

YU-PT26 AMERICAS

BEST VALUE IN THE WORLD OF CUTTING TOOLS



COMPLETE METALWORKING SOLUTIONS

(800) 991-4225

ISO Certified

www.ahbinc.com

customerservice@ahbinc.com

TAP PRIME

HSS-PM(Powder Metallurgy) Premium Taps

- Spiral Point, Spiral Flute, and Forming Taps for CNC Machines
- High and Reliable Performance in Various Ductile Materials

NEW PORTFOLIO!

EXPANSION Spiral Point, Spiral Flute Cutting Tap
NEW with Internal Coolant

Prime X-Coated Tap for CNC Machining in Various Ductile Materials

The special grinding process provides a unique geometry for spiral flute and spiral point taps to optimize chip evacuation, while Forming Taps form threads through material displacement without chip evacuation, resulting in stronger threads and improved surface finish.



Spiral Flute



Spiral Point

GUIDE TO ICONS

Working Material



Multi-Purpose

Helix Angle



R45

Tool Raw Material



YG-1 Premium
Powder Metallurgy HSS

Cutting Condition



Tap Limits



Finish



YG-1 X-Coating

Thread Angle



60°

Chamfer Type



1P~2P

2P~3P

4P~5P

Thread Designation



UNC
UNF

M/MF

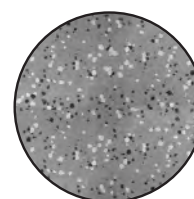
FEATURES & BENEFITS

High and Reliable Performance on Various Ductile Materials



HSS-PM(Powder Metallurgy) Premium Taps

Powdered Metal Technology for a tough-chipping resistant cutting edge for long tool life and reliable thread finish



Premium Cutting Edge Strength

- More controlled structure with high wear resistance
- Consistent performance and process stability with chipping resistance

CASE STUDY

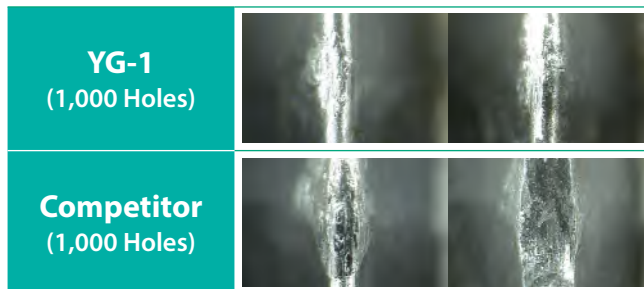
TEST I FORMING TAP (M6x1.0)

Cutting Condition

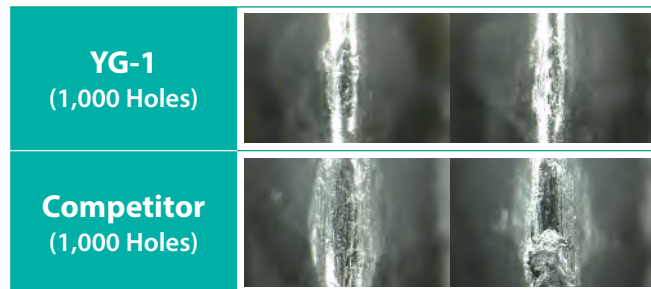
Tool	Forming Tap
Size	M6x1.0
Work Material	- JIS: SCM440(HRC35) - DIN: 42CrMo4 - WR: 1.7225
SFM	22
Vc	33 ft/min.

Feed	1.0 mm/rev.
Tap Drill Size	.2161"
Tapping Depth	.4724"
Tapping Holes	1,000
Machine	Machining Center (Horizontal)

RESULT 1



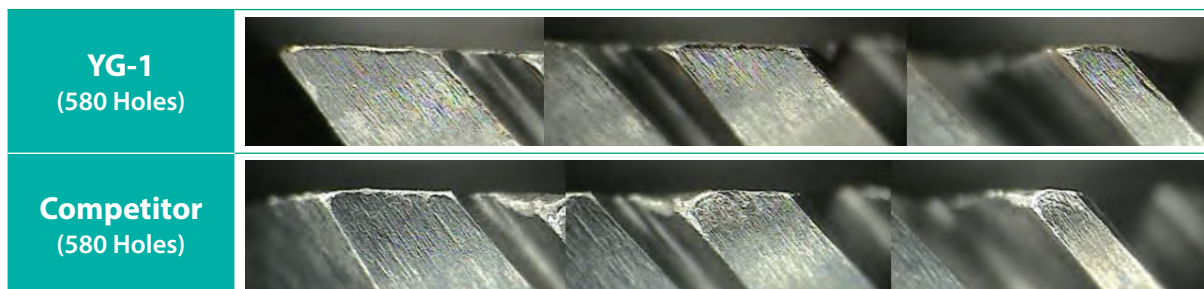
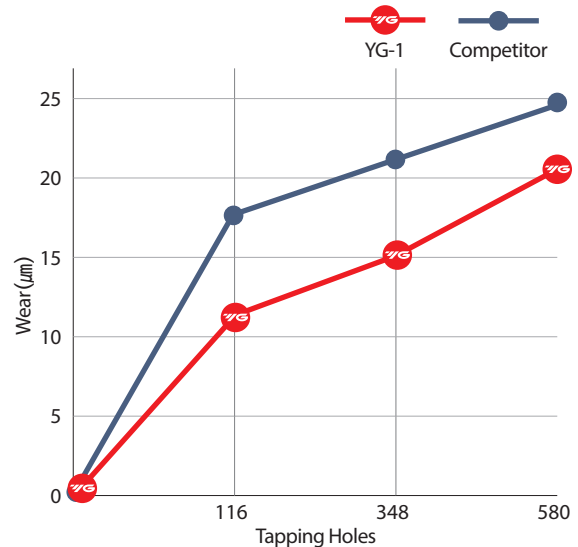
RESULT 2



TEST II SPIRAL FLUTE TAP (M4x0.7)

Cutting Condition

Tool	Spiral Flute Tap
Size	M4x0.7
Work Material	- JIS: SCM440(HRC30) - DIN: 42CrMo4 - WR: 1.7225
SFM	98
Vc	98 ft/min.
Feed	0.7 mm/rev.
Tap Drill Size	.1299"
Tapping Depth	.3150"
Tapping Holes	580
Coolant	Wet Cut

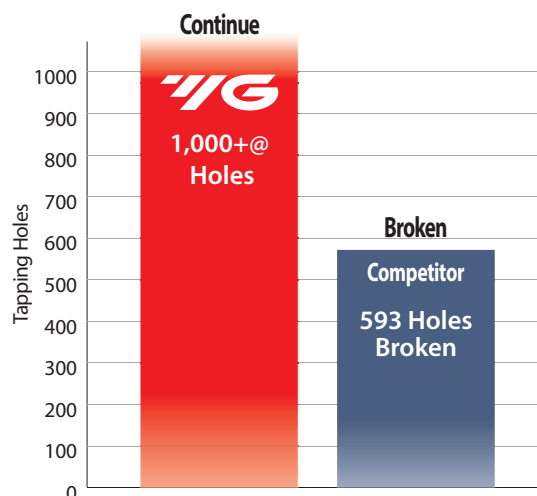


CASE STUDY

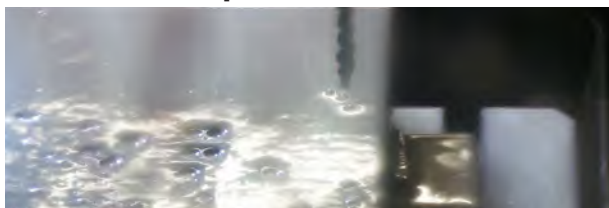
TEST III SPIRAL FLUTE TAP (M6x1.0)

Cutting Condition

Tool	Spiral Flute Tap
Size	M6x1.0
Work Material	- JIS: SUS304 - DIN: X16CrNi1810 - WR: 1.4350
SFM	33
Vc	33 ft/min.
Feed	1.0 mm/rev.
Tap Drill Size	.2008"
Tapping Depth	.4724"
Tapping Holes	YG-1: 1,000+@ / Competitor: 593
Coolant	Wet Cut



YIG Prime Taps (1,000+@ Holes)



Competitor (593 Holes, Broken)



TEST IV SPIRAL FLUTE TAP (M8x1.25)

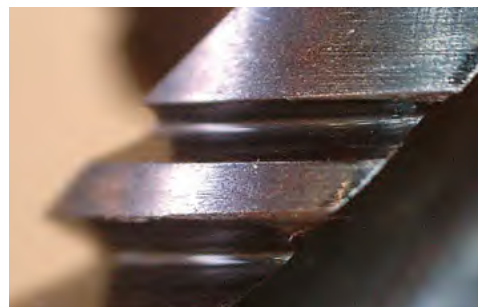
Cutting Condition

Tool	Spiral Flute Tap
Size	M8x1.25
Work Material	- JIS: S45C - DIN: CK45 - WR: 1.1191
SFM	66
Vc	66 ft/min.
Feed	1.25 mm/rev.
Tap Drill Size	.2677"
Tapping Depth	.6693"
Tapping Holes	YG-1: 1,350+@ / Competitor: 1,350+@
Coolant	Wet Cut

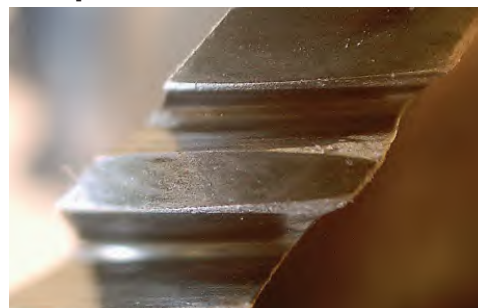


Comparison of Wear Resistance

YIG TAP PRIME



Competitor



HSS-PM

PRIME TAP

Premium HSS-PM X-Coated Tap
for CNC Machines



Please visit
globalyg1.com/mat
for material search

◎ : Excellent ○ : Good

HOLE TYPE		 Max. 2.5xD Blind Hole		 Max. 3.0xD Through Hole	
TOOL MATERIAL		HSS-PM			
CHAMFER LEAD ACC. TO DIN2197		2P~3P	1P~2P	4P~5P	
FLUTE TYPE		Spiral Flute		Spiral Point	
SPIRAL FLUTE ANGLE		R45		-	
M	USCTI 302A				
M/MF	USCTI 302A				
	DIN Length-ANSI Shank	TRF04 (p.12)	TRF24 (p.16)	TRK04 (p.20)	
	Extension				
UNC	USCTI Long Shank				
UNC/UNF	USCTI 302				
	USCTI 302A				
	DIN Length-ANSI Shank	TRF14 (p.8)	TRF34 (p.14)	TRK14 (p.17)	
	Extension				
SURFACE TREATMENT / COATING		X-Coating			
MODEL					

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRC	Examples	Recommended cutting conditions (SFM)		
P	1	Non-alloy steel	About 0.15% C	Annealed	125		S15C, C15, 1015	○ (16-66)	○ (16-66)	◎ (49-148)
	2		About 0.45% C	Annealed	190	13	S45C, C45, 1045	◎ (33-164)	◎ (33-164)	◎ (33-180)
	3		About 0.45% C	Quenched & Tempered	250	25		◎ (33-164)	◎ (33-164)	◎ (33-180)
	4		About 0.75% C	Annealed	270	28		◎ (49-131)	◎ (49-131)	◎ (49-164)
	5		About 0.75% C	Quenched & Tempered	300	32	SK5, Ck75, 1080	◎ (49-131)	◎ (49-131)	◎ (49-164)
	6	Low alloy steel		Annealed	180	10	SCM440, 42CrMo4, 410	◎ (26-98)	◎ (26-98)	◎ (26-98)
	7			Quenched & Tempered	275	29		◎ (26-98)	◎ (26-98)	◎ (26-98)
	8			Quenched & Tempered	300	32		◎ (26-98)	◎ (26-98)	◎ (26-98)
	9			Quenched & Tempered	350	38		○ (26-98)	○ (26-98)	◎ (26-98)
	10	High alloyed steel, and tool steel		Annealed	200	15	SKD, D2	○ (26-98)	○ (26-98)	○ (26-98)
	11			Quenched & Tempered	325	35	SKH, SUH, M42	○ (26-98)	○ (26-98)	○ (26-98)
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15	SUS 420, X40Cr13, 420	◎ (16-49)	◎ (16-49)	◎ (26-66)
	13		Martensitic	Quenched & Tempered	240	23		◎ (16-49)	◎ (16-49)	◎ (26-66)
	14			Austenitic	180	10	SUS 316, 316, X5CrNiMo 17 12 2	◎ (16-49)	◎ (16-49)	◎ (26-66)
K	15	Grey cast iron	Pearlitic / ferritic		180	10		○ (49-115)	○ (49-115)	◎ (49-115)
	16		Pearlitic (Martensitic)		260	26		○ (49-115)	○ (49-115)	◎ (49-115)
	17	Nodular cast iron	Ferritic		160	3	FCD, GGG, EN-GJS-500-7	◎ (49-115)	◎ (49-115)	◎ (49-115)
	18		Pearlitic		250	25		◎ (49-115)	◎ (49-115)	◎ (49-115)
	19	Malleable cast iron	Ferritic		130		FCMW, FCMP, GTS, GJMB350-10			
	20		Pearlitic		230	21				
N	21	Aluminum-wrought alloy	Not Curable		60		SAE 1000, AIMg 1, 3.3315	○ (49-115)	○ (49-115)	○ (49-115)
	22		Curable	Hardened	100		SAE 7050, AlCuMg 1, 3.1325	○ (49-115)	○ (49-115)	○ (49-115)
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable		75		ADC12, G-AlSi12, 3.2581	◎ (49-115)	◎ (49-115)	◎ (49-115)
	24		≤ 12% Si, Curable	Hardened	90		C4BS, G-AlSi10Mg, 3.2381	◎ (49-115)	◎ (49-115)	◎ (49-115)
	25		> 12% Si, Not Curable		130			○ (49-115)	○ (49-115)	○ (49-115)
	26	Copper and Copper Alloys	Cutting Alloys, PB>1%		110		CuZn36Pb 3, 2.0375	◎ (49-115)	◎ (49-115)	◎ (49-115)
	27		CuZn, CuSnZn (Brass)		90		CuZn 15, 2.0240	◎ (49-115)	◎ (49-115)	◎ (49-115)
	28	Bronze / Brass	CuSn, lead-free copper and electrolytic copper		100		G-CuZn40Fe, 2.0590	◎ (49-115)	◎ (49-115)	◎ (49-115)
	29		Duroplastic, Fiber Reinforced Plastic				CFRP			
	30	Non Metallic Materials	Rubber, Wood, etc.							
S	31	Heat Resistant Super Alloys	Fe Based	Annealed	200	15	X12 NiCrSi 36-16, 1.4864			
	32			Cured	280	30				
	33			Annealed	250	25	Inconel 718, NiCr20TiAl, 2.4631			
	34		Ni or Co Based	Cured	350	38	NiCu30Al, 2.4375			
	35			Cast	320	34	G-X120Mn12, 1.3401			
	36	Titanium Alloys	Pure Titanium		400 Rm					
	37		Alpha + Beta Alloys	Hardened	1050 Rm		TiAl6V4, 3.7165			
H	38	Hardened steel		Hardened	550	55	SK3			
	39			Hardened	630	60				
	40	Chilled Cast Iron		Cast	400	42				
	41	Hardened Cast Iron		Hardened	550	55				

HSS-PM								
2P~3P	1P~2P	4P~5P	2P~3P	4P~5P	1P~2P	2P~3P	1P~2P	2P~3P
Spiral Flute	Spiral Flute	Spiral Point	Spiral Flute	Spiral Point	Forming			
R45	R45	-	R45	-	-	-	-	-
TRF26 (p.25)	TRF28 (p.29)	TRK16 (p.32)			TRR13 (p.44)	TRR12 (p.50)	TRR17 (p.54)	TRR16 (p.57)
			TRF29 (p.36)	TRK29 (p.40)				
TRF25 (p.22)	TRF27 (p.27)	TRK15 (p.30)			TRR11 (p.42)	TRR10 (p.46)	TRR15 (p.53)	TRR14 (p.55)
			TRF30 (p.34)	TRK30 (p.38)				
X-Coating								
Recommended cutting conditions (SFM)								
○ (16-73)	○ (16-73)	◎ (49-163)	○ (16-66)	◎ (49-148)	◎ (49-131)	◎ (49-131)	◎ (49-131)	◎ (49-131)
◎ (33-180)	◎ (33-180)	◎ (33-198)	◎ (33-164)	◎ (33-180)	◎ (49-98)	◎ (49-98)	◎ (49-98)	◎ (49-98)
◎ (33-180)	◎ (33-180)	◎ (33-198)	◎ (33-164)	◎ (33-180)	◎ (49-98)	◎ (49-98)	◎ (49-98)	◎ (49-98)
◎ (49-144)	◎ (49-144)	◎ (49-181)	◎ (49-131)	◎ (49-164)	◎ (49-98)	◎ (49-98)	◎ (49-98)	◎ (49-98)
◎ (49-144)	◎ (49-144)	◎ (49-181)	◎ (49-131)	◎ (49-164)	◎ (49-98)	◎ (49-98)	◎ (49-98)	◎ (49-98)
◎ (26-108)	◎ (26-108)	◎ (26-108)	◎ (26-98)	◎ (26-98)	◎ (49-98)	◎ (49-98)	◎ (49-98)	◎ (49-98)
◎ (26-108)	◎ (26-108)	◎ (26-108)	◎ (26-98)	◎ (26-98)	◎ (49-98)	◎ (49-98)	◎ (49-98)	◎ (49-98)
◎ (26-108)	◎ (26-108)	◎ (26-108)	◎ (26-98)	◎ (26-98)	◎ (16-65)	◎ (16-65)	◎ (16-65)	◎ (16-65)
○ (26-108)	○ (26-108)	○ (26-108)	○ (26-98)	◎ (26-98)	◎ (16-65)	◎ (16-65)	◎ (16-65)	◎ (16-65)
○ (26-108)	○ (26-108)	○ (26-108)	○ (26-98)	○ (26-98)	◎ (16-65)	◎ (16-65)	◎ (16-65)	◎ (16-65)
○ (26-108)	○ (26-108)	○ (26-108)	○ (26-98)	○ (26-98)	◎ (16-65)	◎ (16-65)	◎ (16-65)	◎ (16-65)
◎ (16-54)	◎ (16-54)	◎ (26-73)	◎ (16-49)	◎ (26-66)	◎ (16-49)	◎ (16-49)	◎ (16-49)	◎ (16-49)
◎ (16-54)	◎ (16-54)	◎ (26-73)	◎ (16-49)	◎ (26-66)	◎ (10-30)	◎ (10-30)	◎ (10-30)	◎ (10-30)
○ (49-127)	○ (49-127)	○ (49-127)	○ (49-115)	◎ (49-115)				
○ (49-127)	○ (49-127)	○ (49-127)	○ (49-115)	◎ (49-115)				
◎ (49-127)	◎ (49-127)	◎ (49-127)	◎ (49-115)	◎ (49-115)				
◎ (49-127)	◎ (49-127)	◎ (49-127)	◎ (49-115)	◎ (49-115)				
○ (49-127)	○ (49-127)	○ (49-127)	○ (49-115)	○ (49-115)	◎ (65-164)	◎ (65-164)	◎ (65-164)	◎ (65-164)
○ (49-127)	○ (49-127)	○ (49-127)	○ (49-115)	○ (49-115)	◎ (65-164)	◎ (65-164)	◎ (65-164)	◎ (65-164)
◎ (49-127)	◎ (49-127)	◎ (49-127)	◎ (49-115)	◎ (49-115)	◎ (65-131)	◎ (65-131)	◎ (65-131)	◎ (65-131)
◎ (49-127)	◎ (49-127)	◎ (49-127)	◎ (49-115)	◎ (49-115)	◎ (65-131)	◎ (65-131)	◎ (65-131)	◎ (65-131)
○ (49-127)	○ (49-127)	○ (49-127)	○ (49-115)	○ (49-115)	◎ (65-131)	◎ (65-131)	◎ (65-131)	◎ (65-131)
◎ (49-127)	◎ (49-127)	◎ (49-127)	◎ (49-115)	◎ (49-115)	◎ (32-98)	◎ (32-98)	◎ (32-98)	◎ (32-98)
◎ (49-127)	◎ (49-127)	◎ (49-127)	◎ (49-115)	◎ (49-115)	◎ (32-98)	◎ (32-98)	◎ (32-98)	◎ (32-98)
◎ (49-127)	◎ (49-127)	◎ (49-127)	◎ (49-115)	◎ (49-115)	◎ (32-98)	◎ (32-98)	◎ (32-98)	◎ (32-98)



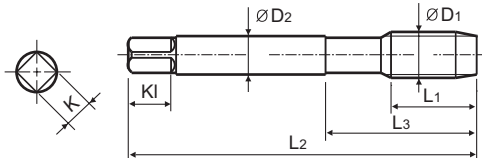
X-Coating, HSS-PM Spiral Flute Taps for Multipurpose

SERIES

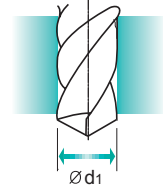
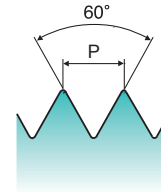
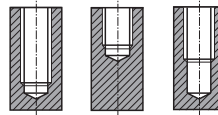
TRF14

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems

DIN/ANSI



Hole type 2.5xD



HSS PM

UNC UNF

H

60°

2P~3P

R45

X Coating

p.6

Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)	
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
#4 - 40		TRF14162GS	H2	.200	2.21	.708	.141	.110	.19	2	-	2.3
#4 - 48		TRF14182GS	H2	.200	2.21	.708	.141	.110	.19	2	3/32	-
#5 - 40		TRF14202GS	H2	.200	2.21	.708	.141	.110	.19	3	-	2.6
#6 - 32		TRF14242GS	H2	.248	2.21	.783	.141	.110	.19	3	-	2.8
#6 - 32		TRF14243GS	H3	.248	2.21	.783	.141	.110	.19	3	-	2.8
#6 - 40		TRF14262GS	H2	.248	2.21	.783	.141	.110	.19	3	-	2.9
#8 - 32		TRF14282GS	H2	.251	2.48	.826	.168	.131	.25	3	-	3.4
#8 - 32		TRF14283GS	H3	.251	2.48	.826	.168	.131	.25	3	-	3.4
#8 - 36		TRF14302GS	H2	.251	2.48	.826	.168	.131	.25	3	-	3.5
#10 - 24		TRF14323GS	H3	.326	2.75	.976	.194	.152	.25	3	-	3.9
#10 - 32		TRF14342GS	H2	.326	2.75	.976	.194	.152	.25	3	-	4.1
#10 - 32		TRF14343GS	H3	.326	2.75	.976	.194	.152	.25	3	-	4.1
#12 - 24		TRF14363GS	H3	.330	3.15	1.177	.220	.165	.28	3	-	4.5
#12 - 28		TRF14383GS	H3	.330	3.15	1.177	.220	.165	.28	3	-	4.7
1/4 - 20		TRF14403GS	H3	.397	3.15	1.177	.255	.191	.31	3	-	5.2
1/4 - 20		TRF14405GS	H5	.397	3.15	1.177	.255	.191	.31	3	-	5.2
1/4 - 28		TRF14423GS	H3	.397	3.15	1.177	.255	.191	.31	3	-	5.5
1/4 - 28		TRF14424GS	H4	.397	3.15	1.177	.255	.191	.31	3	-	5.5
5/16 - 18		TRF14443GS	H3	.556	3.54	1.377	.318	.238	.38	3	-	6.7
5/16 - 18		TRF14445GS	H5	.556	3.54	1.377	.318	.238	.38	3	-	6.7

► NEXT PAGE

◎ : Excellent ○ : Good

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

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

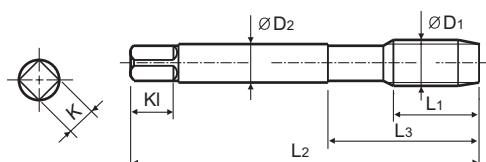
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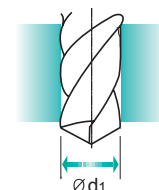
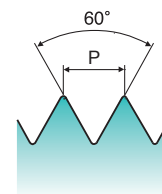
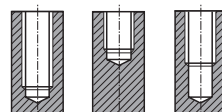
TRF14

