	○	○		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP

M SPIRAL POINT TAPS for Multi-Purpose

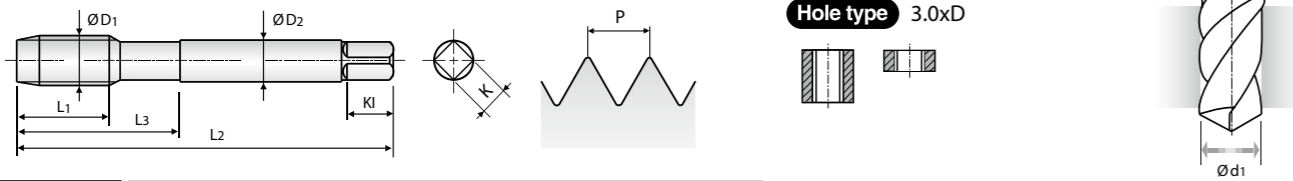
ISO Metric coarse threads DIN 13

Vap
Bright
TiN

TB814 SERIES
TC814 SERIES
TD814 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups **MU** HSS-E DIN 371/376 6H 60° B Vap Bright TiN

Unit : mm

Size	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Vap	Bright	TiN								
ØD1	P	L1	L2	L3	ØD2	K	KI	Z	Ød1			
M2	× 0.4	TB814136	TC814136	TD814136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TB814156	TC814156	TD814156	8	45	13	2.8	2.1	5	3	1.75
M2.3	× 0.4	TB814196	TC814196	TD814196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TB814176	TC814176	TD814176	9	50	15	2.8	2.1	5	3	2.05
M2.6	× 0.45	TB814496	TC814496	TD814496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TB814206	TC814206	TD814206	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TB814226	TC814226	TD814226	12	56	20	4	3	6	3	2.9
M4	× 0.7	TB814246	TC814246	TD814246	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TB814266	TC814266	TD814266	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	TB814286	TC814286	TD814286	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	TB814316	TC814316	TD814316	17	80	30	6	4.9	8	3	5
M7	× 1.0	TB814346	TC814346	TD814346	17	80	30	7	5.5	8	3	6
M8	× 1.25	TB814366	TC814366	TD814366	20	90	35	8	6.2	9	3	6.8
M9	× 1.25	TB814396	TC814396	TD814396	20	90	35	9	7	10	3	7.8
M10	× 1.5	TB814426	TC814426	TD814426	22	100	39	10	8	11	3	8.5
M11	× 1.5	TB814466	TC814466	TD814466	22	100	40	8	6.2	9	3	9.5
M12	× 1.75	TB814506	TC814506	TD814506	24	110	44	9	7	10	3	10.2
M14	× 2.0	TB814546	TC814546	TD814546	26	110	44	11	9	12	3	12
M16	× 2.0	TB814606	TC814606	TD814606	27	110	44	12	9	12	3	14
M18	× 2.5	TB814656	TC814656	TD814656	30	125	50	14	11	14	4	15.5
M20	× 2.5	TB814706	TC814706	TD814706	32	140	54	16	12	15	4	17.5
M22	× 2.5	TB814746	TC814746	TD814746	32	140	54	18	14.5	17	4	19.5
M24	× 3.0	TB814786	TC814786	TD814786	34	160	60	18	14.5	17	4	21
M27	× 3.0	TB814866	TC814866	TD814866	36	160	60	20	16	19	4	24
M30	× 3.5	TB814946	TC814946	TD814946	40	180	70	22	18	21	4	26.5

► DIN 371 (M2~M10) and DIN 376 (M11~M30)
► The other coating (TiCN or TiAlN) is available on your request.

Unit : N/mm² ◎: Excellent ○: Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

M SPIRAL POINT TAPS for Multi-Purpose

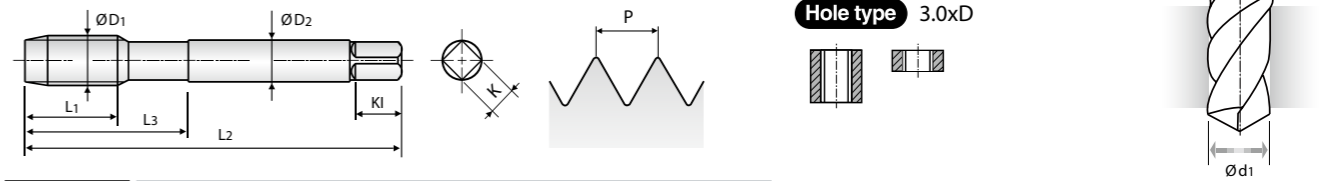
ISO Metric coarse threads DIN 13

Vap
Bright
TiN

TBJ06 SERIES
TCJ06 SERIES
TDJ06 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups **MU** HSS-E DIN 371/376 6H+0.1 60° B Vap Bright TiN

Unit : mm

Size	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Vap	Bright	TiN								
ØD1	P	L1	L2	L3	ØD2	K	KI	Z	Ød1			
M2	× 0.4	TBJ06136	TCJ06136	TDJ06136	8	45	13	2.8	2.1	5	3	1.7
M2.2	× 0.45	TBJ06156	TCJ06156	TDJ06156	8	45	13	2.8	2.1	5	3	1.85
M2.3	× 0.4	TBJ06196	TCJ06196	TDJ06196	8	45	13	2.8	2.1	5	3	2
M2.5	× 0.45	TBJ06176	TCJ06176	TDJ06176	9	50	15	2.8	2.1	5	3	2.15
M2.6	× 0.45	TBJ06496	TCJ06496	TDJ06496	9	50	15	2.8	2.1	5	3	2.2
M3	× 0.5	TBJ06206	TCJ06206	TDJ06206	11	56	18	3.5	2.7	6	3	2.6
M3.5	× 0.6	TBJ06226	TCJ06226	TDJ06226	12	56	20	4	3	6	3	3
M4	× 0.7	TBJ06246	TCJ06246	TDJ06246	13	63	21	4.5	3.4	6	3	3.4
M4.5	× 0.75	TBJ06266	TCJ06266	TDJ06266	14	70	25	6	4.9	8	3	3.8
M5	× 0.8	TBJ06286	TCJ06286	TDJ06286	15	70	25	6	4.9	8	3	4.3
M6	× 1.0	TBJ06316	TCJ06316	TDJ06316	17	80	30	6	4.9	8	3	5.1
M7	× 1.0	TBJ06346	TCJ06346	TDJ06346	17	80	30	7	5.5	8	3	6.1
M8	× 1.25	TBJ06366	TCJ06366	TDJ06366	20	90	35	8	6.2	9	3	6.9
M9	× 1.25	TBJ06396	TCJ06396	TDJ06396	20	90	35	9	7	10	3	7.9
M10	× 1.5	TBJ06426	TCJ06426	TDJ06426	22	100	39	10	8	11	3	8.6
M11	× 1.5	TBJ06466	TCJ06466	TDJ06466	22	100	40	8	6.2	9	3	9.6
M12	× 1.75	TBJ06506	TCJ06506	TDJ06506	24	110	44	9	7	10	3	10.3
M14	× 2.0	TBJ06546	TCJ06546	TDJ06546	26	110	44	11	9	12	3	12.1
M16	× 2.0	TBJ06606	TCJ06606	TDJ06606	27	110	44	12	9	12	3	14.1
M18	× 2.5	TBJ06656	TCJ06656	TDJ06656	30	125	50	14	11	14	4	15.6
M20	× 2.5	TBJ06706	TCJ06706	TDJ06706	32	140	54	16	12	15	4	17.6
M22	× 2.5	TBJ06746	TCJ06746	TDJ06746	32	140	54	18	14.5	17	4	19.6
M24	× 3.0	TBJ06786	TCJ06786	TDJ06786	34	160	60	18	14.5	17	4	21.1
M27	× 3.0	TBJ06866	TCJ06866	TDJ06866	36	160	60	20	16	19	4	24.1
M30	× 3.5	TBJ06946	TCJ06946	TDJ06946	40	180	70	22	18	21	4	26.6

► DIN 371 (M2~M10) and DIN 376 (M11~M30)
► The other coating (TiCN or TiAlN) is available on your request.

Unit : N/mm² ◎: Excellent ○: Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

M SPIRAL POINT TAPS for Multi-Purpose

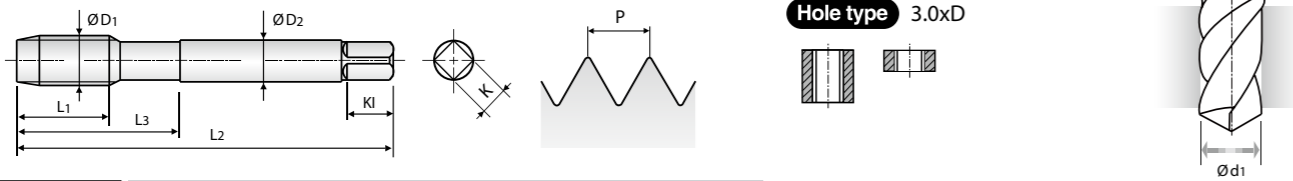
ISO Metric coarse threads DIN 13

Vap
Bright
TiN

TBJ07 SERIES
TCJ07 SERIES
TDJ07 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups: **MU** HSS-E DIN 371/376 6G 60° B Vap Bright TiN

