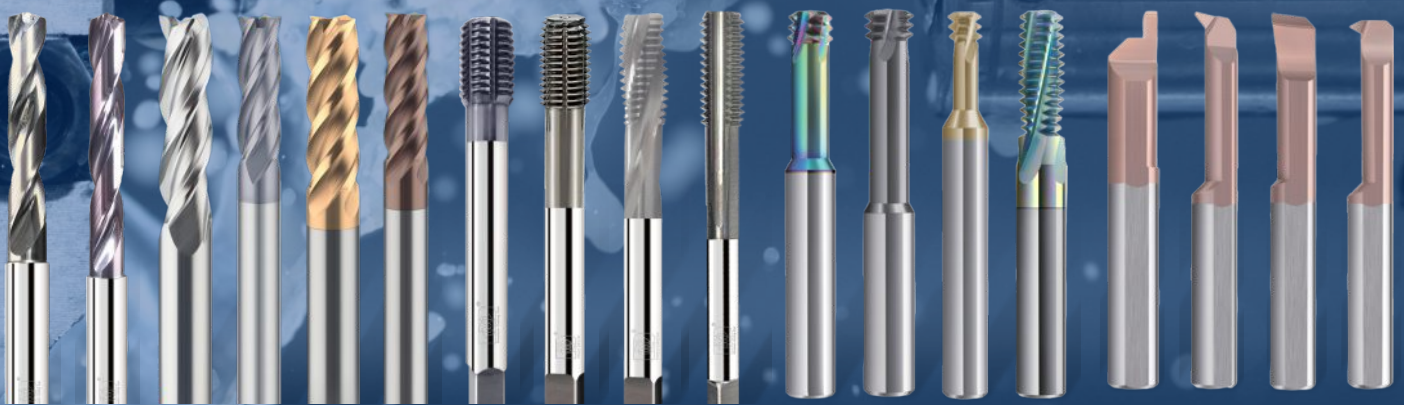




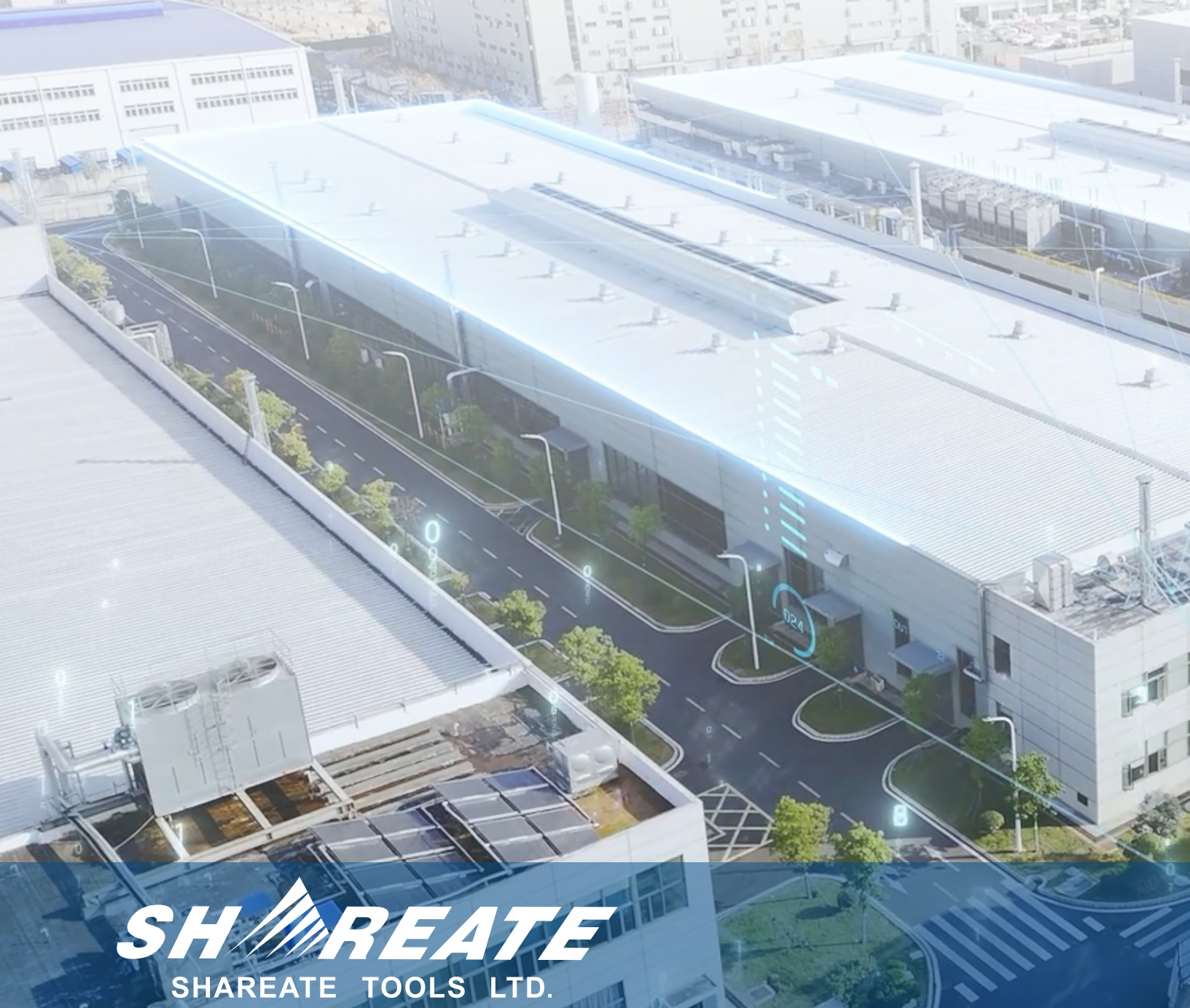
Precision Cutting Tool  
Member of *SHAREATE* group



# ROUND TOOLS

## 2025 CATALOG

Shareate Tools Ltd.



# SHAREATE

SHAREATE TOOLS LTD.

Shareate Tools Ltd. was founded in 2005 as a multinational corporation engaged in the research and development, manufacturing, sales and services of cemented carbide products, rock drilling tools and comprehensive mining services.

In October 2021, Shareate was officially listed on the SSE STAR Market. The group owns several domestic and overseas subsidiary companies, including Shareate Wuhan, Suzhou D&M, Zhuzhou Weco, Australia AMS, America AMS, and others, which were acquired or established through joint ventures.

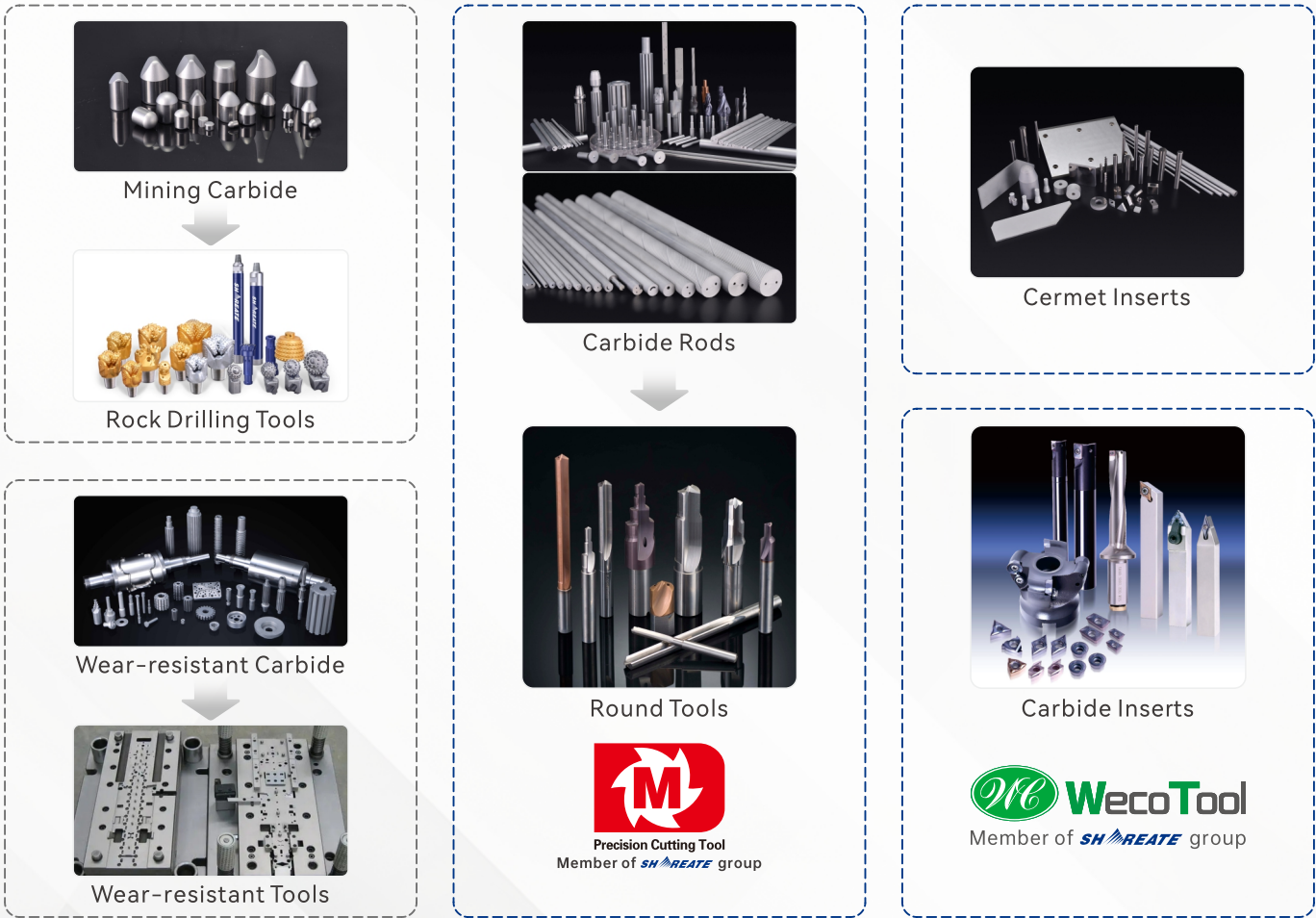
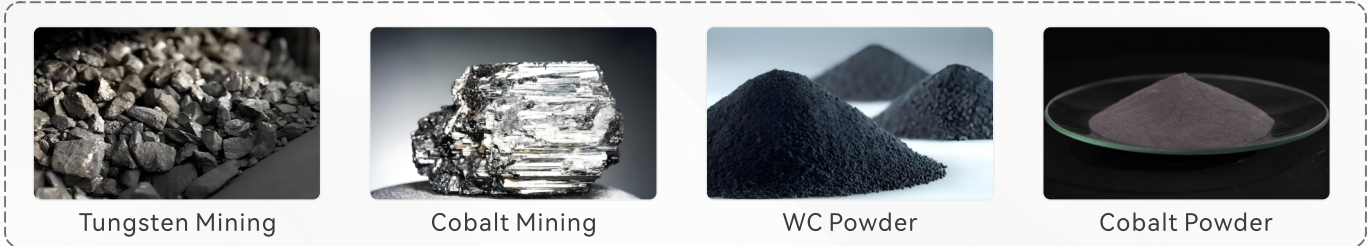
Shareate has been granted 72 invention patents and 380 utility model patents. We are accredited with the API Spec Q1 and ISO 9001 certifications. Our group company serves six fields: carbide, rock drilling tools, cutting tools, petroleum instrumentation, electric drilling equipment, and mining exploration services. The products are exported to 6 continents in more than 60 countries, including cemented carbide such as mining carbide, carbide rod, wear-resistant alloy and precision components, and rock drilling tools such as rotary drill bit series, dth drilling tool series, top hammer drilling tool series.



Shareate as a leader in modern manufacturing and service integration, we operate state-of-the-art factories that adhere to the highest international standards, and work closely with customers worldwide to create best-in-class products and solutions to overcome the most challenging technical problems.



# Products Chain



# Solution Display

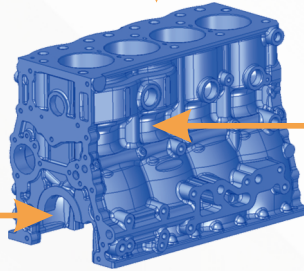
**Double-fluted**

Tool name: Step Drill  
 Model No.: D9.5/14xL10.745xL92xSD14  
 Clamping: Heat Shrinking Holder  
 Coolant: Inner coolant  
 Processing: Drill 2- $\phi$ 9.7 hole (4016-4017), depth 11  
 Cutting Parameter: S3680 / F880 (Vc112)  
 Tool Life: 77m

**Double-fluted**

**Double-fluted**

Tool name: Step Drill  
 Model No.: D9/12xL25.7xL110xSD12  
 Clamping: Heat Shrinking Holder  
 Coolant: Inner coolant  
 Processing: Drill right side 2-M10\*1 thread bottom hole, depth 23  
 Cutting Parameter: S3000 / F600 (Vc85)  
 Tool Life: 80m



**Double-fluted**

**Double-fluted**

**Double-fluted**

Tool name: Straight Reamer  
 Model No.: D10.01xL15xL103xSD10  
 Clamping: Heat Shrinking Holder  
 Coolant: Inner coolant  
 Processing: Ream 2- $\phi$ 10 (+.015,0) hole, depth 9, chamfer C1  
 Cutting Parameter: S2000 / F1140 (Vc63)  
 Tool Life: 45m

**Double-fluted**

**Double-fluted**

Tool name: Straight Tap  
 Model No.: M6x1xL80xSD6, square 4.9x8  
 Clamping: Heat Shrinking Holder  
 Coolant: Inner coolant  
 Processing: M6 thread hole (6051), depth 11  
 Cutting Parameter: S3200 / F3200 (Vc60)  
 Tool Life: 66m

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# Carbide Drills



D&M Tools carbide standard drills are categorized into spiral flute and straight flute types according to the flute type; 3x and 5x diameters according to the drilling depth; external and internal cooling according to the cooling form; Both coated and uncoated drill bits are available; and N/K/P/S/M/H according to the material to be processed.

In the future, D&M Tools will subdivide into more series and more sizes of standardized carbide products. According to the type of material to be processed to select high-quality carbide, refined by high-end 5-axis CNC, and using D&M's unique passivation technology and the most suitable coating, which can be adapted to a wide range of customers' high performance drilling and processing, with great versatility and cost-effective.

**ORDER NUMBER  
NAMING CONVENTION**

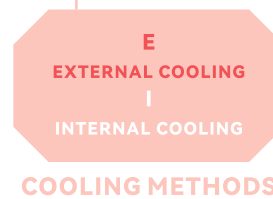
**DSP-KP3E-0250**  
SERIAL NUMBER



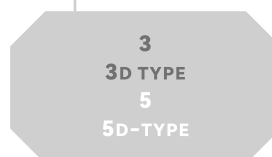
**SERIES**



**WORK MATERIAL**



**FLUTE TYPE**



**L/D RATIO**

## SELECTION CRITERIA

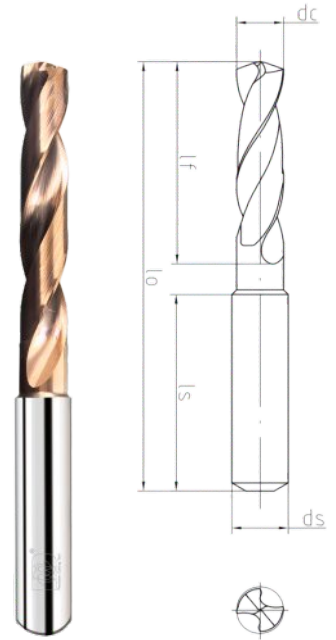
Series	Tool Abbreviation	Diameter Range (mm)	Drilling Depth	Cooling Methods	Coating	Page
DSP	KP3E	Φ2.5~Φ20.0	3D	External Cooling	H	8
	M3E	Φ2.5~Φ20.0			PT	14
	N3I	Φ2.5~Φ20.0		Internal Cooling	—	20
	KP3I	Φ2.5~Φ20.0			H	26
	M3I	Φ2.5~Φ20.0			PT	32
	KP5E	Φ2.5~Φ20.0	5D	External Cooling	H	38
	M5E	Φ2.5~Φ20.0			PT	44
	N5I	Φ2.5~Φ20.0		Internal Cooling	—	50
	KP5I	Φ2.5~Φ20.0			H	56
	M5I	Φ2.5~Φ20.0			PT	62
	N8I	Φ3.0~Φ20.0	8D	Internal Cooling	—	68
	KP8I	Φ3.0~Φ20.0			H	70
	M8I	Φ3.0~Φ20.0			PT	72
	Work Material	Cooling Methods	Vc (m/min) D3≤-~D20	f (mm/rev)		
				D3≤- < D4	D4≤- < D5	D5≤- < D6
P	External Cooling	50-95	0.06-0.12	0.06-0.12	0.06--0.12	
	Internal Cooling	55-110	0.06-0.12	0.06-0.12	0.06-0.12	
K	External Cooling	90-140	0.08-0.16	0.08-0.16	0.08-0.16	
	Internal Cooling	105-155	0.08-0.16	0.08-0.16	0.08-0.16	
M	External Cooling	30-60	0.04-0.08	0.04-0.08	0.04-0.08	
	Internal Cooling	30-70	0.04-0.08	0.04-0.08	0.04-0.08	
N	External Cooling	55-170	0.06-0.12	0.06-0.12	0.06-0.12	
	Internal Cooling	65-260	0.06-0.12	0.06-0.12	0.06-0.12	

P	K	N	M	S	H
Carbon Steel / Alloy Steel ~~HRC35	Gray Iron / Ductile Iron	Aluminium Alloys	Stainless Steel	Heat-resistant Steel / Titanium Alloy	Hard Materials
●	●		○		
			●	○	
		●			
●	●		●		
●	●		●		
●	●		●		
		●			
●	●				
			●		
●	●	●			
●	●		●		
			●		
f (mm/rev)					
D6≤- < D8	D8≤- < D10	D10≤- < D12	D12≤- < D16	D16≤- < D18	D18≤- < D20
0.1-0.2	0.1-0.2	0.1-0.2	0.15-0.2-0.25	0.15-0.25	0.2-0.3
0.1-0.2	0.1-0.2	0.1-0.2	0.15-0.25	0.15-0.25	0.2-0.3
0.15-0.25	0.15-0.25	0.15-0.25	0.2-0.35	0.2-0.35	0.3-0.35
0.15-0.25	0.15-0.25	0.15-0.25	0.2-0.35	0.2-0.35	0.3-0.35
0.04-0.08	0.08-0.12	0.08-0.12	0.12-0.18	0.12-0.18	0.18-0.2
0.04-0.08	0.08-0.12	0.08-0.12	0.12-0.18	0.12-0.18	0.18-0.2
0.1-0.15	0.12-0.2	0.12-0.2	0.18-0.25	0.18-0.25	0.2-0.35
0.1-0.15	0.12-0.2	0.12-0.2	0.18-0.25	0.18-0.25	0.2-0.35

● = BEST ○ = GOOD

# DSP-KP3E

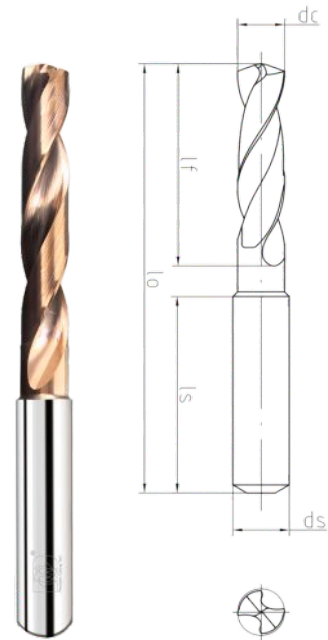
External Cooling Carbide Twist Drills 3D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP3E-0250	2.5	11	4	28	41	M3×0.5	
DSP-KP3E-0260	2.6	11	4	28	41		
DSP-KP3E-0270	2.7	12	4	28	42	NO.5-44UNF	
DSP-KP3E-0280	2.8	12	4	28	42		M3×0.5
DSP-KP3E-0290	2.9	12	4	28	42	M3.5×0.6	
DSP-KP3E-0300	3.0	20	4	28	54		
DSP-KP3E-0310	3.1	20	4	28	54		
DSP-KP3E-0320	3.2	20	4	28	54		
DSP-KP3E-0330	3.3	20	4	28	54	M4×0.7	
DSP-KP3E-0340	3.4	20	4	28	54	NO.8-32UNC	
DSP-KP3E-0350	3.5	20	4	28	54	M4×0.5 NO.8-36UNF	
DSP-KP3E-0360	3.6	20	4	28	54		
DSP-KP3E-0370	3.7	20	4	28	54		M4×0.7
DSP-KP3E-0380	3.8	24	4	28	58		M4×0.5
DSP-KP3E-0390	3.9	24	4	28	58	NO.10-24UNC	
DSP-KP3E-0400	4.0	24	4	28	58		
DSP-KP3E-0410	4.1	24	6	36	66	NO10-32UNF	
DSP-KP3E-0420	4.2	24	6	36	66	M5×0.8	
DSP-KP3E-0430	4.3	24	6	36	66		
DSP-KP3E-0440	4.4	24	6	36	66		
DSP-KP3E-0450	4.5	24	6	36	66	M5×0.5 NO.12-24UNC	
DSP-KP3E-0460	4.6	24	6	36	66	NO.12-28UNF	M5×0.8
DSP-KP3E-0470	4.7	24	6	36	66	NO.12-32UNEF	
DSP-KP3E-0480	4.8	28	6	36	66		
DSP-KP3E-0490	4.9	28	6	36	66		
DSP-KP3E-0500	5.0	28	6	36	66	M6×1	
DSP-KP3E-0510	5.1	28	6	36	66	1/4-20UNC	
DSP-KP3E-0520	5.2	28	6	36	66		
DSP-KP3E-0530	5.3	28	6	36	66	M6×0.75	
DSP-KP3E-0540	5.4	28	6	36	66		
DSP-KP3E-0550	5.5	28	6	36	66	1/4-28UNF	M6×1
DSP-KP3E-0560	5.6	28	6	36	66	1/4-32UNEF	

# DSP-KP3E

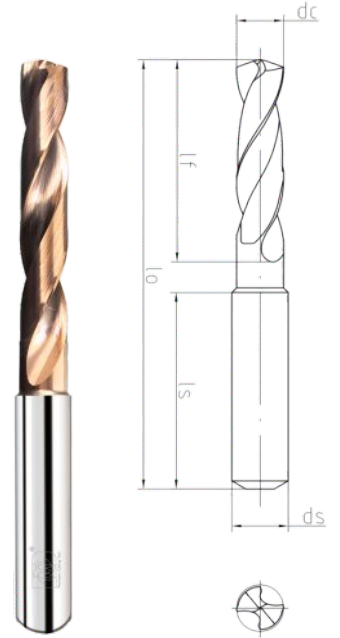
External Cooling Carbide Twist Drills 3D Type

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP3E-0570	5.7	28	6	36	66		
DSP-KP3E-0580	5.8	28	6	36	66		
DSP-KP3E-0590	5.9	28	6	36	66		
DSP-KP3E-0600	6.0	28	6	36	66		
DSP-KP3E-0610	6.1	34	8	36	79		
DSP-KP3E-0620	6.2	34	8	36	79		
DSP-KP3E-0630	6.3	34	8	36	79		
DSP-KP3E-0640	6.4	34	8	36	79		
DSP-KP3E-0650	6.5	34	8	36	79		
DSP-KP3E-0660	6.6	34	8	36	79	5-16-18UNC	
DSP-KP3E-0670	6.7	34	8	36	79		
DSP-KP3E-0680	6.8	34	8	36	79	M8×1.25	
DSP-KP3E-0690	6.9	34	8	36	79	5/16-24UNF	
DSP-KP3E-0700	7.0	34	8	36	79	M8×1	
DSP-KP3E-0710	7.1	41	8	36	79	5/16-32UNEF	
DSP-KP3E-0720	7.2	41	8	36	79		
DSP-KP3E-0730	7.3	41	8	36	79	M8×0.75	
DSP-KP3E-0740	7.4	41	8	36	79		M8×1.25
DSP-KP3E-0750	7.5	41	8	36	79		
DSP-KP3E-0760	7.6	41	8	36	79		
DSP-KP3E-0770	7.7	41	8	36	79		
DSP-KP3E-0780	7.8	41	8	36	79		
DSP-KP3E-0790	7.9	41	8	36	79		
DSP-KP3E-0800	8.0	41	8	36	79	3/8-16UNC	
DSP-KP3E-0810	8.1	47	10	40	89		
DSP-KP3E-0820	8.2	47	10	40	89		
DSP-KP3E-0830	8.3	47	10	40	89		
DSP-KP3E-0840	8.4	47	10	40	89		
DSP-KP3E-0850	8.5	47	10	40	89	M10×1.5 3/8-24UNF	
DSP-KP3E-0860	8.6	47	10	40	89		
DSP-KP3E-0870	8.7	47	10	40	89	3/8-32UNEF	
DSP-KP3E-0880	8.8	47	10	40	89	M10×1.25	

**DSP-KP3E**

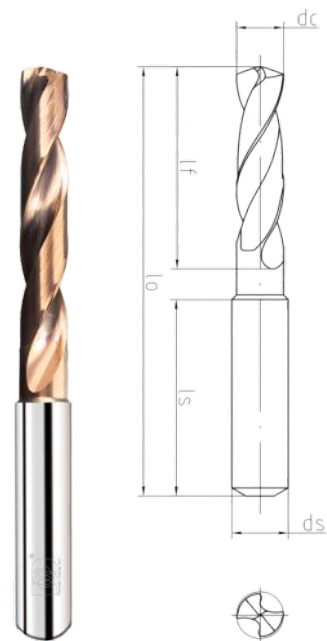
External Cooling Carbide Twist Drills 3D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP3E-0890	8.9	47	10	40	89		
DSP-KP3E-0900	9.0	47	10	40	89	M10×1	
DSP-KP3E-0910	9.1	47	10	40	89		
DSP-KP3E-0920	9.2	47	10	40	89		
DSP-KP3E-0930	9.3	47	10	40	89	M10×0.75	M10×1.5
DSP-KP3E-0940	9.4	47	10	40	89	7/16-14UNC	
DSP-KP3E-0950	9.5	47	10	40	89		
DSP-KP3E-0960	9.6	47	10	40	89		
DSP-KP3E-0970	9.7	47	10	40	89		
DSP-KP3E-0980	9.8	47	10	40	89		
DSP-KP3E-0990	9.9	47	10	40	89	7/16-20UNF	
DSP-KP3E-1000	10.0	47	10	40	89		
DSP-KP3E-1010	10.1	55	12	45	102		
DSP-KP3E-1020	10.2	55	12	45	102	7/16-28UNEF	
DSP-KP3E-1030	10.3	55	12	45	102	M12×1.75	
DSP-KP3E-1040	10.4	55	12	45	102		
DSP-KP3E-1050	10.5	55	12	45	102		
DSP-KP3E-1060	10.6	55	12	45	102		
DSP-KP3E-1070	10.7	55	12	45	102		
DSP-KP3E-1080	10.8	55	12	45	102		
DSP-KP3E-1090	10.9	55	12	45	102	1/2-13UNC	
DSP-KP3E-1100	11.0	55	12	45	102	M12×1	
DSP-KP3E-1110	11.1	55	12	45	102		
DSP-KP3E-1120	11.2	55	12	45	102		M12×1.75
DSP-KP3E-1130	11.3	55	12	45	102		
DSP-KP3E-1140	11.4	55	12	45	102		
DSP-KP3E-1150	11.5	55	12	45	102	1/2-20UNF	
DSP-KP3E-1160	11.6	55	12	45	102		
DSP-KP3E-1170	11.7	55	12	45	102		
DSP-KP3E-1180	11.8	55	12	45	102	1/2-28UNEF	
DSP-KP3E-1190	11.9	55	12	45	102		
DSP-KP3E-1200	12.0	55	12	45	102	M14×2	

**DSP-KP3E**

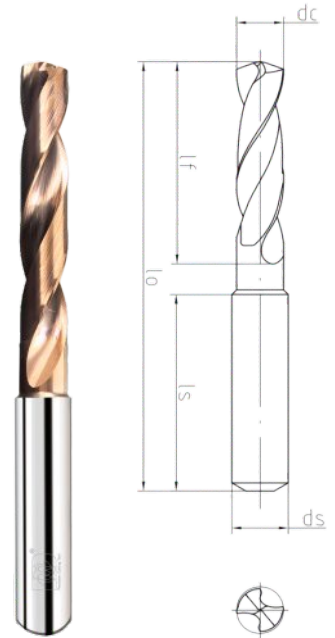
External Cooling Carbide Twist Drills 3D Type

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP3E-1210	12.1	60	14	45	107		
DSP-KP3E-1220	12.2	60	14	45	107	9/16-12UNC	
DSP-KP3E-1230	12.3	60	14	45	107		
DSP-KP3E-1240	12.4	60	14	45	107		
DSP-KP3E-1250	12.5	60	14	45	107	M14×1.5	
DSP-KP3E-1260	12.6	60	14	45	107		
DSP-KP3E-1270	12.7	60	14	45	107		
DSP-KP3E-1280	12.8	60	14	45	107		
DSP-KP3E-1290	12.9	60	14	45	107	9/16-18UNF	
DSP-KP3E-1300	13.0	60	14	45	107	M14×1	M14×2
DSP-KP3E-1310	13.1	60	14	45	107		
DSP-KP3E-1320	13.2	60	14	45	107	9/16-24UNEF	
DSP-KP3E-1330	13.3	60	14	45	107		
DSP-KP3E-1340	13.4	60	14	45	107		
DSP-KP3E-1350	13.5	60	14	45	107		
DSP-KP3E-1360	13.6	60	14	45	107	5/8-11UNC	
DSP-KP3E-1370	13.7	60	14	45	107		
DSP-KP3E-1380	13.8	60	14	45	107		
DSP-KP3E-1390	13.9	60	14	45	107		
DSP-KP3E-1400	14.0	60	14	45	107	M16×2	
DSP-KP3E-1410	14.1	65	16	48	115		
DSP-KP3E-1420	14.2	65	16	48	115		
DSP-KP3E-1430	14.3	65	16	48	115		
DSP-KP3E-1440	14.4	65	16	48	115		
DSP-KP3E-1450	14.5	65	16	48	115	M16×1.5 5/8-18UNF	
DSP-KP3E-1460	14.6	65	16	48	115		
DSP-KP3E-1470	14.7	65	16	48	115		
DSP-KP3E-1480	14.8	65	16	48	115	5/8-24UNEF	
DSP-KP3E-1490	14.9	65	16	48	115		
DSP-KP3E-1500	15.0	65	16	48	115	M16×1	M16×2
DSP-KP3E-1510	15.1	65	16	48	115		
DSP-KP3E-1520	15.2	65	16	48	115		

**DSP-KP3E**

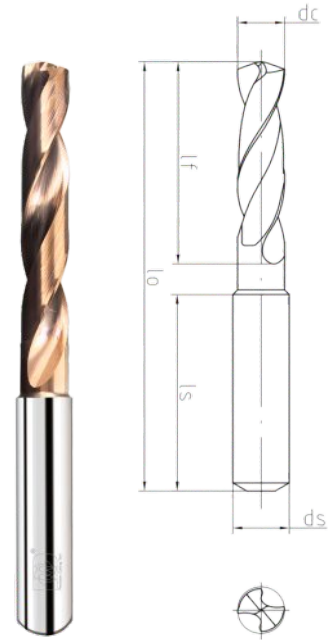
External Cooling Carbide Twist Drills 3D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP3E-1530	15.3	65	16	48	115		
DSP-KP3E-1540	15.4	65	16	48	115		
DSP-KP3E-1550	15.5	65	16	48	115	M18×2.5	
DSP-KP3E-1560	15.6	65	16	48	115		
DSP-KP3E-1570	15.7	65	16	48	115		
DSP-KP3E-1580	15.8	65	16	48	115		
DSP-KP3E-1590	15.9	65	16	48	115		
DSP-KP3E-1600	16.0	65	16	48	115	M18×2	
DSP-KP3E-1610	16.1	73	18	48	123		
DSP-KP3E-1620	16.2	73	18	48	123		
DSP-KP3E-1630	16.3	73	18	48	123		
DSP-KP3E-1640	16.4	73	18	48	123		
DSP-KP3E-1650	16.5	73	18	48	123		
DSP-KP3E-1660	16.6	73	18	48	123	3/4-10UNC	
DSP-KP3E-1670	16.7	73	18	48	123		
DSP-KP3E-1680	16.8	73	18	48	123		
DSP-KP3E-1690	16.9	73	18	48	123		
DSP-KP3E-1700	17.0	73	18	48	123	M18×1	
DSP-KP3E-1710	17.1	73	18	48	123		
DSP-KP3E-1720	17.2	73	18	48	123		
DSP-KP3E-1730	17.3	73	18	48	123		
DSP-KP3E-1740	17.4	73	18	48	123		
DSP-KP3E-1750	17.5	73	18	48	123	M20×2.5 3/4-16UNF	
DSP-KP3E-1760	17.6	73	18	48	123		
DSP-KP3E-1770	17.7	73	18	48	123		
DSP-KP3E-1780	17.8	73	18	48	123	3/4-20UNEF	
DSP-KP3E-1790	17.9	73	18	48	123		
DSP-KP3E-1800	18.0	73	18	48	123	M20×2	
DSP-KP3E-1810	18.1	79	20	50	131		
DSP-KP3E-1820	18.2	79	20	50	131		
DSP-KP3E-1830	18.3	79	20	50	131		
DSP-KP3E-1840	18.4	79	20	50	131		

# DSP-KP3E

External Cooling Carbide Twist Drills 3D Type



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

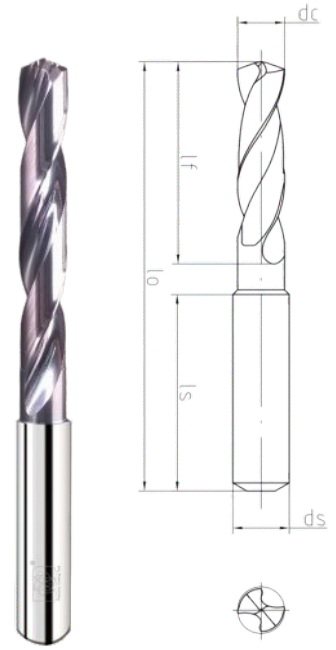
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP3E-1850	18.5	79	20	50	131	M20×1.5	
DSP-KP3E-1860	18.6	79	20	50	131		
DSP-KP3E-1870	18.7	79	20	50	131		
DSP-KP3E-1880	18.8	79	20	50	131		
DSP-KP3E-1890	18.9	79	20	50	131		
DSP-KP3E-1900	19.0	79	20	50	131	M20×1	
DSP-KP3E-1910	19.1	79	20	50	131		
DSP-KP3E-1920	19.2	79	20	50	131		
DSP-KP3E-1930	19.3	79	20	50	131		
DSP-KP3E-1940	19.4	79	20	50	131		
DSP-KP3E-1950	19.5	79	20	50	131		
DSP-KP3E-1960	19.6	79	20	50	131	7/8-9UNC	
DSP-KP3E-1970	19.7	79	20	50	131		
DSP-KP3E-1980	19.8	79	20	50	131		
DSP-KP3E-1990	19.9	79	20	50	131		
DSP-KP3E-2000	20.0	79	20	50	131	M22×2	

# DSP-M3E

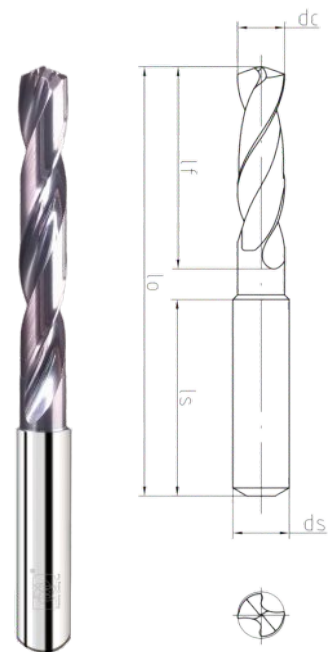
External Cooling Carbide Twist Drills 3D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M3E-0250	2.5	11	4	28	41	M3×0.5	
DSP-M3E-0260	2.6	11	4	28	41		
DSP-M3E-0270	2.7	12	4	28	42	NO.5-44UNF	
DSP-M3E-0280	2.8	12	4	28	42		M3×0.5
DSP-M3E-0290	2.9	12	4	28	42	M3.5×0.6	
DSP-M3E-0300	3.0	20	4	28	54		
DSP-M3E-0310	3.1	20	4	28	54		
DSP-M3E-0320	3.2	20	4	28	54		
DSP-M3E-0330	3.3	20	4	28	54	M4×0.7	
DSP-M3E-0340	3.4	20	4	28	54	NO.8-32UNC	
DSP-M3E-0350	3.5	20	4	28	54	M4×0.5 NO.8-36UNF	
DSP-M3E-0360	3.6	20	4	28	54		
DSP-M3E-0370	3.7	20	4	28	54		M4×0.7
DSP-M3E-0380	3.8	24	4	28	58		M4×0.5
DSP-M3E-0390	3.9	24	4	28	58	NO.10-24UNC	
DSP-M3E-0400	4.0	24	4	28	58		
DSP-M3E-0410	4.1	24	6	36	66	NO10-32UNF	
DSP-M3E-0420	4.2	24	6	36	66	M5×0.8	
DSP-M3E-0430	4.3	24	6	36	66		
DSP-M3E-0440	4.4	24	6	36	66		
DSP-M3E-0450	4.5	24	6	36	66	M5×0.5 NO.12-24UNC	
DSP-M3E-0460	4.6	24	6	36	66	NO.12-28UNF	M5×0.8
DSP-M3E-0470	4.7	24	6	36	66	NO.12-32UNEF	
DSP-M3E-0480	4.8	28	6	36	66		
DSP-M3E-0490	4.9	28	6	36	66		
DSP-M3E-0500	5.0	28	6	36	66	M6×1	
DSP-M3E-0510	5.1	28	6	36	66	1/4-20UNC	
DSP-M3E-0520	5.2	28	6	36	66		
DSP-M3E-0530	5.3	28	6	36	66	M6×0.75	
DSP-M3E-0540	5.4	28	6	36	66		
DSP-M3E-0550	5.5	28	6	36	66	1/4-28UNF	M6×1
DSP-M3E-0560	5.6	28	6	36	66	1/4-32UNEF	

**DSP-M3E**

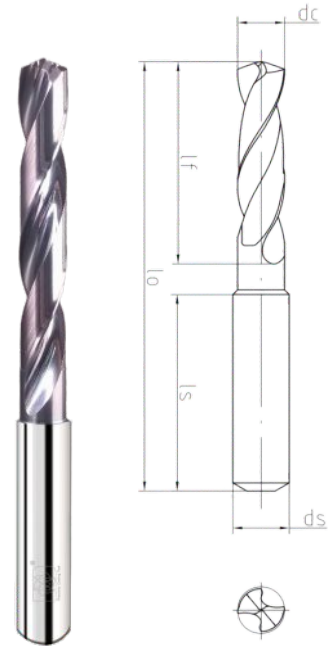
External Cooling Carbide Twist Drills 3D Type

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M3E-0570	5.7	28	6	36	66		
DSP-M3E-0580	5.8	28	6	36	66		
DSP-M3E-0590	5.9	28	6	36	66		
DSP-M3E-0600	6.0	28	6	36	66		
DSP-M3E-0610	6.1	34	8	36	79		
DSP-M3E-0620	6.2	34	8	36	79		
DSP-M3E-0630	6.3	34	8	36	79		
DSP-M3E-0640	6.4	34	8	36	79		
DSP-M3E-0650	6.5	34	8	36	79		
DSP-M3E-0660	6.6	34	8	36	79	5-16-18UNC	
DSP-M3E-0670	6.7	34	8	36	79		
DSP-M3E-0680	6.8	34	8	36	79	M8×1.25	
DSP-M3E-0690	6.9	34	8	36	79	5/16-24UNF	
DSP-M3E-0700	7.0	34	8	36	79	M8×1	
DSP-M3E-0710	7.1	41	8	36	79	5/16-32UNEF	
DSP-M3E-0720	7.2	41	8	36	79		
DSP-M3E-0730	7.3	41	8	36	79	M8×0.75	
DSP-M3E-0740	7.4	41	8	36	79		M8×1.25
DSP-M3E-0750	7.5	41	8	36	79		
DSP-M3E-0760	7.6	41	8	36	79		
DSP-M3E-0770	7.7	41	8	36	79		
DSP-M3E-0780	7.8	41	8	36	79		
DSP-M3E-0790	7.9	41	8	36	79		
DSP-M3E-0800	8.0	41	8	36	79	3/8-16UNC	
DSP-M3E-0810	8.1	47	10	40	89		
DSP-M3E-0820	8.2	47	10	40	89		
DSP-M3E-0830	8.3	47	10	40	89		
DSP-M3E-0840	8.4	47	10	40	89		
DSP-M3E-0850	8.5	47	10	40	89	M10×1.5 3/8-24UNF	
DSP-M3E-0860	8.6	47	10	40	89		
DSP-M3E-0870	8.7	47	10	40	89	3/8-32UNEF	
DSP-M3E-0880	8.8	47	10	40	89	M10×1.25	

# DSP-M3E

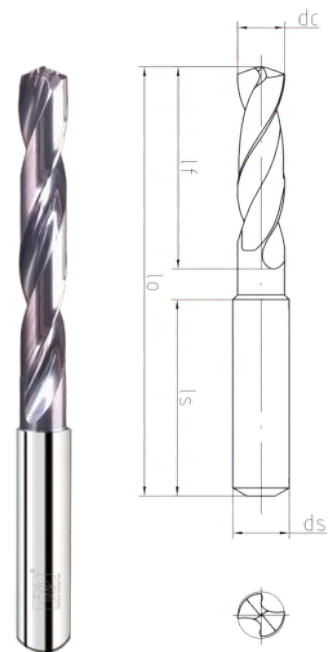
External Cooling Carbide Twist Drills 3D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M3E-0890	8.9	47	10	40	89		
DSP-M3E-0900	9.0	47	10	40	89	M10×1	
DSP-M3E-0910	9.1	47	10	40	89		
DSP-M3E-0920	9.2	47	10	40	89		
DSP-M3E-0930	9.3	47	10	40	89	M10×0.75	M10×1.5
DSP-M3E-0940	9.4	47	10	40	89	7/16-14UNC	
DSP-M3E-0950	9.5	47	10	40	89		
DSP-M3E-0960	9.6	47	10	40	89		
DSP-M3E-0970	9.7	47	10	40	89		
DSP-M3E-0980	9.8	47	10	40	89		
DSP-M3E-0990	9.9	47	10	40	89	7/16-20UNF	
DSP-M3E-1000	10.0	47	10	40	89		
DSP-M3E-1010	10.1	55	12	45	102		
DSP-M3E-1020	10.2	55	12	45	102	7/16-28UNEF	
DSP-M3E-1030	10.3	55	12	45	102	M12×1.75	
DSP-M3E-1040	10.4	55	12	45	102		
DSP-M3E-1050	10.5	55	12	45	102		
DSP-M3E-1060	10.6	55	12	45	102		
DSP-M3E-1070	10.7	55	12	45	102		
DSP-M3E-1080	10.8	55	12	45	102		
DSP-M3E-1090	10.9	55	12	45	102	1/2-13UNC	
DSP-M3E-1100	11.0	55	12	45	102	M12×1	
DSP-M3E-1110	11.1	55	12	45	102		
DSP-M3E-1120	11.2	55	12	45	102		M12×1.75
DSP-M3E-1130	11.3	55	12	45	102		
DSP-M3E-1140	11.4	55	12	45	102		
DSP-M3E-1150	11.5	55	12	45	102	1/2-20UNF	
DSP-M3E-1160	11.6	55	12	45	102		
DSP-M3E-1170	11.7	55	12	45	102		
DSP-M3E-1180	11.8	55	12	45	102	1/2-28UNEF	
DSP-M3E-1190	11.9	55	12	45	102		
DSP-M3E-1200	12.0	55	12	45	102	M14×2	

**DSP-M3E**

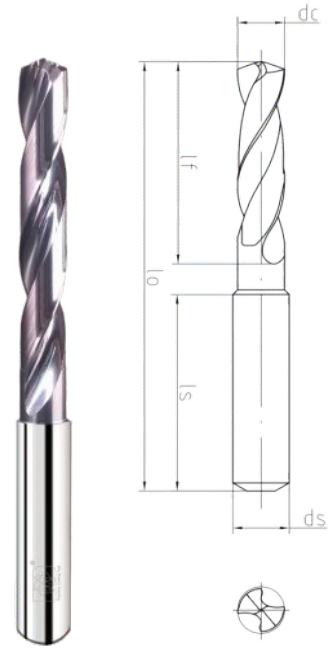
External Cooling Carbide Twist Drills 3D Type

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M3E-1210	12.1	60	14	45	107		
DSP-M3E-1220	12.2	60	14	45	107	9/16-12UNC	
DSP-M3E-1230	12.3	60	14	45	107		
DSP-M3E-1240	12.4	60	14	45	107		
DSP-M3E-1250	12.5	60	14	45	107	M14×1.5	
DSP-M3E-1260	12.6	60	14	45	107		
DSP-M3E-1270	12.7	60	14	45	107		
DSP-M3E-1280	12.8	60	14	45	107		
DSP-M3E-1290	12.9	60	14	45	107	9/16-18UNF	
DSP-M3E-1300	13.0	60	14	45	107	M14×1	M14×2
DSP-M3E-1310	13.1	60	14	45	107		
DSP-M3E-1320	13.2	60	14	45	107	9/16-24UNEF	
DSP-M3E-1330	13.3	60	14	45	107		
DSP-M3E-1340	13.4	60	14	45	107		
DSP-M3E-1350	13.5	60	14	45	107		
DSP-M3E-1360	13.6	60	14	45	107	5/8-11UNC	
DSP-M3E-1370	13.7	60	14	45	107		
DSP-M3E-1380	13.8	60	14	45	107		
DSP-M3E-1390	13.9	60	14	45	107		
DSP-M3E-1400	14.0	60	14	45	107	M16×2	
DSP-M3E-1410	14.1	65	16	48	115		
DSP-M3E-1420	14.2	65	16	48	115		
DSP-M3E-1430	14.3	65	16	48	115		
DSP-M3E-1440	14.4	65	16	48	115		
DSP-M3E-1450	14.5	65	16	48	115	M16×1.5 5/8-18UNF	
DSP-M3E-1460	14.6	65	16	48	115		
DSP-M3E-1470	14.7	65	16	48	115		
DSP-M3E-1480	14.8	65	16	48	115	5/8-24UNEF	
DSP-M3E-1490	14.9	65	16	48	115		
DSP-M3E-1500	15.0	65	16	48	115	M16×1	M16×2
DSP-M3E-1510	15.1	65	16	48	115		
DSP-M3E-1520	15.2	65	16	48	115		

# DSP-M3E

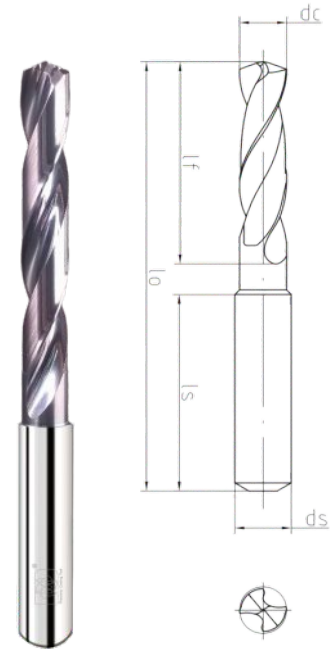
External Cooling Carbide Twist Drills 3D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M3E-1530	15.3	65	16	48	115		
DSP-M3E-1540	15.4	65	16	48	115		
DSP-M3E-1550	15.5	65	16	48	115	M18×2.5	
DSP-M3E-1560	15.6	65	16	48	115		
DSP-M3E-1570	15.7	65	16	48	115		
DSP-M3E-1580	15.8	65	16	48	115		
DSP-M3E-1590	15.9	65	16	48	115		
DSP-M3E-1600	16.0	65	16	48	115	M18×2	
DSP-M3E-1610	16.1	73	18	48	123		
DSP-M3E-1620	16.2	73	18	48	123		
DSP-M3E-1630	16.3	73	18	48	123		
DSP-M3E-1640	16.4	73	18	48	123		
DSP-M3E-1650	16.5	73	18	48	123		
DSP-M3E-1660	16.6	73	18	48	123	3/4-10UNC	
DSP-M3E-1670	16.7	73	18	48	123		
DSP-M3E-1680	16.8	73	18	48	123		
DSP-M3E-1690	16.9	73	18	48	123		
DSP-M3E-1700	17.0	73	18	48	123	M18×1	
DSP-M3E-1710	17.1	73	18	48	123		
DSP-M3E-1720	17.2	73	18	48	123		
DSP-M3E-1730	17.3	73	18	48	123		
DSP-M3E-1740	17.4	73	18	48	123		
DSP-M3E-1750	17.5	73	18	48	123	M20×2.5 3/4-16UNF	
DSP-M3E-1760	17.6	73	18	48	123		
DSP-M3E-1770	17.7	73	18	48	123		
DSP-M3E-1780	17.8	73	18	48	123	3/4-20UNEF	
DSP-M3E-1790	17.9	73	18	48	123		
DSP-M3E-1800	18.0	73	18	48	123	M20×2	
DSP-M3E-1810	18.1	79	20	50	131		
DSP-M3E-1820	18.2	79	20	50	131		
DSP-M3E-1830	18.3	79	20	50	131		
DSP-M3E-1840	18.4	79	20	50	131		

# DSP-M3E

External Cooling Carbide Twist Drills 3D Type



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

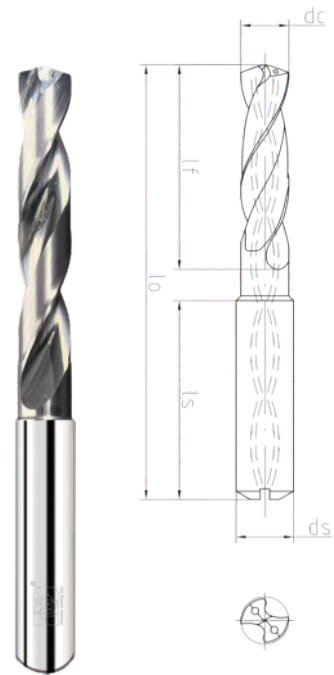
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M3E-1850	18.5	79	20	50	131	M20×1.5	
DSP-M3E-1860	18.6	79	20	50	131		
DSP-M3E-1870	18.7	79	20	50	131		
DSP-M3E-1880	18.8	79	20	50	131		
DSP-M3E-1890	18.9	79	20	50	131		
DSP-M3E-1900	19.0	79	20	50	131	M20×1	
DSP-M3E-1910	19.1	79	20	50	131		
DSP-M3E-1920	19.2	79	20	50	131		
DSP-M3E-1930	19.3	79	20	50	131		
DSP-M3E-1940	19.4	79	20	50	131		
DSP-M3E-1950	19.5	79	20	50	131		
DSP-M3E-1960	19.6	79	20	50	131	7/8-9UNC	
DSP-M3E-1970	19.7	79	20	50	131		
DSP-M3E-1980	19.8	79	20	50	131		
DSP-M3E-1990	19.9	79	20	50	131		
DSP-M3E-2000	20.0	79	20	50	131	M22×2	

