



## Halnn Superhard Material Co., Ltd.

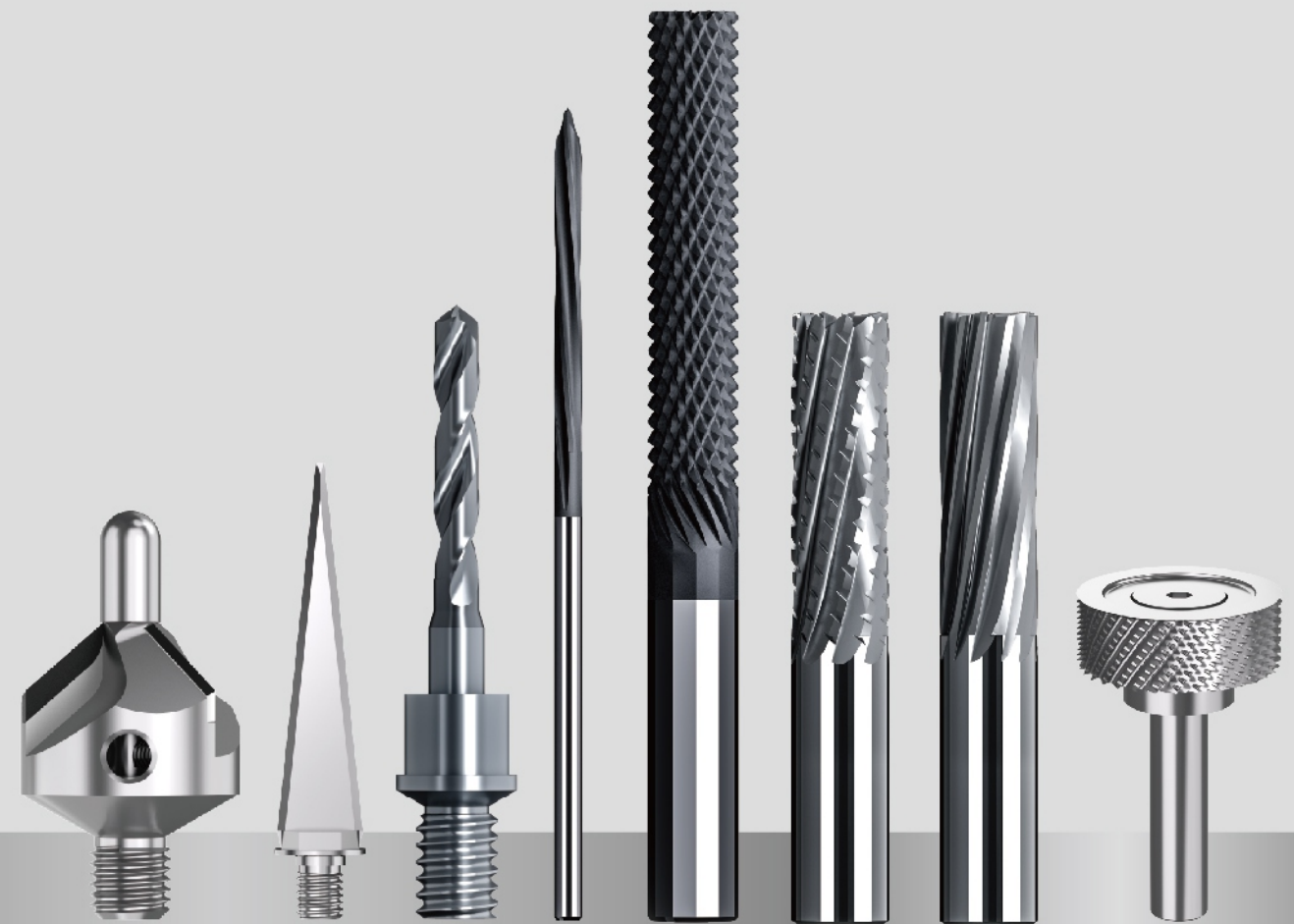
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Branch office: Wuxi,Chongqing,Hong Kong,Tianjin,Shanghai,Japan,Singapore



# Aerospace Composite Cutting Tool



[www.halnn-group.com](http://www.halnn-group.com)

# ABOUT HALNN



Special tools for the automotive industry  
One-stop integrated service provider



As a high-tech enterprise in the metal machining field, Zhengzhou Halnn Superhard Material Co, Ltd is known as the leading company which dedicates itself to researching and providing cutting tools for hard material and difficult-to-machine materials.

With the lab and R&D team which was developed from Henan Superhard Material Institute, Halnn is the pioneer to research on application of CBN, PCD, ceramic, and specific carbide materials.

During the past 20 years, one after another new material grades were developed with patent certificates were issued by authority. Halnn has become a famous brand of hi-tech materials. Meanwhile, a solid sales network has been established domestically. In recent years, the growth rate of annual turnover is over 30%.

For now, Halnn is a famous brand in Asia for its professional solutions on hard materials and difficult-to-process materials. In the future, we will work with our partners to promote the civilization of industrial technology in more and more countries and regions.

With the enterprise culture of innovation, freedom, justice and sharing, we devoted to build a system from which our employees could realize and maximize their values and benefits. We always insist on our commitment of rapid response to customers' demands to create value beyond the customers' expectations. We will try all efforts to achieve our vision which is building a respectable hundred-years enterprise.







# Aerospace Field Composite Cutting Tool

For composite materials in aerospace industry and various harsh and complex conditions, it meets the requirements of high precision, ultra-high precision and high stability.



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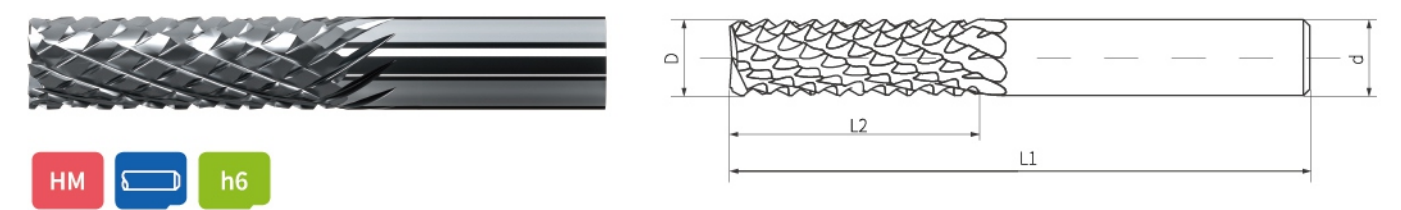
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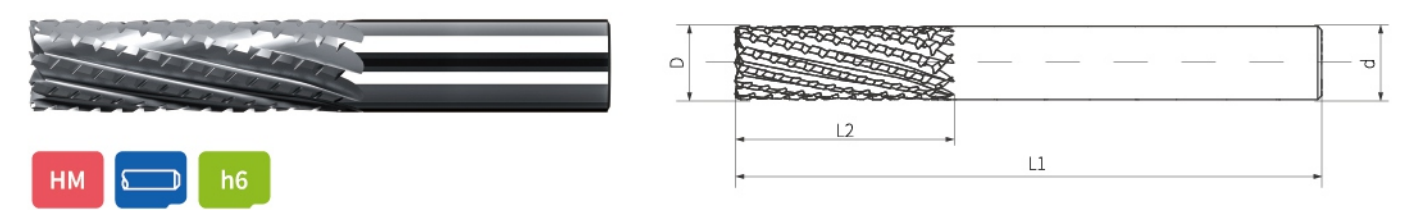
Solid Carbide Pineapple Teeth Router