Unit : mm

Size	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Vap	Bright	TiN								
ØD1	P	L1	L2	L3	ØD2	K	KI	Z	Ød1			
M2	× 0.4	TBJ07136	TCJ07136	TDJ07136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TBJ07156	TCJ07156	TDJ07156	8	45	13	2.8	2.1	5	3	1.75
M2.3	× 0.4	TBJ07196	TCJ07196	TDJ07196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TBJ07176	TCJ07176	TDJ07176	9	50	15	2.8	2.1	5	3	2.05
M2.6	× 0.45	TBJ07496	TCJ07496	TDJ07496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TBJ07206	TCJ07206	TDJ07206	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TBJ07226	TCJ07226	TDJ07226	12	56	20	4	3	6	3	2.9
M4	× 0.7	TBJ07246	TCJ07246	TDJ07246	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TBJ07266	TCJ07266	TDJ07266	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	TBJ07286	TCJ07286	TDJ07286	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	TBJ07316	TCJ07316	TDJ07316	17	80	30	6	4.9	8	3	5
M7	× 1.0	TBJ07346	TCJ07346	TDJ07346	17	80	30	7	5.5	8	3	6
M8	× 1.25	TBJ07366	TCJ07366	TDJ07366	20	90	35	8	6.2	9	3	6.8
M9	× 1.25	TBJ07396	TCJ07396	TDJ07396	20	90	35	9	7	10	3	7.8
M10	× 1.5	TBJ07426	TCJ07426	TDJ07426	22	100	39	10	8	11	3	8.5
M11	× 1.5	TBJ07466	TCJ07466	TDJ07466	22	100	40	8	6.2	9	3	9.5
M12	× 1.75	TBJ07506	TCJ07506	TDJ07506	24	110	44	9	7	10	3	10.2
M14	× 2.0	TBJ07546	TCJ07546	TDJ07546	26	110	44	11	9	12	3	12
M16	× 2.0	TBJ07606	TCJ07606	TDJ07606	27	110	44	12	9	12	3	14
M18	× 2.5	TBJ07656	TCJ07656	TDJ07656	30	125	50	14	11	14	4	15.5
M20	× 2.5	TBJ07706	TCJ07706	TDJ07706	32	140	54	16	12	15	4	17.5
M22	× 2.5	TBJ07746	TCJ07746	TDJ07746	32	140	54	18	14.5	17	4	19.5
M24	× 3.0	TBJ07786	TCJ07786	TDJ07786	34	160	60	18	14.5	17	4	21
M27	× 3.0	TBJ07866	TCJ07866	TDJ07866	36	160	60	20	16	19	4	24
M30	× 3.5	TBJ07946	TCJ07946	TDJ07946	40	180	70	22	18	21	4	26.5

► DIN 371 (M2~M10) and DIN 376 (M11~M30)
► The other coating (TiCN or TiAlN) is available on your request.

Unit : N/mm² ©: Excellent ○: Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP

M SPIRAL POINT TAPS for Multi-Purpose

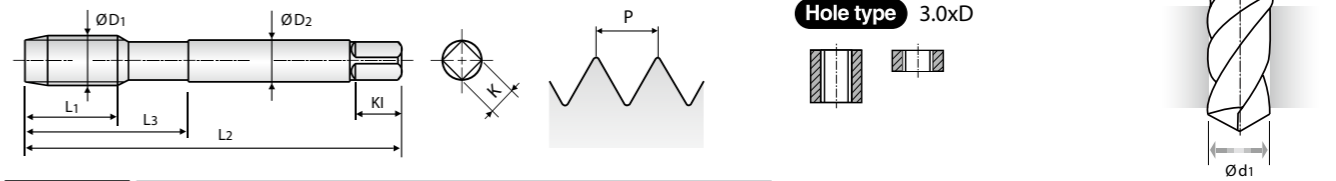
ISO Metric coarse threads DIN 13

Vap
Bright
TiN

TBJ08 SERIES
TCJ08 SERIES
TDJ08 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups: **MU** HSS-E DIN 371/376 7G 60° B Vap Bright TiN

Unit : mm

Size	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Vap	Bright	TiN								
ØD1	P	L1	L2	L3	ØD2	K	KI	Z	Ød1			
M2	× 0.4	TBJ08136	TCJ08136	TDJ08136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TBJ08156	TCJ08156	TDJ08156	8	45	13	2.8	2.1	5	3	1.75
M2.3	× 0.4	TBJ08196	TCJ08196	TDJ08196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TBJ08176	TCJ08176	TDJ08176	9	50	15	2.8	2.1	5	3	2.05
M2.6	× 0.45	TBJ08496	TCJ08496	TDJ08496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TBJ08206	TCJ08206	TDJ08206	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TBJ08226	TCJ08226	TDJ08226	12	56	20	4	3	6	3	2.9
M4	× 0.7	TBJ08246	TCJ08246	TDJ08246	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TBJ08266	TCJ08266	TDJ08266	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	TBJ08286	TCJ08286	TDJ08286	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	TBJ08316	TCJ08316	TDJ08316	17	80	30	6	4.9	8	3	5
M7	× 1.0	TBJ08346	TCJ08346	TDJ08346	17	80	30	7	5.5	8	3	6
M8	× 1.25	TBJ08366	TCJ08366	TDJ08366	20	90	35	8	6.2	9	3	6.8
M9	× 1.25	TBJ08396	TCJ08396	TDJ08396	20	90	35	9	7	10	3	7.8
M10	× 1.5	TBJ08426	TCJ08426	TDJ08426	22	100	39	10	8	11	3	8.5
M11	× 1.5	TBJ08466	TCJ08466	TDJ08466	22	100	40	8	6.2	9	3	9.5
M12	× 1.75	TBJ08506	TCJ08506	TDJ08506	24	110	44	9	7	10	3	10.2
M14	× 2.0	TBJ08546	TCJ08546	TDJ08546	26	110	44	11	9	12	3	12
M16	× 2.0	TBJ08606	TCJ08606	TDJ08606	27	110	44	12	9	12	3	14
M18	× 2.5	TBJ08656	TCJ08656	TDJ08656	30	125	50	14	11	14	4	15.5
M20	× 2.5	TBJ08706	TCJ08706	TDJ08706	32	140	54	16	12	15	4	17.5
M22	× 2.5	TBJ08746	TCJ08746	TDJ08746	32	140	54	18	14.5	17	4	19.5
M24	× 3.0	TBJ08786	TCJ08786	TDJ08786	34	160	60	18	14.5	17	4	21
M27	× 3.0	TBJ08866	TCJ08866	TDJ08866	36	160	60	20	16	19	4	24
M30	× 3.5	TBJ08946	TCJ08946	TDJ08946	40	180	70	22	18	21	4	26.5

► DIN 371 (M2~M10) and DIN 376 (M11~M30)
► The other coating (TiCN or TiAlN) is available on your request.

Unit : N/mm² ©: Excellent ○: Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP

MF SPIRAL POINT TAPS for Multi-Purpose

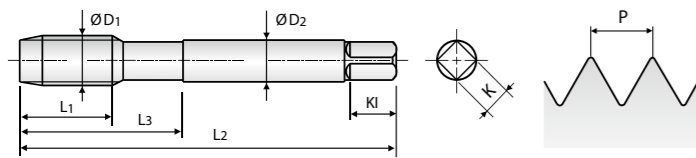
ISO Metric fine threads DIN 13

Vap
Bright
TiN

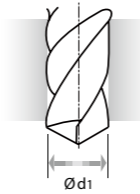
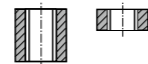
TB854 SERIES
TC854 SERIES
TD854 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Hole type 3.0xD



Material groups **MU** HSS-E DIN 374 6H 60° B Vap Bright TiN

Unit : mm

Size	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Vap	Bright	TiN								
ØD1	P	L1	L2	L3	ØD2	K	KI	Z	Ød1			
M4	× 0.5	TB854256	TC854256	TD854256	10	63	21	2.8	2.1	5	3	3.5
M5	× 0.5	TB854296	TC854296	TD854296	11	70	25	3.5	2.7	6	3	4.5
M6	× 0.75	TB854326	TC854326	TD854326	13	80	30	4.5	3.4	6	3	5.2
M6	× 0.5	TB854336	TC854336	TD854336	13	80	30	4.5	3.4	6	3	5.5
M7	× 0.75	TB854356	TC854356	TD854356	14	80	30	5.5	4.3	7	3	6.2
M8	× 1.0	TB854376	TC854376	TD854376	17	90	36	6	4.9	8	3	7
M8	× 0.75	TB854386	TC854386	TD854386	14	80	36	6	4.9	8	3	7.2
M10	× 1.25	TB854436	TC854436	TD854436	22	100	40	7	5.5	8	3	8.8
M10	× 1.0	TB854446	TC854446	TD854446	18	90	40	7	5.5	8	3	9
M10	× 0.75	TB854456	TC854456	TD854456	18	90	40	7	5.5	8	3	9.2
M12	× 1.5	TB854516	TC854516	TD854516	22	100	40	9	7	10	3	10.5
M12	× 1.25	TB854526	TC854526	TD854526	22	100	40	9	7	10	3	10.8
M12	× 1.0	TB854536	TC854536	TD854536	18	100	40	9	7	10	3	11
M14	× 1.5	TB854556	TC854556	TD854556	22	100	40	11	9	12	3	12.5
M14	× 1.25	TB854566	TC854566	TD854566	22	100	40	11	9	12	3	12.8
M14	× 1.0	TB854576	TC854576	TD854576	22	100	40	11	9	12	3	13
M16	× 1.5	TB854616	TC854616	TD854616	22	100	40	12	9	12	3	14.5
M16	× 1.0	TB854626	TC854626	TD854626	18	100	40	12	9	12	3	15
M18	× 1.5	TB854676	TC854676	TD854676	25	110	44	14	11	14	4	16.5
M18	× 1.0	TB854686	TC854686	TD854686	20	110	44	14	11	14	4	17
M20	× 1.5	TB854726	TC854726	TD854726	25	125	50	16	12	15	4	18.5
M20	× 1.0	TB854736	TC854736	TD854736	20	125	50	16	12	15	4	19
M22	× 1.5	TB854766	TC854766	TD854766	25	125	50	18	14.5	17	4	20.5
M22	× 1.0	TB854776	TC854776	TD854776	20	125	50	18	14.5	17	4	21

► The other coating (TiCN or TiAlN) is available on your request.

