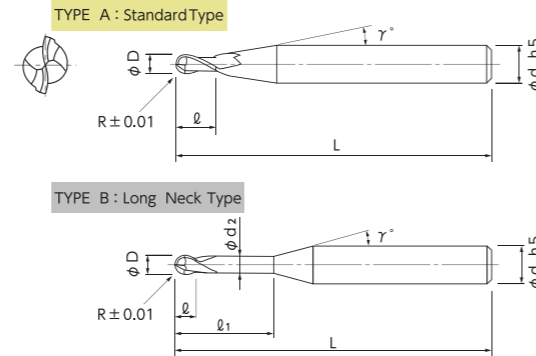
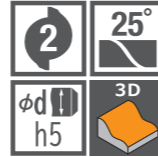


Ball End Mill for Aluminium

Total 26 sizes

Recommended Milling Conditions

Ball end mill for aluminium.  
Reducing chatterring even for milling at corner and curved surface



● NS TOOL unique flute design reduces chatterring at corner and side milling.

- Aluminium Alloy **N**
- Copper **N**
- Resin **O**

- Aluminium Alloy **N**
- Copper **N**
- Resin **O**

- Ball
- Long Neck Ball

- Ball
- Long Neck Ball

Code No.	Radius (R)	Length of Cut (l)	Under neck Length (l <sub>1</sub> )	Type	Dia. (D)	Neck Dia. (d <sub>2</sub> )	Neck Taper Angle (γ)	Shank Dia. (d)	Overall Length (L)
01-00638-03001	R0.3	0.45	3	B	0.6	0.56	12°	4	60
01-00638-04001	R0.4	0.6	4	B	0.8	0.76	12°	4	60
01-00638-05001	R0.5	2	-	A	1	-	12°	4	60
01-00638-05011		0.75	5	B	1	0.95	12°	4	60
01-00638-05013		0.75	10	B	1	0.95	12°	4	60
01-00638-07501	R0.75	3	-	A	1.5	-	12°	4	60
01-00638-07511		1.1	7.5	B	1.5	1.45	12°	4	60
01-00638-07513		1.1	15	B	1.5	1.45	12°	4	60
01-00638-10001	R1	4	-	A	2	-	12°	4	60
01-00638-10011		1.5	10	B	2	1.94	12°	4	60
01-00638-10013		1.5	20	B	2	1.94	12°	4	60
01-00638-15001	R1.5	6	-	A	3	-	12°	6	60
01-00638-15011		2.5	15	B	3	2.85	12°	6	60
01-00638-15013		2.5	30	B	3	2.85	12°	6	70
01-00638-20001	R2	8	-	A	4	-	12°	6	70
01-00638-20011		3	20	B	4	3.8	12°	6	80
01-00638-20013		3	40	B	4	3.8	12°	6	90
01-00638-25001	R2.5	10	-	A	5	-	12°	6	80
01-00638-25011		3.5	25	B	5	4.8	12°	6	80
01-00638-25013		3.5	50	B	5	4.8	12°	6	100
01-00638-30001	R3	12	-	A	6	-	-	6	90
01-00638-30011		6	30	B	6	5.8	-	6	90
01-00638-30013		6	60	B	6	5.8	-	6	120
01-00638-40001	R4	16	-	A	8	-	-	8	90
01-00638-50001	R5	20	-	A	10	-	-	10	100
01-00638-60001	R6	24	-	A	12	-	-	12	110

Unit : mm

How to Order When you order, indicate ALB225 (R)×(l) [(l<sub>1</sub>)]. ※(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 <sup>-1</sup>	mm/min	a <sub>p</sub> mm	a <sub>e</sub> mm	min <sup>-1</sup>	mm/min	a <sub>p</sub> mm	a <sub>e</sub> 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
0.5	0.75	10	10,000	1,000	0.2	0.2	20,000	2,000	0.2	0.2
	3	-	20,000	2,000	0.3	0.5	40,000	4,000	0.3	0.5
0.75	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
1.5	2.5	30	12,000	1,200	0.3	1	15,000	2,000	0.3	1
	8	-	14,000	2,000	0.5	1.5	20,000	4,000	0.5	1.5
2	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
	10	-	12,000	3,000	0.8	1.8	20,000	5,000	0.8	1.8
2.5	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
	12	-	12,000	3,000	1	2	20,000	5,000	1	2
3	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
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: a<sub>p</sub>=Axial Depth of Cut / a<sub>e</sub>=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.