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙				
Diameter D (mm)	Cutting Edge Length L2 (mm)	Overall Length L1 (mm)	Shank d (mm)	
4	12	60	6	
6	18	75	6	
8	24	75	8	
10	25	75	10	
12	25	75	12	

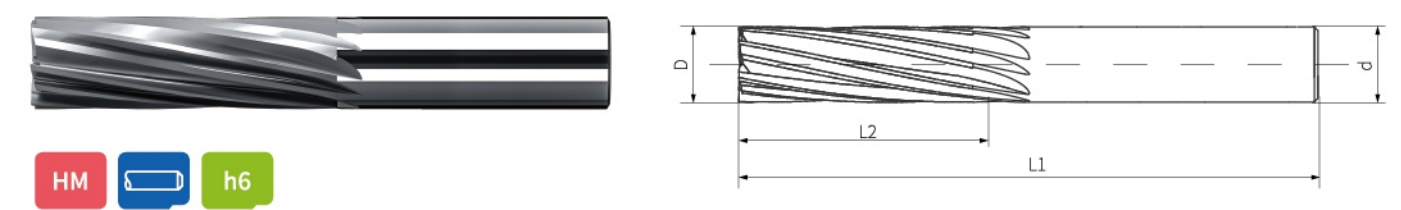
Solid Carbide Rhombic Teeth Router



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙				
Diameter D (mm)	Cutting Edge Length L2 (mm)	Overall Length L1 (mm)	Shank d (mm)	
4	12	60	6	
6	18	75	6	
8	24	75	8	
10	25	75	10	
12	25	75	12	

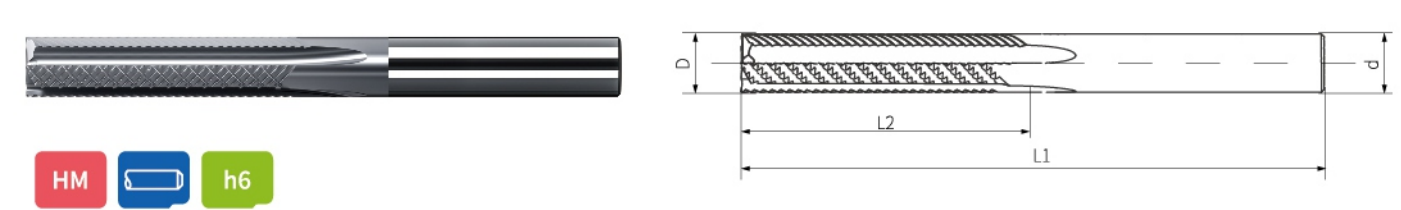
Solid Carbide Multi Teeth Router



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙				
Diameter D (mm)	Cutting Edge Length L2 (mm)	Overall Length L1 (mm)	Shank d (mm)	
4	12	60	6	
6	18	75	6	
8	24	75	8	
10	25	75	10	
12	25	75	12	

Solid Carbide Straight Flute Router

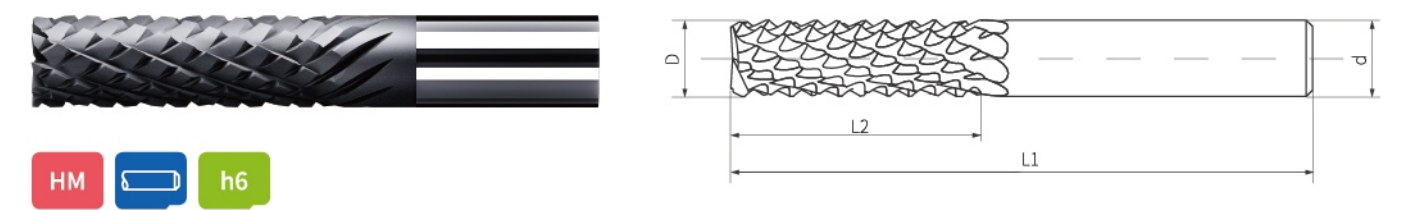


⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙				
Diameter D (mm)	Cutting Edge Length L2 (mm)	Overall Length L1 (mm)	Shank d (mm)	
4	12	60	6	
6	18	75	6	
8	24	75	8	
10	25	75	10	
12	25	75	12	



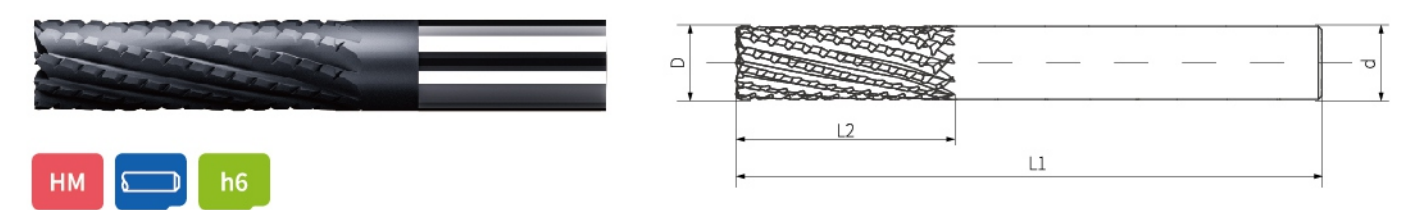
Solid Carbide Pineapple Teeth Router (Diamond Coating)



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙				
Diameter D (mm)	Cutting Edge Length L2 (mm)	Overall Length L1 (mm)	Shank d (mm)	
4	12	60	6	
6	18	75	6	
8	24	75	8	
10	25	75	10	
12	25	75	12	

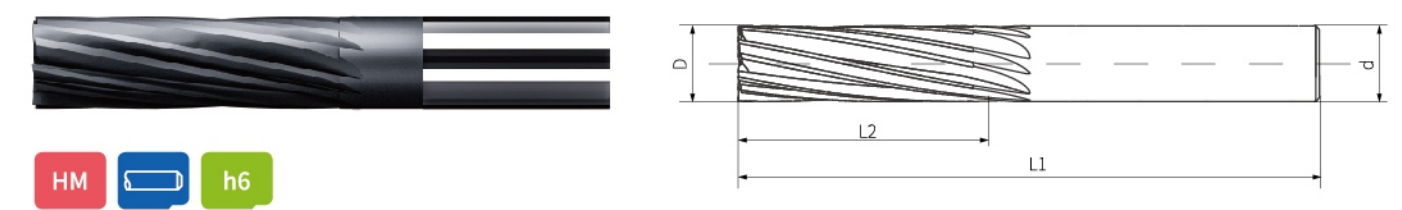
Solid Carbide Rhombic Teeth Router(Diamond Coating)



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙				
Diameter D (mm)	Cutting Edge Length L2 (mm)	Overall Length L1 (mm)	Shank d (mm)	
4	12	60	6	
6	18	75	6	
8	24	75	8	
10	25	75	10	
12	25	75	12	