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems

DIN/ANSI



Hole type 2.5×D



Material groups
MU

HSS PM

UNC UNF

H

60°

2P~3P

R45

X Coating

p.6

Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch Metric
5/16 - 24		TRF14463GS	H3	.417	3.54	1.377	.318	.238	.38	3	- 7.0
5/16 - 24		TRF14464GS	H4	.417	3.54	1.377	.318	.238	.38	3	- 7.0
3/8 - 16		TRF14483GS	H3	.625	3.94	1.535	.381	.286	.44	3	- 8.1
3/8 - 16		TRF14485GS	H5	.625	3.94	1.535	.381	.286	.44	3	- 8.1
3/8 - 24		TRF14503GS	H3	.417	3.94	1.377	.381	.286	.44	3	- 8.6
3/8 - 24		TRF14504GS	H4	.417	3.94	1.377	.381	.286	.44	3	- 8.6
7/16 - 14		TRF14523GS	H3	.714	3.94	1.712	.323	.242	.41	3	- 9.5
7/16 - 14		TRF14525GS	H5	.714	3.94	1.712	.323	.242	.41	3	- 9.5
7/16 - 20		TRF14543GS	H3	.500	3.94	1.712	.323	.242	.41	3	- 10.0
7/16 - 20		TRF14545GS	H5	.500	3.94	1.712	.323	.242	.41	3	- 10.0
1/2 - 13		TRF14563GS	H3	.769	4.33	1.933	.367	.275	.44	3	- 11.0
1/2 - 13		TRF14565GS	H5	.769	4.33	1.933	.367	.275	.44	3	- 11.0
1/2 - 20		TRF14583GS	H3	.500	3.94	1.933	.367	.275	.44	3	- 11.6
1/2 - 20		TRF14585GS	H5	.500	3.94	1.933	.367	.275	.44	3	- 11.6
9/16 - 12		TRF14603GS	H3	.833	4.33	1.972	.429	.322	.50	3	- 12.5
9/16 - 12		TRF14605GS	H5	.833	4.33	1.972	.429	.322	.50	3	- 12.5
9/16 - 18		TRF14623GS	H3	.556	3.94	1.972	.429	.322	.50	3	- 13.0
9/16 - 18		TRF14625GS	H5	.556	3.94	1.972	.429	.322	.50	3	- 13.0
5/8 - 11		TRF14643GS	H3	.909	4.33	2.125	.480	.360	.56	3	- 13.9
5/8 - 11		TRF14645GS	H5	.909	4.33	2.125	.480	.360	.56	3	- 13.9

► NEXT PAGE

◎ : Excellent ○ : Good

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



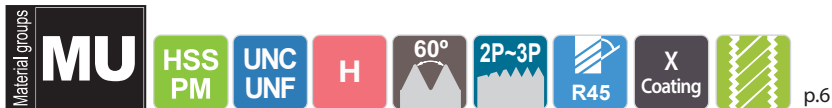
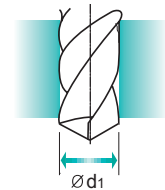
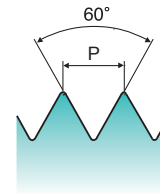
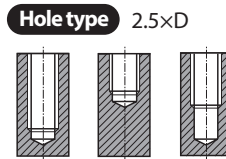
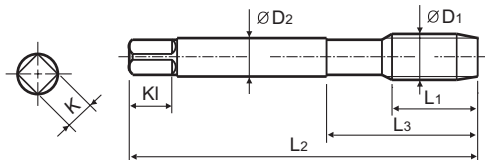
X-Coating, HSS-PM

Spiral Flute Taps for Multipurpose

SERIES

TRF14

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)	
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
5/8 - 18		TRF14663GS	H3	.556	3.94	2.125	.480	.360	.56	3	-	14.6
5/8 - 18		TRF14665GS	H5	.556	3.94	2.125	.480	.360	.56	3	-	14.6
3/4 - 10		TRF14703GS	H3	1.000	4.92	2.433	.590	.442	.69	4	-	16.9
3/4 - 10		TRF14705GS	H5	1.000	4.92	2.433	.590	.442	.69	4	-	16.9
3/4 - 16		TRF14723GS	H3	.625	4.33	2.433	.590	.442	.69	4	-	17.7
3/4 - 16		TRF14725GS	H5	.625	4.33	2.433	.590	.442	.69	4	-	17.7
7/8 - 9		TRF14744GS	H4	1.111	5.51	2.653	.697	.523	.75	4	-	19.8
7/8 - 9		TRF14746GS	H6	1.111	5.51	2.653	.697	.523	.75	4	-	19.8
7/8 - 14		TRF14764GS	H4	.714	4.92	2.653	.697	.523	.75	4	-	20.5
7/8 - 14		TRF14766GS	H6	.714	4.92	2.653	.697	.523	.75	4	-	20.5
1" - 8		TRF14786GS	H6	1.251	6.30	3.012	.800	.600	.81	4	-	22.7
1" - 8		TRF14784GS	H4	1.251	6.30	3.012	.800	.600	.81	4	-	22.7
1" - 12		TRF14804GS	H4	.833	5.51	3.012	.800	.600	.81	4	-	23.5
1" - 12		TRF14806GS	H6	.833	5.51	3.012	.800	.600	.81	4	-	23.5
1" - 14		TRF14816GS	H6	.714	5.51	3.012	.800	.600	.81	4	-	23.7
1-1/8 - 7		TRF14829GS	H9	1.429	7.08	3.818	.896	.672	.88	4	-	25.5
1-1/8 - 8		TRF14839GS	H9	1.250	7.08	3.818	.896	.672	.88	4	-	25.7
1-1/8 - 12		TRF14848GS	H8	.833	5.90	3.070	.896	.672	.88	4	1-3/64	-
1-1/4 - 7		TRF14860GS	H10	1.429	7.08	3.937	1.021	.766	1.00	4	-	28.5
1-1/4 - 8		TRF14879GS	H9	1.250	7.08	3.937	1.021	.766	1.00	4	-	29.0

► NEXT PAGE

◎ : Excellent ○ : Good

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

X-Coating, HSS-PM

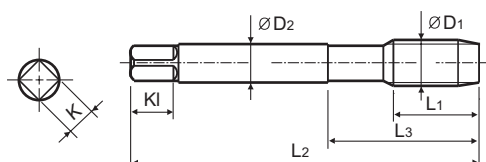
Spiral Flute Taps for Multipurpose

SERIES

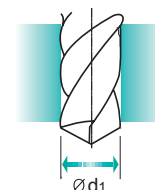
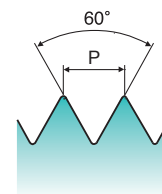
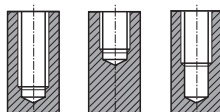
TRF14

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems

DIN/ANSI



Hole type 2.5xD



HSS PM

UNC UNF

H

60°

2P~3P

R45

X Coating



p.6

Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)
ØD1				L1	L2	L3	ØD2	K	KL	Z	Inch Metric
1-1/4 - 12		TRF14888GS	H8	.833	5.90	3.070	1.021	.766	1.00	4	1-11/64 -
1-3/8 - 6		TRF14900GS	H10	1.667	7.87	4.527	1.108	.831	1.06	4	- 31.0
1-3/8 - 8		TRF14919GS	H9	1.250	7.87	4.527	1.108	.831	1.06	4	- 32.0
1-3/8 - 12		TRF14928GS	H8	.833	6.69	3.582	1.108	.831	1.06	4	- 33.0
1-1/2 - 6		TRF14940GS	H10	1.667	7.87	4.527	1.233	.925	1.13	4	1-11/32 -
1-1/2 - 8		TRF14959GS	H9	1.250	7.87	4.527	1.233	.925	1.13	4	- 35.0
1-1/2 - 12		TRF14968GS	H8	.833	6.69	3.582	1.233	.925	1.13	4	- 36.0

◎ : Excellent ○ : Good

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



X-Coating, HSS-PM

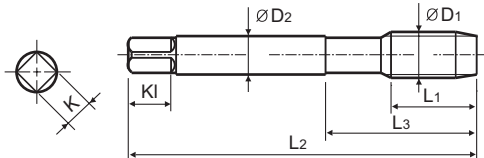
Spiral Flute Taps for Multipurpose

SERIES

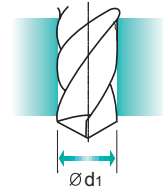
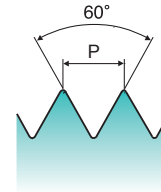
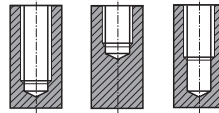
TRF04

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems

DIN/ANSI



Hole type 2.5xD



HSS PM

M/MF

D



p.6

Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)	
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
M2	x 0.4	TRF04132GS	D2	.126	1.77	.393	.141	.110	.19	2	-	1.6
M2.5	x 0.45	TRF04173GS	D3	.126	1.97	.511	.141	.110	.19	2	-	2.1
M3	x 0.5	TRF04203GS	D3	.158	2.21	.708	.141	.110	.19	3	-	2.5
M3.5	x 0.6	TRF04224GS	D4	.189	2.21	.787	.141	.110	.19	3	-	2.9
M4	x 0.7	TRF04244GS	D4	.221	2.48	.823	.168	.131	.25	3	-	3.4
M5	x 0.8	TRF04284GS	D4	.252	2.75	.988	.194	.152	.25	3	-	4.3
M6	x 1.0	TRF04315GS	D5	.315	3.15	1.177	.255	.191	.31	3	-	5.1
M6	x 0.75	TRF04324GS	D4	.315	3.15	1.177	.255	.191	.31	3	-	5.3
M7	x 1.0	TRF04345GS	D5	.394	3.15	1.181	.318	.238	.38	3	-	6.1
M8	x 1.25	TRF04365GS	D5	.492	3.54	1.378	.318	.238	.38	3	-	6.9
M8	x 1.0	TRF04375GS	D5	.394	3.54	1.378	.318	.238	.38	3	-	7.1
M9	x 1.25	TRF04395GS	D5	.492	3.54	1.378	.381	.286	.44	3	-	7.9
M9	x 1.0	TRF04405GS	D5	.394	3.54	1.378	.381	.286	.44	3	-	8.1
M10	x 1.5	TRF04426GS	D6	.591	3.94	1.535	.381	.286	.44	3	-	8.7
M10	x 1.25	TRF04435GS	D5	.492	3.94	1.535	.381	.286	.44	3	-	8.9
M10	x 1.0	TRF04445GS	D5	.394	3.54	1.378	.381	.286	.44	3	-	9.1
M12	x 1.75	TRF04506GS	D6	.689	4.33	1.933	.367	.275	.44	3	-	10.5
M12	x 1.5	TRF04516GS	D6	.591	3.94	1.933	.367	.275	.44	3	-	10.7
M12	x 1.25	TRF04525GS	D5	.492	3.94	1.933	.367	.275	.44	3	-	10.9
M14	x 2.0	TRF04547GS	D7	.787	4.33	1.972	.429	.322	.50	3	-	12.3

► NEXT PAGE

◎ : Excellent ○ : Good

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

X-Coating, HSS-PM

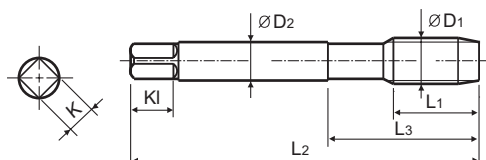
Spiral Flute Taps for Multipurpose

SERIES

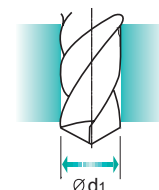
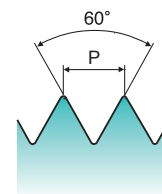
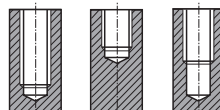
TRF04

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems

DIN/ANSI



Hole type 2.5xD



HSS PM

M/MF

D

60°

2P~3P

R45

X Coating



p.6

Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch Metric
M14 x 1.5		TRF04556GS	D6	.591	3.94	1.972	.429	.322	.50	3	- 12.7
M14 x 1.25		TRF04566GS	D6	.492	3.94	1.972	.429	.322	.50	3	- 12.9
M16 x 2.0		TRF04607GS	D7	.787	4.33	2.126	.480	.360	.56	3	- 14.3
M16 x 1.5		TRF04616GS	D6	.591	3.94	2.126	.480	.360	.56	3	- 14.7
M18 x 2.5		TRF04657GS	D7	.984	4.92	2.165	.542	.406	.63	4	- 15.8
M18 x 1.5		TRF04676GS	D6	.591	4.33	2.165	.542	.406	.63	4	- 16.7
M20 x 2.5		TRF04708GS	D8	.984	5.51	2.433	.652	.489	.69	4	- 17.8
M20 x 1.5		TRF04726GS	D6	.591	4.92	2.433	.652	.489	.69	4	- 18.7
M22 x 2.5		TRF04748GS	D8	.984	5.51	2.653	.697	.523	.75	4	- 19.8
M22 x 1.5		TRF04766GS	D6	.591	4.92	2.653	.697	.523	.75	4	- 20.7
M24 x 3.0		TRF04788GS	D8	1.181	6.30	2.693	.760	.570	.75	4	27/32 -
M24 x 1.5		TRF04806GS	D6	.591	5.51	2.693	.760	.570	.75	4	- 22.7
M27 x 3.0		TRF04868GS	D8	1.181	6.30	3.150	.896	.672	.88	4	- 24.4
M27 x 1.5		TRF04886GS	D6	.591	5.51	2.362	.896	.672	.88	4	- 25.7
M30 x 3.5		TRF04949GS	D9	1.378	7.08	3.937	1.021	.766	1.00	4	- 27.0
M30 x 1.5		TRF04976GS	D6	.591	5.90	2.756	1.021	.766	1.00	4	- 28.6

◎ : Excellent ○ : Good

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



X-Coating, HSS-PM

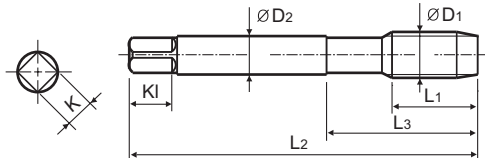
Spiral Flute Taps for Multipurpose

SERIES

TRF34

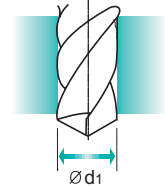
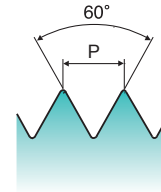
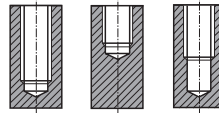
- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems

DIN/ANSI



Short Chamfer

Hole type 2.5xD



Material groups
MU

HSS PM

UNC UNF

H

60°

1P~2P

R45

X Coating

p.6

Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)	
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
#4 - 40		TRF34162GS	H2	.200	2.21	.708	.141	.110	.19	2	-	2.3
#4 - 48		TRF34182GS	H2	.200	2.21	.708	.141	.110	.19	2	3/32	-
#5 - 40		TRF34202GS	H2	.200	2.21	.708	.141	.110	.19	3	-	2.6
#6 - 32		TRF34242GS	H2	.248	2.21	.783	.141	.110	.19	3	-	2.8
#6 - 32		TRF34243GS	H3	.248	2.21	.783	.141	.110	.19	3	-	2.8
#6 - 40		TRF34262GS	H2	.248	2.21	.783	.141	.110	.19	3	-	2.9
#8 - 32		TRF34282GS	H2	.251	2.48	.826	.168	.131	.25	3	-	3.4
#8 - 32		TRF34283GS	H3	.251	2.48	.826	.168	.131	.25	3	-	3.4
#8 - 36		TRF34302GS	H2	.251	2.48	.826	.168	.131	.25	3	-	3.5
#10 - 24		TRF34323GS	H3	.326	2.75	.976	.194	.152	.25	3	-	3.9
#10 - 32		TRF34342GS	H2	.326	2.75	.976	.194	.152	.25	3	-	4.1
#10 - 32		TRF34343GS	H3	.326	2.75	.976	.194	.152	.25	3	-	4.1
#12 - 24		TRF34363GS	H3	.330	3.15	1.177	.220	.165	.28	3	-	4.5
#12 - 28		TRF34383GS	H3	.330	3.15	1.177	.220	.165	.28	3	-	4.7
1/4 - 20		TRF34403GS	H3	.397	3.15	1.177	.255	.191	.31	3	-	5.2
1/4 - 20		TRF34405GS	H5	.397	3.15	1.177	.255	.191	.31	3	-	5.2
1/4 - 28		TRF34423GS	H3	.397	3.15	1.177	.255	.191	.31	3	-	5.5
1/4 - 28		TRF34424GS	H4	.397	3.15	1.177	.255	.191	.31	3	-	5.5
5/16 - 18		TRF34443GS	H3	.556	3.54	1.377	.318	.238	.38	3	-	6.7
5/16 - 18		TRF34445GS	H5	.556	3.54	1.377	.318	.238	.38	3	-	6.7
5/16 - 24		TRF34463GS	H3	.417	3.54	1.377	.318	.238	.38	3	-	7.0
5/16 - 24		TRF34464GS	H4	.417	3.54	1.377	.318	.238	.38	3	-	7.0

► NEXT PAGE

◎ : Excellent ○ : Good

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

X-Coating, HSS-PM Spiral Flute Taps for Multipurpose

SERIES

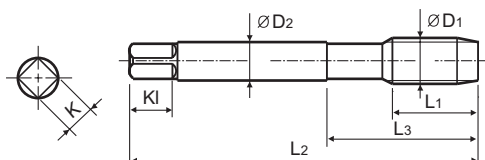
TRF34

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems

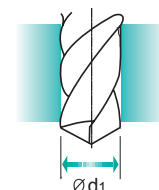
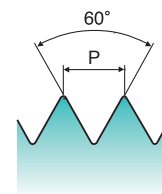
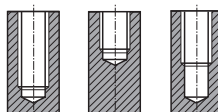
DIN/ANSI



Short Chamfer



Hole type 2.5xD



HSS PM

UNC UNF

H

60°

1P~2P

R45

X Coating



p.6

Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch Metric
3/8 - 16		TRF34483GS	H3	.625	3.94	1.535	.381	.286	.44	3	- 8.1
3/8 - 16		TRF34485GS	H5	.625	3.94	1.535	.381	.286	.44	3	- 8.1
3/8 - 24		TRF34503GS	H3	.417	3.94	1.377	.381	.286	.44	3	- 8.6
3/8 - 24		TRF34504GS	H4	.417	3.94	1.377	.381	.286	.44	3	- 8.6
7/16 - 14		TRF34523GS	H3	.714	3.94	1.712	.323	.242	.41	3	- 9.5
7/16 - 14		TRF34525GS	H5	.714	3.94	1.712	.323	.242	.41	3	- 9.5
7/16 - 20		TRF34543GS	H3	.500	3.94	1.712	.323	.242	.41	3	- 10.0
7/16 - 20		TRF34545GS	H5	.500	3.94	1.712	.323	.242	.41	3	- 10.0
1/2 - 13		TRF34563GS	H3	.769	4.33	1.933	.367	.275	.44	3	- 11.0
1/2 - 13		TRF34565GS	H5	.769	4.33	1.933	.367	.275	.44	3	- 11.0
1/2 - 20		TRF34583GS	H3	.500	3.94	1.933	.367	.275	.44	3	- 11.6
1/2 - 20		TRF34585GS	H5	.500	3.94	1.933	.367	.275	.44	3	- 11.6
9/16 - 12		TRF34603GS	H3	.833	4.33	1.972	.429	.322	.50	3	- 12.5
9/16 - 12		TRF34605GS	H5	.833	4.33	1.972	.429	.322	.50	3	- 12.5
9/16 - 18		TRF34623GS	H3	.556	3.94	1.972	.429	.322	.50	3	- 13.0
9/16 - 18		TRF34625GS	H5	.556	3.94	1.972	.429	.322	.50	3	- 13.0
5/8 - 11		TRF34643GS	H3	.909	4.33	2.125	.480	.360	.56	3	- 13.9
5/8 - 11		TRF34645GS	H5	.909	4.33	2.125	.480	.360	.56	3	- 13.9
5/8 - 18		TRF34663GS	H3	.556	3.94	2.125	.480	.360	.56	3	- 14.6
5/8 - 18		TRF34665GS	H5	.556	3.94	2.125	.480	.360	.56	3	- 14.6

◎ : Excellent ○ : Good

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



X-Coating, HSS-PM

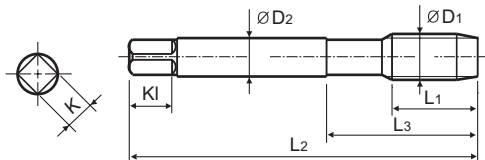
Spiral Flute Taps for Multipurpose

SERIES

TRF24

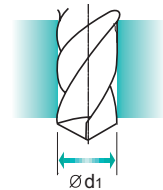
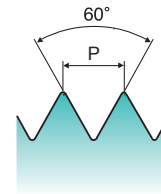
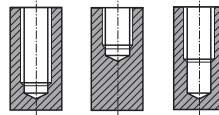
- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems

DIN/ANSI



Short Chamfer

Hole type 2.5xD



Material groups
MU

HSS
PM

M/MF

D

60°

1P~2P

R45

X
Coating

p.6

Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)	
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
M3	x 0.5	TRF24203GS	D3	.158	2.21	.708	.141	.110	.19	3	-	2.5
M3.5	x 0.6	TRF24224GS	D4	.189	2.21	.787	.141	.110	.19	3	-	2.9
M4	x 0.7	TRF24244GS	D4	.221	2.48	.823	.168	.131	.25	3	-	3.4
M5	x 0.8	TRF24284GS	D4	.252	2.75	.988	.194	.152	.25	3	-	4.3
M6	x 1.0	TRF24315GS	D5	.315	3.15	1.177	.255	.191	.31	3	-	5.1
M8	x 1.25	TRF24365GS	D5	.492	3.54	1.378	.318	.238	.38	3	-	6.9
M9	x 1.25	TRF24395GS	D5	.492	3.54	1.378	.381	.286	.44	3	-	7.9
M10	x 1.5	TRF24426GS	D6	.591	3.94	1.535	.381	.286	.44	3	-	8.7
M10	x 1.25	TRF24435GS	D5	.492	3.94	1.535	.381	.286	.44	3	-	8.9
M10	x 1.0	TRF24445GS	D5	.394	3.54	1.378	.381	.286	.44	3	-	9.1
M12	x 1.75	TRF24506GS	D6	.689	4.33	1.933	.367	.275	.44	3	-	10.5
M12	x 1.5	TRF24516GS	D6	.591	3.94	1.933	.367	.275	.44	3	-	10.7
M12	x 1.25	TRF24525GS	D5	.492	3.94	1.933	.367	.275	.44	3	-	10.9
M14	x 2.0	TRF24547GS	D7	.787	4.33	1.972	.429	.322	.50	3	-	12.3
M14	x 1.5	TRF24556GS	D6	.591	3.94	1.972	.429	.322	.50	3	-	12.7
M14	x 1.25	TRF24566GS	D6	.492	3.94	1.972	.429	.322	.50	3	-	12.9
M16	x 2.0	TRF24607GS	D7	.787	4.33	2.126	.480	.360	.56	3	-	14.3
M16	x 1.5	TRF24616GS	D6	.591	3.94	2.126	.480	.360	.56	3	-	14.7
M18	x 1.5	TRF24676GS	D6	.591	4.33	2.165	.542	.406	.63	4	-	16.7

◎ : Excellent ○ : Good

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

X-Coating, HSS-PM

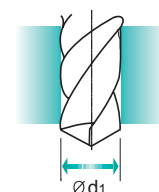
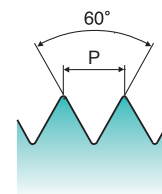
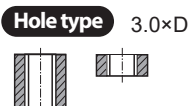
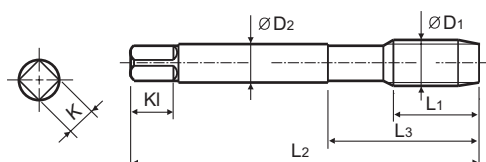
Spiral Point Taps for Multipurpose

