

Focus Series 2024

Total CAD/CAM solution for ZW3D



► About **FOV**

► **Focus Series**

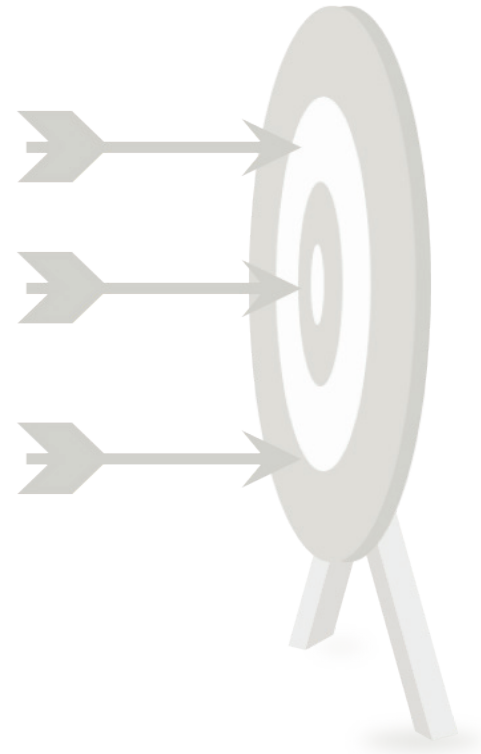
Basic Focus

Modeling Focus

Electrode Focus

Face-Edit Focus

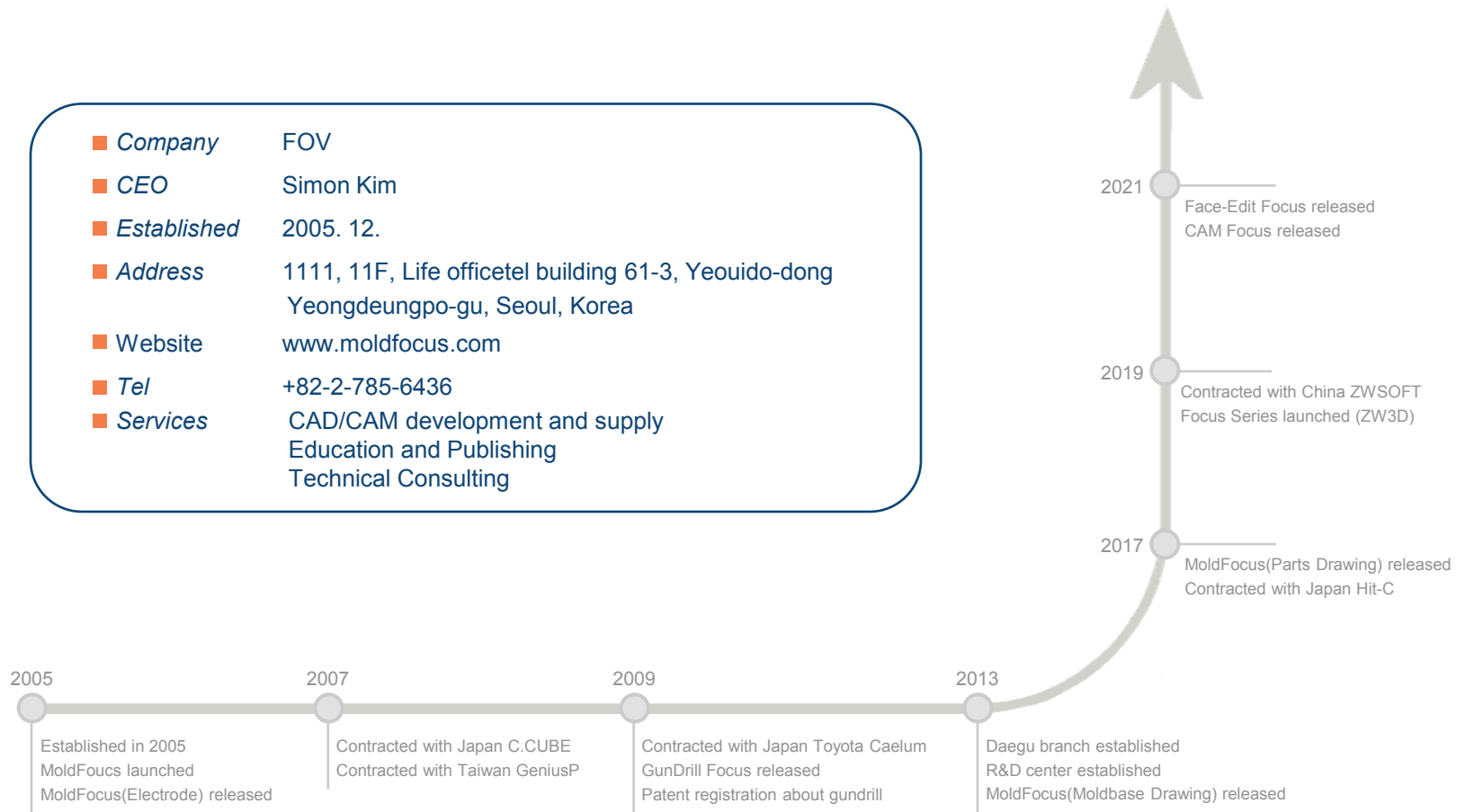
CAM Focus



About FOV

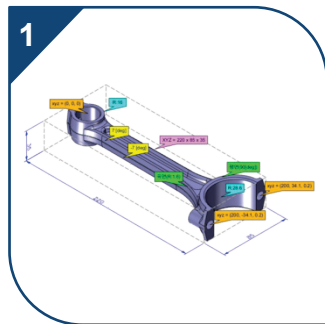
Providing valuable products to our customers is our philosophy.

- **Company** FOV
- **CEO** Simon Kim
- **Established** 2005. 12.
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Yeongdeungpo-gu, Seoul, Korea
- **Website** www.moldfocus.com
- **Tel** +82-2-785-6436
- **Services** CAD/CAM development and supply
Education and Publishing
Technical Consulting



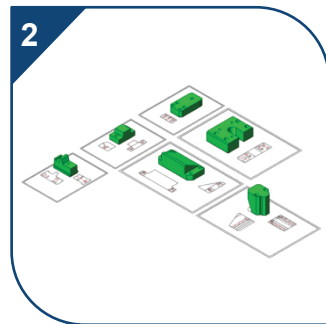
Focus Series is a CAD/CAM solution that is run in ZW3D

To help improve manufacturing production efficiency, **Focus Series** offers a variety of solutions.



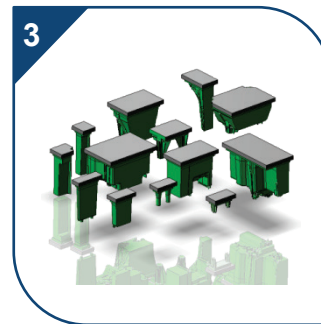
Basic Focus

- ✓ **Viewer solution**
- ✓ Easy measurement tool
- ✓ Quick entity classification
- ✓ Smart entity editing tools



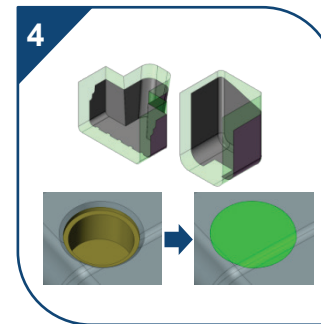
Modeling Focus

- ✓ **Auto 3D models from 2D**
- ✓ Automatic 2D to 3D conversion
- ✓ Alignment drawing
- ✓ Easy bolt hole modeling



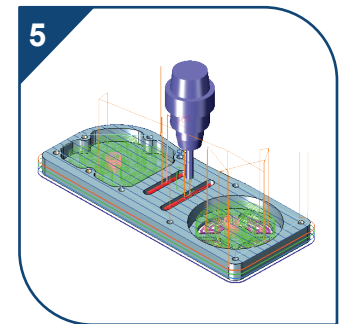
Electrode Focus

- ✓ **Electrode design solution**
- ✓ Electrode modeling
- ✓ Electrode blank
- ✓ Electrode BOM & drawing



Face-Edit Focus

- ✓ **Easy face editing for CAM**
- ✓ Automatic hole filling
- ✓ Smart face extension
- ✓ Expansion of corner radius



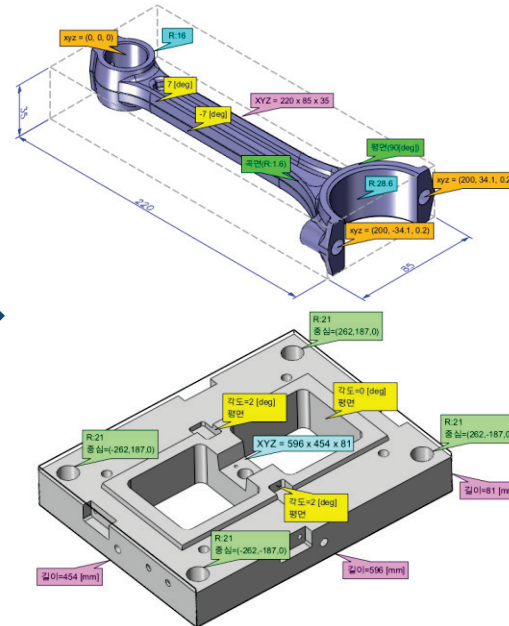
CAM Focus

- ✓ **2.5D CAM solution**
- ✓ Easy-to-use interface
- ✓ Curve editing functions for CAM
- ✓ Supporting multiple operations