**DSP-N3I**

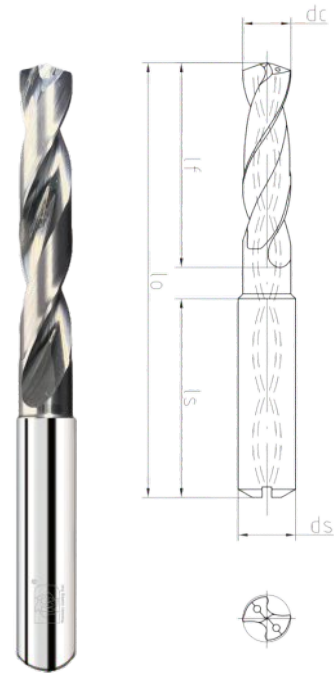
Internal Cooling Carbide Twist Drills 3D Type



Ord. No.	$\phi\text{-}d_c$	$L_f$	$d_s$	$L_s$	$L_o$	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-N3I-0250	2.5	11	4	28	41	M3×0.5	
DSP-N3I-0260	2.6	11	4	28	41		
DSP-N3I-0270	2.7	12	4	28	42	NO.5-44UNF	
DSP-N3I-0280	2.8	12	4	28	42		M3×0.5
DSP-N3I-0290	2.9	12	4	28	42	M3.5×0.6	
DSP-N3I-0300	3.0	20	4	28	54		
DSP-N3I-0310	3.1	20	4	28	54		
DSP-N3I-0320	3.2	20	4	28	54		
DSP-N3I-0330	3.3	20	4	28	54	M4×0.7	
DSP-N3I-0340	3.4	20	4	28	54	NO.8-32UNC	
DSP-N3I-0350	3.5	20	4	28	54	M4×0.5 NO.8-36UNF	
DSP-N3I-0360	3.6	20	4	28	54		
DSP-N3I-0370	3.7	20	4	28	54		M4×0.7
DSP-N3I-0380	3.8	24	4	28	58		M4×0.5
DSP-N3I-0390	3.9	24	4	28	58	NO.10-24UNC	
DSP-N3I-0400	4.0	24	4	28	58		
DSP-N3I-0410	4.1	24	6	36	66	NO10-32UNF	
DSP-N3I-0420	4.2	24	6	36	66	M5×0.8	
DSP-N3I-0430	4.3	24	6	36	66		
DSP-N3I-0440	4.4	24	6	36	66		
DSP-N3I-0450	4.5	24	6	36	66	M5×0.5 NO.12-24UNC	
DSP-N3I-0460	4.6	24	6	36	66	NO.12-28UNF	M5×0.8
DSP-N3I-0470	4.7	24	6	36	66	NO.12-32UNIF	
DSP-N3I-0480	4.8	28	6	36	66		
DSP-N3I-0490	4.9	28	6	36	66		
DSP-N3I-0500	5.0	28	6	36	66	M6×1	
DSP-N3I-0510	5.1	28	6	36	66	1/4-20UNC	
DSP-N3I-0520	5.2	28	6	36	66		
DSP-N3I-0530	5.3	28	6	36	66	M6×0.75	
DSP-N3I-0540	5.4	28	6	36	66		
DSP-N3I-0550	5.5	28	6	36	66	1/4-28UNF	M6×1
DSP-N3I-0560	5.6	28	6	36	66	1/4-32UNIF	

**DSP-N3I**

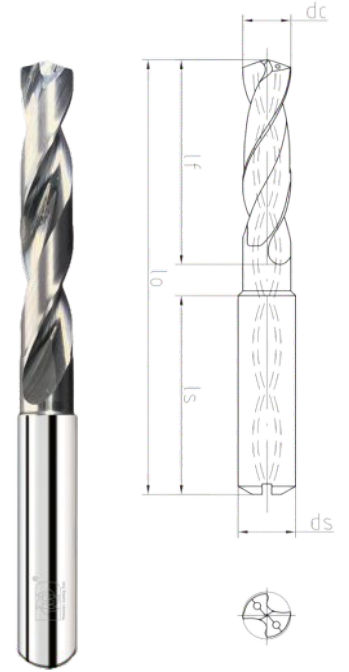
Internal Cooling Carbide Twist Drills 3D Type

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

Ord. No.	$\Phi \cdot dc$	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-N3I-0570	5.7	28	6	36	66		
DSP-N3I-0580	5.8	28	6	36	66		
DSP-N3I-0590	5.9	28	6	36	66		
DSP-N3I-0600	6.0	28	6	36	66		
DSP-N3I-0610	6.1	34	8	36	79		
DSP-N3I-0620	6.2	34	8	36	79		
DSP-N3I-0630	6.3	34	8	36	79		
DSP-N3I-0640	6.4	34	8	36	79		
DSP-N3I-0650	6.5	34	8	36	79		
DSP-N3I-0660	6.6	34	8	36	79	5-16-18UNC	
DSP-N3I-0670	6.7	34	8	36	79		
DSP-N3I-0680	6.8	34	8	36	79	M8×1.25	
DSP-N3I-0690	6.9	34	8	36	79	5/16-24UNF	
DSP-N3I-0700	7.0	34	8	36	79	M8×1	
DSP-N3I-0710	7.1	41	8	36	79	5/16-32UNIF	
DSP-N3I-0720	7.2	41	8	36	79		
DSP-N3I-0730	7.3	41	8	36	79	M8×0.75	
DSP-N3I-0740	7.4	41	8	36	79		M8×1.25
DSP-N3I-0750	7.5	41	8	36	79		
DSP-N3I-0760	7.6	41	8	36	79		
DSP-N3I-0770	7.7	41	8	36	79		
DSP-N3I-0780	7.8	41	8	36	79		
DSP-N3I-0790	7.9	41	8	36	79		
DSP-N3I-0800	8.0	41	8	36	79	3/8-16UNC	
DSP-N3I-0810	8.1	47	10	40	89		
DSP-N3I-0820	8.2	47	10	40	89		
DSP-N3I-0830	8.3	47	10	40	89		
DSP-N3I-0840	8.4	47	10	40	89		
DSP-N3I-0850	8.5	47	10	40	89	M10×1.5 3/8-24UNF	
DSP-N3I-0860	8.6	47	10	40	89		
DSP-N3I-0870	8.7	47	10	40	89	3/8-32UNIF	
DSP-N3I-0880	8.8	47	10	40	89	M10×1.25	

# DSP-N3I

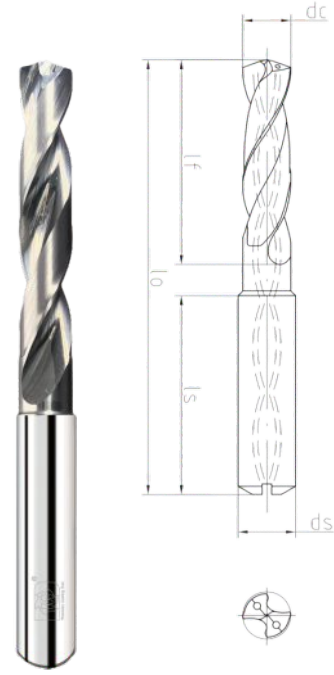
Internal Cooling Carbide Twist Drills 3D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-N3I-0890	8.9	47	10	40	89		
DSP-N3I-0900	9.0	47	10	40	89	M10×1	
DSP-N3I-0910	9.1	47	10	40	89		
DSP-N3I-0920	9.2	47	10	40	89		
DSP-N3I-0930	9.3	47	10	40	89	M10×0.75	M10×1.5
DSP-N3I-0940	9.4	47	10	40	89	7/16-14UNC	
DSP-N3I-0950	9.5	47	10	40	89		
DSP-N3I-0960	9.6	47	10	40	89		
DSP-N3I-0970	9.7	47	10	40	89		
DSP-N3I-0980	9.8	47	10	40	89		
DSP-N3I-0990	9.9	47	10	40	89	7/16-20UNF	
DSP-N3I-1000	10.0	47	10	40	89		
DSP-N3I-1010	10.1	55	12	45	102		
DSP-N3I-1020	10.2	55	12	45	102	7/16-28UNIF	
DSP-N3I-1030	10.3	55	12	45	102	M12×1.75	
DSP-N3I-1040	10.4	55	12	45	102		
DSP-N3I-1050	10.5	55	12	45	102		
DSP-N3I-1060	10.6	55	12	45	102		
DSP-N3I-1070	10.7	55	12	45	102		
DSP-N3I-1080	10.8	55	12	45	102		
DSP-N3I-1090	10.9	55	12	45	102	1/2-13UNC	
DSP-N3I-1100	11.0	55	12	45	102	M12×1	
DSP-N3I-1110	11.1	55	12	45	102		
DSP-N3I-1120	11.2	55	12	45	102		M12×1.75
DSP-N3I-1130	11.3	55	12	45	102		
DSP-N3I-1140	11.4	55	12	45	102		
DSP-N3I-1150	11.5	55	12	45	102	1/2-20UNF	
DSP-N3I-1160	11.6	55	12	45	102		
DSP-N3I-1170	11.7	55	12	45	102		
DSP-N3I-1180	11.8	55	12	45	102	1/2-28UNIF	
DSP-N3I-1190	11.9	55	12	45	102		
DSP-N3I-1200	12.0	55	12	45	102	M14×2	

# DSP-N3I

Internal Cooling Carbide Twist Drills 3D Type



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

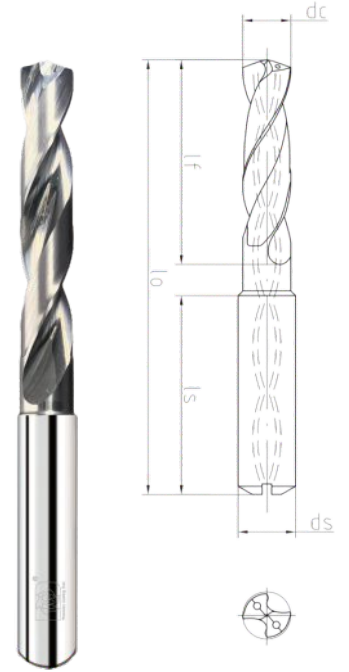
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-N3I-1210	12.1	60	14	45	107		
DSP-N3I-1220	12.2	60	14	45	107	9/16-12UNC	
DSP-N3I-1230	12.3	60	14	45	107		
DSP-N3I-1240	12.4	60	14	45	107		
DSP-N3I-1250	12.5	60	14	45	107	M14×1.5	
DSP-N3I-1260	12.6	60	14	45	107		
DSP-N3I-1270	12.7	60	14	45	107		
DSP-N3I-1280	12.8	60	14	45	107		
DSP-N3I-1290	12.9	60	14	45	107	9/16-18UNF	
DSP-N3I-1300	13.0	60	14	45	107	M14×1	M14×2
DSP-N3I-1310	13.1	60	14	45	107		
DSP-N3I-1320	13.2	60	14	45	107	9/16-24UNIF	
DSP-N3I-1330	13.3	60	14	45	107		
DSP-N3I-1340	13.4	60	14	45	107		
DSP-N3I-1350	13.5	60	14	45	107		
DSP-N3I-1360	13.6	60	14	45	107	5/8-11UNC	
DSP-N3I-1370	13.7	60	14	45	107		
DSP-N3I-1380	13.8	60	14	45	107		
DSP-N3I-1390	13.9	60	14	45	107		
DSP-N3I-1400	14.0	60	14	45	107	M16×2	
DSP-N3I-1410	14.1	65	16	48	115		
DSP-N3I-1420	14.2	65	16	48	115		
DSP-N3I-1430	14.3	65	16	48	115		
DSP-N3I-1440	14.4	65	16	48	115		
DSP-N3I-1450	14.5	65	16	48	115	M16×1.5 5/8-18UNF	
DSP-N3I-1460	14.6	65	16	48	115		
DSP-N3I-1470	14.7	65	16	48	115		
DSP-N3I-1480	14.8	65	16	48	115	5/8-24UNIF	
DSP-N3I-1490	14.9	65	16	48	115		
DSP-N3I-1500	15.0	65	16	48	115	M16×1	M16×2
DSP-N3I-1510	15.1	65	16	48	115		
DSP-N3I-1520	15.2	65	16	48	115		

# DSP-N3I

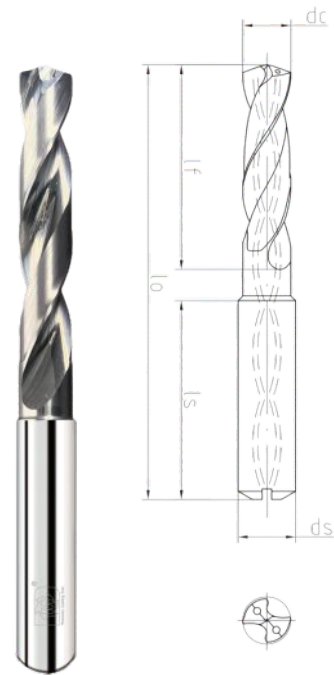
Internal Cooling Carbide Twist Drills 3D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-N3I-1530	15.3	65	16	48	115		
DSP-N3I-1540	15.4	65	16	48	115		
DSP-N3I-1550	15.5	65	16	48	115	M18×2.5	
DSP-N3I-1560	15.6	65	16	48	115		
DSP-N3I-1570	15.7	65	16	48	115		
DSP-N3I-1580	15.8	65	16	48	115		
DSP-N3I-1590	15.9	65	16	48	115		
DSP-N3I-1600	16.0	65	16	48	115	M18×2	
DSP-N3I-1610	16.1	73	18	48	123		
DSP-N3I-1620	16.2	73	18	48	123		
DSP-N3I-1630	16.3	73	18	48	123		
DSP-N3I-1640	16.4	73	18	48	123		
DSP-N3I-1650	16.5	73	18	48	123		
DSP-N3I-1660	16.6	73	18	48	123	3/4-10UNC	
DSP-N3I-1670	16.7	73	18	48	123		
DSP-N3I-1680	16.8	73	18	48	123		
DSP-N3I-1690	16.9	73	18	48	123		
DSP-N3I-1700	17.0	73	18	48	123	M18×1	
DSP-N3I-1710	17.1	73	18	48	123		
DSP-N3I-1720	17.2	73	18	48	123		
DSP-N3I-1730	17.3	73	18	48	123		
DSP-N3I-1740	17.4	73	18	48	123		
DSP-N3I-1750	17.5	73	18	48	123	M20×2.5 3/4-16UNF	
DSP-N3I-1760	17.6	73	18	48	123		
DSP-N3I-1770	17.7	73	18	48	123		
DSP-N3I-1780	17.8	73	18	48	123	3/4-20UNIF	
DSP-N3I-1790	17.9	73	18	48	123		
DSP-N3I-1800	18.0	73	18	48	123	M20×2	
DSP-N3I-1810	18.1	79	20	50	131		
DSP-N3I-1820	18.2	79	20	50	131		
DSP-N3I-1830	18.3	79	20	50	131		
DSP-N3I-1840	18.4	79	20	50	131		

**DSP-N3I**

Internal Cooling Carbide Twist Drills 3D Type

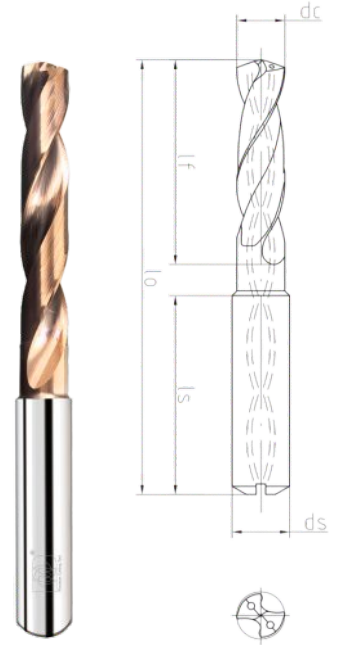


Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-N3I-1850	18.5	79	20	50	131	M20×1.5	
DSP-N3I-1860	18.6	79	20	50	131		
DSP-N3I-1870	18.7	79	20	50	131		
DSP-N3I-1880	18.8	79	20	50	131		
DSP-N3I-1890	18.9	79	20	50	131		
DSP-N3I-1900	19.0	79	20	50	131	M20×1	
DSP-N3I-1910	19.1	79	20	50	131		
DSP-N3I-1920	19.2	79	20	50	131		
DSP-N3I-1930	19.3	79	20	50	131		
DSP-N3I-1940	19.4	79	20	50	131		
DSP-N3I-1950	19.5	79	20	50	131		
DSP-N3I-1960	19.6	79	20	50	131	7/8-9UNC	
DSP-N3I-1970	19.7	79	20	50	131		
DSP-N3I-1980	19.8	79	20	50	131		
DSP-N3I-1990	19.9	79	20	50	131		
DSP-N3I-2000	20.0	79	20	50	131	M22×2	

CARBIDE  
DRILLSCARBIDE  
MILLING  
CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING  
CUTTERSCARBIDE TURNING  
& BORING  
TOOLS

# DSP-KP3I

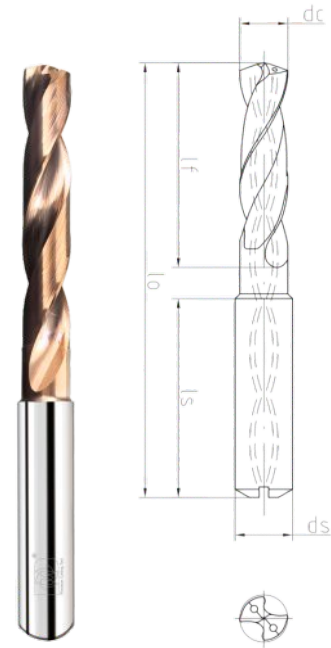
Internal Cooling Carbide Twist Drills 3D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP3I-0250	2.5	11	4	28	41	M3×0.5	
DSP-KP3I-0260	2.6	11	4	28	41		
DSP-KP3I-0270	2.7	12	4	28	42	NO.5-44UNF	
DSP-KP3I-0280	2.8	12	4	28	42		M3×0.5
DSP-KP3I-0290	2.9	12	4	28	42	M3.5×0.6	
DSP-KP3I-0300	3.0	20	4	28	54		
DSP-KP3I-0310	3.1	20	4	28	54		
DSP-KP3I-0320	3.2	20	4	28	54		
DSP-KP3I-0330	3.3	20	4	28	54	M4×0.7	
DSP-KP3I-0340	3.4	20	4	28	54	NO.8-32UNC	
DSP-KP3I-0350	3.5	20	4	28	54	M4×0.5 NO.8-36UNF	
DSP-KP3I-0360	3.6	20	4	28	54		
DSP-KP3I-0370	3.7	20	4	28	54		M4×0.7
DSP-KP3I-0380	3.8	24	4	28	58		M4×0.5
DSP-KP3I-0390	3.9	24	4	28	58	NO.10-24UNC	
DSP-KP3I-0400	4.0	24	4	28	58		
DSP-KP3I-0410	4.1	24	6	36	66	NO10-32UNF	
DSP-KP3I-0420	4.2	24	6	36	66	M5×0.8	
DSP-KP3I-0430	4.3	24	6	36	66		
DSP-KP3I-0440	4.4	24	6	36	66		
DSP-KP3I-0450	4.5	24	6	36	66	M5×0.5 NO.12-24UNC	
DSP-KP3I-0460	4.6	24	6	36	66	NO.12-28UNF	M5×0.8
DSP-KP3I-0470	4.7	24	6	36	66	NO.12-32UNIF	
DSP-KP3I-0480	4.8	28	6	36	66		
DSP-KP3I-0490	4.9	28	6	36	66		
DSP-KP3I-0500	5.0	28	6	36	66	M6×1	
DSP-KP3I-0510	5.1	28	6	36	66	1/4-20UNC	
DSP-KP3I-0520	5.2	28	6	36	66		
DSP-KP3I-0530	5.3	28	6	36	66	M6×0.75	
DSP-KP3I-0540	5.4	28	6	36	66		
DSP-KP3I-0550	5.5	28	6	36	66	1/4-28UNF	M6×1
DSP-KP3I-0560	5.6	28	6	36	66	1/4-32UNIF	

**DSP-KP3I**

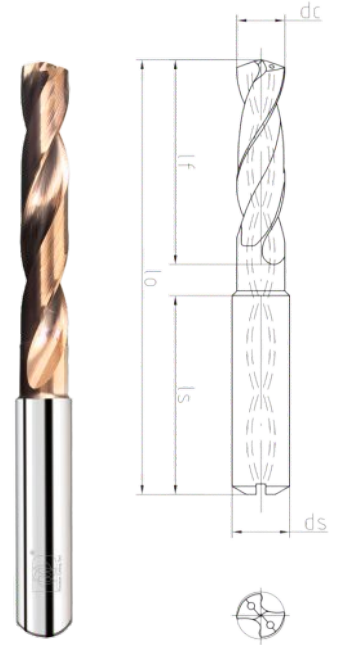
Internal Cooling Carbide Twist Drills 3D Type

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP3I-0570	5.7	28	6	36	66		
DSP-KP3I-0580	5.8	28	6	36	66		
DSP-KP3I-0590	5.9	28	6	36	66		
DSP-KP3I-0600	6.0	28	6	36	66		
DSP-KP3I-0610	6.1	34	8	36	79		
DSP-KP3I-0620	6.2	34	8	36	79		
DSP-KP3I-0630	6.3	34	8	36	79		
DSP-KP3I-0640	6.4	34	8	36	79		
DSP-KP3I-0650	6.5	34	8	36	79		
DSP-KP3I-0660	6.6	34	8	36	79	5-16-18UNC	
DSP-KP3I-0670	6.7	34	8	36	79		
DSP-KP3I-0680	6.8	34	8	36	79	M8×1.25	
DSP-KP3I-0690	6.9	34	8	36	79	5/16-24UNF	
DSP-KP3I-0700	7.0	34	8	36	79	M8×1	
DSP-KP3I-0710	7.1	41	8	36	79	5/16-32UNIF	
DSP-KP3I-0720	7.2	41	8	36	79		
DSP-KP3I-0730	7.3	41	8	36	79	M8×0.75	
DSP-KP3I-0740	7.4	41	8	36	79		M8×1.25
DSP-KP3I-0750	7.5	41	8	36	79		
DSP-KP3I-0760	7.6	41	8	36	79		
DSP-KP3I-0770	7.7	41	8	36	79		
DSP-KP3I-0780	7.8	41	8	36	79		
DSP-KP3I-0790	7.9	41	8	36	79		
DSP-KP3I-0800	8.0	41	8	36	79	3/8-16UNC	
DSP-KP3I-0810	8.1	47	10	40	89		
DSP-KP3I-0820	8.2	47	10	40	89		
DSP-KP3I-0830	8.3	47	10	40	89		
DSP-KP3I-0840	8.4	47	10	40	89		
DSP-KP3I-0850	8.5	47	10	40	89	M10×1.5 3/8-24UNF	
DSP-KP3I-0860	8.6	47	10	40	89		
DSP-KP3I-0870	8.7	47	10	40	89	3/8-32UNIF	
DSP-KP3I-0880	8.8	47	10	40	89	M10×1.25	

# DSP-KP3I

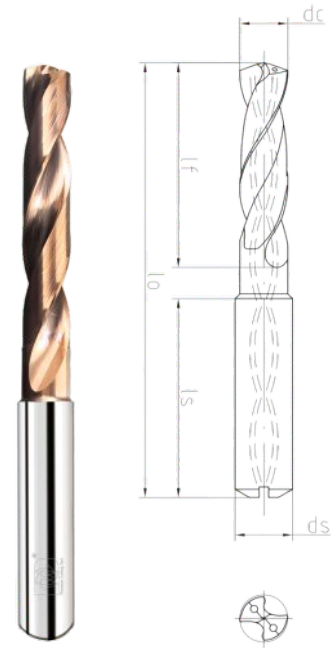
Internal Cooling Carbide Twist Drills 3D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP3I-0890	8.9	47	10	40	89		
DSP-KP3I-0900	9.0	47	10	40	89	M10×1	
DSP-KP3I-0910	9.1	47	10	40	89		
DSP-KP3I-0920	9.2	47	10	40	89		
DSP-KP3I-0930	9.3	47	10	40	89	M10×0.75	M10×1.5
DSP-KP3I-0940	9.4	47	10	40	89	7/16-14UNC	
DSP-KP3I-0950	9.5	47	10	40	89		
DSP-KP3I-0960	9.6	47	10	40	89		
DSP-KP3I-0970	9.7	47	10	40	89		
DSP-KP3I-0980	9.8	47	10	40	89		
DSP-KP3I-0990	9.9	47	10	40	89	7/16-20UNF	
DSP-KP3I-1000	10.0	47	10	40	89		
DSP-KP3I-1010	10.1	55	12	45	102		
DSP-KP3I-1020	10.2	55	12	45	102	7/16-28UNIF	
DSP-KP3I-1030	10.3	55	12	45	102	M12×1.75	
DSP-KP3I-1040	10.4	55	12	45	102		
DSP-KP3I-1050	10.5	55	12	45	102		
DSP-KP3I-1060	10.6	55	12	45	102		
DSP-KP3I-1070	10.7	55	12	45	102		
DSP-KP3I-1080	10.8	55	12	45	102		
DSP-KP3I-1090	10.9	55	12	45	102	1/2-13UNC	
DSP-KP3I-1100	11.0	55	12	45	102	M12×1	
DSP-KP3I-1110	11.1	55	12	45	102		
DSP-KP3I-1120	11.2	55	12	45	102		M12×1.75
DSP-KP3I-1130	11.3	55	12	45	102		
DSP-KP3I-1140	11.4	55	12	45	102		
DSP-KP3I-1150	11.5	55	12	45	102	1/2-20UNF	
DSP-KP3I-1160	11.6	55	12	45	102		
DSP-KP3I-1170	11.7	55	12	45	102		
DSP-KP3I-1180	11.8	55	12	45	102	1/2-28UNIF	
DSP-KP3I-1190	11.9	55	12	45	102		
DSP-KP3I-1200	12.0	55	12	45	102	M14×2	

# DSP-KP3I

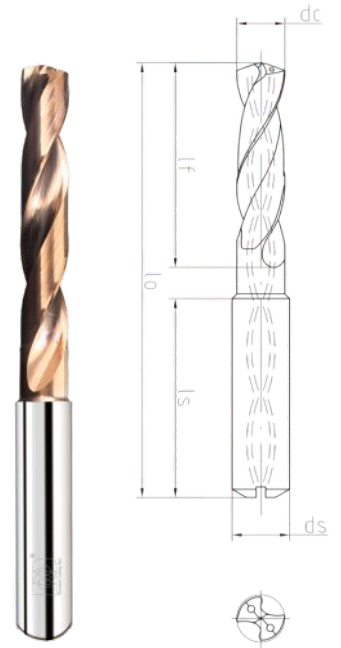
Internal Cooling Carbide Twist Drills 3D Type

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP3I-1210	12.1	60	14	45	107		
DSP-KP3I-1220	12.2	60	14	45	107	9/16-12UNC	
DSP-KP3I-1230	12.3	60	14	45	107		
DSP-KP3I-1240	12.4	60	14	45	107		
DSP-KP3I-1250	12.5	60	14	45	107	M14×1.5	
DSP-KP3I-1260	12.6	60	14	45	107		
DSP-KP3I-1270	12.7	60	14	45	107		
DSP-KP3I-1280	12.8	60	14	45	107		
DSP-KP3I-1290	12.9	60	14	45	107	9/16-18UNF	
DSP-KP3I-1300	13.0	60	14	45	107	M14×1	M14×2
DSP-KP3I-1310	13.1	60	14	45	107		
DSP-KP3I-1320	13.2	60	14	45	107	9/16-24UNIF	
DSP-KP3I-1330	13.3	60	14	45	107		
DSP-KP3I-1340	13.4	60	14	45	107		
DSP-KP3I-1350	13.5	60	14	45	107		
DSP-KP3I-1360	13.6	60	14	45	107	5/8-11UNC	
DSP-KP3I-1370	13.7	60	14	45	107		
DSP-KP3I-1380	13.8	60	14	45	107		
DSP-KP3I-1390	13.9	60	14	45	107		
DSP-KP3I-1400	14.0	60	14	45	107	M16×2	
DSP-KP3I-1410	14.1	65	16	48	115		
DSP-KP3I-1420	14.2	65	16	48	115		
DSP-KP3I-1430	14.3	65	16	48	115		
DSP-KP3I-1440	14.4	65	16	48	115		
DSP-KP3I-1450	14.5	65	16	48	115	M16×1.5 5/8-18UNF	
DSP-KP3I-1460	14.6	65	16	48	115		
DSP-KP3I-1470	14.7	65	16	48	115		
DSP-KP3I-1480	14.8	65	16	48	115	5/8-24UNIF	
DSP-KP3I-1490	14.9	65	16	48	115		
DSP-KP3I-1500	15.0	65	16	48	115	M16×1	M16×2
DSP-KP3I-1510	15.1	65	16	48	115		
DSP-KP3I-1520	15.2	65	16	48	115		

**DSP-KP3I**

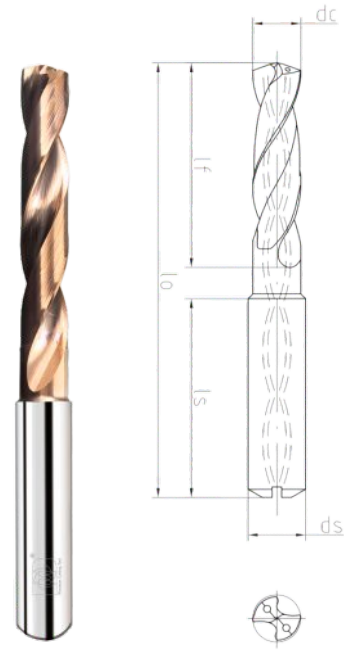
Internal Cooling Carbide Twist Drills 3D Type



Ord. No.	$\Phi \cdot dc$	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP3I-1530	15.3	65	16	48	115		
DSP-KP3I-1540	15.4	65	16	48	115		
DSP-KP3I-1550	15.5	65	16	48	115	M18×2.5	
DSP-KP3I-1560	15.6	65	16	48	115		
DSP-KP3I-1570	15.7	65	16	48	115		
DSP-KP3I-1580	15.8	65	16	48	115		
DSP-KP3I-1590	15.9	65	16	48	115		
DSP-KP3I-1600	16.0	65	16	48	115	M18×2	
DSP-KP3I-1610	16.1	73	18	48	123		
DSP-KP3I-1620	16.2	73	18	48	123		
DSP-KP3I-1630	16.3	73	18	48	123		
DSP-KP3I-1640	16.4	73	18	48	123		
DSP-KP3I-1650	16.5	73	18	48	123		
DSP-KP3I-1660	16.6	73	18	48	123	3/4-10UNC	
DSP-KP3I-1670	16.7	73	18	48	123		
DSP-KP3I-1680	16.8	73	18	48	123		
DSP-KP3I-1690	16.9	73	18	48	123		
DSP-KP3I-1700	17.0	73	18	48	123	M18×1	
DSP-KP3I-1710	17.1	73	18	48	123		
DSP-KP3I-1720	17.2	73	18	48	123		
DSP-KP3I-1730	17.3	73	18	48	123		
DSP-KP3I-1740	17.4	73	18	48	123		
DSP-KP3I-1750	17.5	73	18	48	123	M20×2.5 3/4-16UNF	
DSP-KP3I-1760	17.6	73	18	48	123		
DSP-KP3I-1770	17.7	73	18	48	123		
DSP-KP3I-1780	17.8	73	18	48	123	3/4-20UNIF	
DSP-KP3I-1790	17.9	73	18	48	123		
DSP-KP3I-1800	18.0	73	18	48	123	M20×2	
DSP-KP3I-1810	18.1	79	20	50	131		
DSP-KP3I-1820	18.2	79	20	50	131		
DSP-KP3I-1830	18.3	79	20	50	131		
DSP-KP3I-1840	18.4	79	20	50	131		

# DSP-KP3I

Internal Cooling Carbide Twist Drills 3D Type



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

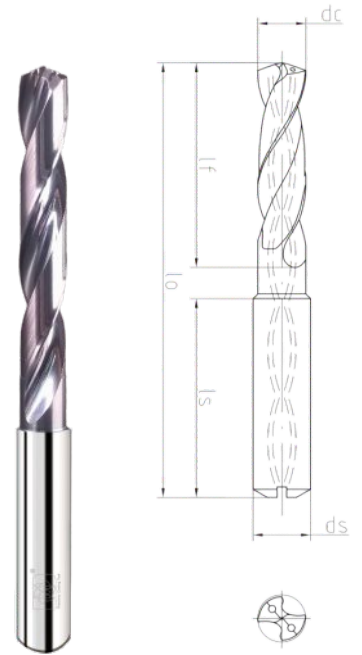
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP3I-1850	18.5	79	20	50	131	M20×1.5	
DSP-KP3I-1860	18.6	79	20	50	131		
DSP-KP3I-1870	18.7	79	20	50	131		
DSP-KP3I-1880	18.8	79	20	50	131		
DSP-KP3I-1890	18.9	79	20	50	131		
DSP-KP3I-1900	19.0	79	20	50	131	M20×1	
DSP-KP3I-1910	19.1	79	20	50	131		
DSP-KP3I-1920	19.2	79	20	50	131		
DSP-KP3I-1930	19.3	79	20	50	131		
DSP-KP3I-1940	19.4	79	20	50	131		
DSP-KP3I-1950	19.5	79	20	50	131		
DSP-KP3I-1960	19.6	79	20	50	131	7/8-9UNC	
DSP-KP3I-1970	19.7	79	20	50	131		
DSP-KP3I-1980	19.8	79	20	50	131		
DSP-KP3I-1990	19.9	79	20	50	131		
DSP-KP3I-2000	20.0	79	20	50	131	M22×2	

**DSP-M3I**

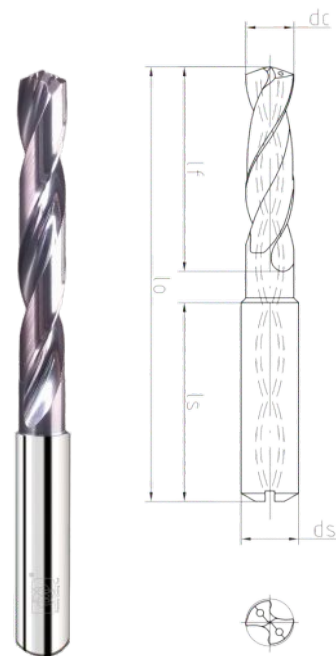
Internal Cooling Carbide Twist Drills 3D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M3I-0250	2.5	11	4	28	41	M3×0.5	
DSP-M3I-0260	2.6	11	4	28	41		
DSP-M3I-0270	2.7	12	4	28	42	NO.5-44UNF	
DSP-M3I-0280	2.8	12	4	28	42		M3×0.5
DSP-M3I-0290	2.9	12	4	28	42	M3.5×0.6	
DSP-M3I-0300	3.0	20	4	28	54		
DSP-M3I-0310	3.1	20	4	28	54		
DSP-M3I-0320	3.2	20	4	28	54		
DSP-M3I-0330	3.3	20	4	28	54	M4×0.7	
DSP-M3I-0340	3.4	20	4	28	54	NO.8-32UNC	
DSP-M3I-0350	3.5	20	4	28	54	M4×0.5 NO.8-36UNF	
DSP-M3I-0360	3.6	20	4	28	54		
DSP-M3I-0370	3.7	20	4	28	54		M4×0.7
DSP-M3I-0380	3.8	24	4	28	58		M4×0.5
DSP-M3I-0390	3.9	24	4	28	58	NO.10-24UNC	
DSP-M3I-0400	4.0	24	4	28	58		
DSP-M3I-0410	4.1	24	6	36	66	NO10-32UNF	
DSP-M3I-0420	4.2	24	6	36	66	M5×0.8	
DSP-M3I-0430	4.3	24	6	36	66		
DSP-M3I-0440	4.4	24	6	36	66		
DSP-M3I-0450	4.5	24	6	36	66	M5×0.5 NO.12-24UNC	
DSP-M3I-0460	4.6	24	6	36	66	NO.12-28UNF	M5×0.8
DSP-M3I-0470	4.7	24	6	36	66	NO.12-32UNIF	
DSP-M3I-0480	4.8	28	6	36	66		
DSP-M3I-0490	4.9	28	6	36	66		
DSP-M3I-0500	5.0	28	6	36	66	M6×1	
DSP-M3I-0510	5.1	28	6	36	66	1/4-20UNC	
DSP-M3I-0520	5.2	28	6	36	66		
DSP-M3I-0530	5.3	28	6	36	66	M6×0.75	
DSP-M3I-0540	5.4	28	6	36	66		
DSP-M3I-0550	5.5	28	6	36	66	1/4-28UNF	M6×1
DSP-M3I-0560	5.6	28	6	36	66	1/4-32UNIF	

**DSP-M3I**

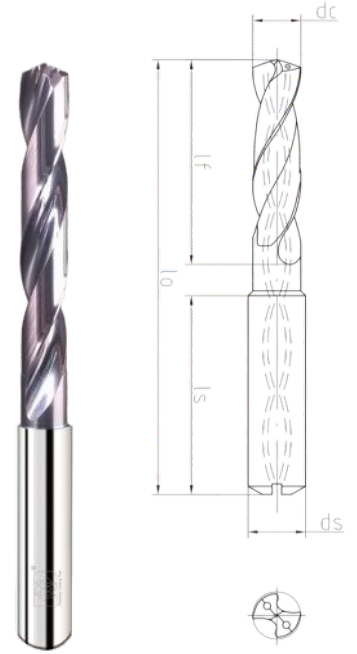
Internal Cooling Carbide Twist Drills 3D Type

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M3I-0570	5.7	28	6	36	66		
DSP-M3I-0580	5.8	28	6	36	66		
DSP-M3I-0590	5.9	28	6	36	66		
DSP-M3I-0600	6.0	28	6	36	66		
DSP-M3I-0610	6.1	34	8	36	79		
DSP-M3I-0620	6.2	34	8	36	79		
DSP-M3I-0630	6.3	34	8	36	79		
DSP-M3I-0640	6.4	34	8	36	79		
DSP-M3I-0650	6.5	34	8	36	79		
DSP-M3I-0660	6.6	34	8	36	79	5-16-18UNC	
DSP-M3I-0670	6.7	34	8	36	79		
DSP-M3I-0680	6.8	34	8	36	79	M8×1.25	
DSP-M3I-0690	6.9	34	8	36	79	5/16-24UNF	
DSP-M3I-0700	7.0	34	8	36	79	M8×1	
DSP-M3I-0710	7.1	41	8	36	79	5/16-32UNIF	
DSP-M3I-0720	7.2	41	8	36	79		
DSP-M3I-0730	7.3	41	8	36	79	M8×0.75	
DSP-M3I-0740	7.4	41	8	36	79		M8×1.25
DSP-M3I-0750	7.5	41	8	36	79		
DSP-M3I-0760	7.6	41	8	36	79		
DSP-M3I-0770	7.7	41	8	36	79		
DSP-M3I-0780	7.8	41	8	36	79		
DSP-M3I-0790	7.9	41	8	36	79		
DSP-M3I-0800	8.0	41	8	36	79	3/8-16UNC	
DSP-M3I-0810	8.1	47	10	40	89		
DSP-M3I-0820	8.2	47	10	40	89		
DSP-M3I-0830	8.3	47	10	40	89		
DSP-M3I-0840	8.4	47	10	40	89		
DSP-M3I-0850	8.5	47	10	40	89	M10×1.5 3/8-24UNF	
DSP-M3I-0860	8.6	47	10	40	89		
DSP-M3I-0870	8.7	47	10	40	89	3/8-32UNIF	
DSP-M3I-0880	8.8	47	10	40	89	M10×1.25	

**DSP-M3I**

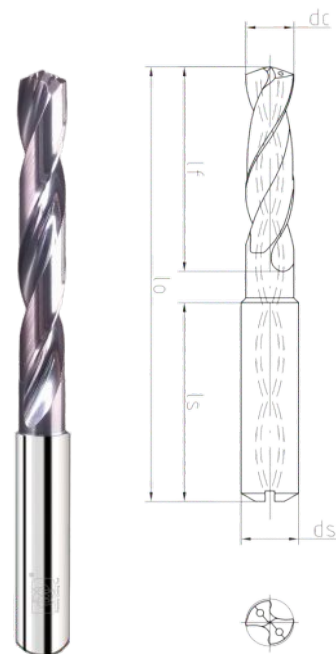
Internal Cooling Carbide Twist Drills 3D Type



Ord. No.	$\Phi \cdot dc$	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M3I-0890	8.9	47	10	40	89		
DSP-M3I-0900	9.0	47	10	40	89	M10×1	
DSP-M3I-0910	9.1	47	10	40	89		
DSP-M3I-0920	9.2	47	10	40	89		
DSP-M3I-0930	9.3	47	10	40	89	M10×0.75	M10×1.5
DSP-M3I-0940	9.4	47	10	40	89	7/16-14UNC	
DSP-M3I-0950	9.5	47	10	40	89		
DSP-M3I-0960	9.6	47	10	40	89		
DSP-M3I-0970	9.7	47	10	40	89		
DSP-M3I-0980	9.8	47	10	40	89		
DSP-M3I-0990	9.9	47	10	40	89	7/16-20UNF	
DSP-M3I-1000	10.0	47	10	40	89		
DSP-M3I-1010	10.1	55	12	45	102		
DSP-M3I-1020	10.2	55	12	45	102	7/16-28UNIF	
DSP-M3I-1030	10.3	55	12	45	102	M12×1.75	
DSP-M3I-1040	10.4	55	12	45	102		
DSP-M3I-1050	10.5	55	12	45	102		
DSP-M3I-1060	10.6	55	12	45	102		
DSP-M3I-1070	10.7	55	12	45	102		
DSP-M3I-1080	10.8	55	12	45	102		
DSP-M3I-1090	10.9	55	12	45	102	1/2-13UNC	
DSP-M3I-1100	11.0	55	12	45	102	M12×1	
DSP-M3I-1110	11.1	55	12	45	102		
DSP-M3I-1120	11.2	55	12	45	102		M12×1.75
DSP-M3I-1130	11.3	55	12	45	102		
DSP-M3I-1140	11.4	55	12	45	102		
DSP-M3I-1150	11.5	55	12	45	102	1/2-20UNF	
DSP-M3I-1160	11.6	55	12	45	102		
DSP-M3I-1170	11.7	55	12	45	102		
DSP-M3I-1180	11.8	55	12	45	102	1/2-28UNIF	
DSP-M3I-1190	11.9	55	12	45	102		
DSP-M3I-1200	12.0	55	12	45	102	M14×2	

**DSP-M3I**

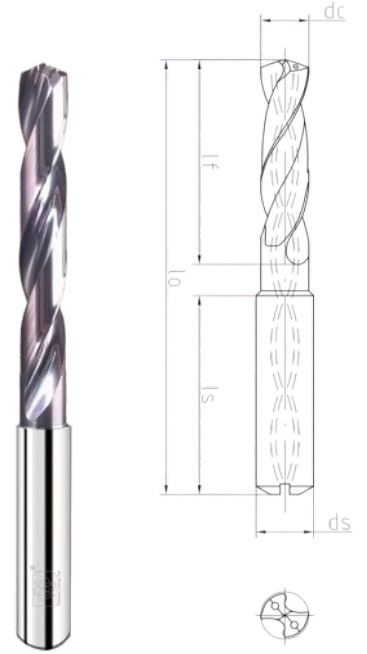
Internal Cooling Carbide Twist Drills 3D Type

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M3I-1210	12.1	60	14	45	107		
DSP-M3I-1220	12.2	60	14	45	107	9/16-12UNC	
DSP-M3I-1230	12.3	60	14	45	107		
DSP-M3I-1240	12.4	60	14	45	107		
DSP-M3I-1250	12.5	60	14	45	107	M14×1.5	
DSP-M3I-1260	12.6	60	14	45	107		
DSP-M3I-1270	12.7	60	14	45	107		
DSP-M3I-1280	12.8	60	14	45	107		
DSP-M3I-1290	12.9	60	14	45	107	9/16-18UNF	
DSP-M3I-1300	13.0	60	14	45	107	M14×1	M14×2
DSP-M3I-1310	13.1	60	14	45	107		
DSP-M3I-1320	13.2	60	14	45	107	9/16-24UNIF	
DSP-M3I-1330	13.3	60	14	45	107		
DSP-M3I-1340	13.4	60	14	45	107		
DSP-M3I-1350	13.5	60	14	45	107		
DSP-M3I-1360	13.6	60	14	45	107	5/8-11UNC	
DSP-M3I-1370	13.7	60	14	45	107		
DSP-M3I-1380	13.8	60	14	45	107		
DSP-M3I-1390	13.9	60	14	45	107		
DSP-M3I-1400	14.0	60	14	45	107	M16×2	
DSP-M3I-1410	14.1	65	16	48	115		
DSP-M3I-1420	14.2	65	16	48	115		
DSP-M3I-1430	14.3	65	16	48	115		
DSP-M3I-1440	14.4	65	16	48	115		
DSP-M3I-1450	14.5	65	16	48	115	M16×1.5 5/8-18UNF	
DSP-M3I-1460	14.6	65	16	48	115		
DSP-M3I-1470	14.7	65	16	48	115		
DSP-M3I-1480	14.8	65	16	48	115	5/8-24UNIF	
DSP-M3I-1490	14.9	65	16	48	115		
DSP-M3I-1500	15.0	65	16	48	115	M16×1	M16×2
DSP-M3I-1510	15.1	65	16	48	115		
DSP-M3I-1520	15.2	65	16	48	115		

# DSP-M3I

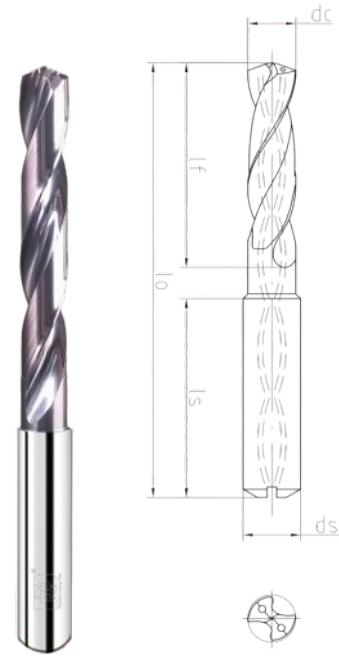
Internal Cooling Carbide Twist Drills 3D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M3I-1530	15.3	65	16	48	115		
DSP-M3I-1540	15.4	65	16	48	115		
DSP-M3I-1550	15.5	65	16	48	115	M18×2.5	
DSP-M3I-1560	15.6	65	16	48	115		
DSP-M3I-1570	15.7	65	16	48	115		
DSP-M3I-1580	15.8	65	16	48	115		
DSP-M3I-1590	15.9	65	16	48	115		
DSP-M3I-1600	16.0	65	16	48	115	M18×2	
DSP-M3I-1610	16.1	73	18	48	123		
DSP-M3I-1620	16.2	73	18	48	123		
DSP-M3I-1630	16.3	73	18	48	123		
DSP-M3I-1640	16.4	73	18	48	123		
DSP-M3I-1650	16.5	73	18	48	123		
DSP-M3I-1660	16.6	73	18	48	123	3/4-10UNC	
DSP-M3I-1670	16.7	73	18	48	123		
DSP-M3I-1680	16.8	73	18	48	123		
DSP-M3I-1690	16.9	73	18	48	123		
DSP-M3I-1700	17.0	73	18	48	123	M18×1	
DSP-M3I-1710	17.1	73	18	48	123		
DSP-M3I-1720	17.2	73	18	48	123		
DSP-M3I-1730	17.3	73	18	48	123		
DSP-M3I-1740	17.4	73	18	48	123		
DSP-M3I-1750	17.5	73	18	48	123	M20×2.5 3/4-16UNF	
DSP-M3I-1760	17.6	73	18	48	123		
DSP-M3I-1770	17.7	73	18	48	123		
DSP-M3I-1780	17.8	73	18	48	123	3/4-20UNIF	
DSP-M3I-1790	17.9	73	18	48	123		
DSP-M3I-1800	18.0	73	18	48	123	M20×2	
DSP-M3I-1810	18.1	79	20	50	131		
DSP-M3I-1820	18.2	79	20	50	131		
DSP-M3I-1830	18.3	79	20	50	131		
DSP-M3I-1840	18.4	79	20	50	131		

# DSP-M3I

Internal Cooling Carbide Twist Drills 3D Type



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M3I-1850	18.5	79	20	50	131	M20×1.5	
DSP-M3I-1860	18.6	79	20	50	131		
DSP-M3I-1870	18.7	79	20	50	131		
DSP-M3I-1880	18.8	79	20	50	131		
DSP-M3I-1890	18.9	79	20	50	131		
DSP-M3I-1900	19.0	79	20	50	131	M20×1	
DSP-M3I-1910	19.1	79	20	50	131		
DSP-M3I-1920	19.2	79	20	50	131		
DSP-M3I-1930	19.3	79	20	50	131		
DSP-M3I-1940	19.4	79	20	50	131		
DSP-M3I-1950	19.5	79	20	50	131		
DSP-M3I-1960	19.6	79	20	50	131	7/8-9UNC	
DSP-M3I-1970	19.7	79	20	50	131		
DSP-M3I-1980	19.8	79	20	50	131		
DSP-M3I-1990	19.9	79	20	50	131		
DSP-M3I-2000	20.0	79	20	50	131	M22×2	

**DSP-KP5E**

External Cooling Carbide Twist Drills 5D Type

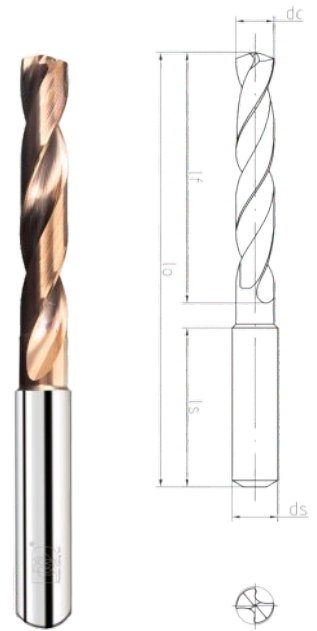
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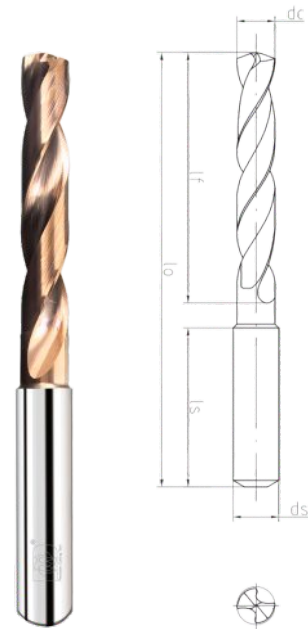
140°



