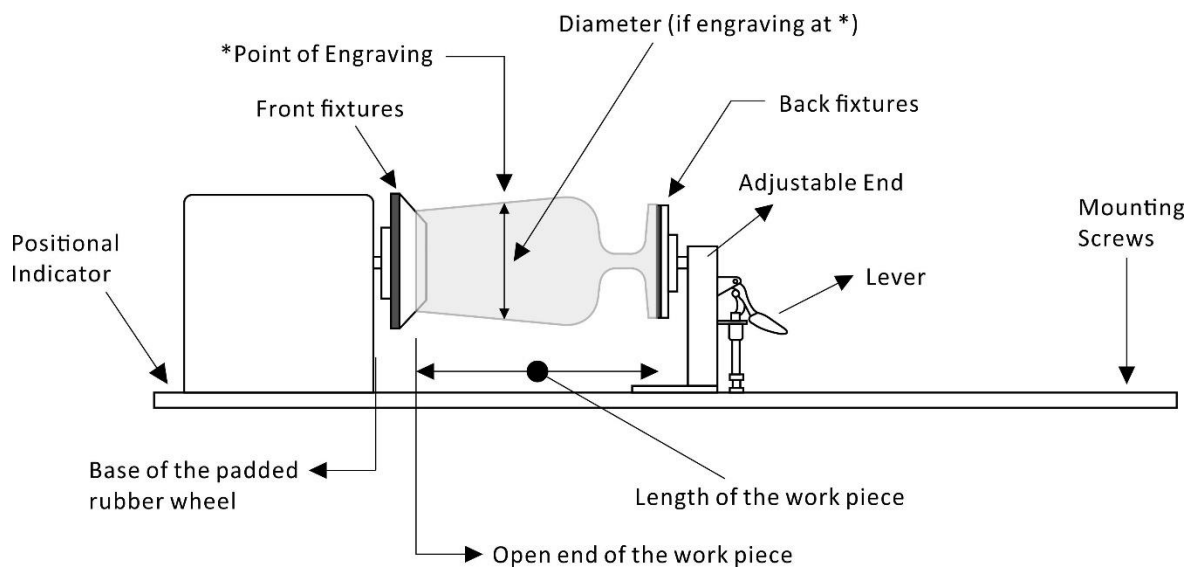


Rotary Attachment User Manual

The rotary attachment and rotary chuck options provide GCC LaserPro laser system with the ability to engrave on cylindrical or spherical objects. In addition to the standard X, Y, Z axis, the rotary attachment and rotary chuck allow for a fourth axis which rotates your object 360° to allow for engraving on cups, wine glasses, and even balls.

Rotary Attachment Specification



Small Rotary Attachment for C180II models:

Work Piece Limitations	
Maximum Length	250mm (9.8 inches)
Maximum Loading Weight	3 kg (6 lbs.)
Minimum Inner Diameter (Large conical fixture)	12 mm (0.47 inches)
Maximum Inner Diameter (Large conical fixture)	46 mm (1.8 inches)
Minimum Inner Diameter (Small conical fixture)	50 mm (1.9 inches)
Maximum Inner Diameter (Small conical fixture)	76 mm (2.9 inches)
Maximum Outer Diameter	176 mm (6.9 inches)

Medium Rotary Attachment for Mercury III / Spirit / Spirit LS / MG380

Hybrid models:

Work Piece Limitations	
Maximum Length	450mm (17.71 inches)
Maximum Loading Weight	4 kg (8.8 lbs.)
Minimum Inner Diameter (Large conical fixture)	50 mm (1.96 inches)
Maximum Inner Diameter (Large conical fixture)	76 mm (2.99 inches)
Minimum Inner Diameter (Small conical fixture)	12 mm (0.47 inches)
Maximum Inner Diameter (Small conical fixture)	46 mm (1.8 inches)
Maximum Outer Diameter	176 mm (6.9 inches)