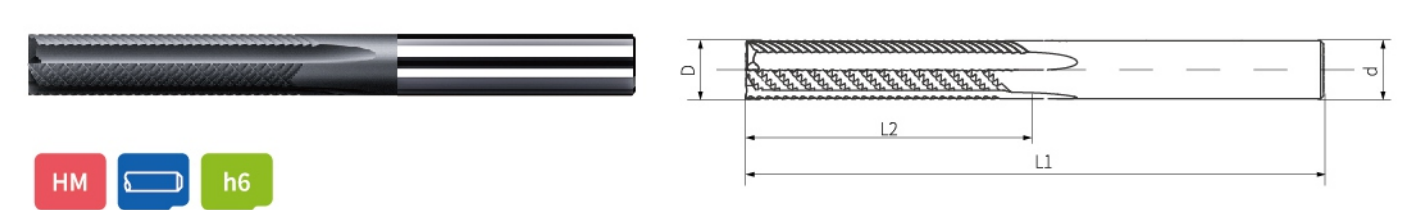
Solid Carbide Multi Teeth Router(Diamond Coating)



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙				
Diameter D (mm)	Cutting Edge Length L2 (mm)	Overall Length L1 (mm)	Shank d (mm)	
4	12	60	6	
6	18	75	6	
8	24	75	8	
10	25	75	10	
12	25	75	12	

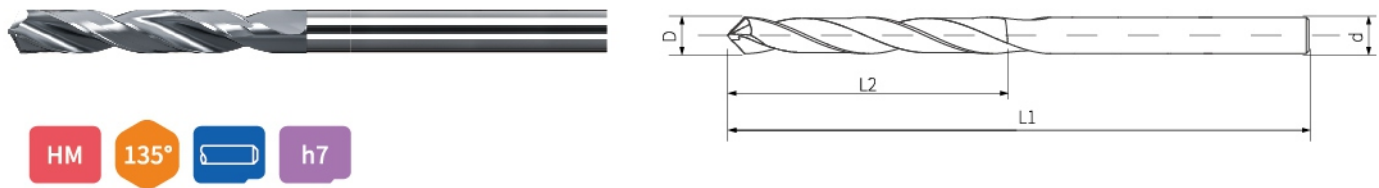
Solid Carbide Straight Flute Router(Diamond Coating)



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙				
Diameter D (mm)	Cutting Edge Length L2 (mm)	Overall Length L1 (mm)	Shank d (mm)	
4	12	60	6	
6	18	75	6	
8	24	75	8	
10	25	75	10	
12	25	75	12	

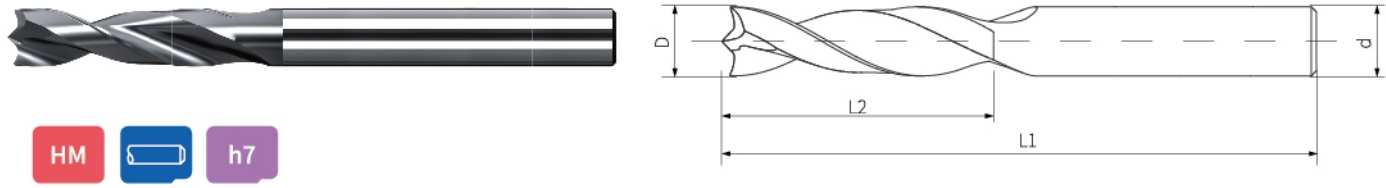
Solid Carbide Twist Drill



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
△	△	△	△	⊙
Diameter D		Cutting Edge Length L2	Overall Length L1	Shank d
in	mm	mm	mm	mm
.0980	2.49	15	60	2.49
.1063	2.7	15	60	2.7
.1250	3.175	20	75	3.175
.1285	3.26	20	75	3.26
.1360	3.45	20	75	3.45
.1540	3.91	20	75	3.91
.1660	4.21	30	75	4.21
.1772	4.5	30	75	4.5
.1960	4.97	30	75	4.97
.2055	5.22	35	100	5.22
.2188	5.55	35	100	5.55
.2344	5.95	35	100	5.95
.2420	6.14	40	100	6.14
.2500	6.35	40	100	6.35
.2656	6.74	40	100	6.74
.2812	7.14	40	100	7.14
.2969	7.54	40	100	7.54
.3125	7.93	40	100	7.93
.3281	8.33	45	110	8.33
.3438	8.73	45	110	8.73
.3594	9.12	45	110	9.12
.3770	9.8	45	110	9.8
.4062	10.31	50	110	10.31
.4219	10.71	50	110	10.71
.4375	11.11	55	125	11.11
.5000	12.7	55	125	12.7

Solid Carbide Brad Point Drill

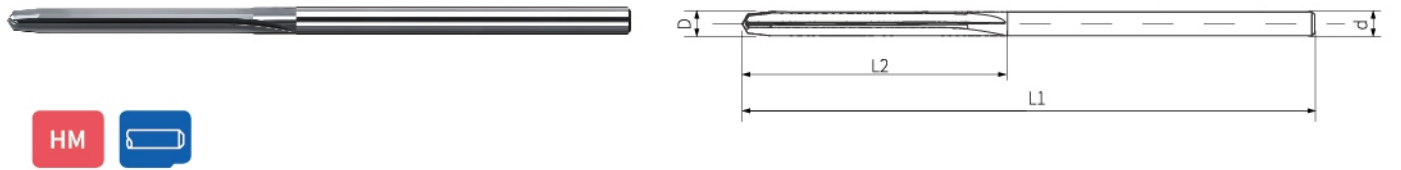


⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
△		△		
Diameter D		Cutting Edge Length L2	Overall Length L1	Shank d
in	mm	mm	mm	mm
.0980	2.49	15	60	2.49
.1063	2.7	15	60	2.7
.1250	3.175	20	75	3.175
.1285	3.26	20	75	3.26
.1360	3.45	20	75	3.45
.1540	3.91	20	75	3.91
.1660	4.21	30	75	4.21
.1772	4.5	30	75	4.5
.1960	4.97	30	75	4.97
.2055	5.22	35	100	5.22
.2188	5.55	35	100	5.55
.2344	5.95	35	100	5.95
.2420	6.14	40	100	6.14
.2500	6.35	40	100	6.35
.2656	6.74	40	100	6.74
.2812	7.14	40	100	7.14
.2969	7.54	40	100	7.54
.3125	7.93	40	100	7.93
.3281	8.33	45	110	8.33
.3438	8.73	45	110	8.73
.3594	9.12	45	110	9.12
.3770	9.8	45	110	9.8
.4062	10.31	50	110	10.31
.4219	10.71	50	110	10.71
.4375	11.11	55	125	11.11
.5000	12.7	55	125	12.7



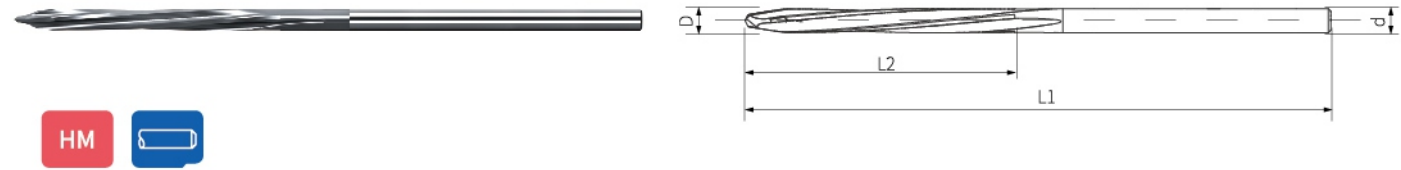
Solid Carbide Straight Flute Dagger Drill



