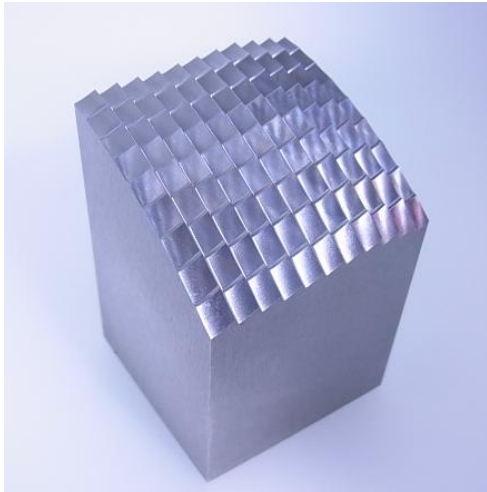


CBN-LBF Finishing - Reflector Mold

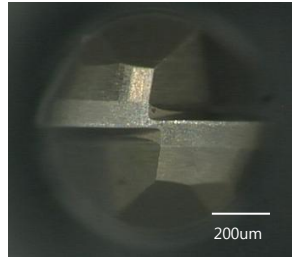


Finishing tool: 2-Flute cBN Long Neck Ball
CBN-LBF 2008-020 (R0.4xL2 φ4 shank)



Work material: STAVAX(52HRC) 35x35x50mm

Tool damage after 10hr milling



- Small wearing
- Stable and fine surface

Process Sheet

No.	Process	Tool Geometry	Series / Size	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	Axial Depth a _p (mm)	Radial Depth a _e (mm)	Cycle Time
1	Roughing	4-Flute Long Neck Radius	HRRS φ6xCR1xL18 (Short shank)	3500	2500	0.2	2.0	0:18:00
2	Med. roughing	4-Flute Long Neck Radius	HRRS φ6xCR1xL18 (Short shank)	9000	2500	0.05	0.1	0:13:35
3	Med. roughing	4-Flute Long Neck Radius	HRRS φ2xCR0.3xL6 (Short shank)	3500	1000	0.04	1.0	0:33:55
4	Semi finishing	2-Flute Ball	HSB R1.5x8	12000	2500	0.02	0.07	0:12:24
5	Semi finishing	2-Flute Ball	HSB R0.75x2	7000	1000	0.04	0.07	0:20:50
6	Semi finishing	2-Flute Ball	HSB R0.75x2	7000	700	0.05	0.05	0:18:08
7	Semi finishing	2-Flute Ball	HSB R0.5x2.5	8000	500	0.02	0.03	0:23:24
8	Finishing	2-Flute Ball	HSB R0.5x2.5	15000	1200	0.02	0.03	1:30:33
9	Finishing	2-Flute Long Neck Ball	CBN-LBF R0.4xL2	26000	800	0.01	0.004	10:12:54

Coolant: Air blow (Finishing is Oil mist)

Total 14:03:43