Installing and using the Rotary Attachment on your PLT-3040 / PLT-6040

How to get your laser to engrave on bottles, glasses, etc. For help, call 011 036 6062 or 021 839 5594, or send an email to techsupport@perfectlaser.co.za

Ready to engrave on cylindrical objects?

This document applies to both the PLT-3040 and PLT-6040 lasers’ rotary attachments, and assumes that you have already set up the software on your computer, and that you have a basic understanding of your laser, CorelDRAW and CorelLaser.

Requirements:
1. Rotary Attachment.
2. PLT-3040 / PLT-6040 laser.

Firstly, unpack your rotary attachment, and inspect the cables and plug. This plug will be plugged into the Y-Axis socket on the main controller board. Next, ensure that the laser is completely switched off, and the rotary attachment is placed at the center of the base board cutting area.

Open the right-hand cover of your laser and locate the main controller board (where your USB cable plugs into). Then carefully unplug the Y-Axis plug next to the power plug (see picture).
Next, route the cable from the rotary attachment through the holes in the side of the casing and insert the plug into the (now empty) Y-Axis socket.

Because the Y-Axis limit switch is now not able to be used by the gantry (the gantry cannot move to the home position), you will need to manually depress and release the limit switch located on the left back of the gantry when powering the machine on (see picture).

Now switch the power on, and when the head has moved to the left and reset, you will notice the rotary attachment is turning. Depress and release the limit switch, which should then stop the turning.

Now open CorelLaser, and select an item to engrave.
Click on the “Rotary” button at the bottom right of the engraving screen. This will bring up a small window in the middle of the screen with the settings for the rotary attachment.

There is an option for a standard fixture and a simple fixture. The standard fixture is a turntable-type, and is not used on the PLT-3040 or PLT-6040. Select the simple fixture, and set the SpeedRatio to 0.5000. For Diameter, insert the diameter of the object to be engraved. Perimeter is auto-calculated and should be left as is. Do not tick the Auto-Scale box. Click OK. To change the diameter, click on Fixture (above the Rotary button) on the engraving screen.

Now you are ready to engrave your first rotary design!
Ensure that the laser is on, the water pump is working, the extraction fan is running, and the air-assist pump is running.

Now place your chosen object on the rotary attachment, and centre it (front to back - not left to right) under the laser head. Use the supplied 20 mm focus tool to check the gap between the head outlet and the object - and adjust if required by moving the Z-Axis either up or down.

Assuming you are engraving on glass, set the power (on the laser) to 20% for the PLT-6040, or to 30% for the PLT-3040. Other material will require different power settings.

Set the speed - in the software, top right, next to “Starting” - to 300 mm/s)

Locate the emergency STOP switch on the front panel of the laser and be prepared to use it if something goes horribly wrong.

Now, hold your breath and click on “Starting” ...

If all went well, you have now engraved your first cylindrical object.

Don’t forget to click off the rotary button in the software before trying to engrave or cut anything not on the rotary attachment, or it will look very strange!

To go back to normal, simply unplug the rotary attachment and replug the regular Y-Axis.

The rotary attachment may be adjusted to accommodate various objects by loosening the screws of the rollers and moving the rollers further apart or closer together.

Don’t forget to set the diameter of your object each time you use the rotary attachment.

Well Done! You’re on your way to becoming an expert!