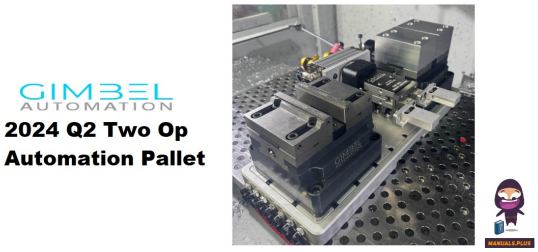

GIMBEL AUTOMATION 2024 Q2 Two Op Automation Pallet User Guide

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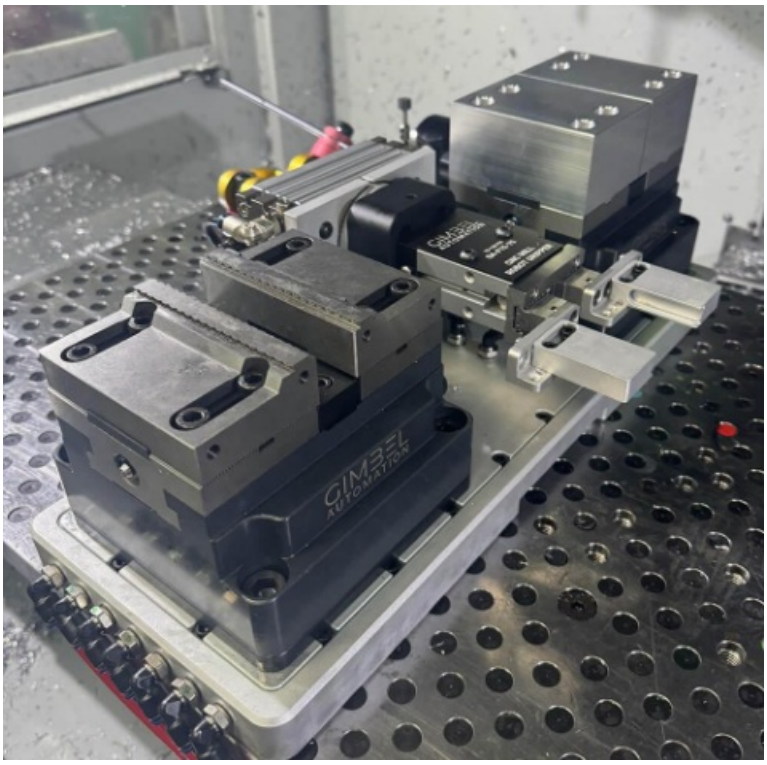


Product Specifications

- Product Name: Gimbel Automation Two-Op Automation Pallet
- Model: 2024 Q2
- Price: Starting from $6849
- Module: Two-Op
- Features: Axis/LANG/Jergens Zero-Point

Product Usage Instructions

- **Air Routing & Information**
  Ensure proper airline routing according to the Air Line Guide provided with the product. Bundle each cable coming off each individual Instant Solenoid Kit for efficient operation.
- **Two-Op Auto. Pallet Work Offsets**
  Set the work offsets for the two operations on the pallet according to the provided guidelines to ensure accurate machining.
- **Macro Program Template**
  Use the provided Macro Program Template for programming automation sequences to streamline the production process.
- **Jaw Configurations**
  Configure the jaws of the Op-1 Vise based on the type of stock being used. Rectangular starting stock may require Op1 Soft Jaws, while round stock will need a soft jaw for the Op1 Vise.

Frequently Asked Questions

Q: How do I set up the Two-Op Auto? Pallet WCS?
A: Follow the WCS summary provided in the manual. Set OP1 VISE to G54, FLIP STATION to G56, and OP2 VISE to G55.

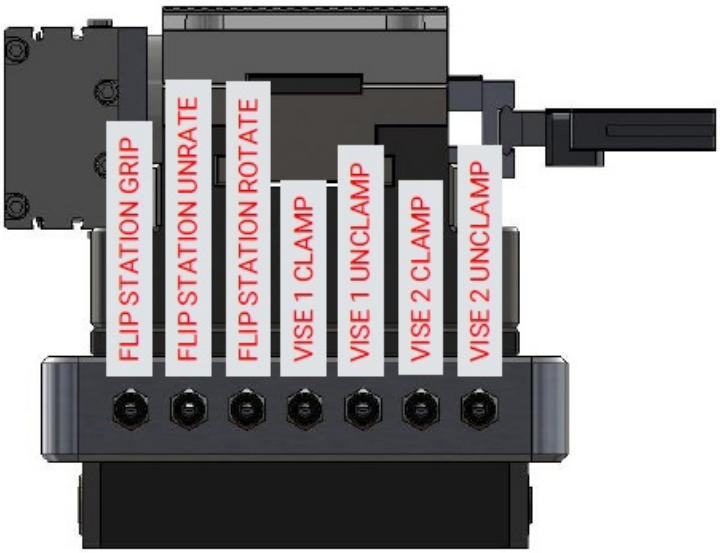
Q: What is the starting pickup point for the Bottom Left on the pallet?
A: The Bottom left pickup point is (0,0) in the part tray as shown in the manual.