► NEXT PAGE

Unit : N/mm² ◎: Excellent ○: Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎		◎	◎	◎	◎	◎	◎	◎		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				◎	◎	◎			◎	◎	◎			

MF SPIRAL POINT TAPS for Multi-Purpose

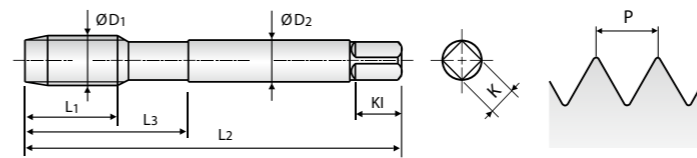
ISO Metric fine threads DIN 13

Vap
Bright
TiN

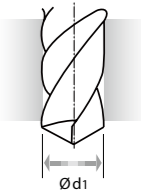
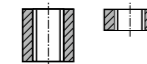
TB854 SERIES
TC854 SERIES
TD854 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Hole type 3.0xD



Material groups **MU** HSS-E DIN 374 6H 60° B Vap Bright TiN

Unit : mm

Size	Pitch	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Vap	Bright	TiN								
ØD1	P	L1	L2	L3	ØD2	K	KI	Z	Ød1			
M24	× 2.0	TB854796	TC854796	TD854796	27	140	54	18	14.5	17	4	22
M24	× 1.5	TB854806	TC854806	TD854806	27	140	54	18	14.5	17	4	22.5
M26	× 1.5	TB854856	TC854856	TD854856	28	140	54	18	14.5	17	4	24.5
M27	× 2.0	TB854876	TC854876	TD854876	28	140	54	20	16	19	4	25
M27	× 1.5	TB854886	TC854886	TD854886	28	140	54	20	16	19	4	25.5
M28	× 1.5	TB854916	TC854916	TD854916	28	140	54	20	16	19	4	26.5
M30	× 2.0	TB854966	TC854966	TD854966	30	150	57	22	18	21	4	28
M30	× 1.5	TB854976	TC854976	TD854976	30	150	57	22	18	21	4	28.5

► The other coating (TiCN or TiAlN) is available on your request.

Unit : N/mm² ◎: Excellent ○: Good

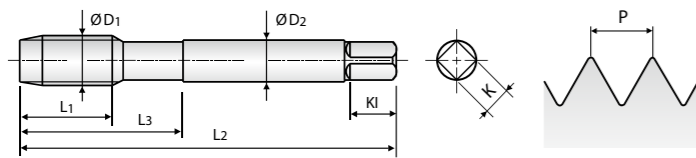
Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎		◎	◎	◎	◎	◎	◎	◎		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				◎	◎	◎			◎	◎	◎			

MF SPIRAL POINT TAPS for Multi-Purpose

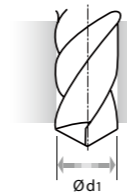
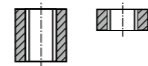
ISO Metric fine threads DIN 13

Bright
TiN **TCJ09** SERIES
TDJ09 SERIES

► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Hole type 3.0xD



Material groups **MU** HSS-E DIN 374 6G 60° B Bright TiN

Unit : mm

Size	Pitch	EDP No.		Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Bright	TiN								
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Ød1
M4	× 0.5	TCJ09256	TDJ09256	10	63	21	2.8	2.1	5	3	3.5
M5	× 0.5	TCJ09296	TDJ09296	11	70	25	3.5	2.7	6	3	4.5
M6	× 0.75	TCJ09326	TDJ09326	13	80	30	4.5	3.4	6	3	5.2
M6	× 0.5	TCJ09336	TDJ09336	13	80	30	4.5	3.4	6	3	5.5
M7	× 0.75	TCJ09356	TDJ09356	14	80	30	5.5	4.3	7	3	6.2
M8	× 1.0	TCJ09376	TDJ09376	17	90	36	6	4.9	8	3	7
M8	× 0.75	TCJ09386	TDJ09386	14	80	36	6	4.9	8	3	7.2
M10	× 1.25	TCJ09436	TDJ09436	22	100	40	7	5.5	8	3	8.8
M10	× 1.0	TCJ09446	TDJ09446	18	90	40	7	5.5	8	3	9
M10	× 0.75	TCJ09456	TDJ09456	18	90	40	7	5.5	8	3	9.2
M12	× 1.5	TCJ09516	TDJ09516	22	100	40	9	7	10	3	10.5
M12	× 1.25	TCJ09526	TDJ09526	22	100	40	9	7	10	3	10.8
M12	× 1.0	TCJ09536	TDJ09536	18	100	40	9	7	10	3	11
M14	× 1.5	TCJ09556	TDJ09556	22	100	40	11	9	12	3	12.5
M14	× 1.25	TCJ09566	TDJ09566	22	100	40	11	9	12	3	12.8
M14	× 1.0	TCJ09576	TDJ09576	22	100	40	11	9	12	3	13
M16	× 1.5	TCJ09616	TDJ09616	22	100	40	12	9	12	3	14.5
M16	× 1.0	TCJ09626	TDJ09626	18	100	40	12	9	12	3	15
M18	× 1.5	TCJ09676	TDJ09676	25	110	44	14	11	14	4	16.5
M18	× 1.0	TCJ09686	TDJ09686	20	110	44	14	11	14	4	17
M20	× 1.5	TCJ09726	TDJ09726	25	125	50	16	12	15	4	18.5
M20	× 1.0	TCJ09736	TDJ09736	20	125	50	16	12	15	4	19
M22	× 1.5	TCJ09766	TDJ09766	25	125	50	18	14.5	17	4	20.5
M22	× 1.0	TCJ09776	TDJ09776	20	125	50	18	14.5	17	4	21

► The other coating (TiCN or TiAlN) or Surface Treatment (Steam Homo) is available on your request.

► NEXT PAGE

Unit : N/mm² ©: Excellent ○: Good

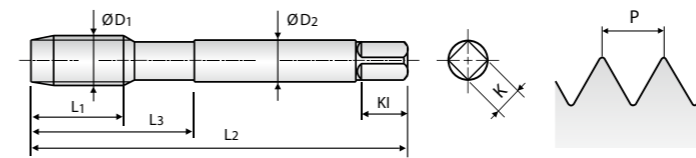
Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				◎	◎	◎			◎	◎	◎			

MF SPIRAL POINT TAPS for Multi-Purpose

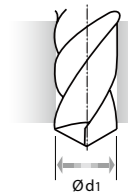
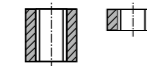
ISO Metric fine threads DIN 13

Bright
TiN **TCJ09** SERIES
TDJ09 SERIES

► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Hole type 3.0xD



Material groups **MU** HSS-E DIN 374 6G 60° B Bright TiN

Unit : mm

Size	Pitch	EDP No.		Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Bright	TiN								
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Ød1
M24	× 2.0	TCJ09796	TDJ09796	27	140	54	18	14.5	17	4	22
M24	× 1.5	TCJ09806	TDJ09806	27	140	54	18	14.5	17	4	22.5
M26	× 1.5	TCJ09856	TDJ09856	28	140	54	18	14.5	17	4	24.5
M27	× 2.0	TCJ09876	TDJ09876	28	140	54	20	16	19	4	25
M27	× 1.5	TCJ09886	TDJ09886	28	140	54	20	16	19	4	25.5
M28	× 1.5	TCJ09916	TDJ09916	28	140	54	20	16	19	4	26.5
M30	× 2.0	TCJ09966	TDJ09966	30	150	57	22	18	21	4	28
M30	× 1.5	TCJ09976	TDJ09976	30	150	57	22	18	21	4	28.5

► The other coating (TiCN or TiAlN) or Surface Treatment (Steam Homo) is available on your request.

Unit : N/mm² ©: Excellent ○: Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				◎	◎	◎			◎	◎	◎			

M SPIRAL POINT TAPS for Multi-Purpose

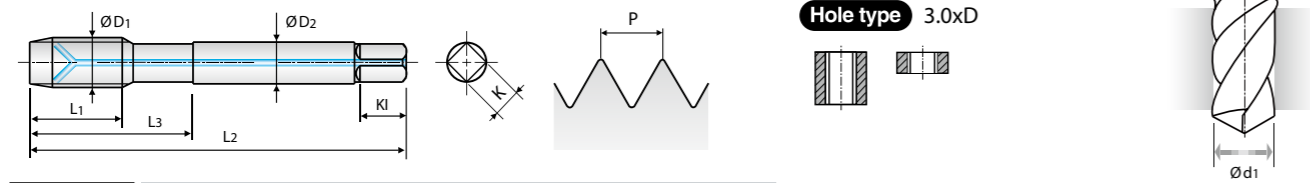
ISO Metric coarse threads DIN 13

Bright **TC814-IC** SERIES



with Internal Coolant

► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



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

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
M6	× 1.0	TC814316IC	17	80	30	6	4.9	8	3	5
M8	× 1.25	TC814366IC	20	90	35	8	6.2	9	3	6.8
M10	× 1.5	TC814426IC	22	100	39	10	8	11	3	8.5
M12	× 1.75	TC814506IC	24	110	44	9	7	10	3	10.2
M14	× 2.0	TC814546IC	26	110	44	11	9	12	3	12
M16	× 2.0	TC814606IC	27	110	44	12	9	12	3	14
M18	× 2.5	TC814656IC	30	125	50	14	11	14	4	15.5
M20	× 2.5	TC814706IC	32	140	54	16	12	15	4	17.5

► DIN 371 (M6~M10) and DIN 376 (M12~M20)
 ► The other coating (TiN, TiCN or TiAlN) or Surface Treatment (Steam Homo) is available on your request.