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙				
Diameter D		Cutting Edge Length L2	Overall Length L1	Shank d
in	mm	mm	mm	mm
.0980	2.49	15	60	2.49
.1063	2.70	15	60	2.70
.1181	3.00	18	75	3.00
.1260	3.20	20	75	3.20
.1285	3.26	20	75	3.26
.1575	4.00	30	75	4.00
.1610	4.09	30	75	4.09
.1772	4.50	30	75	4.50
.1890	4.80	30	75	4.80
.1900	4.83	30	75	4.83
.1933	4.91	30	75	4.91
.1969	5.00	35	100	5.00
.1990	5.05	35	100	5.05
.2055	5.22	35	100	5.22
.2362	6.00	40	100	6.00
.2500	6.35	40	100	6.35
.3126	7.94	40	100	7.94
.3750	9.53	40	100	9.53
.5000	12.70	40	100	12.70

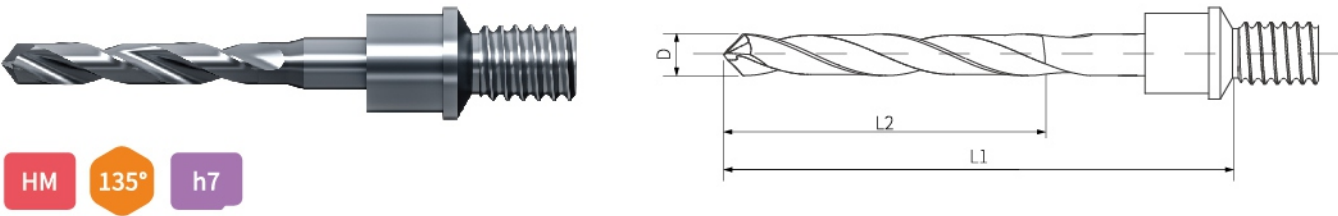
Solid Carbide Helical Flute Dagger Drill



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙				
Diameter D		Cutting Edge Length L2	Overall Length L1	Shank d
in	mm	mm	mm	mm
.0980	2.49	15	60	2.49
.1063	2.70	15	60	2.70
.1181	3.00	18	75	3.00
.1260	3.20	20	75	3.20
.1285	3.26	20	75	3.26
.1575	4.00	30	75	4.00
.1610	4.09	30	75	4.09
.1772	4.50	30	75	4.50
.1890	4.80	30	75	4.80
.1900	4.83	30	75	4.83
.1933	4.91	30	75	4.91
.1969	5.00	35	100	5.00
.1990	5.05	35	100	5.05
.2055	5.22	35	100	5.22
.2362	6.00	40	100	6.00
.2500	6.35	40	100	6.35
.3126	7.94	40	100	7.94
.3750	9.53	40	100	9.53
.5000	12.70	40	100	12.70

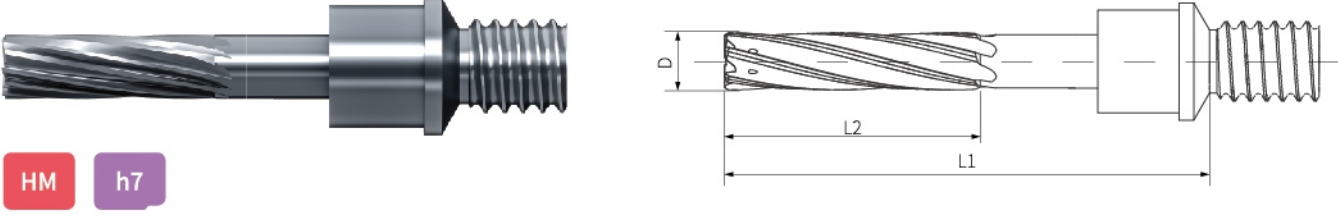
Solid Carbide Twist Drill With Threaded Shank



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙	⊙	⊙	⊙	
Diameter D		Cutting Edge Length L2	Overall Length L1	Threaded Shank
in	mm	mm	mm	mm
.0938	2.38	7.94	12.7	1/4-28UNF
		14.28	25.4	
		22	53.98	
.1065	2.78	7.94	12.7	
		14.28	25.4	
		22	53.98	
.1250	3.175	7.94	12.7	
		14.28	25.4	
		28	53.98	
.1406	3.57	14.28	25.4	
		28	53.98	
.1562	3.97	14.28	25.4	
		28	53.98	
.1719	4.37	14.28	25.4	
		28	53.98	
.1875	4.76	14.28	25.4	
		28	53.98	
.2031	5.16	28	53.98	3/8-24UNF
.2188	5.56	28	53.98	
.2344	5.95	28	53.98	
.2500	6.35	28	53.98	
.2812	7.14	28	53.98	
.3750	9.53	28	53.98	

Solid Carbide Drill Reamer With Threaded Shank

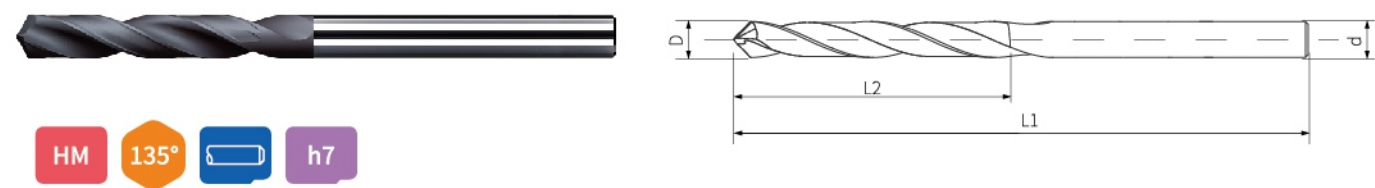


⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙	⊙	⊙	⊙	
Diameter D		Cutting Edge Length L2	Overall Length L1	Threaded Shank
in	mm	mm	mm	
.0938	2.38	7.94	12.7	1/4-28UNF
		14.28	25.4	
		22	53.98	
.1065	2.78	7.94	12.7	
		14.28	25.4	
		22	53.98	
.1250	3.175	7.94	12.7	
		14.28	25.4	
		28	53.98	
.1406	3.57	14.28	25.4	
		28	53.98	
.1562	3.97	14.28	25.4	
		28	53.98	
.1719	4.37	14.28	25.4	
		28	53.98	
.1875	4.76	14.28	25.4	
		28	53.98	
.2031	5.16	28	53.98	3/8-24UNF
.2188	5.56	28	53.98	
.2344	5.95	28	53.98	
.2500	6.35	28	53.98	
.2812	7.14	28	53.98	
.3750	9.53	28	53.98	



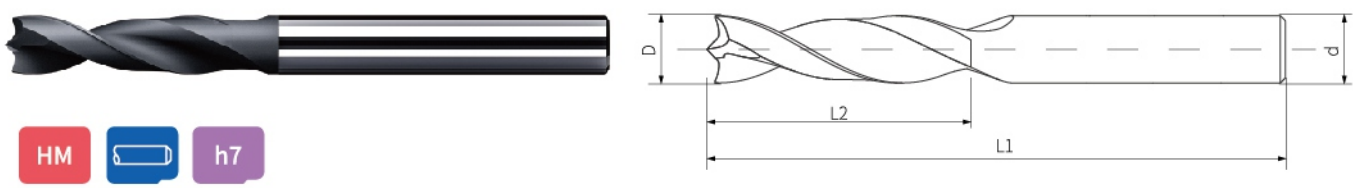
Solid Carbide Twist Drill(Diamond Coating)



