

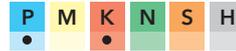


### PRODUCT DESCRIPTION

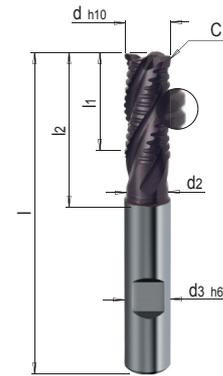
- » Relieved behind the cutting edge
- » High-performance milling cutter with non-uniform pitch and centre cut

### MATERIAL

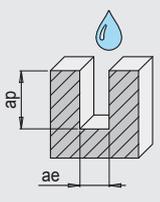
- » Carbide, TiAlN multi-layer coated



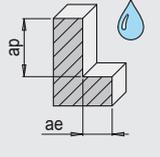
| Z | d2   | d3 | l   | l1 | l2 | C   | d  | No.          | EUR |
|---|------|----|-----|----|----|-----|----|--------------|-----|
| 4 | 5.5  | 6  | 57  | 13 | 20 | 0.3 | 6  | WZF 11248/ 6 | < > |
| 4 | 7.5  | 8  | 63  | 19 | 26 | 0.3 | 8  | WZF 11248/ 8 | < > |
| 4 | 9.2  | 10 | 72  | 22 | 30 | 0.3 | 10 | WZF 11248/10 | < > |
| 4 | 11.2 | 12 | 83  | 26 | 36 | 0.5 | 12 | WZF 11248/12 | < > |
| 4 | 15   | 16 | 92  | 32 | 42 | 0.5 | 16 | WZF 11248/16 | < > |
| 4 | 19   | 20 | 104 | 38 | 52 | 0.5 | 20 | WZF 11248/20 | < > |
| 4 | 24   | 25 | 121 | 45 | 63 | 0.6 | 25 | WZF 11248/25 | < > |



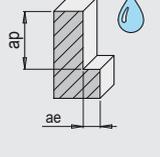
## REFERENCE VALUES FOR SLOTTING

| WZF 11248                                                                                                          | Material | Strength               | Vc <sup>1</sup><br>m/min. | d                      |       |       |       |       |       |       |
|--------------------------------------------------------------------------------------------------------------------|----------|------------------------|---------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                                                                                                                    |          |                        |                           | 6                      | 8     | 10    | 12    | 16    | 20    | 25    |
|                                                                                                                    |          |                        |                           | fz <sup>2</sup> (mm/z) |       |       |       |       |       |       |
|  <p>ae = 1 x d<br/>ap = 1 x d</p> | 1.1730   | 640 N/mm <sup>2</sup>  | 180                       | 0.020                  | 0.027 | 0.034 | 0.042 | 0.049 | 0.059 | 0.084 |
|                                                                                                                    | 1.2083   | 780 N/mm <sup>2</sup>  | 135                       | 0.010                  | 0.013 | 0.017 | 0.020 | 0.025 | 0.028 | 0.042 |
|                                                                                                                    | 1.2085   | 1080 N/mm <sup>2</sup> | 135                       | 0.010                  | 0.013 | 0.017 | 0.020 | 0.025 | 0.028 | 0.042 |
|                                                                                                                    | 1.2162   | 660 N/mm <sup>2</sup>  | 160                       | 0.018                  | 0.025 | 0.031 | 0.038 | 0.045 | 0.054 | 0.076 |
|                                                                                                                    | 1.2311   | 1080 N/mm <sup>2</sup> | 150                       | 0.014                  | 0.020 | 0.025 | 0.030 | 0.036 | 0.043 | 0.061 |
|                                                                                                                    | 1.2312   | 1080 N/mm <sup>2</sup> | 160                       | 0.013                  | 0.018 | 0.024 | 0.029 | 0.034 | 0.040 | 0.057 |
|                                                                                                                    | 1.2316   | 1010 N/mm <sup>2</sup> | 135                       | 0.010                  | 0.013 | 0.017 | 0.020 | 0.025 | 0.028 | 0.042 |
|                                                                                                                    | 1.2343   | 780 N/mm <sup>2</sup>  | 160                       | 0.018                  | 0.025 | 0.031 | 0.038 | 0.045 | 0.054 | 0.076 |
|                                                                                                                    | 1.2379   | 780 N/mm <sup>2</sup>  | 135                       | 0.010                  | 0.013 | 0.017 | 0.020 | 0.025 | 0.028 | 0.042 |
|                                                                                                                    | 1.2714HH | 1350 N/mm <sup>2</sup> | 80                        | 0.010                  | 0.013 | 0.017 | 0.020 | 0.025 | 0.028 | 0.042 |
|                                                                                                                    | 1.2767   | 830 N/mm <sup>2</sup>  | 160                       | 0.017                  | 0.023 | 0.030 | 0.036 | 0.043 | 0.051 | 0.072 |
|                                                                                                                    | 1.2842   | 775 N/mm <sup>2</sup>  | 160                       | 0.018                  | 0.025 | 0.031 | 0.038 | 0.045 | 0.054 | 0.076 |
|                                                                                                                    | Steel    | 1400 N/mm <sup>2</sup> | 70                        | 0.010                  | 0.013 | 0.017 | 0.020 | 0.025 | 0.028 | 0.042 |