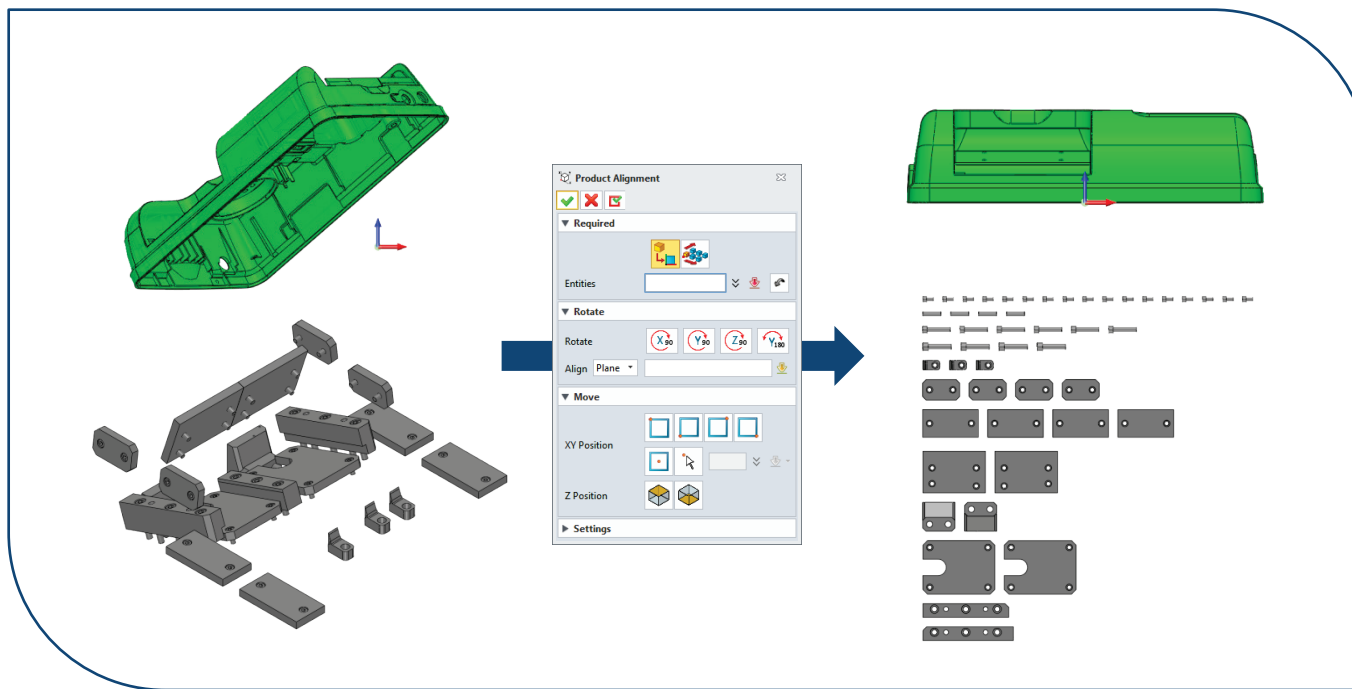
Viewer solution that quickly checks information and edits entities

Easy measurement function that allows you to check various entity information with only one function.



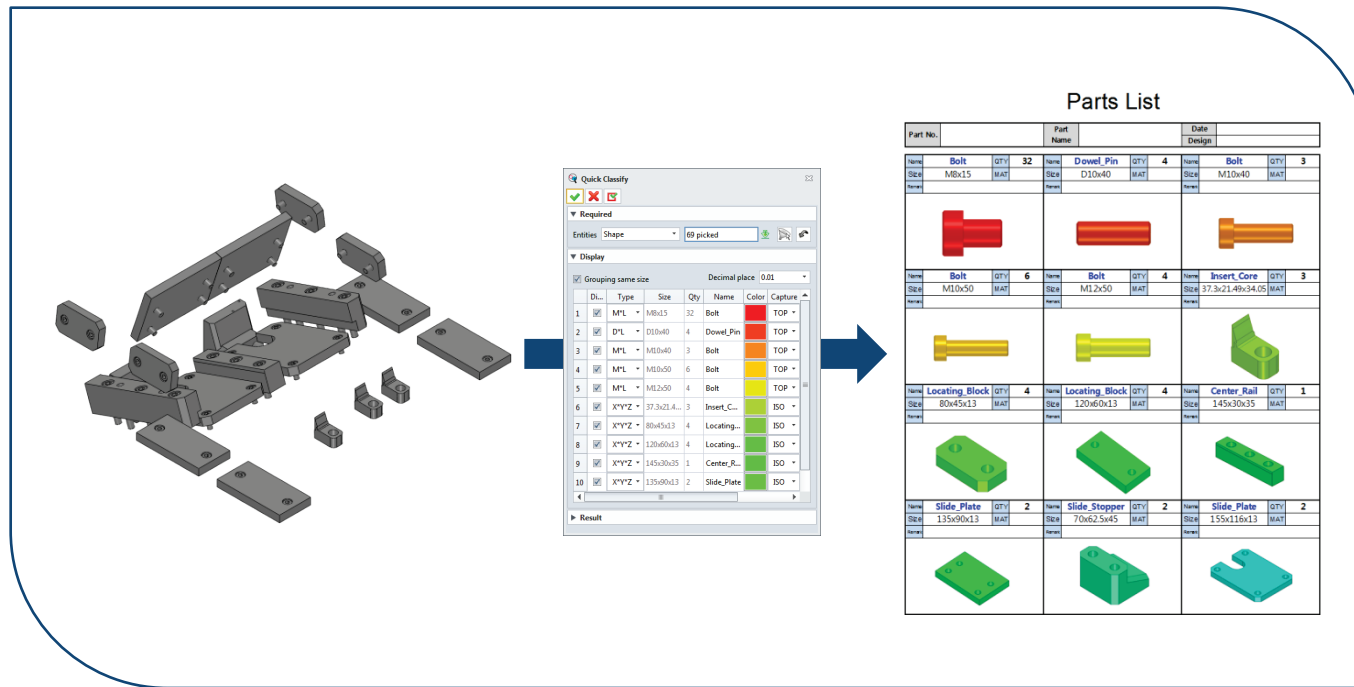
Product Alignment

Product Alignment function that allows you to easily align or sort products with just a click of the icon.



Parts List

Quick Classify function that outputs undefined parts to Excel with name, size, quantity, and image.

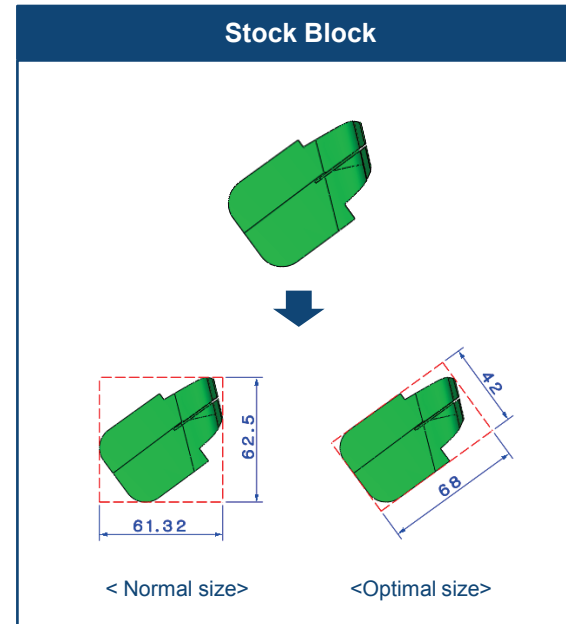
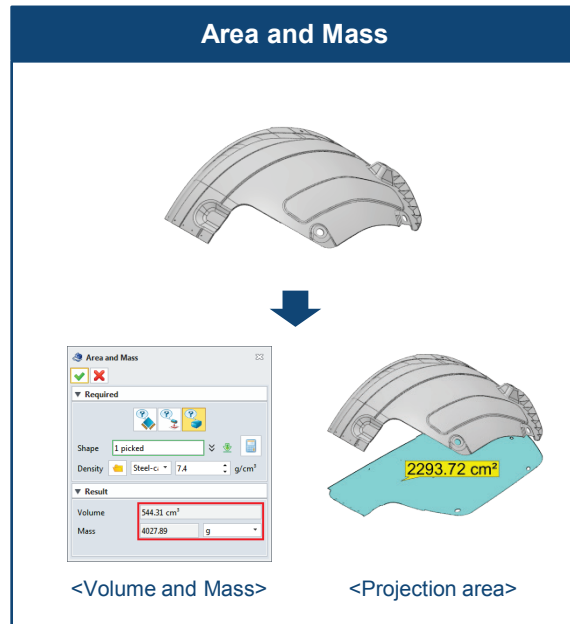