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
△	△	△	△	⊙
Diameter D		Cutting Edge Length L2	Overall Length L1	Shank d
in	mm	mm	mm	mm
.0980	2.49	15	60	2.49
.1063	2.7	15	60	2.7
.1250	3.175	20	75	3.175
.1285	3.26	20	75	3.26
.1360	3.45	20	75	3.45
.1540	3.91	20	75	3.91
.1660	4.21	30	75	4.21
.1772	4.5	30	75	4.5
.1960	4.97	30	75	4.97
.2055	5.22	35	100	5.22
.2188	5.55	35	100	5.55
.2344	5.95	35	100	5.95
.2420	6.14	40	100	6.14
.2500	6.35	40	100	6.35
.2656	6.74	40	100	6.74
.2812	7.14	40	100	7.14
.2969	7.54	40	100	7.54
.3125	7.93	40	100	7.93
.3281	8.33	45	110	8.33
.3438	8.73	45	110	8.73
.3594	9.12	45	110	9.12
.3770	9.8	45	110	9.8
.4062	10.31	50	110	10.31
.4219	10.71	50	110	10.71
.4375	11.11	55	125	11.11
.5000	12.7	55	125	12.7

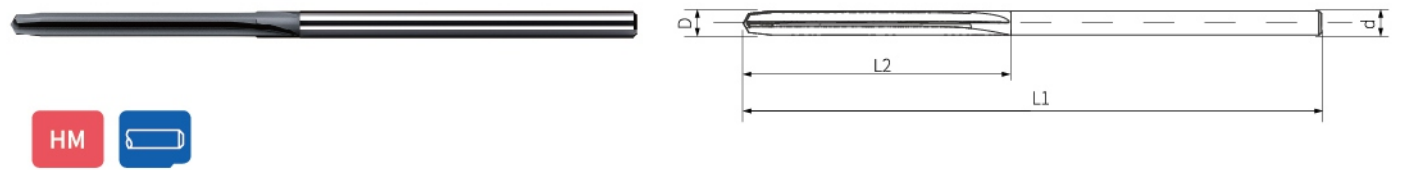
Solid Carbide Brad Point Drill(Diamond Coating)



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
△		△	△	
Diameter D		Cutting Edge Length L2	Overall Length L1	Shank d
in	mm	mm	mm	mm
.0980	2.49	15	60	2.49
.1063	2.7	15	60	2.7
.1250	3.175	20	75	3.175
.1285	3.26	20	75	3.26
.1360	3.45	20	75	3.45
.1540	3.91	20	75	3.91
.1660	4.21	30	75	4.21
.1772	4.5	30	75	4.5
.1960	4.97	30	75	4.97
.2055	5.22	35	100	5.22
.2188	5.55	35	100	5.55
.2344	5.95	35	100	5.95
.2420	6.14	40	100	6.14
.2500	6.35	40	100	6.35
.2656	6.74	40	100	6.74
.2812	7.14	40	100	7.14
.2969	7.54	40	100	7.54
.3125	7.93	40	100	7.93
.3281	8.33	45	110	8.33
.3438	8.73	45	110	8.73
.3594	9.12	45	110	9.12
.3770	9.8	45	110	9.8
.4062	10.31	50	110	10.31
.4219	10.71	50	110	10.71
.4375	11.11	55	125	11.11
.5000	12.7	55	125	12.7

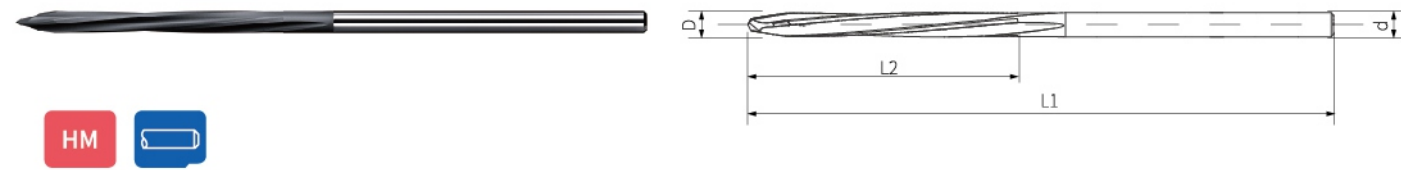
Solid Carbide Straight Flute Dagger Drill(Diamond Coating)



© Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
◎				
Diameter D		Cutting Edge Length L2	Overall Length L1	Shank d
in	mm	mm	mm	mm
.0980	2.49	15	60	2.49
.1063	2.70	15	60	2.70
.1181	3.00	18	75	3.00
.1260	3.20	20	75	3.20
.1285	3.26	20	75	3.26
.1575	4.00	30	75	4.00
.1610	4.09	30	75	4.09
.1772	4.50	30	75	4.50
.1890	4.80	30	75	4.80
.1900	4.83	30	75	4.83
.1933	4.91	30	75	4.91
.1969	5.00	35	100	5.00
.1990	5.05	35	100	5.05
.2055	5.22	35	100	5.22
.2362	6.00	40	100	6.00
.2500	6.35	40	100	6.35
.3126	7.94	40	100	7.94
.3750	9.53	40	100	9.53
.5000	12.70	40	100	12.70

Solid Carbide Helical Flute Dagger Drill(Diamond Coating)

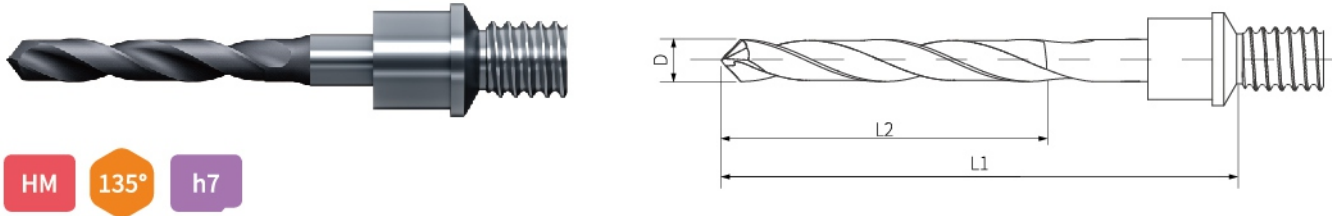


© Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
◎				
Diameter D		Cutting Edge Length L2	Overall Length L1	Shank d
in	mm	mm	mm	mm
.0980	2.49	15	60	2.49
.1063	2.70	15	60	2.70
.1181	3.00	18	75	3.00
.1260	3.20	20	75	3.20
.1285	3.26	20	75	3.26
.1575	4.00	30	75	4.00
.1610	4.09	30	75	4.09
.1772	4.50	30	75	4.50
.1890	4.80	30	75	4.80
.1900	4.83	30	75	4.83
.1933	4.91	30	75	4.91
.1969	5.00	35	100	5.00
.1990	5.05	35	100	5.05
.2055	5.22	35	100	5.22
.2362	6.00	40	100	6.00
.2500	6.35	40	100	6.35
.3126	7.94	40	100	7.94
.3750	9.53	40	100	9.53
.5000	12.70	40	100	12.70



Solid Carbide Twist Drill With Threaded Shank(Diamond Coating)

