

|              |                 |
|--------------|-----------------|
| Kühlung      |                 |
| Toleranz     | e8              |
| Beschichtung | TiSiN- $\alpha$ |



| Werkstoff /<br>Material           | Festigkeit /<br>strength<br>(N/mm <sup>2</sup> ) | Vc<br>m/min | Ø 0,1 - 2    |                               | Ø 3 - 4      |                               | Ø 5          |                               | Ø 6          |                               | Ø 8          |                               | Ø 10         |                               | Ø 12         |                               | Ø 16         |                               | Ø 20         |                               |              |                               |
|-----------------------------------|--|-------------|--------------|-------------------------------|--------------|-------------------------------|--------------|-------------------------------|--------------|-------------------------------|--------------|-------------------------------|--------------|-------------------------------|--------------|-------------------------------|--------------|-------------------------------|--------------|-------------------------------|--------------|-------------------------------|
|                                   |  |             | ae=<br>1xD   | ae <sub>max</sub> =<br>0,08xD | ae=<br>1xD   | ae <sub>max</sub> =<br>0,08xD | ae=<br>1xD   | ae <sub>max</sub> =<br>0,08xD | ae=<br>1xD   | ae <sub>max</sub> =<br>0,08xD | ae=<br>1xD   | ae <sub>max</sub> =<br>0,08xD | ae=<br>1xD   | ae <sub>max</sub> =<br>0,08xD | ae=<br>1xD   | ae <sub>max</sub> =<br>0,08xD | ae=<br>1xD   | ae <sub>max</sub> =<br>0,08xD | ae=<br>1xD   | ae <sub>max</sub> =<br>0,08xD | ae=<br>1xD   | ae <sub>max</sub> =<br>0,08xD |
|                                   |  |             | ap=<br>1xD   | ap=<br>L2 <sub>max</sub>      | ap=<br>1xD   | ap=<br>L2 <sub>max</sub>      | ap=<br>1xD   | ap=<br>L2 <sub>max</sub>      | ap=<br>1xD   | ap=<br>L2 <sub>max</sub>      | ap=<br>1xD   | ap=<br>L2 <sub>max</sub>      | ap=<br>1xD   | ap=<br>L2 <sub>max</sub>      | ap=<br>1xD   | ap=<br>L2 <sub>max</sub>      | ap=<br>1xD   | ap=<br>L2 <sub>max</sub>      | ap=<br>1xD   | ap=<br>L2 <sub>max</sub>      | ap=<br>1xD   | ap=<br>L2 <sub>max</sub>      |
|                                   |  |             | fz<br>(mm/Z) | fz<br>(mm/Z)                  | fz<br>(mm/Z) | fz<br>(mm/Z)                  | fz<br>(mm/Z) | fz<br>(mm/Z)                  | fz<br>(mm/Z) | fz<br>(mm/Z)                  | fz<br>(mm/Z) | fz<br>(mm/Z)                  | fz<br>(mm/Z) | fz<br>(mm/Z)                  | fz<br>(mm/Z) | fz<br>(mm/Z)                  | fz<br>(mm/Z) | fz<br>(mm/Z)                  | fz<br>(mm/Z) | fz<br>(mm/Z)                  | fz<br>(mm/Z) | fz<br>(mm/Z)                  |
| Stahl / Steel                     | < 850  |             |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |
| Stahl / Steel                     | < 1100   | 230         |              |                               |              |                               |              |                               | 0,038        |                               | 0,058        |                               | 0,073        |                               | 0,088        |                               | 0,108        |                               | 0,13         |                               |              |                               |
| Stahl / Steel                     | < 1400   | 180         |              |                               |              |                               |              |                               | 0,015        |                               | 0,03         |                               | 0,045        |                               | 0,05         |                               | 0,07         |                               | 0,1          |                               |              |                               |
| Gehärteter Stahl / Hardness Steel | < 55HRC  |             |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |
| Gehärteter Stahl / Hardness Steel | < 60HRC  |             |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |
| Gehärteter Stahl / Hardness Steel | < 67HRC  |             |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |
| Gehärteter Stahl / Hardness Steel | ≤ 70HRC  |             |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |
| INOX                              | < 700  | 200         |              |                               |              |                               |              |                               | 0,04         |                               | 0,06         |                               | 0,075        |                               | 0,09         |                               | 0,11         |                               | 0,14         |                               |              |                               |
| INOX                              | < 850  | 190         |              |                               |              |                               |              |                               | 0,04         |                               | 0,06         |                               | 0,075        |                               | 0,09         |                               | 0,11         |                               | 0,14         |                               |              |                               |
| Guss / Castings                   |  |             |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |
| Aluminium / Al                    |  |             |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |
| Kupfer / Cooper                   |  |             |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |
| Kunststoffe / Plastics            |  |             |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |
| Inconel                           |  |             |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |
| Titan / Titanium                  |  |             |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |
| Grafit / Graphite                 |  |             |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |
| GFK / CFK                         |  |             |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |              |                               |

Bitte beachten, hierbei handelt es sich lediglich um Richtwerte! / Caution, these are only guide values!