

MICRO-FRAISE-HÉMISPHERIQUE Z2 · BALL-NOSE-  
MICRO-ENDMILL Z2 · MICRO-FRÄSER-HALBRUND Z2



21093-0.4 Version 11.09.2026



E25  
UF

ULTRAFINE GRADE  
HIGH-END GRADE  
WITH VERY HIGH  
HARDNESS AND  
TOUGHNESS FOR  
MICRO-MACHINING

$\lambda=30^\circ$   
 $\gamma=10^\circ$

HELIX ANGLE 30° AND  
CUTTING ANGLE 10°

U

HEMISPHERICAL  
SHAPE

SIDE AND CENTER CUT

$l_1$   
1.5xD

CUTTING EDGE  
LENGTH 1.5xD

$l_3$   
5xD

CUTTING LENGTH 5xD

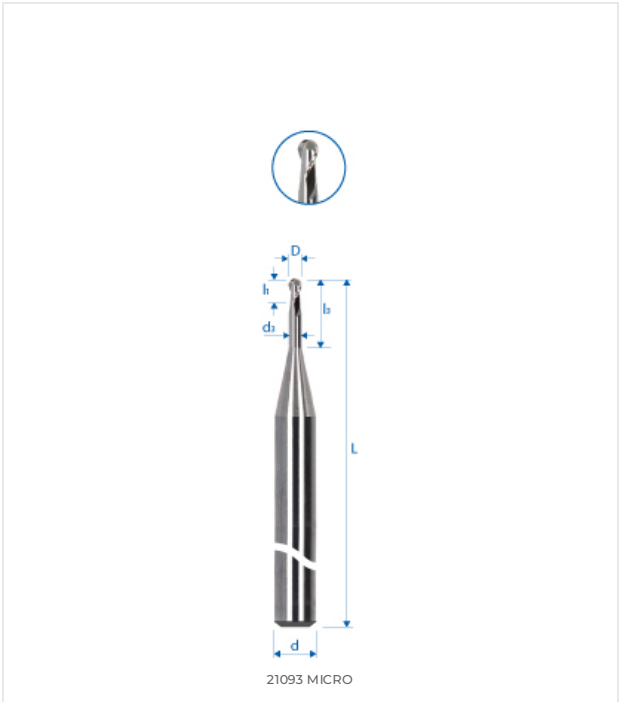
FITTING LENGTH  
STANDARD

MATERIAL COMPATIBILITY

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

| Product material compatibility                                      |          |                              |     |           |
|---------------------------------------------------------------------|----------|------------------------------|-----|-----------|
| CATEGORY                                                            | MATERIAL | SPECIFICATION                | GRP | 21093-0.4 |
| Alloyed and non-alloyed steels<br><small>Non-alloyed steels</small> |          | Rm < 450 N/mm <sup>2</sup>   | 1a  | ●○○ 1/3   |
|                                                                     |          | Rm 450–700 N/mm <sup>2</sup> | 1b  | ○○○ 0/3   |
|                                                                     |          | Rm 700–900 N/mm <sup>2</sup> | 1c  | ○○○ 0/3   |
|                                                                     |          | Rm > 1200 N/mm <sup>2</sup>  | 1d  | ○○○ 0/3   |
| Stainless steels<br><small>Stainless steels</small>                 |          | Rm < 650 N/mm <sup>2</sup>   | 2a  | ○○○ 0/3   |
|                                                                     |          | Rm 650–950 N/mm <sup>2</sup> | 2b  | ○○○ 0/3   |
|                                                                     |          | Rm > 950 N/mm <sup>2</sup>   | 2c  | ○○○ 0/3   |
| Hardened steels<br><small>Hardened steels</small>                   |          | 44–56 HRC                    | 3a  | ○○○ 0/3   |
|                                                                     |          | 57–67 HRC                    | 3b  | ○○○ 0/3   |
| Exotic materials<br><small>Special alloys</small>                   |          | < 32 HRC                     | 4a  | ○○○ 0/3   |
|                                                                     |          | > 32 HRC                     | 4b  | ○○○ 0/3   |
| Graphite<br><small>Industrial graphite</small>                      |          |                              | 5   | ●○○ 1/3   |
| Cast iron<br><small>Grey / nodular cast iron</small>                |          | < 32 HRC                     | 6a  | ○○○ 0/3   |
|                                                                     |          | > 32 HRC                     | 6b  | ○○○ 0/3   |
| Titanium<br><small>Titanium alloys</small>                          |          | Rm < 600 N/mm <sup>2</sup>   | 7a  | ●○○ 1/3   |
|                                                                     |          | 600 < Rm N/mm <sup>2</sup>   | 7b  | ●○○ 1/3   |
| Nickel alloys<br><small>Inconel, Hastelloy</small>                  |          | Rm < 1000 N/mm <sup>2</sup>  | 8a  | ○○○ 0/3   |
|                                                                     |          | Rm > 1000 N/mm <sup>2</sup>  | 8b  | ○○○ 0/3   |
| Copper, brass, bronze<br><small>Copper-based</small>                |          | Rm < 850 N/mm <sup>2</sup>   | 9a  | ●●● 3/3   |
|                                                                     |          | Rm > 850 N/mm <sup>2</sup>   | 9b  | ●●● 3/3   |
| Aluminum<br><small>Aluminum alloys</small>                          |          | Si < 0.5%                    | 10a | ●●● 3/3   |
|                                                                     |          | 0.5% < Si < 5%               | 10b | ●●● 3/3   |
|                                                                     |          | Si > 5%                      | 10c | ○○○ 0/3   |
| Synthetic materials<br><small>Engineering plastics</small>          |          | Thermoplastic                | 11a | ●●● 3/3   |
|                                                                     |          | Thermoset                    | 11b | ●●● 3/3   |
| Composite materials<br><small>Reinforced composites</small>         |          | Glass fiber / GFK            | 12a | ●○○ 1/3   |
|                                                                     |          | Carbon fiber / KFK           | 12b | ●○○ 1/3   |
| Precious metals<br><small>Gold, platinum, silver</small>            |          | Gold                         | 13a | ●●● 3/3   |
|                                                                     |          | Platinum                     | 13b | ○○○ 0/3   |

TECHNICAL DRAWING



DIMENSIONS

| NOMINAL DIMENSIONS |        |
|--------------------|--------|
| D (0 / -0.01)      | 0.4 mm |
| d (h5)             | 3 mm   |
| L                  | 38 mm  |
| l1                 | 0.6 mm |
| l3                 | 2 mm   |
| d3                 | –      |
| R                  | 0.2 mm |
| e                  | –      |
| Z                  | 2      |
| Chamfer K          | –      |
| w° collision angle | 10°    |



E-SHOP / EZI CUT  
eskenazi.ch/eshop/21093-0.4