



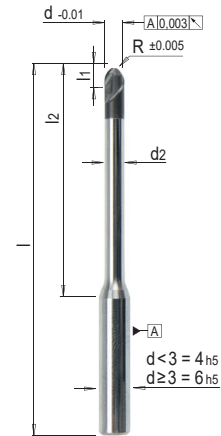
PRODUCT DESCRIPTION

- » High-performance milling cutter for graphite
- » Ultimate precision in the μ range
- » For highly precise contours and perfect concentricity
- » Especially for finish milling with extremely short cutting edges

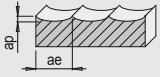
MATERIAL

- » Carbide, diamond coated

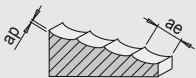
d3	d2	l	l1	R	d	l2	No.	EUR
4	0.25	40	0.2	0.15	0.3	3	WZF 289967/ 0,3/ 3	< >
4	0.35	40	0.3	0.2	0.4	4	WZF 289967/ 0,4/ 4	< >
4	0.45	60	0.35	0.25	0.5	5	WZF 289967/ 0,5/ 5	< >
4	0.55	60	0.4	0.3	0.6	3	WZF 289967/ 0,6/ 3	< >
4	0.55	60	0.4	0.3	0.6	6	WZF 289967/ 0,6/ 6	< >
4	0.75	60	0.5	0.4	0.8	4	WZF 289967/ 0,8/ 4	< >
4	0.75	60	0.5	0.4	0.8	8	WZF 289967/ 0,8/ 8	< >
4	0.95	60	0.8	0.5	1	5	WZF 289967/ 1 / 5	< >
4	0.95	60	0.8	0.5	1	10	WZF 289967/ 1 /10	< >
4	0.95	60	0.8	0.5	1	15	WZF 289967/ 1 /15	< >
4	0.95	60	0.8	0.5	1	20	WZF 289967/ 1 /20	< >
4	1.4	60	1.05	0.75	1.5	10	WZF 289967/ 1,5/10	< >
4	1.4	60	1.05	0.75	1.5	15	WZF 289967/ 1,5/15	< >
4	1.9	60	1.3	1	2	12	WZF 289967/ 2 /12	< >
4	1.9	60	1.3	1	2	18	WZF 289967/ 2 /18	< >
4	1.9	60	1.3	1	2	20	WZF 289967/ 2 /20	< >
4	1.9	60	1.3	1	2	24	WZF 289967/ 2 /24	< >
6	2.8	60	1.8	1.5	3	18	WZF 289967/ 3 /18	< >
6	2.8	60	1.8	1.5	3	24	WZF 289967/ 3 /24	< >
6	2.8	70	1.8	1.5	3	30	WZF 289967/ 3 /30	< >
6	3.8	60	2.5	2	4	30	WZF 289967/ 4 /30	< >
6	3.8	70	2.5	2	4	40	WZF 289967/ 4 /40	< >
6	5.8	80	3.5	3	6	45	WZF 289967/ 6 /45	< >



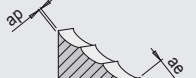
REFERENCE VALUES FOR ROUGHING

WZF 289967	Material	Grit size	Vc ¹ m/min.	d											
				0.3	0.4	0.5	0.6	0.8	1	1.5	2	3	4	6	
				fz ² (mm/z)											
	Graphite	1 - 4 μ	200	0.003	0.004	0.005	0.006	0.008	0.010	0.015	0.020	0.030	0.040	0.060	
	Graphite	5 - 8 μ	250	0.004	0.005	0.006	0.007	0.010	0.012	0.018	0.024	0.036	0.048	0.072	
	Graphite	9 - 12 μ	300	0.004	0.006	0.007	0.008	0.011	0.014	0.021	0.028	0.042	0.056	0.084	
	Graphite	13 - 25 μ	350	0.005	0.006	0.008	0.010	0.013	0.016	0.024	0.032	0.048	0.064	0.096	
ap (mm)				R+0.05	R+0.1	R+0.1	R+0.1	R+0.1	R+0.3	R+0.3	R+0.3	R+0.3	R+0.5	R+0.5	
ae (mm)				0.09	0.12	0.15	0.18	0.24	0.30	0.45	0.60	0.90	1.20	1.80	

REFERENCE VALUES FOR FINISH MILLING

WZF 289967	Material	Grit size	Vc ¹ m/min.	d											
				0.3	0.4	0.5	0.6	0.8	1	1.5	2	3	4	6	
				fz ² (mm/z)											
 0 - 28 degrees flat	Graphite	1 - 4 μ	250	0.003	0.004	0.005	0.005	0.007	0.009	0.014	0.018	0.027	0.036	0.054	
	Graphite	5 - 8 μ	300	0.003	0.004	0.006	0.007	0.009	0.011	0.017	0.022	0.033	0.044	0.066	
	Graphite	9 - 12 μ	350	0.004	0.005	0.006	0.008	0.010	0.013	0.019	0.025	0.038	0.050	0.075	
	Graphite	13 - 25 μ	400	0.004	0.006	0.007	0.008	0.011	0.014	0.021	0.028	0.042	0.056	0.084	
ap (mm)				R+0.05	R+0.1	R+0.1	R+0.1	R+0.1	R+0.3	R+0.3	R+0.3	R+0.3	R+0.5	R+0.5	
ae (mm)				0.015	0.02	0.025	0.03	0.04	0.05	0.075	0.10	0.15	0.20	0.30	

REFERENCE VALUES FOR FINISH MILLING

WZF 289967	Material	Grit size	Vc ¹ m/min.	d											
				0.3	0.4	0.5	0.6	0.8	1	1.5	2	3	4	6	
				fz ² (mm/z)											
 29 - 89 degrees steep	Graphite	1 - 4 μ	250	0.003	0.004	0.005	0.005	0.007	0.009	0.014	0.018	0.027	0.036	0.054	
	Graphite	5 - 8 μ	300	0.003	0.004	0.006	0.007	0.009	0.011	0.017	0.022	0.033	0.044	0.066	
	Graphite	9 - 12 μ	350	0.004	0.005	0.006	0.008	0.010	0.013	0.019	0.025	0.038	0.050	0.075	
	Graphite	13 - 25 μ	400	0.004	0.006	0.007	0.008	0.011	0.014	0.021	0.028	0.042	0.056	0.084	
ap (mm)				R+0.05	R+0.1	R+0.1	R+0.1	R+0.1	R+0.3	R+0.3	R+0.3	R+0.3	R+0.5	R+0.5	
ae (mm)				0.18	0.24	0.30	0.36	0.48	0.60	0.90	1.20	1.80	2.40	3.60	

1) Vc: cutting speed (m/min.)

2) fz: feed per cut (mm per tooth)

i You can find further materials and cutting values in the cutting data calculator.

CORRECTION FACTORS

For two-edged milling cutters with a neck length of up to 6xD, you can work with an infeed (ap) that equals 100% of the diameter.

ø / L	max. ap	fz
<10	ap x 0.8	fz x 0.8
<15	ap x 0.5	fz x 0.5
>15	ap x 0.2	fz x 0.2