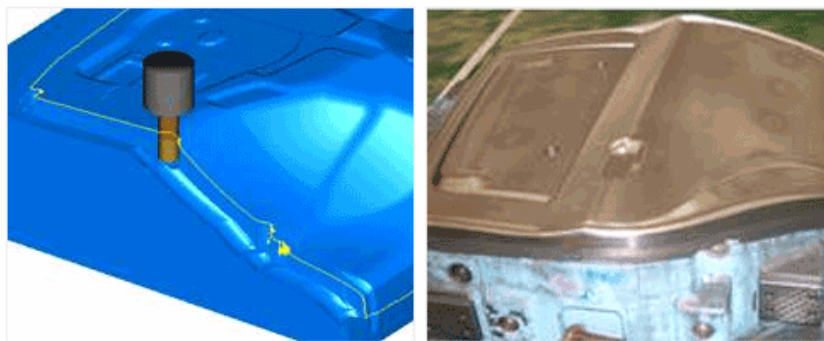


#### ▣ Introduction

The profile shape of **Trimming Die or Flange Die** which are manufactured in automobile and die factory is almost not 2D curve in plane but is curve in space. But most of them relies on manual operation at machining because there is not CAM system supplying profile machining. **This -Pro generates NC data excluding collision with hold and shank and over cutting from 3D curve.**



#### ▣ Introduction

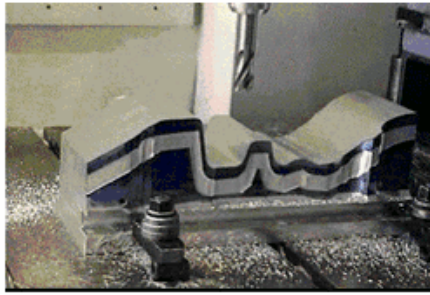
- NC data generation without over cutting from 3D Curve
- NC data generation without shank/holder collision
- Helical Interpolation machining
- 3D, 2D tool diameter compensation support(G41, G42)
- Normal Offset : Maintain steady cutting depth
- Auto Clean Up machining (considering machining load)
- Collision Avoidance
- Batch Process
- Relief machining
- Tool path generation considering interference between curves
- Tool collision verification
- Verified system on various controller
- (Fanuc, Tosnuc, Okuma, Siemens, etc)

#### Offset Machining / Relief Machining

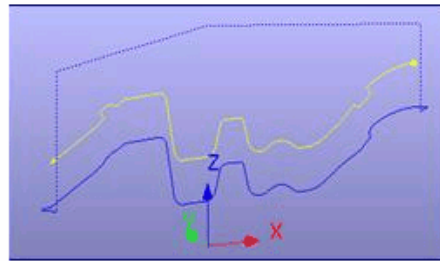
- Machining maintaining steady machining width in normal direction of curve (X-Z plane)

#### Relief Machining

- Machining maintaining trim face thickness
- Prevention of over cutting around inclined area by NC-Path offset to maintain Relief depth.



Actual Machining Test



Global offset Machining

### Machining Types

#### Global Machining

- Whole curve machining
- Auto NC data generation by checking interference of curves
- Roughing / Finishing by using Machining Allowance

#### Local Machining

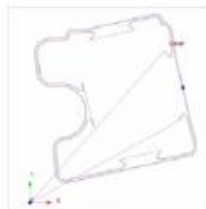
- After checking uncut area, auto part Clean Up machining
- NC data generation overlapped with Previous NC path around approach and retract area

#### Clean-UP Machining

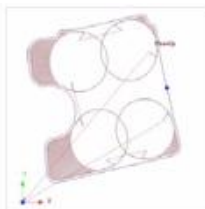
- Auto gradual repeated machining at uncut area
- Auto part Clean Up machining by checking uncut area by each tools
- Overcome machining load by using user-define cutting depth(z-pitch)



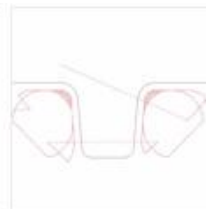
Global Machining



Local Machining



Clean-up Machining



Clean-up : Link path angle = 70 Degrees & Z-Pitch



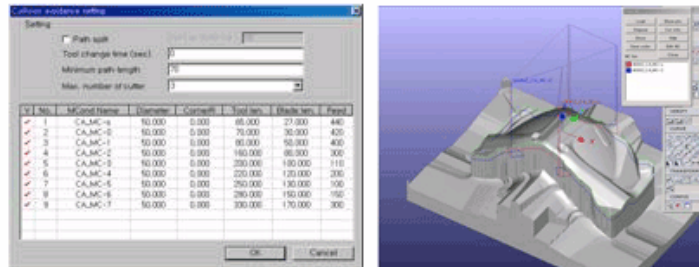
Clean-up Mchining



Local Machining

## Collision Avoidance

- NC data generation without shank/holder collision.
- Collision avoidance NC-Data Generation by collision algorithm.



Collision Avoidance

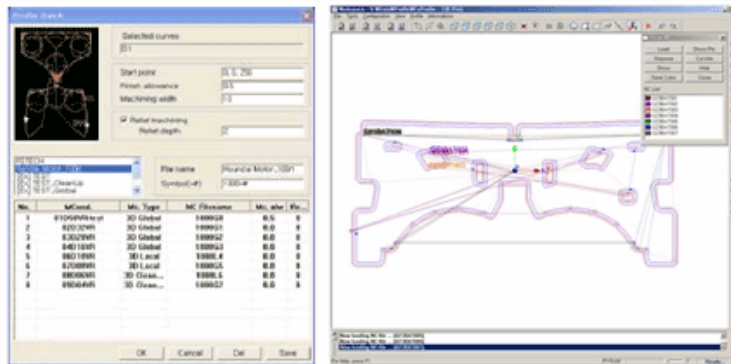
## Batch Process

### Continuous repeated machining

### Roughing/Finishing/Clean Up support

### Offering Machining supplement(repetition macnining) by tool deflection.

### One-shot process from rough-cutting to clean up-cutting.



Batch Process

## System Requirements

	Minimum	Recommendation
CPU	Pentium 3	Pentium 4
MEMORY	64MB	256MB
HDD	300MB	500MB
GRAPHIC	1024X768	1280X1024
VRAM	8MB	64MB
O/S	Windows NT / 2000 / XP	