Ord. No.	Φ-dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP5E-0250	2.5	16	4	28	46	M3×0.5	
DSP-KP5E-0260	2.6	16	4	28	46		
DSP-KP5E-0270	2.7	17	4	28	47	NO.5-44UNF	
DSP-KP5E-0280	2.8	17	4	28	47		M3×0.5
DSP-KP5E-0290	2.9	17	4	28	48	M3.5×0.6	
DSP-KP5E-0300	3.0	28	4	28	58		
DSP-KP5E-0310	3.1	28	4	28	58		
DSP-KP5E-0320	3.2	28	4	28	58		
DSP-KP5E-0330	3.3	28	4	28	58	M4×0.7	
DSP-KP5E-0340	3.4	28	4	28	58	NO.8-32UNC	
DSP-KP5E-0350	3.5	28	4	28	58	M4×0.5 NO.8-36UNF	
DSP-KP5E-0360	3.6	28	4	28	58		
DSP-KP5E-0370	3.7	28	4	28	58		M4×0.7
DSP-KP5E-0380	3.8	36	4	28	66		M4×0.5
DSP-KP5E-0390	3.9	36	4	28	66	NO.10-24UNC	
DSP-KP5E-0400	4.0	36	4	28	66		
DSP-KP5E-0410	4.1	36	6	36	74	NO10-32UNF	
DSP-KP5E-0420	4.2	36	6	36	74	M5×0.8	
DSP-KP5E-0430	4.3	36	6	36	74		
DSP-KP5E-0440	4.4	36	6	36	74		
DSP-KP5E-0450	4.5	36	6	36	74	M5×0.5 NO.12-24UNC	
DSP-KP5E-0460	4.6	36	6	36	74	NO.12-28UNF	M5×0.8
DSP-KP5E-0470	4.7	36	6	36	74	NO.12-32UNEF	
DSP-KP5E-0480	4.8	44	6	36	82		
DSP-KP5E-0490	4.9	44	6	36	82		
DSP-KP5E-0500	5.0	44	6	36	82	M6×1	
DSP-KP5E-0510	5.1	44	6	36	82	1/4-20UNC	
DSP-KP5E-0520	5.2	44	6	36	82		
DSP-KP5E-0530	5.3	44	6	36	82	M6×0.75	
DSP-KP5E-0540	5.4	44	6	36	82		
DSP-KP5E-0550	5.5	44	6	36	82	1/4-28UNF	M6×1
DSP-KP5E-0560	5.6	44	6	36	82	1/4-32UNEF	

**DSP-KP5E**

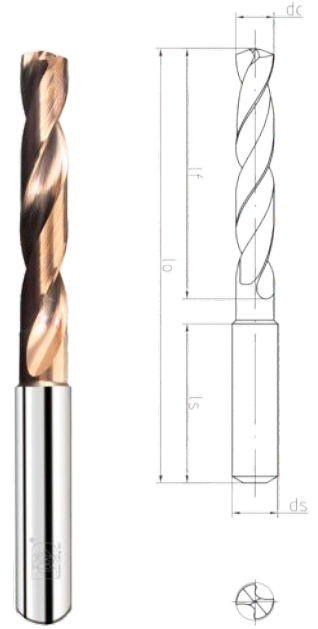
External Cooling Carbide Twist Drills 5D Type

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP5E-0570	5.7	44	6	36	82		
DSP-KP5E-0580	5.8	44	6	36	82		
DSP-KP5E-0590	5.9	44	6	36	82		
DSP-KP5E-0600	6.0	44	6	36	82		
DSP-KP5E-0610	6.1	53	8	36	91		
DSP-KP5E-0620	6.2	53	8	36	91		
DSP-KP5E-0630	6.3	53	8	36	91		
DSP-KP5E-0640	6.4	53	8	36	91		
DSP-KP5E-0650	6.5	53	8	36	91		
DSP-KP5E-0660	6.6	53	8	36	91	5-16-18UNC	
DSP-KP5E-0670	6.7	53	8	36	91		
DSP-KP5E-0680	6.8	53	8	36	91	M8×1.25	
DSP-KP5E-0690	6.9	53	8	36	91	5/16-24UNF	
DSP-KP5E-0700	7.0	53	8	36	91	M8×1	
DSP-KP5E-0710	7.1	53	8	36	91	5/16-32UNEF	
DSP-KP5E-0720	7.2	53	8	36	91		
DSP-KP5E-0730	7.3	53	8	36	91	M8×0.75	
DSP-KP5E-0740	7.4	53	8	36	91		M8×1.25
DSP-KP5E-0750	7.5	53	8	36	91		
DSP-KP5E-0760	7.6	53	8	36	91		
DSP-KP5E-0770	7.7	53	8	36	91		
DSP-KP5E-0780	7.8	53	8	36	91		
DSP-KP5E-0790	7.9	53	8	36	91		
DSP-KP5E-0800	8.0	53	8	36	91	3/8-16UNC	
DSP-KP5E-0810	8.1	61	10	40	103		
DSP-KP5E-0820	8.2	61	10	40	103		
DSP-KP5E-0830	8.3	61	10	40	103		
DSP-KP5E-0840	8.4	61	10	40	103		
DSP-KP5E-0850	8.5	61	10	40	103	M10×1.5 3/8-24UNF	
DSP-KP5E-0860	8.6	61	10	40	103		
DSP-KP5E-0870	8.7	61	10	40	103	3/8-32UNEF	
DSP-KP5E-0880	8.8	61	10	40	103	M10×1.25	

# DSP-KP5E

External Cooling Carbide Twist Drills 5D Type



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

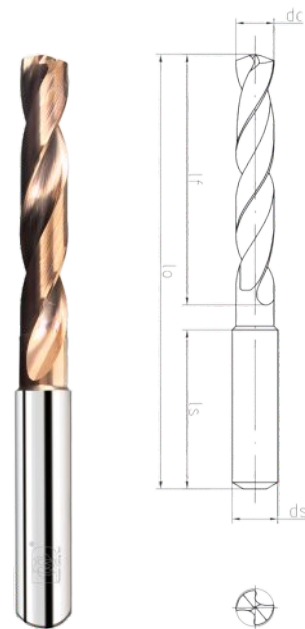
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP5E-0890	8.9	61	10	40	103		
DSP-KP5E-0900	9.0	61	10	40	103	M10×1	
DSP-KP5E-0910	9.1	61	10	40	103		
DSP-KP5E-0920	9.2	61	10	40	103		
DSP-KP5E-0930	9.3	61	10	40	103	M10×0.75	M10×1.5
DSP-KP5E-0940	9.4	61	10	40	103	7/16-14UNC	
DSP-KP5E-0950	9.5	61	10	40	103		
DSP-KP5E-0960	9.6	61	10	40	103		
DSP-KP5E-0970	9.7	61	10	40	103		
DSP-KP5E-0980	9.8	61	10	40	103		
DSP-KP5E-0990	9.9	61	10	40	103	7/16-20UNF	
DSP-KP5E-1000	10.0	61	10	40	103		
DSP-KP5E-1010	10.1	71	12	45	118		
DSP-KP5E-1020	10.2	71	12	45	118	7/16-28UNEF	
DSP-KP5E-1030	10.3	71	12	45	118	M12×1.75	
DSP-KP5E-1040	10.4	71	12	45	118		
DSP-KP5E-1050	10.5	71	12	45	118		
DSP-KP5E-1060	10.6	71	12	45	118		
DSP-KP5E-1070	10.7	71	12	45	118		
DSP-KP5E-1080	10.8	71	12	45	118		
DSP-KP5E-1090	10.9	71	12	45	118	1/2-13UNC	
DSP-KP5E-1100	11.0	71	12	45	118	M12×1	
DSP-KP5E-1110	11.1	71	12	45	118		
DSP-KP5E-1120	11.2	71	12	45	118		M12×1.75
DSP-KP5E-1130	11.3	71	12	45	118		
DSP-KP5E-1140	11.4	71	12	45	118		
DSP-KP5E-1150	11.5	71	12	45	118	1/2-20UNF	
DSP-KP5E-1160	11.6	71	12	45	118		
DSP-KP5E-1170	11.7	71	12	45	118		
DSP-KP5E-1180	11.8	71	12	45	118	1/2-28UNEF	
DSP-KP5E-1190	11.9	71	12	45	118		
DSP-KP5E-1200	12.0	71	12	45	118	M14×2	

# DSP-KP5E

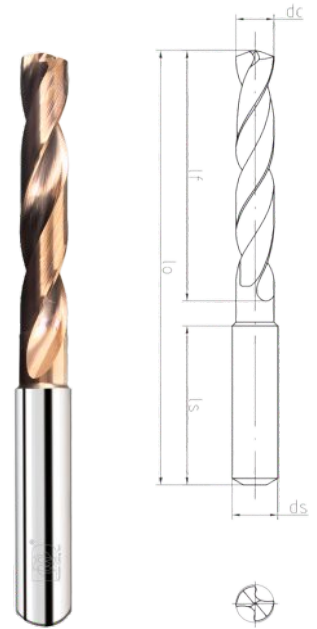
External Cooling Carbide Twist Drills 5D Type

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP5E-1210	12.1	77	14	45	124		
DSP-KP5E-1220	12.2	77	14	45	124	9/16-12UNC	
DSP-KP5E-1230	12.3	77	14	45	124		
DSP-KP5E-1240	12.4	77	14	45	124		
DSP-KP5E-1250	12.5	77	14	45	124	M14×1.5	
DSP-KP5E-1260	12.6	77	14	45	124		
DSP-KP5E-1270	12.7	77	14	45	124		
DSP-KP5E-1280	12.8	77	14	45	124		
DSP-KP5E-1290	12.9	77	14	45	124	9/16-18UNF	
DSP-KP5E-1300	13.0	77	14	45	124	M14×1	M14×2
DSP-KP5E-1310	13.1	77	14	45	124		
DSP-KP5E-1320	13.2	77	14	45	124	9/16-24UNEF	
DSP-KP5E-1330	13.3	77	14	45	124		
DSP-KP5E-1340	13.4	77	14	45	124		
DSP-KP5E-1350	13.5	77	14	45	124		
DSP-KP5E-1360	13.6	77	14	45	124	5/8-11UNC	
DSP-KP5E-1370	13.7	77	14	45	124		
DSP-KP5E-1380	13.8	77	14	45	124		
DSP-KP5E-1390	13.9	77	14	45	124		
DSP-KP5E-1400	14.0	77	14	45	124	M16×2	
DSP-KP5E-1410	14.1	83	16	48	133		
DSP-KP5E-1420	14.2	83	16	48	133		
DSP-KP5E-1430	14.3	83	16	48	133		
DSP-KP5E-1440	14.4	83	16	48	133		
DSP-KP5E-1450	14.5	83	16	48	133	M16×1.5 5/8-18UNF	
DSP-KP5E-1460	14.6	83	16	48	133		
DSP-KP5E-1470	14.7	83	16	48	133		
DSP-KP5E-1480	14.8	83	16	48	133	5/8-24UNEF	
DSP-KP5E-1490	14.9	83	16	48	133		
DSP-KP5E-1500	15.0	83	16	48	133	M16×1	M16×2
DSP-KP5E-1510	15.1	83	16	48	133		
DSP-KP5E-1520	15.2	83	16	48	133		

**DSP-KP5E**

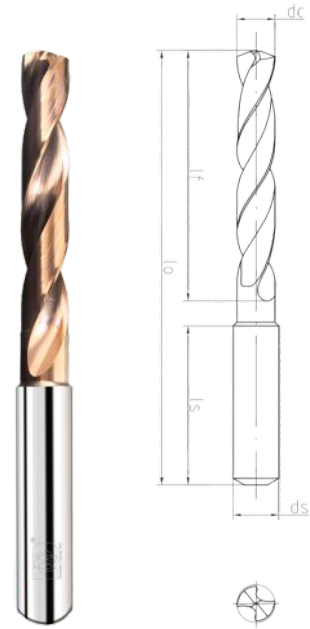
External Cooling Carbide Twist Drills 5D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP5E-1530	15.3	83	16	48	133		
DSP-KP5E-1540	15.4	83	16	48	133		
DSP-KP5E-1550	15.5	83	16	48	133	M18×2.5	
DSP-KP5E-1560	15.6	83	16	48	133		
DSP-KP5E-1570	15.7	83	16	48	133		
DSP-KP5E-1580	15.8	83	16	48	133		
DSP-KP5E-1590	15.9	83	16	48	133		
DSP-KP5E-1600	16.0	83	16	48	133	M18×2	
DSP-KP5E-1610	16.1	93	18	48	143		
DSP-KP5E-1620	16.2	93	18	48	143		
DSP-KP5E-1630	16.3	93	18	48	143		
DSP-KP5E-1640	16.4	93	18	48	143		
DSP-KP5E-1650	16.5	93	18	48	143		
DSP-KP5E-1660	16.6	93	18	48	143	3/4-10UNC	
DSP-KP5E-1670	16.7	93	18	48	143		
DSP-KP5E-1680	16.8	93	18	48	143		
DSP-KP5E-1690	16.9	93	18	48	143		
DSP-KP5E-1700	17.0	93	18	48	143	M18×1	
DSP-KP5E-1710	17.1	93	18	48	143		
DSP-KP5E-1720	17.2	93	18	48	143		
DSP-KP5E-1730	17.3	93	18	48	143		
DSP-KP5E-1740	17.4	93	18	48	143		
DSP-KP5E-1750	17.5	93	18	48	143	M20×2.5 3/4-16UNF	
DSP-KP5E-1760	17.6	93	18	48	143		
DSP-KP5E-1770	17.7	93	18	48	143		
DSP-KP5E-1780	17.8	93	18	48	143	3/4-20UNEF	
DSP-KP5E-1790	17.9	93	18	48	143		
DSP-KP5E-1800	18.0	93	18	48	143	M20×2	
DSP-KP5E-1810	18.1	101	20	50	153		
DSP-KP5E-1820	18.2	101	20	50	153		
DSP-KP5E-1830	18.3	101	20	50	153		
DSP-KP5E-1840	18.4	101	20	50	153		

# DSP-KP5E

External Cooling Carbide Twist Drills 5D Type



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

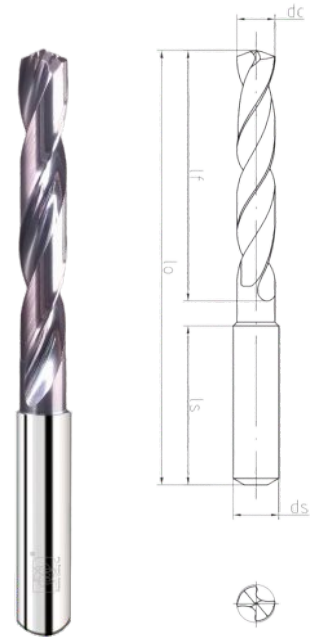
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP5E-1850	18.5	101	20	50	153	M20×1.5	
DSP-KP5E-1860	18.6	101	20	50	153		
DSP-KP5E-1870	18.7	101	20	50	153		
DSP-KP5E-1880	18.8	101	20	50	153		
DSP-KP5E-1890	18.9	101	20	50	153		
DSP-KP5E-1900	19.0	101	20	50	153	M20×1	
DSP-KP5E-1910	19.1	101	20	50	153		
DSP-KP5E-1920	19.2	101	20	50	153		
DSP-KP5E-1930	19.3	101	20	50	153		
DSP-KP5E-1940	19.4	101	20	50	153		
DSP-KP5E-1950	19.5	101	20	50	153		
DSP-KP5E-1960	19.6	101	20	50	153	7/8-9UNC	
DSP-KP5E-1970	19.7	101	20	50	153		
DSP-KP5E-1980	19.8	101	20	50	153		
DSP-KP5E-1990	19.9	101	20	50	153		
DSP-KP5E-2000	20.0	101	20	50	153	M22×2	

# DSP-M5E

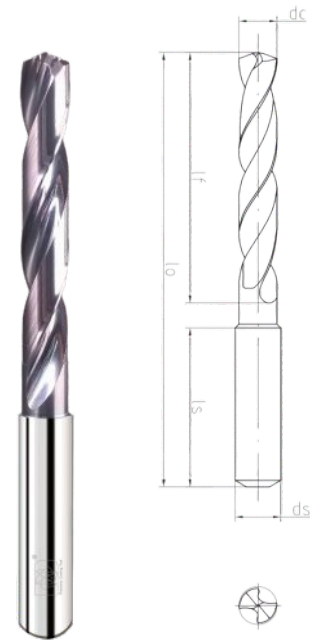
External Cooling Carbide Twist Drills 5D Type



Ord. No.	Φ-dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M5E-0250	2.5	16	4	28	46	M3×0.5	
DSP-M5E-0260	2.6	16	4	28	46		
DSP-M5E-0270	2.7	17	4	28	47	NO.5-44UNF	
DSP-M5E-0280	2.8	17	4	28	47		M3×0.5
DSP-M5E-0290	2.9	17	4	28	48	M3.5×0.6	
DSP-M5E-0300	3.0	28	4	28	58		
DSP-M5E-0310	3.1	28	4	28	58		
DSP-M5E-0320	3.2	28	4	28	58		
DSP-M5E-0330	3.3	28	4	28	58	M4×0.7	
DSP-M5E-0340	3.4	28	4	28	58	NO.8-32UNC	
DSP-M5E-0350	3.5	28	4	28	58	M4×0.5 NO.8-36UNF	
DSP-M5E-0360	3.6	28	4	28	58		
DSP-M5E-0370	3.7	28	4	28	58		M4×0.7
DSP-M5E-0380	3.8	36	4	28	66		M4×0.5
DSP-M5E-0390	3.9	36	4	28	66	NO.10-24UNC	
DSP-M5E-0400	4.0	36	4	28	66		
DSP-M5E-0410	4.1	36	6	36	74	NO10-32UNF	
DSP-M5E-0420	4.2	36	6	36	74	M5×0.8	
DSP-M5E-0430	4.3	36	6	36	74		
DSP-M5E-0440	4.4	36	6	36	74		
DSP-M5E-0450	4.5	36	6	36	74	M5×0.5 NO.12-24UNC	
DSP-M5E-0460	4.6	36	6	36	74	NO.12-28UNF	M5×0.8
DSP-M5E-0470	4.7	36	6	36	74	NO.12-32UNEF	
DSP-M5E-0480	4.8	44	6	36	82		
DSP-M5E-0490	4.9	44	6	36	82		
DSP-M5E-0500	5.0	44	6	36	82	M6×1	
DSP-M5E-0510	5.1	44	6	36	82	1/4-20UNC	
DSP-M5E-0520	5.2	44	6	36	82		
DSP-M5E-0530	5.3	44	6	36	82	M6×0.75	
DSP-M5E-0540	5.4	44	6	36	82		
DSP-M5E-0550	5.5	44	6	36	82	1/4-28UNF	M6×1
DSP-M5E-0560	5.6	44	6	36	82	1/4-32UNEF	

**DSP-M5E**

External Cooling Carbide Twist Drills 5D Type

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M5E-0570	5.7	44	6	36	82		
DSP-M5E-0580	5.8	44	6	36	82		
DSP-M5E-0590	5.9	44	6	36	82		
DSP-M5E-0600	6.0	44	6	36	82		
DSP-M5E-0610	6.1	53	8	36	91		
DSP-M5E-0620	6.2	53	8	36	91		
DSP-M5E-0630	6.3	53	8	36	91		
DSP-M5E-0640	6.4	53	8	36	91		
DSP-M5E-0650	6.5	53	8	36	91		
DSP-M5E-0660	6.6	53	8	36	91	5-16-18UNC	
DSP-M5E-0670	6.7	53	8	36	91		
DSP-M5E-0680	6.8	53	8	36	91	M8×1.25	
DSP-M5E-0690	6.9	53	8	36	91	5/16-24UNF	
DSP-M5E-0700	7.0	53	8	36	91	M8×1	
DSP-M5E-0710	7.1	53	8	36	91	5/16-32UNEF	
DSP-M5E-0720	7.2	53	8	36	91		
DSP-M5E-0730	7.3	53	8	36	91	M8×0.75	
DSP-M5E-0740	7.4	53	8	36	91		M8×1.25
DSP-M5E-0750	7.5	53	8	36	91		
DSP-M5E-0760	7.6	53	8	36	91		
DSP-M5E-0770	7.7	53	8	36	91		
DSP-M5E-0780	7.8	53	8	36	91		
DSP-M5E-0790	7.9	53	8	36	91		
DSP-M5E-0800	8.0	53	8	36	91	3/8-16UNC	
DSP-M5E-0810	8.1	61	10	40	103		
DSP-M5E-0820	8.2	61	10	40	103		
DSP-M5E-0830	8.3	61	10	40	103		
DSP-M5E-0840	8.4	61	10	40	103		
DSP-M5E-0850	8.5	61	10	40	103	M10×1.5 3/8-24UNF	
DSP-M5E-0860	8.6	61	10	40	103		
DSP-M5E-0870	8.7	61	10	40	103	3/8-32UNEF	
DSP-M5E-0880	8.8	61	10	40	103	M10×1.25	

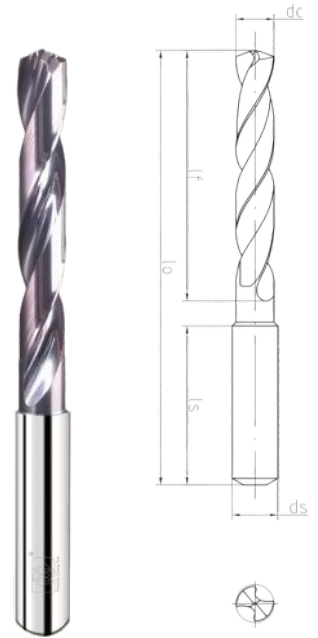
**DSP-M5E**

External Cooling Carbide Twist Drills 5D Type

M

5×D

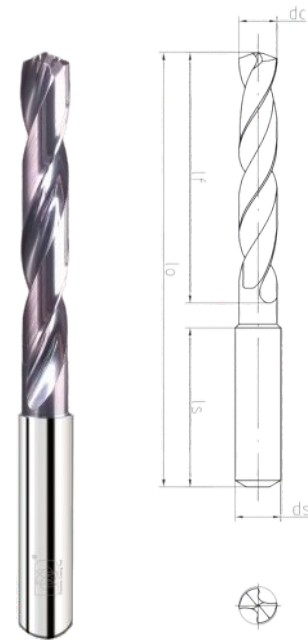
PT



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M5E-0890	8.9	61	10	40	103		
DSP-M5E-0900	9.0	61	10	40	103	M10×1	
DSP-M5E-0910	9.1	61	10	40	103		
DSP-M5E-0920	9.2	61	10	40	103		
DSP-M5E-0930	9.3	61	10	40	103	M10×0.75	M10×1.5
DSP-M5E-0940	9.4	61	10	40	103	7/16-14UNC	
DSP-M5E-0950	9.5	61	10	40	103		
DSP-M5E-0960	9.6	61	10	40	103		
DSP-M5E-0970	9.7	61	10	40	103		
DSP-M5E-0980	9.8	61	10	40	103		
DSP-M5E-0990	9.9	61	10	40	103	7/16-20UNF	
DSP-M5E-1000	10.0	61	10	40	103		
DSP-M5E-1010	10.1	71	12	45	118		
DSP-M5E-1020	10.2	71	12	45	118	7/16-28UNEF	
DSP-M5E-1030	10.3	71	12	45	118	M12×1.75	
DSP-M5E-1040	10.4	71	12	45	118		
DSP-M5E-1050	10.5	71	12	45	118		
DSP-M5E-1060	10.6	71	12	45	118		
DSP-M5E-1070	10.7	71	12	45	118		
DSP-M5E-1080	10.8	71	12	45	118		
DSP-M5E-1090	10.9	71	12	45	118	1/2-13UNC	
DSP-M5E-1100	11.0	71	12	45	118	M12×1	
DSP-M5E-1110	11.1	71	12	45	118		
DSP-M5E-1120	11.2	71	12	45	118		M12×1.75
DSP-M5E-1130	11.3	71	12	45	118		
DSP-M5E-1140	11.4	71	12	45	118		
DSP-M5E-1150	11.5	71	12	45	118	1/2-20UNF	
DSP-M5E-1160	11.6	71	12	45	118		
DSP-M5E-1170	11.7	71	12	45	118		
DSP-M5E-1180	11.8	71	12	45	118	1/2-28UNEF	
DSP-M5E-1190	11.9	71	12	45	118		
DSP-M5E-1200	12.0	71	12	45	118	M14×2	

**DSP-M5E**

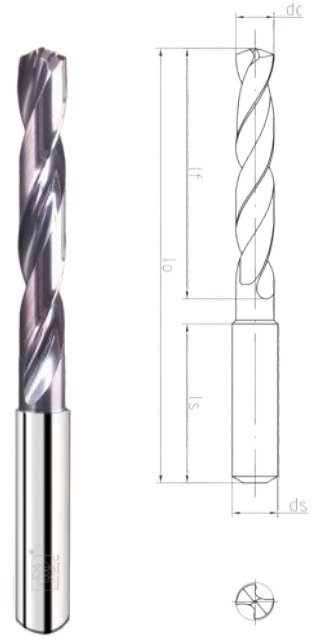
External Cooling Carbide Twist Drills 5D Type

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M5E-1210	12.1	77	14	45	124		
DSP-M5E-1220	12.2	77	14	45	124	9/16-12UNC	
DSP-M5E-1230	12.3	77	14	45	124		
DSP-M5E-1240	12.4	77	14	45	124		
DSP-M5E-1250	12.5	77	14	45	124	M14×1.5	
DSP-M5E-1260	12.6	77	14	45	124		
DSP-M5E-1270	12.7	77	14	45	124		
DSP-M5E-1280	12.8	77	14	45	124		
DSP-M5E-1290	12.9	77	14	45	124	9/16-18UNF	
DSP-M5E-1300	13.0	77	14	45	124	M14×1	M14×2
DSP-M5E-1310	13.1	77	14	45	124		
DSP-M5E-1320	13.2	77	14	45	124	9/16-24UNEF	
DSP-M5E-1330	13.3	77	14	45	124		
DSP-M5E-1340	13.4	77	14	45	124		
DSP-M5E-1350	13.5	77	14	45	124		
DSP-M5E-1360	13.6	77	14	45	124	5/8-11UNC	
DSP-M5E-1370	13.7	77	14	45	124		
DSP-M5E-1380	13.8	77	14	45	124		
DSP-M5E-1390	13.9	77	14	45	124		
DSP-M5E-1400	14.0	77	14	45	124	M16×2	
DSP-M5E-1410	14.1	83	16	48	133		
DSP-M5E-1420	14.2	83	16	48	133		
DSP-M5E-1430	14.3	83	16	48	133		
DSP-M5E-1440	14.4	83	16	48	133		
DSP-M5E-1450	14.5	83	16	48	133	M16×1.5 5/8-18UNF	
DSP-M5E-1460	14.6	83	16	48	133		
DSP-M5E-1470	14.7	83	16	48	133		
DSP-M5E-1480	14.8	83	16	48	133	5/8-24UNEF	
DSP-M5E-1490	14.9	83	16	48	133		
DSP-M5E-1500	15.0	83	16	48	133	M16×1	M16×2
DSP-M5E-1510	15.1	83	16	48	133		
DSP-M5E-1520	15.2	83	16	48	133		

# DSP-M5E

External Cooling Carbide Twist Drills 5D Type



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

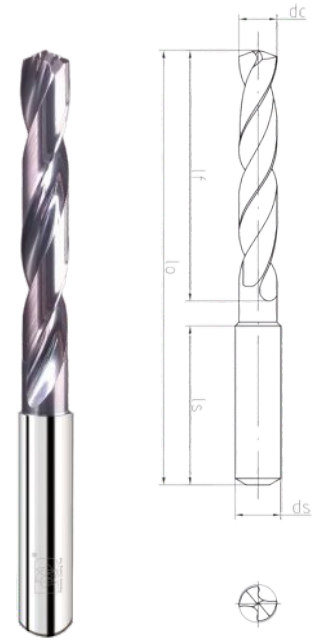
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M5E-1530	15.3	83	16	48	133		
DSP-M5E-1540	15.4	83	16	48	133		
DSP-M5E-1550	15.5	83	16	48	133	M18×2.5	
DSP-M5E-1560	15.6	83	16	48	133		
DSP-M5E-1570	15.7	83	16	48	133		
DSP-M5E-1580	15.8	83	16	48	133		
DSP-M5E-1590	15.9	83	16	48	133		
DSP-M5E-1600	16.0	83	16	48	133	M18×2	
DSP-M5E-1610	16.1	93	18	48	143		
DSP-M5E-1620	16.2	93	18	48	143		
DSP-M5E-1630	16.3	93	18	48	143		
DSP-M5E-1640	16.4	93	18	48	143		
DSP-M5E-1650	16.5	93	18	48	143		
DSP-M5E-1660	16.6	93	18	48	143	3/4-10UNC	
DSP-M5E-1670	16.7	93	18	48	143		
DSP-M5E-1680	16.8	93	18	48	143		
DSP-M5E-1690	16.9	93	18	48	143		
DSP-M5E-1700	17.0	93	18	48	143	M18×1	
DSP-M5E-1710	17.1	93	18	48	143		
DSP-M5E-1720	17.2	93	18	48	143		
DSP-M5E-1730	17.3	93	18	48	143		
DSP-M5E-1740	17.4	93	18	48	143		
DSP-M5E-1750	17.5	93	18	48	143	M20×2.5 3/4-16UNF	
DSP-M5E-1760	17.6	93	18	48	143		
DSP-M5E-1770	17.7	93	18	48	143		
DSP-M5E-1780	17.8	93	18	48	143	3/4-20UNEF	
DSP-M5E-1790	17.9	93	18	48	143		
DSP-M5E-1800	18.0	93	18	48	143	M20×2	
DSP-M5E-1810	18.1	101	20	50	153		
DSP-M5E-1820	18.2	101	20	50	153		
DSP-M5E-1830	18.3	101	20	50	153		
DSP-M5E-1840	18.4	101	20	50	153		

# DSP-M5E

External Cooling Carbide Twist Drills 5D Type



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M5E-1850	18.5	101	20	50	153	M20×1.5	
DSP-M5E-1860	18.6	101	20	50	153		
DSP-M5E-1870	18.7	101	20	50	153		
DSP-M5E-1880	18.8	101	20	50	153		
DSP-M5E-1890	18.9	101	20	50	153		
DSP-M5E-1900	19.0	101	20	50	153	M20×1	
DSP-M5E-1910	19.1	101	20	50	153		
DSP-M5E-1920	19.2	101	20	50	153		
DSP-M5E-1930	19.3	101	20	50	153		
DSP-M5E-1940	19.4	101	20	50	153		
DSP-M5E-1950	19.5	101	20	50	153		
DSP-M5E-1960	19.6	101	20	50	153	7/8-9UNC	
DSP-M5E-1970	19.7	101	20	50	153		
DSP-M5E-1980	19.8	101	20	50	153		
DSP-M5E-1990	19.9	101	20	50	153		
DSP-M5E-2000	20.0	101	20	50	153	M22×2	

**DSP-N5I**

Internal Cooling Carbide Twist Drills 5D Type



Ord. No.	Φ-dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-N5I-0250	2.5	16	4	28	46	M3×0.5	
DSP-N5I-0260	2.6	16	4	28	46		
DSP-N5I-0270	2.7	17	4	28	47	NO.5-44UNF	
DSP-N5I-0280	2.8	17	4	28	47		M3×0.5
DSP-N5I-0290	2.9	17	4	28	48	M3.5×0.6	
DSP-N5I-0300	3.0	28	4	28	58		
DSP-N5I-0310	3.1	28	4	28	58		
DSP-N5I-0320	3.2	28	4	28	58		
DSP-N5I-0330	3.3	28	4	28	58	M4×0.7	
DSP-N5I-0340	3.4	28	4	28	58	NO.8-32UNC	
DSP-N5I-0350	3.5	28	4	28	58	M4×0.5 NO.8-36UNF	
DSP-N5I-0360	3.6	28	4	28	58		
DSP-N5I-0370	3.7	28	4	28	58		M4×0.7
DSP-N5I-0380	3.8	36	4	28	66		M4×0.5
DSP-N5I-0390	3.9	36	4	28	66	NO.10-24UNC	
DSP-N5I-0400	4.0	36	4	28	66		
DSP-N5I-0410	4.1	36	6	36	74	NO10-32UNF	
DSP-N5I-0420	4.2	36	6	36	74	M5×0.8	
DSP-N5I-0430	4.3	36	6	36	74		
DSP-N5I-0440	4.4	36	6	36	74		
DSP-N5I-0450	4.5	36	6	36	74	M5×0.5 NO.12-24UNC	
DSP-N5I-0460	4.6	36	6	36	74	NO.12-28UNF	M5×0.8
DSP-N5I-0470	4.7	36	6	36	74	NO.12-32UNIF	
DSP-N5I-0480	4.8	44	6	36	82		
DSP-N5I-0490	4.9	44	6	36	82		
DSP-N5I-0500	5.0	44	6	36	82	M6×1	
DSP-N5I-0510	5.1	44	6	36	82	1/4-20UNC	
DSP-N5I-0520	5.2	44	6	36	82		
DSP-N5I-0530	5.3	44	6	36	82	M6×0.75	
DSP-N5I-0540	5.4	44	6	36	82		
DSP-N5I-0550	5.5	44	6	36	82	1/4-28UNF	M6×1
DSP-N5I-0560	5.6	44	6	36	82	1/4-32UNIF	

**DSP-N5I**

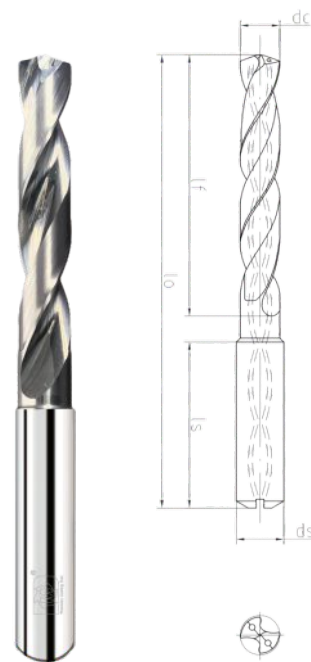
Internal Cooling Carbide Twist Drills 5D Type

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-N5I-0570	5.7	44	6	36	82		
DSP-N5I-0580	5.8	44	6	36	82		
DSP-N5I-0590	5.9	44	6	36	82		
DSP-N5I-0600	6.0	44	6	36	82		
DSP-N5I-0610	6.1	53	8	36	91		
DSP-N5I-0620	6.2	53	8	36	91		
DSP-N5I-0630	6.3	53	8	36	91		
DSP-N5I-0640	6.4	53	8	36	91		
DSP-N5I-0650	6.5	53	8	36	91		
DSP-N5I-0660	6.6	53	8	36	91	5-16-18UNC	
DSP-N5I-0670	6.7	53	8	36	91		
DSP-N5I-0680	6.8	53	8	36	91	M8×1.25	
DSP-N5I-0690	6.9	53	8	36	91	5/16-24UNF	
DSP-N5I-0700	7.0	53	8	36	91	M8×1	
DSP-N5I-0710	7.1	53	8	36	91	5/16-32UNIF	
DSP-N5I-0720	7.2	53	8	36	91		
DSP-N5I-0730	7.3	53	8	36	91	M8×0.75	
DSP-N5I-0740	7.4	53	8	36	91		M8×1.25
DSP-N5I-0750	7.5	53	8	36	91		
DSP-N5I-0760	7.6	53	8	36	91		
DSP-N5I-0770	7.7	53	8	36	91		
DSP-N5I-0780	7.8	53	8	36	91		
DSP-N5I-0790	7.9	53	8	36	91		
DSP-N5I-0800	8.0	53	8	36	91	3/8-16UNC	
DSP-N5I-0810	8.1	61	10	40	103		
DSP-N5I-0820	8.2	61	10	40	103		
DSP-N5I-0830	8.3	61	10	40	103		
DSP-N5I-0840	8.4	61	10	40	103		
DSP-N5I-0850	8.5	61	10	40	103	M10×1.5 3/8-24UNF	
DSP-N5I-0860	8.6	61	10	40	103		
DSP-N5I-0870	8.7	61	10	40	103	3/8-32UNIF	
DSP-N5I-0880	8.8	61	10	40	103	M10×1.25	

**DSP-N5I**

Internal Cooling Carbide Twist Drills 5D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-N5I-0890	8.9	61	10	40	103		
DSP-N5I-0900	9.0	61	10	40	103	M10×1	
DSP-N5I-0910	9.1	61	10	40	103		
DSP-N5I-0920	9.2	61	10	40	103		
DSP-N5I-0930	9.3	61	10	40	103	M10×0.75	M10×1.5
DSP-N5I-0940	9.4	61	10	40	103	7/16-14UNC	
DSP-N5I-0950	9.5	61	10	40	103		
DSP-N5I-0960	9.6	61	10	40	103		
DSP-N5I-0970	9.7	61	10	40	103		
DSP-N5I-0980	9.8	61	10	40	103		
DSP-N5I-0990	9.9	61	10	40	103	7/16-20UNF	
DSP-N5I-1000	10.0	61	10	40	103		
DSP-N5I-1010	10.1	71	12	45	118		
DSP-N5I-1020	10.2	71	12	45	118	7/16-28UNIF	
DSP-N5I-1030	10.3	71	12	45	118	M12×1.75	
DSP-N5I-1040	10.4	71	12	45	118		
DSP-N5I-1050	10.5	71	12	45	118		
DSP-N5I-1060	10.6	71	12	45	118		
DSP-N5I-1070	10.7	71	12	45	118		
DSP-N5I-1080	10.8	71	12	45	118		
DSP-N5I-1090	10.9	71	12	45	118	1/2-13UNC	
DSP-N5I-1100	11.0	71	12	45	118	M12×1	
DSP-N5I-1110	11.1	71	12	45	118		
DSP-N5I-1120	11.2	71	12	45	118		M12×1.75
DSP-N5I-1130	11.3	71	12	45	118		
DSP-N5I-1140	11.4	71	12	45	118		
DSP-N5I-1150	11.5	71	12	45	118	1/2-20UNF	
DSP-N5I-1160	11.6	71	12	45	118		
DSP-N5I-1170	11.7	71	12	45	118		
DSP-N5I-1180	11.8	71	12	45	118	1/2-28UNIF	
DSP-N5I-1190	11.9	71	12	45	118		
DSP-N5I-1200	12.0	71	12	45	118	M14×2	

**DSP-N5I**

Internal Cooling Carbide Twist Drills 5D Type

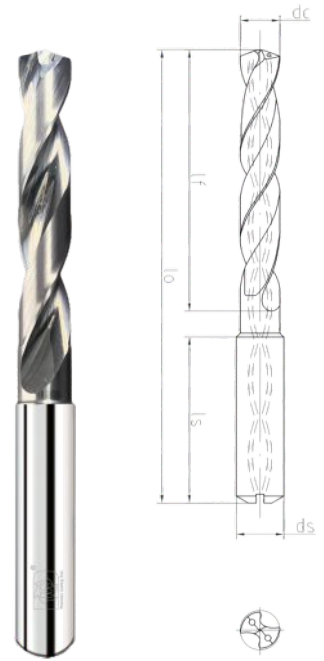


Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-N5I-1210	12.1	77	14	45	124		
DSP-N5I-1220	12.2	77	14	45	124	9/16-12UNC	
DSP-N5I-1230	12.3	77	14	45	124		
DSP-N5I-1240	12.4	77	14	45	124		
DSP-N5I-1250	12.5	77	14	45	124	M14×1.5	
DSP-N5I-1260	12.6	77	14	45	124		
DSP-N5I-1270	12.7	77	14	45	124		
DSP-N5I-1280	12.8	77	14	45	124		
DSP-N5I-1290	12.9	77	14	45	124	9/16-18UNF	
DSP-N5I-1300	13.0	77	14	45	124	M14×1	M14×2
DSP-N5I-1310	13.1	77	14	45	124		
DSP-N5I-1320	13.2	77	14	45	124	9/16-24UNIF	
DSP-N5I-1330	13.3	77	14	45	124		
DSP-N5I-1340	13.4	77	14	45	124		
DSP-N5I-1350	13.5	77	14	45	124		
DSP-N5I-1360	13.6	77	14	45	124	5/8-11UNC	
DSP-N5I-1370	13.7	77	14	45	124		
DSP-N5I-1380	13.8	77	14	45	124		
DSP-N5I-1390	13.9	77	14	45	124		
DSP-N5I-1400	14.0	77	14	45	124	M16×2	
DSP-N5I-1410	14.1	83	16	48	133		
DSP-N5I-1420	14.2	83	16	48	133		
DSP-N5I-1430	14.3	83	16	48	133		
DSP-N5I-1440	14.4	83	16	48	133		
DSP-N5I-1450	14.5	83	16	48	133	M16×1.5 5/8-18UNF	
DSP-N5I-1460	14.6	83	16	48	133		
DSP-N5I-1470	14.7	83	16	48	133		
DSP-N5I-1480	14.8	83	16	48	133	5/8-24UNIF	
DSP-N5I-1490	14.9	83	16	48	133		
DSP-N5I-1500	15.0	83	16	48	133	M16×1	M16×2
DSP-N5I-1510	15.1	83	16	48	133		
DSP-N5I-1520	15.2	83	16	48	133		

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

**DSP-N5I**

Internal Cooling Carbide Twist Drills 5D Type



Ord. No.	$\Phi \cdot dc$	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-N5I-1530	15.3	83	16	48	133		
DSP-N5I-1540	15.4	83	16	48	133		
DSP-N5I-1550	15.5	83	16	48	133	M18×2.5	
DSP-N5I-1560	15.6	83	16	48	133		
DSP-N5I-1570	15.7	83	16	48	133		
DSP-N5I-1580	15.8	83	16	48	133		
DSP-N5I-1590	15.9	83	16	48	133		
DSP-N5I-1600	16.0	83	16	48	133	M18×2	
DSP-N5I-1610	16.1	93	18	48	143		
DSP-N5I-1620	16.2	93	18	48	143		
DSP-N5I-1630	16.3	93	18	48	143		
DSP-N5I-1640	16.4	93	18	48	143		
DSP-N5I-1650	16.5	93	18	48	143		
DSP-N5I-1660	16.6	93	18	48	143	3/4-10UNC	
DSP-N5I-1670	16.7	93	18	48	143		
DSP-N5I-1680	16.8	93	18	48	143		
DSP-N5I-1690	16.9	93	18	48	143		
DSP-N5I-1700	17.0	93	18	48	143	M18×1	
DSP-N5I-1710	17.1	93	18	48	143		
DSP-N5I-1720	17.2	93	18	48	143		
DSP-N5I-1730	17.3	93	18	48	143		
DSP-N5I-1740	17.4	93	18	48	143		
DSP-N5I-1750	17.5	93	18	48	143	M20×2.5 3/4-16UNF	
DSP-N5I-1760	17.6	93	18	48	143		
DSP-N5I-1770	17.7	93	18	48	143		
DSP-N5I-1780	17.8	93	18	48	143	3/4-20UNIF	
DSP-N5I-1790	17.9	93	18	48	143		
DSP-N5I-1800	18.0	93	18	48	143	M20×2	
DSP-N5I-1810	18.1	101	20	50	153		
DSP-N5I-1820	18.2	101	20	50	153		
DSP-N5I-1830	18.3	101	20	50	153		
DSP-N5I-1840	18.4	101	20	50	153		

# DSP-N5I

Internal Cooling Carbide Twist Drills 5D Type



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

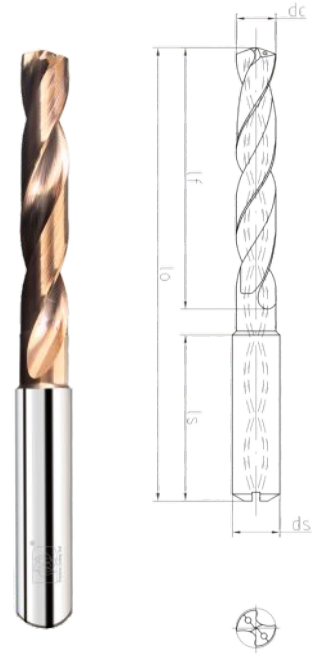
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	$\Phi\text{-}dc$	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-N5I-1850	18.5	101	20	50	153	M20×1.5	
DSP-N5I-1860	18.6	101	20	50	153		
DSP-N5I-1870	18.7	101	20	50	153		
DSP-N5I-1880	18.8	101	20	50	153		
DSP-N5I-1890	18.9	101	20	50	153		
DSP-N5I-1900	19.0	101	20	50	153	M20×1	
DSP-N5I-1910	19.1	101	20	50	153		
DSP-N5I-1920	19.2	101	20	50	153		
DSP-N5I-1930	19.3	101	20	50	153		
DSP-N5I-1940	19.4	101	20	50	153		
DSP-N5I-1950	19.5	101	20	50	153		
DSP-N5I-1960	19.6	101	20	50	153	7/8-9UNC	
DSP-N5I-1970	19.7	101	20	50	153		
DSP-N5I-1980	19.8	101	20	50	153		
DSP-N5I-1990	19.9	101	20	50	153		
DSP-N5I-2000	20.0	101	20	50	153	M22×2	

# DSP-KP5I

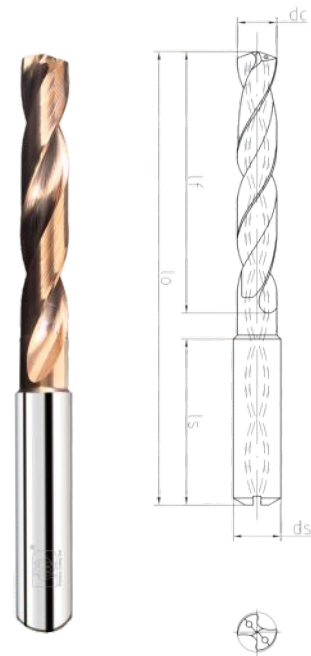
Internal Cooling Carbide Twist Drills 5D Type



Ord. No.	Φ-dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP5I-0250	2.5	16	4	28	46	M3×0.5	
DSP-KP5I-0260	2.6	16	4	28	46		
DSP-KP5I-0270	2.7	17	4	28	47	NO.5-44UNF	
DSP-KP5I-0280	2.8	17	4	28	47		M3×0.5
DSP-KP5I-0290	2.9	17	4	28	48	M3.5×0.6	
DSP-KP5I-0300	3.0	28	4	28	58		
DSP-KP5I-0310	3.1	28	4	28	58		
DSP-KP5I-0320	3.2	28	4	28	58		
DSP-KP5I-0330	3.3	28	4	28	58	M4×0.7	
DSP-KP5I-0340	3.4	28	4	28	58	NO.8-32UNC	
DSP-KP5I-0350	3.5	28	4	28	58	M4×0.5 NO.8-36UNF	
DSP-KP5I-0360	3.6	28	4	28	58		
DSP-KP5I-0370	3.7	28	4	28	58		M4×0.7
DSP-KP5I-0380	3.8	36	4	28	66		M4×0.5
DSP-KP5I-0390	3.9	36	4	28	66	NO.10-24UNC	
DSP-KP5I-0400	4.0	36	4	28	66		
DSP-KP5I-0410	4.1	36	6	36	74	NO10-32UNF	
DSP-KP5I-0420	4.2	36	6	36	74	M5×0.8	
DSP-KP5I-0430	4.3	36	6	36	74		
DSP-KP5I-0440	4.4	36	6	36	74		
DSP-KP5I-0450	4.5	36	6	36	74	M5×0.5 NO.12-24UNC	
DSP-KP5I-0460	4.6	36	6	36	74	NO.12-28UNF	M5×0.8
DSP-KP5I-0470	4.7	36	6	36	74	NO.12-32UNIF	
DSP-KP5I-0480	4.8	44	6	36	82		
DSP-KP5I-0490	4.9	44	6	36	82		
DSP-KP5I-0500	5.0	44	6	36	82	M6×1	
DSP-KP5I-0510	5.1	44	6	36	82	1/4-20UNC	
DSP-KP5I-0520	5.2	44	6	36	82		
DSP-KP5I-0530	5.3	44	6	36	82	M6×0.75	
DSP-KP5I-0540	5.4	44	6	36	82		
DSP-KP5I-0550	5.5	44	6	36	82	1/4-28UNF	M6×1
DSP-KP5I-0560	5.6	44	6	36	82	1/4-32UNIF	

# DSP-KP5I

Internal Cooling Carbide Twist Drills 5D Type

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP5I-0570	5.7	44	6	36	82		
DSP-KP5I-0580	5.8	44	6	36	82		
DSP-KP5I-0590	5.9	44	6	36	82		
DSP-KP5I-0600	6.0	44	6	36	82		
DSP-KP5I-0610	6.1	53	8	36	91		
DSP-KP5I-0620	6.2	53	8	36	91		
DSP-KP5I-0630	6.3	53	8	36	91		
DSP-KP5I-0640	6.4	53	8	36	91		
DSP-KP5I-0650	6.5	53	8	36	91		
DSP-KP5I-0660	6.6	53	8	36	91	5-16-18UNC	
DSP-KP5I-0670	6.7	53	8	36	91		
DSP-KP5I-0680	6.8	53	8	36	91	M8×1.25	
DSP-KP5I-0690	6.9	53	8	36	91	5/16-24UNF	
DSP-KP5I-0700	7.0	53	8	36	91	M8×1	
DSP-KP5I-0710	7.1	53	8	36	91	5/16-32UNIF	
DSP-KP5I-0720	7.2	53	8	36	91		
DSP-KP5I-0730	7.3	53	8	36	91	M8×0.75	
DSP-KP5I-0740	7.4	53	8	36	91		M8×1.25
DSP-KP5I-0750	7.5	53	8	36	91		
DSP-KP5I-0760	7.6	53	8	36	91		
DSP-KP5I-0770	7.7	53	8	36	91		
DSP-KP5I-0780	7.8	53	8	36	91		
DSP-KP5I-0790	7.9	53	8	36	91		
DSP-KP5I-0800	8.0	53	8	36	91	3/8-16UNC	
DSP-KP5I-0810	8.1	61	10	40	103		
DSP-KP5I-0820	8.2	61	10	40	103		
DSP-KP5I-0830	8.3	61	10	40	103		
DSP-KP5I-0840	8.4	61	10	40	103		
DSP-KP5I-0850	8.5	61	10	40	103	M10×1.5 3/8-24UNF	
DSP-KP5I-0860	8.6	61	10	40	103		
DSP-KP5I-0870	8.7	61	10	40	103	3/8-32UNIF	
DSP-KP5I-0880	8.8	61	10	40	103	M10×1.25	

