



31645



ZrN

Z 3

HA



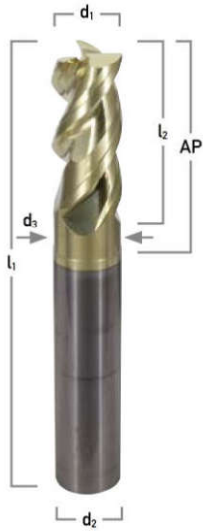
VHM

Type W



Manufacturer standard

Solid Carbide End Mill For Aluminium
Long version with corner chamfer, lapped



d ₁	d ₂
h10	h6

d ₁ mm	d ₂ mm	l ₂ mm	l ₁ mm	Corner chamfer	d ₃ mm	AP mm	Z	Coated Part No.	f _r Roughing mm/Z	f _f Finishing mm/Z
3,0	6	8	57	0,10	2,80	12	3	31645030	0,009 – 0,020	0,007 – 0,015
4,0	6	11	57	0,10	3,80	18	3	31645040	0,014 – 0,028	0,012 – 0,023
5,0	6	13	57	0,10	4,80	18	3	31645050	0,016 – 0,030	0,014 – 0,025
6,0	6	13	57	0,20	5,80	18	3	31645060	0,019 – 0,036	0,017 – 0,031
6,0	6	13	80	0,20	5,80	42	3	31645061	0,019 – 0,036	0,017 – 0,031
8,0	8	21	63	0,20	7,80	25	3	31645080	0,026 – 0,047	0,024 – 0,042
8,0	8	21	100	0,20	7,80	62	3	31645081	0,026 – 0,047	0,024 – 0,042
10,0	10	22	72	0,20	9,70	30	3	31645100	0,032 – 0,010	0,030 – 0,050
10,0	10	22	100	0,20	9,70	58	3	31645101	0,032 – 0,010	0,030 – 0,050
12,0	12	26	83	0,20	11,70	36	3	31645120	0,038 – 0,064	0,036 – 0,059
12,0	12	26	120	0,20	11,70	73	3	31645121	0,038 – 0,064	0,036 – 0,059
16,0	16	36	92	0,20	15,70	42	3	31645160	0,047 – 0,076	0,045 – 0,071
16,0	16	36	150	0,20	15,70	100	3	31645161	0,047 – 0,076	0,045 – 0,071
18,0	18	36	92	0,20	17,60	42	3	31645180	0,056 – 0,088	0,054 – 0,083
18,0	18	36	150	0,20	17,60	100	3	31645181	0,056 – 0,088	0,054 – 0,083
20,0	20	41	104	0,20	19,50	52	3	31645200	0,063 – 0,095	0,058 – 0,090
20,0	20	41	150	0,20	19,50	98	3	31645201	0,063 – 0,095	0,058 – 0,090
25,0	25	50	125	0,30	24,50	65	3	31645250	0,080 – 0,130	0,078 – 0,125



Peripheral milling
a_r = 0,5xD
a_p = 2,0xD



Full slot milling
a_p = 1,0xD

- High-performance end mill for roughing and finishing
- Ultra-micro grain solid carbide with ZrN coating
- High machining performance up to 1xD into solid
- Smooth running due to axial and radial unequal spacing

Material	Alu & Al Alloys	Alu & Al alloys <10% Si	Alu & Al alloys >10% Si	Brass, short-chipping	Brass, long-chipping	Plastics, thermosetting	Plastics, thermoplastic
Tensile strength/ Hardness	< 450 N/mm ²	< 600 N/mm ²	> 600 N/mm ²	< 600 N/mm ²	< 600 N/mm ²		
V _c (m/min) Finishing	410	200	165	100	95	115	100
V _c (m/min) Roughing	395	185	150	85	80	100	85