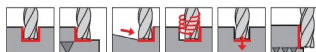


### Ratiofräser Alu RF 100 A



### GUHRINGNAVIGATOR

Schnittwerte siehe Seite 328

- nanopolierte Schneidkanten
- Halsfreischliff
- Zentrumschnitt

Schneidstoff

VHM

Oberfläche



Typ

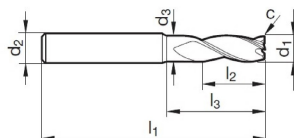
W

W

Schaftform

HA

HB



Artikel-Nr.

3472

6702

| d1 h8 | d2 h6 | d3    | l1  | l2   | l3   | c        | Z | Code-Nr. |
|-------|-------|-------|-----|------|------|----------|---|----------|
| mm    | mm    | mm    | mm  | mm   | mm   | mm x 45° |   |          |
| 3,00  | 6,00  | 2,80  | 57  | 8,0  | 15,0 | 0,03     | 3 | 3,000    |
| 4,00  | 6,00  | 3,80  | 57  | 11,0 | 18,0 | 0,04     | 3 | 4,000    |
| 5,00  | 6,00  | 4,80  | 57  | 13,0 | 18,0 | 0,05     | 3 | 5,000    |
| 6,00  | 6,00  | 5,70  | 57  | 13,0 | 20,0 | 0,06     | 3 | 6,000    |
| 8,00  | 8,00  | 7,70  | 63  | 19,0 | 26,0 | 0,08     | 3 | 8,000    |
| 10,00 | 10,00 | 9,50  | 72  | 22,0 | 30,0 | 0,10     | 3 | 10,000   |
| 12,00 | 12,00 | 11,50 | 83  | 26,0 | 36,0 | 0,12     | 3 | 12,000   |
| 16,00 | 16,00 | 15,50 | 92  | 32,0 | 42,0 | 0,16     | 3 | 16,000   |
| 20,00 | 20,00 | 19,50 | 104 | 38,0 | 52,0 | 0,20     | 3 | 20,000   |

| ISO | Härte              | vc         | fz (mm/z) / Ø  |                |                |                |                                                                                     |              |              |            | vc             | fz (mm/z) / Ø  |                |                |              |                                                                                       |                   |  |  |
|-----|--------------------|------------|----------------|----------------|----------------|----------------|-------------------------------------------------------------------------------------|--------------|--------------|------------|----------------|----------------|----------------|----------------|--------------|---------------------------------------------------------------------------------------|-------------------|--|--|
|     |                    |            | 3              | 6              | 8              | 10             | 12                                                                                  | 16           | 20           | 3          |                | 6              | 8              | 10             | 12           | 16                                                                                    | 20                |  |  |
|     |                    |            | ap = 1,0 x D   |                |                |                |  | ae = 1,0 x D |              |            |                | ap = l2        |                |                |              |  | ae max = 0,33 x D |  |  |
| N   | ≤ 5% Si<br>≥ 5% Si | 500<br>230 | 0,020<br>0,017 | 0,039<br>0,033 | 0,052<br>0,044 | 0,080<br>0,060 | 0,10<br>0,07                                                                        | 0,13<br>0,10 | 0,16<br>0,12 | 750<br>345 | 0,025<br>0,021 | 0,051<br>0,043 | 0,068<br>0,057 | 0,104<br>0,078 | 0,12<br>0,09 | 0,17<br>0,12                                                                          | 0,21<br>0,16      |  |  |
| NE  | ≤ 850 N/mm²        | 250        | 0,017          | 0,033          | 0,044          | 0,060          | 0,07                                                                                | 0,10         | 0,12         | 375        | 0,021          | 0,043          | 0,057          | 0,078          | 0,09         | 0,12                                                                                  | 0,16              |  |  |

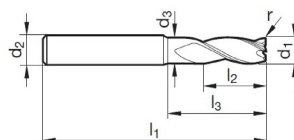
Optional bieten wir unsere Carbo-Beschichtung zur Verbesserung von Spanfluss und Standzeit an.

### Ratiofräser Alu RF 100 A



|          |                              |
|----------|------------------------------|
| <b>P</b> | <b>GUHRINGNAVIGATOR</b>      |
| <b>M</b> | Schnittwerte siehe Seite 328 |
| <b>K</b> |                              |
| <b>N</b> | •                            |
| <b>S</b> | • nanopolierte Schneidkanten |
| <b>H</b> | • Halsfreischliff            |
|          | • Zentrumschnitt             |

| Schneidstoff | VHM |    |
|--------------|-----|----|
| Oberfläche   | ○   | ○  |
| Typ          | W   | W  |
| Schaftform   | HA  | HB |



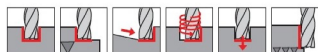
| Artikel-Nr. |       |       |     |      |      |     |   | 3599     | 6729 |
|-------------|-------|-------|-----|------|------|-----|---|----------|------|
| d1 h8       | d2 h6 | d3    | l1  | l2   | l3   | r   | Z | Code-Nr. |      |
| mm          | mm    | mm    | mm  | mm   | mm   | mm  |   |          |      |
| 6,00        | 6,00  | 5,70  | 57  | 13,0 | 20,0 | 0,5 | 3 | 6,005    |      |
| 6,00        | 6,00  | 5,70  | 57  | 13,0 | 20,0 | 1,0 | 3 | 6,010    |      |
| 8,00        | 8,00  | 7,70  | 63  | 19,0 | 26,0 | 0,5 | 3 | 8,005    |      |
| 8,00        | 8,00  | 7,70  | 63  | 19,0 | 26,0 | 1,0 | 3 | 8,010    |      |
| 10,00       | 10,00 | 9,50  | 72  | 22,0 | 30,0 | 0,5 | 3 | 10,005   |      |
| 10,00       | 10,00 | 9,50  | 72  | 22,0 | 30,0 | 1,0 | 3 | 10,010   |      |
| 10,00       | 10,00 | 9,50  | 72  | 22,0 | 30,0 | 1,5 | 3 | 10,015   |      |
| 12,00       | 12,00 | 11,50 | 83  | 26,0 | 36,0 | 0,5 | 3 | 12,005   |      |
| 12,00       | 12,00 | 11,50 | 83  | 26,0 | 36,0 | 1,0 | 3 | 12,010   |      |
| 12,00       | 12,00 | 11,50 | 83  | 26,0 | 36,0 | 1,5 | 3 | 12,015   |      |
| 12,00       | 12,00 | 11,50 | 83  | 26,0 | 36,0 | 2,0 | 3 | 12,020   |      |
| 12,00       | 12,00 | 11,50 | 83  | 26,0 | 36,0 | 2,5 | 3 | 12,025   |      |
| 12,00       | 12,00 | 11,50 | 83  | 26,0 | 36,0 | 3,0 | 3 | 12,030   |      |
| 12,00       | 12,00 | 11,50 | 83  | 26,0 | 36,0 | 4,0 | 3 | 12,040   |      |
| 16,00       | 16,00 | 15,50 | 92  | 32,0 | 42,0 | 1,0 | 3 | 16,010   |      |
| 16,00       | 16,00 | 15,50 | 92  | 32,0 | 42,0 | 2,0 | 3 | 16,020   |      |
| 16,00       | 16,00 | 15,50 | 92  | 32,0 | 42,0 | 2,5 | 3 | 16,025   |      |
| 16,00       | 16,00 | 15,50 | 92  | 32,0 | 42,0 | 3,0 | 3 | 16,030   |      |
| 16,00       | 16,00 | 15,50 | 92  | 32,0 | 42,0 | 4,0 | 3 | 16,040   |      |
| 20,00       | 20,00 | 19,50 | 104 | 38,0 | 52,0 | 1,0 | 3 | 20,010   |      |
| 20,00       | 20,00 | 19,50 | 104 | 38,0 | 52,0 | 2,0 | 3 | 20,020   |      |
| 20,00       | 20,00 | 19,50 | 104 | 38,0 | 52,0 | 2,5 | 3 | 20,025   |      |
| 20,00       | 20,00 | 19,50 | 104 | 38,0 | 52,0 | 3,0 | 3 | 20,030   |      |
| 20,00       | 20,00 | 19,50 | 104 | 38,0 | 52,0 | 4,0 | 3 | 20,040   |      |
| 25,00       | 25,00 | 24,00 | 121 | 45,0 | 63,0 | 2,0 | 3 | 25,020   |      |
| 25,00       | 25,00 | 24,00 | 121 | 45,0 | 63,0 | 3,0 | 3 | 25,030   |      |
| 25,00       | 25,00 | 24,00 | 121 | 45,0 | 63,0 | 4,0 | 3 | 25,040   |      |

| ISO | Härte       | vc  | fz (mm/z) / Ø |       |       |       |                                                                                     |      |      |     | vc    | fz (mm/z) / Ø |       |       |      |         |      |  |  |                                                                                       |  |  |  |
|-----|-------------|-----|---------------|-------|-------|-------|-------------------------------------------------------------------------------------|------|------|-----|-------|---------------|-------|-------|------|---------|------|--|--|---------------------------------------------------------------------------------------|--|--|--|
|     |             |     | 3             | 6     | 8     | 10    | 12                                                                                  | 16   | 20   | 3   |       | 6             | 8     | 10    | 12   | 16      | 20   |  |  |                                                                                       |  |  |  |
|     |             |     | ap = 1,0 x D  |       |       |       |  |      |      |     |       | ae = 1,0 x D  |       |       |      | ap = l2 |      |  |  |  |  |  |  |
| N   | ≤ 5% Si     | 500 | 0,020         | 0,039 | 0,052 | 0,080 | 0,10                                                                                | 0,13 | 0,16 | 750 | 0,025 | 0,051         | 0,068 | 0,104 | 0,12 | 0,17    | 0,21 |  |  |                                                                                       |  |  |  |
|     | ≥ 5% Si     | 230 | 0,017         | 0,033 | 0,044 | 0,060 | 0,07                                                                                | 0,10 | 0,12 | 345 | 0,021 | 0,043         | 0,057 | 0,078 | 0,09 | 0,12    | 0,16 |  |  |                                                                                       |  |  |  |
| NE  | ≤ 850 N/mm² | 250 | 0,017         | 0,033 | 0,044 | 0,060 | 0,07                                                                                | 0,10 | 0,12 | 375 | 0,021 | 0,043         | 0,057 | 0,078 | 0,09 | 0,12    | 0,16 |  |  |                                                                                       |  |  |  |

Optional bieten wir unsere Carbo-Beschichtung zur Verbesserung von Spanfluss und Standzeit an.



