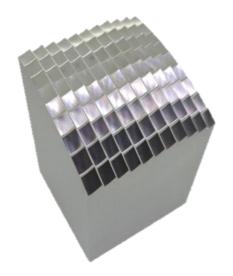


CBN-LBSF Finishing — Reflector Mold





Milling shape: Reflector mold

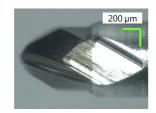
Finishing tool: 2-Flute Super Finishing Long Neck Ball End Mill

CBN-LBSF R0.4 x L2 (Not a standard product)

Work material: STAVAX (52HRC)

Work size $: 35 \times 35 \times 50 \text{ mm}$

Coolant : Air blow (Oil mist in the finishing)



Tool damage after milling 10 hr

- Small wearing
- •Stable and fine surface

Milling condition

No.	Process	Tool Geometry	Series / Size	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	a _p (mm)	a _e (mm)	Cycle time
1	Roughing	4-Flute Long Neck Radius	HRRS ϕ 6 x CR1 x L18 (Short shank)	3,500	2,500	0.2	2.0	0:18:00
2	Mid. roughing	4-Flute Long Neck Radius	HRRS ϕ 6 x CR1 x L18 (Short shank)	9,000	2,500	0.05	0.1	0:13:35
3	Mid. roughing	4-Flute Long Neck Radius	HRRS ϕ 2 x CR0.3 x L6 (Short shank)	3,500	1,000	0.04	1.0	0:33:55
4	Semi-finishing	2-Flute Ball	HSB R1.5 x 8	12,000	2,500	0.02	0.07	0:12:24
5	Semi-finishing	2-Flute Ball	HSB R0.75 x 2	7,000	1,000	0.04	0.07	0:20:50
6	Semi-finishing	2-Flute Ball	HSB R0.75 x 2	7,000	700	0.05	0.05	0:18:08
7	Semi-finishing	2-Flute Ball	HSB R0.5 x 2.5	8,000	500	0.02	0.03	0:23:24
8	Finishing	2-Flute Ball	HSB R0.5 x 2.5	15,000	1,200	0.02	0.03	1:30:33
9	Finishing	2-Flute Long Neck Ball	CBN-LBSF R0.4 x L2	26,000	800	0.01	0.004	10:12:54

Total 14:03:43