

Rotary Jaws Replacement (Rectangle Tubes)

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NOTE: Rectangular jaw attachments are currently only compatible on jaw bodies released up to March 2019 that feature flat-ended jaw attachments on top of jaw bodies that have a groove for O-rings. If you received your machine April 2019 or after, you have a different jaw body that features a round-ended spring mechanism, no O-rings, and does not have the capacity for custom attachments. If you would like a different version jaw than the one your machine shipped with, contact 3D Fab Light with a request.

This article is under development. We are in the process of updating this documentation. Please contact the FabLight factory with any questions.

About Rotary Jaws Replacement

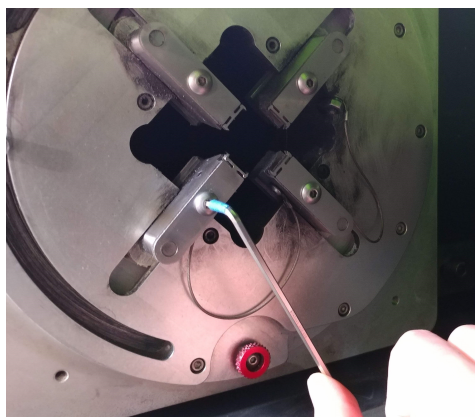
The FabLight ships with default jaws that are equal in size and accommodate round and square tube shapes. These jaws may need to be replaced if they get worn out or if you want to load a rectangle tube. Contact the Factory for replacement jaws or long jaws for rectangular applications.

Tools Needed

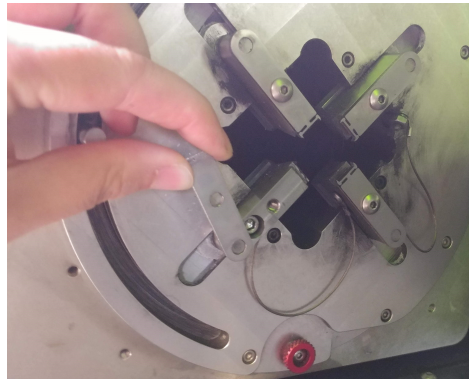
- 5/64" allen key
- Replacement jaws (4 long jaws for rectangular applications)

Jaw Removal Steps

1. Push the red locking pin in to stop the chuck from rotating.
2. Remove the screws in the middle of the jaws with the allen key.



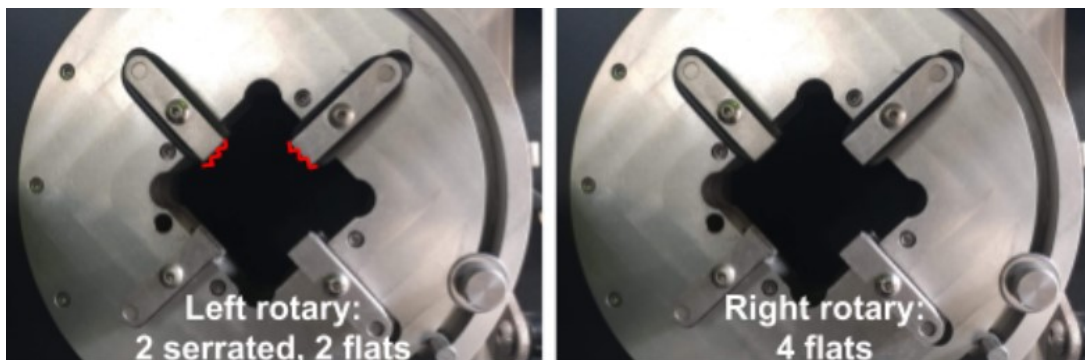
3. The jaws will now rotate freely along the pin at their outer end. Wiggle them loose to remove the jaws completely.