### Ratiofräser Alu RF 100 A



**P** **GUHRINGNAVIGATOR**  
Schnittwerte siehe Seite 328

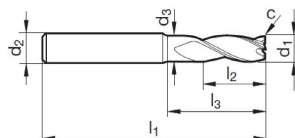
- M**
  - K**
  - N** •
  - S**
  - H**
- nanopolierte Schneidkanten
  - Halsfreischliff
  - Zentrumschnitt

Schneidstoff **VHM**

Oberfläche ○ ○

Typ W W

Schaftform HA HB



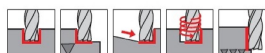
Artikel-Nr. **3473** **6703**

| d1 h8 | d2 h6 | d3    | l1  | l2   | l3   | c        | Z | Code-Nr. |
|-------|-------|-------|-----|------|------|----------|---|----------|
| mm    | mm    | mm    | mm  | mm   | mm   | mm x 45° |   |          |
| 6,00  | 6,00  | 5,50  | 65  | 13,0 | 28,0 | 0,06     | 3 | 6,000    |
| 8,00  | 8,00  | 7,50  | 75  | 19,0 | 38,0 | 0,08     | 3 | 8,000    |
| 10,00 | 10,00 | 9,20  | 80  | 22,0 | 38,0 | 0,10     | 3 | 10,000   |
| 12,00 | 12,00 | 11,20 | 93  | 26,0 | 46,0 | 0,12     | 3 | 12,000   |
| 16,00 | 16,00 | 15,00 | 108 | 32,0 | 58,0 | 0,16     | 3 | 16,000   |
| 20,00 | 20,00 | 19,00 | 126 | 38,0 | 74,0 | 0,20     | 3 | 20,000   |

| ISO | Härte       | vc  | fz (mm/z) / Ø |       |       |       |                                                                                     |              |      |     | vc    | fz (mm/z) / Ø |       |       |      |                                                                                       |                   |  |  |
|-----|-------------|-----|---------------|-------|-------|-------|-------------------------------------------------------------------------------------|--------------|------|-----|-------|---------------|-------|-------|------|---------------------------------------------------------------------------------------|-------------------|--|--|
|     |             |     | 3             | 6     | 8     | 10    | 12                                                                                  | 16           | 20   | 3   |       | 6             | 8     | 10    | 12   | 16                                                                                    | 20                |  |  |
|     |             |     | ap = 1,0 x D  |       |       |       |  | ae = 1,0 x D |      |     |       | ap = l2       |       |       |      |  | ae max = 0,33 x D |  |  |
| N   | ≤ 5% Si     | 500 | 0,020         | 0,039 | 0,052 | 0,080 | 0,10                                                                                | 0,13         | 0,16 | 750 | 0,025 | 0,051         | 0,068 | 0,104 | 0,12 | 0,17                                                                                  | 0,21              |  |  |
|     | ≥ 5% Si     | 230 | 0,017         | 0,033 | 0,044 | 0,060 | 0,07                                                                                | 0,10         | 0,12 | 345 | 0,021 | 0,043         | 0,057 | 0,078 | 0,09 | 0,12                                                                                  | 0,16              |  |  |
| NE  | ≤ 850 N/mm² | 250 | 0,017         | 0,033 | 0,044 | 0,060 | 0,07                                                                                | 0,10         | 0,12 | 375 | 0,021 | 0,043         | 0,057 | 0,078 | 0,09 | 0,12                                                                                  | 0,16              |  |  |

Optional bieten wir unsere Carbo-Beschichtung zur Verbesserung von Spanfluss und Standzeit an.

### Ratiofräser Alu RF 100 A



### GUHRING NAVIGATOR

Schnittwerte siehe Seite 328

|   |   |
|---|---|
| P |   |
| M |   |
| K |   |
| N | • |
| S |   |
| H |   |

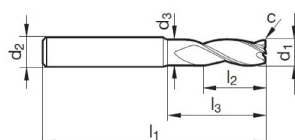
- nanopolierte Schneidkanten
- Kernsprung
- Halsfreischliff
- Zentrumschnitt

Schneidstoff **VHM**

Oberfläche ○ ○

Typ W W

Schaftform HA HB



Artikel-Nr.

6730

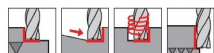
6731

| d1 h8 | d2 h6 | d3    | l1  | l2   | l3   | c        | Z | Code-Nr. |
|-------|-------|-------|-----|------|------|----------|---|----------|
| mm    | mm    | mm    | mm  | mm   | mm   | mm x 45° |   |          |
| 5,00  | 6,00  | 4,80  | 57  | 15,0 | 19,4 | 0,05     | 3 | 5,000    |
| 6,00  | 6,00  | 5,70  | 65  | 18,0 | 28,0 | 0,06     | 3 | 6,000    |
| 8,00  | 8,00  | 7,70  | 75  | 24,0 | 38,0 | 0,08     | 3 | 8,000    |
| 10,00 | 10,00 | 9,50  | 80  | 30,0 | 38,0 | 0,10     | 3 | 10,000   |
| 12,00 | 12,00 | 11,50 | 93  | 36,0 | 46,0 | 0,12     | 3 | 12,000   |
| 16,00 | 16,00 | 15,50 | 108 | 48,0 | 58,0 | 0,16     | 3 | 16,000   |
| 20,00 | 20,00 | 19,50 | 126 | 60,0 | 74,0 | 0,20     | 3 | 20,000   |

| ISO | Härte       | vc  | fz (mm/z) / Ø |       |       |       |                    |      |      | vc  | fz (mm/z) / Ø |       |       |                    |       |       |       |
|-----|-------------|-----|---------------|-------|-------|-------|--------------------|------|------|-----|---------------|-------|-------|--------------------|-------|-------|-------|
|     |             |     | 3             | 6     | 8     | 10    | 12                 | 16   | 20   |     | 3             | 6     | 8     | 10                 | 12    | 16    | 20    |
|     |             |     | ap = l2       |       | HPC   | HSC   | ae max. = 0,10 x D |      |      |     | ap = l2       |       |       | ae max. = 0,02 x D |       |       |       |
| N   | ≤ 5% Si     | 400 | 0,016         | 0,031 | 0,042 | 0,064 | 0,08               | 0,10 | 0,13 | 450 | 0,010         | 0,020 | 0,026 | 0,040              | 0,048 | 0,064 | 0,080 |
|     | ≥ 5% Si     | 200 | 0,013         | 0,027 | 0,035 | 0,048 | 0,06               | 0,08 | 0,10 | 210 | 0,008         | 0,017 | 0,022 | 0,030              | 0,036 | 0,048 | 0,060 |
| NE  | ≤ 850 N/mm² | 190 | 0,013         | 0,027 | 0,035 | 0,048 | 0,06               | 0,08 | 0,10 | 220 | 0,008         | 0,017 | 0,022 | 0,030              | 0,036 | 0,048 | 0,060 |

Optional bieten wir unsere Carbo-Beschichtung zur Verbesserung von Spanfluss und Standzeit an.

### Ratiofräser Alu RF 100 A



### GUHRING NAVIGATOR

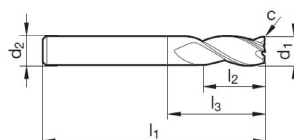
Schnittwerte siehe Seite 328

|   |   |
|---|---|
| P |   |
| M |   |
| K |   |
| N | • |
| S |   |
| H |   |

- nanopolierte Schneidkanten
- Kernsprung
- Zentrumschnitt

Schneidstoff **VHM**

|            |    |    |
|------------|----|----|
| Oberfläche | ○  | ○  |
| Typ        | W  | W  |
| Schaftform | HA | HB |



Artikel-Nr. **6732** **6733**

| d1 h8 | d2 h6 | l1  | l2   | l3    | c        | Z | Code-Nr. |
|-------|-------|-----|------|-------|----------|---|----------|
| mm    | mm    | mm  | mm   | mm    | mm x 45° |   |          |
| 6,00  | 6,00  | 65  | 24,0 | 29,0  | 0,06     | 3 | 6,000    |
| 8,00  | 8,00  | 75  | 32,0 | 39,0  | 0,08     | 3 | 8,000    |
| 10,00 | 10,00 | 100 | 40,0 | 60,0  | 0,10     | 3 | 10,000   |
| 12,00 | 12,00 | 100 | 48,0 | 55,0  | 0,12     | 3 | 12,000   |
| 16,00 | 16,00 | 125 | 64,0 | 77,0  | 0,16     | 3 | 16,000   |
| 20,00 | 20,00 | 150 | 80,0 | 100,0 | 0,20     | 3 | 20,000   |

| ISO       | Härte       | vc         | fz (mm/z) / Ø |       |            |       |            |      |                    |  | vc         | fz (mm/z) / Ø |       |       |                    |       |       |       |  |
|-----------|-------------|------------|---------------|-------|------------|-------|------------|------|--------------------|--|------------|---------------|-------|-------|--------------------|-------|-------|-------|--|
|           |             |            | 3             | 6     | 8          | 10    | 12         | 16   | 20                 |  |            | 3             | 6     | 8     | 10                 | 12    | 16    | 20    |  |
|           |             |            | ap = l2       |       | <b>HPC</b> |       | <b>HSC</b> |      | ae max. = 0,10 x D |  |            | ap = l2       |       |       | ae max. = 0,02 x D |       |       |       |  |
| <b>N</b>  | ≤ 5% Si     | <b>400</b> | 0,016         | 0,031 | 0,042      | 0,064 | 0,08       | 0,10 | 0,13               |  | <b>450</b> | 0,010         | 0,020 | 0,026 | 0,040              | 0,048 | 0,064 | 0,080 |  |
|           | ≥ 5% Si     | <b>200</b> | 0,013         | 0,027 | 0,035      | 0,048 | 0,06       | 0,08 | 0,10               |  | <b>210</b> | 0,008         | 0,017 | 0,022 | 0,030              | 0,036 | 0,048 | 0,060 |  |
| <b>NE</b> | ≤ 850 N/mm² | <b>190</b> | 0,013         | 0,027 | 0,035      | 0,048 | 0,06       | 0,08 | 0,10               |  | <b>220</b> | 0,008         | 0,017 | 0,022 | 0,030              | 0,036 | 0,048 | 0,060 |  |

Optional bieten wir unsere Carbo-Beschichtung zur Verbesserung von Spanfluss und Standzeit an.

