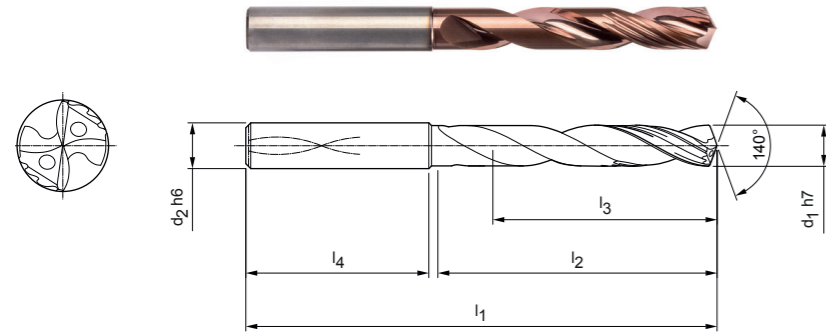


# MEGA-Speed-Drill-Titan

Solid carbide twist drill  
SCD961 (5xD), internal coolant supply



**Design:**  
 Drill diameter: 3,00 – 20,00 mm  
 Bore tolerance: IT 9 (reachable)  
 Cutting material: HP184  
 Number of cutting edges: 2  
 Guiding chamfers: 4  
 Tip angle: 140°  
 Helix angle: 30°



## Preferred series in stock

Dimensions						Shank form HA	
d <sub>1</sub> h7	d <sub>2</sub> h6	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	Specification	Order no.
3,00	6	66	28	23	36	SCD961-0300-2-4-140HA05-HP184	31315779
3,10	6	66	28	23	36	SCD961-0310-2-4-140HA05-HP184	31315820
3,20	6	66	28	23	36	SCD961-0320-2-4-140HA05-HP184	31315821
3,30	6	66	28	23	36	SCD961-0330-2-4-140HA05-HP184	31315822
3,40	6	66	28	23	36	SCD961-0340-2-4-140HA05-HP184	31315823
3,50	6	66	28	23	36	SCD961-0350-2-4-140HA05-HP184	31315824
3,60	6	66	28	23	36	SCD961-0360-2-4-140HA05-HP184	31315825
3,70	6	66	28	23	36	SCD961-0370-2-4-140HA05-HP184	31315826
3,80	6	74	36	29	36	SCD961-0380-2-4-140HA05-HP184	31315827
4,00	6	74	36	29	36	SCD961-0400-2-4-140HA05-HP184	31315828
4,10	6	74	36	29	36	SCD961-0410-2-4-140HA05-HP184	31315829
4,20	6	74	36	29	36	SCD961-0420-2-4-140HA05-HP184	31315830
4,30	6	74	36	29	36	SCD961-0430-2-4-140HA05-HP184	31315831
4,40	6	74	36	29	36	SCD961-0440-2-4-140HA05-HP184	31315832
4,50	6	74	36	29	36	SCD961-0450-2-4-140HA05-HP184	31315833
4,60	6	74	36	29	36	SCD961-0460-2-4-140HA05-HP184	31315834
4,70	6	74	36	29	36	SCD961-0470-2-4-140HA05-HP184	31315835
4,80	6	82	44	35	36	SCD961-0480-2-4-140HA05-HP184	31315836
5,00	6	82	44	35	36	SCD961-0500-2-4-140HA05-HP184	31315837
5,10	6	82	44	35	36	SCD961-0510-2-4-140HA05-HP184	31315838
5,20	6	82	44	35	36	SCD961-0520-2-4-140HA05-HP184	31315839
5,30	6	82	44	35	36	SCD961-0530-2-4-140HA05-HP184	31315840
5,40	6	82	44	35	36	SCD961-0540-2-4-140HA05-HP184	31315841
5,50	6	82	44	35	36	SCD961-0550-2-4-140HA05-HP184	31315842
5,80	6	82	44	35	36	SCD961-0580-2-4-140HA05-HP184	31315843
5,90	6	82	44	35	36	SCD961-0590-2-4-140HA05-HP184	31315844
6,00	6	82	44	35	36	SCD961-0600-2-4-140HA05-HP184	31315845
6,20	8	91	53	43	36	SCD961-0620-2-4-140HA05-HP184	31315846
6,50	8	91	53	43	36	SCD961-0650-2-4-140HA05-HP184	31315847
6,60	8	91	53	43	36	SCD961-0660-2-4-140HA05-HP184	31315848
6,80	8	91	53	43	36	SCD961-0680-2-4-140HA05-HP184	31315849
7,00	8	91	53	43	36	SCD961-0700-2-4-140HA05-HP184	31315850
7,10	8	91	53	43	36	SCD961-0710-2-4-140HA05-HP184	31315851
7,30	8	91	53	43	36	SCD961-0730-2-4-140HA05-HP184	31315852
7,40	8	91	53	43	36	SCD961-0740-2-4-140HA05-HP184	31315853