**DSP-KP5I**

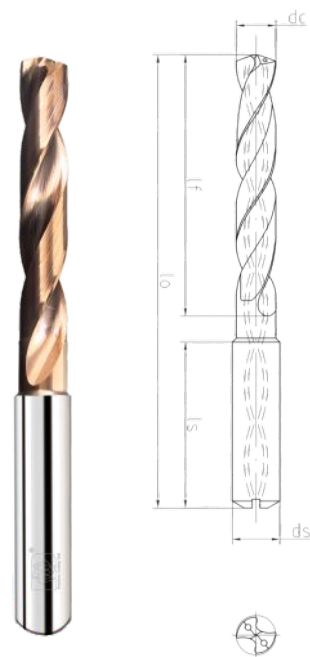
Internal Cooling Carbide Twist Drills 5D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP5I-0890	8.9	61	10	40	103		
DSP-KP5I-0900	9.0	61	10	40	103	M10×1	
DSP-KP5I-0910	9.1	61	10	40	103		
DSP-KP5I-0920	9.2	61	10	40	103		
DSP-KP5I-0930	9.3	61	10	40	103	M10×0.75	M10×1.5
DSP-KP5I-0940	9.4	61	10	40	103	7/16-14UNC	
DSP-KP5I-0950	9.5	61	10	40	103		
DSP-KP5I-0960	9.6	61	10	40	103		
DSP-KP5I-0970	9.7	61	10	40	103		
DSP-KP5I-0980	9.8	61	10	40	103		
DSP-KP5I-0990	9.9	61	10	40	103	7/16-20UNF	
DSP-KP5I-1000	10.0	61	10	40	103		
DSP-KP5I-1010	10.1	71	12	45	118		
DSP-KP5I-1020	10.2	71	12	45	118	7/16-28UNIF	
DSP-KP5I-1030	10.3	71	12	45	118	M12×1.75	
DSP-KP5I-1040	10.4	71	12	45	118		
DSP-KP5I-1050	10.5	71	12	45	118		
DSP-KP5I-1060	10.6	71	12	45	118		
DSP-KP5I-1070	10.7	71	12	45	118		
DSP-KP5I-1080	10.8	71	12	45	118		
DSP-KP5I-1090	10.9	71	12	45	118	1/2-13UNC	
DSP-KP5I-1100	11.0	71	12	45	118	M12×1	
DSP-KP5I-1110	11.1	71	12	45	118		
DSP-KP5I-1120	11.2	71	12	45	118		M12×1.75
DSP-KP5I-1130	11.3	71	12	45	118		
DSP-KP5I-1140	11.4	71	12	45	118		
DSP-KP5I-1150	11.5	71	12	45	118	1/2-20UNF	
DSP-KP5I-1160	11.6	71	12	45	118		
DSP-KP5I-1170	11.7	71	12	45	118		
DSP-KP5I-1180	11.8	71	12	45	118	1/2-28UNIF	
DSP-KP5I-1190	11.9	71	12	45	118		
DSP-KP5I-1200	12.0	71	12	45	118	M14×2	

# DSP-KP5I

Internal Cooling Carbide Twist Drills 5D Type

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP5I-1210	12.1	77	14	45	124		
DSP-KP5I-1220	12.2	77	14	45	124	9/16-12UNC	
DSP-KP5I-1230	12.3	77	14	45	124		
DSP-KP5I-1240	12.4	77	14	45	124		
DSP-KP5I-1250	12.5	77	14	45	124	M14×1.5	
DSP-KP5I-1260	12.6	77	14	45	124		
DSP-KP5I-1270	12.7	77	14	45	124		
DSP-KP5I-1280	12.8	77	14	45	124		
DSP-KP5I-1290	12.9	77	14	45	124	9/16-18UNF	
DSP-KP5I-1300	13.0	77	14	45	124	M14×1	M14×2
DSP-KP5I-1310	13.1	77	14	45	124		
DSP-KP5I-1320	13.2	77	14	45	124	9/16-24UNIF	
DSP-KP5I-1330	13.3	77	14	45	124		
DSP-KP5I-1340	13.4	77	14	45	124		
DSP-KP5I-1350	13.5	77	14	45	124		
DSP-KP5I-1360	13.6	77	14	45	124	5/8-11UNC	
DSP-KP5I-1370	13.7	77	14	45	124		
DSP-KP5I-1380	13.8	77	14	45	124		
DSP-KP5I-1390	13.9	77	14	45	124		
DSP-KP5I-1400	14.0	77	14	45	124	M16×2	
DSP-KP5I-1410	14.1	83	16	48	133		
DSP-KP5I-1420	14.2	83	16	48	133		
DSP-KP5I-1430	14.3	83	16	48	133		
DSP-KP5I-1440	14.4	83	16	48	133		
DSP-KP5I-1450	14.5	83	16	48	133	M16×1.5 5/8-18UNF	
DSP-KP5I-1460	14.6	83	16	48	133		
DSP-KP5I-1470	14.7	83	16	48	133		
DSP-KP5I-1480	14.8	83	16	48	133	5/8-24UNIF	
DSP-KP5I-1490	14.9	83	16	48	133		
DSP-KP5I-1500	15.0	83	16	48	133	M16×1	M16×2
DSP-KP5I-1510	15.1	83	16	48	133		
DSP-KP5I-1520	15.2	83	16	48	133		

# DSP-KP5I

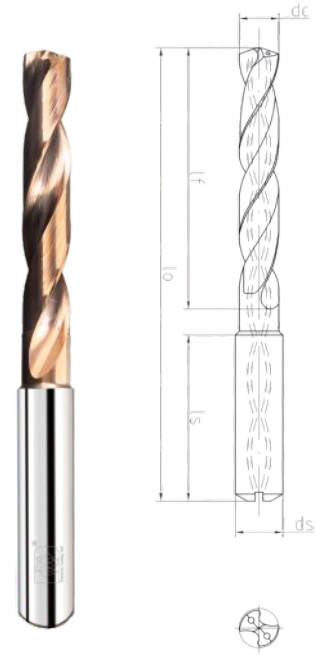
Internal Cooling Carbide Twist Drills 5D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP5I-1530	15.3	83	16	48	133		
DSP-KP5I-1540	15.4	83	16	48	133		
DSP-KP5I-1550	15.5	83	16	48	133	M18×2.5	
DSP-KP5I-1560	15.6	83	16	48	133		
DSP-KP5I-1570	15.7	83	16	48	133		
DSP-KP5I-1580	15.8	83	16	48	133		
DSP-KP5I-1590	15.9	83	16	48	133		
DSP-KP5I-1600	16.0	83	16	48	133	M18×2	
DSP-KP5I-1610	16.1	93	18	48	143		
DSP-KP5I-1620	16.2	93	18	48	143		
DSP-KP5I-1630	16.3	93	18	48	143		
DSP-KP5I-1640	16.4	93	18	48	143		
DSP-KP5I-1650	16.5	93	18	48	143		
DSP-KP5I-1660	16.6	93	18	48	143	3/4-10UNC	
DSP-KP5I-1670	16.7	93	18	48	143		
DSP-KP5I-1680	16.8	93	18	48	143		
DSP-KP5I-1690	16.9	93	18	48	143		
DSP-KP5I-1700	17.0	93	18	48	143	M18×1	
DSP-KP5I-1710	17.1	93	18	48	143		
DSP-KP5I-1720	17.2	93	18	48	143		
DSP-KP5I-1730	17.3	93	18	48	143		
DSP-KP5I-1740	17.4	93	18	48	143		
DSP-KP5I-1750	17.5	93	18	48	143	M20×2.5 3/4-16UNF	
DSP-KP5I-1760	17.6	93	18	48	143		
DSP-KP5I-1770	17.7	93	18	48	143		
DSP-KP5I-1780	17.8	93	18	48	143	3/4-20UNIF	
DSP-KP5I-1790	17.9	93	18	48	143		
DSP-KP5I-1800	18.0	93	18	48	143	M20×2	
DSP-KP5I-1810	18.1	101	20	50	153		
DSP-KP5I-1820	18.2	101	20	50	153		
DSP-KP5I-1830	18.3	101	20	50	153		
DSP-KP5I-1840	18.4	101	20	50	153		

# DSP-KP5I

Internal Cooling Carbide Twist Drills 5D Type



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

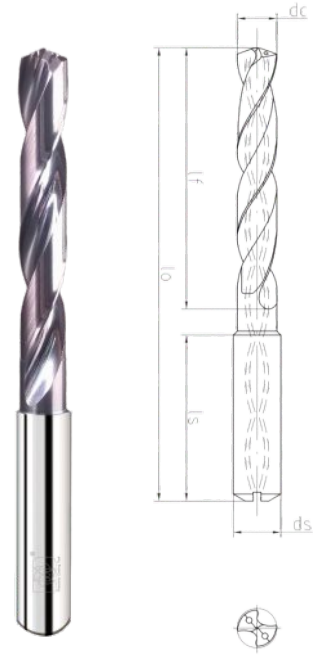
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP5I-1850	18.5	101	20	50	153	M20×1.5	
DSP-KP5I-1860	18.6	101	20	50	153		
DSP-KP5I-1870	18.7	101	20	50	153		
DSP-KP5I-1880	18.8	101	20	50	153		
DSP-KP5I-1890	18.9	101	20	50	153		
DSP-KP5I-1900	19.0	101	20	50	153	M20×1	
DSP-KP5I-1910	19.1	101	20	50	153		
DSP-KP5I-1920	19.2	101	20	50	153		
DSP-KP5I-1930	19.3	101	20	50	153		
DSP-KP5I-1940	19.4	101	20	50	153		
DSP-KP5I-1950	19.5	101	20	50	153		
DSP-KP5I-1960	19.6	101	20	50	153	7/8-9UNC	
DSP-KP5I-1970	19.7	101	20	50	153		
DSP-KP5I-1980	19.8	101	20	50	153		
DSP-KP5I-1990	19.9	101	20	50	153		
DSP-KP5I-2000	20.0	101	20	50	153	M22×2	

# DSP-M5I

Internal Cooling Carbide Twist Drills 5D Type



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

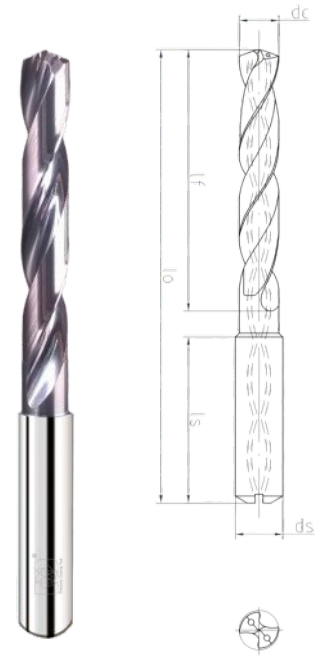
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Φ-dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M5I-0250	2.5	16	4	28	46	M3×0.5	
DSP-M5I-0260	2.6	16	4	28	46		
DSP-M5I-0270	2.7	17	4	28	47	NO.5-44UNF	
DSP-M5I-0280	2.8	17	4	28	47		M3×0.5
DSP-M5I-0290	2.9	17	4	28	48	M3.5×0.6	
DSP-M5I-0300	3.0	28	4	28	58		
DSP-M5I-0310	3.1	28	4	28	58		
DSP-M5I-0320	3.2	28	4	28	58		
DSP-M5I-0330	3.3	28	4	28	58	M4×0.7	
DSP-M5I-0340	3.4	28	4	28	58	NO.8-32UNC	
DSP-M5I-0350	3.5	28	4	28	58	M4×0.5 NO.8-36UNF	
DSP-M5I-0360	3.6	28	4	28	58		
DSP-M5I-0370	3.7	28	4	28	58		M4×0.7
DSP-M5I-0380	3.8	36	4	28	66		M4×0.5
DSP-M5I-0390	3.9	36	4	28	66	NO.10-24UNC	
DSP-M5I-0400	4.0	36	4	28	66		
DSP-M5I-0410	4.1	36	6	36	74	NO10-32UNF	
DSP-M5I-0420	4.2	36	6	36	74	M5×0.8	
DSP-M5I-0430	4.3	36	6	36	74		
DSP-M5I-0440	4.4	36	6	36	74		
DSP-M5I-0450	4.5	36	6	36	74	M5×0.5 NO.12-24UNC	
DSP-M5I-0460	4.6	36	6	36	74	NO.12-28UNF	M5×0.8
DSP-M5I-0470	4.7	36	6	36	74	NO.12-32UNIF	
DSP-M5I-0480	4.8	44	6	36	82		
DSP-M5I-0490	4.9	44	6	36	82		
DSP-M5I-0500	5.0	44	6	36	82	M6×1	
DSP-M5I-0510	5.1	44	6	36	82	1/4-20UNC	
DSP-M5I-0520	5.2	44	6	36	82		
DSP-M5I-0530	5.3	44	6	36	82	M6×0.75	
DSP-M5I-0540	5.4	44	6	36	82		
DSP-M5I-0550	5.5	44	6	36	82	1/4-28UNF	M6×1
DSP-M5I-0560	5.6	44	6	36	82	1/4-32UNIF	

**DSP-M5I**

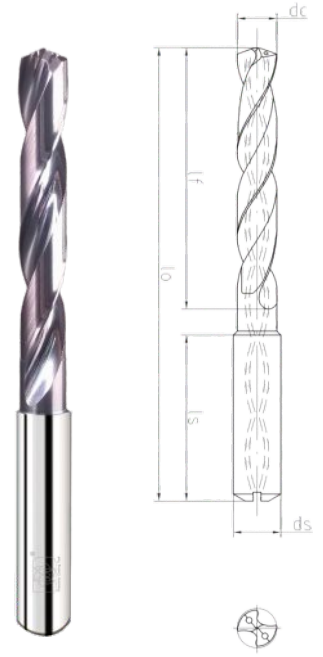
Internal Cooling Carbide Twist Drills 5D Type

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

Ord. No.	$\Phi \cdot dc$	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M5I-0570	5.7	44	6	36	82		
DSP-M5I-0580	5.8	44	6	36	82		
DSP-M5I-0590	5.9	44	6	36	82		
DSP-M5I-0600	6.0	44	6	36	82		
DSP-M5I-0610	6.1	53	8	36	91		
DSP-M5I-0620	6.2	53	8	36	91		
DSP-M5I-0630	6.3	53	8	36	91		
DSP-M5I-0640	6.4	53	8	36	91		
DSP-M5I-0650	6.5	53	8	36	91		
DSP-M5I-0660	6.6	53	8	36	91	5-16-18UNC	
DSP-M5I-0670	6.7	53	8	36	91		
DSP-M5I-0680	6.8	53	8	36	91	M8×1.25	
DSP-M5I-0690	6.9	53	8	36	91	5/16-24UNF	
DSP-M5I-0700	7.0	53	8	36	91	M8×1	
DSP-M5I-0710	7.1	53	8	36	91	5/16-32UNIF	
DSP-M5I-0720	7.2	53	8	36	91		
DSP-M5I-0730	7.3	53	8	36	91	M8×0.75	
DSP-M5I-0740	7.4	53	8	36	91		M8×1.25
DSP-M5I-0750	7.5	53	8	36	91		
DSP-M5I-0760	7.6	53	8	36	91		
DSP-M5I-0770	7.7	53	8	36	91		
DSP-M5I-0780	7.8	53	8	36	91		
DSP-M5I-0790	7.9	53	8	36	91		
DSP-M5I-0800	8.0	53	8	36	91	3/8-16UNC	
DSP-M5I-0810	8.1	61	10	40	103		
DSP-M5I-0820	8.2	61	10	40	103		
DSP-M5I-0830	8.3	61	10	40	103		
DSP-M5I-0840	8.4	61	10	40	103		
DSP-M5I-0850	8.5	61	10	40	103	M10×1.5 3/8-24UNF	
DSP-M5I-0860	8.6	61	10	40	103		
DSP-M5I-0870	8.7	61	10	40	103	3/8-32UNIF	
DSP-M5I-0880	8.8	61	10	40	103	M10×1.25	

# DSP-M5I

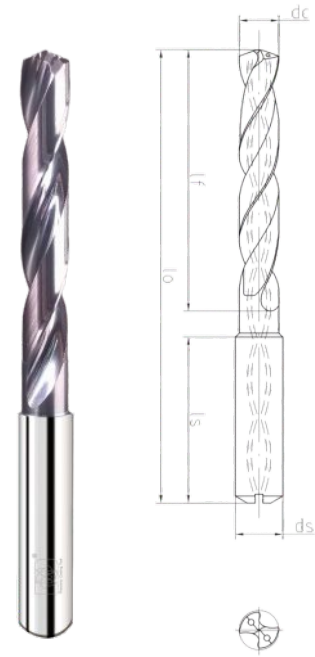
Internal Cooling Carbide Twist Drills 5D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M5I-0890	8.9	61	10	40	103		
DSP-M5I-0900	9.0	61	10	40	103	M10×1	
DSP-M5I-0910	9.1	61	10	40	103		
DSP-M5I-0920	9.2	61	10	40	103		
DSP-M5I-0930	9.3	61	10	40	103	M10×0.75	M10×1.5
DSP-M5I-0940	9.4	61	10	40	103	7/16-14UNC	
DSP-M5I-0950	9.5	61	10	40	103		
DSP-M5I-0960	9.6	61	10	40	103		
DSP-M5I-0970	9.7	61	10	40	103		
DSP-M5I-0980	9.8	61	10	40	103		
DSP-M5I-0990	9.9	61	10	40	103	7/16-20UNF	
DSP-M5I-1000	10.0	61	10	40	103		
DSP-M5I-1010	10.1	71	12	45	118		
DSP-M5I-1020	10.2	71	12	45	118	7/16-28UNIF	
DSP-M5I-1030	10.3	71	12	45	118	M12×1.75	
DSP-M5I-1040	10.4	71	12	45	118		
DSP-M5I-1050	10.5	71	12	45	118		
DSP-M5I-1060	10.6	71	12	45	118		
DSP-M5I-1070	10.7	71	12	45	118		
DSP-M5I-1080	10.8	71	12	45	118		
DSP-M5I-1090	10.9	71	12	45	118	1/2-13UNC	
DSP-M5I-1100	11.0	71	12	45	118	M12×1	
DSP-M5I-1110	11.1	71	12	45	118		
DSP-M5I-1120	11.2	71	12	45	118		M12×1.75
DSP-M5I-1130	11.3	71	12	45	118		
DSP-M5I-1140	11.4	71	12	45	118		
DSP-M5I-1150	11.5	71	12	45	118	1/2-20UNF	
DSP-M5I-1160	11.6	71	12	45	118		
DSP-M5I-1170	11.7	71	12	45	118		
DSP-M5I-1180	11.8	71	12	45	118	1/2-28UNIF	
DSP-M5I-1190	11.9	71	12	45	118		
DSP-M5I-1200	12.0	71	12	45	118	M14×2	

**DSP-M5I**

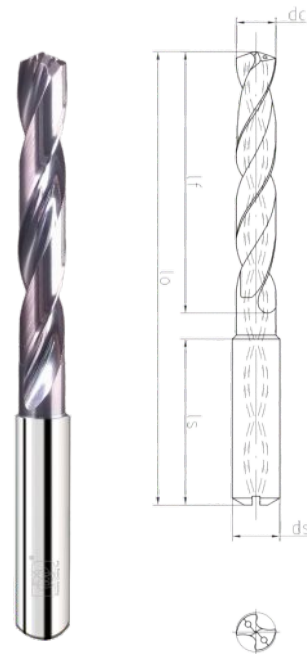
Internal Cooling Carbide Twist Drills 5D Type

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M5I-1210	12.1	77	14	45	124		
DSP-M5I-1220	12.2	77	14	45	124	9/16-12UNC	
DSP-M5I-1230	12.3	77	14	45	124		
DSP-M5I-1240	12.4	77	14	45	124		
DSP-M5I-1250	12.5	77	14	45	124	M14×1.5	
DSP-M5I-1260	12.6	77	14	45	124		
DSP-M5I-1270	12.7	77	14	45	124		
DSP-M5I-1280	12.8	77	14	45	124		
DSP-M5I-1290	12.9	77	14	45	124	9/16-18UNF	
DSP-M5I-1300	13.0	77	14	45	124	M14×1	M14×2
DSP-M5I-1310	13.1	77	14	45	124		
DSP-M5I-1320	13.2	77	14	45	124	9/16-24UNIF	
DSP-M5I-1330	13.3	77	14	45	124		
DSP-M5I-1340	13.4	77	14	45	124		
DSP-M5I-1350	13.5	77	14	45	124		
DSP-M5I-1360	13.6	77	14	45	124	5/8-11UNC	
DSP-M5I-1370	13.7	77	14	45	124		
DSP-M5I-1380	13.8	77	14	45	124		
DSP-M5I-1390	13.9	77	14	45	124		
DSP-M5I-1400	14.0	77	14	45	124	M16×2	
DSP-M5I-1410	14.1	83	16	48	133		
DSP-M5I-1420	14.2	83	16	48	133		
DSP-M5I-1430	14.3	83	16	48	133		
DSP-M5I-1440	14.4	83	16	48	133		
DSP-M5I-1450	14.5	83	16	48	133	M16×1.5 5/8-18UNF	
DSP-M5I-1460	14.6	83	16	48	133		
DSP-M5I-1470	14.7	83	16	48	133		
DSP-M5I-1480	14.8	83	16	48	133	5/8-24UNIF	
DSP-M5I-1490	14.9	83	16	48	133		
DSP-M5I-1500	15.0	83	16	48	133	M16×1	M16×2
DSP-M5I-1510	15.1	83	16	48	133		
DSP-M5I-1520	15.2	83	16	48	133		

# DSP-M5I

Internal Cooling Carbide Twist Drills 5D Type



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

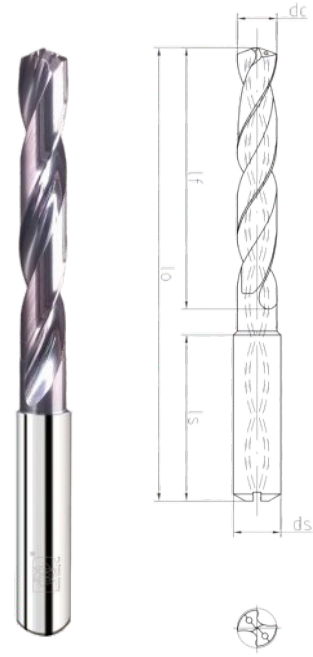
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M5I-1530	15.3	83	16	48	133		
DSP-M5I-1540	15.4	83	16	48	133		
DSP-M5I-1550	15.5	83	16	48	133	M18×2.5	
DSP-M5I-1560	15.6	83	16	48	133		
DSP-M5I-1570	15.7	83	16	48	133		
DSP-M5I-1580	15.8	83	16	48	133		
DSP-M5I-1590	15.9	83	16	48	133		
DSP-M5I-1600	16.0	83	16	48	133	M18×2	
DSP-M5I-1610	16.1	93	18	48	143		
DSP-M5I-1620	16.2	93	18	48	143		
DSP-M5I-1630	16.3	93	18	48	143		
DSP-M5I-1640	16.4	93	18	48	143		
DSP-M5I-1650	16.5	93	18	48	143		
DSP-M5I-1660	16.6	93	18	48	143	3/4-10UNC	
DSP-M5I-1670	16.7	93	18	48	143		
DSP-M5I-1680	16.8	93	18	48	143		
DSP-M5I-1690	16.9	93	18	48	143		
DSP-M5I-1700	17.0	93	18	48	143	M18×1	
DSP-M5I-1710	17.1	93	18	48	143		
DSP-M5I-1720	17.2	93	18	48	143		
DSP-M5I-1730	17.3	93	18	48	143		
DSP-M5I-1740	17.4	93	18	48	143		
DSP-M5I-1750	17.5	93	18	48	143	M20×2.5 3/4-16UNF	
DSP-M5I-1760	17.6	93	18	48	143		
DSP-M5I-1770	17.7	93	18	48	143		
DSP-M5I-1780	17.8	93	18	48	143	3/4-20UNIF	
DSP-M5I-1790	17.9	93	18	48	143		
DSP-M5I-1800	18.0	93	18	48	143	M20×2	
DSP-M5I-1810	18.1	101	20	50	153		
DSP-M5I-1820	18.2	101	20	50	153		
DSP-M5I-1830	18.3	101	20	50	153		
DSP-M5I-1840	18.4	101	20	50	153		

# DSP-M5I

Internal Cooling Carbide Twist Drills 5D Type



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

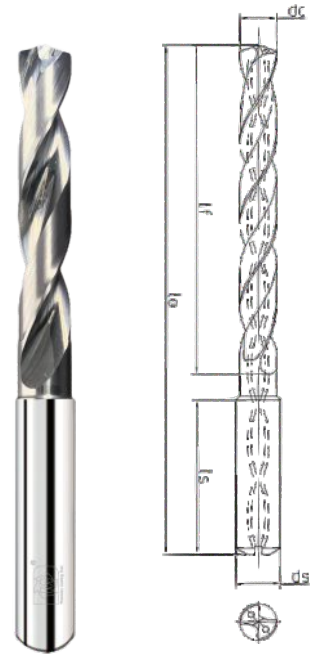
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M5I-1850	18.5	101	20	50	153	M20×1.5	
DSP-M5I-1860	18.6	101	20	50	153		
DSP-M5I-1870	18.7	101	20	50	153		
DSP-M5I-1880	18.8	101	20	50	153		
DSP-M5I-1890	18.9	101	20	50	153		
DSP-M5I-1900	19.0	101	20	50	153	M20×1	
DSP-M5I-1910	19.1	101	20	50	153		
DSP-M5I-1920	19.2	101	20	50	153		
DSP-M5I-1930	19.3	101	20	50	153		
DSP-M5I-1940	19.4	101	20	50	153		
DSP-M5I-1950	19.5	101	20	50	153		
DSP-M5I-1960	19.6	101	20	50	153	7/8-9UNC	
DSP-M5I-1970	19.7	101	20	50	153		
DSP-M5I-1980	19.8	101	20	50	153		
DSP-M5I-1990	19.9	101	20	50	153		
DSP-M5I-2000	20.0	101	20	50	153	M22×2	

**DSP-N8I**

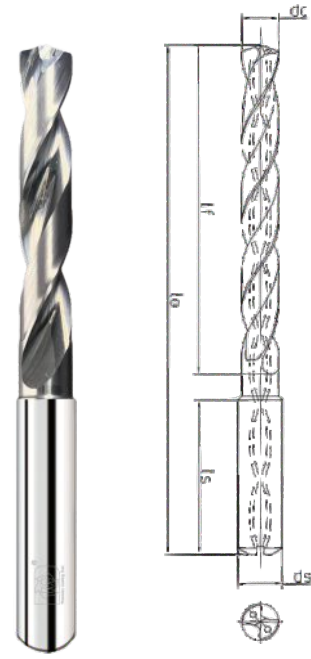
Internal Cooling Carbide Twist Drills 8D Type



Ord. No.	$\Phi \cdot dc$	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-N8I-0300	3.0	30	4	28	62		
DSP-N8I-0350	3.5	35.5	4	28	67	M4×0.5 NO.8-36UNF	
DSP-N8I-0400	4.0	42	4	28	75		
DSP-N8I-0450	4.5	50	6	36	90	M5×0.5 NO.12-24UNC	
DSP-N8I-0500	5.0	50	6	36	90	M6×1	
DSP-N8I-0550	5.5	57	6	36	97	1/4-28UNF	M6×1
DSP-N8I-0600	6.0	57	6	36	97		
DSP-N8I-0650	6.5	66	8	36	106		
DSP-N8I-0700	7.0	76	8	36	116	M8×1	
DSP-N8I-0750	7.5	76	8	36	116		
DSP-N8I-0800	8.0	76	8	36	116	3/8-16UNC	
DSP-N8I-0850	8.5	87	10	40	131	M10×1.5 3/8-24UNF	
DSP-N8I-0900	9.0	87	10	40	131	M10×1	
DSP-N8I-0950	9.5	95	10	40	139		
DSP-N8I-1000	10.0	95	10	40	139		
DSP-N8I-1050	10.5	106	12	45	155		
DSP-N8I-1100	11.0	106	12	45	155	M12×1	
DSP-N8I-1150	11.5	114	12	45	163	1/2-20UNF	
DSP-N8I-1200	12.0	114	12	45	163	M14×2	
DSP-N8I-1250	12.5	133	14	45	182	M14×1.5	
DSP-N8I-1300	13.0	133	14	45	182	M14×1	M14×2
DSP-N8I-1350	13.5	133	14	45	182		
DSP-N8I-1400	14.0	133	14	45	182	M16×2	
DSP-N8I-1450	14.5	152	16	48	204	M16×1.5 5/8-18UNF	
DSP-N8I-1500	15.0	152	16	48	204	M16×1	M16×2
DSP-N8I-1550	15.5	152	16	48	204	M18×2.5	
DSP-N8I-1600	16.0	152	16	48	204	M18×2	
DSP-N8I-1650	16.5	171	18	48	223		
DSP-N8I-1700	17.0	171	18	48	223	M18×1	
DSP-N8I-1750	17.5	171	18	48	223	M20×2.5 3/4-16UNF	
DSP-N8I-1800	18.0	171	18	48	223	M20×2	
DSP-N8I-1850	18.5	190	20	50	244	M20×1.5	

# DSP-N8I

Internal Cooling Carbide Twist Drills 8D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-N8I-1900	19.0	190	20	50	244	M20×1	
DSP-N8I-1950	19.5	190	20	50	244		
DSP-N8I-2000	20.0	190	20	50	244	M22×2	

CARBIDE DRILLS

CARBIDE MILLING CUTTERS

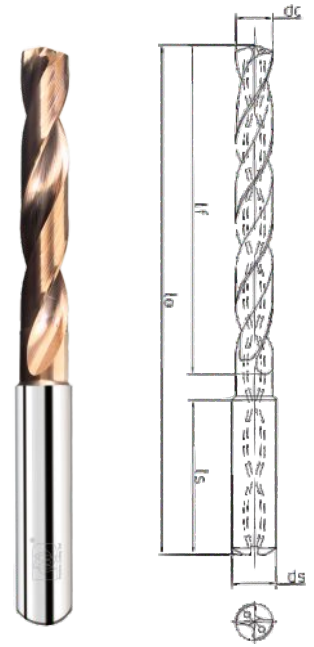
CARBIDE TAPS

CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

**DSP-KP8I**

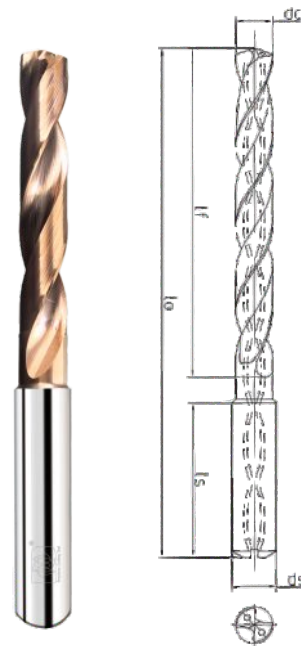
Internal Cooling Carbide Twist Drills 8D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP8I-0300	3.0	30	4	28	62		
DSP-KP8I-0350	3.5	35.5	4	28	67	M4×0.5 NO.8-36UNF	
DSP-KP8I-0400	4.0	42	4	28	75		
DSP-KP8I-0450	4.5	50	6	36	90	M5×0.5 NO.12-24UNC	
DSP-KP8I-0500	5.0	50	6	36	90	M6×1	
DSP-KP8I-0550	5.5	57	6	36	97	1/4-28UNF	M6×1
DSP-KP8I-0600	6.0	57	6	36	97		
DSP-KP8I-0650	6.5	66	8	36	106		
DSP-KP8I-0700	7.0	76	8	36	116	M8×1	
DSP-KP8I-0750	7.5	76	8	36	116		
DSP-KP8I-0800	8.0	76	8	36	116	3/8-16UNC	
DSP-KP8I-0850	8.5	87	10	40	131	M10×1.5 3/8-24UNF	
DSP-KP8I-0900	9.0	87	10	40	131	M10×1	
DSP-KP8I-0950	9.5	95	10	40	139		
DSP-KP8I-1000	10.0	95	10	40	139		
DSP-KP8I-1050	10.5	106	12	45	155		
DSP-KP8I-1100	11.0	106	12	45	155	M12×1	
DSP-KP8I-1150	11.5	114	12	45	163	1/2-20UNF	
DSP-KP8I-1200	12.0	114	12	45	163	M14×2	
DSP-KP8I-1250	12.5	133	14	45	182	M14×1.5	
DSP-KP8I-1300	13.0	133	14	45	182	M14×1	M14×2
DSP-KP8I-1350	13.5	133	14	45	182		
DSP-KP8I-1400	14.0	133	14	45	182	M16×2	
DSP-KP8I-1450	14.5	152	16	48	204	M16×1.5 5/8-18UNF	
DSP-KP8I-1500	15.0	152	16	48	204	M16×1	M16×2
DSP-KP8I-1550	15.5	152	16	48	204	M18×2.5	
DSP-KP8I-1600	16.0	152	16	48	204	M18×2	
DSP-KP8I-1650	16.5	171	18	48	223		
DSP-KP8I-1700	17.0	171	18	48	223	M18×1	
DSP-KP8I-1750	17.5	171	18	48	223	M20×2.5 3/4-16UNF	
DSP-KP8I-1800	18.0	171	18	48	223	M20×2	
DSP-KP8I-1850	18.5	190	20	50	244	M20×1.5	

# DSP-KP8I

Internal Cooling Carbide Twist Drills 8D Type



Ord. No.	$\Phi \cdot dc$	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-KP8I-1900	19.0	190	20	50	244	M20×1	
DSP-KP8I-1950	19.5	190	20	50	244		
DSP-KP8I-2000	20.0	190	20	50	244	M22×2	

CARBIDE DRILLS

CARBIDE MILLING CUTTERS

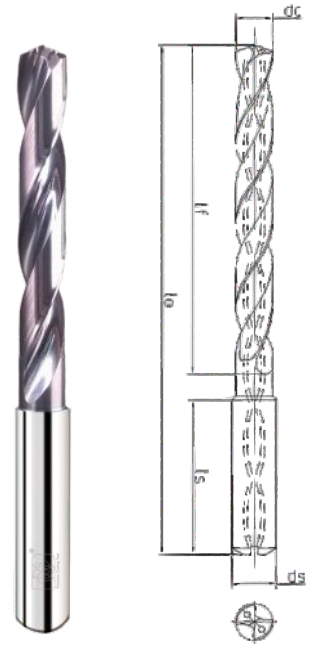
CARBIDE TAPS

CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

**DSP-M8I**

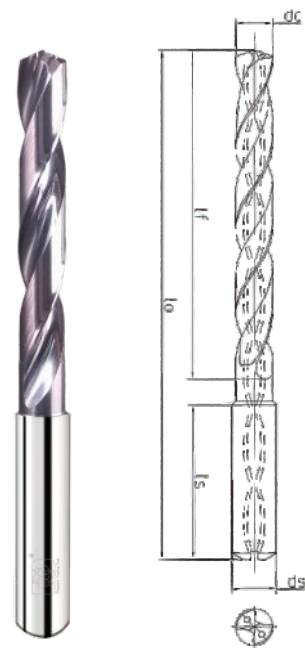
Internal Cooling Carbide Twist Drills 8D Type



Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M8I-0300	3.0	30	4	28	62		
DSP-M8I-0350	3.5	35.5	4	28	67	M4×0.5 NO.8-36UNF	
DSP-M8I-0400	4.0	42	4	28	75		
DSP-M8I-0450	4.5	50	6	36	90	M5×0.5 NO.12-24UNC	
DSP-M8I-0500	5.0	50	6	36	90	M6×1	
DSP-M8I-0550	5.5	57	6	36	97	1/4-28UNF	M6×1
DSP-M8I-0600	6.0	57	6	36	97		
DSP-M8I-0650	6.5	66	8	36	106		
DSP-M8I-0700	7.0	76	8	36	116	M8×1	
DSP-M8I-0750	7.5	76	8	36	116		
DSP-M8I-0800	8.0	76	8	36	116	3/8-16UNC	
DSP-M8I-0850	8.5	87	10	40	131	M10×1.5 3/8-24UNF	
DSP-M8I-0900	9.0	87	10	40	131	M10×1	
DSP-M8I-0950	9.5	95	10	40	139		
DSP-M8I-1000	10.0	95	10	40	139		
DSP-M8I-1050	10.5	106	12	45	155		
DSP-M8I-1100	11.0	106	12	45	155	M12×1	
DSP-M8I-1150	11.5	114	12	45	163	1/2-20UNF	
DSP-M8I-1200	12.0	114	12	45	163	M14×2	
DSP-M8I-1250	12.5	133	14	45	182	M14×1.5	
DSP-M8I-1300	13.0	133	14	45	182	M14×1	M14×2
DSP-M8I-1350	13.5	133	14	45	182		
DSP-M8I-1400	14.0	133	14	45	182	M16×2	
DSP-M8I-1450	14.5	152	16	48	204	M16×1.5 5/8-18UNF	
DSP-M8I-1500	15.0	152	16	48	204	M16×1	M16×2
DSP-M8I-1550	15.5	152	16	48	204	M18×2.5	
DSP-M8I-1600	16.0	152	16	48	204	M18×2	
DSP-M8I-1650	16.5	171	18	48	223		
DSP-M8I-1700	17.0	171	18	48	223	M18×1	
DSP-M8I-1750	17.5	171	18	48	223	M20×2.5 3/4-16UNF	
DSP-M8I-1800	18.0	171	18	48	223	M20×2	
DSP-M8I-1850	18.5	190	20	50	244	M20×1.5	

# DSP-M8I

Internal Cooling Carbide Twist Drills 8D Type



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

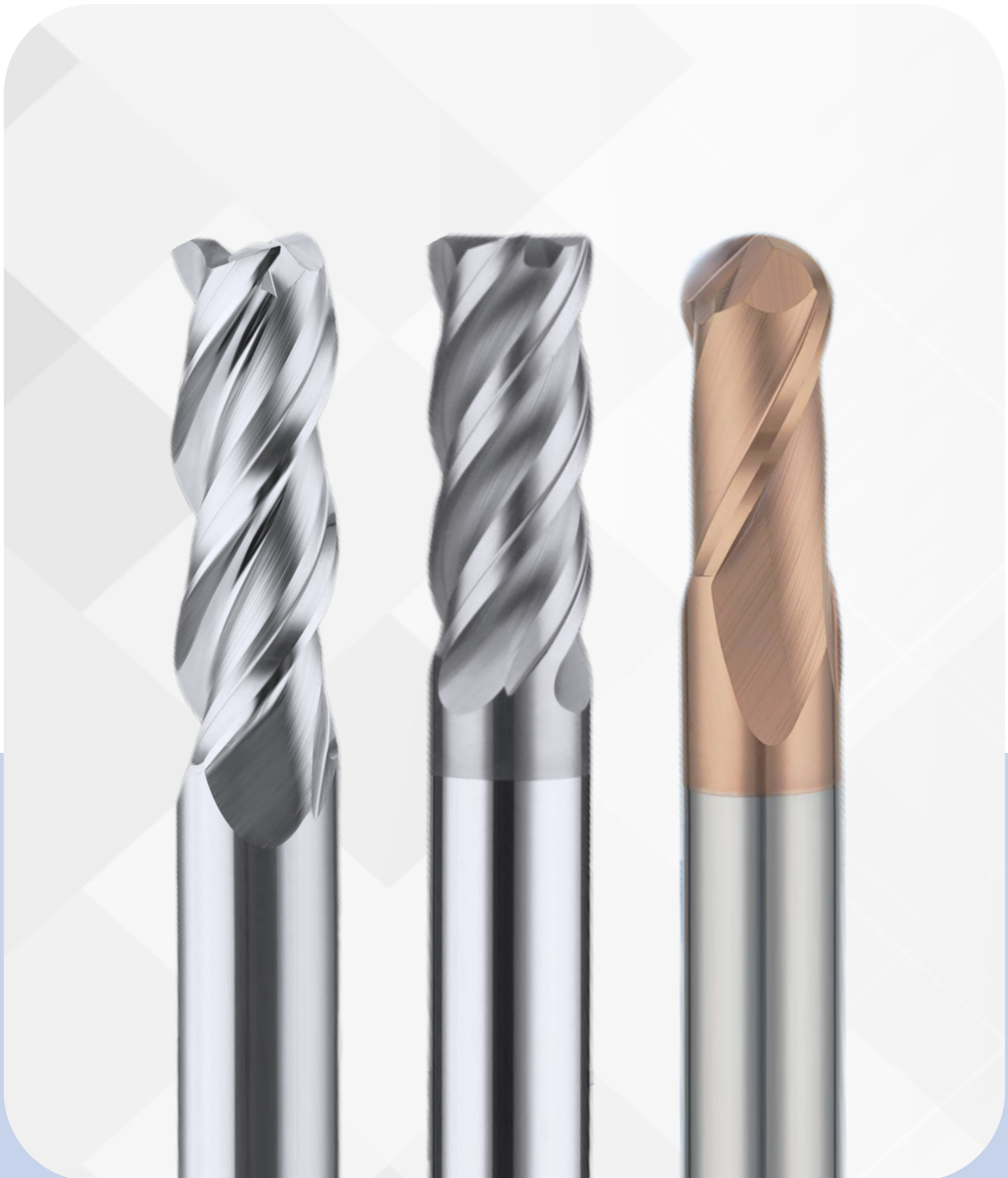
CARBIDE TAPS

CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Φ·dc	lf	ds	ls	lo	Tap Drill Rec.	
						Fluted Taps	Fluteless Taps
DSP-M8I-1900	19.0	190	20	50	244	M20×1	
DSP-M8I-1950	19.5	190	20	50	244		
DSP-M8I-2000	20.0	190	20	50	244	M22×2	

# Carbide Milling Cutters



# D&M CARBIDE MILLING CUTTERS

The standard tool inventory of D&M carbide milling cutters is comprehensive, with types divided into 2-flute, 3-flute, and 4-flute designs, both in equal and unequal division series; the processed materials are suitable for six general material categories: N, K, P, S, M, and H. This ensures great versatility and specific material targeting, significantly broadening the application range of standard products.

## Order Number Naming Convention

Tool Series	Sub Series	Number of Flutes 2/3/4	Diameter (except for ball nose end mills)	(Radius Corner)	Overall Length
MSP	SA TP KP PM PP				
Notes	In the specifications table, an " * " indicates a different shank diameter, other dimensions are the same				

# SA Series Milling Cutter for Aluminum

General-purpose for Aluminum

- Large chip space and unique blade design ensure efficient machining of aluminum parts and excellent surface quality.
- Widely used for efficient rough and semi-rough machining of aluminum parts, achieving excellent surface quality.
- Unequal groove division, double overlap angle on the end face, and polishing blade design.



## Triple-edged flat tools

### Applicable Materials

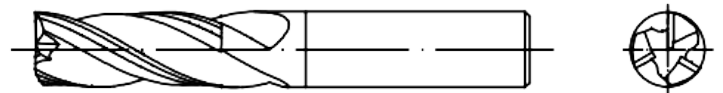
Aluminum Alloy

### Performance Features

Unequal Division, Polishing Edge Design,  
Large Chip Space, Special Blade Type

### Machining Methods

Rough Machining, Semi-Finishing, Finishing



Order No.	Diameter	Flute Length	Shank Diameter	Overall Length
	D	L1	SD	L
MSP-SA3-010-050	1	3	4	50
MSP-SA3-015-050	1.5	4.5	4	50
MSP-SA3-020-050	2	6	4	50
MSP-SA3-025-050	2.5	7.5	4	50
MSP-SA3-030-050	3	9	3	50
MSP-SA3-030-075	3	12	3	75
MSP-SA3-030-100	3	12	3	100
MSP-SA3-030-050*	3	9	4	50
MSP-SA3-035-050	3.5	10.5	4	50
MSP-SA3-040-050	4	12	4	50
MSP-SA3-040-075	4	16	4	75
MSP-SA3-040-100	4	20	4	100
MSP-SA3-050-050	5	15	5	50
MSP-SA3-050-075	5	20	5	75
MSP-SA3-050-100	5	25	5	100
MSP-SA3-050-050*	5	15	6	50
MSP-SA3-060-050	6	18	6	50
MSP-SA3-060-075	6	25	6	75
MSP-SA3-060-100	6	30	6	100
MSP-SA3-060-150	6	45	6	150
MSP-SA3-080-060	8	24	8	60
MSP-SA3-080-075	8	30	8	75
MSP-SA3-080-100	8	35	8	100
MSP-SA3-080-150	8	50	8	150
MSP-SA3-100-075	10	30	10	75
MSP-SA3-100-100	10	40	10	100
MSP-SA3-100-150	10	55	10	150
MSP-SA3-120-075	12	36	12	75
MSP-SA3-120-100	12	45	12	100
MSP-SA3-120-150	12	60	12	150
MSP-SA3-140-100	14	45	14	100
MSP-SA3-140-150	14	70	14	150

## Triple-edged flat tools

### Applicable Materials

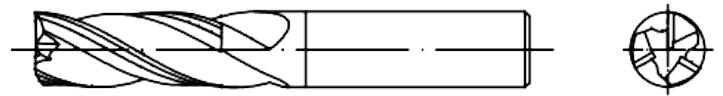
Aluminum Alloy

### Performance Features

Unequal Division, Polishing Edge Design,  
Large Chip Space, Special Blade Type

### Machining Methods

Rough Machining, Semi-Finishing, Finishing



Order No.	Diameter	Flute Length	Shank Diameter	Overall Length
	D	L1	SD	L
MSP-SA3-160-100	16	45	16	100
MSP-SA3-160-150	16	70	16	150
MSP-SA3-180-100	18	45	18	100
MSP-SA3-180-150	18	70	18	150
MSP-SA3-200-100	20	45	20	100
MSP-SA3-200-150	20	70	20	150

## Double-edged flat tools

### Applicable Materials

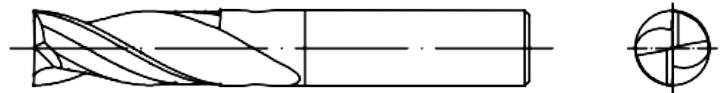
Aluminum Alloy

### Performance Features

Unequal Division, Polishing Edge Design,  
Large Chip Space, Special Blade Type

### Machining Methods

Rough Machining, Semi-Finishing, Finishing



Order No.	Diameter	Flute Length	Shank Diameter	Overall Length
	D	L1	SD	L
MSP-SA2-010-050	1	3	4	50
MSP-SA2-015-050	1.5	4.5	4	50
MSP-SA2-020-050	2	6	4	50
MSP-SA2-025-050	2.5	7.5	4	50
MSP-SA2-030-050	3	9	3	50
MSP-SA2-030-075	3	12	3	75
MSP-SA2-030-100	3	12	3	100
MSP-SA2-030-050*	3	9	4	50
MSP-SA2-035-050	3.5	10.5	4	50
MSP-SA2-040-050	4	12	4	50
MSP-SA2-040-075	4	16	4	75
MSP-SA2-040-100	4	20	4	100
MSP-SA2-050-050	5	15	5	50
MSP-SA2-050-075	5	20	5	75
MSP-SA2-050-100	5	25	5	100
MSP-SA2-050-050*	5	15	6	50
MSP-SA2-060-050	6	18	6	50
MSP-SA2-060-075	6	25	6	75
MSP-SA2-060-100	6	30	6	100
MSP-SA2-060-150	6	45	6	150
MSP-SA2-080-060	8	24	8	60
MSP-SA2-080-075	8	30	8	75
MSP-SA2-080-100	8	35	8	100
MSP-SA2-080-150	8	50	8	150
MSP-SA2-100-075	10	30	10	75
MSP-SA2-100-100	10	40	10	100
MSP-SA2-100-150	10	55	10	150
MSP-SA2-120-075	12	36	12	75
MSP-SA2-120-100	12	45	12	100
MSP-SA2-120-150	12	60	12	150
MSP-SA2-140-100	14	45	14	100
MSP-SA2-140-150	14	70	14	150

## Double-edged flat tools

### Applicable Materials

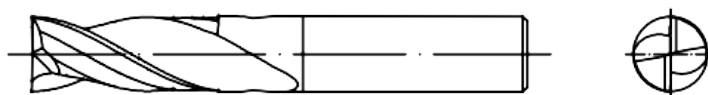
Aluminum Alloy

### Performance Features

Unequal Division, Polishing Edge Design,  
Large Chip Space, Special Blade Type

### Machining Methods

Rough Machining, Semi-Finishing, Finishing



Order No.	Diameter	Flute Length	Shank Diameter	Overall Length
	D	L1	SD	L
MSP-SA2-160-100	16	45	16	100
MSP-SA2-160-150	16	70	16	150
MSP-SA2-180-100	18	45	18	100
MSP-SA2-180-150	18	70	18	150
MSP-SA2-200-100	20	45	20	100
MSP-SA2-200-150	20	70	20	150

# Double-edged ball tools

## Applicable Materials

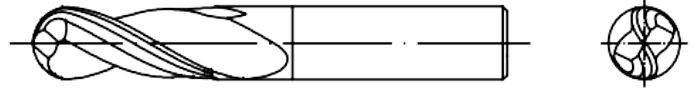
Aluminum Alloy

## Performance Features

Unequal Division, Polishing Edge Design, Large Chip Space, Special Blade Type

## Machining Methods

Rough Machining, Semi-Finishing, Finishing



Order No.	Diameter	Flute Length	Shank Diameter		Overall Length
	D		L1	SD	
MSP-SA2-R005-050	0.5	2		4	50
MSP-SA2-R0075-050	0.75	3		4	50
MSP-SA2-R010-050	1	4		4	50
MSP-SA2-R0125-050	1.25	5		4	50
MSP-SA2-R015-050	1.5	6		3	50
MSP-SA2-R015-075	1.5	6		3	75
MSP-SA2-R015-100	1.5	6		3	100
MSP-SA2-R015-050*	1.5	6		3	50
MSP-SA2-R015-075*	1.5	6		4	75
MSP-SA2-R015-100*	1.5	6		4	100
MSP-SA2-R0175-050	1.75	7		4	50
MSP-SA2-R020-050	2	8		4	50
MSP-SA2-R020-075	2	8		4	75
MSP-SA2-R020-100	2	8		4	100
MSP-SA2-R025-050	2.5	10		5	50
MSP-SA2-R025-075	2.5	10		5	75
MSP-SA2-R025-100	2.5	10		5	100
MSP-SA2-R025-050*	2.5	10		6	50
MSP-SA2-R025-075*	2.5	10		6	75
MSP-SA2-R025-100*	2.5	10		6	100
MSP-SA2-R030-050	3	12		6	50
MSP-SA2-R030-075	3	12		6	75
MSP-SA2-R030-100	3	12		6	100
MSP-SA2-R030-150	3	12		6	150
MSP-SA2-R040-060	4	16		8	60
MSP-SA2-R040-075	4	16		8	75
MSP-SA2-R040-100	4	16		8	100
MSP-SA2-R040-150	4	16		8	150
MSP-SA2-R050-075	5	20		10	75
MSP-SA2-R050-100	5	20		10	100
MSP-SA2-R050-100	5	20		10	150
MSP-SA2-R060-075	6	24		12	75

## Double-edged ball tools

### Applicable Materials

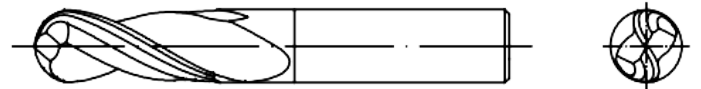
Aluminum Alloy

### Performance Features

Unequal Division, Polishing Edge Design,  
Large Chip Space, Special Blade Type

### Machining Methods

Rough Machining, Semi-Finishing, Finishing



Order No.	Diameter	Flute Length	Shank Diameter	Overall Length
	D	L1	SD	L
MSP-SA2-R060-100	6	24	12	100
MSP-SA2-R060-150	6	24	12	150
MSP-SA2-R080-100	8	32	16	100
MSP-SA2-R080-150	8	32	16	150
MSP-SA2-R100-100	10	40	20	100
MSP-SA2-R100-150	10	40	20	150