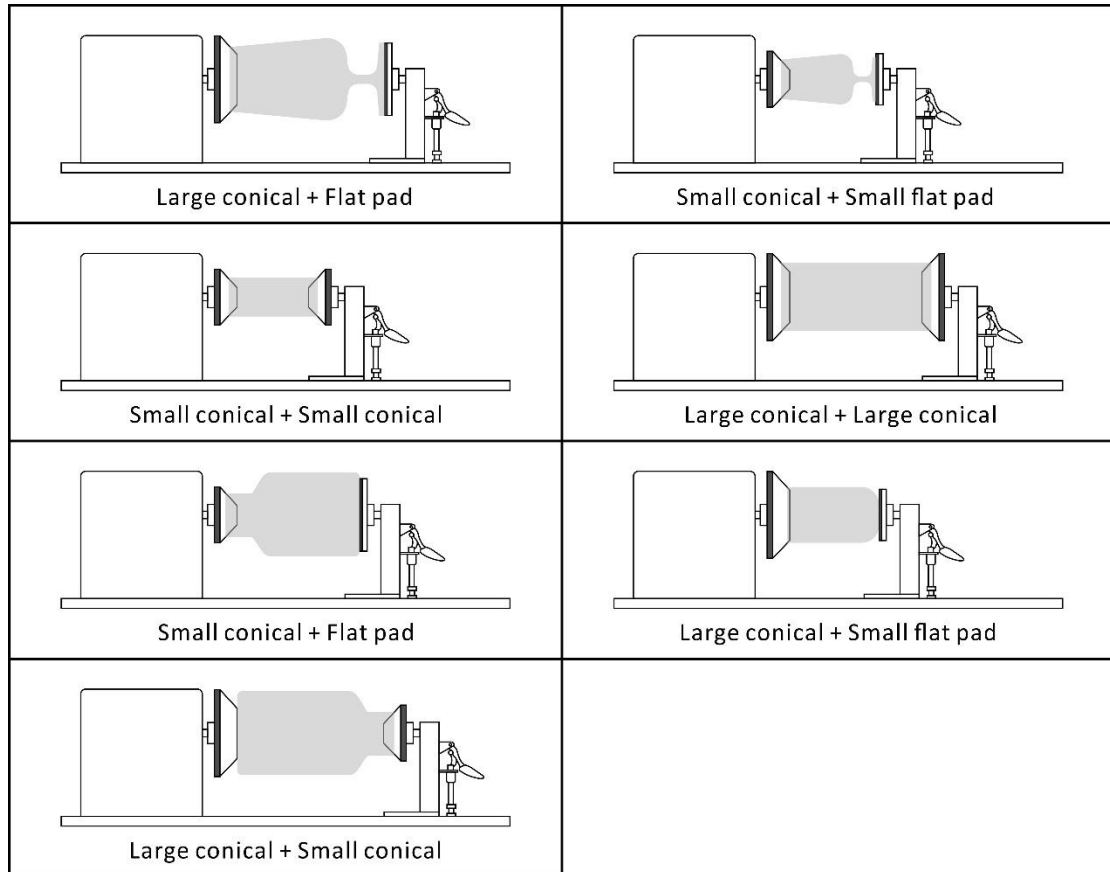
Large Rotary Attachment for Spirit GLS / Spirit GLS Hybrid / MG380

Hybrid models:

Work Piece Limitations	
Maximum Length	650mm (25.59 inches)
Maximum Loading Weight	4 kg (8.8 lbs.)
Minimum Inner Diameter (Large conical fixture)	50 mm (1.96 inches)
Maximum Inner Diameter (Large conical fixture)	76 mm (2.99 inches)
Minimum Inner Diameter (Small conical fixture)	12 mm (0.47 inches)
Maximum Inner Diameter (Small conical fixture)	46 mm (1.8 inches)
Maximum Outer Diameter	176 mm (6.9 inches)

Fixtures Exchange:

Depending on the shape of work piece, you can exchange different designs of front and back fixtures to fit the materials as below illustration.