Unit : N/mm² ©:Excellent ○:Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎		◎	◎	◎	◎	◎	◎	◎		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				◎	◎	◎			◎	◎	◎			

M SPIRAL POINT TAPS for Multi-Purpose

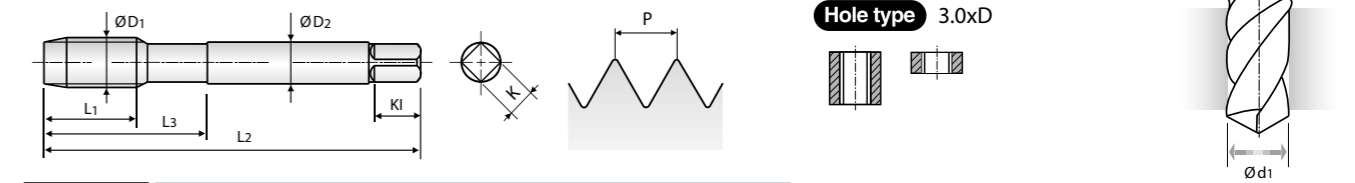
ISO Metric coarse threads DIN 13

Bright **TC445** SERIES



Long Shank

► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups **MU** HSS-E LONG SHANK 6H 60° B Bright

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
M3	× 0.5	TC445206	11	100	18	3.5	2.7	6	3	2.5
M4	× 0.7	TC445246	13	125	21	4.5	3.4	6	3	3.3
M5	× 0.8	TC445286	15	140	25	6	4.9	8	3	4.2
M6	× 1.0	TC445316	17	160	30	6	4.9	8	3	5
M8	× 1.25	TC445366	20	180	35	6	4.9	8	3	6.8
M10	× 1.5	TC445426	22	200	39	7	5.5	8	3	8.5
M12	× 1.75	TC445506	24	220	44	9	7	10	3	10.2
M14	× 2.0	TC445546	26	220	44	11	9	12	3	12
M16	× 2.0	TC445606	27	220	44	12	9	12	3	14
M20	× 2.5	TC445706	32	280	54	16	12	15	4	17.5

► The other coating (TiN, TiCN or TiAlN) or Surface Treatment (Steam Homo) is available on your request.

Unit : N/mm² ©:Excellent ○:Good

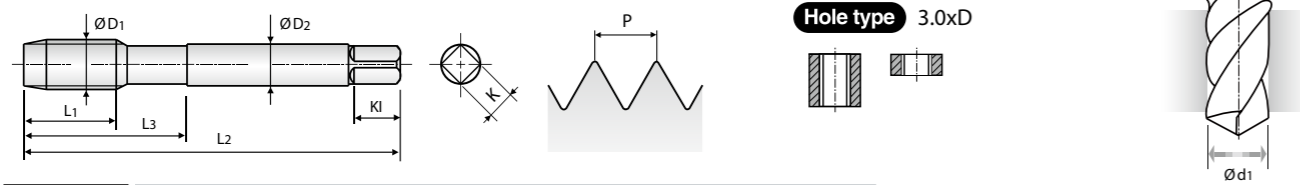
Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎		◎	◎	◎	◎	◎	◎	◎		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				◎	◎	◎			◎	◎	◎			

M SPIRAL POINT TAPS for Stainless Steels

ISO Metric coarse threads DIN 13

Vap **TQ428** SERIES
Vap **TB428** SERIES

► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups: **VA** HSS-PM up to M12, HSS-E over M12, DIN 371/376, 6H, 60°, B, Vap

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	KI	Z	Ød1
M2	× 0.4	TQ428136	8	45	13	2.8	2.1	5	3	1.6
M2.2	× 0.45	TQ428156	8	45	13	2.8	2.1	5	3	1.75
M2.3	× 0.4	TQ428196	8	45	13	2.8	2.1	5	3	1.9
M2.5	× 0.45	TQ428176	9	50	15	2.8	2.1	5	3	2.05
M2.6	× 0.45	TQ428496	9	50	15	2.8	2.1	5	3	2.1
M3	× 0.5	TQ428206	11	56	18	3.5	2.7	6	3	2.5
M3.5	× 0.6	TQ428226	12	56	20	4	3	6	3	2.9
M4	× 0.7	TQ428246	13	63	21	4.5	3.4	6	3	3.3
M4.5	× 0.75	TQ428266	14	70	25	6	4.9	8	3	3.7
M5	× 0.8	TQ428286	15	70	25	6	4.9	8	3	4.2
M6	× 1.0	TQ428316	17	80	30	6	4.9	8	3	5
M7	× 1.0	TQ428346	17	80	30	7	5.5	8	3	6
M8	× 1.25	TQ428366	20	90	35	8	6.2	9	3	6.8
M9	× 1.25	TQ428396	20	90	35	9	7	10	3	7.8
M10	× 1.5	TQ428426	22	100	39	10	8	11	3	8.5
M11	× 1.5	TQ428466	22	100	40	8	6.2	9	3	9.5
M12	× 1.75	TQ428506	24	110	44	9	7	10	3	10.2
M14	× 2.0	TB428546	26	110	44	11	9	12	3	12
M16	× 2.0	TB428606	27	110	44	12	9	12	3	14
M18	× 2.5	TB428656	30	125	50	14	11	14	4	15.5
M20	× 2.5	TB428706	32	140	54	16	12	15	4	17.5
M22	× 2.5	TB428746	32	140	54	18	14.5	17	4	19.5
M24	× 3.0	TB428786	34	160	60	18	14.5	17	4	21
M27	× 3.0	TB428866	36	160	60	20	16	19	4	24
M30	× 3.5	TB428946	40	180	70	22	18	21	4	26.5

- DIN 371 (M2~M10) and DIN 376 (M11~M30)
- HSS-PM (M2~M12/TQ428) and HSS-E (M14~M30/TB428)
- The other coating (TiN, TiCN or TiAlN) is available on your request.

Unit : N/mm² ©: Excellent ○: Good

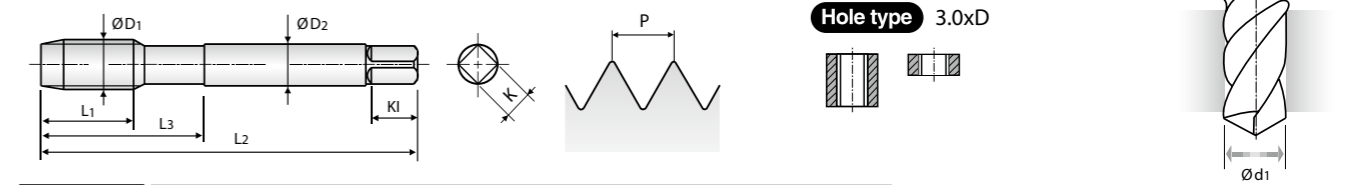
Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
	○		○			◎	◎							
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				○										

MF SPIRAL POINT TAPS for Stainless Steels

ISO Metric fine threads DIN 13

Vap **TQ438** SERIES
Vap **TB438** SERIES

► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups: **VA** HSS-PM up to M12, HSS-E over M12, DIN 374, 6H, 60°, B, Vap

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	KI	Z	Ød1
M4	× 0.5	TQ438256	10	63	21	2.8	2.1	5	3	3.5
M5	× 0.5	TQ438296	11	70	25	3.5	2.7	6	3	4.5
M6	× 0.75	TQ438326	13	80	30	4.5	3.4	6	3	5.2
M6	× 0.5	TQ438336	13	80	30	4.5	3.4	6	3	5.5
M7	× 0.75	TQ438356	14	80	30	5.5	4.3	7	3	6.2
M8	× 1.0	TQ438376	17	90	36	6	4.9	8	3	7
M8	× 0.75	TQ438386	14	80	30	6	4.9	8	3	7.2
M10	× 1.25	TQ438436	22	100	40	7	5.5	8	3	8.8
M10	× 1.0	TQ438446	18	90	36	7	5.5	8	3	9
M10	× 0.75	TQ438456	18	90	36	7	5.5	8	3	9.2
M12	× 1.5	TQ438516	22	100	40	9	7	10	3	10.5
M12	× 1.25	TQ438526	22	100	40	9	7	10	3	10.8
M12	× 1.0	TQ438536	18	100	40	9	7	10	3	11
M14	× 1.5	TB438556	22	100	40	11	9	12	3	12.5
M14	× 1.25	TB438566	22	100	40	11	9	12	3	12.8
M14	× 1.0	TB438576	22	100	40	11	9	12	3	13
M16	× 1.5	TB438616	22	100	40	12	9	12	3	14.5
M16	× 1.0	TB438626	18	100	40	12	9	12	3	15
M18	× 1.5	TB438676	25	110	44	14	11	14	4	16.5
M18	× 1.0	TB438686	20	110	44	14	11	14	4	17
M20	× 1.5	TB438726	25	125	50	16	12	15	4	18.5
M20	× 1.0	TB438736	20	125	50	16	12	15	4	19
M22	× 1.5	TB438766	25	125	50	18	14.5	17	4	20.5
M22	× 1.0	TB438776	20	125	50	18	14.5	17	4	21
M24	× 2.0	TB438796	27	140	54	18	14.5	17	4	22

- HSS-PM (M4~M12/TQ438) and HSS-E (M14~M30/TB438)
- The other coating (TiN, TiCN or TiAlN) is available on your request.

