

G-PAK 2025

NEW CUTTING TOOLS CATALOGUE



GESAC Profile

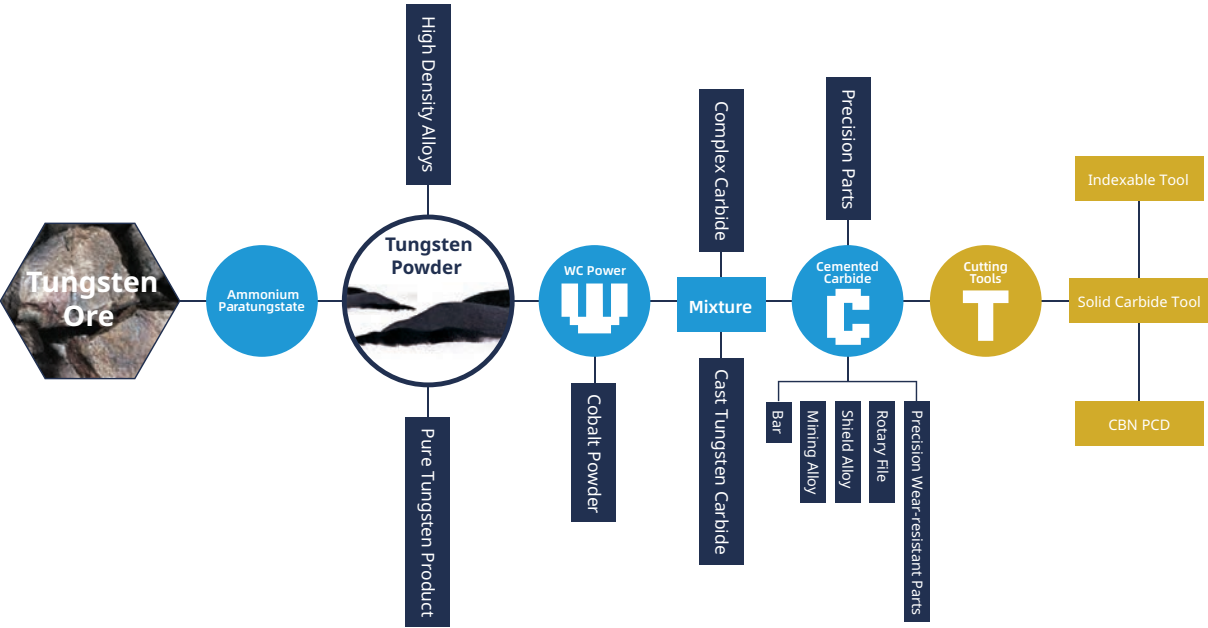
Xiamen Golden Egret Special Alloy Co., Ltd. (GESAC), founded in 1989, is a national high-tech enterprise with Chinese-foreign joint investment. It is also a key member of Xiamen Tungsten Co., Ltd., a state-owned listed company. GESAC is committed to the research, development and production of tungsten series products such as high-quality tungsten powder materials, cemented carbide and precision cutting tools, as well as the provision of professional solutions for the industry. It is a renowned supplier of tungsten powder, cemented carbide and cutting tools.

Relying on the product integration technology research and development of the complete tungsten industry chain and the practical and innovative management concepts, GESAC has always maintained a strong momentum of development. It provides global users with tungsten powder products and services with the highest cost performance, and offers excellent products and comprehensive solutions for solving the problems of high hardness, high temperature resistance and wear resistance in the modern industrial field. Its customers are distributed around the world, enjoying a high reputation both at home and abroad.

GESAC currently has more than 3,000 employees, five production bases, four overseas sales companies and one enterprise technology center. It has independently undertaken and completed a number of projects such as the “National Science and Technology Support Program Projects”, the “National Science and Technology Major Projects”, the “National Torch Program Projects”, the “National Key New Product” development projects and key research topics at the provincial and municipal levels. It has been rated as a “Backbone Enterprise in Strategic Emerging Industries”, an “Innovative Enterprise” and an “Advanced Technology Enterprise”. It has won many patents and awards, including the second prize of the National Science and Technology Progress Award. Its cutting tools have obtained more than 400 patents, including invention patents, utility model patents and design patents.

Product Chain

GESAC has a complete tungsten product chain ranging from ore mining to tungsten powder, cemented carbide products and precision cutting tools.





A TURNING TOOLS

Contents

A TURNING

006 GT Series Parting and Grooving Tools

B MILLING

038 UP300 High-Performance Endmills in General Machining
 073 RP Series Profile Milling Tools for Difficult-to-Machine Materials
 080 LNMX Series Universal Negative Four Edges High-Feed Milling Tools
 090 SOE (M)T Series Positive Four Edges High-Feed Milling Tools
 103 DM Series Indexable Disc-Type Thread Milling Tools
 115 TC Series Positive Comb-Type Thread Milling Tools

C HOLEMAKING

127 T/ET Tap Series
 182 GUMD Modular Drill Series
 194 SOMG Indexable Drill Series
 209 D938-30D/40D Deep Hole Twist Drill Series

D TOOLING SYSTEM

220 Angle Head
 238 Living Tools



Type Representation Rules for Parting Off and Grooving Inserts
GT Series Insert

GT D 300 E 020 R 06 - MC

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Series Name		② Teeth		③ Cutting Width		④ Tool Apron Code	
GT		S=Single Edged D=Double Edged		Cutting Width<10mm The First Digit is Omitted, 300=3.0mm Cutting Width≥10mm Not Omitted, 1000=10.0mm		Insert	Matching Tool Holder
						B	B
						C	C
						D	D (Preferred), C
						E	E (Preferred), D, C
						F	F
						G	G (Preferred), F
						H	H (Preferred), G, F
						J	J

⑤ Tip Arc Radius		⑥ Insert Direction		⑦ Lead Angle	
020=0.20mm		R=Right-handed L=Left-hand □=Middle		06=6° 15=15° □=0°	

⑧ Geometry	
The First Letter	The Second Letter
F=Low Feed	C=Parting Off
M=Medium Feed	T=Turning
R=High Feed	G=Grooving
O=Specific Optimized	R=Profile Machining

GT Series Parting and Grooving Tools

- More Comprehensive: 11 Inserts, Covering Parting/Grooving/Turning/Profiling; 6 Grades for P/M/K/S Materials
- More Stable: The self-developed bow-shaped positioning mechanism improves clamping accuracy and processing stability
- More Efficient: The high-precision, three-input, dual-output high-pressure cooling system significantly enhances chip breaking, extends tool life, and enables high-efficiency machining

Type Representation Rules for Parting Off and Grooving Tool Holders
GT Series Tool Holder

GT E P R 2525 M 45-H 25 D65-S

- ①
- ②
- ③
- ④
- ⑤
- ⑥
- ⑦
- ⑧
- ⑨
- ⑩
- ⑪

① Series Name	② Machining Type		③ Shape Of Tool Holder	④ Tool Direction	
GT	E=External Machining		U=Grinding Undercut	R=Right-handed	
	I=Internal Hole Making		P=Vertical Type	L=Left-hand	
	F=End Face Machining		☐ =Linear	N=Middle	

⑤ Shank Size		⑥ Length of Tool Holder		⑦ Shank Angle	⑧ Tool Apron Code	
External Diameter Tool Holder: Height*Width		Code	Length	Unique to the U-shaped Tool Holder	Tool Holder	Matched Insert
Tool Holder with Internal Hole: Minimum Machining Diameter*Shank Diameter		F	85 mm	45=45°	B	B
		H	100 mm	75=75°	C	C (Preferred), D, E
		J	110 mm		D	D (Preferred), E
		JX	120 mm		E	E
		K	125 mm		F	F (Preferred), G, H
		M	150 mm		G	G (Preferred), H
		Q	180 mm		H	H
		R	200 mm		J	J
		S	250 mm			
		T	300 mm			
		U	350 mm			

⑨ Maximum Cutting Depth		⑪ Additional Information	
Conventional Tool	25: CDX=25mm	S=With Curve Reinforcement	
Dedicated Tool for Automatic Lathe	D16:CUTDIA=16mm	C=With High-Pressure Cooling	
		SC=With Curve Reinforcement and High-Pressure Cooling	
		☐ =Without Curve Reinforcement	

⑩ Minimum Diameter of the First Cut	
Unique to End Face Machining	
D65:DAXIN=65mm	

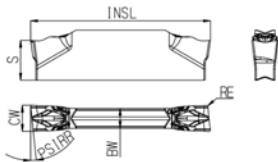
List of Parting Off and Grooving Inserts

Series Name	Machining Type	Diagram	Geometry	Application	Tool Width Range	Page No.
GT	Parting Off		FC	Low Feed Parting Off	2.00-4.00 (mm)	P10
			MC	Medium Feed Parting Off	1.50-5.00 (mm)	P11
			RC	High Feed Parting Off	2.00-6.00 (mm)	P12
			OC	Specific Optimized Parting Off	2.00 (mm)	P13
	Grooving		FG	Low Feed Grooving	1.50-8.00 (mm)	P14-P16
			MG	Medium Feed Grooving	2.00-8.00 (mm)	P17
	Turning		FT	Low Feed Turning	1.50-8.00 (mm)	P18
			MT	Medium Feed Turning	2.00-8.00 (mm)	P19
			OT	Specific Optimized Turning	3.00-5.00 (mm)	P20
			MR	Medium Feed Profile	2.00-8.00 (mm)	P21
	Profile		OR	Specific Optimized Profile	2.00-8.00 (mm)	P22

Parting Off and Grooving Inserts-GT Series

FC

Low Feed Parting Off Inserts



The diagram shows the right hand

★ Preferred	P	☆		★	☆		
☆ Alternative	M			☆	★		
	K			★			
	S			★	☆		

Order No.	Tool Apron Code SSC	Dimensions (mm)						Coated Cemented Carbide					
		CW±0.05	RE±0.05	INSL	BW	S	PSIR ^R /L	GM1230	GP1120	GST7135	GAT7125	GK1115	GST7115
GTD200C015-FC	C	2.00	0.15	20.0	1.60	4.45	0°	●		●	●		
GTD250D015-FC	D	2.50	0.15	20.0	2.00	4.52	0°	●		●	●		
GTD300E015-FC	E	3.00	0.15	20.0	2.30	4.58	0°	●		●	●		
GTD400F015-FC	F	4.00	0.15	25.0	3.20	4.50	0°	●		●	●		
GTD200C015R06-FC	C	2.00	0.15	21.0	1.60	4.45	6°	●		●	●		
GTD200C015L06-FC		2.00	0.15	21.0	1.60	4.45	6°	●		●	●		
GTD250D015R06-FC	D	2.50	0.15	21.0	2.00	4.52	6°	●		●	●		
GTD250D015L06-FC		2.50	0.15	21.0	2.00	4.52	6°			●			
GTD300E015R06-FC	E	3.00	0.15	21.0	2.30	4.58	6°	●		●	●		
GTD300E015L06-FC		3.00	0.15	21.0	2.30	4.58	6°	●		●	●		
GTD400F015R06-FC	F	4.00	0.15	26.0	3.20	4.50	6°	●		●	●		
GTD400F015L06-FC		4.00	0.15	26.0	3.20	4.50	6°			●			

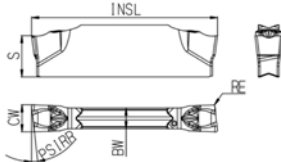
© Suitable tool holder. See P23-P32

● Stock ○ Available Upon Order

Parting Off and Grooving Inserts-GT Series

MC

Medium Feed Parting Off Insert



The diagram shows the right hand

★ Preferred	P	☆		★	☆		
☆ Alternative	M			☆	★		
	K			★			
	S			★	☆		

Order No.	Tool Apron Code SSC	Dimensions (mm)						Coated Cemented Carbide					
		CW±0.05	RE±0.05	INSL	BW	S	PSIR ^R /L	GM1230	GP1120	GST7135	GAT7125	GK1115	GST7115
GTD150B020-MC	B	1.50	0.20	14.0	1.26	4.21	0°	●		●	●		
GTD200C020-MC	C	2.00	0.20	20.0	1.60	4.45	0°	●		●	●		
GTD250D020-MC	D	2.50	0.20	20.0	2.00	4.53	0°	●		●	●		
GTD300E020-MC	E	3.00	0.20	20.0	2.30	4.55	0°	●		●	●		
GTD400F020-MC	F	4.00	0.20	25.0	3.20	4.50	0°	●		●	●		
GTD500G020-MC	G	5.00	0.20	25.0	4.20	4.58	0°	●		●	●		
GTD200C020R06-MC	C	2.00	0.20	20.4	1.60	4.45	6°	●		●	●		
GTD200C020L06-MC		2.00	0.20	20.4	1.60	4.45	6°	●		●	●		
GTD200C002L15-MC		2.00	0.02	21.5	1.60	4.47	15°			●	○		
GTD200C002R15-MC		2.00	0.02	21.5	1.60	4.47	15°			●	○		
GTD200C020R15-MC		2.00	0.20	20.8	1.60	4.44	15°			●	●		
GTD200C020L15-MC		2.00	0.20	20.8	1.60	4.44	15°			●	●		
GTD250D020R06-MC	D	2.50	0.20	20.5	2.00	4.53	6°	●		●	●		
GTD250D020L06-MC		2.50	0.20	20.5	2.00	4.53	6°	●		●	●		
GTD300E020R06-MC	E	3.00	0.20	20.7	2.30	4.58	6°	●		●	●		
GTD300E020L06-MC		3.00	0.20	20.7	2.30	4.58	6°	●		●	●		
GTD300E002L15-MC		3.00	0.02	21.6	2.30	4.61	15°			●	●		
GTD300E002R15-MC		3.00	0.02	21.6	2.30	4.61	15°			●	●		
GTD300E020L15-MC		3.00	0.20	20.9	2.30	4.58	15°			●	●		
GTD300E020R15-MC		3.00	0.20	20.9	2.30	4.58	15°			●	●		
GTD400F020R06-MC	F	4.00	0.20	25.6	3.20	4.50	6°	●		●	●		
GTD400F020L06-MC		4.00	0.20	25.6	3.20	4.50	6°	●		●	●		
GTD500G020R06-MC	G	5.00	0.20	25.9	4.20	4.58	6°	●		●			
GTD500G020L06-MC		5.00	0.20	25.9	4.20	4.58	6°	●		●			

© Suitable tool holder. See P23-P32

Notes: RE=0.02mm material tolerance is ±0.01mm

● Stock ○ Available Upon Order

★ Preferred	P	☆		★	☆		
	M			☆	★		
☆ Alternative	K			★			
	S			★	☆		

● Stock ○ Available Upon Order

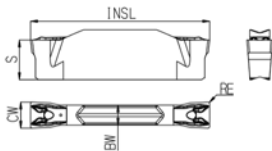
★ Preferred	P			★	☆		
	M			☆	★		
☆ Alternative	K			★			
	S			★	☆		

● Stock ○ Available Upon Order

Parting Off and Grooving Inserts-GT Series

FG

Low Feed Grooving Insert



★ Preferred ☆ Alternative	P	☆		★			☆
	M			★			☆
	K			★			☆
	S			★			☆

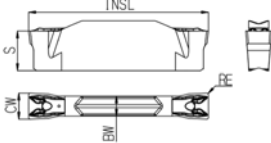
Order No.	Tool Apron Code SSC	Dimensions (mm)					Coated Cemented Carbide					
		CW±0.02	RE±0.05	INSL	BW	S	GM1230	GP1120	GST7135	GAT7125	GK1115	GST7115
	B	1.50	0.10	14.8	1.15	4.21			●			●
	C	1.98	0.20	20.7	1.60	4.45			●			
		2.00	0.20	20.7	1.60	4.45	●		●			●
		2.00	0.40	20.7	1.60	4.45			●			●
		2.24	0.20	20.7	1.60	4.45			○			○
	D	2.39	0.20	20.7	2.00	4.53			●			●
		2.39	0.40	20.7	2.00	4.53			●			●
		2.46	0.30	20.7	2.00	4.53			○			○
		2.67	0.20	20.7	2.00	4.53			○			
	E	2.79	0.30	20.7	2.00	4.53			●			●
		3.00	0.20	20.7	2.30	4.58	●		●			●
		3.00	0.30	20.7	2.30	4.58			●			●
		3.00	0.40	20.7	2.30	4.58			●			●
		3.10	0.20	20.7	2.30	4.58			●			
		3.18	0.20	20.7	2.30	4.58			●			●
		3.18	0.40	20.7	2.30	4.58			●			
		3.18	0.80	20.7	2.30	4.58			●			●
		3.61	0.30	20.7	2.30	4.58			●			●
		3.96	0.20	25.7	3.20	4.50			○			○
	F	3.96	0.40	25.7	3.20	4.50			○			
		3.96	0.80	25.7	3.20	4.50			○			○
		4.00	0.20	25.7	3.20	4.50	●		●			●
		4.00	0.40	25.7	3.20	4.50			●			●
		4.52	0.20	25.7	3.20	4.50			●			

© Suitable tool holder. See P23-P32 ●Stock ○Available Upon Order

Parting Off and Grooving Inserts-GT Series

FG

Low Feed Grooving Insert



★ Preferred ☆ Alternative	P	☆		★			☆
	M			★			☆
	K			★			☆
	S			★			☆

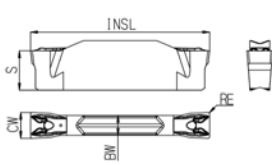
Order No.	Tool Apron Code SSC	Dimensions (mm)					Coated Cemented Carbide					
		CW±0.02	RE±0.05	INSL	BW	S	GM1230	GP1120	GST7135	GAT7125	GK1115	GST7115
	F	4.70	0.50	25.7	3.20	4.50			●			
		4.75	0.40	25.7	3.20	4.50			●			
		4.75	0.80	25.7	3.20	4.50			●			
		4.80	0.50	25.7	3.20	4.50			●			
		5.00	0.20	25.7	3.20	4.50	●		●			●
		5.00	0.40	25.7	3.20	4.50			●			●
	G	5.41	0.20	25.7	4.20	4.58			○			
		5.56	0.50	25.7	4.20	4.58			○			○
	H	6.00	0.20	25.7	5.20	4.67	●		●			●
		6.35	0.40	25.7	5.20	4.67			○			
		6.35	0.50	25.7	5.20	4.67			○			
		6.35	0.80	25.7	5.20	4.67			○			
	J	7.14	0.80	25.7	5.20	4.67			●			
		7.92	0.80	31.0	6.60	6.39			○			
		8.00	0.20	31.0	6.60	6.39	●		●			

© Suitable tool holder. See P23-P32 ●Stock ○Available Upon Order

Parting Off and Grooving Inserts-GT Series

FG

Low Feed Grooving Insert (Circlip Slot)



★ Preferred	☆ Alternative	P			★			☆
		M			★			☆
		K			★			☆
		S			★			☆

Order No.		Tool Apron Code SSC	Dimensions (mm)					Coated Cemented Carbide					
			CW+0.13 +0.09	RE±0.05	INSL	BW	S	GM1230	GP1120	GST7135	GAT7125	GK1115	GST7115
	GTD185C010-FG	C	1.85	0.10	20.7	1.60	4.45			●			●
	GTD215C010-FG		2.15	0.10	20.7	1.60	4.45			●			
	GTD265D020-FG	D	2.65	0.20	20.7	2.00	4.53			●			
	GTD315E020-FG	E	3.15	0.20	20.7	2.30	4.58			●			
	GTD415F020-FG	F	4.15	0.20	25.7	3.20	4.5			●			
	GTD515G020-FG	G	5.15	0.20	25.7	4.20	4.58			●			

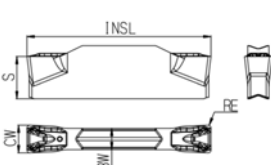
© Suitable tool holder. See P23-P32

● Stock ○ Available Upon Order

Parting Off and Grooving Inserts-GT Series

MG

Medium Feed Grooving Insert



★ Preferred	☆ Alternative	P	☆	☆	★	☆	☆	
		M			★	☆		
		K		☆	☆		★	
		S			★	☆		

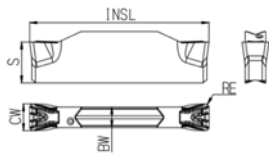
Order No.		Tool Apron Code SSC	Dimensions (mm)					Coated Cemented Carbide					
			CW±0.05	RE±0.05	INSL	BW	S	GM1230	GP1120	GST7135	GAT7125	GK1115	GST7115
	GTD200C020-MG	C	2.00	0.20	20.0	1.60	4.45	●		●	●	●	
	GTD239C020-MG		2.39	0.20	20.0	1.60	4.45	○		●		●	
	GTD300E030-MG	E	3.00	0.30	20.0	2.30	4.58	●	●	●	●	●	
	GTD318E030-MG		3.18	0.30	20.0	2.30	4.58	○		●	○	●	
	GTD400F030-MG	F	4.00	0.30	25.0	3.20	4.50	○		●	○	●	
	GTD475G030-MG	G	4.75	0.30	25.0	4.20	4.58	○		●		●	
	GTD500G040-MG		5.00	0.40	25.0	4.20	4.58	●	●	●	●	●	
	GTD600H040-MG	H	6.00	0.40	25.0	5.20	4.67	●		●	●	●	
	GTD635H030-MG		6.35	0.30	25.0	5.20	4.67	○		●		●	
	GTD792J030-MG	J	7.92	0.30	30.0	6.60	6.39			●			
	GTD800J050-MG		8.00	0.50	30.0	6.60	6.39	○		●		●	

© Suitable tool holder. See P23-P32

● Stock ○ Available Upon Order

Parting Off and Grooving Inserts-GT Series

FT
Low Feed Turning Insert



★ Preferred	P	☆		★		☆	☆
☆ Alternative	M			★			☆
	K			☆		★	☆
	S			★			☆

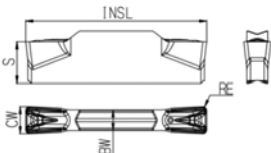
Order No.		Tool Apron Code SSC	Dimensions (mm)					Coated Cemented Carbide					
			CW±0.05	RE±0.05	INSL	BW	S	GM1230	GP1120	GST7135	GAT7125	GK1115	GST7115
	GTD150B020-FT	B	1.50	0.20	14.0	1.26	4.21			●			
	GTD200C020-FT	C	2.00	0.20	20.0	1.60	4.45			●			●
	GTD250D020-FT	D	2.50	0.20	20.0	2.00	4.53			●			●
	GTD300E020-FT	E	3.00	0.20	20.0	2.30	4.58	●		●		●	●
	GTD300E040-FT		3.00	0.40	20.0	2.30	4.58			●			●
	GTD400F020-FT	F	4.00	0.20	25.0	3.20	4.50			●			●
	GTD400F040-FT		4.00	0.40	25.0	3.20	4.50	●		●		●	●
	GTD400F080-FT		4.00	0.80	25.0	3.20	4.50			●			●
	GTD500G040-FT	G	5.00	0.40	25.0	4.20	4.59	●		●		●	●
	GTD500G080-FT		5.00	0.80	25.0	4.20	4.59			●			●
	GTD600H040-FT	H	6.00	0.40	25.0	5.20	4.68	●		●		●	●
	GTD600H080-FT		6.00	0.80	25.0	5.20	4.68			●			●
	GTD600H100-FT		6.00	1.00	25.0	5.20	4.68			●			●
	GTD800J040-FT	J	8.00	0.40	30.0	6.60	6.39			●			●
	GTD800J080-FT		8.00	0.80	30.0	6.60	6.39	●		●		●	●
	GTD800J120-FT		8.00	1.20	30.0	6.60	6.39			●			●

© Suitable tool holder. See P23-P32

● Stock ○ Available Upon Order

Parting Off and Grooving Inserts-GT Series

MT
Medium Feed Turning Insert



★ Preferred	P	☆	☆	★	☆	☆	☆
☆ Alternative	M			★	☆		☆
	K		☆	☆		★	☆
	S			★	☆		☆

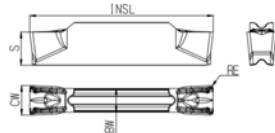
Order No.		Tool Apron Code SSC	Dimensions (mm)					Coated Cemented Carbide					
			CW±0.05	RE±0.05	INSL	BW	S	GM1230	GP1120	GST7135	GAT7125	GK1115	GST7115
	GTD200C020-MT	C	2.00	0.20	20.0	1.60	4.45	●		●	●	●	●
	GTD300E040-MT	E	3.00	0.40	20.0	2.30	4.58	●	●	●	●	●	●
	GTD400F040-MT	F	4.00	0.40	25.0	3.20	4.50	●	●	●	●	●	●
	GTD400F080-MT		4.00	0.80	25.0	3.20	4.50	○	●	●	○	●	●
	GTD500G040-MT	G	5.00	0.40	25.0	4.20	4.59	●	●	●	●	●	●
	GTD500G080-MT		5.00	0.80	25.0	4.20	4.59	○	●	●	○	●	●
	GTD600H040-MT	H	6.00	0.40	25.0	5.20	4.68	○	●	●	●	●	●
	GTD600H080-MT		6.00	0.80	25.0	5.20	4.68	●	●	●	●	●	●
	GTD800J080-MT	J	8.00	0.80	30.0	6.60	6.39	○	●	●	○	●	●
	GTD800J120-MT		8.00	1.20	30.0	6.60	6.39	○	●	●		●	

© Suitable tool holder. See P23-P32

● Stock ○ Available Upon Order

Parting Off and Grooving Inserts-GT Series

OT
Specific Optimized Turning Insert



★ Preferred ☆ Alternative

P		☆	★		☆	☆
M			★			☆
K		☆	☆		★	☆
S			★			☆

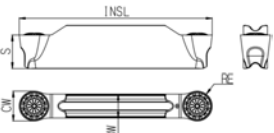
Order No.		Tool Apron Code SSC	Dimensions (mm)					Coated Cemented Carbide					
			CW±0.05	RE±0.05	INSL	BW	S	GM1230	GP1120	GST7135	GAT7125	GK1115	GST7115
	GTD300E030-OT	E	3.00	0.30	20.0	2.30	4.58		●	●		●	●
	GTD400F040-OT	F	4.00	0.40	25.0	3.20	4.50		●	●		●	●
	GTD500G040-OT	G	5.00	0.40	25.0	4.20	4.58		●	●		●	●

© Suitable tool holder. See P23-P32

● Stock ○ Available Upon Order

Parting Off and Grooving Inserts-GT Series

MR
Medium Feed Profile Insert



★ Preferred ☆ Alternative

P	☆	☆	★		☆	☆
M			★			☆
K		☆	☆		★	☆
S			★			☆

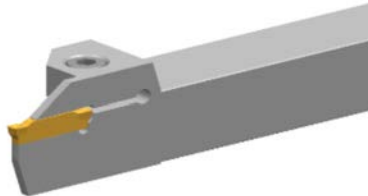
Order No.		Tool Apron Code SSC	Dimensions (mm)					Coated Cemented Carbide					
			CW±0.05	RE±0.05	INSL	BW	S	GM1230	GP1120	GST7135	GAT7125	GK1115	GST7115
	GTD200C100-MR	C	2.00	1.00	20.6	1.60	4.45	●	○	●		●	●
	GTD300D150-MR	D	3.00	1.50	20.7	2.00	4.53	●	●	●		●	●
	GTD318D159-MR		3.18	1.59	20.7	2.00	4.53	●	○	●		●	●
	GTD400E200-MR	E	4.00	2.00	20.0	2.30	4.58	●	●	●		●	●
	GTD400F200-MR	F	4.00	2.00	25.7	3.20	4.50	●	●	●		●	●
	GTD475F238-MR		4.75	2.38	25.7	3.20	4.50			●		●	
	GTD500F250-MR		5.00	2.50	25.7	3.20	4.50	●	●	●		●	●
	GTD600G300-MR	G	6.00	3.00	25.7	4.20	4.58	●	●	●		●	●
	GTD635G318-MR		6.35	3.18	25.7	4.20	4.58			●		●	
	GTD800J400-MR	J	8.00	4.00	32.1	6.25	6.39	●	●	●		●	●

© Suitable tool holder. See P23-P32

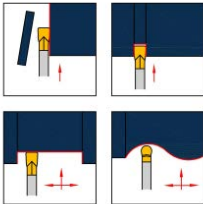
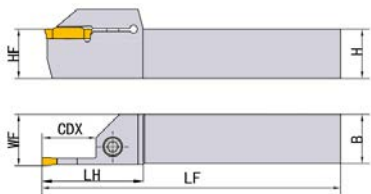
● Stock ○ Available Upon Order

Parting Off and Grooving Tool Holders-GT Series

External Diameter Tool Holder



The diagram shows the right hand

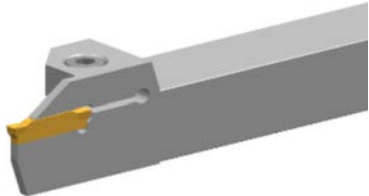


Order No.	Tool Apron Code SSC	Dimensions (mm)						Screw	Wrench	Recom-mend-ed Torque (NM)	Weight (KG)	In Stock	
		H=HF	B	CDX	LF	LH	WF					R	L
GTER/L2020K-E20	E	20	20	20	125	44.8	21	SCAM050200H	TH40LH	4.0	0.35	●	●
GTER/L2525M-E10		25	25	10	150	32	26	SCAM060200H	TH50LH	4.0	0.70	●	●
GTER/L2525M-E20		25	25	20	150	44.8	26	SCAM060200H	TH50LH	4.5	0.65	●	●
GTER/L3225P-E10		32	25	10	170	32	26	SCAM060200H	TH50LH	4.5	1.22	○	○
GTER/L3225P-E20		32	25	20	170	44.8	26	SCAM060200H	TH50LH	4.0	1.31	○	○
GTER/L3232P-E10		32	32	10	170	32	33	SCAM060200H	TH50LH	4.0	1.00	●	○
GTER/L3232P-E20		32	32	20	170	44.8	33	SCAM060200H	TH50LH	4.5	0.95	●	●
GTER/L1616H-F13	F	16	16	13	100	36.5	17	SCAM050160H	TH40LH	4.0	0.19	●	●
GTER/L1616H-F25		16	16	25	100	47	17	SCAM050160H	TH40LH	4.5	0.17	○	○
GTER/L2020K-F13		20	20	13	125	36.5	21	SCAM050200H	TH40LH	4.0	0.37	●	●
GTER/L2020K-F25		20	20	25	125	47	21	SCAM050200H	TH40LH	4.5	0.33	●	●
GTER/L2525M-F13		25	25	13	150	36.5	26	SCAM060200H	TH50LH	4.0	0.67	●	●
GTER/L2525M-F20		25	25	20	150	44.8	26	SCAM060200H	TH50LH	4.5	0.65	○	○
GTER/L2525M-F25		25	25	25	150	47	26	SCAM060200H	TH50LH	4.5	0.65	●	●
GTER/L3225P-F13		32	25	13	170	36.5	26	SCAM060200H	TH50LH	4.5	1.17	○	○
GTER/L3225P-F25		32	25	25	170	47	26	SCAM060200H	TH50LH	4.0	1.28	○	○
GTER/L3232P-F13		32	32	13	170	36.5	33	SCAM060200H	TH50LH	4.0	0.99	●	●
GTER/L3232P-F25		32	32	25	170	47	33	SCAM060200H	TH50LH	4.5	0.92	●	●
GTER/L2020K-G13	G	20	20	13	125	36.5	21	SCAM050200H	TH40LH	4.5	0.37	●	●
GTER/L2020K-G22		20	20	22	125	44.8	21	SCAM050200H	TH40LH	4.5	0.35	●	●
GTER/L2525M-G13		25	25	13	150	36.5	26	SCAM060200H	TH50LH	4.5	0.70	●	●
GTER/L2525M-G22		25	25	22	150	44	26	SCAM060200H	TH50LH	4.5	0.64	●	●
GTER/L2525M-G25		25	25	25	150	47	26	SCAM060200H	TH50LH	4.5	0.63	●	●
GTER/L2525M-G32		25	25	32	150	54.8	26	SCAM060200H	TH50LH	4.5	0.13	●	●

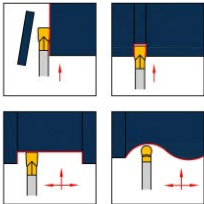
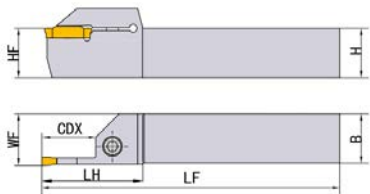
●Stock ○Available Upon Order

Parting Off and Grooving Tool Holders-GT Series

External Diameter Tool Holder



The diagram shows the right hand

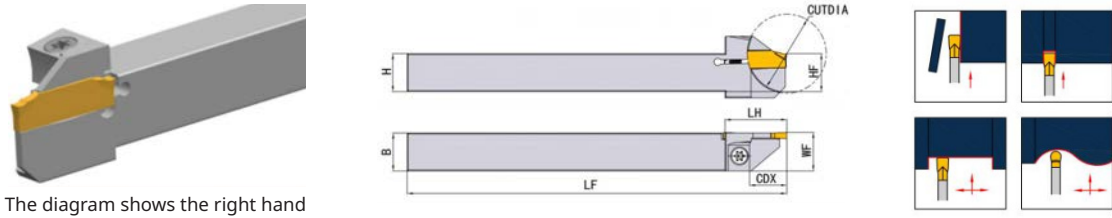


Order No.	Tool Apron Code SSC	Dimensions (mm)						Screw	Wrench	Recom-mend-ed Torque (NM)	Weight (KG)	In Stock	
		H=HF	B	CDX	LF	LH	WF					R	L
GTER/L3225P-G13	G	32	25	13	170	36.5	26	SCAM060200H	TH50LH	4.5	1.00	●	○
GTER/L3225P-G32		32	25	32	170	54.8	26	SCAM060200H	TH50LH	4.5	0.91	●	○
GTER/L3232P-G13		32	32	13	170	36.5	33	SCAM060200H	TH50LH	4.5	1.29	●	●
GTER/L3232P-G25		32	32	25	170	47	33	SCAM060200H	TH50LH	4.5	1.20	●	●
GTER/L3232P-G32		32	32	32	170	54.8	33	SCAM060200H	TH50LH	4.5	1.16	●	●
GTER/L2525M-H16	H	25	25	16	150	44.8	26	SCAM060200H	TH50LH	4.5	0.68	●	●
GTER/L2525M-H25		25	25	25	150	47	26	SCAM060200H	TH50LH	4.5	0.64	●	●
GTER/L2525M-H32		25	25	32	150	54.8	26	SCAM060200H	TH50LH	4.5	0.61	●	●
GTER/L3225P-H16		32	25	16	170	44.8	26	SCAM060200H	TH50LH	4.5	1.00	●	○
GTER/L3225P-H32		32	25	32	170	54.8	26	SCAM060200H	TH50LH	4.5	0.91	●	○
GTER/L3232P-H16		32	32	16	170	44.8	33	SCAM060200H	TH50LH	4.5	1.28	●	●
GTER/L3232P-H25		32	32	25	170	47	33	SCAM060200H	TH50LH	4.5	1.20	●	●
GTER/L3232P-H32		32	32	32	170	54.8	33	SCAM060200H	TH50LH	4.5	1.15	●	●
GTER/L2525M-J16	J	25	25	16	150	44.8	26	SCAM080260H	TH60LH	7.0	0.68	●	●
GTER/L2525M-J24		25	25	24	150	54.8	26	SCAM080260H	TH60LH	7.0	0.66	●	●
GTER/L2525M-J40		25	25	40	150	62.8	26	SCAM080260H	TH60LH	7.0	0.60	●	●
GTER/L3232P-J24		32	32	24	170	54.8	33	SCAM080260H	TH60LH	7.0	1.16	●	●
GTER/L3232P-J32		32	32	32	170	54.8	33	SCAM080260H	TH60LH	7.0	1.23	●	●
GTER/L3232P-J40		32	32	40	170	62.8	33	SCAM080260H	TH60LH	7.0	1.12	●	●

●Stock ○Available Upon Order

Parting Off and Grooving Tool Holders-GT Series

External Diameter Tool Holder
Dedicated for Automatic Lathe

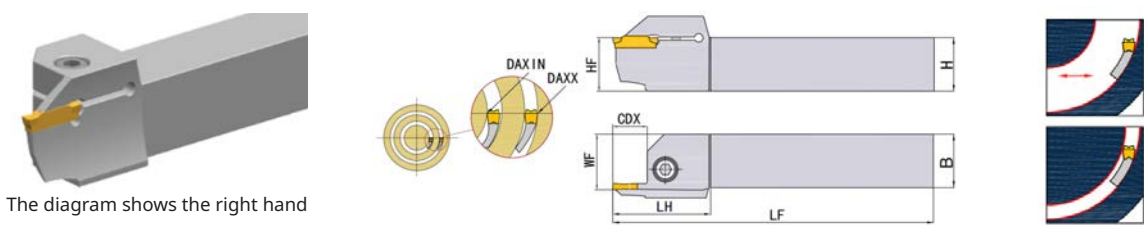


Order No.	Tool Apron Code SSC	Dimensions (mm)							Screw	Wrench	Recom- mend- ed Torque (NM)	Weight (KG)	In Stock	
		H=HF	B	CDX	CUTDIA	LF	LH	WF					R	L
GTER/L1212F-BD16-S	B	12	12	8	16	85	19.5	12.45	SI60M040160-05718H	TT15PH	3.0	0.09	●	●
GTER/L1212JX-BD16-S		12	12	8	16	120	19.5	12.45	SI60M040160-05718H	TT15PH	3.0	0.13	●	●
GTER/L1212F-BD24-S		12	12	12	24	85	19.5	12.15	SI60M040160-05718H	TT15PH	3.0	0.09	●	●
GTER/L1212JX-BD24-S		12	12	12	24	120	19.5	12.15	SI60M040160-05718H	TT15PH	3.0	0.13	●	●
GTER/L1616JX-BD16-S		16	16	8	16	120	19.5	11.90	SI60M040160-05718H	TT15PH	3.0	0.24	●	●
GTER/L1010F-CD24-S	C	10	10	12	24	85	19.5	10.20	SI60M040160-05718H	TT15PH	3.0	0.06	●	●
GTER/L1212F-CD24-S		12	12	12	24	85	19.5	12.20	SI60M040160-05718H	TT15PH	3.0	0.09	●	●
GTER/L1212JX-CD24-S		12	12	12	24	120	19.5	12.20	SI60M040160-05718H	TT15PH	3.0	0.13	●	●
GTER/L1616JX-CD16-S		16	16	8	16	120	24.5	16.00	SI60M040160-05718H	TT15PH	3.0	0.22	●	●
GTER/L1616JX-CD24-S		16	16	12	24	120	24.5	16.00	SI60M040160-05718H	TT15PH	3.0	0.22	●	●
GTER/L1616JX-CD32-S		16	16	16	32	120	24.5	16.20	SI60M040160-05718H	TT15PH	3.0	0.21	●	●
GTER/L2020K-CD34-S		20	20	17	34	125	32.5	20.20	SCAM050160H ^①	TH40LH ^②	4.0	0.36	○	●
GTER/L1212F-DD24-S	D	12	12	12	24	85	19.5	12.25	SI60M040160-05718H	TT15PH	3.0	0.13	○	○
GTER/L1212JX-DD24-S		12	12	12	24	120	19.5	12.25	SI60M040160-05718H	TT15PH	3.0	0.13	●	●
GTER/L1616JX-DD32-S		16	16	16	32	120	24.5	16.25	SI60M040160-05718H	TT15PH	3.0	0.22	●	●
GTER/L1212JX-ED24-S	E	12	12	12	24	120	19.5	12.30	SI60M040160-05718H	TT15PH	3.0	0.13	●	●
GTER/L1616JX-ED16-S		16	16	8	16	120	24.5	16.30	SI60M040160-05718H	TT15PH	3.0	0.22	●	●
GTER/L1616JX-ED32-S		16	16	16	32	120	24.5	16.30	SI60M040160-05718H	TT15PH	3.0	0.22	●	●
GTER/L1616JX-ED34-S		16	16	17	34	120	24.5	16.30	SI60M040160-05718H	TT15PH	3.0	0.22	●	●
GTER/L1616JX-ED38-S		16	16	19	38	120	29	16.30	SI60M040160-05718H	TT15PH	3.0	0.22	○	○
GTER/L2012JX-ED42-S		20	12	21	42	120	31	16.30	SI60M050160-07214H	TT20PH	3.5	0.20	○	○
GTER/L2020JX-ED42-S		20	20	21	42	120	31	12.30	SI60M050160-07214H	TT20PH	3.5	0.20	●	●

① Hex socket screw ② L-wrench ●Stock ○Available Upon Order

Parting Off and Grooving Tool Holders-GT Series

Face Holder-linear

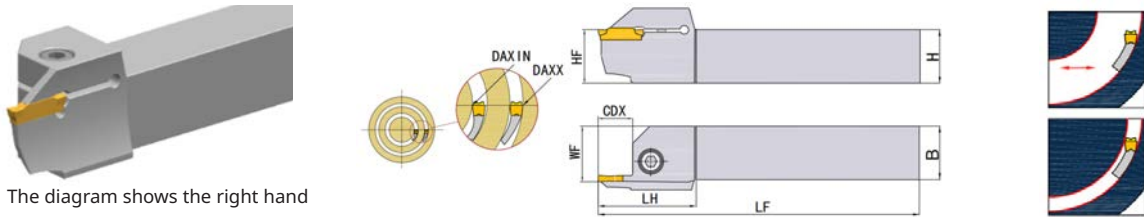


Order No.	Tool Apron Code SSC	Dimensions (mm)									Screw 	Wrench 	Recommended Torque (NM)	Weight (KG)	In Stock	
		H=HF	B	CDX	DAXIN	DAXX	LF	LH	WF	R					L	
GTFR/L2020K-E12-D38	E	20	20	12	38	48	125	32	21	SCAM050200H	TH40LH	4.0	0.38	●	●	
GTFR/L2020K-E12-D42		20	20	12	42	60	125	32	21	SCAM050200H	TH40LH	4.0	0.38	●	●	
GTFR/L2020K-E12-D54		20	20	12	54	75	125	32	21	SCAM050200H	TH40LH	4.0	0.38	●	●	
GTFR/L2020K-E12-D67		20	20	12	67	100	125	32	21	SCAM050200H	TH40LH	4.5	0.38	○	○	
GTFR/L2020K-E12-D90		20	20	12	90	130	125	32	21	SCAM050200H	TH40LH	4.5	0.38	●	○	
GTFR/L2020K-E12-D130		20	20	12	130	300	125	32	21	SCAM050200H	TH40LH	4.5	0.37	○	○	
GTFR/L2525M-E18-D38		25	25	18	38	48	150	40	26	SCAM060200H	TH50LH	5.0	0.68	●	●	
GTFR/L2525M-E18-D42		25	25	18	42	60	150	40	26	SCAM060200H	TH50LH	5.0	0.68	●	●	
GTFR/L2525M-E18-D54		25	25	18	54	75	150	40	26	SCAM060200H	TH50LH	5.0	0.68	●	●	
GTFR/L2525M-E18-D67		25	25	18	67	100	150	40	26	SCAM060200H	TH50LH	5.0	0.68	●	●	
GTFR/L2525M-E18-D90		25	25	18	90	130	150	40	26	SCAM060200H	TH50LH	5.0	0.67	●	●	
GTFR/L2525M-E18-D130		25	25	18	130	300	150	40	26	SCAM060200H	TH50LH	5.0	0.67	●	●	
GTFR/L2020K-F12-D40	F	20	20	12	40	60	125	34	21	SCAM050200H	TH40LH	4.5	0.39	●	●	
GTFR/L2020K-F12-D52		20	20	12	52	72	125	34	21	SCAM050200H	TH40LH	4.5	0.38	●	●	
GTFR/L2020K-F12-D64		20	20	12	64	100	125	34	21	SCAM050200H	TH40LH	4.5	0.38	○	○	
GTFR/L2020K-F12-D92		20	20	12	92	140	125	34	21	SCAM050200H	TH40LH	4.5	0.38	○	○	
GTFR/L2020K-F12-D132		20	20	12	132	230	125	34	21	SCAM050200H	TH40LH	5.0	0.38	○	○	
GTFR/L2020K-F12-D220		20	20	12	220	500	125	34	21	SCAM050200H	TH40LH	5.0	0.38	○	○	
GTFR/L2525M-F12-D40		25	25	12	40	60	150	34	26	SCAM060200H	TH50LH	5.5	0.71	●	●	
GTFR/L2525M-F12-D52		25	25	12	52	72	150	34	26	SCAM060200H	TH50LH	5.5	0.70	●	●	
GTFR/L2525M-F12-D64		25	25	12	64	100	150	34	26	SCAM060200H	TH50LH	5.5	0.70	●	●	
GTFR/L2525M-F12-D92		25	25	12	92	140	150	34	26	SCAM060200H	TH50LH	5.5	0.70	●	●	
GTFR/L2525M-F12-D132		25	25	12	132	230	150	34	26	SCAM060200H	TH50LH	5.5	0.70	●	●	
GTFR/L2525M-F12-D220		25	25	12	220	500	150	34	26	SCAM060200H	TH50LH	5.5	0.69	●	●	
GTFR/L2525M-F12-D300	25	25	12	300	1100	150	34	26	SCAM060200H	TH50LH	5.5	0.69	●	●		

●Stock ○Available Upon Order

Parting Off and Grooving Tool Holders-GT Series

Face Holder-linear

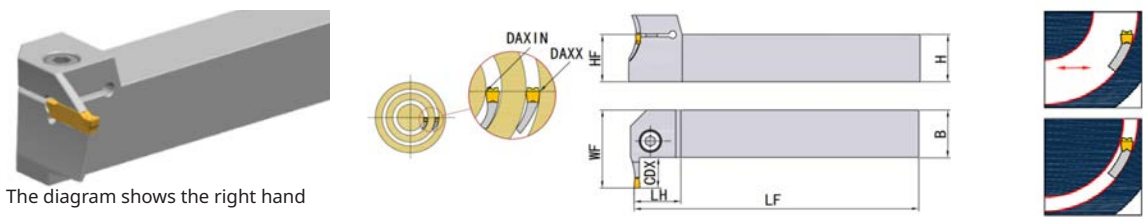


Order No.	Tool Apron Code SSC	Dimensions (mm)								Screw 	Wrench 	Recommended Torque (NM)	Weight (KG)	In Stock	
		H=HF	B	CDX	DAXIN	DAXX	LF	LH	WF					R	L
GTFR/L2525M-G12-D40	G	25	25	12	40	70	150	34	26	SCAM060200H	TH50LH	5.5	0.71	●	●
GTFR/L2525M-G12-D60		25	25	12	60	95	150	34	26	SCAM060200H	TH50LH	5.5	0.71	●	●
GTFR/L2525M-G12-D85		25	25	12	85	130	150	34	26	SCAM060200H	TH50LH	5.5	0.70	●	●
GTFR/L2525M-G12-D120		25	25	12	120	180	150	34	26	SCAM060200H	TH50LH	5.5	0.70	●	●
GTFR/L2525M-G12-D175		25	25	12	175	500	150	34	26	SCAM060200H	TH50LH	5.5	0.70	●	●
GTFR/L2525M-H12-D40	H	25	25	12	40	70	150	35	26	SCAM060200H	TH50LH	5.5	0.71	●	●
GTFR/L2525M-H12-D58		25	25	12	58	100	150	35	26	SCAM060200H	TH50LH	5.5	0.71	●	●
GTFR/L2525M-H12-D88		25	25	12	88	180	150	35	26	SCAM060200H	TH50LH	6.0	0.70	●	●
GTFR/L2525M-H12-D168		25	25	12	168	400	150	35	26	SCAM060200H	TH50LH	6.0	0.70	●	●
GTFR/L2525M-J15-D75	J	25	25	15	75	115	150	39	26	SCAM080260H	TH60LH	7.0	0.70	●	●
GTFR/L2525M-J15-D110		25	25	15	110	150	150	39	26	SCAM080260H	TH60LH	7.0	0.70	●	●
GTFR/L2525M-J15-D140		25	25	15	140	1100	150	39	26	SCAM080260H	TH60LH	7.0	0.69	●	●
GTFR/L2525M-J24-D50		25	25	24	50	80	150	55	26	SCAM080260H	TH60LH	7.0	0.69	●	●
GTFR/L2525M-J24-D75		25	25	24	75	115	150	55	26	SCAM080260H	TH60LH	7.0	0.68	●	●
GTFR/L2525M-J24-D110		25	25	24	110	150	150	55	26	SCAM080260H	TH60LH	7.0	0.68	●	●
GTFR/L2525M-J24-D140		25	25	24	140	1100	150	55	26	SCAM080260H	TH60LH	7.0	0.67	●	●
GTFR/L3225P-J24-D110		32	25	24	110	150	170	55	26	SCAM080260H	TH60LH	7.0	0.98	○	○
GTFR/L3225P-J24-D140		32	25	24	140	540	170	55	26	SCAM080260H	TH60LH	7.0	1.24	●	○

●Stock ○Available Upon Order

Parting Off and Grooving Tool Holders-GT Series

Face Holder-vertical

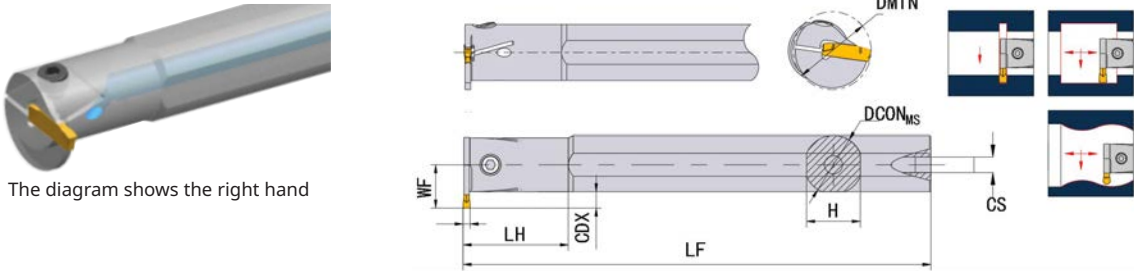


Order No.	Tool Apron Code SSC	Dimensions (mm)								Screw	Wrench	Recom- mended Torque (NM)	Weight (KG)	In Stock	
		H=HF	B	CDX	DAXIN	DAXX	LF	LH	WF					R	L
GTFPR/L2525M-E09-D70	E	25	25	9	70	100	150	24	35.5	SCAM060200H	TH50LH	5.5	0.78	●	○
GTFPR/L2525M-E09-D110		25	25	9	110	170	150	24	35.5	SCAM060200H	TH50LH	5.5	0.78	●	●
GTFPR/L2525M-F12-D40	F	25	25	12	40	60	150	24	38.5	SCAM060200H	TH50LH	5.5	0.77	●	●
GTFPR/L2525M-F12-D52		25	25	12	52	72	150	24	38.5	SCAM060200H	TH50LH	5.5	0.77	●	●
GTFPR/L2525M-F12-D64		25	25	12	64	100	150	24	38.5	SCAM060200H	TH50LH	5.5	0.77	●	●
GTFPR/L2525M-F12-D92		25	25	12	92	140	150	24	38.5	SCAM060200H	TH50LH	5.5	0.77	●	●
GTFPR/L2525M-F12-D132		25	25	12	132	230	150	24	38.5	SCAM060200H	TH50LH	5.5	0.76	●	○
GTFPR/L2525M-F12-D220		25	25	12	220	500	150	24	38.5	SCAM060200H	TH50LH	5.5	0.76	●	○
GTFPR/L2525M-F12-D300		25	25	12	300	1100	150	24	38.5	SCAM060200H	TH50LH	5.5	0.76	●	○
GTFPR/L2525M-G15-D70	G	25	25	15	70	100	150	24	41.5	SCAM060200H	TH50LH	5.5	0.79	●	○
GTFPR/L2525M-G15-D110		25	25	15	110	170	150	24	41.5	SCAM060200H	TH50LH	5.5	0.78	●	○
GTFPR/L2525M-H18-D168	H	25	25	18	168	400	150	32	44.5	SCAM060200H	TH50LH	6.0	0.78	●	○
GTFPR/L2525M-J20-D50	J	25	25	20	50	80	150	32	46.5	SCAM080260H	TH60LH	7.0	0.79	●	○
GTFPR/L2525M-J20-D75		25	25	20	75	115	150	32	46.5	SCAM080260H	TH60LH	7.0	0.78	●	○
GTFPR/L2525M-J20-D110		25	25	20	110	150	150	32	46.5	SCAM080260H	TH60LH	7.0	0.78	●	○
GTFPR/L2525M-J20-D140		25	25	20	140	630	150	32	46.5	SCAM080260H	TH60LH	7.0	0.76	●	○
GTFPR/L3225P-J20-D110		32	25	20	110	150	170	32	46.5	SCAM080260H	TH60LH	7.0	1.12	●	○
GTFPR/L3225P-J20-D140		32	25	20	140	630	170	32	46.5	SCAM080260H	TH60LH	7.0	1.10	●	○

●Stock ○Available Upon Order

Parting Off and Grooving Tool Holders-GT Series

Tool Holder with Internal Hole

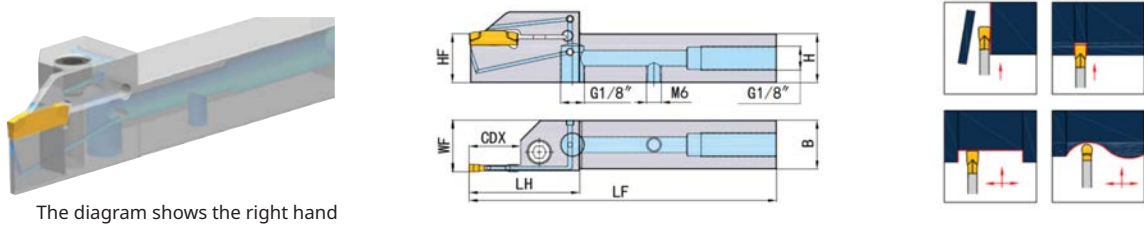


Order No.	Tool Apron Code SSC	Dimensions (mm)							Screw	Wrench	Recommended Torque (NM)	Weight (KG)	In Stock	
		DMIN	DCON _{MS}	CDX	WF	LF	LH	H					R	L
GTIR/L3220Q-B05	B	32	20	5	15.0	180	30	18	SI60M040140-05718H ^①	TT15PH ^②	3.5	0.37	●	●
GTIR/L3220Q-C06	C	32	20	6	16.0	180	30	18	SI60M040140-05718H ^①	TT15PH ^②	3.5	0.37	●	●
GTIR/L3225R-C06		32	25	6	18.5	200	35	23	SCAM040160H	TH30LH	3.5	0.65	●	●
GTIR/L4032S-C09		40	32	9	25.0	250	45	30	SCAM040160H	TH30LH	4.0	1.40	●	●
GTIR/L3220Q-E06	E	32	20	6	16.0	180	30	18	SI60M040140-05718H ^①	TT15PH ^②	4.0	0.37	●	●
GTIR/L3225R-E09		32	25	9	21.5	200	35	23	SCAM050160H	TH40LH	4.5	0.64	●	●
GTIR/L4032S-E09		40	32	9	25.0	250	45	30	SCAM050160H	TH40LH	4.5	1.40	●	●
GTIR/L5040T-E12		50	40	12	32.0	300	55	38	SCAM050200H	TH40LH	4.5	2.61	●	●
GTIR/L3225R-F09	F	32	25	9	21.5	200	35	23	SCAM050160H	TH40LH	4.5	0.63	●	●
GTIR/L4032S-F10		40	32	10	26.0	250	45	30	SCAM060160H	TH50LH	5.0	1.39	●	●
GTIR/L5040T-F12		50	40	12	32.0	300	55	38	SCAM060200H	TH50LH	5.0	2.61	●	●
GTIR/L6050U-F13		60	50	13	38.0	350	65	48	SCAM060250H	TH50LH	5.0	4.93	●	●
GTIR/L3225R-G09	G	32	25	9	21.5	200	35	23	SCAM050160H	TH40LH	4.5	0.64	●	●
GTIR/L4032S-G11		40	32	11	27.0	250	45	30	SCAM060160H	TH50LH	5.0	1.38	●	●
GTIR/L5040T-G12		50	40	12	32.0	300	55	38	SCAM060200H	TH50LH	5.5	2.61	●	●
GTIR/L6050U-G13		60	50	13	38.0	350	65	48	SCAM060250H	TH50LH	5.5	4.93	●	●
GTIR/L5040T-H12	H	50	40	12	32.0	300	55	38	SCAM060200H	TH50LH	5.5	2.61	●	●
GTIR/L6050U-H13		60	50	13	38.0	350	65	48	SCAM060250H	TH50LH	5.5	4.93	●	●

① Torx screw ② Flag-shaped wrench ● Stock ○ Available Upon Order

Parting Off and Grooving Tool Holders-GT Series

External Diameter Tool Holder-high-pressure Internal Cooling

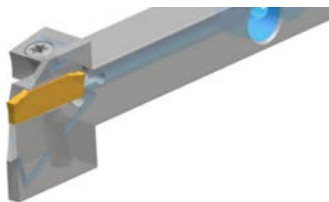


Order No.	Tool Apron Code SSC	Dimensions (mm)						Screw	Wrench	Recommended Torque (NM)	Weight (KG)	In Stock	
		H=HF	B	CDX	LF	LH	WF					R	L
GTER/L2020K-E20-C	E	20	20	20	125	44.8	21	SCAM050200H	TH40LH	4.0	0.32	●	●
GTER/L2525M-E20-C		25	25	20	150	44.8	26	SCAM060200H	TH50LH	4.5	0.61	●	●
GTER/L2525M-F25-C	F	25	25	25	150	47	26	SCAM060200H	TH50LH	4.5	0.59	●	●
GTER/L2525M-G25-C	G	25	25	25	150	47	26	SCAM060200H	TH50LH	4.5	0.59	●	●
GTER/L2525M-H25-C	H	25	25	25	150	47	26	SCAM060200H	TH50LH	4.5	0.60	●	●
GTER/L3232P-J24-C	J	32	32	24	170	54.8	33	SCAM060200H	TH50LH	7.0	1.19	●	●

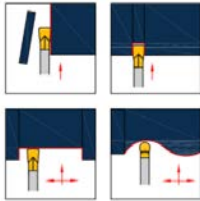
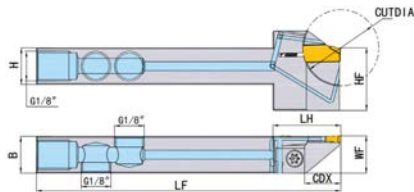
Recommended maximum cooling fluid pressure: 150bar ● Stock ○ Available Upon Order

Parting Off and Grooving Tool Holders-GT Series

External Diameter Tool Holder-high-pressure Internal Cooling
Dedicated for Automatic Lathe



The diagram shows the right hand



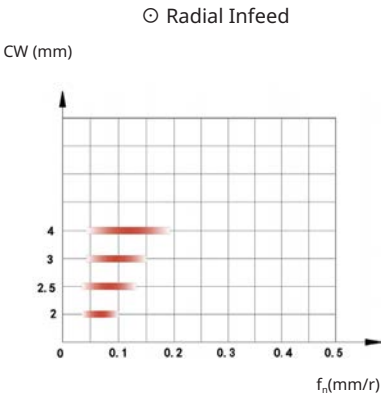
Order No.	Tool Apron Code SSC	Dimensions (mm)							Screw 	Wrench 	Recommended Torque (NM)	Weight (KG)	In Stock	
		H=HF	B	CDX	CUTDIA	LF	LH	WF					R	L
GTER/L1212H-CD24-SC	C	12	12	12	24	100	22.5	12.2	SI60M040160-05718H	TT15PH	3.0	0.10	●	●
GTER/L1616H-CD32-SC		16	16	16	32	100	26.5	16.2	SI60M040160-05718H	TT15PH	3.0	0.17	●	●
GTER/L1212H-ED24-SC	E	12	12	12	24	100	22.5	12.3	SI60M040160-05718H	TT15PH	3.0	0.10	●	●
GTER/L1616H-ED32-SC		16	16	16	32	100	26.5	16.3	SI60M040160-05718H	TT15PH	3.0	0.17	●	●

Recommended maximum cooling fluid pressure: 150bar

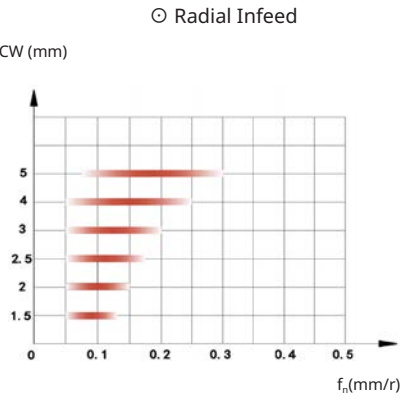
● Stock ○ Available Upon Order

Recommended Cutting Data
GT Series

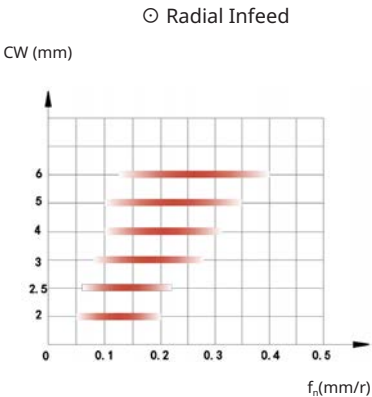
GT-FC



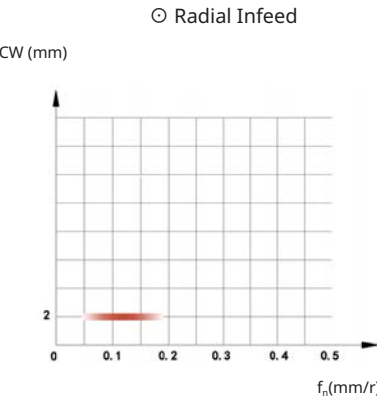
GT-MC



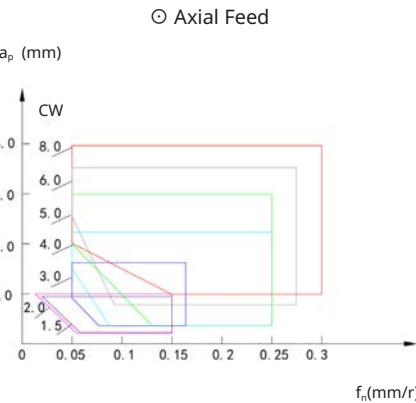
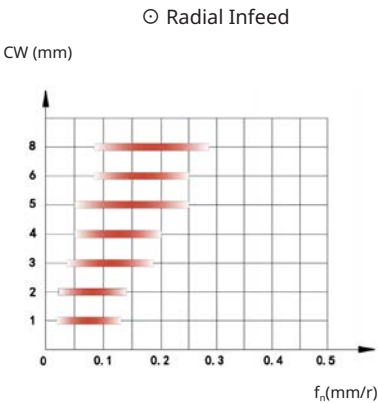
GT-RC



GT-OC

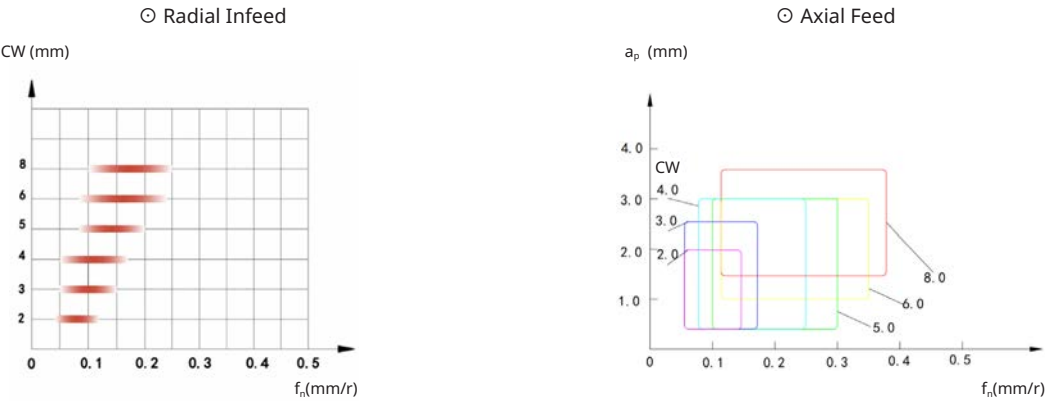


GT-FG

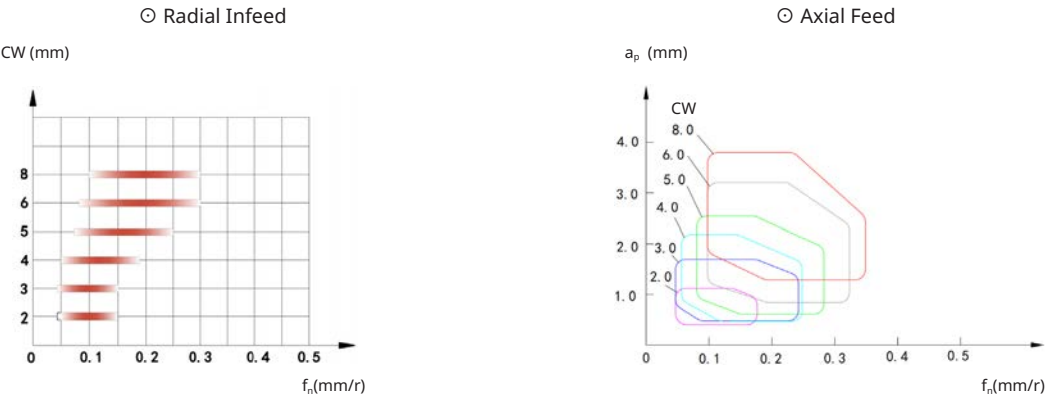


Recommended Cutting Data
GT Series

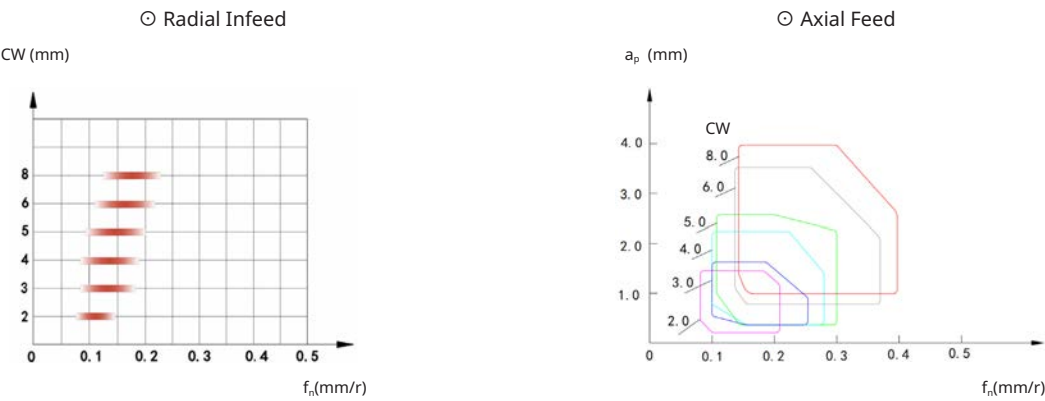
GT-MG



GT-FT

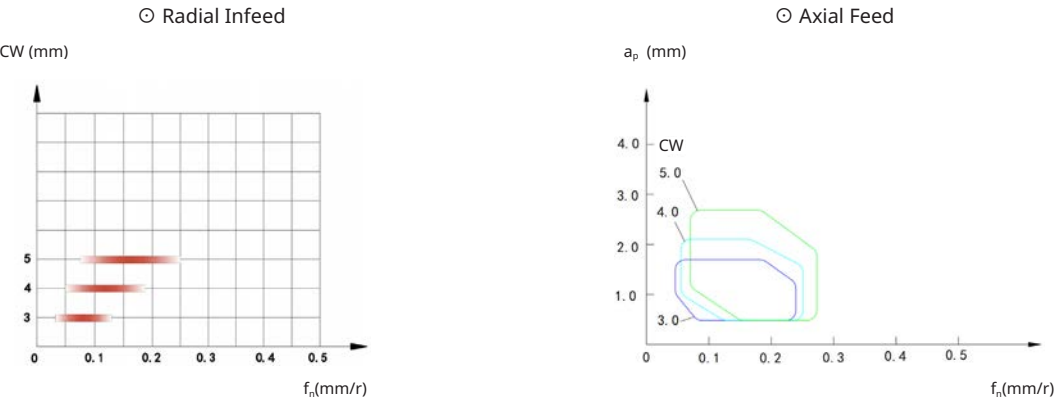


GT-MT

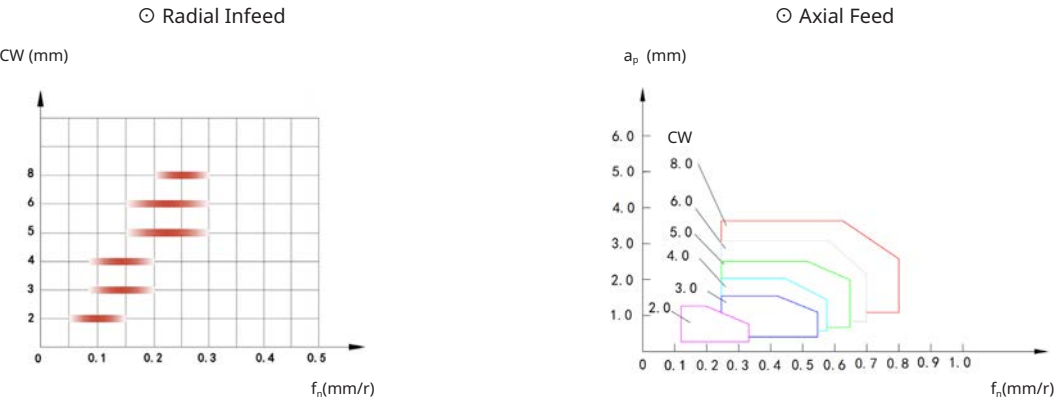


Recommended Cutting Data
GT Series

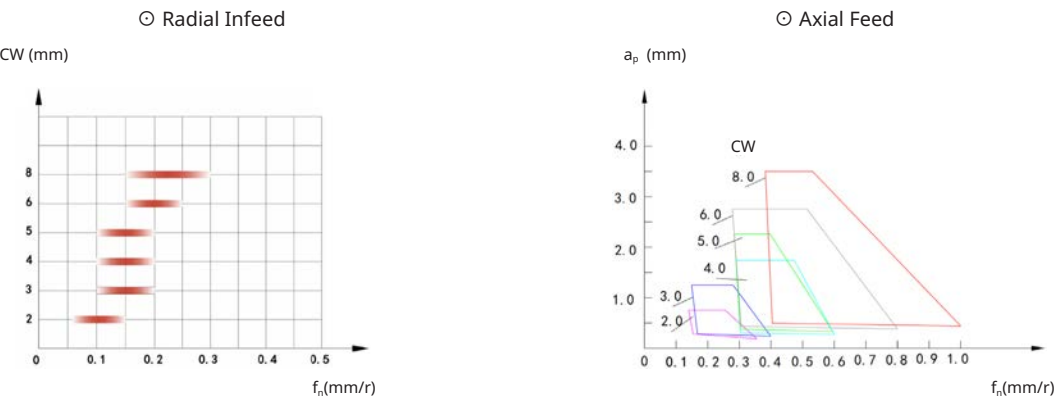
GT-OT



GT-MR



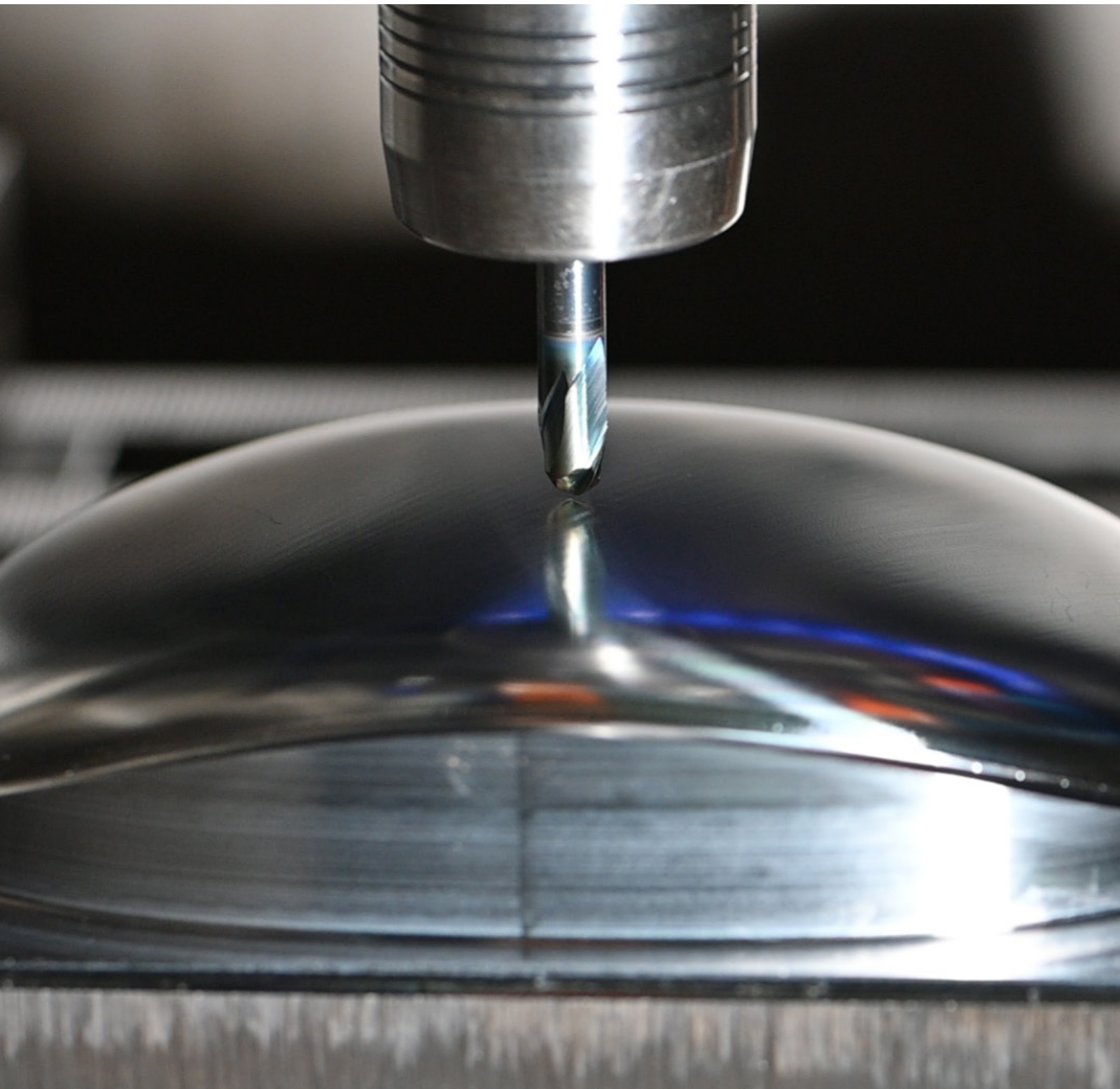
GT-OR



ISO	Workpiece Material	Hardness (HB)	Cutting Speed Vc (m/min)					
			GM1230	GP1120	GAT7125	GST7135	GK1115	GST7115
P	Carbon Steel	80–250	100 (60-165)	140 (100-250)	100 (60-160)	115 (80-190)	150 (110-260)	120 (90-200)
	Low Alloy Steel	140–260	95 (45-155)	130 (80-230)	95 (45-150)	110 (60-170)	140 (90-240)	115 (70-185)
	High Alloy Steel	180–300	90 (45-145)	120 (80-220)	90 (45-140)	105 (60-160)	130 (80-230)	110 (65-170)
	Cast Steel	180–300	80 (40-125)	110 (45-180)	80 (40-120)	95 (40-150)	115 (50-190)	100 (40-150)
M	Ferritic Martensitic	150–270			90 (45-130)	105 (60-160)		110 (65-170)
	Austenitic	150–270			95 (45-140)	110 (60-165)		115 (70-180)
K	Malleable Cast Iron	150–230		130 (95-230)		110 (75-185)	140 (100-240)	115 (85-195)
	Grey Cast Iron	150–230		120 (95-215)		105 (65-165)	130 (100-230)	110 (75-180)
	Nodular Cast Iron	160–260		110 (70-210)		100 (55-155)	120 (70-220)	105 (60-165)
S	High-temperature Alloy	130–400				35 (15-60)		40 (30-70)
	Titanium Alloy	130–400				35 (20-60)		40 (35-70)