### Ratiofräser Alu RF 100 A



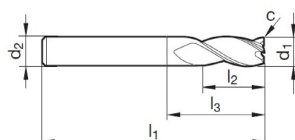
|   |                              |
|---|------------------------------|
| P | <b>GUHRINGNAVIGATOR</b>      |
| M | Schnittwerte siehe Seite 328 |
| K |                              |
| N | •                            |
| S | • nanopolierte Schneidkanten |
| H | • Kernsprung                 |
|   | • Zentrumschnitt             |

Schneidstoff **VHM**

Oberfläche ○ ○

Typ W W

Schaftform HA HB



Artikel-Nr. **6734** **6735**

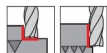
| d1 h8 | d2 h6 | l1  | l2    | l3    | c        | Z | Code-Nr. |
|-------|-------|-----|-------|-------|----------|---|----------|
| mm    | mm    | mm  | mm    | mm    | mm x 45° |   |          |
| 6,00  | 6,00  | 75  | 30,0  | 39,0  | 0,06     | 3 | 6,000    |
| 8,00  | 8,00  | 86  | 40,0  | 50,0  | 0,08     | 3 | 8,000    |
| 10,00 | 10,00 | 100 | 50,0  | 60,0  | 0,10     | 3 | 10,000   |
| 12,00 | 12,00 | 120 | 60,0  | 75,0  | 0,12     | 3 | 12,000   |
| 16,00 | 16,00 | 150 | 80,0  | 102,0 | 0,16     | 3 | 16,000   |
| 20,00 | 20,00 | 175 | 100,0 | 125,0 | 0,20     | 3 | 20,000   |

| ISO       | Härte       | vc         | fz (mm/z) / Ø |       |            |       |            |      |                    |  | vc         | fz (mm/z) / Ø |       |       |       |                    |       |       |  |
|-----------|-------------|------------|---------------|-------|------------|-------|------------|------|--------------------|--|------------|---------------|-------|-------|-------|--------------------|-------|-------|--|
|           |             |            | 3             | 6     | 8          | 10    | 12         | 16   | 20                 |  |            | 3             | 6     | 8     | 10    | 12                 | 16    | 20    |  |
|           |             |            | ap = l2       |       | <b>HPC</b> |       | <b>HSC</b> |      | ae max. = 0,10 x D |  |            | ap = l2       |       |       |       | ae max. = 0,02 x D |       |       |  |
| <b>N</b>  | ≤ 5% Si     | <b>400</b> | 0,016         | 0,031 | 0,042      | 0,064 | 0,08       | 0,10 | 0,13               |  | <b>450</b> | 0,010         | 0,020 | 0,026 | 0,040 | 0,048              | 0,064 | 0,080 |  |
|           | ≥ 5% Si     | <b>200</b> | 0,013         | 0,027 | 0,035      | 0,048 | 0,06       | 0,08 | 0,10               |  | <b>210</b> | 0,008         | 0,017 | 0,022 | 0,030 | 0,036              | 0,048 | 0,060 |  |
| <b>NE</b> | ≤ 850 N/mm² | <b>190</b> | 0,013         | 0,027 | 0,035      | 0,048 | 0,06       | 0,08 | 0,10               |  | <b>220</b> | 0,008         | 0,017 | 0,022 | 0,030 | 0,036              | 0,048 | 0,060 |  |

Optional bieten wir unsere Carbo-Beschichtung zur Verbesserung von Spanfluss und Standzeit an.



### Ratiofräser Alu RF 100 A



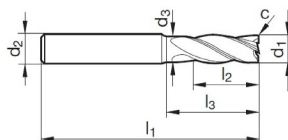
|   |
|---|
| P |
| M |
| K |
| N |
| S |
| H |

### GUHRING NAVIGATOR

Schnittwerte siehe Seite 328

- Halsfreischliff
- Zentrumschnitt

| Schneidstoff | VHM |    |
|--------------|-----|----|
| Oberfläche   | ○   | ○  |
| Typ          | W   | W  |
| Schaftform   | HA  | HB |



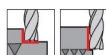
Artikel-Nr. 3202 3319

| d1 h8 | d2 h6 | d3    | l1  | l2   | l3   | c        | Z | Code-Nr. |
|-------|-------|-------|-----|------|------|----------|---|----------|
| mm    | mm    | mm    | mm  | mm   | mm   | mm x 45° |   |          |
| 4,00  | 6,00  | 3,80  | 57  | 11,0 | 18,0 | 0,10     | 4 | 4,000    |
| 5,00  | 6,00  | 4,80  | 57  | 13,0 | 18,0 | 0,10     | 4 | 5,000    |
| 6,00  | 6,00  | 5,70  | 57  | 13,0 | 20,0 | 0,15     | 4 | 6,000    |
| 8,00  | 8,00  | 7,70  | 63  | 19,0 | 26,0 | 0,15     | 4 | 8,000    |
| 10,00 | 10,00 | 9,50  | 72  | 22,0 | 30,0 | 0,20     | 4 | 10,000   |
| 12,00 | 12,00 | 11,50 | 83  | 26,0 | 36,0 | 0,20     | 4 | 12,000   |
| 16,00 | 16,00 | 15,50 | 92  | 32,0 | 42,0 | 0,35     | 4 | 16,000   |
| 20,00 | 20,00 | 19,50 | 104 | 38,0 | 52,0 | 0,45     | 4 | 20,000   |

| ISO | Härte       | vc  | fz (mm/z) / Ø |       |       |       |                                                                                       |                    |      |     | vc    | fz (mm/z) / Ø |       |                                                                                       |                    |       |       |  |  |
|-----|-------------|-----|---------------|-------|-------|-------|---------------------------------------------------------------------------------------|--------------------|------|-----|-------|---------------|-------|---------------------------------------------------------------------------------------|--------------------|-------|-------|--|--|
|     |             |     | 3             | 6     | 8     | 10    | 12                                                                                    | 16                 | 20   | 3   |       | 6             | 8     | 10                                                                                    | 12                 | 16    | 20    |  |  |
|     |             |     | ap = l2       |       | HPC   | HSC   |  | ae max. = 0,10 x D |      |     |       | ap = l2       |       |  | ae max. = 0,02 x D |       |       |  |  |
| N   | ≤ 5% Si     | 400 | 0,016         | 0,031 | 0,042 | 0,064 | 0,08                                                                                  | 0,10               | 0,13 | 450 | 0,010 | 0,020         | 0,026 | 0,040                                                                                 | 0,048              | 0,064 | 0,080 |  |  |
|     | ≥ 5% Si     | 200 | 0,013         | 0,027 | 0,035 | 0,048 | 0,06                                                                                  | 0,08               | 0,10 | 210 | 0,008 | 0,017         | 0,022 | 0,030                                                                                 | 0,036              | 0,048 | 0,060 |  |  |
| NE  | < 850 N/mm² | 190 | 0,013         | 0,027 | 0,035 | 0,048 | 0,06                                                                                  | 0,08               | 0,10 | 220 | 0,008 | 0,017         | 0,022 | 0,030                                                                                 | 0,036              | 0,048 | 0,060 |  |  |

Optional bieten wir unsere Carbo-Beschichtung zur Verbesserung von Spanfluss und Standzeit an.

### Ratiofräser Alu RF 100 A 90°



**P** **GUHRING**NAVIGATOR  
Schnittwerte siehe Seite 328

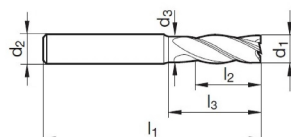
- M**
  - K**
  - N** •
  - S**
  - H**
- ohne Eckenschutzfase
  - Halsfreischliff
  - Zentrumschnitt

Schneidstoff **VHM**

Oberfläche ○

Typ W

Schaftform HA



Artikel-Nr. **6762**

| d1 h8 | d2 h6 | d3    | l1  | l2   | l3   | Z | Code-Nr. |
|-------|-------|-------|-----|------|------|---|----------|
| mm    | mm    | mm    | mm  | mm   | mm   |   |          |
| 3,00  | 6,00  | 2,80  | 57  | 8,0  | 15,0 | 4 | 3,000    |
| 4,00  | 6,00  | 3,80  | 57  | 11,0 | 18,0 | 4 | 4,000    |
| 5,00  | 6,00  | 4,80  | 57  | 13,0 | 18,0 | 4 | 5,000    |
| 6,00  | 6,00  | 5,70  | 57  | 13,0 | 20,0 | 4 | 6,000    |
| 8,00  | 8,00  | 7,70  | 63  | 19,0 | 26,0 | 4 | 8,000    |
| 10,00 | 10,00 | 9,50  | 72  | 22,0 | 30,0 | 4 | 10,000   |
| 12,00 | 12,00 | 11,50 | 83  | 26,0 | 36,0 | 4 | 12,000   |
| 16,00 | 16,00 | 15,50 | 92  | 32,0 | 42,0 | 4 | 16,000   |
| 20,00 | 20,00 | 19,50 | 104 | 38,0 | 52,0 | 4 | 20,000   |

| ISO       | Härte       | vc         | fz (mm/z) / Ø |       |       |       |                    |      |      | vc         | fz (mm/z) / Ø |       |       |                    |       |       |       |
|-----------|-------------|------------|---------------|-------|-------|-------|--------------------|------|------|------------|---------------|-------|-------|--------------------|-------|-------|-------|
|           |             |            | 3             | 6     | 8     | 10    | 12                 | 16   | 20   |            | 3             | 6     | 8     | 10                 | 12    | 16    | 20    |
|           |             |            | ap = l2       |       | HPC   | HSC   | ae max. = 0,10 x D |      |      |            | ap = l2       |       |       | ae max. = 0,02 x D |       |       |       |
| <b>N</b>  | ≤ 5% Si     | <b>400</b> | 0,016         | 0,031 | 0,042 | 0,064 | 0,08               | 0,10 | 0,13 | <b>450</b> | 0,010         | 0,020 | 0,026 | 0,040              | 0,048 | 0,064 | 0,080 |
|           | ≥ 5% Si     | <b>200</b> | 0,013         | 0,027 | 0,035 | 0,048 | 0,06               | 0,08 | 0,10 | <b>210</b> | 0,008         | 0,017 | 0,022 | 0,030              | 0,036 | 0,048 | 0,060 |
| <b>NE</b> | ≤ 850 N/mm² | <b>190</b> | 0,013         | 0,027 | 0,035 | 0,048 | 0,06               | 0,08 | 0,10 | <b>220</b> | 0,008         | 0,017 | 0,022 | 0,030              | 0,036 | 0,048 | 0,060 |

