

GUHRING



RF 100

SPEED



- High-performance roughing even at high cutting depths
- Great running smoothness and high metal removal rate
- HPC milling in tough, low- and high-alloyed steels and difficult-to-machine special materials

// Ratio® //

RF 100 Speed

GUHRING - YOUR WORLD-WIDE PARTNER





imachining®

RF 100 Speed in application //

RF 100 Speed 6761 20 mm on machine component

Application:

HPC roughing; dry machining
in 42CrMo4 (1.7225 with 900 N/mm²)
in HPC clamping chuck with PinLock pull-out safety

Cutting parameters:

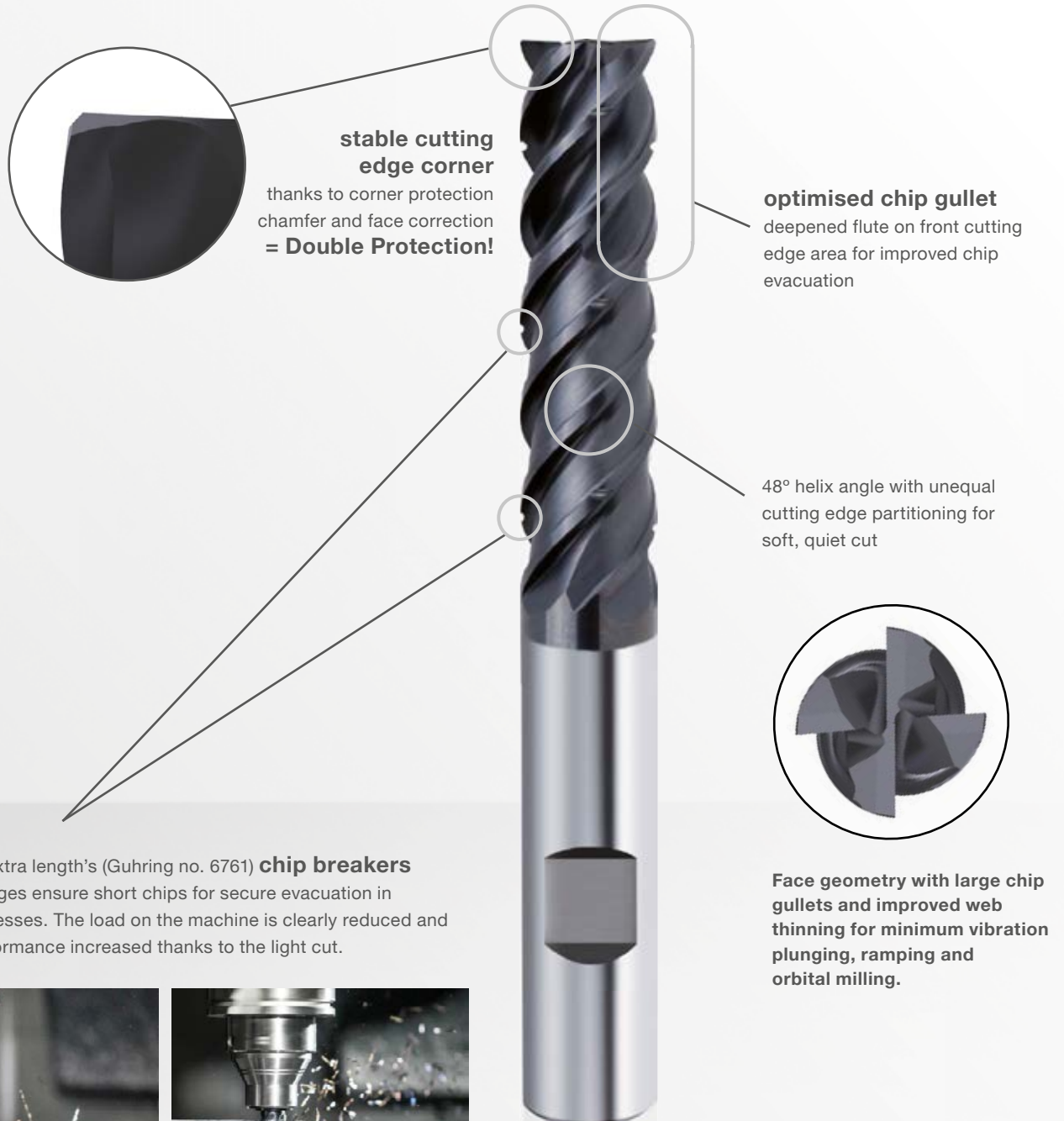
a_p : 60 mm a_e : up to 1 mm
 v_c : 270 m/min S : 4300 min⁻¹
 f_z : to 0,21 mm v_f : up to 3715 mm/min

Metal removal rate Q = 222 cm³/min

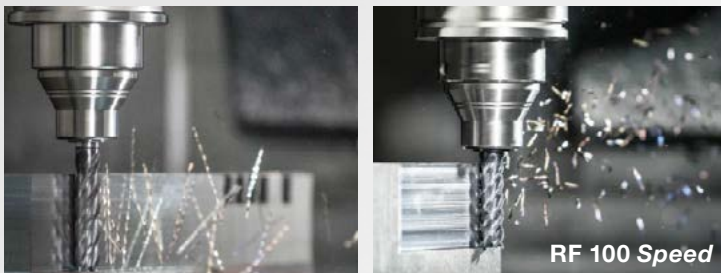
Tool life above 278 min. for roughing operations!

RF 100 Speed

HPC milling in steel and VA

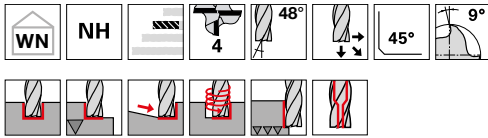


RF 100 Speed extra length's (Guhring no. 6761) **chip breakers** in the cutting edges ensure short chips for secure evacuation in automated processes. The load on the machine is clearly reduced and the volume performance increased thanks to the light cut.