B

MILLING



UP300

High-Performance Endmills in General Machining

- Optimized for high-performance machining of steel, stainless steel, cast iron, and pre-hardened steel ($\leq 52\text{HRC}$)
- High-precision models for high-speed and high-accuracy mold machining
- High-toughness substrate with AlCr coating for extended tool life

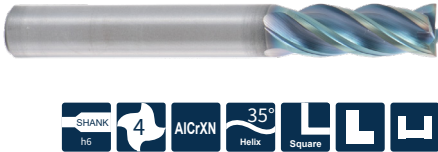
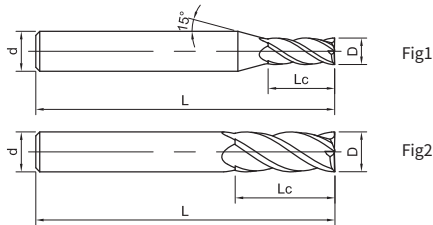
Tool Series Catalog (by series)

Applicable Machining Materials	Teeth	Shape of End Cutting Edge	Coating	Tool Name and Outline	Series Model	Range of Sizes	Size Table Page	Cutting Data Page	Workpiece Material													
									P		M	K	N			S		H				
									1 2 3 4	5	1 2 3	1 2 3	1 2 3	4	5	1 2 3	4	1	2	3 4		
									Carbon Steel, Alloy Steel	Alloy Steel	Stainless Steel	Cast Iron	Aluminum Alloy	Copper Alloy	Graphite and Composite Material	High- temperature Alloy	Titanium Alloy	Hardness Steel	Hardness Steel	Hardness Steel		
									< 35HRC	≤ 48HRC								45-55HRC	55-60HRC	> 60HRC		
UP300																						
Steel Cast Iron			AlCrXN	4 Flutes, Square		UP300-S4	D1 ~ D20	42	66													
			AlCrXN	4 Flutes, Corner Radius		UP300-R4	D1 ~ D20	45	66													
			AlCrXN	2 Flutes, Ballnose		UP300-B2	R0.3 ~ R10	48	67													
			AlCrXN	4 Flutes, Corner Radius, High Precision		UP300-HP-R4	D4 ~ D12	50	67													
			AlCrXN	4 Flutes with Long Neck, Corner Radius, High Precision		UP300-HP-RN4	D1 ~ D4	52	67													
			AlCrXN	2 Flutes, Ballnose, High Precision		UP300-HP-B2	R0.5 ~ R6	53	68													
			AlCrXN	2 Flutes with Long Neck, Ballnose, High Precision		UP300-HP-BN2	R0.15 ~ R2	54	68													
		  	AlCrXN	4 Flutes, Square, Keyway		UP300-S-S4	D1.9 ~ D11.8	57	68													
			AlCrXN	4 Flutes with Long Neck, Square (Tip Chamfer)		UP300-CN4-HA	D2 ~ D20	59	66													
			AlCrXN	4 Flutes with Long Neck, Square (Tip Chamfer)		UP300-CN4-HB	D2 ~ D20	61	66													
			AlCrXN	4 Flutes with Long Neck, Corner Radius		UP300-RN4-HB	D2 ~ D20	63	66													
			AlCrXN	2 Flutes, Ballnose		UP300-B2-HA	R0.5 ~ R10	65	67													

 Most Suitable  Suitable

UP300-S4

4 Flutes, Square



Order No.	D	Lc	L	d	Figure No.	Stock
UP300-S4-01003	1	3	50	4	1	●
UP300-S4-01505	1.5	5	50	4	1	●
UP300-S4-02006	2	6	50	4	1	●
UP300-S4-02508	2.5	8	50	4	1	●
UP300-S4-33009	3	9	50	3	2	●
UP300-S4-03009	3	9	50	4	1	●
UP300-S4-03015	3	15	60	4	1	●
UP300-S4-63009	3	9	50	6	1	●
UP300-S4-03510	3.5	10	50	4	1	●
UP300-S4-04011	4	11	50	4	2	●
UP300-S4-04020	4	20	60	4	2	●
UP300-S4-64011	4	11	50	6	1	●
UP300-S4-64011A	4	11	75	6	1	●
UP300-S4-05013	5	13	50	6	1	●
UP300-S4-06016	6	16	50	6	2	●
UP300-S4-06016A	6	16	75	6	2	●
UP300-S4-06035	6	35	75	6	2	●
UP300-S4-06035A	6	35	100	6	2	○

●Stock ○Available Upon Order

D	Tolerance
D≤12	$\begin{matrix} 0 \\ -0.02 \end{matrix}$
D>12	$\begin{matrix} 0 \\ -0.03 \end{matrix}$

Unit (mm)

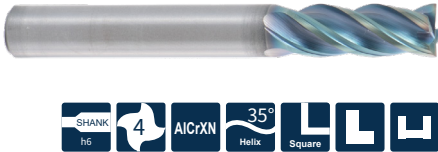
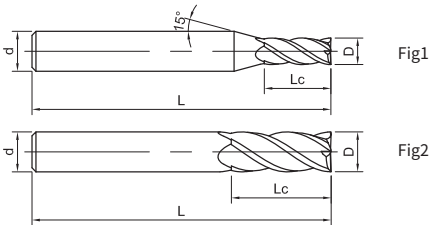
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
◎	◎	○	◎	

◎ Most Suitable ○ Suitable

Recommended Cutting Data ※ P66

UP300-S4

4 Flutes, Square



Order No.	D	Lc	L	d	Figure No.	Stock
UP300-S4-07020	7	20	60	8	1	●
UP300-S4-08020	8	20	60	8	2	●
UP300-S4-08025	8	25	60	8	2	●
UP300-S4-08035	8	35	75	8	2	○
UP300-S4-08035A	8	35	100	8	2	○
UP300-S4-09023	9	23	75	10	1	●
UP300-S4-10025	10	25	75	10	2	●
UP300-S4-10025A	10	25	100	10	2	●
UP300-S4-10030	10	30	100	10	2	●
UP300-S4-10035	10	35	75	10	2	●
UP300-S4-10040	10	40	100	10	2	●
UP300-S4-10045	10	45	100	10	2	●
UP300-S4-11028	11	28	75	12	1	●
UP300-S4-12030	12	30	75	12	2	●
UP300-S4-12035	12	35	75	12	2	●
UP300-S4-12050	12	50	100	12	2	●
UP300-S4-14032	14	32	75	14	2	●
UP300-S4-14034	14	34	100	14	2	●

●Stock ○Available Upon Order

D	Tolerance
D≤12	$\begin{matrix} 0 \\ -0.02 \end{matrix}$
D>12	$\begin{matrix} 0 \\ -0.03 \end{matrix}$

Unit (mm)

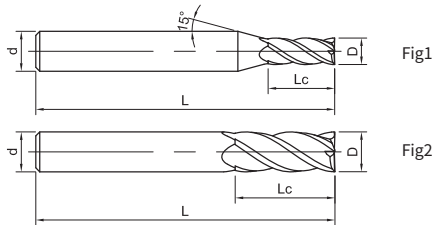
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
◎	◎	○	◎	

◎ Most Suitable ○ Suitable

Recommended Cutting Data ※ P66

UP300-S4

4 Flutes, Square



Continued

Order No.	D	Lc	L	d	Figure No.	Stock
UP300-S4-14045	14	45	100	14	2	●
UP300-S4-15036	15	36	100	16	1	○
UP300-S4-16036	16	36	100	16	2	●
UP300-S4-16040	16	40	100	16	2	●
UP300-S4-16045	16	45	100	16	2	●
UP300-S4-16060	16	60	120	16	2	●
UP300-S4-18045	18	45	100	18	2	●
UP300-S4-20045	20	45	100	20	2	●
UP300-S4-20050	20	50	100	20	2	●
UP300-S4-20070	20	70	150	20	2	●
UP300-S4-20080	20	80	150	20	2	●

●Stock ○Available Upon Order

D	Tolerance
D≤12	0 -0.02
D>12	0 -0.03

Unit (mm)

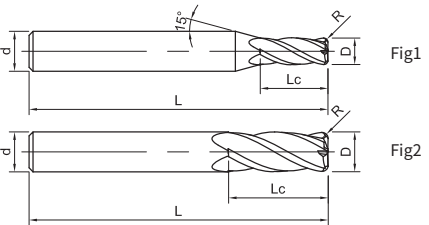
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P66

UP300-R4

4 Flutes, Corner Radius



Order No.	D	Lc	R	L	d	Figure No.	Stock
UP300-R4-01002	1	3	0.2	50	4	1	●
UP300-R4-01502	1.5	5	0.2	50	4	1	●
UP300-R4-02002	2	6	0.2	50	4	1	●
UP300-R4-02005	2	6	0.5	50	4	1	●
UP300-R4-02505	2.5	8	0.5	50	4	1	●
UP300-R4-03002	3	9	0.2	50	4	1	●
UP300-R4-03005	3	9	0.5	50	4	1	●
UP300-R4-04002	4	11	0.2	50	4	2	●
UP300-R4-04002A	4	11	0.2	75	4	2	●
UP300-R4-04003	4	11	0.3	50	4	2	●
UP300-R4-64003	4	11	0.3	50	6	1	○
UP300-R4-04005	4	11	0.5	50	4	2	●
UP300-R4-04005A	4	11	0.5	75	4	2	●
UP300-R4-05005	5	13	0.5	50	6	1	●
UP300-R4-06002	6	16	0.2	50	6	2	●
UP300-R4-06002A	6	16	0.2	75	6	2	●
UP300-R4-06003	6	16	0.3	50	6	2	●
UP300-R4-06005	6	16	0.5	50	6	2	●

●Stock ○Available Upon Order

D	Tolerance
D≤12	0 -0.02
D>12	0 -0.03

Unit (mm)

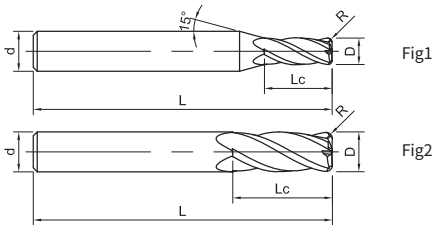
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P66

UP300-R4

4 Flutes, Corner Radius



Continued

Order No.	D	Lc	R	L	d	Figure No.	Stock
UP300-R4-06005A	6	16	0.5	75	6	2	●
UP300-R4-06010	6	16	1	50	6	2	●
UP300-R4-06010A	6	16	1	75	6	2	○
UP300-R4-06020	6	16	2	50	6	2	●
UP300-R4-08002	8	20	0.2	75	8	2	●
UP300-R4-08005	8	20	0.5	60	8	2	●
UP300-R4-08005A	8	20	0.5	75	8	2	●
UP300-R4-08005B	8	20	0.5	100	8	2	●
UP300-R4-08010	8	20	1	60	8	2	●
UP300-R4-08010A	8	20	1	75	8	2	●
UP300-R4-08010B	8	20	1	100	8	2	○
UP300-R4-08020	8	20	2	60	8	2	●
UP300-R4-10002	10	25	0.2	100	10	2	●
UP300-R4-10003	10	25	0.3	75	10	2	●
UP300-R4-10005	10	25	0.5	75	10	2	●
UP300-R4-10005A	10	25	0.5	100	10	2	●
UP300-R4-10010	10	25	1	75	10	2	●
UP300-R4-10015	10	25	1.5	75	10	2	●

●Stock ○Available Upon Order

D	Tolerance
D≤12	0 -0.02
D>12	0 -0.03

Unit (mm)

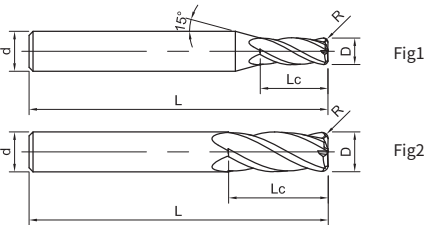
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P66

UP300-R4

4 Flutes, Corner Radius



Continued

Order No.	D	Lc	R	L	d	Figure No.	Stock
UP300-R4-10020	10	25	2	75	10	2	●
UP300-R4-10020A	10	25	2	100	10	2	●
UP300-R4-12005	12	30	0.5	75	12	2	●
UP300-R4-12010	12	30	1	75	12	2	●
UP300-R4-12020	12	30	2	75	12	2	●
UP300-R4-12030	12	30	3	75	12	2	●
UP300-R4-14010	14	32	1	100	14	2	●
UP300-R4-14020	14	32	2	100	14	2	●
UP300-R4-16005	16	36	0.5	100	16	2	●
UP300-R4-16010	16	36	1	100	16	2	●
UP300-R4-16020	16	36	2	100	16	2	●
UP300-R4-16030	16	36	3	100	16	2	●
UP300-R4-20010	20	45	1	100	20	2	●

●Stock ○Available Upon Order

D	Tolerance
D≤12	0 -0.02
D>12	0 -0.03

Unit (mm)

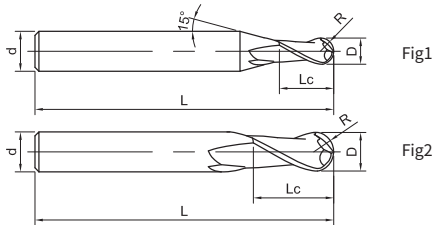
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P66

UP300-B2

2 Flutes, Ballnose



Order No.	D	R	Lc	L	d	Figure No.	Stock
UP300-B2-00601	0.6	0.3	1.2	50	4	1	●
UP300-B2-01002	1	0.5	2	50	4	1	●
UP300-B2-01503	1.5	0.75	3	50	4	1	●
UP300-B2-02004	2	1	4	50	4	1	●
UP300-B2-62004	2	1	4	50	6	1	●
UP300-B2-02505	2.5	1.25	5	50	4	1	●
UP300-B2-33006	3	1.5	6	50	3	2	●
UP300-B2-03006	3	1.5	6	50	4	1	●
UP300-B2-03006A	3	1.5	6	75	4	1	●
UP300-B2-63006	3	1.5	6	50	6	1	●
UP300-B2-03506	3.5	1.75	6	50	4	1	●
UP300-B2-04008	4	2	8	50	4	2	●
UP300-B2-64008	4	2	8	50	6	1	●
UP300-B2-04008A	4	2	8	75	4	2	●
UP300-B2-05010	5	2.5	10	50	6	1	●
UP300-B2-06012	6	3	12	50	6	2	●
UP300-B2-06012A	6	3	12	60	6	2	●
UP300-B2-06012B	6	3	12	100	6	2	●

●Stock ○Available Upon Order

R	Tolerance
R≤1.5	±0.010
R>1.5	±0.015

Unit (mm)

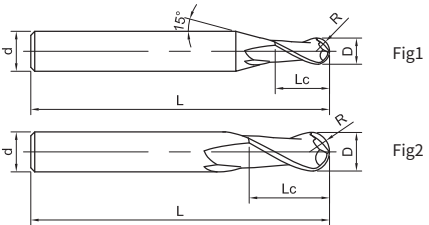
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	○

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P67

UP300-B2

2 Flutes, Ballnose



Order No.	D	R	Lc	L	d	Figure No.	Stock
UP300-B2-07014	7	3.5	14	60	8	1	●
UP300-B2-08014	8	4	14	60	8	2	●
UP300-B2-10018	10	5	18	75	10	2	●
UP300-B2-12022	12	6	22	75	12	2	●
UP300-B2-16030	16	8	30	100	16	2	●
UP300-B2-16030A	16	8	30	110	16	2	○
UP300-B2-20038	20	10	38	100	20	2	●
UP300-B2-20040	20	10	40	120	20	2	○

●Stock ○Available Upon Order

R	Tolerance
R≤1.5	±0.010
R>1.5	±0.015

Unit (mm)

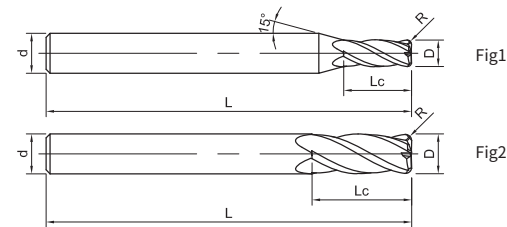
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	○

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P67

UP300-HP-R4

4 Flutes, Corner Radius, High Precision



Order No.	D	Lc	R	L	d	Figure No.	Stock
UP300-HP-R4-04002	4	11	0.2	50	4	2	●
UP300-HP-R4-04005	4	11	0.5	50	4	2	●
UP300-HP-R4-64005	4	11	0.5	50	6	1	●
UP300-HP-R4-06002	6	16	0.2	75	6	2	●
UP300-HP-R4-06002A	6	16	0.2	50	6	2	●
UP300-HP-R4-06002B	6	16	0.2	60	6	2	●
UP300-HP-R4-06005	6	16	0.5	60	6	2	●
UP300-HP-R4-06005A	6	16	0.5	75	6	2	●
UP300-HP-R4-06005B	6	16	0.5	50	6	2	●
UP300-HP-R4-08002	8	20	0.2	75	8	2	●
UP300-HP-R4-08005	8	20	0.5	75	8	2	●
UP300-HP-R4-08005A	8	20	0.5	60	8	2	●
UP300-HP-R4-08005B	8	20	0.5	100	8	2	●
UP300-HP-R4-08010	8	20	1	75	8	2	●
UP300-HP-R4-10002	10	25	0.2	100	10	2	●
UP300-HP-R4-10005	10	25	0.5	100	10	2	●
UP300-HP-R4-10005A	10	25	0.5	75	10	2	●
UP300-HP-R4-10010	10	25	1	100	10	2	●

●Stock ○Available Upon Order

D	D Tolerance	R Tolerance
D≤4	$\begin{matrix} 0 \\ -0.01 \end{matrix}$	±0.005
4<D≤12	$\begin{matrix} 0 \\ -0.015 \end{matrix}$	

Unit (mm)

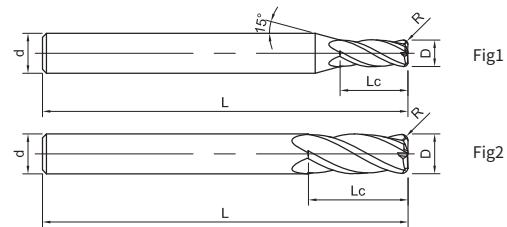
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	○

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P67

UP300-HP-R4

4 Flutes, Corner Radius, High Precision



Order No.	D	Lc	R	L	d	Figure No.	Stock
UP300-HP-R4-12005	12	30	0.5	100	12	2	●
UP300-HP-R4-12005A	12	30	0.5	120	12	2	●
UP300-HP-R4-12010	12	30	1	100	12	2	●

●Stock ○Available Upon Order

D	D Tolerance	R Tolerance
D≤4	$\begin{matrix} 0 \\ -0.01 \end{matrix}$	±0.005
4<D≤12	$\begin{matrix} 0 \\ -0.015 \end{matrix}$	

Unit (mm)

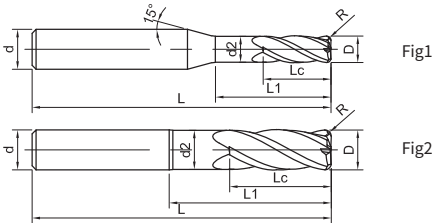
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	○

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P67

UP300-HP-RN4

4 Flutes with Long Neck, Corner Radius, High Precision



Order No.	D	Lc	R	L1	d2	L	d	Figure No.	Stock
UP300-HP-RN4-01004	1	1.5	0.2	4	0.96	50	4	1	●
UP300-HP-RN4-01006	1	1.5	0.2	6	0.96	50	4	1	●
UP300-HP-RN4-01506	1.5	2.3	0.2	6	1.44	50	4	1	●
UP300-HP-RN4-01508	1.5	2.3	0.2	8	1.44	50	4	1	●
UP300-HP-RN4-01510	1.5	2.3	0.2	10	1.44	50	4	1	●
UP300-HP-RN4-02008	2	3	0.2	8	1.92	50	4	1	●
UP300-HP-RN4-02010	2	3	0.2	10	1.92	50	4	1	●
UP300-HP-RN4-03012	3	4.5	0.2	12	2.88	50	4	1	●
UP300-HP-RN4-03012A	3	4.5	0.5	12	2.88	50	4	1	●
UP300-HP-RN4-63012	3	4.5	0.5	12	2.88	60	6	1	●
UP300-HP-RN4-63012A	3	4.5	0.2	12	2.88	60	6	1	●
UP300-HP-RN4-63016	3	4.5	0.5	16	2.88	60	6	1	●
UP300-HP-RN4-64012	4	6	0.5	12	3.86	60	6	1	●
UP300-HP-RN4-64016	4	6	0.5	16	3.86	60	6	1	●
UP300-HP-RN4-64016A	4	6	0.2	16	3.86	60	6	1	●
UP300-HP-RN4-64020	4	6	0.5	20	3.86	60	6	1	●

●Stock ○Available Upon Order

D	D Tolerance	R Tolerance
D≤4	0 -0.01	±0.005

Unit (mm)

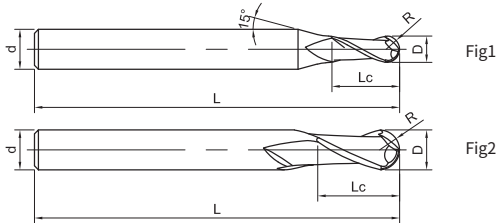
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	○

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P67

UP300-HP-B2

2 Flutes, Ballose, High Precision



Order No.	D	R	Lc	L	d	Figure No.	Stock
UP300-HP-B2-01001	1	0.5	1	50	4	1	●
UP300-HP-B2-61001	1	0.5	1	75	6	1	○
UP300-HP-B2-02002	2	1	2	50	4	1	●
UP300-HP-B2-62002	2	1	2	75	6	1	○
UP300-HP-B2-04004	4	2	4	50	4	2	●
UP300-HP-B2-64004	4	2	4	75	6	1	○
UP300-HP-B2-06006	6	3	6	75	6	2	○
UP300-HP-B2-06006A	6	3	6	50	6	2	●
UP300-HP-B2-08008B	8	4	8	75	8	2	●
UP300-HP-B2-08008C	8	4	8	60	8	2	●
UP300-HP-B2-08008D	8	4	8	100	8	2	●
UP300-HP-B2-10010	10	5	10	100	10	2	●
UP300-HP-B2-10010A	10	5	10	75	10	2	●
UP300-HP-B2-12012	12	6	12	100	12	2	●
UP300-HP-B2-12012A	12	6	12	75	12	2	●

●Stock ○Available Upon Order

R	Tolerance
R≤3	±0.005
3<R≤6	±0.007

Unit (mm)

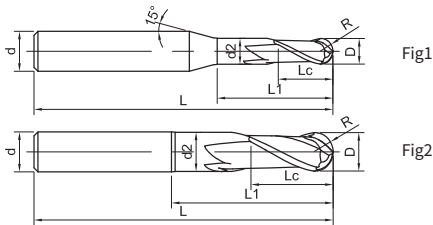
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	○

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P68

UP300-HP-BN2

2 Flutes with Long Neck, Ballnose, High Precision



Order No.	D	R	Lc	L1	d2	L	d	Figure No.	Stock
UP300-HP-BN2-00301	0.3	0.15	0.24	1	0.27	50	4	1	●
UP300-HP-BN2-00301A	0.3	0.15	0.24	0.6	0.27	50	4	1	●
UP300-HP-BN2-00302A	0.3	0.15	0.24	1.5	0.27	50	4	1	●
UP300-HP-BN2-00401	0.4	0.2	0.32	1	0.37	50	4	1	●
UP300-HP-BN2-00402	0.4	0.2	0.32	2	0.37	50	4	1	●
UP300-HP-BN2-00501	0.5	0.25	0.4	1	0.47	50	4	1	●
UP300-HP-BN2-00502	0.5	0.25	0.4	2	0.47	50	4	1	●
UP300-HP-BN2-00503	0.5	0.25	0.4	3	0.47	50	4	1	●
UP300-HP-BN2-00504	0.5	0.25	0.4	4	0.47	50	4	1	●
UP300-HP-BN2-00601	0.6	0.3	0.48	1	0.57	50	4	1	●
UP300-HP-BN2-00602	0.6	0.3	0.48	2	0.57	50	4	1	●
UP300-HP-BN2-00603A	0.6	0.3	0.48	3	0.57	50	4	1	●
UP300-HP-BN2-00706	0.7	0.35	0.56	6	0.66	50	4	1	●
UP300-HP-BN2-00801	0.8	0.4	0.64	1.2	0.76	50	4	1	●
UP300-HP-BN2-00802	0.8	0.4	0.64	2	0.76	50	4	1	●
UP300-HP-BN2-00803	0.8	0.4	0.64	3	0.76	50	4	1	●
UP300-HP-BN2-00804	0.8	0.4	0.64	4	0.76	50	4	1	●
UP300-HP-BN2-01004	1	0.5	0.8	4	0.96	50	4	1	●

●Stock ○Available Upon Order

R	Tolerance
R≤3	±0.005

Unit (mm)

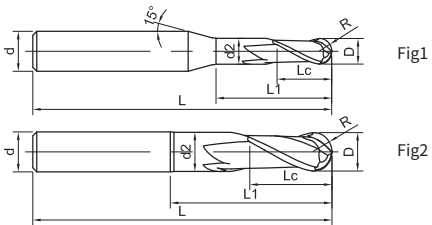
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
⊙	⊙	○	⊙	○

⊙ Most Suitable ○ Suitable

Recommended Cutting Data ※ P68

UP300-HP-BN2

2 Flutes with Long Neck, Ballnose, High Precision



Order No.	D	R	Lc	L1	d2	L	d	Figure No.	Stock
UP300-HP-BN2-01008	1	0.5	0.8	8	0.96	50	4	1	●
UP300-HP-BN2-01504	1.5	0.75	1.2	4	1.44	50	4	1	●
UP300-HP-BN2-01506	1.5	0.75	1.2	6	1.44	50	4	1	●
UP300-HP-BN2-01508	1.5	0.75	1.2	8	1.44	50	4	1	●
UP300-HP-BN2-01510	1.5	0.75	1.2	10	1.44	50	4	1	●
UP300-HP-BN2-61506	1.5	0.75	1.2	6	1.44	60	6	1	●
UP300-HP-BN2-61508	1.5	0.75	1.2	8	1.44	60	6	1	●
UP300-HP-BN2-61510	1.5	0.75	1.2	10	1.44	60	6	1	●
UP300-HP-BN2-02006	2	1	1.6	6	1.92	50	4	1	●
UP300-HP-BN2-02008	2	1	1.6	8	1.92	50	4	1	●
UP300-HP-BN2-02010	2	1	1.6	10	1.92	50	4	1	●
UP300-HP-BN2-02012	2	1	1.6	12	1.92	50	4	1	●
UP300-HP-BN2-62006	2	1	1.6	6	1.92	60	6	1	●
UP300-HP-BN2-62008	2	1	1.6	8	1.92	60	6	1	●
UP300-HP-BN2-62010	2	1	1.6	10	1.92	60	6	1	●
UP300-HP-BN2-03012	3	1.5	2.4	12	2.88	50	4	1	●
UP300-HP-BN2-63012	3	1.5	2.4	12	2.88	60	6	1	●
UP300-HP-BN2-63016	3	1.5	2.4	16	2.88	60	6	1	●

●Stock ○Available Upon Order

R	Tolerance
R≤3	±0.005

Unit (mm)

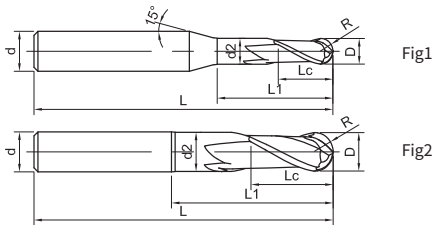
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
⊙	⊙	○	⊙	○

⊙ Most Suitable ○ Suitable

Recommended Cutting Data ※ P68

UP300-HP-BN2

2 Flutes with Long Neck, Ballnose, High Precision



Continued

Order No.	D	R	Lc	L1	d2	L	d	Figure No.	Stock
UP300-HP-BN2-64012	4	2	3.2	12	3.86	60	6	1	●
UP300-HP-BN2-64016	4	2	3.2	16	3.86	60	6	1	●
UP300-HP-BN2-64020	4	2	3.2	20	3.86	60	6	1	●
UP300-HP-BN2-64020A	4	2	3.2	20	3.86	75	6	1	●

●Stock ○Available Upon Order

R	Tolerance
R≤3	±0.005

Unit (mm)

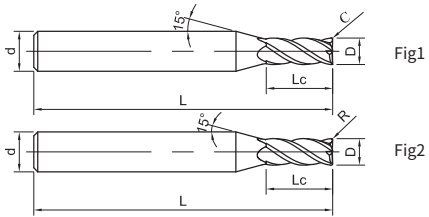
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	○

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P68

UP300-S-S4

4 Flutes, Square, Keyway



Order No.	D	Lc	Tool Tip	L1	d	Figure No.	Stock
UP300-S-S4-01904	1.9	4	C0.05	50	4	1	●
UP300-S-S4-02505	2.5	5	-	50	6	1	●
UP300-S-S4-02804	2.8	4	C0.1	50	4	1	●
UP300-S-S4-02805	2.8	5	C0.1	50	6	1	●
UP300-S-S4-02906	2.9	6	C0.1	50	4	1	●
UP300-S-S4-03507	3.5	7	C0.1	50	6	1	●
UP300-S-S4-03807	3.8	7	C0.1	50	6	1	●
UP300-S-S4-04508	4.5	8	-	50	6	1	●
UP300-S-S4-04808	4.8	8	C0.1	50	6	1	●
UP300-S-S4-04808A	4.8	8	R0.2	50	6	2	●
UP300-S-S4-05514	5.5	14	-	50	6	1	●
UP300-S-S4-05710	5.75	10	R0.2	50	6	2	●
UP300-S-S4-05711A	5.75	11	C0.1	50	6	1	●
UP300-S-S4-05810	5.8	10	C0.1	50	6	1	●
UP300-S-S4-05810A	5.8	10	R0.2	50	6	2	●
UP300-S-S4-05811	5.8	11	C0.1	50	6	1	●
UP300-S-S4-06810	6.8	12	C0.1	60	8	1	●
UP300-S-S4-07410	7.4	10	C0.1	60	8	1	○
UP300-S-S4-07710	7.7	10	C0.1	60	8	1	●

●Stock ○Available Upon Order

D	Tolerance
D≤12	0 -0.02

Unit (mm)

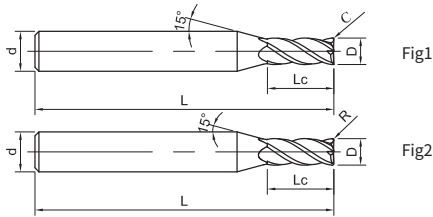
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	○

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P68

UP300-S-S4

4 Flutes, Square, Keyway



Continued

Order No.	D	Lc	Tool Tip	L1	d	Figure No.	Stock
UP300-S-S4-07710A	7.7	10	R0.2	60	8	2	●
UP300-S-S4-07813	7.8	13	C0.1	60	8	1	●
UP300-S-S4-09810	9.8	14	C0.1	75	10	1	●
UP300-S-S4-11830	11.8	30	C0.1	75	12	1	●

●Stock ○Available Upon Order

D	Tolerance
D≤12	0 -0.02

Unit (mm)

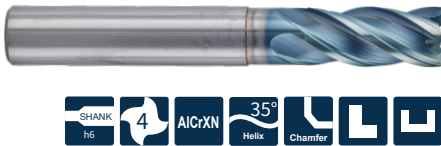
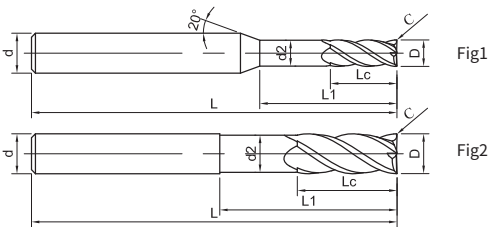
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P68

UP300-CN4-HA

4 Flutes with Long Neck, Square (Tip Chamfer)



Order No.	D	Lc	C	L1	d2	L	d	Shank	Figure No.	Stock
UP300-CN4-02002-HA	2	6	0.02	10	1.8	57	6	HA	1	○
UP300-CN4-03003-HA	3	8	0.03	18	2.8	57	6	HA	1	○
UP300-CN4-03013-HA	3	8	0.13	18	2.8	57	6	HA	1	○
UP300-CN4-04004-HA	4	11	0.04	21	3.8	57	6	HA	1	○
UP300-CN4-04018-HA	4	11	0.18	21	3.8	57	6	HA	1	○
UP300-CN4-05005-HA	5	13	0.05	21	4.8	57	6	HA	1	○
UP300-CN4-05020-HA	5	13	0.2	21	4.8	57	6	HA	1	○
UP300-CN4-06006-HA	6	13	0.06	21	5.5	57	6	HA	2	○
UP300-CN4-06020-HA	6	13	0.2	21	5.5	57	6	HA	2	○
UP300-CN4-07007-HA	7	16	0.07	27	6.5	63	8	HA	1	○
UP300-CN4-07020-HA	7	16	0.2	27	6.5	63	8	HA	1	○
UP300-CN4-08008-HA	8	19	0.08	27	7.5	63	8	HA	2	○
UP300-CN4-08020-HA	8	19	0.2	27	7.5	63	8	HA	2	○
UP300-CN4-09009-HA	9	19	0.09	32	8.5	72	10	HA	1	○
UP300-CN4-09030-HA	9	19	0.3	32	8.5	72	10	HA	1	○
UP300-CN4-10010-HA	10	22	0.1	32	9.5	72	10	HA	2	○
UP300-CN4-10030-HA	10	22	0.3	32	9.5	72	10	HA	2	○
UP300-CN4-12012-HA	12	26	0.12	38	11.5	83	12	HA	2	○

●Stock ○Available Upon Order

D Tolerance
h10

Unit (mm)

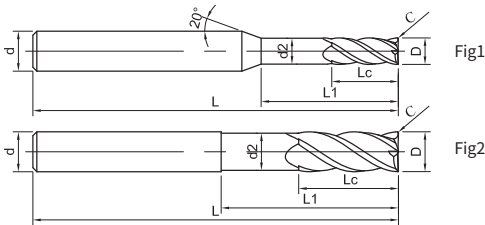
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P66

UP300-CN4-HA

4 Flutes with Long Neck, Square (Tip Chamfer)



Continued

Order No.	D	Lc	C	L1	d2	L	d	Shank	Figure No.	Stock
UP300-CN4-12030-HA	12	26	0.3	38	11.5	83	12	HA	2	○
UP300-CN4-14014-HA	14	26	0.14	42	13.5	83	14	HA	2	○
UP300-CN4-14030-HA	14	26	0.3	42	13.5	83	14	HA	2	○
UP300-CN4-16015-HA	16	32	0.15	44	15.5	92	16	HA	2	○
UP300-CN4-16040-HA	16	32	0.4	44	15.5	92	16	HA	2	○
UP300-CN4-18015-HA	18	32	0.15	50	17.5	92	18	HA	2	○
UP300-CN4-18040-HA	18	32	0.4	50	17.5	92	18	HA	2	○
UP300-CN4-20015-HA	20	38	0.15	54	19.5	104	20	HA	2	○
UP300-CN4-20050-HA	20	38	0.5	54	19.5	104	20	HA	2	○

●Stock ○Available Upon Order

D Tolerance
h10
Unit (mm)

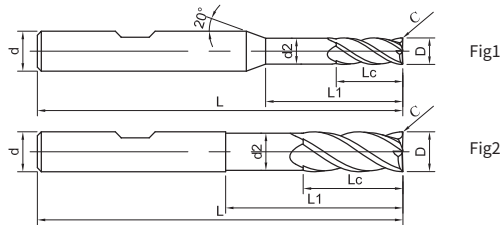
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P66

UP300-CN4-HB

4 Flutes with Long Neck, Square (Tip Chamfer)



Order No.	D	Lc	C	L1	d2	L	d	Shank	Figure No.	Stock
UP300-CN4-02002-HB	2	6	0.02	10	1.8	57	6	HB	1	●
UP300-CN4-03003-HB	3	8	0.03	18	2.8	57	6	HB	1	●
UP300-CN4-03013-HB	3	8	0.13	18	2.8	57	6	HB	1	●
UP300-CN4-04004-HB	4	11	0.04	21	3.8	57	6	HB	1	●
UP300-CN4-04018-HB	4	11	0.18	21	3.8	57	6	HB	1	●
UP300-CN4-05005-HB	5	13	0.05	21	4.8	57	6	HB	1	●
UP300-CN4-05020-HB	5	13	0.2	21	4.8	57	6	HB	1	○
UP300-CN4-06006-HB	6	13	0.06	21	5.5	57	6	HB	2	●
UP300-CN4-06020-HB	6	13	0.2	21	5.5	57	6	HB	2	●
UP300-CN4-07007-HB	7	16	0.07	27	6.5	63	8	HB	1	●
UP300-CN4-07020-HB	7	16	0.2	27	6.5	63	8	HB	1	○
UP300-CN4-08008-HB	8	19	0.08	27	7.5	63	8	HB	2	●
UP300-CN4-08020-HB	8	19	0.2	27	7.5	63	8	HB	2	●
UP300-CN4-09009-HB	9	19	0.09	32	8.5	72	10	HB	1	●
UP300-CN4-09030-HB	9	19	0.3	32	8.5	72	10	HB	1	○
UP300-CN4-10010-HB	10	22	0.1	32	9.5	72	10	HB	2	●
UP300-CN4-10030-HB	10	22	0.3	32	9.5	72	10	HB	2	●
UP300-CN4-12012-HB	12	26	0.12	38	11.5	83	12	HB	2	●

●Stock ○Available Upon Order

D Tolerance
h10
Unit (mm)

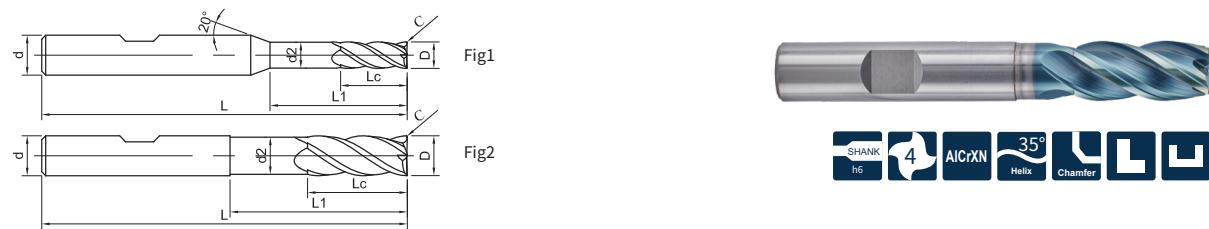
Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P66

UP300-CN4-HB

4 Flutes with Long Neck, Square (Tip Chamfer)



Order No.	D	Lc	C	L1	d2	L	d	Shank	Figure No.	Stock
UP300-CN4-12030-HB	12	26	0.3	38	11.5	83	12	HB	2	●
UP300-CN4-14014-HB	14	26	0.14	42	13.5	83	14	HB	2	●
UP300-CN4-14030-HB	14	26	0.3	42	13.5	83	14	HB	2	○
UP300-CN4-16015-HB	16	32	0.15	44	15.5	92	16	HB	2	●
UP300-CN4-16040-HB	16	32	0.4	44	15.5	92	16	HB	2	●
UP300-CN4-18015-HB	18	32	0.15	50	17.5	92	18	HB	2	●
UP300-CN4-18040-HB	18	32	0.4	50	17.5	92	18	HB	2	○
UP300-CN4-20015-HB	20	38	0.15	54	19.5	104	20	HB	2	●
UP300-CN4-20050-HB	20	38	0.5	54	19.5	104	20	HB	2	●

●Stock ○Available Upon Order

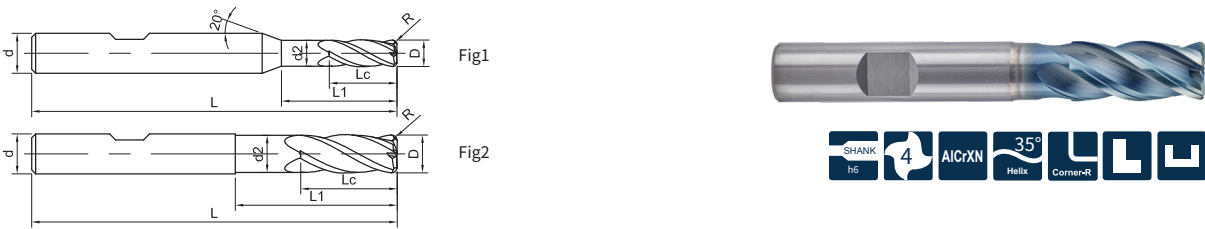
D Tolerance
h10
Unit (mm)

Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	
Recommended Cutting Data ※ P66				

○ Most Suitable ○ Suitable

UP300-RN4-HB

4 Flutes with Long Neck, Corner Radius



Order No.	D	Lc	R	L1	d2	L	d	Shank	Figure No.	Stock
UP300-RN4-02002-HB	2	6	0.2	10	1.8	57	6	HB	1	●
UP300-RN4-03005-HB	3	8	0.5	18	2.8	57	6	HB	1	●
UP300-RN4-04005-HB	4	11	0.5	21	3.8	57	6	HB	1	●
UP300-RN4-05005-HB	5	13	0.5	21	4.8	57	6	HB	1	●
UP300-RN4-06005-HB	6	13	0.5	21	5.5	57	6	HB	2	●
UP300-RN4-06010-HB	6	13	1	21	5.5	57	6	HB	2	●
UP300-RN4-08005-HB	8	19	0.5	27	7.5	63	8	HB	2	●
UP300-RN4-08010-HB	8	19	1	27	7.5	63	8	HB	2	●
UP300-RN4-08020-HB	8	19	2	27	7.5	63	8	HB	2	○
UP300-RN4-10005-HB	10	22	0.5	32	9.5	72	10	HB	2	●
UP300-RN4-10010-HB	10	22	1	32	9.5	72	10	HB	2	●
UP300-RN4-10015-HB	10	22	1.5	32	9.5	72	10	HB	2	○
UP300-RN4-10020-HB	10	22	2	32	9.5	72	10	HB	2	○
UP300-RN4-12005-HB	12	26	0.5	38	11.5	83	12	HB	2	●
UP300-RN4-12010-HB	12	26	1	38	11.5	83	12	HB	2	●
UP300-RN4-12015-HB	12	26	1.5	38	11.5	83	12	HB	2	○
UP300-RN4-12020-HB	12	26	2	38	11.5	83	12	HB	2	○
UP300-RN4-16010-HB	16	32	1	44	15.5	92	16	HB	2	●

●Stock ○Available Upon Order

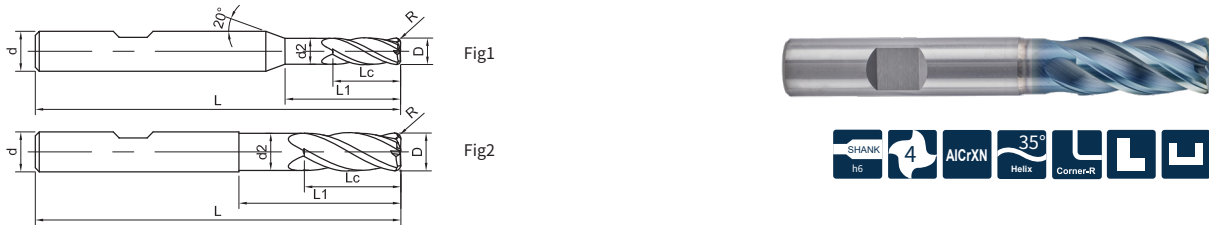
D Tolerance
h10
Unit (mm)

Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	
Recommended Cutting Data ※ P66				

○ Most Suitable ○ Suitable

UP300-RN4-HB

4 Flutes with Long Neck, Corner Radius



Order No.	D	Lc	R	L1	d2	L	d	Shank	Figure No.	Stock
UP300-RN4-16015-HB	16	32	1.5	44	15.5	92	16	HB	2	○
UP300-RN4-16020-HB	16	32	2	44	15.5	92	16	HB	2	●
UP300-RN4-20010-HB	20	38	1	54	19.5	104	20	HB	2	●
UP300-RN4-20015-HB	20	38	1.5	54	19.5	104	20	HB	2	○
UP300-RN4-20020-HB	20	38	2	54	19.5	104	20	HB	2	●

●Stock ○Available Upon Order

D Tolerance
h10
Unit (mm)

Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	○

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P66

UP300-B2-HA

2 Flutes, Ballnose



Order No.	D	R	Lc	L	d	Shank	Figure No.	Stock
UP300-B2-01003-HA	1	0.5	3	38	3	HA	1	●
UP300-B2-01503-HA	1.5	0.75	3	38	3	HA	1	●
UP300-B2-02006-HA	2	1	6	57	6	HA	1	●
UP300-B2-03007-HA	3	1.5	7	57	6	HA	1	●
UP300-B2-04008-HA	4	2	8	57	6	HA	1	●
UP300-B2-05010-HA	5	2.5	10	57	6	HA	1	○
UP300-B2-06010-HA	6	3	10	57	6	HA	2	●
UP300-B2-08016-HA	8	4	16	63	8	HA	2	●
UP300-B2-10019-HA	10	5	19	72	10	HA	2	●
UP300-B2-12022-HA	12	6	22	83	12	HA	2	●
UP300-B2-14022-HA	14	7	22	83	14	HA	2	○
UP300-B2-16026-HA	16	8	26	92	16	HA	2	○
UP300-B2-18026-HA	18	9	26	92	18	HA	2	○
UP300-B2-20032-HA	20	10	32	104	20	HA	2	○

●Stock ○Available Upon Order

D Tolerance	R Tolerance
h10	±0.02

Unit (mm)

Workpiece Material				
P	M	K	H	
1234	5	123	123	1
Carbon Steels, Alloy Steels (<35HRC)	Alloy Steels (≤48HRC)	Stainless Steel	Cast Iron	Pre-hardened Steel (45-52HRC)
○	○	○	○	○

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P67

Recommended Cutting Data

UP300-S4/R4/CN4-HA(HB)/RN4-HB
Steel and Cast Iron—Side Milling



Workpiece Material		Cutting Amount	Vc m/min	Edge Diameter (mm)	3	4	6	8	10	12	16	20
P	Carbon Steels, Alloy Steels (<35HRC)	ap≤1.5D	180	Rotation Speed (r/min)	19110	14330	9550	7170	5730	4780	3580	2870
		ae≤0.15D		Feed Speed (mm/min)	2140	2060	1830	1860	1830	1720	1720	1720
	Alloy Steels (35-48HRC)	ap≤1D	130	Rotation Speed (r/min)	13800	10350	6900	5180	4140	3450	2590	2070
		ae≤0.12D		Feed Speed (mm/min)	1210	1160	1100	1240	1130	1010	830	750
M	Stainless Steel	ap≤1.5D	130	Rotation Speed (r/min)	13800	10350	6900	5180	4140	3450	2590	2070
		ae≤0.15D		Feed Speed (mm/min)	1380	1330	1190	1300	1230	1170	980	910
K	Gray Cast Iron Nodular Cast Iron (<32HRC)	ap≤1.5D	160	Rotation Speed (r/min)	16990	12740	8490	6370	5100	4250	3190	2550
		ae≤0.15D		Feed Speed (mm/min)	1700	1630	1630	1500	1410	1360	1210	1120
	High Alloy Cast Iron (35-45HRC)	ap≤1D	140	Rotation Speed (r/min)	14860	11150	7430	5570	4460	3720	2790	2230
		ae≤0.12D		Feed Speed (mm/min)	1310	1340	1340	1250	1160	1120	1000	910

Recommended Cutting Data

UP300-B2/B2-HA
Steel and Cast Iron —Profile Milling



Workpiece Material		Cutting Amount	Vc m/min	Edge Diameter (mm)	4	5	6	7	8	9	10	11	12
P	Carbon Steels, Alloy Steels (<35HRC)	ap≤0.2D	220	Rotation Speed (r/min)	17500	14000	11670	10000	8750	7780	7000	6360	5830
		ae≤0.3D		Feed Speed (mm/min)	1400	1400	1400	1400	1400	1400	1400	1400	1400
	Alloy Steels (35-48HRC)	ap≤0.15D	180	Rotation Speed (r/min)	14320	11450	9540	8180	7160	6360	5720	5200	4770
		ae≤0.15D		Feed Speed (mm/min)	910	950	980	940	920	910	910	910	910
M	Stainless Steel	ap≤0.2D	110	Rotation Speed (r/min)	8760	7010	5840	5010	4380	3890	3500	3190	2920
		ae≤0.2D		Feed Speed (mm/min)	610	630	640	630	630	620	630	640	640
K	Gray Cast Iron Nodular Cast Iron (<32HRC)	ap≤0.2D	160	Rotation Speed (r/min)	12730	10180	8480	7270	6360	5650	5090	4620	4240
		ae≤0.2D		Feed Speed (mm/min)	890	910	930	910	910	900	910	920	930
	High Alloy Cast Iron (35-45HRC)	ap≤0.1D	120	Rotation Speed (r/min)	9550	7640	6370	5460	4780	4250	3820	3470	3190
		ae≤0.1D		Feed Speed (mm/min)	610	640	660	660	670	650	650	660	670

UP300-S4/R4/CN4-HA(HB)/RN4-HB
Steel and Cast Iron—Slot Milling



Workpiece Material		Cutting Amount	Vc m/min	Edge Diameter (mm)	3	4	6	8	10	12	16	20
P	Carbon Steels, Alloy Steels (<35HRC)	ap≤0.7D	80	Rotation Speed (r/min)	8490	6370	4250	3190	2550	2120	1590	1270
				Feed Speed (mm/min)	1050	1220	970	850	790	760	850	870
	Alloy Steels (35-48HRC)	ap≤0.3D	60	Rotation Speed (r/min)	6370	4780	3190	2390	1910	1590	1190	960
				Feed Speed (mm/min)	660	730	600	500	470	480	490	500
M	Stainless Steel	ap≤0.3D	55	Rotation Speed (r/min)	5840	4380	2920	2190	1750	1460	1100	880
				Feed Speed (mm/min)	420	420	470	450	430	430	380	350
K	Gray Cast Iron Nodular Cast Iron (<32HRC)	ap≤0.5D	55	Rotation Speed (r/min)	5840	4380	2920	2190	1750	1460	1100	880
				Feed Speed (mm/min)	560	600	560	480	460	450	410	370
	High Alloy Cast Iron (35-45HRC)	ap≤0.3D	50	Rotation Speed (r/min)	5310	3980	2650	1990	1590	1330	1000	800
				Feed Speed (mm/min)	450	460	480	400	380	380	350	320

UP300-HP-R4/RN4
Steel and Cast Iron—Contour Milling



Workpiece Material		Cutting Amount	Vc m/min	Edge Diameter (mm)	1	2	3	4	5	6	8	10	12
P	Carbon Steels, Alloy Steels (<35HRC)	ap≤0.2D	160	Rotation Speed (r/min)	22400	18900	14400	12740	10190	8490	6370	5100	4250
		ae≤0.15D		Feed Speed (mm/min)	1260	2230	2120	2500	2500	2500	2500	2500	2500
	Alloy Steels (35-48HRC)	ap≤0.1D	120	Rotation Speed (r/min)	19152	16100	12200	9550	7640	6370	4780	3820	3190
		ae≤0.1D		Feed Speed (mm/min)	1081	1890	1800	2000	2100	2300	2500	2500	2500
K	Gray Cast Iron Nodular Cast Iron (<32HRC)	ap≤0.2D	140	Rotation Speed (r/min)	20160	17700	13000	11150	8920	7430	5570	4460	3720
		ae≤0.2D		Feed Speed (mm/min)	1138	2080	1910	1560	1610	1640	1590	1610	1640
	High Alloy Cast Iron (35-45HRC)	ap≤0.1D	120	Rotation Speed (r/min)	19152	16100	12200	9550	7640	6370	4780	3820	3190
		ae≤0.1D		Feed Speed (mm/min)	1081	1380	1460	1220	1280	1330	1310	1300	1340

Recommended Cutting Data

UP300-HP-B2/BN2

Steel and Cast Iron—Profile Milling



Workpiece Material		Cutting Amount	Vc m/min	Edge Diameter (mm)	1	2	3	4	6	8	10	12
P	Carbon Steels, Alloy Steels (<35HRC)	ap≤0.04D	220	Rotation Speed (r/min)	50000	35030	23360	17520	11680	8760	7010	5840
		ae≤0.04D		Feed Speed (mm/min)	2800	2800	2800	2800	2800	2800	2800	2800
	Alloy Steels (35-48HRC)	ap≤0.04D	200	Rotation Speed (r/min)	50000	31847	21231	15924	10616	7962	6370	5310
		ae≤0.04D		Feed Speed (mm/min)	1950	2010	2200	2300	2500	3000	2600	2500
K	Gray Cast Iron Nodular Cast Iron (<32HRC)	ap≤0.04D	220	Rotation Speed (r/min)	50000	35030	23360	17520	11680	8760	7010	5840
		ae≤0.04D		Feed Speed (mm/min)	2520	2450	2570	2630	2570	2540	2520	2530
	High Alloy Cast Iron (35-45HRC)	ap≤0.04D	220	Rotation Speed (r/min)	50000	35030	23360	17520	11680	8760	7010	5840
		ae≤0.04D		Feed Speed (mm/min)	2380	2450	2430	2450	2450	2450	2440	2440

Recommended Cutting Data

UP300-S-S4

Steel and Cast Iron—Slot Milling



Workpiece Material		Cutting Amount	Vc m/min	Edge Diameter (mm)	1.9	2.8	3.8	4.8	5.8	6.8	7.8	9.8	11.8
P	Carbon Steels, Alloy Steels (<35HRC)	ap≤1D	100	Rotation Speed (r/min)	9550	8490	6370	5100	5000	4230	4000	3180	2650
				Feed Speed (mm/min)	750	500	500	430	530	530	600	600	600
	Alloy Steels (35-48HRC)	ap≤1D	60	Rotation Speed (r/min)	6370	6370	4780	3820	3185	2730	2390	1910	1590
				Feed Speed (mm/min)	660	630	600	500	470	480	490	500	500
M	Stainless Steel	ap≤0.3D	55	Rotation Speed (r/min)	8750	5840	4380	3500	2920	2500	2190	1750	1460
				Feed Speed (mm/min)	420	420	470	450	430	430	380	350	350
K	Gray Cast Iron Nodular Cast Iron (<32HRC)	ap≤0.8D	55	Rotation Speed (r/min)	8750	5840	4380	3500	2920	2500	2190	1750	1460
				Feed Speed (mm/min)	560	600	560	480	460	450	410	370	370
	High Alloy Cast Iron (35-45HRC)	ap≤0.5D	50	Rotation Speed (r/min)	7960	5300	3980	3185	2650	2275	1990	1590	1330
				Feed Speed (mm/min)	450	460	480	400	380	380	350	320	320

UP300-S-S4

Steel and Cast Iron—Side Milling

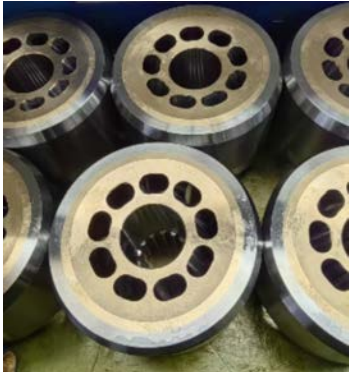
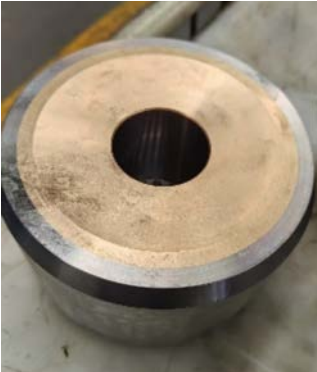


Workpiece Material		Cutting Amount	Vc m/min	Edge Diameter (mm)	1.9	2.8	3.8	4.8	5.8	6.8	7.8	9.8	11.8
P	Carbon Steels, Alloy Steels (<35HRC)	ap≤1D	120	Rotation Speed (r/min)	13500	12740	9550	7640	6400	5500	4800	3820	3200
		ae≤0.15D		Feed Speed (mm/min)	1040	850	800	750	650	650	600	600	600
	Alloy Steels (35-48HRC)	ap≤1D	90	Rotation Speed (r/min)	9550	8490	6370	5100	5000	4230	4000	3180	2650
		ae≤0.12D		Feed Speed (mm/min)	660	630	600	500	470	480	490	500	500
M	Stainless Steel	ap≤1D	60	Rotation Speed (r/min)	9550	6400	4800	3820	3180	2730	2400	1910	1600
		ae≤0.12D		Feed Speed (mm/min)	420	420	470	450	430	430	380	350	350
K	Gray Cast Iron Nodular Cast Iron (<32HRC)	ap≤1D	80	Rotation Speed (r/min)	12740	8500	6400	5100	4250	3640	3200	2550	2150
		ae≤0.12D		Feed Speed (mm/min)	560	600	560	480	460	450	410	370	370
	High Alloy Cast Iron (35-45HRC)	ap≤1D	60	Rotation Speed (r/min)	9550	6400	4800	3820	3180	2730	2400	1910	1600
		ae≤0.12D		Feed Speed (mm/min)	450	460	480	400	380	380	350	320	320

Applications

Case 1 Cylinder Block

Test Tool	UP300-S4
Tool Specification	D10*25*75*d10
Workpiece Material	45# Steel+Copper Alloy (180-260HB)
Machining Type	Finishing
Cutting Method	Side Milling
Rotational Speed/ Cutting Speed	1750RPM(54m/min)
Feed Rate	400mm/min(0.05mm/z)
Cutting Volume	ap=10mm, ae=0.3mm
Cooling Method	Water-based Emulsion
Test Conclusion	Test successful, tool life increased by 14% compared to competitor.



Workpiece before Machining

Workpiece after Machining

Competitor

GESAC

050100150200250

180

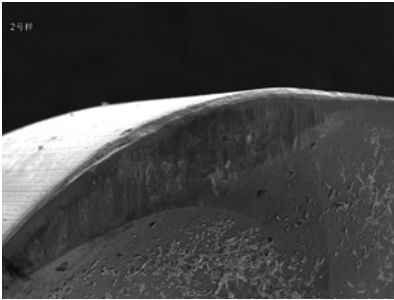
205

+14%

Quantity of Processed Workpieces (pcs)

Case 2 Automotive Interior Component - Right Door Panel Plastic Mold

Test Tool	UP300-HP-R4
Tool Specification	D8*R1*20*75*d8
Workpiece Material	2434 (46-48HRC)
Machining Type	Semi-finish Machining
Cutting Method	Contour Milling (Climb Milling)
Rotational Speed/ Cutting Speed	2400RPM(60m/min)
Feed Rate	3000mm/min(0.312mm/z)
Cutting Volume	ap=0.15mm, ae=0.15mm
Cooling Method	Water-based Emulsion
Test Conclusion	Test successful



Surface Quality of the Machined Cavity Sidewall

Tool Corner Slight Wear after 19 Hours of Machining

Case 3 Automotive Plastic Molds

Test Tool	UP300-HP-B2
Tool Specification	R4*8*75*d8
Workpiece Material	P20 (35-38HRC)
Machining Type	Finish Machining
Cutting Method	Profile Milling (Climb/Conventional Milling)
Rotational Speed/ Cutting Speed	8000RPM(200.9m/min)
Feed Rate	3000mm/min(0.187mm/z)
Cutting Volume	ap=0.2mm, ae=0.2mm
Cooling Method	Air Cooling
Test Conclusion	Test successful



Automotive Plastic Mold

Image of the Tool after 16 Hours of Machining

Case 4 Motor Shaft

Test Tool	UP300-S-S4
Tool Specification	D5.8*C0.1*11*50*d6
Workpiece Material	20CrMnTi (28-30HRC)
Machining Type	Rough Machining
Cutting Method	Slot Milling
Rotational Speed/ Cutting Speed	4000RPM(73m/min)
Feed Rate	450mm/min(0.03mm/z)
Cutting Volume	ap=3-5mm, ae=5.8mm
Cooling Method	Water-based Emulsion
Test Conclusion	Test successful, tool life increased by 30% compared to competitor.



Workpiece after Machining

Competitor

GESAC

050100150

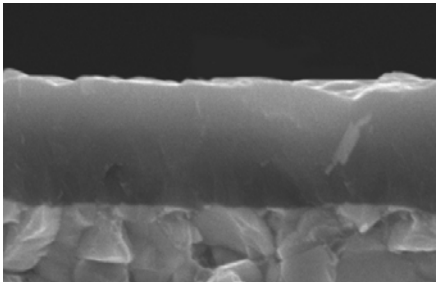
100

130

+30%

Workpiece after Machining

Milling Insert Grade
Grades for Machining M&S Materials

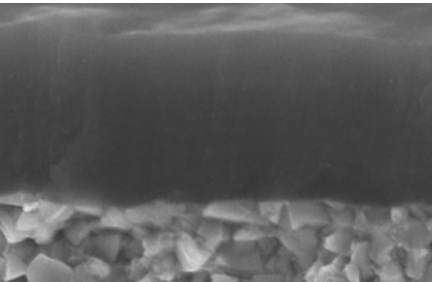


Grades for Machining M&S Materials: GMM7130

- High-temperature resistant and strong anti-oxidation coating, combined with newly-developed superior toughness and thermal-conductivity substrate, ensuring excellent tool life and machining stability under both dry and wet cutting conditions.
- Suitable for difficult-to-cut materials such as stainless steel and high-temperature alloys under medium to rough cutting conditions.



Milling Insert Grade
Grades for Machining P-Type Materials



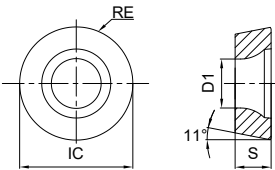
Grades for Machining P-Type Materials: GA4425

- New AlTi nano-multilayer coating with high-strength submicron substrate ensures superior edge stability for multi-material machining.
- Ideal for semi-rough to rough machining of general-purpose materials.