#### Ratiofräser Alu RF 100 A

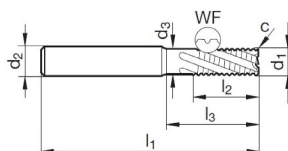


#### GUHRING NAVIGATOR

Schnittwerte siehe Seite 328

- Halsfreischliff
- Zentrumschnitt

| Schneidstoff | VHM |     |
|--------------|-----|-----|
| Oberfläche   | ○   | ○   |
| Typ          | WF  | WF  |
| Schaftform   | HA  | HB  |
|              | NEW | NEW |



Artikel-Nr. 6868 6869

| d1 h8 | d2 h6 | d3    | l1  | l2   | l3   | c        | Z | Code-Nr. |
|-------|-------|-------|-----|------|------|----------|---|----------|
| mm    | mm    | mm    | mm  | mm   | mm   | mm x 45° |   |          |
| 6,00  | 6,00  | 5,70  | 57  | 13,0 | 20,0 | 0,06     | 3 | 6,000    |
| 8,00  | 8,00  | 7,70  | 63  | 19,0 | 26,0 | 0,08     | 3 | 8,000    |
| 10,00 | 10,00 | 9,50  | 72  | 22,0 | 30,0 | 0,10     | 3 | 10,000   |
| 12,00 | 12,00 | 11,50 | 83  | 26,0 | 36,0 | 0,12     | 3 | 12,000   |
| 16,00 | 16,00 | 15,50 | 92  | 32,0 | 42,0 | 0,16     | 3 | 16,000   |
| 20,00 | 20,00 | 19,50 | 104 | 38,0 | 52,0 | 0,20     | 3 | 20,000   |
| 25,00 | 25,00 | 24,00 | 121 | 45,0 | 63,0 | 0,25     | 3 | 25,000   |

| ISO | Härte       | vc  | fz (mm/z) / Ø |       |       |       |              |       |       |  | vc    | fz (mm/z) / Ø |       |       |       |                   |       |    |
|-----|-------------|-----|---------------|-------|-------|-------|--------------|-------|-------|-------------------------------------------------------------------------------------|-------|---------------|-------|-------|-------|-------------------|-------|----|
|     |             |     | 3             | 6     | 8     | 10    | 12           | 16    | 20    |                                                                                     |       | 3             | 6     | 8     | 10    | 12                | 16    | 20 |
|     |             |     | ap = 1,0 x D  |       |       |       | ae = 1,0 x D |       |       |                                                                                     |       | ap = 1,5 x D  |       |       |       | ae max = 0,75 x D |       |    |
| N   | ≤ 5% Si     | 375 | 0,011         | 0,021 | 0,028 | 0,037 | 0,044        | 0,059 | 0,074 | 440                                                                                 | 0,012 | 0,024         | 0,032 | 0,043 | 0,051 | 0,068             | 0,085 |    |
|     | ≥ 5% Si     | 180 | 0,010         | 0,019 | 0,026 | 0,035 | 0,042        | 0,056 | 0,070 | 210                                                                                 | 0,011 | 0,022         | 0,029 | 0,040 | 0,048 | 0,064             | 0,081 |    |
| NE  | ≤ 850 N/mm² | 200 | 0,010         | 0,019 | 0,026 | 0,035 | 0,042        | 0,056 | 0,070 | 230                                                                                 | 0,011 | 0,022         | 0,029 | 0,040 | 0,048 | 0,064             | 0,081 |    |

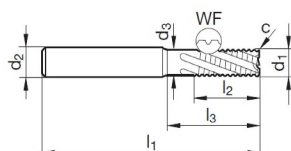
Optional bieten wir unsere Carbo-Beschichtung zur Verbesserung von Spanfluss und Standzeit an.

### Ratiofräser Alu RF 100 A



|          |                                       |
|----------|---------------------------------------|
| <b>P</b> | <b>GUHRINGNAVIGATOR</b>               |
| <b>M</b> | Schnittwerte siehe Seite 328          |
| <b>K</b> |                                       |
| <b>N</b> | •                                     |
| <b>S</b> |                                       |
| <b>H</b> | • Halsfreischliff<br>• Zentrumschnitt |

| Schneidstoff | VHM        |            |
|--------------|------------|------------|
| Oberfläche   | ○          | ○          |
| Typ          | WF         | WF         |
| Schaftform   | HA         | HB         |
|              | <b>NEW</b> | <b>NEW</b> |



Artikel-Nr. 6870 6871

| d1 h8 | d2 h6 | d3    | l1  | l2   | l3   | c        | Z | Code-Nr. |
|-------|-------|-------|-----|------|------|----------|---|----------|
| mm    | mm    | mm    | mm  | mm   | mm   | mm x 45° |   |          |
| 6,00  | 6,00  | 5,70  | 65  | 13,0 | 28,0 | 0,06     | 3 | 6,000    |
| 8,00  | 8,00  | 7,70  | 75  | 19,0 | 38,0 | 0,08     | 3 | 8,000    |
| 10,00 | 10,00 | 9,50  | 80  | 22,0 | 38,0 | 0,10     | 3 | 10,000   |
| 12,00 | 12,00 | 11,50 | 93  | 26,0 | 46,0 | 0,12     | 3 | 12,000   |
| 16,00 | 16,00 | 15,50 | 108 | 32,0 | 58,0 | 0,16     | 3 | 16,000   |
| 20,00 | 20,00 | 19,50 | 126 | 38,0 | 74,0 | 0,20     | 3 | 20,000   |

| ISO            | Härte   | vc  | fz (mm/z) / Ø |       |       |                                                                                     |              |       |       | vc  | fz (mm/z) / Ø |       |       |                                                                                       |                   |       |       |
|----------------|---------|-----|---------------|-------|-------|-------------------------------------------------------------------------------------|--------------|-------|-------|-----|---------------|-------|-------|---------------------------------------------------------------------------------------|-------------------|-------|-------|
|                |         |     | 3             | 6     | 8     | 10                                                                                  | 12           | 16    | 20    |     | 3             | 6     | 8     | 10                                                                                    | 12                | 16    | 20    |
|                |         |     | ap = 1,0 x D  |       |       |  | ae = 1,0 x D |       |       |     | ap = 1,5 x D  |       |       |  | ae max = 0,75 x D |       |       |
| N              | ≤ 5% Si | 375 | 0,011         | 0,021 | 0,028 | 0,037                                                                               | 0,044        | 0,059 | 0,074 | 440 | 0,012         | 0,024 | 0,032 | 0,043                                                                                 | 0,051             | 0,068 | 0,085 |
|                | ≥ 5% Si | 180 | 0,010         | 0,019 | 0,026 | 0,035                                                                               | 0,042        | 0,056 | 0,070 | 210 | 0,011         | 0,022 | 0,029 | 0,040                                                                                 | 0,048             | 0,064 | 0,081 |
| NE ≤ 850 N/mm² |         | 200 | 0,010         | 0,019 | 0,026 | 0,035                                                                               | 0,042        | 0,056 | 0,070 | 230 | 0,011         | 0,022 | 0,029 | 0,040                                                                                 | 0,048             | 0,064 | 0,081 |

Optional bieten wir unsere Carbo-Beschichtung zur Verbesserung von Spanfluss und Standzeit an.



### Bohrnutenfräser GA 200 A (3-Schneider)



**P** **GÜHRINGNAVIGATOR**  
Schnittwerte siehe Seite 330

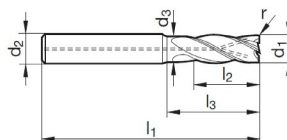
- M**
  - K**
  - N** •
  - S**
  - H**
- mit Innenkühlung
  - Halsfreischliff
  - Zentrumschnitt

Schneidstoff **VHM**

Oberfläche ○

Typ W

Schaftform HA



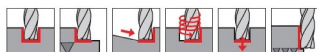
Artikel-Nr. **3367**

| d1 h10 | d2 h6 | d3    | l1  | l2   | l3   | r   | Z | Code-Nr. |
|--------|-------|-------|-----|------|------|-----|---|----------|
| mm     | mm    | mm    | mm  | mm   | mm   | mm  |   |          |
| 6,00   | 6,00  | 5,70  | 57  | 10,0 | 20,0 | 1,0 | 3 | 6,000    |
| 8,00   | 8,00  | 7,70  | 63  | 16,0 | 26,0 | 1,0 | 3 | 8,000    |
| 10,00  | 10,00 | 9,50  | 72  | 19,0 | 30,0 | 1,5 | 3 | 10,000   |
| 12,00  | 12,00 | 11,50 | 83  | 22,0 | 36,0 | 1,5 | 3 | 12,000   |
| 12,00  | 12,00 | 11,50 | 83  | 22,0 | 36,0 | 2,0 | 3 | 12,020   |
| 12,00  | 12,00 | 11,50 | 83  | 22,0 | 36,0 | 2,5 | 3 | 12,025   |
| 12,00  | 12,00 | 11,50 | 83  | 22,0 | 36,0 | 4,0 | 3 | 12,040   |
| 16,00  | 16,00 | 15,50 | 92  | 26,0 | 42,0 | 2,0 | 3 | 16,000   |
| 16,00  | 16,00 | 15,50 | 92  | 26,0 | 42,0 | 2,5 | 3 | 16,025   |
| 16,00  | 16,00 | 15,50 | 92  | 26,0 | 42,0 | 3,0 | 3 | 16,030   |
| 16,00  | 16,00 | 15,50 | 92  | 26,0 | 42,0 | 4,0 | 3 | 16,040   |
| 20,00  | 20,00 | 19,50 | 104 | 32,0 | 52,0 | 2,5 | 3 | 20,000   |
| 20,00  | 20,00 | 19,50 | 104 | 32,0 | 52,0 | 2,0 | 3 | 20,020   |
| 20,00  | 20,00 | 19,50 | 104 | 32,0 | 52,0 | 3,0 | 3 | 20,030   |
| 20,00  | 20,00 | 19,50 | 104 | 32,0 | 52,0 | 4,0 | 3 | 20,040   |
| 25,00  | 25,00 | 24,50 | 121 | 38,0 | 63,0 | 2,0 | 3 | 25,020   |
| 25,00  | 25,00 | 24,50 | 121 | 38,0 | 63,0 | 3,0 | 3 | 25,030   |
| 25,00  | 25,00 | 24,50 | 121 | 38,0 | 63,0 | 4,0 | 3 | 25,040   |

