# FRAISE-MD-E25UF-+-EZI-ALPHA-POUR-MÉTAL-LOURD- · ENDMILL-SC-+-EZI-ALPHA-FOR-HEAVY-METAL · FRÄSER-HM-E25UF-+-EZI-ALPHA-FÜR-SCHWERMETALL

**21159A-0.4** Version 07.05.2026

SWISS MADE

| | | | | | |
|---|---|---|---|---|---|
| E25 UF | λ =15° Y=0° | 0.05-0.15 45° | | $l_1$ 1.5xD | |
| CARBIDE TOOL MATERIAL E25 UF | CUTTING ANGLES ?15° ? 0° | 45° CHAMFER 0.05-0.15 MM | DUAL DIRECTION HELICAL DRILL BIT | 1.5XD DEPTH PRECISION TOOL | SHORT LENGTH TOOL WEAR BARS |

## MATERIAL COMPATIBILITY

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

| MATERIAL | SPECIFICATION | GRP | 21159A-0.4 |
|---|---|---|---|
| **Alloyed and non-alloyed steels** 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 | ○○○ |
| **Stainless steels** Stainless steels | Rm < 650 N/mm² | 2a | ○○○ |
| | Rm 650–950 N/mm² | 2b | ○○○ |
| | Rm > 950 N/mm² | 2c | ○○○ |
| **Hardened steels** Hardened steels | 44–56 HRC | 3a | ○○○ |
| | 57–67 HRC | 3b | ○○○ |
| **Exotic materials** Special alloys | < 32 HRC | 4a | ●●● |
| | > 32 HRC | 4b | ○○○ |
| **Graphite** Industrial graphite | | 5 | ○○○ |
| **Cast iron** Grey / nodular cast iron | < 32 HRC | 6a | ○○○ |
| | > 32 HRC | 6b | ○○○ |
| **Titanium** Titanium alloys | Rm < 600 N/mm² | 7a | ○○○ |
| | 600 < Rm N/mm² | 7b | ○○○ |
| **Nickel alloys** Inconel, Hastelloy | Rm < 1000 N/mm² | 8a | ○○○ |
| | Rm > 1000 N/mm² | 8b | ○○○ |
| **Copper, brass, bronze** Copper-based | Rm < 850 N/mm² | 9a | ○○○ |
| | Rm > 850 N/mm² | 9b | ○○○ |
| **Aluminum** Aluminum alloys | Si < 0.5% | 10a | ○○○ |
| | 0.5% < Si < 5% | 10b | ○○○ |
| | Si > 5% | 10c | ○○○ |
| **Synthetic materials** Engineering plastics | Thermoplastic | 11a | ○○○ |
| | Thermoset | 11b | ○○○ |
| **Composite materials** Reinforced composites | Glass fiber / GFK | 12a | ○○○ |
| | Carbon fiber / KFK | 12b | ○○○ |
| **Precious metals** Gold, platinum, silver | Gold | 13a | ○○○ |
| | Platinum | 13b | ○○○ |

## TECHNICAL DRAWING

21159 MICRO

## DIMENSIONS

| NOMINAL DIMENSIONS | |
|---|---|
| D (0 / -0.01) | 0.4 mm |
| d (h5) | 3 mm |
| L | 38 mm |
| l1 | 0.7 mm |
| l3 | – |
| d3 | – |
| R | – |
| e | – |
| Z | 3 |
| Chamfer K | 0.005 |
| w° collision | 11.8° |

**E-SHOP / EZI CUT**
eskenazi.ch/eshop/21159A-0.4

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