SERIES

TRK14

► High performance on various ductile materials

DIN/ANSI



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)
ØD1				L1	L2	L3	ØD2	K	KL	Z	Inch Metric
#2 - 56		TRK14082GS	H2	.437	1.77	.476	.141	.110	.19	2	- 1.8
#2 - 64		TRK14102GS	H2	.437	1.77	.476	.141	.110	.19	2	- 1.8
#3 - 48		TRK14122GS	H2	.500	1.97	.539	.141	.110	.19	2	- 2.0
#3 - 56		TRK14142GS	H2	.500	1.97	.539	.141	.110	.19	2	- 2.1
#4 - 40		TRK14162GS	H2	.335	2.21	.708	.141	.110	.19	2	- 2.3
#4 - 48		TRK14182GS	H2	.335	2.21	.708	.141	.110	.19	2	3/32 -
#5 - 40		TRK14202GS	H2	.374	2.21	.708	.141	.110	.19	3	- 2.6
#5 - 44		TRK14222GS	H2	.374	2.21	.708	.141	.110	.19	3	- 2.6
#6 - 32		TRK14242GS	H2	.413	2.21	.787	.141	.110	.19	3	- 2.8
#6 - 32		TRK14243GS	H3	.413	2.21	.787	.141	.110	.19	3	- 2.8
#6 - 40		TRK14262GS	H2	.413	2.21	.787	.141	.110	.19	3	- 2.9
#8 - 32		TRK14282GS	H2	.453	2.48	.826	.168	.131	.25	3	- 3.4
#8 - 32		TRK14283GS	H3	.453	2.48	.826	.168	.131	.25	3	- 3.4
#8 - 36		TRK14302GS	H2	.453	2.48	.826	.168	.131	.25	3	- 3.5
#10 - 24		TRK14323GS	H3	.531	2.75	.984	.194	.152	.25	3	- 3.9
#10 - 32		TRK14342GS	H2	.531	2.75	.984	.194	.152	.25	3	- 4.1
#10 - 32		TRK14343GS	H3	.531	2.75	.984	.194	.152	.25	3	- 4.1
#12 - 24		TRK14363GS	H3	.571	3.15	1.181	.220	.165	.28	3	- 4.5
#12 - 28		TRK14383GS	H3	.571	3.15	1.181	.220	.165	.28	3	- 4.7

► NEXT PAGE

◎ : Excellent ○ : Good

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

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



X-Coating, HSS-PM

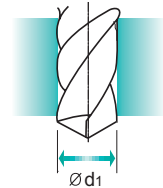
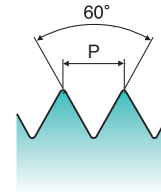
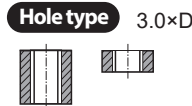
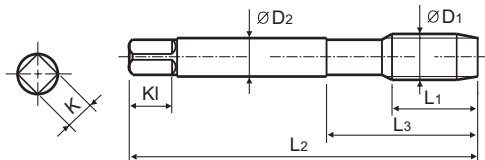
Spiral Point Taps for Multipurpose

SERIES

TRK14

► High performance on various ductile materials

DIN/ANSI



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)	
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
1/4 - 20		TRK14403GS	H3	.591	3.15	1.177	.255	.191	.31	3	-	5.2
1/4 - 20		TRK14405GS	H5	.591	3.15	1.177	.255	.191	.31	3	-	5.2
1/4 - 28		TRK14423GS	H3	.591	3.15	1.177	.255	.191	.31	3	-	5.5
1/4 - 28		TRK14424GS	H4	.591	3.15	1.177	.255	.191	.31	3	-	5.5
5/16 - 18		TRK14443GS	H3	.669	3.54	1.377	.318	.238	.38	3	-	6.7
5/16 - 18		TRK14445GS	H5	.669	3.54	1.377	.318	.238	.38	3	-	6.7
5/16 - 24		TRK14463GS	H3	.669	3.54	1.377	.318	.238	.38	3	-	7.0
5/16 - 24		TRK14464GS	H4	.669	3.54	1.377	.318	.238	.38	3	-	7.0
3/8 - 16		TRK14483GS	H3	.748	3.94	1.535	.381	.286	.44	3	-	8.1
3/8 - 16		TRK14485GS	H5	.748	3.94	1.535	.381	.286	.44	3	-	8.1
3/8 - 24		TRK14503GS	H3	.748	3.94	1.377	.381	.286	.44	3	-	8.6
3/8 - 24		TRK14504GS	H4	.748	3.94	1.377	.381	.286	.44	3	-	8.6
7/16 - 14		TRK14523GS	H3	.866	3.94	1.437	.323	.242	.41	3	-	9.5
7/16 - 14		TRK14525GS	H5	.866	3.94	1.437	.323	.242	.41	3	-	9.5
7/16 - 20		TRK14543GS	H3	.866	3.94	1.437	.323	.242	.41	3	-	10.0
7/16 - 20		TRK14545GS	H5	.866	3.94	1.437	.323	.242	.41	3	-	10.0
1/2 - 13		TRK14563GS	H3	.984	4.33	1.657	.367	.275	.44	3	-	11.0
1/2 - 13		TRK14565GS	H5	.984	4.33	1.657	.367	.275	.44	3	-	11.0
1/2 - 20		TRK14583GS	H3	.984	3.94	1.657	.367	.275	.44	3	-	11.6
1/2 - 20		TRK14585GS	H5	.984	3.94	1.657	.367	.275	.44	3	-	11.6

► NEXT PAGE

◎ : Excellent ○ : Good

ISO	P										M					K				
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	◎	◎	◎	◎	◎	◎	◎	◎	◎
ISO	N										S									
Material Description	Aluminum-wrought alloy					Aluminum-cast, alloyed					Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400
Recommended	○	○	◎	◎	○	◎	◎	◎												

X-Coating, HSS-PM

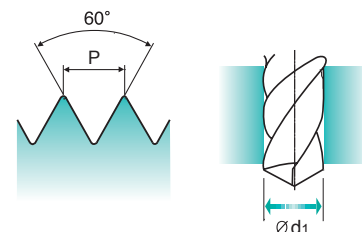
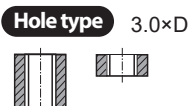
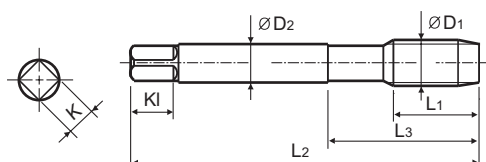
Spiral Point Taps for Multipurpose

SERIES

TRK14

► High performance on various ductile materials

DIN/ANSI



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch Metric
9/16 - 12		TRK14603GS	H3	.984	4.33	1.657	.429	.322	.50	3	- 12.5
9/16 - 12		TRK14605GS	H5	.984	4.33	1.657	.429	.322	.50	3	- 12.5
9/16 - 18		TRK14623GS	H3	.984	3.94	1.657	.429	.322	.50	3	- 13.0
9/16 - 18		TRK14625GS	H5	.984	3.94	1.657	.429	.322	.50	3	- 13.0
5/8 - 11		TRK14643GS	H3	1.083	4.33	1.811	.480	.360	.56	3	- 13.9
5/8 - 11		TRK14645GS	H5	1.083	4.33	1.811	.480	.360	.56	3	- 13.9
5/8 - 18		TRK14663GS	H3	1.083	3.94	1.811	.480	.360	.56	3	- 14.6
5/8 - 18		TRK14665GS	H5	1.083	3.94	1.811	.480	.360	.56	3	- 14.6
3/4 - 10		TRK14703GS	H3	1.201	4.92	2.000	.590	.442	.69	3	- 16.9
3/4 - 10		TRK14705GS	H5	1.201	4.92	2.000	.590	.442	.69	3	- 16.9
3/4 - 16		TRK14723GS	H3	1.201	4.33	2.000	.590	.442	.69	3	- 17.7
3/4 - 16		TRK14725GS	H5	1.201	4.33	2.000	.590	.442	.69	3	- 17.7
7/8 - 9		TRK14744GS	H4	1.339	5.51	2.224	.697	.523	.75	3	- 19.8
7/8 - 9		TRK14746GS	H6	1.339	5.51	2.224	.697	.523	.75	3	- 19.8
7/8 - 14		TRK14764GS	H4	1.339	4.92	2.224	.697	.523	.75	3	- 20.5
7/8 - 14		TRK14766GS	H6	1.339	4.92	2.224	.697	.523	.75	3	- 20.5
1" - 8		TRK14786GS	H6	1.496	6.30	2.500	.800	.600	.81	3	- 22.7
1" - 12		TRK14806GS	H6	1.496	5.51	2.500	.800	.600	.81	3	- 23.5
1" - 14		TRK14816GS	H6	1.496	5.51	2.500	.800	.600	.81	3	- 23.7

◎ : Excellent ○ : Good

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



X-Coating, HSS-PM

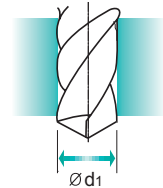
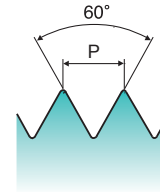
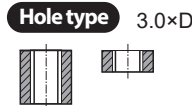
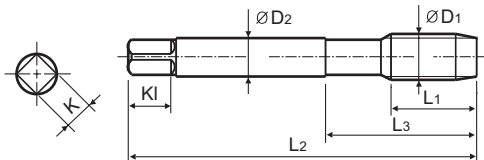
Spiral Point Taps for Multipurpose

SERIES

TRK04

► High performance on various ductile materials

DIN/ANSI



Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)	
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
M2	x 0.4	TRK04132GS	D2	.433	1.77	.472	.141	.110	.19	2	-	1.6
M2.5	x 0.45	TRK04173GS	D3	.472	1.97	.539	.141	.110	.19	2	-	2.1
M3	x 0.5	TRK04203GS	D3	.374	2.21	.705	.141	.110	.19	3	-	2.5
M3.5	x 0.6	TRK04224GS	D4	.413	2.21	.780	.141	.110	.19	3	-	2.9
M4	x 0.7	TRK04244GS	D4	.453	2.48	.819	.168	.131	.25	3	-	3.4
M5	x 0.8	TRK04284GS	D4	.531	2.75	.976	.194	.152	.25	3	-	4.3
M6	x 1.0	TRK04315GS	D5	.591	3.15	1.169	.255	.191	.31	3	-	5.1
M6	x 0.75	TRK04324GS	D4	.591	3.15	1.169	.255	.191	.31	3	-	5.3
M7	x 1.0	TRK04345GS	D5	.669	3.15	1.169	.318	.238	.38	3	-	6.1
M8	x 1.25	TRK04365GS	D5	.669	3.54	1.366	.318	.238	.38	3	-	6.9
M8	x 1.0	TRK04375GS	D5	.669	3.54	1.366	.318	.238	.38	3	-	7.1
M9	x 1.25	TRK04395GS	D5	.669	3.54	1.370	.381	.286	.44	3	-	7.9
M9	x 1.0	TRK04405GS	D5	.669	3.54	1.370	.381	.286	.44	3	-	8.1
M10	x 1.5	TRK04426GS	D6	.748	3.94	1.531	.381	.286	.44	3	-	8.7
M10	x 1.25	TRK04435GS	D5	.748	3.94	1.531	.381	.286	.44	3	-	8.9
M10	x 1.0	TRK04445GS	D5	.748	3.54	1.370	.381	.286	.44	3	-	9.1
M12	x 1.75	TRK04506GS	D6	.984	4.33	1.657	.367	.275	.44	3	-	10.5
M12	x 1.5	TRK04516GS	D6	.984	3.94	1.657	.367	.275	.44	3	-	10.7
M12	x 1.25	TRK04525GS	D5	.984	3.94	1.657	.367	.275	.44	3	-	10.9

► NEXT PAGE

◎ : Excellent ○ : Good

ISO	P										M					K				
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	◎	◎	◎	◎	◎	◎	◎		
ISO	N										S									
Material Description	Aluminum-wrought alloy					Aluminum-cast, alloyed					Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
HRc											15	30	25	38	34			55	60	42
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400
Recommended	○	○	◎	◎	○	◎	◎	◎												
ISO	H										H									
Material Description	Heat Resistant Super Alloys					Titanium Alloys					Hardened steel					Chilled Cast Iron				
VDI 3323	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
HRc																				
HB																				
Recommended																				

X-Coating, HSS-PM

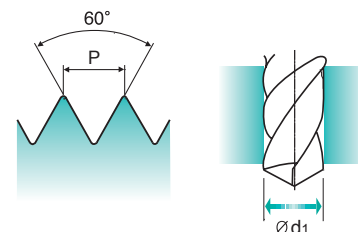
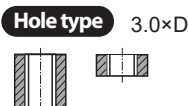
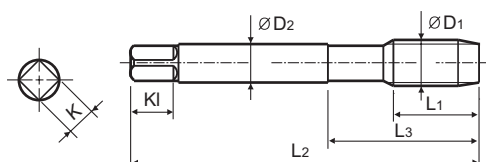
Spiral Point Taps for Multipurpose

SERIES

TRK04

► High performance on various ductile materials

DIN/ANSI



Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch Metric
M14 x 2.0		TRK04547GS	D7	.984	4.33	1.657	.429	.322	.50	3	- 12.3
M14 x 1.5		TRK04556GS	D6	.984	3.94	1.657	.429	.322	.50	3	- 12.7
M14 x 1.25		TRK04566GS	D6	.984	3.94	1.657	.429	.322	.50	3	- 12.9
M16 x 2.0		TRK04607GS	D7	1.083	4.33	1.811	.480	.360	.56	3	- 14.3
M16 x 1.5		TRK04616GS	D6	1.083	3.94	1.811	.480	.360	.56	3	- 14.7
M18 x 2.5		TRK04657GS	D7	1.083	4.92	1.811	.542	.406	.63	3	- 15.8
M18 x 1.5		TRK04676GS	D6	1.083	4.33	1.811	.542	.406	.63	3	- 16.7
M20 x 2.5		TRK04708GS	D8	1.201	5.51	2.126	.652	.489	.69	3	- 17.8
M20 x 1.5		TRK04726GS	D6	1.201	4.92	2.000	.652	.489	.69	3	- 18.7
M22 x 2.5		TRK04748GS	D8	1.339	5.51	2.126	.697	.523	.75	3	- 19.8
M22 x 1.5		TRK04766GS	D6	1.339	4.92	2.000	.697	.523	.75	3	- 20.7
M24 x 3.0		TRK04788GS	D8	1.339	6.30	2.362	.760	.570	.75	3	27/32 -
M24 x 1.5		TRK04806GS	D6	1.339	5.51	2.126	.760	.570	.75	3	- 22.7

◎ : Excellent ○ : Good

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



X-Coating, HSS-PM

Spiral Flute Taps for Multipurpose

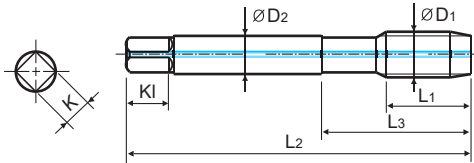
NEW SERIES
TRF25

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems

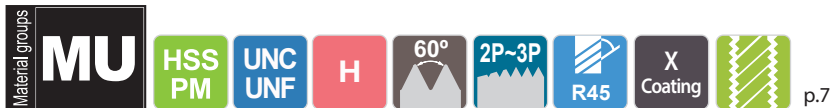
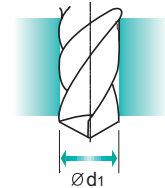
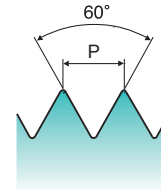
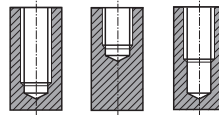
DIN/ANSI



with Internal Coolant



Hole type 2.5xD



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)	
ØD1				L1	L2	L3	ØD2	K	K1	Z	Inch	Metric
1/4 - 20UNC		TRF25403GS	H3	.500	3.15	1.177	.255	.191	.31	3	-	5.2
1/4 - 20UNC		TRF25405GS	H5	.500	3.15	1.177	.255	.191	.31	3	-	5.2
1/4 - 28UNF		TRF25423GS	H3	.358	3.15	1.177	.255	.191	.31	3	-	5.5
1/4 - 28UNF		TRF25424GS	H4	.358	3.15	1.177	.255	.191	.31	3	-	5.5
5/16 - 18UNC		TRF25443GS	H3	.555	3.54	1.377	.318	.238	.38	3	-	6.7
5/16 - 18UNC		TRF25445GS	H5	.555	3.54	1.377	.318	.238	.38	3	-	6.7
5/16 - 24UNF		TRF25463GS	H3	.417	3.54	1.377	.318	.238	.38	3	-	7.0
5/16 - 24UNF		TRF25464GS	H4	.417	3.54	1.377	.318	.238	.38	3	-	7.0
3/8 - 16UNC		TRF25483GS	H3	.626	3.94	1.535	.381	.286	.44	3	-	8.1
3/8 - 16UNC		TRF25485GS	H5	.626	3.94	1.535	.381	.286	.44	3	-	8.1
3/8 - 24UNF		TRF25503GS	H3	.417	3.94	1.535	.381	.286	.44	3	-	8.6
3/8 - 24UNF		TRF25504GS	H4	.417	3.94	1.535	.381	.286	.44	3	-	8.6
7/16 - 14UNC		TRF25523GS	H3	.713	3.94	1.712	.323	.242	.41	3	-	9.5
7/16 - 14UNC		TRF25525GS	H5	.713	3.94	1.712	.323	.242	.41	3	-	9.5
7/16 - 20UNF		TRF25543GS	H3	.500	3.94	1.712	.323	.242	.41	3	-	10.0
7/16 - 20UNF		TRF25545GS	H5	.500	3.94	1.712	.323	.242	.41	3	-	10.0
1/2 - 13UNC		TRF25563GS	H3	.768	4.33	1.933	.367	.275	.44	3	-	11.0
1/2 - 13UNC		TRF25565GS	H5	.768	4.33	1.933	.367	.275	.44	3	-	11.0
1/2 - 20UNF		TRF25583GS	H3	.500	3.94	1.933	.367	.275	.44	3	-	11.6
1/2 - 20UNF		TRF25585GS	H5	.500	3.94	1.933	.367	.275	.44	3	-	11.6

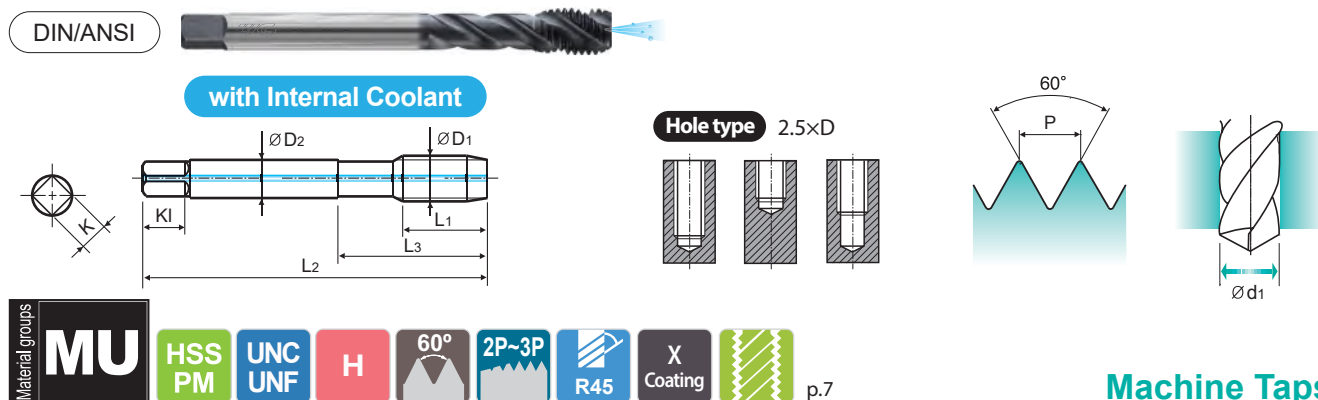
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◎ : Excellent ○ : Good

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

X-Coating, HSS-PM Spiral Flute Taps for Multipurpose

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch Metric
9/16 - 12UNC		TRF25603GS	H3	.835	4.33	1.972	.429	.322	.50	3	- 12.5
9/16 - 12UNC		TRF25605GS	H5	.835	4.33	1.972	.429	.322	.50	3	- 12.5
9/16 - 18UNF		TRF25623GS	H3	.555	3.94	1.972	.429	.322	.50	3	- 13.0
9/16 - 18UNF		TRF25625GS	H5	.555	3.94	1.972	.429	.322	.50	3	- 13.0
5/8 - 11UNC		TRF25643GS	H3	.909	4.33	2.125	.480	.360	.56	3	- 13.9
5/8 - 11UNC		TRF25645GS	H5	.909	4.33	2.125	.480	.360	.56	3	- 13.9
5/8 - 18UNF		TRF25663GS	H3	.555	3.94	2.125	.480	.360	.56	3	- 14.6
5/8 - 18UNF		TRF25665GS	H5	.555	3.94	2.125	.480	.360	.56	3	- 14.6
3/4 - 10UNC		TRF25703GS	H3	1.000	4.92	2.433	.590	.442	.69	4	- 16.9
3/4 - 10UNC		TRF25705GS	H5	1.000	4.92	2.433	.590	.442	.69	4	- 16.9
3/4 - 16UNF		TRF25723GS	H3	.626	4.33	2.433	.590	.442	.69	4	- 17.7
3/4 - 16UNF		TRF25725GS	H5	.626	4.33	2.433	.590	.442	.69	4	- 17.7
7/8 - 9UNC		TRF25744GS	H4	1.110	5.51	2.654	.697	.523	.75	4	- 19.8
7/8 - 9UNC		TRF25746GS	H6	1.110	5.51	2.654	.697	.523	.75	4	- 19.8
7/8 - 14UNF		TRF25764GS	H4	.713	4.92	2.654	.697	.523	.75	4	- 20.5
7/8 - 14UNF		TRF25766GS	H6	.713	4.92	2.654	.697	.523	.75	4	- 20.5
1" - 8UNC		TRF25786GS	H6	1.252	6.30	3.012	.800	.600	.81	4	- 22.7
1" - 8UNC		TRF25784GS	H4	1.252	6.30	3.012	.800	.600	.81	4	- 22.7
1" - 12UNF		TRF25804GS	H4	.835	5.51	3.012	.800	.600	.81	4	- 23.5
1" - 12UNF		TRF25806GS	H6	.835	5.51	3.012	.800	.600	.81	4	- 23.5

► NEXT PAGE

◎ : Excellent ○ : Good

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



X-Coating, HSS-PM

Spiral Flute Taps for Multipurpose

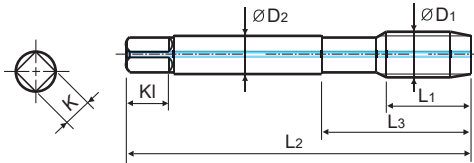
NEW SERIES
TRF25

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems

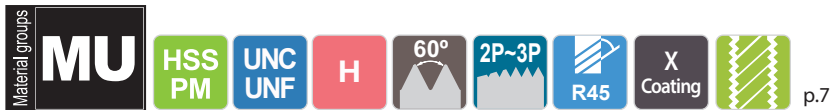
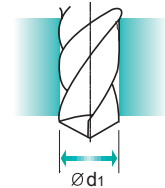
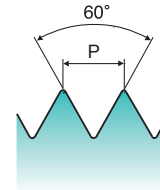
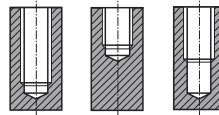
DIN/ANSI



with Internal Coolant



Hole type 2.5xD



Machine Taps

Unit: Inch

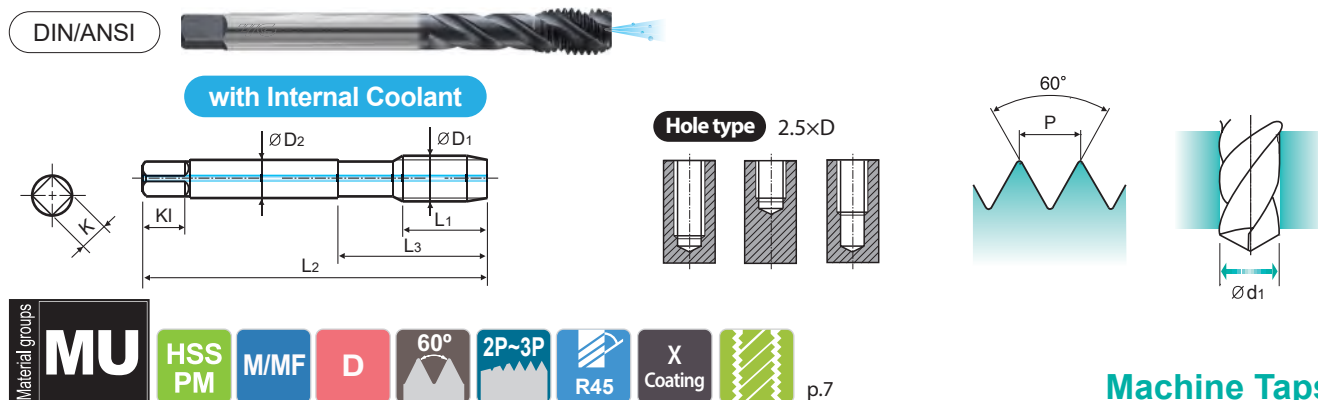
Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)	
ØD1				L1	L2	L3	ØD2	K	K1	Z	Inch	Metric
1" - 14UNS		TRF25816GS	H6	.713	5.51	3.012	.800	.600	.81	4	-	23.7
1-1/8 - 7UNC		TRF25829GS	H9	1.429	7.09	3.819	.896	.672	.88	4	-	25.5
1-1/8 - 8UN		TRF25839GS	H9	1.252	7.09	3.819	.896	.672	.88	4	-	25.7
1-1/8 - 12UNF		TRF25848GS	H8	.835	5.91	3.071	.896	.672	.88	4	1-3/64	-
1-1/4 - 7UNC		TRF25860GS	H10	1.429	7.09	3.937	1.021	.766	1.00	4	-	28.5
1-1/4 - 8UN		TRF25879GS	H9	1.252	7.09	3.937	1.021	.766	1.00	4	-	29.0
1-1/4 - 12UNF		TRF25888GS	H8	.835	5.91	3.071	1.021	.766	1.00	4	1-11/64	-
1-3/8 - 6UNC		TRF25900GS	H10	1.665	7.87	4.528	1.108	.831	1.06	4	-	31.0
1-3/8 - 8UN		TRF25919GS	H9	1.252	7.87	4.528	1.108	.831	1.06	4	-	32.0
1-3/8 - 12UNF		TRF25928GS	H8	.835	6.69	3.583	1.108	.831	1.06	4	-	33.0
1-1/2 - 6UNC		TRF25940GS	H10	1.665	7.87	4.528	1.233	.925	1.13	4	1-11/32	-
1-1/2 - 8UN		TRF25959GS	H9	1.252	7.87	4.528	1.233	.925	1.13	4	-	35.0
1-1/2 - 12UNF		TRF25968GS	H8	.835	6.69	3.583	1.233	.925	1.13	4	-	36.0