| ISO | Härte      | vc  | fz (mm/z) / Ø |       |       |       |                                                                                     |       |       |     | vc    | fz (mm/z) / Ø |       |       |       |              |       |  |  |                                                                                     |  |  |  |
|-----|------------|-----|---------------|-------|-------|-------|-------------------------------------------------------------------------------------|-------|-------|-----|-------|---------------|-------|-------|-------|--------------|-------|--|--|-------------------------------------------------------------------------------------|--|--|--|
|     |            |     | 3             | 6     | 8     | 10    | 12                                                                                  | 16    | 20    | 3   |       | 6             | 8     | 10    | 12    | 16           | 20    |  |  |                                                                                     |  |  |  |
|     |            |     | ap = 1,0 x D  |       |       |       |  |       |       |     |       | ae = 1,0 x D  |       |       |       | ap = 1,0 x D |       |  |  |  |  |  |  |
| N   | ≤ 5% Si    | 300 | 0,015         | 0,030 | 0,040 | 0,055 | 0,066                                                                               | 0,088 | 0,110 | 400 | 0,017 | 0,035         | 0,046 | 0,063 | 0,076 | 0,101        | 0,127 |  |  |                                                                                     |  |  |  |
|     | ≥ 5% Si    | 180 | 0,014         | 0,027 | 0,036 | 0,050 | 0,060                                                                               | 0,080 | 0,100 | 300 | 0,016 | 0,031         | 0,041 | 0,058 | 0,069 | 0,092        | 0,115 |  |  |                                                                                     |  |  |  |
| NE  | Mg-Leg.    | 150 | 0,013         | 0,025 | 0,034 | 0,045 | 0,054                                                                               | 0,072 | 0,090 | 180 | 0,014 | 0,024         | 0,029 | 0,039 | 0,052 | 0,062        | 0,083 |  |  |                                                                                     |  |  |  |
|     | NE-Metalle | 200 | 0,014         | 0,027 | 0,036 | 0,050 | 0,060                                                                               | 0,080 | 0,100 | 230 | 0,016 | 0,031         | 0,041 | 0,058 | 0,069 | 0,092        | 0,115 |  |  |                                                                                     |  |  |  |

Optional bieten wir unsere Carbo-Beschichtung zur Verbesserung von Spanfluss und Standzeit an.

### Schaftfräser (einschneidig)



**GÜHRING NAVIGATOR**  
Schnittwerte siehe Seite 329

- P
- M
- K
- N
- S
- H

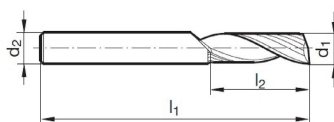
- polierte Spannuten
- Zentrumschnitt

Schneidstoff **VHM**

Oberfläche ○

Typ W

Schaftform HA



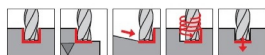
Artikel-Nr. **6793**

| d1 h10 | d2 h6 | l1 | l2   | Z | Code-Nr. |
|--------|-------|----|------|---|----------|
| mm     | mm    | mm | mm   |   |          |
| 2,00   | 2,00  | 38 | 10,0 | 1 | 2,000    |
| 3,00   | 3,00  | 39 | 12,0 | 1 | 3,000    |
| 4,00   | 4,00  | 40 | 15,0 | 1 | 4,000    |
| 5,00   | 5,00  | 50 | 16,0 | 1 | 5,000    |
| 6,00   | 6,00  | 57 | 20,0 | 1 | 6,000    |
| 8,00   | 8,00  | 63 | 22,0 | 1 | 8,000    |
| 10,00  | 10,00 | 73 | 25,0 | 1 | 10,000   |
| 12,00  | 12,00 | 83 | 30,0 | 1 | 12,000   |
| 16,00  | 16,00 | 92 | 35,0 | 1 | 16,000   |

| ISO            | Härte   | vc  | fz (mm/z) / Ø |       |       |                                                                                     |              |      |      | vc  | fz (mm/z) / Ø |       |       |                                                                                       |                   |      |      |
|----------------|---------|-----|---------------|-------|-------|-------------------------------------------------------------------------------------|--------------|------|------|-----|---------------|-------|-------|---------------------------------------------------------------------------------------|-------------------|------|------|
|                |         |     | 3             | 6     | 8     | 10                                                                                  | 12           | 16   | 20   |     | 3             | 6     | 8     | 10                                                                                    | 12                | 16   | 20   |
|                |         |     | ap = 1,0 x D  |       |       |  | ae = 1,0 x D |      |      |     | ap = 1,0 x D  |       |       |  | ae max = 0,75 x D |      |      |
| N              | ≤ 7% Si | 300 | 0,019         | 0,037 | 0,050 | 0,065                                                                               | 0,08         | 0,10 | 0,13 | 350 | 0,021         | 0,043 | 0,057 | 0,075                                                                                 | 0,09              | 0,12 | 0,15 |
|                | ≥ 7% Si | 160 | 0,013         | 0,025 | 0,034 | 0,046                                                                               | 0,06         | 0,07 | 0,09 | 190 | 0,018         | 0,036 | 0,048 | 0,064                                                                                 | 0,08              | 0,10 | 0,13 |
| NE ≤ 850 N/mm² |         | 175 | 0,013         | 0,025 | 0,034 | 0,046                                                                               | 0,06         | 0,07 | 0,09 | 290 | 0,014         | 0,029 | 0,039 | 0,053                                                                                 | 0,06              | 0,08 | 0,11 |

Optional bieten wir unsere Carbo-Beschichtung zur Verbesserung von Spanfluss und Standzeit an.

### Alu-Longlochfräser (2-Schneider)



|   |
|---|
| P |
| M |
| K |
| N |
| S |
| H |

**GUHRING NAVIGATOR**  
Schnittwerte siehe Seite 335

• Zentrumschnitt

Schneidstoff

VHM

Oberfläche



Typ

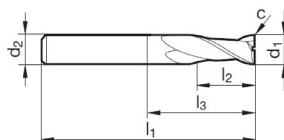
W

W

Schaftform

HA

HB



Artikel-Nr.

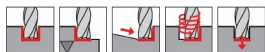
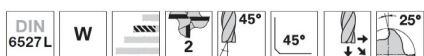
3310

3126

| d1 h8 | d2 h6 | l1 | l2   | l3   | c        | Z | Code-Nr. |
|-------|-------|----|------|------|----------|---|----------|
| mm    | mm    | mm | mm   | mm   | mm x 45° |   |          |
| 3,00  | 6,00  | 50 | 4,0  | 7,9  | 0,03     | 2 | 3,000    |
| 4,00  | 6,00  | 54 | 5,0  | 8,9  | 0,03     | 2 | 4,000    |
| 5,00  | 6,00  | 54 | 6,0  | 11,4 | 0,03     | 2 | 5,000    |
| 6,00  | 6,00  | 54 | 7,0  | 18,0 | 0,03     | 2 | 6,000    |
| 8,00  | 8,00  | 58 | 9,0  | 22,0 | 0,05     | 2 | 8,000    |
| 10,00 | 10,00 | 66 | 11,0 | 26,0 | 0,05     | 2 | 10,000   |
| 12,00 | 12,00 | 73 | 12,0 | 28,0 | 0,10     | 2 | 12,000   |
| 14,00 | 14,00 | 75 | 14,0 | 30,0 | 0,10     | 2 | 14,000   |
| 16,00 | 16,00 | 82 | 16,0 | 34,0 | 0,10     | 2 | 16,000   |
| 18,00 | 18,00 | 84 | 18,0 | 36,0 | 0,10     | 2 | 18,000   |
| 20,00 | 20,00 | 92 | 20,0 | 42,0 | 0,10     | 2 | 20,000   |

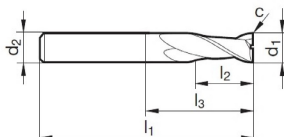
| ISO | Härte       | vc  | fz (mm/z) / Ø |       |       |       |              |      |      |  | vc  | fz (mm/z) / Ø |       |       |       |                   |      |      |  |
|-----|-------------|-----|---------------|-------|-------|-------|--------------|------|------|--|-----|---------------|-------|-------|-------|-------------------|------|------|--|
|     |             |     | 3             | 6     | 8     | 10    | 12           | 16   | 20   |  |     | 3             | 6     | 8     | 10    | 12                | 16   | 20   |  |
|     |             |     | ap = 1,0 x D  |       |       |       | ae = 1,0 x D |      |      |  |     | ap = 1,0 x D  |       |       |       | ae max = 0,75 x D |      |      |  |
| N   | ≤ 7% Si     | 300 | 0,019         | 0,037 | 0,050 | 0,065 | 0,08         | 0,10 | 0,13 |  | 350 | 0,021         | 0,043 | 0,057 | 0,075 | 0,09              | 0,12 | 0,15 |  |
|     | ≥ 7% Si     | 160 | 0,013         | 0,025 | 0,034 | 0,046 | 0,06         | 0,07 | 0,09 |  | 190 | 0,018         | 0,036 | 0,048 | 0,064 | 0,08              | 0,10 | 0,13 |  |
| NE  | ≤ 850 N/mm² | 175 | 0,013         | 0,025 | 0,034 | 0,046 | 0,06         | 0,07 | 0,09 |  | 290 | 0,014         | 0,029 | 0,039 | 0,053 | 0,06              | 0,08 | 0,11 |  |

### Alu-Langlochfräser (2-Schneider)



|          |                              |
|----------|------------------------------|
| <b>P</b> | <b>GUHRINGNAVIGATOR</b>      |
| <b>M</b> | Schnittwerte siehe Seite 335 |
| <b>K</b> |                              |
| <b>N</b> | •                            |
| <b>S</b> |                              |
| <b>H</b> | • Zentrumschnitt             |

| Schneidstoff | VHM |    |
|--------------|-----|----|
| Oberfläche   | ○   | ○  |
| Typ          | W   | W  |
| Schaftform   | HA  | HB |