► NEXT PAGE

Unit : N/mm² ©: Excellent ○: Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
	○		○			◎	◎							
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				○										

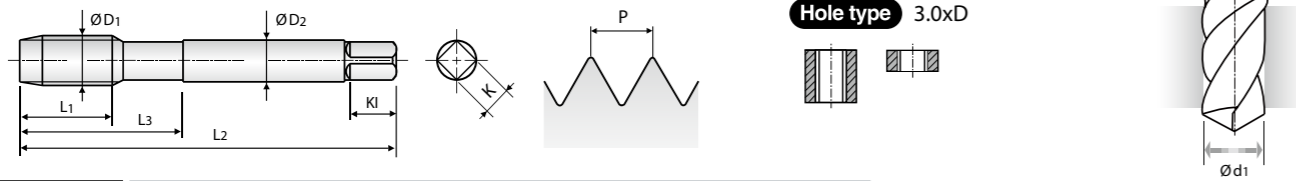
MF SPIRAL POINT TAPS for Stainless Steels

ISO Metric fine threads DIN 13

Vap **TQ438** SERIES
Vap **TB438** SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups: **VA** (HSS-PM up to M12, HSS-E over M12), **DIN 374**, **6H**, **60°**, **B**, **Vap**

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	KI	Z	Ød1
M24 × 1.5		TB438806	27	140	54	18	14.5	17	4	22.5
M26 × 1.5		TB438856	28	140	54	18	14.5	17	4	24.5
M27 × 2.0		TB438876	28	140	54	20	16	19	4	25
M27 × 1.5		TB438886	28	140	54	20	16	19	4	25.5
M28 × 1.5		TB438916	28	140	54	20	16	19	4	26.5
M30 × 2.0		TB438966	30	150	57	22	18	21	4	28
M30 × 1.5		TB438976	30	150	57	22	18	21	4	28.5

► HSS-PM (M4~M12/TQ438) and HSS-E (M14~M30/TB438)
► The other coating (TiN, TiCN or TiAlN) is available on your request.

Unit : N/mm² ©:Excellent ○:Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
○	○	○	○	○	○	◎	◎							
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP

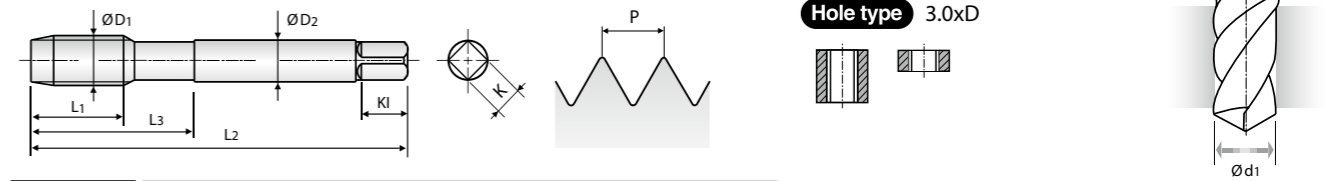
UNC SPIRAL POINT TAPS for Multi-Purpose

Unified coarse threads

Vap **TB834** SERIES
Bright **TC834** SERIES
TiN **TD834** SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Material groups: **MU** (HSS-E), **DIN 371/376**, **2B**, **60°**, **B**, **Vap Bright TiN**

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		Vap	Bright	TiN	L1	L2	L3	ØD2	K	KI	Z	Ød1
#4 - 40 UNC		TB834162	TC834162	TD834162	11	56	18	3.5	2.7	6	3	2.3
#5 - 40 UNC		TB834202	TC834202	TD834202	11	56	18	3.5	2.7	6	3	2.6
#6 - 32 UNC		TB834242	TC834242	TD834242	12	56	20	4	3	6	3	2.85
#8 - 32 UNC		TB834282	TC834282	TD834282	13	63	21	4.5	3.4	6	3	3.5
#10 - 24 UNC		TB834322	TC834322	TD834322	15	70	25	6	4.9	8	3	3.9
#12 - 24 UNC		TB834362	TC834362	TD834362	16	80	30	6	4.9	8	3	4.5
1/4 - 20 UNC		TB834402	TC834402	TD834402	17	80	30	7	5.5	8	3	5.2
5/16 - 18 UNC		TB834442	TC834442	TD834442	20	90	35	8	6.2	9	3	6.6
3/8 - 16 UNC		TB834482	TC834482	TD834482	22	100	39	9	7	10	3	8
7/16 - 14 UNC		TB834522	TC834522	TD834522	22	100	40	8	6.2	9	3	9.4
1/2 - 13 UNC		TB834562	TC834562	TD834562	25	110	44	9	7	10	3	10.75
9/16 - 12 UNC		TB834602	TC834602	TD834602	26	110	44	11	9	12	3	12.25
5/8 - 11 UNC		TB834642	TC834642	TD834642	27	110	44	12	9	12	3	13.5
3/4 - 10 UNC		TB834702	TC834702	TD834702	30	125	50	14	11	14	4	16.5
7/8 - 9 UNC		TB834742	TC834742	TD834742	32	140	54	18	14.5	17	4	19.5
1 - 8 UNC		TB834782	TC834782	TD834782	36	160	60	20	16	19	4	22.25

► DIN 371 (#4~3/8) and DIN 376 (7/16~1)
► The other coating (TiCN or TiAlN) is available on your request.

Unit : N/mm² ©:Excellent ○:Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP

UNC SPIRAL POINT TAPS for Multi-Purpose

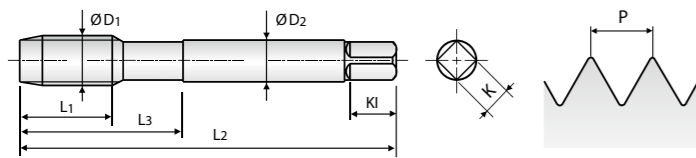
Unified coarse threads

Bright
TiN

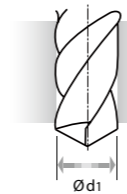
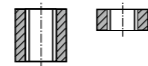
TCJ01 SERIES
TDJ01 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Hole type 3.0xD



Material groups: **MU** HSS-E DIN 371/376 3B 60° B Bright TiN

Unit : mm

Size	TPI	EDP No.		Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Bright	TiN								
#4 - 40 UNC		TCJ01162	TDJ01162	11	56	18	3.5	2.7	6	3	2.3
#5 - 40 UNC		TCJ01202	TDJ01202	11	56	18	3.5	2.7	6	3	2.6
#6 - 32 UNC		TCJ01242	TDJ01242	12	56	20	4	3	6	3	2.85
#8 - 32 UNC		TCJ01282	TDJ01282	13	63	21	4.5	3.4	6	3	3.5
#10 - 24 UNC		TCJ01322	TDJ01322	15	70	25	6	4.9	8	3	3.9
#12 - 24 UNC		TCJ01362	TDJ01362	16	80	30	6	4.9	8	3	4.5
1/4 - 20 UNC		TCJ01402	TDJ01402	17	80	30	7	5.5	8	3	5.2
5/16 - 18 UNC		TCJ01442	TDJ01442	20	90	35	8	6.2	9	3	6.6
3/8 - 16 UNC		TCJ01482	TDJ01482	22	100	39	9	7	10	3	8
7/16 - 14 UNC		TCJ01522	TDJ01522	22	100	40	8	6.2	9	3	9.4
1/2 - 13 UNC		TCJ01562	TDJ01562	25	110	44	9	7	10	3	10.75
9/16 - 12 UNC		TCJ01602	TDJ01602	26	110	44	11	9	12	3	12.25
5/8 - 11 UNC		TCJ01642	TDJ01642	27	110	44	12	9	12	3	13.5
3/4 - 10 UNC		TCJ01702	TDJ01702	30	125	50	14	11	14	4	16.5
7/8 - 9 UNC		TCJ01742	TDJ01742	32	140	54	18	14.5	17	4	19.5
1 - 8 UNC		TCJ01782	TDJ01782	36	160	60	20	16	19	4	22.25

► DIN 371 (#4~3/8) and DIN 376 (7/16~1)
► The other coating (TiCN or TiAlN) or Surface Treatment (Steam Homo) is available on your request.