Area and Mass

Stock Block

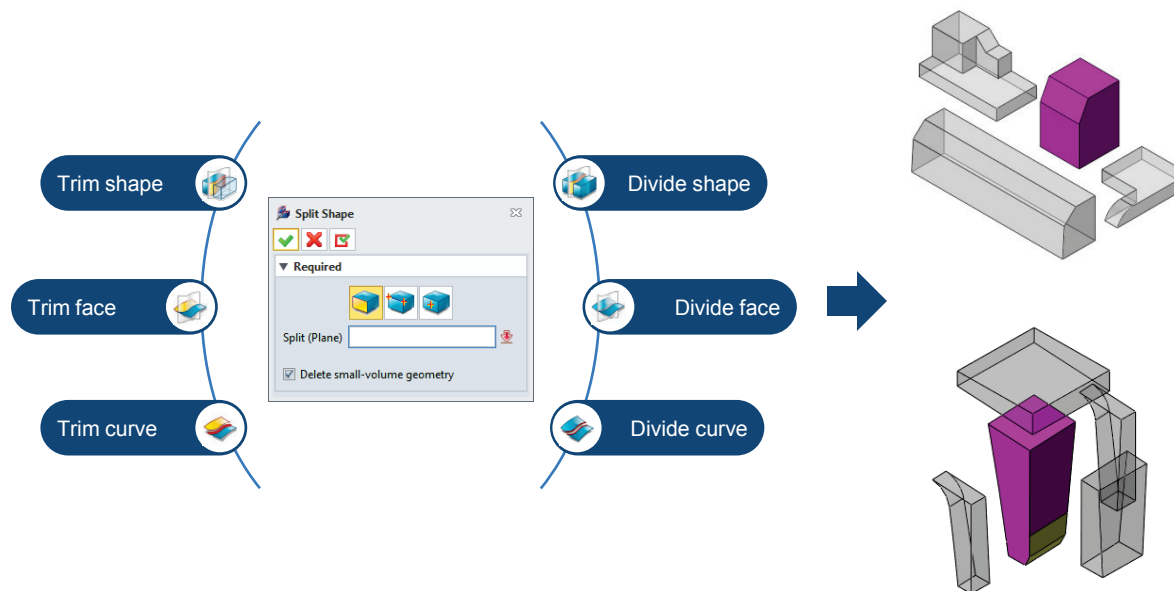
Area and Mass function that allows you to check the physical properties quickly (projection area, area, volume, mass).

Stock Block function that allows you to figure the optimal size of the workpiece.



Split Shape

Split Shape function that allows you to split shape or face in various methods with only one function.

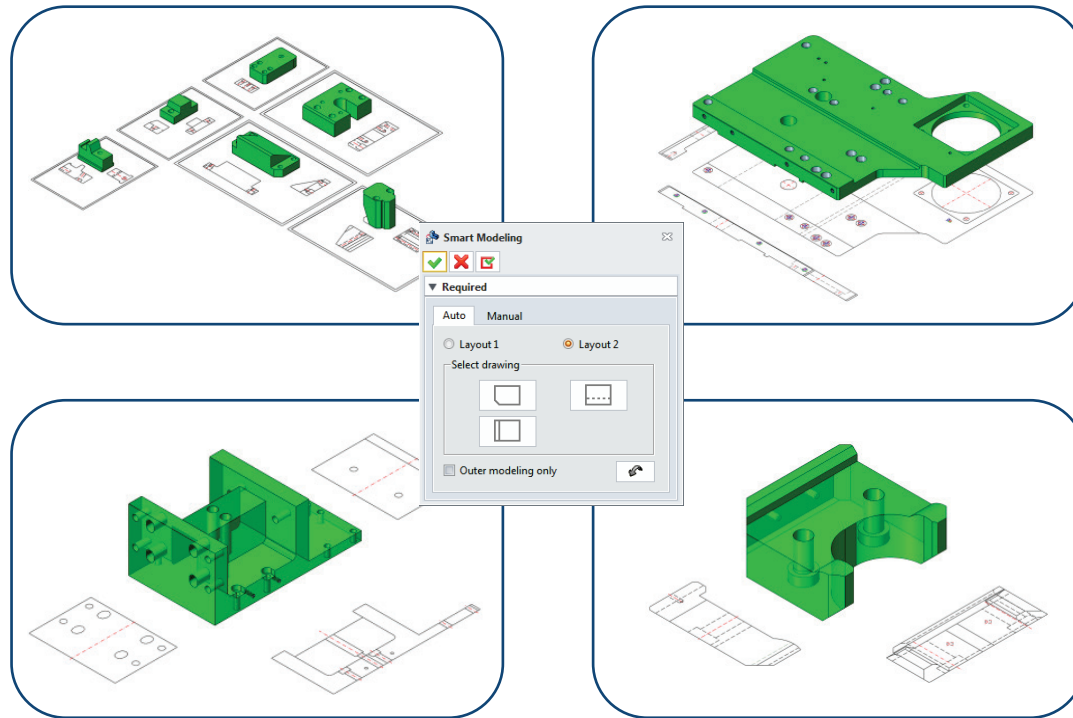


Modeling Focus

Automatic 3D modeling solution that converts 2D to 3D

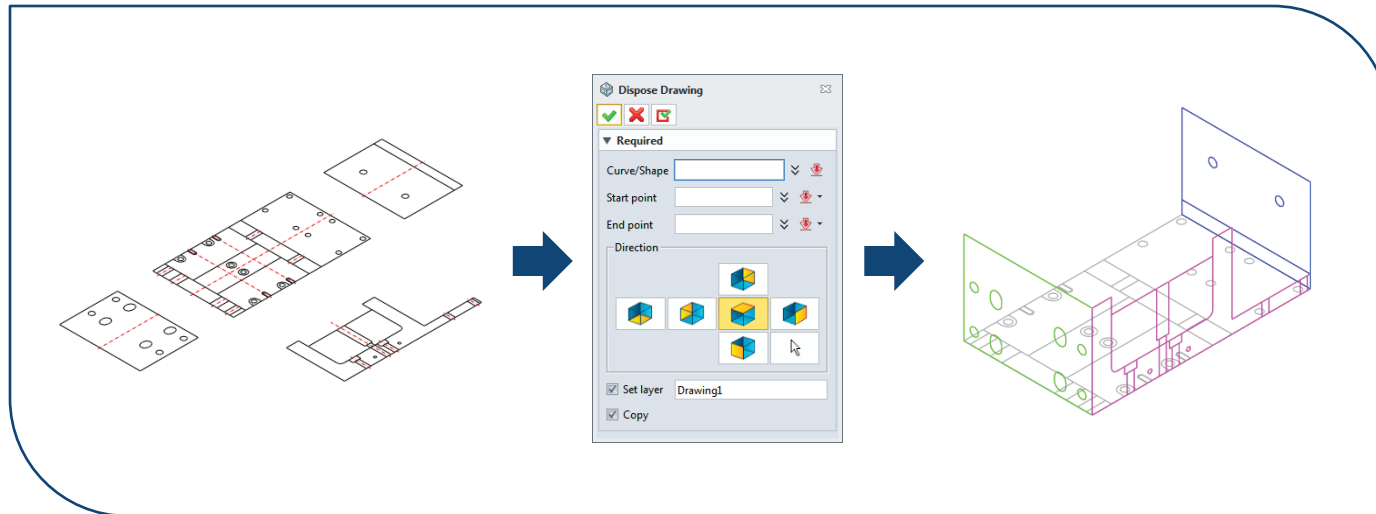
Smart Modeling

Automatic 3D modeling function that allows anyone to convert 2D drawing to 3D model quickly.



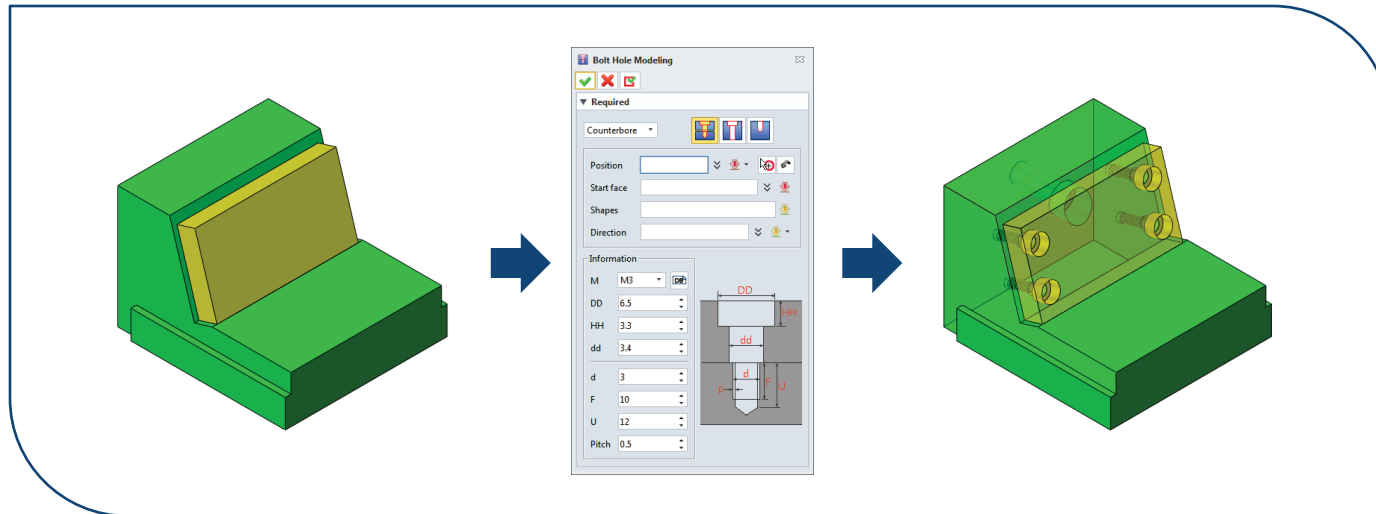
Dispose Drawing

Drawing alignment function that rotates or moves the drawing in the direction user's need.