## REFERENCE VALUES FOR ROUGHING

| WZF 11248<br>WZF 11258                                                                                                | Material | Strength               | Vc <sup>1</sup><br>m/min. | d                      |       |       |       |       |       |       |
|-----------------------------------------------------------------------------------------------------------------------|----------|------------------------|---------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                                                                                                                       |          |                        |                           | 6                      | 8     | 10    | 12    | 16    | 20    | 25    |
|                                                                                                                       |          |                        |                           | fz <sup>2</sup> (mm/z) |       |       |       |       |       |       |
|  <p>ae = 0.5 x d<br/>ap = 2 x d</p> | 1.1730   | 640 N/mm <sup>2</sup>  | 130                       | 0.022                  | 0.028 | 0.037 | 0.043 | 0.055 | 0.062 | 0.074 |
|                                                                                                                       | 1.2083   | 780 N/mm <sup>2</sup>  | 90                        | 0.010                  | 0.014 | 0.017 | 0.021 | 0.025 | 0.030 | 0.036 |
|                                                                                                                       | 1.2085   | 1080 N/mm <sup>2</sup> | 90                        | 0.010                  | 0.014 | 0.017 | 0.021 | 0.025 | 0.030 | 0.036 |
|                                                                                                                       | 1.2162   | 660 N/mm <sup>2</sup>  | 110                       | 0.020                  | 0.025 | 0.034 | 0.039 | 0.050 | 0.056 | 0.067 |
|                                                                                                                       | 1.2311   | 1080 N/mm <sup>2</sup> | 110                       | 0.016                  | 0.020 | 0.027 | 0.031 | 0.040 | 0.045 | 0.054 |
|                                                                                                                       | 1.2312   | 1080 N/mm <sup>2</sup> | 110                       | 0.015                  | 0.019 | 0.025 | 0.029 | 0.038 | 0.042 | 0.050 |
|                                                                                                                       | 1.2316   | 1010 N/mm <sup>2</sup> | 90                        | 0.010                  | 0.014 | 0.017 | 0.021 | 0.025 | 0.030 | 0.036 |
|                                                                                                                       | 1.2343   | 780 N/mm <sup>2</sup>  | 110                       | 0.020                  | 0.025 | 0.034 | 0.039 | 0.050 | 0.056 | 0.067 |
|                                                                                                                       | 1.2379   | 780 N/mm <sup>2</sup>  | 90                        | 0.010                  | 0.014 | 0.017 | 0.021 | 0.025 | 0.030 | 0.036 |
|                                                                                                                       | 1.2714HH | 1350 N/mm <sup>2</sup> | 60                        | 0.010                  | 0.014 | 0.017 | 0.021 | 0.025 | 0.030 | 0.036 |
|                                                                                                                       | 1.2767   | 830 N/mm <sup>2</sup>  | 110                       | 0.019                  | 0.024 | 0.032 | 0.037 | 0.048 | 0.053 | 0.064 |
|                                                                                                                       | 1.2842   | 775 N/mm <sup>2</sup>  | 110                       | 0.020                  | 0.025 | 0.034 | 0.039 | 0.050 | 0.056 | 0.067 |
|                                                                                                                       | Steel    | 1400 N/mm <sup>2</sup> | 60                        | 0.010                  | 0.014 | 0.017 | 0.021 | 0.025 | 0.030 | 0.036 |