## MEGA-Speed-Drill-Titan | Solid carbide twist drill SCD961 (5xD), internal coolant supply

Dimensions						Shank form HA	
d <sub>1</sub> h7	d <sub>2</sub> h6	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	Specification	Order no.
7,50	8	91	53	43	36	SCD961-0750-2-4-140HA05-HP184	31315854
7,80	8	91	53	43	36	SCD961-0780-2-4-140HA05-HP184	31315855
8,00	8	91	53	43	36	SCD961-0800-2-4-140HA05-HP184	31315856
8,10	10	103	61	49	40	SCD961-0810-2-4-140HA05-HP184	31315857
8,20	10	103	61	49	40	SCD961-0820-2-4-140HA05-HP184	31315858
8,30	10	103	61	49	40	SCD961-0830-2-4-140HA05-HP184	31315859
8,40	10	103	61	49	40	SCD961-0840-2-4-140HA05-HP184	31315860
8,50	10	103	61	49	40	SCD961-0850-2-4-140HA05-HP184	31315861
8,80	10	103	61	49	40	SCD961-0880-2-4-140HA05-HP184	31315862
9,00	10	103	61	49	40	SCD961-0900-2-4-140HA05-HP184	31315863
9,80	10	103	61	49	40	SCD961-0980-2-4-140HA05-HP184	31315864
10,00	10	103	61	49	40	SCD961-1000-2-4-140HA05-HP184	31315865
10,20	12	118	71	56	45	SCD961-1020-2-4-140HA05-HP184	31315866
10,50	12	118	71	56	45	SCD961-1050-2-4-140HA05-HP184	31315867
11,00	12	118	71	56	45	SCD961-1100-2-4-140HA05-HP184	31315868
11,80	12	118	71	56	45	SCD961-1180-2-4-140HA05-HP184	31315869
12,00	12	118	71	56	45	SCD961-1200-2-4-140HA05-HP184	31315870
12,50	14	124	77	60	45	SCD961-1250-2-4-140HA05-HP184	31315871
13,00	14	124	77	60	45	SCD961-1300-2-4-140HA05-HP184	31315872
13,50	14	124	77	60	45	SCD961-1350-2-4-140HA05-HP184	31315873
14,00	14	124	77	60	45	SCD961-1400-2-4-140HA05-HP184	31315874
15,80	16	133	83	63	48	SCD961-1580-2-4-140HA05-HP184	31315875
16,00	16	133	83	63	48	SCD961-1600-2-4-140HA05-HP184	31315876

## Configurable features

**Diameter:**  
Diameter in increments of 0.01 mm freely selectable

**Shank form:**  
Shank form: HB | HE

**Specification:**  
SCD961-[diameter]-2-4-140[shank form]05-HP184

**Example:**  
SCD961-0470-2-4-140HE05-HP184

## Dimensions of configurable series

d <sub>1</sub> min.	d <sub>1</sub> max.	d <sub>2</sub> h6	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>
3,00	3,70	6	66	28	23	36
3,71	4,70	6	74	36	29	36
4,71	6,00	6	82	44	35	36
6,01	6,80	8	91	53	43	36
6,81	8,00	8	91	53	43	36
8,01	9,00	10	103	61	49	40
9,01	10,00	10	103	61	49	40
10,01	11,00	12	118	71	56	45
11,01	12,00	12	118	71	56	45
12,01	14,00	14	124	77	60	45
14,01	16,00	16	133	83	63	48
16,01	18,00	18	143	93	71	48
18,01	20,00	20	153	101	77	50

Dimensions in mm.  
 For cutting data recommendations, see next page.  
 Special designs and other coatings available upon request.

# Cutting data recommendations for solid carbide drills

Feed and cutting speed

## MEGA-Speed-Drill-Titan | SCD961

MMG *	Workpiece material	Strength/hardness [N/mm <sup>2</sup> ] [HRC]	Cutting speed v <sub>c</sub> [m/min]				Feed f [mm] for drill diameter						
			Internal cooling	External cooling	MQL	Air	3,00	4,50	6,50	9,50	14,00	20,00	
S	S1.1	Titanium, titanium alloys	< 400	<b>40</b>	<b>25</b>			0,077	0,103	0,134	0,173	0,219	0,259
	S2.1	Titanium, titanium alloys	< 1.200	<b>30</b>	<b>20</b>			0,066	0,088	0,115	0,149	0,188	0,222
	S2.2	Titanium, titanium alloys	> 1.200	<b>25</b>	<b>15</b>			0,055	0,073	0,095	0,124	0,157	0,185

\* MAPAL machining groups

The specified machining values are guide values.  
The optimum data for the respective machining task should be determined during the test or machining.