CG Cam-Tool

SolidWorks add-in High Precision CAM System

Milling Sample — Side cover

[Material] STAVAX(52HRC)

[Size] 140mm x 90mm x 30mm

Feature

Side cover of bike has multiple free-form surfaces.

After Roughing process by 3R Ball end mill, the low lying area was machined with Low Angle Finishing. Then, the remaining area was machined by 2R Ball end mill with Rest Machining.

The entire portion was finished with Z-level and scanning path with Z-level Finishing.

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	1.2	0.4	0.1	12,000	2,400	00:54
2	Rough2	D6R3	0.15	0.1	0.1	12,000	2,400	00:06
3	Second Rough	D4R2	0.1	0.1	0.03	14,000	1,400	00:50
4	Finish1	D2R1	0.07	0.07	0	12,000	1,000	00:41
5	Finish2	D2R1	0.03	0.03	0	16,000	960	04:07
6	Finish3	D1R0.5	0.03	0.03	0	14,000	840	00:05
							Total time	6:45

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Cuttin processes

[1.Rough]
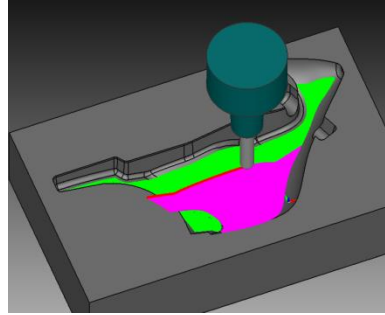 Z-level Roughing D6R3
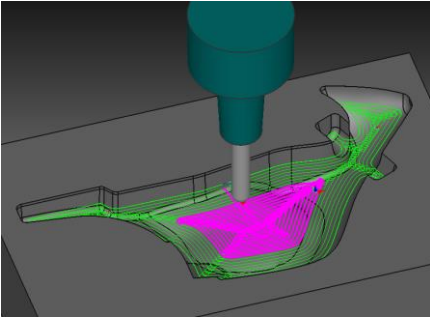
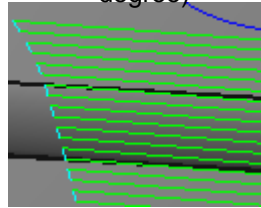Offset patterns / Slant cutting
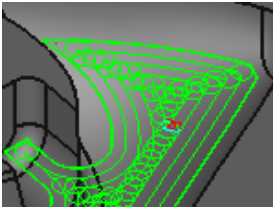
Trocoid / Last step over

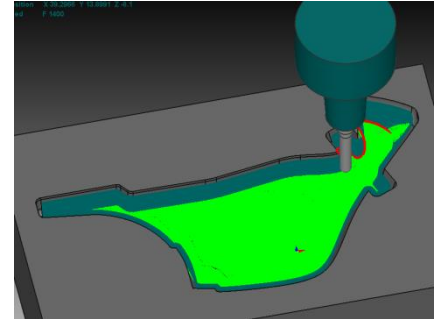### [2.Second Rough]
 Low Angle Finishing D6R3
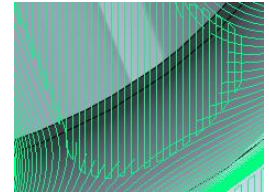
Low lying area (Divided at 45 degree)

Bi-directional

[3.Second Rough]
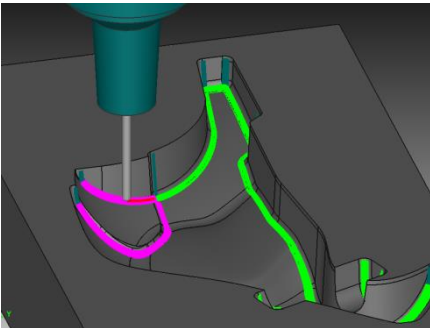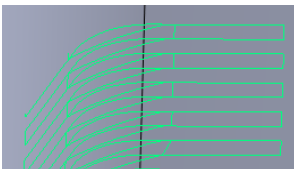 Z-level Finishing D4R2

Z-level + Scanning

Bi-directional
/ Lap volume 2.5 degree
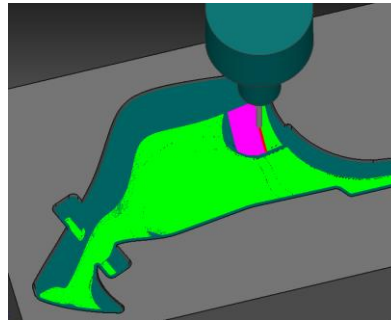
[4.Second Rough]
 Corner Processing D2R1

Ridge line path
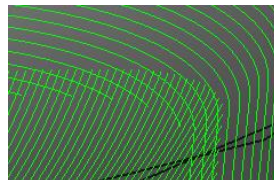/ Right angle path

Right angle path
/ Remain step 0.1
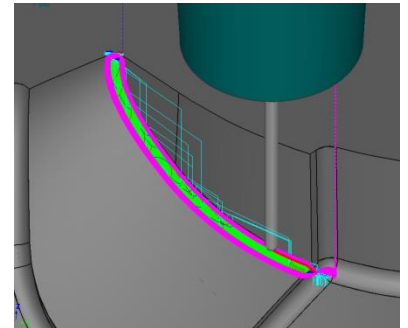
[5.Finish]
 Z-level Finishing D2R1
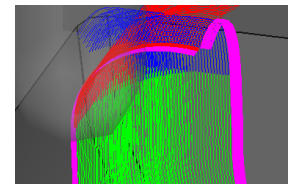
Z-level + Scanning

Bi-directional
/ Lap volume 2.5 degree

[6.Finish]
 Corner Processing D1R0.5

Ridge line path

Ridge line path
/ Remain step 0.05

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