

FRAISE-HÉMISPHERIQUE Z4 · BALL-NOSE-ENDMILL Z4 · HALBRUND-FRÄSER Z4



22402A-12

Version 21.06.2026

SWISS MADE

E2

E2 HIGH PRECISION TOOL MATERIAL

$\lambda=35^{\circ}\text{-}38^{\circ}$
 $\gamma=10^{\circ}$

CUTTING ANGLES $\lambda=35^{\circ}\text{-}38^{\circ}$
 $\gamma=10^{\circ}$



HEMISPHERICAL U-GROOVE TOOL



DUAL DIRECTION HELICAL DRILL BIT

l_1
2.2xD

2.2xD DEPTH FOR TOOLS



STANDARD TOOL WEAR INDICATOR

MATERIAL COMPATIBILITY

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

| MATERIAL | SPECIFICATION | GRP | 22402A-12 |
|---|------------------------------|-----|-----------|
| Alloyed and non-alloyed steels Non-alloyed steels | Rm < 450 N/mm ² | 1a | ●●● |
| | Rm 450–700 N/mm ² | 1b | ●●● |
| | Rm 700–900 N/mm ² | 1c | ●●● |
| | Rm > 1200 N/mm ² | 1d | ●●● |
| Stainless steels Stainless steels | Rm < 650 N/mm ² | 2a | ●●● |
| | Rm 650–950 N/mm ² | 2b | ●●● |
| | Rm > 950 N/mm ² | 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/mm ² | 7a | ●●● |
| | 600 < Rm N/mm ² | 7b | ●●● |
| Nickel alloys Inconel, Hastelloy | Rm < 1000 N/mm ² | 8a | ●●● |
| | Rm > 1000 N/mm ² | 8b | ●●● |
| Copper, brass, bronze Copper-based | Rm < 850 N/mm ² | 9a | ●○○ |
| | Rm > 850 N/mm ² | 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



DIMENSIONS

NOMINAL DIMENSIONS

| | |
|---------------|-------|
| D (0 / -0.01) | 12 mm |
| d (h5) | 12 mm |
| L | 83 mm |
| l1 | 26 mm |
| l3 | – |
| d3 | – |
| R | 6 mm |
| e | – |
| Z | 4 |
| Chamfer K | – |
| w° collision | – |



E-SHOP / EZI CUT
eskenazi.ch/eshop/22402A-12

© 2026 Eskenazi SA — Carouge, Genève
All rights reserved