INTRODUCTION

Two-Op Module

- Enables Two-Op One-Cycle Parts
- Includes Two 75 or 100mm Vises
- Includes Integrated Part Flipper
- Internal Air Line Routing
- Built-In 96mm Pullstuds for 5th- Axis/LANG/Jergens Zero-Point

Air Routing & Information



STANDARDIZING ROUTING

- To make routing easier, we highly recommend adopting a standard for your airline colors
- Use the same bundle color-coding on signal wires to the control

Recommended Line Color Coding

- Black is [FLOWS NORMALLY]
- Red is [FLOWS ENERGIZED]

Recommended Bundle Color Coding

- For each Instant Solenoid Kit, designate a color-coded bundle
- Wrap each bundle of four airlines with the designated color of electrical tape

Bundle each cable coming off each Instant Solenoid Kit

Two-Op Auto. Pallet Work Offsets

Macro Program Template

- Your purchase of the Two-Op Automation Pallet comes with the Machine-Appropriate Template

Turnkeys

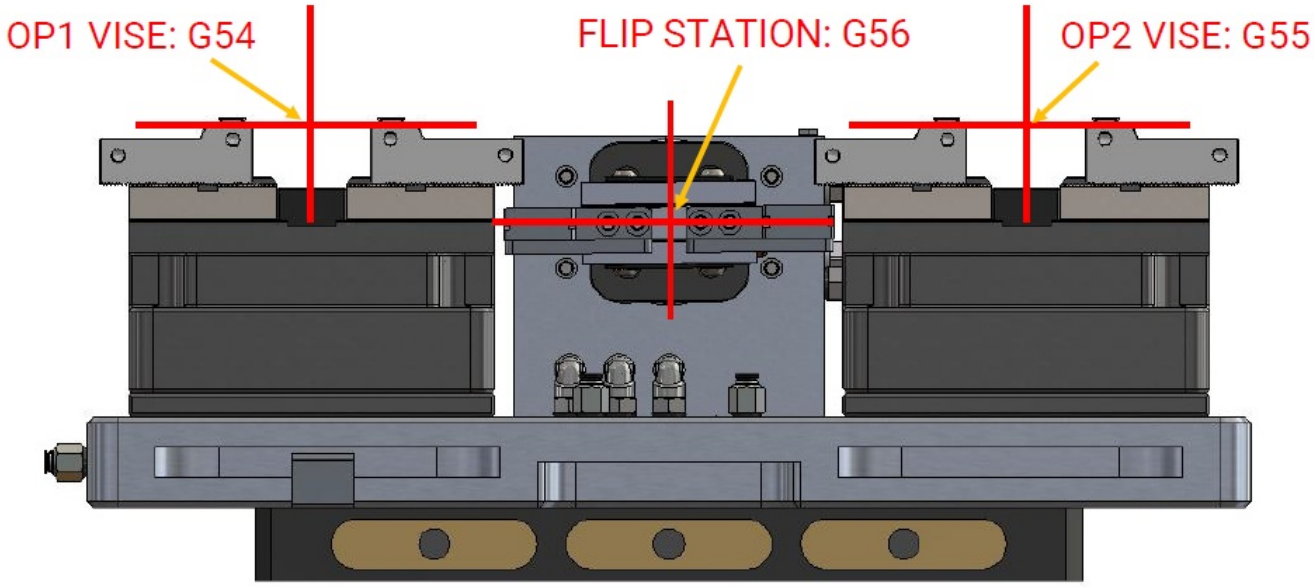
- For Turnkeys, this Template will be edited specifically for your setup, tool numbers, and exact part

Self-Installs

- For Self-Install, you will have to edit the Program Template provided with your specific machine information