Unit : N/mm² ©: Excellent ○: Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
○	○	○	○	○		○	○	○	○	○	○	○		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				○	○	○			○	○	○			

UNF SPIRAL POINT TAPS for Multi-Purpose

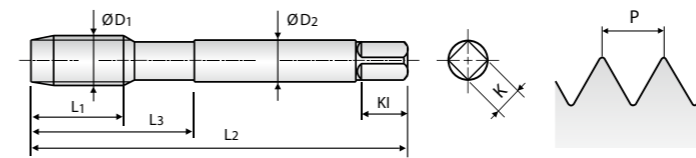
Unified fine threads

Vap
Bright
TiN

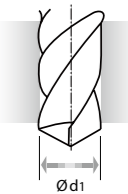
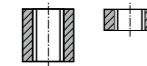
TB874 SERIES
TC874 SERIES
TD874 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Hole type 3.0xD



Material groups: **MU** HSS-E DIN 371/374 2B 60° B Vap Bright TiN

Unit : mm

Size	TPI	EDP No.			Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter
		Vap	Bright	TiN								
#4 - 48 UNF		TB874182	TC874182	TD874182	11	56	18	3.5	2.7	6	3	2.4
#5 - 44 UNF		TB874222	TC874222	TD874222	11	56	18	3.5	2.7	6	3	2.7
#6 - 40 UNF		TB874262	TC874262	TD874262	12	56	20	4	3	6	3	3
#8 - 36 UNF		TB874302	TC874302	TD874302	13	63	21	4.5	3.4	6	3	3.5
#10 - 32 UNF		TB874342	TC874342	TD874342	15	70	25	6	4.9	8	3	4.1
#12 - 28 UNF		TB874382	TC874382	TD874382	16	80	30	6	4.9	8	3	4.7
1/4 - 28 UNF		TB874422	TC874422	TD874422	17	80	30	7	5.5	8	3	5.5
5/16 - 24 UNF		TB874462	TC874462	TD874462	17	90	35	8	6.2	9	3	6.9
3/8 - 24 UNF		TB874502	TC874502	TD874502	18	100	39	9	7	10	3	8.5
7/16 - 20 UNF		TB874542	TC874542	TD874542	22	100	40	8	6.2	9	3	9.9
1/2 - 20 UNF		TB874582	TC874582	TD874582	22	100	40	9	7	10	3	11.5
9/16 - 18 UNF		TB874622	TC874622	TD874622	22	100	40	11	9	12	3	12.9
5/8 - 18 UNF		TB874662	TC874662	TD874662	22	100	40	12	9	12	3	14.5
3/4 - 16 UNF		TB874722	TC874722	TD874722	25	110	44	14	11	14	4	17.5
7/8 - 14 UNF		TB874762	TC874762	TD874762	26	125	50	18	14.5	17	4	20.5
1 - 12 UNF		TB874802	TC874802	TD874802	28	140	54	20	16	19	4	23.25

► DIN 371 (#4~3/8) and DIN 374 (7/16~1)
► The other coating (TiCN or TiAlN) is available on your request.

Unit : N/mm² ©: Excellent ○: Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
○	○	○	○	○		○	○	○	○	○	○	○		
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				○	○	○			○	○	○			

UNF SPIRAL POINT TAPS for Multi-Purpose

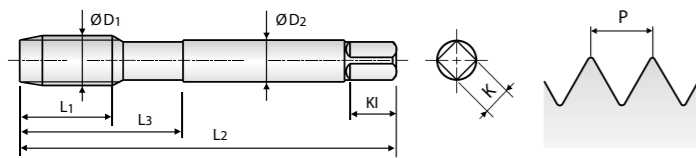
Unified fine threads

Bright
TiN

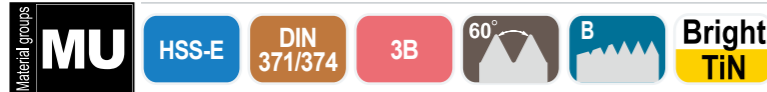
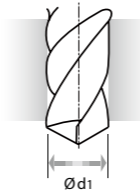
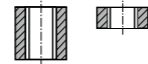
TCJ02 SERIES
TDJ02 SERIES



► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry. YG-1 company has a patent.



Hole type 3.0xD



Unit : mm

Size ØD1	TPI	EDP No.		Thread Length L1	Overall Length L2	Neck Length L3	Shank Diameter ØD2	Square Size K	Square Length KL	No. of Flute Z	Tapping Drill Diameter Ød1
		Bright	TiN								
#4 - 48 UNF		TCJ02182	TDJ02182	11	56	18	3.5	2.7	6	3	2.4
#5 - 44 UNF		TCJ02222	TDJ02222	11	56	18	3.5	2.7	6	3	2.7
#6 - 40 UNF		TCJ02262	TDJ02262	12	56	20	4	3	6	3	3
#8 - 36 UNF		TCJ02302	TDJ02302	13	63	21	4.5	3.4	6	3	3.5
#10 - 32 UNF		TCJ02342	TDJ02342	15	70	25	6	4.9	8	3	4.1
#12 - 28 UNF		TCJ02382	TDJ02382	16	80	30	6	4.9	8	3	4.7
1/4 - 28 UNF		TCJ02422	TDJ02422	17	80	30	7	5.5	8	3	5.5
5/16 - 24 UNF		TCJ02462	TDJ02462	17	90	35	8	6.2	9	3	6.9
3/8 - 24 UNF		TCJ02502	TDJ02502	18	100	39	9	7	10	3	8.5
7/16 - 20 UNF		TCJ02542	TDJ02542	22	100	40	8	6.2	9	3	9.9
1/2 - 20 UNF		TCJ02582	TDJ02582	22	100	40	9	7	10	3	11.5
9/16 - 18 UNF		TCJ02622	TDJ02622	22	100	40	11	9	12	3	12.9
5/8 - 18 UNF		TCJ02662	TDJ02662	22	100	40	12	9	12	3	14.5
3/4 - 16 UNF		TCJ02722	TDJ02722	25	110	44	14	11	14	4	17.5
7/8 - 14 UNF		TCJ02762	TDJ02762	26	125	50	18	14.5	17	4	20.5
1 - 12 UNF		TCJ02802	TDJ02802	28	140	54	20	16	19	4	23.25

► DIN 371 (#4~3/8) and DIN 374 (7/16~1)

► The other coating (TiCN or TiAlN) or Surface Treatment (Steam Homo) is available on your request.

Unit : N/mm²

◎ : Excellent ○ : Good

Steel < 400	Steel < 700	Steel < 850	St. Alloy < 850	St. Alloy ≤ 1200	St. Alloy > 1200	INOX Free < 850	INOX Aust. < 850	INOX < 1000	GG Cast < 500	GG Cast < 1000	GGG Cast < 700	GGG Cast < 1000	Ti < 700	Ti Alloy < 900
◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
Ti Alloy ≤ 1300	Ni < 500	Ni Alloy < 900	Ni Alloy ≤ 1400	Cu < 350	Cu Alloy Short	Cu Alloy Long	Cu-Al-Fe < 1500	Al / Mg < 350	Al Wrought	Al Si ≤ 10%	Al Si > 10%	Plastic Thermosoft	Plastic Thermoset	Plastic FRP
				◎	◎	◎			◎	◎	◎			

TECHNICAL DATA

SURFACE TREATMENT AND COATING

The High Speed Steels we use grant a good wear resistance and toughness. Therefore we normally deliver our taps with bright, untreated surface. In machining certain materials, various surface treatments are of advantage.

STEAM TEMPERED - Vap

The Steam Tempered is a Fe₃O₄-oxyd-coating which reduces the friction between tool and workpiece and prevents cold welding.

NITRIDING - NI

The Steam Tempered is a Fe₃O₄-oxyd-coating which reduces the friction between tool and workpiece and prevents cold welding.

The above surface finishes are suitable for many applications and will prove to be an added value to your machining strategy. All our surface treatments are made in-house using state of the art technology.

We also offer various coatings to enhance toughness and increase tool life.

TiN-COATING

TiN-coating has a hardness of approx. **2,300 HV** and is temperature-resistant up to approx. **600°C**.
TiN-coating is an excellent all-round coating for normal applications.
Color: **Gold** Coefficient of friction against steel: 0.4

TiCN-COATING

TiCN takes place of TiN when the conditions require a coating to have a different hardness and toughness. TiCN brings advantage in machining very difficult steels or cutting interrupted bores. TiCN-coating hardness is approx. **3,000 HV** and its temperature resistance is approx. **400°C**.
Due to its lower temperature resistance, tools using TiCN will need to be used in combination with an excellent cooling to ensure a longer tool life.
Color: **Blue-Grey** Coefficient of friction against steel: 0.4

TiAlN-COATING

TiAlN-coating has been especially engineered for abrasive material applications such as grey cast iron, alu-alloys with silicon, fiber reinforced plastics etc. or machining under high temperatures with insufficient cooling or high speed ≥ 600m/min.
TiAlN hardness is approx. **3,000 HV** and its temperature resistance is approx. **800°C**.
Color: **Violet-Grey** Coefficient of friction against steel: 0.4

HARDSLICK-COATING

Hardslick-coating combines the advantages of an extremely hard, thermally stable TiAlN-coating with the sliding and lubricating properties of an outer WC/C (tungsten carbide/carbon)-coating in a new technological way. Hardslick-coating has and its temperature resistance is approx. **800°C**.
Color: **Violet-Grey** Coefficient of friction against steel: 0.2

TROUBLE SHOOTING GUIDE

Specific Problem	Cause	Solution
Dimensional Accuracy		
Oversize Pitch Diameter	Incorrect Tap	1. Use proper limits of taps 2. Use longer chamfered taps
	Chip Packing	1. Use spiral point or spiral fluted taps 2. Reduce number of flutes to provide extra chip room 3. Use larger hole size 4. If tapping a hole, allow deeper hole where applicable or shorten the thread length of the parts 5. Use proper lubricant
	Galling	1. Apply proper surface treatment such as Hardslick or chrome 2. Use proper cutting lubricant 3. Reduce tapping speed 4. Use proper cutting angle in accordance with material being tapped 5. Use large hole size
	Operating Conditions	1. Apply proper tapping speed 2. Correct alignment of tap and drill hole 3. Free cutting either tap or workpiece 4. Use proper tapping speed to avoid torn or rough threads 5. Use lead screw tapper 6. Use proper tapping machine with suitable power 7. Avoid misalignment of the tap and drill hole from loose spindle or worn holder
	Tool Condition	1. Obtain proper indexing angle for the flutes at the cutting edge 2. Grind proper cutting angle and chamfer angle 3. Avoid too narrow a land width 4. Remove burrs from regrinding
Oversize Internal Diameter	Hole Size	1. Use minimum hole size 2. Avoid tapered hole 3. Use proper chamfered taps
	Galling	1. Galling solutions 1 through 4 above can be applied to this specific problem
Undersize Pitch Diameter	Incorrect Tap	1. Use oversize taps 2. Apply proper chamfer angle 3. Increase cutting angle
	Damaged Thread	1. Use proper reversing speed to avoid damaging tapped thread on the way out of the hole
	Left-over Chips	1. Increase cutting performance to avoid any left over chips in the hole 2. Remove left over chips from the hole for gage checking
Undersize Internal Diameter	Hole Size	1. Use maximum drill size
Breakage	Incorrect Tap Selection	1. Avoid chip packing in the flutes or on the bottom of the hole Use spiral pointed or spiral fluted taps or fluteless taps 2. Apply correct surface treatment such as Hardslick or bright
	Excessive Tapping Torque	1. Use larger drill size 2. Try to shorten thread length 3. Increase cutting angle 4. Apply a tap with more thread relief and reduced land width 5. Apply correct surface treatment such as Hardslick

