

# High-Speed Steel (63HRC) Forging Mold

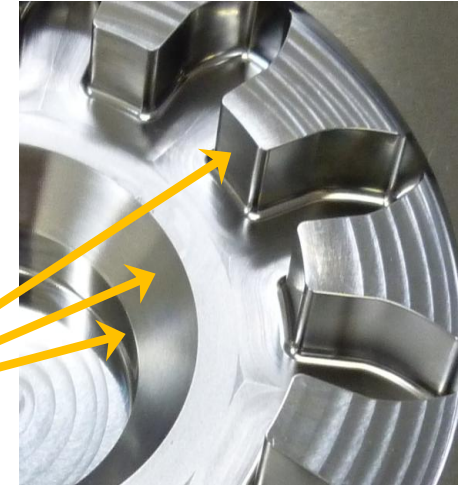
**HARDMAX**  
for high hardness material



## Forging mold (spur gear)

- Work material : High-speed steel **SKH51** (63HRC)
- Milling size : 100x100x50mm
- Coolant : Air blow
- CAD/CAM : C&G SYSTEMS **CAM-TOOL**

**No chattering !**



No.	Process	Tool Geometry	Series / Size	Spindle Speed (min <sup>-1</sup> )	Feed Rate (mm/min)	a <sub>p</sub> (mm)	a <sub>e</sub> (mm)	Milling Time	Milling Distance (m)	Milling Area
1	Roughing	2-Flute Ball	HSB R3x9	5,700	2,200	0.2	1	1:56:01	191	Whole area
2	Semi-finishing	2-Flute Long Neck Ball	HSLB R1.5xL8	9,200	1,900	0.12	0.1	0:43:42	190	Gear
3	Semi-finishing	2-Flute Long Neck Ball	HSLB R1.5xL8	9,200	1,900	0.12	0.03	1:01:59	103	Whole standing wall
				9,200	1,900	0.03	0.1			Whole bottom surface
4	Finishing	2-Flute Long Neck Ball	HSLB R1.5xL8	9,200	950	0.02	0.035	0:27:09	25	Tapered wall
5	Finishing	4-Flute Long Neck Radius	HLRS φ6xCR0.1xL12	4,000	1,080	0.02	2	0:26:28	28	Flange and boss
6	Finishing	2-Flute Long Neck Ball	HSLB R1xL8	12,250	800	0.05	0.02	3:10:12	148	Standing wall of gear
	Finishing			12,250	800	0.02	0.03			Bottom surface of gear
<b>Total</b>								<b>7:45:31</b>	<b>685</b>	