◎ : Excellent ○ : Good

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

X-Coating, HSS-PM Spiral Flute Taps for Multipurpose

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems



Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch Metric
M6	x 1.0	TRF26315GS	D5	.394	3.15	1.177	.255	.191	.31	3	- 5.1
M6	x 0.75	TRF26324GS	D4	.315	3.15	1.177	.255	.191	.31	3	- 5.3
M7	x 1.0	TRF26345GS	D5	.394	3.15	1.181	.318	.238	.38	3	- 6.1
M8	x 1.25	TRF26365GS	D5	.492	3.54	1.378	.318	.238	.38	3	- 6.9
M8	x 1.0	TRF26375GS	D5	.394	3.54	1.378	.318	.238	.38	3	- 7.1
M9	x 1.25	TRF26395GS	D5	.492	3.54	1.378	.381	.286	.44	3	- 7.9
M9	x 1.0	TRF26405GS	D5	.394	3.54	1.378	.381	.286	.44	3	- 8.1
M10	x 1.5	TRF26426GS	D6	.591	3.94	1.535	.381	.286	.44	3	- 8.7
M10	x 1.25	TRF26435GS	D5	.492	3.94	1.535	.381	.286	.44	3	- 8.9
M10	x 1.0	TRF26445GS	D5	.394	3.54	1.378	.381	.286	.44	3	- 9.1
M12	x 1.75	TRF26506GS	D6	.689	4.33	1.933	.367	.275	.44	3	- 10.5
M12	x 1.5	TRF26516GS	D6	.591	3.94	1.933	.367	.275	.44	3	- 10.7
M12	x 1.25	TRF26525GS	D5	.492	3.94	1.933	.367	.275	.44	3	- 10.9
M14	x 2.0	TRF26547GS	D7	.787	4.33	1.972	.429	.322	.50	3	- 12.3
M14	x 1.5	TRF26556GS	D6	.591	3.94	1.972	.429	.322	.50	3	- 12.7
M14	x 1.25	TRF26566GS	D6	.492	3.94	1.972	.429	.322	.50	3	- 12.9
M16	x 2.0	TRF26607GS	D7	.787	4.33	2.126	.480	.360	.56	3	- 14.3
M16	x 1.5	TRF26616GS	D6	.591	3.94	2.126	.480	.360	.56	3	- 14.7
M18	x 2.5	TRF26657GS	D7	.984	4.92	2.165	.542	.406	.63	4	- 15.8
M18	x 1.5	TRF26676GS	D6	.591	4.33	2.165	.542	.406	.63	4	- 16.7

► NEXT PAGE

◎ : Excellent ○ : Good

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



X-Coating, HSS-PM

Spiral Flute Taps for Multipurpose

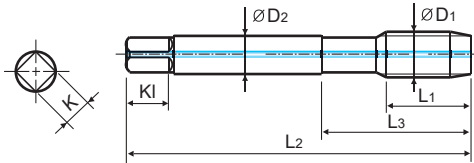
NEW SERIES
TRF26

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems

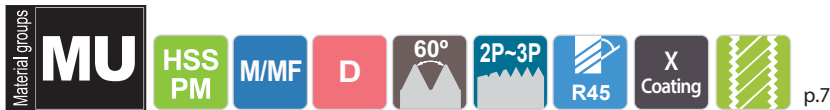
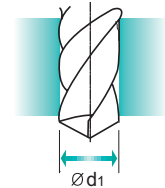
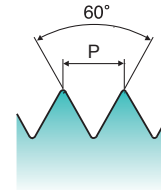
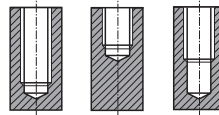
DIN/ANSI



with Internal Coolant



Hole type 2.5xD



Machine Taps

Unit: Inch

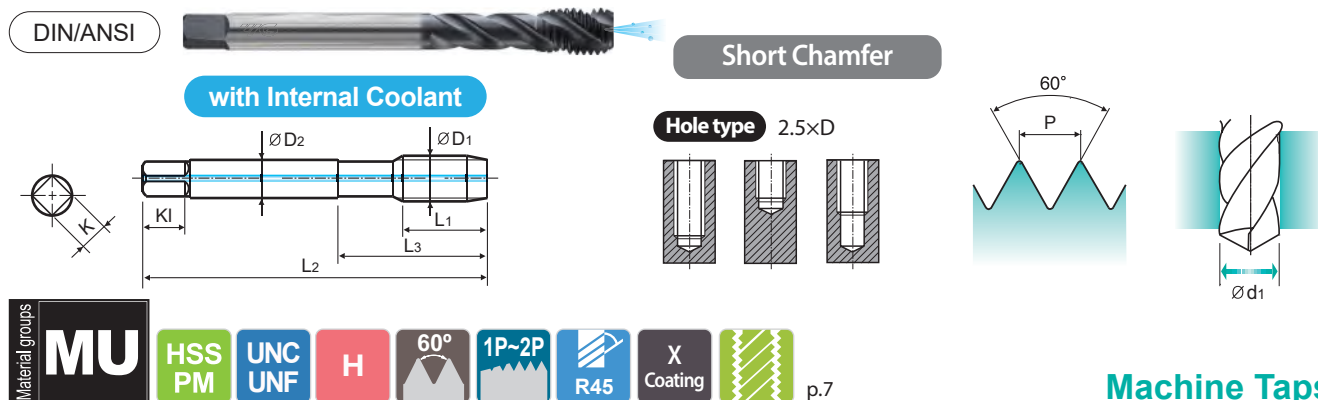
Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)	
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
M20	x 2.5	TRF26708GS	D8	.984	5.51	2.433	.652	.489	.69	4	-	17.8
M20	x 1.5	TRF26726GS	D6	.591	4.92	2.433	.652	.489	.69	4	-	18.7
M22	x 2.5	TRF26748GS	D8	.984	5.51	2.653	.697	.523	.75	4	-	19.8
M22	x 1.5	TRF26766GS	D6	.591	4.92	2.653	.697	.523	.75	4	-	20.7
M24	x 3.0	TRF26788GS	D8	1.181	6.30	2.693	.760	.570	.75	4	27/32	-
M24	x 1.5	TRF26806GS	D6	.591	5.51	2.693	.760	.570	.75	4	-	22.7
M27	x 3.0	TRF26868GS	D8	1.181	6.30	3.150	.896	.672	.88	4	-	24.4
M27	x 1.5	TRF26886GS	D6	.591	5.51	2.362	.896	.672	.88	4	-	25.7
M30	x 3.5	TRF26949GS	D9	1.378	7.09	3.937	1.021	.766	1.00	4	-	27.0
M30	x 1.5	TRF26976GS	D6	.591	5.91	2.756	1.021	.766	1.00	4	-	28.6

◎ : Excellent ○ : Good

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

X-Coating, HSS-PM Spiral Flute Taps for Multipurpose

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch Metric
1/4 - 20UNC		TRF27403GS	H3	.500	3.15	1.177	.255	.191	.31	3	- 5.2
1/4 - 20UNC		TRF27405GS	H5	.500	3.15	1.177	.255	.191	.31	3	- 5.2
1/4 - 28UNF		TRF27423GS	H3	.358	3.15	1.177	.255	.191	.31	3	- 5.5
1/4 - 28UNF		TRF27424GS	H4	.358	3.15	1.177	.255	.191	.31	3	- 5.5
5/16 - 18UNC		TRF27443GS	H3	.555	3.54	1.377	.318	.238	.38	3	- 6.7
5/16 - 18UNC		TRF27445GS	H5	.555	3.54	1.377	.318	.238	.38	3	- 6.7
5/16 - 24UNF		TRF27463GS	H3	.417	3.54	1.377	.318	.238	.38	3	- 7.0
5/16 - 24UNF		TRF27464GS	H4	.417	3.54	1.377	.318	.238	.38	3	- 7.0
3/8 - 16UNC		TRF27483GS	H3	.626	3.94	1.535	.381	.286	.44	3	- 8.1
3/8 - 16UNC		TRF27485GS	H5	.626	3.94	1.535	.381	.286	.44	3	- 8.1
3/8 - 24UNF		TRF27503GS	H3	.417	3.94	1.535	.381	.286	.44	3	- 8.6
3/8 - 24UNF		TRF27504GS	H4	.417	3.94	1.535	.381	.286	.44	3	- 8.6
7/16 - 14UNC		TRF27523GS	H3	.713	3.94	1.712	.323	.242	.41	3	- 9.5
7/16 - 14UNC		TRF27525GS	H5	.713	3.94	1.712	.323	.242	.41	3	- 9.5
7/16 - 20UNF		TRF27543GS	H3	.500	3.94	1.712	.323	.242	.41	3	- 10.0
7/16 - 20UNF		TRF27545GS	H5	.500	3.94	1.712	.323	.242	.41	3	- 10.0
1/2 - 13UNC		TRF27563GS	H3	.768	4.33	1.933	.367	.275	.44	3	- 11.0
1/2 - 13UNC		TRF27565GS	H5	.768	4.33	1.933	.367	.275	.44	3	- 11.0
1/2 - 20UNF		TRF27583GS	H3	.500	3.94	1.933	.367	.275	.44	3	- 11.6
1/2 - 20UNF		TRF27585GS	H5	.500	3.94	1.933	.367	.275	.44	3	- 11.6

► NEXT PAGE

◎ : Excellent ○ : Good

ISO	P										M					K				
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	○	◎	◎	◎	◎	◎	◎	◎	◎	○	○	◎	◎	◎	○	○	◎	◎		
ISO	N										S					H				
Material Description	Aluminum-wrought alloy					Aluminum-cast, alloyed					Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400
Recommended	○	○	◎	◎	○	◎	◎	◎												

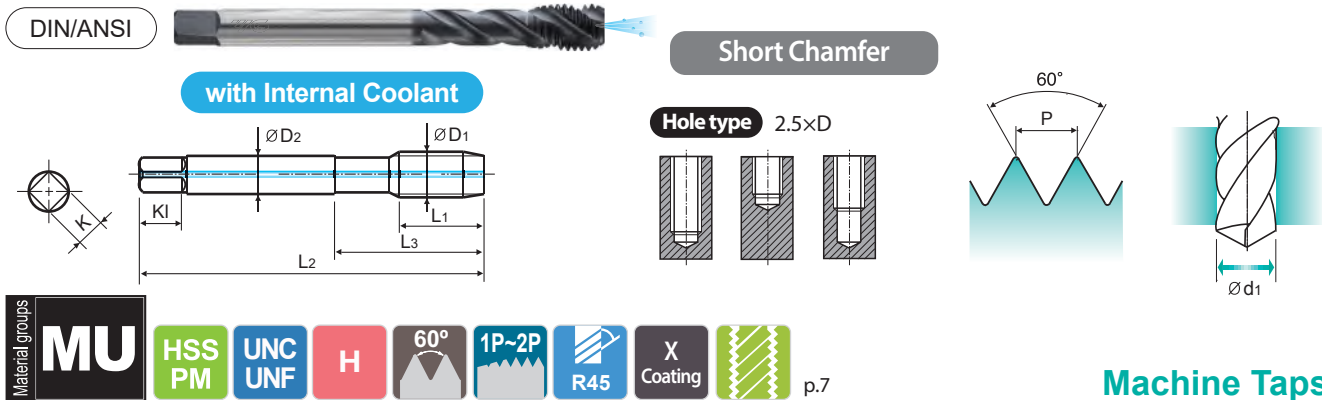


X-Coating, HSS-PM

Spiral Flute Taps for Multipurpose

NEW SERIES
TRF27

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems



Machine Taps

Unit: Inch

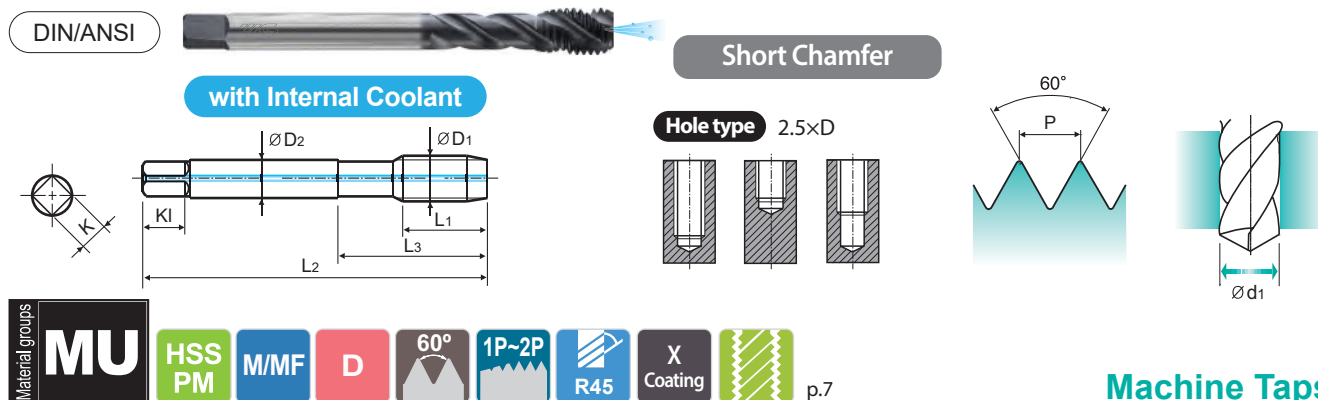
Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)	
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
9/16 - 12UNC		TRF27603GS	H3	.835	4.33	1.972	.429	.322	.50	3	-	12.5
9/16 - 12UNC		TRF27605GS	H5	.835	4.33	1.972	.429	.322	.50	3	-	12.5
9/16 - 18UNF		TRF27623GS	H3	.555	3.94	1.972	.429	.322	.50	3	-	13.0
9/16 - 18UNF		TRF27625GS	H5	.555	3.94	1.972	.429	.322	.50	3	-	13.0
5/8 - 11UNC		TRF27643GS	H3	.909	4.33	2.125	.480	.360	.56	3	-	13.9
5/8 - 11UNC		TRF27645GS	H5	.909	4.33	2.125	.480	.360	.56	3	-	13.9
5/8 - 18UNF		TRF27663GS	H3	.555	3.94	2.125	.480	.360	.56	3	-	14.6
5/8 - 18UNF		TRF27665GS	H5	.555	3.94	2.125	.480	.360	.56	3	-	14.6

◎ : Excellent ○ : Good

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

X-Coating, HSS-PM Spiral Flute Taps for Multipurpose

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems



Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch Metric
M6	x 1.0	TRF28315GS	D5	.394	3.15	1.177	.255	.191	.31	3	- 5.1
M8	x 1.25	TRF28365GS	D5	.492	3.54	1.378	.318	.238	.38	3	- 6.9
M9	x 1.25	TRF28395GS	D5	.492	3.54	1.378	.381	.286	.44	3	- 7.9
M10	x 1.5	TRF28426GS	D6	.591	3.94	1.535	.381	.286	.44	3	- 8.7
M10	x 1.25	TRF28435GS	D5	.492	3.94	1.535	.381	.286	.44	3	- 8.9
M10	x 1.0	TRF28445GS	D5	.394	3.54	1.378	.381	.286	.44	3	- 9.1
M12	x 1.75	TRF28506GS	D6	.689	4.33	1.933	.367	.275	.44	3	- 10.5
M12	x 1.5	TRF28516GS	D6	.591	3.94	1.933	.367	.275	.44	3	- 10.7
M12	x 1.25	TRF28525GS	D5	.492	3.94	1.933	.367	.275	.44	3	- 10.9
M14	x 2.0	TRF28547GS	D7	.787	4.33	1.972	.429	.322	.50	3	- 12.3
M14	x 1.5	TRF28556GS	D6	.591	3.94	1.972	.429	.322	.50	3	- 12.7
M14	x 1.25	TRF28566GS	D6	.492	3.94	1.972	.429	.322	.50	3	- 12.9
M16	x 2.0	TRF28607GS	D7	.787	4.33	2.126	.480	.360	.56	3	- 14.3
M16	x 1.5	TRF28616GS	D6	.591	3.94	2.126	.480	.360	.56	3	- 14.7
M18	x 1.5	TRF28676GS	D6	.591	4.33	2.165	.542	.406	.63	4	- 16.7

◎ : Excellent ○ : Good

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

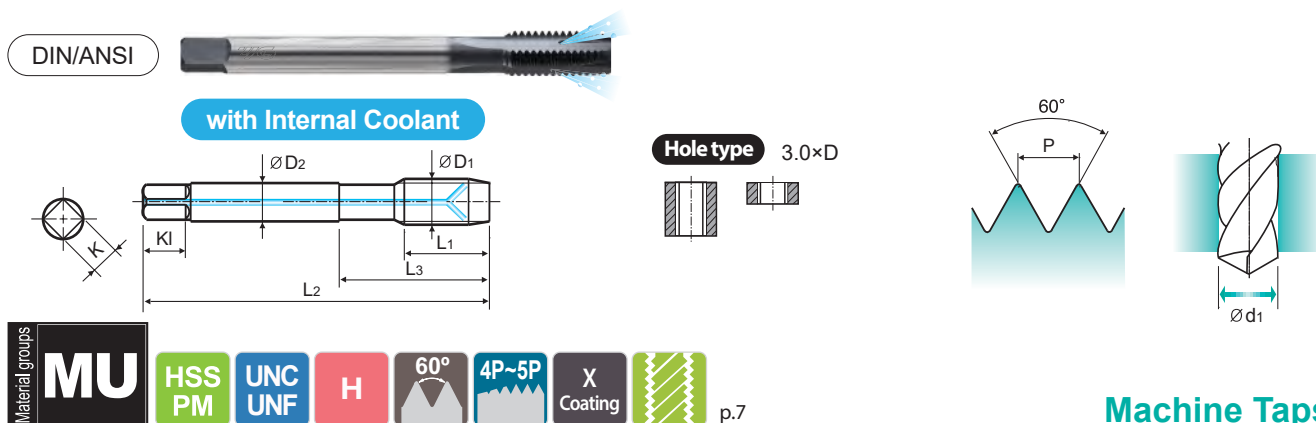
X-Coating, HSS-PM

Spiral Point Taps for Multipurpose

NEW SERIES

TRK15

► High performance on various ductile materials



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)	
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
1/4 - 20UNC		TRK15403GSP	H3	.591	3.15	1.177	.255	.191	.31	3	-	5.2
1/4 - 20UNC		TRK15405GSP	H5	.591	3.15	1.177	.255	.191	.31	3	-	5.2
1/4 - 28UNF		TRK15423GSP	H3	.591	3.15	1.177	.255	.191	.31	3	-	5.5
1/4 - 28UNF		TRK15424GSP	H4	.591	3.15	1.177	.255	.191	.31	3	-	5.5
5/16 - 18UNC		TRK15443GSP	H3	.669	3.54	1.377	.318	.238	.38	3	-	6.7
5/16 - 18UNC		TRK15445GSP	H5	.669	3.54	1.377	.318	.238	.38	3	-	6.7
5/16 - 24UNF		TRK15463GSP	H3	.669	3.54	1.377	.318	.238	.38	3	-	7.0
5/16 - 24UNF		TRK15464GSP	H4	.669	3.54	1.377	.318	.238	.38	3	-	7.0
3/8 - 16UNC		TRK15483GSP	H3	.748	3.94	1.535	.381	.286	.44	3	-	8.1
3/8 - 16UNC		TRK15485GSP	H5	.748	3.94	1.535	.381	.286	.44	3	-	8.1
3/8 - 24UNF		TRK15503GSP	H3	.748	3.94	1.535	.381	.286	.44	3	-	8.6
3/8 - 24UNF		TRK15504GSP	H4	.748	3.94	1.535	.381	.286	.44	3	-	8.6
7/16 - 14UNC		TRK15523GSP	H3	.866	3.94	1.712	.323	.242	.41	3	-	9.5
7/16 - 14UNC		TRK15525GSP	H5	.866	3.94	1.712	.323	.242	.41	3	-	9.5
7/16 - 20UNF		TRK15543GSP	H3	.866	3.94	1.712	.323	.242	.41	3	-	10.0
7/16 - 20UNF		TRK15545GSP	H5	.866	3.94	1.712	.323	.242	.41	3	-	10.0
1/2 - 13UNC		TRK15563GSP	H3	.984	4.33	1.933	.367	.275	.44	3	-	11.0
1/2 - 13UNC		TRK15565GSP	H5	.984	4.33	1.933	.367	.275	.44	3	-	11.0
1/2 - 20UNF		TRK15583GSP	H3	.984	3.94	1.933	.367	.275	.44	3	-	11.6
1/2 - 20UNF		TRK15585GSP	H5	.984	3.94	1.933	.367	.275	.44	3	-	11.6

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◎ : Excellent ○ : Good

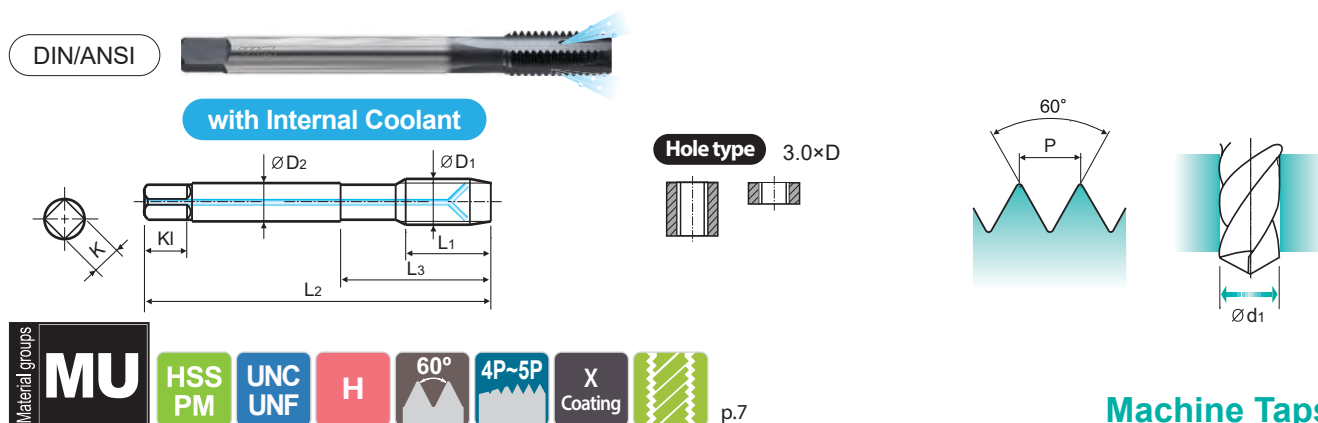
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X-Coating, HSS-PM