# TP Series Tungsten Steel Milling Cutter

General-purpose Cutting Special Processing Series

- Suitable for high-efficiency roughing and semi-finishing of ordinary steel
- Special post-treatment on the surface effectively reduces friction, allows for smoother chip evacuation, and enhances the surface quality of machining
- Advanced nano-composite coating with good heat resistance allows for stable machining even at high temperatures



## Four-edged flat tools

### Applicable Materials

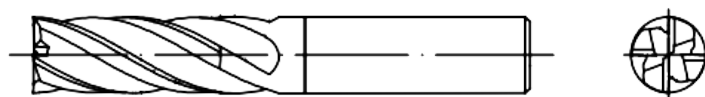
Ordinary Steel, Soft Steel - HRC 40 and below

### Performance Features

Special Coating,  
Post-treatment Process

### Machining Methods

Rough Machining, Semi-Finishing



Order No.	Diameter	Flute Length	Shank Diameter	Overall Length
	D	L1	SD	L
MSP-TP4-010-050	1	3	4	50
MSP-TP4-015-050	1.5	4.5	4	50
MSP-TP4-020-050	2	6	4	50
MSP-TP4-025-050	2.5	7.5	4	50
MSP-TP4-030-050	3	9	3	50
MSP-TP4-030-075	3	12	3	75
MSP-TP4-030-100	3	12	3	100
MSP-TP4-030-050*	3	9	4	50
MSP-TP4-035-050	3.5	10.5	4	50
MSP-TP4-040-050	4	12	4	50
MSP-TP4-040-075	4	16	4	75
MSP-TP4-040-100	4	20	4	100
MSP-TP4-050-050	5	13	5	50
MSP-TP4-050-075	5	20	5	75
MSP-TP4-050-100	5	25	5	100
MSP-TP4-050-050*	5	13	6	50
MSP-TP4-060-050	6	15	6	50
MSP-TP4-060-075	6	25	6	75
MSP-TP4-060-100	6	30	6	100
MSP-TP4-060-150	6	45	6	150
MSP-TP4-080-060	8	20	8	60
MSP-TP4-080-075	8	30	8	75
MSP-TP4-080-100	8	35	8	100
MSP-TP4-080-150	8	50	8	150
MSP-TP4-100-075	10	25	10	75
MSP-TP4-100-100	10	40	10	100
MSP-TP4-100-150	10	55	10	150
MSP-TP4-120-075	12	30	12	75
MSP-TP4-120-100	12	45	12	100
MSP-TP4-120-150	12	60	12	150
MSP-TP4-140-100	14	45	14	100
MSP-TP4-140-150	14	70	14	150

## Four-edged flat tools

### Applicable Materials

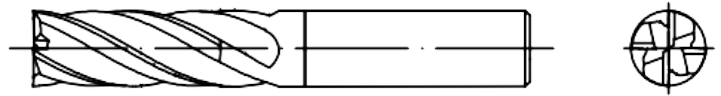
Ordinary Steel, Soft Steel - HRC 40 and below

### Performance Features

Special Coating,  
Post-treatment Process

### Machining Methods

Rough Machining, Semi-Finishing



Order No.	Diameter	Flute Length	Shank Diameter	Overall Length
	D			
MSP-TP4-160-100	16	45	16	100
MSP-TP4-160-150	16	70	16	150
MSP-TP4-180-100	18	45	18	100
MSP-TP4-180-150	18	70	18	150
MSP-TP4-200-100	20	45	20	100
MSP-TP4-200-150	20	70	20	150

## Double-edged flat tools

### Applicable Materials

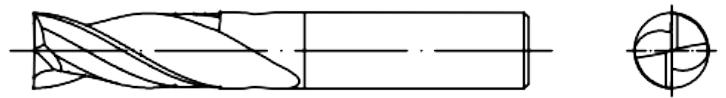
Ordinary Steel, Soft Steel - HRC 40 and below

### Performance Features

Special Coating,  
Post-treatment Process

### Machining Methods

Rough Machining, Semi-Finishing



Order No.	Diameter	Flute Length	Shank Diameter	Overall Length
	D	L1	SD	L
MSP-TP2-010-050	1	3	4	50
MSP-TP2-015-050	1.5	4.5	4	50
MSP-TP2-020-050	2	6	4	50
MSP-TP2-025-050	2.5	7.5	4	50
MSP-TP2-030-050	3	9	3	50
MSP-TP2-030-075	3	12	3	75
MSP-TP2-030-100	3	12	3	100
MSP-TP2-030-050*	3	9	4	50
MSP-TP2-035-050	3.5	10.5	4	50
MSP-TP2-040-050	4	12	4	50
MSP-TP2-040-075	4	16	4	75
MSP-TP2-040-100	4	20	4	100
MSP-TP2-050-050	5	13	5	50
MSP-TP2-050-075	5	20	5	75
MSP-TP2-050-100	5	25	5	100
MSP-TP2-050-050*	5	13	6	50
MSP-TP2-060-050	6	15	6	50
MSP-TP2-060-075	6	25	6	75
MSP-TP2-060-100	6	30	6	100
MSP-TP2-060-150	6	45	6	150
MSP-TP2-080-060	8	20	8	60
MSP-TP2-080-075	8	30	8	75
MSP-TP2-080-100	8	35	8	100
MSP-TP2-080-150	8	50	8	150
MSP-TP2-100-075	10	25	10	75
MSP-TP2-100-100	10	40	10	100
MSP-TP2-100-150	10	55	10	150
MSP-TP2-120-075	12	30	12	75
MSP-TP2-120-100	12	45	12	100
MSP-TP2-120-150	12	60	12	150
MSP-TP2-140-100	14	45	14	100
MSP-TP2-140-150	14	70	14	150

## Double-edged flat tools

### Applicable Materials

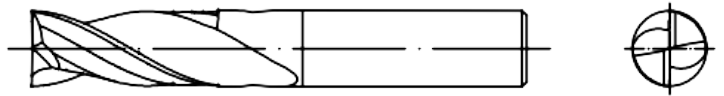
Ordinary Steel, Soft Steel - HRC 40 and below

### Performance Features

Special Coating,  
Post-treatment Process

### Machining Methods

Rough Machining, Semi-Finishing



Order No.	Diameter	Flute Length	Shank Diameter	Overall Length
	D			
MSP-TP2-160-100	16	45	16	100
MSP-TP2-160-150	16	70	16	150
MSP-TP2-180-100	18	45	18	100
MSP-TP2-180-150	18	70	18	150
MSP-TP2-200-100	20	45	20	100
MSP-TP2-200-150	20	70	20	150

## Double-edged ball tools

### Applicable Materials

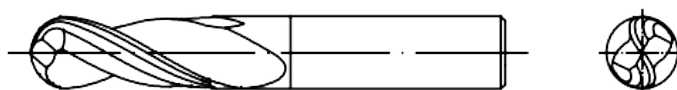
Ordinary Steel, Soft Steel - HRC 40 and below

### Performance Features

Special Coating,  
Post-treatment Process

### Machining Methods

Rough Machining, Semi-Finishing



Order No.	Diameter	Flute Length	Shank Diameter	Overall Length
	D			
MSP-TP2-R005-050	0.5	2	4	50
MSP-TP2-R0075-050	0.75	3	4	50
MSP-TP2-R010-050	1	4	4	50
MSP-TP2-R0125-050	1.25	5	4	50
MSP-TP2-R015-050	1.5	6	3	50
MSP-TP2-R015-075	1.5	6	3	75
MSP-TP2-R015-100	1.5	6	3	100
MSP-TP2-R015-050*	1.5	6	3	50
MSP-TP2-R015-075*	1.5	6	4	75
MSP-TP2-R015-100*	1.5	6	4	100
MSP-TP2-R0175-050	1.75	7	4	50
MSP-TP2-R020-050	2	8	4	50
MSP-TP2-R020-075	2	8	4	75
MSP-TP2-R020-100	2	8	4	100
MSP-TP2-R025-050	2.5	10	5	50
MSP-TP2-R025-075	2.5	10	5	75
MSP-TP2-R025-100	2.5	10	5	100
MSP-TP2-R025-050*	2.5	10	6	50
MSP-TP2-R025-075*	2.5	10	6	75
MSP-TP2-R025-100*	2.5	10	6	100
MSP-TP2-R030-050	3	12	6	50
MSP-TP2-R030-075	3	12	6	75
MSP-TP2-R030-100	3	12	6	100
MSP-TP2-R030-150	3	12	6	150
MSP-TP2-R040-060	4	16	8	60
MSP-TP2-R040-075	4	16	8	75
MSP-TP2-R040-100	4	16	8	100
MSP-TP2-R040-150	4	16	8	150
MSP-TP2-R050-075	5	20	10	75
MSP-TP2-R050-100	5	20	10	100
MSP-TP2-R050-100	5	20	10	150
MSP-TP2-R060-075	6	24	12	75

## Double-edged ball tools

### Applicable Materials

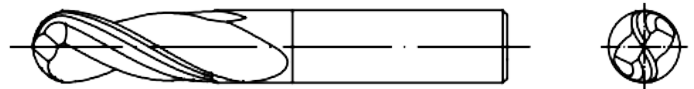
Ordinary Steel, Soft Steel - HRC 40 and below

### Performance Features

Special Coating,  
Post-treatment Process

### Machining Methods

Rough Machining, Semi-Finishing



Order No.	Diameter	Flute Length	Shank Diameter	Overall Length
	D	L1	SD	L
MSP-TP2-R060-100	6	24	12	100
MSP-TP2-R060-150	6	24	12	150
MSP-TP2-R080-100	8	32	16	100
MSP-TP2-R080-150	8	32	16	150
MSP-TP2-R100-100	10	40	20	100
MSP-TP2-R100-150	10	40	20	150

## Four-edged round nose tools

### Applicable Materials

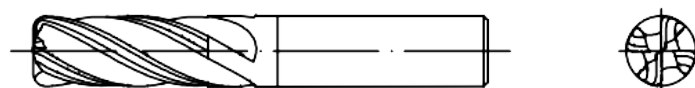
Ordinary Steel, Soft Steel - HRC 40 and below

### Performance Features

Special Coating,  
Post-treatment Process

### Machining Methods

Rough Machining, Semi-Finishing



Order No.	Diameter	Corner Radius	Flute Length	Shank Diameter	Overall Length
	D	R	L1	SD	L
MSP-TP4-010-R02-050	1	0.2	3	4	50
MSP-TP4-015-R02-050	1.5	0.2	4.5	4	50
MSP-TP4-015-R03-050	1.5	0.3	4.5	4	50
MSP-TP4-020-R02-050	2	0.2	6	4	50
MSP-TP4-020-R03-050	2	0.3	6	4	50
MSP-TP4-020-R05-050	2	0.5	6	4	50
MSP-TP4-025-R02-050	2.5	0.2	7.5	4	50
MSP-TP4-025-R05-050	2.5	0.5	7.5	4	50
MSP-TP4-030-R02-050	3	0.2	9	4	50
MSP-TP4-030-R03-050	3	0.3	9	4	50
MSP-TP4-030-R05-050	3	0.5	9	4	50
MSP-TP4-030-R05-075	3	0.5	12	4	75
MSP-TP4-030-R05-100	3	0.5	12	4	100
MSP-TP4-030-R05-050*	3	0.5	9	3	50
MSP-TP4-030-R05-075	3	0.5	12	3	75
MSP-TP4-030-R05-100	3	0.5	12	3	100
MSP-TP4-030-R10-050	3	1	9	4	50
MSP-TP4-030-R10-075	3	1	12	4	75
MSP-TP4-030-R10-100	3	1	12	4	100
MSP-TP4-030-R10-050*	3	1	9	3	50
MSP-TP4-030-R10-075*	3	1	12	3	75
MSP-TP4-030-R10-100*	3	1	12	3	100
MSP-TP4-035-R05-050	3.5	0.5	10	4	50
MSP-TP4-040-R02-050	4	0.2	10	4	50
MSP-TP4-040-R03-050	4	0.3	10	4	50
MSP-TP4-040-R05-050	4	0.5	10	4	50
MSP-TP4-040-R05-075	4	0.5	16	4	75
MSP-TP4-040-R05-100	4	0.5	16	4	100
MSP-TP4-040-R10-050	4	1	10	4	50
MSP-TP4-040-R10-075	4	1	16	4	75
MSP-TP4-040-R10-100	4	1	16	4	100
MSP-TP4-050-R05-050	5	0.5	13	6	50

## Four-edged round nose tools

### Applicable Materials

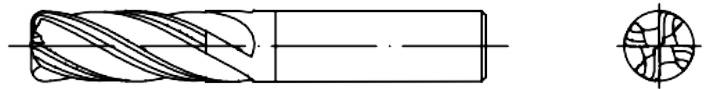
Ordinary Steel, Soft Steel - HRC 40 and below

### Performance Features

Special Coating,  
Post-treatment Process

### Machining Methods

Rough Machining, Semi-Finishing



Order No.	Diameter	Corner Radius	Flute Length	Shank Diameter	Overall Length
	D	R	L1	SD	L
MSP-TP4-050-R05-050*	5	0.5	13	5	50
MSP-TP4-050-R05-075	5	0.5	15	5	75
MSP-TP4-050-R05-100	5	0.5	18	5	100
MSP-TP4-050-R10-050	5	1	13	6	50
MSP-TP4-050-R10-050*	5	1	13	5	50
MSP-TP4-050-R10-075	5	1	15	5	75
MSP-TP4-050-R10-100	5	1	15	5	100
MSP-TP4-060-R02-050	6	0.2	15	6	50
MSP-TP4-060-R03-050	6	0.3	15	6	50
MSP-TP4-060-R05-050	6	0.5	15	6	50
MSP-TP4-060-R05-075	6	0.5	25	6	75
MSP-TP4-060-R05-100	6	0.5	25	6	100
MSP-TP4-060-R05-150	6	0.5	40	6	150
MSP-TP4-060-R10-050	6	1	15	6	50
MSP-TP4-060-R10-075	6	1	25	6	75
MSP-TP4-060-R10-100	6	1	25	6	100
MSP-TP4-060-R10-150	6	1	40	6	150
MSP-TP4-060-R15-050	6	1.5	15	6	50
MSP-TP4-080-R02-060	8	0.2	20	8	60
MSP-TP4-080-R05-060	8	0.5	20	8	60
MSP-TP4-080-R05-075	8	0.5	30	8	75
MSP-TP4-080-R05-100	8	0.5	30	8	100
MSP-TP4-080-R05-150	8	0.5	45	8	150
MSP-TP4-080-R10-060	8	1	20	8	60
MSP-TP4-080-R10-075	8	1	30	8	75
MSP-TP4-080-R10-100	8	1	30	8	100
MSP-TP4-080-R10-150	8	1	45	8	150
MSP-TP4-080-R20-060	8	2	20	8	60
MSP-TP4-100-R02-075	10	0.2	25	10	75
MSP-TP4-100-R05-075	10	0.5	25	10	75
MSP-TP4-100-R05-100	10	0.5	40	10	100
MSP-TP4-100-R05-150	10	0.5	50	10	150

## Four-edged round nose tools

### Applicable Materials

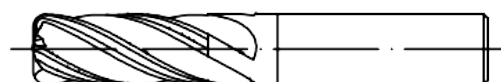
Ordinary Steel, Soft Steel - HRC 40 and below

### Performance Features

Special Coating,  
Post-treatment Process

### Machining Methods

Rough Machining, Semi-Finishing

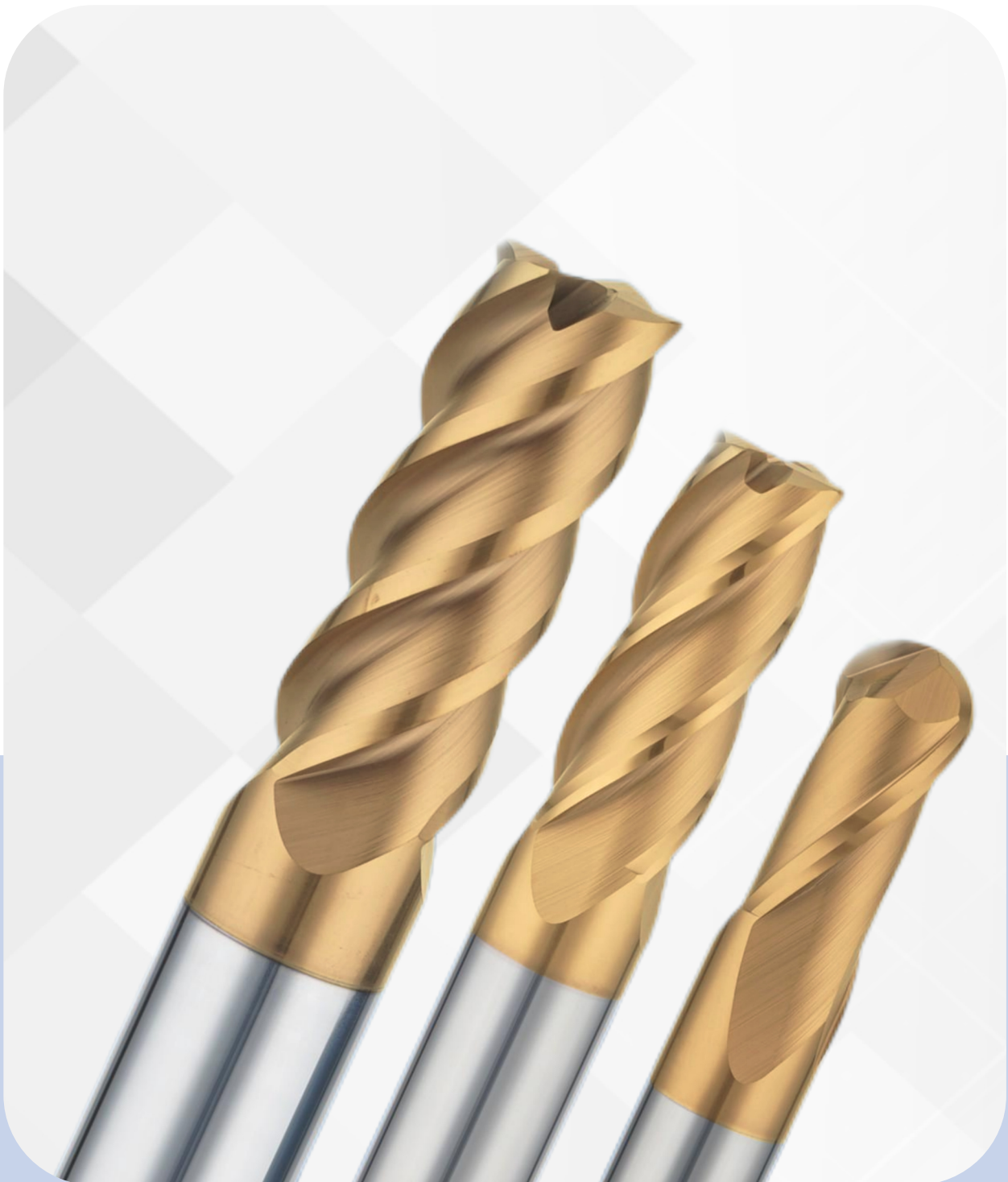


Order No.	Diameter	Corner Radius	Flute Length	Shank Diameter	Overall Length
	D	R	L1	SD	L
MSP-TP4-100-R10-075	10	1	25	10	75
MSP-TP4-100-R10-100	10	1	40	10	100
MSP-TP4-100-R10-150	10	1	50	10	150
MSP-TP4-100-R20-075	10	2	25	10	75
MSP-TP4-120-R05-075	12	0.5	30	12	75
MSP-TP4-120-R05-100	12	0.5	45	12	100
MSP-TP4-120-R05-150	12	0.5	55	12	150
MSP-TP4-120-R10-075	12	1	30	12	75
MSP-TP4-120-R10-100	12	1	45	12	100
MSP-TP4-120-R10-150	12	1	55	12	150
MSP-TP4-120-R20-075	12	2	30	12	75
MSP-TP4-120-R30-075	12	3	30	12	75

# KP Series Tungsten Steel Milling Cutter

General-purpose Series for Specialized Cutting

- Suitable for general steel up to HRC 45, high efficiency, integrated rough and finish machining, strong versatility
- Special surface post-treatment effectively reduces friction, enhances chip removal, and improves the quality of the machined surface
- Advanced nano-composite coating with good heat resistance ensures stable machining even at high temperatures



## Four-edged flat tools

### Applicable Materials

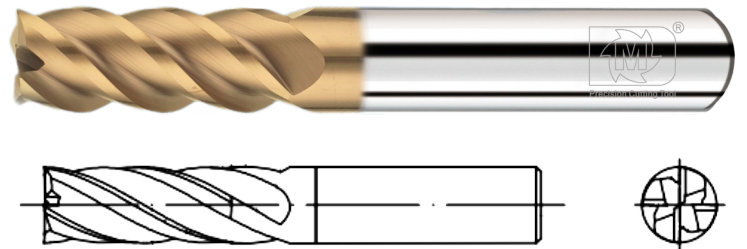
General Steel - HRC 45 and below

### Performance Features

Strong Versatility, Special Coating,  
Post-treatment Process

### Machining Methods

Rough Machining, Semi-Finishing, Finishing



Order No.	Diameter	Flute Length	Shank Diameter	Overall Length
	D	L1	SD	L
MSP-KP4-010-050	1	3	4	50
MSP-KP4-015-050	1.5	4.5	4	50
MSP-KP4-020-050	2	6	4	50
MSP-KP4-025-050	2.5	7.5	4	50
MSP-KP4-030-050	3	9	3	50
MSP-KP4-030-075	3	12	3	75
MSP-KP4-030-100	3	12	3	100
MSP-KP4-030-050*	3	9	4	50
MSP-KP4-035-050	3.5	10.5	4	50
MSP-KP4-040-050	4	12	4	50
MSP-KP4-040-075	4	16	4	75
MSP-KP4-040-100	4	16	4	100
MSP-KP4-050-050	5	13	5	50
MSP-KP4-050-075	5	20	5	75
MSP-KP4-050-100	5	25	5	100
MSP-KP4-050-050*	5	13	6	50
MSP-KP4-060-050	6	15	6	50
MSP-KP4-060-075	6	25	6	75
MSP-KP4-060-100	6	25	6	100
MSP-KP4-060-150	6	45	6	150
MSP-KP4-080-060	8	20	8	60
MSP-KP4-080-075	8	30	8	75
MSP-KP4-080-100	8	35	8	100
MSP-KP4-080-150	8	50	8	150
MSP-KP4-100-075	10	25	10	75
MSP-KP4-100-100	10	40	10	100
MSP-KP4-100-150	10	55	10	150
MSP-KP4-120-075	12	30	12	75
MSP-KP4-120-100	12	45	12	100
MSP-KP4-120-150	12	60	12	150
MSP-KP4-140-100	14	45	14	100
MSP-KP4-140-150	14	70	14	150

## Four-edged flat tools

### Applicable Materials

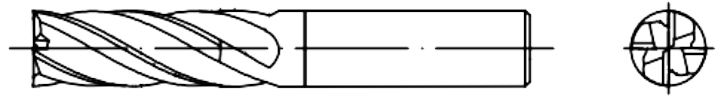
General Steel - HRC 45 and below

### Performance Features

Strong Versatility, Special Coating,  
Post-treatment Process

### Machining Methods

Rough Machining, Semi-Finishing, Finishing



Order No.	Diameter	Flute Length	Shank Diameter	Overall Length
	D	L1	SD	L
MSP-KP4-160-100	16	45	16	100
MSP-KP4-160-150	16	70	16	150
MSP-KP4-180-100	18	45	18	100
MSP-KP4-180-150	18	70	18	150
MSP-KP4-200-100	20	45	20	100
MSP-KP4-200-150	20	70	20	150

## Double-edged flat tools

### Applicable Materials

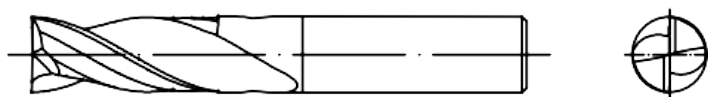
General Steel - HRC 45 and below

### Performance Features

Strong Versatility, Special Coating,  
Post-treatment Process

### Machining Methods

Rough Machining, Semi-Finishing, Finishing



Order No.	Diameter	Flute Length	Shank Diameter	Overall Length
	D	L1	SD	L
MSP-KP2-010-050	1	3	4	50
MSP-KP2-015-050	1.5	4.5	4	50
MSP-KP2-020-050	2	6	4	50
MSP-KP2-025-050	2.5	7.5	4	50
MSP-KP2-030-050	3	9	3	50
MSP-KP2-030-075	3	12	3	75
MSP-KP2-030-100	3	12	3	100
MSP-KP2-030-050*	3	9	4	50
MSP-KP2-035-050	3.5	10.5	4	50
MSP-KP2-040-050	4	12	4	50
MSP-KP2-040-075	4	16	4	75
MSP-KP2-040-100	4	16	4	100
MSP-KP2-050-050	5	13	5	50
MSP-KP2-050-075	5	20	5	75
MSP-KP2-050-100	5	25	5	100
MSP-KP2-050-050*	5	13	6	50
MSP-KP2-060-050	6	15	6	50
MSP-KP2-060-075	6	25	6	75
MSP-KP2-060-100	6	25	6	100
MSP-KP2-060-150	6	45	6	150
MSP-KP2-080-060	8	20	8	60
MSP-KP2-080-075	8	30	8	75
MSP-KP2-080-100	8	35	8	100
MSP-KP2-080-150	8	50	8	150
MSP-KP2-100-075	10	25	10	75
MSP-KP2-100-100	10	40	10	100
MSP-KP2-100-150	10	55	10	150
MSP-KP2-120-075	12	30	12	75
MSP-KP2-120-100	12	45	12	100
MSP-KP2-120-150	12	60	12	150
MSP-KP2-140-100	14	45	14	100
MSP-KP2-140-150	14	70	14	150

## Double-edged flat tools

### Applicable Materials

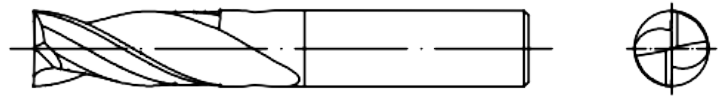
General Steel - HRC 45 and below

### Performance Features

Strong Versatility, Special Coating,  
Post-treatment Process

### Machining Methods

Rough Machining, Semi-Finishing, Finishing



Order No.	Diameter	Flute Length	Shank Diameter	Overall Length
	D			
MSP-KP2-160-100	16	45	16	100
MSP-KP2-160-150	16	70	16	150
MSP-KP2-180-100	18	45	18	100
MSP-KP2-180-150	18	70	18	150
MSP-KP2-200-100	20	45	20	100
MSP-KP2-200-150	20	70	20	150

## Double-edged ball tools

### Applicable Materials

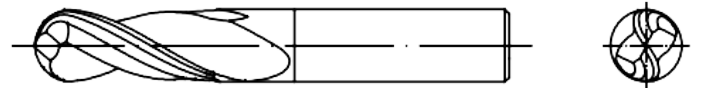
General Steel - HRC 45 and below

### Performance Features

Strong Versatility, Special Coating,  
Post-treatment Process

### Machining Methods

Rough Machining, Semi-Finishing, Finishing



Order No.	Diameter	Flute Length		Shank Diameter		Overall Length
	D	L1		SD		L
MSP-KP2-R005-050	0.5	2		4		50
MSP-KP2-R0075-050	0.75	3		4		50
MSP-KP2-R010-050	1	4		4		50
MSP-KP2-R0125-050	1.25	5		4		50
MSP-KP2-R015-050	1.5	6		3		50
MSP-KP2-R015-075	1.5	6		3		75
MSP-KP2-R015-100	1.5	6		3		100
MSP-KP2-R015-050*	1.5	6		3		50
MSP-KP2-R015-075*	1.5	6		4		75
MSP-KP2-R015-100*	1.5	6		4		100
MSP-KP2-R0175-050	1.75	7		4		50
MSP-KP2-R020-050	2	8		4		50
MSP-KP2-R020-075	2	8		4		75
MSP-KP2-R020-100	2	8		4		100
MSP-KP2-R025-050	2.5	10		5		50
MSP-KP2-R025-075	2.5	10		5		75
MSP-KP2-R025-100	2.5	10		5		100
MSP-KP2-R025-050*	2.5	10		6		50
MSP-KP2-R025-075*	2.5	10		6		75
MSP-KP2-R025-100*	2.5	10		6		100
MSP-KP2-R030-050	3	12		6		50
MSP-KP2-R030-075	3	12		6		75
MSP-KP2-R030-100	3	12		6		100
MSP-KP2-R030-150	3	12		6		150
MSP-KP2-R040-060	4	16		8		60
MSP-KP2-R040-075	4	16		8		75
MSP-KP2-R040-100	4	16		8		100
MSP-KP2-R040-150	4	16		8		150
MSP-KP2-R050-075	5	20		10		75
MSP-KP2-R050-100	5	20		10		100
MSP-KP2-R050-100	5	20		10		150
MSP-KP2-R060-075	6	24		12		75

## Double-edged ball tools

### Applicable Materials

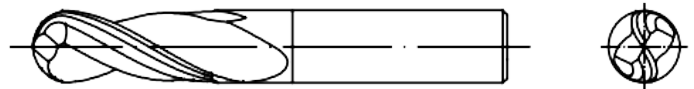
General Steel - HRC 45 and below

### Performance Features

Strong Versatility, Special Coating,  
Post-treatment Process

### Machining Methods

Rough Machining, Semi-Finishing, Finishing



Order No.	Diameter	Flute Length	Shank Diameter	Overall Length
	D	L1	SD	L
MSP-KP2-R060-100	6	24	12	100
MSP-KP2-R060-150	6	24	12	150
MSP-KP2-R080-100	8	32	16	100
MSP-KP2-R080-150	8	32	16	150
MSP-KP2-R100-100	10	40	20	100
MSP-KP2-R100-150	10	40	20	150

## Four-edged round nose tools

### Applicable Materials

General Steel - HRC 45 and below

### Performance Features

Strong Versatility, Special Coating,  
Post-treatment Process

### Machining Methods

Rough Machining, Semi-Finishing, Finishing



Order No.	Diameter	Corner Radius	Flute Length	Shank Diameter	Overall Length
	D	R	L1	SD	L
MSP-KP4-010-R02-050	1	0.2	3	4	50
MSP-KP4-015-R02-050	1.5	0.2	4.5	4	50
MSP-KP4-015-R03-050	1.5	0.3	4.5	4	50
MSP-KP4-020-R02-050	2	0.2	6	4	50
MSP-KP4-020-R03-050	2	0.3	6	4	50
MSP-KP4-020-R05-050	2	0.5	6	4	50
MSP-KP4-025-R02-050	2.5	0.2	7.5	4	50
MSP-KP4-025-R05-050	2.5	0.5	7.5	4	50
MSP-KP4-030-R02-050	3	0.2	9	4	50
MSP-KP4-030-R03-050	3	0.3	9	4	50
MSP-KP4-030-R05-050	3	0.5	9	4	50
MSP-KP4-030-R05-075	3	0.5	12	4	75
MSP-KP4-030-R05-100	3	0.5	12	4	100
MSP-KP4-030-R05-050*	3	0.5	9	3	50
MSP-KP4-030-R05-075	3	0.5	12	3	75
MSP-KP4-030-R05-100	3	0.5	12	3	100
MSP-KP4-030-R10-050	3	1	9	4	50
MSP-KP4-030-R10-075	3	1	12	4	75
MSP-KP4-030-R10-100	3	1	12	4	100
MSP-KP4-030-R10-050*	3	1	9	3	50
MSP-KP4-030-R10-075*	3	1	12	3	75
MSP-KP4-030-R10-100*	3	1	12	3	100
MSP-KP4-035-R05-050	3.5	0.5	10	4	50
MSP-KP4-040-R02-050	4	0.2	10	4	50
MSP-KP4-040-R03-050	4	0.3	10	4	50
MSP-KP4-040-R05-050	4	0.5	10	4	50
MSP-KP4-040-R05-075	4	0.5	16	4	75
MSP-KP4-040-R05-100	4	0.5	16	4	100
MSP-KP4-040-R10-050	4	1	10	4	50
MSP-KP4-040-R10-075	4	1	16	4	75
MSP-KP4-040-R10-100	4	1	16	4	100
MSP-KP4-050-R05-050	5	0.5	13	6	50

# Four-edged round nose tools

## Applicable Materials

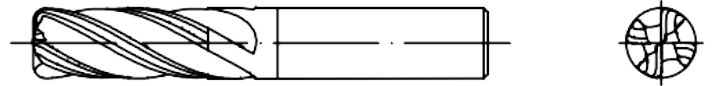
General Steel - HRC 45 and below

## Performance Features

Strong Versatility, Special Coating,  
Post-treatment Process

## Machining Methods

Rough Machining, Semi-Finishing, Finishing



Order No.	Diameter		Corner Radius		Flute Length		Shank Diameter		Overall Length	
	D	R	L1	SD	L					
MSP-KP4-050-R05-050*	5	0.5	13	5	50					
MSP-KP4-050-R05-075	5	0.5	15	5	75					
MSP-KP4-050-R05-100	5	0.5	18	5	100					
MSP-KP4-050-R10-050	5	1	13	6	50					
MSP-KP4-050-R10-050*	5	1	13	5	50					
MSP-KP4-050-R10-075	5	1	15	5	75					
MSP-KP4-060-R02-050	6	0.2	15	6	50					
MSP-KP4-060-R03-050	6	0.3	15	6	50					
MSP-KP4-060-R05-050	6	0.5	15	6	50					
MSP-KP4-060-R05-075	6	0.5	25	6	75					
MSP-KP4-060-R05-100	6	0.5	25	6	100					
MSP-KP4-060-R05-150	6	0.5	40	6	150					
MSP-KP4-060-R10-050	6	1	15	6	50					
MSP-KP4-060-R10-075	6	1	25	6	75					
MSP-KP4-060-R10-100	6	1	25	6	100					
MSP-KP4-060-R10-150	6	1	40	6	150					
MSP-KP4-060-R15-050	6	1.5	15	6	50					
MSP-KP4-080-R02-060	8	0.2	20	8	60					
MSP-KP4-080-R05-060	8	0.5	20	8	60					
MSP-KP4-080-R05-075	8	0.5	30	8	75					
MSP-KP4-080-R05-100	8	0.5	30	8	100					
MSP-KP4-080-R05-150	8	0.5	45	8	150					
MSP-KP4-080-R10-060	8	1	20	8	60					
MSP-KP4-080-R10-075	8	1	30	8	75					
MSP-KP4-080-R10-100	8	1	30	8	100					
MSP-KP4-080-R10-150	8	1	45	8	150					
MSP-KP4-080-R10-060	8	2	20	8	60					
MSP-KP4-100-R02-075	10	0.2	25	10	75					
MSP-KP4-100-R05-075	10	0.5	25	10	75					
MSP-KP4-100-R05-100	10	0.5	40	10	100					
MSP-KP4-100-R05-150	10	0.5	50	10	150					
MSP-KP4-100-R10-075	10	1	25	10	75					

## Four-edged round nose tools

### Applicable Materials

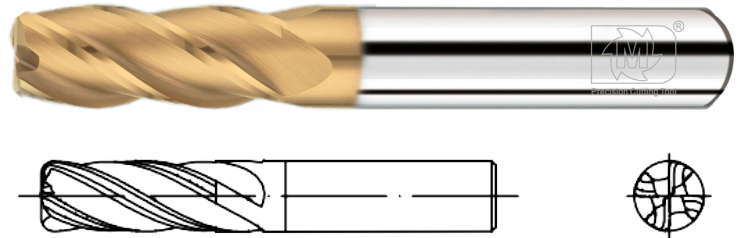
General Steel - HRC 45 and below

### Performance Features

Strong Versatility, Special Coating,  
Post-treatment Process

### Machining Methods

Rough Machining, Semi-Finishing, Finishing

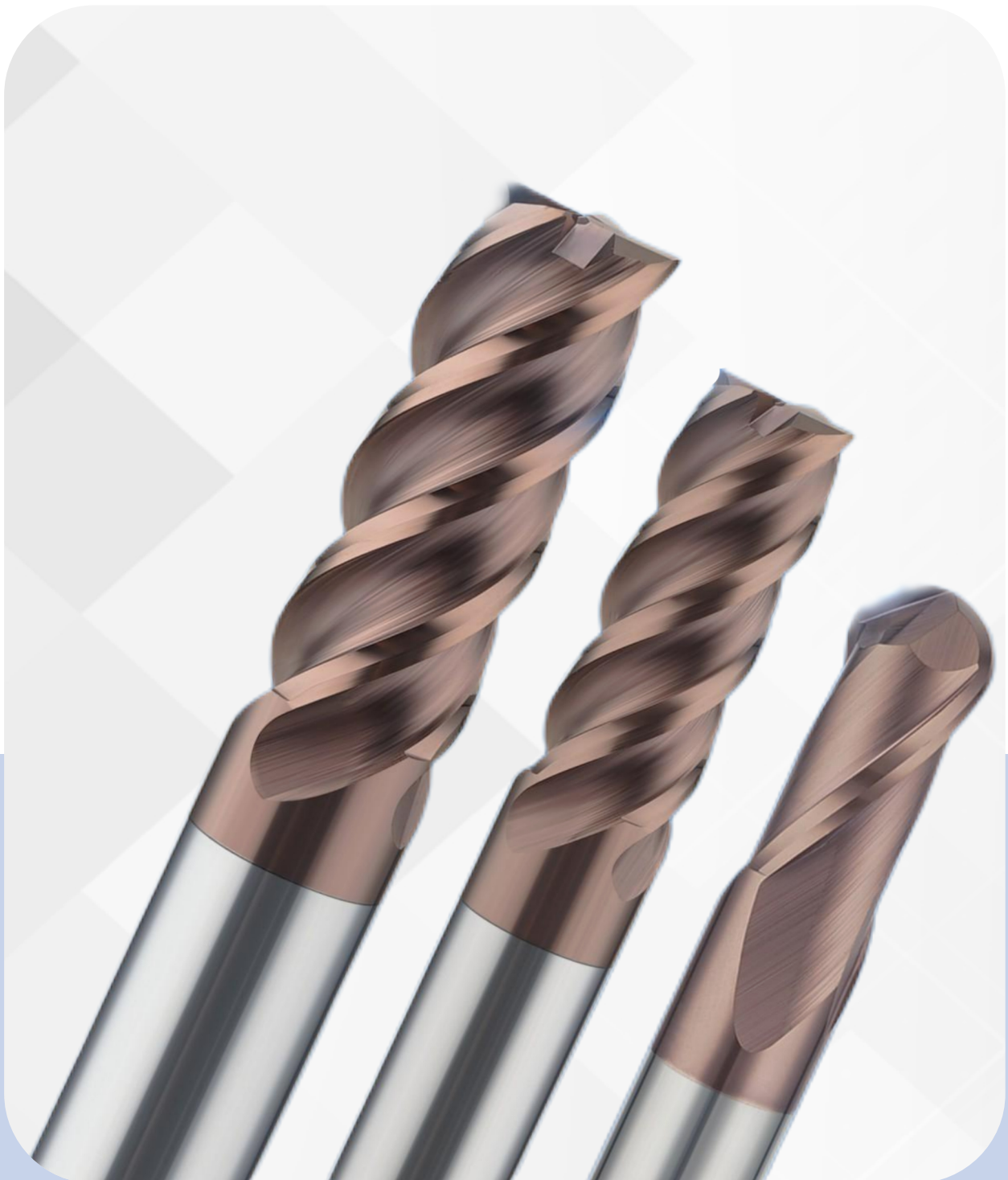


Order No.	Diameter	Corner Radius	Flute Length	Shank Diameter	Overall Length
	D	R	L1	SD	L
MSP-KP4-100-R10-100	10	1	40	10	100
MSP-KP4-100-R10-150	10	1	50	10	150
MSP-KP4-100-R20-075	10	2	25	10	75
MSP-KP4-120-R05-075	12	0.5	30	12	75
MSP-KP4-120-R05-100	12	0.5	45	12	100
MSP-KP4-120-R05-150	12	0.5	55	12	150
MSP-KP4-120-R10-075	12	1	30	12	75
MSP-KP4-120-R10-100	12	1	45	12	100
MSP-KP4-120-R10-150	12	1	55	12	150
MSP-KP4-120-R20-075	12	2	30	12	75
MSP-KP4-120-R30-075	12	3	30	12	75

# PM Series Tungsten Steel Milling Cutter

## Plastic Mold Machining Series

- Suitable for both rough and finish machining of high hardness steel materials, 52-58 HRC
- Made from high hardness and high toughness materials, with specially designed geometric parameters and post-treatments
- High stability edge treatment and high rigidity structural design significantly increase metal removal rate and machining efficiency



## Four-edged flat tools

### Applicable Materials

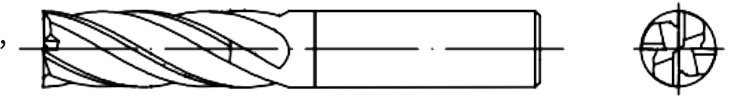
Hardened Steel HRC 52~58,  
Titanium Alloys, and High-Temperature Alloys

### Performance Features

Special Grade Bar Material, High Rigidity Design,  
Extremely High Metal Removal Rate

### Machining Methods

Rough Machining, Semi-Finishing, Finishing



Order No.	Diameter		Flute Length		Shank Diameter		Overall Length	
	D		L1		SD		L	
MSP-PM4-010-050	1		3		4		50	
MSP-PM4-015-050	1.5		4.5		4		50	
MSP-PM4-020-050	2		6		4		50	
MSP-PM4-025-050	2.5		8		4		50	
MSP-PM4-030-050	3		8		4		50	
MSP-PM4-035-050	3.5		10.5		4		50	
MSP-PM4-040-050	4		11		4		50	
MSP-PM4-040-075	4		16		4		75	
MSP-PM4-040-100	4		16		4		100	
MSP-PM4-050-050	5		13		6		50	
MSP-PM4-060-050	6		16		6		50	
MSP-PM4-060-075	6		25		6		75	
MSP-PM4-060-100	6		25		6		100	
MSP-PM4-080-060	8		20		8		60	
MSP-PM4-080-075	8		30		8		75	
MSP-PM4-080-100	8		35		8		100	
MSP-PM4-100-075	10		25		10		75	
MSP-PM4-100-100	10		40		10		100	
MSP-PM4-120-075	12		30		12		75	
MSP-PM4-120-100	12		45		12		100	

## Double-edged ball tools

### Applicable Materials

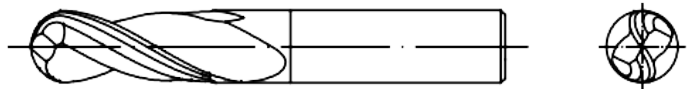
Hardened Steel HRC 52~58,  
Titanium Alloys, and High-Temperature Alloys

### Performance Features

Special Grade Bar Material, High Rigidity Design,  
Extremely High Metal Removal Rate

### Machining Methods

Rough Machining, Semi-Finishing, Finishing



Order No.	Diameter D	Flute Length L1	Shank Diameter SD	Overall Length L
MSP-PM2-R005-050	0.5	2	4	50
MSP-PM2-R0075-050	0.75	3	4	50
MSP-PM2-R010-050	1	4	4	50
MSP-PM2-R0125-050	1.25	5	4	50
MSP-PM2-R015-050	1.5	6	4	50
MSP-PM2-R0175-050	1.75	7	4	50
MSP-PM2-R020-050	2	8	4	50
MSP-PM2-R020-075	2	8	4	75
MSP-PM2-R020-100	2	8	4	100
MSP-PM2-R025-050	2.5	10	6	50
MSP-PM2-R030-050	3	12	6	50
MSP-PM2-R030-075	3	12	6	75
MSP-PM2-R030-100	3	12	6	100
MSP-PM2-R040-060	4	16	8	60
MSP-PM2-R040-075	4	16	8	75
MSP-PM2-R040-100	4	16	8	100
MSP-PM2-R050-075	5	20	10	75
MSP-PM2-R050-100	5	20	10	100
MSP-PM2-R060-075	6	24	12	75
MSP-PM2-R060-100	6	24	12	100

## Four-edged round nose tools

### Applicable Materials

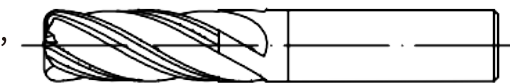
Hardened Steel HRC 52~58,  
Titanium Alloys, and High-Temperature Alloys

### Performance Features

Special Grade Bar Material, High Rigidity Design,  
Extremely High Metal Removal Rate

### Machining Methods

Rough Machining, Semi-Finishing, Finishing

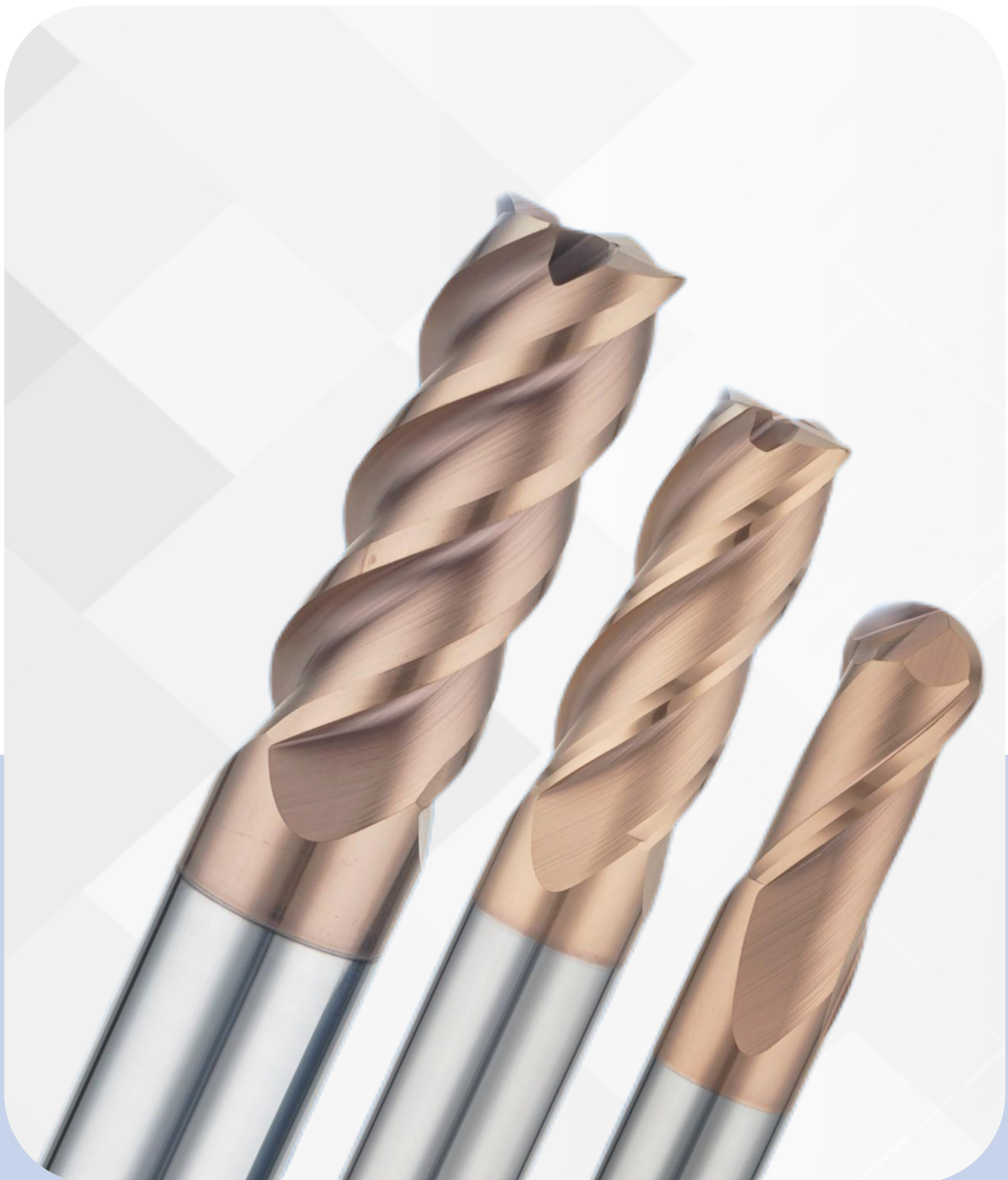


Order No.	Diameter	Corner Radius	Flute Length	Shank Diameter	Overall Length
	D	R	L1	SD	L
MSP-PM4-020-R05-050	2	0.5	6	4	50
MSP-PM4-030-R05-050	3	0.5	9	4	50
MSP-PM4-040-R05-050	4	0.5	10	4	50
MSP-PM4-040-R05-075	4	0.5	16	4	75
MSP-PM4-050-R05-050	4	0.5	16	4	100
MSP-PM4-050-R05-050	5	0.5	13	6	50
MSP-PM4-060-R05-050	6	0.5	15	6	50
MSP-PM4-060-R05-075	6	0.5	25	6	75
MSP-PM4-060-R05-100	6	0.5	25	6	100
MSP-PM4-080-R05-060	8	0.5	20	8	60
MSP-PM4-080-R05-075	8	0.5	30	8	75
MSP-PM4-080-R05-100	8	0.5	30	8	100
MSP-PM4-100-R05-075	10	0.5	25	10	75
MSP-PM4-100-R05-100	10	0.5	40	10	100
MSP-PM4-120-R05-075	12	0.5	30	12	75
MSP-PM4-120-R05-100	12	0.5	45	12	100

# PP Series Tungsten Steel Milling Cutter

Hardened Steel High-Speed Precision Machining Series

- Special edge design with excellent coating allows for semi-finishing/finishing of hardened steel up to H60°
- General-purpose 2-flute ball nose end mill with superior coating, widely used for efficient contour machining of hardened steel
- Multi-flute, high rigidity design for high-speed precision machining of workpieces



## Four-edged flat tools

### Applicable Materials

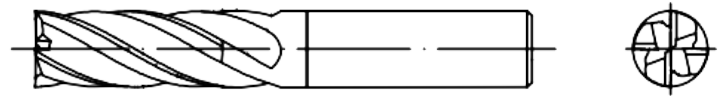
Hardened Steel - HRC 60

### Performance Features

High-Speed Machining, Ball Nose End Mills  
Suitable for Various Contouring Operations,  
Dry Cutting or Oil Cooling

### Machining Methods

Semi-Finishing, Finishing



Order No.	Diameter	Flute Length	Shank Diameter	Overall Length
	D	L1	SD	L
MSP-PP4-010-050	1	3	4	50
MSP-PP4-015-050	1.5	4.5	4	50
MSP-PP4-020-050	2	6	4	50
MSP-PP4-025-050	2.5	8	4	50
MSP-PP4-030-050	3	8	4	50
MSP-PP4-035-050	3.5	10.5	4	50
MSP-PP4-040-050	4	11	4	50
MSP-PP4-040-075	4	16	4	75
MSP-PP4-040-100	4	16	4	100
MSP-PP4-050-050	5	13	6	50
MSP-PP4-060-050	6	16	6	50
MSP-PP4-060-075	6	25	6	75
MSP-PP4-060-100	6	25	6	100
MSP-PP4-080-060	8	20	8	60
MSP-PP4-080-075	8	30	8	75
MSP-PP4-080-100	8	35	8	100
MSP-PP4-100-075	10	25	10	75
MSP-PP4-100-100	10	40	10	100
MSP-PP4-120-075	12	30	12	75
MSP-PP4-120-100	12	45	12	100

## Double-edged ball tools

### Applicable Materials

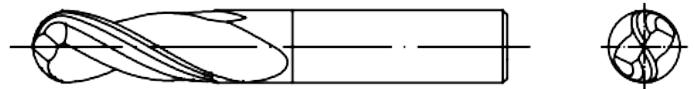
Hardened Steel - HRC 60

### Performance Features

High-Speed Machining, Ball Nose End Mills  
Suitable for Various Contouring Operations,  
Dry Cutting or Oil Cooling

### Machining Methods

Semi-Finishing, Finishing



Order No.	Diameter	Flute Length	Shank Diameter	Overall Length
	D	L1	SD	L
MSP-PP2-R005-050	0.5	2	4	50
MSP-PP2-R0075-050	0.75	3	4	50
MSP-PP2-R010-050	1	4	4	50
MSP-PP2-R0125-050	1.25	5	4	50
MSP-PP2-R015-050	1.5	6	4	50
MSP-PP2-R0175-050	1.75	7	4	50
MSP-PP2-R020-050	2	8	4	50
MSP-PP2-R020-075	2	8	4	75
MSP-PP2-R020-100	2	8	4	100
MSP-PP2-R025-050	2.5	10	6	50
MSP-PP2-R030-050	3	12	6	50
MSP-PP2-R030-075	3	12	6	75
MSP-PP2-R030-100	3	12	6	100
MSP-PP2-R040-060	4	16	8	60
MSP-PP2-R040-075	4	16	8	75
MSP-PP2-R040-100	4	16	8	100
MSP-PP2-R050-075	5	20	10	75
MSP-PP2-R050-100	5	20	10	100
MSP-PP2-R060-075	6	24	12	75
MSP-PP2-R060-100	6	24	12	100

## Four-edged round nose tools

### Applicable Materials

Hardened Steel - HRC 60

### Performance Features

High-Speed Machining, Ball Nose End Mills  
Suitable for Various Contouring Operations,  
Dry Cutting or Oil Cooling

### Machining Methods

Semi-Finishing, Finishing



Order No.	Diameter	Corner Radius	Flute Length	Shank Diameter	Overall Length
	D	R	L1	SD	L
MSP-PP4-020-R05-050	2	0.5	6	4	50
MSP-PP4-030-R05-050	3	0.5	9	4	50
MSP-PP4-040-R05-050	4	0.5	10	4	50
MSP-PP4-040-R05-075	4	0.5	16	4	75
MSP-PP4-050-R05-050	4	0.5	16	4	100
MSP-PP4-050-R05-050	5	0.5	13	6	50
MSP-PP4-060-R05-050	6	0.5	15	6	50
MSP-PP4-060-R05-075	6	0.5	25	6	75
MSP-PP4-060-R05-100	6	0.5	25	6	100
MSP-PP4-080-R05-060	8	0.5	20	8	60
MSP-PP4-080-R05-075	8	0.5	25	8	75
MSP-PP4-080-R05-100	8	0.5	25	8	100
MSP-PP4-100-R05-075	10	0.5	25	10	75
MSP-PP4-100-R05-100	10	0.5	25	10	100
MSP-PP4-120-R05-075	12	0.5	30	12	75
MSP-PP4-120-R05-100	12	0.5	30	12	100



# Carbide Taps

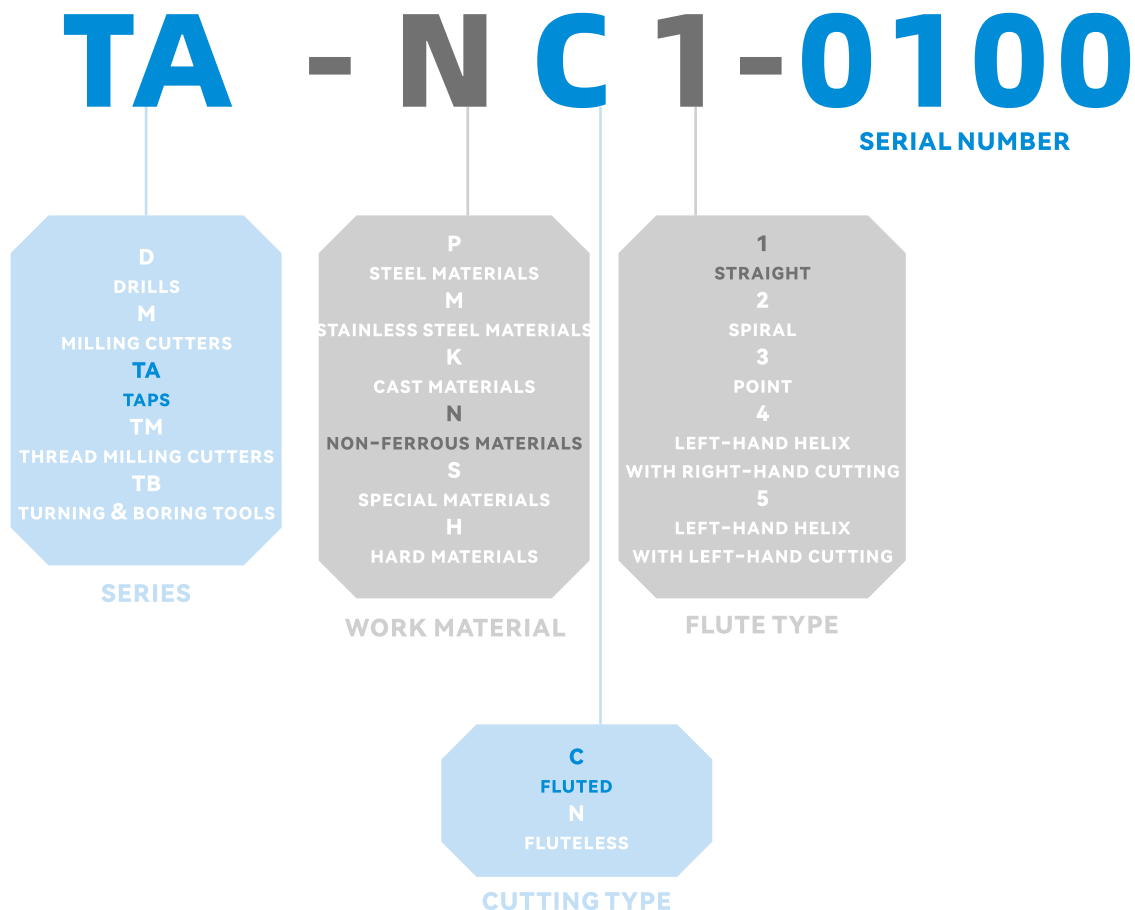


D&M's carbide standard taps are categorized into Metric/ Inch/American system according to the thread standard, with metric system as the main system; N/K/P according to the processed material, and S/M/H will be launched in the future; straight flute/ordinary right-handed/extruded according to the taper flute type; and short cutting taper (1.5P, mainly used for blind holes) and longcutting taper (2.5P, mainly used for through holes) according to the length of the cutting cone; According to the form of internal cooling is divided into external cooling, center internal cooling (mainly used for blind holes) and radial internal cooling (mainly used for through holes); according to the coating or not is divided into coated and uncoated. For N materials, especially aluminum, D&M's standard taps are divided into two categories: straight fluted and spiral fluted, straight fluted for cast aluminum with silicon content  $\geq 9\%$ , while spiral fluted is more suitable for cast aluminum or aluminum alloys with silicon content  $< 9\%$ .

