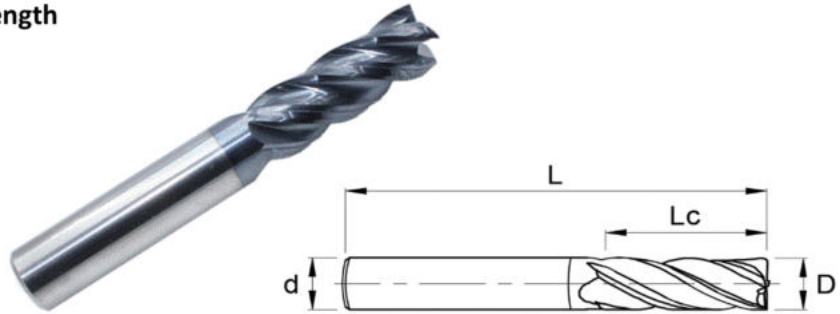




Variable Helix Carbide End Mills Standard Length

4 Flute
 Helix-Angle : 38°/40°
 TiAlN PVD coated, 50HRC
 Medium to Finishing
 Suitable for Facing and Shouldering
 Ideal for machining Steel and Stainless Steel

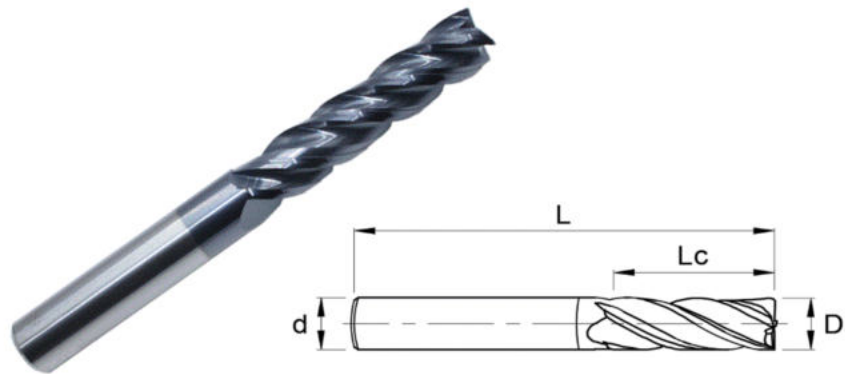


7 SIEB

Order No.	D	d	Shank style	Lc	L	Coating
6420-0010	1/16	1/16	Plain	0.250"	2"	TiAlN
6420-0020	1/8	1/8	Plain	0.500"	2"	TiAlN
6420-0030	3/16	3/16	Plain	0.625"	2"	TiAlN
6420-0040	1/4	1/4	Plain	0.750"	2.5"	TiAlN
6420-0050	5/16	5/16	Plain	0.813"	2.5"	TiAlN
6420-0060	3/8	3/8	Plain	1.000"	2.5"	TiAlN
6420-0070	7/16	7/16	Plain	1.000"	3"	TiAlN
6420-0080	1/2	1/2	Plain	1.250"	3"	TiAlN
6420-0100	5/8	5/8	Plain	1.625"	3.5"	TiAlN
6420-0110	3/4	3/4	Plain	1.750"	4"	TiAlN

Vari-Helix Carbide End Mills Long Length

4 Flutes Long series
 Helix-Angle : 38°/40°
 TiAlN PVD coated, 50HRC
 Finishing /Semi Finishing
 Suitable for Facing and Shouldering
 Ideal for machining Steel and Stainless Steel