Bolt Hole Modeling

Bolt hole modeling function that creates variety types of bolt holes using DB.



Electrode Focus

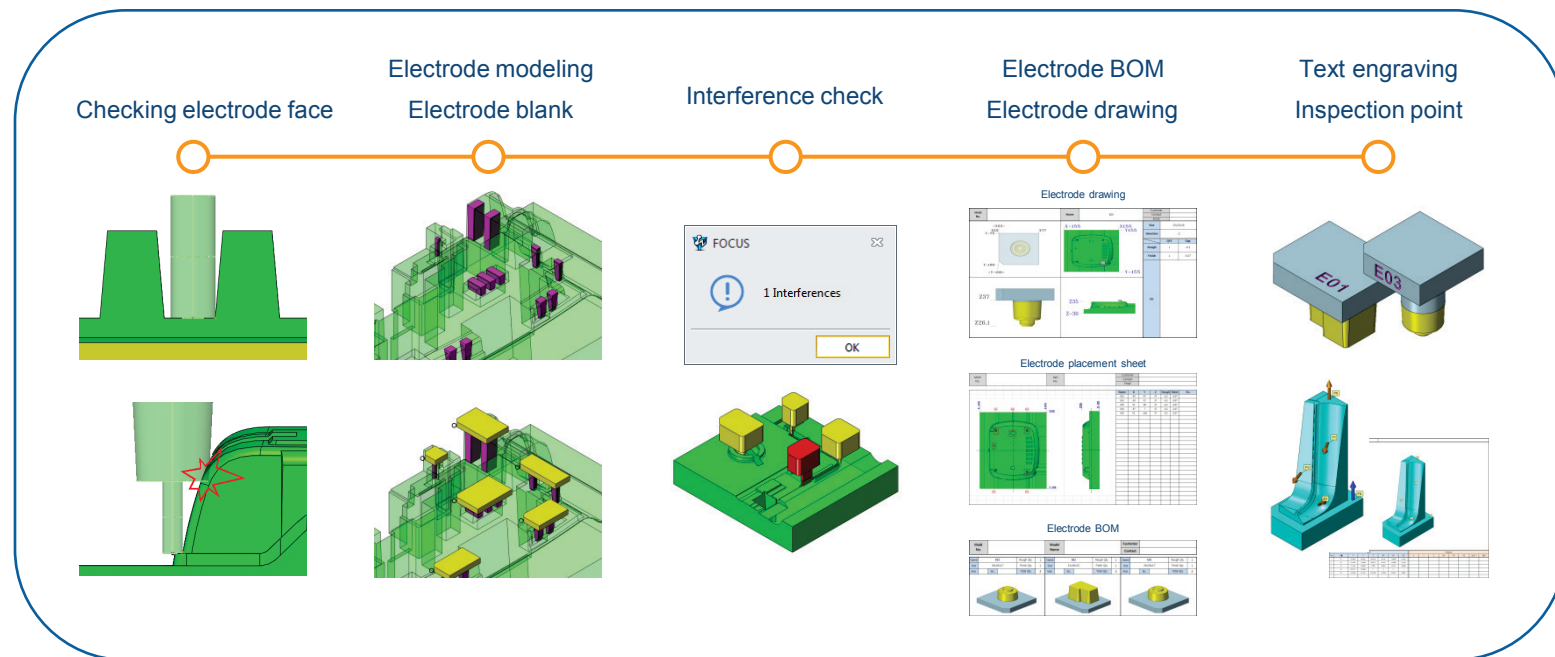
Electrode design solution which can streamline and automate electrode modeling, design, validate, and final document.



Electrode Focus Overview

Electrode Focus provides various functions such as checking electrode face, electrode modeling, electrode BOM and etc.

<Workflow>



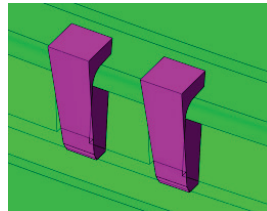
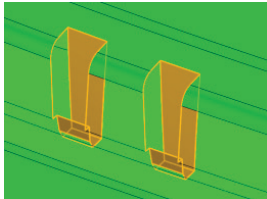
Electrode modeling

Electrode modeling automatically creates electrodes without separating and editing it.

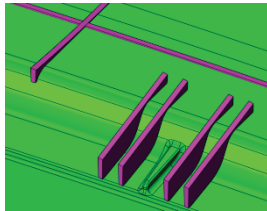
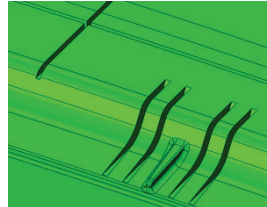
Rib draft modeling function creates an inclined rib electrode shape in a rib slot of a constant thickness.

Smart remove function can easily remove unnecessary parts while maintaining the electrode face.

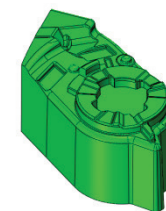
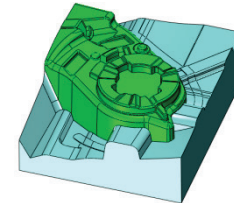
Auto electrode modeling



Rib draft modeling

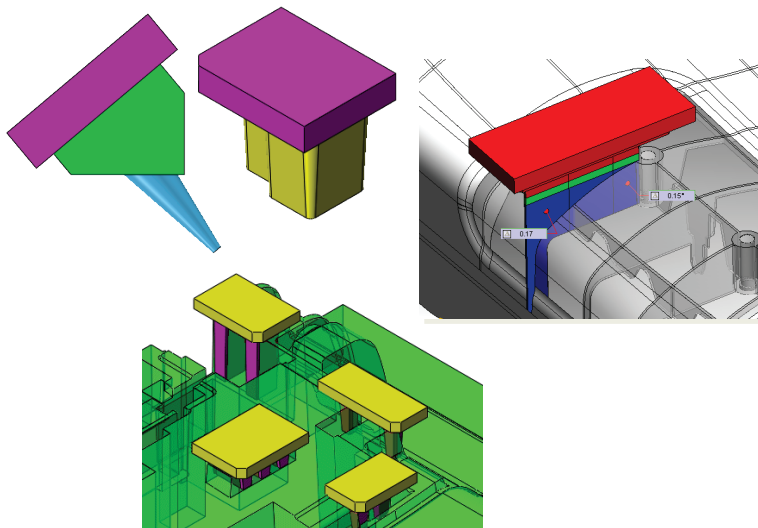


Smart remove



Electrode blank

Electrode blank function adds an electrode blank to the electrode shape and automatically create the appropriate sized blank in the DB.

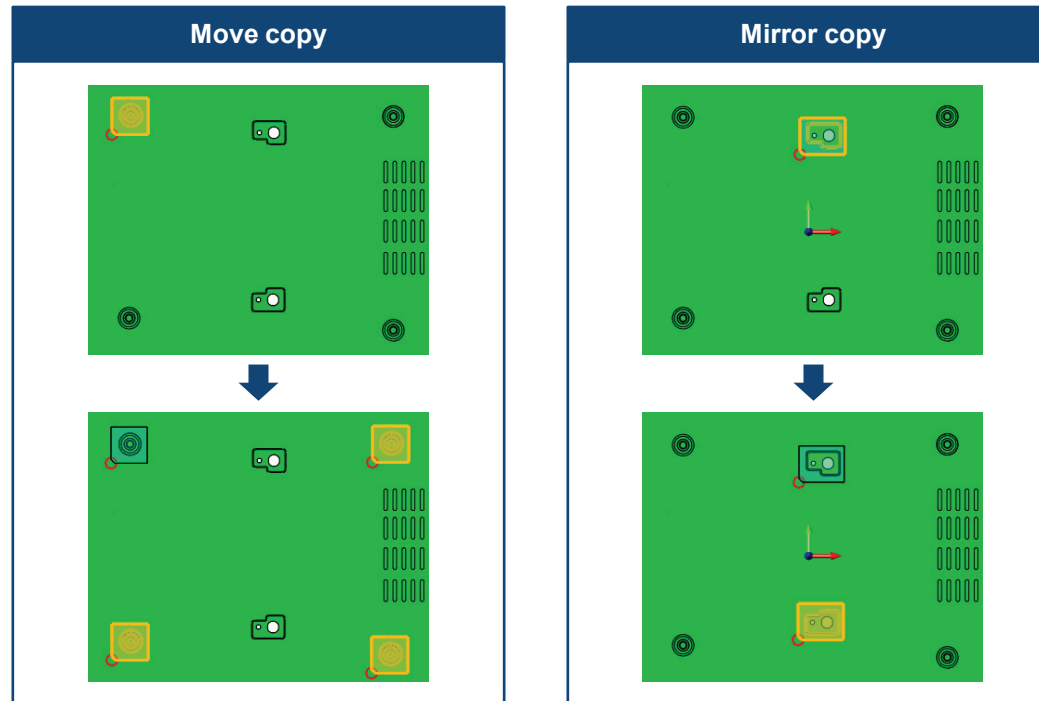


You can

- ✓ Automatically creates a rounded-up reference point
- ✓ Support an angle electrode blank for angle electrode shape
- ✓ Blank preview
- ✓ Various methods (set size/ set margin/ use DB) to set blank size
- ✓ Extending the side face of the electrode shape to the blank
- ✓ Support 1 step or 2 step blank
- ✓ Easy settings for reference point and reference face

Pattern electrode

Pattern electrode function duplicates the pre-existing electrode to other locations without further modeling.