TROUBLE SHOOTING GUIDE

Specific Problem	Cause	Solution
Dimensional Accuracy		
Breakage	Operating Conditions	1. Reduce tapping speed 2. Avoid misalignment between tap and the hole and tapered hole 3. Use floating type of tapping holder 4. Use tapping holder with torque adjustment 5. Avoid hitting bottom of the hole with tap
	Tool Condition	1. Do not grind the bottom of the flute 2. Avoid too narrow a land width 3. Remove all worn sections when regrinding the flutes 4. Regrind tool more frequently
Chipping	Incorrect Tap Selection	1. Reduce cutting angle 2. Use a different kind of high-speed steel tap 3. Reduce hardness of the tap 4. Increase chamfer length 5. Avoid chip packing in the flutes or in the bottom of the hole by using spiral fluted or spiral pointed taps
	Operating Conditions	1. Reduce tapping speed 2. Avoid misalignment between tap and hole 3. Avoid sudden return of reverse in blind hole tapping 4. Avoid galling 5. Use larger hole size
Wear	Incorrect Tap Selection	1. Apply specially designed tap for tapping heat treated material 2. Change to a type of high-speed steel tap that contains vanadium 3. Apply special surface treatment such as TiCN, TiAlN or Hardslick 4. Increase chamfer length
	Operating Conditions	1. Reduce tapping speed 2. Apply proper cutting lubricants 3. Avoid work hardened hole 4. Use larger hole size
	Tool Condition	1. Grind proper cutting angle 2. Avoid hardness reduction from grinding process
Torn or Rough Thread	Chamfer Too Short	1. Increase chamfer length
	Wrong Cutting Angle	1. Apply proper cutting angle
	Galling	1. Use thread relieved taps 2. Reduce land width 3. Apply surface treatment such as Hardslick or chrome 4. Use proper cutting lubricant 5. Reduce tapping speed 6. Use larger hole size 7. Obtain proper alignment between tap and work
	Chip Packing	1. Use spiral pointed or spiral fluted taps 2. Use larger drill size
Chattering on Tapped Thread	Tool Free Cutting	1. Reduce cutting angle 2. Reduce amount of thread relief
	Tool Condition	1. Avoid too narrow land width 2. Do not grind the bottom of the flute

CUTTING SPEED TABLE

Cutting Speeds m/min. into revolutions per minute

TOOL RPM (rev./min.)																
Tool Dia.	Cutting Speed (m/min.)															
	1	2	3	4	5	6	8	10	12	15	20	25	30	40	50	60
1	318	637	955	1274	1592	1910	2548	3185	3822	4777	6366	7962	9554	12739	15924	19108
2	159	318	478	637	796	955	1274	1592	1911	2388	3185	3981	4777	6369	7962	9554
3	106	212	318	425	531	637	849	1062	1274	1592	2123	2654	3185	4246	5308	6369
4	80	159	239	318	398	478	637	796	955	1194	1592	1990	2389	3185	3981	4777
5	64	127	191	255	318	382	510	637	764	955	1274	1592	1911	2548	3185	3822
6	53	106	159	212	265	318	425	531	637	796	1062	1327	1592	2123	2653	3185
8	40	80	119	159	199	239	318	398	478	597	796	955	1194	1592	1990	2388
10	31	64	96	127	159	191	255	318	382	478	637	796	955	1274	1592	1911
12	26	53	80	106	133	159	212	265	318	398	531	663	796	1062	1327	1592
14	23	45	68	91	114	136	182	227	273	341	455	569	682	910	1137	1365
16	20	40	60	80	100	119	159	199	239	299	398	498	597	796	995	1194
18	18	35	53	71	88	106	142	177	212	265	354	442	531	708	885	1062
20	16	32	48	64	80	96	127	159	191	239	318	398	478	637	796	955
25	13	25	38	51	64	76	102	127	153	191	255	318	382	510	637	764
30	11	21	32	42	53	64	85	106	127	159	212	265	318	425	531	637
35	9	18	27	36	45	55	73	91	109	136	182	227	273	364	455	546
40	8	16	24	32	40	48	64	80	96	119	159	199	239	318	398	478

RPM = rev./min.
V = m/min.
D = Dia.(mm)

$$V = \frac{RPM \cdot \pi \cdot D}{1000}$$

$$RPM = \frac{1000 \cdot V}{\pi \cdot D}$$

RECOMMENDED TAP DRILL SIZE (M / MF)

Unit : mm

Metric-ISO threads coarse pitch				Metric-ISO threads fine pitch				Metric-ISO threads fine pitch			
M	Pitch	Maximum Core Dia.	Drill Size	MF	Pitch	Maximum Core Dia.	Drill Size	MF	Pitch	Maximum Core Dia.	Drill Size
1	0.25	0.785	0.75	2.5	0.35	2.221	2.15	25	2.00	23.210	23.00
1.1	0.25	0.885	0.85	3	0.35	2.271	2.65	26	1.50	24.676	24.50
1.2	0.25	0.985	0.95	3.5	0.35	3.221	3.15	27	1.00	26.153	26.00
1.4	0.30	1.160	1.10	4	0.50	3.599	3.50	27	1.50	25.676	25.50
1.6	0.35	1.321	1.25	4.5	0.50	4.099	4.00	27	2.00	25.210	25.00
1.7	0.35	1.346	1.30	5	0.50	4.599	4.50	28	1.00	27.153	27.00
1.8	0.35	1.521	1.45	5.5	0.50	5.099	5.00	28	1.50	26.676	26.50
2	0.40	1.679	1.60	6	0.75	5.378	5.20	28	2.00	26.210	26.00
2.2	0.45	1.838	1.75	7	0.75	6.378	6.20	30	1.00	29.153	29.00
2.3	0.40	1.920	1.90	8	0.75	7.378	7.20	30	1.50	28.676	28.50
2.5	0.45	2.138	2.05	8	1.00	7.153	7.00	30	2.00	28.210	28.00
2.6	0.45	2.176	2.10	9	0.75	8.378	8.20	30	3.00	27.252	27.00
3	0.50	2.599	2.50	9	1.00	8.153	8.00	32	1.50	30.675	30.50
3.5	0.60	3.010	2.90	10	0.75	9.378	9.20	32	2.00	30.210	30.00
4	0.70	3.422	3.30	10	1.00	9.153	9.00	33	1.50	31.676	31.50
4.5	0.75	3.878	3.70	10	1.25	8.912	8.80	33	2.00	31.210	31.00
5	0.80	4.334	4.20	11	0.75	10.378	10.20	33	3.00	30.252	30.00
6	1.00	5.153	5.00	11	1.00	10.153	10.00	35	1.50	33.676	33.50
7	1.00	6.153	6.00	12	1.00	11.153	11.00	36	1.50	34.676	34.50
8	1.25	6.912	6.80	12	1.25	10.912	10.80	36	2.00	34.210	34.00
9	1.25	7.912	7.80	12	1.50	10.676	10.50	36	3.00	33.252	33.00
10	1.50	8.676	8.50	14	1.00	13.153	13.00	38	1.50	36.676	36.50
11	1.50	9.676	9.50	14	1.25	12.912	12.80	39	1.50	37.676	37.50
12	1.75	10.441	10.20	14	1.50	12.676	12.50	39	2.00	37.210	37.00
14	2.00	12.210	12.00	15	1.00	14.153	14.00	39	3.00	36.252	36.00
16	2.00	14.210	14.00	15	1.50	13.676	13.50	40	1.50	38.676	38.50
18	2.50	15.744	15.50	16	1.00	15.153	15.00	40	2.00	38.210	38.00
20	2.50	17.744	17.50	16	1.50	14.676	14.50	40	3.00	37.252	37.00
22	2.50	19.744	19.50	17	1.00	16.153	16.00	42	1.50	40.676	40.50
24	3.00	21.252	21.00	17	1.50	15.676	15.50	42	2.00	40.210	40.00
27	3.00	24.252	24.00	18	1.00	17.153	17.00	42	3.00	39.252	39.00
30	3.50	26.771	26.50	18	1.50	16.676	16.50	45	1.50	43.676	43.50
33	3.50	29.771	29.50	18	2.00	16.210	16.00	45	2.00	43.210	43.00
36	4.00	32.270	32.00	20	1.00	19.153	19.00	45	3.00	42.252	42.00
39	4.00	35.270	35.00	20	1.50	18.676	18.50	48	1.50	46.676	46.50
42	4.50	37.799	37.50	20	2.00	18.210	18.00	48	2.00	46.210	46.00
45	4.50	40.799	40.50	22	1.00	21.153	21.00	48	3.00	45.252	45.00
48	5.00	43.297	43.00	22	1.50	20.676	20.50	50	1.50	48.676	48.50
52	5.00	47.297	47.00	22	2.00	20.210	20.00	50	2.00	48.210	48.00
56	5.50	50.796	50.50	24	1.00	23.153	23.00	50	3.00	47.252	47.00
60	5.50	54.796	54.50	24	1.50	22.676	22.50	52	1.50	50.676	50.50
64	6.00	58.305	58.00	24	2.00	22.210	22.00	52	2.00	50.210	50.00
68	6.00	62.305	62.00	25	1.00	24.153	24.00	52	3.00	49.252	49.00
				25	1.50	23.676	23.50				