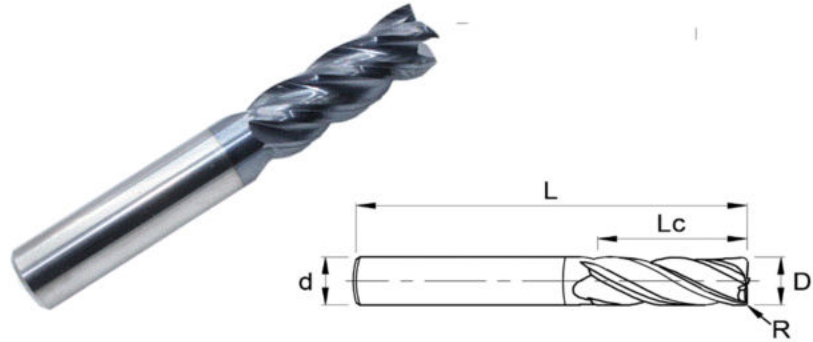
7 SIEB

Order No.	D	d	Shank style	Lc	L	Coating
6430-0020	1/8	1/8	Plain	0.750"	2.5"	TiAlN
6430-0030	3/16	3/16	Plain	1.125"	3"	TiAlN
6430-0040	1/4	1/4	Plain	1.125"	3"	TiAlN
6430-0050	5/16	5/16	Plain	1.625"	4"	TiAlN
6430-0060	3/8	3/8	Plain	2.000"	4"	TiAlN
6430-0061	3/8	3/8	Plain	1.500"	3.5"	TiAlN
6430-0070	7/16	7/16	Plain	2.000"	4"	TiAlN
6430-0080	1/2	1/2	Plain	2.000"	4"	TiAlN
6420-0180	1/2	1/2	Plain	1.500"	3.5"	TiAlN
6430-0100	5/8	5/8	Plain	3.000"	6"	TiAlN
6430-0110	3/4	3/4	Plain	3.000"	6"	TiAlN



Variable Helix Carbide End Mills with Corner Radius

4 Flute
 Helix-Angle : 38°/40°
 TiAlN PVD coated, 50HRC
 Medium to Finishing
 Suitable for Facing and Shouldering
 Ideal for machining Steel and Stainless Steel

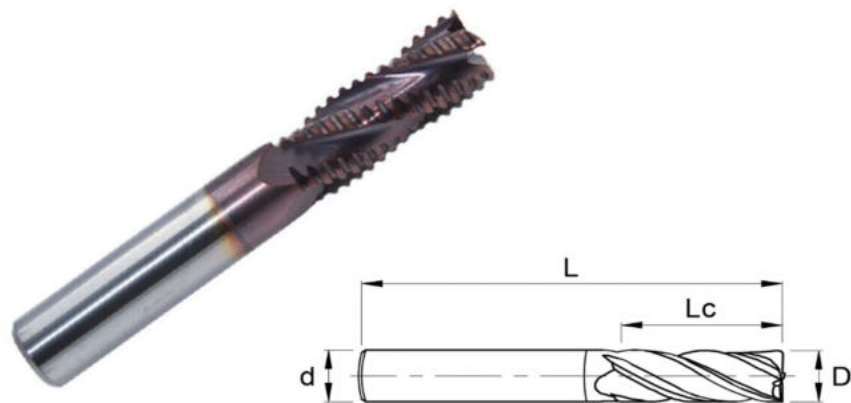


7 SIEB

Order No.	D	d	Shank Style	Lc	L	R	Coating
6440-0030	3/16	3/16	Plain	0.625"	2"	0.020"	TiAlN
6440-0040	1/4	1/4	Plain	0.750"	2.5"	0.020"	TiAlN
6440-0050	5/16	5/16	Plain	0.813"	2.5"	0.020"	TiAlN
6440-0060	3/8	3/8	Plain	1.000"	2.5"	0.020"	TiAlN
6440-0080	1/2	1/2	Plain	1.250"	3"	0.020"	TiAlN
6440-0081	1/2	1/2	Plain	1.250"	3"	0.030"	TiAlN
6440-0082	1/2	1/2	Plain	1.250"	3"	0.040"	TiAlN
6430-0081	1/2	1/2	Plain	2.000"	4"	0.020"	TiAlN
6430-0082	1/2	1/2	Plain	2.000"	4"	0.030"	TiAlN
6440-0100	5/8	5/8	Plain	1.625"	3.5"	0.040"	TiAlN
6440-0110	3/4	3/4	Plain	1.750"	4"	0.040"	TiAlN

