

PRODUCT DESCRIPTION

- » High-performance milling cutter with non-uniform pitch and centre cut
- » Relieved behind the cutting edge

MATERIAL

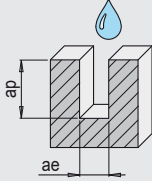
- » Carbide, nano TiAlN coated



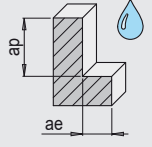
| d2 | l | l1 | l2 | d | R | No. | EUR |
|------|----|----|----|----|-----|-------------------|-----|
| 5.5 | 57 | 13 | 20 | 6 | 0.5 | WZF 122481/ 6/0,5 | <> |
| 5.5 | 57 | 13 | 20 | 6 | 0.8 | WZF 122481/ 6/0,8 | <> |
| 5.5 | 57 | 13 | 20 | 6 | 1 | WZF 122481/ 6/1 | <> |
| 5.5 | 57 | 13 | 20 | 6 | 2 | WZF 122481/ 6/2 | <> |
| 7.5 | 63 | 19 | 26 | 8 | 0.5 | WZF 122481/ 8/0,5 | <> |
| 7.5 | 63 | 19 | 26 | 8 | 1 | WZF 122481/ 8/1 | <> |
| 7.5 | 63 | 19 | 26 | 8 | 2 | WZF 122481/ 8/2 | <> |
| 9.2 | 72 | 22 | 30 | 10 | 0.5 | WZF 122481/10/0,5 | <> |
| 9.2 | 72 | 22 | 30 | 10 | 0.8 | WZF 122481/10/0,8 | <> |
| 9.2 | 72 | 22 | 30 | 10 | 1 | WZF 122481/10/1 | <> |
| 9.2 | 72 | 22 | 30 | 10 | 1.5 | WZF 122481/10/1,5 | <> |
| 9.2 | 72 | 22 | 30 | 10 | 2 | WZF 122481/10/2 | <> |
| 11.2 | 83 | 26 | 36 | 12 | 0.5 | WZF 122481/12/0,5 | <> |
| 11.2 | 83 | 26 | 36 | 12 | 1 | WZF 122481/12/1 | <> |
| 11.2 | 83 | 26 | 36 | 12 | 2 | WZF 122481/12/2 | <> |

| d2 | l | l1 | l2 | d | R | No. | EUR |
|------|-----|----|----|----|-----|-------------------|-----|
| 11.2 | 83 | 26 | 36 | 12 | 2.5 | WZF 122481/12/2,5 | <> |
| 11.2 | 83 | 26 | 36 | 12 | 3 | WZF 122481/12/3 | <> |
| 11.2 | 83 | 26 | 36 | 12 | 4 | WZF 122481/12/4 | <> |
| 15 | 92 | 32 | 42 | 16 | 0.5 | WZF 122481/16/0,5 | <> |
| 15 | 92 | 32 | 42 | 16 | 0.8 | WZF 122481/16/0,8 | <> |
| 15 | 92 | 32 | 42 | 16 | 1 | WZF 122481/16/1 | <> |
| 15 | 92 | 32 | 42 | 16 | 2 | WZF 122481/16/2 | <> |
| 15 | 92 | 32 | 42 | 16 | 3 | WZF 122481/16/3 | <> |
| 15 | 92 | 32 | 42 | 16 | 4 | WZF 122481/16/4 | <> |
| 19 | 104 | 38 | 52 | 20 | 0.5 | WZF 122481/20/0,5 | <> |
| 19 | 104 | 38 | 52 | 20 | 1 | WZF 122481/20/1 | <> |
| 19 | 104 | 38 | 52 | 20 | 2 | WZF 122481/20/2 | <> |
| 19 | 104 | 38 | 52 | 20 | 2.5 | WZF 122481/20/2,5 | <> |
| 19 | 104 | 38 | 52 | 20 | 4 | WZF 122481/20/4 | <> |

