



### PRODUKTBESCHREIBUNG

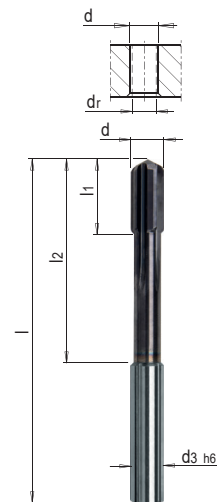
- » Werkzeugtoleranz 0/+0,005
- » Für weiche und gehärtete Stähle bis 65 HRC
- » Höchste Performance und Prozesssicherheit

### MATERIAL

- » VHM, TiAlN Multilayer-beschichtet



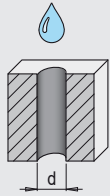
| Z | d3 | l   | l1 | l2 | Anschnitt | dr <sup>1)</sup> | d            | Nr.              | EUR |
|---|----|-----|----|----|-----------|------------------|--------------|------------------|-----|
| 4 | 4  | 50  | 8  | 22 | 0,5       | 1,9              | <b>1,98</b>  | WZR 102522/ 1,98 | < > |
| 4 | 4  | 50  | 8  | 22 | 0,5       | 1,9              | <b>1,99</b>  | WZR 102522/ 1,99 | < > |
| 4 | 4  | 50  | 8  | 22 | 0,5       | 1,9              | <b>2</b>     | WZR 102522/ 2,00 | < > |
| 4 | 4  | 50  | 8  | 22 | 0,5       | 1,9              | <b>2,01</b>  | WZR 102522/ 2,01 | < > |
| 4 | 4  | 50  | 8  | 22 | 0,5       | 1,9              | <b>2,02</b>  | WZR 102522/ 2,02 | < > |
| 4 | 4  | 68  | 12 | 40 | 0,7       | 2,9              | <b>2,98</b>  | WZR 102522/ 2,98 | < > |
| 4 | 4  | 68  | 12 | 40 | 0,7       | 2,9              | <b>2,99</b>  | WZR 102522/ 2,99 | < > |
| 4 | 4  | 68  | 12 | 40 | 0,7       | 2,9              | <b>3</b>     | WZR 102522/ 3,00 | < > |
| 4 | 4  | 68  | 12 | 40 | 0,7       | 2,9              | <b>3,01</b>  | WZR 102522/ 3,01 | < > |
| 4 | 4  | 68  | 12 | 40 | 0,7       | 2,9              | <b>3,02</b>  | WZR 102522/ 3,02 | < > |
| 4 | 4  | 68  | 12 | 40 | 1,0       | 3,9              | <b>3,98</b>  | WZR 102522/ 3,98 | < > |
| 4 | 4  | 68  | 12 | 40 | 1,0       | 3,9              | <b>3,99</b>  | WZR 102522/ 3,99 | < > |
| 4 | 4  | 68  | 12 | 40 | 1,0       | 3,9              | <b>4</b>     | WZR 102522/ 4,00 | < > |
| 4 | 4  | 68  | 12 | 40 | 1,0       | 3,9              | <b>4,01</b>  | WZR 102522/ 4,01 | < > |
| 4 | 4  | 68  | 12 | 40 | 1,0       | 3,9              | <b>4,02</b>  | WZR 102522/ 4,02 | < > |
| 4 | 6  | 76  | 12 | 40 | 1,0       | 4,9              | <b>4,98</b>  | WZR 102522/ 4,98 | < > |
| 4 | 6  | 76  | 12 | 40 | 1,0       | 4,9              | <b>4,99</b>  | WZR 102522/ 4,99 | < > |
| 4 | 6  | 76  | 12 | 40 | 1,0       | 4,9              | <b>5</b>     | WZR 102522/ 5,00 | < > |