Roughing Carbide End Mills

4 Flute
 Helix-Angle : 35°
 FSIN PVD Coated
 For roughing application
 Suitable for Facing and Shouldering
 Ideal for machining Steel and Stainless Steel



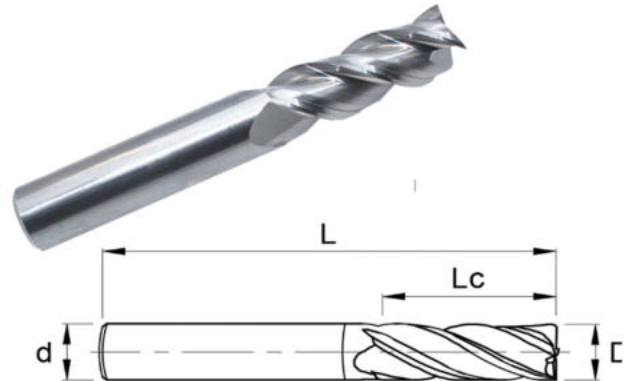
7 SIEB

Order No.	D	d	Shank style	Lc	L	Coating
6450-0080	1/2	1/2	Plain	1.250"	3"	FSIN
6450-0100	5/8	5/8	Plain	1.625"	3.5"	FSIN
6450-0110	3/4	3/4	Plain	1.750"	4"	FSIN



Carbide End Mills Standard Length 3 Flute for Aluminum

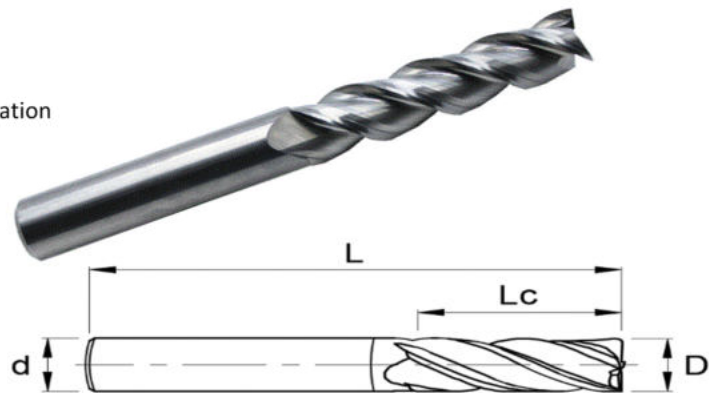
3 Flutes, Uncoated
 Helix-Angle : 45° to reduce the chatter and ensures efficient chip evacuation
 For finishing to medium finish applications
 Suitable for Facing and Shouldering
 Material to cut : Aluminum, Copper, Brass, Bronze, Plastic



Order No.	D	d	Shank style	Lc	L	Coating
6300-0010	1/16	1/16	Plain	0.250"	2"	Uncoated
6300-0020	1/8	1/8	Plain	0.500"	2"	Uncoated
6300-0030	3/16	3/16	Plain	0.625"	2"	Uncoated
6300-0040	1/4	1/4	Plain	0.750"	2.5"	Uncoated
6300-0050	5/16	5/16	Plain	0.813"	2.5"	Uncoated
6300-0060	3/8	3/8	Plain	1.000"	2.5"	Uncoated
6300-0070	7/16	7/16	Plain	1.000"	3"	Uncoated
6300-0080	1/2	1/2	Plain	1.250"	3"	Uncoated
6300-0100	5/8	5/8	Plain	1.625"	3.5"	Uncoated
6300-0110	3/4	3/4	Plain	1.750"	4"	Uncoated

Carbide End Mills Long Length 3 Flute for Aluminum

3 Flutes, Uncoated
 Helix-Angle : 45° to reduce the chatter and ensures efficient chip evacuation
 For finishing to medium finish applications
 Suitable for Facing and Shouldering
 Material to cut : Aluminum, Copper, Brass, Bronze, Plastic