Spiral Point Taps for Multipurpose

NEW SERIES
TRK15

► High performance on various ductile materials



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter ($\varnothing d_1$)
$\varnothing D_1$				L1	L2	L3	$\varnothing D_2$	K	KI	Z	Inch Metric
9/16 - 12UNC		TRK15603GSP	H3	.984	4.33	1.972	.429	.322	.50	3	- 12.5
9/16 - 12UNC		TRK15605GSP	H5	.984	4.33	1.972	.429	.322	.50	3	- 12.5
9/16 - 18UNF		TRK15623GSP	H3	.984	3.94	1.972	.429	.322	.50	3	- 13.0
9/16 - 18UNF		TRK15625GSP	H5	.984	3.94	1.972	.429	.322	.50	3	- 13.0
5/8 - 11UNC		TRK15643GSP	H3	1.083	4.33	2.125	.480	.360	.56	3	- 13.9
5/8 - 11UNC		TRK15645GSP	H5	1.083	4.33	2.125	.480	.360	.56	3	- 13.9
5/8 - 18UNF		TRK15663GSP	H3	1.083	3.94	2.125	.480	.360	.56	3	- 14.6
5/8 - 18UNF		TRK15665GSP	H5	1.083	3.94	2.125	.480	.360	.56	3	- 14.6
3/4 - 10UNC		TRK15703GSP	H3	1.201	4.92	2.433	.590	.442	.69	3	- 16.9
3/4 - 10UNC		TRK15705GSP	H5	1.201	4.92	2.433	.590	.442	.69	3	- 16.9
3/4 - 16UNF		TRK15723GSP	H3	1.201	4.33	2.433	.590	.442	.69	3	- 17.7
3/4 - 16UNF		TRK15725GSP	H5	1.201	4.33	2.433	.590	.442	.69	3	- 17.7
7/8 - 9UNC		TRK15744GSP	H4	1.339	5.51	2.654	.697	.523	.75	3	- 19.8
7/8 - 9UNC		TRK15746GSP	H6	1.339	5.51	2.654	.697	.523	.75	3	- 19.8
7/8 - 14UNF		TRK15764GSP	H4	1.339	4.92	2.654	.697	.523	.75	3	- 20.5
7/8 - 14UNF		TRK15766GSP	H6	1.339	4.92	2.654	.697	.523	.75	3	- 20.5
1" - 8UNC		TRK15786GSP	H6	1.496	6.30	3.012	.800	.600	.81	3	- 22.7
1" - 12UNF		TRK15806GSP	H6	1.496	5.51	3.012	.800	.600	.81	3	- 23.5
1" - 14UNS		TRK15816GSP	H6	1.496	5.51	3.012	.800	.600	.81	3	- 23.7

◎ : Excellent ○ : Good

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

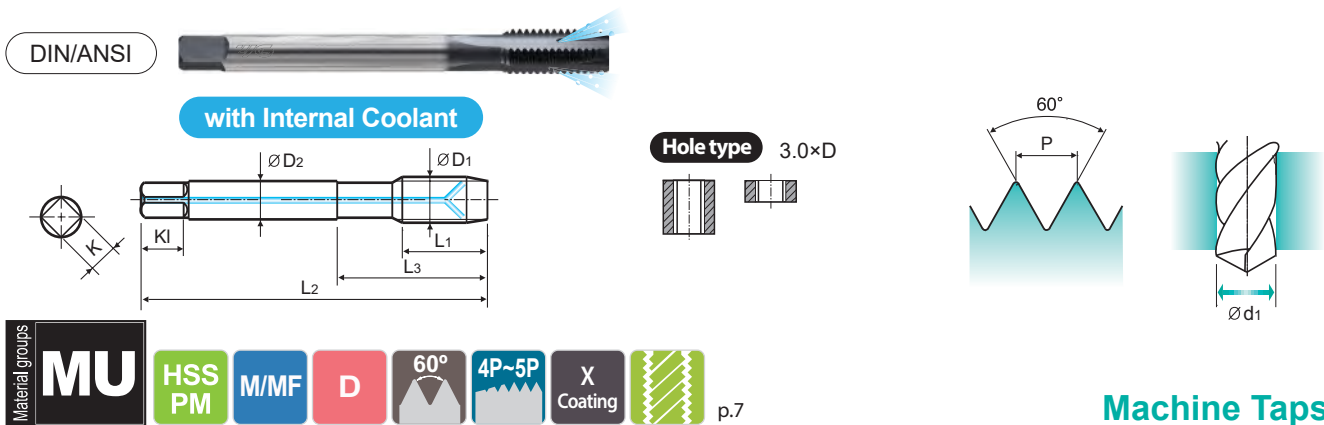


X-Coating, HSS-PM

Spiral Point Taps for Multipurpose

NEW SERIES
TRK16

► High performance on various ductile materials



Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)	
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
M6	x 1.0	TRK16315GSP	D5	.591	3.15	1.177	.255	.191	.31	3	-	5.1
M6	x 0.75	TRK16324GSP	D4	.591	3.15	1.177	.255	.191	.31	3	-	5.3
M7	x 1.0	TRK16345GSP	D5	.669	3.15	1.181	.318	.238	.38	3	-	6.1
M8	x 1.25	TRK16365GSP	D5	.669	3.54	1.378	.318	.238	.38	3	-	6.9
M8	x 1.0	TRK16375GSP	D5	.669	3.54	1.378	.318	.238	.38	3	-	7.1
M9	x 1.25	TRK16395GSP	D5	.669	3.54	1.378	.381	.286	.44	3	-	7.9
M9	x 1.0	TRK16405GSP	D5	.669	3.54	1.378	.381	.286	.44	3	-	8.1
M10	x 1.5	TRK16426GSP	D6	.748	3.94	1.535	.381	.286	.44	3	-	8.7
M10	x 1.25	TRK16435GSP	D5	.748	3.94	1.535	.381	.286	.44	3	-	8.9
M10	x 1.0	TRK16445GSP	D5	.748	3.54	1.378	.381	.286	.44	3	-	9.1
M12	x 1.75	TRK16506GSP	D6	.984	4.33	1.933	.367	.275	.44	3	-	10.5
M12	x 1.5	TRK16516GSP	D6	.984	3.94	1.933	.367	.275	.44	3	-	10.7
M12	x 1.25	TRK16525GSP	D5	.984	3.94	1.933	.367	.275	.44	3	-	10.9
M14	x 2.0	TRK16547GSP	D7	.984	4.33	1.972	.429	.322	.50	3	-	12.3
M14	x 1.5	TRK16556GSP	D6	.984	3.94	1.972	.429	.322	.50	3	-	12.7
M14	x 1.25	TRK16566GSP	D6	.984	3.94	1.972	.429	.322	.50	3	-	12.9
M16	x 2.0	TRK16607GSP	D7	1.083	4.33	2.126	.480	.360	.56	3	-	14.3
M16	x 1.5	TRK16616GSP	D6	1.083	3.94	2.126	.480	.360	.56	3	-	14.7
M18	x 2.5	TRK16657GSP	D7	1.083	4.92	2.165	.542	.406	.63	3	-	15.8
M18	x 1.5	TRK16676GSP	D6	1.083	4.33	2.165	.542	.406	.63	3	-	16.7

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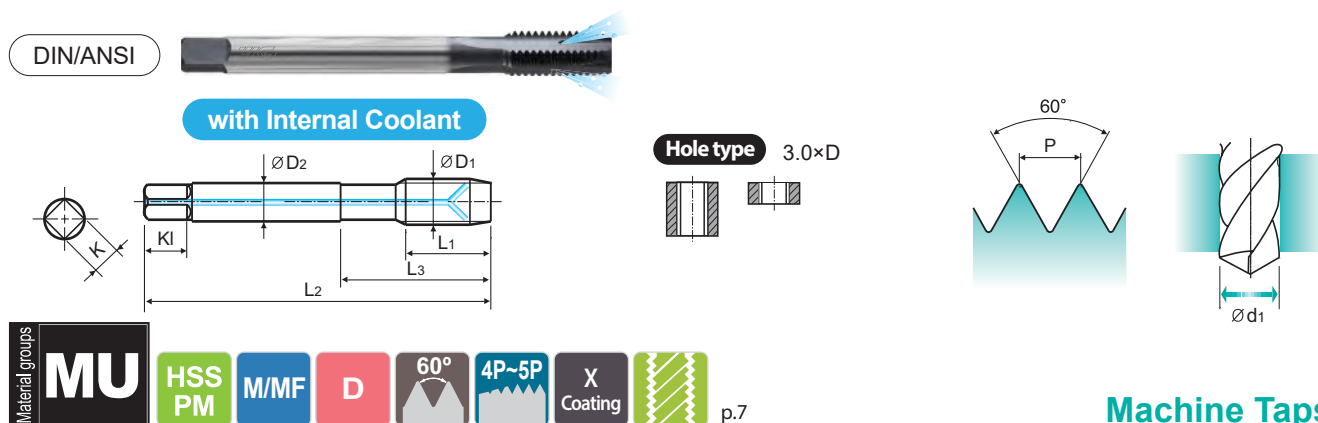
◎ : Excellent ○ : Good

ISO	P										M					K				
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	○	◎	◎	◎	○	○	◎	◎		
ISO	N										S									
Material Description	Aluminum-wrought alloy					Aluminum-cast, alloyed					Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34	36	37	55	60	42
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400
Recommended	○	○	◎	◎	○	◎	◎	◎												

X-Coating, HSS-PM

Spiral Point Taps for Multipurpose

► High performance on various ductile materials



Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch Metric
M20 x 2.5		TRK16708GSP	D8	1.201	5.51	2.433	.652	.489	.69	3	- 17.8
M20 x 1.5		TRK16726GSP	D6	1.201	4.92	2.433	.652	.489	.69	3	- 18.7
M22 x 2.5		TRK16748GSP	D8	1.339	5.51	2.653	.697	.523	.75	3	- 19.8
M22 x 1.5		TRK16766GSP	D6	1.339	4.92	2.653	.697	.523	.75	3	- 20.7
M24 x 3.0		TRK16788GSP	D8	1.339	6.30	2.693	.760	.570	.75	3	27/32 -
M24 x 1.5		TRK16806GSP	D6	1.339	5.51	2.693	.760	.570	.75	3	- 22.7

◎ : Excellent ○ : Good

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



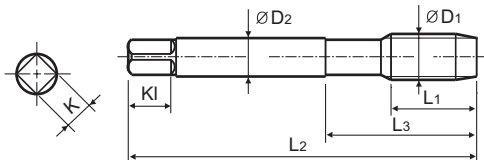
X-Coating, HSS-PM

Spiral Flute Taps for Multipurpose

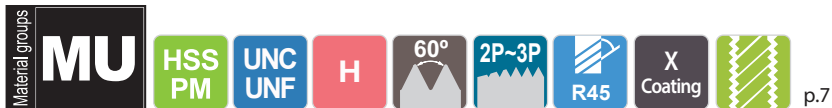
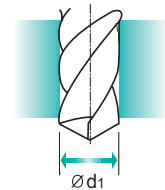
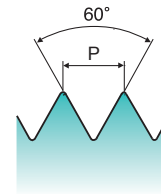
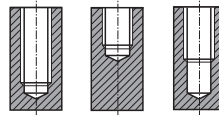
NEW SERIES
TRF30

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems

EXTENDED LENGTH



Hole type 2.5xD



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)	
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
#4 - 40UNC		TRF30162GS	H2	.201	3.15	.709	.141	.110	.19	2	-	2.3
#4 - 48UNF		TRF30182GS	H2	.201	3.15	.709	.141	.110	.19	2	3/32	-
#5 - 40UNC		TRF30202GS	H2	.201	3.94	.709	.141	.110	.19	3	-	2.6
#6 - 32UNC		TRF30243GS	H3	.248	4.72	.787	.141	.110	.19	3	-	2.8
#6 - 40UNF		TRF30262GS	H2	.248	3.94	.787	.141	.110	.19	3	-	2.9
#8 - 32UNC		TRF30283GS	H3	.252	4.72	.827	.168	.131	.24	3	-	3.4
#8 - 36UNF		TRF30302GS	H2	.252	3.94	.827	.168	.131	.24	3	-	3.5
#10 - 24UNC		TRF30323GS	H3	.327	4.92	.984	.194	.152	.24	3	-	3.9
#10 - 32UNF		TRF30343GS	H3	.327	5.91	.984	.194	.152	.24	3	-	4.1
#12 - 24UNC		TRF30363GS	H3	.331	4.92	1.181	.220	.165	.27	3	-	4.5
#12 - 28UNF		TRF30383GS	H3	.331	4.92	1.181	.220	.165	.27	3	-	4.7
1/4 - 20UNC		TRF30405GS	H5	.398	5.91	1.260	.255	.191	.31	3	-	5.2
1/4 - 28UNF		TRF30424GS	H4	.398	5.91	1.260	.255	.191	.31	3	-	5.5
5/16 - 18UNC		TRF30445GS	H5	.555	5.91	1.378	.318	.238	.38	3	-	6.7
5/16 - 24UNF		TRF30464GS	H4	.417	5.91	1.378	.318	.238	.38	3	-	7.0
3/8 - 16UNC		TRF30485GS	H5	.626	5.91	1.535	.381	.286	.44	3	-	8.1
3/8 - 24UNF		TRF30504GS	H4	.417	5.91	1.378	.381	.286	.44	3	-	8.6
7/16 - 14UNC		TRF30525GS	H5	.713	5.91	2.362	.323	.242	.39	3	-	9.5
7/16 - 20UNF		TRF30545GS	H5	.500	5.91	2.362	.323	.242	.39	3	-	10.0

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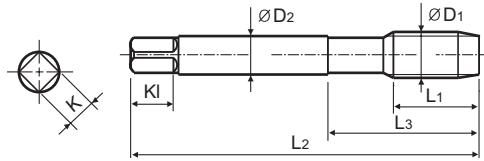
◎ : Excellent ○ : Good

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

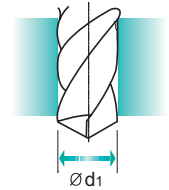
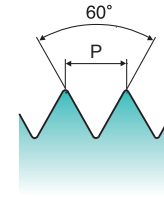
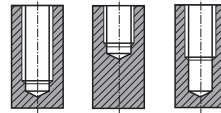
X-Coating, HSS-PM Spiral Flute Taps for Multipurpose

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems

EXTENDED LENGTH



Hole type 2.5xD



HSS PM

UNC UNF

H

60°

2P~3P

R45

X Coating

p.7

Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch Metric
1/2 - 13UNC		TRF30565GS	H5	.768	7.09	2.835	.367	.275	.44	3	- 11.0
1/2 - 20UNF		TRF30585GS	H5	.500	7.09	2.835	.367	.275	.44	3	- 11.6
9/16 - 12UNC		TRF30605GS	H5	.835	7.09	2.835	.429	.322	.50	3	- 12.5
9/16 - 18UNF		TRF30625GS	H5	.555	7.09	2.835	.429	.322	.50	3	- 13.0
5/8 - 11UNC		TRF30645GS	H5	.909	7.09	2.835	.480	.360	.56	3	- 13.9
5/8 - 18UNF		TRF30665GS	H5	.555	7.09	2.835	.480	.360	.56	3	- 14.6
3/4 - 10UNC		TRF30705GS	H5	1.000	7.87	3.150	.590	.442	.67	4	- 16.9
3/4 - 16UNF		TRF30725GS	H5	.626	7.87	3.150	.590	.442	.67	4	- 17.7
7/8 - 9UNC		TRF30746GS	H6	1.110	7.87	3.150	.697	.523	.74	4	- 19.8
7/8 - 14UNF		TRF30766GS	H6	.713	7.87	3.150	.697	.523	.74	4	- 20.5
1" - 8UNC		TRF30786GS	H6	1.252	7.87	3.465	.800	.600	.80	4	- 22.7
1" - 12UNF		TRF30806GS	H6	.835	7.87	3.465	.800	.600	.80	4	- 23.5

◎ : Excellent ○ : Good

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



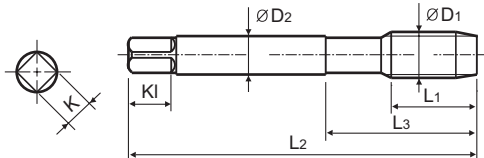
X-Coating, HSS-PM

Spiral Flute Taps for Multipurpose

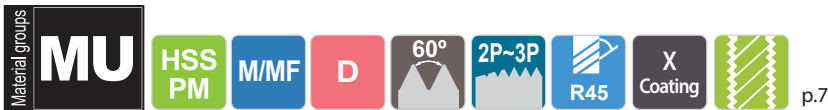
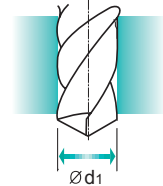
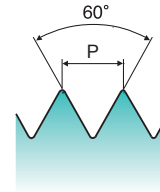
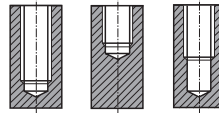
NEW SERIES
TRF29

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems

EXTENDED LENGTH



Hole type 2.5xD



Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)	
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
M3	x 0.5	TRF29203GS	D3	.157	3.94	.709	.141	.110	.19	3	-	2.5
M4	x 0.7	TRF29244GS	D4	.220	3.94	.827	.168	.191	.31	3	-	3.4
M5	x 0.8	TRF29284GS	D4	.252	4.92	.984	.194	.191	.31	3	-	4.3
M6	x 1.0	TRF29315GS	D5	.315	5.91	1.181	.255	.191	.31	3	-	5.1
M6	x 0.75	TRF29324GS	D4	.315	5.91	1.181	.255	.191	.31	3	-	5.3
M8	x 1.25	TRF29365GS	D5	.492	5.91	1.378	.318	.238	.38	3	-	6.9
M8	x 1.0	TRF29375GS	D5	.394	5.91	1.378	.318	.238	.38	3	-	7.1
M10	x 1.5	TRF29426GS	D6	.591	5.91	1.378	.381	.286	.44	3	-	8.7
M10	x 1.25	TRF29435GS	D5	.492	5.91	1.535	.381	.286	.44	3	-	8.9
M10	x 1.0	TRF29445GS	D5	.394	5.91	1.535	.381	.286	.44	3	-	9.1
M12	x 1.75	TRF29506GS	D6	.689	7.09	2.835	.367	.275	.44	3	-	10.5
M12	x 1.5	TRF29516GS	D6	.591	7.09	2.835	.367	.275	.44	3	-	10.7
M12	x 1.25	TRF29526GS	D6	.492	7.09	2.835	.367	.275	.44	3	-	10.9
M14	x 2.0	TRF29547GS	D7	.492	7.09	2.835	.429	.322	.50	3	-	12.3
M14	x 1.5	TRF29556GS	D6	.591	7.09	2.835	.429	.322	.50	3	-	12.7
M14	x 1.25	TRF29566GS	D6	.492	7.09	2.835	.429	.322	.50	3	-	12.9
M16	x 2.0	TRF29607GS	D7	.591	7.09	2.835	.480	.360	.56	3	-	14.3
M16	x 1.5	TRF29616GS	D6	.787	7.09	2.835	.480	.360	.56	3	-	14.7
M18	x 2.5	TRF29657GS	D7	.984	7.09	2.835	.542	.406	.61	4	-	15.8
M18	x 1.5	TRF29676GS	D6	.591	7.09	2.835	.542	.406	.61	4	-	16.7

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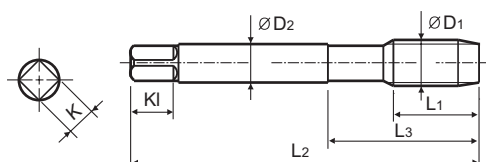
◎ : Excellent ○ : Good

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

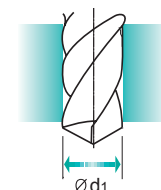
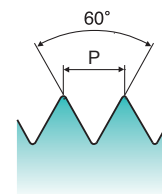
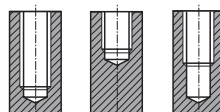
X-Coating, HSS-PM Spiral Flute Taps for Multipurpose

- High performance on various ductile materials
- Specially designed to prevent oversized threads and reduce gauging problems

EXTENDED LENGTH



Hole type 2.5xD



Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch Metric
M20	x 2.5	TRF29707GS	D7	.984	7.87	3.150	.652	.489	.67	4	- 17.8
M20	x 1.5	TRF29726GS	D6	.591	7.87	3.150	.652	.489	.67	4	- 18.7
M22	x 2.5	TRF29747GS	D7	.984	7.87	3.150	.697	.523	.74	4	- 19.8
M22	x 1.5	TRF29766GS	D6	.591	7.87	3.150	.697	.523	.74	4	- 20.7
M24	x 3.0	TRF29788GS	D8	1.181	7.87	3.268	.760	.570	.74	4	27/32 -
M24	x 1.5	TRF29806GS	D6	.591	7.87	3.268	.760	.570	.74	4	- 22.7

◎ : Excellent ○ : Good

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



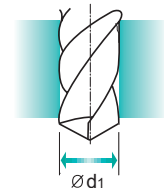
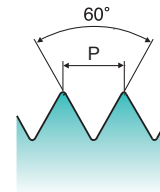
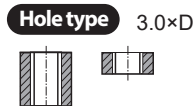
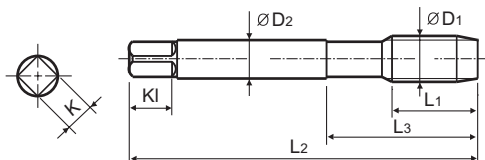
X-Coating, HSS-PM

Spiral Point Taps for Multipurpose

NEW SERIES
TRK30

► High performance on various ductile materials

EXTENDED LENGTH



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)	
ØD1				L1	L2	L3	ØD2	K	K1	Z	Inch	Metric
#4 - 40UNC		TRK30162GS	H2	.335	3.15	.709	.141	.110	.19	2	-	2.3
#4 - 48UNF		TRK30182GS	H2	.335	3.15	.709	.141	.110	.19	2	3/32	-
#5 - 40UNC		TRK30202GS	H2	.374	3.94	.709	.141	.110	.19	3	-	2.6
#6 - 32UNC		TRK30243GS	H3	.413	4.72	.787	.141	.110	.19	3	-	2.8
#6 - 40UNF		TRK30262GS	H2	.413	3.94	.787	.141	.110	.19	3	-	2.9
#8 - 32UNC		TRK30283GS	H3	.453	4.72	.827	.168	.131	.24	3	-	3.4
#8 - 36UNF		TRK30302GS	H2	.453	3.94	.827	.168	.131	.24	3	-	3.5
#10 - 24UNC		TRK30323GS	H3	.531	4.92	.984	.194	.152	.24	3	-	3.9
#10 - 32UNF		TRK30343GS	H3	.531	5.91	.984	.194	.152	.24	3	-	4.1
#12 - 24UNC		TRK30363GS	H3	.571	4.92	1.181	.220	.165	.27	3	-	4.5
#12 - 28UNF		TRK30383GS	H3	.571	4.92	1.181	.220	.165	.27	3	-	4.7
1/4 - 20UNC		TRK30405GS	H5	.591	5.91	1.260	.255	.191	.31	3	-	5.2
1/4 - 28UNF		TRK30424GS	H4	.591	5.91	1.260	.255	.191	.31	3	-	5.5
5/16 - 18UNC		TRK30445GS	H5	.669	5.91	1.378	.318	.238	.38	3	-	6.7
5/16 - 24UNF		TRK30464GS	H4	.669	5.91	1.378	.318	.238	.38	3	-	7.0
3/8 - 16UNC		TRK30485GS	H5	.748	5.91	1.535	.381	.286	.44	3	-	8.1
3/8 - 24UNF		TRK30504GS	H4	.748	5.91	1.378	.381	.286	.44	3	-	8.6
7/16 - 14UNC		TRK30525GS	H5	.866	5.91	2.362	.323	.242	.39	3	-	9.5
7/16 - 20UNF		TRK30545GS	H5	.866	5.91	2.362	.323	.242	.39	3	-	10.0