Electrode drawing

Electrode placement sheet

Electrode BOM

Angle electrode coordinate

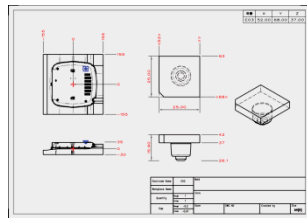
Electrode drawing function creates drawings or excel sheets for both CNC and EDM.

Electrode placement sheet function shows the position of all electrodes in one drawing.

Electrode BOM function exports electrode material sheet and part list.

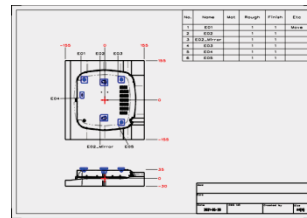
Angle electrode coordinate function annotates the coordinates of the start and end point for angular EDM.

Electrode drawing



Model	Name	Size (mm)	Material	Qty	Unit
1	E01	20	20	17	1
2	E02	10	20	22	1
3	E03_Minner	10	20	22	1
4	E03	20	20	17	1
5	E04	10	20	14	1
6	E05	20	20	17	1

Electrode placement



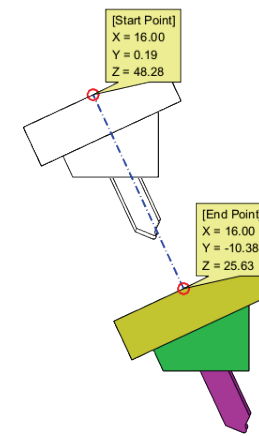
Model	Name	Size (mm)	Material	Qty	Unit
1	E01	20	20	17	1
2	E02	10	20	22	1
3	E03_Minner	10	20	22	1
4	E03	20	20	17	1
5	E04	10	20	14	1
6	E05	20	20	17	1

Electrode BOM

Model	Name	Size (mm)	Material	Qty	Unit
1	E01	20	20	17	1
2	E02	10	20	22	1
3	E03_Minner	10	20	22	1
4	E03	20	20	17	1
5	E04	10	20	14	1
6	E05	20	20	17	1

Model	Name	Size (mm)	Material	Qty	Unit
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3	E03_Minner	10	20	22	1
4	E03	20	20	17	1
5	E04	10	20	14	1
6	E05	20	20	17	1

Angle electrode

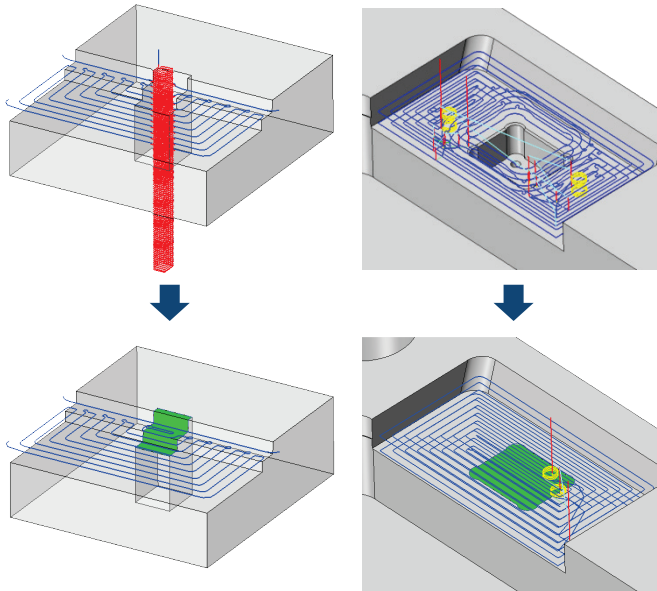


Face-Edit Focus

Face editing solution for CAM to obtain high quality and efficiency machining

Face-Edit Focus allows CAM operator to edit 3D models easily.