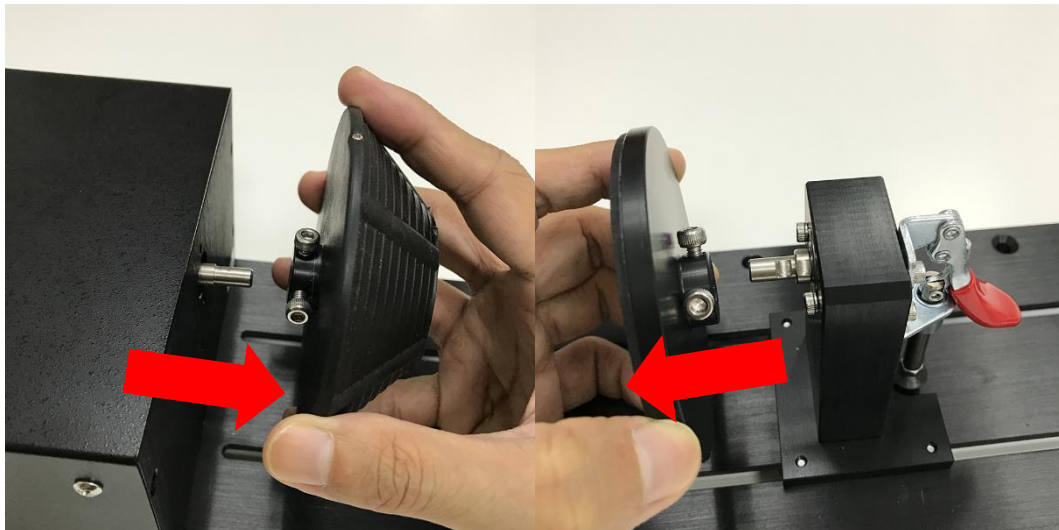


Follow the procedure to exchange fixtures:

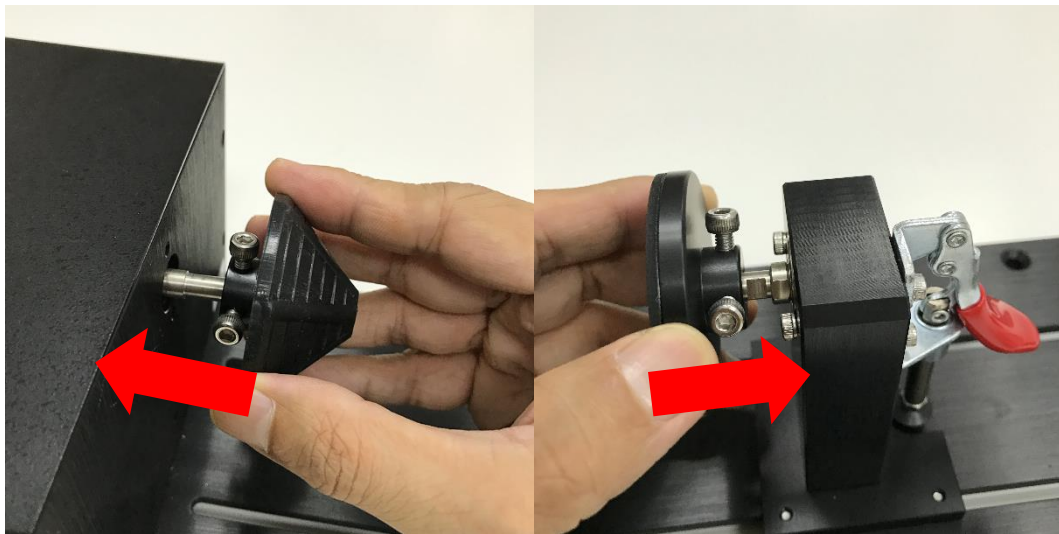
- 1) Remove the two screws holding the fixtures.