D&M carbide taps are the standard products, which are the preferred tools for high-volume and high performance tapping in various industries.

### ORDER NUMBER NAMING CONVENTION

NOTES: EXTENDED-LENGTH TAPS ARE DESIGNATED WITH 'E'



## SELECTION CRITERIA

Series	Tool Abbreviation	Thread Range (mm)	Chamfer Length	Cooling Methods	Coating	Page
TA	NC1/NC1E	M3~M16	1.5/2.5P	Central Coolant Discharge	— / DLC	8/10
				Radial Cooling		
				External Cooling		
	NC2/NC2E	M3~M16	1.5/2.5P	Central Coolant Discharge	— / DLC	11/13
				Radial Cooling		
				External Cooling		
	KC1/KC1E	M3-M16	1.5/2.5P	Central Coolant Discharge	TiALN	14/16
				Radial Cooling		
				External Cooling		
	NN1/NN1E	M3-M16	1.5/2.5P	Central Coolant Discharge	— / DLC	17/19
				Radial Cooling		
				External Cooling		
	PN1	M3-M16	1.5/2.5P	Central Coolant Discharge	TiCN	21
				Radial Cooling		
				External Cooling		

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

P	K	N	M	S	H	Recommended Parameters
Carbon Steel / Alloy Steel ~~HRC35	Gray Iron / Ductile Iron	Aluminium Alloys	Stainless Steel	Heat-resistant Steel / Titanium Alloy	Hard Materials	Vc (m/min)
		●				30-60
						30-60
						30-60
		●				30-60
						30-60
	●					30-60
		●				30-60
						30-60
●						10-30
						10-30
						10-20

CARBIDE DRILLS

CARBIDE MILLING CUTTERS

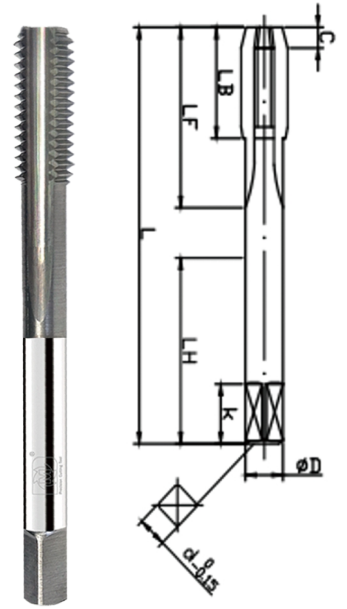
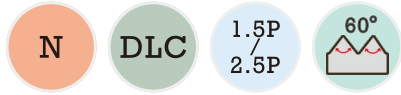
CARBIDE TAPS

CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

# TA-NC1

Straight Fluted Taps For Aluminum



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

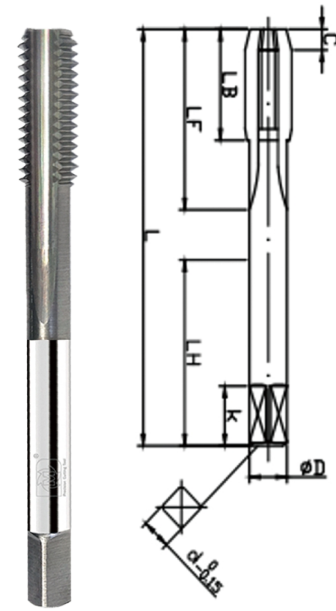
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Tap Specifications	Thread Size	C	Prec. Coat.	L	LB	LF	LH	D	F	k x d	Cooling Type
TA-NC1-0100	M3X0.5X1.5P-CC	M3X0.5	1.5P	6H NC	52	10	15	34	4	3	6X3.2	CC
TA-NC1-0110	M3X0.5X2.5P-RC		2.5P									RC
TA-NC1-0120	M3X0.5X1.5P		1.5P									E
TA-NC1-0130	M3X0.5X2.5P		2.5P									E
TA-NC1-0140	M4X0.7X1.5P-CC	M4X0.7	1.5P	6H NC	52	10	18	31	5	3	7X4	CC
TA-NC1-0150	M4X0.7X2.5P-RC		2.5P									RC
TA-NC1-0160	M4X0.7X1.5P		1.5P									E
TA-NC1-0170	M4X0.7X2.5P		2.5P									E
TA-NC1-0180	M5X0.8X1.5P-CC	M5X0.8	1.5P	6H NC	62	15	25	34	6	3	7X4.5	CC
TA-NC1-0190	M5X0.8X2.5P-RC		2.5P									RC
TA-NC1-0200	M5X0.8X1.5P		1.5P									E
TA-NC1-0210	M5X0.8X2.5P		2.5P									E
TA-NC1-0220	M6X1X1.5P-CC	M6X1	1.5P	6H NC	62	15	28	31	6	3	7X4.5	CC
TA-NC1-0230	M6X1X2.5P-RC		2.5P									RC
TA-NC1-0240	M6X1X1.5P		1.5P									E
TA-NC1-0250	M6X1X2.5P		2.5P									E
TA-NC1-0260	M8X1.25X1.5P-CC	M8X1.25	1.5P	6H NC	82	17	38	36	6.2	3	8X5	CC
TA-NC1-0270	M8X1.25X2.5P-RC		2.5P									RC
TA-NC1-0280	M8X1.25X1.5P		1.5P									E
TA-NC1-0290	M8X1.25X2.5P		2.5P									E
TA-NC1-0300	M10X1.25X1.5P-CC	M10X1.25	1.5P	6H NC	100	17	45	40	7	4	8X5.5	CC
TA-NC1-0310	M10X1.25X2.5P-RC		2.5P									RC
TA-NC1-0320	M10X1.25X1.5P		1.5P									E
TA-NC1-0330	M10X1.25X2.5P		2.5P									E
TA-NC1-0340	M10X1.5X1.5P-CC	M10X1.5	1.5P	6H NC	100	20	45	40	7	4	8X5.5	CC
TA-NC1-0350	M10X1.5X2.5P-RC		2.5P									RC
TA-NC1-0360	M10X1.5X1.5P		1.5P									E
TA-NC1-0370	M10X1.5X2.5P		2.5P									E
TA-NC1-0380	M12X1.25X1.5P-CC	M12X1.25	1.5P	6H NC	100	20	48	45	8.5	4	9X6.5	CC
TA-NC1-0390	M12X1.25X2.5P-RC		2.5P									RC
TA-NC1-0400	M12X1.25X1.5P		1.5P									E
TA-NC1-0410	M12X1.25X2.5P		2.5P									E

# TA-NC1

Straight Fluted Taps For Aluminum



CARBIDE  
DRILLS

CARBIDE  
MILLING CUTTERS

CARBIDE  
TAPS

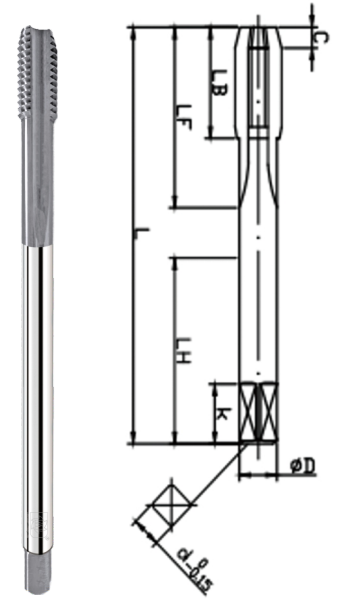
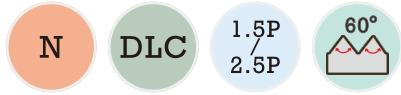
CARBIDE THREAD  
MILLING CUTTERS

CARBIDE TURNING  
& BORING TOOLS

Ord. No.	Tap Specifications	Thread Size	C	Prec. Coat.	L	LB	LF	LH	D	F	k x d	Cooling Type	
TA-NC1-0420	M12X1.5X1.5P-CC	M12X1.5	1.5P	6H	NC	100	22	48	45	8.5	4	9X6.5	CC
TA-NC1-0430	M12X1.5X2.5P-RC		2.5P										RC
TA-NC1-0440	M12X1.5X1.5P		1.5P										E
TA-NC1-0450	M12X1.5X2.5P		2.5P										
TA-NC1-0460	M12X1.75X1.5P-CC	M12X1.75	1.5P			100	22	48	45	8.5	4	9X6.5	CC
TA-NC1-0470	M12X1.75X2.5P-RC		2.5P										RC
TA-NC1-0480	M12X1.75X1.5P		1.5P										E
TA-NC1-0490	M12X1.75X2.5P		2.5P										
TA-NC1-0500	M14X1.5X1.5P-CC	M14X1.5	1.5P			100	22	48	45	10.5	4	11X8	CC
TA-NC1-0510	M14X1.5X2.5P-RC		2.5P										RC
TA-NC1-0520	M14X1.5X1.5P		1.5P										E
TA-NC1-0530	M14X1.5X2.5P		2.5P										
TA-NC1-0540	M14X2X1.5P-CC	M14X2	1.5P			100	25	48	45	10.5	4	11X8	CC
TA-NC1-0550	M14X2X2.5P-RC		2.5P										RC
TA-NC1-0560	M14X2X1.5P		1.5P										E
TA-NC1-0570	M14X2X2.5P		2.5P										
TA-NC1-0580	M16X1.5X1.5P-CC	M16X1.5	1.5P	110	22	52	48	12.5	4	13X10	CC		
TA-NC1-0590	M16X1.5X2.5P-RC		2.5P								RC		
TA-NC1-0600	M16X1.5X1.5P		1.5P								E		
TA-NC1-0610	M16X1.5X2.5P		2.5P										
TA-NC1-0620	M16X2X1.5P-CC	M16X2	1.5P	110	25	52	48	12.5	4	13X10	CC		
TA-NC1-0630	M16X2X2.5P-RC		2.5P								RC		
TA-NC1-0640	M16X2X1.5P		1.5P								E		
TA-NC1-0650	M16X2X2.5P		2.5P										

# TA-NC1E

Straight Fluted Taps For Aluminum (Extended-Length)



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

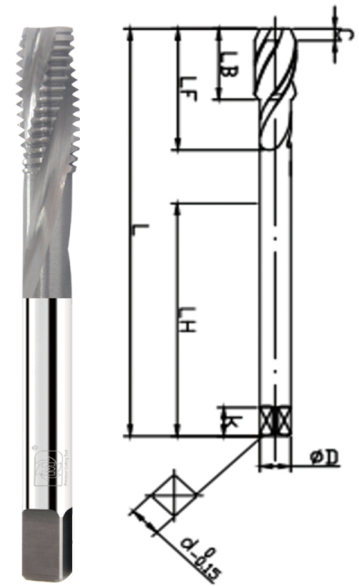
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Tap Specifications	Thread Size	C	Prec. Coat.	L	LB	LF	LH	D	F	k x d	Cooling Type							
TA-NC1E-1200	M5X0.8X1.5P-CC	M5X0.8	1.5P	6H	NC	80	15	27	32	6	3	7X4.5	CC						
TA-NC1E-1210	M5X0.8X2.5P-RC		2.5P										RC						
TA-NC1E-1220	M5X0.8X1.5P		1.5P										E						
TA-NC1E-1230	M5X0.8X2.5P		2.5P										E						
TA-NC1E-1240	M5X0.8X1.5P-CC	M5X0.8	1.5P			6H	NC	100	15	27	32	6	3	7X4.5	CC				
TA-NC1E-1250	M5X0.8X2.5P-RC		2.5P												RC				
TA-NC1E-1260	M5X0.8X1.5P		1.5P												E				
TA-NC1E-1270	M5X0.8X2.5P		2.5P												E				
TA-NC1E-1280	M6X1X1.5P-CC	M6X1	1.5P					6H	NC	80	15	32	36	6	3	7X4.5	CC		
TA-NC1E-1290	M6X1X2.5P-RC		2.5P														RC		
TA-NC1E-1300	M6X1X1.5P		1.5P														E		
TA-NC1E-1310	M6X1X2.5P		2.5P														E		
TA-NC1E-1320	M6X1X1.5P-CC	M6X1	1.5P							6H	NC	100	15	32	36	6	3	7X4.5	CC
TA-NC1E-1330	M6X1X2.5P-RC		2.5P																RC
TA-NC1E-1340	M6X1X1.5P		1.5P																E
TA-NC1E-1350	M6X1X2.5P		2.5P																E
TA-NC1E-1360	M8X1.25X1.5P-CC	M8X1.25	1.5P	6H	NC							110	17	40		6.2	3	8X5	CC
TA-NC1E-1370	M8X1.25X2.5P-RC		2.5P																RC
TA-NC1E-1380	M8X1.25X1.5P		1.5P																E
TA-NC1E-1390	M8X1.25X2.5P		2.5P																E

# TA-NC2

Spiral Fluted Taps For Aluminum



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

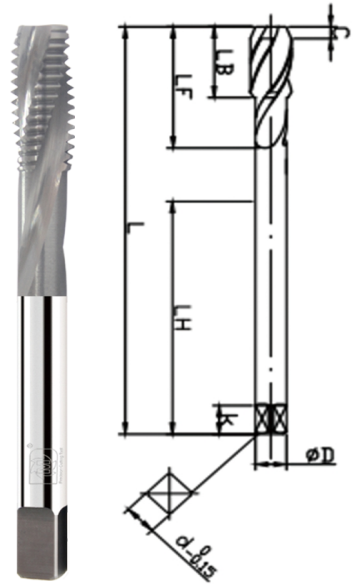
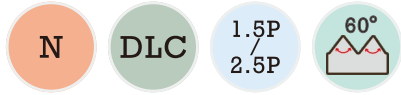
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Tap Specifications	Thread Size	C	Prec. Coat.	L	LB	LF	LH	D	F	k x d	Cooling Type
TA-NC2-0100	M3X0.5X1.5P-CC	M3X0.5	1.5P	6H	52	8	15	34	4	3	6X3.2	CC
TA-NC2-0110	M3X0.5X2.5P-RC		2.5P									RC
TA-NC2-0120	M3X0.5X1.5P		1.5P									E
TA-NC2-0130	M3X0.5X2.5P		2.5P									
TA-NC2-0140	M4X0.7X1.5P-CC	M4X0.7	1.5P	6H	52	10	18	31	5	3	7X4	CC
TA-NC2-0150	M4X0.7X2.5P-RC		2.5P									RC
TA-NC2-0160	M4X0.7X1.5P		1.5P									E
TA-NC2-0170	M4X0.7X2.5P		2.5P									
TA-NC2-0180	M5X0.8X1.5P-CC	M5X0.8	1.5P	6H	62	10	25	34	6	3	7X4.5	CC
TA-NC2-0190	M5X0.8X2.5P-RC		2.5P									RC
TA-NC2-0200	M5X0.8X1.5P		1.5P									E
TA-NC2-0210	M5X0.8X2.5P		2.5P									
TA-NC2-0220	M6X1X1.5P-CC	M6X1	1.5P	6H	62	10	28	31	6	3	7X4.5	CC
TA-NC2-0230	M6X1X2.5P-RC		2.5P									RC
TA-NC2-0240	M6X1X1.5P		1.5P									E
TA-NC2-0250	M6X1X2.5P		2.5P									
TA-NC2-0260	M8X1.25X1.5P-CC	M8X1.25	1.5P	6H	82	15	38	36	6.2	3	8X5	CC
TA-NC2-0270	M8X1.25X2.5P-RC		2.5P									RC
TA-NC2-0280	M8X1.25X1.5P		1.5P									E
TA-NC2-0290	M8X1.25X2.5P		2.5P									
TA-NC2-0300	M10X1.25X1.5P-CC	M10X1.25	1.5P	6H	100	15	45	40	7	3	8X5.5	CC
TA-NC2-0310	M10X1.25X2.5P-RC		2.5P									RC
TA-NC2-0320	M10X1.25X1.5P		1.5P									E
TA-NC2-0330	M10X1.25X2.5P		2.5P									
TA-NC2-0340	M10X1.5X1.5P-CC	M10X1.5	1.5P	6H	100	15	45	40	7	3	8X5.5	CC
TA-NC2-0350	M10X1.5X2.5P-RC		2.5P									RC
TA-NC2-0360	M10X1.5X1.5P		1.5P									E
TA-NC2-0370	M10X1.5X2.5P		2.5P									
TA-NC2-0380	M12X1.25X1.5P-CC	M12X1.25	1.5P	6H	100	15	48	45	8.5	3	9X6.5	CC
TA-NC2-0390	M12X1.25X2.5P-RC		2.5P									RC
TA-NC2-0400	M12X1.25X1.5P		1.5P									E
TA-NC2-0410	M12X1.25X2.5P		2.5P									

# TA-NC2

Spiral Fluted Taps For Aluminum



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

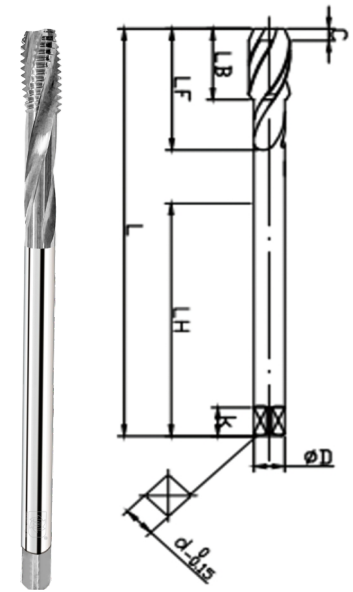
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Tap Specifications	Thread Size	C	Prec. Coat.	L	LB	LF	LH	D	F	k x d	Cooling Type
TA-NC2-0420	M12X1.5X1.5P-CC	M12X1.5	1.5P	6H NC	100	15	48	45	8.5	3	9X6.5	CC
TA-NC2-0430	M12X1.5X2.5P-RC		2.5P									RC
TA-NC2-0440	M12X1.5X1.5P		1.5P									E
TA-NC2-0450	M12X1.5X2.5P		2.5P									E
TA-NC2-0460	M12X1.75X1.5P-CC	M12X1.75	1.5P		100	15	48	45	8.5	3	9X6.5	CC
TA-NC2-0470	M12X1.75X2.5P-RC		2.5P									RC
TA-NC2-0480	M12X1.75X1.5P		1.5P									E
TA-NC2-0490	M12X1.75X2.5P		2.5P									E
TA-NC2-0500	M14X1.5X1.5P-CC	M14X1.5	1.5P		100	20	48	45	10.5	4	11X8	CC
TA-NC2-0510	M14X1.5X2.5P-RC		2.5P									RC
TA-NC2-0520	M14X1.5X1.5P		1.5P									E
TA-NC2-0530	M14X1.5X2.5P		2.5P									E
TA-NC2-0540	M14X2X1.5P-CC	M14X2	1.5P		100	20	48	45	10.5	4	11X8	CC
TA-NC2-0550	M14X2X2.5P-RC		2.5P									RC
TA-NC2-0560	M14X2X1.5P		1.5P									E
TA-NC2-0570	M14X2X2.5P		2.5P									E
TA-NC2-0580	M16X1.5X1.5P-CC	M16X1.5	1.5P		110	20	52	48	12.5	4	13X10	CC
TA-NC2-0590	M16X1.5X2.5P-RC		2.5P									RC
TA-NC2-0600	M16X1.5X1.5P		1.5P									E
TA-NC2-0610	M16X1.5X2.5P		2.5P									E
TA-NC2-0620	M16X2X1.5P-CC	M16X2	1.5P	110	20	52	48	12.5	4	13X10	CC	
TA-NC2-0630	M16X2X2.5P-RC		2.5P								RC	
TA-NC2-0640	M16X2X1.5P		1.5P								E	
TA-NC2-0650	M16X2X2.5P		2.5P								E	

# TA-NC2E

Spiral Fluted Taps For Aluminum (Extended-Length)



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

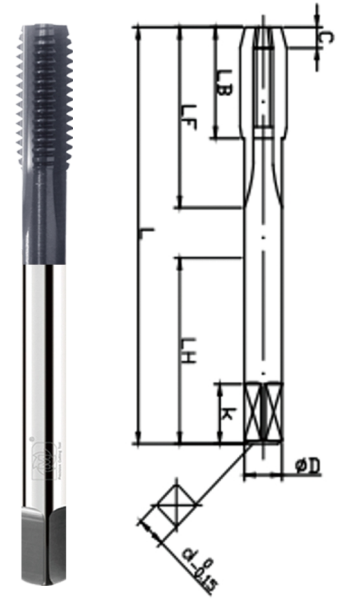
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Tap Specifications	Thread Size	C	Prec. Coat.	L	LB	LF	LH	D	F	k x d	Cooling Type					
TA-NC2E-1200	M5X0.8X1.5P-CC	M5X0.8	1.5P	6H	NC	80	10	27	32	6	3	7X4.5	CC				
TA-NC2E-1210	M5X0.8X2.5P-RC		2.5P										RC				
TA-NC2E-1220	M5X0.8X1.5P		1.5P										E				
TA-NC2E-1230	M5X0.8X2.5P		2.5P														
TA-NC2E-1240	M5X0.8X1.5P-CC	M5X0.8	1.5P			6H	NC	100	10	27	32	6	3	7X4.5	CC		
TA-NC2E-1250	M5X0.8X2.5P-RC		2.5P												RC		
TA-NC2E-1260	M5X0.8X1.5P		1.5P												E		
TA-NC2E-1270	M5X0.8X2.5P		2.5P														
TA-NC2E-1280	M6X1X1.5P-CC	M6X1	1.5P					6H	NC	80	10	32	36	6	3	7X4.5	CC
TA-NC2E-1290	M6X1X2.5P-RC		2.5P														RC
TA-NC2E-1300	M6X1X1.5P		1.5P														E
TA-NC2E-1310	M6X1X2.5P		2.5P														
TA-NC2E-1320	M6X1X1.5P-CC	M6X1	1.5P	6H	NC					100	10	32	36	6	3	7X4.5	CC
TA-NC2E-1330	M6X1X2.5P-RC		2.5P														RC
TA-NC2E-1340	M6X1X1.5P		1.5P														E
TA-NC2E-1350	M6X1X2.5P		2.5P														
TA-NC2E-1360	M8X1.25X1.5P-CC	M8X1.25	1.5P			6H	NC			110	15	40		6.2	3	8X5	CC
TA-NC2E-1370	M8X1.25X2.5P-RC		2.5P														RC
TA-NC2E-1380	M8X1.25X1.5P		1.5P														E
TA-NC2E-1390	M8X1.25X2.5P		2.5P														

# TA-KC1

Straight Fluted Taps For Cast Iron



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

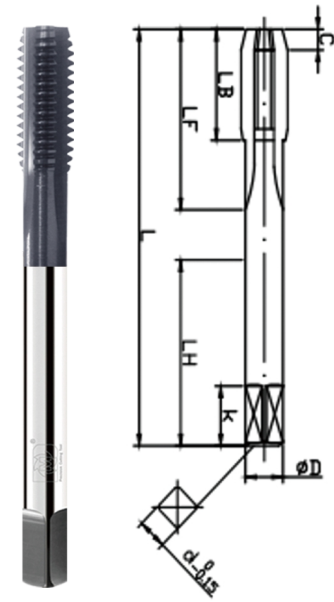
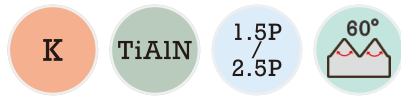
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Tap Specifications	Thread Size	C	Prec. Coat.	L	LB	LF	LH	D	F	k x d	Cooling Type
TA-KC1-0100	M3X0.5X1.5P-CC	M3X0.5	1.5P	6H TiAlN	52	10	15	34	4	3	6X3.2	CC
TA-KC1-0110	M3X0.5X2.5P-RC		2.5P									RC
TA-KC1-0120	M3X0.5X1.5P		1.5P									E
TA-KC1-0130	M3X0.5X2.5P		2.5P									
TA-KC1-0140	M4X0.7X1.5P-CC	M4X0.7	1.5P	6H TiAlN	55	10	18	34	5	3	7X4	CC
TA-KC1-0150	M4X0.7X2.5P-RC		2.5P									RC
TA-KC1-0160	M4X0.7X1.5P		1.5P									E
TA-KC1-0170	M4X0.7X2.5P		2.5P									
TA-KC1-0180	M5X0.8X1.5P-CC	M5X0.8	1.5P	6H TiAlN	62	10	25	34	6	3	7X4.5	CC
TA-KC1-0190	M5X0.8X2.5P-RC		2.5P									RC
TA-KC1-0200	M5X0.8X1.5P		1.5P									E
TA-KC1-0210	M5X0.8X2.5P		2.5P									
TA-KC1-0220	M6X1X1.5P-CC	M6X1	1.5P	6H TiAlN	62	15	28	31	6	3	7X4.5	CC
TA-KC1-0230	M6X1X2.5P-RC		2.5P									RC
TA-KC1-0240	M6X1X1.5P		1.5P									E
TA-KC1-0250	M6X1X2.5P		2.5P									
TA-KC1-0260	M8X1.25X1.5P-CC	M8X1.25	1.5P	6H TiAlN	82	20	38	36	6.2	3	8X5	CC
TA-KC1-0270	M8X1.25X2.5P-RC		2.5P									RC
TA-KC1-0280	M8X1.25X1.5P		1.5P									E
TA-KC1-0290	M8X1.25X2.5P		2.5P									
TA-KC1-0300	M10X1.25X1.5P-CC	M10X1.25	1.5P	6H TiAlN	100	20	45	40	7	4	8X5.5	CC
TA-KC1-0310	M10X1.25X2.5P-RC		2.5P									RC
TA-KC1-0320	M10X1.25X1.5P		1.5P									E
TA-KC1-0330	M10X1.25X2.5P		2.5P									
TA-KC1-0340	M10X1.5X1.5P-CC	M10X1.5	1.5P	6H TiAlN	100	20	45	40	7	4	8X5.5	CC
TA-KC1-0350	M10X1.5X2.5P-RC		2.5P									RC
TA-KC1-0360	M10X1.5X1.5P		1.5P									E
TA-KC1-0370	M10X1.5X2.5P		2.5P									
TA-KC1-0380	M12X1.25X1.5P-CC	M12X1.25	1.5P	6H TiAlN	100	20	48	45	8.5	4	9X6.5	CC
TA-KC1-0390	M12X1.25X2.5P-RC		2.5P									RC
TA-KC1-0400	M12X1.25X1.5P		1.5P									E
TA-KC1-0410	M12X1.25X2.5P		2.5P									

# TA-KC1

Straight Fluted Taps For Cast Iron



CARBIDE  
DRILLS

CARBIDE  
MILLING CUTTERS

CARBIDE  
TAPS

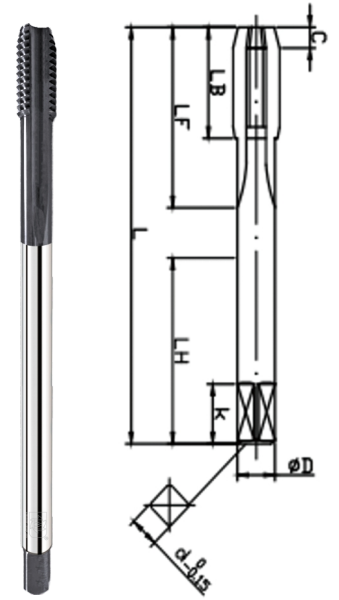
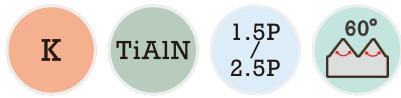
CARBIDE THREAD  
MILLING CUTTERS

CARBIDE TURNING  
& BORING TOOLS

Ord. No.	Tap Specifications	Thread Size	C	Prec. Coat.	L	LB	LF	LH	D	F	k x d	Cooling Type							
TA-KC1-0420	M12X1.5X1.5P-CC	M12X1.5	1.5P	6H TiAlN	100	20	48	45	8.5	4	9X6.5	CC							
TA-KC1-0430	M12X1.5X2.5P-RC		2.5P									RC							
TA-KC1-0440	M12X1.5X1.5P		1.5P									E							
TA-KC1-0450	M12X1.5X2.5P		2.5P																
TA-KC1-0460	M12X1.75X1.5P-CC	M12X1.75	1.5P									100	20	48	45	8.5	4	9X6.5	CC
TA-KC1-0470	M12X1.75X2.5P-RC		2.5P																RC
TA-KC1-0480	M12X1.75X1.5P		1.5P																E
TA-KC1-0490	M12X1.75X2.5P		2.5P																
TA-KC1-0500	M14X1.5X1.5P-CC	M14X1.5	1.5P		100	25	48	45	10.5	4	11X8								CC
TA-KC1-0510	M14X1.5X2.5P-RC		2.5P																RC
TA-KC1-0520	M14X1.5X1.5P		1.5P																E
TA-KC1-0530	M14X1.5X2.5P		2.5P																
TA-KC1-0540	M14X2X1.5P-CC	M14X2	1.5P									100	25	48	45	10.5	4	11X8	CC
TA-KC1-0550	M14X2X2.5P-RC		2.5P																RC
TA-KC1-0560	M14X2X1.5P		1.5P																E
TA-KC1-0570	M14X2X2.5P		2.5P																
TA-KC1-0580	M16X1.5X1.5P-CC	M16X1.5	1.5P		110	25	52	48	12.5	4	13X10								CC
TA-KC1-0590	M16X1.5X2.5P-RC		2.5P																RC
TA-KC1-0600	M16X1.5X1.5P		1.5P																E
TA-KC1-0610	M16X1.5X2.5P		2.5P																
TA-KC1-0620	M16X2X1.5P-CC	M16X2	1.5P	110								30	52	48	12.5	4	13X10	CC	
TA-KC1-0630	M16X2X2.5P-RC		2.5P															RC	
TA-KC1-0640	M16X2X1.5P		1.5P															E	
TA-KC1-0650	M16X2X2.5P		2.5P																

# TA-KC1E

Straight Fluted Taps For Cast Iron (Extended-Length)



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

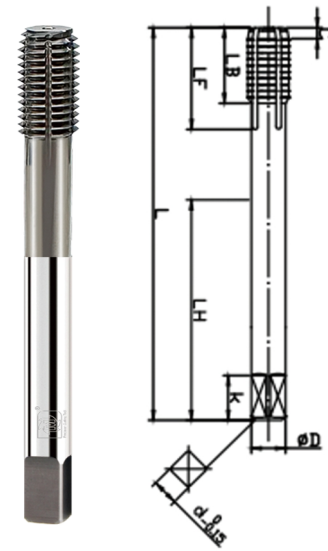
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Tap Specifications	Thread Size	C	Prec. Coat.	L	LB	LF	LH	D	F	k x d	Cooling Type
TA-KC1E-1200	M5X0.8X1.5P-CC	M5X0.8	1.5P	6H TiAlN	80	10	27	32	6	3	7X4.5	CC
TA-KC1E-1210	M5X0.8X2.5P-RC		2.5P									RC
TA-KC1E-1220	M5X0.8X1.5P		1.5P									E
TA-KC1E-1230	M5X0.8X2.5P		2.5P									
TA-KC1E-1240	M5X0.8X1.5P-CC	M5X0.8	1.5P		100	10	27	32	6	3	7X4.5	CC
TA-KC1E-1250	M5X0.8X2.5P-RC		2.5P									RC
TA-KC1E-1260	M5X0.8X1.5P		1.5P									E
TA-KC1E-1270	M5X0.8X2.5P		2.5P									
TA-KC1E-1280	M6X1X1.5P-CC	M6X1	1.5P		80	15	32	36	6	3	7X4.5	CC
TA-KC1E-1290	M6X1X2.5P-RC		2.5P									RC
TA-KC1E-1300	M6X1X1.5P		1.5P									E
TA-KC1E-1310	M6X1X2.5P		2.5P									
TA-KC1E-1320	M6X1X1.5P-CC	M6X1	1.5P		100	15	32	36	6	3	7X4.5	CC
TA-KC1E-1330	M6X1X2.5P-RC		2.5P									RC
TA-KC1E-1340	M6X1X1.5P		1.5P									E
TA-KC1E-1350	M6X1X2.5P		2.5P									
TA-KC1E-1360	M8X1.25X1.5P-CC	M8X1.25	1.5P		110	20	40		6.2	3	8X5	CC
TA-KC1E-1370	M8X1.25X2.5P-RC		2.5P									RC
TA-KC1E-1380	M8X1.25X1.5P		1.5P									E
TA-KC1E-1390	M8X1.25X2.5P		2.5P									

# TA-NN1

Fluteless Taps For Aluminum



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

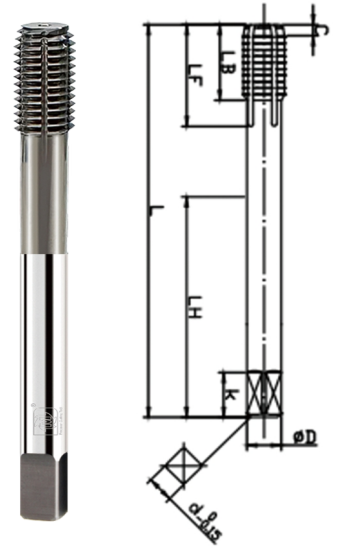
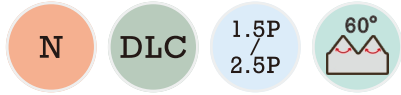
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Tap Specifications	Thread Size	C	Prec. Coat.	L	LB	LF	LH	D	F	k x d	Cooling Type	
TA-NN1-0100	M3X0.5X1.5P-CC	M3X0.5	1.5P	6H	NC	52	5	13	33	4	4	6X3.2	CC
TA-NN1-0110	M3X0.5X2.5P-RC		2.5P										RC
TA-NN1-0120	M3X0.5X1.5P		1.5P										E
TA-NN1-0130	M3X0.5X2.5P		2.5P										E
TA-NN1-0140	M4X0.7X1.5P-CC	M4X0.7	1.5P	6H	NC	52	7	15	31	5	4	7X4	CC
TA-NN1-0150	M4X0.7X2.5P-RC		2.5P										RC
TA-NN1-0160	M4X0.7X1.5P		1.5P										E
TA-NN1-0170	M4X0.7X2.5P		2.5P										E
TA-NN1-0180	M5X0.8X1.5P-CC	M5X0.8	1.5P	6H	NC	62	8	18	34	6	4	7X4.5	CC
TA-NN1-0190	M5X0.8X2.5P-RC		2.5P										RC
TA-NN1-0200	M5X0.8X1.5P		1.5P										E
TA-NN1-0210	M5X0.8X2.5P		2.5P										E
TA-NN1-0220	M6X1X1.5P-CC	M6X1	1.5P	6H	NC	62	10	20	31	6	4	7X4.5	CC
TA-NN1-0230	M6X1X2.5P-RC		2.5P										RC
TA-NN1-0240	M6X1X1.5P		1.5P										E
TA-NN1-0250	M6X1X2.5P		2.5P										E
TA-NN1-0260	M8X1.25X1.5P-CC	M8X1.25	1.5P	6H	NC	82	12.5	22.5	36	6.2	6	8X5	CC
TA-NN1-0270	M8X1.25X2.5P-RC		2.5P										RC
TA-NN1-0280	M8X1.25X1.5P		1.5P										E
TA-NN1-0290	M8X1.25X2.5P		2.5P										E
TA-NN1-0300	M10X1.25X1.5P-CC	M10X1.25	1.5P	6H	NC	100	12.5	22.5	40	7	6	8X5.5	CC
TA-NN1-0310	M10X1.25X2.5P-RC		2.5P										RC
TA-NN1-0320	M10X1.25X1.5P		1.5P										E
TA-NN1-0330	M10X1.25X2.5P		2.5P										E
TA-NN1-0340	M10X1.5X1.5P-CC	M10X1.5	1.5P	6H	NC	100	15	25	40	7	6	8X5.5	CC
TA-NN1-0350	M10X1.5X2.5P-RC		2.5P										RC
TA-NN1-0360	M10X1.5X1.5P		1.5P										E
TA-NN1-0370	M10X1.5X2.5P		2.5P										E
TA-NN1-0380	M12X1.25X1.5P-CC	M12X1.25	1.5P	6H	NC	100	12.5	27.5	45	8.5	6	9X6.5	CC
TA-NN1-0390	M12X1.25X2.5P-RC		2.5P										RC
TA-NN1-0400	M12X1.25X1.5P		1.5P										E
TA-NN1-0410	M12X1.25X2.5P		2.5P										E

# TA-NN1

Fluteless Taps For Aluminum



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

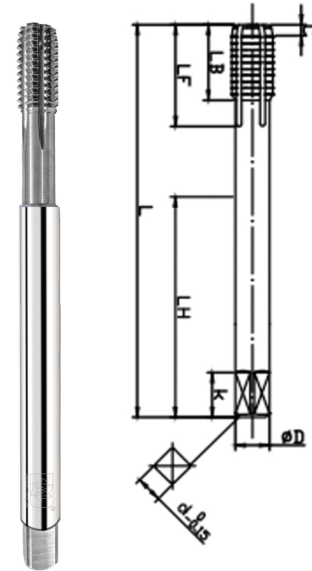
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Tap Specifications	Thread Size	C	Prec. Coat.	L	LB	LF	LH	D	F	k x d	Cooling Type		
TA-NN1-0420	M12X1.5X1.5P-CC	M12X1.5	1.5P	6H	NC	100	15	30	45	8.5	6	9X6.5	CC	
TA-NN1-0430	M12X1.5X2.5P-RC		2.5P										RC	
TA-NN1-0440	M12X1.5X1.5P		1.5P										E	
TA-NN1-0450	M12X1.5X2.5P		2.5P										E	
TA-NN1-0460	M12X1.75X1.5P-CC	M12X1.75	1.5P			100	17.5	32.5	45	8.5	8.5	6	9X6.5	CC
TA-NN1-0470	M12X1.75X2.5P-RC		2.5P											RC
TA-NN1-0480	M12X1.75X1.5P		1.5P											E
TA-NN1-0490	M12X1.75X2.5P		2.5P											E
TA-NN1-0500	M14X1.5X1.5P-CC	M14X1.5	1.5P			100	15	30	45	10.5	10.5	8	11X8	CC
TA-NN1-0510	M14X1.5X2.5P-RC		2.5P											RC
TA-NN1-0520	M14X1.5X1.5P		1.5P											E
TA-NN1-0530	M14X1.5X2.5P		2.5P											E
TA-NN1-0540	M14X2X1.5P-CC	M14X2	1.5P			100	20	35	45	10.5	10.5	8	11X8	CC
TA-NN1-0550	M14X2X2.5P-RC		2.5P											RC
TA-NN1-0560	M14X2X1.5P		1.5P											E
TA-NN1-0570	M14X2X2.5P		2.5P											E
TA-NN1-0580	M16X1.5X1.5P-CC	M16X1.5	1.5P			110	15	30	48	12.5	12.5	8	13X10	CC
TA-NN1-0590	M16X1.5X2.5P-RC		2.5P											RC
TA-NN1-0600	M16X1.5X1.5P		1.5P											E
TA-NN1-0610	M16X1.5X2.5P		2.5P											E
TA-NN1-0620	M16X2X1.5P-CC	M16X2	1.5P	110	20	35	48	12.5	12.5	8	13X10	CC		
TA-NN1-0630	M16X2X2.5P-RC		2.5P									RC		
TA-NN1-0640	M16X2X1.5P		1.5P									E		
TA-NN1-0650	M16X2X2.5P		2.5P									E		

# TA-NN1E

Fluteless Taps For Aluminum (Extended-Length)



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

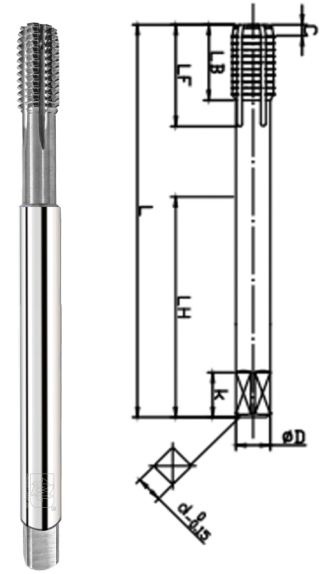
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Tap Specifications	Thread Size	C	Prec. Coat.	L	LB	LF	LH	D	F	k x d	Cooling Type	
TA-NN1E-1010	M3X0.5X1.5P-CC	M3X0.5	1.5P	6H NC	80	5	15	60	5	4	7X4	CC	
TA-NN1E-1020	M3X0.5X1.5P		1.5P									E	
TA-NN1E-1030	M3X0.5X2.5P		2.5P									E	
TA-NN1E-1040	M3X0.5X1.5P-CC	M3X0.5	1.5P		100	5	15	80	5	4	7X4	CC	
TA-NN1E-1050	M3X0.5X1.5P		1.5P									E	
TA-NN1E-1060	M3X0.5X2.5P		2.5P									E	
TA-NN1E-1070	M4X0.7X1.5P-CC	M4X0.7	1.5P		6H NC	80	7	15	55	5	4	7X4	CC
TA-NN1E-1080	M4X0.7X2.5P-RC		2.5P										RC
TA-NN1E-1090	M4X0.7X1.5P		1.5P										E
TA-NN1E-1100	M4X0.7X2.5P	2.5P	E										
TA-NN1E-1110	M4X0.7X1.5P-CC	M4X0.7	1.5P			100	7	15	75	5	4	7X4	CC
TA-NN1E-1120	M4X0.7X2.5P-RC		2.5P										RC
TA-NN1E-1130	M4X0.7X1.5P		1.5P										E
TA-NN1E-1140	M4X0.7X2.5P	2.5P	E										
TA-NN1E-1150	M5X0.8X1.5P-CC	M5X0.8	1.5P	6H NC		80	8	18	50	6	4	7X4.5	CC
TA-NN1E-1160	M5X0.8X2.5P-RC		2.5P										RC
TA-NN1E-1170	M5X0.8X1.5P		1.5P										E
TA-NN1E-1180	M5X0.8X2.5P	2.5P	E										
TA-NN1E-1190	M5X0.8X1.5P-CC	M5X0.8	1.5P			110	8	18	80	6	4	7X4.5	CC
TA-NN1E-1200	M5X0.8X2.5P-RC		2.5P										RC
TA-NN1E-1210	M5X0.8X1.5P		1.5P		E								
TA-NN1E-1220	M5X0.8X2.5P	2.5P	E										
TA-NN1E-1230	M6X1X1.5P-CC	M6X1	1.5P		6H NC	80	10	20	45	6	4	7X4.5	CC
TA-NN1E-1240	M6X1X2.5P-RC		2.5P										RC
TA-NN1E-1250	M6X1X1.5P		1.5P										E
TA-NN1E-1260	M6X1X2.5P	2.5P	E										
TA-NN1E-1270	M6X1X1.5P-CC	M6X1	1.5P			110	10	20	75	6	4	7X4.5	CC
TA-NN1E-1280	M6X1X2.5P-RC		2.5P										RC
TA-NN1E-1290	M6X1X1.5P		1.5P	E									
TA-NN1E-1300	M6X1X2.5P	2.5P	E										
TA-NN1E-1310	M6X1X1.5P-CC	M6X1	1.5P	160		10	20	120	8	4	9X6	CC	
TA-NN1E-1320	M6X1X2.5P-RC		2.5P									RC	
TA-NN1E-1330	M6X1X1.5P		1.5P									E	
TA-NN1E-1340	M6X1X2.5P	2.5P	E										

# TA-NN1E

Fluteless Taps For Aluminum (Extended-Length)