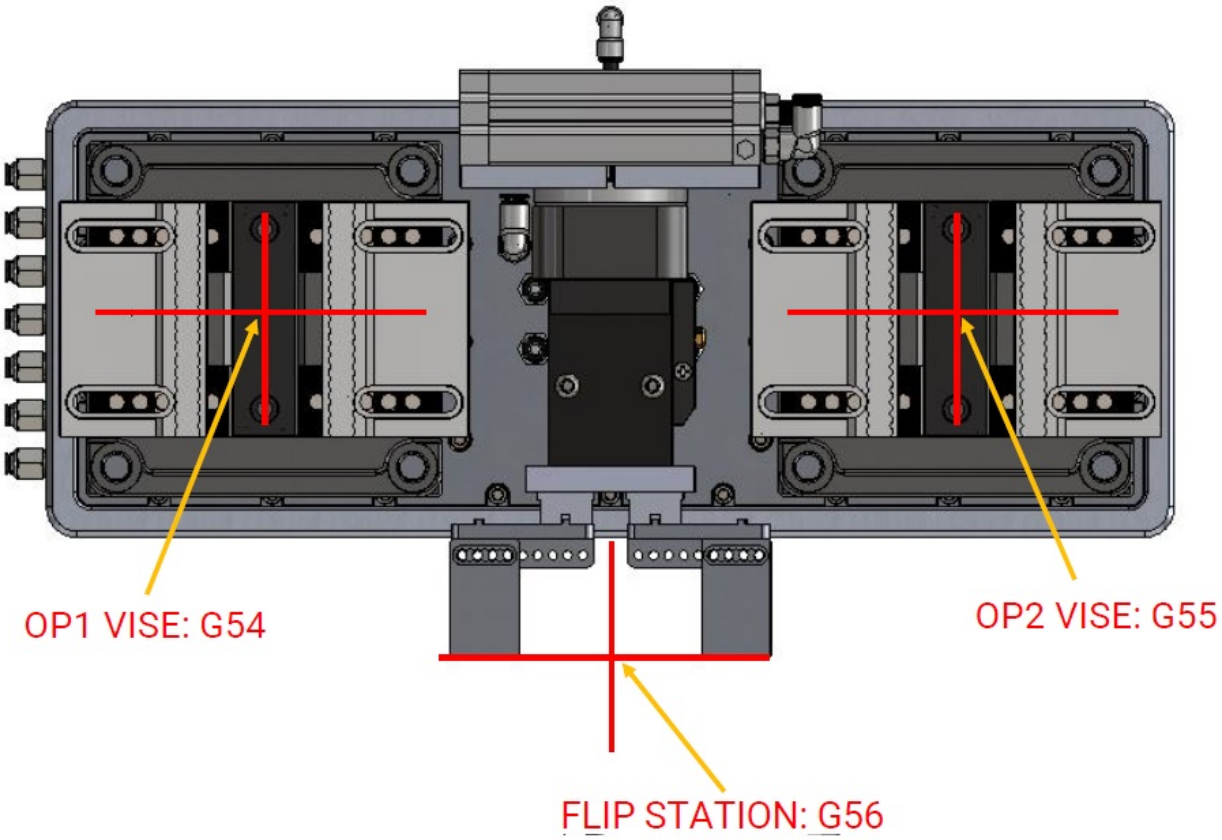
TWO OP AUTO PALLET WCSSUMMARY

First-Op Vise: G54



- The first-Op Vise is the vise closest to the user in Y-Axis configurations
- G54 X0.000 should be set to the left-to-right center of the vise for X
- G54 Y0.000 should be set to the front-to-back center of the vise for Y
- G54 Z0.000 should be set to the bottom face of the stock location during Op1 machining

Second-Op Vise: G55



- The second-Op Vise is the vise farthest from the user in Y-Axis configurations
- G55 X0.000 should be set to the left-to-right center of the vise for X

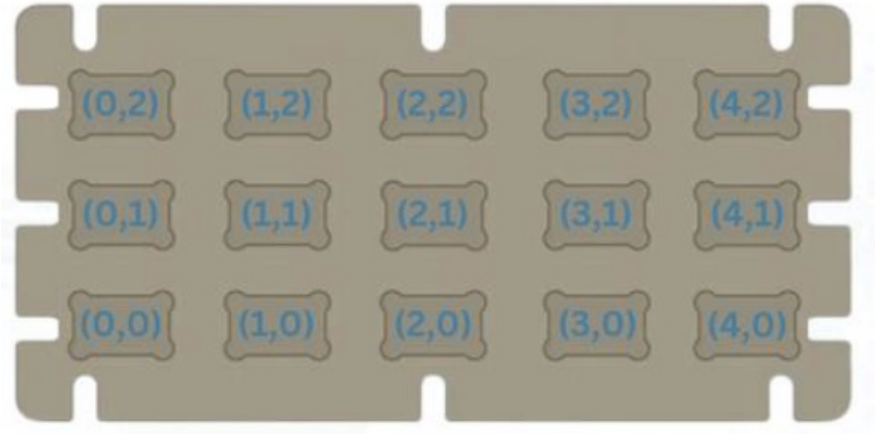
- G55 Y0.000 should be set to the front-to-back center of the vise for Y