Profile Milling

RP*S
Positive-type Economic Profile Milling Inserts



Order No.		Dimensions (mm)				Coated Cemented Carbide										Cemented Carbide	Cermet		
		IC	S	RE	D1	GA4225	GA4230	GA4325	GA4330	GP4225	GP2115	GMM7130	GM4240	GK4125	GK2115	GSM7130	GHM7120	GN9125	GP01TM
	RPMT10T3M0-SM	10	3.97	5	4.3							●							
	RPMT1204M0-SM	12	4.76	6	4.4							●							
	RPMT1204M0T-SH	12	4.76	6	4.4							●							

●Stock ○Available Upon Order

RP*S Series Geometry

Stainless Steel / Titanium Alloy / Super Alloy Medium Load Cutting	Stainless Steel / Titanium Alloy Heavy Load Cutting
SM	SH
Medium rake angle and medium cutting edge width design Balancing blade strength and sharpness	Medium rake angle and large cutting edge width design Provides higher cutting edge strength

RP Series
Profile Milling Tools for Difficult-to-Machine Materials

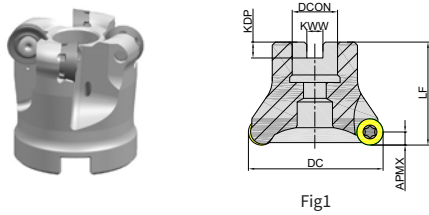
RP*S Insert + MPS100 Tool Holder

- The high-strength cutting edge and sharp rake face design ensure smooth cutting while allowing the cutting edge to handle various unstable machining conditions with ease
- The streamlined chipbreaker combined with the dam-like protrusion design ensures that even at the later stage of processing, there is still sufficient structural strength, thereby extending the service lifeof the insert
- The insert's Great Wall-style indexable design ensures precise utilization of the entire cutting edge, smooth handling, durability, and reduced operating costs

Profile Milling

MPS100

Mandrel Type



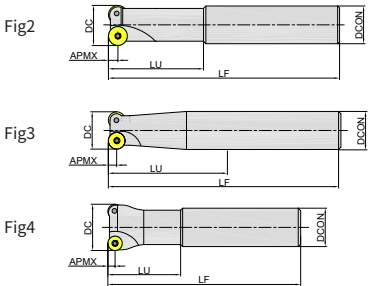
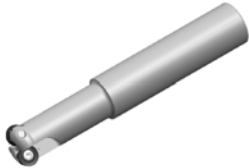
Order No.	Diameter	Teeth	Dimensions (mm)					Maximum Cutting Depth APMX	Matched Insert	Internal Cooling	Diagram	Weight (KG)	In Stock
			DC	DCON	LF	KWW	KDP						
MPS100-040R05A16-RP10-DB	40	5	40	16	40	8.4	5.6	5	RPMT10T3M0-S*	✓	Fig1	0.19	●
MPS100-040R04A16-RP12-DB	40	4	40	16	40	8.4	5.6	6	RPMT1204M0-S*	✓	Fig1	0.17	●
MPS100-042R06A16-RP10-DB	42	6	42	16	40	8.4	5.6	5	RPMT10T3M0-S*	✓	Fig1	0.22	●
MPS100-050R06A22-RP10-DB	50	6	50	22	40	10.4	6.3	5	RPMT10T3M0-S*	✓	Fig1	0.29	●
MPS100-050R04A22-RP12-DB	50	4	50	22	40	10.4	6.3	6	RPMT1204M0-S*	✓	Fig1	0.26	●
MPS100-050R05A22-RP12-DB	50	5	50	22	40	10.4	6.3	6	RPMT1204M0-S*	✓	Fig1	0.25	●
MPS100-052R06A22-RP10-DB	52	6	52	22	40	10.4	6.3	5	RPMT10T3M0-S*	✓	Fig1	0.32	●
MPS100-052R05A22-RP12-DB	52	5	52	22	40	10.4	6.3	6	RPMT1204M0-S*	✓	Fig1	0.30	●
MPS100-063R06A22-RP12-DB	63	6	63	22	40	10.4	6.3	6	RPMT1204M0-S*	✓	Fig1	0.41	●
MPS100-066R07A22-RP12-DB	66	7	66	22	40	10.4	6.3	6	RPMT1204M0-S*	✓	Fig1	0.48	●
MPS100-080R05A27-RP12-DB	80	5	80	27	50	12.4	7	6	RPMT1204M0-S*	✓	Fig1	0.92	●
MPS100-080R07A27-RP12-DB	80	7	80	27	50	12.4	7	6	RPMT1204M0-S*	✓	Fig1	0.93	●
MPS100-100R08A32-RP12-DB	100	8	100	32	50	14.4	8	6	RPMT1204M0-S*	✓	Fig1	1.59	●

●Stock ○Available Upon Order

Profile Milling

MPS100

Cylindrical Straight Shank Type



Order No.	Diameter	Teeth	Dimensions (mm)				Maximum Cutting Depth APMX	Matched Insert	Internal Cooling	Diagram	Weight (KG)	In Stock
			DC	DCON	LF	KDP						
MPS100-020R02P20-RP10-DB	20	2	20	20	150	50	5	RPMT10T3M0-S*	✓	Fig2	0.30	●
MPS100-020R02P20-RP10L-DB	20	2	20	20	200	60	5	RPMT10T3M0-S*	✓	Fig2	0.41	●
MPS100-025R03P25-RP10-DB	25	3	25	25	150	60	5	RPMT10T3M0-S*	✓	Fig3	0.48	●
MPS100-025R03P25-RP10L-DB	25	3	25	25	220	60	5	RPMT10T3M0-S*	✓	Fig3	0.73	●
MPS100-025R02P25-RP12-DB	25	2	25	25	150	60	6	RPMT1204M0-S*	✓	Fig3	0.46	●
MPS100-032R04P32-RP10-DB	32	4	32	32	160	60	5	RPMT10T3M0-S*	✓	Fig2	0.87	●
MPS100-032R04P32-RP10L-DB	32	4	32	32	220	70	5	RPMT10T3M0-S*	✓	Fig2	1.21	●
MPS100-032R03P32-RP12S-DB	32	3	32	32	120	60	6	RPMT1204M0-S*	✓	Fig3	0.62	●
MPS100-032R03P32-RP12-DB	32	3	32	32	160	60	6	RPMT1204M0-S*	✓	Fig3	0.86	●
MPS100-032R03P32-RP12L-DB	32	3	32	32	220	70	6	RPMT1204M0-S*	✓	Fig3	1.22	●
MPS100-035R04P32-RP10-DB	35	4	35	32	160	60	5	RPMT10T3M0-S*	✓	Fig4	0.91	●
MPS100-040R04P32-RP12-DB	40	4	40	32	160	35	6	RPMT1204M0-S*	✓	Fig4	0.93	●

●Stock ○Available Upon Order

Profile Milling

MPS100
Replaceable Tool Bit

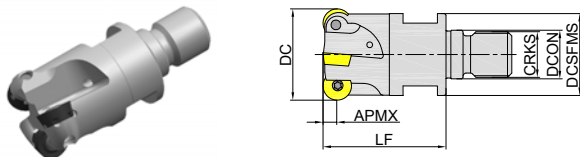
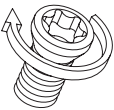
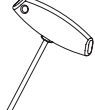


Fig5

Order No.	Diameter	Teeth	Dimensions (mm)					Maximum Cutting Depth APMX	Matched Insert	Internal Cooling	Diagram	Weight (KG)	In Stock
			DC	DCON	DCSFMS	LF	CRKS						
MPS100-020R02M10-RP10-DB	20	2	20	10.5	18	30	10	5	RPMT10T3M0-S*	✓	Fig5	0.05	●
MPS100-025R03M12-RP10-DB	25	3	25	12.5	23	35	12	5	RPMT10T3M0-S*	✓	Fig5	0.08	●
MPS100-025R02M12-RP12-DB	25	2	25	12.5	22.5	35	12	6	RPMT1204M0-S*	✓	Fig5	0.08	●
MPS100-032R04M16-RP10-DB	32	4	32	17	28.6	43	16	5	RPMT10T3M0-S*	✓	Fig5	0.19	●
MPS100-032R03M16-RP12-DB	32	3	32	17	28	43	16	6	RPMT1204M0-S*	✓	Fig5	0.17	●
MPS100-035R03M16-RP12-DB	35	3	35	17	29	43	16	6	RPMT1204M0-S*	✓	Fig5	0.20	●
MPS100-040R04M16-RP12-DB	40	4	40	17	29	43	16	6	RPMT1204M0-S*	✓	Fig5	0.22	●

●Stock ○Available Upon Order

List of Tool Accessories

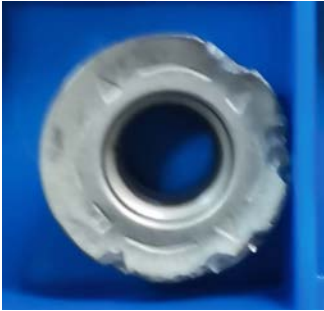
Parts Name		Insert Screw	Recommended Torque	Insert Screw Wrench	
Suitable Insert	Shape				
	RPMT10T3M0-S*(DC=20)	Order No. SI60M040080-05306Q	3.5 N·m	TT15KQ	—
	RPMT10T3M0-S*(DC ≥ 25)	Order No. SI60M040089-05306Q	3.5 N·m	TT15KQ	—
	RPMT1204M0-S*	Order No. SI60M040100-05712Q	3.5 N·m	TT15KQ	TT15TQ

Recommended Cutting Data

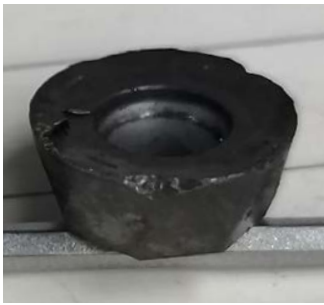
Machined Material		Material Hardness	Grade	Cutting Speed Vc(m/min)	Specifications	Feed/edge fz (mm)	
						Medium Cutting (M)	Heavy Cutting (H)
M	Stainless Steel (Ferritic, Martensitic)	HRC20-35	GMM7130	220 (150-280)	10 12	0.4 (0.2-0.5)	0.6 (0.4-0.8)
	Stainless Steel (Austenitic, Duplex)	HRC20-35	GMM7130	180 (100-230)	10 12	0.3 (0.1-0.5)	0.5 (0.3-0.7)
S	Heat-resistant Alloys, Titanium Alloys	HRC30-45	GMM7130	40 (30-65)	10 12	0.2 (0.1-0.3)	—

Applications

Case 1 Rough Machining of Superalloy Blades

Workpiece Name	Superalloy Blades	  Competitor GESAC 05101520 Processing Time/min Performance Equivalent 
Tool Specification	RPMT1204M0-SM	
Grade	GMM7130	
Workpiece Material	GH4169(40HRC)	
Cutting Speed	40m/min	
Feed per Tooth	0.3mm/z	
Cutting Depth	ap=1mm	
Cutting Method	Blade Profile Copy Milling	
Cooling Method	Water-based Emulsion	

Case 2 Rough Machining of Stainless Steel Blades

Workpiece Name	Turbine Blade	  Competitor GESAC 020406080 Processing Time/min 25% 
Tool Specification	RPMT1204M0-SM	
Grade	GMM7130	
Workpiece Material	17-4PH(32HRC)	
Cutting Speed	220m/min	
Feed per Tooth	0.55mm/z	
Cutting Depth	ap=1mm	
Cutting Method	Blade Profile Copy Milling	
Cooling Method	Dry	



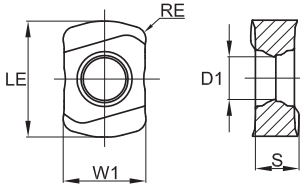
LNM series
Universal Negative Four Edges High-Feed Milling Tools

LNM Insert + MKF115 Tool Holder

- Suitable for rapid feed processing of cavities and sidewalls in industries such as molds and aviation
- Rich groove types and brand combinations to meet the processing needs of various materials
- Negative 4-blade structure+fast feed dedicated groove for high efficiency, high economy, and high stability processing

Fast Feed Milling

LNMX
Negative Four Edged Fast Feed Milling Inserts



Order No.		Dimensions (mm)					Coated Cemented Carbide										Cemented Carbide	Cermet		
		LE	W1	S	D1	RE	GA4225	GA4230	GA4325	GA4330	GP4225	GP2115	GMM7130	GM4240	GK4125	GK2115	GSM7130	GHM7120	GN9125	GP01TM
	LNMX090603-GL	9	6.3	3.4	3.3	1						●								
	LNMX120705-GL	11.9	9.1	4.2	4	1.5						●								
	LNMX090603-GM	9	6.3	3.4	3.3	1						●								
	LNMX120705-GM	11.9	9.1	4.2	4	1.5						●								

●Stock ○Available Upon Order

LNMX Series Geometry

Light Duty of General Materials	Medium Duty of General Materials
	
GL	GM
	
Low cutting force, suitable for machining of stainless steel, titanium alloy, and light duty machining.	Under general working conditions, to achieve high-stability machining.

Fast Feed Milling

MKF115
Mandrel Type

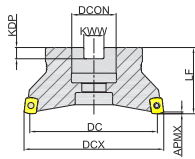


Fig1

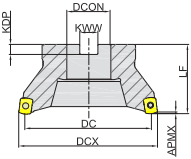


Fig2

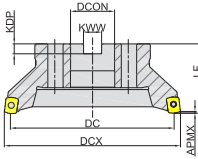


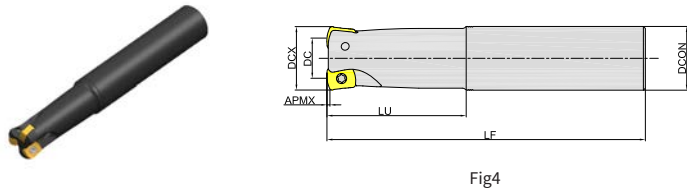
Fig3

Order No.	Diameter	Teeth	Dimensions (mm)						Maximum Cutting Depth APMX	Matched Insert	Internal Cooling	Diagram	Weight (KG)	In Stock
			DC	DCX	DCON	LF	KWW	KDP						
MKF115-040R04A16-LN12	40	4	30	40	16	40	8.4	5.6	1.5	LNMX12	✓	Fig1	0.18	●
MKF115-040R05A16-LN09	40	5	32	40	16	40	8.4	5.6	1	LNMX09	✓	Fig1	0.20	●
MKF115-040R05A16-LN12	40	5	30	40	16	40	8.4	5.6	1.5	LNMX12	✓	Fig1	0.18	●
MKF115-040R06A16-LN09	40	6	32	40	16	40	8.4	5.6	1	LNMX09	✓	Fig1	0.20	●
MKF115-050R06A22-LN09	50	6	42	50	22	40	10.4	6.3	1	LNMX09	✓	Fig1	0.34	●
MKF115-050R06A22-LN12	50	6	40	50	22	40	10.4	6.3	1.5	LNMX12	✓	Fig1	0.30	●
MKF115-050R07A22-LN12	50	7	40	50	22	40	10.4	6.3	1.5	LNMX12	✓	Fig1	0.30	●
MKF115-050R08A22-LN09	50	8	42	50	22	40	10.4	6.3	1	LNMX09	✓	Fig1	0.34	●
MKF115-052R06A22-LN12	52	6	42	52	22	40	10.4	6.3	1.5	LNMX12	✓	Fig1	0.32	●
MKF115-052R07A22-LN09	52	7	44	52	22	40	10.4	6.3	1	LNMX09	✓	Fig1	0.35	●
MKF115-052R07A22-LN12	52	7	42	52	22	40	10.4	6.3	1.5	LNMX12	✓	Fig1	0.31	●
MKF115-052R08A22-LN09	52	8	44	52	22	40	10.4	6.3	1	LNMX09	✓	Fig1	0.35	●
MKF115-063R06A22-LN12	63	6	53	63	22	40	10.4	6.3	1.5	LNMX12	✓	Fig1	0.39	●
MKF115-063R07A22-LN09	63	7	55	63	22	40	10.4	6.3	1	LNMX09	✓	Fig1	0.47	●
MKF115-063R08A22-LN12	63	8	53	63	22	40	10.4	6.3	1.5	LNMX12	✓	Fig1	0.40	●
MKF115-063R09A22-LN09	63	9	55	63	22	40	10.4	6.3	1	LNMX09	✓	Fig1	0.45	●
MKF115-080R08A27-LN12	80	8	70	80	27	50	12.4	7	1.5	LNMX12	✓	Fig1	0.98	●
MKF115-080R10A27-LN12	80	10	70	80	27	50	12.4	7	1.5	LNMX12	✓	Fig1	0.96	●
MKF115-100R09A32-LN12	100	9	90	100	32	50	14.4	8	1.5	LNMX12	✓	Fig1	1.41	●
MKF115-100R11A32-LN12	100	11	90	100	32	50	14.4	8	1.5	LNMX12	✓	Fig1	1.39	●
MKF115-125R11B40-LN12	125	11	115	125	40	63	16.4	9	1.5	LNMX12	×	Fig2	2.40	●
MKF115-125R12B40-LN12	125	12	115	125	40	63	16.4	9	1.5	LNMX12	×	Fig2	2.39	●
MKF115-125R14B40-LN12	125	14	115	125	40	63	16.4	9	1.5	LNMX12	×	Fig2	2.37	●

●Stock ○Available Upon Order

Fast Feed Milling

MKF115
Cylindrical Straight Shank Type

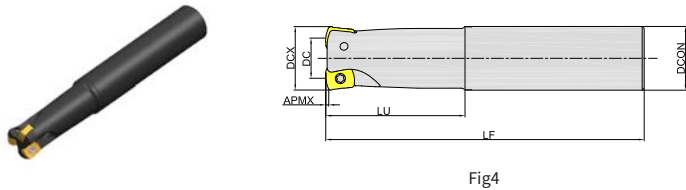


Order No.	Diameter	Teeth	Dimensions (mm)					Maximum Cutting Depth APMX	Matched Insert	Internal Cooling	Diagram	Weight (KG)	In Stock
			DC	DCX	DCON	LF	LU						
MKF115-016R02P15-LN09	16	2	8	16	15	150	40	1	LNMX09	✓	Fig4	0.19	○
MKF115-016R02P15-LN09-DB	16	2	8	16	15	150	40	1	LNMX09	✓	Fig4	0.19	●
MKF115-016R02P15-LN09L-DB	16	2	8	16	15	200	40	1	LNMX09	✓	Fig4	0.27	●
MKF115-016R02P16-LN09	16	2	8	16	16	150	40	1	LNMX09	✓	Fig4	0.21	○
MKF115-016R02P16-LN09-DB	16	2	8	16	16	150	40	1	LNMX09	✓	Fig4	0.21	●
MKF115-016R02P16-LN09S	16	2	8	16	16	100	30	1	LNMX09	✓	Fig4	0.14	○
MKF115-016R02P16-LN09S-DB	16	2	8	16	16	100	30	1	LNMX09	✓	Fig4	0.14	●
MKF115-017R02P16-LN09	17	2	9	17	16	150	40	1	LNMX09	✓	Fig4	0.21	○
MKF115-017R02P16-LN09-DB	17	2	9	17	16	150	40	1	LNMX09	✓	Fig4	0.21	●
MKF115-017R02P16-LN09L-DB	17	2	9	17	16	200	40	1	LNMX09	✓	Fig4	0.29	●
MKF115-018R02P16-LN09	18	2	10	18	16	150	40	1	LNMX09	✓	Fig4	0.21	○
MKF115-018R02P16-LN09-DB	18	2	10	18	16	150	40	1	LNMX09	✓	Fig4	0.21	●
MKF115-020R02P20-LN09L	20	2	12	20	20	200	70	1	LNMX09	✓	Fig4	0.43	●
MKF115-020R03P20-LN09	20	3	12	20	20	160	60	1	LNMX09	✓	Fig4	0.32	○
MKF115-020R03P20-LN09-DB	20	3	12	20	20	160	60	1	LNMX09	✓	Fig4	0.32	●
MKF115-020R03P20-LN09L-DB	20	3	12	20	20	200	70	1	LNMX09	✓	Fig4	0.40	●
MKF115-020R03P20-LN09S	20	3	12	20	20	130	50	1	LNMX09	✓	Fig4	0.26	●
MKF115-020R04P20-LN09	20	4	12	20	20	160	60	1	LNMX09	✓	Fig4	0.32	○
MKF115-020R04P20-LN09-DB	20	4	12	20	20	160	60	1	LNMX09	✓	Fig4	0.32	●
MKF115-020R04P20-LN09L-DB	20	4	12	20	20	200	70	1	LNMX09	✓	Fig4	0.41	●
MKF115-020R04P20-LN09S-DB	20	4	12	20	20	130	50	1	LNMX09	✓	Fig4	0.26	●
MKF115-021R03P20-LN09	21	3	13	21	20	160	60	1	LNMX09	✓	Fig4	0.32	●
MKF115-021R03P20-LN09L-DB	21	3	13	21	20	200	60	1	LNMX09	✓	Fig4	0.41	●
MKF115-025R02P25-LN12	25	2	15	25	25	150	70	1.5	LNMX12	✓	Fig4	0.47	●
MKF115-025R03P25-LN09L	25	3	17	25	25	220	80	1	LNMX09	✓	Fig4	0.72	●
MKF115-025R03P25-LN12	25	3	15	25	25	150	70	1.5	LNMX12	✓	Fig4	0.46	●
MKF115-025R03P25-LN12L	25	3	15	25	25	200	80	1.5	LNMX12	✓	Fig4	0.63	●
MKF115-025R04P24-LN09	25	4	17	25	24	180	60	1	LNMX09	✓	Fig4	0.55	●
MKF115-025R04P25-LN09	25	4	17	25	25	180	60	1	LNMX09	✓	Fig4	0.58	●
MKF115-025R04P25-LN09-DB	25	4	17	25	25	180	60	1	LNMX09	✓	Fig4	0.59	●

Note: Ending with “-DB” is an electroplated tool. ●Stock ○Available Upon Order

Fast Feed Milling

MKF115
Cylindrical Straight Shank Type

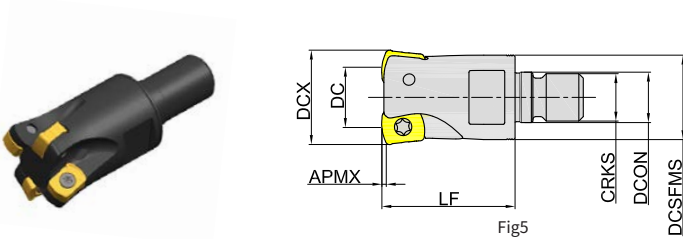


Order No.	Diameter	Teeth	Dimensions (mm)					Maximum Cutting Depth APMX	Matched Insert	Internal Cooling	Diagram	Weight (KG)	In Stock
			DC	DCX	DCON	LF	LU						
MKF115-025R04P25-LN09-DB	25	4	17	25	25	180	60	1	LNMX09	✓	Fig4	0.59	●
MKF115-025R04P25-LN09L-DB	25	4	17	25	25	200	70	1	LNMX09	✓	Fig4	0.65	●
MKF115-025R04P25-LN09S	25	4	17	25	25	140	50	1	LNMX09	✓	Fig4	0.45	●
MKF115-025R05P25-LN09	25	5	17	25	25	180	60	1	LNMX09	✓	Fig4	0.58	○
MKF115-025R05P25-LN09-DB	25	5	17	25	25	180	60	1	LNMX09	✓	Fig4	0.58	●
MKF115-025R05P25-LN09L-DB	25	5	17	25	25	220	80	1	LNMX09	✓	Fig4	0.71	●
MKF115-025R05P25-LN09S-DB	25	5	17	25	25	140	50	1	LNMX09	✓	Fig4	0.45	●
MKF115-026R03P25-LN12L	26	3	16	26	25	220	90	1.5	LNMX12	✓	Fig4	0.72	●
MKF115-032R03P32-LN12	32	3	22	32	32	160	70	1.5	LNMX12	✓	Fig4	0.85	●
MKF115-032R03P32-LN12L	32	3	22	32	32	220	90	1.5	LNMX12	✓	Fig4	1.19	●
MKF115-032R04P32-LN09S	32	4	24	32	32	150	60	1	LNMX09	✓	Fig4	0.80	●
MKF115-032R04P32-LN12	32	4	22	32	32	160	70	1.5	LNMX12	✓	Fig4	0.84	●
MKF115-032R04P32-LN12L	32	4	22	32	32	220	90	1.5	LNMX12	✓	Fig4	1.18	●
MKF115-032R05P32-LN09	32	5	24	32	32	200	70	1	LNMX09	✓	Fig4	1.08	●
MKF115-032R05P32-LN09S	32	5	24	32	32	150	60	1	LNMX09	✓	Fig4	0.80	●
MKF115-033R05P32-LN09	33	5	25	33	32	200	70	1	LNMX09	✓	Fig4	1.10	●
MKF115-035R04P32-LN09	35	4	27	35	32	200	50	1	LNMX09	✓	Fig4	1.14	●
MKF115-035R04P32-LN12	35	4	25	35	32	160	50	1.5	LNMX12	✓	Fig4	0.87	●
MKF115-035R05P32-LN09	35	5	27	35	32	200	50	1	LNMX09	✓	Fig4	1.13	●
MKF115-040R04P32-LN12	40	4	30	40	32	180	50	1.5	LNMX12	✓	Fig4	1.02	●
MKF115-040R04P32-LN12L	40	4	30	40	32	250	50	1.5	LNMX12	✓	Fig4	1.44	●
MKF115-040R05P32-LN12	40	5	30	40	32	180	50	1.5	LNMX12	✓	Fig4	1.02	●
MKF115-040R05P32-LN12L	40	5	30	40	32	250	50	1.5	LNMX12	✓	Fig4	1.43	●
MKF115-040R06P32-LN09L	40	6	32	40	32	220	50	1	LNMX09	✓	Fig4	1.26	●
MKF115-040R06P32-LN09S	40	6	32	40	32	150	50	1	LNMX09	✓	Fig4	0.85	●

Note: Ending with “-DB” is an electroplated tool. ●Stock ○Available Upon Order

Fast Feed Milling

MKF115
Replaceable Tool Bit



Order No.	Diameter	Teeth	Dimensions (mm)						Maximum Cutting Depth APMX	Matched Insert	Internal Cooling	Diagram	Weight (KG)	In Stock
			DC	DCX	DCSFMS	DCON	LF	CRKS						
MKF115-016R02M08-LN09	16	2	8	16	14.5	8.5	25.5	M08	1	LNMX09	✓	Fig5	0.03	○
MKF115-016R02M08-LN09-DB	16	2	8	16	14.5	8.5	25.5	M08	1	LNMX09	✓	Fig5	0.03	●
MKF115-017R02M08-LN09	17	2	8	17	14.5	8.5	25.5	M08	1	LNMX09	✓	Fig5	0.03	○
MKF115-017R02M08-LN09-DB	17	2	8	17	14.5	8.5	25.5	M08	1	LNMX09	✓	Fig5	0.03	●
MKF115-020R03M10-LN09	20	3	12	20	18	10.5	31	M10	1	LNMX09	✓	Fig5	0.05	●
MKF115-021R03M10-LN09	21	3	13	21	18	10.5	31	M10	1	LNMX09	✓	Fig5	0.05	●
MKF115-025R02M12-LN12	25	2	15	25	23	12.5	35	M12	1.5	LNMX12	✓	Fig5	0.09	●
MKF115-025R03M12-LN09	25	3	17	25	21	12.5	35	M12	1	LNMX09	✓	Fig5	0.09	●
MKF115-025R03M12-LN12	25	3	15	25	23	12.5	35	M12	1.5	LNMX12	✓	Fig5	0.09	●
MKF115-025R04M12-LN09	25	4	17	25	21	12.5	35	M12	1	LNMX09	✓	Fig5	0.09	●
MKF115-026R03M12-LN12	26	3	15	26	23	12.5	35	M12	1.5	LNMX12	✓	Fig5	0.09	●
MKF115-026R04M12-LN09	26	4	18	26	21	12.5	35	M12	1	LNMX09	✓	Fig5	0.09	●
MKF115-030R03M16-LN12	30	3	20	30	28.5	17	45	M16	1.5	LNMX12	✓	Fig5	0.19	●
MKF115-032R03M16-LN12	32	3	22	32	28.5	17	45	M16	1.5	LNMX12	✓	Fig5	0.21	●
MKF115-032R04M16-LN09	32	4	24	32	28.5	17	42	M16	1	LNMX09	✓	Fig5	0.20	●
MKF115-032R04M16-LN12	32	4	22	32	28.5	17	45	M16	1.5	LNMX12	✓	Fig5	0.19	●
MKF115-032R05M16-LN09	32	5	24	32	28.5	17	42	M16	1	LNMX09	✓	Fig5	0.19	○
MKF115-032R05M16-LN09-DB	32	5	24	32	28.5	17	42	M16	1	LNMX09	✓	Fig5	0.19	●
MKF115-035R03M16-LN12	35	3	25	35	28.5	17	45	M16	1.5	LNMX12	✓	Fig5	0.22	●
MKF115-035R04M16-LN12	35	4	25	35	28.5	17	45	M16	1.5	LNMX12	✓	Fig5	0.21	●
MKF115-035R05M16-LN09	35	5	27	35	28.5	17	45	M16	1	LNMX09	✓	Fig5	0.22	●
MKF115-040R04M16-LN12	40	4	30	40	28.5	17	45	M16	1.5	LNMX12	✓	Fig5	0.24	●
MKF115-040R05M16-LN12	40	5	30	40	28.5	17	45	M16	1.5	LNMX12	✓	Fig5	0.23	●
MKF115-040R06M16-LN09	40	6	32	40	28.5	17	45	M16	1	LNMX09	✓	Fig5	0.25	●
MKF115-042R05M16-LN12	42	5	32	42	28.5	17	45	M16	1.5	LNMX12	✓	Fig5	0.24	●

Note: Ending with “-DB” is an electroplated tool. ●Stock ○Available Upon Order

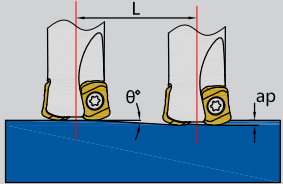
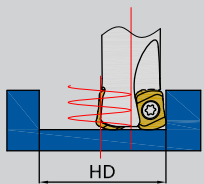
List of Tool Accessories

Parts Name		Insert Screw	Recommended Torque	Insert Screw Wrench	
Suitable Insert	Shape				
	LNMX09	Order No. SI60M030065-03906IB	1.2 N·m	TI08KB	--
	LNMX12	Order No. SI60M035080-04805IB	3 N·m	TI10KB	TI10TB

Machining Program Parameters

Insert Specifications	Approximate Programmed Fillet R (mm)	Cutting Residue K (mm)	Cut-in Amount (mm)	Diagram
LNMX09	1.6	0.56	0	
	1.9 (Recommend)	0.47	0	
	2.2	0.37	0.05	
	2.5	0.28	0.14	
LNMX12	2.4	0.65	0	
	2.7 (Recommend)	0.54	0	
	3.0	0.43	0.04	
	3.3	0.32	0.12	

Parameters for Ramp Milling and Helical Milling

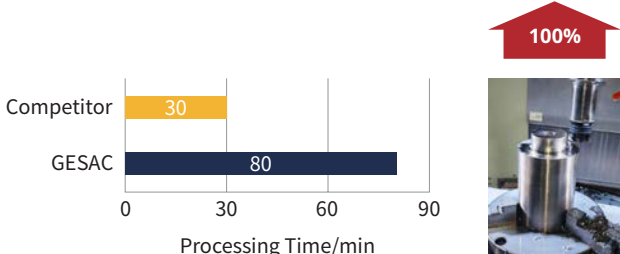
Insert Specifications	Cutter Diameter D(mm)	 Ramp Milling			 Helical Interpolation Milling	
		Maximum Ramp Angle θ(°)	Maximum Cutting Depth Ap (mm)	Minimum Tool Path length L (mm) for Machining to the Maximum Cutting Depth	Minimum Diameter HD Min (mm)	Maximum Diameter HD Max(mm)
LNMX09	16	2	1	29	23	30
	17	1.8	1	32	25	32
	18	1.7	1	34	27	34
	20	1.5	1	38	31	38
	21	1.4	1	41	33	40
	25	1.1	1	52	41	48
	26	1.1	1	52	43	50
	32	0.8	1	72	55	62
	33	0.8	1	72	57	64
	35	0.8	1	72	61	68
	40	0.7	1	82	71	78
	50	0.5	1	115	91	98
	52	0.5	1	115	95	102
	63	0.4	1	143	117	124
LNMX12	25	1.3	1.5	66	35	48
	26	1.3	1.5	66	37	50
	32	1.2	1.5	72	49	62
	35	1.1	1.5	78	55	68
	40	1.1	1.5	78	65	78
	50	0.9	1.5	95	85	98
	52	0.9	1.5	95	89	102
	63	0.75	1.5	115	111	124
	80	0.55	1.5	156	145	158
	100	0.45	1.5	191	185	198
	125	0.35	1.5	246	235	248

Recommended Cutting Data

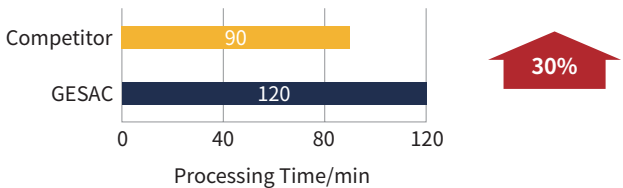
Machined Material		Material Hardness	Grade	Specifications	Recommended Cutting Depth Ap (mm)	Cutting Speed Vc(m/min)	Feed/edge fz (mm)	
							Medium Cutting (M)	Heavy Cutting (H)
M	Stainless Steel (Ferritic, Martensitic)	≤ HB270	GMM7130	LNMX09	1	120 (80-160)	0.8 (0.6-1.2)	1 (0.8-1.2)
				LNMX12	1.5			
	Stainless Steel (Austenitic, Duplex)	≤ HB270	GMM7130	LNMX09	1	100 (60-140)	0.6 (0.4-0.8)	0.8 (0.6-1.0)
				LNMX12	1.5			
S	Heat-resistant Alloys, Titanium Alloys	HRC30-45	GMM7130	LNMX09	1	50 (30-70)	0.4 (0.2-0.6)	0.5 (0.3-0.7)
				LNMX12	1.5			

Applications

Case 1 Joint machiningt

Workpiece Name	Joint machininggt	 Competitor-30min  GESAC-80min 
Tool Specification	LNMX090603-GM	
Grade	GMM7130	
Workpiece Material	GH3625	
Cutting Speed	40m/min	
Feed per Tooth	0.4mm/z	
Cutting Depth	0.3mm	
Cutting Method	Rough Milling	
Cooling Method	Water-based Emulsion	

Case 2 Slideway machiningt

Workpiece Name	Slideway machiningt	
Tool Specification	LNMX090603-GM	
Grade	GMM7130	
Workpiece Material	15-5PH	
Cutting Speed	125m/min	
Feed per Tooth	0.4mm/z	
Cutting Depth	0.4mm	
Cutting Method	Slot Milling	
Cooling Method	Water-based Emulsion	



SOE (M)T Series
Positive Four Edges High-Feed Milling Tools

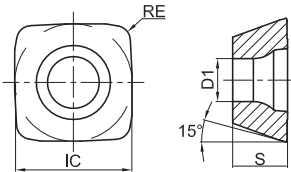
SOE(M)T-SM Insert +MKT113 Tool Holder | SOMT-ST Insert +MKT213 Tool Holder

- Positive rake angle machining ensures smooth cutting and stable processing
- Two-stage cutting edge design meets the requirements of different machining conditions
- The inclusion of a wiper edge design provides excellent surface quality during high-feed machining and side wall processing
- Special surface coating technology ensures a smooth cutting edge, reducing the accumulation of built-up edges
- Primarily used for rough machining of difficult-to-process materials

Fast Feed Milling

SOE (M)T

Positive Four-Edged Fast-Feed Milling Insert



Order No.		Dimensions (mm)				Coated Cemented Carbide										Cemented Carbide	Cermet		
		IC	S	D1	RE	GA4225	GA4230	GA4325	GA4330	GP4225	GP2115	GMM7130	GM4240	GK4125	GK2115	GSM7130	GHM7120	GN9125	GP01TM
	SOET09T312-SM	9.525	3.97	4.2	1.2							●							
	SOMT09T312-SM	9.525	3.97	4.2	1.2							●							
	SOET120420-SM	12.7	4.76	4.4	2.0							●							
	SOMT120420-SM	12.7	4.76	4.4	2.0							●							
	SOMT090412-ST	9.525	4.76	4.0	1.2							●							
	SOMT120512-ST	12.7	5.56	4.4	1.2							●							

Note: ●Stock ○Available Upon Order

★ 1. SM slot shape inserts correspond to the MKT113 series tool.

★ 2. ST slot shape inserts correspond to the MKT213 series tool.

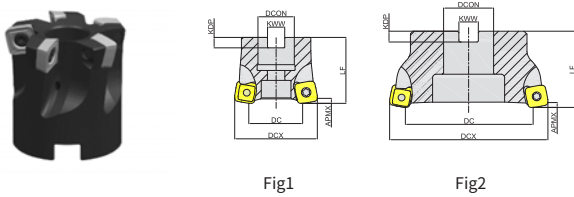
SOE(M)T Series Geometry

Cutting of difficult-to-machine materials	Cutting of difficult-to-machine materials
	
SM	ST
	
Positive rake angle, suitable for medium duty cutting	Gradual rake angle, suitable for medium duty cutting

Fast Feed Milling

MKT113

Mandrel Type



Order No.	Diameter	Teeth	Dimensions (mm)						Maximum Cutting Depth APMX	Matched Insert	Internal Cooling	Diagram	Weight (KG)	In Stock
			DC	DCX	DCON	LF	KWW	KDP						
MKT113-040R04A16-SO09	40	4	24.2	40	16	40	8.4	5.6	1.2	SOE(M)T09T3-SM	✓	Fig1	0.17	●
MKT113-040R05A16-SO09	40	5	24.2	40	16	40	8.4	5.6	1.2	SOE(M)T09T3-SM	✓	Fig1	0.18	●
MKT113-042R04A16-SO09	42	4	26.2	42	16	40	8.4	5.6	1.2	SOE(M)T09T3-SM	✓	Fig1	0.18	●
MKT113-042R05A16-SO09	42	5	26.2	42	16	40	8.4	5.6	1.2	SOE(M)T09T3-SM	✓	Fig1	0.19	●
MKT113-050R05A22-SO09	50	5	34.2	50	22	40	10.4	6.3	1.2	SOE(M)T09T3-SM	✓	Fig1	0.26	●
MKT113-050R06A22-SO09	50	6	34.2	50	22	40	10.4	6.3	1.2	SOE(M)T09T3-SM	✓	Fig1	0.27	●
MKT113-050R07A22-SO09	50	7	34.2	50	22	40	10.4	6.3	1.2	SOE(M)T09T3-SM	✓	Fig1	0.26	●
MKT113-050R05A22-SO12	50	5	29.6	50	22	40	10.4	6.3	1.4	SOE(M)T1204-SM	✓	Fig1	0.22	●
MKT113-052R06A22-SO09	52	6	36.2	52	22	40	10.4	6.3	1.2	SOE(M)T09T3-SM	✓	Fig1	0.28	●
MKT113-052R07A22-SO09	52	7	36.2	52	22	40	10.4	6.3	1.2	SOE(M)T09T3-SM	✓	Fig1	0.28	●
MKT113-052R05A22-SO12	52	5	31.6	52	22	40	10.4	6.3	1.4	SOE(M)T1204-SM	✓	Fig1	0.24	●
MKT113-063R06A22-SO09	63	6	47.2	63	22	40	10.4	6.3	1.2	SOE(M)T09T3-SM	✓	Fig1	0.48	●
MKT113-063R08A22-SO09	63	8	47.2	63	22	40	10.4	6.3	1.2	SOE(M)T09T3-SM	✓	Fig1	0.48	●
MKT113-063R06A27-SO09	63	6	55.9	63	27	50	12.4	7	1.2	SOE(M)T09T3-SM	✓	Fig1	0.54	●
MKT113-063R08A27-SO09	63	8	55.9	63	27	50	12.4	7	1.2	SOE(M)T09T3-SM	✓	Fig1	0.56	●
MKT113-063R05A22-SO12	63	5	42.6	63	22	40	10.4	6.3	1.4	SOE(M)T1204-SM	✓	Fig1	0.42	●
MKT113-063R06A22-SO12	63	6	42.6	63	22	40	10.4	6.3	1.4	SOE(M)T1204-SM	✓	Fig1	0.42	●
MKT113-063R05A27-SO12	63	5	42.6	63	27	50	12.4	7	1.4	SOE(M)T1204-SM	✓	Fig1	0.52	●
MKT113-063R06A27-SO12	63	6	42.6	63	27	50	12.4	7	1.4	SOE(M)T1204-SM	✓	Fig1	0.52	●
MKT113-066R05A27-SO12	66	5	45.7	66	27	50	12.4	7	1.4	SOE(M)T1204-SM	✓	Fig1	0.5	●
MKT113-080R06A27-SO12	80	6	60	80	27	50	12.4	7	1.4	SOE(M)T1204-SM	✓	Fig1	0.83	●
MKT113-080R08A27-SO12	80	8	60	80	27	50	12.4	7	1.4	SOE(M)T1204-SM	✓	Fig1	0.88	●
MKT113-100R07B32-SO12	100	7	79.7	100	32	50	14.4	8	1.4	SOE(M)T1204-SM	×	Fig2	1.39	●
MKT113-125R07B40-SO12	125	7	104.7	125	40	63	16.4	9	1.4	SOE(M)T1204-SM	×	Fig2	2.52	●

●Stock ○Available Upon Order

Fast Feed Milling

MKT113
Cylindrical Straight Shank Type

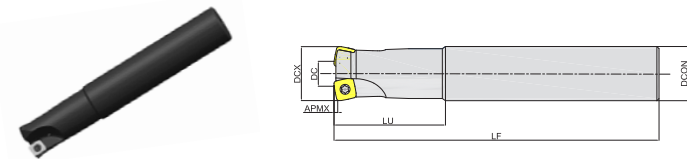


Fig3

Order No.	Diameter	Teeth	Dimensions (mm)					Maximum Cutting Depth APMX	Matched Insert	Internal Cooling	Diagram	Weight (KG)	In Stock
			DC	DCX	DCON	LF	LU						
MKT113-025R02P25-SO09S	25	2	9.3	25	25	110	40	1.2	SOE(M)T09T3-SM	✓	Fig3	0.35	●
MKT113-025R02P25-SO09	25	2	9.3	25	25	150	50	1.2	SOE(M)T09T3-SM	✓	Fig3	0.49	●
MKT113-025R02P25-SO09L	25	2	9.3	25	25	200	75	1.2	SOE(M)T09T3-SM	✓	Fig3	0.67	●
MKT113-025R03P25-SO09S	25	3	9.3	25	25	110	40	1.2	SOE(M)T09T3-SM	✓	Fig3	0.35	●
MKT113-025R03P25-SO09	25	3	9.3	25	25	150	50	1.2	SOE(M)T09T3-SM	✓	Fig3	0.49	●
MKT113-025R03P25-SO09-DB	25	3	9.3	25	25	150	50	1.2	SOE(M)T09T3-SM	✓	Fig3	0.49	●
MKT113-025R03P25-SO09L	25	3	9.3	25	25	200	75	1.2	SOE(M)T09T3-SM	✓	Fig3	0.67	●
MKT113-032R03P32-SO09S	32	3	16.2	32	32	120	40	1.2	SOE(M)T09T3-SM	✓	Fig3	0.63	●
MKT113-032R03P32-SO09	32	3	16.2	32	32	180	60	1.2	SOE(M)T09T3-SM	✓	Fig3	0.98	●
MKT113-032R03P32-SO09L	32	3	16.2	32	32	250	100	1.2	SOE(M)T09T3-SM	✓	Fig3	1.39	●
MKT113-032R04P32-SO09S	32	4	16.2	32	32	120	40	1.2	SOE(M)T09T3-SM	✓	Fig3	0.63	●
MKT113-032R04P32-SO09	32	4	16.2	32	32	180	60	1.2	SOE(M)T09T3-SM	✓	Fig3	0.99	●
MKT113-032R04P32-SO09L	32	4	16.2	32	32	250	100	1.2	SOE(M)T09T3-SM	✓	Fig3	1.38	●
MKT113-032R02P32-SO12S	32	2	11.7	32	32	120	40	1.4	SOE(M)T1204-SM	✓	Fig3	0.64	●
MKT113-032R02P32-SO12	32	2	11.7	32	32	180	60	1.4	SOE(M)T1204-SM	✓	Fig3	0.99	●
MKT113-032R02P32-SO12L	32	2	11.7	32	32	250	100	1.4	SOE(M)T1204-SM	✓	Fig3	1.39	●
MKT113-032R03P32-SO12S	32	3	11.7	32	32	120	40	1.4	SOE(M)T1204-SM	✓	Fig3	0.62	●
MKT113-032R03P32-SO12	32	3	11.7	32	32	180	60	1.4	SOE(M)T1204-SM	✓	Fig3	0.98	●
MKT113-032R03P32-SO12L	32	3	11.7	32	32	250	100	1.4	SOE(M)T1204-SM	✓	Fig3	1.39	●
MKT113-035R04P32-SO09S	35	4	19.2	35	32	120	40	1.2	SOE(M)T09T3-SM	✓	Fig3	0.64	●
MKT113-035R04P32-SO09	35	4	19.2	35	32	180	40	1.2	SOE(M)T09T3-SM	✓	Fig3	1.03	●
MKT113-035R04P32-SO09L	35	4	19.2	35	32	250	40	1.2	SOE(M)T09T3-SM	✓	Fig3	1.45	●
MKT113-035R03P32-SO12S	35	3	14.7	35	32	120	40	1.4	SOE(M)T1204-SM	✓	Fig3	0.64	●
MKT113-035R03P32-SO12	35	3	14.7	35	32	180	40	1.4	SOE(M)T1204-SM	✓	Fig3	1	●
MKT113-035R03P32-SO12L	35	3	14.7	35	32	250	40	1.4	SOE(M)T1204-SM	✓	Fig3	1.42	●

Note: Ending with “-DB” is an electroplated tool. ●Stock ○Available Upon Order

Fast Feed Milling

MKT113
Replaceable Tool Bit

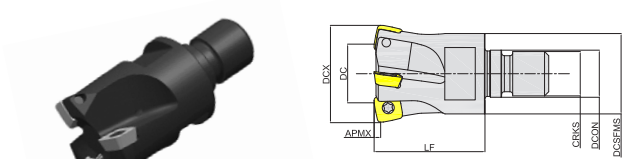


Fig4

Order No.	Diameter	Teeth	Dimensions (mm)						Maximum Cutting Depth APMX	Matched Insert	Internal Cooling	Diagram	Weight (KG)	In Stock
			DC	DCX	DCSFMS	DCON	LF	CRKS						
MKT113-025R02M12-SO09	25	2	9.3	25	23	12.5	35	M12	1.2	SOE(M)T09T3-SM	✓	Fig4	0.09	●
MKT113-025R03M12-SO09	25	3	9.3	25	23	12.5	35	M12	1.2	SOE(M)T09T3-SM	✓	Fig4	0.09	●
MKT113-025R03M12-SO09-DB	25	3	9.3	25	23	12.5	35	M12	1.2	SOE(M)T09T3-SM	✓	Fig4	0.09	●
MKT113-032R03M16-SO09	32	3	16.2	32	29	17	40	M16	1.2	SOE(M)T09T3-SM	✓	Fig4	0.17	●
MKT113-032R04M16-SO09	32	4	16.2	32	29	17	40	M16	1.2	SOE(M)T09T3-SM	✓	Fig4	0.17	●
MKT113-032R02M16-SO12	32	2	11.7	32	29	17	40	M16	1.4	SOE(M)T1204-SM	✓	Fig4	0.17	●
MKT113-032R03M16-SO12	32	3	11.7	32	29	17	40	M16	1.4	SOE(M)T1204-SM	✓	Fig4	0.16	●
MKT113-035R03M16-SO09	35	3	19.2	35	29	17	40	M16	1.2	SOE(M)T09T3-SM	✓	Fig4	0.18	●
MKT113-035R04M16-SO09	35	4	19.2	35	29	17	40	M16	1.2	SOE(M)T09T3-SM	✓	Fig4	0.17	●
MKT113-035R05M16-SO09	35	5	19.2	35	29	17	40	M16	1.2	SOE(M)T09T3-SM	✓	Fig4	0.19	●
MKT113-035R05M16-SO09-DB	35	5	19.2	35	29	17	40	M16	1.2	SOE(M)T09T3-SM	✓	Fig4	0.19	●
MKT113-035R03M16-SO12	35	3	14.7	35	29	17	40	M16	1.4	SOE(M)T1204-SM	✓	Fig4	0.17	●
MKT113-040R05M16-SO09	40	5	24.2	40	29	17	40	M16	1.2	SOE(M)T09T3-SM	✓	Fig4	0.2	●
MKT113-042R04M16-SO12	42	4	21.7	42	29	17	40	M16	1.4	SOE(M)T1204-SM	✓	Fig4	0.2	●

Note: Ending with “-DB” is an electroplated tool. ●Stock ○Available Upon Order

MKT113
Side-clamping Type

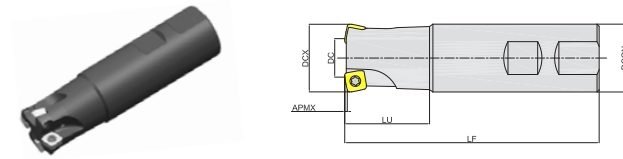


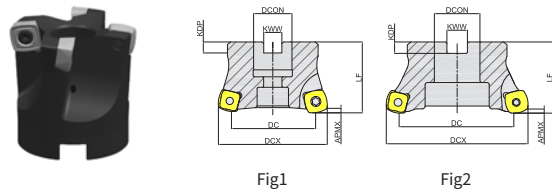
Fig5

Order No.	Diameter	Teeth	Dimensions (mm)					Maximum Cutting Depth APMX	Matched Insert	Internal Cooling	Diagram	Weight (KG)	In Stock
			DC	DCX	DCON	LF	LU						
MKT113-032R04W32-SO09S-DB	32	4	11.7	32	32	120	40	1.2	SOE(M)T09T3-SM	✓	Fig5	0.64	●
MKT113-035R05W32-SO09S-DB	35	5	19.2	35	32	120	40	1.2	SOE(M)T09T3-SM	✓	Fig5	0.66	●
MKT113-035R05W32-SO09-DB	35	5	19.2	35	32	180	40	1.2	SOE(M)T09T3-SM	✓	Fig5	1.03	●
MKT113-035R05W32-SO09L-DB	35	5	19.2	35	32	250	40	1.2	SOE(M)T09T3-SM	✓	Fig5	1.46	●

Note: Ending with “-DB” is an electroplated tool. ●Stock ○Available Upon Order

Fast Feed Milling

MKT213
Mandrel Type

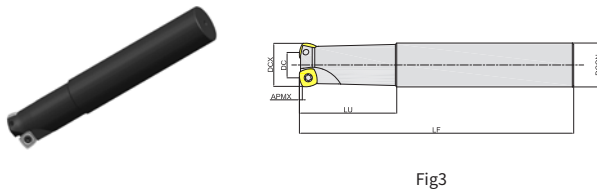


Order No.	Diameter	Teeth	Dimensions (mm)						Maximum Cutting Depth APMX	Matched Insert	Internal Cooling	Diagram	Weight (KG)	In Stock
			DC	DCX	DCON	LF	KWW	KDP						
MKT213-040R04A16-SO09	40	4	24.8	40	16	40	8.4	5.6	1.1	SOMT0904-ST	✓	Fig1	0.17	○
MKT213-040R05A16-SO09	40	5	24.8	40	16	40	8.4	5.6	1.1	SOMT0904-ST	✓	Fig1	0.18	○
MKT213-042R04A16-SO09	42	4	26.8	42	16	40	8.4	5.6	1.1	SOMT0904-ST	✓	Fig1	0.19	○
MKT213-042R05A16-SO09	42	5	26.8	42	16	40	8.4	5.6	1.1	SOMT0904-ST	✓	Fig1	0.2	○
MKT213-050R05A22-SO09	50	5	35.3	50	22	40	10.4	6.3	1.1	SOMT0904-ST	✓	Fig1	0.27	○
MKT213-050R06A22-SO09	50	6	35.3	50	22	40	10.4	6.3	1.1	SOMT0904-ST	✓	Fig1	0.27	○
MKT213-050R07A22-SO09	50	7	35.3	50	22	40	10.4	6.3	1.1	SOMT0904-ST	✓	Fig1	0.28	○
MKT213-050R05A22-SO12	50	5	29.5	50	22	40	10.4	6.3	1.8	SOMT1205-ST	✓	Fig1	0.24	●
MKT213-052R06A22-SO09	52	6	36.8	52	22	40	10.4	6.3	1.1	SOMT0904-ST	✓	Fig1	0.28	○
MKT213-052R07A22-SO09	52	7	36.8	52	22	40	10.4	6.3	1.1	SOMT0904-ST	✓	Fig1	0.3	○
MKT213-052R05A22-SO12	52	5	31.5	52	22	40	10.4	6.3	1.8	SOMT1205-ST	✓	Fig1	0.26	○
MKT213-063R06A22-SO09	63	6	47.8	63	22	40	10.4	6.3	1.1	SOMT0904-ST	✓	Fig1	0.48	○
MKT213-063R08A22-SO09	63	8	47.8	63	22	40	10.4	6.3	1.1	SOMT0904-ST	✓	Fig1	0.49	○
MKT213-063R06A27-SO09	63	6	47.8	63	27	50	12.4	7	1.1	SOMT0904-ST	✓	Fig1	0.56	○
MKT213-063R08A27-SO09	63	8	47.8	63	27	50	12.4	7	1.1	SOMT0904-ST	✓	Fig1	0.58	○
MKT213-063R06A22-SO12	63	6	42.4	63	22	40	10.4	6.3	1.8	SOMT1205-ST	✓	Fig1	0.46	●
MKT213-063R06A27-SO12	63	6	42.4	63	27	50	12.4	7	1.8	SOMT1205-ST	✓	Fig1	0.54	○
MKT213-066R05A27-SO12	66	5	45.4	66	27	50	12.4	7	1.8	SOMT1205-ST	✓	Fig1	0.55	○
MKT213-080R06A27-SO12	80	6	59.4	80	27	50	12.4	7	1.8	SOMT1205-ST	✓	Fig1	0.89	○
MKT213-080R08A27-SO12	80	8	59.4	80	27	50	12.4	7	1.8	SOMT1205-ST	✓	Fig1	0.91	○
MKT213-100R07B32-SO12	100	7	79.7	100	32	60	14.4	8	1.8	SOMT1205-ST	×	Fig2	1.35	●
MKT213-125R08B40-SO12	125	8	104.7	125	40	60	16.4	9	1.8	SOMT1205-ST	×	Fig2	2.61	○

● Stock ○ Available Upon Order

Fast Feed Milling

MKT213
Cylindrical Straight Shank Type

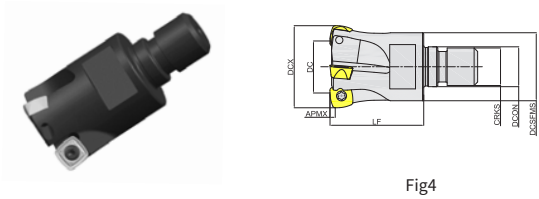


Order No.	Diameter	Teeth	Dimensions (mm)					Maximum Cutting Depth APMX	Matched Insert	Internal Cooling	Diagram	Weight (KG)	In Stock
			DC	DCX	DCON	LF	LU						
MKT213-025R02P25-SO09S	25	2	9.9	25	25	110	40	1.1	SOMT0904-ST	✓	Fig3	0.36	○
MKT213-025R02P25-SO09	25	2	9.9	25	25	150	50	1.1	SOMT0904-ST	✓	Fig3	0.51	○
MKT213-025R02P25-SO09L	25	2	9.9	25	25	200	75	1.1	SOMT0904-ST	✓	Fig3	0.68	○
MKT213-025R03P25-SO09S	25	3	9.9	25	25	110	40	1.1	SOMT0904-ST	✓	Fig3	0.36	●
MKT213-025R03P25-SO09	25	3	9.9	25	25	150	50	1.1	SOMT0904-ST	✓	Fig3	0.51	●
MKT213-025R03P25-SO09L	25	3	9.9	25	25	300	50	1.1	SOMT0904-ST	✓	Fig3	1.07	○
MKT213-032R03P32-SO09S	32	3	16.8	32	32	120	40	1.1	SOMT0904-ST	✓	Fig3	0.64	○
MKT213-032R03P32-SO09	32	3	16.8	32	32	180	60	1.1	SOMT0904-ST	✓	Fig3	0.99	○
MKT213-032R03P32-SO09L	32	3	16.8	32	32	250	100	1.1	SOMT0904-ST	✓	Fig3	1.39	○
MKT213-032R04P32-SO09S	32	4	16.8	32	32	120	40	1.1	SOMT0904-ST	✓	Fig3	0.65	●
MKT213-032R04P32-SO09	32	4	16.8	32	32	180	60	1.1	SOMT0904-ST	✓	Fig3	1	●
MKT213-032R04P32-SO09L	32	4	16.8	32	32	250	100	1.1	SOMT0904-ST	✓	Fig3	1.4	○
MKT213-032R02P32-SO12S	32	2	11.5	32	32	120	40	1.8	SOMT1205-ST	✓	Fig3	0.65	○
MKT213-032R02P32-SO12	32	2	11.5	32	32	180	60	1.8	SOMT1205-ST	✓	Fig3	1.01	○
MKT213-032R02P32-SO12L	32	2	11.5	32	32	250	100	1.8	SOMT1205-ST	✓	Fig3	1.41	○
MKT213-032R03P32-SO12S	32	3	11.5	32	32	120	40	1.8	SOMT1205-ST	✓	Fig3	0.64	○
MKT213-032R03P32-SO12	32	3	11.5	32	32	180	60	1.8	SOMT1205-ST	✓	Fig3	1	○
MKT213-032R03P32-SO12L	32	3	11.5	32	32	250	100	1.8	SOMT1205-ST	✓	Fig3	1.41	○
MKT213-035R04P32-SO09S	35	4	19.9	35	32	120	40	1.1	SOMT0904-ST	✓	Fig3	0.65	○
MKT213-035R04P32-SO09	35	4	19.9	35	32	180	40	1.1	SOMT0904-ST	✓	Fig3	1.02	○
MKT213-035R04P32-SO09L	35	4	19.9	35	32	250	40	1.1	SOMT0904-ST	✓	Fig3	1.45	○
MKT213-035R03P32-SO12S	35	3	14.4	35	32	120	40	1.8	SOMT1205-ST	✓	Fig3	0.65	○
MKT213-035R03P32-SO12	35	3	14.4	35	32	180	40	1.8	SOMT1205-ST	✓	Fig3	1.03	○
MKT213-035R03P32-SO12L	35	3	14.4	35	32	250	40	1.8	SOMT1205-ST	✓	Fig3	1.47	○

● Stock ○ Available Upon Order

Fast Feed Milling

MKT213
Replaceable Tool Bit



Order No.	Diameter	Teeth	Dimensions (mm)						Maximum Cutting Depth APMX	Matched Insert	Internal Cooling	Diagram	Weight (KG)	In Stock
			DC	DCX	DCS	FMS	SDCON	LF	CRKS					
MKT213-025R02M12-SO09	25	2	9.9	25	23	12.5	35	M12	1.1	SOMT0904-ST	✓	Fig4	0.09	●
MKT213-025R03M12-SO09	25	3	9.9	25	23	12.5	35	M12	1.1	SOMT0904-ST	✓	Fig4	0.09	○
MKT213-032R03M16-SO09	32	3	16.8	32	29	17	40	M16	1.1	SOMT0904-ST	✓	Fig4	0.19	○
MKT213-032R04M16-SO09	32	4	16.8	32	29	17	40	M16	1.1	SOMT0904-ST	✓	Fig4	0.18	●
MKT213-032R02M16-SO12	32	2	11.4	32	29	17	40	M16	1.8	SOMT1205-ST	✓	Fig4	0.16	○
MKT213-032R03M16-SO12	32	3	11.4	32	29	17	40	M16	1.8	SOMT1205-ST	✓	Fig4	0.16	○
MKT213-035R04M16-SO09	35	4	19.9	35	29	17	40	M16	1.1	SOMT0904-ST	✓	Fig4	0.17	○
MKT213-035R03M16-SO12	35	3	14.4	35	29	17	40	M16	1.8	SOMT1205-ST	✓	Fig4	0.17	○
MKT213-040R05M16-SO09	40	5	24.8	40	29	17	40	M16	1.1	SOMT0904-ST	✓	Fig4	0.2	○
MKT213-042R04M16-SO12	40	4	21.4	42	29	17	40	M16	1.8	SOMT1205-ST	✓	Fig4	0.2	○

●Stock ○Available Upon Order

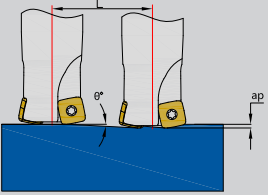
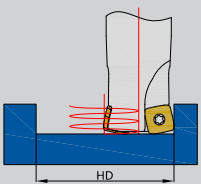
List of Tool Accessories

Parts Name		Insert Screw	Recommended Torque	Insert Screw Wrench	
Shape	Suitable Insert		N·m		
SOE(M)T09T3-SM	Order No.	SI60M035076-04808IB	3	TI10KB	-
SOE(M)T1204-SM	Order No.	SI60M040100-05510IS	3.5	TI15KB	TI15TB
SOMT0904-ST	Order No.	SI60M035076-04808IB	3	TI10KB	-
SOMT1205-ST	Order No.	SI60M040100-05510IS	3.5	TI15KB	TI15TB

Machining Program Parameters

Insert Specifications	Approximate Programmed Fillet R (mm)	Cutting Residue K (mm)	Schematic Diagram
SOET09T312-SM	2.34	0.9	
SOMT09T312-SM	2.34	0.9	
SOET120420-SM	3.29	1.0	
SOMT120420-SM	3.29	1.0	
SOMT090412-ST	2.20	0.7	
SOMT120512-ST	2.79	1.0	

Parameters for Ramp Milling and Helical Milling

Insert Specifications	Cutter Diameter D(mm)	 Ramp Milling			 Helical Interpolation Milling	
		Maximum Ramp Angle $\theta(^{\circ})$	Maximum Cutting Depth A_p (mm)	Minimum Tool Path Length L (mm) for Machining to the Maximum Cutting Depth	Minimum Diameter HD Min (mm)	Maximum Diameter HD Max(mm)
MKT113 SO*T09-SM	25	3	1.2	22.9	33	48
	32	2.5	1.2	27.5	47	62
	35	2	1.2	34.4	53	68
	40	1.8	1.2	38.2	63	78
	42	1.8	1.2	38.2	67	82
	50	1.5	1.2	45.8	83	98
	52	1.2	1.2	57.3	87	102
	63	1	1.2	68.7	109	124
MKT113 SO*T12-SM	32	2.5	1.4	32.1	41	62
	35	2	1.4	40.1	47	68
	42	1.8	1.4	44.5	61	82
	50	1.5	1.4	53.5	77	98
	52	1	1.4	80.2	81	102
	63	0.8	1.4	100.3	103	124
	66	0.8	1.4	100.3	109	130
	80	0.6	1.4	133.7	137	158
	100	0.5	1.4	160.4	177	198
MKT213 SOMT09-ST	25	3	1.1	21.0	33	48
	32	2.5	1.1	25.2	47	62
	35	2	1.1	31.5	53	68
	40	1.5	1.1	42.0	63	78
	42	1.5	1.1	42.0	67	82
	50	1.2	1.1	52.5	83	98
	52	1	1.1	63.0	87	102
	63	0.6	1.1	105.0	109	124
MKT213 SOMT12-ST	32	2.5	1.8	41.2	47	62
	35	2.5	1.8	41.2	53	68
	42	2	1.8	51.5	67	82
	50	1.5	1.8	68.7	83	98
	52	1.5	1.8	68.7	87	102
	63	1	1.8	103.1	109	124
	66	0.8	1.8	128.9	115	130
	80	0.5	1.8	206.3	143	158
	100	0.3	1.8	343.8	183	198
	125	0.2	1.8	515.7	233	248

Recommended Cutting Data

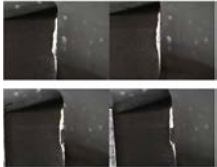
Machined Material		Material Hardness	Grade	Specifications	Recommended cutting Depth Ap(mm)	Cutting Speed Vc(m/min)	Feed/edge fz (mm)	
							Medium Cutting (M)	Heavy Cutting (H)
M	Stainless Steel (Ferritic, Martensitic)	≤ HB270	GMM7130	SOE(M)T09T3-SM	1.2	120 (80-160)	1.0 (0.6-1.4)	1.2 (0.8-1.5)
				SOE(M)T1204-SM	1.4			
				SOMT0904-ST	1.1			
				SOMT1205-ST	1.8			
	Stainless Steel (Austenitic, Duplex)	≤ HB270	GMM7130	SOE(M)T09T3-SM	1.2	100 (60-140)	0.6 (0.6-1.0)	1.0 (0.8-1.2)
				SOE(M)T1204-SM	1.4			
				SOMT0904-ST	1.1			
				SOMT1205-ST	1.8			
S	Heat-resistant Alloys, Titanium Alloys	HRC30-45	GMM7130	SOE(M)T09T3-SM	1.2	40 (30-60)	0.5 (0.3-0.8)	0.7 (0.4-1.1)
				SOE(M)T1204-SM	1.4			
				SOMT0904-ST	1.1			
				SOMT1205-ST	1.8			

Applications

Case 1 Rear beam cavity machining

Workpiece	Rear beam	  Competitor GESAC 0246 Processing Time/h 50%
Tool specification	SOMT120420-SM	
Grade	GMM7130	
Workpiece Material	TC4 (HRC30-35)	
Cutting Speed	50m/min	
Feed Rate	0.83mm/z	
Cutting Volume	ap=0.8mm	
Cutting Method	Cavity Milling	
Cooling Method	Water-based Emulsion	

Case 2 Superalloy Test Piece

Workpiece	Test Piece	   Competitor GESAC 050100 Processing Time/min 350%
Tool specification	SOMT09T312-SM	
Grade	GMM7130	
Workpiece Material	GH4282 (HRC38-43)	
Cutting Speed	25m/min	
Feed Rate	0.3mm/z	
Cutting Volume	ap=0.3mm	
Cutting Method	Face Milling	
Cooling Method	Water-based Emulsion	



DM Series
Indexable Disc-Type Thread Milling Tools

DM Insert + MTD122 Tool Holder

- Precision grinding ensures high accuracy in blade and tooth profiles, delivering minimal runout even with complex interface positioning
- Disc-type thread mills come in 3/6-flute designs, with dense tooth configurations that inherently boost machining efficiency
- The disc-type thread mill's unique blade design and precision control deliver superior thread surface finish while effectively suppressing burrs
- The series features the new GA4425 grade, offering extended tool life and reduced changeover time for sustained multi-station processing of complex components

Symbols

Designation	Description
	Steel shaft without clamping surface
	Steel shaft with Weldon clamping surface
	Solid carbide shaft without clamping surface
	Solid carbide shaft with Weldon clamping surface
	Cutter with tightening thread
	Smallest necessary bore-diameter
	Internal coolant supply
	Number of inserts

Designation	Description
	Thread standard
	Thread with undercut (Trio-Cut)
	for right- and left hand internal thread for left hand thread modify your NC-program!
	for right- and left hand external thread for left hand thread modify your NC-program!
	Full form thread milling
	Partial form thread milling
	Point angle
	Thread standard

Designation Rules for Disc-Type Thread Milling Insert

DM R12 096 100 MM L - TH - GA4425

①	②	③	④	⑤	⑥	⑦	⑧
①Product Series Name			②Code for Cutting Direction/ Insert Interface Specification		③Insert Diameter		
DM			Code for Cutting Direction	L/R=Left/Right Hand	096=9.6mm		
			Insert Interface Specification	12/16/20/25	105=10.5mm		
					160=16.0mm		
					200=20.0mm		
					260=26.0mm		
④Thread Pitch			⑤Thread Form Standard Designation		⑥Thread Hole Designation		
Metric thread pitch	100=1.00mm	General Thread Form	VM=V-shaped tooth 60°		For an insert specification machining either diameter; the major diameter is identified by "L"; the minor diameter has no marking.		
	150=1.50mm		VW=Hewitt Tooth Shape 55°				
	175=1.75mm						
	200=2.00mm						
Imperial thread pitch	12=12"	Special Thread Form	MM=Metric thread 60° WH=G+BSW+BSF WM=BSW+BSF WW=BSW WF=BSF UN=UN60° NT=NPT60° AC=ACME29° SA=STUB-ACME		Most inserts suit a range of thread diameters and are unmarked.		
	11=11"						
	10=10"						
	09=9"						
					⑦Application Scenario		
					TH=Thread Milling		
					⑧Grade		
					GA4425		

Designation Rules for Disc-Type Thread Milling Insert

MTD 122 - 12 070 P10 - DM12 S HA

①

②

③

④

⑤

⑥

⑦

⑧

①Product Series Name

MTD

②Series Code

=122

③Insert Interface Specification

12/16/20/25

④Tool Head Diameter

070=7.0mm

115=11.5mm

⑤Shank Interface Designation

Shank Interface Type Designation	P	Straight Shank
	W	Flattened Straight Shank
	M	Threaded Interface
Interface Size		16=16mm
		20=20mm
		25=25mm

⑥Insert Designation

DM12

DM*12 Insert

⑦Tool Holder Length

S

Short

(M)

Medium

L

Long

⑧Shank Material and Treatment Process Code

HA

Blackened Steel Shank

DB

Electroplated Steel Shank

C

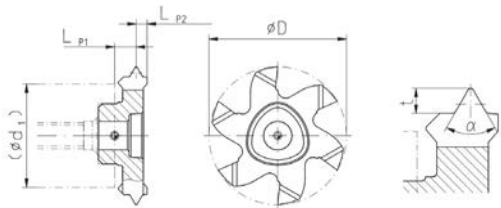
Carbide Shank

HM

Heavy Metal Shank

POLYMILL

Thread Milling

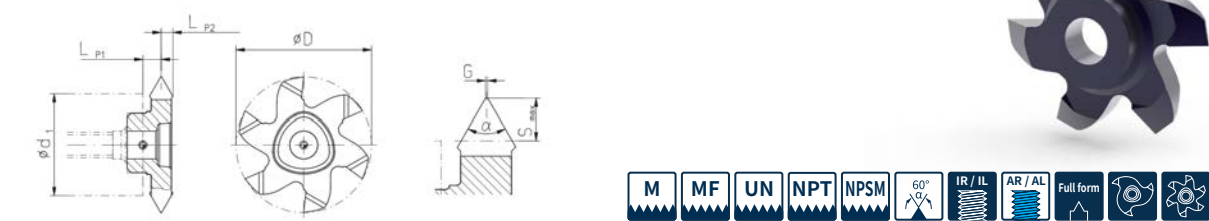


Order No.	Dimensions					Thread	Number of teeth	Grade GA4425
	Pitch mm	D mm	L _{p1} mm	L _{p2} mm	t mm			
DMR12096100MM-TH	1.00	9.6	2.65	0.80	0.572	≥ M12x 1	3	○
DMR12096150MM-TH	1.50	9.6	2.50	0.95	0.875	≥ M14 x 1.5	3	○
DMR12096175MM-TH	1.75	9.6	2.25	1.20	1.010	only M12	3	○
DMR12105200MM-TH	2.00	10.5	2.25	1.20	1.127	only M14, M16	3	○
DMR12105200MML-TH	2.00	10.5	2.25	1.20	1.157	≥ M18x 2	3	○
DMR16160100MM-TH	1.00	16.0	2.80	1.03	0.572	≥ M18 x 1	6	○
DMR16160150MM-TH	1.50	16.0	2.55	1.28	0.864	≥ M20 x 1.5	6	○
DMR16160200MM-TH	2.00	16.0	2.55	1.28	1.157	≥ M22 x 2	6	○
DMR16160250MM-TH	2.50	16.0	2.05	1.78	1.400	only M20, M22	6	○
DMR16160250MML-TH	2.50	16.0	2.05	1.78	1.444	≥ M24 x 2.5	6	○
DMR16160300MM-TH	3.00	16.0	3.05	1.78	1.702	≥ M24	6	○
DMR20200150MM-TH	1.50	20.0	2.55	1.28	0.875	≥ M24 x 1.5	6	○
DMR20200200MM-TH	2.00	20.0	2.55	1.28	1.157	≥ M27 x 2	6	○
DMR20200300MM-TH	3.00	20.0	2.15	1.68	1.745	only M24, M27	6	○
DMR25260150MM-TH	1.50	26.0	2.15	1.28	0.875	≥ M30 x 1.5	6	○
DMR25260200MM-TH	2.00	26.0	2.55	1.28	1.159	≥ M33 x 2	6	○
DMR25260300MM-TH	3.00	26.0	2.95	1.88	1.702	≥ M39 x 3	6	○
DMR25240350MM-TH	3.50	24.0	2.75	2.08	1.960	only M30, M33	6	○
DMR25260350MM-TH	3.50	26.0	2.90	1.93	1.980	≥ M42 x 3.5	6	○
DMR25260400MM-TH	4.00	26.0	2.65	2.18	2.262	M36 - M54 x 4	6	○
DMR25260400MML-TH	4.00	26.0	2.90	1.93	2.262	≥ M48 x 4	6	○
DMR25260450MM-TH	4.50	26.0	2.65	2.18	2.602	≥ M42	6	○
DMR25260500MM-TH	5.00	26.0	3.85	3.48	2.836	≥ M48	6	○
DMR25260550MM-TH	5.50	26.0	3.85	3.48	3.182	≥ M56	6	○
DMR25260600MM-TH	6.00	26.0	3.85	3.48	3.467	≥ M64	6	○

●Stock ○Available Upon Order

POLYMILL

Thread Milling



Order No.	Dimensions (mm)							Number of teeth	Grade
	Pitch mm	Thread Nominal Ø mm	D mm	L _{P1} mm	L _{P2} mm	G mm	S _{max} mm		GA4425
DMR12117100VM-TH	1-3	≥16	11.7	2.125	1.33	0.10	1.81	3	○
DMR16160100VM-TH	1-4	≥20	16.0	2.70	1.68	0.10	2.45	6	○
DMR16160250VM-TH	2.5-4	≥22	16.0	2.70	1.68	0.25	2.45	6	○
DMR16177100VM-TH	1-3	≥22	17.7	2.70	1.05	0.10	1.81	6	○
DMR20200100VM-TH	1-3	≥24	20.0	2.15	1.68	0.10	1.81	6	○
DMR20217100VM-TH	1-2	≥27	21.7	4.15	1.00	0.10	1.15	6	○
DMR20217200VM-TH	2-4	≥30	21.7	2.95	1.80	0.15	2.45	6	○
DMR25260100VM-TH	1-3	≥32	26.0	2.75	2.08	0.10	1.81	6	○
DMR25260250VM-TH	2.5-5	≥36	26.0	2.65	2.18	0.25	3.20	6	○
DMR25260350VM-TH	3.5-6	≥52	26.0	3.85	2.93	0.40	4.20	6	○

