

Engraving cutters of solid carbide

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Product line marking

The product lines are illustrated by star symbols at the top of the table; please refer to page **14** and **15**.



Engraving Cutters of solid carbide K 10 F



K 10 F

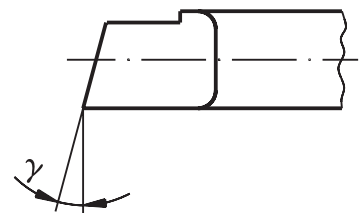
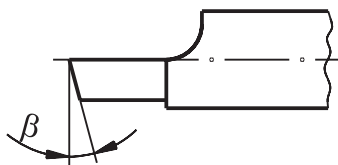
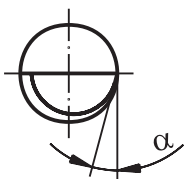
Micro grain carbide for machining all materials, for machining steel, cast steel, non-ferrous metals and plastics. Extra long life!

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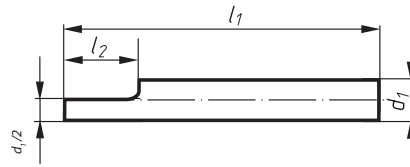
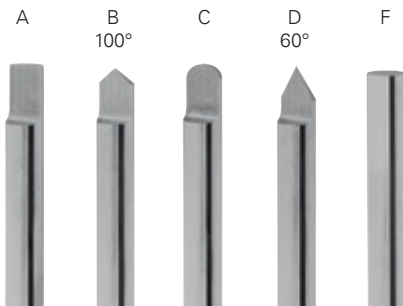
Engraving Cutters – Recommendation for various applications

For optimal results the cutting and lead angles have to suit the material to be machined. The values in the tables are recommendations.

Material to be machined	Recommended cutting and lead angles			Recommended cutting speeds in m/min	Recommended feed rates f_z in mm
	α	β	γ		
Cast iron, cast steel	25°	15°	5°	60–100	0,04–0,1
Steel up to 900 N/mm ²	25°	15°	5°	120–160	0,05–0,08
Steel above 900 N/mm ²	25°	15°	5°	50–70	0,04–0,08
Brass, aluminium	30°	15°	5°	200–400	0,08–0,15
Plastics, reinforced and non-reinforced	35°	15°	5°	200–600	0,05–0,20



Engraving cutters of solid carbide



Ordering example: A1300403042

Further profiles and dimensions on request.

$d_1/2$ as per your request

l_2 does not apply to profile F

Tolerance of semi-finished cutting edge + 0,1, finish ground on request



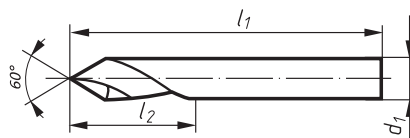
PG 1

Product number	Description	Profile	d_1 mm	l_1 mm	l_2 mm	recommended for Information on page 438		
A1300403042	HGA 03.040	D	3	40	6	1 5 6 8	■	1
A1300404012	HGA 04.040	A	4	40	6	1 5 6 8	■	1
A1300404042	HGA 04.040	D	4	40	6	1 5 6 8	■	1
A1300404062	HGA 04.040	F	4	40	6	1 5 6 8	■	1
A1300405012	HGA 04.060	A	4	60	6	1 5 6 8	■	1
A1300405042	HGA 04.060	D	4	60	6	1 5 6 8	■	1
A1300407012	HGA 06.070	A	6	70	8	1 5 6 8	■	1
A1300407042	HGA 06.070	D	6	70	8	1 5 6 8	■	1
A1300407142	HGA 06.100	D	6	100	8	1 5 6 8	■	1
A1300408012	HGA 08.080	A	8	80	12	1 5 6 8	■	1
A1300408112	HGA 08.100	A	8	100	12	1 5 6 8	■	1
A1300409012	HGA 10.080	A	10	80	14	1 5 6 8	■	1
A1300409112	HGA 10.100	A	10	100	14	1 5 6 8	■	1
A1300410012	HGA 12.080	A	12	80	16	1 5 6 8	■	1
A1300410112	HGA 12.100	A	12	100	16	1 5 6 8	■	1

All dimensions listed on this page:

- exact halving = +0,02, surcharge of 10%.
- Relief grinding = surcharge of 25%.

Engraving cutters of solid carbide, spiral fluted



Ordering example: A1300484071

Further dimensions on request.

Relief-grinding 25°

Quality K 10 F = micro grain tungsten carbide



PG 1

Product number	Description	d_1 mm	l_1 mm	l_2 mm	recommended for Information on page 438		
A1300484071	HGS 03.040	3	40	15	6 8	■	1
A1300485071	HGS 04.040	4	40	20	6 8	■	1
A1300486071	HGS 06.050	6	50	22	6 8	■	1

Application: Engraving of non-ferrous metals and plastics with minimum generation of burr.