► NEXT PAGE

◎ : Excellent ○ : Good

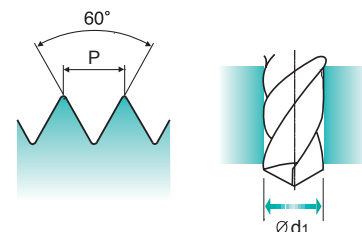
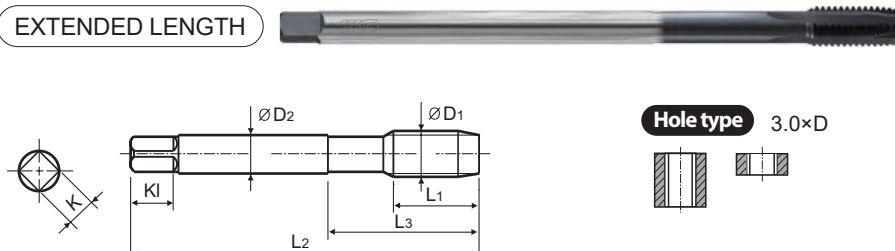
ISO	P											M			K					
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10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

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

X-Coating, HSS-PM Spiral Point Taps for Multipurpose

► High performance on various ductile materials

EXTENDED LENGTH



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)
ØD1				L1	L2	L3	ØD2	K	KL	Z	Inch Metric
1/2 - 13UNC		TRK30565GS	H5	.984	7.09	2.835	.367	.275	.44	3	- 11.0
1/2 - 20UNF		TRK30585GS	H5	.984	7.09	2.835	.367	.275	.44	3	- 11.6
9/16 - 12UNC		TRK30605GS	H5	.984	7.09	2.835	.429	.322	.50	3	- 12.5
9/16 - 18UNF		TRK30625GS	H5	.984	7.09	2.835	.429	.322	.50	3	- 13.0
5/8 - 11UNC		TRK30645GS	H5	1.083	7.09	2.835	.480	.360	.56	3	- 13.9
5/8 - 18UNF		TRK30665GS	H5	1.083	7.09	2.835	.480	.360	.56	3	- 14.6
3/4 - 10UNC		TRK30705GS	H5	1.201	7.87	3.150	.590	.442	.67	3	- 16.9
3/4 - 16UNF		TRK30725GS	H5	1.201	7.87	3.150	.590	.442	.67	3	- 17.7
7/8 - 9UNC		TRK30746GS	H6	1.339	7.87	3.150	.697	.523	.74	3	- 19.8
7/8 - 14UNF		TRK30766GS	H6	1.339	7.87	3.150	.697	.523	.74	3	- 20.5
1" - 8UNC		TRK30786GS	H6	1.496	7.87	3.465	.800	.600	.80	3	- 22.7
1" - 12UNF		TRK30806GS	H6	1.496	7.87	3.465	.800	.600	.80	3	- 23.5

◎ : Excellent ○ : Good

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



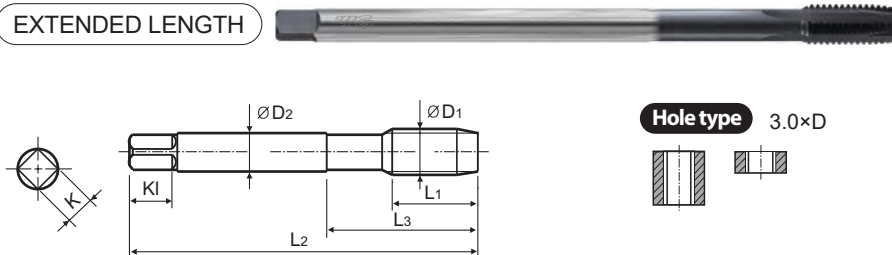
X-Coating, HSS-PM

Spiral Point Taps for Multipurpose

NEW SERIES
TRK29

► High performance on various ductile materials

EXTENDED LENGTH



Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)	
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
M3	x 0.5	TRK29203GS	D3	.374	3.94	.709	.141	.110	.19	3	-	2.5
M4	x 0.7	TRK29244GS	D4	.453	3.94	.827	.168	.191	.31	3	-	3.4
M5	x 0.8	TRK29284GS	D4	.531	4.92	.984	.194	.191	.31	3	-	4.3
M6	x 1.0	TRK29315GS	D5	.591	5.91	1.181	.255	.191	.31	3	-	5.1
M6	x 0.75	TRK29324GS	D4	.591	5.91	1.181	.255	.191	.31	3	-	5.3
M8	x 1.25	TRK29365GS	D5	.669	5.91	1.378	.318	.238	.38	3	-	6.9
M8	x 1.0	TRK29375GS	D5	.669	5.91	1.378	.318	.238	.38	3	-	7.1
M10	x 1.5	TRK29426GS	D6	.748	5.91	1.378	.381	.286	.44	3	-	8.7
M10	x 1.25	TRK29435GS	D5	.748	5.91	1.535	.381	.286	.44	3	-	8.9
M10	x 1.0	TRK29445GS	D5	.748	5.91	1.535	.381	.286	.44	3	-	9.1
M12	x 1.75	TRK29506GS	D6	.984	7.09	2.835	.367	.275	.44	3	-	10.5
M12	x 1.5	TRK29516GS	D6	.984	7.09	2.835	.367	.275	.44	3	-	10.7
M12	x 1.25	TRK29526GS	D6	.984	7.09	2.835	.367	.275	.44	3	-	10.9
M14	x 2.0	TRK29547GS	D7	.984	7.09	2.835	.429	.322	.50	3	-	12.3
M14	x 1.5	TRK29556GS	D6	.984	7.09	2.835	.429	.322	.50	3	-	12.7
M14	x 1.25	TRK29566GS	D6	.984	7.09	2.835	.429	.322	.50	3	-	12.9
M16	x 2.0	TRK29607GS	D7	1.083	7.09	2.835	.480	.360	.56	3	-	14.3
M16	x 1.5	TRK29616GS	D6	1.083	7.09	2.835	.480	.360	.56	3	-	14.7
M18	x 2.5	TRK29657GS	D7	1.083	7.09	2.835	.542	.406	.61	3	-	15.8
M18	x 1.5	TRK29676GS	D6	1.083	7.09	2.835	.542	.406	.61	3	-	16.7

► NEXT PAGE

◎ : Excellent ○ : Good

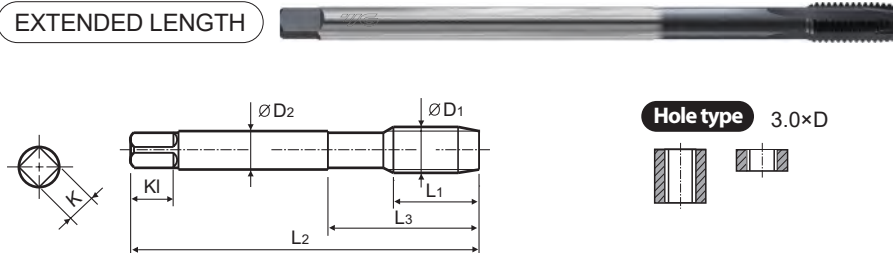
ISO	P											M				K							
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
HRc		13	25	28	32	10	29	32	38	15	35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

X-Coating, HSS-PM

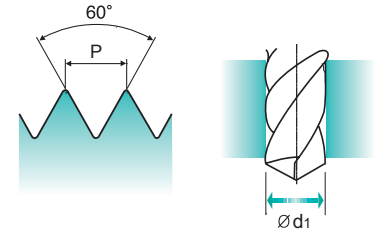
Spiral Point Taps for Multipurpose

► High performance on various ductile materials

EXTENDED LENGTH



Hole type 3.0xD



Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Flute	Tapping Drill Diameter (Ød1)
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch Metric
M20 x 2.5		TRK29707GS	D7	1.201	7.87	3.150	.652	.489	.67	3	- 17.8
M20 x 1.5		TRK29726GS	D6	1.201	7.87	3.150	.652	.489	.67	3	- 18.7
M22 x 2.5		TRK29747GS	D7	1.339	7.87	3.150	.697	.523	.74	3	- 19.8
M22 x 1.5		TRK29766GS	D6	1.339	7.87	3.150	.697	.523	.74	3	- 20.7
M24 x 3.0		TRK29788GS	D8	1.339	7.87	3.268	.760	.570	.74	3	27/32 -
M24 x 1.5		TRK29806GS	D6	1.339	7.87	3.268	.760	.570	.74	3	- 22.7

◎ : Excellent ○ : Good

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



X-Coating, HSS-PM

Forming Taps for Multipurpose

SERIES

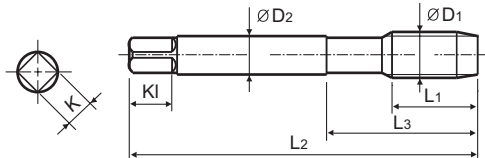
TRR11

► High performance on various ductile materials

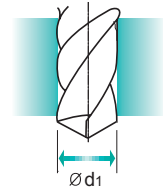
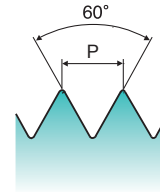
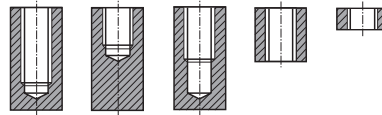
DIN/ANSI



Short Chamfer



Hole type 3.0xD



HSS PM

UNC UNF

H

60°

1P~2P

X Coating



p.7

Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe	Tapping Drill Diameter (Ød1)	
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
#0 - 80		TRR11023GS	H3	.315	1.57	.362	.141	.110	.19	4	-	1.4
#1 - 64		TRR11043GS	H3	.315	1.57	.370	.141	.110	.19	4	-	1.7
#2 - 56		TRR11083GS	H3	.386	1.77	.425	.141	.110	.19	4	-	2.0
#2 - 64		TRR11103GS	H3	.386	1.77	.425	.141	.110	.19	4	-	2.0
#3 - 48		TRR11123GS	H3	.386	1.97	.453	.141	.110	.19	4	-	2.3
#3 - 56		TRR11143GS	H3	.386	1.97	.453	.141	.110	.19	4	-	2.3
#4 - 40		TRR11165GS	H5	.299	2.21	.709	.141	.110	.19	4	#38	-
#4 - 48		TRR11185GS	H5	.299	2.21	.709	.141	.110	.19	4	-	2.6
#5 - 40		TRR11205GS	H5	.299	2.21	.709	.141	.110	.19	4	-	2.9
#5 - 44		TRR11225GS	H5	.299	2.21	.709	.141	.110	.19	4	-	2.9
#6 - 32		TRR11245GS	H5	.374	2.21	.787	.141	.110	.19	4	1/8	-
#6 - 40		TRR11265GS	H5	.374	2.21	.787	.141	.110	.19	4	-	3.2
#8 - 32		TRR11285GS	H5	.374	2.48	.827	.168	.131	.25	4	-	3.8
#8 - 36		TRR11305GS	H5	.374	2.48	.827	.168	.131	.25	4	#24	-
#10 - 24		TRR11326GS	H6	.500	2.75	.984	.194	.152	.25	5	-	4.4
#10 - 32		TRR11346GS	H6	.500	2.75	.984	.194	.152	.25	5	-	4.5
#12 - 24		TRR11367GS	H7	.500	3.15	1.142	.220	.165	.28	5	-	5.0
#12 - 28		TRR11387GS	H7	.500	3.15	1.142	.220	.165	.28	5	-	5.1
1/4 - 20		TRR11406GS	H6	.500	3.15	1.181	.255	.191	.31	5	-	5.8
1/4 - 28		TRR11426GS	H6	.500	3.15	1.181	.255	.191	.31	5	15/64	-

► NEXT PAGE

◎ : Excellent ○ : Good

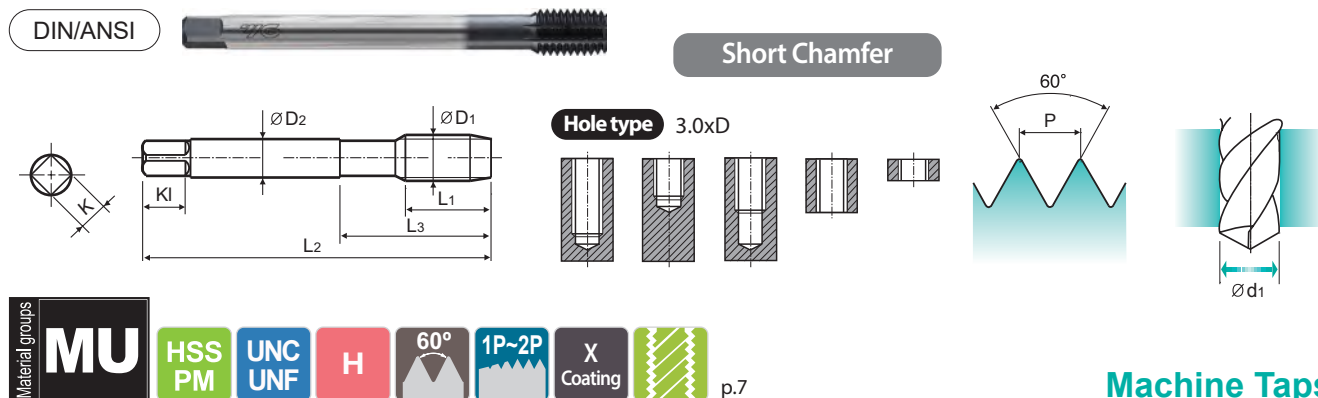
ISO	P											M				K					
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc		13	25	28	32	10	29	32	38	15	35	15	23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

X-Coating, HSS-PM Forming Taps for Multipurpose

SERIES

TRR11

► High performance on various ductile materials



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe	Tapping Drill Diameter (Ød1)
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch Metric
5/16 - 18		TRR11447GS	H7	.555	3.54	1.378	.318	.238	.38	5	- 7.3
5/16 - 24		TRR11467GS	H7	.555	3.54	1.378	.318	.238	.38	5	- 7.5
3/8 - 16		TRR11487GS	H7	.626	3.94	1.575	.381	.286	.44	8	- 8.8
3/8 - 24		TRR11507GS	H7	.626	3.94	1.575	.381	.286	.44	8	- 9.0
7/16 - 14		TRR11528GS	H8	.713	3.94	1.693	.323	.242	.41	8	- 10.3
7/16 - 20		TRR11548GS	H8	.713	3.94	1.693	.323	.242	.41	8	- 10.6
1/2 - 13		TRR11568GS	H8	.768	4.33	1.929	.367	.275	.44	8	- 11.8
1/2 - 20		TRR11588GS	H8	.768	3.94	1.929	.367	.275	.44	8	- 12.1
9/16 - 12		TRR11600GS	H10	.835	4.33	1.969	.429	.322	.50	8	- 13.4
9/16 - 18		TRR11620GS	H10	.835	3.94	1.969	.429	.322	.50	8	- 13.7
5/8 - 11		TRR11640GS	H10	.909	4.33	2.126	.480	.360	.56	8	- 14.9
5/8 - 18		TRR11660GS	H10	.909	3.94	2.126	.480	.360	.56	8	- 15.3
3/4 - 10		TRR11700GS	H10	.799	4.92	2.441	.590	.442	.69	8	- 17.9
3/4 - 16		TRR11720GS	H10	.626	4.33	2.441	.590	.442	.69	8	- 18.4
7/8 - 9		TRR1174AGS	H11	.890	5.51	2.638	.697	.523	.75	8	- 21.0
7/8 - 14		TRR1176AGS	H11	.713	4.92	2.638	.697	.523	.75	8	- 21.4
1" - 8		TRR1178AGS	H11	1.000	6.30	2.992	.800	.600	.81	8	- 24.0
1" - 12		TRR1180AGS	H11	.835	5.51	2.992	.800	.600	.81	8	- 24.5

◎ : Excellent ○ : Good

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



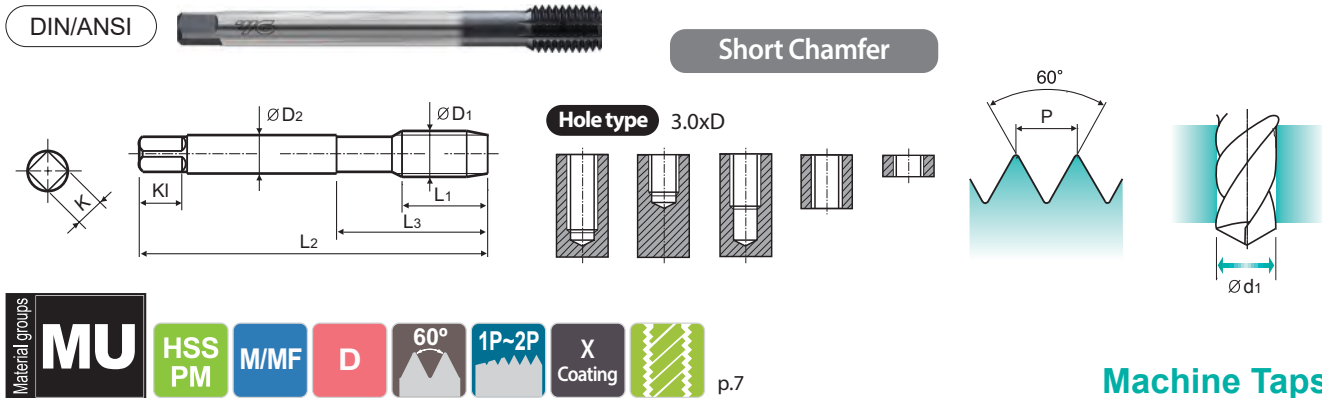
X-Coating, HSS-PM

Forming Taps for Multipurpose

SERIES

TRR13

► High performance on various ductile materials



Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe	Tapping Drill Diameter (Ød1)	
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
M2	x 0.4	TRR13135GS	D5	.315	1.77	.362	.141	.110	.19	4	-	1.8
M2.5	x 0.45	TRR13175GS	D5	.354	1.97	.425	.141	.110	.19	4	-	2.3
M3	x 0.5	TRR13205GS	D5	.236	2.21	.709	.141	.110	.19	4	-	2.8
M3.5	x 0.6	TRR13226GS	D6	.283	2.21	.787	.141	.110	.19	4	-	3.2
M4	x 0.7	TRR13246GS	D6	.331	2.48	.827	.168	.131	.25	4	-	3.7
M4.5	x 0.75	TRR13266GS	D6	.354	2.75	.984	.194	.152	.25	4	-	4.2
M5	x 0.8	TRR13287GS	D7	.378	2.75	.984	.194	.152	.25	5	-	4.6
M6	x 1.0	TRR13318GS	D8	.394	3.15	1.181	.255	.191	.31	5	-	5.6
M7	x 1.0	TRR13348GS	D8	.394	3.15	1.181	.318	.238	.38	5	-	6.6
M8	x 1.25	TRR13369GS	D9	.472	3.54	1.378	.318	.238	.38	5	-	7.5
M8	x 1.0	TRR13378GS	D8	.472	3.54	1.378	.318	.238	.38	5	-	7.6
M10	x 1.5	TRR13420GS	D10	.591	3.94	1.535	.381	.286	.44	8	-	9.4
M10	x 1.25	TRR13439GS	D9	.591	3.94	1.535	.381	.286	.44	8	-	9.5
M12	x 1.75	TRR1350AGS	D11	.669	4.33	1.929	.367	.275	.44	8	-	11.2
M12	x 1.5	TRR1351AGS	D11	.669	3.94	1.929	.367	.275	.44	8	-	11.3
M14	x 2.0	TRR1354BGS	D12	.787	4.33	1.969	.429	.322	.50	8	-	13.1
M14	x 1.5	TRR1355AGS	D11	.787	3.94	1.969	.429	.322	.50	8	-	13.3
M16	x 2.0	TRR1360BGS	D12	.787	4.33	2.126	.480	.360	.56	8	-	15.1
M16	x 1.5	TRR1361AGS	D11	.787	3.94	2.126	.480	.360	.56	8	-	15.3

► NEXT PAGE

◎ : Excellent ○ : Good

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

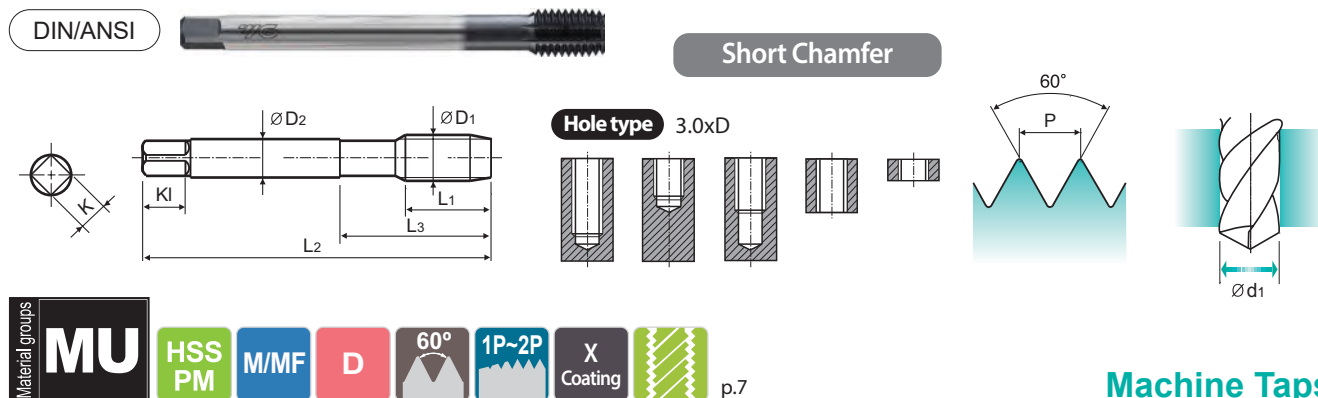
X-Coating, HSS-PM

Forming Taps for Multipurpose

SERIES

TRR13

► High performance on various ductile materials



Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe	Tapping Drill Diameter (Ød1)
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch Metric
M18 x 2.5		TRR1365BGS	D12	.787	4.92	2.165	.542	.406	.63	8	- 16.9
M18 x 1.5		TRR1367AGS	D11	.591	4.33	2.165	.542	.406	.63	8	- 17.3
M20 x 2.5		TRR1370BGS	D12	.787	5.51	2.433	.652	.489	.69	8	- 18.9
M20 x 1.5		TRR1372AGS	D11	.591	4.92	2.433	.652	.489	.69	8	- 19.3
M22 x 2.5		TRR1374BGS	D12	.787	5.51	2.654	.697	.523	.75	8	- 20.9
M22 x 1.5		TRR1376AGS	D11	.591	4.92	2.654	.697	.523	.75	8	- 21.3
M24 x 3.0		TRR1378EGS	D15	.945	6.30	2.693	.760	.570	.75	8	- 22.7
M24 x 1.5		TRR1380AGS	D11	.591	5.51	2.693	.760	.570	.75	8	- 23.3

◎ : Excellent ○ : Good

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



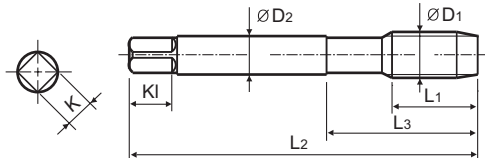
X-Coating, HSS-PM

Forming Taps for Multipurpose

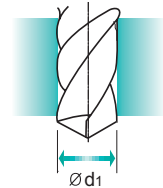
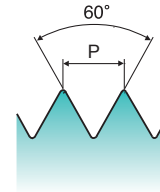
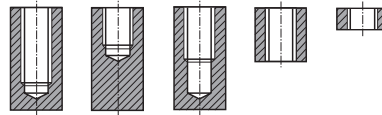
SERIES

TRR10

► High performance on various ductile materials



Hole type 3.0xD



p.7

Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe	Tapping Drill Diameter (Ød1)	
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
#0 - 80		TRR10023GS	H3	.315	1.57	.362	.141	.110	.19	4	-	1.4
#1 - 64		TRR10043GS	H3	.315	1.57	.370	.141	.110	.19	4	-	1.7
#2 - 56		TRR10082GS	H2	.386	1.77	.425	.141	.110	.19	4	-	2.0
#2 - 56		TRR10083GS	H3	.386	1.77	.425	.141	.110	.19	4	-	2.0
#2 - 64		TRR10102GS	H2	.386	1.77	.425	.141	.110	.19	4	-	2.0
#2 - 64		TRR10103GS	H3	.386	1.77	.425	.141	.110	.19	4	-	2.0
#3 - 48		TRR10122GS	H2	.386	1.97	.453	.141	.110	.19	4	-	2.3
#3 - 48		TRR10123GS	H3	.386	1.97	.453	.141	.110	.19	4	-	2.3
#3 - 56		TRR10142GS	H2	.386	1.97	.453	.141	.110	.19	4	-	2.3
#3 - 56		TRR10143GS	H3	.386	1.97	.453	.141	.110	.19	4	-	2.3
#4 - 40		TRR10163GS	H3	.299	2.21	.709	.141	.110	.19	4	#38	-
#4 - 40		TRR10165GS	H5	.299	2.21	.709	.141	.110	.19	4	#38	-
#4 - 48		TRR10183GS	H3	.299	2.21	.709	.141	.110	.19	4	-	2.6
#4 - 48		TRR10185GS	H5	.299	2.21	.709	.141	.110	.19	4	-	2.6
#5 - 40		TRR10203GS	H3	.299	2.21	.709	.141	.110	.19	4	-	2.9
#5 - 40		TRR10205GS	H5	.299	2.21	.709	.141	.110	.19	4	-	2.9
#5 - 44		TRR10223GS	H3	.299	2.21	.709	.141	.110	.19	4	-	2.9
#5 - 44		TRR10225GS	H5	.299	2.21	.709	.141	.110	.19	4	-	2.9