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

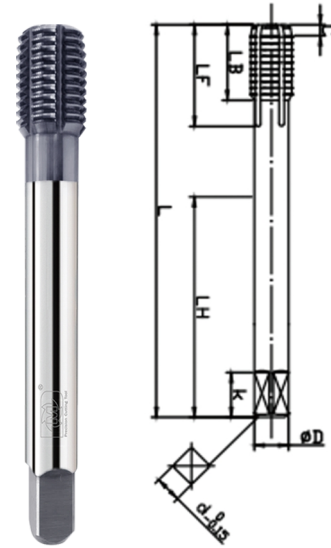
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Tap Specifications	Thread Size	C	Prec. Coat.	L	LB	LF	LH	D	F	k x d	Cooling Type	
TA-NN1E-1350	M8X1.25X1.5P-CC	M8X1.25	1.5P	6H	NC	110	12.5	22.5	60	8	6	9X6	CC
TA-NN1E-1360	M8X1.25X2.5P-RC		2.5P										RC
TA-NN1E-1370	M8X1.25X1.5P		1.5P										E
TA-NN1E-1380	M8X1.25X2.5P		2.5P										
TA-NN1E-1390	M8X1.25X1.5P-CC	M8X1.25	1.5P	6H	NC	160	12.5	22.5	110	8	6	9X6	CC
TA-NN1E-1400	M8X1.25X2.5P-RC		2.5P										RC
TA-NN1E-1410	M8X1.25X1.5P		1.5P										E
TA-NN1E-1420	M8X1.25X2.5P		2.5P										
TA-NN1E-1430	M10X1.25X1.5P-CC	M10X1.25	1.5P	6H	NC	160	12.5	22.5	100	10	6	11X8	CC
TA-NN1E-1440	M10X1.25X2.5P-RC		2.5P										RC
TA-NN1E-1450	M10X1.25X1.5P		1.5P										E
TA-NN1E-1460	M10X1.25X2.5P		2.5P										
TA-NN1E-1470	M10X1.5X1.5P-CC	M10X1.5	1.5P	6H	NC	160	15	25	100	10	6	11X8	CC
TA-NN1E-1480	M10X1.5X2.5P-RC		2.5P										RC
TA-NN1E-1490	M10X1.5X1.5P		1.5P										E
TA-NN1E-1500	M10X1.5X2.5P		2.5P										
TA-NN1E-1510	M12X1.25X1.5P-CC	M12X1.25	1.5P	6H	NC	160	12.5	27.5	90	12	6	12x9	CC
TA-NN1E-1520	M12X1.25X2.5P-RC		2.5P										RC
TA-NN1E-1530	M12X1.25X1.5P		1.5P										E
TA-NN1E-1540	M12X1.25X2.5P		2.5P										
TA-NN1E-1550	M12X1.5X1.5P-CC	M12X1.5	1.5P	6H	NC	160	15	30	90	12	6	12x9	CC
TA-NN1E-1560	M12X1.5X2.5P-RC		2.5P										RC
TA-NN1E-1570	M12X1.5X1.5P		1.5P										E
TA-NN1E-1580	M12X1.5X2.5P		2.5P										
TA-NN1E-1590	M12X1.75X1.5P-CC	M12X1.75	1.5P	6H	NC	160	17.5	32.5	90	12	6	12x9	CC
TA-NN1E-1600	M12X1.75X2.5P-RC		2.5P										RC
TA-NN1E-1610	M12X1.75X1.5P		1.5P										E
TA-NN1E-1620	M12X1.75X2.5P		2.5P										

# TA-PN1

Fluteless Taps For Steels



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

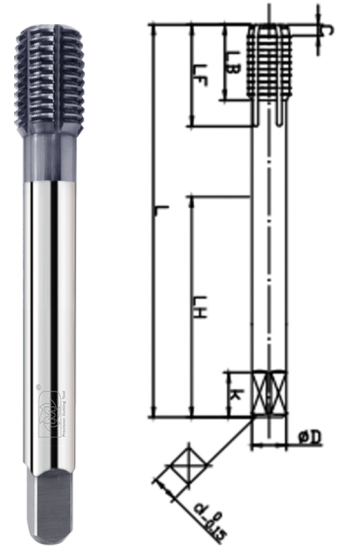
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Tap Specifications	Thread Size	C	Prec. Coat.	L	LB	LF	LH	D	F	k x d	Cooling Type	
TA-PN1-0100	M3X0.5X1.5P-CC	M3X0.5	1.5P	6H	TICN/ A	52	5	13	18	3.5	4	6x2.7	CC
TA-PN1-0110	M3X0.5X2.5P-RC		2.5P										RC
TA-PN1-0120	M3X0.5X1.5P		1.5P										E
TA-PN1-0130	M3X0.5X2.5P		2.5P										
TA-PN1-0140	M4X0.7X1.5P-CC	M4X0.7	1.5P			52	7	15	20	4.5	4	6x3.4	CC
TA-PN1-0150	M4X0.7X2.5P-RC		2.5P										RC
TA-PN1-0160	M4X0.7X1.5P		1.5P										E
TA-PN1-0170	M4X0.7X2.5P		2.5P										
TA-PN1-0180	M5X0.8X1.5P-CC	M5X0.8	1.5P			62	8	18	27	6	4	8x4.9	CC
TA-PN1-0190	M5X0.8X2.5P-RC		2.5P										RC
TA-PN1-0200	M5X0.8X1.5P		1.5P										E
TA-PN1-0210	M5X0.8X2.5P		2.5P										
TA-PN1-0220	M6X1X1.5P-CC	M6X1	1.5P			62	10	20	30	6	5	8x4.9	CC
TA-PN1-0230	M6X1X2.5P-RC		2.5P										RC
TA-PN1-0240	M6X1X1.5P		1.5P										E
TA-PN1-0250	M6X1X2.5P		2.5P										
TA-PN1-0260	M8X1.25X1.5P-CC	M8X1.25	1.5P			82	12.5	22.5	40	8	5	9x6.2	CC
TA-PN1-0270	M8X1.25X2.5P-RC		2.5P										RC
TA-PN1-0280	M8X1.25X1.5P		1.5P										E
TA-PN1-0290	M8X1.25X2.5P		2.5P										
TA-PN1-0300	M10X1.25X1.5P-CC	M10X1.25	1.5P	100	12.5	22.5	48	10	7	11x8	CC		
TA-PN1-0310	M10X1.25X2.5P-RC		2.5P								RC		
TA-PN1-0320	M10X1.25X1.5P		1.5P								E		
TA-PN1-0330	M10X1.25X2.5P		2.5P										
TA-PN1-0340	M10X1.5X1.5P-CC	M10X1.5	1.5P	100	15	25	48	10	7	11X8	CC		
TA-PN1-0350	M10X1.5X2.5P-RC		2.5P								RC		
TA-PN1-0360	M10X1.5X1.5P		1.5P								E		
TA-PN1-0370	M10X1.5X2.5P		2.5P										
TA-PN1-0380	M12X1.25X1.5P-CC	M12X1.25	1.5P	100	12.5	27.5	50	12	7	12X9	CC		
TA-PN1-0390	M12X1.25X2.5P-RC		2.5P								RC		
TA-PN1-0400	M12X1.25X1.5P		1.5P								E		
TA-PN1-0410	M12X1.25X2.5P		2.5P										

# TA-PN1

Fluteless Taps For Steels



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Tap Specifications	Thread Size	C	Prec. Coat.	L	LB	LF	LH	D	F	k x d	Cooling Type											
TA-PN1-0420	M12X1.5X1.5P-CC	M12X1.5	1.5P	6H	TICN/A	100	15	30	50	12	7	12X9	CC										
TA-PN1-0430	M12X1.5X2.5P-RC		2.5P										RC										
TA-PN1-0440	M12X1.5X1.5P		1.5P										E										
TA-PN1-0450	M12X1.5X2.5P		2.5P																				
TA-PN1-0460	M12X1.75X1.5P-CC	M12X1.75	1.5P			6H	TICN/A	100	17.5	32.5	50	12	7	12X9	CC								
TA-PN1-0470	M12X1.75X2.5P-RC		2.5P												RC								
TA-PN1-0480	M12X1.75X1.5P		1.5P												E								
TA-PN1-0490	M12X1.75X2.5P		2.5P																				
TA-PN1-0500	M14X1.5X1.5P-CC	M14X1.5	1.5P					6H	TICN/A	100	15	30	50	11	7	12x9	CC						
TA-PN1-0510	M14X1.5X2.5P-RC		2.5P														RC						
TA-PN1-0520	M14X1.5X1.5P		1.5P														E						
TA-PN1-0530	M14X1.5X2.5P		2.5P																				
TA-PN1-0540	M14X2X1.5P-CC	M14X2	1.5P							6H	TICN/A	100	20	35	50	11	7	12x9	CC				
TA-PN1-0550	M14X2X2.5P-RC		2.5P																RC				
TA-PN1-0560	M14X2X1.5P		1.5P																E				
TA-PN1-0570	M14X2X2.5P		2.5P																				
TA-PN1-0580	M16X1.5X1.5P-CC	M16X1.5	1.5P									6H	TICN/A	110	15	30	50	12	7	12x9	CC		
TA-PN1-0590	M16X1.5X2.5P-RC		2.5P																		RC		
TA-PN1-0600	M16X1.5X1.5P		1.5P																		E		
TA-PN1-0610	M16X1.5X2.5P		2.5P																				
TA-PN1-0620	M16X2X1.5P-CC	M16X2	1.5P											6H	TICN/A	110	20	35	50	12	7	12x9	CC
TA-PN1-0630	M16X2X2.5P-RC		2.5P																				RC
TA-PN1-0640	M16X2X1.5P		1.5P																				E
TA-PN1-0650	M16X2X2.5P		2.5P																				



# Carbide Thread Milling Cutters



D&M carbide thread milling cutter standard products, a complete range, covering metric, Inch, American threads; cylindrical threads and tapered threads; single-threaded, two-threaded, three-threaded, full-threaded, etc.; according to the material to be processed can be differentiated into the N/K/P/S/M/H category; according to the different materials to be processed and differentiated selection of the different coatings. If you choose D&M Carbide Thread Milling Cutter Standard, you are choosing professional and affordable.

**ORDER NUMBER  
NAMING CONVENTION**

**TM-N 1 3-0100-M1.0\*0.25**  
SERIAL NUMBER SPEC



**SERIES**



**WORK MATERIAL**



**TOOTH**



**THREAD TYPE**

# RECOMMENDED CUTTING PARAMETERS

CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Materials		Characteristics Of Materials	Material Examples	Cutting Speed (m/min)	Feed Rate (mm/t)	
P Steels	P1	Cold-extrusion steels	≤600N/mm2	DCO1, SPCE, ST15	80~160	0.01~0.05
		Low-carbon steels		S235JR(St37-2), 20#, 1008		
		Free-cutting steels,etc		10SPb20, Y15Pb, SUN23	80~160	0.01~0.05
	P2	Construction steels	≤800N/mm2	E360(St70-2), 20CrMnTi		
		Case-hardened steels		16MnCr5	80~160	0.01~0.05
		Steel casting		GS-25CrMo4, ZG1Cr13, C47H		
	P3	Case-hardened steels	≤1000N/mm2	20MoCr3, SCM415, SAE5120H	80~160	0.01~0.05
		Heat-treted steels		42CrMo4, 4135		
		Mid or high carbon steels,etc		102Cr6, CK45, 70#		
	P4	Heat-tretable steels	≤1200N/mm2	50CrMo4, 35CrMoV	60~120	0.01~0.05
		Cold work steels,etc		X45NiCrMo4		
		Nitriding steels,etc		31CrMo12, 38CrMoAl		
	P5	High-alloyed steels	≤1400N/mm2	X38CrMoV5-3, 60Si2MnA, 50CrVA	50~100	0.01~0.05
		Hot work steels		X100CrMoV8-1-1, 5CrNiTi4		
		Mold steels,etc		Cr5WMoVSi, 20Cr2Mo2WVNiCo		
M Stainless Steel Materials	M1	Ferritic,martensitic	≤950N/mm2	X2CrTi12, SS430, SS445, 9Cr18	60~120	0.01~0.05
	M2	Austenitic	≤950N/mm2	X6CrNiMoTi17-12-2, 0Cr18Ni9, SS316		
	M3	Austenitic-ferritic(Duplex)	≤1100N/mm2	X2CrNiMoN22-5-3, 00Cr23Ni4N, SAF2507	50~100	0.01~0.03
	M4	Austenitic-ferritic heat-resistant(Super Duplex)	≤1250N/mm2	UNS S32550, S32750, 00Cr25Ni7Mo4N		
K Cast Materials	K1	Cast iron with lamellar graphite(GJL)	100-250N/mm?	EN-GJL-200(GG20), HT250	80~160	0.01~0.05
	K2		250-450N/mm2	EN-GJL-300(GG30), HT350		
	K3	Cast iron with nodular graphite(GJS)	350-500N/mm2	EN-GJS-400-15(GGG40), QT400		
	K4		500-900N/mm2	EN-GJS-700-2(GGG70), QT700	60~120	0.01~0.05
	K5	Cast iron with vermicular graphite(GJV)	300-400N/mm2	GJV300, RuT380	80~160	0.01~0.05
	K6		400-500N/mm2	GJV450, RuT420		
	K7	Malleable cast iron (GTMW,GTMB)	250-500N/mm2	EN-GJMW-350-4(GTW-35), KTH330		
	K8		500-800N/mm2	EN-GJMB-450-6(GTS-45), KTZ700	60~120	0.01~0.05
H Hard Materials	H1	High strength steels,hasrdened steels,hard castings	44-50HRC	Weldox 1100	35-45	0.005-0.02
	H2		50-55HRC	Hardox 550	35-45	0.003-0.01
	H3		55-60HRC	Armox 600T		
	H4		60-63HRC	Ferro-Titanit	30-40	0.002-0.01
	H5		63-66HRC	HSSE		

Materials		Characteristics Of Materials	Material Examples	Cutting Speed (m/min)	Feed Rate (mm/t)	
N Non-ferrous Materials	Aluminium alloys					
	N1	Fine aluminum	≤200N/mm2	A199,98R, 1A99	80~160	0.03~0.1
	N2	Wrought aluminium alloys	≤350N/mm2	EN AW-AIMgSi, 2A80, AK8		
	N3		≤550N/mm2	EN AW-AIZn5Mg3Cu, 6061, 7075	100-200	0.05-0.1
	N4	Casting aluminium alloys	Si≤7%	EN AC-AIMg5, ZL101	100~300	0.05~0.2
	N5		7%<Si≤12%	EN AC-AISi9Cu3, ZAISI12, ZL111		
	N6		12%<Si≤17%	GD-AISi17Cu4FeMg, ADC14		
	Copper alloys					
	N7	Copper alloys	≤400N/mm2	E-Cu 57	80~160	0.03~0.1
	N8	Pure copper,low-alloyed copper	≤550N/mm2	CuZn37(Ms63)		
	N9	Copper-zinc alloys(brass,short-chipping)	≤550N/mm2	CuZn36Pb3(Ms58)		
	N10	Copper-aluminium alloys(alu bronze,long-chipping)	≤800N/mm2	CuAl10Ni5Fe4		
	N11	Copper-tin alloys(tin bronze,short-chipping)	≤700N/mm2	CuSn8P		
	N12	Copper-tin alloys(tin bronze,short-chipping)	≤400N/mm2	CuSn7 ZnPb(Rg7)		
	N13	Special copper alloys	≤600N/mm2	(AMPCO? 8)		
	N14		≤1400N/mm2	(AMPCO? 45)	60-100	0.02-0.05
	Magnesium alloys					
	N15	Wrouaht magnesium alloys	≤500N/mm2	MgAl6Zn	100~300	0.05~0.2
	N16	Casting magnesium alloys	≤500N/mm2	EN-MCMgAl9Zn1		
	Synthetics					
N16	Duroplastics(short-chipping)		Bakelit,Pertinax	80~160	0.03~0.1	
N17	Thermoplastics(long-chipping)		PMMA,POM,PVC			
N18	Fibre-reinforced synthetics(fibre content≤30%)		GFK,CFK,AFK			
N19	Fibre-reinforced synthetics(fibre content>31%)		GFK,CFK,AFK			
Special materials						
N20	Graphite		C 8000	150-300	0.01-0.05	
S Special Materials	Titanium alloys					
	S1	Pure titanium	≤450N/mm2	Ti1	150-300	0.01-0.05
	S2	Titanium alloys	≤900N/mm2	TiAl6V4	100-200	0.005-0.02
	S3		≤1250N/mm2	TiAl4Mo4Sn2		
	Nickel alloys,cobalt alloys and iron alloys					
	S4	Pure nickel	≤600N/mm2	Ni 99,6	25-35	0.01-0.03
	S5	Nickel-based alloys	≤1000N/mm2	Monel 400	20-30	0.01-0.02
	S6		≤1600N/mm2	Inconel 718	20-30	0.005-0.01
	S7	Cobalt-based alloys	≤1000N/mm2	Udimet 605	20-30	0.01-0.02
	S8		≤1600N/mm2	Haynes 25	20-30	0.005-0.01
S9	Iron-based alloys	≤1500N/mm2	Incoloy 800	20-30	0.005-0.01	

CARBIDE  
DRILLSCARBIDE  
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TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
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## SELECTION CRITERIA

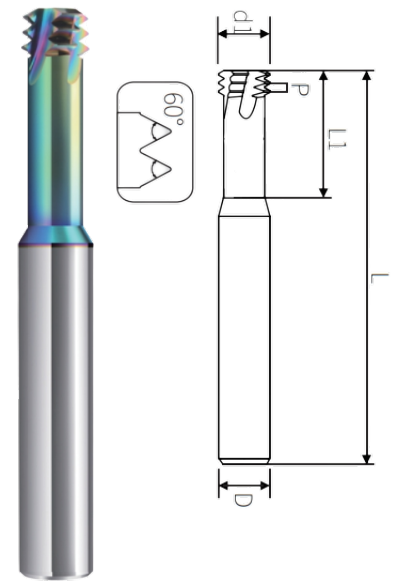
Series	Tool Abbreviation	Diameter Range (mm)	Thread Range (mm)	Cooling Methods	Coating	Page
TM	N13-ISO	M1~24	0.25~3	External Cooling	DLC	10
	KP13-ISO	M1~24	0.25~3	External Cooling	XiCr	11
	MS13-ISO	M1~24	0.25~3	External Cooling	AlCrZr	12
	N23-UN	NO.1~1/2	72UNF~13UNC	External Cooling	DLC	13
	KP23-UN	NO.1~1/2	72UNF~13UNC	External Cooling	XiCr	14
	MS23-UN	NO.1~1/2	72UNF~13UNC	External Cooling	AlCrZr	15
	N1A-ISO	M2~M24	0.4~3	External Cooling	DLC	16
	KP1A-ISO	M2~M24	0.4~3	External Cooling	XiCr	17
	MS1A-ISO	M2~M24	0.4~3	External Cooling	AlCrZr	18
	N2A-UN	1/4~5/16	20UNC~32UNEF	External Cooling	DLC	19
	KP2A-UN	1/4~5/16	20UNC~32UNEF	External Cooling	XiCr	20
	MS2A-UN	1/4~5/16	20UNC~32UNEF	External Cooling	AlCrZr	21
	N5A-NPT	1/16~1"	27NPT~11.5NPT2	External Cooling	DLC	22
	KP5A-NPT	1/16~1"	27NPT~11.5NPT2	External Cooling	XiCr	23
	MS5A-NPT	1/16~1"	27NPT~11.5NPT2	External Cooling	AlCrZr	24
	N6A-BSP	1/16~1"	28BSP~11BSP2	External Cooling	DLC	25
	KP6A-BSP	1/16~1"	28BSP~11BSP2	External Cooling	XiCr	26
	MS6A-BSP	1/16~1"	28BSP~11BSP2	External Cooling	AlCrZr	27
	N7A-BSPT	1/16~1"	28BSPT~11BSPT2	External Cooling	DLC	28
	KP7A-BSPT	1/16~1"	28BSPT~11BSPT2	External Cooling	XiCr	29
	MS7A-BSPT	1/16~1"	28BSPT~11BSPT2	External Cooling	AlCrZr	30
	KP1S-ISO	M4~M20	0.7~2.5	External Cooling	XiCr	31
	MS1S-ISO	M4~M20	0.7~2.5	External Cooling	AlCrZr	32

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DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
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# TM-N13-ISO

Three-flute Thread Milling Cutters-ISO



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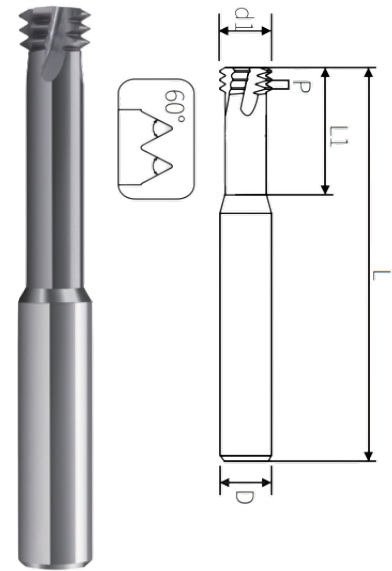
CARBIDE THREAD  
MILLING CUTTERS

CARBIDE TURNING  
& BORING TOOLS

Ord. No.	Coat.	d1	L1	D	L	F
TM-N13-0100-M1.0*0.25	DLC	0.73	2	4	50	3
TM-N13-0110-M1.2*0.25		0.92	2.4	4	50	3
TM-N13-0120-M1.4*0.3		1.05	2.8	4	50	3
TM-N13-0130-M1.6*0.35		1.2	3.2	4	50	3
TM-N13-0140-M1.8*0.35		1.4	3.6	4	50	3
TM-N13-0150-M2.0*0.4		1.55	4	4	50	3
TM-N13-0160-M2.2*0.45		1.7	5	4	50	3
TM-N13-0170-M2.5*0.45		2	5	4	50	3
TM-N13-0180-M3.0*0.5		2.4	6	4	50	3
TM-N13-0190-M3.5*0.6		2.75	8	4	50	3
TM-N13-0200-M4.0*0.7		3.15	8	4	50	3
TM-N13-0210-M4.5*0.75		3.5	9	4	50	3
TM-N13-0220-M5.0*0.8		4	10	4	50	3
TM-N13-0230-M6.0*1.0		4.8	12	6	50	3
TM-N13-0240-M8*1.0		6	16	6	50	4
TM-N13-0250-M8*1.25		6	16	6	50	4
TM-N13-0260-M10*1.0		8	20	8	60	4
TM-N13-0270-M10*1.5		8	20	8	60	4
TM-N13-0280-M12*1.0		10	24	10	75	4
TM-N13-0290-M12*1.5		10	24	10	75	4
TM-N13-0300-M12*1.75		10	24	10	75	4
TM-N13-0310-M14*1.5		12	28	12	75	4
TM-N13-0320-M14*2.0		10	28	10	75	4
TM-N13-0330-M16*2.0		12	32	12	75	4
TM-N13-0340-M16*1.5		14	32	14	100	4
TM-N13-0350-M16*2.0		13.5	32	14	100	4
TM-N13-0360-M20*1.5		16	40	16	100	6
TM-N13-0370-M20*2.5		16	40	16	100	6
TM-N13-0380-M24*3.0		16	48	16	100	6

**TM-KP13-ISO**

Three-flute Thread Milling Cutters-ISO

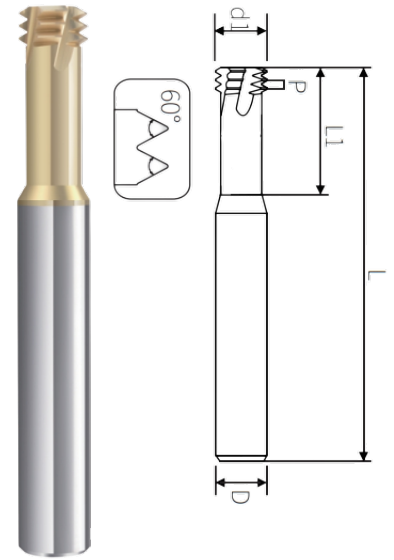
CARBIDE  
DRILLSCARBIDE  
MILLING  
CUTTERSCARBIDE  
TAPS

Ord. No.	Coat.	d1	L1	D	L	F
TM-KP13-0100-M1.0*0.25	XiCr	0.73	2	4	50	3
TM-KP13-0110-M1.2*0.25		0.92	2.4	4	50	3
TM-KP13-0120-M1.4*0.3		1.05	2.8	4	50	3
TM-KP13-0130-M1.6*0.35		1.2	3.2	4	50	3
TM-KP13-0140-M1.8*0.35		1.4	3.6	4	50	3
TM-KP13-0150-M2.0*0.4		1.55	4	4	50	3
TM-KP13-0160-M2.2*0.45		1.7	5	4	50	3
TM-KP13-0170-M2.5*0.45		2	5	4	50	3
TM-KP13-0180-M3.0*0.5		2.4	6	4	50	3
TM-KP13-0190-M3.5*0.6		2.75	8	4	50	3
TM-KP13-0200-M4.0*0.7		3.15	8	4	50	3
TM-KP13-0210-M4.5*0.75		3.5	9	4	50	3
TM-KP13-0220-M5.0*0.8		4	10	4	50	3
TM-KP13-0230-M6.0*1.0		4.8	12	6	50	3
TM-KP13-0240-M8*1.0		6	16	6	50	4
TM-KP13-0250-M8*1.25		6	16	6	50	4
TM-KP13-0260-M10*1.0		8	20	8	60	4
TM-KP13-0270-M10*1.5		8	20	8	60	4
TM-KP13-0280-M12*1.0		10	24	10	75	4
TM-KP13-0290-M12*1.5		10	24	10	75	4
TM-KP13-0300-M12*1.75		10	24	10	75	4
TM-KP13-0310-M14*1.5		12	28	12	75	4
TM-KP13-0320-M14*2.0		10	28	10	75	4
TM-KP13-0330-M16*2.0		12	32	12	75	4
TM-KP13-0340-M16*1.5		14	32	14	100	4
TM-KP13-0350-M16*2.0		13.5	32	14	100	4
TM-KP13-0360-M20*1.5		16	40	16	100	6
TM-KP13-0370-M20*2.5		16	40	16	100	6
TM-KP13-0380-M24*3.0		16	48	16	100	6

CARBIDE THREAD  
MILLING  
CUTTERSCARBIDE TURNING  
& BORING  
TOOLS

# TM-MS13-ISO

Three-flute Thread Milling Cutters-ISO



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

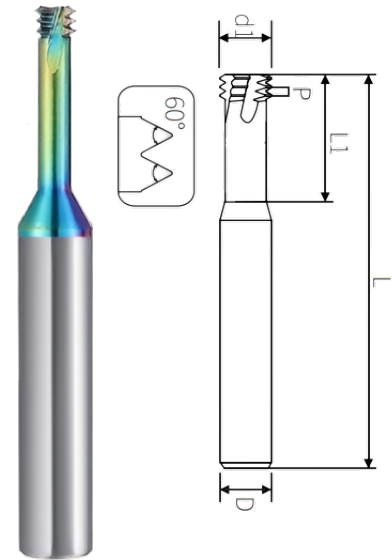
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Coat.	d1	L1	D	L	F
TM-MS13-0100-M1.0*0.25	AlCrZr	0.73	2	4	50	3
TM-MS13-0110-M1.2*0.25		0.92	2.4	4	50	3
TM-MS13-0120-M1.4*0.3		1.05	2.8	4	50	3
TM-MS13-0130-M1.6*0.35		1.2	3.2	4	50	3
TM-MS13-0140-M1.8*0.35		1.4	3.6	4	50	3
TM-MS13-0150-M2.0*0.4		1.55	4	4	50	3
TM-MS13-0160-M2.2*0.45		1.7	5	4	50	3
TM-MS13-0170-M2.5*0.45		2	5	4	50	3
TM-MS13-0180-M3.0*0.5		2.4	6	4	50	3
TM-MS13-0190-M3.5*0.6		2.75	8	4	50	3
TM-MS13-0200-M4.0*0.7		3.15	8	4	50	3
TM-MS13-0210-M4.5*0.75		3.5	9	4	50	3
TM-MS13-0220-M5.0*0.8		4	10	4	50	3
TM-MS13-0230-M6.0*1.0		4.8	12	6	50	3
TM-MS13-0240-M8*1.0		6	16	6	50	4
TM-MS13-0250-M8*1.25		6	16	6	50	4
TM-MS13-0260-M10*1.0		8	20	8	60	4
TM-MS13-0270-M10*1.5		8	20	8	60	4
TM-MS13-0280-M12*1.0		10	24	10	75	4
TM-MS13-0290-M12*1.5		10	24	10	75	4
TM-MS13-0300-M12*1.75		10	24	10	75	4
TM-MS13-0310-M14*1.5		12	28	12	75	4
TM-MS13-0320-M14*2.0		10	28	10	75	4
TM-MS13-0330-M16*2.0		12	32	12	75	4
TM-MS13-0340-M16*1.5		14	32	14	100	4
TM-MS13-0350-M16*2.0		13.5	32	14	100	4
TM-MS13-0360-M20*1.5		16	40	16	100	6
TM-MS13-0370-M20*2.5		16	40	16	100	6
TM-MS13-0380-M24*3.0		16	48	16	100	6

# TM-N23-UN

Three-flute Thread Milling Cutters-UN



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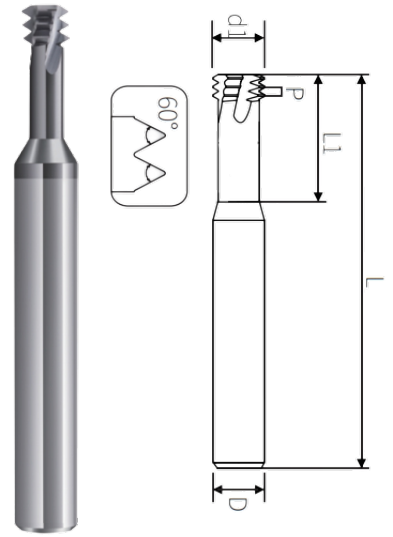
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TM-N23-0100-NO.1-72UNF	DLC	1.45	3.9	4	50	3
TM-N23-0110-NO.3-56UNF		1.95	5.3	4	50	3
TM-N23-0120-NO.4-48UNF		2.25	6	4	50	3
TM-N23-0130-NO.6-40UNF		2.75	7.2	4	50	3
TM-N23-0140-NO.8-36UNF		3.3	8.7	4	50	3
TM-N23-0150-NO.10-32UNF		3.9	10	4	50	3
TM-N23-0160-1/4-28UNF		5.3	12	6	50	3
TM-N23-0170-7/16-20UNF		9.5	24	10	75	4
TM-N23-0180-NO.1-64UNC		1.4	4	4	50	3
TM-N23-0190-NO.2-56UNC		1.65	5	4	50	3
TM-N23-0200-NO.3-48UNC		1.95	5	4	50	3
TM-N23-0210-NO.4-40UNC		2.15	6	4	50	3
TM-N23-0220-NO.5-40UNC		2.45	7.2	4	50	3
TM-N23-0230-NO.6-32UNC		2.65	7.5	4	50	3
TM-N23-0240-NO.8-32UNC		3.2	9	4	50	3
TM-N23-0250-NO.10-24UNC		3.7	10	4	50	3
TM-N23-0260-1/4-20UNC		4.9	12	6	50	3
TM-N23-0270-3/8-16UNC		7.8	20	8	60	4
TM-N23-0280-5/16-18UNC		6.4	18	8	60	4
TM-N23-0290-7/16-14UNC		9.2	24	10	75	4
TM-N23-0300-1/2-13UNC	10	24	10	75	4	

CARBIDE THREAD  
MILLING CUTTERS

CARBIDE TURNING  
& BORING TOOLS

# TM-KP23-UN

Three-flute Thread Milling Cutters-UN



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

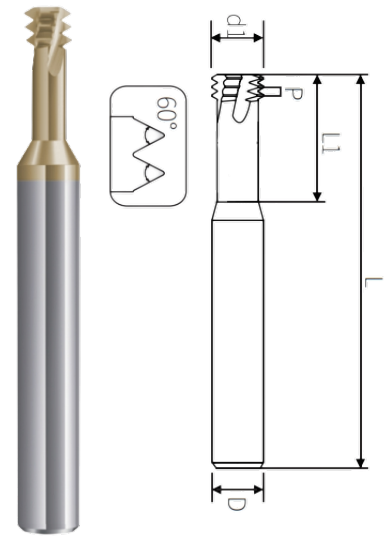
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Coat.	d1	L1	D	L	F
TM-KP23-0100-NO.1-72UNF	XiCr	1.45	3.9	4	50	3
TM-KP23-0110-NO.3-56UNF		1.95	5.3	4	50	3
TM-KP23-0120-NO.4-48UNF		2.25	6	4	50	3
TM-KP23-0130-NO.6-40UNF		2.75	7.2	4	50	3
TM-KP23-0140-NO.8-36UNF		3.3	8.7	4	50	3
TM-KP23-0150-NO.10-32UNF		3.9	10	4	50	3
TM-KP23-0160-1/4-28UNF		5.3	12	6	50	3
TM-KP23-0170-7/16-20UNF		9.5	24	10	75	4
TM-KP23-0180-NO.1-64UNC		1.4	4	4	50	3
TM-KP23-0190-NO.2-56UNC		1.65	5	4	50	3
TM-KP23-0200-NO.3-48UNC		1.95	5	4	50	3
TM-KP23-0210-NO.4-40UNC		2.15	6	4	50	3
TM-KP23-0220-NO.5-40UNC		2.45	7.2	4	50	3
TM-KP23-0230-NO.6-32UNC		2.65	7.5	4	50	3
TM-KP23-0240-NO.8-32UNC		3.2	9	4	50	3
TM-KP23-0250-NO.10-24UNC		3.7	10	4	50	3
TM-KP23-0260-1/4-20UNC		4.9	12	6	50	3
TM-KP23-0270-3/8-16UNC		7.8	20	8	60	4
TM-KP23-0280-5/16-18UNC		6.4	18	8	60	4
TM-KP23-0290-7/16-14UNC		9.2	24	10	75	4
TM-KP23-0300-1/2-13UNC	10	24	10	75	4	

# TM-MS23-UN

Three-flute Thread Milling Cutters-UN



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CARBIDE  
TAPS

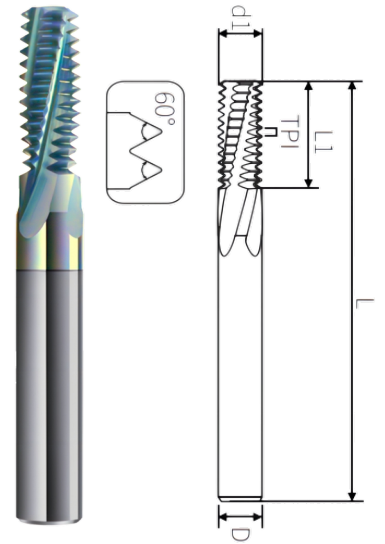
Ord. No.	Coat.	d1	L1	D	L	F
TM-MS23-0100-NO.1-72UNF	AlCrZr	1.45	3.9	4	50	3
TM-MS23-0110-NO.3-56UNF		1.95	5.3	4	50	3
TM-MS23-0120-NO.4-48UNF		2.25	6	4	50	3
TM-MS23-0130-NO.6-40UNF		2.75	7.2	4	50	3
TM-MS23-0140-NO.8-36UNF		3.3	8.7	4	50	3
TM-MS23-0150-NO.10-32UNF		3.9	10	4	50	3
TM-MS23-0160-1/4-28UNF		5.3	12	6	50	3
TM-MS23-0170-7/16-20UNF		9.5	24	10	75	4
TM-MS23-0180-NO.1-64UNC		1.4	4	4	50	3
TM-MS23-0190-NO.2-56UNC		1.65	5	4	50	3
TM-MS23-0200-NO.3-48UNC		1.95	5	4	50	3
TM-MS23-0210-NO.4-40UNC		2.15	6	4	50	3
TM-MS23-0220-NO.5-40UNC		2.45	7.2	4	50	3
TM-MS23-0230-NO.6-32UNC		2.65	7.5	4	50	3
TM-MS23-0240-NO.8-32UNC		3.2	9	4	50	3
TM-MS23-0250-NO.10-24UNC		3.7	10	4	50	3
TM-MS23-0260-1/4-20UNC		4.9	12	6	50	3
TM-MS23-0270-3/8-16UNC		7.8	20	8	60	4
TM-MS23-0280-5/16-18UNC		6.4	18	8	60	4
TM-MS23-0290-7/16-14UNC		9.2	24	10	75	4
TM-MS23-0300-1/2-13UNC	10	24	10	75	4	

CARBIDE THREAD  
MILLING CUTTERS

CARBIDE TURNING  
& BORING TOOLS

# TM-N1A-ISO

Full-profile Thread Milling Cutters-ISO



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

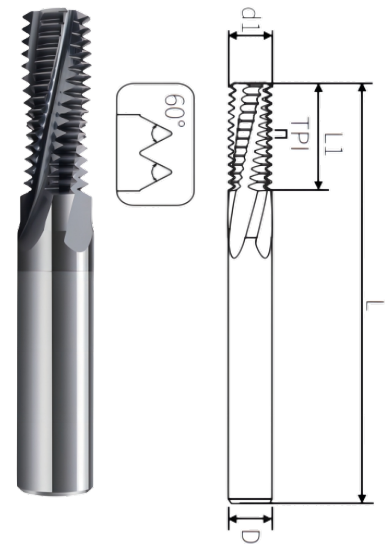
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Coat.	d1	L1	D	L	F
TM-N1A-0100-M2*0.4	DLC	1.55	4	4	50	3
TM-N1A-0110-M2.5*0.45		2	5	4	50	3
TM-N1A-0120-M3*0.5		2.4	6	4	50	4
TM-N1A-0130-M4*0.7		3.15	8	4	50	4
TM-N1A-0140-M5*0.5		4	10	4	50	3
TM-N1A-0150-M5*0.75		4	10	4	50	3
TM-N1A-0160-M5*0.8		4	10	4	50	4
TM-N1A-0170-M6*0.75		4.8	12	6	60	3
TM-N1A-0180-M6*1.0		4.8	12	6	60	4
TM-N1A-0190-M8*0.5		6	16	6	60	3
TM-N1A-0200-M8*0.75		6	16	6	60	3
TM-N1A-0210-M8*1.0		6	16	6	60	3
TM-N1A-0220-M8*1.25		6	16	6	60	4
TM-N1A-0230-M10*1.0		8	20	8	60	4
TM-N1A-0240-M10*1.25		8	20	8	60	4
TM-N1A-0250-M10*1.5		8	20	8	60	4
TM-N1A-0260-M12*0.5		10	24	10	75	4
TM-N1A-0270-M12*0.75		10	24	10	75	4
TM-N1A-0280-M12*1.0		10	24	10	75	4
TM-N1A-0290-M12*1.25		10	24	10	75	4
TM-N1A-0300-M12*1.5		10	24	10	75	4
TM-N1A-0310-M12*1.75		10	24	10	75	4
TM-N1A-0320-M14*1.0		12	28	12	75	4
TM-N1A-0330-M14*1.5		12	28	12	75	4
TM-N1A-0340-M14*2.0		11.6	28	12	75	4
TM-N1A-0350-M16*1.5		14	32	14	100	4
TM-N1A-0360-M16*2.0		13	32	14	100	4
TM-N1A-0370-M18*2.5		14.8	38	16	100	4
TM-N1A-0380-M20*1.5		16	38	16	100	4
TM-N1A-0390-M20*2.5		16	42	16	100	4
TM-N1A-0400-M24*3.0		16	42	16	100	4

# TM-KP1A-ISO

Full-profile Thread Milling Cutters-ISO



CARBIDE  
DRILLS

CARBIDE  
MILLING CUTTERS

CARBIDE  
TAPS

Ord. No.	Coat.	d1	L1	D	L	F
TM-KP1A-0100-M2*0.4	XiCr	1.55	4	4	50	3
TM-KP1A-0110-M2.5*0.45		2	5	4	50	3
TM-KP1A-0120-M3*0.5		2.4	6	4	50	4
TM-KP1A-0130-M4*0.7		3.15	8	4	50	4
TM-KP1A-0140-M5*0.5		4	10	4	50	3
TM-KP1A-0150-M5*0.75		4	10	4	50	3
TM-KP1A-0160-M5*0.8		4	10	4	50	4
TM-KP1A-0170-M6*0.75		4.8	12	6	60	3
TM-KP1A-0180-M6*1.0		4.8	12	6	60	4
TM-KP1A-0190-M8*0.5		6	16	6	60	3
TM-KP1A-0200-M8*0.75		6	16	6	60	3
TM-KP1A-0210-M8*1.0		6	16	6	60	3
TM-KP1A-0220-M8*1.25		6	16	6	60	4
TM-KP1A-0230-M10*1.0		8	20	8	60	4
TM-KP1A-0240-M10*1.25		8	20	8	60	4
TM-KP1A-0250-M10*1.5		8	20	8	60	4
TM-KP1A-0260-M12*0.5		10	24	10	75	4
TM-KP1A-0270-M12*0.75		10	24	10	75	4
TM-KP1A-0280-M12*1.0		10	24	10	75	4
TM-KP1A-0290-M12*1.25		10	24	10	75	4
TM-KP1A-0300-M12*1.5		10	24	10	75	4
TM-KP1A-0310-M12*1.75		10	24	10	75	4
TM-KP1A-0320-M14*1.0		12	28	12	75	4
TM-KP1A-0330-M14*1.5		12	28	12	75	4
TM-KP1A-0340-M14*2.0		11.6	28	12	75	4
TM-KP1A-0350-M16*1.5		14	32	14	100	4
TM-KP1A-0360-M16*2.0		13	32	14	100	4
TM-KP1A-0370-M18*2.5		14.8	38	16	100	4
TM-KP1A-0380-M20*1.5		16	38	16	100	4
TM-KP1A-0390-M20*2.5		16	42	16	100	4
TM-KP1A-0400-M24*3.0		16	42	16	100	4

CARBIDE THREAD  
MILLING CUTTERS

CARBIDE TURNING  
& BORING TOOLS

# TM-MS1A-ISO

Full-profile Thread Milling Cutters-ISO

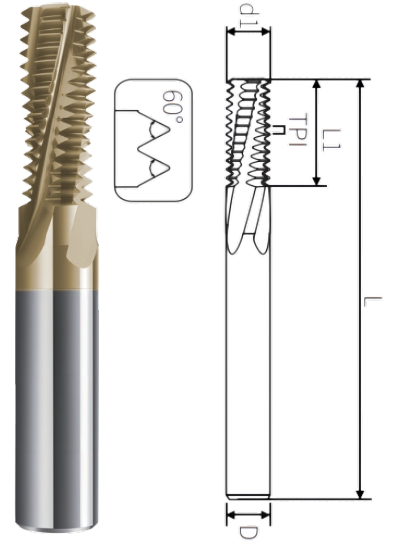
CARBIDE  
DRILLS

CARBIDE  
MILLING CUTTERS

CARBIDE  
TAPS

CARBIDE THREAD  
MILLING CUTTERS

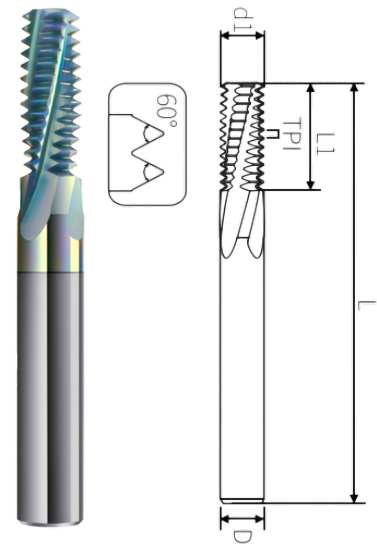
CARBIDE TURNING  
& BORING TOOLS



Ord. No.	Coat.	d1	L1	D	L	F
TM-MS1A-0100-M2*0.4	AlCrZr	1.55	4	4	50	3
TM-MS1A-0110-M2.5*0.45		2	5	4	50	3
TM-MS1A-0120-M3*0.5		2.4	6	4	50	4
TM-MS1A-0130-M4*0.7		3.15	8	4	50	4
TM-MS1A-0140-M5*0.5		4	10	4	50	3
TM-MS1A-0150-M5*0.75		4	10	4	50	3
TM-MS1A-0160-M5*0.8		4	10	4	50	4
TM-MS1A-0170-M6*0.75		4.8	12	6	60	3
TM-MS1A-0180-M6*1.0		4.8	12	6	60	4
TM-MS1A-0190-M8*0.5		6	16	6	60	3
TM-MS1A-0200-M8*0.75		6	16	6	60	3
TM-MS1A-0210-M8*1.0		6	16	6	60	3
TM-MS1A-0220-M8*1.25		6	16	6	60	4
TM-MS1A-0230-M10*1.0		8	20	8	60	4
TM-MS1A-0240-M10*1.25		8	20	8	60	4
TM-MS1A-0250-M10*1.5		8	20	8	60	4
TM-MS1A-0260-M12*0.5		10	24	10	75	4
TM-MS1A-0270-M12*0.75		10	24	10	75	4
TM-MS1A-0280-M12*1.0		10	24	10	75	4
TM-MS1A-0290-M12*1.25		10	24	10	75	4
TM-MS1A-0300-M12*1.5		10	24	10	75	4
TM-MS1A-0310-M12*1.75		10	24	10	75	4
TM-MS1A-0320-M14*1.0		12	28	12	75	4
TM-MS1A-0330-M14*1.5		12	28	12	75	4
TM-MS1A-0340-M14*2.0		11.6	28	12	75	4
TM-MS1A-0350-M16*1.5		14	32	14	100	4
TM-MS1A-0360-M16*2.0		13	32	14	100	4
TM-MS1A-0370-M18*2.5		14.8	38	16	100	4
TM-MS1A-0380-M20*1.5		16	38	16	100	4
TM-MS1A-0390-M20*2.5		16	42	16	100	4
TM-MS1A-0400-M24*3.0		16	42	16	100	4

# TM-N2A-UN

Full-profile Thread Milling Cutters-ISO



CARBIDE  
DRILLS

CARBIDE  
MILLING CUTTERS

CARBIDE  
TAPS

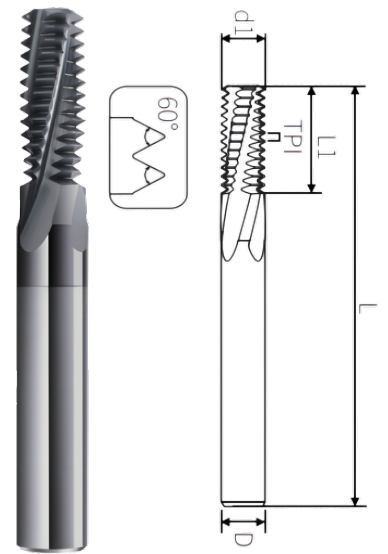
Ord. No.	Coat.	d1	L1	D	L	F
TM-N2A-0100- 1/4-20UNC	DLC	4.85	12	6	60	4
TM-N2A-0110- 5/16-18UNC		6.4	18	8	60	4
TM-N2A-0120-3/8-16UNC		7.8	21	8	60	4
TM-N2A-0130-7/16-14UNC		8.8	24	10	75	4
TM-N2A-0140-9/16-12UNC		12	28	12	75	4
TM-N2A-0150-1/2-13UNC		10	24	10	75	4
TM-N2A-0160- 5/8-11UNC		12	28	12	75	4
TM-N2A-0170-3/4-10UNC		16	38	16	100	4
TM-N2A-0180-10-32UNF		3.9	10	4	50	4
TM-N2A-0190-1/4-28UNF		5.3	12	6	60	4
TM-N2A-0200-5/16-24UNF		6.5	18	8	60	4
TM-N2A-0210-7/16-20UNF		9.5	24	10	75	4
TM-N2A-0220-9/16-18UNF		10	24	10	75	4
TM-N2A-0230- 3/4-16UNF		12	28	12	75	4
TM-N2A-0240-5/16-32UNEF		6.8	18	8	60	4

CARBIDE THREAD  
MILLING CUTTERS

CARBIDE TURNING  
& BORING TOOLS

# TM-KP2A-UN

Full-profile Thread Milling Cutters-UN



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

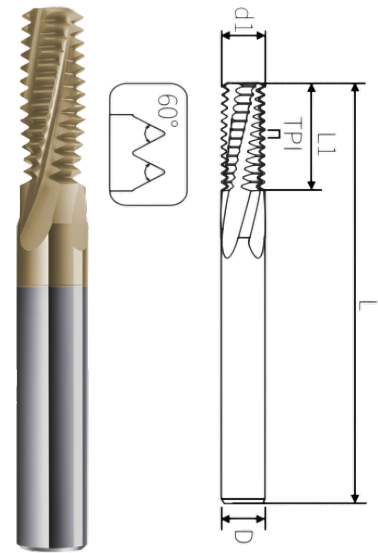
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Coat.	d1	L1	D	L	F
TM-KP2A-0100- 1/4-20UNC	XiCr	4.85	12	6	60	4
TM-KP2A-0110- 5/16-18UNC		6.4	18	8	60	4
TM-KP2A-0120-3/8-16UNC		7.8	21	8	60	4
TM-KP2A-0130-7/16-14UNC		8.8	24	10	75	4
TM-KP2A-0140-9/16-12UNC		12	28	12	75	4
TM-KP2A-0150-1/2-13UNC		10	24	10	75	4
TM-KP2A-0160- 5/8-11UNC		12	28	12	75	4
TM-KP2A-0170-3/4-10UNC		16	38	16	100	4
TM-KP2A-0180-10-32UNF		3.9	10	4	50	4
TM-KP2A-0190-1/4-28UNF		5.3	12	6	60	4
TM-KP2A-0200-5/16-24UNF		6.5	18	8	60	4
TM-KP2A-0210-7/16-20UNF		9.5	24	10	75	4
TM-KP2A-0220-9/16-18UNF		10	24	10	75	4
TM-KP2A-0230- 3/4-16UNF		12	28	12	75	4
TM-KP2A-0240-5/16-32UNEF		6.8	18	8	60	4

# TM-MS2A-ISO

Full-profile Thread Milling Cutters-UN



CARBIDE  
DRILLS

CARBIDE  
MILLING CUTTERS

CARBIDE  
TAPS

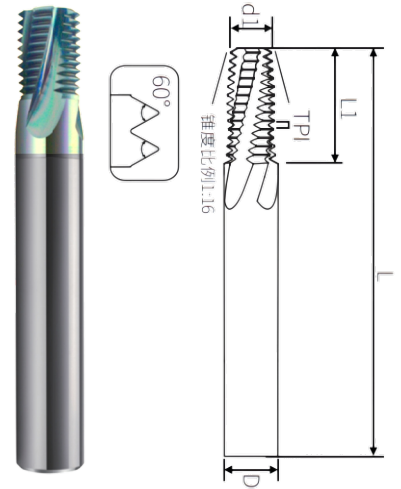
Ord. No.	Coat.	d1	L1	D	L	F
TM-MS2A-0100- 1/4-20UNC	AlCrZr	4.85	12	6	60	4
TM-MS2A-0110- 5/16-18UNC		6.4	18	8	60	4
TM-MS2A-0120-3/8-16UNC		7.8	21	8	60	4
TM-MS2A-0130-7/16-14UNC		8.8	24	10	75	4
TM-MS2A-0140-9/16-12UNC		12	28	12	75	4
TM-MS2A-0150-1/2-13UNC		10	24	10	75	4
TM-MS2A-0160- 5/8-11UNC		12	28	12	75	4
TM-MS2A-0170-3/4-10UNC		16	38	16	100	4
TM-MS2A-0180-10-32UNF		3.9	10	4	50	4
TM-MS2A-0190-1/4-28UNF		5.3	12	6	60	4
TM-MS2A-0200-5/16-24UNF		6.5	18	8	60	4
TM-MS2A-0210-7/16-20UNF		9.5	24	10	75	4
TM-MS2A-0220-9/16-18UNF		10	24	10	75	4
TM-MS2A-0230- 3/4-16UNF		12	28	12	75	4
TM-MS2A-0240-5/16-32UNEF		6.8	18	8	60	4