Order No.	D	d	Shank style	Lc	L	Coating
6310-0020	1/8	1/8	Plain	0.750"	2.500"	Uncoated
6310-0030	3/16	3/16	Plain	1.125"	3.000"	Uncoated
6310-0040	1/4	1/4	Plain	1.125"	3.000"	Uncoated
6310-0050	5/16	5/16	Plain	1.625"	4.000"	Uncoated
6310-0060	3/8	3/8	Plain	2.000"	4.000"	Uncoated
6310-0070	7/16	7/16	Plain	2.000"	4.000"	Uncoated
6310-0080	1/2	1/2	Plain	2.000"	4.000"	Uncoated
6310-0100	5/8	5/8	Plain	3.000"	6.000"	Uncoated
6310-0110	3/4	3/4	Plain	3.000"	6.000"	Uncoated



Carbide End Mills with TiaLN Coating Standard Length

2 Flutes
 Helix-Angle : 35°
 TiAlN coating
 Finishing /Semi Finishing
 Suitable for Facing and Slotting
 Blanks are made in Germany



Order No.	Dia. D1	Shank D2	Shank style	Length of Cut L1	Overall L2	Coating	Application
6120-0125	1/8	1/8	Plain	0.500"	1.5"	TiaLN	General purpose
6120-0187	3/16	3/16	Plain	0.625"	2"	TiaLN	General purpose
6120-0250	1/4	1/4	Plain	0.750"	2.5"	TiaLN	General purpose
6120-0312	5/16	5/16	Flat	0.813"	2.5"	TiaLN	General purpose
6120-0375	3/8	3/8	Flat	1.000"	2.5"	TiaLN	General purpose
6120-0500	1/2	1/2	Flat	1.000"	3.0"	TiaLN	General purpose
6120-0625	5/8	5/8	Flat	1.250"	3.5"	TiaLN	General purpose
6120-0750	3/4	3/4	Flat	1.500"	4.0"	TiaLN	General purpose

Carbide End Mills with TiaLN Coating Long Length

2 Flutes long series
 Helix-Angle : 35°
 TiAlN coating
 Finishing /Semi Finishing
 Suitable for Facing and Slotting
 Blanks are made in Germany



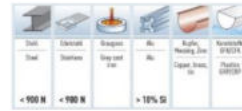
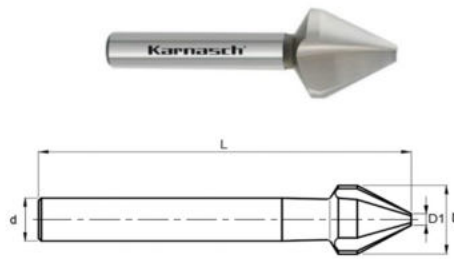
Order No.	Dia. D1	Shank D2	Shank style	Length of Cut L1	Overall L2	Coating	Application
6121-0125	1/8	1/8	Plain	0.750"	2"	TiaLN	General purpose
6121-0187	3/16	3/16	Plain	1.125"	3"	TiaLN	General purpose
6121-0250	1/4	1/4	Plain	1.125"	3"	TiaLN	General purpose
6121-0312	5/16	5/16	Flat	1.625"	4"	TiaLN	General purpose
6121-0375	3/8	3/8	Flat	2.000"	4"	TiaLN	General purpose
6121-0500	1/2	1/2	Flat	2.000"	4"	TiaLN	General purpose
6121-0625	5/8	5/8	Flat	3.000"	6"	TiaLN	General purpose
6121-0750	3/4	3/4	Flat	3.000"	6"	TiaLN	General purpose



Countersinks 60°

Metric

HSS-XE DIN 335 Type C
 Suiatbel for Stainless Steel , Steel ,
 Cast Iron and Non ferrous metals
 Excellennt torque transmission
 No slippage in drill chuck



