

CG CAM-TOOL

SolidWorks add-in High Precision CAM System

Milling Sample

Brake lamp



Feature

Brake lamp has machined with Z-level Roughing, Rest Machining, Z-level Finishing, Scanning, and Corner Processing.

《 Z-level + Low Angle Finishing 》

Since the second step is not a horizontal plane but tilted plane, it was machined by Z-level Finishing with constant cusp height. The bottom flat area was machined by Low Angle Finishing. With this combination, it was machined with few approaches and escape even if the gradient changes dramatically.

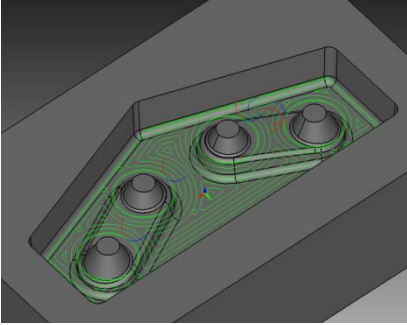
[Material] NAK80(38HRC)

[Size] 100mm x 60mm x 30mm

NO.	Process	Tool Dia. (mm)	XY step (mm)	Z step (mm)	Stock (mm)	Speed (r.p.m)	Feed (mm/min)	Cutting time (hh:mm)	
1	Rough1	D6R3	1.1	0.35	0.1	18,000	3,400	00:14	
2	Rough2	D4R2	0.7	0.25	0.1	14,000	2,040	00:04	
3	Second Rough	D2R1	0.15	0.1	0.1	16,000	1,500	00:08	
4	Second Rough	D1R0.5	0.12	0.07	0.1	20,000	1,200	00:01	
5	Semi Finish	D2R1	0.15	(0.005)	0.05	16,000	1,500	00:36	
6	Semi Finish	D2R1	0.089	0.1	0.05	16,000	1,500	00:20	
7	Finish	D2R1	0.15	(0.001)	0	16,000	1,500	01:05	
8	Finish	D2R1	(0.00125)	0.1	0	16,000	1,500	00:20	
9	Finish	D2R1	(0.00125)	0.1	0	16,000	1,500	00:10	
10	Finish	D1R0.5	0.063	0.07	0	20,000	1,200	00:02	
() Cusp height								Total Time	3:04

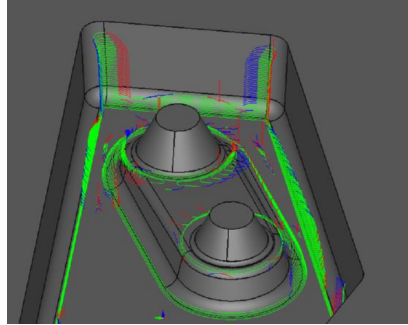
Cutting processes

[1.Rough]
Z-level Roughing D6R3



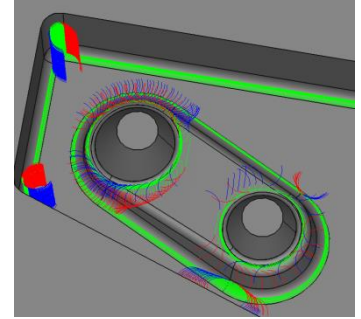
Last step over + Insert R

[2.Rough]
Rest Machining D4R2



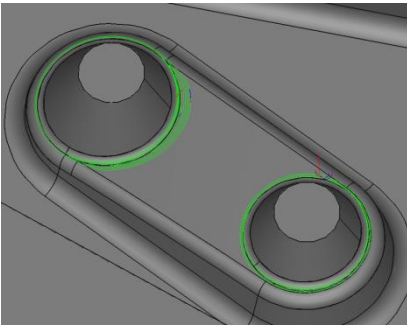
Rest Machining / Insert R

[3.Second Rough]
Rest Machining D2R1



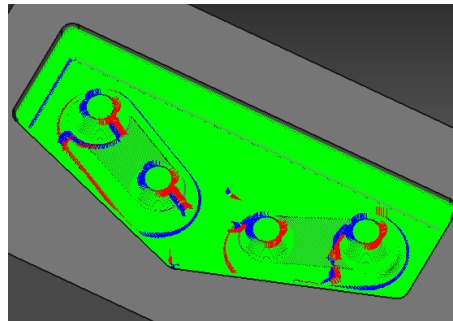
Rest machining / Insert R

[4.Second Rough]
Rest Machining D1R0.5



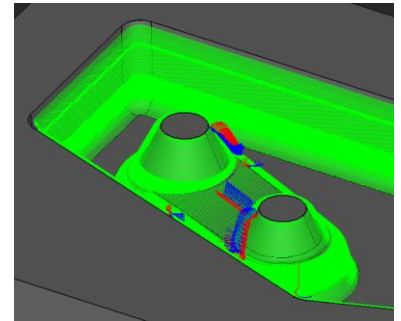
Z-level + Along surface path

[5.6.Semi Finish]
Z-level / Low Angle Finishing D2R1



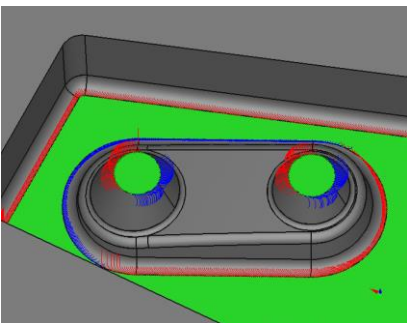
Z-level + Scanning

[7.Finish]
Z-level Finishing D2R1



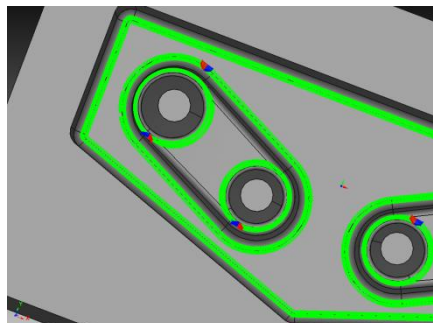
Constant cusp height

[8. Finish]
Low Angle Finishing D2R1



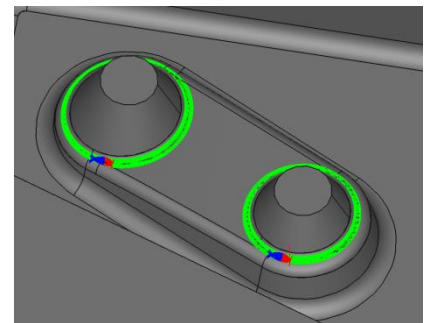
Scanning only
horizontal area

[9,Finish]
Corner Processing D2R1



Ridgeline path

[10,Finish]
Corner Processing D1R0.5



Ridgeline path