●Stock ○Available Upon Order

POLYMILL

Thread Milling

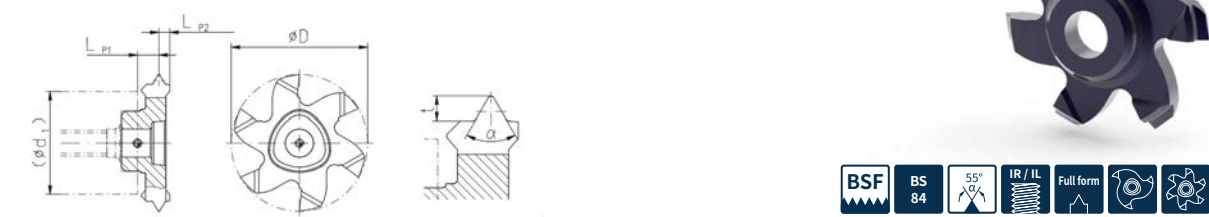


Order No.	Dimensions						Thread	Number of teeth	Grade
	Pitch / "	Pitch mm	D mm	L _{P1} mm	L _{P2} mm	t mm			GA4425
DMR1210012WW-TH	12	2.117	10	2.25	1.1	1.371	BSW ⅝	3	○
DMR1210411WW-TH	11	2.309	10.4	2.15	1.5	1.494	BSW ⅝ + 1⁄16	3	○
DMR1211710WW-TH	10	2.540	11.7	2.2	1.4	1.455	BSW ¾ + 13⁄16	3	○
DMR1616009WW-TH	9	2.822	16	2.15	1.675	1.622	BSW ⅞ + 15⁄16	6	○
DMR1616008WW-TH	8	3.175	16	2.65	1.84	1.83	BSW 1	6	○
DMR1616007WW-TH	7	3.629	16	2.65	2.05	2.098	BSW 1⅛ + 1¼	6	○
DMR1616006WW-TH	6	4.233	16	3.175	2.2	2.455	BSW 1⅜ + 1½	6	○
DMR2020007WW-TH	7	3.629	20	2.7	2.225	2.098	BSW 1⅞ + 1¼	6	○
DMR2020006WW-TH	6	4.233	20	3.15	2.675	2.455	BSW 1⅞ + 1½	6	○
DMR2524006WW-TH	6	4.233	24	4.4	2.675	2.455	BSW 1⅞	6	○
DMR2524006WWL-TH	6	4.233	24	4.4	2.675	2.455	BSW 1½	6	○
DMR2524005WW-TH	5	5.080	24	3.9	2.875	2.955	BSW 1⅞ + 1¾	6	○

●Stock ○Available Upon Order

POLYMILL

Thread Milling



Order No.	Dimensions						Thread	Number of teeth	Grade
	Pitch / "	Pitch mm	D mm	L _{P1} mm	L _{P2} mm	t mm			GA4425
DMR1209614WF-TH	14	1.814	9.6	2.25	1.1	1.177	BSF ½ + ⅛	3	○
DMR1210012WF-TH	12	2.117	10	2.25	1.1	1.371	BSF ¾ + ⅛	3	○
DMR1210411WF-TH	11	2.309	10.4	2.15	1.5	1.494	BSF ⅝	3	○
DMR1211710WF-TH	10	2.540	11.7	2.20	1.4	1.455	BSF 1	3	○
DMR1616009WF-TH	9	2.822	16	2.15	1.675	1.622	BSF 1½ + 1¼	6	○
DMR1616008WF-TH	8	3.175	16	2.15	1.675	1.83	BSF 1½ - 1½	6	○
DMR1616007WF-TH	7	3.629	16	2.65	2.05	2.098	BSF 1¾ + 2	6	○
DMR1616006WF-TH	6	4.233	16	3.175	2.2	2.455	BSF 2¼ - 2¾	6	○
DMR2020008WF-TH	8	3.175	20	2.15	1.675	1.83	BSF 1½ - 1½	6	○
DMR2020007WF-TH	7	3.629	20	2.7	2.225	2.098	BSF 1¾ + 2	6	○
DMR2020006WF-TH	6	4.233	20	3.15	2.675	2.455	BSF 2¼ - 2¾	6	○
DMR2524008WF-TH	8	3.175	24	2.1	1.675	1.83	BSF 1½ - 1½	6	○
DMR2524007WF-TH	7	3.629	24	2.65	2.175	2.098	BSF 1¾ + 2	6	○
DMR2524006WF-TH	6	4.233	24	4.4	2.675	2.455	BSF 2¼ - 2¾	6	○
DMR2524005WF-TH	5	5.080	24	3.9	2.875	2.955	BSF 3 - 3¼	6	○

●Stock ○Available Upon Order

POLYMILL

Thread Milling

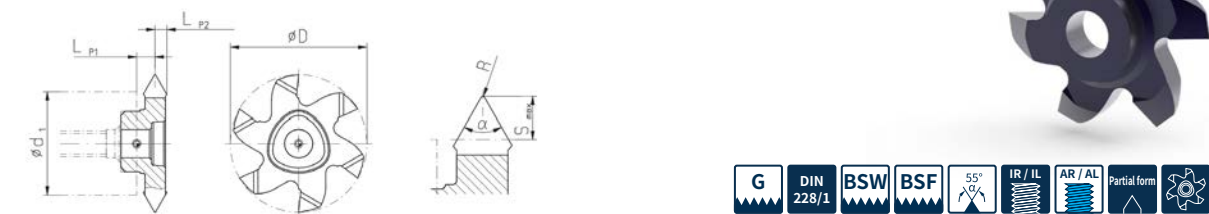


Order No.	Dimensions						Thread	Number of teeth	Grade
	Pitch / "	Pitch mm	D mm	L _{P1} mm	L _{P2} mm	t mm			GA4425
DMR1211714WM-TH	14	1.814	11.7	2.30	1.3	1.178	BSW / BSF - 14 Gg	3	○
DMR1211712WM-TH	12	2.117	11.7	2.25	1.4	1.374	BSW / BSF - 12 Gg	3	○
DMR1211711WM-TH	11	2.309	11.7	2.25	1.4	1.498	BSW / BSF - 11 Gg	3	○
DMR1211710WM-TH	10	2.540	11.7	2.25	1.4	1.646	BSW / BSF - 10 Gg	3	○
DMR1616014WM-TH	14	1.814	16	2.15	1.675	1.178	BSW / BSF - 14 Gg	6	○
DMR1616012WM-TH	12	2.117	16	2.15	1.675	1.374	BSW / BSF - 12 Gg	6	○
DMR1616011WM-TH	11	2.309	16	2.75	2.075	1.498	BSW / BSF - 11 Gg	6	○
DMR1616010WM-TH	10	2.540	16	2.15	1.675	1.646	BSW / BSF - 10 Gg	6	○
DMR1616009WM-TH	9	2.822	16	2.15	1.675	1.829	BSW / BSF - 9 Gg	6	○
DMR1616008WM-TH	8	3.175	16	2.65	1.820	2.056	BSW / BSF - 8 Gg	6	○
DMR1616007WM-TH	7	3.629	16	3.15	2.225	2.348	BSW / BSF - 7 Gg	6	○
DMR1616006WM-TH	6	4.233	16	3.15	2.225	2.737	BSW / BSF - 6 Gg	6	○
DMR2020014WM-TH	14	1.814	20	2.10	1.725	1.178	BSW / BSF - 14 Gg	6	○
DMR2020012WM-TH	12	2.117	20	2.10	1.725	1.374	BSW / BSF - 12 Gg	6	○
DMR2020011WM-TH	11	2.309	20	2.10	1.725	1.498	BSW / BSF - 11 Gg	6	○
DMR2020010WM-TH	10	2.540	20	2.10	1.725	1.646	BSW / BSF - 10 Gg	6	○
DMR2020009WM-TH	9	2.822	20	2.10	1.725	1.829	BSW / BSF - 9 Gg	6	○
DMR2020008WM-TH	8	3.175	20	2.65	2.175	2.056	BSW / BSF - 8 Gg	6	○
DMR2020007WM-TH	7	3.629	20	2.65	2.175	2.348	BSW / BSF - 7 Gg	6	○
DMR2020006WM-TH	6	4.233	20	3.15	2.675	2.737	BSW / BSF - 6 Gg	6	○
DMR2526011WM-TH	11	2.309	26	2.75	2.075	1.478	BSW / BSF - 11 Gg	6	○
DMR2526008WM-TH	8	3.175	26	2.60	2.175	2.056	BSW / BSF - 8 Gg	6	○
DMR2526007WM-TH	7	3.629	26	2.60	2.175	2.348	BSW / BSF - 7 Gg	6	○
DMR2524006WM-TH	6	4.233	24	4.40	2.675	2.737	BSW / BSF - 6 Gg	6	○
DMR2524005WM-TH	5	5.080	24	4.40	2.675	3.281	BSW / BSF - 5 Gg	6	○

●Stock ○Available Upon Order

POLYMILL

Thread Milling



Order No.	Dimensions						Thread	Number of teeth	Grade
	Pitch / "	Pitch mm	D mm	L _{p1} mm	L _{p2} mm	t mm			GA4425
DMR1616014VW-TH	14 - 8	1.814 - 3.175	16	2.75	1.625	0.35	2.5	6	○
DMR2526008VW-TH	8 - 4	3.175 - 6.35	26	2.65	2.175	0.6	2.8	6	○

● Stock ○ Available Upon Order

POLYMILL

Circular Milling Tools with Polygonal Insert Seat

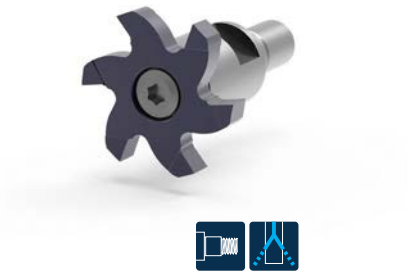
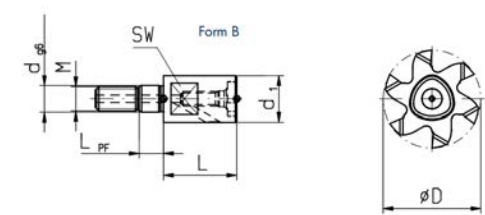


Order No.	Form	Dimensions (mm)							Shaft	Spare part No.	
		d _{h6}	d ₁	D _{max.}	S _{max.} (D-d ₁)/2	L	L ₁	L ₂		Screwdriver*	Screw *
MTD122-12070P10-DM12	A	10	7.0	11.7	2.35	54	8	-	Steel	T8 IP 111656	M2.5x7 107596
MTD122-12070W12-DM12	B	12	7.0	11.7	2.35	67.5	20	-	Steel		
MTD122-12070W12-DM12S	B	12	7.0	11.7	2.35	67.5	20	-	Carbide		
MTD122-12070P12-DM12S	A	12	7.0	11.7	2.35	67.5	20	-	Carbide		
MTD122-12070W12-DM12	B	12	7.0	11.7	2.35	80	30	-	Carbide		
MTD122-12070P12-DM12	A	12	7.0	11.7	2.35	80	30	-	Carbide		
MTD122-12070W12-DM12L	B	12	7.0	11.7	2.35	100	40	-	Carbide		
MTD122-12070P12-DM12L	A	12	7.0	11.7	2.35	100	40	-	Carbide		
MTD122-16090P10-DM16	A	10	9.0	17.7	4.35	60	11	-	Steel	T8 IP 111656	M3x12 143158
MTD122-16090W12-DM16	B	12	9.0	17.7	4.35	67.4	21	-	Steel		
MTD122-16090W12-DM16S	B	12	9.0	17.7	4.35	67.4	21	-	Carbide		
MTD122-16090P12-DM16S	A	12	9.0	17.7	4.35	67.4	21	-	Carbide		
MTD122-16090W12-DM16	B	12	9.0	17.7	4.35	82.4	36	-	Carbide		
MTD122-16090P12-DM16	A	12	9.0	17.7	4.35	82.4	36	-	Carbide		
MTD122-16090P12-DM16L	A	12	9.0	17.7	4.35	100	30	-	Carbide		
MTD122-16115P12-DM16	A	12	11.5	17.7	2.85	82.4	37.4	13	Carbide		
MTD122-16120P12-DM16	A	12	12.0	17.7	2.85	122.5	77.5	-	Carbide		
MTD122-20115P12-DM20	A	12	11.5	21.7	5.1	62.4	14.4	-	Steel	T15 IP 111671	M4x13 107597
MTD122-20115W16-DM20	B	16	11.5	21.7	5.1	80	30	-	Steel		
MTD122-20115W16-DM20S	B	16	11.5	21.7	5.1	80	30	-	Carbide		
MTD122-20115P16-DM20S	A	16	11.5	21.7	5.1	80	30	-	Carbide		
MTD122-20115W16-DM20	B	16	11.5	21.7	5.1	100	50	-	Carbide		
MTD122-20115P16-DM20	A	16	11.5	21.7	5.1	100	50	-	Carbide		
MTD122-20155P16-DM20	A	16	15.5	21.7	3.1	105.5	57.5	20	Carbide		
MTD122-25136P16-DM25	A	16	13.6	27.7	7.05	69.6	20.4	-	Steel	T20 IP 111594	M5x13.5 107529
MTD122-25136W16-DM25	B	16	13.6	27.7	7.05	79.6	30.5	-	Steel		
MTD122-25136W16-DM25S	B	16	13.6	27.7	7.05	79.6	30.5	-	Carbide		
MTD122-25136P16-DM25S	A	16	13.6	27.7	7.05	79.6	30.5	-	Carbide		
MTD122-25136W16-DM25	B	16	13.6	27.7	7.05	94.6	45.5	-	Carbide		
MTD122-25136P16-DM25	A	16	13.6	27.7	7.05	94.6	45.5	-	Carbide		
MTD122-25136W16-DM25L	B	16	13.6	27.7	7.05	109.6	60.5	-	Carbide		
MTD122-25136P16-DM25L	A	16	13.6	27.7	7.05	109.6	60.5	-	Carbide		
MTD122-25155P16-DM25	A	16	15.5	27.7	6.1	105	57	21.5	Carbide		
MTD122-25155P16-DM25L	A	16	15.5	27.7	6.1	149.5	101.5	21.5	Carbide		
MTD122-25155P20-DM25	A	20	15.5	27.7	6.1	100	52	21.5	Carbide		
MTD122-25155P20-DM25L	A	20	15.5	27.7	6.1	174.45	128.5	21.5	Carbide		

Screw torques max.		
107596	T08 IP	1.0 Nm
143158	T08 IP	1.1 Nm
107597	T15 IP	3.8 Nm
107529	T20 IP	5.5 Nm

POLYMILL

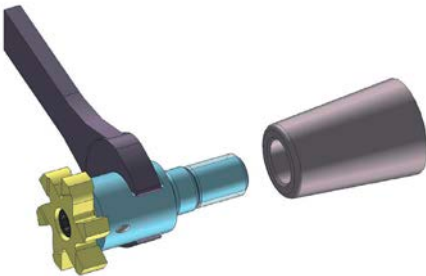
Circular M Milling Tools with Polygonal Insert Seat



Order No.	Form	Dimensions (mm)								Spare part No.	
		d ₁	D _{max}	S _{max} (D-d ₁)/2	L	M	d ₆	L _{pf}		Screwdriver*	Screw *
MTD122-12095M05-DM12	B	9.5	11.7	1.1	10.0	M5	5.5	5.0		111656	107596
MTD122-16095M05-DM16	B	9.5	17.7	4.1	15.0	M5	5.5	5.0		111656	143158
MTD122-16110M06-DM16	B	11.0	17.7	3.35	15.0	M6	6.5	5.0		111656	143158
MTD122-20115M06-DM20	B	11.5	21.7	5.1	15.0	M6	6.5	5.0		111671	107597
MTD122-20135M08-DM20	B	13.5	21.7	4.1	15.0	M8	8.5	5.5		111671	107597
MTD122-25136M08-DM25	B	13.6	27.7	7.05	18.0	M8	8.5	5.5		111594	107529
MTD122-25180M10-DM25	B	18.0	27.7	4.85	18.0	M10	10.5	5.5		111594	107529

Screw torques max.		
107596	T08 IP	1.0 Nm
143158	T08 IP	1.1 Nm
107597	T15 IP	3.8 Nm
107529	T20 IP	5.5 Nm

Assembling Instructions



Thread size (M)	Wrench size mm	Tightening torque Nm
M5	7	8
M6	9	10
M8	11	25
M10	15	40
M12	19	60
M16	24	80



TC Series Positive Comb-Type Thread Milling Tools

TC Insert + MTC190 Tool Holder

- Precision grinding ensures high accuracy in blade and tooth profiles, delivering minimal runout even with complex interface positioning
- TC series comb-type thread mills feature innovative positive-curve blades that enable smooth cutting and significantly improve threading efficiency
- Comb-type inserts deliver clean thread surface finishes while effectively suppressing burrs and chatter marks during thread milling
- The series features the new GA4425 grade, offering extended tool life and reduced changeover time for sustained multi-station processing of complex components

Designation Rules for Comb-Type Thread Milling Insert

TC 12 100 MM L I - C - GA4425

- ①
- ②
- ③
- ④
- ⑤
- ⑥
- ⑦
- ⑧

①Product Series Name		②Compatible Tool Holder Diameter		③	
TC	Curved Edge Insert	Curved Edge Insert	12=12mm 17=17mm 20=20mm 25=25mm	Metric thread pitch	100=1.00mm
					150=1.50mm
					175=1.75mm
					200=2.00mm
				Imperial thread pitch	12=12"
					11=11"
					10=10"
					09=9"
④Thread Form Standard Designation		⑤Thread Hole Designation		⑥Thread Tpye	
General Thread Form	VM=V-shaped tooth 60°	For an insert specification machining either diameter; the major diameter is identified by "L"; the minor diameter has no marking.		I	Internal thread
	VW=Hewitt Tooth Shape 55°			E	External thread
Special Thread Form	MM=Metric thread 60° WH=G+BSW+BSF WM=BSW+BSF WW=BSW WF=BSF UN=UN60° NT=NPT60° AC=ACME29° SA=STUB-ACME	Most inserts suit a range of thread diameters and are unmarked.		M	Universal for internal/external threads
		⑦Geometry Code		⑧Grade	
		C=Curved Edge		GA4425	
		CU=Curved Edge With Undercut			

Designation Rules for Comb-Type Thread Milling Insert

MTC 190 - 012 R01 W16 - TC12 L HA

- ①
- ②
- ③
- ④
- ⑤
- ⑥
- ⑦
- ⑧

①Product Series Name		②Product Generation+ Tool Cutting Edge Angle		③Tool Diameter	
MTC	Tool Holder of Curved Edge Insert	1+90=190		012=12mm	
				017=17mm	
				020=20mm	
				025=25mm	
④Cutting Direction+Number of Teeth		⑤Shank Interface Designation		⑥Insert Designation	
Cutting Direction	L/R=Left/Right Hand	Shank Interface Type Designation	P	TC12	
Number of Teeth	03=3 teeth		W	TC12 curved-edge insert	
			M		
			A/B/ C/D		
Interface Size					
	16=16mm				
	20=20mm				
		25=25mm			
⑦Tool Holder Length		⑧Shank Material and Treatment Process Code			
S	Short	HA	Blackened Steel Shank		
(M)	Medium	DB	Electroplated Steel Shank		
L	Long	C	Carbide Shank		
		HM	Heavy Metal Shank		

TRIOCUT

Circular Milling Tools



Order No.	Dimensions (mm)					Shaft	Spare part No.	
	D	d _{h6}	d ₁	L	L ₁		T8 IP Screwdriver*	Screw *
MTC190-012R01W16-TC12	12	16	9.4	74	18	Steel	111656	115567

Note:
Type 12 milling tools can only be used with type 12 milling inserts

Screw torques max.
1.1 Nm

Circular Milling Inserts



Order No.	Pitch mm	H _p mm	L _G * mm	Teeth	L _{P2} * mm
TC12100MMI-C	1.0	7.5	11.0	12	0.5
TC12150MMI-C	1.5	7.5	10.5	8	0.75

Circular Milling Inserts



Order No.	Pitch mm	Pitch / °	H _p mm	L _G * mm	Teeth	L _{P2} * mm
TC1219WHM-C	1.337	19	7.5	9.07	9	0.65
TC1214WHM-C	1.814	14	7.5	9.07	6	0.9

TRIOCUT

Circular Milling Tools



Order No.	Dimensions (mm)					Shaft	Spare part No.	
	D	d _{h6}	d ₁	L	L ₁		T15 IP Screwdriver*	Screw *
MTC190-017R01W16-TC17	17	16	13.7	79	30	Steel	111671	115628
MTC190-017R01W20-TC17	17	20	13.7	92	30	Steel	111671	115628

Note:
Type 17 milling tools can only be used with type 17 milling inserts

Screw torques max.
3.8 Nm

Circular Milling Inserts



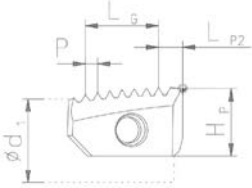
Order No.	Pitch mm	H _p mm	L _G ** mm	Teeth	L _{P2} ** mm
TC17100MMI-C	1.0	11	16.0	17	0.55
TC17150MMI-C	1.5	11	16.5	12	0.75
TC17200MMI-C	2.0	11	16.0	9	1.0

Circular Milling Inserts



Order No.	Pitch mm	H _p mm	L _G ** mm	Teeth	L _{P2} ** mm
TC17150MME-C	1.5	11	16.5	12	0.75

Circular Milling Inserts

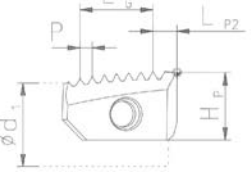




Order No.	Pitch mm	H _p mm	L _G ** mm	Teeth	L _{P2} ** mm	R mm
TC17100MMI-CU	1.0	11	14.0	15	3.6	0.4
TC17150MMI-CU	1.5	11	13.5	10	4.1	0.4
TC17200MMI-CU	2.0	11	12.0	7	3.6	0.4



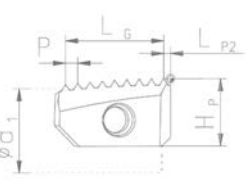
Circular Milling Inserts





Order No.	Pitch mm	Pitch / "	H _p mm	L _G ** mm	Teeth	L _{P2} ** mm	R mm	Thread
TC1711WHM-CU	2.309	11	11	11.54	6	4.6	0.4	all
TC1714WHM-CU	1.814	14	11	12.69	8	3.5	0.4	5/8 – 3/4 – 7/8"
TC1714WHLM-CU	1.814	14	11	12.69	8	3.5	0.4	only ½ "

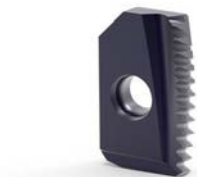
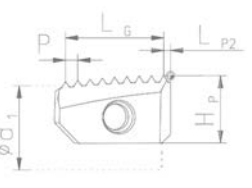
Circular Milling Inserts





Order No.	Pitch mm	Pitch / "	H _p mm	L _G ** mm	Teeth	L _{P2} ** mm	Thread
TC1711WHM-C	2.309	11	11	16.16	8	1.16	all
TC1714WHM-C	1.814	14	11	16.33	10	0.95	5/8 – 3/4 – 7/8"

Circular Milling Inserts





Order No.	Pitch mm	Pitch / "	H _p mm	L _G ** mm	Teeth	L _{P2} ** mm	Thread
TC1714WHI-C	1.814	14	11	16.33	10	0.95	G ½ "

TRIOCUT

Circular Milling Tools



Order No.	D mm	d _{h6} mm	d ₁ mm	L mm	L ₁ mm	Shaft	Spare part No.	
							T8 IP Screwdriver*	Screw *
MTC190-020R03W20-TC20	20	20	17.5	83	32	Steel	111656	115567

Screw torques max.
1.1 Nm

TRIOCUT

Circular Milling Tools



Order No.	D mm	d _{g6} mm	M	L _{PF} mm	d ₁ mm	L mm	Shaft	Spare part No.	
								T8 IP Screwdriver*	Screw *
MTC190-020R03M10-TC20	20	10.5	10	5	17.5	21	Steel	111656	115567

Note:
Please adapt cutting data to overhangs length

Screw torques max.
1.1 Nm

Circular Milling Inserts



Order No.	Pitch mm	H _p mm	L _G ** mm	Teeth	L _{P2} ** mm
TC20100MMI-C	1.0	7.5	12.0	13	0.5
TC20150MMI-C	1.5	7.5	10.5	8	0.75

Note:
Type 20 milling tools can only be used with type 20 milling inserts
** for internal threads only

Circular Milling Inserts

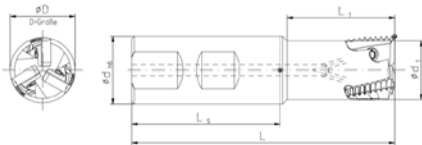


Order No.	Pitch mm	Pitch / "	H _p mm	L _G ** mm	Teeth	L _{P2} ** mm	Thread
TC2014WHM-C	1.814	14	7.5	9.07	6	0.9	
TC2014WHLM-C	1.814	14**	7.5	9.07	6	0.9	G ¾ "

Note:
Type 20 milling tools can only be used with type 20 milling inserts
** for internal threads only

TRIOCUT

Circular Milling Tools

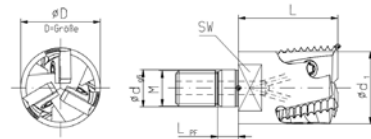


Order No.	D mm	d _{h6} mm	d ₁ mm	L mm	L ₁ mm	Shaft	Spare part No.	
							T15 IP Screwdriver*	Screw *
MTC190-025R03W25-TC25	25	25	21.7	107.6	50	Steel	111671	115628
MTC190-025R03W25-TC25	25	25	21.7	142.6	85	Heavy metal	111671	115628

Screw torques max.
3.8 Nm

TRIOCUT

Circular Milling Tools

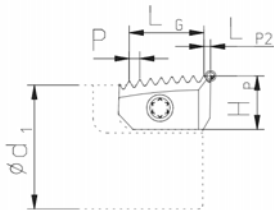


Order No.	D mm	d _{g6} mm	M	L _{PF} mm	d ₁ mm	L mm	Shaft	Spare part No.	
								T15 IP Screwdriver*	Screw *
MTC190-025R03M10-TC25	25	10.5	10	5	21.7	30	Steel	111671	115628

Note:
Please adapt cutting data to overhangs length

Screw torques max.
3.8 Nm

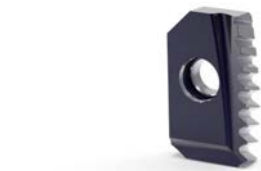
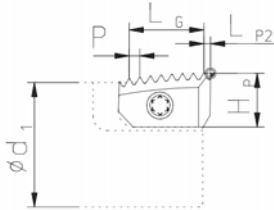
Circular Milling Inserts



Order No.	Pitch mm	H _p mm	L _G ** mm	Teeth	L _{P2} ** mm
TC25100MMI-C	1.0	11	16.0	17	0.5
TC25150MMI-C	1.5	11	16.5	12	0.75
TC25200MMI-C	2.0	11	16.0	9	1.11

Note:
Type 25 milling tools can only be used with type 25 milling inserts

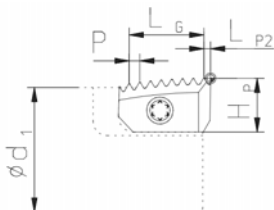
Circular Milling Inserts



Order No.	Pitch mm	H _p mm	L _G ** mm	Teeth	L _{P2} ** mm
TC25150MME-C	1.5	11	16.5	12	0.75

Note:
Type 25 milling tools can only be used with type 25 milling inserts

Circular Milling Inserts



Order No.	Pitch mm	Pitch / "	H _p mm	L _G ** mm	Teeth	L _{P2} ** mm
TC2511WHM-C	2.309	11	11	16.16	8	1.16
TC2514WHM-C	1.814	14	11	16.33	10	0.95

Note:
Type 25 milling tools can only be used with type 25 milling inserts

C

HOLEMAKING TOOLS



T/ET Tap Series

- T-Series utilizes HSS-PM material combined with a high-wear-resistant, low-friction composite multilayer coating to achieve high-efficiency machining
- T-Series adopts DIN standards and metric thread
- ET-Series employs HSS with a high-wear-resistant composite coating, offering versatile and general-purpose performance
- ET-Series complies with JIS standards, as well as metric and unified threads

Representation Rules for Tap Order No.

T118 – SDC

①

②

③

④

⑤

① Tap Category		② Tap Series Number		③ Tap Type	
T	High-performance Tap	118	General Machining Series, Mainly for Machining PKM	S	Spiral Fluted Tap
ET	Economic Tap	128	Cast Iron Machining Series	P	Spiral Pointed Tap
		138	Steel Machining Series	H	Straight Fluted Tap
		166	Copper Aluminum Alloy Machining Series	F	Fluteless Tap
		168	Stainless Steel Machining Series		

④ Tap Size Standard		⑤ Cooling Mode	
D	German DIN Standard	N	External Cooling
J	Japanese JIS Standard	C	Internal Cooling of Central Outlet Water
		R	Internal Cooling of Side Outlet Water

Representation Rules for Tap Order No.

030050C – 6HX

⑥

⑦

⑧

⑨

⑥ Thread Diameter		⑦ Pitch (Metric)/Number of Threads per Inch (Imperial)		⑨ Tap Accuracy Grade	
030	Metric Tap Diameter M3 mm	030	Metric Tap Pitch 0.5 mm	6hx	Tap Accuracy Grade
U0	American Standard No.0	12	American System 12 Threads per Inch	P2	Tap Accuracy Grade
U916	American System 9/16 Inch			Rh10	Tap Accuracy Grade

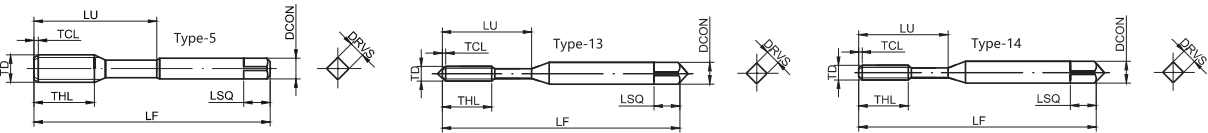
⑧ Cutting tap length	
A	Cutting tap length of straight fluted tap 6-8P (pitch)
B	Cutting tap length of spiralt pointed tap 3.5-5.5P (pitch)
C	Cutting tap length of straight fluted tap or spiral fluted tap 2-3P (pitch), or extrusion tap length of fluteless tap 2-3P (pitch)
D	Cutting tap length of straight fluted tap or spiral fluted tap 3.5-5P (pitch), or extrusion tap length of fluteless tap 3-5.5P (pitch)
E	Cutting tap length of straight fluted tap or spiral fluted tap 1.5-2P (pitch), or extrusion tap length of fluteless tap 1.5-2P (pitch)
F	Cutting tap length of straight fluted tap or spiral fluted tap 1-1.5P (pitch), or extrusion tap length of fluteless tap 1-1.5P (pitch)

Tap Product Application List

Series Positioning	Dimensional Standards	Threaded Tool Type	Cooling Mode	Tap Diameter Range	P	M	N	K
High performance	DIN	Fluteless Tap	External Cooling	M4-M30	T118-FDN			—
	DIN	Fluteless Tap	Internal Cooling	M4-M30	T118-FDC T118-FDR			—
	DIN	Spiral Fluted Tap	External Cooling	M4-M16	T118-SDN			—
	DIN	Spiral Pointed Tap	External Cooling	M4-M16	T118-PDN			—
	DIN	Straight Fluted Tap	External Cooling	M5-M16	—	—	—	T128-HDN
	DIN	Straight Fluted Tap	Internal Cooling	M5-M16	—	—	—	T128-HDC T128-HDR
Economical	JIS	Fluteless Tap	External Cooling	M1-M16	ET138-FJN	ET168-FJN	ET166-FJN	—
	JIS	Spiral Fluted Tap	External Cooling	M1-M16	ET138-SJN	ET168-SJN	ET166-SJN	—
	JIS	Spiral Pointed Tap	External Cooling	M1-M16	ET138-PJN	ET168-PJN	ET166-PJN	—
	JIS	Straight Fluted Tap	External Cooling	M5-M16	—	—	—	ET128-HJN
	JIS	Straight Fluted Tap	Internal Cooling	M5-M16	—	—	—	ET128-HJC ET128-HJR

T118-FDN

High-performance General Machining Fluteless Tap



Order No.	Thread Size	TD	TP	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
T118-FDN-040070D-6HX	M4×0.7	4	0.7	6HX	4P	D	13	63	9	21	4.5	3.4	6	4.5×3.4	10.0	4	3.70	○
T118-FDN-040070C-6HX	M4×0.7	4	0.7	6HX	2.5P	C	14	63	9	21	4.5	3.4	6	4.5×3.4	10.0	4	3.70	●
T118-FDN-050080D-6HX	M5×0.8	5	0.8	6HX	4P	D	13	70	10	25	6	4.9	8	6×4.9	12.5	4	4.64	○
T118-FDN-050080C-6HX	M5×0.8	5	0.8	6HX	2.5P	C	14	70	10	25	6	4.9	8	6×4.9	12.5	4	4.64	●
T118-FDN-060100D-6HX	M6×1	6	1	6HX	4P	D	13	80	10	30	6	4.9	8	6×4.9	15.0	4	5.53	○
T118-FDN-060100C-6HX	M6×1	6	1	6HX	2.5P	C	14	80	10	30	6	4.9	8	6×4.9	15.0	4	5.53	●
T118-FDN-070100D-6HX	M7×1	7	1	6HX	4P	D	5	80	10	30	7	5.5	8	7×5.5	17.5	4	6.53	○
T118-FDN-070100C-6HX	M7×1	7	1	6HX	2.5P	C	5	80	10	30	7	5.5	8	7×5.5	17.5	4	6.53	○
T118-FDN-080125D-6HX	M8×1.25	8	1.25	6HX	4P	D	5	90	13	35	8	6.2	9	8×6.2	20.0	8	7.40	○
T118-FDN-080125C-6HX	M8×1.25	8	1.25	6HX	2.5P	C	5	90	13	35	8	6.2	9	8×6.2	20.0	8	7.40	●
T118-FDN-080100D-6HX	M8×1	8	1	6HX	4P	D	5	90	13	35	8	6.2	9	8×6.2	20.0	8	7.53	○
T118-FDN-080100C-6HX	M8×1	8	1	6HX	2.5P	C	5	90	13	35	8	6.2	9	8×6.2	20.0	8	7.53	○
T118-FDN-100150D-6HX	M10×1.5	10	1.5	6HX	4P	D	5	100	15	39	10	8	11	10×8	25.0	10	9.26	○
T118-FDN-100150C-6HX	M10×1.5	10	1.5	6HX	2.5P	C	5	100	15	39	10	8	11	10×8	25.0	10	9.26	●
T118-FDN-100125D-6HX	M10×1.25	10	1.25	6HX	4P	D	5	100	15	39	10	8	11	10×8	25.0	10	9.40	○
T118-FDN-100125C-6HX	M10×1.25	10	1.25	6HX	2.5P	C	5	100	15	39	10	8	11	10×8	25.0	10	9.40	●
T118-FDN-100100D-6HX	M10×1	10	1	6HX	4P	D	5	100	15	39	10	8	11	10×8	25.0	10	9.53	○
T118-FDN-100100C-6HX	M10×1	10	1	6HX	2.5P	C	5	100	15	39	10	8	11	10×8	25.0	10	9.53	○
T118-FDN-120175D-6HX	M12×1.75	12	1.75	6HX	4P	D	5	110	17	49	9	7	10	9×7	30.0	10	11.13	○
T118-FDN-120175C-6HX	M12×1.75	12	1.75	6HX	2.5P	C	5	110	17	49	9	7	10	9×7	30.0	10	11.13	●
T118-FDN-120150D-6HX	M12×1.5	12	1.5	6HX	4P	D	5	110	17	49	9	7	10	9×7	30.0	10	11.26	○
T118-FDN-120150C-6HX	M12×1.5	12	1.5	6HX	2.5P	C	5	110	17	49	9	7	10	9×7	30.0	10	11.26	●

●Stock ○Available Upon Order Unit (mm)

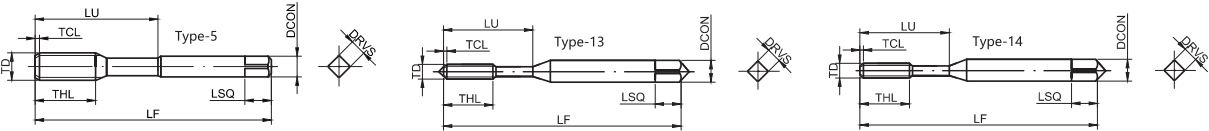
Notes:
Pre-hole size is calculated based on an 85% percentage of thread engagement, for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○	○		○			○		○					

○ Most Suitable ○ Suitable Recommended Cutting Data ※ P216

T118-FDN

High-performance General Machining Fluteless Tap



Continued

Order No.	Thread Size	TD	TP	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
T118-FDN-120125D-6HX	M12×1.25	12	1.25	6HX	4P	D	5	110	17	49	9	7	10	9×7	30.0	10	11.40	○
T118-FDN-120125C-6HX	M12×1.25	12	1.25	6HX	2.5P	C	5	110	17	49	9	7	10	9×7	30.0	10	11.40	●
T118-FDN-120100D-6HX	M12×1	12	1	6HX	4P	D	5	110	17	49	9	7	10	9×7	30.0	10	11.53	○
T118-FDN-120100C-6HX	M12×1	12	1	6HX	2.5P	C	5	110	17	49	9	7	10	9×7	30.0	10	11.53	○
T118-FDN-140200D-6HX	M14×2	14	2	6HX	4P	D	5	110	20	53	11	9	12	11×9	35.0	10	12.99	○
T118-FDN-140200C-6HX	M14×2	14	2	6HX	2.5P	C	5	110	20	53	11	9	12	11×9	35.0	10	12.99	●
T118-FDN-140150D-6HX	M14×1.5	14	1.5	6HX	4P	D	5	110	20	53	11	9	12	11×9	35.0	10	13.26	○
T118-FDN-140150C-6HX	M14×1.5	14	1.5	6HX	2.5P	C	5	110	20	53	11	9	12	11×9	35.0	10	13.26	●
T118-FDN-140125D-6HX	M14×1.25	14	1.25	6HX	4P	D	5	110	20	53	11	9	12	11×9	35.0	10	13.40	○
T118-FDN-140125C-6HX	M14×1.25	14	1.25	6HX	2.5P	C	5	110	20	53	11	9	12	11×9	35.0	10	13.40	○
T118-FDN-140100D-6HX	M14×1	14	1	6HX	4P	D	5	110	20	53	11	9	12	11×9	35.0	10	13.53	○
T118-FDN-140100C-6HX	M14×1	14	1	6HX	2.5P	C	5	110	20	53	11	9	12	11×9	35.0	10	13.53	○
T118-FDN-160200D-6HX	M16×2	16	2	6HX	4P	D	5	110	20	54	12	9	12	12×9	40.0	12	14.99	○
T118-FDN-160200C-6HX	M16×2	16	2	6HX	2.5P	C	5	110	20	54	12	9	12	12×9	40.0	12	14.99	●
T118-FDN-160150D-6HX	M16×1.5	16	1.5	6HX	4P	D	5	110	20	54	12	9	12	12×9	40.0	12	15.26	○
T118-FDN-160150C-6HX	M16×1.5	16	1.5	6HX	2.5P	C	5	110	20	54	12	9	12	12×9	40.0	12	15.26	●
T118-FDN-160125D-6HX	M16×1.25	16	1.25	6HX	4P	D	5	110	20	54	12	9	12	12×9	40.0	12	15.40	○
T118-FDN-160125C-6HX	M16×1.25	16	1.25	6HX	2.5P	C	5	110	20	54	12	9	12	12×9	40.0	12	15.40	○
T118-FDN-160100D-6HX	M16×1	16	1	6HX	4P	D	5	110	20	54	12	9	12	12×9	40.0	12	15.53	○
T118-FDN-160100C-6HX	M16×1	16	1	6HX	2.5P	C	5	110	20	54	12	9	12	12×9	40.0	12	15.53	○
T118-FDN-180250D-6HX	M18×2.5	18	2.5	6HX	4P	D	5	125	25	61	14	11	14	14×11	45.0	12	16.72	○
T118-FDN-180250C-6HX	M18×2.5	18	2.5	6HX	2.5P	C	5	125	25	61	14	11	14	14×11	45.0	12	16.72	○

●Stock ○Available Upon Order

Unit (mm)

Notes:

Pre-hole size is calculated based on an 85% percentage of thread engagement, for reference only.

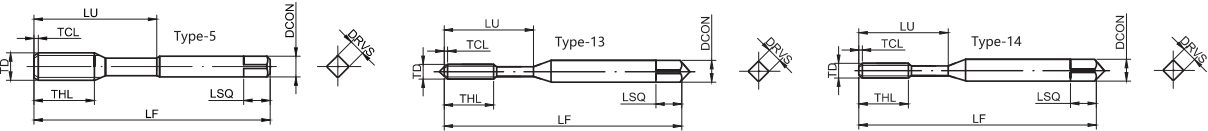
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
◎	○		○			◎		◎					

◎ Most Suitable ○ Suitable

Recommended Cutting Data ※ P216

T118-FDN

High-performance General Machining Fluteless Tap



Continued

Order No.	Thread Size	TD	TP	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
T118-FDN-180200D-6HX	M18×2	18	2	6HX	4P	D	5	125	25	61	14	11	14	14×11	45.0	12	16.99	○
T118-FDN-180200C-6HX	M18×2	18	2	6HX	2.5P	C	5	125	25	61	14	11	14	14×11	45.0	12	16.99	○
T118-FDN-180150D-6HX	M18×1.5	18	1.5	6HX	4P	D	5	125	25	61	14	11	14	14×11	45.0	12	17.26	○
T118-FDN-180150C-6HX	M18×1.5	18	1.5	6HX	2.5P	C	5	125	25	61	14	11	14	14×11	45.0	12	17.26	○
T118-FDN-200250D-6HX	M20×2.5	20	2.5	6HX	4P	D	5	140	25	69	16	12	15	16×12	50.0	12	18.72	○
T118-FDN-200250C-6HX	M20×2.5	20	2.5	6HX	2.5P	C	5	140	25	69	16	12	15	16×12	50.0	12	18.72	○
T118-FDN-200200D-6HX	M20×2	20	2	6HX	4P	D	5	140	25	69	16	12	15	16×12	50.0	12	18.99	○
T118-FDN-200200C-6HX	M20×2	20	2	6HX	2.5P	C	5	140	25	69	16	12	15	16×12	50.0	12	18.99	○
T118-FDN-200150D-6HX	M20×1.5	20	1.5	6HX	4P	D	5	140	25	69	16	12	15	16×12	50.0	12	19.26	○
T118-FDN-200150C-6HX	M20×1.5	20	1.5	6HX	2.5P	C	5	140	25	69	16	12	15	16×12	50.0	12	19.26	○
T118-FDN-220250D-6HX	M22×2.5	22	2.5	6HX	4P	D	5	140	25	69	18	14.5	17	18×14.5	55.0	12	20.72	○
T118-FDN-220250C-6HX	M22×2.5	22	2.5	6HX	2.5P	C	5	140	25	69	18	14.5	17	18×14.5	55.0	12	20.72	○
T118-FDN-220200D-6HX	M22×2	22	2	6HX	4P	D	5	140	25	69	18	14.5	17	18×14.5	55.0	12	20.99	○
T118-FDN-220200C-6HX	M22×2	22	2	6HX	2.5P	C	5	140	25	69	18	14.5	17	18×14.5	55.0	12	20.99	○
T118-FDN-220150D-6HX	M22×1.5	22	1.5	6HX	4P	D	5	140	25	69	18	14.5	17	18×14.5	55.0	12	21.26	○
T118-FDN-220150C-6HX	M22×1.5	22	1.5	6HX	2.5P	C	5	140	25	69	18	14.5	17	18×14.5	55.0	12	21.26	○
T118-FDN-240300D-6HX	M24×3	24	3	6HX	4P	D	5	160	30	78	18	14.5	17	18×14.5	60.0	12	22.45	○
T118-FDN-240300C-6HX	M24×3	24	3	6HX	2.5P	C	5	160	30	78	18	14.5	17	18×14.5	60.0	12	22.45	○
T118-FDN-240250D-6HX	M24×2.5	24	2.5	6HX	4P	D	5	160	30	78	18	14.5	17	18×14.5	60.0	12	22.72	○
T118-FDN-240250C-6HX	M24×2.5	24	2.5	6HX	2.5P	C	5	160	30	78	18	14.5	17	18×14.5	60.0	12	22.72	○
T118-FDN-240200D-6HX	M24×2	24	2	6HX	4P	D	5	160	30	78	18	14.5	17	18×14.5	60.0	12	22.99	○
T118-FDN-240200C-6HX	M24×2	24	2	6HX	2.5P	C	5	160	30	78	18	14.5	17	18×14.5	60.0	12	22.99	○

●Stock ○Available Upon Order

Unit (mm)

Notes:

Pre-hole size is calculated based on an 85% percentage of thread engagement, for reference only.

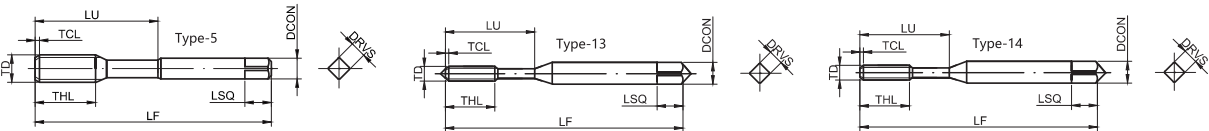
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
◎	○		○			◎		◎					

◎ Most Suitable ○ Suitable

Recommended Cutting Data ※ P216

T118-FDN

High-performance General Machining Fluteless Tap



Continued

Order No.	Thread Size	TD	TP	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
T118-FDN-270300D-6HX	M27×3	27	3	6HX	4P	D	5	160	30	78	20	16	19	20×16	67.5	12	25.45	○
T118-FDN-270300C-6HX	M27×3	27	3	6HX	2.5P	C	5	160	30	78	20	16	19	20×16	67.5	12	25.45	○
T118-FDN-270250D-6HX	M27×2.5	27	2.5	6HX	4P	D	5	160	30	78	20	16	19	20×16	67.5	12	25.72	○
T118-FDN-270250C-6HX	M27×2.5	27	2.5	6HX	2.5P	C	5	160	30	78	20	16	19	20×16	67.5	12	25.72	○
T118-FDN-270200D-6HX	M27×2	27	2	6HX	4P	D	5	160	30	78	20	16	19	20×16	67.5	12	25.99	○
T118-FDN-270200C-6HX	M27×2	27	2	6HX	2.5P	C	5	160	30	78	20	16	19	20×16	67.5	12	25.99	○
T118-FDN-300350D-6HX	M30×3.5	30	3.5	6HX	4P	D	5	180	35	88	22	18	21	22×18	75.0	12	28.18	○
T118-FDN-300350C-6HX	M30×3.5	30	3.5	6HX	2.5P	C	5	180	35	88	22	18	21	22×18	75.0	12	28.18	○
T118-FDN-300300D-6HX	M30×3	30	3	6HX	4P	D	5	180	35	88	22	18	21	22×18	75.0	12	28.45	○
T118-FDN-300300C-6HX	M30×3	30	3	6HX	2.5P	C	5	180	35	88	22	18	21	22×18	75.0	12	28.45	○
T118-FDN-300250D-6HX	M30×2.5	30	2.5	6HX	4P	D	5	180	35	88	22	18	21	22×18	75.0	12	28.72	○
T118-FDN-300250C-6HX	M30×2.5	30	2.5	6HX	2.5P	C	5	180	35	88	22	18	21	22×18	75.0	12	28.72	○
T118-FDN-300200D-6HX	M30×2	30	2	6HX	4P	D	5	180	35	88	22	18	21	22×18	75.0	12	28.99	○
T118-FDN-300200C-6HX	M30×2	30	2	6HX	2.5P	C	5	180	35	88	22	18	21	22×18	75.0	12	28.99	○

●Stock ○Available Upon Order

Unit (mm)

Notes:
Pre-hole size is calculated based on an 85% percentage of thread engagement, for reference only.

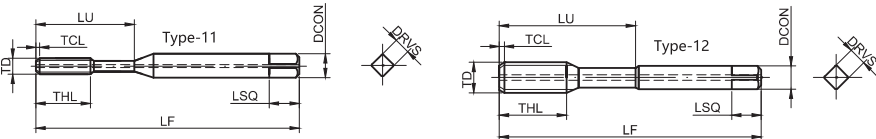
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○	○		○			○		○					

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P216

T118-FDC

High-performance Internal Cooling General Machining Fluteless Tap



Order No.	Thread Size	TD	TP	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
T118-FDC-040070C-6HX	M4×0.7	4	0.7	6HX	2.5P	C	11	63	9	21	4.5	3.4	6	4.5×3.4	10.0	4	3.70	○
T118-FDC-050080C-6HX	M5×0.8	5	0.8	6HX	2.5P	C	11	70	10	25	6	4.9	8	6×4.9	12.5	4	4.64	○
T118-FDC-060100C-6HX	M6×1	6	1	6HX	2.5P	C	11	80	10	30	6	4.9	8	6×4.9	15.0	4	5.53	●
T118-FDC-070100C-6HX	M7×1	7	1	6HX	2.5P	C	12	80	10	30	7	5.5	8	7×5.5	17.5	4	6.53	○
T118-FDC-080125C-6HX	M8×1.25	8	1.25	6HX	2.5P	C	12	90	13	35	8	6.2	9	8×6.2	20.0	8	7.40	●
T118-FDC-080100C-6HX	M8×1	8	1	6HX	2.5P	C	12	90	13	35	8	6.2	9	8×6.2	20.0	8	7.53	○
T118-FDC-100150C-6HX	M10×1.5	10	1.5	6HX	2.5P	C	12	100	15	39	10	8	11	10×8	25.0	10	9.26	●
T118-FDC-100125C-6HX	M10×1.25	10	1.25	6HX	2.5P	C	12	100	15	39	10	8	11	10×8	25.0	10	9.40	○
T118-FDC-100100C-6HX	M10×1	10	1	6HX	2.5P	C	12	100	15	39	10	8	11	10×8	25.0	10	9.53	○
T118-FDC-120175C-6HX	M12×1.75	12	1.75	6HX	2.5P	C	12	110	17	49	9	7	10	9×7	30.0	10	11.13	●
T118-FDC-120150C-6HX	M12×1.5	12	1.5	6HX	2.5P	C	12	110	17	49	9	7	10	9×7	30.0	10	11.26	○
T118-FDC-120125C-6HX	M12×1.25	12	1.25	6HX	2.5P	C	12	110	17	49	9	7	10	9×7	30.0	10	11.40	○
T118-FDC-120100C-6HX	M12×1	12	1	6HX	2.5P	C	12	110	17	49	9	7	10	9×7	30.0	10	11.53	○
T118-FDC-140200C-6HX	M14×2	14	2	6HX	2.5P	C	12	110	20	53	11	9	12	11×9	35.0	10	12.99	○
T118-FDC-140150C-6HX	M14×1.5	14	1.5	6HX	2.5P	C	12	110	20	53	11	9	12	11×9	35.0	10	13.26	○
T118-FDC-140125C-6HX	M14×1.25	14	1.25	6HX	2.5P	C	12	110	20	53	11	9	12	11×9	35.0	10	13.40	○
T118-FDC-140100C-6HX	M14×1	14	1	6HX	2.5P	C	12	110	20	53	11	9	12	11×9	35.0	10	13.53	○
T118-FDC-160200C-6HX	M16×2	16	2	6HX	2.5P	C	12	110	20	54	12	9	12	12×9	40.0	12	14.99	○
T118-FDC-160150C-6HX	M16×1.5	16	1.5	6HX	2.5P	C	12	110	20	54	12	9	12	12×9	40.0	12	15.26	○
T118-FDC-160125C-6HX	M16×1.25	16	1.25	6HX	2.5P	C	12	110	20	54	12	9	12	12×9	40.0	12	15.40	○
T118-FDC-160100C-6HX	M16×1	16	1	6HX	2.5P	C	12	110	20	54	12	9	12	12×9	40.0	12	15.53	○
T118-FDC-180250C-6HX	M18×2.5	18	2.5	6HX	2.5P	C	12	125	25	61	14	11	14	14×11	45.0	12	16.72	○

●Stock ○Available Upon Order

Unit (mm)

Notes:
Pre-hole size is calculated based on an 85% percentage of thread engagement, for reference only.

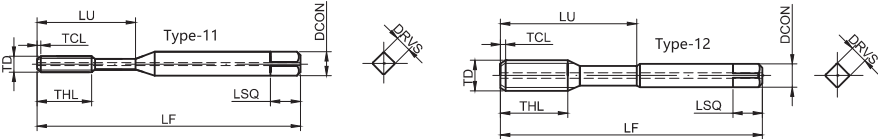
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○	○		○			○		○					

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P216

T118-FDC

High-performance Internal Cooling General Machining Fluteless Tap



Continued

Order No.	Thread Size	TD	TP	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
T118-FDC-180200C-6HX	M18×2	18	2	6HX	2.5P	C	12	125	25	61	14	11	14	14×11	45.0	12	16.99	○
T118-FDC-180150C-6HX	M18×1.5	18	1.5	6HX	2.5P	C	12	125	25	61	14	11	14	14×11	45.0	12	17.26	○
T118-FDC-200250C-6HX	M20×2.5	20	2.5	6HX	2.5P	C	12	140	25	69	16	12	15	16×12	50.0	12	18.72	○
T118-FDC-200200C-6HX	M20×2	20	2	6HX	2.5P	C	12	140	25	69	16	12	15	16×12	50.0	12	18.99	○
T118-FDC-200150C-6HX	M20×1.5	20	1.5	6HX	2.5P	C	12	140	25	69	16	12	15	16×12	50.0	12	19.26	○
T118-FDC-220250C-6HX	M22×2.5	22	2.5	6HX	2.5P	C	12	140	25	69	18	14.5	17	18×14.5	55.0	12	20.72	○
T118-FDC-220200C-6HX	M22×2	22	2	6HX	2.5P	C	12	140	25	69	18	14.5	17	18×14.5	55.0	12	20.99	○
T118-FDC-220150C-6HX	M22×1.5	22	1.5	6HX	2.5P	C	12	140	25	69	18	14.5	17	18×14.5	55.0	12	21.26	○
T118-FDC-240300C-6HX	M24×3	24	3	6HX	2.5P	C	12	160	30	78	18	14.5	17	18×14.5	60.0	12	22.45	○
T118-FDC-240250C-6HX	M24×2.5	24	2.5	6HX	2.5P	C	12	160	30	78	18	14.5	17	18×14.5	60.0	12	22.72	○
T118-FDC-240200C-6HX	M24×2	24	2	6HX	2.5P	C	12	160	30	78	18	14.5	17	18×14.5	60.0	12	22.99	○
T118-FDC-270300C-6HX	M27×3	27	3	6HX	2.5P	C	12	160	30	78	20	16	19	20×16	67.5	12	25.45	○
T118-FDC-270250C-6HX	M27×2.5	27	2.5	6HX	2.5P	C	12	160	30	78	20	16	19	20×16	67.5	12	25.72	○
T118-FDC-270200C-6HX	M27×2	27	2	6HX	2.5P	C	12	160	30	78	20	16	19	20×16	67.5	12	25.99	○
T118-FDC-300350C-6HX	M30×3.5	30	3.5	6HX	2.5P	C	12	180	35	88	22	18	21	22×18	75.0	12	28.18	○
T118-FDC-300300C-6HX	M30×3	30	3	6HX	2.5P	C	12	180	35	88	22	18	21	22×18	75.0	12	28.45	○
T118-FDC-300250C-6HX	M30×2.5	30	2.5	6HX	2.5P	C	12	180	35	88	22	18	21	22×18	75.0	12	28.72	○
T118-FDC-300200C-6HX	M30×2	30	2	6HX	2.5P	C	12	180	35	88	22	18	21	22×18	75.0	12	28.99	○

●Stock ○Available Upon Order

Unit (mm)

Notes:

Pre-hole size is calculated based on an 85% percentage of thread engagement, for reference only.

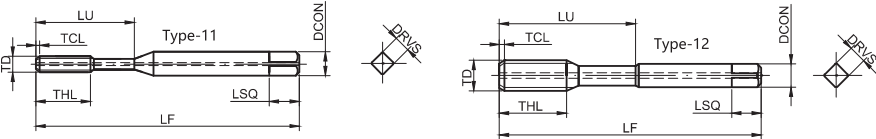
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
◎	○		◎			◎		◎					

◎ Most Suitable ○ Suitable

Recommended Cutting Data ※ P216

T118-FDR

High-performance Internal Cooling General Machining Fluteless Tap



Order No.	Thread Size	TD	TP	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
T118-FDR-040070D-6HX	M4×0.7	4	0.7	6HX	4P	D	11	63	9	21	4.5	3.4	6	4.5×3.4	10.0	4	3.70	○
T118-FDR-050080D-6HX	M5×0.8	5	0.8	6HX	4P	D	11	70	10	25	6	4.9	8	6×4.9	12.5	4	4.64	○
T118-FDR-060100D-6HX	M6×1	6	1	6HX	4P	D	11	80	10	30	6	4.9	8	6×4.9	15.0	4	5.53	○
T118-FDR-070100D-6HX	M7×1	7	1	6HX	4P	D	12	80	10	30	7	5.5	8	7×5.5	17.5	4	6.53	○
T118-FDR-080125D-6HX	M8×1.25	8	1.25	6HX	4P	D	12	90	13	35	8	6.2	9	8×6.2	20.0	8	7.40	○
T118-FDR-080100D-6HX	M8×1	8	1	6HX	4P	D	12	90	13	35	8	6.2	9	8×6.2	20.0	8	7.53	○
T118-FDR-100150D-6HX	M10×1.5	10	1.5	6HX	4P	D	12	100	15	39	10	8	11	10×8	25.0	10	9.26	○
T118-FDR-100125D-6HX	M10×1.25	10	1.25	6HX	4P	D	12	100	15	39	10	8	11	10×8	25.0	10	9.40	○
T118-FDR-100100D-6HX	M10×1	10	1	6HX	4P	D	12	100	15	39	10	8	11	10×8	25.0	10	9.53	○
T118-FDR-120175D-6HX	M12×1.75	12	1.75	6HX	4P	D	12	110	17	49	9	7	10	9×7	30.0	10	11.13	○
T118-FDR-120150D-6HX	M12×1.5	12	1.5	6HX	4P	D	12	110	17	49	9	7	10	9×7	30.0	10	11.26	○
T118-FDR-120125D-6HX	M12×1.25	12	1.25	6HX	4P	D	12	110	17	49	9	7	10	9×7	30.0	10	11.40	○
T118-FDR-120100D-6HX	M12×1	12	1	6HX	4P	D	12	110	17	49	9	7	10	9×7	30.0	10	11.53	○
T118-FDR-140200D-6HX	M14×2	14	2	6HX	4P	D	12	110	20	53	11	9	12	11×9	35.0	10	12.99	○
T118-FDR-140150D-6HX	M14×1.5	14	1.5	6HX	4P	D	12	110	20	53	11	9	12	11×9	35.0	10	13.26	○
T118-FDR-140125D-6HX	M14×1.25	14	1.25	6HX	4P	D	12	110	20	53	11	9	12	11×9	35.0	10	13.40	○
T118-FDR-140100D-6HX	M14×1	14	1	6HX	4P	D	12	110	20	53	11	9	12	11×9	35.0	10	13.53	○
T118-FDR-160200D-6HX	M16×2	16	2	6HX	4P	D	12	110	20	54	12	9	12	12×9	40.0	12	14.99	○
T118-FDR-160150D-6HX	M16×1.5	16	1.5	6HX	4P	D	12	110	20	54	12	9	12	12×9	40.0	12	15.26	○
T118-FDR-160125D-6HX	M16×1.25	16	1.25	6HX	4P	D	12	110	20	54	12	9	12	12×9	40.0	12	15.40	○
T118-FDR-160100D-6HX	M16×1	16	1	6HX	4P	D	12	110	20	54	12	9	12	12×9	40.0	12	15.53	○
T118-FDR-180250D-6HX	M18×2.5	18	2.5	6HX	4P	D	12	125	25	61	14	11	14	14×11	45.0	12	16.72	○

●Stock ○Available Upon Order

Unit (mm)

Notes:

Pre-hole size is calculated based on an 85% percentage of thread engagement, for reference only.

