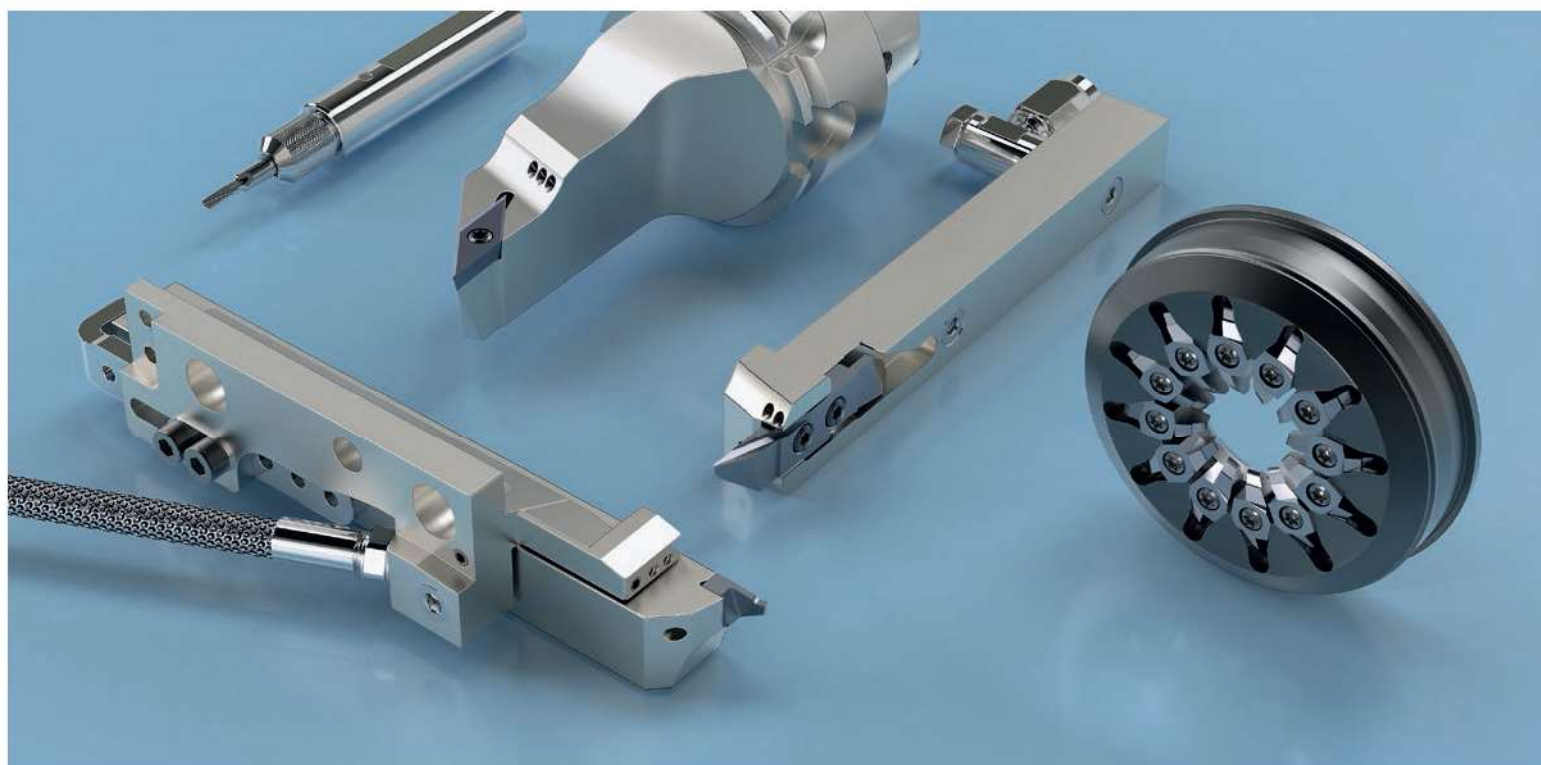


GENERAL CATALOG 2020/21



**PRECISION TOOLS
FOR SMALL PART MANUFACTURING AND MICRO-CUTTING**

Engraving is a chip-removing procedure for which ornaments, text and decorations are cut into the material. The removal of the material creates a surface structure which visually stands out against the background. Engravings manufactured in this way have the advantage of greater durability than other procedures.