## REFERENCE VALUES FOR ROUGHING

| WZF 11248<br>WZF 11258                                                                                                  | Material | Strength               | Vc <sup>1</sup><br>m/min. | d                      |       |       |       |       |       |       |
|-------------------------------------------------------------------------------------------------------------------------|----------|------------------------|---------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                                                                                                                         |          |                        |                           | 6                      | 8     | 10    | 12    | 16    | 20    | 25    |
|                                                                                                                         |          |                        |                           | fz <sup>2</sup> (mm/z) |       |       |       |       |       |       |
|  <p>ae = 0.25 x d<br/>ap = 2 x d</p> | 1.1730   | 640 N/mm <sup>2</sup>  | 140                       | 0.025                  | 0.034 | 0.043 | 0.052 | 0.062 | 0.074 | 0.089 |
|                                                                                                                         | 1.2083   | 780 N/mm <sup>2</sup>  | 100                       | 0.012                  | 0.017 | 0.022 | 0.026 | 0.031 | 0.037 | 0.044 |
|                                                                                                                         | 1.2085   | 1080 N/mm <sup>2</sup> | 100                       | 0.012                  | 0.017 | 0.022 | 0.026 | 0.031 | 0.037 | 0.044 |
|                                                                                                                         | 1.2162   | 660 N/mm <sup>2</sup>  | 120                       | 0.022                  | 0.031 | 0.039 | 0.048 | 0.056 | 0.067 | 0.080 |
|                                                                                                                         | 1.2311   | 1080 N/mm <sup>2</sup> | 120                       | 0.018                  | 0.025 | 0.031 | 0.038 | 0.045 | 0.054 | 0.065 |
|                                                                                                                         | 1.2312   | 1080 N/mm <sup>2</sup> | 120                       | 0.017                  | 0.023 | 0.029 | 0.036 | 0.042 | 0.050 | 0.060 |
|                                                                                                                         | 1.2316   | 1010 N/mm <sup>2</sup> | 100                       | 0.012                  | 0.017 | 0.022 | 0.026 | 0.031 | 0.037 | 0.044 |
|                                                                                                                         | 1.2343   | 780 N/mm <sup>2</sup>  | 120                       | 0.022                  | 0.031 | 0.039 | 0.048 | 0.056 | 0.067 | 0.080 |
|                                                                                                                         | 1.2379   | 780 N/mm <sup>2</sup>  | 100                       | 0.012                  | 0.017 | 0.022 | 0.026 | 0.031 | 0.037 | 0.044 |
|                                                                                                                         | 1.2714HH | 1350 N/mm <sup>2</sup> | 80                        | 0.012                  | 0.017 | 0.022 | 0.026 | 0.031 | 0.037 | 0.044 |
|                                                                                                                         | 1.2767   | 830 N/mm <sup>2</sup>  | 120                       | 0.021                  | 0.029 | 0.037 | 0.045 | 0.053 | 0.064 | 0.077 |
|                                                                                                                         | 1.2842   | 775 N/mm <sup>2</sup>  | 120                       | 0.022                  | 0.031 | 0.039 | 0.048 | 0.056 | 0.067 | 0.080 |
|                                                                                                                         | Steel    | 1400 N/mm <sup>2</sup> | 80                        | 0.012                  | 0.017 | 0.022 | 0.026 | 0.031 | 0.037 | 0.044 |

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.