G55 Z0.000 should be set to bottom stock height theoretical value (this is where the material from Op1 would have been, had that material not been removed

Integrated Flip Station: G56

- Integrated Flip Station is centered between the two vises
- G56 X0.000 should be set X end location of the Flip Station fingers
- G56 Y0.000 should be set to the front-to-back center of flip location
- G56 Z0.000 should be at the Flip Station flipping center of rotation

TWO OP AUTO PALLET WCS SUMMARY



Stock Tray: G59

- The stock tray should be located on the table to the right of the Automation Pallet
- G59 X0.000 should be set to the left-to-right center bottom left stock pickup point
- G59 Y0.000 should be set to the front-to-back center bottom left stock pickup point
- G59 Z0.000 should be set to the bottom face of the stock at the bottom-left pickup point
- Stock Tray should be aligned to the X-Axis of the Machine (dialed-in)

The bottom left pickup point is (0,0) in the part tray shown above

Programming Variables

- Part Information

```
#1 = 1;              (desired part count)
#2 = 1;              (flip and second op; 1=true, 0=false)
#4 = 0;              (tray return or bucket; tray=0, bucket=1)
```

- Tray Information

```
#6 = 2.500;          (x spacing distance)
#7 = 4;              (number of x instances i.e. x matrix width)
#8 = 2.500;          (y spacing distance)
#9 = 6;              (number of y instances)
```

- Stock Size Information

```
#10 = 2.000;         (x starting stock size)
#11 = 2.000;         (y starting stock size)
#12 = 0.500;         (z starting stock size)
#13 = 0.088;         (first op z stock removal)
#14 = 0.206;         (second op z stock removal)
#15 = 0.000;         (vise z preload)
```

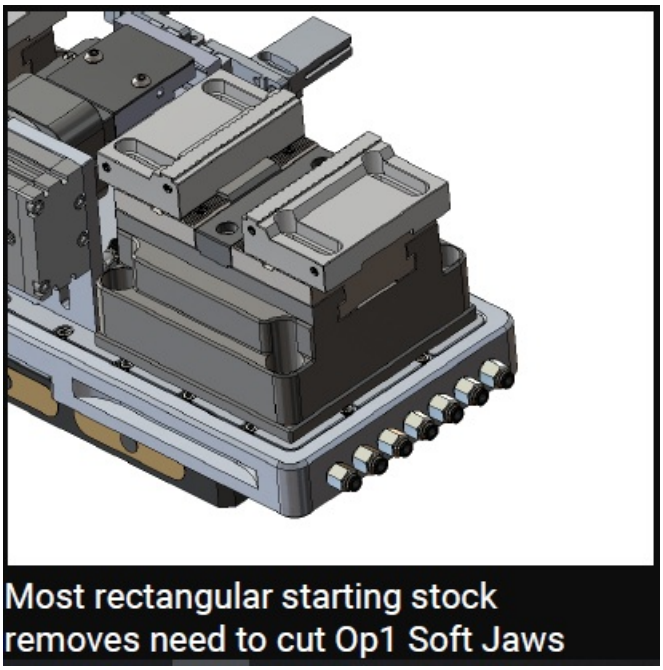
Jaw Configurations

First-Op Jaw Configuration

- **Rectangular Stock**
  - For rectangular stock, use the provided adjustable hard jaws
- **Round Stock**
  - In the case of round stock, we recommend cutting Op1 Soft Jaws
  - A note about WCS: Once the soft jaw has been cut, the Z-axis G54 WCS should be moved so that the stock bottom in the Op1 Jaw is at G54 Z0.000

Second-Op Jaw Configuration

- **Rectangular Parts**
  - For rectangular stock, it is sometimes possible to use the square jaws
  - When doing this, be careful as the serrated teeth can mar the part



Most rectangular starting stock removes need to cut Op1 Soft Jaws

- **Most Parts**
  - In most cases, the Op2 Vise Requires soft jaws to match the part profile

Documents / Resources

	GIMBEL AUTOMATION 2024 Q2 Two Op Automation Pallet [pdf] User Guide 2024 Q2, 2024 Q2 Two Op Automation Pallet, Two Op Automation Pallet, Automation Pallet, Pallet

References

- User Manual