Artikel-Nr. 3309 3059

| d1 h8 | d2 h6 | l1  | l2   | l3   | c        | Z | Code-Nr. |
|-------|-------|-----|------|------|----------|---|----------|
| mm    | mm    | mm  | mm   | mm   | mm x 45° |   |          |
| 3,00  | 6,00  | 57  | 7,0  | 10,9 | 0,03     | 2 | 3,000    |
| 4,00  | 6,00  | 57  | 8,0  | 11,9 | 0,03     | 2 | 4,000    |
| 5,00  | 6,00  | 57  | 10,0 | 15,4 | 0,03     | 2 | 5,000    |
| 6,00  | 6,00  | 57  | 10,0 | 21,0 | 0,03     | 2 | 6,000    |
| 8,00  | 8,00  | 63  | 16,0 | 27,0 | 0,05     | 2 | 8,000    |
| 10,00 | 10,00 | 72  | 19,0 | 32,0 | 0,05     | 2 | 10,000   |
| 12,00 | 12,00 | 83  | 22,0 | 38,0 | 0,10     | 2 | 12,000   |
| 14,00 | 14,00 | 83  | 22,0 | 38,0 | 0,10     | 2 | 14,000   |
| 14,00 | 16,00 | 92  | 26,0 | 37,4 | 0,10     | 2 | 14,001   |
| 16,00 | 16,00 | 92  | 26,0 | 44,0 | 0,10     | 2 | 16,000   |
| 18,00 | 18,00 | 92  | 26,0 | 44,0 | 0,10     | 2 | 18,000   |
| 18,00 | 20,00 | 104 | 32,0 | 46,0 | 0,10     | 2 | 18,001   |
| 20,00 | 20,00 | 104 | 32,0 | 54,0 | 0,10     | 2 | 20,000   |

| ISO       | Härte       | vc         | fz (mm/z) / Ø |       |       |              |      |      |      | vc         | fz (mm/z) / Ø |       |       |                   |      |      |      |
|-----------|-------------|------------|---------------|-------|-------|--------------|------|------|------|------------|---------------|-------|-------|-------------------|------|------|------|
|           |             |            | 3             | 6     | 8     | 10           | 12   | 16   | 20   |            | 3             | 6     | 8     | 10                | 12   | 16   | 20   |
|           |             |            | ap = 1,0 x D  |       |       | ae = 1,0 x D |      |      |      |            | ap = 1,0 x D  |       |       | ae max = 0,75 x D |      |      |      |
| <b>N</b>  | ≤ 7% Si     | <b>300</b> | 0,019         | 0,037 | 0,050 | 0,065        | 0,08 | 0,10 | 0,13 | <b>350</b> | 0,021         | 0,043 | 0,057 | 0,075             | 0,09 | 0,12 | 0,15 |
|           | ≥ 7% Si     | <b>160</b> | 0,013         | 0,025 | 0,034 | 0,046        | 0,06 | 0,07 | 0,09 | <b>190</b> | 0,018         | 0,036 | 0,048 | 0,064             | 0,08 | 0,10 | 0,13 |
| <b>NE</b> | ≤ 850 N/mm² | <b>175</b> | 0,013         | 0,025 | 0,034 | 0,046        | 0,06 | 0,07 | 0,09 | <b>290</b> | 0,014         | 0,029 | 0,039 | 0,053             | 0,06 | 0,08 | 0,11 |

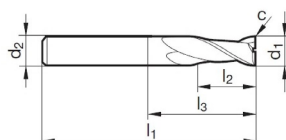


### Alu-Longlochfräser XL (2-Schneider)



|          |                              |
|----------|------------------------------|
| <b>P</b> | <b>GUHRINGNAVIGATOR</b>      |
| <b>M</b> | Schnittwerte siehe Seite 335 |
| <b>K</b> |                              |
| <b>N</b> | •                            |
| <b>S</b> |                              |
| <b>H</b> | • Zentrumschnitt             |

|              |            |
|--------------|------------|
| Schneidstoff | <b>VHM</b> |
| Oberfläche   | ○          |
| Typ          | W          |
| Schaftform   | HA         |

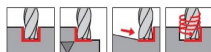


Artikel-Nr. 3358

| d1 h10 | d2 h6 | l1  | l2   | l3    | c        | Z | Code-Nr. |
|--------|-------|-----|------|-------|----------|---|----------|
| mm     | mm    | mm  | mm   | mm    | mm x 45° |   |          |
| 5,00   | 5,00  | 75  | 30,0 | 47,0  | 0,03     | 2 | 5,000    |
| 6,00   | 6,00  | 75  | 30,0 | 39,0  | 0,03     | 2 | 6,000    |
| 8,00   | 8,00  | 100 | 40,0 | 64,0  | 0,05     | 2 | 8,000    |
| 10,00  | 10,00 | 100 | 40,0 | 60,0  | 0,05     | 2 | 10,000   |
| 12,00  | 12,00 | 150 | 45,0 | 105,0 | 0,10     | 2 | 12,000   |
| 16,00  | 16,00 | 150 | 65,0 | 102,0 | 0,10     | 2 | 16,000   |

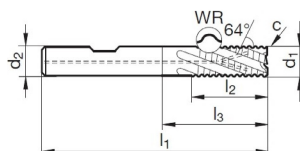
| ISO       | Härte       | vc         | fz (mm/z) / Ø |       |            |            |      |                    |      | vc         | fz (mm/z) / Ø |       |       |                    |       |       |       |
|-----------|-------------|------------|---------------|-------|------------|------------|------|--------------------|------|------------|---------------|-------|-------|--------------------|-------|-------|-------|
|           |             |            | 3             | 6     | 8          | 10         | 12   | 16                 | 20   |            | 3             | 6     | 8     | 10                 | 12    | 16    | 20    |
|           |             |            | ap = l2       |       | <b>HPC</b> | <b>HSC</b> |      | ae max. = 0,10 x D |      |            | ap = l2       |       |       | ae max. = 0,02 x D |       |       |       |
| <b>N</b>  | ≤ 7% Si     | <b>220</b> | 0,015         | 0,030 | 0,040      | 0,052      | 0,06 | 0,08               | 0,10 | <b>270</b> | 0,009         | 0,019 | 0,025 | 0,033              | 0,039 | 0,052 | 0,065 |
|           | ≥ 7% Si     | <b>130</b> | 0,013         | 0,025 | 0,033      | 0,045      | 0,05 | 0,07               | 0,09 | <b>140</b> | 0,008         | 0,016 | 0,021 | 0,028              | 0,034 | 0,045 | 0,056 |
| <b>NE</b> | ≤ 850 N/mm² | <b>70</b>  | 0,010         | 0,020 | 0,027      | 0,037      | 0,04 | 0,06               | 0,07 | <b>220</b> | 0,006         | 0,013 | 0,017 | 0,023              | 0,028 | 0,037 | 0,046 |

#### Schrupfräser GS 100 A (grobverzahnt)



|          |                                        |
|----------|----------------------------------------|
| <b>P</b> | <b>GUHRINGNAVIGATOR</b>                |
| <b>M</b> | Schnittwerte siehe Seite 331           |
| <b>K</b> |                                        |
| <b>N</b> | •                                      |
| <b>S</b> |                                        |
| <b>H</b> | • mit Innenkühlung<br>• Zentrumschnitt |

| Schneidstoff | VHM |    |
|--------------|-----|----|
| Oberfläche   | ○   | ○  |
| Typ          | WR  | WR |
| Schaftform   | HB  | HB |

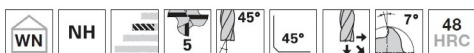


Artikel-Nr. 3364 3127

| d1 h10 | d2 h6 | l1  | l2   | l3   | c        | Z | Code-Nr. |
|--------|-------|-----|------|------|----------|---|----------|
| mm     | mm    | mm  | mm   | mm   | mm x 45° |   |          |
| 6,00   | 6,00  | 57  | 10,0 | 21,0 | 0,30     | 3 | 6,000    |
| 8,00   | 8,00  | 63  | 16,0 | 27,0 | 0,30     | 3 | 8,000    |
| 10,00  | 10,00 | 72  | 19,0 | 32,0 | 0,30     | 3 | 10,000   |
| 12,00  | 12,00 | 83  | 22,0 | 38,0 | 0,50     | 3 | 12,000   |
| 14,00  | 14,00 | 83  | 22,0 | 38,0 | 0,50     | 3 | 14,000   |
| 16,00  | 16,00 | 92  | 26,0 | 44,0 | 0,50     | 3 | 16,000   |
| 18,00  | 18,00 | 92  | 26,0 | 44,0 | 0,50     | 3 | 18,000   |
| 20,00  | 20,00 | 104 | 32,0 | 54,0 | 0,50     | 3 | 20,000   |
| 25,00  | 25,00 | 121 | 45,0 | 65,0 | 0,60     | 3 | 25,000   |

| ISO       | Härte       | vc         | fz (mm/z) / Ø |       |       |              |       |       |       | vc         | fz (mm/z) / Ø |       |       |                    |       |       |       |
|-----------|-------------|------------|---------------|-------|-------|--------------|-------|-------|-------|------------|---------------|-------|-------|--------------------|-------|-------|-------|
|           |             |            | 3             | 6     | 8     | 10           | 12    | 16    | 20    |            | 3             | 6     | 8     | 10                 | 12    | 16    | 20    |
|           |             |            | ap = 1,0 x D  |       |       | ae = 1,0 x D |       |       |       |            | ap = 1,5 x D  |       |       | ae max. = 0,75 x D |       |       |       |
| <b>N</b>  | ≤ 7% Si     | <b>350</b> | 0,010         | 0,019 | 0,026 | 0,035        | 0,042 | 0,056 | 0,070 | <b>410</b> | 0,011         | 0,022 | 0,029 | 0,040              | 0,048 | 0,064 | 0,081 |
|           | ≥ 7% Si     | <b>180</b> | 0,009         | 0,018 | 0,024 | 0,032        | 0,038 | 0,051 | 0,064 | <b>210</b> | 0,010         | 0,021 | 0,028 | 0,037              | 0,044 | 0,059 | 0,074 |
| <b>NE</b> | ≤ 850 N/mm² | <b>180</b> | 0,009         | 0,018 | 0,024 | 0,032        | 0,038 | 0,051 | 0,064 | <b>210</b> | 0,010         | 0,021 | 0,028 | 0,037              | 0,044 | 0,059 | 0,074 |

### Ratiofräser Superfinish RF 100 SF



**P** • **GUHRINGNAVIGATOR**  
**M** • Schnittwerte siehe Seite 328  
**K** •  
**N** •  
**S** •  
**H** ○ • Halsfreischliff  
 • Zentrumschnitt

Schneidstoff

VHM

Oberfläche

F

F

Typ

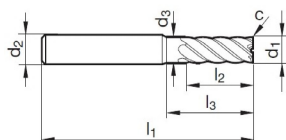
NH

NH

Schaftform

HA

HB



Artikel-Nr.