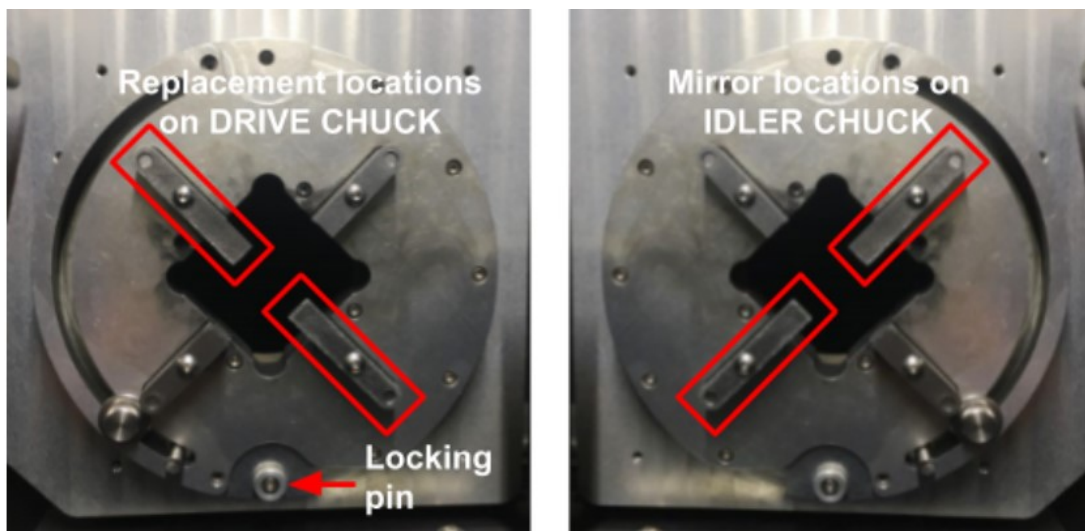
4. Follow the removal steps in reverse to attach new jaws.

Switch to Rectangular Mode

1. In the default Round and Square mode, the drive chuck (left rotary) will have 2 serrated jaws at the top with O-rings, and 2 flat jaws at the bottom. The idler chuck (right rotary) will have 4 flat jaws with 2 O-rings at the top. This is how you should reset the jaws when switching out of Rectangular mode.



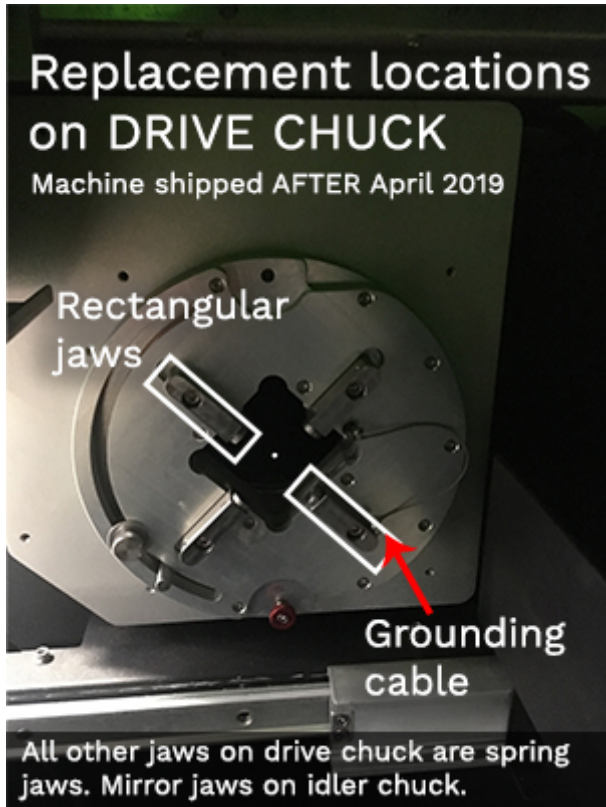
2. Pay attention to the different locations the long jaws must go in on each chuck.



3. Follow the Jaw Removal Steps above to remove the default jaws in the replacement locations.
5. Switch the O-ring that is no longer held back by a top short jaw to a remaining bottom short jaw.
6. Follow the Jaw Removal Steps above in reverse to attach the long jaws in the replacement locations.

7. Repeat on other rotary chuck to achieve the state shown in step 2 for both rotaries. You can then load a rectangle tube that should clamp securely between the long and short jaws.
8. Do the above procedure in reverse to return to the default Round and Square mode.

If you have a machine shipped after April 2019, we are working on instructions to installing your jaws. For now, please see the following image:



- All other jaws on the drive chuck are spring jaws.
- The idler is a mirror image of the drive chuck, except there is no grounding cable.
- There is a grounding cable connected the face of the chuck to a side of one of the jaws. When you replace the jaws, you must make sure the grounding cable is connected to one of the jaws.

Making New Rectangular Jaws

Rectangular jaws can be laser cut on the FabLight, out of stainless steel or mild steel. We recommend 0.090" thick material, but you can also go up to 0.125" if you are cutting heavy tubes. If you have an FL1500, use 0.075" material.

We have .fab files ready for you to cut on your machine. Click the link below to download the jaw profiles.

The .zip file contains the following jaw profiles:

- 0.75x1.5in Rectangle
- 1x0.5in 1.5x1in 2x1.5in Rectangle
- 1x2in Rectangle

- 3in Round

T Tina is the author of this solution article.