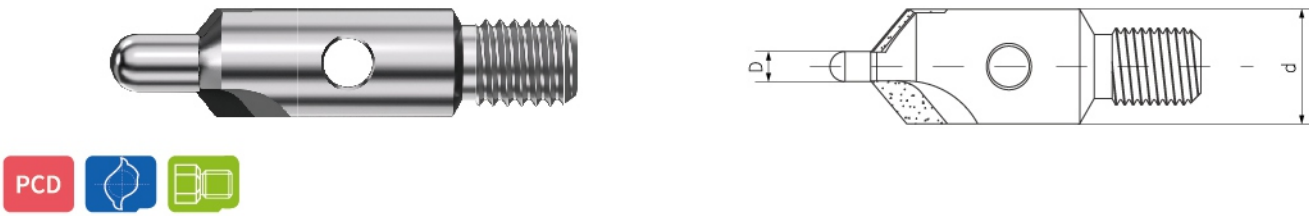


HM 135° h7

⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙	⊙	⊙	⊙	
Diameter D		Cutting Edge Length L2	Overall Length L1	Threaded Shank
in	mm	mm	mm	
.0938	2.38	7.94	12.7	1/4-28UNF
		14.28	25.4	
		22	53.98	
.1065	2.78	7.94	12.7	
		14.28	25.4	
		22	53.98	
.1250	3.175	7.94	12.7	
		14.28	25.4	
		28	53.98	
.1406	3.57	14.28	25.4	
		28	53.98	
.1562	3.97	14.28	25.4	
		28	53.98	
.1719	4.37	14.28	25.4	
		28	53.98	
.1875	4.76	14.28	25.4	
		28	53.98	
.2031	5.16	28	53.98	3/8-24UNF
.2188	5.56	28	53.98	
.2344	5.95	28	53.98	
.2500	6.35	28	53.98	
.2812	7.14	28	53.98	
.3750	9.53	28	53.98	

2 Flute PCD Countersink Drill

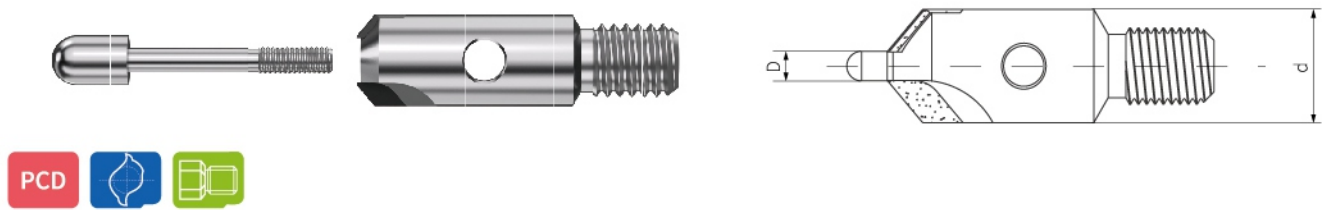


PCD

⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙	⊙	⊙	⊙	
Diameter d		Guide Pin Diameter D		Threaded Shank
in	mm	in	mm	
.4375	11.1	.0938	2.38	1/4-28UNF
		.0984	2.5	
		.1250	3.175	
.5000	12.7	.1283	3.26	
		.1562	3.97	
		.1590	4.04	
.6250	15.9	.1874	4.76	3/8-24UNF
		.1909	4.85	
		.1933	4.91	
.7500	19.1	.2500	6.35	
		.3125	7.94	
		.3750	9.53	
.8750	22.3	.4375	11.11	
		.5000	12.7	
1.000	25.4	.5000	12.7	

2 Flute PCD Countersink Drill(Replaceable Guide Pin)



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙	⊙	⊙	⊙	
Diameter d		Guide Pin Diameter D		Threaded Shank
in	mm	in	mm	
.4375	11.1	.0938	2.38	1/4-28UNF
		.0984	2.5	
		.1250	3.175	
.5000	12.7	.1283	3.26	
		.1562	3.97	
		.1590	4.04	
.6250	15.9	.1874	4.76	
		.1909	4.85	
		.1933	4.91	
.7500	19.1	.2500	6.35	3/8-24UNF
		.3125	7.94	
.8750	22.3	.3750	9.53	
		.4375	11.11	
1.000	25.4	.5000	12.7	

3 Flute PCD Countersink Drill

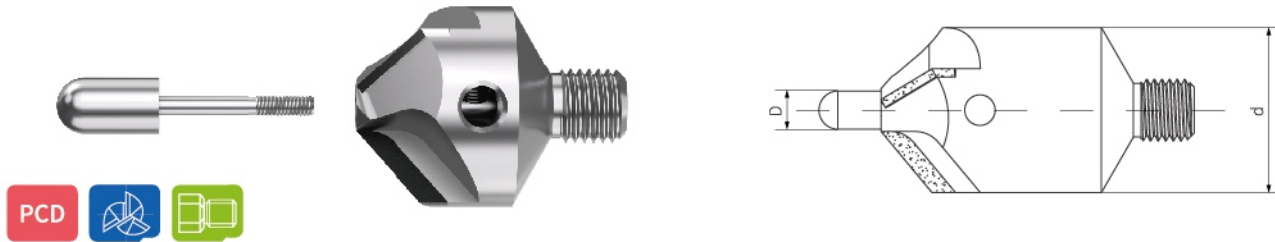


⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙				⊙
Diameter d		Guide Pin Diameter D		Threaded Shank
in	mm	in	mm	
.4375	11.1	.0938	2.38	1/4-28UNF
		.0984	2.5	
		.1250	3.175	
.5000	12.7	.1283	3.26	
		.1562	3.97	
		.1590	4.04	
.6250	15.9	.1874	4.76	
		.1909	4.85	
		.1933	4.91	
.7500	19.1	.2500	6.35	3/8-24UNF
		.3125	7.94	
.8750	22.3	.3750	9.53	
		.4375	11.11	
1.000	25.4	.5000	12.7	



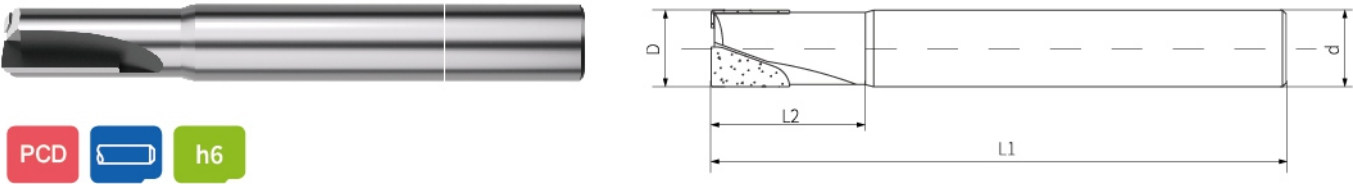
3 Flute PCD Countersink Drill(Replaceable Guide Pin)



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙		⊙		
Diameter d		Guide Pin Diameter D		Threaded Shank
in	mm	in	mm	
.4375	11.1	.0938	2.38	1/4-28UNF
		.0984	2.5	
		.1250	3.175	
.5000	12.7	.1283	3.26	
		.1562	3.97	
		.1590	4.04	
.6250	15.9	.1874	4.76	
		.1909	4.85	
		.1933	4.91	
.7500	19.1	.2500	6.35	3/8-24UNF
		.3125	7.94	
.8750	22.3	.3750	9.53	
		.4375	11.11	
1.000	25.4	.5000	12.7	