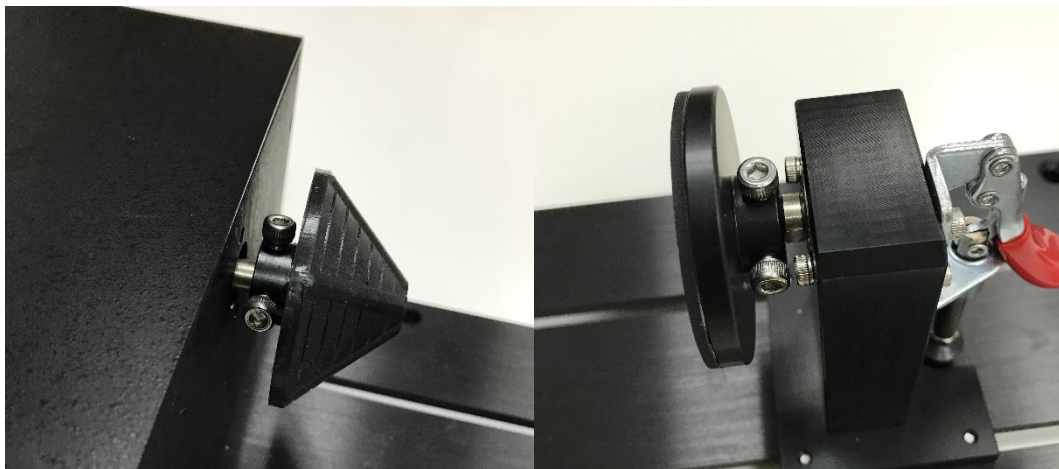
- 2) Detach the large conical/ small conical /flat pads by moving it in the arrow direction as indicated below.



- 3) Insert the required large conical/ small conical /flat pads onto the rotary attachment as shown below.

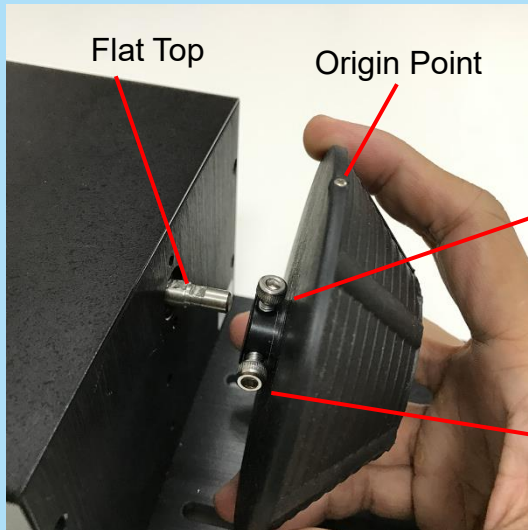


- 4) Tighten the screws to complete the rotary attachment fixtures setup.



NOTE

Align the origin point to the flat top of shaft then tighten the first screw against it, following to tighten the second screw.



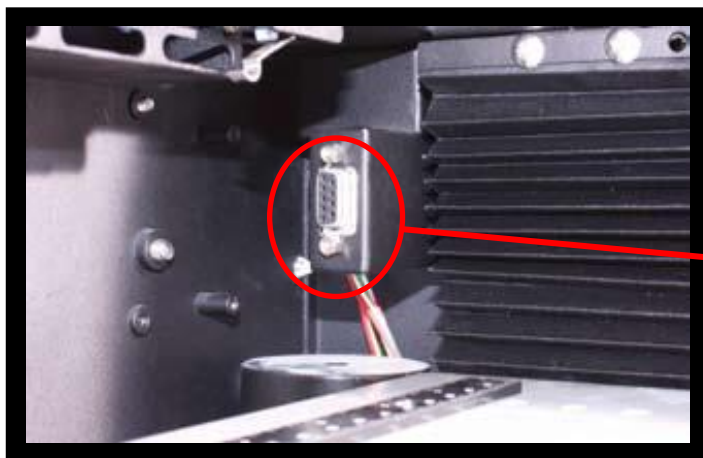
1. Align the origin to flat shaft, then tighten this screw against it

2. Following to tighten the second screw

INSTALLATION:

For small rotary attachment:

- 1) Open the front door panel of laser machine, lower down the working platform to the bottom.
- 2) Turn off the power of the laser engraver
- 3) When placing the rotary attachment on the working table, the rotary attachment can only apply the small conical fixtures to work with small objects of diameters.
- 4) If working with bigger objects are required, remove the working table by releasing the four thumbscrews towards the sides and place the rotary attachment on the bottom tray. Under this condition, Rotary Attachment can use either the small or large conical fixtures
- 5) Line up the rotary attachment to the left hand side of the working area and towards the mid-section of the working area.
- 6) Connect the rotary attachment cable to the rotary attachment connection port located inside the laser machine (shown in the picture below).