6709

6710

| d1 h10 | d2 h6 | d3    | l1  | l2   | l3   | c        | Z | Code-Nr. |
|--------|-------|-------|-----|------|------|----------|---|----------|
| mm     | mm    | mm    | mm  | mm   | mm   | mm x 45° |   |          |
| 4,00   | 6,00  | 3,80  | 57  | 11,0 | 18,0 | 0,05     | 5 | 4,000    |
| 5,00   | 6,00  | 4,80  | 57  | 13,0 | 18,0 | 0,05     | 5 | 5,000    |
| 6,00   | 6,00  | 5,70  | 57  | 13,0 | 20,0 | 0,05     | 5 | 6,000    |
| 8,00   | 8,00  | 7,70  | 63  | 19,0 | 26,0 | 0,10     | 5 | 8,000    |
| 10,00  | 10,00 | 9,50  | 72  | 22,0 | 30,0 | 0,10     | 5 | 10,000   |
| 12,00  | 12,00 | 11,50 | 83  | 26,0 | 36,0 | 0,10     | 5 | 12,000   |
| 16,00  | 16,00 | 15,50 | 92  | 32,0 | 42,0 | 0,15     | 5 | 16,000   |
| 20,00  | 20,00 | 19,50 | 104 | 38,0 | 52,0 | 0,15     | 5 | 20,000   |
| 25,00  | 25,00 | 24,00 | 121 | 45,0 | 63,0 | 0,20     | 5 | 25,000   |

| ISO | Härte       | vc  | fz (mm/z) / Ø |       |       |       |      |      |      |                    | vc   | fz (mm/z) / Ø |       |       |       |      |      |                    |  |
|-----|-------------|-----|---------------|-------|-------|-------|------|------|------|--------------------|------|---------------|-------|-------|-------|------|------|--------------------|--|
|     |             |     | 3             | 6     | 8     | 10    | 12   | 16   | 20   |                    |      | 3             | 6     | 8     | 10    | 12   | 16   | 20                 |  |
|     |             |     | ap = l2       |       | HPC   | HSC   |      |      |      | ae max. = 0,10 x D |      | ap = l2       |       |       |       |      |      | ae max. = 0,02 x D |  |
| P   | ≤ 850 N/mm² | 340 | 0,036         | 0,072 | 0,096 | 0,138 | 0,17 | 0,22 | 0,28 |                    | 360  | 0,017         | 0,034 | 0,046 | 0,066 | 0,08 | 0,11 | 0,13               |  |
|     | ≥ 850 N/mm² | 250 | 0,031         | 0,062 | 0,083 | 0,115 | 0,14 | 0,18 | 0,23 |                    | 270  | 0,015         | 0,030 | 0,040 | 0,055 | 0,07 | 0,09 | 0,11               |  |
| M   | ≤ 750 N/mm² | 220 | 0,031         | 0,062 | 0,083 | 0,115 | 0,14 | 0,18 | 0,23 |                    | 240  | 0,015         | 0,030 | 0,040 | 0,055 | 0,07 | 0,09 | 0,11               |  |
|     | ≥ 750 N/mm² | 110 | 0,024         | 0,048 | 0,064 | 0,092 | 0,11 | 0,15 | 0,18 |                    | 120  | 0,011         | 0,021 | 0,028 | 0,040 | 0,05 | 0,06 | 0,08               |  |
| S   | Ni-Basis    | 60  | 0,019         | 0,039 | 0,052 | 0,074 | 0,09 | 0,12 | 0,15 |                    | 60   | 0,008         | 0,017 | 0,022 | 0,032 | 0,04 | 0,05 | 0,06               |  |
|     | Ti-Basis    | 110 | 0,028         | 0,055 | 0,074 | 0,104 | 0,12 | 0,17 | 0,21 |                    | 120  | 0,013         | 0,026 | 0,035 | 0,050 | 0,06 | 0,08 | 0,10               |  |
| K   | ≤ 240 HB    | 300 | 0,038         | 0,076 | 0,101 | 0,150 | 0,18 | 0,24 | 0,30 |                    | 320  | 0,018         | 0,036 | 0,048 | 0,072 | 0,09 | 0,11 | 0,14               |  |
|     | ≥ 240 HB    | 260 | 0,035         | 0,069 | 0,092 | 0,127 | 0,15 | 0,20 | 0,25 |                    | 280  | 0,017         | 0,033 | 0,044 | 0,061 | 0,07 | 0,10 | 0,12               |  |
| N   | ≤ 7 % Si    | 900 | 0,045         | 0,090 | 0,120 | 0,184 | 0,22 | 0,29 | 0,37 |                    | 1000 | 0,021         | 0,043 | 0,057 | 0,088 | 0,11 | 0,14 | 0,18               |  |
|     | ≥ 7 % Si    | 430 | 0,038         | 0,076 | 0,101 | 0,138 | 0,17 | 0,22 | 0,28 |                    | 460  | 0,018         | 0,036 | 0,048 | 0,066 | 0,08 | 0,11 | 0,13               |  |

### Ratiofräser Superfinish RF 100 SF



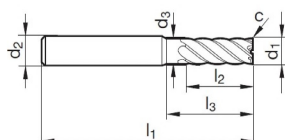
### GUHRINGNAVIGATOR

Schnittwerte siehe Seite 328

|   |   |
|---|---|
| P | • |
| M | • |
| K | • |
| N | • |
| S | • |
| H | ○ |

- Halsfreischliff
- Zentrumschnitt

|              |     |    |
|--------------|-----|----|
| Schneidstoff | VHM |    |
| Oberfläche   | F   | F  |
| Typ          | NH  | NH |
| Schaftform   | HA  | HB |



Artikel-Nr. 3631 3632

| d1 h10 | d2 h6 | d3    | l1  | l2   | l3   | c        | Z | Code-Nr. |
|--------|-------|-------|-----|------|------|----------|---|----------|
| mm     | mm    | mm    | mm  | mm   | mm   | mm x 45° |   |          |
| 8,00   | 8,00  | 7,70  | 63  | 19,0 | 26,0 | 0,10     | 6 | 8,000    |
| 10,00  | 10,00 | 9,50  | 72  | 22,0 | 30,0 | 0,10     | 6 | 10,000   |
| 12,00  | 12,00 | 11,50 | 83  | 26,0 | 36,0 | 0,10     | 6 | 12,000   |
| 16,00  | 16,00 | 15,50 | 92  | 32,0 | 42,0 | 0,15     | 6 | 16,000   |
| 20,00  | 20,00 | 19,50 | 104 | 38,0 | 52,0 | 0,15     | 6 | 20,000   |
| 25,00  | 25,00 | 24,00 | 121 | 45,0 | 63,0 | 0,20     | 6 | 25,000   |

| ISO | Härte                   | vc  | fz (mm/z) / Ø |       |       |       |                                                                                     |                       |      |      | vc    | fz (mm/z) / Ø |       |                                                                                       |                    |      |      |  |  |
|-----|-------------------------|-----|---------------|-------|-------|-------|-------------------------------------------------------------------------------------|-----------------------|------|------|-------|---------------|-------|---------------------------------------------------------------------------------------|--------------------|------|------|--|--|
|     |                         |     | 3             | 6     | 8     | 10    | 12                                                                                  | 16                    | 20   | 3    |       | 6             | 8     | 10                                                                                    | 12                 | 16   | 20   |  |  |
|     |                         |     | ap = l2       |       | HPC   | HSC   |  | ae max.<br>= 0,10 x D |      |      |       | ap = l2       |       |  | ae max. = 0,02 x D |      |      |  |  |
| P   | ≤ 850 N/mm <sup>2</sup> | 340 | 0,036         | 0,072 | 0,096 | 0,138 | 0,17                                                                                | 0,22                  | 0,28 | 360  | 0,017 | 0,034         | 0,046 | 0,066                                                                                 | 0,08               | 0,11 | 0,13 |  |  |
|     | ≥ 850 N/mm <sup>2</sup> | 250 | 0,031         | 0,062 | 0,083 | 0,115 | 0,14                                                                                | 0,18                  | 0,23 | 270  | 0,015 | 0,030         | 0,040 | 0,055                                                                                 | 0,07               | 0,09 | 0,11 |  |  |
| M   | ≤ 750 N/mm <sup>2</sup> | 220 | 0,031         | 0,062 | 0,083 | 0,115 | 0,14                                                                                | 0,18                  | 0,23 | 240  | 0,015 | 0,030         | 0,040 | 0,055                                                                                 | 0,07               | 0,09 | 0,11 |  |  |
|     | ≥ 750 N/mm <sup>2</sup> | 110 | 0,024         | 0,048 | 0,064 | 0,092 | 0,11                                                                                | 0,15                  | 0,18 | 120  | 0,011 | 0,021         | 0,028 | 0,040                                                                                 | 0,05               | 0,06 | 0,08 |  |  |
| S   | Ni-Basis                | 60  | 0,019         | 0,039 | 0,052 | 0,074 | 0,09                                                                                | 0,12                  | 0,15 | 60   | 0,008 | 0,017         | 0,022 | 0,032                                                                                 | 0,04               | 0,05 | 0,06 |  |  |
|     | Ti-Basis                | 110 | 0,028         | 0,055 | 0,074 | 0,104 | 0,12                                                                                | 0,17                  | 0,21 | 120  | 0,013 | 0,026         | 0,035 | 0,050                                                                                 | 0,06               | 0,08 | 0,10 |  |  |
| K   | ≤ 240 HB                | 300 | 0,038         | 0,076 | 0,101 | 0,150 | 0,18                                                                                | 0,24                  | 0,30 | 320  | 0,018 | 0,036         | 0,048 | 0,072                                                                                 | 0,09               | 0,11 | 0,14 |  |  |
|     | ≥ 240 HB                | 260 | 0,035         | 0,069 | 0,092 | 0,127 | 0,15                                                                                | 0,20                  | 0,25 | 280  | 0,017 | 0,033         | 0,044 | 0,061                                                                                 | 0,07               | 0,10 | 0,12 |  |  |
| N   | ≤ 7 % Si                | 900 | 0,045         | 0,090 | 0,120 | 0,184 | 0,22                                                                                | 0,29                  | 0,37 | 1000 | 0,021 | 0,043         | 0,057 | 0,088                                                                                 | 0,11               | 0,14 | 0,18 |  |  |
|     | > 7 % Si                | 430 | 0,038         | 0,076 | 0,101 | 0,138 | 0,17                                                                                | 0,22                  | 0,28 | 460  | 0,018 | 0,036         | 0,048 | 0,066                                                                                 | 0,08               | 0,11 | 0,13 |  |  |



### Ratiofräser Superfinish RF 100 SF



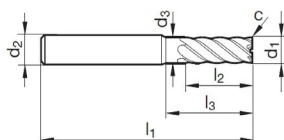
|   |   |
|---|---|
| P | • |
| M | • |
| K | • |
| N | • |
| S | • |
| H | ○ |

