

E2

E2 HIGH PRECISION TOOL MATERIAL

$\lambda=45^{\circ}\text{-}47^{\circ}$
 $\gamma=15^{\circ}$

CUTTING ANGLES
? 45°-47° Y 15°

angle
vif

ACUTE ANGLE PRECISION TOOL

DUAL DIRECTION HELICAL DRILL BIT

l_1
1.5xD

1.5XD DEPTH PRECISION TOOL

SHORT LENGTH TOOL WEAR BARS

ADJUSTABLE ANGLE ICON

λ_2
 λ_1

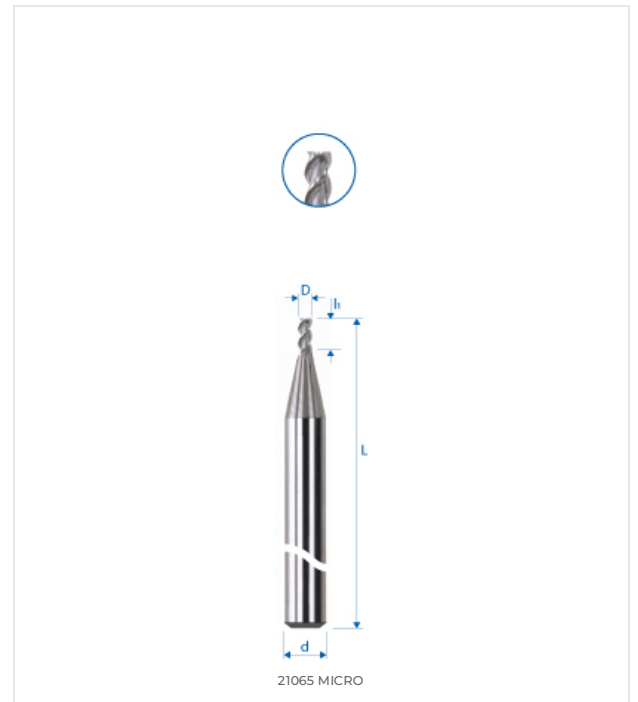
VARIABLE HELIX DRILL BIT

MATERIAL COMPATIBILITY

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

MATERIAL	SPECIFICATION	GRP	21065A-1.5
Alloyed and non-alloyed steels <small>Non-alloyed steels</small>	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 <small>Stainless steels</small>	Rm < 650 N/mm ²	2a	●●●
	Rm 650-950 N/mm ²	2b	●●●
	Rm > 950 N/mm ²	2c	●●○
Hardened steels <small>Hardened steels</small>	44-56 HRC	3a	○○○
	57-67 HRC	3b	○○○
Exotic materials <small>Special alloys</small>	< 32 HRC	4a	○○○
	> 32 HRC	4b	○○○
Graphite <small>Industrial graphite</small>		5	●●○
Cast iron <small>Grey / nodular cast iron</small>	< 32 HRC	6a	○○○
	> 32 HRC	6b	○○○
Titanium <small>Titanium alloys</small>	Rm < 600 N/mm ²	7a	●●●
	600 < Rm N/mm ²	7b	●●●
Nickel alloys <small>Inconel, Hastelloy</small>	Rm < 1000 N/mm ²	8a	○○○
	Rm > 1000 N/mm ²	8b	○○○
Copper, brass, bronze <small>Copper-based</small>	Rm < 850 N/mm ²	9a	●○○
	Rm > 850 N/mm ²	9b	●○○
Aluminum <small>Aluminum alloys</small>	Si < 0.5%	10a	●○○
	0.5% < Si < 5%	10b	●○○
	Si > 5%	10c	●●○
Synthetic materials <small>Engineering plastics</small>	Thermoplastic	11a	○○○
	Thermoset	11b	○○○
Composite materials <small>Reinforced composites</small>	Glass fiber / GFK	12a	●●○
	Carbon fiber / KFK	12b	●●○
Precious metals <small>Gold, platinum, silver</small>	Gold	13a	●○○
	Platinum	13b	○○○

TECHNICAL DRAWING



DIMENSIONS

NOMINAL DIMENSIONS	
D (0 / -0.01)	1.5 mm
d (h5)	3 mm
L	38 mm
l1	2.5 mm
l3	-
d3	-
R	-
e	-
Z	3
Chamfer K	-
w° collision	7.7°

