

End mill Z4 - variable helix & pitch



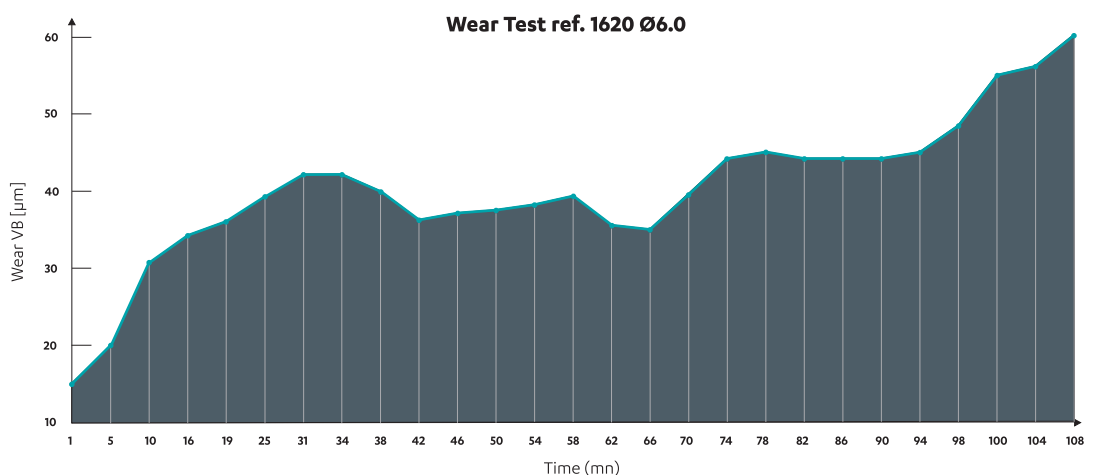
- 40% productivity increase through its geometry and its specific carbide
- Drastic reduction of vibrations, for a longer life cycle of the tool
- A machining solution for your semi-finishing and finishing outlining as well as grooving

Test protocol:

- Tool: ref 1620 Ø 6.0 mm, TiAlN
- Machined material: stainless steel no. 1.4435, X2CrNiMo18-14-3, 316L, 215 HV
- Machine: Mazak - Integrex 100-IV. Lubrication: Emulsion
- Cutting conditions : $a_p = 9.0 \text{ mm}$ $V_c = 80 \text{ m/min}$
 $a_e = 2.5 \text{ mm}$ $f_z = 0.03 \text{ mm}$

Results :

- Service life of the tool: > 100 min
- Surface condition after 100 min: $R_a = 0.5 \mu\text{m}$



Conclusion

These excellent results allow to recommend the drill for machining high-performance roughing to finishing

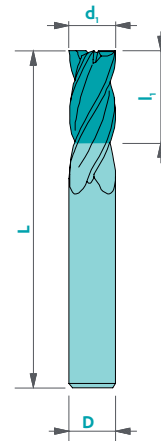
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1620

Material	Vc uncoated	Vc coated	Uncoated	Coated	Rec. Coating
Steel < 700 N/mm ²	100	130	□	■	Trio
Steel > 700 N/mm ²	80	100	-	■	Trio
Stainless steel	50	70	□	■	Trio
Cast iron	60	100	□	■	Trio
Copper	150	180	□	■	Solo
Brass - Bronze	140	190	■	□	Solo
Aluminium	200	350	□	■	Rico/Solo
Gold - Silver	140	180	■	□	Solo
Platinum - Palladium	-	35	-	□	Solo
Superalloy	-	40	-	■	Trio
Titanium	40	60	■	■	Rico/Trio

not adapted - adapted □ highly adapted ■

Tolerances $d_1 \leq 1 \text{ mm} \rightarrow +0/-0.01$
 $d_1 > 1 \text{ mm} \rightarrow +0/-0.02$
 $d_1 = D \rightarrow d_1 : e8$
 D: h5



Available
uncoated or coated

Art. n°	d_1	l_1	λ	D	L
1620d1.00	1.0	2	0.02	6	51
1620d1.50	1.5	3	0.02	6	51
1620d2.00	2.0	4	0.02	6	51
1620d2.50	2.5	5	0.02	6	51
1620d3.00	3.0	6	0.02	6	51
1620d3.50	3.5	7	0.03	6	51
1620d4.00	4.0	8	0.03	6	51
1620d5.00	5.0	10	0.04	6	51
1620d6.00	6.0	12	0.05	6	51
1620d8.00	8.0	16	0.05	8	61
1620d10.00	10.0	20	0.05	10	72
1620d12.00	12.0	24	0.05	12	83
1620d14.00	14.0	28	0.06	14	83
1620d16.00	16.0	32	0.06	16	92

Z4



λ
35-45°

γ
8°

SUB-CARFINE N



$ap=1 \times d_1$

$ae=1 \times d_1$
 $ap=2.0 \times d_1$

Ø1 and 1.5 to be used only
for peripheral milling and
not for grooving

Option: Weldon flat

