

FRAISE-UGV-HÉMISPHERIQUE-MD-E2+-EZI-DUR-POUR-
MÉTAUX-DURS · BALL-NOSE-ENDMILL-FOR-HSC-SC-E2-
+-EZI-DUR- · HALBRUND-FRÄSER-HSC-HM-E2+-EZI-
DUR-



SWISS MADE

23421X-12 Version 11.09.2026

E2

SUBMICRON GRAIN GRADE HIGH-SPEED MACHINING OF ABRASIVE MATERIALS

$\lambda = 30^\circ$
 $\gamma = 3^\circ$

HELIX ANGLE 30° AND CUTTING ANGLE 3°

HEMISPHERICAL SHAPE

SIDE AND CENTER CUT

l_1
1.5xD

CUTTING EDGE LENGTH 1.5XD

l_3

CUTTING LENGTH

FITTING LENGTH EXTRALONG

MATERIAL COMPATIBILITY

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

Product material compatibility

CATEGORY	MATERIAL	SPECIFICATION	GRP	23421X-12
Alloyed and non-alloyed steels	Non-alloyed steels	Rm < 450 N/mm ²	1a	●○○ 1/3
		Rm 450–700 N/mm ²	1b	●○○ 1/3
		Rm 700–900 N/mm ²	1c	●○○ 1/3
		Rm > 1200 N/mm ²	1d	●●○ 2/3
Stainless steels	Stainless steels	Rm < 650 N/mm ²	2a	●○○ 1/3
		Rm 650–950 N/mm ²	2b	●○○ 1/3
		Rm > 950 N/mm ²	2c	●○○ 1/3
Hardened steels	Hardened steels	44–56 HRC	3a	●●● 3/3
		57–67 HRC	3b	●●● 3/3
Exotic materials	Special alloys	< 32 HRC	4a	●●● 3/3
		> 32 HRC	4b	●●● 3/3
Graphite	Industrial graphite		5	●○○ 1/3
Cast iron	Grey / nodular cast iron	< 32 HRC	6a	●○○ 1/3
		> 32 HRC	6b	●○○ 1/3
Titanium	Titanium alloys	Rm < 600 N/mm ²	7a	●○○ 1/3
		600 < Rm N/mm ²	7b	●●○ 2/3
Nickel alloys	Inconel, Hastelloy	Rm < 1000 N/mm ²	8a	●●● 3/3
		Rm > 1000 N/mm ²	8b	●●● 3/3
Copper, brass, bronze	Copper-based	Rm < 850 N/mm ²	9a	○○○ 0/3
		Rm > 850 N/mm ²	9b	○○○ 0/3
Aluminum	Aluminum alloys	Si < 0.5%	10a	○○○ 0/3
		0.5% < Si < 5%	10b	○○○ 0/3
		Si > 5%	10c	○○○ 0/3
Synthetic materials	Engineering plastics	Thermoplastic	11a	○○○ 0/3
		Thermoset	11b	○○○ 0/3
Composite materials	Reinforced composites	Glass fiber / GFK	12a	○○○ 0/3
		Carbon fiber / KFK	12b	○○○ 0/3
Precious metals	Gold, platinum, silver	Gold	13a	○○○ 0/3
		Platinum	13b	○○○ 0/3

TECHNICAL DRAWING



DIMENSIONS

NOMINAL DIMENSIONS	
D (0 / -0.01)	12 mm
d (h5)	12 mm
L	120 mm
l1	18 mm
l3	48 mm
d3	—
R	—
e	—
Z	2
Chamfer K	—
w° collision angle	—



E-SHOP / EZI CUT



eskenazi.ch/eshop/23421X-12

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