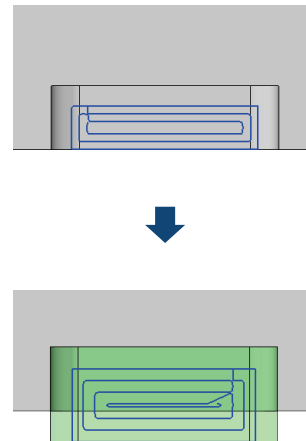
Filling hole



→ Tool breakage prevention

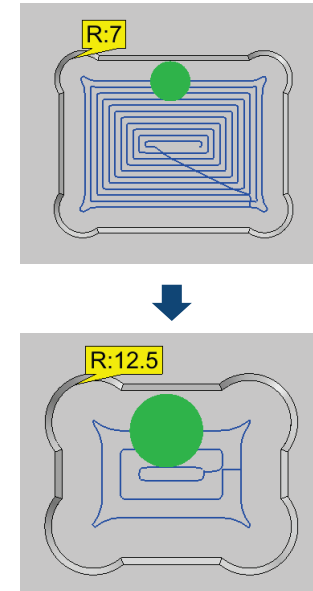
→ Efficient tool path

Face extension



→ Prevention of undercutting

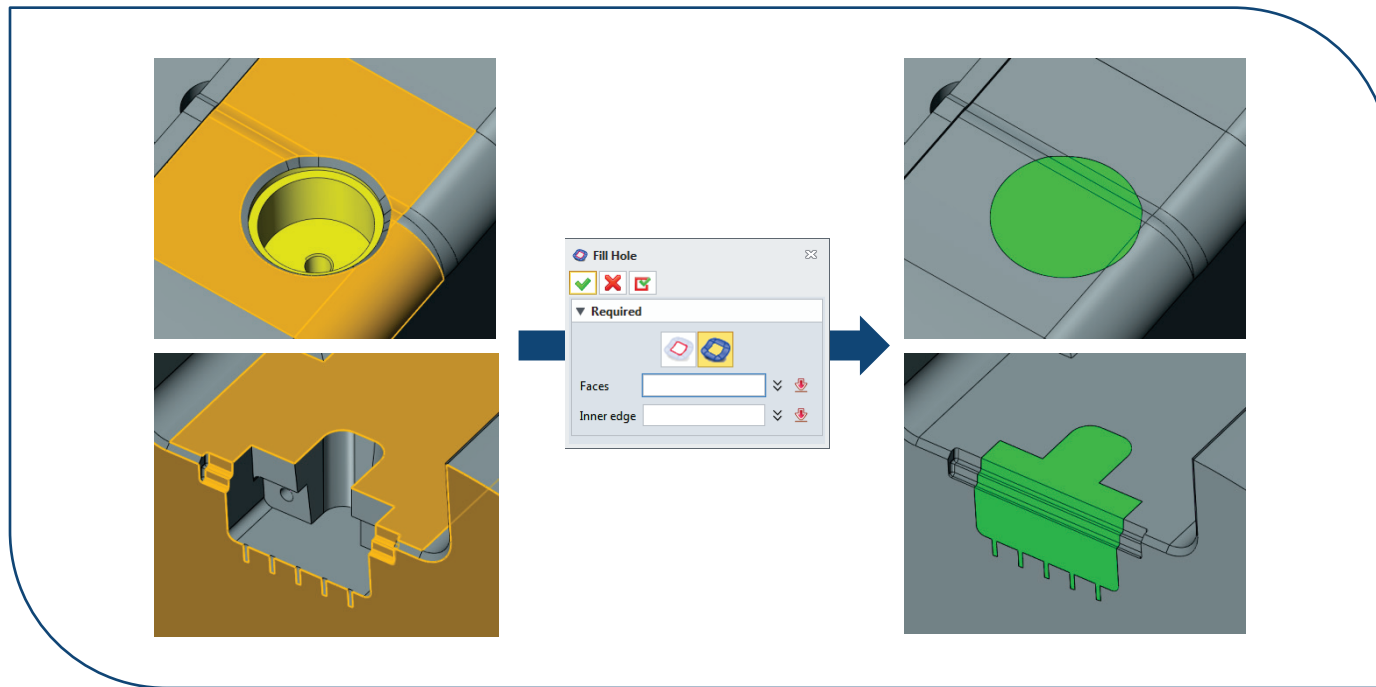
Expansion of corner radius



→ Reduced machining time by using a larger tool

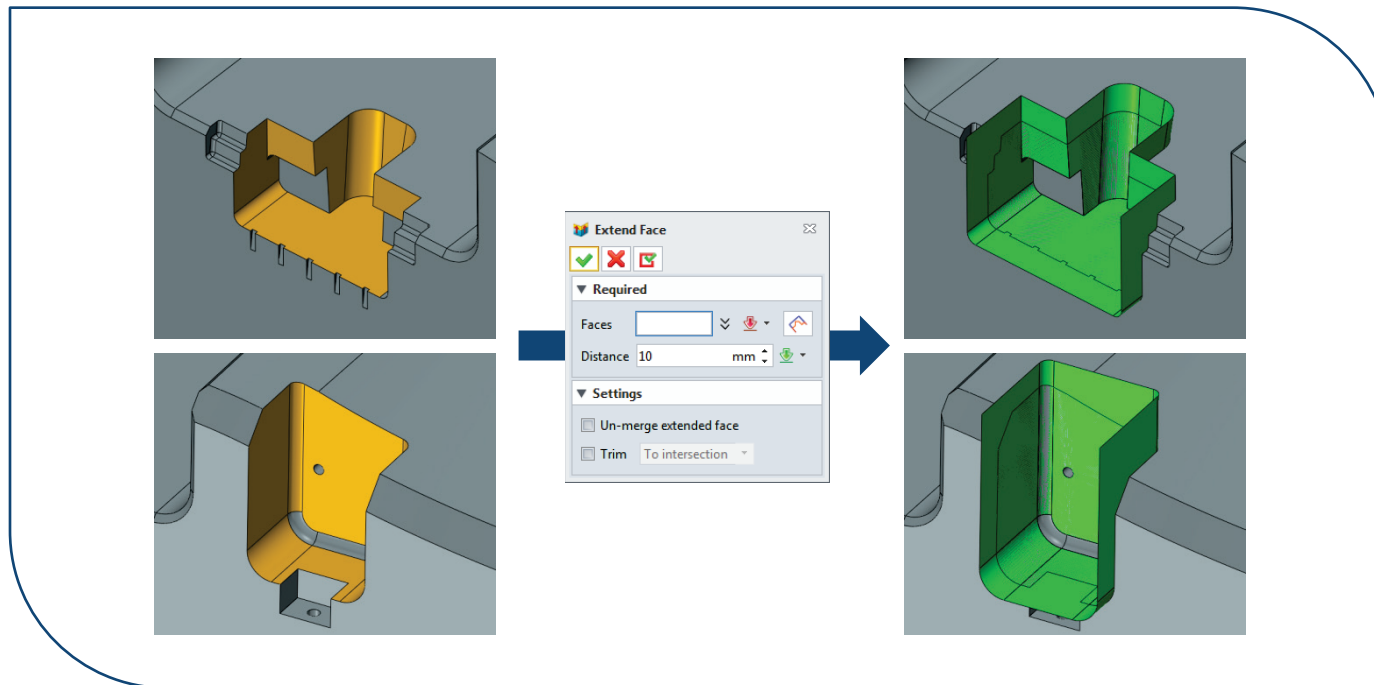
Fill Hole

Automatic hole filling that allows you to fill a complex hole at once just by selecting the faces around the hole.



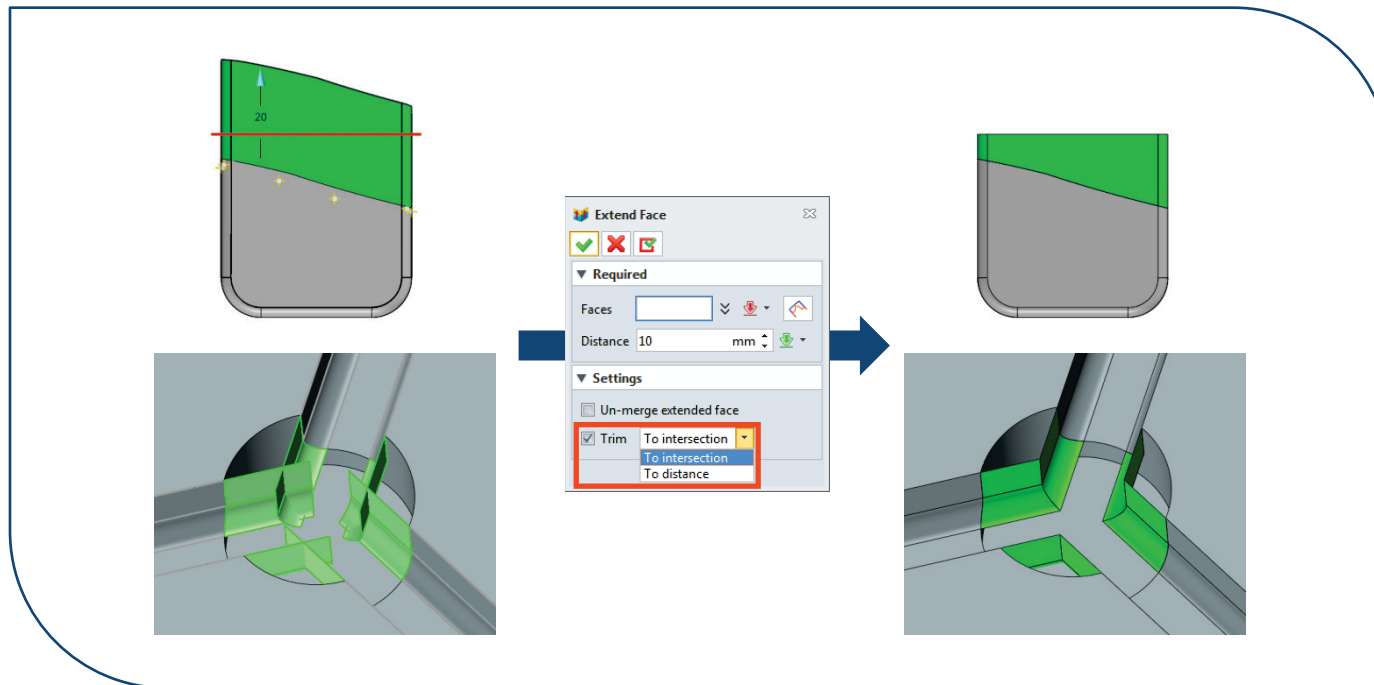
Extend Face-1

Smart face extension that makes it easy to extend the trimmed face.



Extend Face-2

Trim options that automatically trim at the same height or intersection for the extended faces.

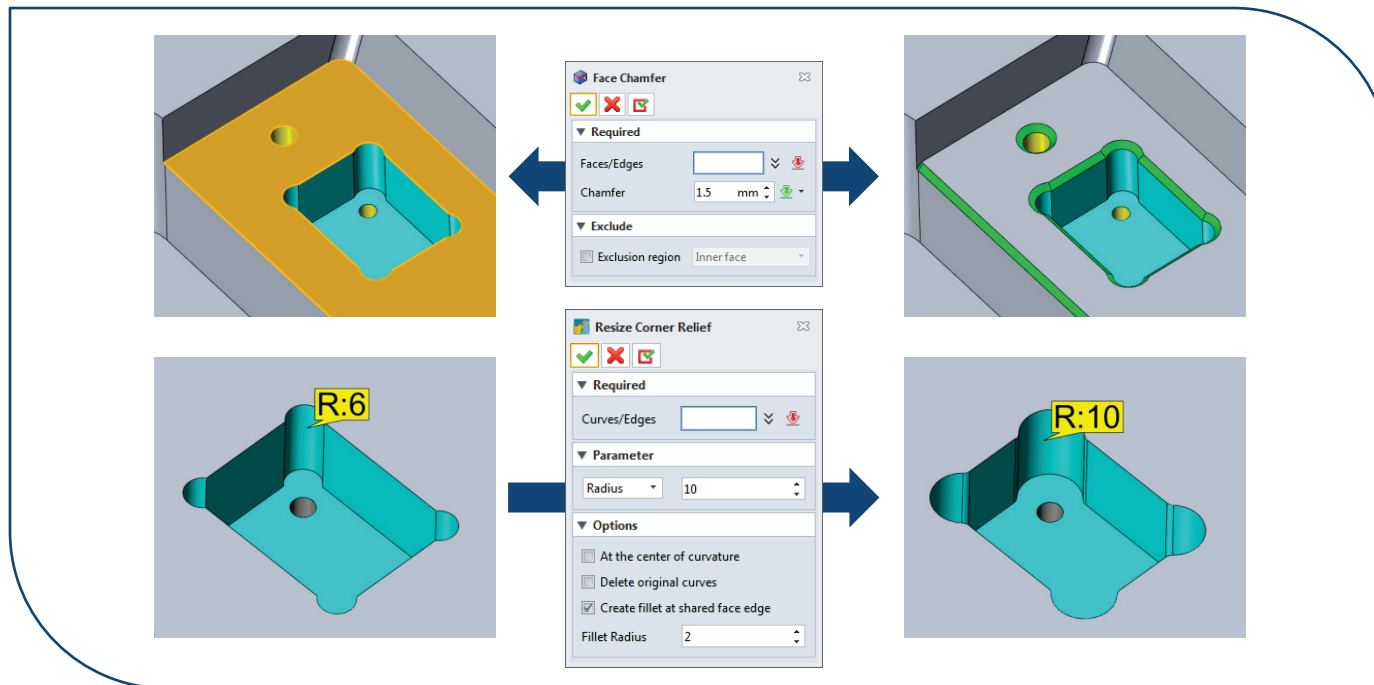


Add/Delete face chamfer

Add/Edit corner relief

Face chamfer function to create or remove chamfers at all edges of specified faces