### GUHRINGNAVIGATOR

Schnittwerte siehe Seite 328

- Halsfreischliff
- Zentrumschnitt

| Schneidstoff | VHM |    |
|--------------|-----|----|
| Oberfläche   | F   | F  |
| Typ          | NH  | NH |
| Schaftform   | HA  | HB |



Artikel-Nr. 3897 3898

| d1 h10 | d2 h6 | d3    | l1  | l2   | l3   | c        | Z | Code-Nr. |
|--------|-------|-------|-----|------|------|----------|---|----------|
| mm     | mm    | mm    | mm  | mm   | mm   | mm x 45° |   |          |
| 4,00   | 6,00  | 3,80  | 65  | 12,0 | 26,0 | 0,05     | 5 | 4,000    |
| 5,00   | 6,00  | 4,80  | 65  | 15,0 | 26,0 | 0,05     | 5 | 5,000    |
| 6,00   | 6,00  | 5,70  | 65  | 18,0 | 28,0 | 0,05     | 5 | 6,000    |
| 8,00   | 8,00  | 7,70  | 75  | 24,0 | 38,0 | 0,10     | 5 | 8,000    |
| 10,00  | 10,00 | 9,50  | 80  | 30,0 | 38,0 | 0,10     | 5 | 10,000   |
| 12,00  | 12,00 | 11,50 | 93  | 36,0 | 46,0 | 0,10     | 5 | 12,000   |
| 16,00  | 16,00 | 15,50 | 108 | 48,0 | 58,0 | 0,15     | 5 | 16,000   |
| 20,00  | 20,00 | 19,50 | 126 | 60,0 | 74,0 | 0,15     | 5 | 20,000   |

| ISO | Härte       | vc  | fz (mm/z) / Ø |       |       |       |      |      |                    |  | vc   | fz (mm/z) / Ø |       |                    |       |      |      |      |  |
|-----|-------------|-----|---------------|-------|-------|-------|------|------|--------------------|--|------|---------------|-------|--------------------|-------|------|------|------|--|
|     |             |     | 3             | 6     | 8     | 10    | 12   | 16   | 20                 |  |      | 3             | 6     | 8                  | 10    | 12   | 16   | 20   |  |
|     |             |     | ap = l2       |       | HPC   |       | HSC  |      | ae max. = 0,10 x D |  |      | ap = l2       |       | ae max. = 0,02 x D |       |      |      |      |  |
| P   | ≤ 850 N/mm² | 340 | 0,036         | 0,072 | 0,096 | 0,138 | 0,17 | 0,22 | 0,28               |  | 360  | 0,017         | 0,034 | 0,046              | 0,066 | 0,08 | 0,11 | 0,13 |  |
|     | ≥ 850 N/mm² | 250 | 0,031         | 0,062 | 0,083 | 0,115 | 0,14 | 0,18 | 0,23               |  | 270  | 0,015         | 0,030 | 0,040              | 0,055 | 0,07 | 0,09 | 0,11 |  |
| M   | ≤ 750 N/mm² | 220 | 0,031         | 0,062 | 0,083 | 0,115 | 0,14 | 0,18 | 0,23               |  | 240  | 0,015         | 0,030 | 0,040              | 0,055 | 0,07 | 0,09 | 0,11 |  |
|     | ≥ 750 N/mm² | 110 | 0,024         | 0,048 | 0,064 | 0,092 | 0,11 | 0,15 | 0,18               |  | 120  | 0,011         | 0,021 | 0,028              | 0,040 | 0,05 | 0,06 | 0,08 |  |
| S   | Ni-Basis    | 60  | 0,019         | 0,039 | 0,052 | 0,074 | 0,09 | 0,12 | 0,15               |  | 60   | 0,008         | 0,017 | 0,022              | 0,032 | 0,04 | 0,05 | 0,06 |  |
|     | Ti-Basis    | 110 | 0,028         | 0,055 | 0,074 | 0,104 | 0,12 | 0,17 | 0,21               |  | 120  | 0,013         | 0,026 | 0,035              | 0,050 | 0,06 | 0,08 | 0,10 |  |
| K   | ≤ 240 HB    | 300 | 0,038         | 0,076 | 0,101 | 0,150 | 0,18 | 0,24 | 0,30               |  | 320  | 0,018         | 0,036 | 0,048              | 0,072 | 0,09 | 0,11 | 0,14 |  |
|     | ≥ 240 HB    | 260 | 0,035         | 0,069 | 0,092 | 0,127 | 0,15 | 0,20 | 0,25               |  | 280  | 0,017         | 0,033 | 0,044              | 0,061 | 0,07 | 0,10 | 0,12 |  |
| N   | ≤ 7 % Si    | 900 | 0,045         | 0,090 | 0,120 | 0,184 | 0,22 | 0,29 | 0,37               |  | 1000 | 0,021         | 0,043 | 0,057              | 0,088 | 0,11 | 0,14 | 0,18 |  |
|     | ≥ 7 % Si    | 430 | 0,038         | 0,076 | 0,101 | 0,138 | 0,17 | 0,22 | 0,28               |  | 460  | 0,018         | 0,036 | 0,048              | 0,066 | 0,08 | 0,11 | 0,13 |  |

### Ratiofräser Superfinish RF 100 SF 90°



### GUHRINGNAVIGATOR

Schnittwerte siehe Seite 328

|   |   |
|---|---|
| P | • |
| M | • |
| K | • |
| N | • |
| S | • |
| H | • |

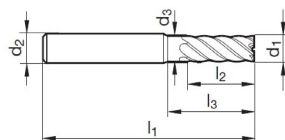
- ohne Eckenschutzfase
- Halsfreischliff
- Zentrumschnitt

Schneidstoff **VHM**

Oberfläche **a**

Typ **NH**

Schaftform **HA**



Artikel-Nr. **6763**

| d1 h10 | d2 h6 | d3    | l1  | l2   | l3   | Z | Code-Nr. |
|--------|-------|-------|-----|------|------|---|----------|
| mm     | mm    | mm    | mm  | mm   | mm   |   |          |
| 4,00   | 6,00  | 3,80  | 65  | 12,0 | 26,0 | 5 | 4,000    |
| 5,00   | 6,00  | 4,80  | 65  | 15,0 | 26,0 | 5 | 5,000    |
| 6,00   | 6,00  | 5,70  | 65  | 18,0 | 28,0 | 5 | 6,000    |
| 8,00   | 8,00  | 7,70  | 75  | 24,0 | 38,0 | 5 | 8,000    |
| 10,00  | 10,00 | 9,50  | 80  | 30,0 | 38,0 | 5 | 10,000   |
| 12,00  | 12,00 | 11,50 | 93  | 36,0 | 46,0 | 5 | 12,000   |
| 16,00  | 16,00 | 15,50 | 108 | 48,0 | 58,0 | 5 | 16,000   |
| 20,00  | 20,00 | 19,50 | 126 | 60,0 | 74,0 | 5 | 20,000   |

| ISO | Härte       | vc  | fz (mm/z) / Ø |       |       |       |                                                                                     |                    |      | vc   | fz (mm/z) / Ø |       |                                                                                       |                    |      |      |      |
|-----|-------------|-----|---------------|-------|-------|-------|-------------------------------------------------------------------------------------|--------------------|------|------|---------------|-------|---------------------------------------------------------------------------------------|--------------------|------|------|------|
|     |             |     | 3             | 6     | 8     | 10    | 12                                                                                  | 16                 | 20   |      | 3             | 6     | 8                                                                                     | 10                 | 12   | 16   | 20   |
|     |             |     | ap = l2       |       | HPC   | HSC   |  | ae max. = 0,10 x D |      |      | ap = l2       |       |  | ae max. = 0,02 x D |      |      |      |
| P   | ≤ 850 N/mm² | 340 | 0,036         | 0,072 | 0,096 | 0,138 | 0,17                                                                                | 0,22               | 0,28 | 360  | 0,017         | 0,034 | 0,046                                                                                 | 0,066              | 0,08 | 0,11 | 0,13 |
|     | ≥ 850 N/mm² | 250 | 0,031         | 0,062 | 0,083 | 0,115 | 0,14                                                                                | 0,18               | 0,23 | 270  | 0,015         | 0,030 | 0,040                                                                                 | 0,055              | 0,07 | 0,09 | 0,11 |
| M   | ≤ 750 N/mm² | 220 | 0,031         | 0,062 | 0,083 | 0,115 | 0,14                                                                                | 0,18               | 0,23 | 240  | 0,015         | 0,030 | 0,040                                                                                 | 0,055              | 0,07 | 0,09 | 0,11 |
|     | ≥ 750 N/mm² | 110 | 0,024         | 0,048 | 0,064 | 0,092 | 0,11                                                                                | 0,15               | 0,18 | 120  | 0,011         | 0,021 | 0,028                                                                                 | 0,040              | 0,05 | 0,06 | 0,08 |
| S   | Ni-Basis    | 60  | 0,019         | 0,039 | 0,052 | 0,074 | 0,09                                                                                | 0,12               | 0,15 | 60   | 0,008         | 0,017 | 0,022                                                                                 | 0,032              | 0,04 | 0,05 | 0,06 |
|     | Ti-Basis    | 110 | 0,028         | 0,055 | 0,074 | 0,104 | 0,12                                                                                | 0,17               | 0,21 | 120  | 0,013         | 0,026 | 0,035                                                                                 | 0,050              | 0,06 | 0,08 | 0,10 |
| K   | ≤ 240 HB    | 300 | 0,038         | 0,076 | 0,101 | 0,150 | 0,18                                                                                | 0,24               | 0,30 | 320  | 0,018         | 0,036 | 0,048                                                                                 | 0,072              | 0,09 | 0,11 | 0,14 |
|     | ≥ 240 HB    | 260 | 0,035         | 0,069 | 0,092 | 0,127 | 0,15                                                                                | 0,20               | 0,25 | 280  | 0,017         | 0,033 | 0,044                                                                                 | 0,061              | 0,07 | 0,10 | 0,12 |
| N   | ≤ 7 % Si    | 900 | 0,045         | 0,090 | 0,120 | 0,184 | 0,22                                                                                | 0,29               | 0,37 | 1000 | 0,021         | 0,043 | 0,057                                                                                 | 0,088              | 0,11 | 0,14 | 0,18 |
|     | ≥ 7 % Si    | 430 | 0,038         | 0,076 | 0,101 | 0,138 | 0,17                                                                                | 0,22               | 0,28 | 460  | 0,018         | 0,036 | 0,048                                                                                 | 0,066              | 0,08 | 0,11 | 0,13 |