| 4 | 6  | 76  | 12 | 40 | 1,0       | 4,9              | <b>5,01</b>  | WZR 102522/ 5,01 | < > |
| 4 | 6  | 76  | 12 | 40 | 1,0       | 4,9              | <b>5,02</b>  | WZR 102522/ 5,02 | < > |
| 4 | 6  | 76  | 12 | 40 | 1,0       | 5,8              | <b>5,98</b>  | WZR 102522/ 5,98 | < > |
| 4 | 6  | 76  | 12 | 40 | 1,0       | 5,8              | <b>5,99</b>  | WZR 102522/ 5,99 | < > |
| 4 | 6  | 76  | 12 | 40 | 1,0       | 5,8              | <b>6</b>     | WZR 102522/ 6,00 | < > |
| 4 | 6  | 76  | 12 | 40 | 1,0       | 5,8              | <b>6,01</b>  | WZR 102522/ 6,01 | < > |
| 4 | 6  | 76  | 12 | 40 | 1,0       | 5,8              | <b>6,02</b>  | WZR 102522/ 6,02 | < > |
| 6 | 8  | 101 | 16 | 65 | 1,4       | 7,8              | <b>7,98</b>  | WZR 102522/ 7,98 | < > |
| 6 | 8  | 101 | 16 | 65 | 1,4       | 7,8              | <b>7,99</b>  | WZR 102522/ 7,99 | < > |
| 6 | 8  | 101 | 16 | 65 | 1,4       | 7,8              | <b>8</b>     | WZR 102522/ 8,00 | < > |
| 6 | 8  | 101 | 16 | 65 | 1,4       | 7,8              | <b>8,01</b>  | WZR 102522/ 8,01 | < > |
| 6 | 8  | 101 | 16 | 65 | 1,4       | 7,8              | <b>8,02</b>  | WZR 102522/ 8,02 | < > |
| 6 | 10 | 101 | 19 | 61 | 1,4       | 9,8              | <b>9,98</b>  | WZR 102522/ 9,98 | < > |
| 6 | 10 | 101 | 19 | 61 | 1,4       | 9,8              | <b>9,99</b>  | WZR 102522/ 9,99 | < > |
| 6 | 10 | 101 | 19 | 61 | 1,4       | 9,8              | <b>10</b>    | WZR 102522/10,00 | < > |
| 6 | 10 | 101 | 19 | 61 | 1,4       | 9,8              | <b>10,01</b> | WZR 102522/10,01 | < > |
| 6 | 10 | 101 | 19 | 61 | 1,4       | 9,8              | <b>10,02</b> | WZR 102522/10,02 | < > |
| 6 | 12 | 130 | 19 | 85 | 1,8       | 11,8             | <b>11,98</b> | WZR 102522/11,98 | < > |
| 6 | 12 | 130 | 19 | 85 | 1,8       | 11,8             | <b>11,99</b> | WZR 102522/11,99 | < > |
| 6 | 12 | 130 | 19 | 85 | 1,8       | 11,8             | <b>12</b>    | WZR 102522/12,00 | < > |
| 6 | 12 | 130 | 19 | 85 | 1,8       | 11,8             | <b>12,01</b> | WZR 102522/12,01 | < > |
| 6 | 12 | 130 | 19 | 85 | 1,8       | 11,8             | <b>12,02</b> | WZR 102522/12,02 | < > |