Rotary Attachment
Connection Port

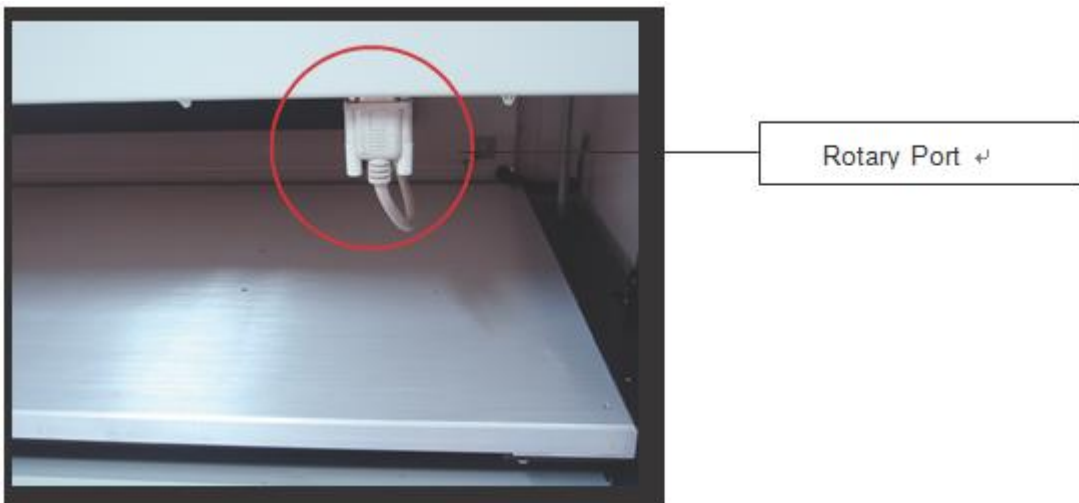
- 7) Close the front door panel.

NOTE

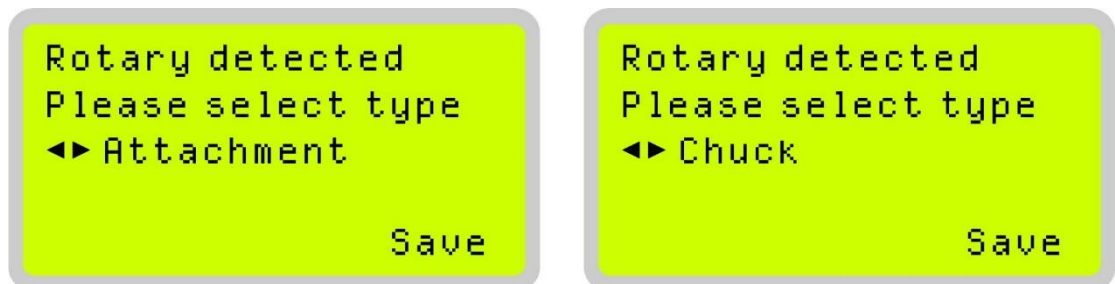
For machines without the built-in SmartBox, the rotary attachment is positioned on the working table and the max. diameter of the object is 0.5"-1.9". For machines with built-in SmartBox, the rotary attachment can be placed on the base of the SmartBox and used with the large conical fixtures to engrave objects with larger diameter up to 3.7"-5.0".

For medium & large rotary attachment:

- 1) Power off the laser engraver before installing the rotary attachment.
- 2) Place the rotary attachment on the engraving table of laser engraver and ensure the rotary attachment mounting screws in the rear end correspond to the positional holes on the engraving table. In addition, make sure rotary attachment's positional indicator (center point of the top of the rotary) in front end aligned to the center position in Y (vertical) axis of the engraver.
- 3) With the rotary attachment properly positioned, tighten the mounting screws in the rear end to secure it on engraving table.
- 4) Open the front door panel of the laser engraver and connect the rotary cable to the rotary port located inside the front door panel.