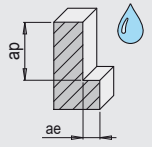
REFERENCE VALUES FOR SLOTTING

| WZF 122481 | Material | Strength | Vc ¹ m/min. | d | | | | | | |
|--|----------|------------------------|---------------------------|------------------------|-------|-------|-------|-------|-------|-------|
| | | | | 6 | 8 | 10 | 12 | 16 | 20 | 25 |
| | | | | fz ² (mm/z) | | | | | | |
|  <p>ap = 1 x d ae = 1 x d</p> | 1.1730 | 640 N/mm ² | 180 | 0.037 | 0.050 | 0.062 | 0.075 | 0.100 | 0.125 | 0.150 |
| | 1.2083 | 780 N/mm ² | 135 | 0.030 | 0.040 | 0.050 | 0.060 | 0.080 | 0.100 | 0.120 |
| | 1.2085 | 1080 N/mm ² | 135 | 0.030 | 0.040 | 0.050 | 0.060 | 0.080 | 0.100 | 0.120 |
| | 1.2162 | 660 N/mm ² | 160 | 0.037 | 0.050 | 0.062 | 0.075 | 0.100 | 0.125 | 0.125 |
| | 1.2311 | 1080 N/mm ² | 150 | 0.033 | 0.044 | 0.055 | 0.066 | 0.088 | 0.110 | 0.140 |
| | 1.2312 | 1080 N/mm ² | 160 | 0.033 | 0.044 | 0.055 | 0.066 | 0.088 | 0.110 | 0.140 |
| | 1.2316 | 1010 N/mm ² | 135 | 0.030 | 0.040 | 0.050 | 0.060 | 0.080 | 0.100 | 0.120 |
| | 1.2343 | 780 N/mm ² | 160 | 0.037 | 0.050 | 0.062 | 0.075 | 0.100 | 0.125 | 0.145 |
| | 1.2379 | 780 N/mm ² | 135 | 0.030 | 0.040 | 0.050 | 0.060 | 0.080 | 0.100 | 0.120 |
| | 1.2714HH | 1350 N/mm ² | 100 | 0.030 | 0.040 | 0.050 | 0.060 | 0.080 | 0.100 | 0.120 |
| | 1.2767 | 830 N/mm ² | 160 | 0.033 | 0.044 | 0.055 | 0.066 | 0.088 | 0.110 | 0.140 |
| | 1.2842 | 775 N/mm ² | 160 | 0.033 | 0.044 | 0.055 | 0.066 | 0.088 | 0.110 | 0.140 |
| | Steel | 1400 N/mm ² | 70 | 0.030 | 0.040 | 0.050 | 0.060 | 0.080 | 0.100 | 0.120 |