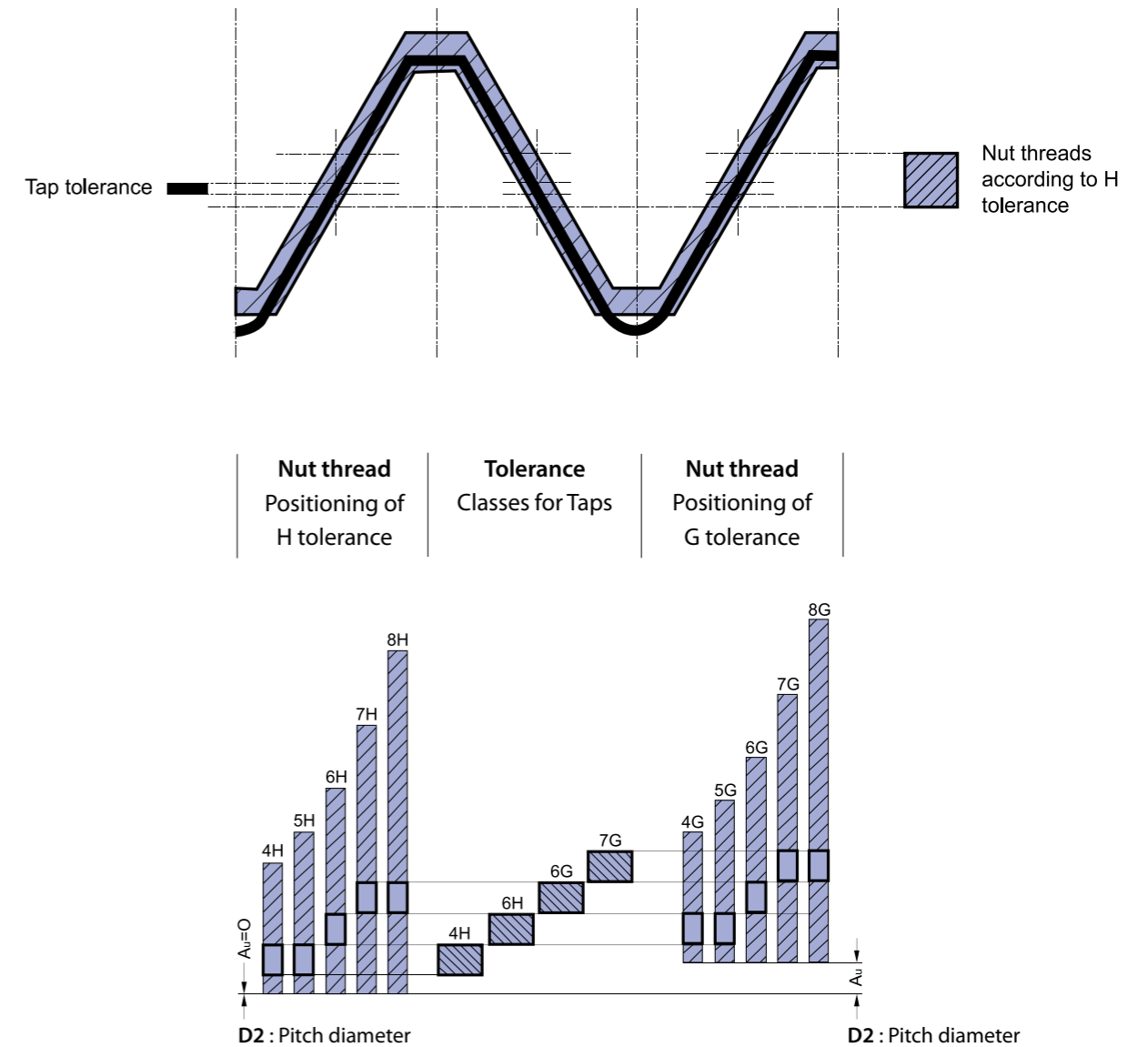
RECOMMENDED TAP DRILL SIZE (UNC / UNF)

Unit : mm

American Unified coarse threads				American Unified fine threads			
UNC	TPI	Maximum Core Dia.	Drill Size	UNF	TPI	Maximum Core Dia.	Drill Size
#1	64	1.585	1.50	#0	80	1.306	1.30
#2	56	1.872	1.80	#1	72	1.613	1.60
#3	48	2.146	2.10	#2	64	1.913	1.90
#4	40	2.385	2.30	#3	56	2.197	2.10
#5	40	2.697	2.60	#4	48	2.459	2.40
#6	32	2.896	2.85	#5	44	2.741	2.70
#8	32	3.528	3.50	#6	40	3.012	3.00
#10	24	3.950	3.90	#8	36	3.597	3.50
#12	24	4.590	4.50	#10	32	4.168	4.10
1/4	20	5.250	5.20	#12	28	4.717	4.70
5/16	18	6.680	6.60	1/4	28	5.563	5.50
3/8	16	8.082	8.00	5/16	24	6.995	6.90
7/16	14	9.441	9.40	3/8	24	8.565	8.50
1/2	13	10.881	10.75	7/16	20	9.947	9.90
9/16	12	12.301	12.25	1/2	20	11.524	11.50
5/8	11	13.693	13.50	9/16	18	12.969	12.90
3/4	10	16.624	16.50	5/8	18	14.554	14.50
7/8	9	19.520	19.50	3/4	16	17.546	17.50
1	8	22.344	22.25	7/8	14	20.493	20.50
1-1/8	7	25.082	25.00	1	12	23.363	23.25
1-1/4	7	28.258	28.25	1-1/8	12	26.538	26.50
1-3/8	6	30.851	30.75	1-1/4	12	29.713	29.50
1-1/2	6	34.026	34.00	1-3/8	12	32.888	32.70
1-3/4	5	39.560	39.50	1-1/2	12	36.063	36.00
2	4.5	45.367	45.25				

TAP TOLERANCES

► Tolerance classes of taps and tolerance positions for screw threads as per Metric ISO Standard.



► Taps tolerances and recommended classes

Tap tolerance ISO	Tap tolerance DIN	Correct class to obtain Nut thread with tolerance			
ISO 1	4H	4H	5H		
ISO 2	6H	4G	5G	6H	
ISO 3	6G			6G	7H 8H
	7G				7G 8G

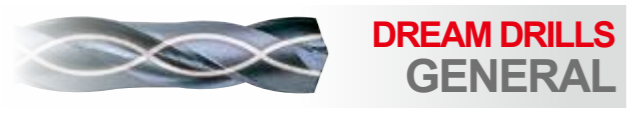


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YG-1 Drilling tools are well known for its tight tolerance and high technology, continuously impressing various manufacturers around the world. Its advance designed geometry brings out extraordinary performances, creating a longer tool life with outstanding productivity. Also a variety of size and shapes are available for multiple applications.

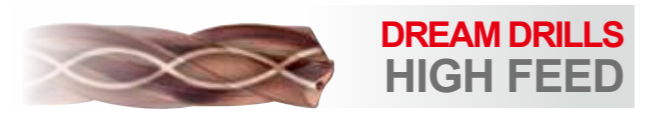
SOLID DRILLS

P M K SOLID CARBIDE



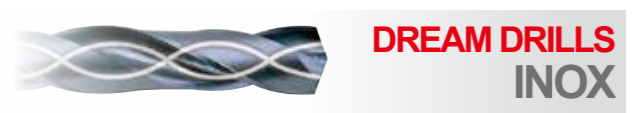
With/without Internal Coolant
 Wide range of sizes and flute lengths
 Perfect choice for general purpose

P K SOLID CARBIDE



3-Flute Drills with Internal Coolant
 Up to 1.6 times faster drilling
 compared to conventional 2-flute drills

P M N S SOLID CARBIDE



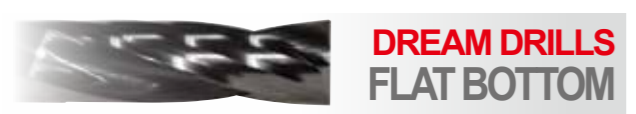
For drilling Stainless Steels
 Special geometry and flute shape
 for excellent chip evacuation and self-centering

N SOLID CARBIDE



For drilling Aluminum & Aluminum Alloys
 Good chip evacuation due to
 flute geometry & enough chip space

P M K N SOLID CARBIDE



180° Point Angle with/without Internal Coolant
 Perfect choice for a various angled surface

P M K N S PREMIUM HSS-PM



For Drilling various work materials;
 Carbon Steel, Alloy Steels, Cast Iron,
 Stainless Steels, Aluminum, Titanium, etc

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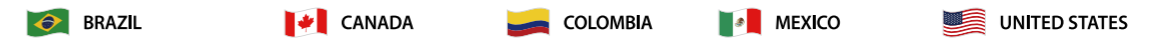
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