- 5) Close the front panel to complete the installation.
- 6) Power on the laser system, the laser engraver will automatically detect the rotary attachment and automatically move down the engraving table to its lowest position. The control panel will also automatically go to rotary option selection screen.
- 7) Despite the dummy-proof installation design, please ensure that the device is installed correctly before turning on the machine.
- 8) Please select your device type "Attachment" or "Chuck" then press F4 on control panel to save. "Attachment" here refers to Rotary Attachment, while "Chuck" refers to Rotary Chuck, these are two different functional rotary options GCC LaserPro offers to work with cylindrical objects.



OPERATION:

- 1) Use ruler to measure the length and diameter of work piece (at the point where laser is going to engrave). Make a record of this.
- 2) Load the work piece onto the rotary attachment
 - a) First lift the rear-end lever of the rotary attachment to release the adjustable end of rotary attachment.
 - b) Load the work piece by centering its open end against the front fixture and slide the adjustable end to fit the bottom of work piece firmly.

- c) Lower down the lever to secure the work piece with the rotary attachment.



CAUTION

If your work piece is small, please apply 4" focal lens to prevent the lens carriage from colliding with the rotary attachment.

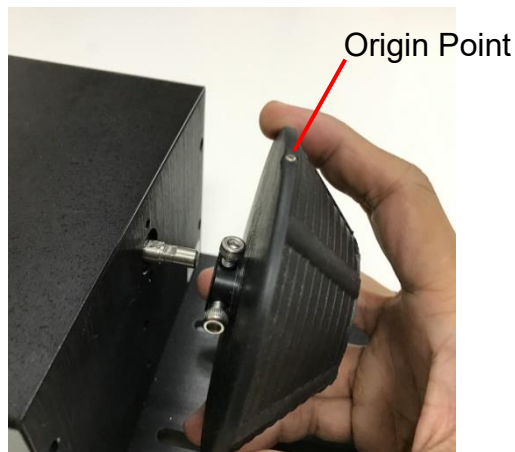
- 3) Manually move the lens carriage of laser engraver to where you will do laser engraving or cutting. Hit the Auto Focus button on control panel and the laser machine will properly focus at the location to be laser engraved or cut.
- 4) Prepare the graphic you would like to work with the rotary attachment, print it to GCC laser Print Driver, and go to "Paper" page of the Print Driver.

The screenshot shows the 'Paper' tab of the GCC laser Print Driver software. The interface includes several sections:

- Paper Size:** X: 712.00 mm, Y: 370.00 mm
- Unit:** Metric (mm) selected, Imperial (inch) unselected
- Rotary Parameter:** Offset: 0.00 mm
- Image Tuning:** 0, with left and right arrow buttons
- Rotary Fixture:** A checkbox labeled 'Rotary Fixture' is highlighted with a red box and is currently unchecked.

- 5) At the Paper Page, the first thing is to check the "Rotary Fixture" option. The Paper Size and Rotary Parameter will change to allow for proper input based on the rotary attachment setup.
- a) Under Paper Size column, the X value represents the length of the work piece. Enter the length of your work piece in this field

- b) Under Paper Size column, the Diameter value represents the diameter of the work piece (at the position where to be engraved). Enter the diameter of the work piece in this field. Again remember the proper diameter value would be measured at the location where laser is going to do engraving.
- c) Under Rotary Parameter column, the Offset value represents the distance from machine default origin to where you would like to start laser job. The default offset value is zero.



- 6) Go back to other pages of GCC Laser Print Driver to set up laser parameters like speed, power, and dpi etc. (refer to Chapter V of user manual for print driver operation details) and click “OK” to print your design to the laser machine.
- 7) Despite the dummy-proof installation design, please ensure that the rotary device is installed correctly before turning on the machine