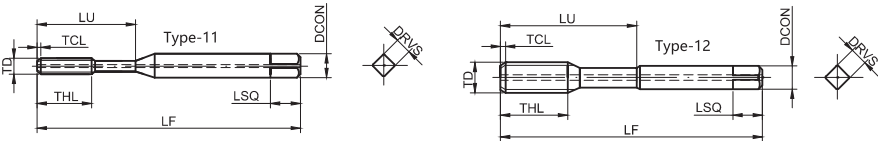
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon steel, alloy steel	Alloy steel, tool steel	PH and ferritic/ martensitic steel	Stainless steel	Gray cast iron, nodular cast iron	High alloy cast iron	Forged aluminum alloy, cast aluminium alloy	Cast aluminum alloy	Copper alloy	Composite material	High-temperature alloy	Titanium alloy	Hardened steel	Hardened steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
◎	○		◎			◎		◎					

◎ Most Suitable ○ Suitable

Recommended Cutting Data ※ P216

T118-FDR

High-performance Internal Cooling General Machining Fluteless Tap



Continued

Order No.	Thread Size	TD	TP	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
T118-FDR-180200D-6HX	M18×2	18	2	6HX	4P	D	12	125	25	61	14	11	14	14×11	45.0	12	16.99	○
T118-FDR-180150D-6HX	M18×1.5	18	1.5	6HX	4P	D	12	125	25	61	14	11	14	14×11	45.0	12	17.26	○
T118-FDR-200250D-6HX	M20×2.5	20	2.5	6HX	4P	D	12	140	25	69	16	12	15	16×12	50.0	12	18.72	○
T118-FDR-200200D-6HX	M20×2	20	2	6HX	4P	D	12	140	25	69	16	12	15	16×12	50.0	12	18.99	○
T118-FDR-200150D-6HX	M20×1.5	20	1.5	6HX	4P	D	12	140	25	69	16	12	15	16×12	50.0	12	19.26	○
T118-FDR-220250D-6HX	M22×2.5	22	2.5	6HX	4P	D	12	140	25	69	18	14.5	17	18×14.5	55.0	12	20.72	○
T118-FDR-220200D-6HX	M22×2	22	2	6HX	4P	D	12	140	25	69	18	14.5	17	18×14.5	55.0	12	20.99	○
T118-FDR-220150D-6HX	M22×1.5	22	1.5	6HX	4P	D	12	140	25	69	18	14.5	17	18×14.5	55.0	12	21.26	○
T118-FDR-240300D-6HX	M24×3	24	3	6HX	4P	D	12	160	30	78	18	14.5	17	18×14.5	60.0	12	22.45	○
T118-FDR-240250D-6HX	M24×2.5	24	2.5	6HX	4P	D	12	160	30	78	18	14.5	17	18×14.5	60.0	12	22.72	○
T118-FDR-240200D-6HX	M24×2	24	2	6HX	4P	D	12	160	30	78	18	14.5	17	18×14.5	60.0	12	22.99	○
T118-FDR-270300D-6HX	M27×3	27	3	6HX	4P	D	12	160	30	78	20	16	19	20×16	67.5	12	25.45	○
T118-FDR-270250D-6HX	M27×2.5	27	2.5	6HX	4P	D	12	160	30	78	20	16	19	20×16	67.5	12	25.72	○
T118-FDR-270200D-6HX	M27×2	27	2	6HX	4P	D	12	160	30	78	20	16	19	20×16	67.5	12	25.99	○
T118-FDR-300350D-6HX	M30×3.5	30	3.5	6HX	4P	D	12	180	35	88	22	18	21	22×18	75.0	12	28.18	○
T118-FDR-300300D-6HX	M30×3	30	3	6HX	4P	D	12	180	35	88	22	18	21	22×18	75.0	12	28.45	○
T118-FDR-300250D-6HX	M30×2.5	30	2.5	6HX	4P	D	12	180	35	88	22	18	21	22×18	75.0	12	28.72	○
T118-FDR-300200D-6HX	M30×2	30	2	6HX	4P	D	12	180	35	88	22	18	21	22×18	75.0	12	28.99	○

●Stock ○Available Upon Order Unit (mm)

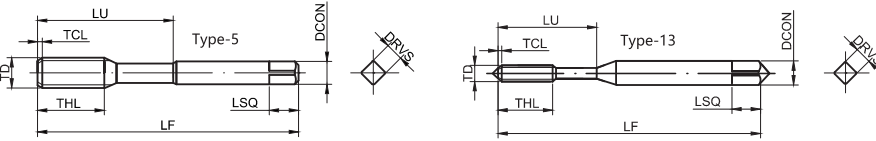
Notes:
Pre-hole size is calculated based on an 85% percentage of thread engagement, for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon steel, alloy steel	Alloy steel, tool steel	PH and ferritic/ martensitic steel	Stainless steel	Gray cast iron, nodular cast iron	High alloy cast iron	Forged aluminum alloy, cast aluminium alloy	Cast aluminum alloy	Copper alloy	Composite material	High-temperature alloy	Titanium alloy	Hardened steel	Hardened steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
◎	○		◎			◎		◎					

◎ Most Suitable ○ Suitable Recommended Cutting Data ※ P216

T118-SDN

High-performance General Machining Spiral Fluted Tap



Order No.	Thread Size	TD	TP	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
T118-SDN-040070C-6HX	M4×0.7	4	0.7	6HX	2.5P	C	13	63	9	21	4.5	3.4	6	4.5×3.4	10.0	3	3.30	●
T118-SDN-050080C-6HX	M5×0.8	5	0.8	6HX	2.5P	C	13	70	10	25	6	4.9	8	6×4.9	12.5	3	4.20	●
T118-SDN-060100C-6HX	M6×1	6	1	6HX	2.5P	C	13	80	10	30	6	4.9	8	6×4.9	15.0	3	5.00	●
T118-SDN-070100C-6HX	M7×1	7	1	6HX	2.5P	C	5	80	10	30	7	5.5	8	7×5.5	17.5	3	6.00	○
T118-SDN-080125C-6HX	M8×1.25	8	1.25	6HX	2.5P	C	5	90	13	35	8	6.2	9	8×6.2	20.0	3	6.75	●
T118-SDN-080100C-6HX	M8×1	8	1	6HX	2.5P	C	5	90	13	35	8	6.2	9	8×6.2	20.0	3	7.00	●
T118-SDN-100150C-6HX	M10×1.5	10	1.5	6HX	2.5P	C	5	100	15	39	10	8	11	10×8	25.0	3	8.50	●
T118-SDN-100125C-6HX	M10×1.25	10	1.25	6HX	2.5P	C	5	100	15	39	10	8	11	10×8	25.0	3	8.75	●
T118-SDN-100100C-6HX	M10×1	10	1	6HX	2.5P	C	5	100	15	39	10	8	11	10×8	25.0	3	9.00	○
T118-SDN-120175C-6HX	M12×1.75	12	1.75	6HX	2.5P	C	5	110	17	49	9	7	10	9×7	30.0	3	10.25	●
T118-SDN-120150C-6HX	M12×1.5	12	1.5	6HX	2.5P	C	5	110	17	49	9	7	10	9×7	30.0	3	10.50	●
T118-SDN-120125C-6HX	M12×1.25	12	1.25	6HX	2.5P	C	5	110	17	49	9	7	10	9×7	30.0	3	10.75	●
T118-SDN-120100C-6HX	M12×1	12	1	6HX	2.5P	C	5	110	17	49	9	7	10	9×7	30.0	3	11.00	○
T118-SDN-140200C-6HX	M14×2	14	2	6HX	2.5P	C	5	110	20	53	11	9	12	11×9	35.0	4	12.00	●
T118-SDN-140150C-6HX	M14×1.5	14	1.5	6HX	2.5P	C	5	110	20	53	11	9	12	11×9	35.0	4	12.50	●
T118-SDN-140125C-6HX	M14×1.25	14	1.25	6HX	2.5P	C	5	110	20	53	11	9	12	11×9	35.0	4	12.75	○
T118-SDN-140100C-6HX	M14×1	14	1	6HX	2.5P	C	5	110	20	53	11	9	12	11×9	35.0	4	13.00	○
T118-SDN-160200C-6HX	M16×2	16	2	6HX	2.5P	C	5	110	20	54	12	9	12	12×9	40.0	4	14.00	●
T118-SDN-160150C-6HX	M16×1.5	16	1.5	6HX	2.5P	C	5	110	20	54	12	9	12	12×9	40.0	4	14.50	●
T118-SDN-160125C-6HX	M16×1.25	16	1.25	6HX	2.5P	C	5	110	20	54	12	9	12	12×9	40.0	4	14.75	○
T118-SDN-160100C-6HX	M16×1	16	1	6HX	2.5P	C	5	110	20	54	12	9	12	12×9	40.0	4	15.00	○

●Stock ○Available Upon Order Unit (mm)

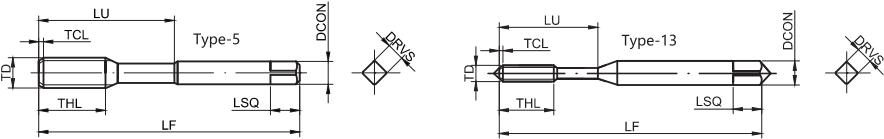
Notes:
Pre-hole size is for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
◎	○		○	○	○	○	○	○					

◎ Most Suitable ○ Suitable Recommended Cutting Data ※ P216

T118-PDN

High-performance General Machining Spiral Pointed Tap



Order No.	Thread Size	TD	TP	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
T118-PDN-040070B-6HX	M4×0.7	4	0.7	6HX	5P	B	13	63	9	21	4.5	3.4	6	4.5×3.4	10.0	3	3.30	●
T118-PDN-050080B-6HX	M5×0.8	5	0.8	6HX	5P	B	13	70	10	25	6	4.9	8	6×4.9	12.5	3	4.20	●
T118-PDN-060100B-6HX	M6×1	6	1	6HX	5P	B	13	80	10	30	6	4.9	8	6×4.9	15.0	3	5.00	●
T118-PDN-070100B-6HX	M7×1	7	1	6HX	5P	B	5	80	10	30	7	5.5	8	7×5.5	17.5	3	6.00	○
T118-PDN-080125B-6HX	M8×1.25	8	1.25	6HX	5P	B	5	90	13	35	8	6.2	9	8×6.2	20.0	3	6.75	●
T118-PDN-080100B-6HX	M8×1	8	1	6HX	5P	B	5	90	13	35	8	6.2	9	8×6.2	20.0	3	7.00	●
T118-PDN-100150B-6HX	M10×1.5	10	1.5	6HX	5P	B	5	100	15	39	10	8	11	10×8	25.0	3	8.50	●
T118-PDN-100125B-6HX	M10×1.25	10	1.25	6HX	5P	B	5	100	15	39	10	8	11	10×8	25.0	3	8.75	●
T118-PDN-100100B-6HX	M10×1	10	1	6HX	5P	B	5	100	15	39	10	8	11	10×8	25.0	3	9.00	○
T118-PDN-120175B-6HX	M12×1.75	12	1.75	6HX	5P	B	5	110	17	49	9	7	10	9×7	30.0	4	10.25	●
T118-PDN-120150B-6HX	M12×1.5	12	1.5	6HX	5P	B	5	110	17	49	9	7	10	9×7	30.0	4	10.50	●
T118-PDN-120125B-6HX	M12×1.25	12	1.25	6HX	5P	B	5	110	17	49	9	7	10	9×7	30.0	4	10.75	●
T118-PDN-120100B-6HX	M12×1	12	1	6HX	5P	B	5	110	17	49	9	7	10	9×7	30.0	4	11.00	○
T118-PDN-140200B-6HX	M14×2	14	2	6HX	5P	B	5	110	20	53	11	9	12	11×9	35.0	4	12.00	●
T118-PDN-140150B-6HX	M14×1.5	14	1.5	6HX	5P	B	5	110	20	53	11	9	12	11×9	35.0	4	12.50	●
T118-PDN-140125B-6HX	M14×1.25	14	1.25	6HX	5P	B	5	110	20	53	11	9	12	11×9	35.0	4	12.75	○
T118-PDN-140100B-6HX	M14×1	14	1	6HX	5P	B	5	110	20	53	11	9	12	11×9	35.0	4	13.00	○
T118-PDN-160200B-6HX	M16×2	16	2	6HX	5P	B	5	110	20	54	12	9	12	12×9	40.0	4	14.00	●
T118-PDN-160150B-6HX	M16×1.5	16	1.5	6HX	5P	B	5	110	20	54	12	9	12	12×9	40.0	4	14.50	●
T118-PDN-160125B-6HX	M16×1.25	16	1.25	6HX	5P	B	5	110	20	54	12	9	12	12×9	40.0	4	14.75	○
T118-PDN-160100B-6HX	M16×1	16	1	6HX	5P	B	5	110	20	54	12	9	12	12×9	40.0	4	15.00	○

●Stock ○Available Upon Order Unit (mm)

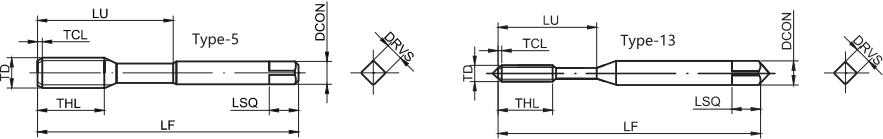
Notes:
Pre-hole size is for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○	○		○	○	○	○	○	○					

○ Most Suitable ○ Suitable Recommended Cutting Data ※ P216

T128-HDN

High-performance Cast Iron Machining Straight Fluted Tap



Order No.	Thread Size	TD	TP	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
T128-HDN-050080C-6HX	M5×0.8	5	0.8	6HX	2.5P	C	13	70	10	25	6	4.9	8	6×4.9	12.5	3	4.20	●
T128-HDN-060100C-6HX	M6×1	6	1	6HX	2.5P	C	13	80	10	30	6	4.9	8	6×4.9	15.0	3	5.00	●
T128-HDN-070100C-6HX	M7×1	7	1	6HX	2.5P	C	13	80	10	30	7	5.5	8	7×5.5	17.5	3	6.00	○
T128-HDN-080125C-6HX	M8×1.25	8	1.25	6HX	2.5P	C	5	90	13	35	8	6.2	9	8×6.2	20.0	4	6.75	●
T128-HDN-080100C-6HX	M8×1	8	1	6HX	2.5P	C	5	90	13	35	8	6.2	9	8×6.2	20.0	4	7.00	○
T128-HDN-100150C-6HX	M10×1.5	10	1.5	6HX	2.5P	C	5	100	15	39	10	8	11	10×8	25.0	4	8.50	●
T128-HDN-100125C-6HX	M10×1.25	10	1.25	6HX	2.5P	C	5	100	15	39	10	8	11	10×8	25.0	4	8.75	●
T128-HDN-100100C-6HX	M10×1	10	1	6HX	2.5P	C	5	100	15	39	10	8	11	10×8	25.0	4	9.00	○
T128-HDN-120175C-6HX	M12×1.75	12	1.75	6HX	2.5P	C	5	110	17	49	9	7	10	9×7	30.0	4	10.25	●
T128-HDN-120150C-6HX	M12×1.5	12	1.5	6HX	2.5P	C	5	110	17	49	9	7	10	9×7	30.0	4	10.50	●
T128-HDN-120125C-6HX	M12×1.25	12	1.25	6HX	2.5P	C	5	110	17	49	9	7	10	9×7	30.0	4	10.75	○
T128-HDN-120100C-6HX	M12×1	12	1	6HX	2.5P	C	5	110	17	49	9	7	10	9×7	30.0	4	11.00	○
T128-HDN-140200C-6HX	M14×2	14	2	6HX	2.5P	C	5	110	20	53	11	9	12	11×9	35.0	4	12.00	●
T128-HDN-140150C-6HX	M14×1.5	14	1.5	6HX	2.5P	C	5	110	20	53	11	9	12	11×9	35.0	4	12.50	●
T128-HDN-140125C-6HX	M14×1.25	14	1.25	6HX	2.5P	C	5	110	20	53	11	9	12	11×9	35.0	4	12.75	○
T128-HDN-140100C-6HX	M14×1	14	1	6HX	2.5P	C	5	110	20	53	11	9	12	11×9	35.0	4	13.00	○
T128-HDN-160200C-6HX	M16×2	16	2	6HX	2.5P	C	5	110	20	54	12	9	12	12×9	40.0	4	14.00	●
T128-HDN-160150C-6HX	M16×1.5	16	1.5	6HX	2.5P	C	5	110	20	54	12	9	12	12×9	40.0	4	14.50	●
T128-HDN-160125C-6HX	M16×1.25	16	1.25	6HX	2.5P	C	5	110	20	54	12	9	12	12×9	40.0	4	14.75	○
T128-HDN-160100C-6HX	M16×1	16	1	6HX	2.5P	C	5	110	20	54	12	9	12	12×9	40.0	4	15.00	○

●Stock ○Available Upon Order Unit (mm)

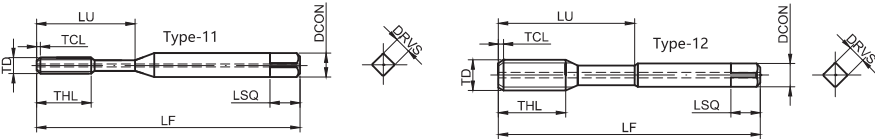
Notes:
Pre-hole size is for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
				○	○								

○ Most Suitable ○ Suitable Recommended Cutting Data ※ P216

T128-HDC

High-performance Straight Fluted Tap for Internal Cooling Cast Iron Machining



Order No.	Thread Size	TD	TP	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
T128-HDC-050080C-6HX	M5×0.8	5.000	0.8	6HX	2.5P	C	11	70	10	25	6	4.9	8	6×4.9	12.5	3	4.20	○
T128-HDC-060100C-6HX	M6×1	6.000	1	6HX	2.5P	C	11	80	10	30	6	4.9	8	6×4.9	15	3	5.00	○
T128-HDC-070100C-6HX	M7×1	7.000	1	6HX	2.5P	C	11	80	10	30	7	5.5	8	7×5.5	17.5	3	6.00	○
T128-HDC-080125C-6HX	M8×1.25	8.000	1.25	6HX	2.5P	C	12	90	13	35	8	6.2	9	8×6.2	20	4	6.75	○
T128-HDC-080100C-6HX	M8×1	8.000	1	6HX	2.5P	C	12	90	13	35	8	6.2	9	8×6.2	20	4	7.00	○
T128-HDC-100150C-6HX	M10×1.5	10.000	1.5	6HX	2.5P	C	12	100	15	39	10	8	11	10×8	25	4	8.50	○
T128-HDC-100125C-6HX	M10×1.25	10.000	1.25	6HX	2.5P	C	12	100	15	39	10	8	11	10×8	25	4	8.75	○
T128-HDC-100100C-6HX	M10×1	10.000	1	6HX	2.5P	C	12	100	15	39	10	8	11	10×8	25	4	9.00	○
T128-HDC-120175C-6HX	M12×1.75	12.000	1.75	6HX	2.5P	C	12	110	17	49	9	7	10	9×7	30	4	10.25	○
T128-HDC-120150C-6HX	M12×1.5	12.000	1.5	6HX	2.5P	C	12	110	17	49	9	7	10	9×7	30	4	10.50	○
T128-HDC-120125C-6HX	M12×1.25	12.000	1.25	6HX	2.5P	C	12	110	17	49	9	7	10	9×7	30	4	10.75	○
T128-HDC-120100C-6HX	M12×1	12.000	1	6HX	2.5P	C	12	110	17	49	9	7	10	9×7	30	4	11.00	○
T128-HDC-140200C-6HX	M14×2	14.000	2	6HX	2.5P	C	12	110	20	53	11	9	12	11×9	35	4	12.00	○
T128-HDC-140150C-6HX	M14×1.5	14.000	1.5	6HX	2.5P	C	12	110	20	53	11	9	12	11×9	35	4	12.50	○
T128-HDC-140125C-6HX	M14×1.25	14.000	1.25	6HX	2.5P	C	12	110	20	53	11	9	12	11×9	35	4	12.75	○
T128-HDC-140100C-6HX	M14×1	14.000	1	6HX	2.5P	C	12	110	20	53	11	9	12	11×9	35	4	13.00	○
T128-HDC-160200C-6HX	M16×2	16.000	2	6HX	2.5P	C	12	110	20	54	12	9	12	12×9	40	4	14.00	○
T128-HDC-160150C-6HX	M16×1.5	16.000	1.5	6HX	2.5P	C	12	110	20	54	12	9	12	12×9	40	4	14.50	○
T128-HDC-160125C-6HX	M16×1.25	16.000	1.25	6HX	2.5P	C	12	110	20	54	12	9	12	12×9	40	4	14.75	○
T128-HDC-160100C-6HX	M16×1	16.000	1	6HX	2.5P	C	12	110	20	54	12	9	12	12×9	40	4	15.00	○

●Stock ○Available Upon Order Unit (mm)

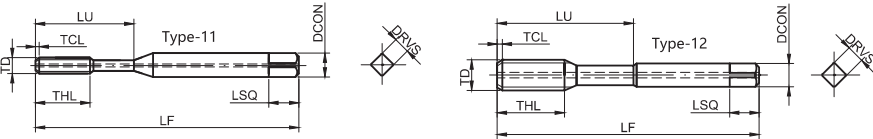
Notes:
Pre-hole size is for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
				◎	○								

◎ Most Suitable ○ Suitable Recommended Cutting Data ※ P216

T128-HDR

High-performanceStraight Fluted Tap for Internal Cooling Cast Iron Machining



Order No.	Thread Size	TD	TP	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
T128-HDR-050080C-6HX	M5×0.8	5	0.8	6HX	2.5P	C	11	70	10	25	6	4.9	8	6×4.9	12.5	3	4.20	○
T128-HDR-060100C-6HX	M6×1	6	1	6HX	2.5P	C	11	80	10	30	6	4.9	8	6×4.9	15.0	3	5.00	○
T128-HDR-070100C-6HX	M7×1	7	1	6HX	2.5P	C	11	80	10	30	7	5.5	8	7×5.5	17.5	3	6.00	○
T128-HDR-080125C-6HX	M8×1.25	8	1.25	6HX	2.5P	C	12	90	13	35	8	6.2	9	8×6.2	20.0	4	6.75	○
T128-HDR-080100C-6HX	M8×1	8	1	6HX	2.5P	C	12	90	13	35	8	6.2	9	8×6.2	20.0	4	7.00	○
T128-HDR-100150C-6HX	M10×1.5	10	1.5	6HX	2.5P	C	12	100	15	39	10	8	11	10×8	25.0	4	8.50	○
T128-HDR-100125C-6HX	M10×1.25	10	1.25	6HX	2.5P	C	12	100	15	39	10	8	11	10×8	25.0	4	8.75	○
T128-HDR-100100C-6HX	M10×1	10	1	6HX	2.5P	C	12	100	15	39	10	8	11	10×8	25.0	4	9.00	○
T128-HDR-120175C-6HX	M12×1.75	12	1.75	6HX	2.5P	C	12	110	17	49	9	7	10	9×7	30.0	4	10.25	○
T128-HDR-120150C-6HX	M12×1.5	12	1.5	6HX	2.5P	C	12	110	17	49	9	7	10	9×7	30.0	4	10.50	○
T128-HDR-120125C-6HX	M12×1.25	12	1.25	6HX	2.5P	C	12	110	17	49	9	7	10	9×7	30.0	4	10.75	○
T128-HDR-120100C-6HX	M12×1	12	1	6HX	2.5P	C	12	110	17	49	9	7	10	9×7	30.0	4	11.00	○
T128-HDR-140200C-6HX	M14×2	14	2	6HX	2.5P	C	12	110	20	53	11	9	12	11×9	35.0	4	12.00	○
T128-HDR-140150C-6HX	M14×1.5	14	1.5	6HX	2.5P	C	12	110	20	53	11	9	12	11×9	35.0	4	12.50	○
T128-HDR-140125C-6HX	M14×1.25	14	1.25	6HX	2.5P	C	12	110	20	53	11	9	12	11×9	35.0	4	12.75	○
T128-HDR-140100C-6HX	M14×1	14	1	6HX	2.5P	C	12	110	20	53	11	9	12	11×9	35.0	4	13.00	○
T128-HDR-160200C-6HX	M16×2	16	2	6HX	2.5P	C	12	110	20	54	12	9	12	12×9	40.0	4	14.00	○
T128-HDR-160150C-6HX	M16×1.5	16	1.5	6HX	2.5P	C	12	110	20	54	12	9	12	12×9	40.0	4	14.50	○
T128-HDR-160125C-6HX	M16×1.25	16	1.25	6HX	2.5P	C	12	110	20	54	12	9	12	12×9	40.0	4	14.75	○
T128-HDR-160100C-6HX	M16×1	16	1	6HX	2.5P	C	12	110	20	54	12	9	12	12×9	40.0	4	15.00	○

●Stock ○Available Upon Order Unit (mm)

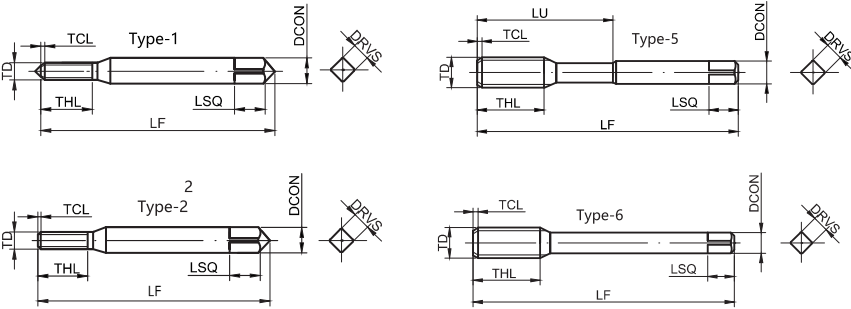
Notes:
Pre-hole size is for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
				◎	○								

◎ Most Suitable ○ Suitable Recommended Cutting Data ※ P216

ET138-FJN

Economical Fluteless Tap for Steel Machining



Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET138-FJN-010025D-RH4	M1×0.25	1	0.25	RH4	4P	D	1	32	4.5	—	3	2.5	3	3×2.5	2.5	—	0.92	○
ET138-FJN-010025E-RH4	M1×0.25	1	0.25	RH4	2P	E	2	31	3.5	—	3	2.5	3	3×2.5	2.5	—	0.92	○
ET138-FJN-012025D-RH4	M1.2×0.25	1.2	0.25	RH4	4P	D	1	32	4.5	—	3	2.5	3	3×2.5	3.0	—	1.12	○
ET138-FJN-012025E-RH4	M1.2×0.25	1.2	0.25	RH4	2P	E	2	31	3.5	—	3	2.5	3	3×2.5	3.0	—	1.12	○
ET138-FJN-014030D-RH4	M1.4×0.3	1.4	0.3	RH4	4P	D	1	37	6.5	—	3	2.5	3	3×2.5	3.5	—	1.29	○
ET138-FJN-014030E-RH4	M1.4×0.3	1.4	0.3	RH4	2P	E	2	36	6.5	—	3	2.5	3	3×2.5	3.5	—	1.29	○
ET138-FJN-016035D-RH4	M1.6×0.35	1.6	0.35	RH4	4P	D	1	37	8	—	3	2.5	3	3×2.5	4.0	—	1.46	○
ET138-FJN-016035E-RH4	M1.6×0.35	1.6	0.35	RH4	2P	E	2	35.5	8	—	3	2.5	3	3×2.5	4.0	—	1.46	○
ET138-FJN-017035D-RH4	M1.7×0.35	1.7	0.35	RH4	4P	D	1	37	8	—	3	2.5	3	3×2.5	4.3	—	1.56	○
ET138-FJN-017035E-RH4	M1.7×0.35	1.7	0.35	RH4	2P	E	2	35.5	8	—	3	2.5	3	3×2.5	4.3	—	1.56	○
ET138-FJN-020040D-RH5	M2×0.4	2	0.4	RH5	4P	D	1	45	10	—	3	2.5	3	3×2.5	5.0	—	1.85	●
ET138-FJN-020040E-RH5	M2×0.4	2	0.4	RH5	2P	E	2	43.5	10	—	3	2.5	3	3×2.5	5.0	—	1.85	●
ET138-FJN-023040D-RH5	M2.3×0.4	2.3	0.4	RH5	4P	D	1	45	10	—	3	2.5	3	3×2.5	5.8	—	2.15	○
ET138-FJN-023040E-RH5	M2.3×0.4	2.3	0.4	RH5	2P	E	2	43.5	10	—	3	2.5	3	3×2.5	5.8	—	2.15	○
ET138-FJN-025045D-RH5	M2.5×0.45	2.5	0.45	RH5	4P	D	1	45	13	—	3	2.5	3	3×2.5	6.3	—	2.32	●
ET138-FJN-025045E-RH5	M2.5×0.45	2.5	0.45	RH5	2P	E	2	43.5	13	—	3	2.5	3	3×2.5	6.3	—	2.32	●
ET138-FJN-026045D-RH5	M2.6×0.45	2.6	0.45	RH5	4P	D	1	45	13	—	3	2.5	3	3×2.5	6.5	—	2.42	○
ET138-FJN-026045E-RH5	M2.6×0.45	2.6	0.45	RH5	2P	E	2	43.5	13	—	3	2.5	3	3×2.5	6.5	—	2.42	●
ET138-FJN-030050D-RH7	M3×0.5	3	0.5	RH7	4P	D	1	50	16	—	4	3.2	6	4×3.2	7.5	—	2.82	●

●Stock ○Available Upon Order Unit (mm)

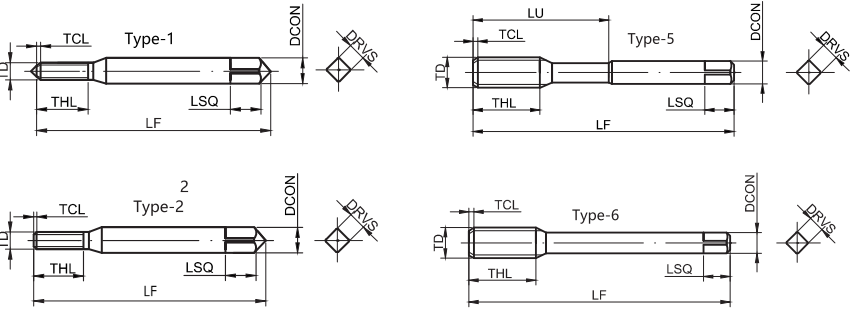
Notes: Pre-hole size is calculated based on an 85% percentage of thread engagement, for reference only.

Workpiece Material													
P			M	K			N				S		H
1	2	3	4	5	6	7	1	2	3	4	5	6	7
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
◎			○										

◎ Most Suitable ○ Suitable Recommended Cutting Data ※ P217

ET138-FJN

Economical Fluteless Tap for Steel Machining



Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET138-FJN-030050E-RH7	M3×0.5	3	0.5	RH7	2P	E	2	48	16	—	4	3.2	6	4×3.2	7.5	—	2.82	●
ET138-FJN-035060D-RH7	M3.5×0.6	3.5	0.6	RH7	4P	D	1	50	16	—	4	3.2	6	4×3.2	8.8	—	3.26	●
ET138-FJN-035060E-RH7	M3.5×0.6	3.5	0.6	RH7	2P	E	2	48	16	—	4	3.2	6	4×3.2	8.8	—	3.26	●
ET138-FJN-040070D-RH7	M4×0.7	4	0.7	RH7	4P	D	1	57	18	—	5	4	7	5×4	10.0	—	3.71	●
ET138-FJN-040070E-RH7	M4×0.7	4	0.7	RH7	2P	E	2	55	18	—	5	4	7	5×4	10.0	—	3.71	●
ET138-FJN-050080D-RH7	M5×0.8	5	0.8	RH7	4P	D	1	66	20	—	5.5	4.5	7	5.5×4.5	12.5	—	4.65	●
ET138-FJN-050080E-RH7	M5×0.8	5	0.8	RH7	2P	E	2	63.5	20	—	5.5	4.5	7	5.5×4.5	12.5	—	4.65	●
ET138-FJN-060100D-RH7	M6×1	6	1	RH7	4P	D	1	69	27	—	6	4.5	7	6×4.5	15.0	2	5.55	●
ET138-FJN-060100E-RH7	M6×1	6	1	RH7	2P	E	2	66.5	27	—	6	4.5	7	6×4.5	15.0	2	5.55	●
ET138-FJN-070100D-RH7	M7×1	7	1	RH7	4P	D	5	70	13	23	6.2	5	8	6.2×5	17.5	2	6.55	○
ET138-FJN-070100E-RH7	M7×1	7	1	RH7	2P	E	5	70	13	23	6.2	5	8	6.2×5	17.5	2	6.55	○
ET138-FJN-080125D-RH7	M8×1.25	8	1.25	RH7	4P	D	5	70	13	36	6.2	5	8	6.2×5	20.0	3	7.41	●
ET138-FJN-080125E-RH7	M8×1.25	8	1.25	RH7	2P	E	5	70	13	36	6.2	5	8	6.2×5	20.0	3	7.41	●
ET138-FJN-100150D-RH8	M10×1.5	10	1.5	RH8	4P	D	5	75	15	43	7	5.5	8	7×5.5	25.0	6	9.29	○
ET138-FJN-100150E-RH8	M10×1.5	10	1.5	RH8	2P	E	5	75	15	43	7	5.5	8	7×5.5	25.0	6	9.29	●
ET138-FJN-120175D-RH9	M12×1.75	12	1.75	RH9	4P	D	5	82	17	42	8.5	6.5	9	8.5×6.5	30.0	6	11.16	○
ET138-FJN-120175E-RH9	M12×1.75	12	1.75	RH9	2P	E	5	82	17	42	8.5	6.5	9	8.5×6.5	30.0	6	11.16	●
ET138-FJN-140200D-RH10	M14×2	14	2	RH10	4P	D	5	88	20	51	10.5	8	11	10.5×8	35.0	6	13.04	○
ET138-FJN-140200E-RH10	M14×2	14	2	RH10	2P	E	5	88	20	51	10.5	8	11	10.5×8	35.0	6	13.04	●

●Stock ○Available Upon Order Unit (mm)

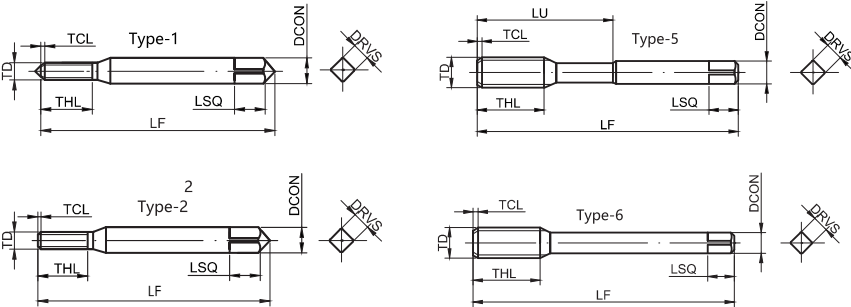
Notes: Pre-hole size is calculated based on an 85% percentage of thread engagement, for reference only.

Workpiece Material													
P			M	K			N				S		H
1	2	3	4	5	6	7	1	2	3	4	5	6	7
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
◎			○										

◎ Most Suitable ○ Suitable Recommended Cutting Data ※ P217

ET138-FJN

Economical Fluteless Tap for Steel Machining



Continued

Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET138-FJN-160200D-RH10	M16×2	16	2	RH10	4P	D	5	95	20	52	12.5	10	13	12.5×10	40.0	6	15.04	○
ET138-FJN-160200E-RH10	M16×2	16	2	RH10	2P	E	5	95	20	52	12.5	10	13	12.5×10	40.0	6	15.04	●
ET138-FJN-U164D-RH4	NO.1-64UNC	1.854	64	RH4	4P	D	1	37	9	—	3	2.5	3	3×2.5	4.6	—	1.69	○
ET138-FJN-U164E-RH4	NO.1-64UNC	1.854	64	RH4	2P	E	2	35.5	9	—	3	2.5	3	3×2.5	4.6	—	1.69	○
ET138-FJN-U256D-RH4	NO.2-56UNC	2.184	56	RH4	4P	D	1	45	12	—	3	2.5	3	3×2.5	5.5	—	1.99	○
ET138-FJN-U256E-RH4	NO.2-56UNC	2.184	56	RH4	2P	E	2	43.5	12	—	3	2.5	3	3×2.5	5.5	—	1.99	○
ET138-FJN-U348D-RH4	NO.3-48UNC	2.515	48	RH4	4P	D	1	45	15	—	3	2.5	3	3×2.5	6.3	—	2.28	○
ET138-FJN-U348E-RH4	NO.3-48UNC	2.515	48	RH4	2P	E	2	43.5	15	—	3	2.5	3	3×2.5	6.3	—	2.28	○
ET138-FJN-U440D-RH4	NO.4-40UNC	2.845	40	RH4	4P	D	1	45	15	—	3	2.5	3	3×2.5	7.1	—	2.55	○
ET138-FJN-U440E-RH4	NO.4-40UNC	2.845	40	RH4	2P	E	2	43.5	15	—	3	2.5	3	3×2.5	7.1	—	2.55	●
ET138-FJN-U540D-RH4	NO.5-40UNC	3.175	40	RH4	4P	D	1	50	15	—	4	3.2	6	4×3.2	7.9	—	2.88	○
ET138-FJN-U540E-RH4	NO.5-40UNC	3.175	40	RH4	2P	E	2	48	15	—	4	3.2	6	4×3.2	7.9	—	2.88	●
ET138-FJN-U632D-RH7	NO.6-32UNC	3.505	32	RH7	4P	D	1	50	16	—	4	3.2	6	4×3.2	8.8	—	3.16	●
ET138-FJN-U632E-RH7	NO.6-32UNC	3.505	32	RH7	2P	E	2	48	16	—	4	3.2	6	4×3.2	8.8	—	3.16	●
ET138-FJN-U832D-RH7	NO.8-32UNC	4.166	32	RH7	4P	D	1	57	18	—	5	4	7	5×4	10.4	—	3.82	●
ET138-FJN-U832E-RH7	NO.8-32UNC	4.166	32	RH7	2P	E	2	54.5	18	—	5	4	7	5×4	10.4	—	3.82	●
ET138-FJN-U1024D-RH7	NO.10-24UNC	4.826	24	RH7	4P	D	1	66	20	—	5.5	4.5	7	5.5×4.5	12.1	—	4.34	●
ET138-FJN-U1024E-RH7	NO.10-24UNC	4.826	24	RH7	2P	E	2	63.5	20	—	5.5	4.5	7	5.5×4.5	12.1	—	4.34	●
ET138-FJN-U1224D-RH7	NO.12-24UNC	5.486	24	RH7	4P	D	1	66	23	—	5.5	4.5	7	5.5×4.5	13.7	—	5.00	●

●Stock ○Available Upon Order

Unit (mm)

Notes: Pre-hole size is calculated based on an 85% percentage of thread engagement, for reference only.

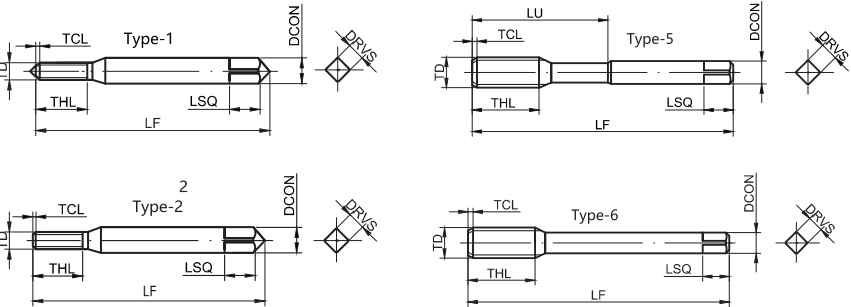
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			○										

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P217

ET138-FJN

Economical Fluteless Tap for Steel Machining



Continued

Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET138-FJN-U1224E-RH7	NO.12-24UNC	5.486	24	RH7	2P	E	2	63.5	23	—	5.5	4.5	7	5.5×4.5	13.7	—	5.00	●
ET138-FJN-U1420D-RH7	1/4-20UNC	6.350	20	RH7	4P	D	6	62	27	—	6	4.5	7	6×4.5	15.9	2	5.75	●
ET138-FJN-U1420E-RH7	1/4-20UNC	6.350	20	RH7	2P	E	6	62	27	—	6	4.5	7	6×4.5	15.9	2	5.75	●
ET138-FJN-U51618D-RH8	5/16-18UNC	7.938	18	RH8	4P	D	5	70	15	30	6.1	5	8	6.1×5	19.8	3	7.27	●
ET138-FJN-U51618E-RH8	5/16-18UNC	7.938	18	RH8	2P	E	5	70	15	30	6.1	5	8	6.1×5	19.8	3	7.27	●
ET138-FJN-U3816D-RH8	3/8-16UNC	9.525	16	RH8	4P	D	5	75	16	43	7	5.5	8	7×5.5	23.8	6	8.77	●
ET138-FJN-U3816E-RH8	3/8-16UNC	9.525	16	RH8	2P	E	5	75	16	43	7	5.5	8	7×5.5	23.8	6	8.77	●
ET138-FJN-U71614D-RH8	7/16-14UNC	11.113	14	RH8	4P	D	5	80	20	40	8	6	9	8×6	27.8	6	10.23	○
ET138-FJN-U71614E-RH8	7/16-14UNC	11.113	14	RH8	2P	E	5	80	20	40	8	6	9	8×6	27.8	6	10.23	○
ET138-FJN-U1213D-RH8	1/2-13UNC	12.700	13	RH8	4P	D	5	85	21	48	9	7	10	9×7	31.8	6	11.74	○
ET138-FJN-U1213E-RH8	1/2-13UNC	12.700	13	RH8	2P	E	5	85	21	48	9	7	10	9×7	31.8	6	11.74	●
ET138-FJN-U91612D-RH9	9/16-12UNC	14.288	12	RH9	4P	D	5	90	21	50	10.5	8	11	10.5×8	35.7	6	13.25	○
ET138-FJN-U91612E-RH9	9/16-12UNC	14.288	12	RH9	2P	E	5	90	21	50	10.5	8	11	10.5×8	35.7	6	13.25	○
ET138-FJN-U5811D-RH10	5/8-11UNC	15.875	11	RH10	4P	D	5	95	23	48	12	9	12	12×9	39.7	6	14.75	○
ET138-FJN-U5811E-RH10	5/8-11UNC	15.875	11	RH10	2P	E	5	95	23	48	12	9	12	12×9	39.7	6	14.75	●

●Stock ○Available Upon Order

Unit (mm)

Notes: Pre-hole size is calculated based on an 85% percentage of thread engagement, for reference only.

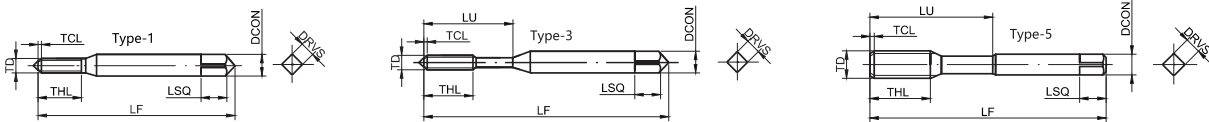
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			○										

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P217

ET138-SJN

Economical Spiral Tap for Steel Machining



Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET138-SJN-025045C-P2	M2.5×0.45	2.5	0.45	P2	2.5P	C	1	45	12	—	3	2.5	3	3×2.5	6.3	2	2.05	●
ET138-SJN-030050C-P2	M3×0.5	3	0.5	P2	2.5P	C	3	50	5	18	4	3.2	6	4×3.2	7.5	3	2.50	●
ET138-SJN-035060C-P2	M3.5×0.6	3.5	0.6	P2	2.5P	C	3	50	6	19	4	3.2	6	4×3.2	8.8	3	2.90	○
ET138-SJN-040070C-P2	M4×0.7	4	0.7	P2	2.5P	C	3	57	9	20	5	4	7	5×4	10.0	3	3.30	●
ET138-SJN-050080C-P2	M5×0.8	5	0.8	P2	2.5P	C	3	66	8	25	5.5	4.5	7	5.5×4.5	12.5	3	4.20	●
ET138-SJN-060100C-P2	M6×1	6	1	P2	2.5P	C	3	69	12	24	6	4.5	7	6×4.5	15.0	3	5.00	●
ET138-SJN-070100C-P3	M7×1	7	1	P3	2.5P	C	3	78	13	23	6.2	5	8	6.2×5	17.5	3	6.00	●
ET138-SJN-080125C-P3	M8×1.25	8	1.25	P3	2.5P	C	5	70	13	36	6.2	5	8	6.2×5	20.0	3	6.75	●
ET138-SJN-080100C-P3	M8×1	8	1	P3	2.5P	C	5	70	13	36	6.2	5	8	6.2×5	20.0	3	7.00	●
ET138-SJN-100150C-P4	M10×1.5	10	1.5	P4	2.5P	C	5	75	15	43	7	5.5	8	7×5.5	25.0	3	8.50	●
ET138-SJN-100125C-P3	M10×1.25	10	1.25	P3	2.5P	C	5	75	13	43	7	5.5	8	7×5.5	25.0	3	8.75	●
ET138-SJN-100100C-P3	M10×1	10	1	P3	2.5P	C	5	75	13	43	7	5.5	8	7×5.5	25.0	3	9.00	○
ET138-SJN-120175C-P4	M12×1.75	12	1.75	P4	2.5P	C	5	82	17	42	8.5	6.5	9	8.5×6.5	30.0	3	10.25	●
ET138-SJN-120150C-P4	M12×1.5	12	1.5	P4	2.5P	C	5	82	17	42	8.5	6.5	9	8.5×6.5	30.0	3	10.50	●
ET138-SJN-120125C-P4	M12×1.25	12	1.25	P4	2.5P	C	5	82	13	42	8.5	6.5	9	8.5×6.5	30.0	3	10.75	●
ET138-SJN-120100C-P3	M12×1	12	1	P3	2.5P	C	5	82	13	42	8.5	6.5	9	8.5×6.5	30.0	3	11.00	○
ET138-SJN-140200C-P5	M14×2	14	2	P5	2.5P	C	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.00	●
ET138-SJN-140150C-P4	M14×1.5	14	1.5	P4	2.5P	C	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.50	●
ET138-SJN-140125C-P4	M14×1.25	14	1.25	P4	2.5P	C	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.75	○
ET138-SJN-140100C-P3	M14×1	14	1	P3	2.5P	C	5	88	20	51	10.5	8	11	10.5×8	35.0	3	13.00	○
ET138-SJN-160200C-P5	M16×2	16	2	P5	2.5P	C	5	95	20	52	12.5	10	13	12.5×10	40.0	3	14.00	●
ET138-SJN-160150C-P4	M16×1.5	16	1.5	P4	2.5P	C	5	95	20	52	12.5	10	13	12.5×10	40.0	3	14.50	●
ET138-SJN-160125C-P4	M16×1.25	16	1.25	P4	2.5P	C	5	95	20	52	12.5	10	13	12.5×10	40.0	3	14.75	○

●Stock ○Available Upon Order Unit (mm)

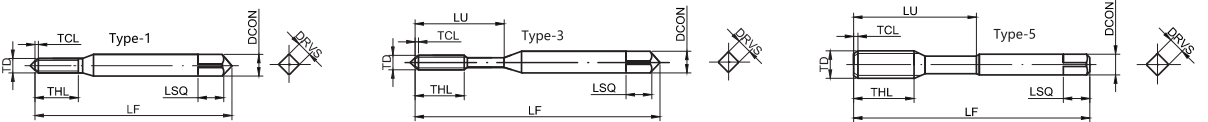
Notes: Pre-hole size is for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
◎			○										

◎ Most Suitable ○ Suitable Recommended Cutting Data ※ P217

ET138-SJN

Economical Spiral Tap for Steel Machining



Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET138-SJN-160100C-P3	M16×1	16	1	P3	2.5P	C	5	95	20	52	12.5	10	13	12.5×10	40.0	3	15.00	○
ET138-SJN-U080F-P1	NO.0-80UNF	1.524	80	P1	1.5P	F	1	37	10	—	3	2.5	3	3×2.5	3.8	2	1.21	○
ET138-SJN-U164F-P1	NO.1-64UNC	1.854	64	P1	1.5P	F	1	37	11	—	3	2.5	3	3×2.5	4.6	2	1.46	○
ET138-SJN-U256C-P1	NO.2-56UNC	2.184	56	P1	2.5P	C	1	45	12	—	3	2.5	3	3×2.5	5.5	2	1.73	○
ET138-SJN-U348C-P1	NO.3-48UNC	2.515	48	P1	2.5P	C	1	45	14	—	3	2.5	3	3×2.5	6.3	2	1.99	○
ET138-SJN-U440C-P2	NO.4-40UNC	2.845	40	P2	2.5P	C	1	45	6	16	3	2.5	3	3×2.5	7.1	3	2.21	●
ET138-SJN-U540C-P2	NO.5-40UNC	3.175	40	P2	2.5P	C	3	50	7	19	4	3.2	6	4×3.2	7.9	3	2.54	○
ET138-SJN-U632C-P2	NO.6-32UNC	3.505	32	P2	2.5P	C	3	50	8	20	4	3.2	6	4×3.2	8.8	3	2.71	●
ET138-SJN-U640C-P2	NO.6-40UNF	3.505	40	P2	2.5P	C	3	50	8	20	4	3.2	6	4×3.2	8.8	3	2.87	○
ET138-SJN-U832C-P2	NO.8-32UNC	4.166	32	P2	2.5P	C	3	57	8	21.5	5	4	7	5×4	10.4	3	3.37	●
ET138-SJN-U836C-P2	NO.8-36UNF	4.166	36	P2	2.5P	C	3	57	8	21.5	5	4	7	5×4	10.4	3	3.46	○
ET138-SJN-U1024C-P2	NO.10-24UNC	4.826	24	P2	2.5P	C	3	66	10	26	5.5	4.5	7	5.5×4.5	12.1	3	3.77	●
ET138-SJN-U1224C-P2	NO.12-24UNC	5.486	24	P2	2.5	C	3	66	10	26	5.5	4.5	7	5.5×4.5	13.7	3	4.43	○
ET138-SJN-U1420C-P2	1/4-20UNC	6.350	20	P2	2.5P	C	3	69	12	29	6	4.5	7	6×4.5	15.9	3	5.08	●
ET138-SJN-U1428C-P2	1/4-28UNF	6.350	28	P2	2.5P	C	3	69	12	29	6	4.5	7	6×4.5	15.9	3	5.44	●
ET138-SJN-U51618C-P3	5/16-18UNC	7.938	18	P3	2.5P	C	5	70	15	30	6.1	5	8	6.1×5	19.8	3	6.53	●
ET138-SJN-U51624C-P3	5/16-24UNF	7.938	24	P3	2.5P	C	5	70	11	30	6.1	5	8	6.1×5	19.8	3	6.88	●
ET138-SJN-U3816C-P3	3/8-16UNC	9.525	16	P3	2.5P	C	5	75	16	43	7	5.5	8	7×5.5	23.8	3	7.94	●
ET138-SJN-U3824C-P3	3/8-24UNF	9.525	24	P3	2.5P	C	5	75	11	43	7	5.5	8	7×5.5	23.8	3	8.47	●
ET138-SJN-U71614C-P4	7/16-14UNC	11.113	14	P4	2.5P	C	5	80	20	40	8	6	9	8×6	27.8	3	9.30	○
ET138-SJN-U71620C-P3	7/16-20UNF	11.113	20	P3	2.5P	C	5	80	13	40	8	6	9	8×6	27.8	3	9.84	○
ET138-SJN-U1213C-P4	1/2-13UNC	12.700	13	P4	2.5P	C	5	85	21	48	9	7	10	9×7	31.8	3	10.75	○
ET138-SJN-U1220C-P3	1/2-20UNF	12.700	20	P3	2.5P	C	5	85	13	48	9	7	10	9×7	31.8	3	11.43	●

●Stock ○Available Upon Order Unit (mm)

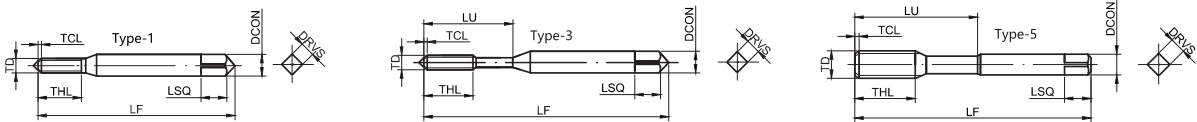
Notes: Pre-hole size is for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
◎			○										

◎ Most Suitable ○ Suitable Recommended Cutting Data ※ P217

ET138-SJN

Economical Spiral Tap for Steel Machining



Continued

Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET138-SJN-U91612C-P4	9/16-12UNC	14.288	12	P4	2.5P	C	5	90	21	50	10.5	8	11	10.5×8	35.7	3	12.17	○
ET138-SJN-U91618C-P3	9/16-18UNF	14.288	18	P3	2.5P	C	5	90	15	50	10.5	8	11	10.5×8	35.7	3	12.88	○
ET138-SJN-U5811C-P4	5/8-11UNC	15.875	11	P4	2.5P	C	5	95	23	48	12	9	12	12×9	39.7	3	13.57	○
ET138-SJN-U5818C-P3	5/8-18UNF	15.875	18	P3	2.5P	C	5	95	23	48	12	9	12	12×9	39.7	3	14.46	○

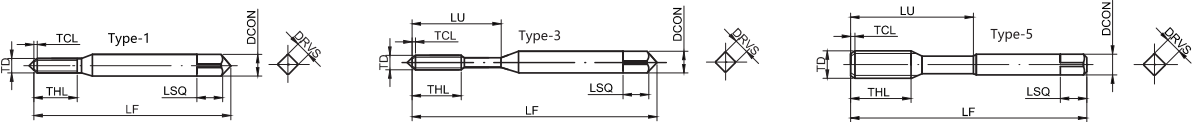
●Stock ○Available Upon Order

Unit (mm)

Notes: Pre-hole size is for reference only.

ET138-PJN

Economical Spiral Pointed Tap for Steel Machining



Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET138-PJN-010025B-P1	M1×0.25	1	0.25	P1	5P	B	1	37	4.5	—	3	2.5	3	3×2.5	2.5	2	0.75	○
ET138-PJN-012025B-P1	M1.2×0.25	1.2	0.25	P1	5P	B	1	37	5.5	—	3	2.5	3	3×2.5	3.0	2	0.95	○
ET138-PJN-014030B-P1	M1.4×0.3	1.4	0.3	P1	5P	B	1	37	9	—	3	2.5	3	3×2.5	3.5	2	1.10	○
ET138-PJN-016035B-P2	M1.6×0.35	1.6	0.35	P2	5P	B	1	37	8	—	3	2.5	3	3×2.5	4.0	2	1.25	○
ET138-PJN-020040B-P2	M2×0.4	2	0.4	P2	5P	B	1	45	11	—	3	2.5	3	3×2.5	5.0	2	1.60	●
ET138-PJN-025045B-P2	M2.5×0.45	2.5	0.45	P2	5P	B	1	45	12	—	3	2.5	3	3×2.5	6.3	2	2.05	●
ET138-PJN-030050B-P2	M3×0.5	3	0.5	P2	5P	B	3	50	12	19	4	3.2	6	4×3.2	7.5	3	2.50	●
ET138-PJN-035060B-P2	M3.5×0.6	3.5	0.6	P2	5P	B	3	50	13	20	4	3.2	6	4×3.2	8.8	3	2.90	○
ET138-PJN-040070B-P2	M4×0.7	4	0.7	P2	5P	B	3	57	14	21	5	4	7	5×4	10.0	3	3.30	●
ET138-PJN-050080B-P2	M5×0.8	5	0.8	P2	5P	B	3	66	16	25	5.5	4.5	7	5.5×4.5	12.5	3	4.20	●
ET138-PJN-060100B-P2	M6×1	6	1	P2	5P	B	3	69	19.5	29	6	4.5	7	6×4.5	15.0	3	5.00	●
ET138-PJN-070100B-P3	M7×1	7	1	P3	5P	B	3	78	13	23	6.2	5	8	6.2×5	17.5	3	6.00	●
ET138-PJN-080125B-P3	M8×1.25	8	1.25	P3	5P	B	5	70	22	37	6.2	5	8	6.2×5	20.0	3	6.75	●
ET138-PJN-080100B-P3	M8×1	8	1	P3	5P	B	5	70	22	37	6.2	5	8	6.2×5	20.0	3	7.00	●
ET138-PJN-100150B-P4	M10×1.5	10	1.5	P4	5P	B	5	75	24	43	7	5	8	7×5	25.0	3	8.50	●
ET138-PJN-100125B-P3	M10×1.25	10	1.25	P3	5P	B	5	75	24	43	7	5	8	7×5	25.0	3	8.75	●
ET138-PJN-100100B-P3	M10×1	10	1	P3	5P	B	5	75	24	43	7	5	8	7×5	25.0	3	9.00	○
ET138-PJN-120175B-P4	M12×1.75	12	1.75	P4	5P	B	5	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	10.25	●
ET138-PJN-120150B-P4	M12×1.5	12	1.5	P4	5P	B	5	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	10.50	●
ET138-PJN-120125B-P4	M12×1.25	12	1.25	P4	5P	B	5	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	10.75	●
ET138-PJN-120100B-P3	M12×1	12	1	P3	5P	B	5	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	11.00	○
ET138-PJN-140200B-P5	M14×2	14	2	P5	5P	B	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.00	●
ET138-PJN-140150B-P4	M14×1.5	14	1.5	P4	5P	B	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.50	●

●Stock ○Available Upon Order

Unit (mm)

Notes: Pre-hole size is for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			○										

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P217

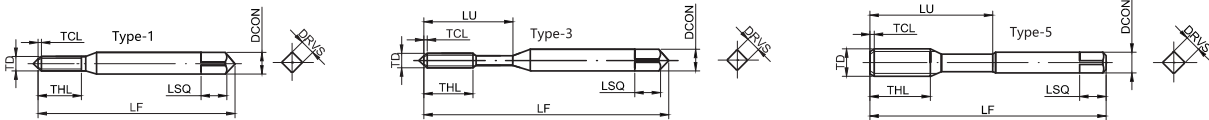
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			○										

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P217

ET138-PJN

Economical Spiral Pointed Tap for Steel Machining



Continued

Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET138-PJN-140125B-P4	M14×1.25	14	1.25	P4	5P	B	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.75	○
ET138-PJN-140100B-P3	M14×1	14	1	P3	5P	B	5	88	20	51	10.5	8	11	10.5×8	35.0	3	13.00	○
ET138-PJN-160200B-P5	M16×2	16	2	P5	5P	B	5	95	20	52	12.5	10	13	12.5×10	40.0	3	14.00	●
ET138-PJN-160150B-P4	M16×1.5	16	1.5	P4	5P	B	5	95	20	52	12.5	10	13	12.5×10	40.0	3	14.50	●
ET138-PJN-160125B-P4	M16×1.25	16	1.25	P4	5P	B	5	95	20	52	12.5	10	13	12.5×10	40.0	3	14.75	○
ET138-PJN-160100B-P3	M16×1	16	1	P3	5P	B	5	95	20	52	12.5	10	13	12.5×10	40.0	3	15.00	○
ET138-PJN-U080B-P1	NO.0-80UNF	1.524	80	P1	5P	B	1	37	10	—	3	2.5	3	3×2.5	3.8	2	1.21	○
ET138-PJN-U164B-P1	NO.1-64UNC	1.854	64	P1	5P	B	1	37	11	—	3	2.5	3	3×2.5	4.6	2	1.46	○
ET138-PJN-U256B-P1	NO.2-56UNC	2.184	56	P1	5P	B	1	45	12	—	3	2.5	3	3×2.5	5.5	2	1.73	○
ET138-PJN-U348B-P1	NO.3-48UNC	2.515	48	P1	5P	B	1	45	14	—	3	2.5	3	3×2.5	6.3	2	1.99	○
ET138-PJN-U440B-P2	NO.4-40UNC	2.845	40	P2	5P	B	1	45	13	—	3	2.5	3	3×2.5	7.1	3	2.21	●
ET138-PJN-U540B-P2	NO.5-40UNC	3.175	40	P2	5P	B	3	50	12	19	4	3.2	6	4×3.2	7.9	3	2.54	○
ET138-PJN-U632B-P2	NO.6-32UNC	3.505	32	P2	5P	B	3	50	13	20	4	3.2	6	4×3.2	8.8	3	2.71	●
ET138-PJN-U832B-P2	NO.8-32UNC	4.166	32	P2	5P	B	3	57	13.5	21.5	5	4	7	5×4	10.4	3	3.37	●
ET138-PJN-U1024B-P2	NO.10-24UNC	4.826	24	P2	5P	B	3	66	16.5	26	5.5	4.5	7	5.5×4.5	12.1	3	3.77	●
ET138-PJN-U1032B-P2	NO.10-32UNF	4.826	32	P2	5P	B	3	66	16.5	26	5.5	4.5	7	5.5×4.5	12.1	3	4.03	○
ET138-PJN-U1224B-P2	NO.12-24UNC	5.486	24	P2	5P	B	3	66	16.5	26	5.5	4.5	7	5.5×4.5	13.7	3	4.43	○
ET138-PJN-U1228B-P2	NO.12-28UNF	5.486	28	P2	5P	B	3	66	16.5	26	5.5	4.5	7	5.5×4.5	13.7	3	4.58	○
ET138-PJN-U1420B-P2	1/4-20UNC	6.350	20	P2	5P	B	3	69	19.5	29	6	4.5	7	6×4.5	15.9	3	5.08	●
ET138-PJN-U1428B-P2	1/4-28UNF	6.350	28	P2	5P	B	3	69	19.5	29	6	4.5	7	6×4.5	15.9	3	5.44	●
ET138-PJN-U51618B-P3	5/16-18UNC	7.938	18	P3	5P	B	5	70	23	38	6.1	5	8	6.1×5	19.8	3	6.53	●
ET138-PJN-U51624B-P3	5/16-24UNF	7.938	24	P3	5P	B	5	70	23	38	6.1	5	8	6.1×5	19.8	3	6.88	●
ET138-PJN-U3816B-P3	3/8-16UNC	9.525	16	P3	5P	B	5	75	25	43	7	5.5	8	7×5.5	23.8	3	7.94	●

●Stock ○Available Upon Order

Unit (mm)

Notes: Pre-hole size is for reference only.

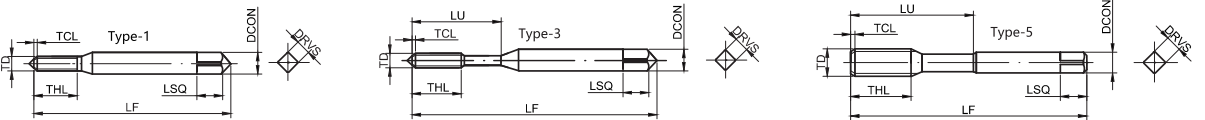
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			○										

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P217

ET138-PJN

Economical Spiral Pointed Tap for Steel Machining



Continued

Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET138-PJN-U3824B-P3	3/8-24UNF	9.525	24	P3	5P	B	5	75	25	43	7	5.5	8	7×5.5	23.8	3	8.47	●
ET138-PJN-U71614B-P4	7/16-14UNC	11.113	14	P4	5P	B	5	80	29	45	8	6	9	8×6	27.8	3	9.30	○
ET138-PJN-U71620B-P3	7/16-20UNF	11.113	20	P3	5P	B	5	80	29	45	8	6	9	8×6	27.8	3	9.84	○
ET138-PJN-U1213B-P4	1/2-13UNC	12.700	13	P4	5P	B	5	85	30	48	9	7	10	9×7	31.8	3	10.75	○
ET138-PJN-U1220B-P3	1/2-20UNF	12.700	20	P3	5P	B	5	85	30	48	9	7	10	9×7	31.8	3	11.43	●
ET138-PJN-U91612B-P4	9/16-12UNC	14.288	12	P4	5P	B	5	90	30	50	10.5	8	11	10.5×8	35.7	3	12.17	○
ET138-PJN-U91618B-P3	9/16-18UNF	14.288	18	P3	5P	B	5	90	30	50	10.5	8	11	10.5×8	35.7	3	12.88	○
ET138-PJN-U5811B-P4	5/8-11UNC	15.875	11	P4	5P	B	5	95	23	48	12	9	12	12×9	39.7	3	13.57	○
ET138-PJN-U5818B-P3	5/8-18UNF	15.875	18	P3	5P	B	5	95	23	48	12	9	12	12×9	39.7	3	14.46	○

●Stock ○Available Upon Order

Unit (mm)

Notes: Pre-hole size is for reference only.

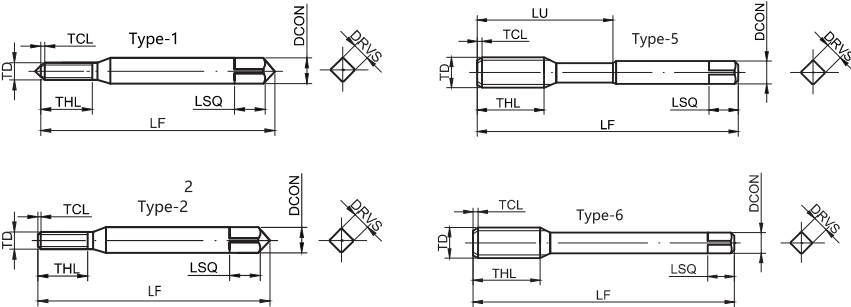
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			○										

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P217

ET168-FJN

Economical Fluteless Tap for Stainless Steel Machining



Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET168-FJN-010025D-RH4	M1×0.25	1	0.25	RH4	4P	D		32	4.5	—	3	2.5	3	3×2.5	2.5	—	0.92	○
ET168-FJN-010025E-RH4	M1×0.25	1	0.25	RH4	2P	E		31	3.5	—	3	2.5	3	3×2.5	2.5	—	0.92	○
ET168-FJN-012025D-RH4	M1.2×0.25	1.2	0.25	RH4	4P	D		32	4.5	—	3	2.5	3	3×2.5	3.0	—	1.12	○
ET168-FJN-012025E-RH4	M1.2×0.25	1.2	0.25	RH4	2P	E		31	3.5	—	3	2.5	3	3×2.5	3.0	—	1.12	○
ET168-FJN-014030D-RH4	M1.4×0.3	1.4	0.3	RH4	4P	D		37	6.5	—	3	2.5	3	3×2.5	3.5	—	1.29	○
ET168-FJN-014030E-RH4	M1.4×0.3	1.4	0.3	RH4	2P	E		36	6.5	—	3	2.5	3	3×2.5	3.5	—	1.29	○
ET168-FJN-016035D-RH4	M1.6×0.35	1.6	0.35	RH4	4P	D		37	8	—	3	2.5	3	3×2.5	4.0	—	1.46	○
ET168-FJN-016035E-RH4	M1.6×0.35	1.6	0.35	RH4	2P	E		35.5	8	—	3	2.5	3	3×2.5	4.0	—	1.46	○
ET168-FJN-017035D-RH4	M1.7×0.35	1.7	0.35	RH4	4P	D		37	8	—	3	2.5	3	3×2.5	4.3	—	1.56	○
ET168-FJN-017035E-RH4	M1.7×0.35	1.7	0.35	RH4	2P	E		35.5	8	—	3	2.5	3	3×2.5	4.3	—	1.56	○
ET168-FJN-020040D-RH5	M2×0.4	2	0.4	RH5	4P	D		45	10	—	3	2.5	3	3×2.5	5.0	—	1.85	●
ET168-FJN-020040E-RH5	M2×0.4	2	0.4	RH5	2P	E		43.5	10	—	3	2.5	3	3×2.5	5.0	—	1.85	●
ET168-FJN-023040D-RH5	M2.3×0.4	2.3	0.4	RH5	4P	D		45	10	—	3	2.5	3	3×2.5	5.8	—	2.15	○
ET168-FJN-023040E-RH5	M2.3×0.4	2.3	0.4	RH5	2P	E		43.5	10	—	3	2.5	3	3×2.5	5.8	—	2.15	○
ET168-FJN-025045D-RH5	M2.5×0.45	2.5	0.45	RH5	4P	D		45	13	—	3	2.5	3	3×2.5	6.3	—	2.32	●
ET168-FJN-025045E-RH5	M2.5×0.45	2.5	0.45	RH5	2P	E		43.5	13	—	3	2.5	3	3×2.5	6.3	—	2.32	●
ET168-FJN-026045D-RH5	M2.6×0.45	2.6	0.45	RH5	4P	D		45	13	—	3	2.5	3	3×2.5	6.5	—	2.42	○
ET168-FJN-026045E-RH5	M2.6×0.45	2.6	0.45	RH5	2P	E		43.5	13	—	3	2.5	3	3×2.5	6.5	—	2.42	●
ET168-FJN-030050D-RH7	M3×0.5	3	0.5	RH7	4P	D		50	16	—	4	3.2	6	4×3.2	7.5	—	2.82	●

●Stock ○Available Upon Order Unit (mm)

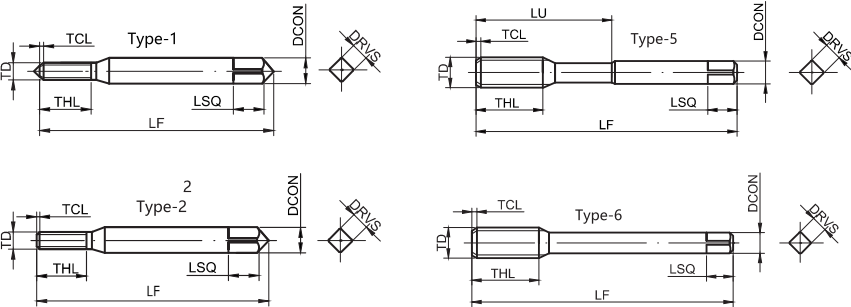
Notes: Pre-hole size is calculated based on an 85% percentage of thread engagement, for reference only.

Workpiece Material													
P			M	K			N			S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
◎			○										

◎ Most Suitable ○ Suitable Recommended Cutting Data ※ P217

ET168-FJN

Economical Fluteless Tap for Stainless Steel Machining



Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET168-FJN-030050E-RH7	M3×0.5	3	0.5	RH7	2P	E	2	48	16	—	4	3.2	6	4×3.2	7.5	—	2.82	●
ET168-FJN-035060D-RH7	M3.5×0.6	3.5	0.6	RH7	4P	D	1	50	16	—	4	3.2	6	4×3.2	8.8	—	3.26	●
ET168-FJN-035060E-RH7	M3.5×0.6	3.5	0.6	RH7	2P	E	2	48	16	—	4	3.2	6	4×3.2	8.8	—	3.26	●
ET168-FJN-040070D-RH7	M4×0.7	4	0.7	RH7	4P	D	1	57	18	—	5	4	7	5×4	10.0	—	3.71	●
ET168-FJN-040070E-RH7	M4×0.7	4	0.7	RH7	2P	E	2	55	18	—	5	4	7	5×4	10.0	—	3.71	●
ET168-FJN-050080D-RH7	M5×0.8	5	0.8	RH7	4P	D	1	66	20	—	5.5	4.5	7	5.5×4.5	12.5	—	4.65	●
ET168-FJN-050080E-RH7	M5×0.8	5	0.8	RH7	2P	E	2	63.5	20	—	5.5	4.5	7	5.5×4.5	12.5	—	4.65	●
ET168-FJN-060100D-RH7	M6×1	6	1	RH7	4P	D	1	69	27	—	6	4.5	7	6×4.5	15.0	2	5.55	●
ET168-FJN-060100E-RH7	M6×1	6	1	RH7	2P	E	2	66.5	27	—	6	4.5	7	6×4.5	15.0	2	5.55	●
ET168-FJN-070100D-RH7	M7×1	7	1	RH7	4P	D	5	70	13	23	6.2	5	8	6.2×5	17.5	2	6.55	○
ET168-FJN-070100E-RH7	M7×1	7	1	RH7	2P	E	5	70	13	23	6.2	5	8	6.2×5	17.5	2	6.55	○
ET168-FJN-080125D-RH7	M8×1.25	8	1.25	RH7	4P	D	5	70	13	36	6.2	5	8	6.2×5	20.0	3	7.41	●
ET168-FJN-080125E-RH7	M8×1.25	8	1.25	RH7	2P	E	5	70	13	36	6.2	5	8	6.2×5	20.0	3	7.41	●
ET168-FJN-100150D-RH8	M10×1.5	10	1.5	RH8	4P	D	5	75	15	43	7	5.5	8	7×5.5	25.0	6	9.29	○
ET168-FJN-100150E-RH8	M10×1.5	10	1.5	RH8	2P	E	5	75	15	43	7	5.5	8	7×5.5	25.0	6	9.29	●
ET168-FJN-120175D-RH9	M12×1.75	12	1.75	RH9	4P	D	5	82	17	42	8.5	6.5	9	8.5×6.5	30.0	6	11.16	○
ET168-FJN-120175E-RH9	M12×1.75	12	1.75	RH9	2P	E	5	82	17	42	8.5	6.5	9	8.5×6.5	30.0	6	11.16	●
ET168-FJN-140200D-RH10	M14×2	14	2	RH10	4P	D	5	88	20	51	10.5	8	11	10.5×8	35.0	6	13.04	○
ET168-FJN-140200E-RH10	M14×2	14	2	RH10	2P	E	5	88	20	51	10.5	8	11	10.5×8	35.0	6	13.04	●

●Stock ○Available Upon Order Unit (mm)

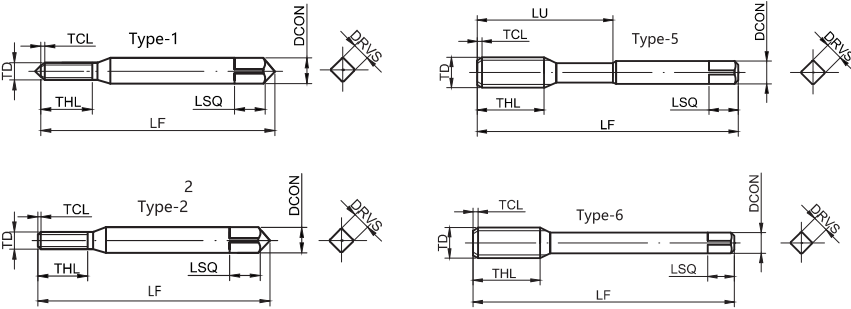
Notes: Pre-hole size is calculated based on an 85% percentage of thread engagement, for reference only.

Workpiece Material													
P			M	K			N			S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
◎			○										

◎ Most Suitable ○ Suitable Recommended Cutting Data ※ P217

ET168-FJN

Economical Fluteless Tap for Stainless Steel Machining



Continued

Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET168-FJN-160200D-RH10	M16×2	16	2	RH10	4P	D	5	95	20	52	12.5	10	13	12.5×10	40.0	6	15.04	○
ET168-FJN-160200E-RH10	M16×2	16	2	RH10	2P	E	5	95	20	52	12.5	10	13	12.5×10	40.0	6	15.04	●
ET168-FJN-U164D-RH4	NO.1-64UNC	1.854	64	RH4	4P	D	1	37	9	—	3	2.5	3	3×2.5	4.6	—	1.69	○
ET168-FJN-U164E-RH4	NO.1-64UNC	1.854	64	RH4	2P	E	2	35.5	9	—	3	2.5	3	3×2.5	4.6	—	1.69	○
ET168-FJN-U256D-RH4	NO.2-56UNC	2.184	56	RH4	4P	D	1	45	12	—	3	2.5	3	3×2.5	5.5	—	1.99	○
ET168-FJN-U256E-RH4	NO.2-56UNC	2.184	56	RH4	2P	E	2	43.5	12	—	3	2.5	3	3×2.5	5.5	—	1.99	○
ET168-FJN-U348D-RH4	NO.3-48UNC	2.515	48	RH4	4P	D	1	45	15	—	3	2.5	3	3×2.5	6.3	—	2.28	○
ET168-FJN-U348E-RH4	NO.3-48UNC	2.515	48	RH4	2P	E	2	43.5	15	—	3	2.5	3	3×2.5	6.3	—	2.28	○
ET168-FJN-U440D-RH4	NO.4-40UNC	2.845	40	RH4	4P	D	1	45	15	—	3	2.5	3	3×2.5	7.1	—	2.55	○
ET168-FJN-U440E-RH4	NO.4-40UNC	2.845	40	RH4	2P	E	2	43.5	15	—	3	2.5	3	3×2.5	7.1	—	2.55	●
ET168-FJN-U540D-RH4	NO.5-40UNC	3.175	40	RH4	4P	D	1	50	15	—	4	3.2	6	4×3.2	7.9	—	2.88	○
ET168-FJN-U540E-RH4	NO.5-40UNC	3.175	40	RH4	2P	E	2	48	15	—	4	3.2	6	4×3.2	7.9	—	2.88	●
ET168-FJN-U632D-RH7	NO.6-32UNC	3.505	32	RH7	4P	D	1	50	16	—	4	3.2	6	4×3.2	8.8	—	3.16	●
ET168-FJN-U632E-RH7	NO.6-32UNC	3.505	32	RH7	2P	E	2	48	16	—	4	3.2	6	4×3.2	8.8	—	3.16	●
ET168-FJN-U832D-RH7	NO.8-32UNC	4.166	32	RH7	4P	D	1	57	18	—	5	4	7	5×4	10.4	—	3.82	●
ET168-FJN-U832E-RH7	NO.8-32UNC	4.166	32	RH7	2P	E	2	54.5	18	—	5	4	7	5×4	10.4	—	3.82	●
ET168-FJN-U1024D-RH7	NO.10-24UNC	4.826	24	RH7	4P	D	1	66	20	—	5.5	4.5	7	5.5×4.5	12.1	—	4.34	●
ET168-FJN-U1024E-RH7	NO.10-24UNC	4.826	24	RH7	2P	E	2	63.5	20	—	5.5	4.5	7	5.5×4.5	12.1	—	4.34	●
ET168-FJN-U1224D-RH7	NO.12-24UNC	5.486	24	RH7	4P	D	1	66	23	—	5.5	4.5	7	5.5×4.5	13.7	—	5.00	●

●Stock ○Available Upon Order

Unit (mm)

Notes: Pre-hole size is calculated based on an 85% percentage of thread engagement, for reference only.

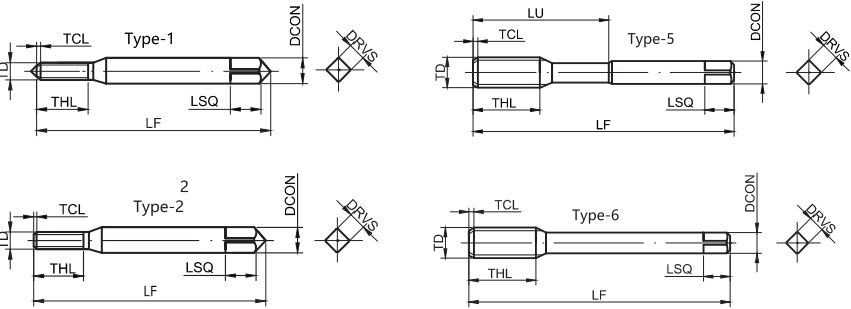
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			○										

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P217

ET168-FJN

Economical Fluteless Tap for Stainless Steel Machining



Continued

Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET168-FJN-U1224E-RH7	NO.12-24UNC	5.486	24	RH7	2P	E	2	63.5	23	—	5.5	4.5	7	5.5×4.5	13.7	—	5.00	●
ET168-FJN-U1420D-RH7	1/4-20UNC	6.350	20	RH7	4P	D	6	62	27	—	6	4.5	7	6×4.5	15.9	2	5.75	●
ET168-FJN-U1420E-RH7	1/4-20UNC	6.350	20	RH7	2P	E	6	62	27	—	6	4.5	7	6×4.5	15.9	2	5.75	●
ET168-FJN-U51618D-RH8	5/16-18UNC	7.938	18	RH8	4P	D	5	70	15	30	6.1	5	8	6.1×5	19.8	3	7.27	●
ET168-FJN-U51618E-RH8	5/16-18UNC	7.938	18	RH8	2P	E	5	70	15	30	6.1	5	8	6.1×5	19.8	3	7.27	●
ET168-FJN-U3816D-RH8	3/8-16UNC	9.525	16	RH8	4P	D	5	75	16	43	7	5.5	8	7×5.5	23.8	6	8.77	●
ET168-FJN-U3816E-RH8	3/8-16UNC	9.525	16	RH8	2P	E	5	75	16	43	7	5.5	8	7×5.5	23.8	6	8.77	●
ET168-FJN-U71614D-RH8	7/16-14UNC	11.113	14	RH8	4P	D	5	80	20	40	8	6	9	8×6	27.8	6	10.23	○
ET168-FJN-U71614E-RH8	7/16-14UNC	11.113	14	RH8	2P	E	5	80	20	40	8	6	9	8×6	27.8	6	10.23	○
ET168-FJN-U1213D-RH8	1/2-13UNC	12.700	13	RH8	4P	D	5	85	21	48	9	7	10	9×7	31.8	6	11.74	○
ET168-FJN-U1213E-RH8	1/2-13UNC	12.700	13	RH8	2P	E	5	85	21	48	9	7	10	9×7	31.8	6	11.74	●
ET168-FJN-U91612D-RH9	9/16-12UNC	14.288	12	RH9	4P	D	5	90	21	50	10.5	8	11	10.5×8	35.7	6	13.25	○
ET168-FJN-U91612E-RH9	9/16-12UNC	14.288	12	RH9	2P	E	5	90	21	50	10.5	8	11	10.5×8	35.7	6	13.25	○
ET168-FJN-U5811D-RH10	5/8-11UNC	15.875	11	RH10	4P	D	5	95	23	48	12	9	12	12×9	39.7	6	14.75	○
ET168-FJN-U5811E-RH10	5/8-11UNC	15.875	11	RH10	2P	E	5	95	23	48	12	9	12	12×9	39.7	6	14.75	●

●Stock ○Available Upon Order

Unit (mm)

Notes: Pre-hole size is calculated based on an 85% percentage of thread engagement, for reference only.