1) dr: vorbohren

## RICHTWERTE REIBEN

**WZR 102520**  
**WZR 102522**



| Werkstoff | Festigkeit             | Vc <sup>1</sup><br>m/min. | d                     |      |      |      |      |      |      |      |
|-----------|------------------------|---------------------------|-----------------------|------|------|------|------|------|------|------|
|           |                        |                           | 2                     | 3    | 4    | 5    | 6    | 8    | 10   | 12   |
|           |                        |                           | f <sup>2</sup> (mm/u) |      |      |      |      |      |      |      |
| 1.1730    | 640 N/mm <sup>2</sup>  | 200                       | 0.55                  | 0.6  | 0.7  | 0.8  | 1    | 1.3  | 1.5  | 1.7  |
| 1.2083    | 780 N/mm <sup>2</sup>  | 180                       | 0.55                  | 0.6  | 0.7  | 0.8  | 1    | 1.3  | 1.5  | 1.7  |
| 1.2083    | 52 HRC                 | 50                        | 0.18                  | 0.2  | 0.24 | 0.3  | 0.35 | 0.45 | 0.55 | 0.65 |
| 1.2085    | 1080 N/mm <sup>2</sup> | 80                        | 0.3                   | 0.35 | 0.4  | 0.5  | 0.6  | 0.8  | 1    | 1    |
| 1.2162    | 660 N/mm <sup>2</sup>  | 200                       | 0.5                   | 0.6  | 0.7  | 0.8  | 1    | 1.3  | 1.5  | 1.7  |
| 1.2162    | 52 HRC                 | 50                        | 0.18                  | 0.2  | 0.24 | 0.3  | 0.35 | 0.45 | 0.55 | 0.65 |
| 1.2311    | 1080 N/mm <sup>2</sup> | 160                       | 0.3                   | 0.35 | 0.4  | 0.5  | 0.6  | 0.8  | 0.9  | 1    |
| 1.2312    | 1080 N/mm <sup>2</sup> | 160                       | 0.3                   | 0.35 | 0.4  | 0.5  | 0.6  | 0.8  | 0.9  | 1    |
| 1.2316    | 1010 N/mm <sup>2</sup> | 160                       | 0.3                   | 0.35 | 0.4  | 0.5  | 0.6  | 0.8  | 0.9  | 1    |
| 1.2343    | 780 N/mm <sup>2</sup>  | 130                       | 0.3                   | 0.35 | 0.4  | 0.5  | 0.6  | 0.8  | 0.9  | 1    |
| 1.2343    | 52 HRC                 | 45                        | 0.18                  | 0.2  | 0.24 | 0.3  | 0.35 | 0.45 | 0.55 | 0.65 |
| 1.2379    | 780 N/mm <sup>2</sup>  | 180                       | 0.5                   | 0.6  | 0.7  | 0.8  | 1    | 1.3  | 1.5  | 1.7  |
| 1.2379    | 60 HRC                 | 30                        | 0.1                   | 0.12 | 0.16 | 0.18 | 0.2  | 0.24 | 0.28 | 0.3  |
| 1.2714HH  | 1350 N/mm <sup>2</sup> | 80                        | 0.18                  | 0.2  | 0.24 | 0.3  | 0.35 | 0.45 | 0.55 | 0.65 |
| 1.2767    | 830 N/mm <sup>2</sup>  | 180                       | 0.3                   | 0.35 | 0.4  | 0.5  | 0.6  | 0.8  | 1    | 1    |
| 1.2842    | 775 N/mm <sup>2</sup>  | 180                       | 0.5                   | 0.6  | 0.7  | 0.5  | 1    | 1.3  | 1.5  | 1.7  |
| 1.2842    | 60 HRC                 | 30                        | 0.1                   | 0.12 | 0.16 | 0.18 | 0.2  | 0.24 | 0.28 | 0.3  |
| 1.3343    | 64 HRC                 | 25                        | 0.1                   | 0.1  | 0.14 | 0.16 | 0.18 | 0.22 | 0.26 | 0.28 |
| 1.3344 PM | 64 HRC                 | 25                        | 0.1                   | 0.1  | 0.14 | 0.16 | 0.18 | 0.22 | 0.26 | 0.28 |
| M V10 PM  | 62 HRC                 | 30                        | 0.1                   | 0.1  | 0.14 | 0.16 | 0.18 | 0.22 | 0.26 | 0.28 |
| M W10 PM  | 65 HRC                 | 25                        | 0.1                   | 0.1  | 0.14 | 0.16 | 0.18 | 0.22 | 0.26 | 0.28 |
| Stahl     | 1400 N/mm <sup>2</sup> | 120                       | 0.5                   | 0.6  | 0.7  | 0.8  | 1    | 1.3  | 1.5  | 1.7  |

1) Vc: Schnittgeschwindigkeit (m/min.)

2) f: Vorschub pro Umdrehung (mm/u)

» zur Aufnahme in Hydrodehnspannfutter oder Schrumpffutter ab 52 HRC  $dr = d - 0,1\text{mm}$

**i** Weitere Materialien und Schnittwerte finden Sie im Schnittdaten-Kalkulator