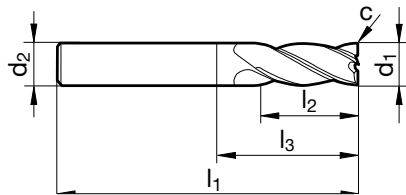
Chip formation with conventional milling tools (left) and with RF 100 Speed.

RF 100 Speed



P	●
M	●
K	●
N	●
S	●
H	●

with centre cutting
core jump from Ø 6 mm



Tool material	Solid Carbide	
Surface	A	
Type	RF 100 Speed	
Shank design	HA	HB
Discount group	106	106



Guhring no. 6765 6760

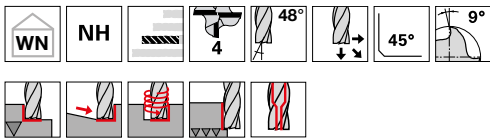
d1 h10	d2 h6	l1	l2	l3	c	z	Code no.	Availability	
mm	mm	mm	mm	mm	mm x 45°			●	●
3,000	6,000	57,00	8,00	21,00	0,045	4	3,000	●	●
4,000	6,000	57,00	11,00	21,00	0,060	4	4,000	●	●
5,000	6,000	57,00	13,00	21,00	0,075	4	5,000	●	●
6,000	6,000	57,00	15,00	21,00	0,090	4	6,000	●	●
8,000	8,000	63,00	20,00	27,00	0,120	4	8,000	●	●
10,000	10,000	72,00	24,00	32,00	0,150	4	10,000	●	●
12,000	12,000	83,00	28,00	38,00	0,180	4	12,000	●	●
16,000	16,000	92,00	36,00	44,00	0,240	4	16,000	●	●
20,000	20,000	104,00	45,00	54,00	0,300	4	20,000	●	●

	Hardness	Cutting depth* ap	Cutting width ae	Cutting speed vc	fz (mm/z) with nom. Ø							
					3	6	8	10	12	16	20	25
P	≤ 850 N/mm²	2 x d	0.3 x d	280	0.015	0.04	0.05	0.06	0.07	0.1	0.12	0.14
	850 - 1400 N/mm²	2 x d	0.25 x d	180	0.015	0.03	0.05	0.06	0.07	0.1	0.1	0.13
M	≤ 750 N/mm²	2 x d	0.2 x d	150	0.015	0.03	0.04	0.05	0.06	0.07	0.09	0.12
	≥ 750 N/mm²	2 x d	0.15 x d	100	0.015	0.03	0.04	0.05	0.06	0.07	0.09	0.12
S	≤ 1300 N/mm²	2 x d	0.15 x d	130	0.016	0.025	0.035	0.05	0.06	0.08	0.1	0.12
	≥ 1300 N/mm²	2 x d	0.1 x d	35	0.01	0.015	0.025	0.035	0.042	0.05	0.08	0.12

"Gührojet" peripheral cooling is recommended for optimal cooling and tool life.
* With slotting up to ap 0.8xd vc and fz are to be reduced by 30%.

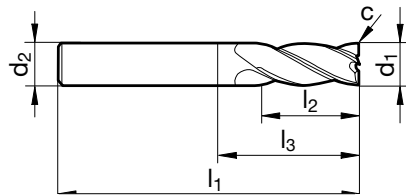


RF 100 Speed



P	•
M	•
K	•
N	•
S	•
H	

with centre cutting
with chip breaker from Ø 5 mm
core jump from Ø 6 mm



Tool material	Solid Carbide	
Surface	A	
Type	RF 100 Speed	
Shank design	HA	HB
Discount group	106	106



Guhring no. **6766** **6761**

d1 h10	d2 h6	l1	l2	l3	c	z	Code no.	Availability
mm	mm	mm	mm	mm	mm x 45°			
3,000	6,000	57,00	12,00	21,00	0,045	4	3,000	• •
4,000	6,000	65,00	16,00	29,00	0,060	4	4,000	• •
5,000	6,000	65,00	20,00	29,00	0,075	4	5,000	• •
6,000	6,000	65,00	24,00	29,00	0,090	4	6,000	• •
8,000	8,000	75,00	32,00	39,00	0,120	4	8,000	• •
10,000	10,000	90,00	40,00	50,00	0,150	4	10,000	• •
12,000	12,000	100,00	46,00	55,00	0,180	4	12,000	• •
16,000	16,000	108,00	55,00	60,00	0,240	4	16,000	• •
20,000	20,000	126,00	65,00	76,00	0,300	4	20,000	• •

	Hardness	Cutting depth a_p	Cutting width a_e	Cutting speed v_c	fz (mm/z) with nom. Ø							
					3	6	8	10	12	16	20	25
P	≤ 850 N/mm ²	3 x d	0.2 x d	280	0.015	0.04	0.05	0.06	0.07	0.1	0.12	0.14
	850 - 1400 N/mm ²	3 x d	0.15 x d	180	0.015	0.03	0.05	0.06	0.07	0.1	0.1	0.13
M	≤ 750 N/mm ²	3 x d	0.15 x d	150	0.015	0.03	0.04	0.05	0.06	0.07	0.09	0.12
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S	≤ 1300 N/mm ²	3 x d	0.1 x d	130	0.016	0.025	0.035	0.05	0.06	0.08	0.1	0.12
	≥ 1300 N/mm ²	3 x d	0.05 x d	35	0.01	0.015	0.025	0.035	0.042	0.05	0.08	0.12

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DRILLING

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REAMING

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