

# TUBE LASER CHUCK SEAL REPLACEMENT

---

Instructions on how to replace the 3<sup>rd</sup> chuck seal



# TABLE OF CONTENT

|                                        |        |
|----------------------------------------|--------|
| • TOOLS REQUIRED .....                 | P3     |
| • REMOVE THE CHUCK COVER .....         | P4     |
| • REMOVE FRONT CLAMPS .....            | P5-7   |
| • REMOVE REAR CLAMPS .....             | P8-10  |
| • REMOVE THE SUPPORT PLATE .....       | P11-12 |
| • REPLACING THE SEALS .....            | P13    |
| • PUTTING BACK THE SUPPORT PLATE ..... | P14-15 |
| • PUTTING BACK THE REAR CLAMPS .....   | P16    |
| • PUTTING BACK CORNER PLATES .....     | P17    |
| • PUTTING BACK THE FRONT CLAMPS .....  | P18    |
| • PUTTING BACK HOSE ASSEMBLY .....     | P19-20 |
| • TROUBLE-SHOOTING .....               | P21-22 |

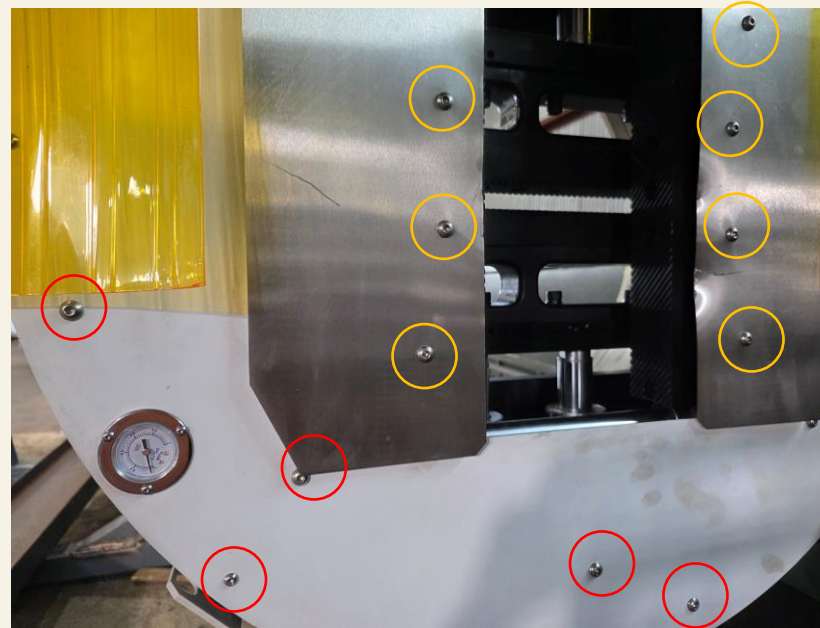
# TOOLS REQUIRED

- Lock ring plier
- M6, M8, M10, M12 Allen Wrenches
- Crow bar

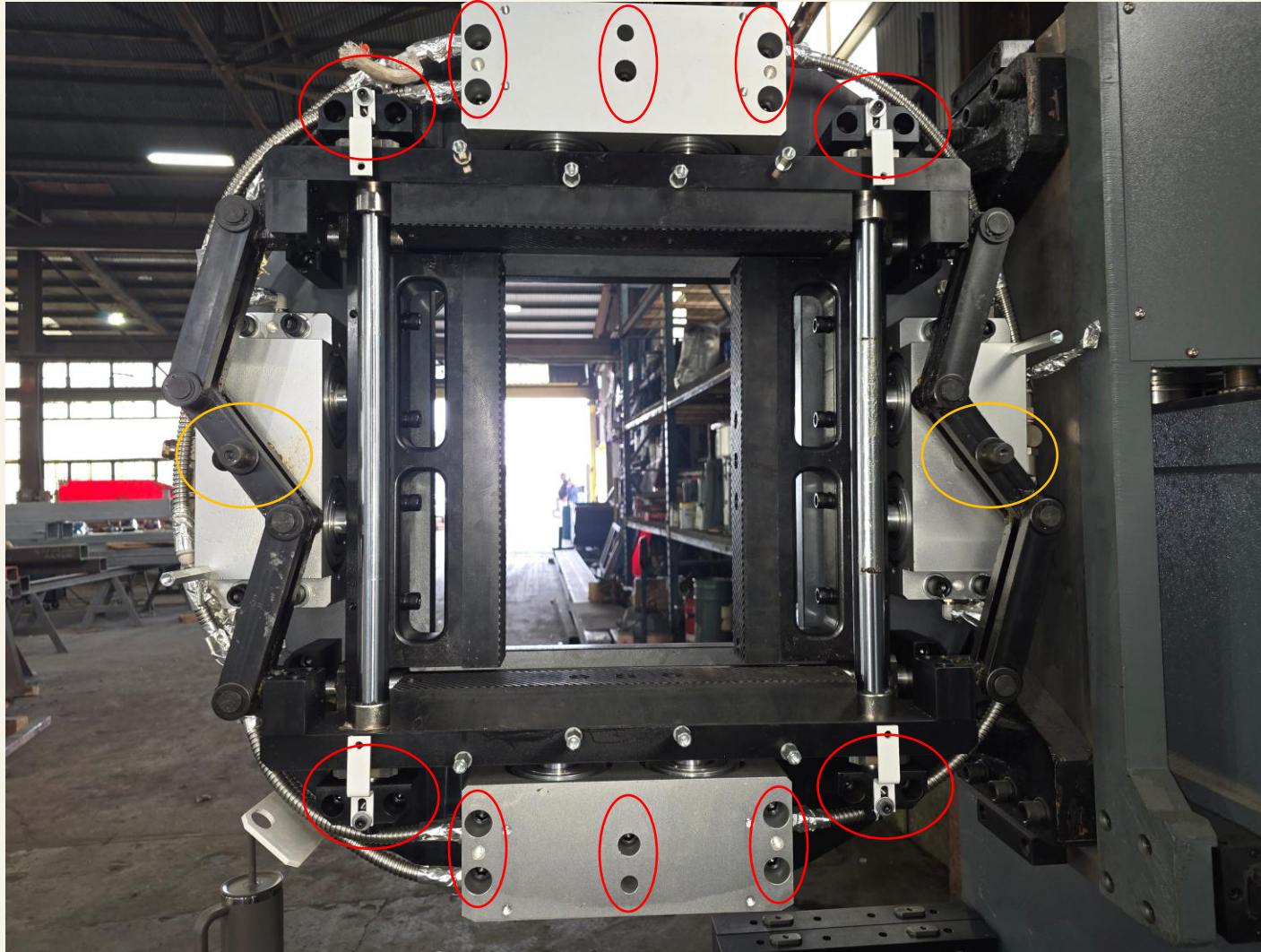


# REMOVE THE CHUCK COVER

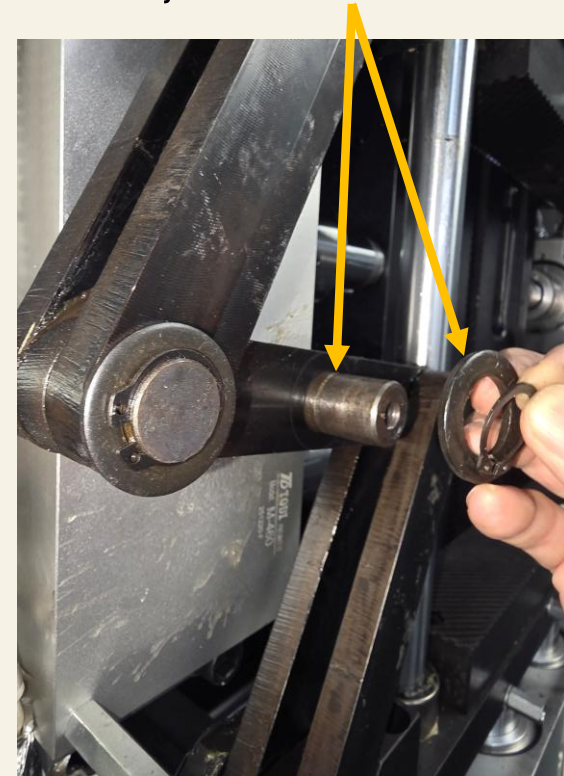
- Gauge reads zero (0) pressure after clamping
- Remove all the screws inside yellow circles first. Then remove all screws inside the red circles. There are more screws than in the picture. Please remove all of them.
- Before removing the cover, there is a guage hose that you need to disconnect.
- The chuck will look like below after removing the cover.