An easier expansion of corner radius for efficient machining

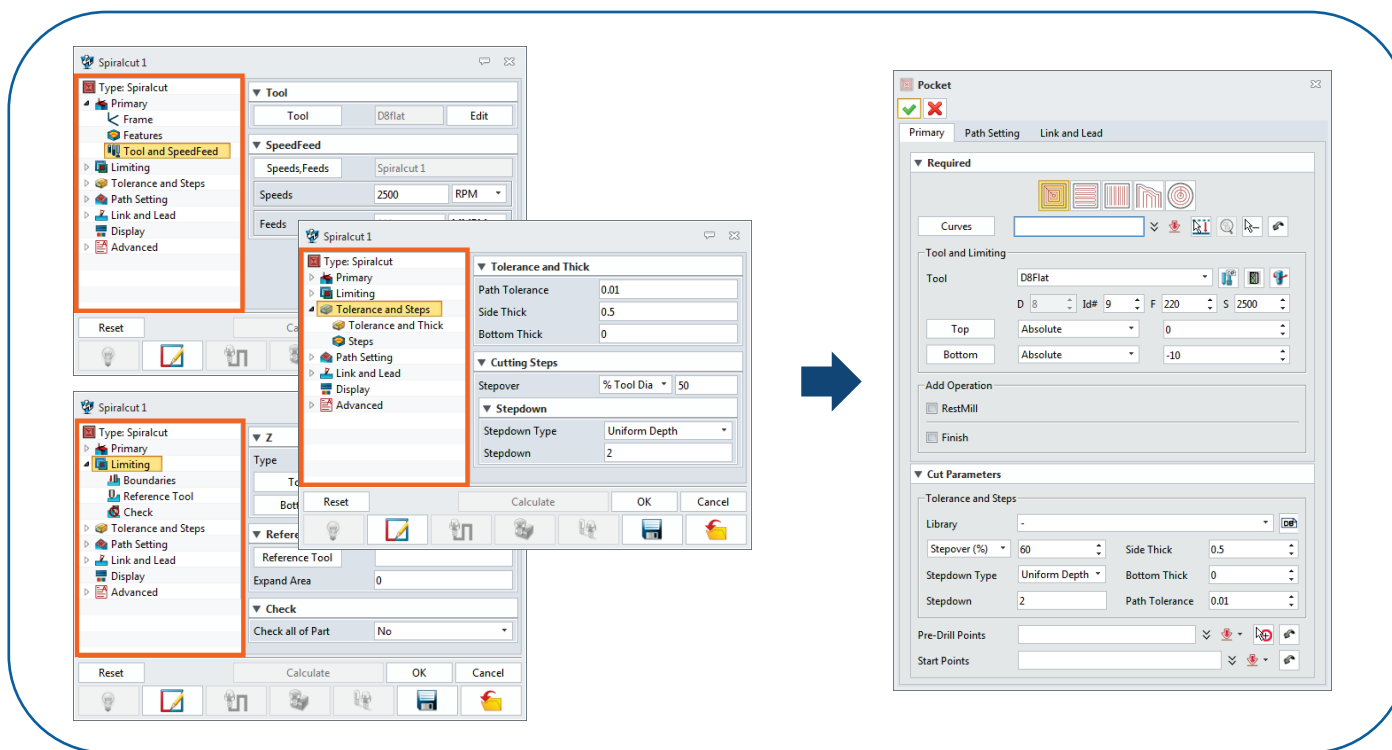




2.5D CAM solution that makes NC data easier and faster

Easy-to-use interface

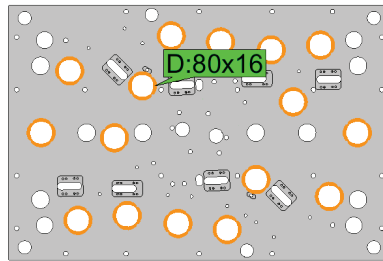
From tree-structured menus to optimized menus to display in **one dialog**



Easy range selection

Various filters to select a range of machining easily

Same diameter circle



Same size pocket

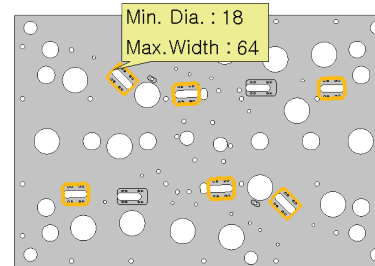


Table coordinates

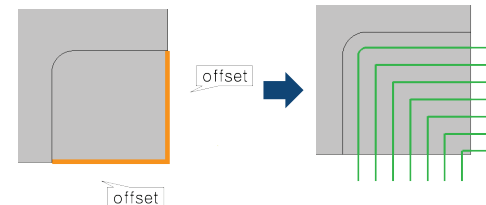
B: M16X2.0 TAP DP30
B 1 -1060.0 -588.0
B 2 -1060.0 -588.0
B 3 -1060.0 588.0
B 4 -1060.0 588.0
B 5 -1210.0 -588.0
B 6 -1210.0 -588.0
B 7 -1210.0 588.0
B 8 -1210.0 588.0
B 9 -30.0 -588.0
B 10 -30.0 -588.0
B 11 1060.0 -588.0
B 12 1060.0 -488.0
B 13 1060.0 588.0
B 14 1060.0 688.0
B 15 1210.0 -588.0
B 16 1210.0 -688.0
B 17 1210.0 -588.0
B 18 1210.0 -688.0

C: M6X1.0 TAP DP20
C 1 -302.0 678.0
C 2 -487.0 678.0



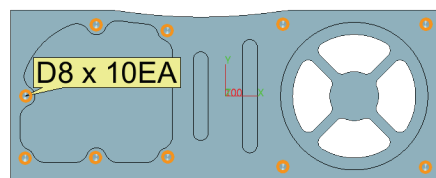
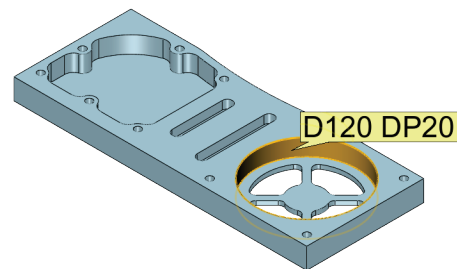
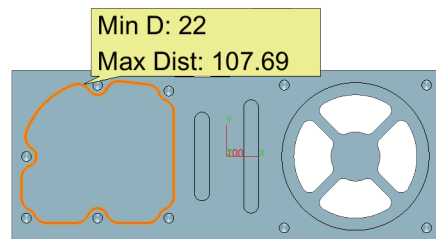
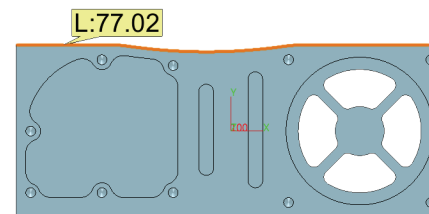
Tag	X	Y
1 B1	-1060.0	-588.0
2 B1	-1060.0	-488.0
3 B1	-1060.0	588.0
4 B1	-1060.0	688.0
5 B5	-1210.0	-588.0
6 B6	-1210.0	-688.0
7 B7	-1210.0	588.0

Open boundary



Real-time information

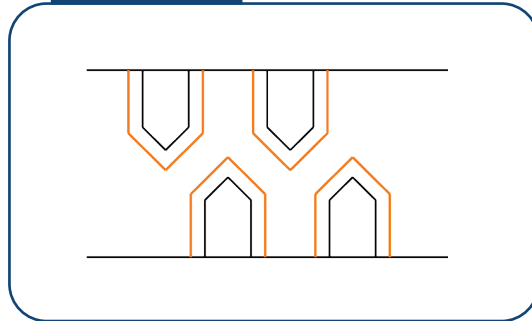
Real-time display of information to save time and prevent mistakes

