

MICRO-FRAISE · Z3-FINISHING-MICRO-END-MILL-FOR-WATCHMAKING-COMPONENT-AND-MICRO-MACHINE · Z3-FINISH-MIKROFRÄSER-FÜR-UHRENKOMPONENTE-UND-MIKROMASCHINE



SWISS MADE

23161T-0.2    Version 05.08.2026

|                 |              |        |
|-----------------|--------------|--------|
| 0.2<br>Ø D (MM) | 28<br>L (MM) | 3<br>Z |
|-----------------|--------------|--------|

MATERIAL COMPATIBILITY

●●● Excellent (3/3)    ●●○ Good (2/3)    ●○○ Possible (1/3)    ○○○ Not recommended

| MATERIAL                                                    | SPECIFICATION      | GRP | 23161T-0.2 |
|-------------------------------------------------------------|--------------------|-----|------------|
| <b>Alloyed and non-alloyed steels</b><br>Non-alloyed steels | Rm < 450 N/mm²     | 1a  | ○○○        |
|                                                             | Rm 450–700 N/mm²   | 1b  | ○○○        |
|                                                             | Rm 700–900 N/mm²   | 1c  | ○○○        |
|                                                             | Rm > 1200 N/mm²    | 1d  | ○○○        |
| <b>Stainless steels</b><br>Stainless steels                 | Rm < 650 N/mm²     | 2a  | ○○○        |
|                                                             | Rm 650–950 N/mm²   | 2b  | ○○○        |
|                                                             | Rm > 950 N/mm²     | 2c  | ○○○        |
| <b>Hardened steels</b><br>Hardened steels                   | 44–56 HRC          | 3a  | ○○○        |
|                                                             | 57–67 HRC          | 3b  | ○○○        |
| <b>Exotic materials</b><br>Special alloys                   | < 32 HRC           | 4a  | ○○○        |
|                                                             | > 32 HRC           | 4b  | ○○○        |
| <b>Graphite</b><br>Industrial graphite                      |                    | 5   | ○○○        |
| <b>Cast iron</b><br>Grey / nodular cast iron                | < 32 HRC           | 6a  | ○○○        |
|                                                             | > 32 HRC           | 6b  | ○○○        |
| <b>Titanium</b><br>Titanium alloys                          | Rm < 600 N/mm²     | 7a  | ○○○        |
|                                                             | 600 < Rm N/mm²     | 7b  | ○○○        |
| <b>Nickel alloys</b><br>Inconel, Hastelloy                  | Rm < 1000 N/mm²    | 8a  | ○○○        |
|                                                             | Rm > 1000 N/mm²    | 8b  | ○○○        |
| <b>Copper, brass, bronze</b><br>Copper-based                | Rm < 850 N/mm²     | 9a  | ○○○        |
|                                                             | Rm > 850 N/mm²     | 9b  | ○○○        |
| <b>Aluminum</b><br>Aluminum alloys                          | Si < 0.5%          | 10a | ○○○        |
|                                                             | 0.5% < Si < 5%     | 10b | ○○○        |
|                                                             | Si > 5%            | 10c | ○○○        |
| <b>Synthetic materials</b><br>Engineering plastics          | Thermoplastic      | 11a | ○○○        |
|                                                             | Thermoset          | 11b | ○○○        |
| <b>Composite materials</b><br>Reinforced composites         | Glass fiber / GFK  | 12a | ○○○        |
|                                                             | Carbon fiber / KFK | 12b | ○○○        |
| <b>Precious metals</b><br>Gold, platinum, silver            | Gold               | 13a | ○○○        |
|                                                             | Platinum           | 13b | ○○○        |

TECHNICAL DRAWING



DIMENSIONS

| NOMINAL DIMENSIONS |        |
|--------------------|--------|
| D (0 / -0.01)      | 0.2 mm |
| d (h5)             | 3 mm   |
| L                  | 28 mm  |
| l                  | 0.3 mm |
| l3                 | –      |
| d3                 | –      |
| R                  | –      |
| e                  | –      |
| Z                  | 3      |
| Chamfer K          | –      |
| w° collision       | 12.6°  |



E-SHOP / EZI CUT  
eskenazi.ch/eshop/23161T-0.2