The product range includes standardised, finished-ground carbide gravers which provide extremely good performance in all materials and also pre-ground semifinished products for grinding yourself.



Benefits:

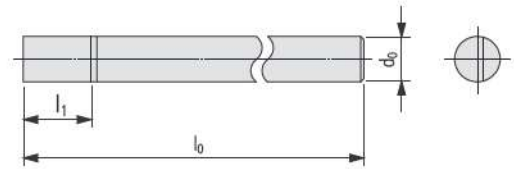
- Standardised tools with point angle of 30° for engraving from 0.2 to 2 mm
- Pre-ground blanks, with lapped chip surface, available for individually grindable tools
- Sharp cutting edges
- Reliable process with long tool life

Technical information	11
<hr/>	
Engraving graver	
FGA ...	396
FGB ...	396
FGQ ...	397
FGR ...	397
<hr/>	
Special tools – multidec4you®	600
<hr/>	





Blank



FGA ...

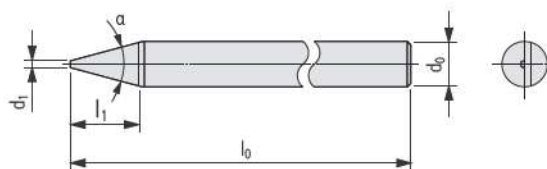
Order designation	Carbide □ 20		Dimensions									
	UHM 20	UHM 20 TX+	l ₁	l ₀	d ₀							
FGA 020 032 ...	■	■	3	32	2							
FGA 025 032 ...	■	■	4	32	2.5							
FGA 030 036 ...	■	■	5	36	3							
FGA 040 042 ...	■	■	6	42	4							
FGA 050 050 ...	■	■	8	50	5							
FGA 060 060 ...	■	■	10	60	6							
FGA 080 060 ...	■	■	12	60	8							
FGA 100 060 ...	■	■	15	60	10							

PREMIUM-LINE

FGB ...

Order designation	Carbide □ 20		Dimensions									
	UHM 20	UHM 20 TX+	l ₁	l ₀	d ₀							
FGB 020 042 ...	■	■	4	42	2							
FGB 025 042 ...	■	■	5	42	2.5							
FGB 030 050 ...	■	■	6	50	3							
FGB 040 060 ...	■	■	8	60	4							
FGB 050 075 ...	■	■	10	75	5							
FGB 060 100 ...	■	■	12	100	6							
FGB 080 100 ...	■	■	16	100	8							
FGB 100 100 ...	■	■	20	100	10							

PREMIUM-LINE



FGQ ...

Order designation	Carbide □ 20		Dimensions									
	○	●	d ₁	α	l ₁	l ₀	d ₀					
	UHM 20	UHM 20TX+										
PREMIUM-LINE												
FGQ 020 032 ...	■	□	0.2	30°	3	32	2					
FGQ 025 032 ...	■	□	0.4	30°	4	32	2.5					
FGQ 030 036 ...	■	□	0.5	30°	5	36	3					
FGQ 040 042 ...	■	□	0.6	30°	6	42	4					
FGQ 050 050 ...	■	□	0.8	30°	8	50	5					
FGQ 060 060 ...	■	□	1	30°	10	60	6					
FGQ 080 060 ...	■	□	1.5	30°	12	60	8					
FGQ 100 060 ...	■	□	2	30°	15	60	10					

FGR ...

Order designation	Carbide □ 20		Dimensions									
	○	●	d ₁	α	l ₁	l ₀	d ₀					
	UHM 20	UHM 20TX+										
PREMIUM-LINE												
FGR 020 042 ...	■	□	0.2	30°	4	42	2					
FGR 025 042 ...	■	□	0.4	30°	5	42	2.5					
FGR 030 050 ...	■	□	0.5	30°	6	50	3					
FGR 040 060 ...	■	□	0.6	30°	8	60	4					
FGR 050 075 ...	■	□	0.8	30°	10	75	5					
FGR 060 100 ...	■	□	1	30°	12	100	6					
FGR 080 100 ...	■	□	1.5	30°	16	100	8					
FGR 100 100 ...	■	□	2	30°	20	100	10					