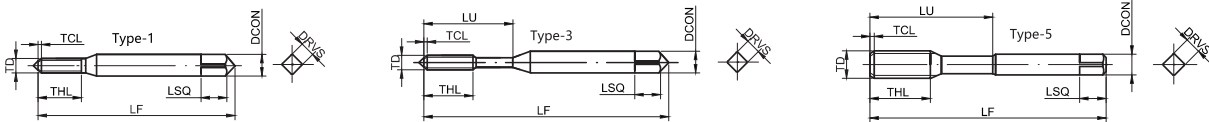
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			○										

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P217

ET168-SJN

Economical Spiral Fluted Tap for Stainless Steel Machining



Order No.	Thread Size	TD	TP/TP1	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET168-SJN-010025F-P1	M1×0.25	1	0.25	P1	1.5P	F	1	37	4.5	—	3	2.5	3	3×2.5	2.5	2	0.75	○
ET168-SJN-012025F-P1	M1.2×0.25	1.2	0.25	P1	1.5P	F	1	37	5.5	—	3	2.5	3	3×2.5	3.0	2	0.95	○
ET168-SJN-014030F-P1	M1.4×0.3	1.4	0.3	P1	1.5P	F	1	37	6.5	—	3	2.5	3	3×2.5	3.5	2	1.10	○
ET168-SJN-016035F-P1	M1.6×0.35	1.6	0.35	P1	1.5P	F	1	37	8	—	3	2.5	3	3×2.5	4.0	2	1.25	○
ET168-SJN-020040C-P2	M2×0.4	2	0.4	P2	2.5P	C	1	45	11	—	3	2.5	3	3×2.5	5.0	2	1.60	○
ET168-SJN-025045C-P2	M2.5×0.45	2.5	0.45	P2	2.5P	C	1	45	12	—	3	2.5	3	3×2.5	6.3	2	2.05	○
ET168-SJN-030050C-P2	M3×0.5	3	0.5	P2	2.5P	C	3	50	5	18	4	3.2	6	4×3.2	7.5	3	2.50	●
ET168-SJN-035060C-P2	M3.5×0.6	3.5	0.6	P2	2.5P	C	3	50	6	19	4	3.2	6	4×3.2	8.8	3	2.90	○
ET168-SJN-040070C-P2	M4×0.7	4	0.7	P2	2.5P	C	3	57	9	20	5	4	7	5×4	10.0	3	3.30	●
ET168-SJN-050080C-P2	M5×0.8	5	0.8	P2	2.5P	C	3	66	8	25	5.5	4.5	7	5.5×4.5	12.5	3	4.20	●
ET168-SJN-060100C-P2	M6×1	6	1	P2	2.5P	C	3	69	12	24	6	4.5	7	6×4.5	15.0	3	5.00	●
ET168-SJN-070100C-P3	M7×1	7	1	P3	2.5P	C	3	78	13	23	6.2	5	8	6.2×5	17.5	3	6.00	○
ET168-SJN-080125C-P3	M8×1.25	8	1.25	P3	2.5P	C	5	70	13	36	6.2	5	8	6.2×5	20.0	3	6.75	●
ET168-SJN-080100C-P3	M8×1	8	1	P3	2.5P	C	5	70	13	36	6.2	5	8	6.2×5	20.0	3	7.00	○
ET168-SJN-100150C-P4	M10×1.5	10	1.5	P4	2.5P	C	5	75	15	43	7	5.5	8	7×5.5	25.0	3	8.50	●
ET168-SJN-100125C-P3	M10×1.25	10	1.25	P3	2.5P	C	5	75	13	43	7	5.5	8	7×5.5	25.0	3	8.75	○
ET168-SJN-100100C-P3	M10×1	10	1	P3	2.5P	C	5	75	13	43	7	5.5	8	7×5.5	25.0	3	9.00	○
ET168-SJN-120175C-P4	M12×1.75	12	1.75	P4	2.5P	C	5	82	17	42	8.5	6.5	9	8.5×6.5	30.0	3	10.25	●
ET168-SJN-120150C-P4	M12×1.5	12	1.5	P4	2.5P	C	5	82	17	42	8.5	6.5	9	8.5×6.5	30.0	3	10.50	○
ET168-SJN-120125C-P4	M12×1.25	12	1.25	P4	2.5P	C	5	82	13	42	8.5	6.5	9	8.5×6.5	30.0	3	10.75	○
ET168-SJN-120100C-P3	M12×1	12	1	P3	2.5P	C	5	82	13	42	8.5	6.5	9	8.5×6.5	30.0	3	11.00	○
ET168-SJN-140200C-P5	M14×2	14	2	P5	2.5P	C	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.00	●
ET168-SJN-140150C-P4	M14×1.5	14	1.5	P4	2.5P	C	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.50	●

●Stock ○Available Upon Order Unit (mm)

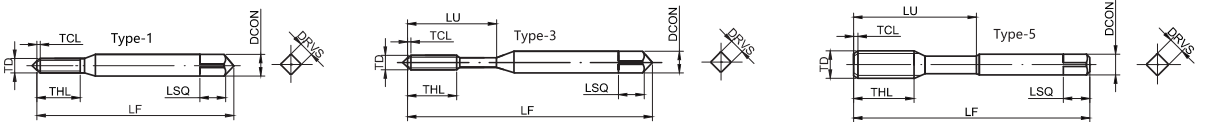
Notes: Pre-hole size is for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
◎			○										

◎ Most Suitable ○ Suitable Recommended Cutting Data ※ P217

ET168-SJN

Economical Spiral Fluted Tap for Stainless Steel Machining



Order No.	Thread Size	TD	TP/TP1	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET168-SJN-140125C-P4	M14×1.25	14	1.25	P4	2.5P	C	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.75	○
ET168-SJN-140100C-P3	M14×1	14	1	P3	2.5P	C	5	88	20	51	10.5	8	11	10.5×8	35.0	3	13.00	○
ET168-SJN-160200C-P5	M16×2	16	2	P5	2.5P	C	5	95	20	52	12.5	10	13	12.5×10	40.0	3	14.00	●
ET168-SJN-160150C-P4	M16×1.5	16	1.5	P4	2.5P	C	5	95	20	52	12.5	10	13	12.5×10	40.0	3	14.50	○
ET168-SJN-160125C-P4	M16×1.25	16	1.25	P4	2.5P	C	5	95	20	52	12.5	10	13	12.5×10	40.0	3	14.75	○
ET168-SJN-160100C-P3	M16×1	16	1	P3	2.5P	C	5	95	20	52	12.5	10	13	12.5×10	40.0	3	15.00	○
ET168-SJN-U080F-P1	NO.0-80UNF	1.524	80	P1	1.5P	F	1	37	10	—	3	2.5	3	3×2.5	3.8	2	1.21	○
ET168-SJN-U164F-P1	NO.1-64UNC	1.854	64	P1	1.5P	F	1	37	11	—	3	2.5	3	3×2.5	4.6	2	1.46	○
ET168-SJN-U256C-P1	NO.2-56UNC	2.184	56	P1	2.5P	C	1	45	12	—	3	2.5	3	3×2.5	5.5	2	1.73	○
ET168-SJN-U348C-P1	NO.3-48UNC	2.515	48	P1	2.5P	C	1	45	14	—	3	2.5	3	3×2.5	6.3	2	1.99	○
ET168-SJN-U440C-P2	NO.4-40UNC	2.845	40	P2	2.5P	C	3	45	6	16	3	2.5	3	3×2.5	7.1	3	2.21	○
ET168-SJN-U540C-P2	NO.5-40UNC	3.175	40	P2	2.5P	C	3	50	7	19	4	3.2	6	4×3.2	7.9	3	2.54	○
ET168-SJN-U632C-P2	NO.6-32UNC	3.505	32	P2	2.5P	C	3	50	8	20	4	3.2	6	4×3.2	8.8	3	2.71	○
ET168-SJN-U832C-P2	NO.8-32UNC	4.166	32	P2	2.5P	C	3	57	8	21.5	5	4	7	5×4	10.4	3	3.37	○
ET168-SJN-U1024C-P2	NO.10-24UNC	4.826	24	P2	2.5P	C	3	66	10	26	5.5	4.5	7	5.5×4.5	12.1	3	3.77	○
ET168-SJN-U1032C-P2	NO.10-32UNF	4.826	32	P2	2.5P	C	3	66	10	26	5.5	4.5	7	5.5×4.5	12.1	3	4.03	○
ET168-SJN-U1224C-P2	NO.12-24UNC	5.486	24	P2	2.5P	C	3	66	10	26	5.5	4.5	7	5.5×4.5	13.7	3	4.43	○
ET168-SJN-U1228C-P2	NO.12-28UNF	5.486	28	P2	2.5P	C	3	66	10	26	5.5	4.5	7	5.5×4.5	13.7	3	4.58	○
ET168-SJN-U1420C-P2	1/4-20UNC	6.350	20	P2	2.5P	C	3	69	12	29	6	4.5	7	6×4.5	15.9	3	5.08	○
ET168-SJN-U1428C-P2	1/4-28UNF	6.350	28	P2	2.5P	C	3	69	12	29	6	4.5	7	6×4.5	15.9	3	5.44	○
ET168-SJN-U51618C-P3	5/16-18UNC	7.938	18	P3	2.5P	C	5	70	15	30	6.1	5	8	6.1×5	19.8	3	6.53	○
ET168-SJN-U51624C-P3	5/16-24UNF	7.938	24	P3	2.5P	C	5	70	11	30	6.1	5	8	6.1×5	19.8	3	6.88	○
ET168-SJN-U3816C-P3	3/8-16UNC	9.525	16	P3	2.5P	C	5	75	16	43	7	5.5	8	7×5.5	23.8	3	7.94	○

●Stock ○Available Upon Order Unit (mm)

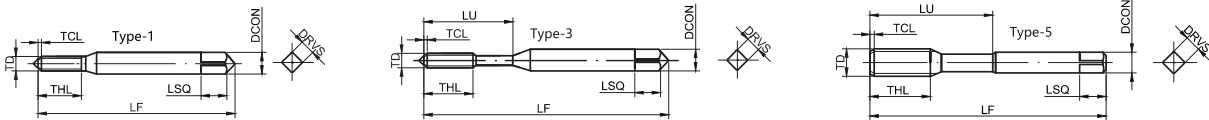
Notes: Pre-hole size is calculated based on an 85% percentage of thread engagement, for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
◎			○										

◎ Most Suitable ○ Suitable Recommended Cutting Data ※ P217

ET168-SJN

Economical Spiral Fluted Tap for Stainless Steel Machining



Continued

Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET168-SJN-U3824C-P3	3/8-24UNF	9.525	24	P3	2.5P	C	5	75	11	43	7	5.5	8	7×5.5	23.8	3	8.47	○
ET168-SJN-U71614C-P4	7/16-14UNC	11.113	14	P4	2.5P	C	5	80	20	40	8	6	9	8×6	27.8	3	9.30	○
ET168-SJN-U71620C-P3	7/16-20UNF	11.113	20	P3	2.5P	C	5	80	13	40	8	6	9	8×6	27.8	3	9.84	○
ET168-SJN-U1213C-P4	1/2-13UNC	12.700	13	P4	2.5P	C	5	85	21	48	9	7	10	9×7	31.8	3	10.75	○
ET168-SJN-U1220C-P3	1/2-20UNF	12.700	20	P3	2.5P	C	5	85	13	48	9	7	10	9×7	31.8	3	11.43	○
ET168-SJN-U91612C-P4	9/16-12UNC	14.288	12	P4	2.5P	C	5	90	21	50	10.5	8	11	10.5×8	35.7	3	12.17	○
ET168-SJN-U91618C-P3	9/16-18UNF	14.288	18	P3	2.5P	C	5	90	15	50	10.5	8	11	10.5×8	35.7	3	12.88	○
ET168-SJN-U5811C-P4	5/8-11UNC	15.875	11	P4	2.5P	C	5	95	23	48	12	9	12	12×9	39.7	3	13.57	○
ET168-SJN-U5818C-P3	5/8-18UNF	15.875	18	P3	2.5P	C	5	95	23	48	12	9	12	12×9	39.7	3	14.46	○

●Stock ○Available Upon Order

Unit (mm)

Notes: Pre-hole size is for reference only.

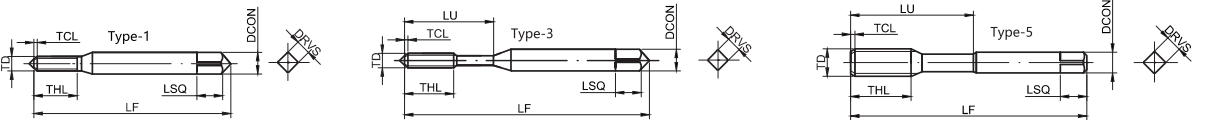
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			○										

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P217

ET168-PJN

Economical Spiral Pointed Tap for Stainless Steel Machining



Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET168-PJN-010025B-P1	M1×0.25	1	0.25	P1	5P	B	1	37	4.5	—	3	2.5	3	3×2.5	2.5	2	0.75	○
ET168-PJN-012025B-P1	M1.2×0.25	1.2	0.25	P1	5P	B	1	37	5.5	—	3	2.5	3	3×2.5	3.0	2	0.95	○
ET168-PJN-014030B-P1	M1.4×0.3	1.4	0.3	P1	5P	B	1	37	9	—	3	2.5	3	3×2.5	3.5	2	1.10	○
ET168-PJN-016035B-P2	M1.6×0.35	1.6	0.35	P2	5P	B	1	37	8	—	3	2.5	3	3×2.5	4.0	2	1.25	○
ET168-PJN-020040B-P2	M2×0.4	2	0.4	P2	5P	B	1	45	11	—	3	2.5	3	3×2.5	5.0	2	1.60	○
ET168-PJN-025045B-P2	M2.5×0.45	2.5	0.45	P2	5P	B	1	45	12	—	3	2.5	3	3×2.5	6.3	2	2.05	○
ET168-PJN-030050B-P2	M3×0.5	3	0.5	P2	5P	B	3	50	12	19	4	3.2	6	4×3.2	7.5	3	2.50	●
ET168-PJN-035060B-P2	M3.5×0.6	3.5	0.6	P2	5P	B	3	50	13	20	4	3.2	6	4×3.2	8.8	3	2.90	○
ET168-PJN-040070B-P2	M4×0.7	4	0.7	P2	5P	B	3	57	14	21	5	4	7	5×4	10.0	3	3.30	●
ET168-PJN-050080B-P2	M5×0.8	5	0.8	P2	5P	B	3	66	16	25	5.5	4.5	7	5.5×4.5	12.5	3	4.20	●
ET168-PJN-060100B-P2	M6×1	6	1	P2	5P	B	3	69	19.5	29	6	4.5	7	6×4.5	15.0	3	5.00	●
ET168-PJN-070100B-P3	M7×1	7	1	P3	5P	B	3	78	13	23	6.2	5	8	6.2×5	17.5	3	6.00	○
ET168-PJN-080125B-P3	M8×1.25	8	1.25	P3	5P	B	5	70	22	37	6.2	5	8	6.2×5	20.0	3	6.75	●
ET168-PJN-080100B-P3	M8×1	8	1	P3	5P	B	5	70	22	37	6.2	5	8	6.2×5	20.0	3	7.00	○
ET168-PJN-100150B-P4	M10×1.5	10	1.5	P4	5P	B	5	75	24	43	7	5.5	8	7×5.5	25.0	3	8.50	●
ET168-PJN-100125B-P3	M10×1.25	10	1.25	P3	5P	B	5	75	24	43	7	5.5	8	7×5.5	25.0	3	8.75	○
ET168-PJN-100100B-P3	M10×1	10	1	P3	5P	B	5	75	24	43	7	5.5	8	7×5.5	25.0	3	9.00	○
ET168-PJN-120175B-P4	M12×1.75	12	1.75	P4	5P	B	5	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	10.25	●
ET168-PJN-120150B-P4	M12×1.5	12	1.5	P4	5P	B	5	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	10.50	○
ET168-PJN-120125B-P4	M12×1.25	12	1.25	P4	5P	B	5	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	10.75	○
ET168-PJN-120100B-P3	M12×1	12	1	P3	5P	B	5	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	11.00	○
ET168-PJN-140200B-P5	M14×2	14	2	P5	5P	B	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.00	●
ET168-PJN-140150B-P4	M14×1.5	14	1.5	P4	5P	B	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.50	●

●Stock ○Available Upon Order

Unit (mm)

Pre-hole size is for reference only.

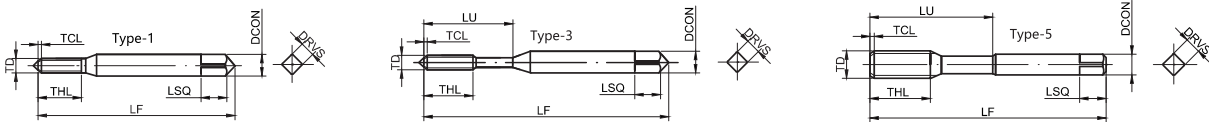
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			○										

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P217

ET168-PJN

Economical Spiral Pointed Tap for Stainless Steel Machining



Continued

Order No.	Thread Size	TD	TP/TP1	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET168-PJN-140125B-P4	M14×1.25	14	1.25	P4	5P	B	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.75	○
ET168-PJN-140100B-P3	M14×1	14	1	P3	5P	B	5	88	20	51	10.5	8	11	10.5×8	35.0	3	13.00	○
ET168-PJN-160200B-P5	M16×2	16	2	P5	5P	B	5	95	20	52	12.5	10	13	12.5×10	40.0	3	14.00	●
ET168-PJN-160150B-P4	M16×1.5	16	1.5	P4	5P	B	5	95	20	52	12.5	10	13	12.5×10	40.0	3	14.50	○
ET168-PJN-160125B-P4	M16×1.25	16	1.25	P4	5P	B	5	95	20	52	12.5	10	13	12.5×10	40.0	3	14.75	○
ET168-PJN-160100B-P3	M16×1	16	1	P3	5P	B	5	95	20	52	12.5	10	13	12.5×10	40.0	3	15.00	○
ET168-PJN-U080B-P1	NO.0-80UNF	1.524	80	P1	5P	B	1	37	10	—	3	2.5	3	3×2.5	3.8	2	1.21	○
ET168-PJN-U164B-P1	NO.1-64UNC	1.854	64	P1	5P	B	1	37	11	—	3	2.5	3	3×2.5	4.6	2	1.46	○
ET168-PJN-U256B-P1	NO.2-56UNC	2.184	56	P1	5P	B	1	45	12	—	3	2.5	3	3×2.5	5.5	2	1.73	○
ET168-PJN-U348B-P1	NO.3-48UNC	2.515	48	P1	5P	B	1	45	14	—	3	2.5	3	3×2.5	6.3	2	1.99	○
ET168-PJN-U440B-P2	NO.4-40UNC	2.845	40	P2	5P	B	1	45	13	—	3	2.5	3	3×2.5	7.1	2	2.21	○
ET168-PJN-U540B-P2	NO.5-40UNC	3.175	40	P2	5P	B	3	50	12	19	4	3.2	6	4×3.2	7.9	3	2.54	○
ET168-PJN-U632B-P2	NO.6-32UNC	3.505	32	P2	5P	B	3	50	13	20	4	3.2	6	4×3.2	8.8	3	2.71	○
ET168-PJN-U832B-P2	NO.8-32UNC	4.166	32	P2	5P	B	3	57	13.5	21.5	5	4	7	5×4	10.4	3	3.37	○
ET168-PJN-U1024B-P2	NO.10-24UNC	4.826	24	P2	5P	B	3	66	16.5	26	5.5	4.5	7	5.5×4.5	12.1	3	3.77	○
ET168-PJN-U1032B-P2	NO.10-32UNF	4.826	32	P2	5P	B	3	66	16.5	26	5.5	4.5	7	5.5×4.5	12.1	3	4.03	○
ET168-PJN-U1224B-P2	NO.12-24UNC	5.486	24	P2	5P	B	3	66	16.5	26	5.5	4.5	7	5.5×4.5	13.7	3	4.43	○
ET168-PJN-U1228B-P2	NO.12-28UNF	5.486	28	P2	5P	B	3	66	16.5	26	5.5	4.5	7	5.5×4.5	13.7	3	4.58	○
ET168-PJN-U1420B-P2	1/4-20UNC	6.350	20	P2	5P	B	3	69	19.5	29	6	4.5	7	6×4.5	15.9	3	5.08	○
ET168-PJN-U1428B-P2	1/4-28UNF	6.350	28	P2	5P	B	3	69	19.5	29	6	4.5	7	6×4.5	15.9	3	5.44	○
ET168-PJN-U51618B-P3	5/16-18UNC	7.938	18	P3	5P	B	5	70	23	38	6.1	5	8	6.1×5	19.8	3	6.53	○
ET168-PJN-U51624B-P3	5/16-24UNF	7.938	24	P3	5P	B	5	70	23	38	6.1	5	8	6.1×5	19.8	3	6.88	○
ET168-PJN-U3816B-P3	3/8-16UNC	9.525	16	P3	5P	B	5	75	25	43	7	5.5	8	7×5.5	23.8	3	7.94	○

●Stock ○Available Upon Order

Unit (mm)

Pre-hole size is for reference only.

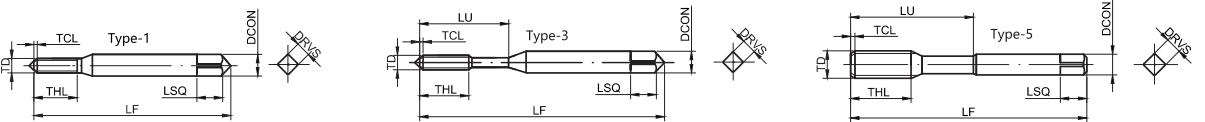
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			○										

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P217

ET168-PJN

Economical Spiral Pointed Tap for Stainless Steel Machining



Continued

Order No.	Thread Size	TD	TP/TP1	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET168-PJN-U3824B-P3	3/8-24UNF	9.525	24	P3	5P	B	5	75	25	43	7	5.5	8	7×5.5	23.8	3	8.47	○
ET168-PJN-U71614B-P4	7/16-14UNC	11.113	14	P4	5P	B	5	80	29	45	8	6	9	8×6	27.8	3	9.30	○
ET168-PJN-U71620B-P3	7/16-20UNF	11.113	20	P3	5P	B	5	80	29	45	8	6	9	8×6	27.8	3	9.84	○
ET168-PJN-U1213B-P4	1/2-13UNC	12.700	13	P4	5P	B	5	85	30	48	9	7	10	9×7	31.8	3	10.75	○
ET168-PJN-U1220B-P3	1/2-20UNF	12.700	20	P3	5P	B	5	85	30	48	9	7	10	9×7	31.8	3	11.43	○
ET168-PJN-U91612B-P4	9/16-12UNC	14.288	12	P4	5P	B	5	90	30	50	10.5	8	11	10.5×8	35.7	3	12.17	○
ET168-PJN-U91618B-P3	9/16-18UNF	14.288	18	P3	5P	B	5	90	30	50	10.5	8	11	10.5×8	35.7	3	12.88	○
ET168-PJN-U5811B-P4	5/8-11UNC	15.875	11	P4	5P	B	5	95	23	48	12	9	12	12×9	39.7	3	13.57	○
ET168-PJN-U5818B-P3	5/8-18UNF	15.875	18	P3	5P	B	5	95	23	48	12	9	12	12×9	39.7	3	14.46	○

●Stock ○Available Upon Order

Unit (mm)

Pre-hole size is for reference only.

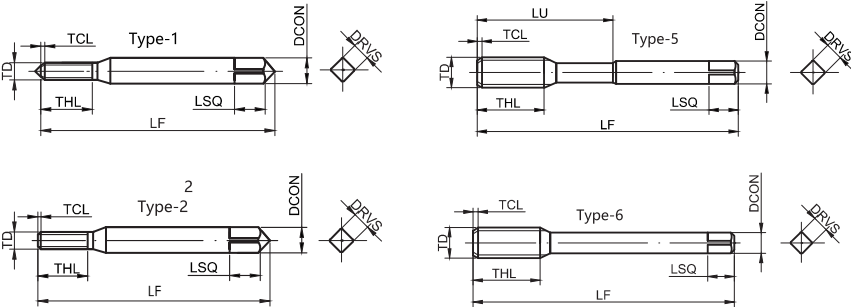
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			○										

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P217

ET166-FJN

Economical Fluteless Tap for copper-aluminum Machining



Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Schematic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET166-FJN-010025D-RH4	M1×0.25	1	0.25	RH4	4P	D	1	32	4.5	—	3	2.5	3	3×2.5	2.5	—	0.92	○
ET166-FJN-010025E-RH4	M1×0.25	1	0.25	RH4	2P	E	2	31	3.5	—	3	2.5	3	3×2.5	2.5	—	0.92	○
ET166-FJN-012025D-RH4	M1.2×0.25	1.2	0.25	RH4	4P	D	1	32	4.5	—	3	2.5	3	3×2.5	3.0	—	1.12	○
ET166-FJN-012025E-RH4	M1.2×0.25	1.2	0.25	RH4	2P	E	2	31	3.5	—	3	2.5	3	3×2.5	3.0	—	1.12	○
ET166-FJN-014030D-RH4	M1.4×0.3	1.4	0.3	RH4	4P	D	1	37	6.5	—	3	2.5	3	3×2.5	3.5	—	1.29	○
ET166-FJN-014030E-RH4	M1.4×0.3	1.4	0.3	RH4	2P	E	2	36	6.5	—	3	2.5	3	3×2.5	3.5	—	1.29	○
ET166-FJN-016035D-RH4	M1.6×0.35	1.6	0.35	RH4	4P	D	1	37	8	—	3	2.5	3	3×2.5	4.0	—	1.46	○
ET166-FJN-016035E-RH4	M1.6×0.35	1.6	0.35	RH4	2P	E	2	35.5	8	—	3	2.5	3	3×2.5	4.0	—	1.46	○
ET166-FJN-017035D-RH4	M1.7×0.35	1.7	0.35	RH4	4P	D	1	37	8	—	3	2.5	3	3×2.5	4.3	—	1.56	○
ET166-FJN-017035E-RH4	M1.7×0.35	1.7	0.35	RH4	2P	E	2	35.5	8	—	3	2.5	3	3×2.5	4.3	—	1.56	○
ET166-FJN-020040D-RH5	M2×0.4	2	0.4	RH5	4P	D	1	45	10	—	3	2.5	3	3×2.5	5.0	—	1.85	●
ET166-FJN-020040E-RH5	M2×0.4	2	0.4	RH5	2P	E	2	43.5	10	—	3	2.5	3	3×2.5	5.0	—	1.85	●
ET166-FJN-023040D-RH5	M2.3×0.4	2.3	0.4	RH5	4P	D	1	45	10	—	3	2.5	3	3×2.5	5.8	—	2.15	○
ET166-FJN-023040E-RH5	M2.3×0.4	2.3	0.4	RH5	2P	E	2	43.5	10	—	3	2.5	3	3×2.5	5.8	—	2.15	○
ET166-FJN-025045D-RH5	M2.5×0.45	2.5	0.45	RH5	4P	D	1	45	13	—	3	2.5	3	3×2.5	6.3	—	2.32	●
ET166-FJN-025045E-RH5	M2.5×0.45	2.5	0.45	RH5	2P	E	2	43.5	13	—	3	2.5	3	3×2.5	6.3	—	2.32	●
ET166-FJN-026045D-RH5	M2.6×0.45	2.6	0.45	RH5	4P	D	1	45	13	—	3	2.5	3	3×2.5	6.5	—	2.42	○
ET166-FJN-026045E-RH5	M2.6×0.45	2.6	0.45	RH5	2P	E	2	43.5	13	—	3	2.5	3	3×2.5	6.5	—	2.42	●
ET166-FJN-030050D-RH7	M3×0.5	3	0.5	RH7	4P	D	1	50	16	—	4	3.2	6	4×3.2	7.5	—	2.82	●

●Stock
○Available Upon Order

Unit (mm)

Pre-hole size is for reference only.

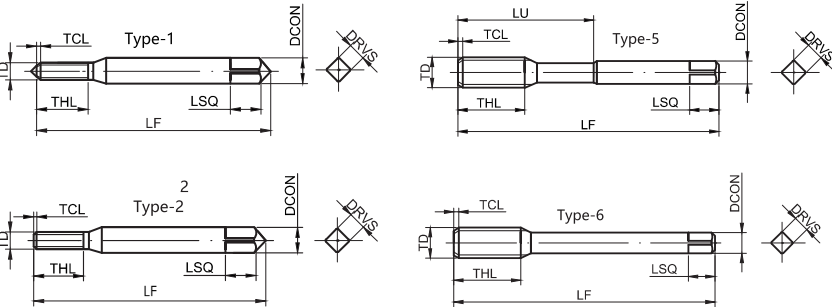
Workpiece Material													
P			M	K			N			S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
						○	○	○					

○ Most Suitable
○ Suitable

Recommended Cutting Data ※ P217

ET166-FJN

Economical Fluteless Tap for Copper-aluminum Machining



Continued

Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Schematic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET166-FJN-030050E-RH7	M3×0.5	3	0.5	RH7	2P	E	2	48	16	—	4	3.2	6	4×3.2	7.5	—	2.82	●
ET166-FJN-035060D-RH7	M3.5×0.6	3.5	0.6	RH7	4P	D	1	50	16	—	4	3.2	6	4×3.2	8.8	—	3.26	●
ET166-FJN-035060E-RH7	M3.5×0.6	3.5	0.6	RH7	2P	E	2	48	16	—	4	3.2	6	4×3.2	8.8	—	3.26	●
ET166-FJN-040070D-RH7	M4×0.7	4	0.7	RH7	4P	D	1	57	18	—	5	4	7	5×4	10.0	—	3.71	●
ET166-FJN-040070E-RH7	M4×0.7	4	0.7	RH7	2P	E	2	55	18	—	5	4	7	5×4	10.0	—	3.71	●
ET166-FJN-050080D-RH7	M5×0.8	5	0.8	RH7	4P	D	1	66	20	—	5.5	4.5	7	5.5×4.5	12.5	—	4.65	●
ET166-FJN-050080E-RH7	M5×0.8	5	0.8	RH7	2P	E	2	63.5	20	—	5.5	4.5	7	5.5×4.5	12.5	—	4.65	●
ET166-FJN-060100D-RH7	M6×1	6	1	RH7	4P	D	1	69	27	—	6	4.5	7	6×4.5	15.0	2	5.55	●
ET166-FJN-060100E-RH7	M6×1	6	1	RH7	2P	E	2	66.5	27	—	6	4.5	7	6×4.5	15.0	2	5.55	●
ET166-FJN-070100D-RH7	M7×1	7	1	RH7	4P	D	5	70	13	23	6.2	5	8	6.2×5	17.5	2	6.55	○
ET166-FJN-070100E-RH7	M7×1	7	1	RH7	2P	E	5	70	13	23	6.2	5	8	6.2×5	17.5	2	6.55	○
ET166-FJN-080125D-RH7	M8×1.25	8	1.25	RH7	4P	D	5	70	13	36	6.2	5	8	6.2×5	20.0	3	7.41	●
ET166-FJN-080125E-RH7	M8×1.25	8	1.25	RH7	2P	E	5	70	13	36	6.2	5	8	6.2×5	20.0	3	7.41	●
ET166-FJN-100150D-RH8	M10×1.5	10	1.5	RH8	4P	D	5	75	15	43	7	5.5	8	7×5.5	25.0	6	9.29	○
ET166-FJN-100150E-RH8	M10×1.5	10	1.5	RH8	2P	E	5	75	15	43	7	5.5	8	7×5.5	25.0	6	9.29	●
ET166-FJN-120175D-RH9	M12×1.75	12	1.75	RH9	4P	D	5	82	17	42	8.5	6.5	9	8.5×6.5	30.0	6	11.16	○
ET166-FJN-120175E-RH9	M12×1.75	12	1.75	RH9	2P	E	5	82	17	42	8.5	6.5	9	8.5×6.5	30.0	6	11.16	●
ET166-FJN-140200D-RH10	M14×2	14	2	RH10	4P	D	5	88	20	51	10.5	8	11	10.5×8	35.0	6	13.04	○

●Stock
○Available Upon Order

Unit (mm)

Pre-hole size is for reference only.

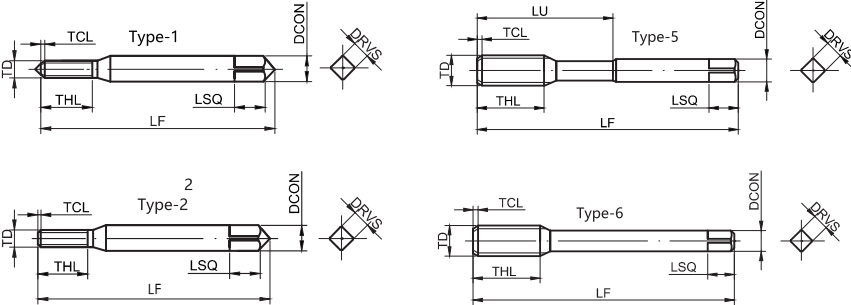
Workpiece Material													
P			M	K			N			S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
						○	○	○					

○ Most Suitable
○ Suitable

Recommended Cutting Data ※ P217

ET166-FJN

Economical Fluteless Tap for copper-aluminum Machining



Continued

Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Schematic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET166-FJN-140200E-RH10	M14×2	14	2	RH10	2P	E	5	88	20	51	10.5	8	11	10.5×8	35.0	6	13.04	●
ET166-FJN-160200D-RH10	M16×2	16	2	RH10	4P	D	5	95	20	52	12.5	10	13	12.5×10	40.0	6	15.04	○
ET166-FJN-160200E-RH10	M16×2	16	2	RH10	2P	E	5	95	20	52	12.5	10	13	12.5×10	40.0	6	15.04	●
ET166-FJN-U164D-RH4	NO.1-64UNC	1.854	64	RH4	4P	D	1	37	9	—	3	2.5	3	3×2.5	4.6	—	1.69	○
ET166-FJN-U164E-RH4	NO.1-64UNC	1.854	64	RH4	2P	E	2	35.5	9	—	3	2.5	3	3×2.5	4.6	—	1.69	○
ET166-FJN-U256D-RH4	NO.2-56UNC	2.184	56	RH4	4P	D	1	45	12	—	3	2.5	3	3×2.5	5.5	—	1.99	○
ET166-FJN-U256E-RH4	NO.2-56UNC	2.184	56	RH4	2P	E	2	43.5	12	—	3	2.5	3	3×2.5	5.5	—	1.99	○
ET166-FJN-U348D-RH4	NO.3-48UNC	2.515	48	RH4	4P	D	1	45	15	—	3	2.5	3	3×2.5	6.3	—	2.28	○
ET166-FJN-U348E-RH4	NO.3-48UNC	2.515	48	RH4	2P	E	2	43.5	15	—	3	2.5	3	3×2.5	6.3	—	2.28	○
ET166-FJN-U440D-RH4	NO.4-40UNC	2.845	40	RH4	4P	D	1	45	15	—	3	2.5	3	3×2.5	7.1	—	2.55	○
ET166-FJN-U440E-RH4	NO.4-40UNC	2.845	40	RH4	2P	E	2	43.5	15	—	3	2.5	3	3×2.5	7.1	—	2.55	●
ET166-FJN-U540D-RH4	NO.5-40UNC	3.175	40	RH4	4P	D	1	50	15	—	4	3.2	6	4×3.2	7.9	—	2.88	○
ET166-FJN-U540E-RH4	NO.5-40UNC	3.175	40	RH4	2P	E	2	48	15	—	4	3.2	6	4×3.2	7.9	—	2.88	●
ET166-FJN-U632D-RH7	NO.6-32UNC	3.505	32	RH7	4P	D	1	50	16	—	4	3.2	6	4×3.2	8.8	—	3.16	●
ET166-FJN-U632E-RH7	NO.6-32UNC	3.505	32	RH7	2P	E	2	48	16	—	4	3.2	6	4×3.2	8.8	—	3.16	●
ET166-FJN-U832D-RH7	NO.8-32UNC	4.166	32	RH7	4P	D	1	57	18	—	5	4	7	5×4	10.4	—	3.82	●
ET166-FJN-U832E-RH7	NO.8-32UNC	4.166	32	RH7	2P	E	2	54.5	18	—	5	4	7	5×4	10.4	—	3.82	●
ET166-FJN-U1024D-RH7	NO.10-24UNC	4.826	24	RH7	4P	D	1	66	20	—	5.5	4.5	7	5.5×4.5	12.1	—	4.34	●

●Stock
○Available Upon Order

Unit (mm)

Pre-hole size is for reference only.

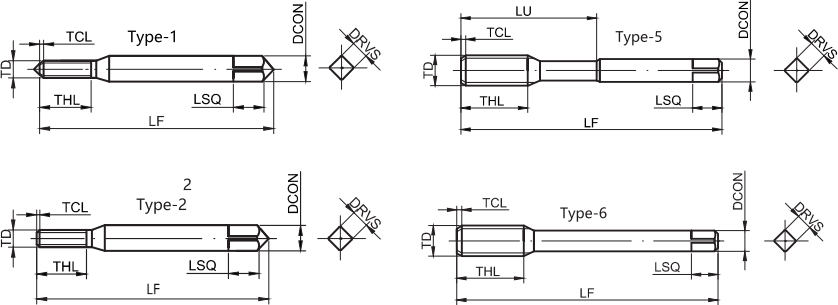
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
						○	○	○					

○ Most Suitable
○ Suitable

Recommended Cutting Data ※ P217

ET166-FJN

Economical Fluteless Tap for Copper-aluminum Machining



Continued

Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Schematic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET166-FJN-U1024E-RH7	NO.10-24UNC	4.826	24	RH7	2P	E	2	63.5	20	—	5.5	4.5	7	5.5×4.5	12.1	—	4.34	●
ET166-FJN-U1224D-RH7	NO.12-24UNC	5.486	24	RH7	4P	D	1	66	23	—	5.5	4.5	7	5.5×4.5	13.7	—	5.00	●
ET166-FJN-U1224E-RH7	NO.12-24UNC	5.486	24	RH7	2P	E	2	63.5	23	—	5.5	4.5	7	5.5×4.5	13.7	—	5.00	●
ET166-FJN-U1420D-RH7	1/4-20UNC	6.350	20	RH7	4P	D	6	62	27	—	6	4.5	7	6×4.5	15.9	2	5.75	●
ET166-FJN-U1420E-RH7	1/4-20UNC	6.350	20	RH7	2P	E	6	62	27	—	6	4.5	7	6×4.5	15.9	2	5.75	●
ET166-FJN-U51618D-RH8	5/16-18UNC	7.938	18	RH8	4P	D	5	70	15	30	6.1	5	8	6.1×5	19.8	3	7.27	●
ET166-FJN-U51618E-RH8	5/16-18UNC	7.938	18	RH8	2P	E	5	70	15	30	6.1	5	8	6.1×5	19.8	3	7.27	●
ET166-FJN-U3816D-RH8	3/8-16UNC	9.525	16	RH8	4P	D	5	75	16	43	7	5.5	8	7×5.5	23.8	6	8.77	●
ET166-FJN-U3816E-RH8	3/8-16UNC	9.525	16	RH8	2P	E	5	75	16	43	7	5.5	8	7×5.5	23.8	6	8.77	●
ET166-FJN-U71614D-RH8	7/16-14UNC	11.113	14	RH8	4P	D	5	80	20	40	8	6	9	8×6	27.8	6	10.23	○
ET166-FJN-U71614E-RH8	7/16-14UNC	11.113	14	RH8	2P	E	5	80	20	40	8	6	9	8×6	27.8	6	10.23	○
ET166-FJN-U1213D-RH8	1/2-13UNC	12.700	13	RH8	4P	D	5	85	21	48	9	7	10	9×7	31.8	6	11.74	○
ET166-FJN-U1213E-RH8	1/2-13UNC	12.700	13	RH8	2P	E	5	85	21	48	9	7	10	9×7	31.8	6	11.74	●
ET166-FJN-U91612D-RH9	9/16-12UNC	14.288	12	RH9	4P	D	5	90	21	50	10.5	8	11	10.5×8	35.7	6	13.25	○
ET166-FJN-U91612E-RH9	9/16-12UNC	14.288	12	RH9	2P	E	5	90	21	50	10.5	8	11	10.5×8	35.7	6	13.25	○
ET166-FJN-U5811D-RH10	5/8-11UNC	15.875	11	RH10	4P	D	5	95	23	48	12	9	12	12×9	39.7	6	14.75	○
ET166-FJN-U5811E-RH10	5/8-11UNC	15.875	11	RH10	2P	E	5	95	23	48	12	9	12	12×9	39.7	6	14.75	●

●Stock
○Available Upon Order

Unit (mm)

Pre-hole size is for reference only.

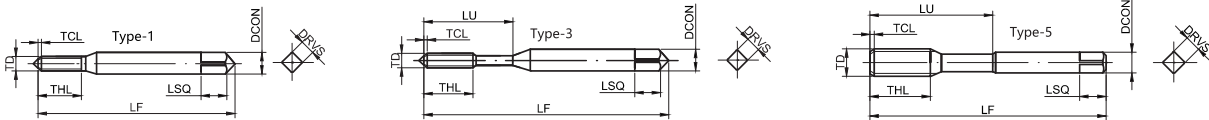
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
						○	○	○					

○ Most Suitable
○ Suitable

Recommended Cutting Data ※ P217

ET166-SJN

Economical Spiral Fluted Tap for Copper-aluminum Machining



Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET166-SJN-010025F-P1	M1×0.25	1	0.25	P1	1.5P	F	1	37	4.5	—	3	2.5	3	3×2.5	2.5	2	0.75	○
ET166-SJN-012025F-P1	M1.2×0.25	1.2	0.25	P1	1.5P	F	1	37	5.5	—	3	2.5	3	3×2.5	3.0	2	0.95	○
ET166-SJN-014030F-P1	M1.4×0.3	1.4	0.3	P1	1.5P	F	1	37	6.5	—	3	2.5	3	3×2.5	3.5	2	1.10	○
ET166-SJN-016035F-P2	M1.6×0.35	1.6	0.35	P2	1.5P	F	1	37	8	—	3	2.5	3	3×2.5	4.0	2	1.25	○
ET166-SJN-020040C-P2	M2×0.4	2	0.4	P2	2.5P	C	1	45	11	—	3	2.5	3	3×2.5	5.0	2	1.60	●
ET166-SJN-025045C-P2	M2.5×0.45	2.5	0.45	P2	2.5P	C	1	45	12	—	3	2.5	3	3×2.5	6.3	2	2.05	●
ET166-SJN-030050C-P2	M3×0.5	3	0.5	P2	2.5P	C	3	50	5	18	4	3.2	6	4×3.2	7.5	3	2.50	●
ET166-SJN-035060C-P2	M3.5×0.6	3.5	0.6	P2	2.5P	C	3	50	6	19	4	3.2	6	4×3.2	8.8	3	2.90	○
ET166-SJN-040070C-P2	M4×0.7	4	0.7	P2	2.5P	C	3	57	9	20	5	4	7	5×4	10.0	3	3.30	●
ET166-SJN-050080C-P2	M5×0.8	5	0.8	P2	2.5P	C	3	66	8	25	5.5	4.5	7	5.5×4.5	12.5	3	4.20	●
ET166-SJN-060100C-P2	M6×1	6	1	P2	2.5P	C	3	69	12	24	6	4.5	7	6×4.5	15.0	3	5.00	●
ET166-SJN-070100C-P3	M7×1	7	1	P3	2.5P	C	3	78	13	23	6.2	5	8	6.2×5	17.5	3	6.00	○
ET166-SJN-080125C-P3	M8×1.25	8	1.25	P3	2.5P	C	5	70	13	36	6.2	5	8	6.2×5	20.0	3	6.75	●
ET166-SJN-080100C-P3	M8×1	8	1	P3	2.5P	C	5	70	13	36	6.2	5	8	6.2×5	20.0	3	7.00	●
ET166-SJN-100150C-P4	M10×1.5	10	1.5	P4	2.5P	C	5	75	15	43	7	5.5	8	7×5.5	25.0	3	8.50	●
ET166-SJN-100125C-P3	M10×1.25	10	1.25	P3	2.5P	C	5	75	13	43	7	5.5	8	7×5.5	25.0	3	8.75	●
ET166-SJN-100100C-P3	M10×1	10	1	P3	2.5P	C	5	75	13	43	7	5.5	8	7×5.5	25.0	3	9.00	○
ET166-SJN-120175C-P4	M12×1.75	12	1.75	P4	2.5P	C	5	82	17	42	8.5	6.5	9	8.5×6.5	30.0	3	10.25	●
ET166-SJN-120150C-P4	M12×1.5	12	1.5	P4	2.5P	C	5	82	17	42	8.5	6.5	9	8.5×6.5	30.0	3	10.50	●
ET166-SJN-120125C-P4	M12×1.25	12	1.25	P4	2.5P	C	5	82	13	42	8.5	6.5	9	8.5×6.5	30.0	3	10.75	○
ET166-SJN-120100C-P3	M12×1	12	1	P3	2.5P	C	5	82	13	42	8.5	6.5	9	8.5×6.5	30.0	3	11.00	○
ET166-SJN-140200C-P5	M14×2	14	2	P5	2.5P	C	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.00	●
ET166-SJN-140150C-P4	M14×1.5	14	1.5	P4	2.5P	C	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.50	●

●Stock ○Available Upon Order Unit (mm)

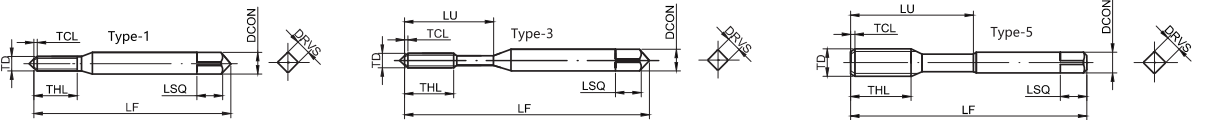
Pre-hole size is for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
						○	○	○					

○ Most Suitable ○ Suitable Recommended Cutting Data ※ P217

ET166-SJN

Economical Spiral Fluted Tap for Copper-aluminum Machining



Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET166-SJN-140125C-P4	M14×1.25	14	1.25	P4	2.5P	C	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.75	○
ET166-SJN-140100C-P3	M14×1	14	1	P3	2.5P	C	5	88	20	51	10.5	8	11	10.5×8	35.0	3	13.00	○
ET166-SJN-160200C-P5	M16×2	16	2	P5	2.5P	C	5	95	20	52	12.5	10	13	12.5×10	40.0	3	14.00	●
ET166-SJN-160150C-P4	M16×1.5	16	1.5	P4	2.5P	C	5	95	20	52	12.5	10	13	12.5×10	40.0	3	14.50	●
ET166-SJN-160125C-P4	M16×1.25	16	1.25	P4	2.5P	C	5	95	20	52	12.5	10	13	12.5×10	40.0	3	14.75	○
ET166-SJN-160100C-P3	M16×1	16	1	P3	2.5P	C	5	95	20	52	12.5	10	13	12.5×10	40.0	3	15.00	○
ET166-SJN-U080F-P1	NO.0-80UNF	1.524	80	P1	1.5P	F	1	37	10	—	3	2.5	3	3×2.5	3.8	2	1.21	○
ET166-SJN-U164F-P1	NO.1-64UNC	1.854	64	P1	1.5P	F	1	37	11	—	3	2.5	3	3×2.5	4.6	2	1.46	○
ET166-SJN-U256C-P1	NO.2-56UNC	2.184	56	P1	2.5P	C	1	45	12	—	3	2.5	3	3×2.5	5.5	2	1.73	○
ET166-SJN-U348C-P1	NO.3-48UNC	2.515	48	P1	2.5P	C	1	45	14	—	3	2.5	3	3×2.5	6.3	2	1.99	○
ET166-SJN-U440C-P2	NO.4-40UNC	2.845	40	P2	2.5P	C	3	45	6	16	3	2.5	3	3×2.5	7.1	3	2.21	●
ET166-SJN-U540C-P2	NO.5-40UNC	3.175	40	P2	2.5P	C	3	50	7	19	4	3.2	6	4×3.2	7.9	3	2.54	○
ET166-SJN-U632C-P2	NO.6-32UNC	3.505	32	P2	2.5P	C	3	50	8	20	4	3.2	6	4×3.2	8.8	3	2.71	●
ET166-SJN-U832C-P2	NO.8-32UNC	4.166	32	P2	2.5P	C	3	57	8	21.5	5	4	7	5×4	10.4	3	3.37	●
ET166-SJN-U1024C-P2	NO.10-24UNC	4.826	24	P2	2.5P	C	3	66	10	26	5.5	4.5	7	5.5×4.5	12.1	3	3.77	●
ET166-SJN-U1032C-P2	NO.10-32UNF	4.826	32	P2	2.5P	C	3	66	10	26	5.5	4.5	7	5.5×4.5	12.1	3	4.03	○
ET166-SJN-U1224C-P2	NO.12-24UNC	5.486	24	P2	2.5P	C	3	66	10	26	5.5	4.5	7	5.5×4.5	13.7	3	4.43	○
ET166-SJN-U1228C-P2	NO.12-28UNF	5.486	28	P2	2.5P	C	3	66	10	26	5.5	4.5	7	5.5×4.5	13.7	3	4.58	○
ET166-SJN-U1420C-P2	1/4-20UNC	6.350	20	P2	2.5P	C	3	69	12	29	6	4.5	7	6×4.5	15.9	3	5.08	●
ET166-SJN-U1428C-P2	1/4-28UNF	6.350	28	P2	2.5P	C	3	69	12	29	6	4.5	7	6×4.5	15.9	3	5.44	●
ET166-SJN-U51618C-P3	5/16-18UNC	7.938	18	P3	2.5P	C	5	70	15	30	6.1	5	8	6.1×5	19.8	3	6.53	●
ET166-SJN-U51624C-P3	5/16-24UNF	7.938	24	P3	2.5P	C	5	70	11	30	6.1	5	8	6.1×5	19.8	3	6.88	●

●Stock ○Available Upon Order Unit (mm)

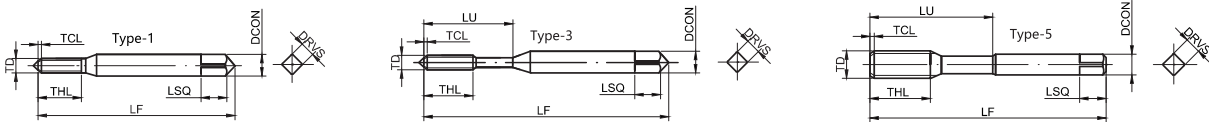
Pre-hole size is for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
						○	○	○					

○ Most Suitable ○ Suitable Recommended Cutting Data ※ P217

ET166-SJN

Economical Spiral Fluted Tap for Copper-aluminum Machining



Continued

Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET166-SJN-U3816C-P3	3/8-16UNC	9.525	16	P3	2.5P	C	5	75	16	43	7	5.5	8	7×5.5	23.8	3	7.94	●
ET166-SJN-U3824C-P3	3/8-24UNF	9.525	24	P3	2.5P	C	5	75	11	43	7	5.5	8	7×5.5	23.8	3	8.47	●
ET166-SJN-U71614C-P4	7/16-14UNC	11.113	14	P4	2.5P	C	5	80	20	40	8	6	9	8×6	27.8	3	9.30	○
ET166-SJN-U71620C-P3	7/16-20UNF	11.113	20	P3	2.5P	C	5	80	13	40	8	6	9	8×6	27.8	3	9.84	○
ET166-SJN-U1213C-P4	1/2-13UNC	12.700	13	P4	2.5P	C	5	85	21	48	9	7	10	9×7	31.8	3	10.75	○
ET166-SJN-U1220C-P3	1/2-20UNF	12.700	20	P3	2.5P	C	5	85	13	48	9	7	10	9×7	31.8	3	11.43	○
ET166-SJN-U91612C-P4	9/16-12UNC	14.288	12	P4	2.5P	C	5	90	21	50	10.5	8	11	10.5×8	35.7	3	12.17	○
ET166-SJN-U91618C-P3	9/16-18UNF	14.288	18	P3	2.5P	C	5	90	15	50	10.5	8	11	10.5×8	35.7	3	12.88	○
ET166-SJN-U5811C-P4	5/8-11UNC	15.875	11	P4	2.5P	C	5	95	23	48	12	9	12	12×9	39.7	3	13.57	○
ET166-SJN-U5818C-P3	5/8-18UNF	15.875	18	P3	2.5P	C	5	95	23	48	12	9	12	12×9	39.7	3	14.46	○

●Stock ○Available Upon Order Unit (mm)

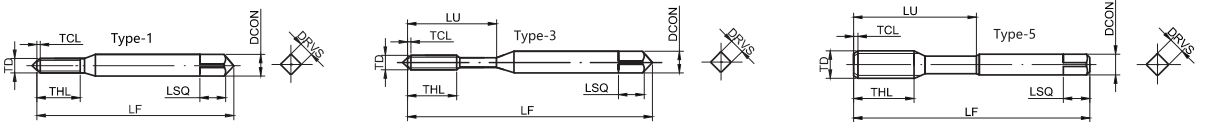
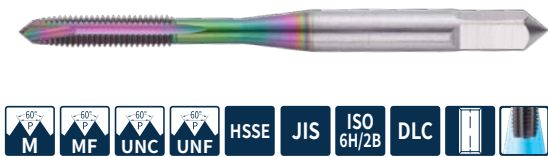
Pre-hole size is for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
						○	○	○					

○ Most Suitable ○ Suitable Recommended Cutting Data ※ P217

ET166-PJN

Economical Spiral Pointed Tap for Copper-aluminum Machining



Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET166-PJN-010025B-P1	M1×0.25	1	0.25	P1	5P	B	1	37	4.5	—	3	2.5	3	3×2.5	2.5	2	0.75	○
ET166-PJN-012025B-P1	M1.2×0.25	1.2	0.25	P1	5P	B	1	37	5.5	—	3	2.5	3	3×2.5	3.0	2	0.95	○
ET166-PJN-014030B-P1	M1.4×0.3	1.4	0.3	P1	5P	B	1	37	9	—	3	2.5	3	3×2.5	3.5	2	1.10	○
ET166-PJN-016035B-P2	M1.6×0.35	1.6	0.35	P2	5P	B	1	37	8	—	3	2.5	3	3×2.5	4.0	2	1.25	○
ET166-PJN-020040B-P2	M2×0.4	2	0.4	P2	5P	B	1	45	11	—	3	2.5	3	3×2.5	5.0	2	1.60	●
ET166-PJN-025045B-P2	M2.5×0.45	2.5	0.45	P2	5P	B	1	45	12	—	3	2.5	3	3×2.5	6.3	2	2.05	●
ET166-PJN-030050B-P2	M3×0.5	3	0.5	P2	5P	B	3	50	12	19	4	3.2	6	4×3.2	7.5	3	2.50	●
ET166-PJN-035060B-P2	M3.5×0.6	3.5	0.6	P2	5P	B	3	50	13	20	4	3.2	6	4×3.2	8.8	3	2.90	○
ET166-PJN-040070B-P2	M4×0.7	4	0.7	P2	5P	B	3	57	14	21	5	4	7	5×4	10.0	3	3.30	●
ET166-PJN-050080B-P2	M5×0.8	5	0.8	P2	5P	B	3	66	16	25	5.5	4.5	7	5.5×4.5	12.5	3	4.20	●
ET166-PJN-060100B-P2	M6×1	6	1	P2	5P	B	3	69	19.5	29	6	4.5	7	6×4.5	15.0	3	5.00	●
ET166-PJN-070100B-P3	M7×1	7	1	P3	5P	B	3	78	13	23	6.2	5	8	6.2×5	17.5	3	6.00	○
ET166-PJN-080125B-P3	M8×1.25	8	1.25	P3	5P	B	5	70	22	37	6.2	5	8	6.2×5	20.0	3	6.75	●
ET166-PJN-080100B-P3	M8×1	8	1	P3	5P	B	5	70	22	37	6.2	5	8	6.2×5	20.0	3	7.00	●
ET166-PJN-100150B-P4	M10×1.5	10	1.5	P4	5P	B	5	75	24	43	7	5.5	8	7×5.5	25.0	3	8.50	●
ET166-PJN-100125B-P3	M10×1.25	10	1.25	P3	5P	B	5	75	24	43	7	5.5	8	7×5.5	25.0	3	8.75	●
ET166-PJN-100100B-P3	M10×1	10	1	P3	5P	B	5	75	24	43	7	5.5	8	7×5.5	25.0	3	9.00	○
ET166-PJN-120175B-P4	M12×1.75	12	1.75	P4	5P	B	5	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	10.25	●
ET166-PJN-120150B-P4	M12×1.5	12	1.5	P4	5P	B	5	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	10.50	●
ET166-PJN-120125B-P4	M12×1.25	12	1.25	P4	5P	B	5	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	10.75	○
ET166-PJN-120100B-P3	M12×1	12	1	P3	5P	B	5	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	11.00	○
ET166-PJN-140200B-P5	M14×2	14	2	P5	5P	B	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.00	●

●Stock ○Available Upon Order Unit (mm)

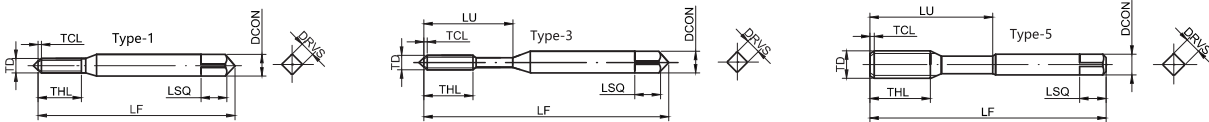
Pre-hole size is for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
						○	○	○					

○ Most Suitable ○ Suitable Recommended Cutting Data ※ P217

ET166-SJN

Economical Spiral Fluted Tap for Copper-aluminum Machining



Continued

Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRV	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET166-PJN-140150B-P4	M14×1.5	14	1.5	P4	5P	B	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.50	●
ET166-PJN-140125B-P4	M14×1.25	14	1.25	P4	5P	B	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.75	○
ET166-PJN-140100B-P3	M14×1	14	1	P3	5P	B	5	88	20	51	10.5	8	11	10.5×8	35.0	3	13.00	○
ET166-PJN-160200B-P5	M16×2	16	2	P5	5P	B	5	95	20	52	12.5	10	13	12.5×10	40.0	3	14.00	●
ET166-PJN-160150B-P4	M16×1.5	16	1.5	P4	5P	B	5	95	20	52	12.5	10	13	12.5×10	40.0	3	14.50	●
ET166-PJN-160125B-P4	M16×1.25	16	1.25	P4	5P	B	5	95	20	52	12.5	10	13	12.5×10	40.0	3	14.75	○
ET166-PJN-160100B-P3	M16×1	16	1	P3	5P	B	5	95	20	52	12.5	10	13	12.5×10	40.0	3	15.00	○
ET166-PJN-U080B-P1	NO.0-80UNF	1.524	80	P1	5P	B	1	37	10	—	3	2.5	3	3×2.5	3.8	2	1.21	○
ET166-PJN-U164B-P1	NO.1-64UNC	1.854	64	P1	5P	B	1	37	11	—	3	2.5	3	3×2.5	4.6	2	1.46	○
ET166-PJN-U256B-P1	NO.2-56UNC	2.184	56	P1	5P	B	1	45	12	—	3	2.5	3	3×2.5	5.5	2	1.73	○
ET166-PJN-U348B-P1	NO.3-48UNC	2.515	48	P1	5P	B	1	45	14	—	3	2.5	3	3×2.5	6.3	2	1.99	○
ET166-PJN-U440B-P2	NO.4-40UNC	2.845	40	P2	5P	B	1	45	13	—	3	2.5	3	3×2.5	7.1	2	2.21	●
ET166-PJN-U540B-P2	NO.5-40UNC	3.175	40	P2	5P	B	3	50	12	19	4	3.2	6	4×3.2	7.9	3	2.54	○
ET166-PJN-U632B-P2	NO.6-32UNC	3.505	32	P2	5P	B	3	50	13	20	4	3.2	6	4×3.2	8.8	3	2.71	●
ET166-PJN-U832B-P2	NO.8-32UNC	4.166	32	P2	5P	B	3	57	13.5	21.5	5	4	7	5×4	10.4	3	3.37	●
ET166-PJN-U1024B-P2	NO.10-24UNC	4.826	24	P2	5P	B	3	66	16.5	26	5.5	4.5	7	5.5×4.5	12.1	3	3.77	●
ET166-PJN-U1032B-P2	NO.10-32UNF	4.826	32	P2	5P	B	3	66	16.5	26	5.5	4.5	7	5.5×4.5	12.1	3	4.03	○
ET166-PJN-U1224B-P2	NO.12-24UNC	5.486	24	P2	5P	B	3	66	16.5	26	5.5	4.5	7	5.5×4.5	13.7	3	4.43	○
ET166-PJN-U1228B-P2	NO.12-28UNF	5.486	28	P2	5P	B	3	66	16.5	26	5.5	4.5	7	5.5×4.5	13.7	3	4.58	○
ET166-PJN-U1420B-P2	1/4-20UNC	6.350	20	P2	5P	B	3	69	19.5	29	6	4.5	7	6×4.5	15.9	3	5.08	●

●Stock ○Available Upon Order

Unit (mm)

Pre-hole size is for reference only.

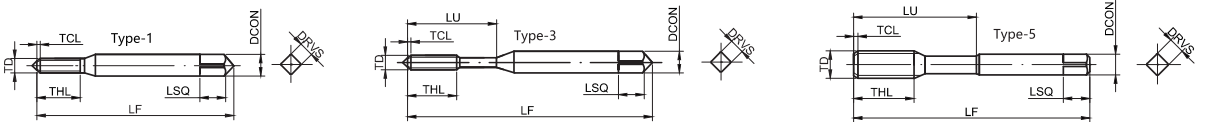
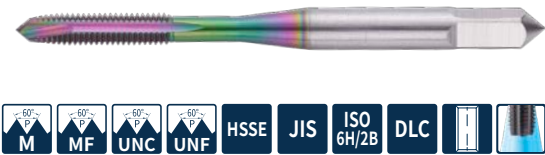
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
						○	○	○					

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P217

ET166-PJN

Economical Spiral Pointed Tap for Copper-aluminum Machining



Continued

Order No.	Thread Size	TD	TP/ TPI	TCTR	TCL	THCHT	Sche- matic Diagram	LF	THL	LU	DCON	DRV	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET166-PJN-U1428B-P2	1/4-28UNF	6.350	28	P2	5P	B	3	69	19.5	29	6	4.5	7	6×4.5	15.9	3	5.44	●
ET166-PJN-U51618B-P3	5/16-18UNC	7.938	18	P3	5P	B	5	70	23	38	6.1	5	8	6.1×5	19.8	3	6.53	●
ET166-PJN-U51624B-P3	5/16-24UNF	7.938	24	P3	5P	B	5	70	23	38	6.1	5	8	6.1×5	19.8	3	6.88	●
ET166-PJN-U3816B-P3	3/8-16UNC	9.525	16	P3	5P	B	5	75	25	43	7	5.5	8	7×5.5	23.8	3	7.94	●
ET166-PJN-U3824B-P3	3/8-24UNF	9.525	24	P3	5P	B	5	75	25	43	7	5.5	8	7×5.5	23.8	3	8.47	●
ET166-PJN-U71614B-P4	7/16-14UNC	11.113	14	P4	5P	B	5	80	29	45	8	6	9	8×6	27.8	3	9.30	○
ET166-PJN-U71620B-P3	7/16-20UNF	11.113	20	P3	5P	B	5	80	29	45	8	6	9	8×6	27.8	3	9.84	○
ET166-PJN-U1213B-P4	1/2-13UNC	12.700	13	P4	5P	B	5	85	30	48	9	7	10	9×7	31.8	3	10.75	○
ET166-PJN-U1220B-P3	1/2-20UNF	12.700	20	P3	5P	B	5	85	30	48	9	7	10	9×7	31.8	3	11.43	○
ET166-PJN-U91612B-P4	9/16-12UNC	14.288	12	P4	5P	B	5	90	30	50	10.5	8	11	10.5×8	35.7	3	12.17	○
ET166-PJN-U91618B-P3	9/16-18UNF	14.288	18	P3	5P	B	5	90	30	50	10.5	8	11	10.5×8	35.7	3	12.88	○
ET166-PJN-U5811B-P4	5/8-11UNC	15.875	11	P4	5P	B	5	95	23	48	12	9	12	12×9	39.7	3	13.57	○
ET166-PJN-U5818B-P3	5/8-18UNF	15.875	18	P3	5P	B	5	95	23	48	12	9	12	12×9	39.7	3	14.46	○

●Stock ○Available Upon Order

Unit (mm)

Pre-hole size is for reference only.