CARBIDE THREAD  
MILLING CUTTERS

CARBIDE TURNING  
& BORING TOOLS

# TM-N5A-NPT

Full-profile Thread Milling Cutters-NPT



CARBIDE  
DRILLS

CARBIDE  
MILLING CUTTERS

CARBIDE  
TAPS

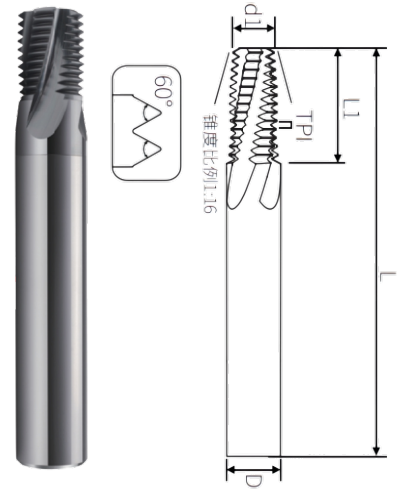
CARBIDE THREAD  
MILLING CUTTERS

CARBIDE TURNING  
& BORING TOOLS

Ord. No.	Coat.	d1	L1	D	L	F
TM-N5A-0100-1/16-27NPT	DLC	5.4	9.4	6	60	4
TM-N5A-0110-/8-27NPT		7.4	9.4	8	60	4
TM-N5A-0120-1/4-18NPT1		7.1	14.1	8	60	4
TM-N5A-0130-1/4-18NPT2		9.1	14.1	10	75	4
TM-N5A-0140-3/8-18NPT		11.1	14.1	12	75	4
TM-N5A-0150-1/2-14NPT		10.8	18.1	12	75	4
TM-N5A-0160-3/4-14NPT		14.8	18.1	16	100	4
TM-N5A-0170-1"-11.5NPT1		14.6	22	16	100	4
TM-N5A-0180-1"-11.5NPT2		17.68	45	20	100	5

# TM-KP5A-NPT

Full-profile Thread Milling Cutters-NPT



CARBIDE  
DRILLS

CARBIDE  
MILLING CUTTERS

CARBIDE  
TAPS

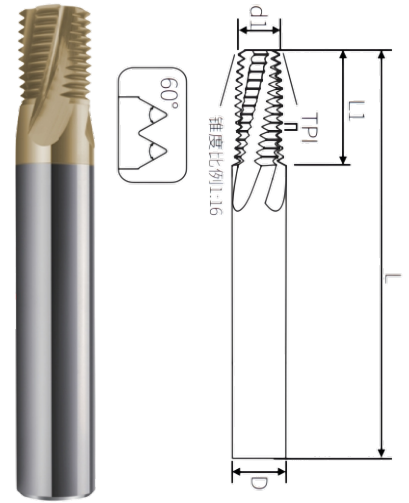
Ord. No.	Coat.	d1	L1	D	L	F
TM-KP5A-0100-1/16-27NPT	XiCr	5.4	9.4	6	60	4
TM-KP5A-0110-/8-27NPT		7.4	9.4	8	60	4
TM-KP5A-0120-1/4-18NPT1		7.1	14.1	8	60	4
TM-KP5A-0130-1/4-18NPT2		9.1	14.1	10	75	4
TM-KP5A-0140-3/8-18NPT		11.1	14.1	12	75	4
TM-KP5A-0150-1/2-14NPT		10.8	18.1	12	75	4
TM-KP5A-0160-3/4-14NPT		14.8	18.1	16	100	4
TM-KP5A-0170-1"-11.5NPT1		14.6	22	16	100	4
TM-KP5A-0180-1"-11.5NPT2		17.68	45	20	100	5

CARBIDE THREAD  
MILLING CUTTERS

CARBIDE TURNING  
& BORING TOOLS

# TM-MS5A-NPT

Full-profile Thread Milling Cutters-NPT



CARBIDE  
DRILLS

CARBIDE  
MILLING CUTTERS

CARBIDE  
TAPS

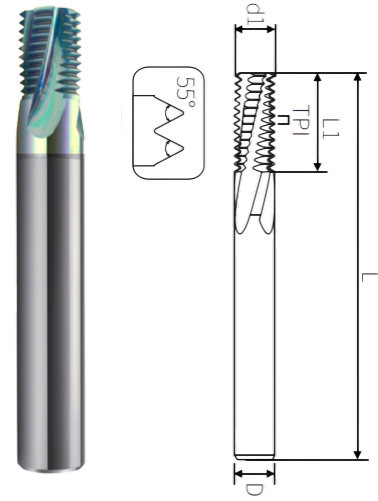
CARBIDE THREAD  
MILLING CUTTERS

CARBIDE TURNING  
& BORING TOOLS

Ord. No.	Coat.	d1	L1	D	L	F
TM-MS5A-0100-1/16-27NPT	AlCrZr	5.4	9.4	6	60	4
TM-MS5A-0110-/8-27NPT		7.4	9.4	8	60	4
TM-MS5A-0120-1/4-18NPT1		7.1	14.1	8	60	4
TM-MS5A-0130-1/4-18NPT2		9.1	14.1	10	75	4
TM-MS5A-0140-3/8-18NPT		11.1	14.1	12	75	4
TM-MS5A-0150-1/2-14NPT		10.8	18.1	12	75	4
TM-MS5A-0160-3/4-14NPT		14.8	18.1	16	100	4
TM-MS5A-0170-1"-11.5NPT1		14.6	22	16	100	4
TM-MS5A-0180-1"-11.5NPT2		17.68	45	20	100	5

# TM-N6A-BSP

Full-profile Thread Milling Cutters-BSP



CARBIDE  
DRILLS

CARBIDE  
MILLING CUTTERS

CARBIDE  
TAPS

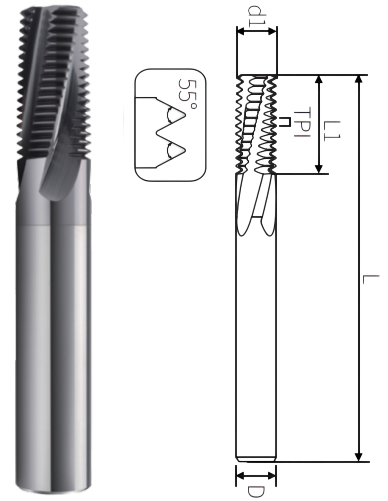
Ord. No.	Coat.	d1	L1	D	L	F
TM-N6A-0100-1/16-28BSP	DLC	6	14	6	60	4
TM-N6A-0110-1/8-28BSP		8	14	8	60	4
TM-N6A-0120-1/4-19BSP1		8	18	8	60	4
TM-N6A-0130-1/4-19BSP2		10	20	10	75	4
TM-N6A-0140-3/8-19BSP		12	25	12	75	4
TM-N6A-0150-1/2-14BSP		12	20	12	75	4
TM-N6A-0160-3/4-14BSP		16	30	16	100	4
TM-N6A-0170-1"-11BSP1		16	32	16	100	4
TM-N6A-0180-1"-11BSP2		20	45	20	100	5

CARBIDE THREAD  
MILLING CUTTERS

CARBIDE TURNING  
& BORING TOOLS

# TM-KP6A-BSP

Full-profile Thread Milling Cutters-BSP



CARBIDE  
DRILLS

CARBIDE  
MILLING CUTTERS

CARBIDE  
TAPS

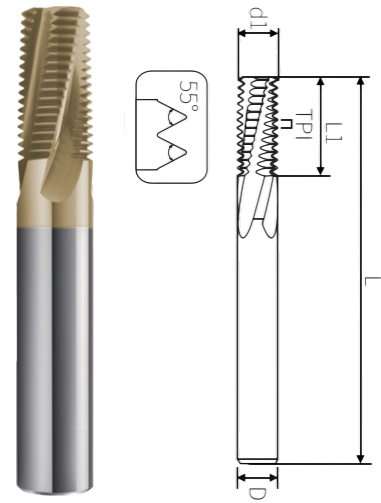
CARBIDE THREAD  
MILLING CUTTERS

CARBIDE TURNING  
& BORING TOOLS

Ord. No.	Coat.	d1	L1	D	L	F
TM-KP6A-0100-1/16-28BSP	XiCr	6	14	6	60	4
TM-KP6A-0110-1/8-28BSP		8	14	8	60	4
TM-KP6A-0120-1/4-19BSP1		8	18	8	60	4
TM-KP6A-0130-1/4-19BSP2		10	20	10	75	4
TM-KP6A-0140-3/8-19BSP		12	25	12	75	4
TM-KP6A-0150-1/2-14BSP		12	20	12	75	4
TM-KP6A-0160-3/4-14BSP		16	30	16	100	4
TM-KP6A-0170-1"-11BSP1		16	32	16	100	4
TM-KP6A-0180-1"-11BSP2		20	45	20	100	5

# TM-MS6A-BSP

Full-profile Thread Milling Cutters-BSP



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

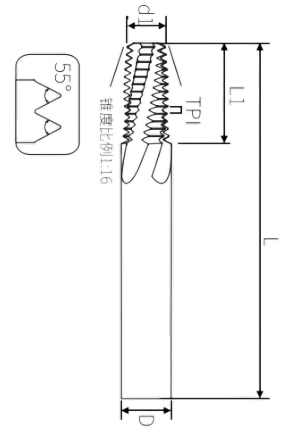
Ord. No.	Coat.	d1	L1	D	L	F
TM-MS6A-0100-1/16-28BSP	AlCrZr	6	14	6	60	4
TM-MS6A-0110-1/8-28BSP		8	14	8	60	4
TM-MS6A-0120-1/4-19BSP1		8	18	8	60	4
TM-MS6A-0130-1/4-19BSP2		10	20/24	10	75	4
TM-MS6A-0140-3/8-19BSP		12	25/28	12	75	4
TM-MS6A-0150-1/2-14BSP		12	20/28	12	75	4
TM-MS6A-0160-3/4-14BSP		16	30	16	100	4
TM-MS6A-0170-1"-11BSP1		16	32/38	16	100	4
TM-MS6A-0180-1"-11BSP2		20	42	20	100	5

CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

# TM-N7A-BSPT

Full-profile Thread Milling Cutters-BSPT



CARBIDE  
DRILLS

CARBIDE  
MILLING CUTTERS

CARBIDE  
TAPS

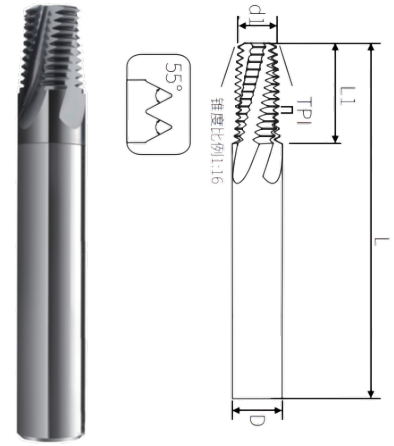
CARBIDE THREAD  
MILLING CUTTERS

CARBIDE TURNING  
& BORING TOOLS

Ord. No.	Coat.	d1	L1	D	L	F
TM-N7A-0100-1/16-28BSPT	DLC	5.3	9.9	6	60	4
TM-N7A-0110-1/8-28BSPT		7.3	9.9	8	60	4
TM-N7A-0120-1/4-19BSPT1		7	14	8	60	4
TM-N7A-0130-1/4-19BSPT2		9	15	10	75	4
TM-N7A-0140-3/8-19BSPT1		11	14	12	75	4
TM-N7A-0150-1/2-14BSPT		10	19	12	75	4
TM-N7A-0160-3/4-14BSPT		14.6	21	16	100	4
TM-N7A-0170-1"-11BSPT1		14.3	27	16	100	4
TM-N7A-0180-1"-11BSPT2		17.38	42	20	100	5

# TM-KP7A-BSPT

Full-profile Thread Milling Cutters-BSPT



CARBIDE  
DRILLS

CARBIDE  
MILLING  
CUTTERS

CARBIDE  
TAPS

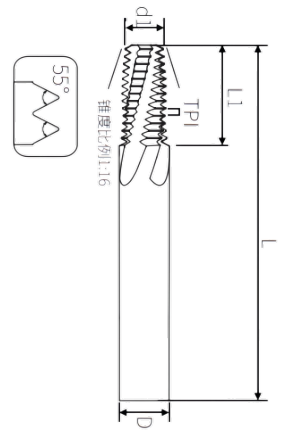
Ord. No.	Coat.	d1	L1	D	L	F
TM-KP7A-0100-1/16-28BSPT	XiCr	5.3	9.9	6	60	4
TM-KP7A-0110-1/8-28BSPT		7.3	9.9	8	60	4
TM-KP7A-0120-1/4-19BSPT1		7	14	8	60	4
TM-KP7A-0130-1/4-19BSPT2		9	15	10	75	4
TM-KP7A-0140-3/8-19BSPT		11	14	12	75	4
TM-KP7A-0150-1/2-14BSPT		10	19	12	75	4
TM-KP7A-0160-3/4-14BSPT		14.6	21	16	100	4
TM-KP7A-0170-1"-11BSPT1		14.3	27	16	100	4
TM-KP7A-0180-1"-11BSPT2		17.38	42	20	100	5

CARBIDE THREAD  
MILLING CUTTERS

CARBIDE TURNING  
& BORING TOOLS

# TM-MS7A-BSPT

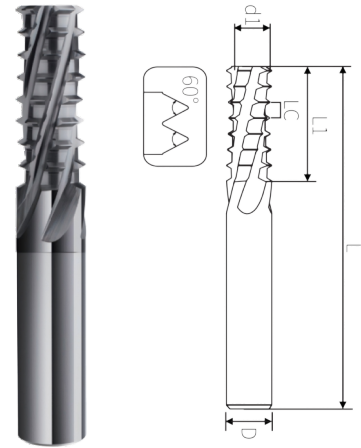
Full-profile Thread Milling Cutters-BSPT



Ord. No.	Coat.	d1	L1	D	L	F
TM-MS7A-0100-1/16-28BSPT	AlCrZr	5.3	9.9	6	60	4
TM-MS7A-0110-1/8-28BSPT		7.3	9.9	8	60	4
TM-MS7A-0120-1/4-19BSPT1		7	14	8	60	4
TM-MS7A-0130-1/4-19BSPT2		9	15	10	75	4
TM-MS7A-0140-3/8-19BSPT		11	14	12	75	4
TM-MS7A-0150-1/2-14BSPT		10	19	12	75	4
TM-MS7A-0160-3/4-14BSPT		14.6	21	16	100	4
TM-MS7A-0170-1"-11BSPT1		14.3	27	16	100	4
TM-MS7A-0180-1"-11BSPT2		17.38	42	20	100	5

# TM-KP1S-ISO

Staggered Full-profile Thread Milling Cutters-ISO



CARBIDE  
DRILLS

CARBIDE  
MILLING CUTTERS

CARBIDE  
TAPS

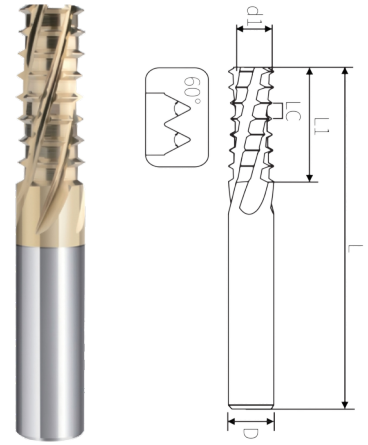
Ord. No.	Type	P	Coat.	d1	L1	D	L	F
TM-KP1S-0100-M4*0.7	M4.0	0.7	XiCr	3.15	8.4	6	50	4
TM-KP1S-0110-M5*0.8	M5.0	0.8		4	10.4	6	50	4
TM-KP1S-0120-M6*1	M6.0	1		4.8	12	6	60	4
TM-KP1S-0130-M8*1.25	M8.0	1.25		6	16.3	8	60	4
TM-KP1S-0140-M10*1.5	M10	1.5		8	21	8	60	4
TM-KP1S-0150-M12*1.75	M12	1.75		10	24.5	10	75	4
TM-KP1S-0160-M14*2	M14	2		11.6	28	12	75	4
TM-KP1S-0170-M16*0.2	M16	2		13	32	14	100	5
TM-KP1S-0180-M20*2.5	M20	2.5		16	40	16	100	5

CARBIDE THREAD  
MILLING CUTTERS

CARBIDE TURNING  
& BORING TOOLS

# TM-MS1S-ISO

Staggered Full-profile Thread Milling Cutters-ISO



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

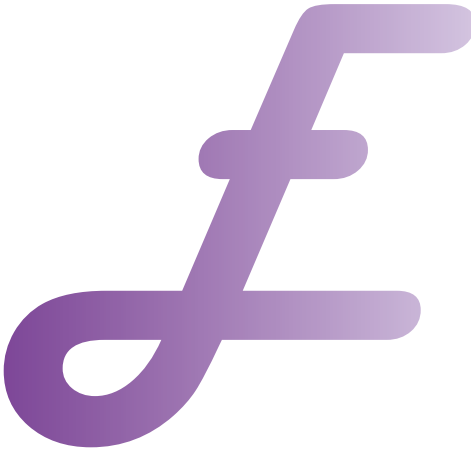
CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	Type	P	Coat.	d1	L1	D	L	F
TM-MS1S-0100-M4*0.7	M4.0	0.7	AlCrZr	3.15	8.4	6	50	4
TM-MS1S-0110-M5*0.8	M5.0	0.8		4	10.4	6	50	4
TM-MS1S-0120-M6*1	M6.0	1		4.8	12	6	60	4
TM-MS1S-0130-M8*1.25	M8.0	1.25		6	16.3	8	60	4
TM-MS1S-0140-M10*1.5	M10	1.5		8	21	8	60	4
TM-MS1S-0150-M12*1.75	M12	1.75		10	24.5	10	75	4
TM-MS1S-0160-M14*2	M14	2		11.6	28	12	75	4
TM-MS1S-0170-M16*0.2	M16	2		13	32	14	100	5
TM-MS1S-0180-M20*2.5	M20	2.5		16	40	16	100	5



# Carbide Turning & Boring Tools



D&M carbide small-diameter turning and boring cutters are divided into 3 categories: small-diameter turning cutters/boring cutters/grooving cutters, and each category is subdivided into a number of subcategories according to the shape and size of the parts. With the characteristics of strong versatility, all use a uniform coating, fast cutting, controlled accuracy, is the preferred tool for small parts machining on centering machines, CNC lathes, machining centers.

**ORDER NUMBER NAMING CONVENTION**

**TB-MTR-0100-0.8\*R0.05\*L3**

SERIAL NUMBER

SPEC



SERIES



TYPE

MINIMUM MACHINING RADIUS \*  
TOOL NOSE RADIUS \*  
MACHINING DEPTH

## SELECTION CRITERIA

Series	Tool Abbreviation	Diameter Range (mm)	Drilling Depth	Cooling Methods	Coating	Page
TB	MTR	0.8~7.9	3~30	External Cooling	H	8
	MPR	0.8~7.9	3~30	External Cooling	H	11
	MQR	2.9~7.9	9~25	External Cooling	H	13
	MIR	1.4~7.9	4~22	External Cooling	H	14
	MGR	2.9~7.9	10~20	External Cooling	H	15
	MFR	B0.5~B2.0	15~25	External Cooling	H	16
	MFL	B0.5~B2.0	15~25	External Cooling	H	17

CARBIDE  
DRILLSCARBIDE  
MILLING CUTTERSCARBIDE  
TAPSCARBIDE THREAD  
MILLING CUTTERSCARBIDE TURNING  
& BORING TOOLS

P	K	N	M	S	H	Recommended Parameters		
Carbon Steel / Alloy Steel ~~HRC35	Gray Iron / Ductile Iron	Aluminium Alloys	Stainless Steel	Heat-resistant Steel / Titanium Alloy	Hard Materials	Diameter Range (mm)	S (min <sup>-1</sup> )	f (mm/rev)
●	○	●	●	○		Φ ≤ 2	1500	0.03
						2 < Φ ≤ 3	2000	0.04
						3 < Φ ≤ 8	2500	0.04
●	○	●	●	○		Φ ≤ 2	1500	0.03
						2 < Φ ≤ 3	2000	0.04
						3 < Φ ≤ 8	2500	0.04
●	○	●	●	○		Φ ≤ 2	1500	0.03
						2 < Φ ≤ 3	2000	0.04
						3 < Φ ≤ 8	2500	0.04
●	○	●	●	○		Φ ≤ 2	1500	0.03
						2 < Φ ≤ 3	2000	0.04
						3 < Φ ≤ 8	2500	0.04
●	○	●	●	○		Φ ≤ 2	1500	0.03
						2 < Φ ≤ 3	2000	0.04
						3 < Φ ≤ 8	2500	0.04
●	○	●	●	○		Φ ≤ 2	1500	0.03
						2 < Φ ≤ 3	2000	0.04
						3 < Φ ≤ 8	2500	0.04

CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

● = BEST ○ = GOOD

# TB-MTR

## MTR Boring Tools

CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

CARBIDE THREAD MILLING CUTTERS

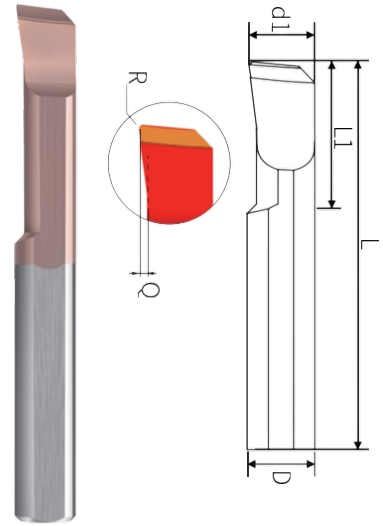
CARBIDE TURNING & BORING TOOLS

K		M	N				S	
Cast Iron	Stainless Steel	Aluminum Alloy	Copper Alloy	Plastic	Acrylic	High-temperature Alloy	Titanium Alloy	
☐	■		■				☐	

P			H			
Carbon Steel	Alloy Steel	Pre-hardened Steel	Quenched Steel			
			~48HRC	~55HRC	~60HRC	~65HRC
■	■	☐	☐			

■=BEST ☐=GOOD



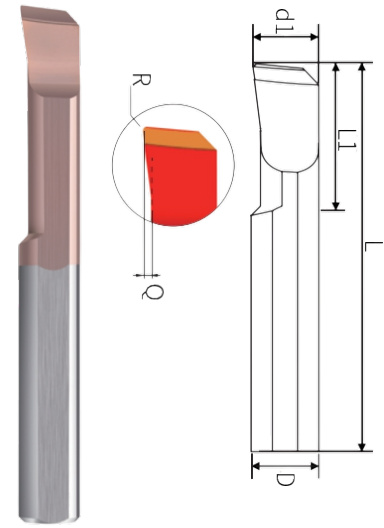
Ord. No.	d1	R	Q	L1	D	L
TB-MTR-0100-0.8*R0.05*L3	0.8	0.05	0.1	3	4	50
TB-MTR-0110-0.9*R0.05*L3	0.9	0.05	0.1	3	4	50
TB-MTR-0120-1.1*R0.05*L4	1.1	0.05	0.15	4	4	50
TB-MTR-0130-1.3*R0.05*L5	1.3	0.05	0.15	5	4	50
TB-MTR-0140-1.5*R0.05*L6	1.5	0.05	0.2	6	4	50
TB-MTR-0150-1.7*R0.05*L7	1.7	0.05	0.2	7	4	50
TB-MTR-0160-1.7*R0.1*L7	1.7	0.1	0.2	7	4	50
TB-MTR-0170-1.9*R0.05*L8	1.9	0.05	0.25	8	4	50
TB-MTR-0180-1.9*R0.1*L8	1.9	0.1	0.25	8	4	50
TB-MTR-0190-2.4*R0.05*L10	2.4	0.05	0.3	10	4	50
TB-MTR-0200-2.4*R0.1*L10	2.4	0.1	0.3	10	4	50
TB-MTR-0210-2.8*R0.05*L8	2.8	0.05	0.3	8	4	50
TB-MTR-0220-2.8*R0.05*L12	2.8	0.05	0.3	12	4	50
TB-MTR-0230-2.8*R0.05*L15	2.8	0.05	0.3	15	4	50
TB-MTR-0240-2.8*R0.1*L8	2.8	0.1	0.3	8	4	50
TB-MTR-0250-2.8*R0.1*L12	2.8	0.1	0.3	12	4	50
TB-MTR-0260-2.8*R0.1*L15	2.8	0.1	0.3	15	4	50
TB-MTR-0270-2.8*R0.15*L8	2.8	0.15	0.3	8	4	50
TB-MTR-0280-2.8*R0.15*L12	2.8	0.15	0.3	12	4	50
TB-MTR-0290-2.8*R0.15*L15	2.8	0.15	0.3	15	4	50
TB-MTR-0300-2.8*R0.2*L8	2.8	0.2	0.3	8	4	50
TB-MTR-0310-2.8*R0.2*L15	2.8	0.2	0.3	15	4	50
TB-MTR-0320-3.4*R0.05*L15	3.4	0.05	0.35	15	4	50
TB-MTR-0330-3.4*R0.1*L15	3.4	0.1	0.35	15	4	50
TB-MTR-0340-3.4*R0.15*L15	3.4	0.15	0.35	15	4	50
TB-MTR-0350-3.4*R0.2*L12	3.4	0.2	0.35	12	4	50
TB-MTR-0360-3.4*R0.2*L22	3.4	0.2	0.35	22	4	50
TB-MTR-0370-3.9*R0.05*L10	3.9	0.05	0.45	10	4	50
TB-MTR-0380-3.9*R0.05*L15	3.9	0.05	0.45	15	4	50
TB-MTR-0390-3.9*R0.05*L22	3.9	0.05	0.45	22	4	50
TB-MTR-0400-3.9*R0.1*L10	3.9	0.1	0.45	10	4	50
TB-MTR-0410-3.9*R0.1*L15	3.9	0.1	0.45	15	4	50

# TB-MTR

## MTR Boring Tools

K		M	N				S	
Cast Iron	Stainless Steel	Aluminum Alloy	Copper Alloy	Plastic	Acrylic	High-temperature Alloy	Titanium Alloy	
☐	■		■				☐	
P			H					
Carbon Steel	Alloy Steel	Pre-hardened Steel	Quenched Steel					
			~48HRC	~55HRC	~60HRC	~65HRC		
■	■	☐	☐					

■=BEST ☐=GOOD



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	d1	R	Q	L1	D	L
TB-MTR-0420-3.9*R0.1*L22	3.9	0.1	0.45	22	4	50
TB-MTR-0430-3.9*R0.15*L10	3.9	0.15	0.45	10	4	50
TB-MTR-0440-3.9*R0.15*L15	3.9	0.15	0.45	15	4	50
TB-MTR-0450-3.9*R0.15*L22	3.9	0.15	0.45	22	4	50
TB-MTR-0460-3.9*R0.2*L10	3.9	0.2	0.45	10	4	50
TB-MTR-0470-3.9*R0.2*L15	3.9	0.2	0.45	15	4	50
TB-MTR-0480-3.9*R0.2*L22	3.9	0.2	0.45	22	4	50
TB-MTR-0490-3.9*R0.2*L20	3.9	0.2	0.45	20	4	75
TB-MTR-0500-3.9*R0.2*L25	3.9	0.2	0.45	25	4	100
TB-MTR-0510-4.5*R0.2*L15	4.5	0.2	0.5	15	5	50
TB-MTR-0520-4.5*R0.2*L22	4.5	0.2	0.5	22	5	50
TB-MTR-0530-4.9*R0.05*L15	4.9	0.05	0.55	15	5	50
TB-MTR-0540-4.9*R0.05*L22	4.9	0.05	0.55	22	5	50
TB-MTR-0550-4.9*R0.1*L15	4.9	0.1	0.55	15	5	50
TB-MTR-0560-4.9*R0.1*L22	4.9	0.1	0.55	22	5	50
TB-MTR-0570-4.9*R0.2*L15	4.9	0.2	0.55	15	5	50
TB-MTR-0580-4.9*R0.2*L20	4.9	0.2	0.55	20	5	50
TB-MTR-0590-4.9*R0.2*L22	4.9	0.2	0.55	22	5	50
TB-MTR-0600-4.9*R0.2*L30	4.9	0.2	0.55	30	5	60
TB-MTR-0610-4.9*R0.2*L25	4.9	0.2	0.55	25	5	75
TB-MTR-0620-4.9*R0.2*L30	4.9	0.2	0.55	30	5	100
TB-MTR-0630-5.4*R0.2*L20	5.4	0.2	0.65	20	6	50
TB-MTR-0640-5.9*R0.05*L15	5.9	0.05	0.65	15	6	50
TB-MTR-0650-5.9*R0.05*L22	5.9	0.05	0.65	22	6	50
TB-MTR-0660-5.9*R0.1*L15	5.9	0.1	0.65	15	6	50
TB-MTR-0670-5.9*R0.1*L22	5.9	0.1	0.65	22	6	50
TB-MTR-0680-5.9*R0.2*L15	5.9	0.2	0.65	15	6	50
TB-MTR-0690-5.9*R0.2*L22	5.9	0.2	0.65	22	6	50
TB-MTR-0700-5.9*R0.2*L30	5.9	0.2	0.65	30	6	60
TB-MTR-0710-5.9*R0.2*L25	5.9	0.2	0.65	25	6	75
TB-MTR-0720-5.9*R0.2*L30	5.9	0.2	0.65	30	6	100
TB-MTR-0730-5.9*R0.4*L15	5.9	0.4	0.65	15	6	50

# TB-MTR

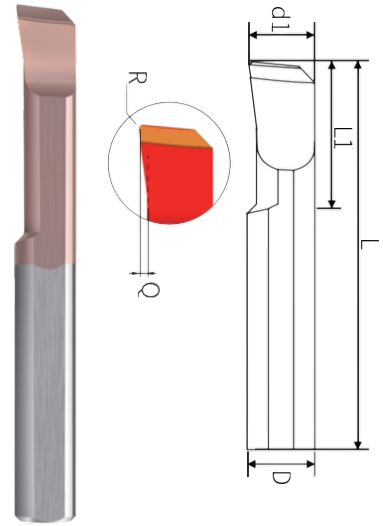
## MTR Boring Tools

K		M	N				S	
Cast Iron	Stainless Steel	Aluminum Alloy	Copper Alloy	Plastic	Acrylic	High-temperature Alloy	Titanium Alloy	
☐	■		■				☐	

P			H			
Carbon Steel	Alloy Steel	Pre-hardened Steel	Quenched Steel			
			~48HRC	~55HRC	~60HRC	~65HRC
■	■	☐	☐			

■=BEST ☐=GOOD



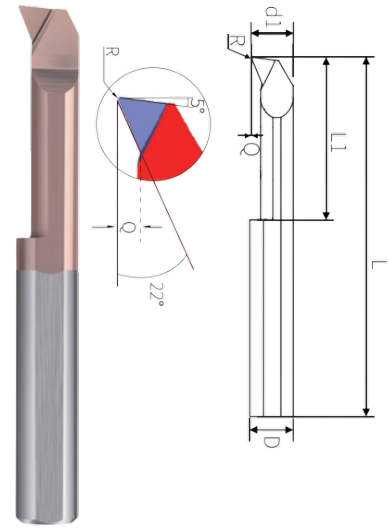
Ord. No.	d1	R	Q	L1	D	L
TB-MTR-0740-5.9*R0.4*L22	5.9	0.4	0.65	22	6	50
TB-MTR-0750-6.9*R0.2*L22	6.9	0.2	0.75	22	8	60
TB-MTR-0760-6.9*R0.2*L30	6.9	0.2	0.75	30	8	60
TB-MTR-0770-7.9*R0.1*L30	7.9	0.1	0.85	30	8	60
TB-MTR-0780-7.9*R0.2*L30	7.9	0.2	0.85	30	8	60
TB-MTR-0790-7.9*R0.2*L30	7.9	0.2	0.85	30	8	100

# TB-MPR

## MPR Copy Boring Tools

K		M		N				S	
Cast Iron	Stainless Steel	Aluminum Alloy	Copper Alloy	Plastic	Acrylic	High-temperature Alloy	Titanium Alloy		
☐	■		■					☐	
P			H						
Carbon Steel	Alloy Steel	Pre-hardened Steel	Quenched Steel						
			~48HRC	~55HRC	~60HRC	~65HRC			
■	■	☐	☐						

■=BEST ☐=GOOD



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

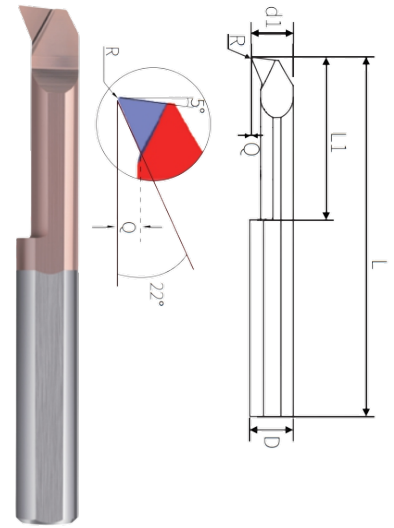
Ord. No.	d1	R	Q	L1	D	L
TB-MPR-0100-0.8*R0.05*L3	0.8	0.05	0.12	3	4	50
TB-MPR-0110-1.0*R0.05*L3	1	0.05	0.15	3	4	50
TB-MPR-0120-1.2*R0.05*L4.5	1.2	0.05	0.15	4.5	4	50
TB-MPR-0130-1.4*R0.05*L5	1.4	0.05	0.2	5	4	50
TB-MPR-0140-1.6*R0.05*L6	1.6	0.05	0.3	6	4	50
TB-MPR-0150-1.8*R0.05*L7	1.8	0.05	0.3	7	4	50
TB-MPR-0160-1.9*R0.05*L8	1.9	0.05	0.4	8	4	50
TB-MPR-0170-1.9*R0.1*L8	1.9	0.1	0.4	8	4	50
TB-MPR-0180-2.4*R0.05*L10	2.4	0.05	0.5	10	4	50
TB-MPR-0190-2.4*R0.1*L10	2.4	0.1	0.5	10	4	50
TB-MPR-0200-2.9*R0.05*L8	2.9	0.05	0.6	8	4	50
TB-MPR-0210-2.9*R0.1*L8	2.9	0.1	0.6	8	4	50
TB-MPR-0220-2.9*R0.15*L8	2.9	0.15	0.6	8	4	50
TB-MPR-0230-2.9*R0.05*L12	2.9	0.05	0.6	12	4	50
TB-MPR-0240-2.9*R0.1*L12	2.9	0.1	0.6	12	4	50
TB-MPR-0250-2.9*R0.15*L12	2.9	0.15	0.6	12	4	50
TB-MPR-0260-3.9*R0.05*L10	3.9	0.05	0.8	10	4	50
TB-MPR-0270-3.9*R0.1*L10	3.9	0.1	0.8	10	4	50
TB-MPR-0280-3.9*R0.15*L10	3.9	0.15	0.8	10	4	50
TB-MPR-0290-3.9*R0.05*L15	3.9	0.05	0.8	15	4	50
TB-MPR-0300-3.9*R0.1*L15	3.9	0.1	0.8	15	4	50
TB-MPR-0310-3.9*R0.15*L15	3.9	0.15	0.8	15	4	50
TB-MPR-0320-4.9*R0.05*L15	4.9	0.05	1	15	5	50
TB-MPR-0330-4.9*R0.1*L15	4.9	0.1	1	15	5	50
TB-MPR-0340-4.9*R0.2*L15	4.9	0.2	1	15	5	50
TB-MPR-0350-4.9*R0.05*L22	4.9	0.05	1	22	5	50
TB-MPR-0360-4.9*R0.1*L22	4.9	0.1	1	22	5	50
TB-MPR-0370-4.9*R0.2*L22	4.9	0.2	1	22	5	50
TB-MPR-0380-5.9*R0.05*L15	5.9	0.05	1.2	15	6	50
TB-MPR-0390-5.9*R0.1*L15	5.9	0.1	1.2	15	6	50
TB-MPR-0400-5.9*R0.2*L15	5.9	0.2	1.2	15	6	50
TB-MPR-0410-5.9*R0.05*L22	5.9	0.05	1.2	22	6	50

# TB-MPR

## MPR Copy Boring Tools

K		M	N				S	
Cast Iron	Stainless Steel	Aluminum Alloy	Copper Alloy	Plastic	Acrylic	High-temperature Alloy	Titanium Alloy	
☐	■		■				☐	
P			H					
Carbon Steel	Alloy Steel	Pre-hardened Steel	Quenched Steel					
			~48HRC	~55HRC	~60HRC	~65HRC		
■	■	☐	☐					

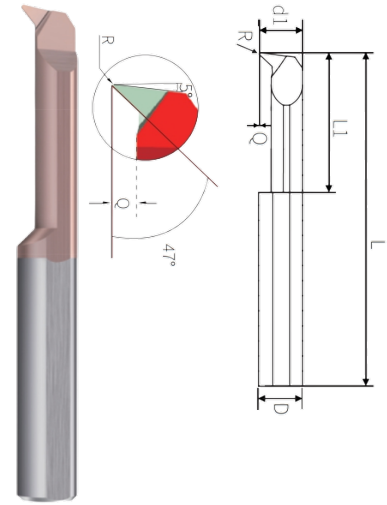
■=BEST ☐=GOOD



Ord. No.	d1	R	Q	L1	D	L
TB-MPR-0420-5.9*R0.1*L22	5.9	0.1	1.2	22	6	50
TB-MPR-0430-5.9*R0.2*L22	5.9	0.2	1.2	22	6	50
TB-MPR-0440-6.9*R0.1*L22	6.9	0.1	1.5	22	8	60
TB-MPR-0450-6.9*R0.2*L22	6.9	0.2	1.5	22	8	60
TB-MPR-0460-6.9*R0.1*L30	6.9	0.1	1.5	30	8	60
TB-MPR-0470-6.9*R0.2*L30	6.9	0.2	1.5	30	8	60
TB-MPR-0480-7.9*R0.1*L22	7.9	0.1	1.8	22	8	60
TB-MPR-0490-7.9*R0.2*L22	7.9	0.2	1.8	22	8	60
TB-MPR-0500-7.9*R0.1*L30	7.9	0.1	1.8	30	8	60
TB-MPR-0510-7.9*R0.2*L30	7.9	0.2	1.8	30	8	60

# TB-MQR

## MQR Copy Boring Tools



K		M	N				S	
Cast Iron	Stainless Steel	Aluminum Alloy	Copper Alloy	Plastic	Acrylic	High-temperature Alloy	Titanium Alloy	
☐	■		■				☐	

P			H			
Carbon Steel	Alloy Steel	Pre-hardened Steel	Quenched Steel			
			~48HRC	~55HRC	~60HRC	~65HRC
■	■	☐	☐			

■=BEST ☐=GOOD

Ord. No.	d1	R	Q	L1	D	L
TB-MQR-0100-2.9*R0.05*L9	2.9	0.05	0.7	9	4	50
TB-MQR-0110-2.9*R0.1*L9	2.9	0.1	0.7	9	4	50
TB-MQR-0120-2.9*R0.15*L9	2.9	0.15	0.7	9	4	50
TB-MQR-0130-3.9*R0.05*L10	3.9	0.05	1	10	4	50
TB-MQR-0140-3.9*R0.1*L10	3.9	0.1	1	10	4	50
TB-MQR-0150-3.9*R0.2*L10	3.9	0.2	1	10	4	50
TB-MQR-0160-3.9*R0.2*L15	3.9	0.2	1	15	4	50
TB-MQR-0170-4.9*R0.05*L15	4.9	0.05	1.2	15	5	50
TB-MQR-0180-4.9*R0.1*L15	4.9	0.1	1.2	15	5	50
TB-MQR-0190-4.9*R0.2*L15	4.9	0.2	1.2	15	5	50
TB-MQR-0200-4.9*R0.2*L20	4.9	0.2	1.2	20	5	50
TB-MQR-0210-5.9*R0.05*L15	5.9	0.05	1.6	15	6	50
TB-MQR-0220-5.9*R0.1*L15	5.9	0.1	1.6	15	6	50
TB-MQR-0230-5.9*R0.2*L15	5.9	0.2	1.6	15	6	50
TB-MQR-0240-5.9*R0.2*L22	5.9	0.2	1.6	22	6	50
TB-MQR-0250-7.9*R0.1*L25	7.9	0.1	2.1	25	8	60
TB-MQR-0260-7.9*R0.2*L25	7.9	0.2	2.1	25	8	60

CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

# TB-MIR

## MIR Turning Tools (Forehand)

CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

CARBIDE THREAD MILLING CUTTERS

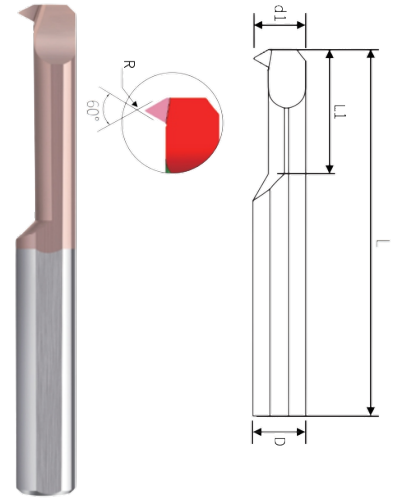
CARBIDE TURNING & BORING TOOLS

K		M	N				S	
Cast Iron	Stainless Steel	Aluminum Alloy	Copper Alloy	Plastic	Acrylic	High-temperature Alloy	Titanium Alloy	
☐	■		■				☐	

P			H			
Carbon Steel	Alloy Steel	Pre-hardened Steel	Quenched Steel			
			~48HRC	~55HRC	~60HRC	~65HRC
■	■	☐	☐			

■=BEST ☐=GOOD



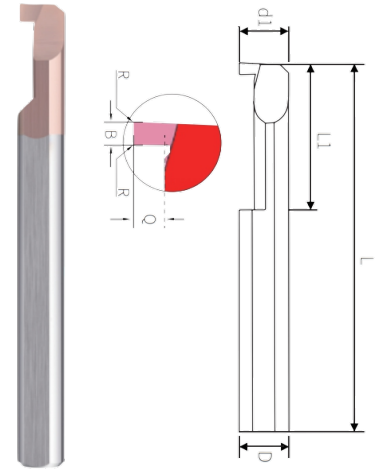
Ord. No.	d1	R	L1	D	L
TB-MIR-0100-1.4*R0.03*L4*A60	1.4	0.03	4	4	50
TB-MIR-0110-1.9*R0.03*L4*A60	1.9	0.03	4	4	50
TB-MIR-0120-1.9*R0.03*L6*A60	1.9	0.03	6	4	50
TB-MIR-0130-2.4*R0.03*L5*A60	2.4	0.03	5	4	50
TB-MIR-0140-2.4*R0.03*L7*A60	2.4	0.03	7	4	50
TB-MIR-0150-2.9*R0.05*L6*A60	2.9	0.05	6	4	50
TB-MIR-0160-2.9*R0.05*L10*A60	2.9	0.05	10	4	50
TB-MIR-0170-3.9*R0.05*L8*A60	3.9	0.05	8	4	50
TB-MIR-0180-3.9*R0.05*L12*A60	3.9	0.05	12	4	50
TB-MIR-0190-4.9*R0.1*L12*A60	4.9	0.1	12	5	50
TB-MIR-0200-4.9*R0.1*L15*A60	4.9	0.1	15	5	50
TB-MIR-0210-5.9*R0.1*L15*A60	5.9	0.1	15	6	50
TB-MIR-0220-5.9*R0.1*L22*A60	5.9	0.1	22	6	50
TB-MIR-0230-7.9*R0.1*L22*A60	7.9	0.1	22	8	60

# TB-MGR

## MGR Groove Tools

K		M	N				S	
Cast Iron		Stainless Steel	Aluminum Alloy	Copper Alloy	Plastic	Acrylic	High-temperature Alloy	Titanium Alloy
☐		■		■				☐
P			H					
Carbon Steel	Alloy Steel	Pre-hardened Steel	Quenched Steel					
			~48HRC	~55HRC	~60HRC	~65HRC		
■	■	☐	☐					

■=BEST ☐=GOOD



CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

Ord. No.	d1	B	Q	L1	D	L
TB-MGR-0100-2.9*B0.5*L10	2.9	0.5	0.8	10	4	50
TB-MGR-0110-2.9*B0.75*L10	2.9	0.75	0.8	10	4	50
TB-MGR-0120-2.9*B1.0*L10	2.9	1	0.8	10	4	50
TB-MGR-0130-2.9*B1.5*L10	2.9	1.5	0.8	10	4	50
TB-MGR-0140-3.9*B0.5**L10	3.9	0.5	1	10	4	50
TB-MGR-0150-3.9*B0.8**L10	3.9	0.8	1	10	4	50
TB-MGR-0160-3.9*B1.0*L10	3.9	1	1	10	4	50
TB-MGR-0170-3.9*B1.5*L10	3.9	1.5	1	10	4	50
TB-MGR-0180-4.9*B1.0*L10	4.9	1	1.5	10	5	50
TB-MGR-0190-4.9*B1.2*L10	4.9	1.2	1.5	10	5	50
TB-MGR-0200-4.9*B1.5*L10	4.9	1.5	1.5	10	5	50
TB-MGR-0210-4.9*B2.0*L10	4.9	2	2	10	5	50
TB-MGR-0220-5.9*B1.0*L15	5.9	1	2	15	6	50
TB-MGR-0230-5.9*B1.5*L15	5.9	1.5	2	15	6	50
TB-MGR-0240-5.9*B2.0*L15	5.9	2	2.5	15	6	50
TB-MGR-0250-5.9*B2.5*L15	5.9	2.5	2.5	15	6	50
TB-MGR-0260-7.9*B1.5*L20	7.9	1.5	2	20	8	60
TB-MGR-0270-7.9*B2.0*L20	7.9	2	2.5	20	8	60
TB-MGR-0280-7.9*B2.5*L20	7.9	2.5	3	20	8	60
TB-MGR-0290-7.9*B3.0*L20	7.9	3	3	20	8	60

# TB-MFR

## MFR Face Groove Tools (Right Hand)

CARBIDE DRILLS

CARBIDE MILLING CUTTERS

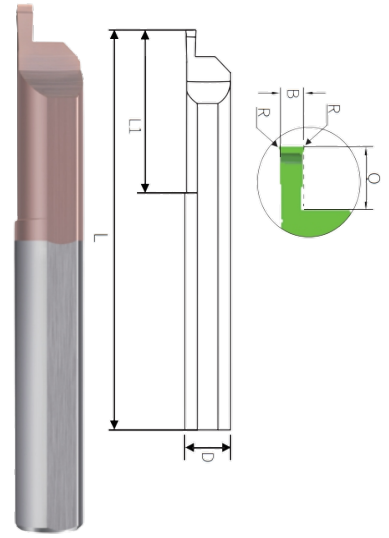
CARBIDE TAPS

CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS

K		M		N			S	
Cast Iron	Stainless Steel	Aluminum Alloy	Copper Alloy	Plastic	Acrylic	High-temperature Alloy	Titanium Alloy	
☐	■		■				☐	
P			H					
Carbon Steel	Alloy Steel	Pre-hardened Steel	Quenched Steel					
			~48HRC	~55HRC	~60HRC	~65HRC		
■	■	☐	☐					

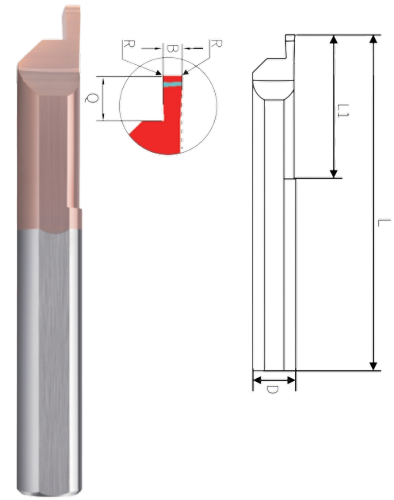
■=BEST ☐=GOOD



Ord. No.	B	Q	L1	D	L
TB-MFR-0100-B0.5*L15	0.5	1	15	4	50
TB-MFR-0110-B0.75*L15	0.75	1.2	15	4	50
TB-MFR-0120-B1.0*L15	1	1.5	15	4	50
TB-MFR-0130-B1.0*L22	1	2	22	5	50
TB-MFR-0140-B1.5*L22	1.5	2.5	22	5	50
TB-MFR-0150-B2.0*L22	2	3	22	5	50
TB-MFR-0160-B0.5*L20	0.5	1	20	6	50
TB-MFR-0170-B1.0*L20	1	2	20	6	50
TB-MFR-0180-B1.5*L20	1.5	3	20	6	50
TB-MFR-0190-B2.0*L20	2	4	20	6	50
TB-MFR-0200-B1.0*L25	1	2	25	8	60
TB-MFR-0210-B1.5*L25	1.5	3	25	8	60
TB-MFR-0220-B2.0*L25	2	3	25	8	60

# TB-MFL

## MFL Face Groove Tools (Left Hand)



K		M	N				S	
Cast Iron	Stainless Steel	Aluminum Alloy	Copper Alloy	Plastic	Acrylic	High-temperature Alloy	Titanium Alloy	
☐	■		■				☐	

P			H			
Carbon Steel	Alloy Steel	Pre-hardened Steel	Quenched Steel			
			~48HRC	~55HRC	~60HRC	~65HRC
■	■	☐	☐			

■=BEST ☐=GOOD

Ord. No.	B	Q	L1	D	L
TB-MFL-0100-B0.5*L15	0.5	1	15	4	50
TB-MFL-0110-B0.75*L15	0.75	1.2	15	4	50
TB-MFL-0120-B1.0*L15	1	1.5	15	4	50
TB-MFL-0130-B1.0*L22	1	2	22	5	50
TB-MFL-0140-B1.5*L22	1.5	2.5	22	5	50
TB-MFL-0150-B2.0*L22	2	3	22	5	50
TB-MFL-0160-B0.5*L20	0.5	1	20	6	50
TB-MFL-0170-B1.0*L20	1	2	20	6	50
TB-MFL-0180-B1.5*L20	1.5	3	20	6	50
TB-MFL-0190-B2.0*L20	2	4	20	6	50
TB-MFL-0200-B1.0*L25	1	2	25	8	60
TB-MFL-0210-B1.5*L25	1.5	3	25	8	60
TB-MFL-0220-B2.0*L25	2	4	25	8	60

CARBIDE DRILLS

CARBIDE MILLING CUTTERS

CARBIDE TAPS

CARBIDE THREAD MILLING CUTTERS

CARBIDE TURNING & BORING TOOLS







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