Karnasch®
 Made in Germany

Order No.	D	D1	L	d	No. of Flute	Application
40 4030 0080	8.0	2.0	50	6	3	General purpose
40 4030 0125	12.5	3.2	56	8	3	General purpose
40 4030 0160	16.0	4.0	63	10	3	General purpose
40 4030 0200	20.0	5.0	67	10	3	General purpose
40 4030 0250	25.0	6.3	71	10	3	General purpose

Countersinks 60° Sets

HSS-XE DIN 335 Type C

Karnasch®
 Made in Germany



6pcs Set

Order No.	Including
40 4090 030	6.3, 8, 10, 12.5, 16, 20mm

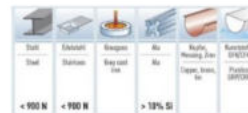
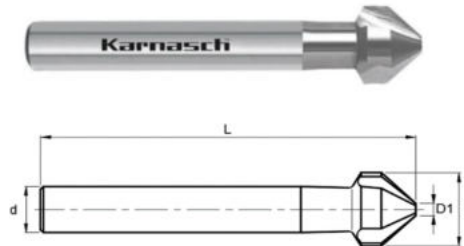
5pcs Set

Order No.	Including
40 4090 040	6.3, 10, 16, 20, 25mm

Countersinks 90°

Metric

HSS-XE DIN 335 Type C
 Suiatbel for Stainless Steel , Steel ,
 Cast Iron and Non ferrous metals
 Excellennt torque transmission
 No slippage in drill chuck



Karnasch®
 Made in Germany

Order No.	D	D1	L	d	No. of Flute	Application
20 1740 050	6.3	1.5	45	5	3	General purpose
20 1740 090	8.3	2	50	6	3	General purpose
20 1740 110	10.0	2.5	50	6	3	General purpose
20 1740 140	12.4	2.8	56	8	3	General purpose
20 1740 170	16.5	3.2	63	10	3	General purpose
20 1740 190	20.5	3.5	67	10	3	General purpose
20 1740 210	25.0	3.8	71	10	3	General purpose
20 1740 250	31.0	4.2	71	12	3	General purpose



Countersinks 90° Sets

Metric

HSS-XE DIN 335 Type C

Suitable for Stainless Steel , Steel ,

Cast Iron and Non ferrous metals

Excellent torque transmission

No slippage in drill chuck



Karnasch
Made in Germany

6pcs Set

Order No.	Including
20 1641	6.3, 8.3, 10.4, 12.4, 16.5, 20.5mm

5pcs Set

Order No.	Including
20 1642	6.3, 10.4, 16.5, 20.5, 25mm

Countersinks 82°

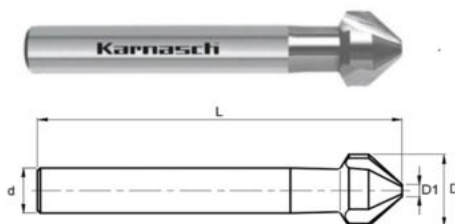
HSS-XE DIN 335 Type C

Suitable for Stainless Steel , Steel ,

Cast Iron and Non ferrous metals

Excellent torque transmission

No slippage in drill chuck



Karnasch
Made in Germany

Order No.	D	D1	L	d	No. of Flute	Application
201780010	1/4	0.059"	1.77"	3/16	3	General purpose
201780020	5/16	0.078"	1.97"	1/4	3	General purpose
201780030	3/8	0.087"	1.97"	1/4	3	General purpose
201780040	1/2	0.11"	2.20"	5/16	3	General purpose
201780050	5/8	0.126"	2.36"	3/8	3	General purpose
201780060	3/4	0.138"	2.48"	3/8	3	General purpose
201780080	1"	0.15"	2.64"	3/8	3	General purpose

Countersinks 82° Sets

HSS-XE DIN 335 Type C



Karnasch
Made in Germany

6pcs Set

Order No.	Including
201695	1/4 ,5/16, 3/8, 1/2, 5/8, 3/4

5pcs Set

Order No.	Including
201696	1/4, 3/8, 5/8, 3/4, 1"