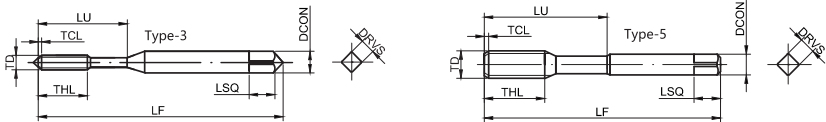
Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
						○	○	○					

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P217

ET128-HJN

Economical Straight Fluted Tap for Cast Iron Machining



Order No.	Thread Size	TD	TP	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET128-HJN-050080C-P3	M5×0.8	5	0.8	P3	2.5P	C	3	66	16	25	5.5	4.5	7	5.5×4.5	12.5	3	4.20	○
ET128-HJN-060100C-P3	M6×1	6	1	P3	2.5P	C	3	69	19.5	29	6	4.5	7	6×4.5	15.0	3	5.00	○
ET128-HJN-070100C-P3	M7×1	7	1	P3	2.5P	C	3	78	13	23	6.2	5	8	6.2×5	17.5	3	6.00	○
ET128-HJN-080125C-P4	M8×1.25	8	1.25	P4	2.5P	C	5	70	22	37	6.2	5	8	6.2×5	20.0	3	6.75	○
ET128-HJN-080100C-P4	M8×1	8	1	P4	2.5P	C	5	70	22	37	6.2	5	8	6.2×5	20.0	3	7.00	○
ET128-HJN-100150C-P5	M10×1.5	10	1.5	P5	2.5P	C	5	75	24	43	7	5.5	8	7×5.5	25.0	3	8.50	○
ET128-HJN-100125C-P4	M10×1.25	10	1.25	P4	2.5P	C	5	75	24	43	7	5.5	8	7×5.5	25.0	3	8.75	○
ET128-HJN-100100C-P4	M10×1	10	1	P4	2.5P	C	5	75	24	43	7	5.5	8	7×5.5	25.0	3	9.00	○
ET128-HJN-120175C-P5	M12×1.75	12	1.75	P5	2.5P	C	5	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	10.25	○
ET128-HJN-120150C-P5	M12×1.5	12	1.5	P5	2.5P	C	5	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	10.50	○
ET128-HJN-120125C-P5	M12×1.25	12	1.25	P5	2.5P	C	5	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	10.75	○
ET128-HJN-120100C-P4	M12×1	12	1	P4	2.5P	C	5	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	11.00	○
ET128-HJN-140200C-P6	M14×2	14	2	P6	2.5P	C	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.00	○
ET128-HJN-140150C-P5	M14×1.5	14	1.5	P5	2.5P	C	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.50	○
ET128-HJN-140125C-P5	M14×1.25	14	1.25	P5	2.5P	C	5	88	20	51	10.5	8	11	10.5×8	35.0	3	12.75	○
ET128-HJN-140100C-P4	M14×1	14	1	P4	2.5P	C	5	88	20	51	10.5	8	11	10.5×8	35.0	3	13.00	○
ET128-HJN-160200C-P6	M16×2	16	2	P6	2.5P	C	5	90	20	52	12.5	10	13	12.5×10	40.0	3	14.00	○
ET128-HJN-160150C-P5	M16×1.5	16	1.5	P5	2.5P	C	5	90	20	52	12.5	10	13	12.5×10	40.0	3	14.50	○
ET128-HJN-160125C-P5	M16×1.25	16	1.25	P5	2.5P	C	5	90	20	52	12.5	10	13	12.5×10	40.0	3	14.75	○
ET128-HJN-160100C-P4	M16×1	16	1	P4	2.5P	C	5	90	20	52	12.5	10	13	12.5×10	40.0	3	15.00	○

●Stock ○Available Upon Order Unit (mm)

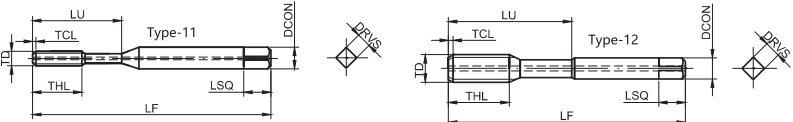
Pre-hole size is for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
				◎	○								

◎ Most Suitable ○ Suitable Recommended Cutting Data ※ P217

ET128-HJC

Economical Straight Fluted Tap for Internal Cooling Cast Iron Machining



Order No.	Thread Size	TD	TP	TCTR	TCL	THCHT	Sche-matic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET128-HJC-050080C-P3	M5×0.8	5	0.8	P3	2.5P	C	11	61	16	25	5.5	4.5	7	5.5×4.5	12.5	3	4.20	○
ET128-HJC-060100C-P3	M6×1	6	1	P3	2.5P	C	11	63	19.5	29	6	4.5	7	6×4.5	15.0	3	5.00	○
ET128-HJC-070100C-P3	M7×1	7	1	P3	2.5P	C	11	72	13	23	6.2	5	8	6.2×5	17.5	3	6.00	○
ET128-HJC-080125C-P4	M8×1.25	8	1.25	P4	2.5P	C	12	70	22	37	6.2	5	8	6.2×5	20.0	3	6.75	○
ET128-HJC-080100C-P4	M8×1	8	1	P4	2.5P	C	12	70	22	37	6.2	5	8	6.2×5	20.0	3	7.00	○
ET128-HJC-100150C-P5	M10×1.5	10	1.5	P5	2.5P	C	12	75	24	43	7	5.5	8	7×5.5	25.0	3	8.50	○
ET128-HJC-100125C-P4	M10×1.25	10	1.25	P4	2.5P	C	12	75	24	43	7	5.5	8	7×5.5	25.0	3	8.75	○
ET128-HJC-100100C-P4	M10×1	10	1	P4	2.5P	C	12	75	24	43	7	5.5	8	7×5.5	25.0	3	9.00	○
ET128-HJC-120175C-P5	M12×1.75	12	1.75	P5	2.5P	C	12	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	10.25	○
ET128-HJC-120150C-P5	M12×1.5	12	1.5	P5	2.5P	C	12	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	10.50	○
ET128-HJC-120125C-P5	M12×1.25	12	1.25	P5	2.5P	C	12	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	10.75	○
ET128-HJC-120100C-P4	M12×1	12	1	P4	2.5P	C	12	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	11.00	○
ET128-HJC-140200C-P6	M14×2	14	2	P6	2.5P	C	12	88	20	51	10.5	8	11	10.5×8	35.0	3	12.00	○
ET128-HJC-140150C-P5	M14×1.5	14	1.5	P5	2.5P	C	12	88	20	51	10.5	8	11	10.5×8	35.0	3	12.50	○
ET128-HJC-140125C-P5	M14×1.25	14	1.25	P5	2.5P	C	12	88	20	51	10.5	8	11	10.5×8	35.0	3	12.75	○
ET128-HJC-140100C-P4	M14×1	14	1	P4	2.5P	C	12	88	20	51	10.5	8	11	10.5×8	35.0	3	13.00	○
ET128-HJC-160200C-P6	M16×2	16	2	P6	2.5P	C	12	95	20	52	12.5	10	13	12.5×10	40.0	3	14.00	○
ET128-HJC-160150C-P5	M16×1.5	16	1.5	P5	2.5P	C	12	95	20	52	12.5	10	13	12.5×10	40.0	3	14.50	○
ET128-HJC-160125C-P5	M16×1.25	16	1.25	P5	2.5P	C	12	95	20	52	12.5	10	13	12.5×10	40.0	3	14.75	○
ET128-HJC-160100C-P4	M16×1	16	1	P4	2.5P	C	12	95	20	52	12.5	10	13	12.5×10	40.0	3	15.00	○

●Stock ○Available Upon Order Unit (mm)

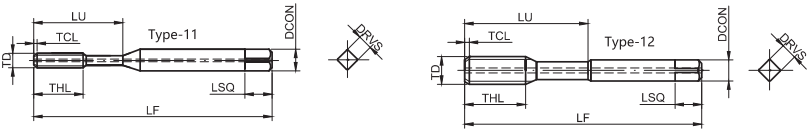
Pre-hole size is for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
				◎	○								

◎ Most Suitable ○ Suitable Recommended Cutting Data ※ P217

ET128-HJR

Economical Straight Fluted Tap for Internal Cooling Cast Iron Machining



Order No.	Thread Size	TD	TP	TCTR	TCL	THCHT	Schematic Diagram	LF	THL	LU	DCON	DRVS	LSQ	CZCMS	TDRM	NOF	PHD	In Stock
ET128-HJR-050080C-P3	M5×0.8	5	0.8	P3	2.5P	C	11	61	16	25	5.5	4.5	7	5.5×4.5	12.5	3	4.20	○
ET128-HJR-060100C-P3	M6×1	6	1	P3	2.5P	C	11	63	19.5	29	6	4.5	7	6×4.5	15.0	3	5.00	○
ET128-HJR-070100C-P3	M7×1	7	1	P3	2.5P	C	11	72	13	23	6.2	5	8	6.2×5	17.5	3	6.00	○
ET128-HJR-080125C-P4	M8×1.25	8	1.25	P4	2.5P	C	12	70	22	37	6.2	5	8	6.2×5	20.0	3	6.75	○
ET128-HJR-080100C-P4	M8×1	8	1	P4	2.5P	C	12	70	22	37	6.2	5	8	6.2×5	20.0	3	7.00	○
ET128-HJR-100150C-P5	M10×1.5	10	1.5	P5	2.5P	C	12	75	24	43	7	5.5	8	7×5.5	25.0	3	8.50	○
ET128-HJR-100125C-P4	M10×1.25	10	1.25	P4	2.5P	C	12	75	24	43	7	5.5	8	7×5.5	25.0	3	8.75	○
ET128-HJR-100100C-P4	M10×1	10	1	P4	2.5P	C	12	75	24	43	7	5.5	8	7×5.5	25.0	3	9.00	○
ET128-HJR-120175C-P5	M12×1.75	12	1.75	P5	2.5P	C	12	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	10.25	○
ET128-HJR-120150C-P5	M12×1.5	12	1.5	P5	2.5P	C	12	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	10.50	○
ET128-HJR-120125C-P5	M12×1.25	12	1.25	P5	2.5P	C	12	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	10.75	○
ET128-HJR-120100C-P4	M12×1	12	1	P4	2.5P	C	12	82	29	46	8.5	6.5	9	8.5×6.5	30.0	3	11.00	○
ET128-HJR-140200C-P6	M14×2	14	2	P6	2.5P	C	12	88	20	51	10.5	8	11	10.5×8	35.0	3	12.00	○
ET128-HJR-140150C-P5	M14×1.5	14	1.5	P5	2.5P	C	12	88	20	51	10.5	8	11	10.5×8	35.0	3	12.50	○
ET128-HJR-140125C-P5	M14×1.25	14	1.25	P5	2.5P	C	12	88	20	51	10.5	8	11	10.5×8	35.0	3	12.75	○
ET128-HJR-140100C-P4	M14×1	14	1	P4	2.5P	C	12	88	20	51	10.5	8	11	10.5×8	35.0	3	13.00	○
ET128-HJR-160200C-P6	M16×2	16	2	P6	2.5P	C	12	95	20	52	12.5	10	13	12.5×10	40.0	3	14.00	○
ET128-HJR-160150C-P5	M16×1.5	16	1.5	P5	2.5P	C	12	95	20	52	12.5	10	13	12.5×10	40.0	3	14.50	○
ET128-HJR-160125C-P5	M16×1.25	16	1.25	P5	2.5P	C	12	95	20	52	12.5	10	13	12.5×10	40.0	3	14.75	○
ET128-HJR-160100C-P4	M16×1	16	1	P4	2.5P	C	12	95	20	52	12.5	10	13	12.5×10	40.0	3	15.00	○

●Stock ○Available Upon Order Unit (mm)
Pre-hole size is for reference only.

Workpiece Material													
P			M	K		N				S		H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
				⊙	○								

⊙ Most Suitable ○ Suitable Recommended Cutting Data ※ P217

Tap Inquiry Information Form

Tap Desired Form

1. Hole Type

Specifications: Tolerance:

Thread hole characteristics:

2. Machining Type

Machine model: Machining characteristics:

Materials being machined: Material hardness: HB HRC

Machining parameters: Cooling mode:

3. Tool Types

☐ New project sampling ☐ Replacing/optimizing existing competitive products

Tap types: Additional:

Desired tool size: Current brand/specification:

TD*TP: TCL: THL:

DCON: LSQ: LF:

Other size requirements:

4. Notes:

Table of Thread Bottom Hole Diameters for Fluteless Taps

Metric Screw Thread					Unit: mm	
Thread Size	Bottom-hole Diameter for 1-class thread		Bottom-hole Diameter for 2-class thread		RH Accuracy	Minimum to Maximum (percentage of thread engagement, %)
	RH Accuracy	Minimum to Maximum (percentage of thread engagement, %)	RH Accuracy	Minimum to Maximum (percentage of thread engagement, %)		
M1×0.25	2	0.87~0.89(100~85)	4	0.90~0.92(100~80)		
M1.2×0.25	2	1.07~1.09 (100~85)	4	1.10~1.12 (100~80)		
M1.4×0.3	2	1.244~1.263(100~85)	4	1.270~1.294(100~80)		
M1.6×0.35	2	1.40~1.44 (100~80)	4	1.44 ~1.48 (100~75)		
M1.7×0.35	2	1.51~1.54 (100~80)	4	1.54 ~1.58 (100~75)		
M2×0.4	2	1.78~1.82(100~80)	4	1.81~1.85(100~75)		
M2.3×0.4	2	2.08~2.12 (100~80)	4	2.11~2.15(100~75)		
M2.5×0.45	2	2.25~2.29 (100~80)	4	2.28~2.33(100~75)		
M2.6×0.45	2	2.35~2.39 (100~80)	4	2.38~2.43(100~75)		
M3×0.5	3	2.74~2.78 (100~80)	5	2.76~2.81(100~75)		
M3.5×0.6	3	3.18 ~3.21 (100~85)	5	3.20~3.26 (100~75)		
M4×0.7	4	3.63~3.67(100~85)	6	3.65~3.70(100~85)		
M5×0.8	4	4.57~4.62(100~85)	6	4.59~4.66 (100~80)		
M6×1.0	4	5.45~5.51(100~85)	7	5.48~5.57(100~80)		
M7×1.0	4	6.45~6.51(100~85)	7	6.48~6.57(100~80)		
M8 ×1.25	5	7.31~7.38 (100~85)	7	7.34~7.41 (100~85)		
M10×1.5	5	9.16~9.22 (100~90)	7	9.18~9.28 (100~85)		
M12×1.75	5	11.01~11.08 (100~90)	8	11.05~11.15 (100~85)		
M14×2.0	6	12.83~12.95 (100~90)	10	12.92~13.04 (100~85)		
M16×2.0	6	14.87~14.95 (100~90)	10	14.92~15.04 (100~85)		

Table of Thread Bottom Hole Diameters for Fluteless Taps

American Thread							Unit: mm	
Thread Size	Bottom-hole Diameter for 2B-class Thread				Bottom-hole Diameter for 3B-class Thread		RH Accuracy	Minimum to Maximum (percentage of thread engagement, %)
	Outer Diameter	Pitch	RH Accuracy	Minimum to Maximum (percentage of thread engagement, %)	RH Accuracy	Minimum to Maximum (percentage of thread engagement, %)		
NO.0~80UNF	1.524	0.3175	4	1.38~1.41(100~65)	3	1.36~1.40(100~65)		
1~72UNF	1.854	0.3528	4	1.68~1.72(100~65)	3	1.67~1.71(100~65)		
1~64UNC	1.854	0.3969	4	1.66~1.70(100~65)	3	1.65~1.69(100~65)		
2~56UNC	2.184	0.4536	4	1.96~2.02(100~65)	3	1.95~2.01 (100~65)		
2~64UNF	2.184	0.3969	4	1.98~2.04 (100~65)	3	1.97~2.03 (100~65)		
3~48UNC	2.514	0.5292	4	2.25~2.32(100~65)	3	2.23~2.31(100~65)		
3~56UNF	2.514	0.4536	4	2.29~2.35 (100~65)	3	2.28~2.34 (100~65)		
4~40UNC	2.844	0.635	5	2.52~2.60 (100~70)	3	2.50~2.58 (100~70)		
4~48UNF	2.844	0.5292	4	2.57~2.64 (100~70)	3	2.56~2.63 (100~70)		
6~32UNC	3.504	0.7938	5	3.09~3.17 (100~75)	3	3.06~3.14 (100~75)		
6~40UNF	3.504	0.635	5	3.19~3.26(100~70)	3	3.16~3.22 (100~75)		
8~32UNC	4.164	0.7938	6	3.75~3.83 (100~75)	4	3.74~3.82(100~75)		
8~36UNF	4.164	0.7056	5	3.80~3.88 (100~75)	4	3.79~3.86 (100~75)		
10~24UNC	4.824	1.0583	6	4.26~4.35 (100~80)	4	4.24~4.32(100~80)		
10~32UNF	4.824	0.7938	5	4.41~4.48 (100~80)	4	4.40~4.46 (100~80)		
12~24UNC	5.484	1.0583	6	4.92~5.01 (100~80)	4	4.90~4.96(100~85)		
12~28UNF	5.484	0.9071	5	5.00~5.08 (100~80)	4	4.99~5.06(100~80)		
1/4~20UNC	6.35	1.27	6	5.66~5.76(100~80)	4	5.64~5.74 (100~80)		
1/4~28UNF	6.35	0.9071	5	5.86~5.93 (100~80)	4	5.85~5.92 (100~80)		
5/16~18UNC	7.9375	1.4111	7	7.18~7.29 (100~80)	5	7.15~7.24 (100~85)		
5/16~24UNF	7.9375	1.0583	6	7.38~7.46(100~80)	5	7.36~7.43 (100~85)		
3/8~16UNC	9.525	1.5875	7	8.66~8.78 (100~80)	5	8.63~8.73 (100~85)		
3/8~24UNF	9.525	1.0583	6	8.96~9.05 (100~80)	5	8.95~9.02 (100~85)		
7/16~14UNC	11.1125	1.814	7	10.11~10.25(100~80)	5	10.08~10.19(100~85)		
7/16~20UNF	11.1125	1.27	7	10.44~10.54 (100~80)	5	10.41~10.49(100~85)		
1/2~13UNC	12.7	1.9538	8	11.62~11.78 (100~80)	6	11.60~11.68 (100~90)		
1/2~20UNF	12.7	1.27	7	12.02~12.12(100~80)	5	12.00~12.05 (100~90)		
5/8~11UNC	15.875	2.3091	11	14.62~14.76(100~85)	8	14.58~14.67(100~90)		
5/8~18UNF	15.875	1.4111	9	15.14~15.25 (100~80)	7	15.11~15.17 (100~90)		

Table of Thread Bottom Hole Diameters for Cutting Taps

Metric Screw Thread				Unit: mm
Thread Size		Standard Diameter	Drilling Diameter for 2-class Thread	
			Max.	Min.
M1	0.25	0.75	0.785	0.729
M1.1	0.25	0.85	0.885	0.829
M1.2	0.25	0.95	0.985	0.929
M1.4	0.3	1.1	1.142	1.075
M1.6	0.35	1.25	1.321	1.221
M1.7	0.35	1.35	1.421	1.321
M1.8	0.35	1.45	1.521	1.421
M2	0.4	1.6	1.679	1.567
M2.2	0.45	1.75	1.838	1.713
M2.3	0.4	1.9	1.979	1.867
M2.5	0.45	2.1	2.138	2.013
M2.6	0.45	2.2	2.238	2.113
M3	0.5	2.5	2.599	2.459
M3.5	0.6	2.9	3.01	2.85
M4	0.7	3.3	3.422	3.242
M4.5	0.75	3.8	3.878	3.688
M5	0.8	4.2	4.334	4.134
M6	1	5	5.153	4.917
M7	1	6	6.153	5.917
M8	1.25	6.8	6.912	6.647
M8	1	7	7.153	6.917
M9	1.25	7.8	7.912	7.647
M10	1.5	8.5	8.676	8.376
M10	1.25	8.8	8.912	8.647
M10	1	9	9.153	8.917
M11	1.5	9.5	9.676	9.376
M12	1.75	10.3	10.441	10.106
M12	1.5	10.5	10.676	10.376
M12	1.25	10.8	10.912	10.647
M12	1	11	11.153	10.917
M14	2	12	12.21	11.835
M14	1.5	12.5	12.676	12.376
M14	1	13	13.153	12.917
M16	2	14	14.21	13.835
M16	1.5	14.5	14.676	14.376
M16	1	15	15.15	14.917

Table of Thread Bottom Hole Diameters for Cutting Taps

Metric Screw Thread				Unit: mm
American Coarse Thread Specifications		Standard Diameter	Drilling Diameter for 2-class Thread	
			Max.	Min.
NO.1	-64	1.55	1.582	1.425
NO.2	-56	1.8	1.871	1.695
NO.3	-48	2.05	2.146	1.941
NO.4	-40	2.3	2.385	2.157
NO.5	-40	2.6	2.697	2.487
NO.6	-32	2.8	2.895	2.642
NO.8	-32	3.4	3.53	3.302
NO.10	-24	3.9	3.962	3.683
NO.12	-24	4.5	4.597	4.344
1/4	-20	5.1	5.257	4.979
5/16	-18	6.6	6.731	6.401
3/8	-16	8	8.153	7.798
7/16	-14	9.4	9.55	9.144
1/2	-13	10.9	11.023	10.592
9/16	-12	12.2	12.466	11.989
5/8	-11	13.6	13.868	13.386
American Fine Thread Specifications		Standard Diameter	Drilling Diameter for 2-class Thread	
			Max.	Min.
NO.0	-80	1.25	1.305	1.182
NO.1	-72	1.55	1.612	1.474
NO.2	-64	1.85	1.912	1.756
NO.3	-56	2.1	2.197	2.025
NO.4	-48	2.4	2.458	2.271
NO.5	-44	2.7	2.74	2.551
NO.6	-40	2.9	3.022	2.82
NO.8	-36	3.5	3.606	3.404
NO.10	-32	4.1	4.165	3.963
NO.12	-28	4.6	4.724	4.496
1/4	-28	5.5	5.588	5.36
5/16	-24	6.9	7.035	6.782
3/8	-24	8.5	8.636	8.382
7/16	-20	9.90	10.033	9.729
1/2	-20	11.5	11.607	11.329
9/16	-18	12.9	13.081	12.751
5/8	-18	14.5	14.681	14.351



Representation Rules for Gumd Tool Holder Order No.

GUMD – 210 – 3D – F – 25 – S

- ①
- ②
- ③
- ④
- ⑤
- ⑥

① Drill Bit Type		② Drill Body Diameter		③ Length-diameter Ratio	
GUMD	Replaceable Drill Bit	210	The Diameter of the Drill Body is Φ21.0mm	3D	Effective Drilling Depth is 3D

④ Shank Type		⑤ Shank Diameter		⑥ Internal Cooling Mode	
F	Flange-plane Side-fixed Type	25	Φ25.0mm	S	Double Helix Internal Cooling
				A	Y-type Internal Cooling

GUMD Modular Drill Series

- The drill's length-to-diameter ratio is extended to 8D, allowing for deeper machining depths
- New PVD Grades GPD7115A with a wide range of processing
- Threaded locking interface is reliable and easy to replace
- High-strength drill tip design with good centering performance

Representation Rules for Gumd Tool Bit Order No.

GUMD – 210 – PKM – GM3225

① Drill Bit Type		② Tool Bit Diameter		③ Geometry		④ Grade	
GUMD	Replaceable Drill Bit	210	The Diameter of the Tool Bit is Φ21.0mm	PKM	The Machining Material Suitable for This Geometry is Pkm	GM3225	

GUMD-PKM

GUMD Modular Drill Tool Bit



Order No.	Dimensions		Coated Cemented Carbide	Matching Tool Holder
	DC (k7)	PL	GPD7115A	
GUMD100-PKM	10.0	1.82	●	GUMD-100-3D-F16S GUMD-100-5D-F16S GUMD-100-8D-F16A
GUMD101-PKM	10.1	1.84	○	
GUMD102-PKM	10.2	1.86	○	
GUMD103-PKM	10.3	1.87	○	
GUMD104-PKM	10.4	1.89	○	GUMD-105-3D-F16S GUMD-105-5D-F16S GUMD-105-8D-F16A
GUMD105-PKM	10.5	1.91	●	
GUMD106-PKM	10.6	1.93	○	
GUMD107-PKM	10.7	1.95	○	
GUMD108-PKM	10.8	1.97	○	GUMD-110-3D-F16S GUMD-110-5D-F16S GUMD-110-8D-F16A
GUMD109-PKM	10.9	1.98	○	
GUMD110-PKM	11.0	2.00	●	
GUMD111-PKM	11.1	2.02	○	
GUMD112-PKM	11.2	2.04	○	GUMD-115-3D-F16S GUMD-115-5D-F16S GUMD-115-8D-F16A
GUMD113-PKM	11.3	2.06	○	
GUMD114-PKM	11.4	2.07	○	
GUMD115-PKM	11.5	2.09	●	
GUMD116-PKM	11.6	2.11	○	GUMD-115-3D-F16S GUMD-115-5D-F16S GUMD-115-8D-F16A
GUMD117-PKM	11.7	2.13	○	
GUMD118-PKM	11.8	2.15	○	
GUMD119-PKM	11.9	2.17	○	

●Stock ○Available Upon Order

Notes: The cutting edge diameter accepts non-standard customization.

DC	Tolerance (k7)
DC=10	+0.016 +0.001
10<DC≤18	+0.019 +0.001
18<DC≤21.9	+0.023 +0.002

Unit (mm)

Workpiece Material						
	P			M	K	
	1 2 3	4	5	1 2 3	1 2	3
	Carbon Steel I	Alloy Steel	Alloy Steel, Tool Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron
	<25HRC	<35HRC	35-48HRC		<35HRC	35-45HRC
GPD7115	○	○	○	○	○	○

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P218

GUMD-PKM

GUMD Modular Drill Tool Bit



Order No.	Dimensions		Coated Cemented Carbide	Matching Tool Holder
	DC (k7)	PL	GPD7115A	
GUMD120-PKM	12.0	2.18	●	GUMD-120-3D-F16S GUMD-120-5D-F16S GUMD-120-8D-F16A
GUMD121-PKM	12.1	2.20	○	
GUMD122-PKM	12.2	2.22	○	
GUMD123-PKM	12.3	2.24	○	
GUMD124-PKM	12.4	2.26	○	GUMD-125-3D-F16S GUMD-125-5D-F16S GUMD-125-8D-F16A
GUMD125-PKM	12.5	2.27	●	
GUMD126-PKM	12.6	2.29	○	
GUMD127-PKM	12.7	2.31	○	
GUMD128-PKM	12.8	2.33	○	GUMD-130-3D-F16S GUMD-130-5D-F16S GUMD-130-8D-F16A
GUMD129-PKM	12.9	2.35	○	
GUMD130-PKM	13.0	2.37	●	
GUMD131-PKM	13.1	2.38	○	
GUMD132-PKM	13.2	2.40	○	GUMD-135-3D-F16S GUMD-135-5D-F16S GUMD-135-8D-F16A
GUMD133-PKM	13.3	2.42	○	
GUMD134-PKM	13.4	2.44	○	
GUMD135-PKM	13.5	2.46	●	
GUMD136-PKM	13.6	2.47	○	
GUMD137-PKM	13.7	2.49	○	
GUMD138-PKM	13.8	2.51	○	
GUMD139-PKM	13.9	2.53	○	

●Stock ○Available Upon Order

Notes: The cutting edge diameter accepts non-standard customization.

DC	Tolerance (k7)
DC=10	+0.016 +0.001
10<DC≤18	+0.019 +0.001
18<DC≤21.9	+0.023 +0.002

Unit (mm)

Workpiece Material						
	P			M	K	
	1 2 3	4	5	1 2 3	1 2	3
	Carbon Steel I	Alloy Steel	Alloy Steel, Tool Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron
	<25HRC	<35HRC	35-48HRC		<35HRC	35-45HRC
GPD7115	○	○	○	○	○	○

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P218

GUMD-PKM

GUMD Modular Drill Tool Bit



Order No.	Dimensions		Coated Cemented Carbide	Matching Tool Holder
	DC (k7)	PL	GPD7115A	
GUMD140-PKM	14.0	2.55	●	GUMD-140-3D-F16S GUMD-140-5D-F16S GUMD-140-8D-F16A
GUMD141-PKM	14.1	2.57	○	
GUMD142-PKM	14.2	2.58	○	
GUMD143-PKM	14.3	2.60	○	
GUMD144-PKM	14.4	2.62	○	GUMD-145-3D-F16S GUMD-145-5D-F16S GUMD-145-8D-F16A
GUMD145-PKM	14.5	2.64	●	
GUMD146-PKM	14.6	2.66	○	
GUMD147-PKM	14.7	2.68	○	
GUMD148-PKM	14.8	2.69	○	GUMD-150-3D-F20S GUMD-150-5D-F20S GUMD-150-8D-F20A
GUMD149-PKM	14.9	2.71	○	
GUMD150-PKM	15.0	2.73	●	
GUMD151-PKM	15.1	2.75	○	
GUMD152-PKM	15.2	2.77	○	
GUMD153-PKM	15.3	2.78	○	
GUMD154-PKM	15.4	2.80	○	
GUMD155-PKM	15.5	2.82	●	
GUMD156-PKM	15.6	2.84	○	
GUMD157-PKM	15.7	2.86	○	
GUMD158-PKM	15.8	2.88	○	
GUMD159-PKM	15.9	2.89	○	

●Stock ○Available Upon Order

Notes: The cutting edge diameter accepts non-standard customization.

DC	Tolerance (k7)
DC=10	+0.016 +0.001
10<DC≤18	+0.019 +0.001
18<DC≤21.9	+0.023 +0.002

Unit (mm)

Workpiece Material						
	P			M	K	
	1 2 3	4	5	1 2 3	1 2	3
	Carbon Steel I	Alloy Steel	Alloy Steel, Tool Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron
	<25HRC	<35HRC	35-48HRC		<35HRC	35-45HRC
GPD7115	○	○	○	○	○	○

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P218

GUMD-PKM

GUMD Modular Drill Tool Bit



Order No.	Dimensions		Coated Cemented Carbide	Matching Tool Holder
	DC (k7)	PL	GPD7115A	
GUMD160-PKM	16	2.91	●	GUMD-160-3D-F20S GUMD-160-5D-F20S GUMD-160-8D-F20A
GUMD161-PKM	16.1	2.93	○	
GUMD162-PKM	16.2	2.95	○	
GUMD163-PKM	16.3	2.97	○	
GUMD164-PKM	16.4	2.98	○	
GUMD165-PKM	16.5	3.00	●	
GUMD166-PKM	16.6	3.02	○	
GUMD167-PKM	16.7	3.04	○	
GUMD168-PKM	16.8	3.06	○	
GUMD169-PKM	16.9	3.08	○	
GUMD170-PKM	17	3.09	●	GUMD-170-3D-F20S GUMD-170-5D-F20S GUMD-170-8D-F20A
GUMD171-PKM	17.1	3.11	○	
GUMD172-PKM	17.2	3.13	○	
GUMD173-PKM	17.3	3.15	○	
GUMD174-PKM	17.4	3.17	○	
GUMD175-PKM	17.5	3.18	●	
GUMD176-PKM	17.6	3.20	○	
GUMD177-PKM	17.7	3.22	○	
GUMD178-PKM	17.8	3.24	○	
GUMD179-PKM	17.9	3.26	○	

●Stock ○Available Upon Order

Notes: The cutting edge diameter accepts non-standard customization.

DC	Tolerance (k7)
DC=10	+0.016 +0.001
10<DC≤18	+0.019 +0.001
18<DC≤21.9	+0.023 +0.002

Unit (mm)

Workpiece Material						
	P			M	K	
	1 2 3	4	5	1 2 3	1 2	3
	Carbon Steel I	Alloy Steel	Alloy Steel, Tool Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron
	<25HRC	<35HRC	35-48HRC		<35HRC	35-45HRC
GPD7115	○	○	○	○	○	○

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P218

GUMD-PKM

GUMD Modular Drill Tool Bit



Order No.	Dimensions		Coated Cemented Carbide	Matching Tool Holder
	DC (k7)	PL	GPD7115A	
GUMD180-PKM	18	3.28	●	GUMD-180-3D-F25S GUMD-180-5D-F25S GUMD-180-8D-F25A
GUMD181-PKM	18.1	3.29	○	
GUMD182-PKM	18.2	3.31	○	
GUMD183-PKM	18.3	3.33	○	
GUMD184-PKM	18.4	3.35	○	
GUMD185-PKM	18.5	3.37	●	
GUMD186-PKM	18.6	3.38	○	
GUMD187-PKM	18.7	3.40	○	
GUMD188-PKM	18.8	3.42	○	
GUMD189-PKM	18.9	3.44	○	
GUMD190-PKM	19	3.46	●	GUMD-190-3D-F25S GUMD-190-5D-F25S GUMD-190-8D-F25A
GUMD191-PKM	19.1	3.48	○	
GUMD192-PKM	19.2	3.49	○	
GUMD193-PKM	19.3	3.51	○	
GUMD194-PKM	19.4	3.53	○	
GUMD195-PKM	19.5	3.55	●	
GUMD196-PKM	19.6	3.57	○	
GUMD197-PKM	19.7	3.59	○	
GUMD198-PKM	19.8	3.60	○	
GUMD199-PKM	19.9	3.62	○	

●Stock ○Available Upon Order

Notes: The cutting edge diameter accepts non-standard customization.

DC	Tolerance (k7)
DC=10	+0.016 +0.001
10<DC≤18	+0.019 +0.001
18<DC≤21.9	+0.023 +0.002

Unit (mm)

Workpiece Material						
	P			M	K	
	1 2 3	4	5	1 2 3	1 2	3
	Carbon Steel I	Alloy Steel	Alloy Steel, Tool Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron
	<25HRC	<35HRC	35-48HRC		<35HRC	35-45HRC
GPD7115	○	○	○	○	○	○

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P218

GUMD-PKM

GUMD Modular Drill Tool Bit



Order No.	Dimensions		Coated Cemented Carbide	Matching Tool Holder
	DC (k7)	PL	GPD7115A	
GUMD200-PKM	20	3.64	●	GUMD-200-3D-F25S GUMD-200-5D-F25S GUMD-200-8D-F25A
GUMD201-PKM	20.1	3.66	○	
GUMD202-PKM	20.2	3.68	○	
GUMD203-PKM	20.3	3.69	○	
GUMD204-PKM	20.4	3.71	○	
GUMD205-PKM	20.5	3.73	●	
GUMD206-PKM	20.6	3.75	○	
GUMD207-PKM	20.7	3.77	○	
GUMD208-PKM	20.8	3.79	○	
GUMD209-PKM	20.9	3.80	○	
GUMD210-PKM	21	3.82	●	GUMD-210-3D-F25S GUMD-210-5D-F25S GUMD-210-8D-F25A
GUMD211-PKM	21.1	3.84	○	
GUMD212-PKM	21.2	3.86	○	
GUMD213-PKM	21.3	3.88	○	
GUMD214-PKM	21.4	3.89	○	
GUMD215-PKM	21.5	3.91	●	
GUMD216-PKM	21.6	3.93	○	
GUMD217-PKM	21.7	3.95	○	
GUMD218-PKM	21.8	3.97	○	
GUMD219-PKM	21.9	3.99	○	

●Stock ○Available Upon Order

Notes: The cutting edge diameter accepts non-standard customization.

DC	Tolerance (k7)
DC=10	+0.016 +0.001
10<DC≤18	+0.019 +0.001
18<DC≤21.9	+0.023 +0.002

Unit (mm)

Workpiece Material						
	P			M	K	
	1 2 3	4	5	1 2 3	1 2	3
	Carbon Steel I	Alloy Steel	Alloy Steel, Tool Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron
	<25HRC	<35HRC	35-48HRC		<35HRC	35-45HRC
GPD7115	○	○	○	○	○	○

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P218

GUMD-3D

GUMD-3D Modular Drill Tool Holder



Order No.	Dimensions						Net Weight (kg)	In Stock	Matching Tool Bit Size	
	DMM(h6)	DF	LS	LU	LPR	OAL			Dc min	Dc max
GUMD-100-3D-F16S	16	20	48	33	48	96	0.09	●	10.0	10.4
GUMD-105-3D-F16S	16	20	48	34.5	49.5	97.5	0.10	●	10.5	10.9
GUMD-110-3D-F16S	16	20	48	36	51	99	0.10	●	11.0	11.4
GUMD-115-3D-F16S	16	20	48	37.5	52.5	100.5	0.10	●	11.5	11.9
GUMD-120-3D-F16S	16	20	48	39	54	102	0.10	●	12.0	12.4
GUMD-125-3D-F16S	16	20	48	40.5	55.5	103.5	0.10	●	12.5	12.9
GUMD-130-3D-F16S	16	20	48	42	57	105	0.11	●	13.0	13.4
GUMD-135-3D-F16S	16	20	48	43.5	58.5	106.5	0.11	●	13.5	13.9
GUMD-140-3D-F16S	16	20	48	45	60	108	0.11	●	14.0	14.4
GUMD-145-3D-F16S	16	20	48	46.5	61.5	109.5	0.11	●	14.5	14.9
GUMD-150-3D-F20S	20	25	50	50	67	117	0.18	●	15.0	15.9
GUMD-160-3D-F20S	20	25	50	53	70	120	0.18	●	16.0	16.9
GUMD-170-3D-F20S	20	25	50	56	73	123	0.19	●	17.0	17.9
GUMD-180-3D-F25S	25	32	56	62	86	142	0.34	●	18.0	18.9
GUMD-190-3D-F25S	25	32	56	65	89	145	0.35	●	19.0	19.9
GUMD-200-3D-F25S	25	32	56	68	92	148	0.36	●	20.0	20.9
GUMD-210-3D-F25S	25	32	56	71	95	151	0.37	●	21.0	21.9

●Stock ○Available Upon Order

DMM	Tolerance (h6)
16	0 -0.011
20	0 -0.013
25	0 -0.013

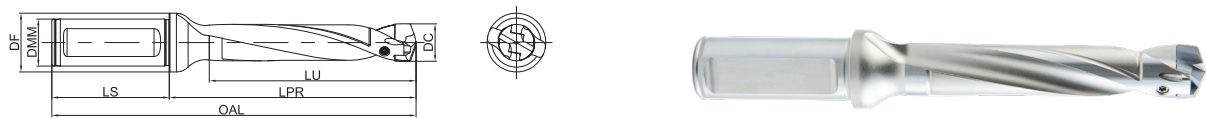
Unit (mm)

List of Tool Accessories

Tool Specifications	Screw		Spoon Wrench (Can be Purchased Separately)		Torque Value
	Order No.	Schematic Diagram	Order No.	Schematic Diagram	
GUMD-100~120	SCCM022038B		PTI06KB		0.6
GUMD-125~150	SCCM025046B		PTI07KB		0.9
GUMD-160~190	SCCM030058B		PTI08KB		1.1
GUMD-200~210	SCCM035072B		PTI09KB		1.3

GUMD-5D

GUMD-5D Modular Drill Tool Holder



Order No.	Dimensions						Net Weight (kg)	In Stock	Matching Tool Bit Size	
	DMM(h6)	DF	LS	LU	LPR	OAL			Dc min	Dc max
GUMD-100-5D-F16S	16	20	48	53	68	116	0.10	●	10.0	10.4
GUMD-105-5D-F16S	16	20	48	55.5	70.5	118.5	0.10	●	10.5	10.9
GUMD-110-5D-F16S	16	20	48	58	73	121	0.11	●	11.0	11.4
GUMD-115-5D-F16S	16	20	48	60.5	75.5	123.5	0.11	●	11.5	11.9
GUMD-120-5D-F16S	16	20	48	63	78	126	0.11	●	12.0	12.4
GUMD-125-5D-F16S	16	20	48	65.5	80.5	128.5	0.12	●	12.5	12.9
GUMD-130-5D-F16S	16	20	48	68	83	131	0.12	●	13.0	13.4
GUMD-135-5D-F16S	16	20	48	70.5	85.5	133.5	0.13	●	13.5	13.9
GUMD-140-5D-F16S	16	20	48	73	88	136	0.13	●	14.0	14.4
GUMD-145-5D-F16S	16	20	48	75.5	90.5	138.5	0.13	●	14.5	14.9
GUMD-150-5D-F20S	20	25	50	83	100	150	0.20	●	15.0	15.9
GUMD-160-5D-F20S	20	25	50	88	105	155	0.21	●	16.0	16.9
GUMD-170-5D-F20S	20	25	50	93	110	160	0.23	●	17.0	17.9
GUMD-180-5D-F25S	25	32	56	100	124	180	0.38	●	18.0	18.9
GUMD-190-5D-F25S	25	32	56	105	129	185	0.40	●	19.0	19.9
GUMD-200-5D-F25S	25	32	56	110	134	190	0.41	●	20.0	20.9
GUMD-210-5D-F25S	25	32	56	115	139	195	0.44	●	21.0	21.9

●Stock ○Available Upon Order

DMM	Tolerance (h6)
16	0 -0.011
20	0 -0.013
25	0 -0.013

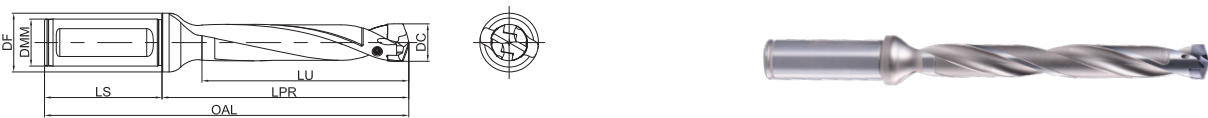
Unit (mm)

List of Tool Accessories

Tool Specifications	Screw		Spoon Wrench (Can be Purchased Separately)		Torque Value
	Order No.	Schematic Diagram	Order No.	Schematic Diagram	
GUMD-100~120	SCCM022038B		PTI06KB		0.6
GUMD-125~150	SCCM025046B		PTI07KB		0.9
GUMD-160~190	SCCM030058B		PTI08KB		1.1
GUMD-200~210	SCCM035072B		PTI09KB		1.3

GUMD-8D

GUMD-8D Modular Drill Tool Holder



Order No.	Dimensions						In Stock	Matching Tool Bit Size	
	DMM	DF	LS	LU	LPR	OAL		Dc min	Dc max
GUMD-100-8D-F16A	16	20	48	85	100	148	●	10.0	10.4
GUMD-105-8D-F16A	16	20	48	89	104	152	●	10.5	10.9
GUMD-110-8D-F16A	16	20	48	93	108	156	●	11.0	11.4
GUMD-115-8D-F16A	16	20	48	97	112	160	●	11.5	11.9
GUMD-120-8D-F16A	16	20	48	101	116	164	●	12.0	12.4
GUMD-125-8D-F16A	16	20	48	105	120	168	●	12.5	12.9
GUMD-130-8D-F16A	16	20	48	109	124	172	●	13.0	13.4
GUMD-135-8D-F16A	16	20	48	113	128	176	●	13.5	13.9
GUMD-140-8D-F16A	16	20	48	117	132	180	●	14.0	14.4
GUMD-145-8D-F16A	16	20	48	121	136	184	●	14.5	14.9
GUMD-150-8D-F20A	20	25	50	130	147	197	●	15.0	15.9
GUMD-160-8D-F20A	20	25	50	138	155	205	●	16.0	16.9
GUMD-170-8D-F20A	20	25	50	146	163	213	●	17.0	17.9
GUMD-180-8D-F25A	25	32	56	156	180	236	●	18.0	18.9
GUMD-190-8D-F25A	25	32	56	164	188	244	●	19.0	19.9
GUMD-200-8D-F25A	25	32	56	172	196	252	●	20.0	20.9
GUMD-210-8D-F25A	25	32	56	180	204	260	●	21.0	21.9

●Stock ○Available Upon Order

DMM	Tolerance (h6)
16	0 -0.011
20	0 -0.013
25	0 -0.013

Unit (mm)

List of Tool Accessories

Tool Specifications	Screw		Spoon Wrench (Can be Purchased Separately)		Torque Value
	Order No.	Schematic Diagram	Order No.	Schematic Diagram	
GUMD-100~120	SCCM022038B		PTI06KB		0.6
GUMD-125~150	SCCM025046B		PTI07KB		0.9
GUMD-160~190	SCCM030058B		PTI08KB		1.1
GUMD-200~210	SCCM035072B		PTI09KB		1.3

Representation Rules for Indexable Shallow Hole Drill Body Order No.

GHD - 210 - 3D - FC 25 - Q 06 S

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Drill Bit Type		② Diameter of Drill Bit		③ Length-diameter Ratio		④ Shank Type	
GHD	Indexable Shallow Hole Drill	210	Φ21.0mm	3D	Effective Drilling Depth is 3D	FC	Flange-plane Side-fixed Type
⑤ Shank Diameter		⑥ Insert Series		⑦ Cutting Edge Length Code		⑧ Internal Cooling Mode	
25	Φ25.0mm	Q	The Inserts are Q Series	06	Cutting Edge Length Code is 06	S	Double Helix Internal Cooling

SOMG Indexable Drill Series

- Tailored coating processes for inserts used in internal and external cutting applications
- Optimized for inserts used in internal and external cutting conditions, significantly improving machining stability
- Compatible with GHDS drill bodies

Representation Rules for Indexable Shallow Hole Drill Insert Order No.

S O M G 06 02 04-C-DP-GM4240

- ①
- ②
- ③
- ④
- ⑤
- ⑥
- ⑦
- ⑧
- ⑨
- ⑩

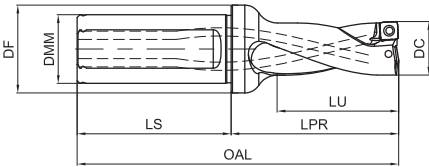
① Shape		② Relief Angle		③ Tolerance		④ Chip Breaker Hole Code	
Q		P	11 °	M Grade		G	Double-sided
S		O	Others				

⑤ Cutting Edge Length Code		⑥ Thickness		⑦ Tip Code		⑧ Insert Code	
06	6.5 mm	02	2.38 mm	04	0.4 mm	C	Dedicated for Inner Insert
						P	Dedicated for External Insert

⑨ Chip Breaker Geometry Code		⑩ Grade	
Indicates the Insert Machining Chip Breaker Geometry		GM4240	

GHDS-2D

GHDS-2D Internal Cooling Shallow Hole Drill



Diameter	Drill Body Type	Dimensions							Net Weight (kg)	In Stock	Insert Type	
		DC	DMM	DF	LS	LU	LPR	OAL			Inner Insert	External Insert
14	GHD-140-2D-FC20-Q04S	14	20	25	50	31	44	94	0.16	●	SOMG040204-C	QPMG040204-P
14.5	GHD-145-2D-FC20-Q04S	14.5	20	25	50	33	46	96	0.16	●		
15	GHD-150-2D-FC20-Q04S	15	20	25	50	35	47	97	0.16	●		
15.5	GHD-155-2D-FC20-Q04S	15.5	20	25	50	37	49	99	0.17	●		
16	GHD-160-2D-FC20-Q05S	16	20	25	50	37	51	101	0.17	●	SOMG050204-C	QPMG050204-P
16.5	GHD-165-2D-FC20-Q05S	16.5	20	25	50	38	52	102	0.17	●		
17	GHD-170-2D-FC25-Q05S	17	25	32	56	38	53	109	0.28	●		
17.5	GHD-175-2D-FC25-Q05S	17.5	25	32	56	39	55	111	0.29	●		
18	GHD-180-2D-FC25-Q05S	18	25	32	56	41	56	112	0.29	●	SOMG060204-C	QPMG060204-P
18.5	GHD-185-2D-FC25-Q05S	18.5	25	32	56	42	57	113	0.29	●		
19	GHD-190-2D-FC25-Q06S	19	25	32	56	42	58	114	0.30	●		
19.5	GHD-195-2D-FC25-Q06S	19.5	25	32	56	44	60	116	0.30	●		
20	GHD-200-2D-FC25-Q06S	20	25	32	56	44	61	117	0.31	●	SOMG07T306-C	QPMG07T306-P
20.5	GHD-205-2D-FC25-Q06S	20.5	25	32	56	45	62	118	0.32	●		
21	GHD-210-2D-FC25-Q06S	21	25	32	56	47	64	120	0.32	●		
21.5	GHD-215-2D-FC25-Q06S	21.5	25	32	56	48	65	121	0.32	●		
22	GHD-220-2D-FC25-Q06S	22	25	32	56	49	66	122	0.32	●	SOMG07T306-C	QPMG07T306-P
22.5	GHD-225-2D-FC25-Q06S	22.5	25	32	56	51	68	124	0.33	●		
23	GHD-230-2D-FC25-Q07S	23	25	32	56	50	69	125	0.34	●		
23.5	GHD-235-2D-FC25-Q07S	23.5	25	32	56	51	70	126	0.35	●		
24	GHD-240-2D-FC25-Q07S	24	25	32	56	53	71	127	0.35	●	SOMG07T306-C	QPMG07T306-P
24.5	GHD-245-2D-FC25-Q07S	24.5	25	32	56	55	73	129	0.36	●		
25	GHD-250-2D-FC25-Q07S	25	25	32	56	54	74	130	0.37	●		
25.5	GHD-255-2D-FC32-Q07S	25.5	32	40	60	55	76	136	0.58	●		
26	GHD-260-2D-FC32-Q07S	26	32	40	60	56	77	137	0.58	●	SOMG07T306-C	QPMG07T306-P
26.5	GHD-265-2D-FC32-Q07S	26.5	32	40	60	58	78	138	0.59	●		
27	GHD-270-2D-FC32-Q07S	27	32	40	60	59	79	139	0.60	●		

●Stock ○Available Upon Order

Unit (mm)

GHDS-2D

GHDS-2D Internal Cooling Shallow Hole Drill



Continued

Diameter	Drill Body Type	Dimensions							Net Weight (kg)	In Stock	Insert Type	
		DC	DMM	DF	LS	LU	LPR	OAL			Inner Insert	External Insert
27.5	GHD-275-2D-FC32-Q09S	27.5	32	40	60	61	81	141	0.59	●	SOMG09T308-C	QPMG09T308-P
28	GHD-280-2D-FC32-Q09S	28	32	40	60	60	82	142	0.61	●		
28.5	GHD-285-2D-FC32-Q09S	28.5	32	40	60	62	83	143	0.62	●		
29	GHD-290-2D-FC32-Q09S	29	32	40	60	63	84	144	0.63	●		
29.5	GHD-295-2D-FC32-Q09S	29.5	32	40	60	65	86	146	0.64	●		
30	GHD-300-2D-FC32-Q09S	30	32	40	60	65	87	147	0.64	●		
30.5	GHD-305-2D-FC32-Q09S	30.5	32	40	60	68	89	149	0.66	●		
31	GHD-310-2D-FC40-Q09S	31	40	48	70	67	90	160	1.00	●		
31.5	GHD-315-2D-FC40-Q09S	31.5	40	48	70	68	91	161	1.01	●		
32	GHD-320-2D-FC40-Q09S	32	40	48	70	70	92	162	1.02	●		
32.5	GHD-325-2D-FC40-Q09S	32.5	40	48	70	72	94	164	1.04	●		
33	GHD-330-2D-FC40-Q09S	33	40	48	70	71	95	165	1.05	●		
33.5	GHD-335-2D-FC40-Q11S	33.5	40	48	70	73	97	167	1.06	●	SOMG110408-C	QPMG110408-P
34	GHD-340-2D-FC40-Q11S	34	40	48	70	75	98	168	1.07	●		
34.5	GHD-345-2D-FC40-Q11S	34.5	40	48	70	76	99	169	1.09	●		
35	GHD-350-2D-FC40-Q11S	35	40	48	70	78	101	171	1.11	●		
35.5	GHD-355-2D-FC40-Q11S	35.5	40	48	70	79	102	172	1.12	●		
36	GHD-360-2D-FC40-Q11S	36	40	48	70	78	104	174	1.14	●		
36.5	GHD-365-2D-FC40-Q11S	36.5	40	48	70	80	105	175	1.15	●		
37	GHD-370-2D-FC40-Q11S	37	40	48	70	80	105	175	1.16	●		
37.5	GHD-375-2D-FC40-Q11S	37.5	40	48	70	81	106	176	1.17	●		
38	GHD-380-2D-FC40-Q11S	38	40	48	70	82	108	178	1.20	●		
38.5	GHD-385-2D-FC40-Q11S	38.5	40	48	70	84	109	179	1.22	●		
39	GHD-390-2D-FC40-Q11S	39	40	48	70	85	110	180	1.23	●		
39.5	GHD-395-2D-FC40-Q11S	39.5	40	48	70	85	112	182	1.25	●		
40	GHD-400-2D-FC40-Q11S	40	40	48	70	86	113	183	1.27	●		

●Stock ○Available Upon Order

Unit (mm)

GHDS-2D

GHDS-2D Internal Cooling Shallow Hole Drill



Continued

Diameter	Drill Body Type	Dimensions							Net Weight (kg)	In Stock	Insert Type	
		DC	DMM	DF	LS	LU	LPR	OAL			Inner Insert	External Insert
40.5	GHD-405-2D-FC40-Q13S	40.5	40	48	70	89	115	185	1.91	●	SOMG130408-C	QPMG130408-P
41	GHD-410-2D-FC40-Q13S	41	40	48	70	92	117	187	1.91	●		
41.5	GHD-415-2D-FC40-Q13S	41.5	40	48	70	94	118	188	1.91	○		
42	GHD-420-2D-FC40-Q13S	42	40	48	70	92	119	189	1.91	●		
42.5	GHD-425-2D-FC40-Q13S	42.5	40	48	70	92	121	191	1.91	○		
43	GHD-430-2D-FC40-Q13S	43	40	48	70	94	122	192	1.91	●		
43.5	GHD-435-2D-FC40-Q13S	43.5	40	48	70	96	123	193	1.91	●		
44	GHD-440-2D-FC40-Q13S	44	40	48	70	98	124	194	1.91	○		
44.5	GHD-445-2D-FC40-Q13S	44.5	40	48	70	99	125	195	1.91	○		
45	GHD-450-2D-FC40-Q13S	45	40	48	70	103	127	197	1.91	●		
45.5	GHD-455-2D-FC40-Q15S	45.5	40	48	70	97	128	198	1.79	●	SOMG150512-C	QPMG150512-P
46	GHD-460-2D-FC40-Q15S	46	40	48	70	102	130	200	1.79	●		
46.5	GHD-465-2D-FC40-Q15S	46.5	40	48	70	100	131	201	1.79	○		
47	GHD-470-2D-FC40-Q15S	47	40	48	70	102	132	202	1.79	●		
47.5	GHD-475-2D-FC40-Q15S	47.5	40	48	70	106	133	203	1.79	○		
48	GHD-480-2D-FC40-Q15S	48	40	48	70	110	135	205	1.79	●		

●Stock ○Available Upon Order

Range of Sizes	Aperture Accuracy	
	2D-3D	4D-5D
14-30	-0.1/+0.25	-0.13/+0.28
30-40	-0.1/+0.28	-0.15/+0.3
40-48	-0.1/0.3	-0.17/+0.32

Unit (mm)

GHDS-3D

GHDS-3D Internal Cooling Shallow Hole Drill



Diameter	Drill Body Type	Dimensions							Net Weight (kg)	In Stock	Insert Type	
		DC	DMM	DF	LS	LU	LPR	OAL			Inner Insert	External Insert
14	GHD-140-3D-FC20-Q04S	14	20	25	50	45	58	108	0.16	●	SOMG040204-C	QPMG040204-P
14.5	GHD-145-3D-FC20-Q04S	14.5	20	25	50	47	60	110	0.17	●		
15	GHD-150-3D-FC20-Q04S	15	20	25	50	50	62	112	0.17	●		
15.5	GHD-155-3D-FC20-Q04S	15.5	20	25	50	52	64	114	0.18	●		
16	GHD-160-3D-FC20-Q05S	16	20	25	50	51	66	116	0.18	●	SOMG050204-C	QPMG050204-P
16.5	GHD-165-3D-FC20-Q05S	16.5	20	25	50	53	68	118	0.18	●		
17	GHD-170-3D-FC25-Q05S	17	25	32	56	54	69	125	0.29	●		
17.5	GHD-175-3D-FC25-Q05S	17.5	25	32	56	56	72	128	0.30	●		
18	GHD-180-3D-FC25-Q05S	18	25	32	56	58	73	129	0.30	●	SOMG060204-C	QPMG060204-P
18.5	GHD-185-3D-FC25-Q05S	18.5	25	32	56	60	75	131	0.31	●		
19	GHD-190-3D-FC25-Q06S	19	25	32	56	60	76	132	0.32	●		
19.5	GHD-195-3D-FC25-Q06S	19.5	25	32	56	62	79	135	0.33	●		
20	GHD-200-3D-FC25-Q06S	20	25	32	56	64	81	137	0.34	●	SOMG07T306-C	QPMG07T306-P
20.5	GHD-205-3D-FC25-Q06S	20.5	25	32	56	65	82	138	0.34	●		
21	GHD-210-3D-FC25-Q06S	21	25	32	56	67	84	140	0.34	●		
21.5	GHD-215-3D-FC25-Q06S	21.5	25	32	56	69	86	142	0.35	●		
22	GHD-220-3D-FC25-Q06S	22	25	32	56	69	87	143	0.35	●	SOMG07T306-C	QPMG07T306-P
22.5	GHD-225-3D-FC25-Q06S	22.5	25	32	56	72	90	146	0.36	●		
23	GHD-230-3D-FC25-Q07S	23	25	32	56	72	91	147	0.36	●		
23.5	GHD-235-3D-FC25-Q07S	23.5	25	32	56	75	93	149	0.38	●		
24	GHD-240-3D-FC25-Q07S	24	25	32	56	76	95	151	0.39	●	SOMG07T306-C	QPMG07T306-P
24.5	GHD-245-3D-FC25-Q07S	24.5	25	32	56	77	97	153	0.41	●		
25	GHD-250-3D-FC25-Q07S	25	25	32	56	79	99	155	0.41	●		
25.5	GHD-255-3D-FC32-Q07S	25.5	32	40	60	80	100	160	0.62	●		
26	GHD-260-3D-FC32-Q07S	26	32	40	60	81	102	162	0.63	●	SOMG07T306-C	QPMG07T306-P
26.5	GHD-265-3D-FC32-Q07S	26.5	32	40	60	84	104	164	0.65	●		
27	GHD-270-3D-FC32-Q07S	27	32	40	60	85	105	165	0.66	●		

●Stock ○Available Upon Order

Unit (mm)

GHDS-3D

GHDS-3D Internal Cooling Shallow Hole Drill



Diameter	Drill Body Type	Dimensions							Net Weight (kg)	In Stock	Insert Type	
		DC	DMM	DF	LS	LU	LPR	OAL			Inner Insert	External Insert
27.5	GHD-275-3D-FC32-Q09S	27.5	32	40	60	88	108	168	0.68	●	SOMG09T308-C	QPMG09T308-P
28	GHD-280-3D-FC32-Q09S	28	32	40	60	87	109	169	0.69	●		
28.5	GHD-285-3D-FC32-Q09S	28.5	32	40	60	90	111	171	0.69	●		
29	GHD-290-3D-FC32-Q09S	29	32	40	60	91	112	172	0.71	●		
29.5	GHD-295-3D-FC32-Q09S	29.5	32	40	60	93	115	175	0.72	●	SOMG09T308-C	QPMG09T308-P
30	GHD-300-3D-FC32-Q09S	30	32	40	60	95	117	177	0.73	●		
30.5	GHD-305-3D-FC32-Q09S	30.5	32	40	60	97	118	178	0.74	●		
31	GHD-310-3D-FC40-Q09S	31	40	48	70	98	121	191	1.09	●		
31.5	GHD-315-3D-FC40-Q09S	31.5	40	48	70	98	122	192	1.11	●	SOMG110408-C	QPMG110408-P
32	GHD-320-3D-FC40-Q09S	32	40	48	70	101	124	194	1.12	●		
32.5	GHD-325-3D-FC40-Q09S	32.5	40	48	70	103	126	196	1.14	●		
33	GHD-330-3D-FC40-Q09S	33	40	48	70	104	128	198	1.16	●		
33.5	GHD-335-3D-FC40-Q11S	33.5	40	48	70	106	130	200	1.15	●	SOMG110408-C	QPMG110408-P
34	GHD-340-3D-FC40-Q11S	34	40	48	70	108	131	201	1.17	●		
34.5	GHD-345-3D-FC40-Q11S	34.5	40	48	70	109	134	204	1.22	●		
35	GHD-350-3D-FC40-Q11S	35	40	48	70	112	135	205	1.24	●		
35.5	GHD-355-3D-FC40-Q11S	35.5	40	48	70	114	137	207	1.26	●	SOMG110408-C	QPMG110408-P
36	GHD-360-3D-FC40-Q11S	36	40	48	70	113	139	209	1.27	●		
36.5	GHD-365-3D-FC40-Q11S	36.5	40	48	70	116	141	211	1.30	●		
37	GHD-370-3D-FC40-Q11S	37	40	48	70	117	142	212	1.31	●		
37.5	GHD-375-3D-FC40-Q11S	37.5	40	48	70	118	144	214	1.34	●	SOMG110408-C	QPMG110408-P
38	GHD-380-3D-FC40-Q11S	38	40	48	70	122	146	216	1.37	●		
38.5	GHD-385-3D-FC40-Q11S	38.5	40	48	70	122	148	218	1.40	●		
39	GHD-390-3D-FC40-Q11S	39	40	48	70	125	149	219	1.42	●		
39.5	GHD-395-3D-FC40-Q11S	39.5	40	48	70	124	151	221	1.43	●	SOMG110408-C	QPMG110408-P
40	GHD-400-3D-FC40-Q11S	40	40	48	70	126	153	223	1.45	●		

●Stock ○Available Upon Order

Unit (mm)

Continued

GHDS-3D

GHDS-3D Internal Cooling Shallow Hole Drill



Continued

Diameter	Drill Body Type	Dimensions							Net Weight (kg)	In Stock	Insert Type	
		DC	DMM	DF	LS	LU	LPR	OAL			Inner Insert	External Insert
40.5	GHD-40S-3D-FC40-Q13S	40.5	40	48	70	126	155	225	1.91	●	SOMG130408-C	QPMG130408-P
41	GHD-410-3D-FC40-Q13S	41	40	48	70	129	157	227	1.91	●		
41.5	GHD-415-3D-FC40-Q13S	41.5	40	48	70	132	156	226.1	1.91	●		
42	GHD-420-3D-FC40-Q13S	42	40	48	70	133	160	230	1.91	●		
42.5	GHD-425-3D-FC40-Q13S	42.5	40	48	70	133	162	232	1.91	●		
43	GHD-430-3D-FC40-Q13S	43	40	48	70	135	164	234	1.91	●		
43.5	GHD-435-3D-FC40-Q13S	43.5	40	48	70	136	166	236	1.91	●		
44	GHD-440-3D-FC40-Q13S	44	40	48	70	137	167	237	1.91	●		
44.5	GHD-445-3D-FC40-Q13S	44.5	40	48	70	139	170	240	1.91	●		
45	GHD-450-3D-FC40-Q13S	45	40	48	70	142	172	242	1.79	●		
45.5	GHD-455-3D-FC40-Q15S	45.5	40	48	70	143	174	244	1.79	○	SOMG150512-C	QPMG150512-P
46	GHD-460-3D-FC40-Q15S	46	40	48	70	146	176	246	1.79	●		
46.5	GHD-465-3D-FC40-Q15S	46.5	40	48	70	150	178	248	1.79	○		
47	GHD-470-3D-FC40-Q15S	47	40	48	70	152	179	249	1.79	○		
47.5	GHD-475-3D-FC40-Q15S	47.5	40	48	70	155	181	251	1.79	○		
48	GHD-480-3D-FC40-Q15S	48	40	48	70	159	183	253	1.79	●		

●Stock ○Available Upon Order

Range of Sizes	Aperture Accuracy	
	2D-3D	4D-5D
14-30	-0.1/+0.25	-0.13/+0.28
30-40	-0.1/+0.28	-0.15/+0.3
40-48	-0.1/0.3	-0.17/+0.32

Unit (mm)

GHDS-4D

GHDS-4D Internal Cooling Shallow Hole Drill



Diameter	Drill Body Type	Dimensions							Net Weight (kg)	In Stock	Insert type	
		DC	DMM	DF	LS	LU	LPR	OAL			Inner Insert	External Insert
14	GHD-140-4D-FC20-Q04S	14	20	25	50	59	72	122	0.17	●	SOMG040204-C	QPMG040204-P
14.5	GHD-145-4D-FC20-Q04S	14.5	20	25	50	63	75	125	0.18	●		
15	GHD-150-4D-FC20-Q04S	15	20	25	50	64	77	127	0.19	●		
15.5	GHD-155-4D-FC20-Q04S	15.5	20	25	50	66	79	129	0.19	●		
16	GHD-160-4D-FC20-Q05S	16	20	25	50	67	82	132	0.19	●	SOMG050204-C	QPMG050204-P
16.5	GHD-165-4D-FC20-Q05S	16.5	20	25	50	70	84	134	0.20	●		
17	GHD-170-4D-FC25-Q05S	17	25	32	56	71	86	142	0.31	●		
17.5	GHD-175-4D-FC25-Q05S	17.5	25	32	56	74	89	145	0.22	●		
18	GHD-180-4D-FC25-Q05S	18	25	32	56	76	91	147	0.32	●		
18.5	GHD-185-4D-FC25-Q05S	18.5	25	32	56	78	93	149	0.33	●		
19	GHD-190-4D-FC25-Q06S	19	25	32	56	79	95	151	0.34	●	SOMG060204-C	QPMG060204-P
19.5	GHD-195-4D-FC25-Q06S	19.5	25	32	56	83	99	155	0.35	●		
20	GHD-200-4D-FC25-Q06S	20	25	32	56	84	101	157	0.36	●		
20.5	GHD-205-4D-FC25-Q06S	20.5	25	32	56	87	103	159	0.37	●		
21	GHD-210-4D-FC25-Q06S	21	25	32	56	88	105	161	0.37	●		
21.5	GHD-215-4D-FC25-Q06S	21.5	25	32	56	90	107	163	0.38	●		
22	GHD-220-4D-FC25-Q06S	22	25	32	56	92	109	165	0.39	●		
22.5	GHD-225-4D-FC25-Q06S	22.5	25	32	56	95	112	168	0.40	●		
23	GHD-230-4D-FC25-Q07S	23	25	32	56	99	114	170	0.39	●	SOMG07T306-C	QPMG07T306-P
23.5	GHD-235-4D-FC25-Q07S	23.5	25	32	56	102	117	173	0.41	●		
24	GHD-240-4D-FC25-Q07S	24	25	32	56	101	119	175	0.44	●		
24.5	GHD-245-4D-FC25-Q07S	24.5	25	32	56	104	122	178	0.45	●		
25	GHD-250-4D-FC25-Q07S	25	25	32	56	104	124	180	0.47	●		
25.5	GHD-255-4D-FC32-Q07S	25.5	32	40	60	107	126	186	0.68	●		
26	GHD-260-4D-FC32-Q07S	26	32	40	60	108	128	188	0.70	●		
26.5	GHD-265-4D-FC32-Q07S	26.5	32	40	60	110	130	190	0.71	●		
27	GHD-270-4D-FC32-Q07S	27	32	40	60	112	132	192	0.74	●	SOMG09T308-C	QPMG09T308-P
27.5	GHD-275-4D-FC32-Q09S	27.5	32	40	60	113	135	195	0.75	●		
28	GHD-280-4D-FC32-Q09S	28	32	40	60	115	137	197	0.73	●		
28.5	GHD-285-4D-FC32-Q09S	28.5	32	40	60	118	139	199	0.76	●		
29	GHD-290-4D-FC32-Q09S	29	32	40	60	120	141	201	0.79	●		
29.5	GHD-295-4D-FC32-Q09S	29.5	32	40	60	123	144	204	0.81	●		

●Stock ○Available Upon Order

Unit (mm)

GHDS-4D

GHDS-4D Internal Cooling Shallow Hole Drill



Continued

Diameter	Drill Body Type	Dimensions							Net Weight (kg)	In Stock	Insert type	
		DC	DMM	DF	LS	LU	LPR	OAL			Inner Insert	External Insert
30	GHD-300-4D-FC32-Q09S	30	32	40	60	125	147	207	0.83	●	SOMG09T308-C	QPMG09T308-P
30.5	GHD-305-4D-FC32-Q09S	30.5	32	40	60	126	148	208	0.85	○		
31	GHD-310-4D-FC40-Q09S	31	40	48	70	129	152	222	1.19	●		
31.5	GHD-315-4D-FC40-Q09S	31.5	40	48	70	131	154	224	1.21	○		
32	GHD-320-4D-FC40-Q09S	32	40	48	70	134	156	226	1.23	●		
32.5	GHD-325-4D-FC40-Q09S	32.5	40	48	70	137	159	229	1.25	●		
33	GHD-330-4D-FC40-Q09S	33	40	48	70	138	161	231	1.30	●	SOMG110408-C	QPMG110408-P
33.5	GHD-335-4D-FC40-Q11S	33.5	40	48	70	142	163	233	1.32	●		
34	GHD-340-4D-FC40-Q11S	34	40	48	70	142	165	235	1.32	●		
34.5	GHD-345-4D-FC40-Q11S	34.5	40	48	70	142	168	238	1.35	○		
35	GHD-350-4D-FC40-Q11S	35	40	48	70	146	170	240	1.38	●		
35.5	GHD-355-4D-FC40-Q11S	35.5	40	48	70	146	173	243	1.41	○		
36	GHD-360-4D-FC40-Q11S	36	40	48	70	150	175	245	1.43	●		
36.5	GHD-365-4D-FC40-Q11S	36.5	40	48	70	152	177	247	1.46	○		
37	GHD-370-4D-FC40-Q11S	37	40	48	70	154	179	249	1.54	●		
37.5	GHD-375-4D-FC40-Q11S	37.5	40	48	70	158	182	252	1.57	●		
38	GHD-380-4D-FC40-Q11S	38	40	48	70	157	184	254	1.59	●		
38.5	GHD-385-4D-FC40-Q11S	38.5	40	48	70	160	186	256	1.62	○		
39	GHD-390-4D-FC40-Q11S	39	40	48	70	165	188	258	1.66	●		
39.5	GHD-395-4D-FC40-Q11S	39.5	40	48	70	166	191	261	1.70	●		
40	GHD-400-4D-FC40-Q11S	40	40	48	70	164	193	263	1.71	●	SOMG130408-C	QPMG130408-P
40.5	GHD-405-4D-FC40-Q13S	40.5	40	48	70	167	195	265	1.91	○		
41	GHD-410-4D-FC40-Q13S	41	40	48	70	169	198	268	1.91	○		
41.5	GHD-415-4D-FC40-Q13S	41.5	40	48	70	171	200	270	1.91	○		
42	GHD-420-4D-FC40-Q13S	42	40	48	70	174	202	272	1.91	○		
42.5	GHD-425-4D-FC40-Q13S	42.5	40	48	70	175	204	274	1.91	○		
43	GHD-430-4D-FC40-Q13S	43	40	48	70	177	207	277	1.91	○		
43.5	GHD-435-4D-FC40-Q13S	43.5	40	48	70	179	209	279	1.91	○		
44	GHD-440-4D-FC40-Q13S	44	40	48	70	181	211	281	1.91	○		

●Stock ○Available Upon Order

Range of Sizes	Aperture Accuracy	
	2D-3D	4D-5D
14-30	-0.1/+0.25	-0.13/+0.28
30-40	-0.1/+0.28	-0.15/+0.3
40-48	-0.1/0.3	-0.17/+0.32

Unit (mm)

GHDS-5D

GHDS-5D Internal Cooling Shallow Hole Drill



Diameter	Drill Body Type	Dimensions							Net Weight (kg)	In Stock	Insert type	
		DC	DMM	DF	LS	LU	LPR	OAL			Inner Insert	External Insert
14	GHD-140-5D-FC20-Q04S	14	20	25	50	73	86	136	0.18	●	SOMG040204-C	QPMG040204-P
14.5	GHD-145-5D-FC20-Q04S	14.5	20	25	50	77	90	140	0.19	●		
15	GHD-150-5D-FC20-Q04S	15	20	25	50	79	92	142	0.20	●		
15.5	GHD-155-5D-FC20-Q04S	15.5	20	25	50	81	95	145	0.20	●		
16	GHD-160-5D-FC20-Q05S	16	20	25	50	83	98	148	0.20	●	SOMG050204-C	QPMG050204-P
16.5	GHD-165-5D-FC20-Q05S	16.5	20	25	50	87	101	151	0.21	●		
17	GHD-170-5D-FC25-Q05S	17	25	32	56	90	104	160	0.33	●		
17.5	GHD-175-5D-FC25-Q05S	17.5	25	32	56	93	107	163	0.34	●		
18	GHD-180-5D-FC25-Q05S	18	25	32	56	94	109	165	0.34	●		
18.5	GHD-185-5D-FC25-Q05S	18.5	25	32	56	97	112	168	0.35	●		
19	GHD-190-5D-FC25-Q06S	19	25	32	56	99	114	170	0.36	●	SOMG060204-C	QPMG060204-P
19.5	GHD-195-5D-FC25-Q06S	19.5	25	32	56	103	118	174	0.37	●		
20	GHD-200-5D-FC25-Q06S	20	25	32	56	104	121	177	0.39	●		
20.5	GHD-205-5D-FC25-Q06S	20.5	25	32	56	107	124	180	0.40	●		
21	GHD-210-5D-FC25-Q06S	21	25	32	56	109	126	182	0.40	●		
21.5	GHD-215-5D-FC25-Q06S	21.5	25	32	56	112	129	185	0.41	●		
22	GHD-220-5D-FC25-Q06S	22	25	32	56	113	131	187	0.42	●		
22.5	GHD-225-5D-FC25-Q06S	22.5	25	32	56	116	134	190	0.43	●		
23	GHD-230-5D-FC32-Q07S	23	32	40	60	120	138	198	0.63	●	SOMG07T306-C	QPMG07T306-P
23.5	GHD-235-5D-FC32-Q07S	23.5	32	40	60	122	140	200	0.64	●		
24	GHD-240-5D-FC32-Q07S	24	32	40	60	124	143	203	0.67	●		
24.5	GHD-245-5D-FC32-Q07S	24.5	32	40	60	127	146	206	0.69	●		
25	GHD-250-5D-FC32-Q07S	25	32	40	60	129	149	209	0.71	●		
25.5	GHD-255-5D-FC32-Q07S	25.5	32	40	60	133	153	213	0.73	●		
26	GHD-260-5D-FC32-Q07S	26	32	40	60	137	157	217	0.76	●		
26.5	GHD-265-5D-FC32-Q07S	26.5	32	40	60	138	158	218	0.77	●		
27	GHD-270-5D-FC32-Q07S	27	32	40	60	139	159	219	0.81	●		

●Stock ○Available Upon Order

Unit (mm)

GHDS-5D

GHDS-5D Internal Cooling Shallow Hole Drill



Continued

Diameter	Drill Body Type	Dimensions							Net Weight (kg)	In Stock	Insert type	
		DC	DMM	DF	LS	LU	LPR	OAL			Inner Insert	External Insert
27.5	GHD-275-5D-FC32-Q09S	27.5	32	40	60	142	162	222	0.82	●	SOMG09T308-C	QPMG09T308-P
28	GHD-280-5D-FC32-Q09S	28	32	40	60	143	165	225	0.81	●		
28.5	GHD-285-5D-FC32-Q09S	28.5	32	40	60	147	169	229	0.83	●		
29	GHD-290-5D-FC32-Q09S	29	32	40	60	150	171	231	0.87	●		
29.5	GHD-295-5D-FC32-Q09S	29.5	32	40	60	153	174	234	0.89	●		
30	GHD-300-5D-FC32-Q09S	30	32	40	60	155	177	237	0.90	●		
30.5	GHD-305-5D-FC32-Q09S	30.5	32	40	60	158	180	240	0.93	●		
31	GHD-310-5D-FC40-Q09S	31	40	48	70	160	183	253	1.29	●		
31.5	GHD-315-5D-FC40-Q09S	31.5	40	48	70	163	186	256	1.31	●		
32	GHD-320-5D-FC40-Q09S	32	40	48	70	166	188	258	1.33	●		
32.5	GHD-325-5D-FC40-Q09S	32.5	40	48	70	170	192	262	1.37	●		
33	GHD-330-5D-FC40-Q09S	33	40	48	70	171	194	264	1.43	●		
33.5	GHD-335-5D-FC40-Q11S	33.5	40	48	70	175	199	269	1.43	○		
34	GHD-340-5D-FC40-Q11S	34	40	48	70	176	199	269	1.55	●	SOMG110408-C	QPMG110408-P
34.5	GHD-345-5D-FC40-Q11S	34.5	40	48	70	176	199	269	1.55	○		
35	GHD-350-5D-FC40-Q11S	35	40	48	70	181	205	275	1.61	●		
35.5	GHD-355-5D-FC40-Q11S	35.5	40	48	70	182	205	275	1.61	○		
36	GHD-360-5D-FC40-Q11S	36	40	48	70	186	211	281	1.66	●		
36.5	GHD-365-5D-FC40-Q11S	36.5	40	48	70	189	214	284	1.66	○		
37	GHD-370-5D-FC40-Q11S	37	40	48	70	191	216	286	1.77	●		
37.5	GHD-375-5D-FC40-Q11S	37.5	40	48	70	195	220	290	1.77	○		
38	GHD-380-5D-FC40-Q11S	38	40	48	70	195	222	292	1.82	●		
38.5	GHD-385-5D-FC40-Q11S	38.5	40	48	70	198	225	295	1.82	○		
39	GHD-390-5D-FC40-Q11S	39	40	48	70	204	227	297	1.89	●		
39.5	GHD-395-5D-FC40-Q11S	39.5	40	48	70	207	233	303	1.89	○		
40	GHD-400-5D-FC40-Q11S	40	40	48	70	204	233	303	1.91	●		

●Stock ○Available Upon Order

Range of Sizes	Aperture Accuracy	
	2D-3D	4D-5D
14-30	-0.1/+0.25	-0.13/+0.28
30-40	-0.1/+0.28	-0.15/+0.3
40-48	-0.1/0.3	-0.17/+0.32

Unit (mm)

SOMG-C

SOMG-C Shallow Hole Drill Inserts-Dedicated for Inner Inserts



Model	Grade		Dimensions (mm)				Drilling Diameter
	GM4240	GA4225B	IC	S	RE	D1	
SOMG040204-C-DP	●	●	4.7	2.3	0.4	2.2	Φ14.0~Φ15.9
SOMG050204-C-DP	●	●	5.7	2.5	0.4	2.6	Φ16.0~Φ18.9
SOMG060204-C-DP	●	●	6.5	2.5	0.4	2.6	Φ19.0~Φ22.5
SOMG07T306-C-DP	●	●	7.94	3.5	0.6	2.85	Φ22.6~Φ27.0
SOMG09T308-C-DP	●	●	9.7	3.97	0.8	3.5	Φ27.1~Φ33.0
SOMG110408-C-DP	●	●	11.5	4.76	0.8	4.4	Φ33.1~Φ40.0
SOMG130408-C-DP	●	○	13.2	4.76	0.8	4.4	Φ40.1 ~ Φ45
SOMG150512-C-DP	○	○	15.2	5.2	1.2	5.5	Φ45.1~Φ51.0

GM4240-inner inserts for hardened and tempered steel machining
GA4225B-inner inserts for soft steel machining

●Stock ○Available Upon Order

QPMG-P

QPMG-P Shallow Hole Drill Inserts-Dedicated for Outer Inserts

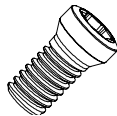
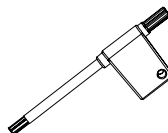


Model	Grade	Dimensions (mm)				Drilling Diameter
	GP1135D	IC	S	RE	D1	
QPMG040204-P-DP	●	4.7	2.3	0.4	2.2	Φ14.0~Φ15.9
QPMG050204-P-DP	●	5.7	2.5	0.4	2.6	Φ16.0~Φ18.9
QPMG060204-P-DP	●	6.5	2.5	0.4	2.6	Φ19.0~Φ22.5
QPMG07T306-P-DP	●	7.94	3.5	0.6	2.85	Φ22.6~Φ27.0
QPMG09T308-P-DP	●	9.7	3.97	0.8	3.5	Φ27.1~Φ33.0
QPMG110408-P-DP	●	11.5	4.76	0.8	4.4	Φ33.1~Φ40.0
QPMG130408-P-DP	●	13.2	4.76	0.8	4.4	Φ40.1 ~ Φ45
QPMG150512-P-DP	●	15.2	5.2	1.2	5.5	Φ45.1~Φ51.0

GP1135D-outer inserts for steel machining to improve wear resistance

●Stock ○Available Upon Order

List of Tool Accessories

Insert Specifications	Screw		Wrench		Torque Value
	Order No.	Schematic Diagram	Order No.	Schematic Diagram	
QPMG040204	SI60M020050-02704B		TT05IPB		0.6
QPMG040204-P					
SOMG040204-C					
QPMG050204	TT06IPB		0.8		
QPMG050204-P					
SOMG050204-C					
QPMG060204	TT06IPB		0.8		
QPMG060204-P					
SOMG060204-C					
QPMG07T306	TT07IPB		0.8		
QPMG07T306-P					
SOMG07T306-C					
QPMG09T308	TT09IPB		1.4		
QPMG09T308-P					
SOMG09T308-C					
QPMG110408	TT15IPB		2		
QPMG110408-P					
SOMG110408-C					
QPMG130408	TT15IPB		2		
QPMG130408-P					
SOMG130408-C					
QPMG150512	TI20TB		3		
QPMG150512-P					
SOMG150512-C					



D938-30D/40D Deep Hole Twist Drill Series

- Optimize groove profile and Drill point design, with super self-centering Performance, chip breaking performance and good chip evacuation performance
- Suitable for efficient Drilling of Steel, Cast Iron and Stainless steel
- New substrate material, perfect balance of toughness and wear resistance
- Using AlTiN-nano coating and unique post-processing of coating

Representation Rules for Order No. of Solid Carbide Drills

D938 – A 30 C – 1200

①

②

③

④

⑤

Workpiece Material	① Drill Bit Series Number	
Plain Steel	D938	Plain Steel Machining Twist Drill

④ Cooling Mode	
C	Internal Cooling
N	External Cooling

⑤ Edge Diameter	
0325	Edge Diameter is Φ3.25
0600	Edge Diameter is Φ6.00
1200	Edge Diameter is Φ12.00

② Shank Type	
A	Cylindrical Straight Shank DIN6535HA
E	Bevelled Shank DIN6535HE
B	Flatted Parallel Shank DIN6535HB

③ Drilling Depth	
3	Drilling Depth≤3D
5	Drilling Depth≤ 5D
8	Drilling Depth≤ 8D
12	Drilling Depth≤ 12D
15	Drilling Depth≤ 15D
20	Drilling Depth≤ 20D
25	Drilling Depth≤ 25D
30	Drilling Depth≤30D
40	Drilling Depth≤40D

D938-A30C

D938 30D Deep Hole Twist Drill for Plain Steel Machining



Order No.	DC (h7)	LCF	OAL	DMM (h6)	LS	LU	PL	In Stock
D938-A30C-0300	3.00	100	140	6	36	95.5	0.62	●
D938-A30C-0310	3.10	118	158	6	36	113.4	0.64	○
D938-A30C-0320	3.20	118	158	6	36	113.2	0.66	○
D938-A30C-0330	3.30	118	158	6	36	113.1	0.68	○
D938-A30C-0340	3.40	118	158	6	36	112.9	0.70	○
D938-A30C-0350	3.50	136	176	6	36	130.8	0.72	●
D938-A30C-0360	3.60	136	176	6	36	130.6	0.75	○
D938-A30C-0370	3.70	136	176	6	36	130.5	0.77	○
D938-A30C-0380	3.80	136	176	6	36	130.3	0.79	○
D938-A30C-0390	3.90	136	176	6	36	130.2	0.81	○
D938-A30C-0400	4.00	136	176	6	36	130.0	0.83	●
D938-A30C-0410	4.10	168	208	6	36	161.9	0.85	○
D938-A30C-0420	4.20	168	208	6	36	161.7	0.87	○
D938-A30C-0430	4.30	168	208	6	36	161.6	0.89	○
D938-A30C-0440	4.40	168	208	6	36	161.4	0.91	○
D938-A30C-0450	4.50	168	208	6	36	161.3	0.93	●
D938-A30C-0460	4.60	168	208	6	36	161.1	0.95	○
D938-A30C-0470	4.70	168	208	6	36	161.0	0.97	○
D938-A30C-0480	4.80	168	208	6	36	160.8	0.99	○
D938-A30C-0490	4.90	168	208	6	36	160.7	1.01	○

Order No.	DC (h7)	LCF	OAL	DMM (h6)	LS	LU	PL	In Stock
D938-A30C-0500	5.00	168	208	6	36	160.5	1.04	●
D938-A30C-0510	5.10	200	240	6	36	192.4	1.06	○
D938-A30C-0520	5.20	200	240	6	36	192.2	1.08	○
D938-A30C-0530	5.30	200	240	6	36	192.1	1.10	○
D938-A30C-0540	5.40	200	240	6	36	191.9	1.12	○
D938-A30C-0550	5.50	200	240	6	36	191.8	1.14	●
D938-A30C-0560	5.60	200	240	6	36	191.6	1.16	○
D938-A30C-0570	5.70	200	240	6	36	191.5	1.18	○
D938-A30C-0580	5.80	200	240	6	36	191.3	1.20	○
D938-A30C-0590	5.90	200	240	6	36	191.2	1.22	○
D938-A30C-0600	6.00	200	240	6	36	191.0	1.24	●
D938-A30C-0610	6.10	232	272	8	36	222.9	1.26	○
D938-A30C-0620	6.20	232	272	8	36	222.7	1.28	○
D938-A30C-0630	6.30	232	272	8	36	222.6	1.30	○
D938-A30C-0640	6.40	232	272	8	36	222.4	1.33	○
D938-A30C-0650	6.50	232	272	8	36	222.3	1.35	●
D938-A30C-0660	6.60	232	272	8	36	222.1	1.37	○
D938-A30C-0670	6.70	232	272	8	36	222.0	1.39	○
D938-A30C-0680	6.80	232	272	8	36	221.8	1.41	○
D938-A30C-0690	6.90	232	272	8	36	221.7	1.43	○

●Stock ○Available Upon Order Notes: Non-standard customization is available for D3-D10 tools

Notes: The depth drill uses a drill bit of the same specification as D938-A3C as a pilot drill.