REFERENCE VALUES FOR ROUGHING

| WZF 122481 | Material | Strength | Vc ¹ m/min. | d | | | | | | |
|---|----------|------------------------|---------------------------|------------------------|-------|-------|-------|-------|-------|-------|
| | | | | 6 | 8 | 10 | 12 | 16 | 20 | 25 |
| | | | | fz ² (mm/z) | | | | | | |
|  <p>ae = 0.5 x d ap = 1 x d</p> | 1.1730 | 640 N/mm ² | 220 | 0.044 | 0.061 | 0.077 | 0.094 | 0.110 | 0.132 | 0.187 |
| | 1.2083 | 780 N/mm ² | 145 | 0.030 | 0.041 | 0.053 | 0.064 | 0.075 | 0.090 | 0.128 |
| | 1.2085 | 1080 N/mm ² | 145 | 0.030 | 0.041 | 0.053 | 0.064 | 0.075 | 0.090 | 0.128 |
| | 1.2162 | 660 N/mm ² | 220 | 0.040 | 0.055 | 0.070 | 0.085 | 0.100 | 0.120 | 0.170 |
| | 1.2311 | 1080 N/mm ² | 160 | 0.032 | 0.044 | 0.056 | 0.068 | 0.080 | 0.096 | 0.136 |
| | 1.2312 | 1080 N/mm ² | 165 | 0.030 | 0.041 | 0.053 | 0.064 | 0.075 | 0.090 | 0.128 |
| | 1.2316 | 1010 N/mm ² | 145 | 0.030 | 0.041 | 0.053 | 0.064 | 0.075 | 0.090 | 0.128 |
| | 1.2343 | 780 N/mm ² | 175 | 0.040 | 0.055 | 0.070 | 0.085 | 0.100 | 0.120 | 0.170 |
| | 1.2379 | 780 N/mm ² | 145 | 0.030 | 0.041 | 0.053 | 0.064 | 0.075 | 0.090 | 0.128 |
| | 1.2714HH | 1350 N/mm ² | 125 | 0.030 | 0.041 | 0.053 | 0.064 | 0.075 | 0.090 | 0.128 |
| | 1.2767 | 830 N/mm ² | 165 | 0.038 | 0.052 | 0.067 | 0.081 | 0.095 | 0.114 | 0.162 |
| | 1.2842 | 775 N/mm ² | 165 | 0.040 | 0.055 | 0.070 | 0.085 | 0.100 | 0.120 | 0.170 |
| | Steel | 1400 N/mm ² | 110 | 0.022 | 0.030 | 0.039 | 0.047 | 0.055 | 0.066 | 0.094 |

REFERENCE VALUES FOR FINISH MILLING

| WZF 122481 | Material | Strength | Vc ¹ m/min. | d | | | | | | |
|--|----------|------------------------|---------------------------|------------------------|-------|-------|-------|-------|-------|-------|
| | | | | 6 | 8 | 10 | 12 | 16 | 20 | 25 |
| | | | | fz ² (mm/z) | | | | | | |
|  <p>ae = 0.1 x d ap = 1.5 x d</p> | 1.1730 | 640 N/mm ² | 300 | 0.033 | 0.044 | 0.061 | 0.072 | 0.088 | 0.105 | 0.154 |
| | 1.2083 | 780 N/mm ² | 175 | 0.023 | 0.030 | 0.041 | 0.049 | 0.060 | 0.071 | 0.105 |
| | 1.2085 | 1080 N/mm ² | 175 | 0.023 | 0.030 | 0.041 | 0.049 | 0.060 | 0.071 | 0.105 |
| | 1.2162 | 660 N/mm ² | 300 | 0.030 | 0.040 | 0.055 | 0.065 | 0.080 | 0.095 | 0.140 |
| | 1.2311 | 1080 N/mm ² | 220 | 0.024 | 0.032 | 0.044 | 0.052 | 0.064 | 0.076 | 0.112 |
| | 1.2312 | 1080 N/mm ² | 225 | 0.023 | 0.030 | 0.041 | 0.049 | 0.060 | 0.071 | 0.105 |
| | 1.2316 | 1010 N/mm ² | 175 | 0.023 | 0.030 | 0.041 | 0.049 | 0.060 | 0.071 | 0.105 |
| | 1.2343 | 780 N/mm ² | 240 | 0.030 | 0.040 | 0.055 | 0.065 | 0.080 | 0.095 | 0.140 |
| | 1.2379 | 780 N/mm ² | 175 | 0.023 | 0.030 | 0.041 | 0.049 | 0.060 | 0.071 | 0.105 |
| | 1.2714HH | 1350 N/mm ² | 160 | 0.023 | 0.030 | 0.041 | 0.049 | 0.060 | 0.071 | 0.105 |
| | 1.2767 | 830 N/mm ² | 225 | 0.029 | 0.038 | 0.052 | 0.062 | 0.076 | 0.090 | 0.133 |
| | 1.2842 | 775 N/mm ² | 225 | 0.030 | 0.040 | 0.055 | 0.065 | 0.080 | 0.095 | 0.140 |
| | Steel | 1400 N/mm ² | 140 | 0.018 | 0.024 | 0.033 | 0.039 | 0.048 | 0.057 | 0.084 |

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.