

HGB/HGLB/HMERS HAP72 Spur Gear Mold

HMGCOAT
for high hardness material



Tool : HMGCOAT Ball/Long Neck Ball **HGB/HGLB**
HARDMAX Radius **HMERS**

Qty. of tool : 1 pc. for each series, total 4 pcs.

Work material: HAP72 (68HRC)

Coolant : Air Blow (through spindle)

Work size : 60 x 60 x 30 mm

Milling size : $\varnothing 50.4$ x Depth 11 mm

No.	Process	Tool Geometry	Series / Size	Spindle Speed (min ⁻¹)	Feed Rate (mm/min)	a _p (mm)	a _e (mm)	Allowance (mm)	Cycle time (h:m)	Milling area
1	Roughing	2-flute Ball	HGB R1.5 x 4.5	8,280	1,140	0.12	0.55	0.02	1:41	Whole area
2	Roughing	2-flute Long Neck Ball	HGLB R1 x L6	12,250	1,800	0.06	0.3	0.02	0:06	Corner of gear
3	Semi-finishing	2-flute Long Neck Ball	HGLB R1 x L6	12,250	1,800	0.06	0.05	0.01	0:53	Whole area
4	Finishing	2-flute Long Neck Ball	HGLB R1 x L6	12,250	900	0.00015 (Cusp Height)	-	0	0:09	45° tapered wall
5	Finishing	4-flute Radius	HMERS $\varnothing 3 \times CR0.1 \times 7.5$	8,600	465/1,500	0.5	1	0	0:02	Flange
6	Finishing	4-flute Radius	HMERS $\varnothing 3 \times CR0.1 \times 7.5$	8,600	465/1,500	0.0002 (Cusp Height)	1	0	0:01	Boss
7	Finishing	2-flute Long Neck Ball	HGLB R0.5 x L6	20,000	800	0.00015 (Cusp Height)	-	0	0:55	Standing wall of gear
8	Finishing	2-flute Long Neck Ball	HGLB R0.5 x L6	20,000	800	0.01	0.04	0	0:51	Bottom surface of gear

Total 4:38