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◎ : Excellent ○ : Good

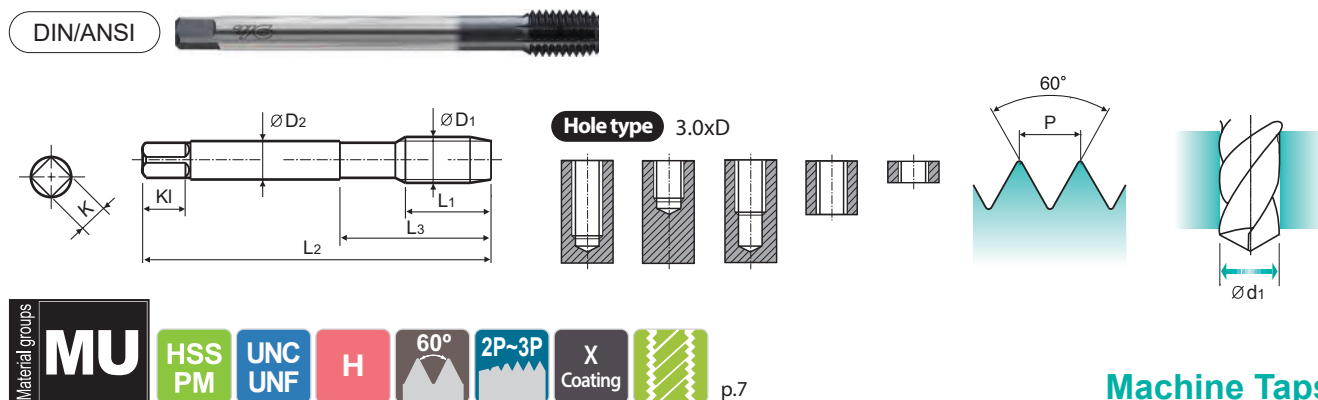
ISO	P											M				K					
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron		
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc		13	25	28	32	10	29	32	38	15	35	15	23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

X-Coating, HSS-PM Forming Taps for Multipurpose

SERIES

TRR10

► High performance on various ductile materials



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe	Tapping Drill Diameter (Ød1)
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch Metric
#6 - 32		TRR10243GS	H3	.374	2.21	.787	.141	.110	.19	4	1/8 -
#6 - 32		TRR10245GS	H5	.374	2.21	.787	.141	.110	.19	4	1/8 -
#6 - 40		TRR10263GS	H3	.374	2.21	.787	.141	.110	.19	4	- 3.2
#6 - 40		TRR10265GS	H5	.374	2.21	.787	.141	.110	.19	4	- 3.2
#8 - 32		TRR10283GS	H3	.374	2.48	.827	.168	.131	.25	4	- 3.8
#8 - 32		TRR10285GS	H5	.374	2.48	.827	.168	.131	.25	4	- 3.8
#8 - 36		TRR10303GS	H3	.374	2.48	.827	.168	.131	.25	4	#24 -
#8 - 36		TRR10305GS	H5	.374	2.48	.827	.168	.131	.25	4	#24 -
#10 - 24		TRR10324GS	H4	.500	2.75	.984	.194	.152	.25	5	- 4.4
#10 - 24		TRR10326GS	H6	.500	2.75	.984	.194	.152	.25	5	- 4.4
#10 - 32		TRR10344GS	H4	.500	2.75	.984	.194	.152	.25	5	- 4.5
#10 - 32		TRR10346GS	H6	.500	2.75	.984	.194	.152	.25	5	- 4.5
#12 - 24		TRR10365GS	H5	.500	3.15	1.142	.220	.165	.28	5	- 5.0
#12 - 24		TRR10367GS	H7	.500	3.15	1.142	.220	.165	.28	5	- 5.0
#12 - 28		TRR10385GS	H5	.500	3.15	1.142	.220	.165	.28	5	- 5.1
#12 - 28		TRR10387GS	H7	.500	3.15	1.142	.220	.165	.28	5	- 5.1
1/4 - 20		TRR10404GS	H4	.500	3.15	1.181	.255	.191	.31	5	- 5.8
1/4 - 20		TRR10406GS	H6	.500	3.15	1.181	.255	.191	.31	5	- 5.8
1/4 - 28		TRR10424GS	H4	.500	3.15	1.181	.255	.191	.31	5	15/64 -
1/4 - 28		TRR10426GS	H6	.500	3.15	1.181	.255	.191	.31	5	15/64 -

► NEXT PAGE

◎ : Excellent ○ : Good

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



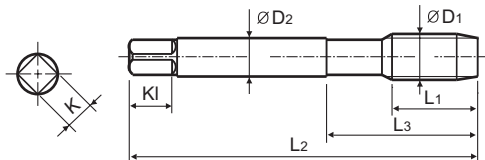
X-Coating, HSS-PM

Forming Taps for Multipurpose

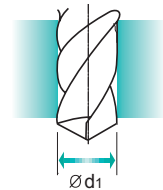
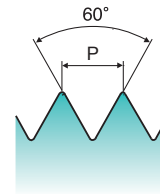
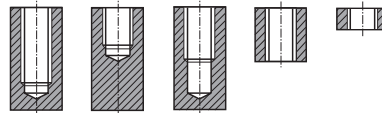
SERIES

TRR10

► High performance on various ductile materials



Hole type 3.0xD



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe	Tapping Drill Diameter (Ød1)	
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
5/16 - 18		TRR10445GS	H5	.555	3.54	1.378	.318	.238	.38	5	-	7.3
5/16 - 18		TRR10447GS	H7	.555	3.54	1.378	.318	.238	.38	5	-	7.3
5/16 - 24		TRR10465GS	H5	.555	3.54	1.378	.318	.238	.38	5	-	7.5
5/16 - 24		TRR10467GS	H7	.555	3.54	1.378	.318	.238	.38	5	-	7.5
3/8 - 16		TRR10485GS	H5	.626	3.94	1.575	.381	.286	.44	8	-	8.8
3/8 - 16		TRR10487GS	H7	.626	3.94	1.575	.381	.286	.44	8	-	8.8
3/8 - 24		TRR10505GS	H5	.626	3.94	1.575	.381	.286	.44	8	-	9.0
3/8 - 24		TRR10507GS	H7	.626	3.94	1.575	.381	.286	.44	8	-	9.0
7/16 - 14		TRR10525GS	H5	.713	3.94	1.693	.323	.242	.41	8	-	10.3
7/16 - 14		TRR10528GS	H8	.713	3.94	1.693	.323	.242	.41	8	-	10.3
7/16 - 20		TRR10545GS	H5	.713	3.94	1.693	.323	.242	.41	8	-	10.6
7/16 - 20		TRR10548GS	H8	.713	3.94	1.693	.323	.242	.41	8	-	10.6
1/2 - 13		TRR10565GS	H5	.768	4.33	1.929	.367	.275	.44	8	-	11.8
1/2 - 13		TRR10568GS	H8	.768	4.33	1.929	.367	.275	.44	8	-	11.8
1/2 - 20		TRR10585GS	H5	.768	3.94	1.929	.367	.275	.44	8	-	12.1
1/2 - 20		TRR10588GS	H8	.768	3.94	1.929	.367	.275	.44	8	-	12.1
9/16 - 12		TRR10600GS	H10	.835	4.33	1.969	.429	.322	.50	8	-	13.4
9/16 - 12		TRR10607GS	H7	.835	4.33	1.969	.429	.322	.50	8	-	13.4
9/16 - 18		TRR10620GS	H10	.835	3.94	1.969	.429	.322	.50	8	-	13.7
9/16 - 18		TRR10627GS	H7	.835	3.94	1.969	.429	.322	.50	8	-	13.7

► NEXT PAGE

◎ : Excellent ○ : Good

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

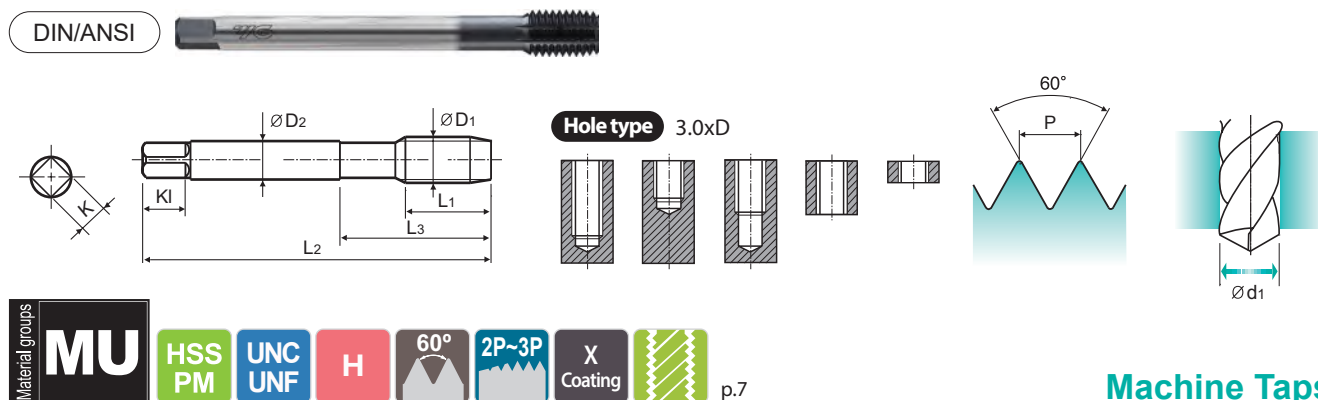
X-Coating, HSS-PM

Forming Taps for Multipurpose

SERIES

TRR10

► High performance on various ductile materials



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe	Tapping Drill Diameter (Ød1)	
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
5/8	- 11	TRR10640GS	H10	.909	4.33	2.126	.480	.360	.56	8	-	14.9
5/8	- 11	TRR10647GS	H7	.909	4.33	2.126	.480	.360	.56	8	-	14.9
5/8	- 18	TRR10660GS	H10	.909	3.94	2.126	.480	.360	.56	8	-	15.3
5/8	- 18	TRR10667GS	H7	.909	3.94	2.126	.480	.360	.56	8	-	15.3
3/4	- 10	TRR10700GS	H10	.799	4.92	2.441	.590	.442	.69	8	-	17.9
3/4	- 10	TRR10707GS	H7	.799	4.92	2.441	.590	.442	.69	8	-	17.9
3/4	- 16	TRR10720GS	H10	.626	4.33	2.441	.590	.442	.69	8	-	18.4
3/4	- 16	TRR10727GS	H7	.626	4.33	2.441	.590	.442	.69	8	-	18.4
7/8	- 9	TRR10748GS	H8	.890	5.51	2.638	.697	.523	.75	8	-	21.0
7/8	- 9	TRR1074AGS	H11	.890	5.51	2.638	.697	.523	.75	8	-	21.0
7/8	- 14	TRR10768GS	H8	.713	4.92	2.638	.697	.523	.75	8	-	21.4
7/8	- 14	TRR1076AGS	H11	.713	4.92	2.638	.697	.523	.75	8	-	21.4
1"	- 8	TRR10788GS	H8	1.000	6.30	2.992	.800	.600	.81	8	-	24.0
1"	- 8	TRR1078AGS	H11	1.000	6.30	2.992	.800	.600	.81	8	-	24.0
1"	- 12	TRR10808GS	H8	.835	5.51	2.992	.800	.600	.81	8	-	24.5
1"	- 12	TRR1080AGS	H11	.835	5.51	2.992	.800	.600	.81	8	-	24.5

◎ : Excellent ○ : Good

[illegible]



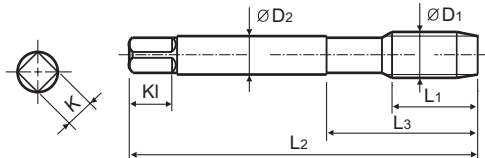
X-Coating, HSS-PM

Forming Taps for Multipurpose

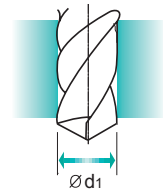
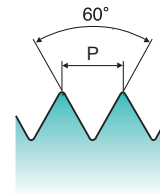
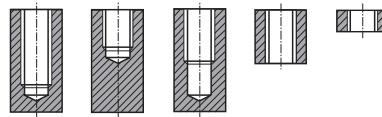
SERIES

TRR12

► High performance on various ductile materials



Hole type 3.0xD



Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe	Tapping Drill Diameter (Ød1)	
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
M2	x 0.4	TRR12133GS	D3	.315	1.77	.362	.141	.110	.19	4	-	1.8
M2	x 0.4	TRR12135GS	D5	.315	1.77	.362	.141	.110	.19	4	-	1.8
M2.5	x 0.45	TRR12173GS	D3	.354	1.97	.425	.141	.110	.19	4	-	2.3
M2.5	x 0.45	TRR12175GS	D5	.354	1.97	.425	.141	.110	.19	4	-	2.3
M3	x 0.5	TRR12203GS	D3	.236	2.21	.709	.141	.110	.19	4	-	2.8
M3	x 0.5	TRR12205GS	D5	.236	2.21	.709	.141	.110	.19	4	-	2.8
M3.5	x 0.6	TRR12224GS	D4	.283	2.21	.787	.141	.110	.19	4	-	3.2
M3.5	x 0.6	TRR12226GS	D6	.283	2.21	.787	.141	.110	.19	4	-	3.2
M4	x 0.7	TRR12244GS	D4	.331	2.48	.827	.168	.131	.25	4	-	3.7
M4	x 0.7	TRR12246GS	D6	.331	2.48	.827	.168	.131	.25	4	-	3.7
M4.5	x 0.75	TRR12264GS	D4	.354	2.75	.984	.194	.152	.25	4	-	4.2
M4.5	x 0.75	TRR12266GS	D6	.354	2.75	.984	.194	.152	.25	4	-	4.2
M5	x 0.8	TRR12284GS	D4	.378	2.75	.984	.194	.152	.25	5	-	4.6
M5	x 0.8	TRR12287GS	D7	.378	2.75	.984	.194	.152	.25	5	-	4.6
M6	x 1.0	TRR12315GS	D5	.394	3.15	1.181	.255	.191	.31	5	-	5.6
M6	x 1.0	TRR12318GS	D8	.394	3.15	1.181	.255	.191	.31	5	-	5.6
M7	x 1.0	TRR12345GS	D5	.394	3.15	1.181	.318	.238	.38	5	-	6.6
M7	x 1.0	TRR12348GS	D8	.394	3.15	1.181	.318	.238	.38	5	-	6.6

► NEXT PAGE

◎ : Excellent ○ : Good

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



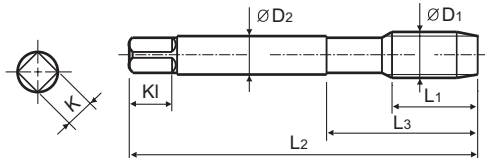
X-Coating, HSS-PM

Forming Taps for Multipurpose

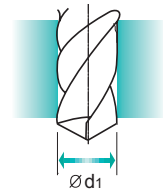
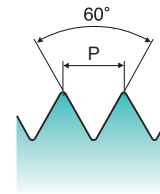
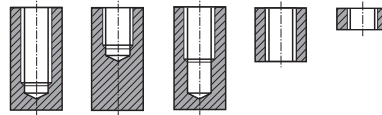
SERIES

TRR12

► High performance on various ductile materials



Hole type 3.0xD



Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe	Tapping Drill Diameter (Ød1)	
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
M18	x 2.5	TRR12657GS	D7	.787	4.92	2.165	.542	.406	.63	8	-	16.9
M18	x 2.5	TRR1265BGS	D12	.787	4.92	2.165	.542	.406	.63	8	-	16.9
M18	x 1.5	TRR12676GS	D6	.591	4.33	2.165	.542	.406	.63	8	-	17.3
M18	x 1.5	TRR1267AGS	D11	.591	4.33	2.165	.542	.406	.63	8	-	17.3
M20	x 2.5	TRR12707GS	D7	.787	5.51	2.433	.652	.489	.69	8	-	18.9
M20	x 2.5	TRR1270BGS	D12	.787	5.51	2.433	.652	.489	.69	8	-	18.9
M20	x 1.5	TRR12726GS	D6	.591	4.92	2.433	.652	.489	.69	8	-	19.3
M20	x 1.5	TRR1272AGS	D11	.591	4.92	2.433	.652	.489	.69	8	-	19.3
M22	x 2.5	TRR1274BGS	D12	.787	5.51	2.654	.697	.523	.75	8	-	20.9
M22	x 1.5	TRR1276AGS	D11	.591	4.92	2.654	.697	.523	.75	8	-	21.3
M24	x 3.0	TRR1278EGS	D15	.945	6.30	2.693	.760	.570	.75	8	-	22.7
M24	x 1.5	TRR1280AGS	D11	.591	5.51	2.693	.760	.570	.75	8	-	23.3

◎ : Excellent ○ : Good

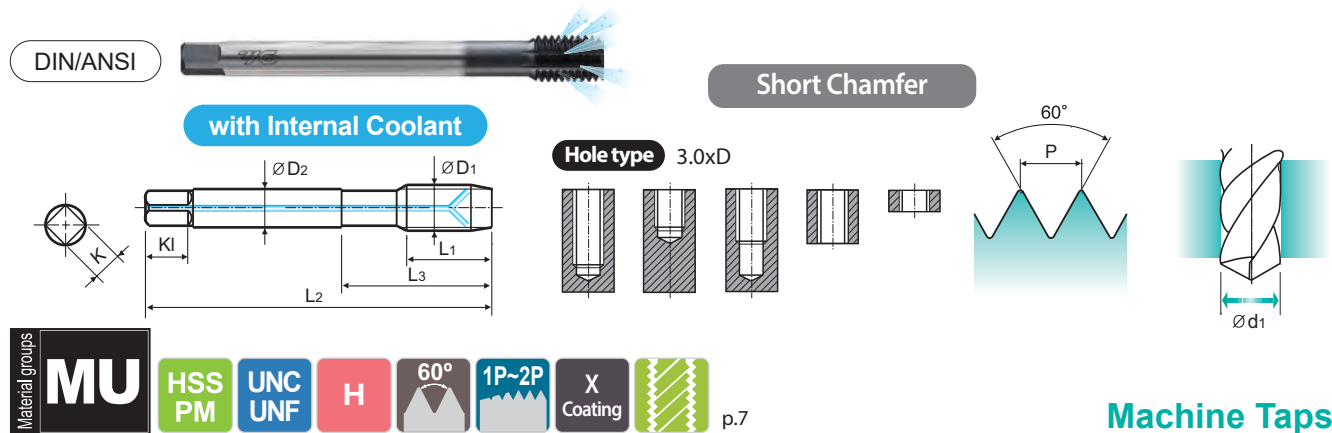
ISO	P										M				K								
Material Description	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
HRc		13	25	28	32	10	29	32	38	15	35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

X-Coating, HSS-PM Forming Taps for Multipurpose

SERIES

TRR15

► High performance on various ductile materials



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe	Tapping Drill Diameter (Ød1)
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch Metric
1/4 - 20		TRR15406GSP	H6	.500	3.15	1.181	.255	.191	.31	5	- 5.8
1/4 - 28		TRR15426GSP	H6	.500	3.15	1.181	.255	.191	.31	5	15/64 -
5/16 - 18		TRR15447GSP	H7	.555	3.54	1.378	.318	.238	.38	5	- 7.3
5/16 - 24		TRR15467GSP	H7	.555	3.54	1.378	.318	.238	.38	5	- 7.5
3/8 - 16		TRR15487GSP	H7	.626	3.94	1.575	.381	.286	.44	8	- 8.8
3/8 - 24		TRR15507GSP	H7	.626	3.94	1.575	.381	.286	.44	8	- 9.0
7/16 - 14		TRR15528GSP	H8	.713	3.94	1.693	.323	.242	.41	8	- 10.3
7/16 - 20		TRR15548GSP	H8	.713	3.94	1.693	.323	.242	.41	8	- 10.6
1/2 - 13		TRR15568GSP	H8	.768	4.33	1.929	.367	.275	.44	8	- 11.8
1/2 - 20		TRR15588GSP	H8	.768	3.94	1.929	.367	.275	.44	8	- 12.1
9/16 - 12		TRR15600GSP	H10	.835	4.33	1.969	.429	.322	.50	8	- 13.4
9/16 - 18		TRR15620GSP	H10	.835	3.94	1.969	.429	.322	.50	8	- 13.7
5/8 - 11		TRR15640GSP	H10	.909	4.33	2.126	.480	.360	.56	8	- 14.9
5/8 - 18		TRR15660GSP	H10	.909	3.94	2.126	.480	.360	.56	8	- 15.3
3/4 - 10		TRR15700GSP	H10	.799	4.92	2.441	.590	.442	.69	8	- 17.9
3/4 - 16		TRR15720GSP	H10	.626	4.33	2.441	.590	.442	.69	8	- 18.4
7/8 - 9		TRR1574AGSP	H11	.890	5.51	2.638	.697	.523	.75	8	- 21.0
7/8 - 14		TRR1576AGSP	H11	.713	4.92	2.638	.697	.523	.75	8	- 21.4
1" - 8		TRR1578AGSP	H11	1.000	6.30	2.992	.800	.600	.81	8	- 24.0
1" - 12		TRR1580AGSP	H11	.835	5.51	2.992	.800	.600	.81	8	- 24.5

◎ : Excellent ○ : Good

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

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



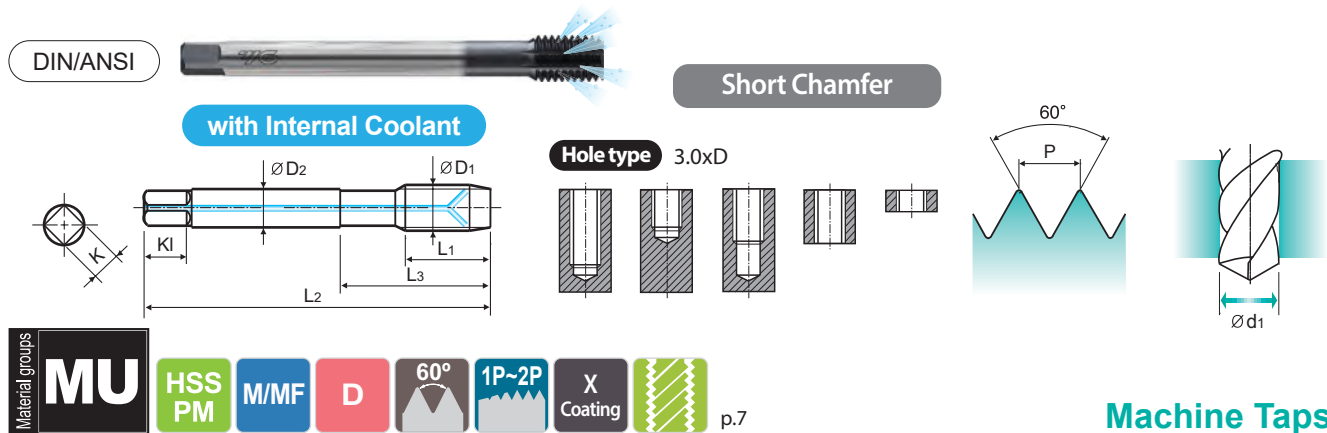
X-Coating, HSS-PM

Forming Taps for Multipurpose

SERIES

TRR17

► High performance on various ductile materials



Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe	Tapping Drill Diameter (Ød1)	
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
M6	x 1.0	TRR17318GSP	D8	.394	3.15	1.181	.255	.191	.31	5	-	5.6
M7	x 1.0	TRR17348GSP	D8	.394	3.15	1.181	.318	.238	.38	5	-	6.6
M8	x 1.25	TRR17369GSP	D9	.472	3.54	1.378	.318	.238	.38	5	-	7.5
M8	x 1.0	TRR17378GSP	D8	.472	3.54	1.378	.318	.238	.38	5	-	7.6
M10	x 1.5	TRR17420GSP	D10	.591	3.94	1.535	.381	.286	.44	8	-	9.4
M10	x 1.25	TRR17439GSP	D9	.591	3.94	1.535	.381	.286	.44	8	-	9.5
M12	x 1.75	TRR1750AGSP	D11	.669	4.33	1.929	.367	.275	.44	8	-	11.2
M12	x 1.5	TRR1751AGSP	D11	.669	3.94	1.929	.367	.275	.44	8	-	11.3
M14	x 2.0	TRR1754BGSP	D12	.787	4.33	1.969	.429	.322	.50	8	-	13.1
M14	x 1.5	TRR1755AGSP	D11	.787	3.94	1.969	.429	.322	.50	8	-	13.3
M16	x 2.0	TRR1760BGSP	D12	.787	4.33	2.126	.480	.360	.56	8	-	15.1
M16	x 1.5	TRR1761AGSP	D11	.787	3.94	2.126	.480	.360	.56	8	-	15.3
M18	x 2.5	TRR1765BGSP	D12	.787	4.92	2.165	.542	.406	.63	8	-	16.9
M18	x 1.5	TRR1767AGSP	D11	.591	4.33	2.165	.542	.406	.63	8	-	17.3
M20	x 2.5	TRR1770BGSP	D12	.787	5.51	2.433	.652	.489	.69	8	-	18.9
M20	x 1.5	TRR1772AGSP	D11	.591	4.92	2.433	.652	.489	.69	8	-	19.3
M22	x 2.5	TRR1774BGSP	D12	.787	5.51	2.654	.697	.523	.75	8	-	20.9
M22	x 1.5	TRR1776AGSP	D11	.591	4.92	2.654	.697	.523	.75	8	-	21.3
M24	x 3.0	TRR1778EGSP	D15	.945	6.30	2.693	.760	.570	.75	8	-	22.7
M24	x 1.5	TRR1780AGSP	D11	.591	5.51	2.693	.760	.570	.75	8	-	23.3