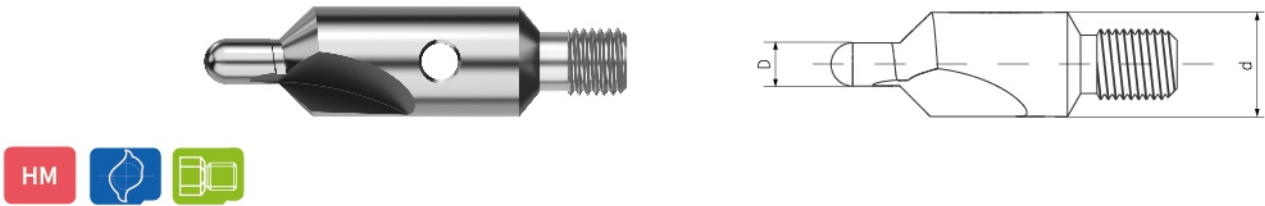
PCD Mills



⊙ Recommended    △ Suitable

Workpiece Materail							
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP			
⊙							
Diameter D		Cutting Edge Length L2		Overall Length L1		Shank d	
in	mm	in	mm	in	mm	in	mm
.1575	4	.6299	16	1.9685	50	.2362	6
.2362	6	.7480	19	2.4803	63	.2362	6
.2362	6	.9843	25	2.9528	75	.2362	6
.3150	8	.9843	25	2.4803	63	.3150	8
.3937	10	.9843	25	2.9528	75	.3937	10
.4724	12	.9843	25	2.9528	75	.4724	12

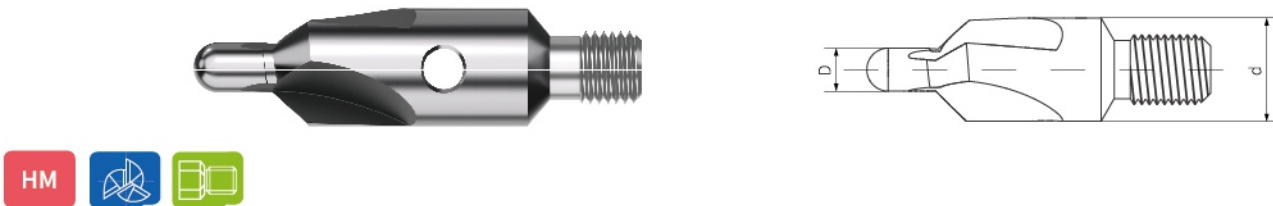
2 Flute Solid Carbide Countersink Drill



© Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
◎	◎	◎	◎	
Diameter d		Guide Pin Diameter D		Threaded Shank
in	mm	in	mm	
.4375	11.1	.0938	2.38	1/4-28UNF
		.0984	2.5	
		.1250	3.175	
.5000	12.7	.1283	3.26	
		.1562	3.97	
		.1590	4.04	
.6250	15.9	.1874	4.76	
		.1909	4.85	
		.1933	4.91	
.7500	19.1	.2500	6.35	3/8-24UNF
		.3125	7.94	
.8750	22.3	.3750	9.53	
		.4375	11.11	
1.000	25.4	.5000	12.7	

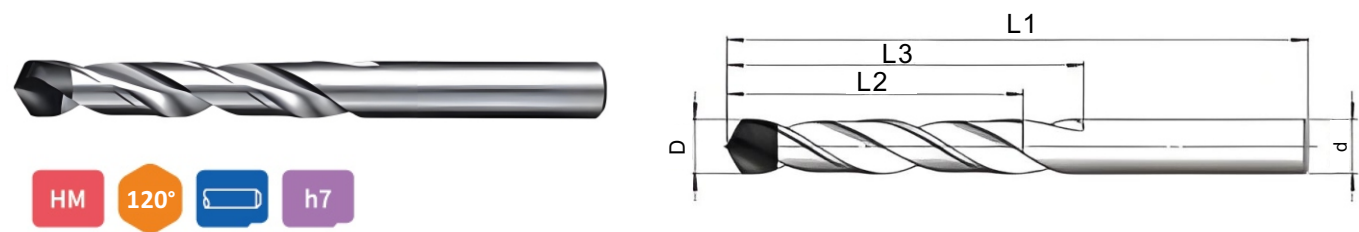
3 Flute Solid Carbide Countersink Drill



© Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
◎				◎
Diameter d		Guide Pin Diameter D		Threaded Shank
in	mm	in	mm	
.4375	11.1	.0938	2.38	1/4-28UNF
		.0984	2.5	
		.1250	3.175	
.5000	12.7	.1283	3.26	
		.1562	3.97	
		.1590	4.04	
.6250	15.9	.1874	4.76	
		.1909	4.85	
		.1933	4.91	
.7500	19.1	.2500	6.35	3/8-24UNF
		.3125	7.94	
.8750	22.3	.3750	9.53	
		.4375	11.11	
1.000	25.4	.5000	12.7	

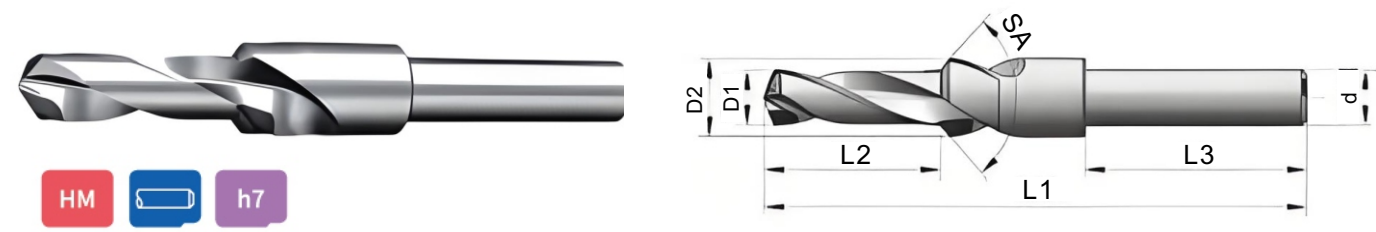
PCD sintered Twist Drill



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙				⊙
D	d	L2	L1	L3
in	mm	mm	mm	mm
.0787	2	12	38	15
.0984	2.5	12	43	16
.1180	4	12	46	17
.1380	4	15	52	21
.1570	4	17	55	23
.1770	6	18	58	25
.1970	6	20	62	28
.2170	6	21	66	30
.2360	6	21	66	30
.2560	8	23	70	33
.2760	8	25	74	36
.2950	8	25	74	37
.3150	8	27	79	39

PCD Step drill (Spiral groove)

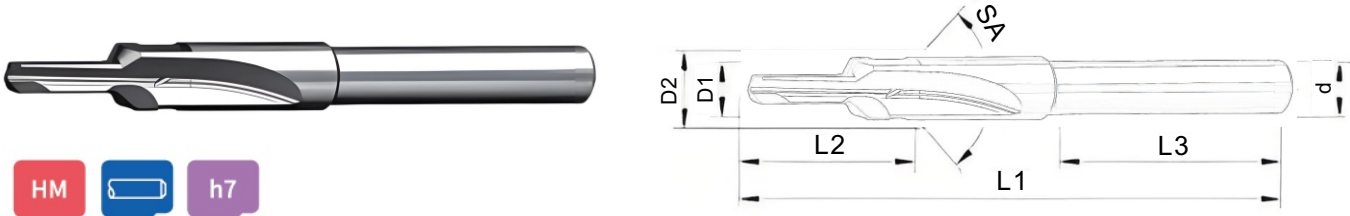


⊙ Recommended    △ Suitable

Workpiece Material						
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP		
⊙					⊙	
D1	D2	d	L1	SA	L2	L3
in	mm	mm	mm	(°)	mm	
.187	12	10	90	100	30	40
.219	14	10	90	100	30	40
.250	16	10	90	100	30	40
.313	18	10	90	100	30	40
.375	20	10	90	100	30	40
.438	22	12	90	100	30	40
.500	24	30	90	100	30	40



