# FRAISE HÉMISPHÉRIQUE **Z2** MD E2 · BALL NOSE ENDMILL **Z2** SC E2 · HALBRUND-FRÄSER **Z2** HM E2

**21412-5** Version 04.11.2026

TAKE IT EZI

SWISS MADE

| | | | | | |
|---|---|---|---|---|---|
| E2 | λ =35° Y =10° | | | $l_1$ 2.2xD | |
| SUBMICRON GRAIN GRADE HIGH-SPEED MACHINING OF ABRASIVE MATERIALS | VARIABLE HELIX ANGLES 35° AND CUTTING ANGLE 10° | HEMISPHERICAL SHAPE | SIDE AND CENTER CUT | CUTTING EDGE LENGTH 2.2XD | FITTING LENGTH STANDARD |

## MATERIAL COMPATIBILITY

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

Product material compatibility

| CATEGORY | MATERIAL | SPECIFICATION | GRP | 21412-5 |
|---|---|---|---|---|
| | **Alloyed and non-alloyed steels** Non-alloyed steels | Rm < 450 N/mm² | 1a | ●○○ 1/3 |
| | | Rm 450–700 N/mm² | 1b | ○○○ 0/3 |
| | | Rm 700–900 N/mm² | 1c | ○○○ 0/3 |
| | | Rm > 1200 N/mm² | 1d | ○○○ 0/3 |
| | **Stainless steels** Stainless steels | Rm < 650 N/mm² | 2a | ○○○ 0/3 |
| | | Rm 650–950 N/mm² | 2b | ○○○ 0/3 |
| | | Rm > 950 N/mm² | 2c | ○○○ 0/3 |
| | **Hardened steels** Hardened steels | 44–56 HRC | 3a | ○○○ 0/3 |
| | | 57–67 HRC | 3b | ○○○ 0/3 |
| | **Exotic materials** Special alloys | < 32 HRC | 4a | ○○○ 0/3 |
| | | > 32 HRC | 4b | ○○○ 0/3 |
| | **Graphite** Industrial graphite | | 5 | ●○○ 1/3 |
| | **Cast iron** Grey / nodular cast iron | < 32 HRC | 6a | ○○○ 0/3 |
| | | > 32 HRC | 6b | ○○○ 0/3 |
| | **Titanium** Titanium alloys | Rm < 600 N/mm² | 7a | ●○○ 1/3 |
| | | 600 < Rm N/mm² | 7b | ●○○ 1/3 |
| | **Nickel alloys** Inconel, Hastelloy | Rm < 1000 N/mm² | 8a | ○○○ 0/3 |
| | | Rm > 1000 N/mm² | 8b | ○○○ 0/3 |
| | **Copper, brass, bronze** Copper-based | Rm < 850 N/mm² | 9a | ●●● 3/3 |
| | | Rm > 850 N/mm² | 9b | ●●● 3/3 |
| | **Aluminum** Aluminum alloys | Si < 0.5% | 10a | ●●● 3/3 |
| | | 0.5% < Si < 5% | 10b | ●●● 3/3 |
| | | Si > 5% | 10c | ○○○ 0/3 |
| | **Synthetic materials** Engineering plastics | Thermoplastic | 11a | ●●○ 2/3 |
| | | Thermoset | 11b | ●●○ 2/3 |
| | **Composite materials** Reinforced composites | Glass fiber / GFK | 12a | ●○○ 1/3 |
| | | Carbon fiber / KFK | 12b | ●○○ 1/3 |
| | **Precious metals** Gold, platinum, silver | Gold | 13a | ●●○ 2/3 |
| | | Platinum | 13b | ○○○ 0/3 |

## TECHNICAL DRAWING




21412

## DIMENSIONS

| NOMINAL DIMENSIONS | |
|---|---|
| D (h10) | 5 mm |
| d (h6) | 5 mm |
| L | 47 mm |
| l1 | 13 mm |
| l3 | – |
| d3 | – |
| R | 2.5 mm |
| e | – |
| Z | 2 |
| Chamfer K | - |
| w° collision angle | - |

**E-SHOP / EZI CUT**
eskenazi.ch/eshop/21412-5

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