尺寸范围	DC(h7)	DMM(h6)
≤3	0.000/-0.010	0.000/-0.006
>3—6	0.000/-0.012	0.000/-0.008
>6—10	0.000/-0.015	0.000/-0.009
>10—18	0.000/-0.018	0.000/-0.011
>18—20	0.000/-0.021	0.000/-0.013

Unit (mm)

Workpiece Material													
P				M	K		N				S	H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<32HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○	○	○	○	○	○								

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P220

D938-A30C

D938 30D Deep Hole Twist Drill for Plain Steel Machining



Order No.	DC (h7)	LCF	OAL	DMM (h6)	LS	LU	PL	In Stock
D938-A30C-0700	7.00	232	272	8	36	221.5	1.45	●
D938-A30C-0710	7.10	263	303	8	36	252.4	1.47	○
D938-A30C-0720	7.20	263	303	8	36	252.2	1.49	○
D938-A30C-0730	7.30	263	303	8	36	252.1	1.51	○
D938-A30C-0740	7.40	263	303	8	36	251.9	1.53	○
D938-A30C-0750	7.50	263	303	8	36	251.8	1.55	●
D938-A30C-0760	7.60	263	303	8	36	251.6	1.57	○
D938-A30C-0770	7.70	263	303	8	36	251.5	1.59	○
D938-A30C-0780	7.80	263	303	8	36	251.3	1.62	○
D938-A30C-0790	7.90	263	303	8	36	251.2	1.64	○
D938-A30C-0800	8.00	263	303	8	36	251.0	1.66	●
D938-A30C-0810	8.10	295	339	10	40	282.9	1.68	○
D938-A30C-0820	8.20	295	339	10	40	282.7	1.70	○
D938-A30C-0830	8.30	295	339	10	40	282.6	1.72	○
D938-A30C-0840	8.40	295	339	10	40	282.4	1.74	○
D938-A30C-0850	8.50	295	339	10	40	282.3	1.76	●

●Stock ○Available Upon Order Notes: Non-standard customization is available for D3-D10 tools

Notes: The depth drill uses a drill bit of the same specification as D938-A3C as a pilot drill.

尺寸范围	DC(h7)	DMM(h6)
=3	0.000/-0.010	0.000/-0.006
>3—6	0.000/-0.012	0.000/-0.008
>6—10	0.000/-0.015	0.000/-0.009
>10—18	0.000/-0.018	0.000/-0.011
>18—20	0.000/-0.021	0.000/-0.013

Unit (mm)

Workpiece Material													
P		M		K		N				S		H	
1 2 3 4	5	6 7	1 2 3	1 2	3	1 2	3	4	5	1 2 3	4	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<32HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○	○	○	○	○	○								

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P220

D938-A40C

D938 40D Deep Hole Twist Drill for Plain Steel Machining



Order No.	DC (h7)	LCF	OAL	DMM (h6)	LS	LU	PL	In Stock
D938-A40C-0300	3.00	130	170	6	36	125.5	0.62	●
D938-A40C-0310	3.10	153	193	6	36	148.4	0.64	○
D938-A40C-0320	3.20	153	193	6	36	148.2	0.66	○
D938-A40C-0330	3.30	153	193	6	36	148.1	0.68	○
D938-A40C-0340	3.40	153	193	6	36	147.9	0.70	○
D938-A40C-0350	3.50	153	193	6	36	147.8	0.72	●
D938-A40C-0360	3.60	176	216	6	36	170.6	0.75	○
D938-A40C-0370	3.70	176	216	6	36	170.5	0.77	○
D938-A40C-0380	3.80	176	216	6	36	170.3	0.79	○
D938-A40C-0390	3.90	176	216	6	36	170.2	0.81	○
D938-A40C-0400	4.00	176	216	6	36	170.0	0.83	●
D938-A40C-0410	4.10	198	238	6	36	191.9	0.85	○
D938-A40C-0420	4.20	198	238	6	36	191.7	0.87	○
D938-A40C-0430	4.30	198	238	6	36	191.6	0.89	○
D938-A40C-0440	4.40	198	238	6	36	191.4	0.91	○
D938-A40C-0450	4.50	198	238	6	36	191.3	0.93	●
D938-A40C-0460	4.60	198	238	6	36	191.1	0.95	○
D938-A40C-0470	4.70	198	238	6	36	191.0	0.97	○
D938-A40C-0480	4.80	218	258	6	36	210.8	0.99	○
D938-A40C-0490	4.90	218	258	6	36	210.7	1.01	○

●Stock ○Available Upon Order Notes: Non-standard customization is available for D3-D8 tools

Notes: The depth drill uses a drill bit of the same specification as D938-A3C as a pilot drill.

尺寸范围	DC(h7)	DMM(h6)
=3	0.000/-0.010	0.000/-0.006
>3—6	0.000/-0.012	0.000/-0.008
>6—10	0.000/-0.015	0.000/-0.009
>10—18	0.000/-0.018	0.000/-0.011
>18—20	0.000/-0.021	0.000/-0.013

Unit (mm)

Workpiece Material													
P		M		K		N				S		H	
1 2 3 4	5	6 7	1 2 3	1 2	3	1 2	3	4	5	1 2 3	4	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High-temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<32HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○	○	○	○	○	○								

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P220

D938-A40C

D938 40D Deep Hole Twist Drill for Plain Steel Machining



订货号	DC (h7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存
D938-A40C-0700	7.00	302	342	8	36	291.5	1.45	●
D938-A40C-0710	7.10	323	363	8	36	312.4	1.47	○
D938-A40C-0720	7.20	323	363	8	36	312.2	1.49	○
D938-A40C-0730	7.30	323	363	8	36	312.1	1.51	○
D938-A40C-0740	7.40	323	363	8	36	311.9	1.53	○
D938-A40C-0750	7.50	323	363	8	36	311.8	1.55	●
D938-A40C-0760	7.60	343	383	8	36	331.6	1.57	○
D938-A40C-0770	7.70	343	383	8	36	331.5	1.59	○
D938-A40C-0780	7.80	343	383	8	36	331.3	1.62	○
D938-A40C-0790	7.90	343	383	8	36	331.2	1.64	○
D938-A40C-0800	8.00	343	383	8	36	331.0	1.66	●

●Stock ○Available Upon Order Notes: Non-standard customization is available for D3-D8 tools

Notes: The depth drill uses a drill bit of the same specification as D938-A3C as a pilot drill.

尺寸范围	DC(h7)	DMM(h6)
≤3	0.000/-0.010	0.000/-0.006
>3—6	0.000/-0.012	0.000/-0.008
>6—10	0.000/-0.015	0.000/-0.009
>10—18	0.000/-0.018	0.000/-0.011
>18—20	0.000/-0.021	0.000/-0.013

Unit (mm)

Recommended Cutting Data-high-performance Taps

Workpiece Material		T118-FDN	T118-FDC T118-FDR	T118-SDN	T118-PDN	T128-HDN	T128-HDC T128-HDR
		External Cooling	Internal Cooling	External Cooling			Internal Cooling
P	Low-carbon Steel (<125HB)	10-25	15-30	15-25	15-25		
	High-carbon Steel and Alloy Steel (<35HRC)	8-20	15-25	10-20	10-20		
	Quenched and Tempered Steel and Tool Steel (35-48HRC)	5-12	5-15	5-15	5-15		5-20
M	Austenitic Stainless Steels (130-200HB)	10-25	15-30	10-25	10-25		
	High Strength Austenitic and Cast Stainless Steel (<25HRC)	8-20	15-25	10-25	10-25		
	Duplex Stainless Steel (<30HRC)	5-12	5-15	5-12	5-12		
K	Gray Cast Iron and Nodular Cast Iron (<35HRC)			10-20	10-20	20-40	30-50
	High Alloy Cast Iron (<43HRC)			5-15	5-15	10-25	15-35
N	Forged Aluminum Alloy and Cast Aluminium Alloy (Si<12%)	20-50	30-60	20-50	20-50		
	Cast Aluminum Alloy (Si>12%)			10-35	10-35		
	Copper Alloy (<HB200)	20-50	30-60	20-50	20-50		

Unit (m/min)

- Notes:
- It is recommended to use a machine with high rigidity for machining.
 - It is recommended to use a special tap shank for machining.
 - The cutting data in the table are recommended data. Please adjust the cutting data according to the actual machining situation.

Workpiece Material													
P			M	K			N				S	H	
1	2	3	4	5	6	7	1	2	3	4	5	1	2
Carbon Steel, Alloy Steel	Alloy Steel, Tool Steel	PH and Ferritic/ Martensitic Steel	Stainless Steel	Gray Cast Iron, Nodular Cast Iron	High Alloy Cast Iron	Forged Aluminum Alloy, Cast Aluminium Alloy	Cast Aluminum Alloy	Copper Alloy	Composite Material	High- temperature Alloy	Titanium Alloy	Hardened Steel	Hardened Steel
<35HRC	35-48HRC			<32HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○	○	○	○	○	○								

○ Most Suitable ○ Suitable

Recommended Cutting Data ※ P220

Recommended Cutting Data-economical Taps

Workpiece Material		ET138-FJN	ET166-FJN	ET168-FJN	ET138-SJN	ET166-SJN	ET168-SJN	ET138-PJN	ET166-PJN	ET168-PJN	ET128-HJN	ET128-HJC ET128-HJR
		External Cooling										Internal Cooling
P	Low-carbon Steel (<125HB)	5-15		5-10	5-15		5-10	5-15		5-10		
	High-carbon Steel and Alloy Steel (<35HRC)	5-10		5-10	5-10		5-10	5-10		5-10		
	Quenched and Tempered Steel and Tool Steel (35-48HRC)											
M	Austenitic Stainless Steels (130-200HB)	5-10		5-15	5-10		5-15	5-10		5-15		
	High Strength Austenitic and Cast Stainless Steel (<25HRC)	5-10		5-15	5-10		5-15	5-10		5-15		
	Duplex Stainless Steel (<30HRC)	4-8		5-10	4-8		5-10	4-8		5-10		
	Gray Cast Iron and Nodular Cast Iron (<35HRC)										15-30	20-40
K	High Alloy Cast Iron (<43HRC)										10-20	15-25
	Forged Aluminum Alloy and Cast Aluminum Alloy (Si<12%)		5-10			5-10			5-10			
N	Cast Aluminum Alloy (Si>12%)		4-8			4-8			4-8			
	Copper Alloy (<HB200)		5-10			5-10			5-10			

Notes:
1. It is recommended to use a special tap shank for machining.
2. The cutting data in the table are recommended data. Please adjust the cutting data according to the actual machining situation.

Recommended Cutting Data
GUMD Bit-replaceable Drill Bit Series

Workpiece Material		Cutting Speed Vc (m/min)	Machining Diameter (Mm)				
			Ø11	Ø13	Ø15	Ø18	Ø21
P	Low-carbon Steel, Long Chips (<125HB)	60 -100-140	0.14-0.2-0.28	0.16-0.24-0.3	0.18-0.26-0.33	0.20-0.28-0.35	0.25-0.34-0.42
	Low-carbon Steel, Short Chips, Free Cutting Steel (<125HB)	60 -100-140	0.14-0.2-0.28	0.16-0.24-0.3	0.18-0.26-0.33	0.20-0.28-0.35	0.25-0.34-0.42
	High-carbon Steel and Medium-carbon Steel (<25HRC)	60-80-120	0.14-0.2-0.28	0.16-0.24-0.3	0.18-0.26-0.33	0.20-0.28-0.35	0.25-0.34-0.42
	Alloy Steel, Tool Steel (<35HRC)	60-80-110	0.14-0.2-0.24	0.16-0.22-0.26	0.16-0.22-0.26	0.18-0.24-0.28	0.18-0.26-0.30
	Alloy Steel, Tool Steel (35-48HRC)	35-60-90	0.10-0.14-0.18	0.12-0.16-0.20	0.12-0.16-0.20	0.14-0.18-0.22	0.14-0.18-0.22
	Ph and Ferritic, Martensitic Steel (<35HRC)	30-60-90	0.10-0.14-0.18	0.12-0.16-0.20	0.12-0.16-0.20	0.14-0.18-0.22	0.14-0.18-0.22
	High Strength PH and Ferritic, Martensitic Steel (35-48HRC)	30-50-80	0.10-0.14-0.18	0.12-0.16-0.20	0.12-0.16-0.20	0.14-0.18-0.22	0.14-0.18-0.22
M	Austenitic Stainless Steels (130- 200HB)	40-60-80	0.12-0.16-0.18	0.13-0.16-0.2	0.14-0.18-0.24	0.14-0.2-0.26	0.15-0.22-0.3
	High Strength Austenitic and Cast Stainless Steel (<25HRC)	40-60-80	0.08-0.1-0.13	0.09-0.11-0.13	0.10-0.12-0.14	0.10-0.12-0.14	0.12-0.14-0.16
	Duplex Stainless Steel (<30HRC)	30-45-60	0.08-0.1-0.13	0.09-0.11-0.13	0.10-0.12-0.14	0.10-0.12-0.14	0.12-0.14-0.16
K	Gray Cast Iron (<HRC32)	60-120-160	0.14-0.22-0.28	0.14-0.26-0.35	0.18-0.28-0.38	0.2-0.3-0.4	0.22-0.32-0.45
	Alloy Cast Iron with Medium Machining Difficulty, Nodular Cast Iron (<HRC28)	60-100-140	0.14-0.2-0.25	0.14-0.22-0.3	0.16-0.26-0.35	0.18-0.3-0.4	0.2-0.3-0.42
	Difficult-to-machine High Alloy Cast Iron, Nodular Cast Iron (<45HRC)	50-80-100	0.10-0.14-0.16	0.12-0.15-0.18	0.14-0.18-0.20	0.16-0.2-0.22	0.18-0.22-0.24

Recommended Cutting Data
GHDS double helix internal cooling shallow hole drill

Workpiece Material		Cutting Speed Vc (m/min)	Feed (mm/rev) * Reference to Drill Bit Diameter *			
			Φ14.0 – 22.5	Φ23.0 – 27.0	Φ27.5 – 33.0	Φ33.5 – 48.0
P	Low-carbon Steel, Long Chips (<125HB)	160—240—300	0.04-0.06	0.04-0.06	0.04-0.08	0.04-0.08
	Low-carbon Steel, Short Chips, Free Cutting Steel (<125HB)	140—180—220	0.04-0.10	0.04-0.12	0.06-0.16	0.08-0.18
	High-carbon Steel and Medium-carbon Steel (<25HRC)	140—180—220	0.04-0.10	0.04-0.12	0.06-0.16	0.08-0.18
	Alloy Steel, Tool Steel (<35HRC)	100—160—200	0.04-0.10	0.06-0.12	0.08-0.16	0.08-0.18
	Alloy Steel, Tool Steel (35-48HRC)	80—160—200	0.04-0.10	0.06-0.12	0.08-0.16	0.08-0.18
	Ph and Ferritic, Martensitic Steel (<35HRC)	80—160—200	0.03-0.08	0.04-0.12	0.08-0.14	0.08-0.16
	High Strength PH and Ferritic, Martensitic Steel (35-48HRC)	60—140—180	0.03-0.08	0.04-0.12	0.06-0.14	0.06-0.16
	Austenitic Stainless Steels (130- 200HB)	100—140—200	0.04-0.10	0.06-0.12	0.06-0.14	0.06-0.16
M	High Strength Austenitic and Cast Stainless Steel (<25HRC)	60—140—180	0.03-0.08	0.04-0.12	0.06-0.14	0.06-0.16
	Duplex Stainless Steel (<30HRC)	60—140—180	0.03-0.08	0.04-0.12	0.06-0.14	0.06-0.16
K	Gray Cast Iron (<32HRC)	140—180—230	0.04-0.10	0.06-0.14	0.06-0.16	0.08-0.20
	Alloy Cast Iron with Medium Machining Difficulty, Nodular Cast Iron (<28HRC)	120—160—200	0.04-0.10	0.06-0.14	0.06-0.16	0.08-0.20
	Difficult-to-machine High Alloy Cast Iron, Nodular Cast Iron (<45HRC)	100—160—200	0.04-0.10	0.06-0.12	0.08-0.16	0.08-0.18
S	Nickel-Based/Iron-Based/Cobalt-Based Heat-Resistant Alloy	30—50—80	0.03-0.06	0.04-0.08	0.04-0.10	0.06-0.12
	Titanium Base + Heat-Resistant Alloy	30—50—70	0.03-0.08	0.04-0.10	0.04-0.10	0.06-0.12

Recommended Cutting Data
D938 Deep Holemaking Twist Drill 30D/40D

Workpiece Material		Cutting Speed Vc (m/min)	Feed Fn (mm/rev)				
			Φ3	Φ4	Φ6	Φ8	Φ10
P	Low-carbon Steel, Long Chips (<125HB)	140-100-60	0.10-0.15-0.20	0.10-0.15-0.20	0.14-0.19-0.25	0.16-0.22-0.32	0.16-0.22-0.35
	Low-carbon Steel, Short Chips, Free Cutting Steel (<125HB)	140-100-60	0.10-0.15-0.20	0.10-0.15-0.20	0.14-0.19-0.25	0.16-0.22-0.32	0.16-0.22-0.35
	High-carbon Steel and Medium-carbon Steel (<25HRC)	120-80-60	0.10-0.15-0.20	0.10-0.15-0.20	0.14-0.19-0.25	0.16-0.22-0.30	0.16-0.22-0.32
	Alloy Steel, Tool Steel (<35HRC)	110-80-60	0.09-0.13-0.16	0.09-0.13-0.16	0.12-0.17-0.23	0.14-0.20-0.28	0.14-0.20-0.30
	Alloy Steel, Tool Steel (35-48HRC)	90-60-35	0.08-0.11-0.14	0.08-0.11-0.14	0.08-0.14-0.20	0.09-0.16-0.25	0.09-0.16-0.28
	PH and Ferritic, Martensitic Steel (<35HRC)	90-60-30	0.05-0.08-0.11	0.05-0.08-0.11	0.07-0.12-0.17	0.08-0.14-0.20	0.08-0.14-0.23
	High Strength PH and Ferritic, Martensitic Steel (35-48HRC)	80-50-30	0.04-0.06-0.08	0.04-0.06-0.08	0.06-0.10-0.14	0.08-0.13-0.18	0.08-0.13-0.20
	Austenitic Stainless Steels (130- 200HB)	60-50-40	0.04-0.08-0.10	0.04-0.08-0.10	0.06-0.10-0.12	0.06-0.10-0.12	0.08-0.12-0.16
M	High Strength Austenitic and Cast Stainless Steel (<25HRC)	60-50-40	0.04-0.06-0.08	0.04-0.06-0.08	0.06-0.08-0.10	0.06-0.08-0.10	0.08-0.10-0.12
	Duplex Stainless Steel (<30HRC)	50-40-30	0.04-0.06-0.08	0.04-0.06-0.08	0.06-0.08-0.10	0.06-0.08-0.10	0.08-0.10-0.12
K	Gray cast iron (<32HRC)	160-120-60	0.13-0.17-0.20	0.15-0.20-0.23	0.17-0.25-0.30	0.20-0.27-0.35	0.23-0.30-0.40
	Alloy Cast Iron with Medium Machining Difficulty, Nodular Cast Iron (<28HRC)	140-100-60	0.11-0.15-0.18	0.13-0.17-0.20	0.15-0.20-0.25	0.17-0.25-0.32	0.20-0.28-0.36
	Difficult-to-machine High Alloy Cast Iron, Nodular Cast Iron (<45HRC)	100-80-50	0.06-0.09-0.11	0.08-0.10-0.13	0.10-0.13-0.16	0.12-0.16-0.20	0.14-0.20-0.26

[Notes]

1. Please use a machine with relatively high rigidity. It is recommended to adopt hydraulic tool holders, thermal expansion tool holders and powerful handles with spring collets.

2. When installing the tool, it is necessary to ensure that the radial bounce of the drill bit tip is less than 0.02mm.

3. This standard cutting condition table is suitable for water-soluble cutting fluids

4. For the tool edge diameter specifications not listed in the table, please refer to the closest edge diameter specifications in the table to select the cutting data. Meanwhile, during the machining process, please adjust the cutting data appropriately according to the actual machining situation.

D

Tooling System

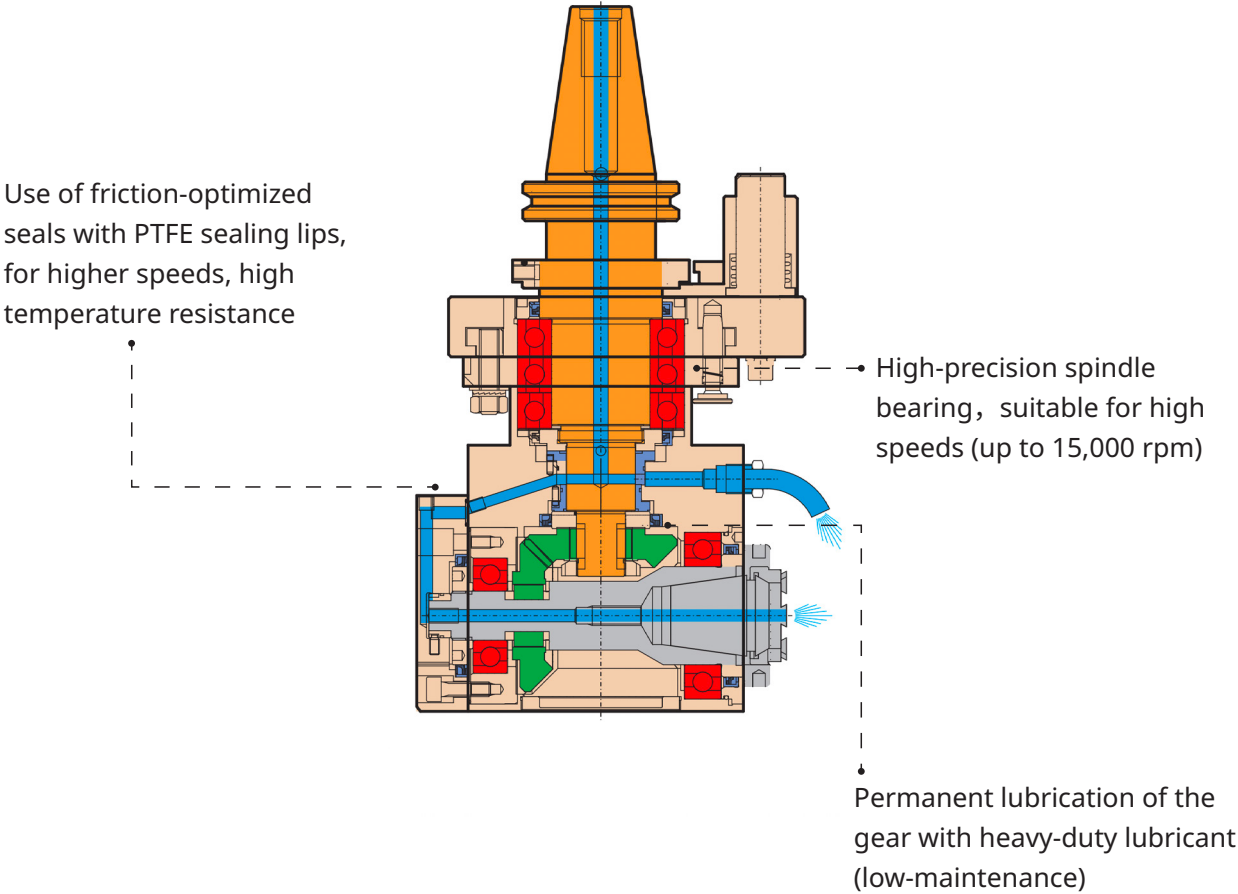


Angle Head

- Stabilized spindle bearing (inside tool holding spindle, i.e. point of load incidence within the housing, therefore low leverage)
- High speeds up to 15,000 rpm and high torques up to 150 Nm
- The torque support is designed according to ISO 9524 as standard. This can be adapted by the customer

Angle Head

Product Advantages



Angle Head Naming and Coding Rules

BT40 – SW – ER16 – 187 – S – NC

①

②

③

④

⑤

⑥

①Connection Type

④Effective Length

⑤Output Shaft Number	
S	Single
D	Double
T	Triple
Q	Quadruple
M	Multiple

②Production Style	
SW	Angle Head 90°
DW	Double Angle Head 90°
ZW	Angle Head 90°, Offset Type
ZWS	Angle Head 90°, Offset Slim Type
WS	Angle Head, Adjustable 0-98°
FW+Angle	Fixed Angle Non-standard Angle Head

③Clamping Size

⑥Type of Cooling	
NC	Non-Cooling
EC	External
IC	Internal

Nut Wrench Naming and Coding Rules

TER16 – N – MC

①

②

③

①Size

②Nut Wrench

③Performance Upgrade Code	
Normal type	Omit
Upgraded type	MC

Clamping Nuts Naming and Coding Rules

ER16 – N – IC – MC

①

②

③

④

①Size

②Clamping Nuts

③Type of Cooling	
Internal	IC
Others	Omit

④Performance Upgrade Code	
Normal type	Omit
Upgraded type	MC

Hook Wrench Naming and Coding Rules

TER16

—

H

—

MC

①

②

③

①Size

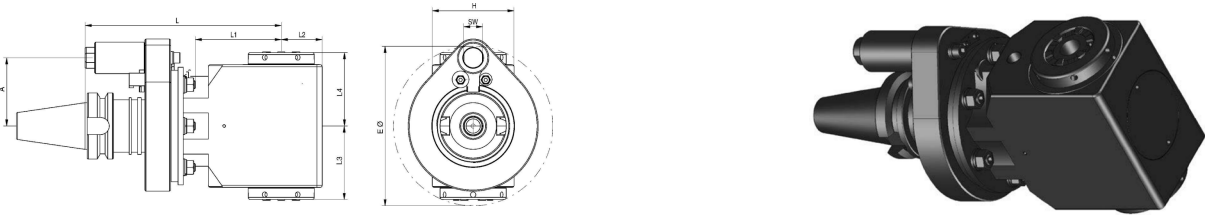
②Hook Wrench

③Performance Upgrade Code

Normal type	Omit
Upgraded type	MC

Double Angle Head 90°

BT40- Collet ER25、ER32



Performance parameters

Ordering code	Toolholder	Torque max. (Nm)	Rev. max. (RPM)	Gear ratio	Coolant	Weight (kg)
BT40-DW-ER25-187-D-NC	2 xER 25	30	8000	1:1	without	7.5
BT40-DW-ER25-187-D-EC	2 x ER 25	30	8000	1:1	external	7.5
BT40-DW-ER32-187-D-NC	2 x ER 32	70	6500	1:1	without	8.5
BT40-DW-ER32-187-D-EC	2 x ER 32	70	6500	1:1	external	8.5

Dimensional parameters

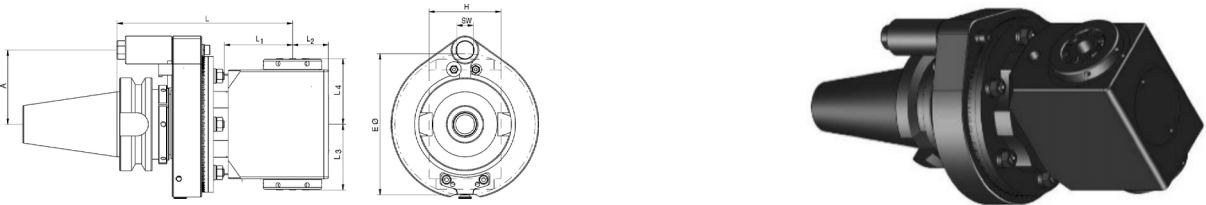
Ordering code	Dimension									
	Clearance Clearance ØE	L3	L4	L	L1	L2	H	A	SW	In Stock
BT40-DW-ER25-187-D-NC	125	62	62	187	80	39	78	65	18	○
BT40-DW-ER25-187-D-EC	125	62	62	187	80	39	78	65	18	○
BT40-DW-ER32-187-D-NC	152	71.2	71.2	187	80	39	78	65	18	○
BT40-DW-ER32-187-D-EC	152	71.2	71.2	187	80	39	78	65	18	○

●Stock ○Available Upon Order

Unit (mm)

Double Angle Head 90°

BT50– Collet ER25、ER32、ER40



Performance parameters

Ordering code	Toolholder	Torque max. (Nm)	Rev. max. (RPM)	Gear ratio	Coolant	Weight (kg)
BT50-DW-ER25-190-D-NC	2 xER 25	30	8000	1:1	without	11.5
BT50-DW-ER25-190-D-EC	2 x ER 25	30	8000	1:1	external	11.5
BT50-DW-ER32-190-D-NC	2 x ER 32	70	6500	1:1	without	13.5
BT50-DW-ER32-190-D-EC	2 x ER 32	70	6500	1:1	external	13.5
BT50-DW-ER40-225-D-NC	2 x ER 40	150	4000	1:1	without	20.0
BT50-DW-ER40-225-D-EC	2 x ER 40	150	4000	1:1	external	20.0

Dimensional parameters

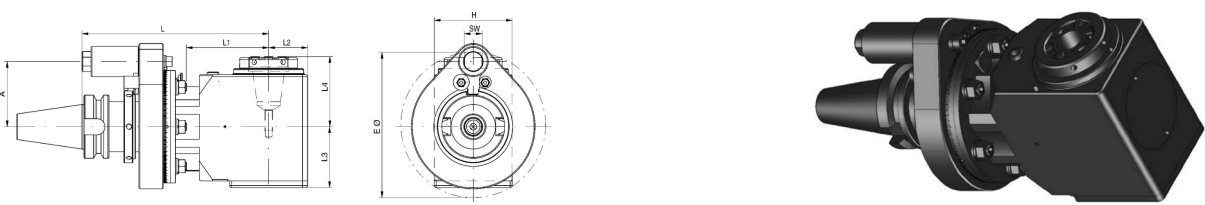
Ordering code	Dimension									
	Clearance ØE	L3	L4	L	L1	L2	H	A	SW	In Stock
BT50-DW-ER25-190-D-NC	125	62	62	190	70	34	68	80	18	○
BT50-DW-ER25-190-D-EC	125	62	62	190	70	34	68	80	18	○
BT50-DW-ER32-190-D-NC	152	71.2	71.2	190	70	39	78	80	18	○
BT50-DW-ER32-190-D-EC	152	71.2	71.2	190	70	39	78	80	18	○
BT50-DW-ER40-225-D-NC	210	103	103	225	109	58	108	80	18	○
BT50-DW-ER40-225-D-EC	210	103	103	225	109	58	108	80	18	○

●Stock ○Available Upon Order

Unit (mm)

Angle Head 90°

BT40– Collet ER16、ER25、ER32



Performance parameters

Ordering code	Toolholder	Torque max. (Nm)	Rev. max. (RPM)	Gear ratio	Coolant	Weight (kg)
BT40-SW-ER16-187-S-NC	ER 16	12	10000	1:1	without	6.0
BT40-SW-ER16-187-S-EC	ER 16	12	10000	1:1	external	6.0
BT40-SW-ER16-187-S-IC	ER 16	12	10000	1:1	internal	6.0
BT40-SW-ER25-187-S-NC	ER 25	30	8000	1:1	without	6.5
BT40-SW-ER25-187-S-EC	ER 25	30	8000	1:1	external	6.5
BT40-SW-ER25-187-S-IC	ER 25	30	8000	1:1	internal	6.5
BT40-SW-ER32-187-S-NC	ER 32	70	6500	1:1	without	8.0
BT40-SW-ER32-187-S-EC	ER 32	70	6500	1:1	external	8.0
BT40-SW-ER32-187-S-IC	ER 32	70	6500	1:1	internal	8.0

Dimensional parameters

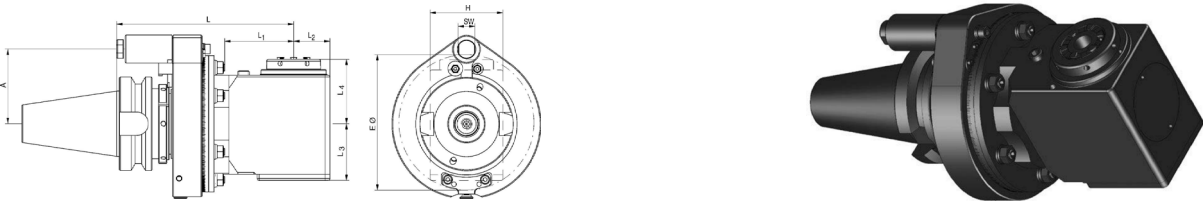
Ordering code	Dimension									
	Clearance ØE	L3	L4	L	L1	L2	H	A	SW	In Stock
BT40-SW-ER16-187-S-NC	91	29	45	187	80	22	44	65	18	○
BT40-SW-ER16-187-S-EC	96	44	50	187	80	22	44	65	18	○
BT40-SW-ER16-187-S-IC	96	44	50	187	80	22	44	65	18	○
BT40-SW-ER25-187-S-NC	110	41.5	57.5	187	80	34	68	65	18	○
BT40-SW-ER25-187-S-EC	120	52	63	187	80	34	68	65	18	○
BT40-SW-ER25-187-S-IC	120	52	63	187	80	34	68	65	18	○
BT40-SW-ER32-187-S-NC	145	61	70	187	80	39	78	65	18	○
BT40-SW-ER32-187-S-EC	155	75	75	187	80	39	78	65	18	○
BT40-SW-ER32-187-S-IC	155	75	75	187	80	39	78	65	18	○

●Stock ○Available Upon Order

Unit (mm)

Angle Head 90°

BT50– Collet ER25、ER32、ER40



Performance parameters

Ordering code	Toolholder	Torque max. (Nm)	Rev. max. (RPM)	Gear ratio	Coolant	Weight (kg)
BT50-SW-ER25-190-S-NC	ER 25	30	8000	1:1	without	10.5
BT50-SW-ER25-190-S-EC	ER 25	30	8000	1:1	external	10.5
BT50-SW-ER25-190-S-IC	ER 25	30	8000	1:1	internal	10.5
BT50-SW-ER32-190-S-NC	ER 32	70	6500	1:1	without	12.0
BT50-SW-ER32-190-S-EC	ER 32	70	6500	1:1	external	12.0
BT50-SW-ER32-190-S-IC	ER 32	70	6500	1:1	internal	12.0
BT50-SW-ER40-225-S-NC	ER 40	150	5000	1:1	without	18.0
BT50-SW-ER40-225-S-EC	ER 40	150	5000	1:1	external	18.0
BT50-SW-ER40-225-S-IC	ER 40	150	5000	1:1	internal	18.0

Dimensional parameters

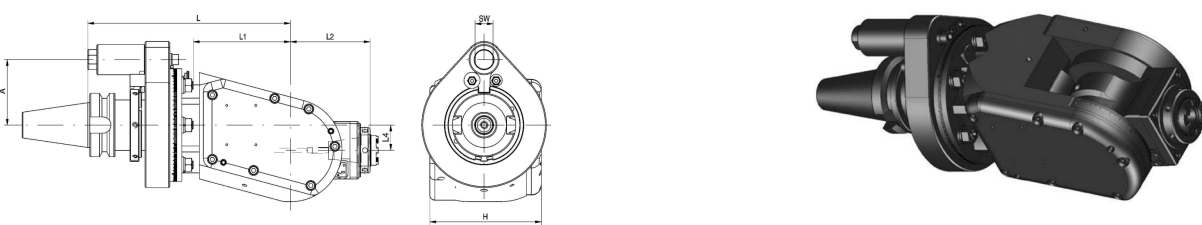
Ordering code	Dimension									
	Clearance ØE	L3	L4	L	L1	L2	H	A	SW	In Stock
BT50-SW-ER25-190-S-NC	110	41.5	57.5	190	75	34	68	80	18	○
BT50-SW-ER25-190-S-EC	120	52	63	190	75	34	68	80	18	○
BT50-SW-ER25-190-S-IC	120	52	63	190	75	34	68	80	18	○
BT50-SW-ER32-190-S-NC	145	61	70	190	75	39	78	80	18	○
BT50-SW-ER32-190-S-EC	155	75	75	190	75	39	78	80	18	○
BT50-SW-ER32-190-S-IC	155	75	75	190	75	39	78	80	18	○
BT50-SW-ER40-225-S-NC	195	81	92	225	109	52	104	80	18	○
BT50-SW-ER40-225-S-EC	195	81	96	225	109	52	104	80	18	○
BT50-SW-ER40-225-S-IC	195	81	96	225	109	52	104	80	18	○

●Stock ○Available Upon Order

Unit (mm)

Angle Head, Adjustable 0-98°

BT40– Collet ER20、ER25



Performance parameters

Ordering code	Toolholder	Torque max. (Nm)	Rev. max. (RPM)	Gear ratio	Coolant	Weight (kg)
BT40-WS-ER20-196-S-NC	ER 20	15	8000	1:1	without	8.0
BT40-WS-ER20-196-S-IC	ER 20	15	8000	1:1	internal	8.0
BT40-WS-ER20-196-S-NC-2	ER 20	15	15000	1:2.25	without	8.0
BT40-WS-ER20-196-S-IC-2	ER 20	15	15000	1:2.25	internal	8.0
BT40-WS-ER25-202-S-NC	ER 25	30	7000	1:1	without	9.6
BT40-WS-ER25-202-S-IC	ER 25	30	7000	1:1	internal	9.6
BT40-WS-ER25-202-S-NC-2	ER 25	30	13500	1:2.25	without	9.6
BT40-WS-ER25-202-S-IC-2	ER 25	30	13500	1:2.25	internal	9.6

Dimensional parameters

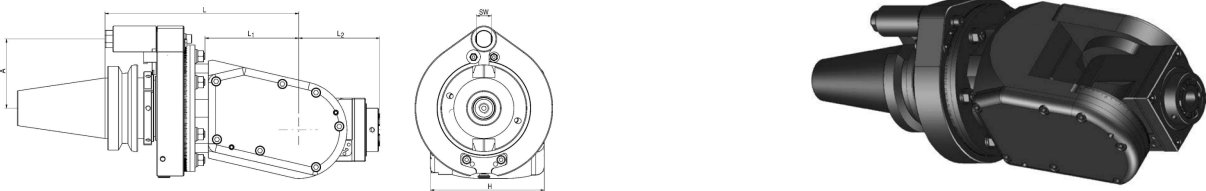
Ordering code	Dimension							
	L2	L4	L	L1	H	A	SW	In Stock
BT40-WS-ER20-196-S-NC	75	20	196	100	96	65	18	○
BT40-WS-ER20-196-S-IC	75	20	196	100	96	65	18	○
BT40-WS-ER20-196-S-NC-2	75	20	196	100	96	65	18	○
BT40-WS-ER20-196-S-IC-2	75	20	196	100	96	65	18	○
BT40-WS-ER25-202-S-NC	84	25	202	100	111	65	18	○
BT40-WS-ER25-202-S-IC	84	25	202	100	111	65	18	○
BT40-WS-ER25-202-S-NC-2	84	25	202	100	111	65	18	○
BT40-WS-ER25-202-S-IC-2	84	25	202	100	111	65	18	○

●Stock ○Available Upon Order

Unit (mm)

Angle Head, Adjustable 0-98°

BT50– Collet ER25、 ER32



Performance parameters

Ordering code	Toolholder	Torque max. (Nm)	Rev. max. (RPM)	Gear ratio	Coolant	Weight (kg)
BT50-WS-ER25-205-S-NC	ER 25	30	7000	1:1	without	14
BT50-WS-ER25-205-S-IC	ER 25	30	7000	1:1	internal	14
BT50-WS-ER25-205-S-NC-2	ER 25	30	13500	1:2.25	without	14
BT50-WS-ER25-205-S-IC-2	ER 25	30	13500	1:2.25	internal	14
BT50-WS-ER32-225-S-NC	ER 32	70	6000	1:1	without	16
BT50-WS-ER32-225-S-IC	ER 32	70	6000	1:1	internal	16

Dimensional parameters

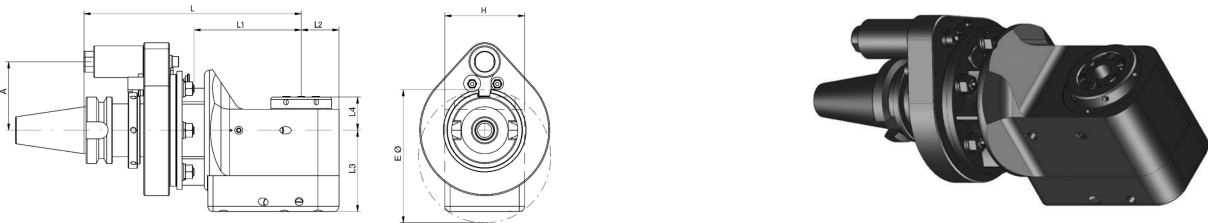
Ordering code	Dimension							
	L2	L4	L	L1	H	A	SW	In Stock
BT50-WS-ER25-205-S-NC	84	25	205	100	111	80	18	○
BT50-WS-ER25-205-S-IC	84	25	205	100	111	80	18	○
BT50-WS-ER25-205-S-NC-2	84	25	205	100	111	80	18	○
BT50-WS-ER25-205-S-IC-2	84	25	205	100	111	80	18	○
BT50-WS-ER32-225-S-NC	95	25	225	109	132	80	18	○
BT50-WS-ER32-225-S-IC	95	25	225	109	132	80	18	○

●Stock ○Available Upon Order

Unit (mm)

Angle Head 90°, Offset Type

BT40– Collet ER25、 ER32



Performance parameters

Ordering code	Toolholder	Torque max. (Nm)	Rev. max. (RPM)	Gear ratio	Coolant	Weight (kg)
BT40-ZW-ER25-187-S-NC	ER 25	30	8000	1:1	without	6.5
BT40-ZW-ER25-187-S-EC	ER 25	30	8000	1:1	external	6.5
BT40-ZW-ER25-187-S-IC	ER 25	30	8000	1:1	internal	6.5
BT40-ZW-ER32-205-S-NC	ER 32	70	6000	1:1	without	8.5
BT40-ZW-ER32-205-S-EC	ER 32	70	6000	1:1	external	8.5
BT40-ZW-ER32-205-S-IC	ER 32	70	6000	1:1	internal	8.5

Dimensional parameters

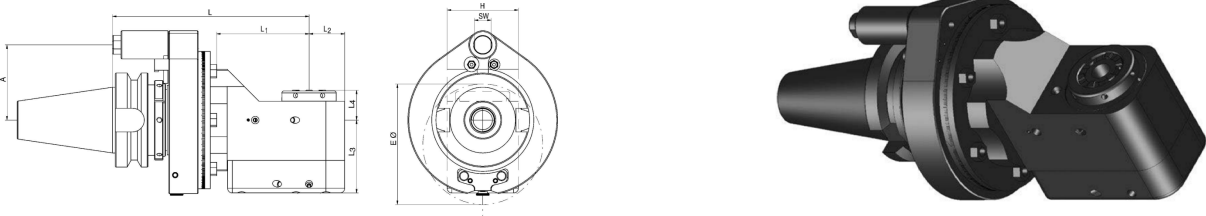
Ordering code	Dimension									
	Clearance ØE	L3	L4	L	L1	L2	H	A	SW	In Stock
BT40-ZW-ER25-187-S-NC	103	57	35.8	187	80	28.5	57	65	18	○
BT40-ZW-ER25-187-S-EC	103	57	41.6	187	80	28.5	57	65	18	○
BT40-ZW-ER25-187-S-IC	103	57	41.6	187	80	28.5	57	65	18	○
BT40-ZW-ER32-205-S-NC	128	77.5	32.2	205	100	38,0	76	65	18	○
BT40-ZW-ER32-205-S-EC	128	77.5	38	205	100	38,0	76	65	18	○
BT40-ZW-ER32-205-S-IC	128	77.5	38	205	100	38,0	76	65	18	○

●Stock ○Available Upon Order

Unit (mm)

Angle Head 90°, Offset Type

BT50– Collet ER25、ER32、ER40



Performance parameters

Ordering code	Toolholder	Torque max. (Nm)	Rev. max. (RPM)	Gear ratio	Coolant	Weight (kg)
BT50-ZW-ER25-195-S-NC	ER 25	30	8000	1:1	without	11.5
BT50-ZW-ER25-195-S-EC	ER 25	30	8000	1:1	external	11.5
BT50-ZW-ER25-195-S-IC	ER 25	30	8000	1:1	internal	11.5
BT50-ZW-ER32-210-S-NC	ER 32	70	6000	1:1	without	14.0
BT50-ZW-ER32-210-S-EC	ER 32	70	6000	1:1	external	14.0
BT50-ZW-ER32-210-S-IC	ER 32	70	6000	1:1	internal	14.0
BT50-ZW-ER40-270-S-NC	ER 40	150	5000	1:1	without	19.0
BT50-ZW-ER40-270-S-EC	ER 40	150	5000	1:1	external	19.0
BT50-ZW-ER40-270-S-IC	ER 40	150	5000	1:1	internal	19.0

Dimensional parameters

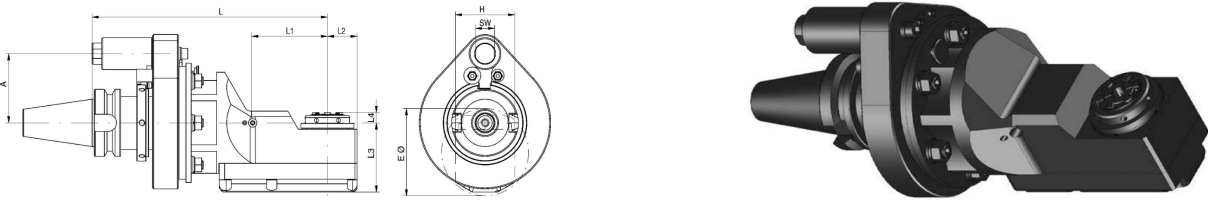
Ordering code	Dimension									
	Clearance ØE	L3	L4	L	L1	L2	H	A	SW	In Stock
BT50-ZW-ER25-195-S-NC	103	57	35.8	195	79	28.5	57	80	18	○
BT50-ZW-ER25-195-S-EC	103	57	41.6	195	79	28.5	57	80	18	○
BT50-ZW-ER25-195-S-IC	103	57	41.6	195	79	28.5	57	80	18	○
BT50-ZW-ER32-210-S-NC	128	77.5	32.2	210	94	38	76	80	18	○
BT50-ZW-ER32-210-S-EC	128	77.5	38	210	94	38	76	80	18	○
BT50-ZW-ER32-210-S-IC	128	77.5	38	210	94	38	76	80	18	○
BT50-ZW-ER40-270-S-NC	140	89	31	270	110	52	104	80	18	○
BT50-ZW-ER40-270-S-EC	140	89	34.8	270	110	52	104	80	18	○
BT50-ZW-ER40-270-S-IC	140	89	34.8	270	110	52	104	80	18	○

●Stock ○Available Upon Order

Unit (mm)

Angle Head 90°, Offset Slim Type

BT40– Collet ER11、ER20、ER25



Performance parameters

Ordering code	Toolholder	Torque max. (Nm)	Rev. max. (RPM)	Gear ratio	Coolant	Weight (kg)
BT40-ZWS-ER11-220-S-NC	ER 11	6	12000	1:1.67	without	7.0
BT40-ZWS-ER20-232-S-NC	ER 20	15	10000	1:1	without	6.0
BT40-ZWS-ER25-222-S-NC	ER 25	30	8000	1:1	without	6.5
BT40-ZWS-ER25-222-S-EC	ER 25	30	8000	1:1	external	6.5

Dimensional parameters

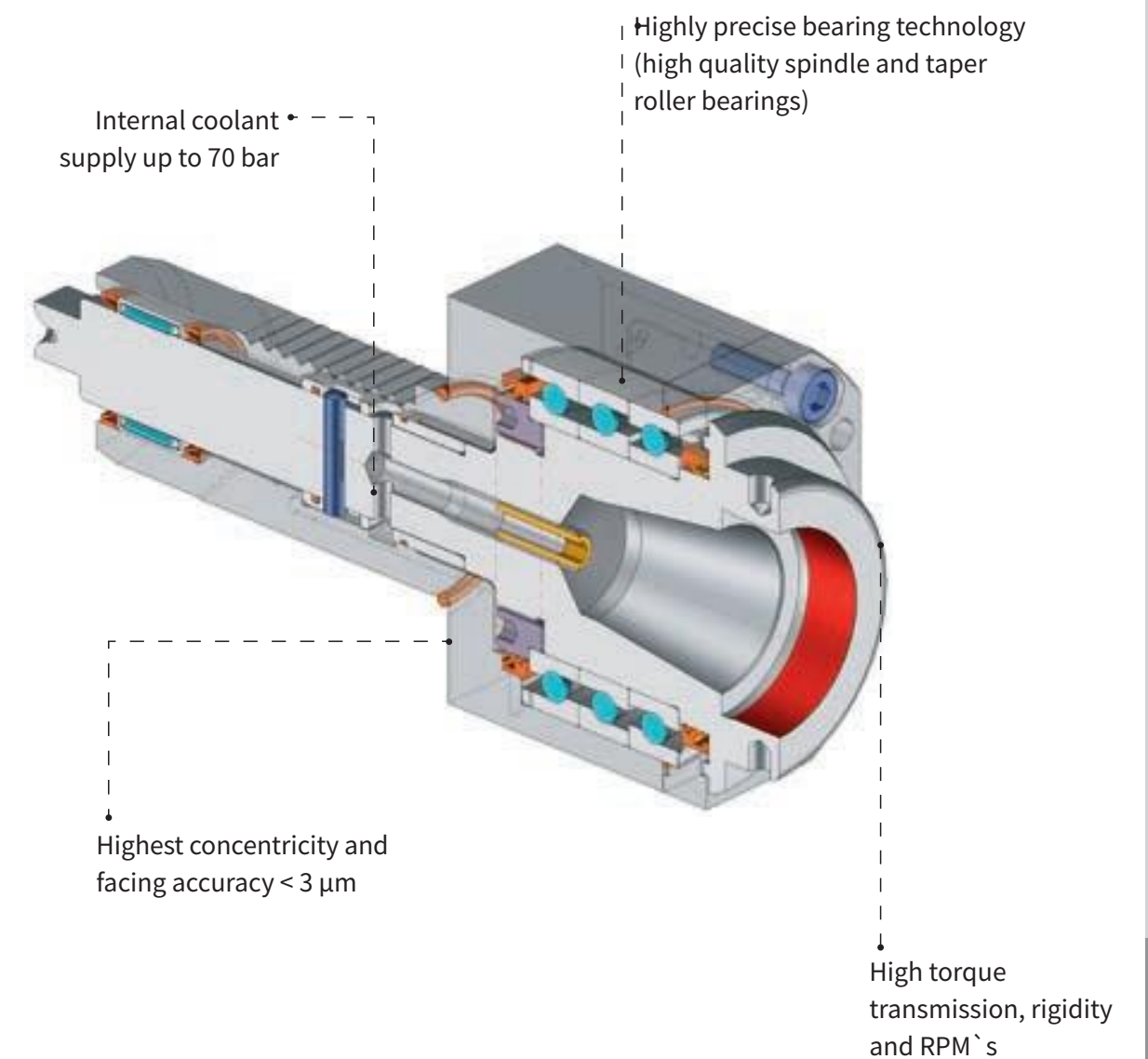
Ordering code	Dimension									
	Clearance ØE	L3	L4	L	L1	L2	H	A	SW	In Stock
BT40-ZWS-ER11-220-S-NC	50	49	8	220	38	20	36	65	18	○
BT40-ZWS-ER20-232-S-NC	75	54.5	11.2	232	80	24	48	65	18	○
BT40-ZWS-ER25-222-S-NC	82	65	10	222	76	28	56	65	18	○
BT40-ZWS-ER25-222-S-EC	82	65	10	222	76	28	56	65	18	○

●Stock ○Available Upon Order

Unit (mm)

Living Tools

Product Advantages



Living Tools

- Highly precise bearing technology (high quality spindle and taper roller bearings)
- Specially optimized gears guarantee an excellently smooth run
- High torque transmission, rigidity and RPM's
- Highest concentricity and facing accuracy $< 3 \mu\text{m}$
- Internal coolant supply up to 70 bar

Live Tools Naming and Coding Rules

BMT45 – SU – ER25 – 49.5 – S – EC

- ①
- ②
- ③
- ④
- ⑤
- ⑥

①Connection Type	②Production Style		③Clamping Size
	SU	0° Live Tools	
	AU	90° Live Tools	
	SO	0° Offset Live Tools	
	AO	90° Retracting Live Tools	
	AJ	Adjustable Live Tools	
	SB	Saw Blade Live Tools	
	CO	Combination Live Tools	
④Effective Length		⑥Type of Cooling	
		NC	Non-Cooling
		EC	External
		IC	Internal
⑤Output Shaft Number			
S	Single		
D	Double		

Nut Wrench Naming and Coding Rules

TER16 – N – MC

- ①
- ②
- ③

①Size	②Nut Wrench	③Performance Upgrade Code	
		Normal type	Omit
		Upgraded type	MC

Clamping Nuts Naming and Coding Rules



①Size		②Clamping Nuts		③Type of Cooling	
				Internal	IC
				Others	Omit

④Performance Upgrade Code	
Normal type	Omit
Upgraded type	MC

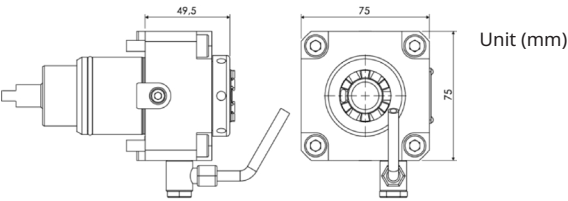
Hook Wrench Naming and Coding Rules



①Size		②Hook Wrench		③Performance Upgrade Code	
				Normal type	Omit
				Upgraded type	MC

BMT45

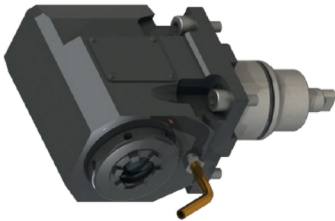
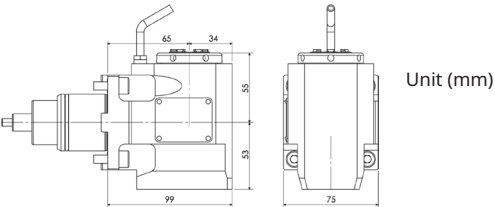
Straight Unit – Collet ER25



Ordering code	Toolholder	Torque max. (Nm)	n1/n2 (RPM)	Gear ratio	Coolant	Reversion of rotation	Spindle wrench	Nut wrench	Nut	In Stock
BMT45-SU-ER25-49.5-S-EC	ER25	25	6500 / 6500	1:1	EC	—	TER25-H-MC	TER25-N-MC	ER25-N-MC	○
BMT45-SU-ER25-49.5-S-IC	ER25	25	6500 / 6500	1:1	ICE 70bar	—	TER25-H-MC	TER25-N-MC	ER25-N-IC-MC	○

●Stock ○Available Upon Order

Angle Unit – Collet ER25

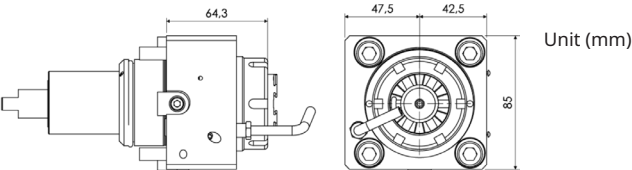


Ordering code	Toolholder	Torque max. (Nm)	n1/n2 (RPM)	Gear ratio	Coolant	Reversion of rotation	Spindle wrench	Nut wrench	Nut	In Stock
BMT45-AU-ER25-65-S-EC	ER25	25	6500 / 6500	1:1	EC	✓	TER25-H-MC	TER25-N-MC	ER25-N-MC	○
BMT45-AU-ER25-65-S-IC	ER25	25	6500 / 6500	1:1	ICE 70bar	✓	TER25-H-MC	TER25-N-MC	ER25-N-IC-MC	○

●Stock ○Available Upon Order

BMT55

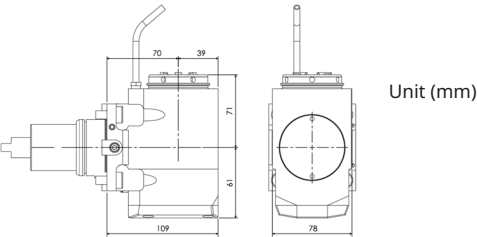
Straight Unit – Collet ER32



Ordering code	Toolholder	Torque max. (Nm)	n1/n2 (RPM)	Gear ratio	Coolant	Reversion of rotation	Spindle wrench	Nut wrench	Nut	In Stock
BMT55-SU-ER32-64.3-S-EC	ER32	70	6500 / 6500	1:1	EC	—	TER32-H-MC	TER32-N-MC	ER32-N-MC	○
BMT55-SU-ER32-64.3-S-IC	ER32	70	6500 / 6500	1:1	ICE 70bar	—	TER32-H-MC	TER32-N-MC	ER32-N-IC-MC	○

●Stock ○Available Upon Order

Angle Unit – Collet ER32

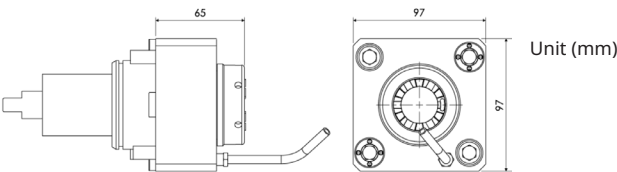


Ordering code	Toolholder	Torque max. (Nm)	n1/n2 (RPM)	Gear ratio	Coolant	Reversion of rotation	Spindle wrench	Nut wrench	Nut	In Stock
BMT55-AU-ER32-70-S-EC	ER32	70	6500 / 6500	1:1	EC	✓	TER32-H-MC	TER32-N-MC	ER32-N-MC	○
BMT55-AU-ER32-70-S-IC	ER32	70	6500 / 6500	1:1	ICE 70bar	✓	TER32-H-MC	TER32-N-MC	ER32-N-IC-MC	○

●Stock ○Available Upon Order

BMT65

Straight Unit – Collet ER32

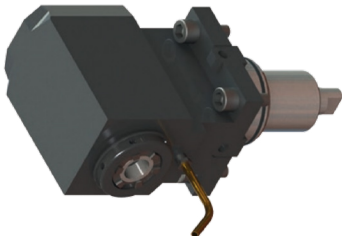
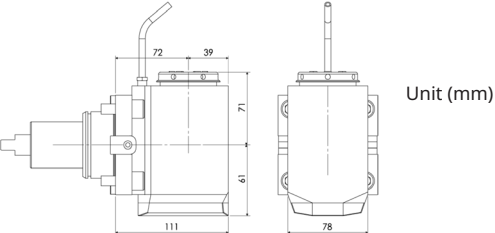


Ordering code	Toolholder	Torque max. (Nm)	n1/n2 (RPM)	Gear ratio	Coolant	Reversion of rotation	Spindle wrench	Nut wrench	Nut	In Stock
BMT65-SU-ER32-65-S-EC	ER32	70	10000/10000	1:1	EC	—	TER32-H-MC	TER32-N-MC	ER32-N-MC	○
BMT65-SU-ER32-65-S-IC	ER32	70	10000 /10000	1:1	ICE 70bar	—	TER32-H-MC	TER32-N-MC	ER32-N-IC-MC	○

●Stock ○Available Upon Order

Unit (mm)

Angle Unit – Collet ER32



Ordering code	Toolholder	Torque max. (Nm)	n1/n2 (RPM)	Gear ratio	Coolant	Reversion of rotation	Spindle wrench	Nut wrench	Nut	In Stock
BMT65-AU-ER32-72-S-EC	ER32	70	10000/10000	1:1	EC	✓	TER32-H-MC	TER32-N-MC	ER32-N-MC	○
BMT65-AU-ER32-72-S-IC	ER32	70	10000 /10000	1:1	ICE 70bar	✓	TER32-H-MC	TER32-N-MC	ER32-N-IC-MC	○

●Stock ○Available Upon Order

Unit (mm)

Wrenches and Clamping Nuts

Wrenches for ER Clamping Nuts



Ordering code	Size	Type	In Stock
TER25-N-MC	ER25	inlying	○
TER32-N-MC	ER32	inlying	○

●Stock ○Available Upon Order

ER Clamping Nuts



Ordering code	Size	Type	Internal coolant	In Stock
ER25-N-MC	ER25	inlying	-	○
ER32-N-MC	ER32	inlying	-	○
ER25-N-IC-MC	ER25	inlying	✓	○
ER32-N-IC-MC	ER32	inlying	✓	○

●Stock ○Available Upon Order

Hook Wrenches to hold against



D1810A



D1810B

Ordering code	Size	Type	DIN	In Stock
TER25-H-MC	ER25	inlying	1810-B	○
TER32-H-MC	ER32	inlying	1810-B	○

●Stock ○Available Upon Order



Xiamen Golden Egret Special Alloy Co., Ltd.

Address: No. 69, Xinglong Road, Huli, Xiamen,
China

Factory Address: No.1601-1629, Jicheng Road,
Tong'an Industrial Concentration Zone,
Xiamen, China

Email: GJ.GLB@CXTC.COM

www.gesac-tools.com



400-998-6858