◎ : Excellent ○ : Good

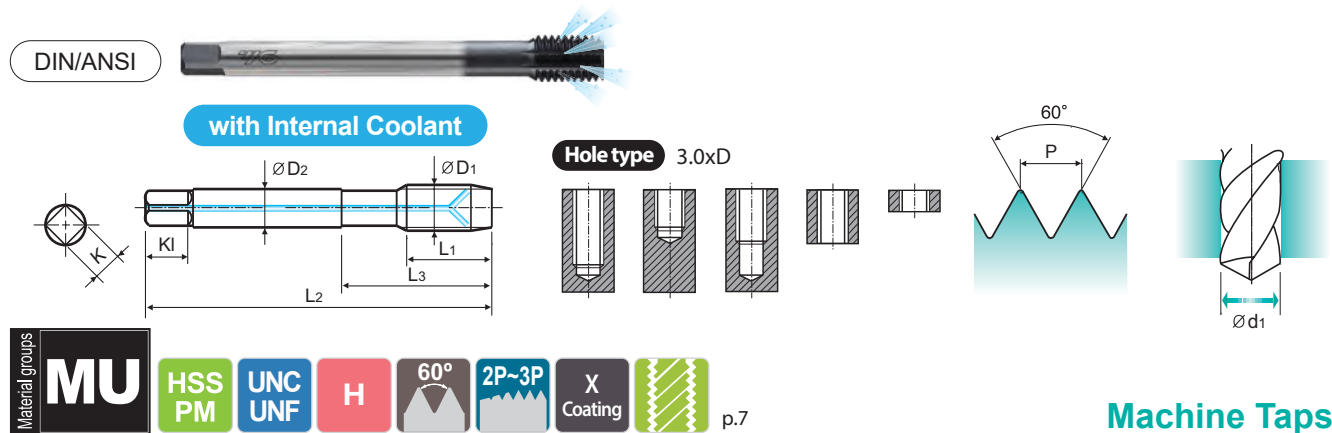
ISO	P										M					K				
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	36	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
ISO	N										S									
Material Description	Aluminum-wrought alloy					Aluminum-cast, alloyed					Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400
Recommended	◎	◎	◎	◎	◎	◎	◎	◎			◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

X-Coating, HSS-PM Forming Taps for Multipurpose

SERIES

TRR14

► High performance on various ductile materials



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe	Tapping Drill Diameter (Ød1)
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch Metric
1/4 - 20		TRR14404GSP	H4	.500	3.15	1.181	.255	.191	.31	5	- 5.8
1/4 - 20		TRR14406GSP	H6	.500	3.15	1.181	.255	.191	.31	5	- 5.8
1/4 - 28		TRR14424GSP	H4	.500	3.15	1.181	.255	.191	.31	5	15/64 -
1/4 - 28		TRR14426GSP	H6	.500	3.15	1.181	.255	.191	.31	5	15/64 -
5/16 - 18		TRR14445GSP	H5	.555	3.54	1.378	.318	.238	.38	5	- 7.3
5/16 - 18		TRR14447GSP	H7	.555	3.54	1.378	.318	.238	.38	5	- 7.3
5/16 - 24		TRR14465GSP	H5	.555	3.54	1.378	.318	.238	.38	5	- 7.5
5/16 - 24		TRR14467GSP	H7	.555	3.54	1.378	.318	.238	.38	5	- 7.5
3/8 - 16		TRR14485GSP	H5	.626	3.94	1.575	.381	.286	.44	8	- 8.8
3/8 - 16		TRR14487GSP	H7	.626	3.94	1.575	.381	.286	.44	8	- 8.8
3/8 - 24		TRR14505GSP	H5	.626	3.94	1.575	.381	.286	.44	8	- 9.0
3/8 - 24		TRR14507GSP	H7	.626	3.94	1.575	.381	.286	.44	8	- 9.0
7/16 - 14		TRR14525GSP	H5	.713	3.94	1.693	.323	.242	.41	8	- 10.3
7/16 - 14		TRR14528GSP	H8	.713	3.94	1.693	.323	.242	.41	8	- 10.3
7/16 - 20		TRR14545GSP	H5	.713	3.94	1.693	.323	.242	.41	8	- 10.6
7/16 - 20		TRR14548GSP	H8	.713	3.94	1.693	.323	.242	.41	8	- 10.6
1/2 - 13		TRR14565GSP	H5	.768	4.33	1.929	.367	.275	.44	8	- 11.8
1/2 - 13		TRR14568GSP	H8	.768	4.33	1.929	.367	.275	.44	8	- 11.8
1/2 - 20		TRR14585GSP	H5	.768	3.94	1.929	.367	.275	.44	8	- 12.1
1/2 - 20		TRR14588GSP	H8	.768	3.94	1.929	.367	.275	.44	8	- 12.1

► NEXT PAGE

◎ : Excellent ○ : Good

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



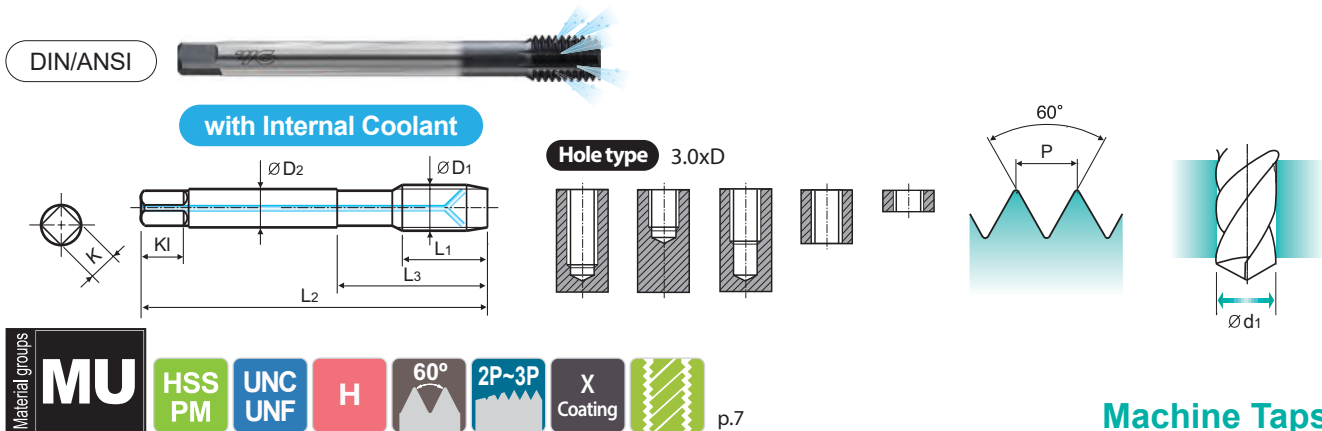
X-Coating, HSS-PM

Forming Taps for Multipurpose

SERIES

TRR14

► High performance on various ductile materials



Machine Taps

Unit: Inch

Size	TPI	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe	Tapping Drill Diameter (Ød1)	
ØD1				L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
9/16 - 12		TRR14600GSP	H10	.835	4.33	1.969	.429	.322	.50	8	-	13.4
9/16 - 12		TRR14607GSP	H7	.835	4.33	1.969	.429	.322	.50	8	-	13.4
9/16 - 18		TRR14620GSP	H10	.835	3.94	1.969	.429	.322	.50	8	-	13.7
9/16 - 18		TRR14627GSP	H7	.835	3.94	1.969	.429	.322	.50	8	-	13.7
5/8 - 11		TRR14640GSP	H10	.909	4.33	2.126	.480	.360	.56	8	-	14.9
5/8 - 11		TRR14647GSP	H7	.909	4.33	2.126	.480	.360	.56	8	-	14.9
5/8 - 18		TRR14660GSP	H10	.909	3.94	2.126	.480	.360	.56	8	-	15.3
5/8 - 18		TRR14667GSP	H7	.909	3.94	2.126	.480	.360	.56	8	-	15.3
3/4 - 10		TRR14700GSP	H10	.799	4.92	2.441	.590	.442	.69	8	-	17.9
3/4 - 10		TRR14707GSP	H7	.799	4.92	2.441	.590	.442	.69	8	-	17.9
3/4 - 16		TRR14720GSP	H10	.626	4.33	2.441	.590	.442	.69	8	-	18.4
3/4 - 16		TRR14727GSP	H7	.626	4.33	2.441	.590	.442	.69	8	-	18.4
7/8 - 9		TRR14748GSP	H8	.890	5.51	2.638	.697	.523	.75	8	-	21.0
7/8 - 9		TRR1474AGSP	H11	.890	5.51	2.638	.697	.523	.75	8	-	21.0
7/8 - 14		TRR14768GSP	H8	.713	4.92	2.638	.697	.523	.75	8	-	21.4
7/8 - 14		TRR1476AGSP	H11	.713	4.92	2.638	.697	.523	.75	8	-	21.4
1" - 8		TRR14788GSP	H8	1.000	6.30	2.992	.800	.600	.81	8	-	24.0
1" - 8		TRR1478AGSP	H11	1.000	6.30	2.992	.800	.600	.81	8	-	24.0
1" - 12		TRR14808GSP	H8	.835	5.51	2.992	.800	.600	.81	8	-	24.5
1" - 12		TRR1480AGSP	H11	.835	5.51	2.992	.800	.600	.81	8	-	24.5

◎ : Excellent ○ : Good

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

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

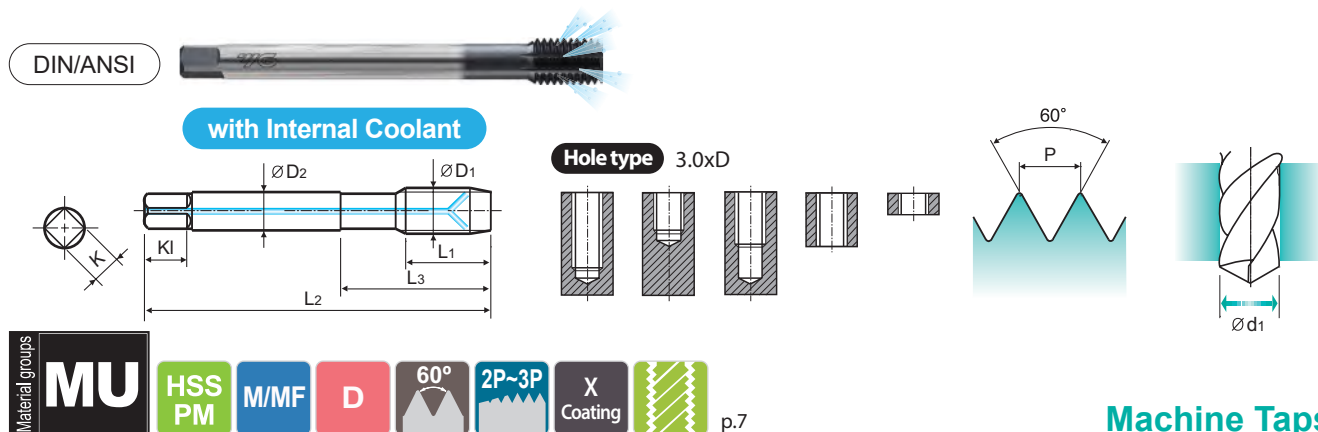
X-Coating, HSS-PM

Forming Taps for Multipurpose

SERIES

TRR16

► High performance on various ductile materials



Machine Taps

Unit: Inch

Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe	Tapping Drill Diameter (Ød1)
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch Metric
M6	x 1.0	TRR16315GSP	D5	.394	3.15	1.181	.255	.191	.31	5	- 5.6
M6	x 1.0	TRR16318GSP	D8	.394	3.15	1.181	.255	.191	.31	5	- 5.6
M7	x 1.0	TRR16345GSP	D5	.394	3.15	1.181	.318	.238	.38	5	- 6.6
M7	x 1.0	TRR16348GSP	D8	.394	3.15	1.181	.318	.238	.38	5	- 6.6
M8	x 1.25	TRR16365GSP	D5	.472	3.54	1.378	.318	.238	.38	5	- 7.5
M8	x 1.25	TRR16369GSP	D9	.472	3.54	1.378	.318	.238	.38	5	- 7.5
M8	x 1.0	TRR16375GSP	D5	.472	3.54	1.378	.318	.238	.38	5	- 7.6
M8	x 1.0	TRR16378GSP	D8	.472	3.54	1.378	.318	.238	.38	5	- 7.6
M10	x 1.5	TRR16420GSP	D10	.591	3.94	1.535	.381	.286	.44	8	- 9.4
M10	x 1.5	TRR16426GSP	D6	.591	3.94	1.535	.381	.286	.44	8	- 9.4
M10	x 1.25	TRR16435GSP	D5	.591	3.94	1.535	.381	.286	.44	8	- 9.5
M10	x 1.25	TRR16439GSP	D9	.591	3.94	1.535	.381	.286	.44	8	- 9.5
M12	x 1.75	TRR16506GSP	D6	.669	4.33	1.929	.367	.275	.44	8	- 11.2
M12	x 1.75	TRR1650AGSP	D11	.669	4.33	1.929	.367	.275	.44	8	- 11.2
M12	x 1.5	TRR16516GSP	D6	.669	3.94	1.929	.367	.275	.44	8	- 11.3
M12	x 1.5	TRR1651AGSP	D11	.669	3.94	1.929	.367	.275	.44	8	- 11.3
M14	x 2.0	TRR16547GSP	D7	.787	4.33	1.969	.429	.322	.50	8	- 13.1
M14	x 2.0	TRR1654BGSP	D12	.787	4.33	1.969	.429	.322	.50	8	- 13.1
M14	x 1.5	TRR16556GSP	D6	.787	3.94	1.969	.429	.322	.50	8	- 13.3
M14	x 1.5	TRR1655AGSP	D11	.787	3.94	1.969	.429	.322	.50	8	- 13.3

► NEXT PAGE

◎ : Excellent ○ : Good

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



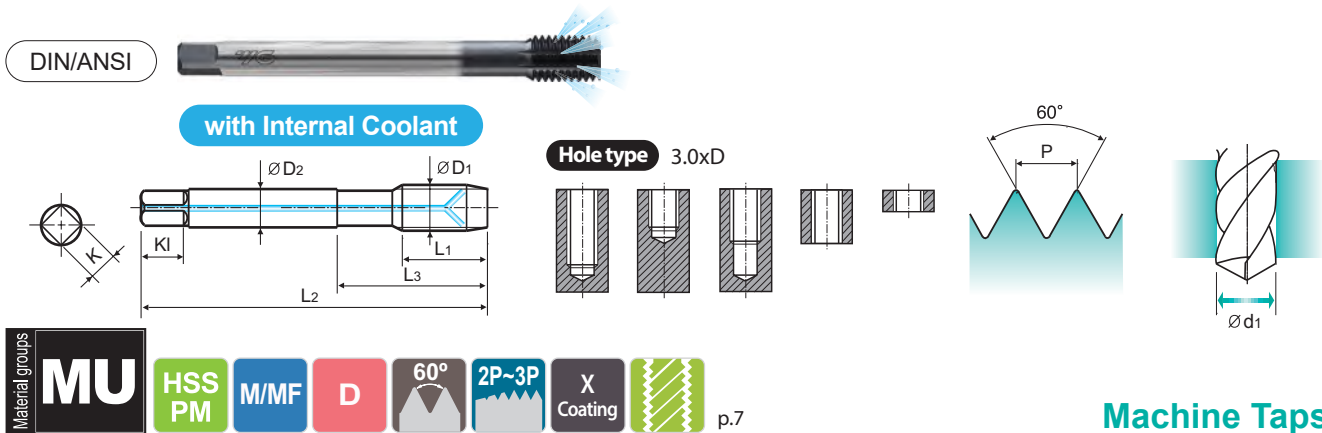
X-Coating, HSS-PM

Forming Taps for Multipurpose

SERIES

TRR16

► High performance on various ductile materials



Machine Taps

Unit: Inch

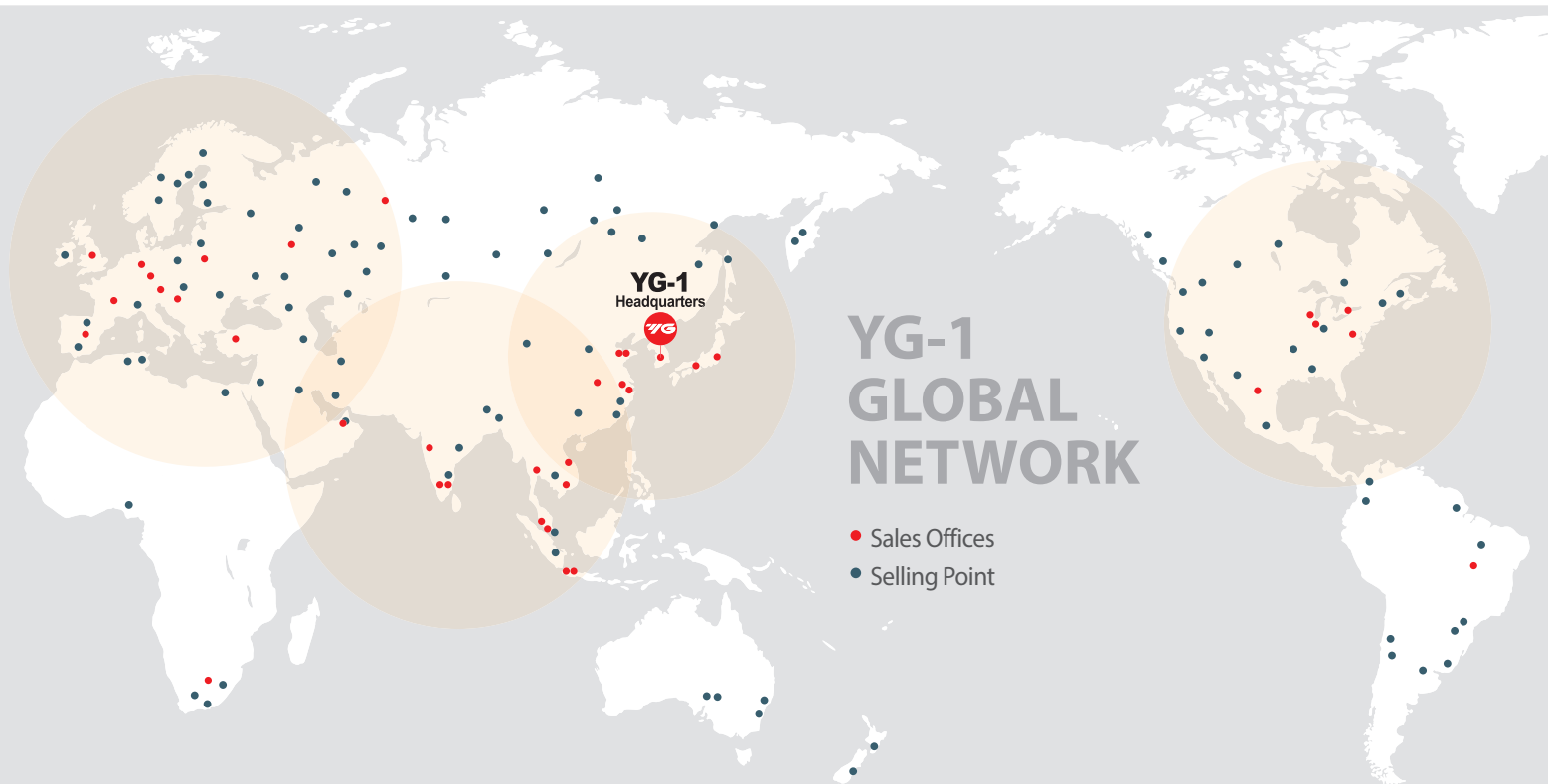
Size	Pitch	EDP No.	Limits	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe	Tapping Drill Diameter (Ød1)	
ØD1	P			L1	L2	L3	ØD2	K	KI	Z	Inch	Metric
M16	x 2.0	TRR16607GSP	D7	.787	4.33	2.126	.480	.360	.56	8	-	15.1
M16	x 2.0	TRR1660BGSP	D12	.787	4.33	2.126	.480	.360	.56	8	-	15.1
M16	x 1.5	TRR16616GSP	D6	.787	3.94	2.126	.480	.360	.56	8	-	15.3
M16	x 1.5	TRR1661AGSP	D11	.787	3.94	2.126	.480	.360	.56	8	-	15.3
M18	x 2.5	TRR16657GSP	D7	.787	4.92	2.165	.542	.406	.63	8	-	16.9
M18	x 2.5	TRR1665BGSP	D12	.787	4.92	2.165	.542	.406	.63	8	-	16.9
M18	x 1.5	TRR16676GSP	D6	.591	4.33	2.165	.542	.406	.63	8	-	17.3
M18	x 1.5	TRR1667AGSP	D11	.591	4.33	2.165	.542	.406	.63	8	-	17.3
M20	x 2.5	TRR16707GSP	D7	.787	5.51	2.433	.652	.489	.69	8	-	18.9
M20	x 2.5	TRR1670BGSP	D12	.787	5.51	2.433	.652	.489	.69	8	-	18.9
M20	x 1.5	TRR16726GSP	D6	.591	4.92	2.433	.652	.489	.69	8	-	19.3
M20	x 1.5	TRR1672AGSP	D11	.591	4.92	2.433	.652	.489	.69	8	-	19.3
M22	x 2.5	TRR16747GSP	D7	.787	5.51	2.654	.697	.523	.75	8	-	20.9
M22	x 2.5	TRR1674BGSP	D12	.787	5.51	2.654	.697	.523	.75	8	-	20.9
M22	x 1.5	TRR16766GSP	D6	.591	4.92	2.654	.697	.523	.75	8	-	21.3
M22	x 1.5	TRR1676AGSP	D11	.591	4.92	2.654	.697	.523	.75	8	-	21.3
M24	x 3.0	TRR16789GSP	D9	.945	6.30	2.693	.760	.570	.75	8	-	22.7
M24	x 3.0	TRR1678EGSP	D15	.945	6.30	2.693	.760	.570	.75	8	-	22.7
M24	x 1.5	TRR16806GSP	D6	.591	5.51	2.693	.760	.570	.75	8	-	23.3
M24	x 1.5	TRR1680AGSP	D11	.591	5.51	2.693	.760	.570	.75	8	-	23.3

◎ : Excellent ○ : Good

ISO	P										M					K				
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
ISO	N										S									
Material Description	Aluminum-wrought alloy					Aluminum-cast, alloyed					Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400
Recommended	◎	◎	◎	◎	◎	◎	◎	◎			◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

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