ALB225-DLC

Size R0.3 ～ R6

DLC

DLC COATING Ball End Mill for Aluminium

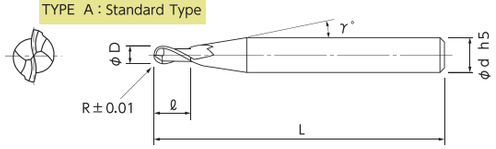
Total 26 sizes

Recommended Milling Conditions

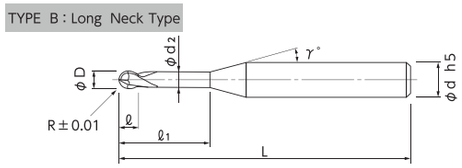
Ball end mill for aluminium. DLC coating applied for longer tool life

WC 2 25° φd h5 3D

TYPE A : Standard Type



TYPE B : Long Neck Type



- Adopted NS TOOL original DLC COATING that suitable for long time machining.

Unit : mm

Code No.	Radius (R)	Length of Cut (ℓ)	Under neck Length (ℓ1)	Type	Dia. (D)	Neck Dia. (d2)	Neck Taper Angle (γ)	Shank Dia. (d)	Overall Length (L)
01-00668-03001	R0.3	0.45	3	B	0.6	0.56	12°	4	60
01-00668-04001	R0.4	0.6	4	B	0.8	0.76	12°	4	60
01-00668-05001	R0.5	2	–	A	1	–	12°	4	60
01-00668-05011		0.75	5	B	1	0.95	12°	4	60
01-00668-05013			10	B	1	0.95	12°	4	60
01-00668-07501	R0.75	3	–	A	1.5	–	12°	4	60
01-00668-07511		1.1	7.5	B	1.5	1.45	12°	4	60
01-00668-07513			15	B	1.5	1.45	12°	4	60
01-00668-10001	R1	4	–	A	2	–	12°	4	60
01-00668-10011		1.5	10	B	2	1.94	12°	4	60
01-00668-10013			20	B	2	1.94	12°	4	60
01-00668-15001	R1.5	6	–	A	3	–	12°	6	60
01-00668-15011		2.5	15	B	3	2.85	12°	6	60
01-00668-15013			30	B	3	2.85	12°	6	70
01-00668-20001	R2	8	–	A	4	–	12°	6	70
01-00668-20011		3	20	B	4	3.8	12°	6	80
01-00668-20013			40	B	4	3.8	12°	6	90
01-00668-25001	R2.5	10	–	A	5	–	12°	6	80
01-00668-25011		3.5	25	B	5	4.8	12°	6	80
01-00668-25013			50	B	5	4.8	12°	6	100
01-00668-30001	R3	12	–	A	6	–	–	6	90
01-00668-30011		6	30	B	6	5.8	–	6	90
01-00668-30013			60	B	6	5.8	–	6	120
01-00668-40001	R4	16	–	A	8	–	–	8	90
01-00668-50001	R5	20	–	A	10	–	–	10	100
01-00668-60001	R6	24	–	A	12	–	–	12	110

How to Order When you order, indicate ALB225-DLC (R)×(ℓ) [×(ℓ1)]. ※(γ) is reference value.

Work Material			Aluminium Alloy A2017・A5052・A7075							
			Normal Speed				High Speed			
Tool Overhung			L/D≧10				L/D<10			
Radius	Length of Cut	Under neck Length	Spindle Speed	Feed	Depth of Cut		Spindle Speed	Feed	Depth of Cut	
			min-1	mm/min	ap mm	ae mm	min-1	mm/min	ap mm	ae mm
0.3	0.45	3	20,000	1,000	0.1	0.2	40,000	2,000	0.1	0.2
0.4	0.6	4	20,000	1,000	0.1	0.2	40,000	2,000	0.1	0.2
0.5	2	–	20,000	2,000	0.3	0.3	40,000	4,000	0.3	0.3
	0.75	5	20,000	1,500	0.3	0.3	30,000	3,000	0.3	0.3
	0.75	10	10,000	1,000	0.2	0.2	20,000	2,000	0.2	0.2
0.75	3	–	20,000	2,000	0.3	0.5	40,000	4,000	0.3	0.5
	1.1	7.5	16,000	1,600	0.3	0.5	30,000	3,000	0.3	0.5
	1.1	15	10,000	1,000	0.2	0.3	20,000	2,000	0.2	0.3
1	4	–	20,000	2,000	0.5	0.5	30,000	4,000	0.5	0.5
	1.5	10	15,000	1,500	0.3	0.5	20,000	3,000	0.3	0.5
	1.5	20	12,000	1,200	0.2	0.5	15,000	2,000	0.2	0.5
1.5	6	–	18,000	2,000	0.6	1	25,000	4,000	0.6	1
	2.5	15	15,000	1,600	0.6	1	20,000	3,000	0.6	1
	2.5	30	12,000	1,200	0.3	1	15,000	2,000	0.3	1
2	8	–	14,000	2,000	0.5	1.5	20,000	4,000	0.5	1.5
	3	20	12,000	1,500	0.5	1.5	16,000	3,000	0.5	1.5
	3	40	8,000	1,000	0.3	1.5	12,000	2,000	0.3	1.5
2.5	10	–	12,000	3,000	0.8	1.8	20,000	5,000	0.8	1.8
	3.5	25	8,000	2,000	0.8	1.8	15,000	3,000	0.8	1.8
	3.5	50	5,000	1,500	0.5	1.8	10,000	2,000	0.5	1.8
3	12	–	12,000	3,000	1	2	20,000	5,000	1	2
	6	30	8,000	2,000	1	2	15,000	4,000	1	2
	6	60	5,000	1,200	0.6	2	10,000	2,000	0.6	2
4	16	–	10,000	2,000	1	2	15,000	3,000	1	2
5	20	–	8,000	2,000	2	3	12,000	3,000	2	3
6	24	–	6,000	2,000	3	4	10,000	3,000	3	4

Notes

※1 Depth of Cut: ap=Axial Depth of Cut / ae=Radial Depth of Cut.
※2 Adjust both spindle speed and feed at the same rate.
(When using spindle speed 20,000 or more, the same adjustment is required.)
※3 Use a rigid and precise machine and chuck holder.
※4 Adjust milling conditions when vibration and abnormal sounds occur according to the rigidity of the machine and the chuck holder, or work clamping condition.
※5 Water-soluble fluid is recommended.

Aluminium Alloy N
Copper N
Resin O

Ball Coating
Long Neck Ball Coating

N Aluminium Alloy
N Copper
O Resin
Ball Coating
Long Neck Ball Coating