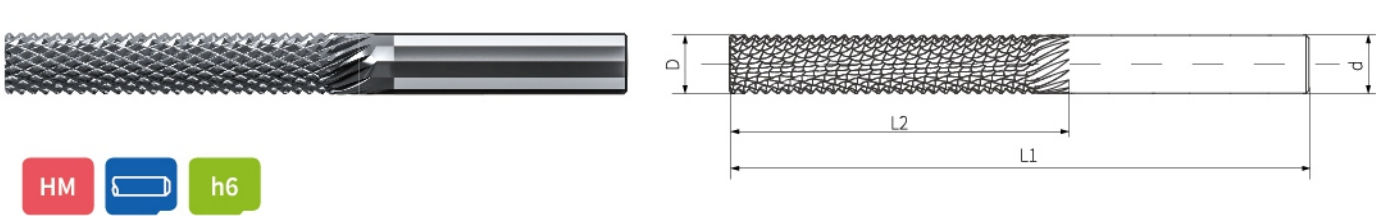
PCD Step drill (Straight groove)



© Recommended    △ Suitable

Workpiece Material						
Aluminum		Titanium	Stainless Steel	Alloy Steel	CFRP	
◎					◎	
D1	D2	d	L1	SA	L2	L3
mm		mm	mm	(°)	mm	
.187	12	10	90	100	30	40
.219	14	10	90	100	30	40
.250	16	10	90	100	30	40
.313	18	10	90	100	30	40
.375	20	10	90	100	30	40
.438	22	12	90	100	30	40
.500	24	30	90	100	30	40

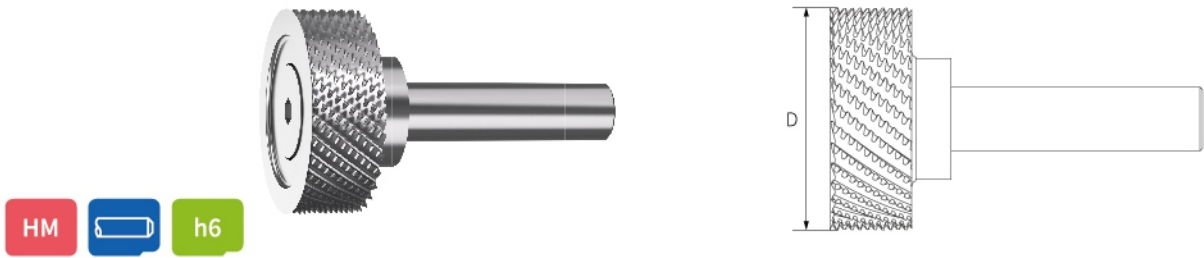
Roughing Router



© Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
◎				
Diameter D (mm)	Cutting Edge Length L2 (mm)	Overall Length L1 (mm)	Shank d (mm)	
4	12	60	6	
6	18	75	6	
8	24	75	8	
10	25	75	10	
12	25	75	12	

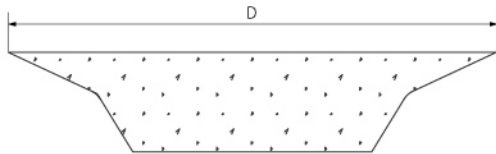
Solid Carbide Honeycomb Hoggers+Slicer



© Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
◎				
Diameter D				
in	mm			
.50	12.7			
1.0	25.4			
1.5	38.1			
2.0	50.8			
2.5	63.5			
3.0	76.2			

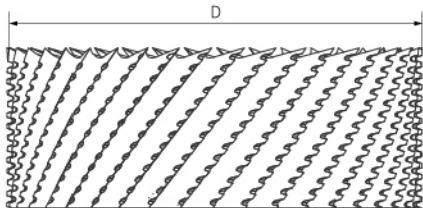
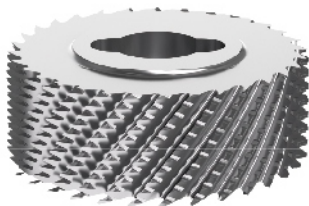
Solid Carbide Slicer



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙				
Diameter D				
in	mm			
.50	12.7			
1.0	25.4			
1.5	38.1			
2.0	50.8			
2.5	63.5			
3.0	76.2			

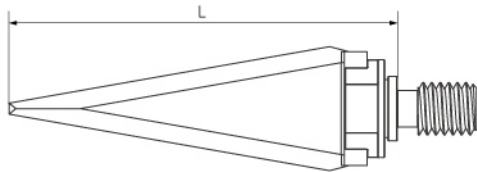
Solid Carbide Honeycomb Hoggers



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙				
Diameter D				
in	mm			
.50	12.7			
1.0	25.4			
1.5	38.1			
2.0	50.8			
2.5	63.5			
3.0	76.2			

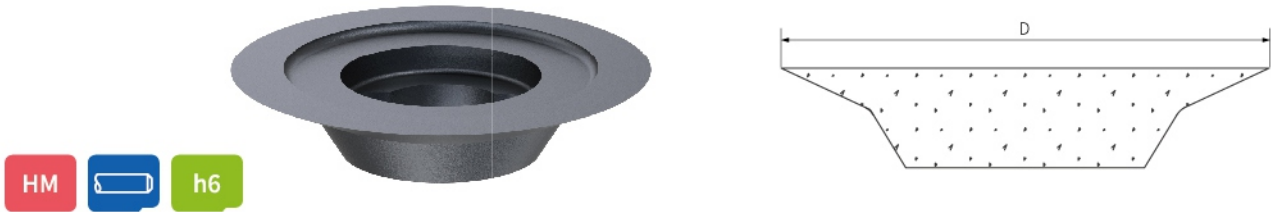
Ultra Sonic Blade



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙				
Diameter D				
in	mm			
.50	12.7			
1.0	25.4			
1.5	38.1			
2.0	50.8			
2.5	63.5			
3.0	76.2			

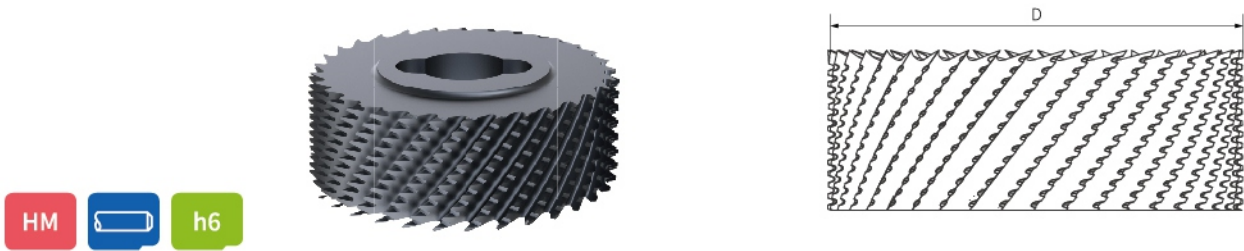
Solid Carbide Slicer(Diamond Coating)



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙				
Diameter D				
in	mm			
.50	12.7			
1.0	25.4			
1.5	38.1			
2.0	50.8			
2.5	63.5			
3.0	76.2			

Solid Carbide Honeycomb Hoggers(Diamond Coating)



⊙ Recommended    △ Suitable

Workpiece Material				
Aluminum	Titanium	Stainless Steel	Alloy Steel	CFRP
⊙				
Diameter D				
in	mm			
.50	12.7			
1.0	25.4			
1.5	38.1			
2.0	50.8			
2.5	63.5			
3.0	76.2			



SINCERE INNOVATION FORESIGHT