Circles**Cylinder****Pocket****Curves**

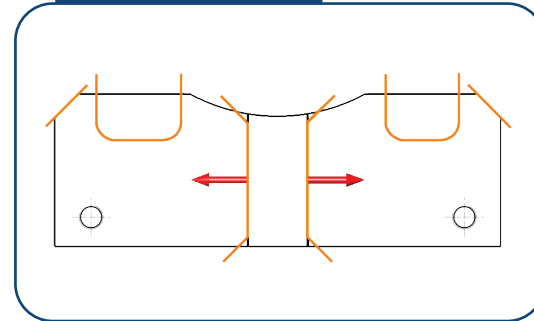
Editing curves

Curve editing functions to create and edit the range of machining easily

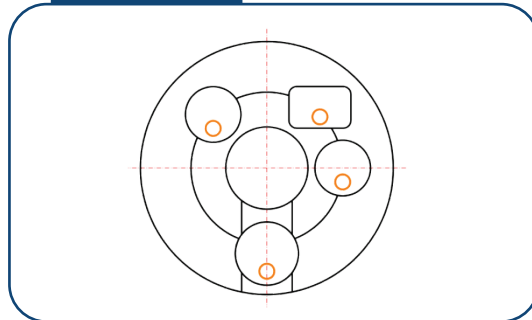
Offset



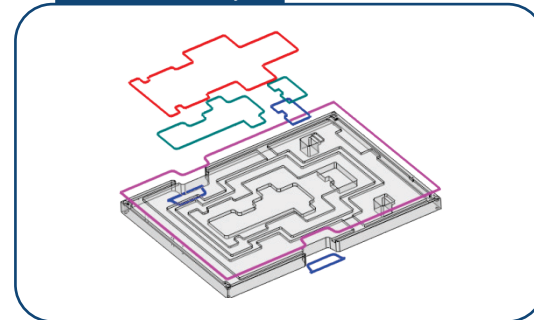
Extension of boundary



Pre-drill circle

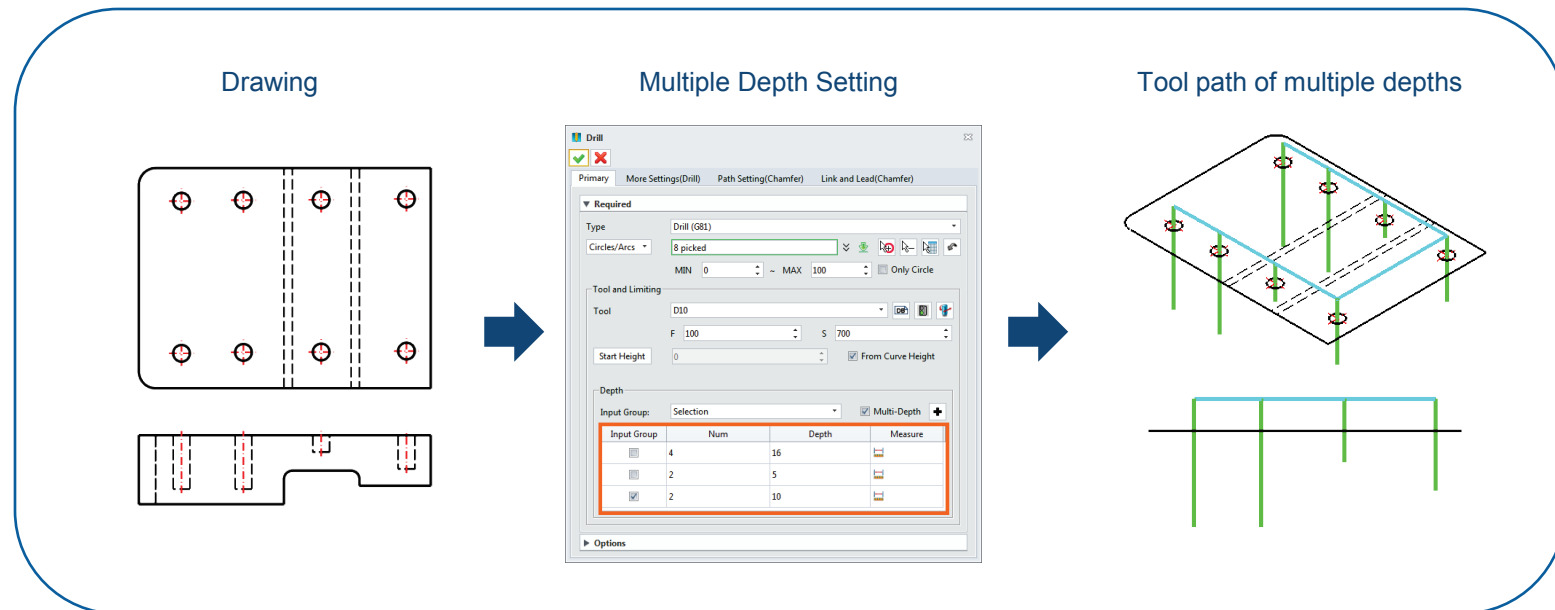


Outer boundary



Multi-depths drilling

In drilling operations, it provides **multiple depths** setting to register.



Multi-operations machining

In operations, users can also add **multiple operations** using the options.

- ✓ Drill
- ✓ Drill → Chamfer
- ✓ Center → Drill
- ✓ Chamfer(Center drill) → Drill
- ✓ Center → Drill → Chamfer



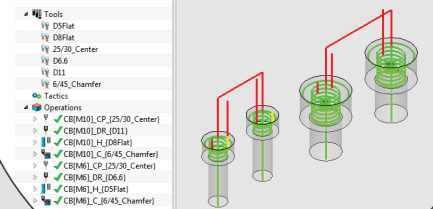
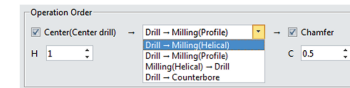
- ✓ Drill → Milling
- ✓ Milling → Drill
- ✓ Drill → Counterbore
- ✓ Drill → Milling → Chamfer
- ✓ Milling → Drill → Chamfer
- ✓ Center → Drill → Milling → Chamfer
- ✓ Center → Milling → Drill → Chamfer



- ✓ Drill → Tap
- ✓ Drill → Tap → Chamfer
- ✓ Drill → Chamfer → Tap
- ✓ Center → Drill → Tap
- ✓ Center → Drill → Tap → Chamfer
- ✓ Center → Drill → Chamfer → Tap



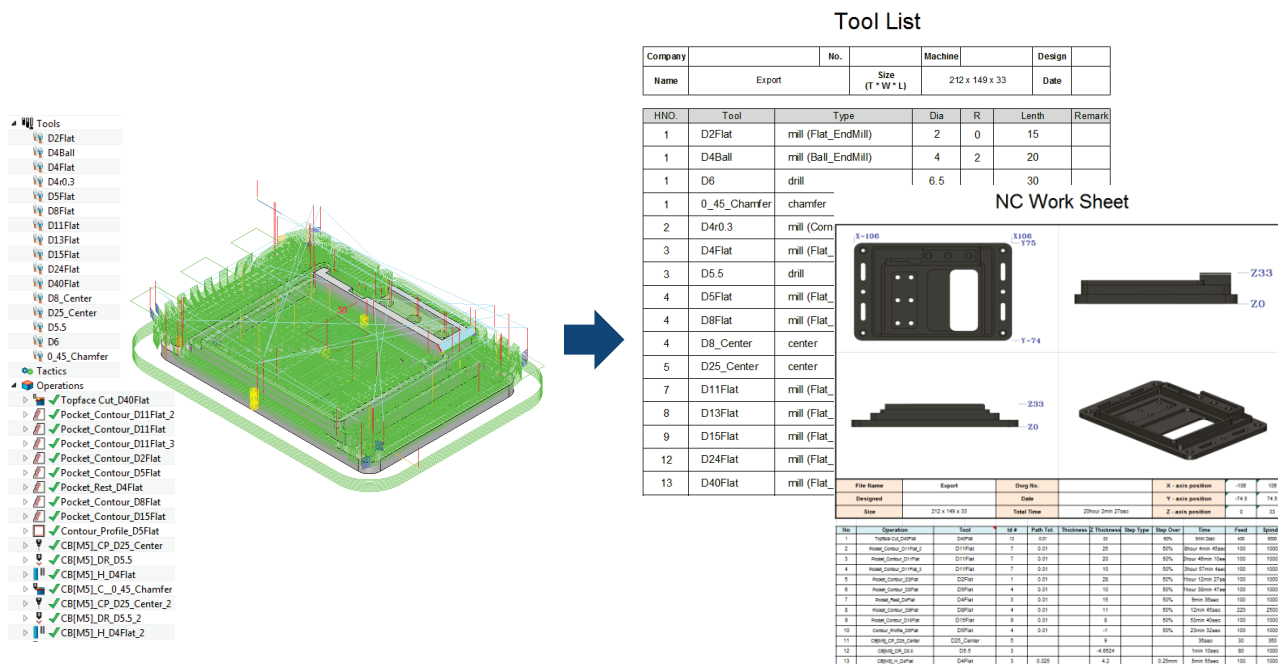
- ✓ Rough
- ✓ Rough → Rest
- ✓ Rough → Finish(side & bottom)
- ✓ Rough → Finish(side) → Finish(bottom)
- ✓ Rough → Finish(bottom) → Finish(side)
- ✓ Rough → Rest → Finish(side & bottom)
- ✓ Rough → Rest → Finish(side) → Finish(bottom)



Various output documents

Tool list that informs used tools to export Excel file.

NC Work Sheet that shows used operations to export Excel file.



Thank you

Developer  FOV

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Youtube <https://www.youtube.com/@FOV2005>