# REMOVE FRONT CLAMPS



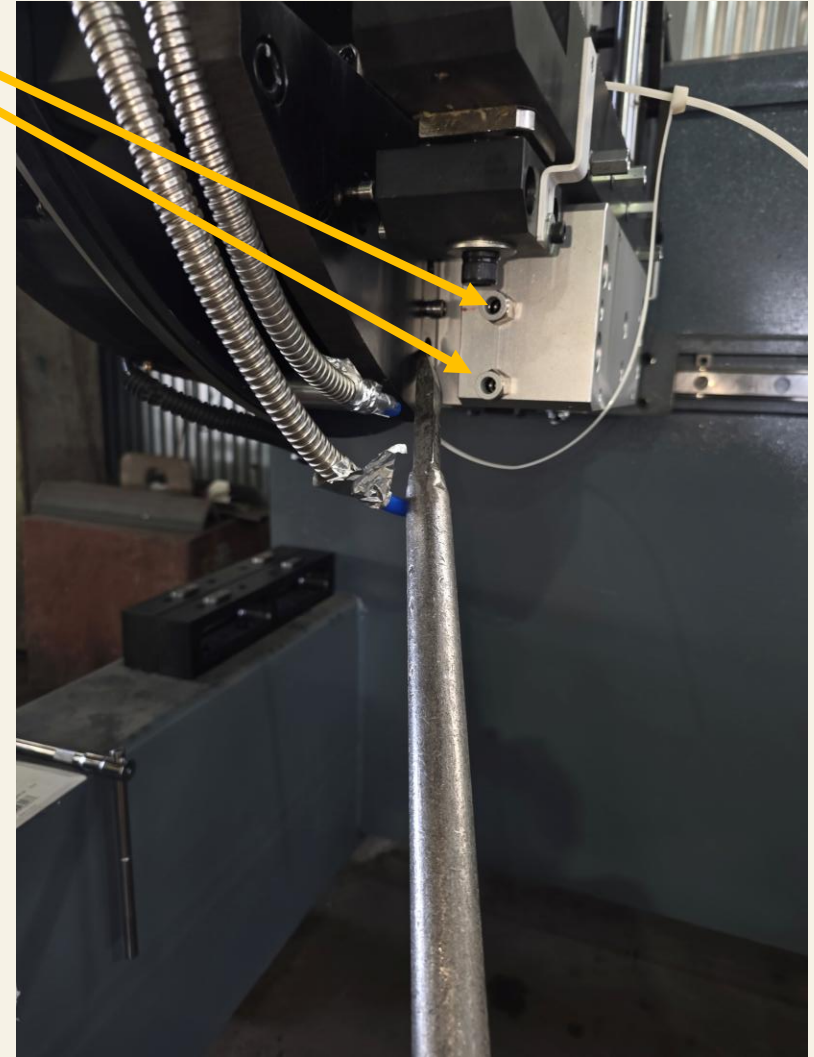
- Remove all screw in the red circles. Use allen key M8, M10, M12
- Use a lock ring plier to remove the 2 lock rings in the yellow circles



# REMOVE FRONT CLAMPS



- Remove all hoses off the clamping cylinders
- Use a strap just like in the picture to remove the front clamps
- After securing the strap and move the crane up enough to make sure when you use the crowbar to pry the front clamps out that the assembly won't fall to the ground.
- When using the crowbar, make sure to pry evenly on both sides and the front clamps will come forward and out.

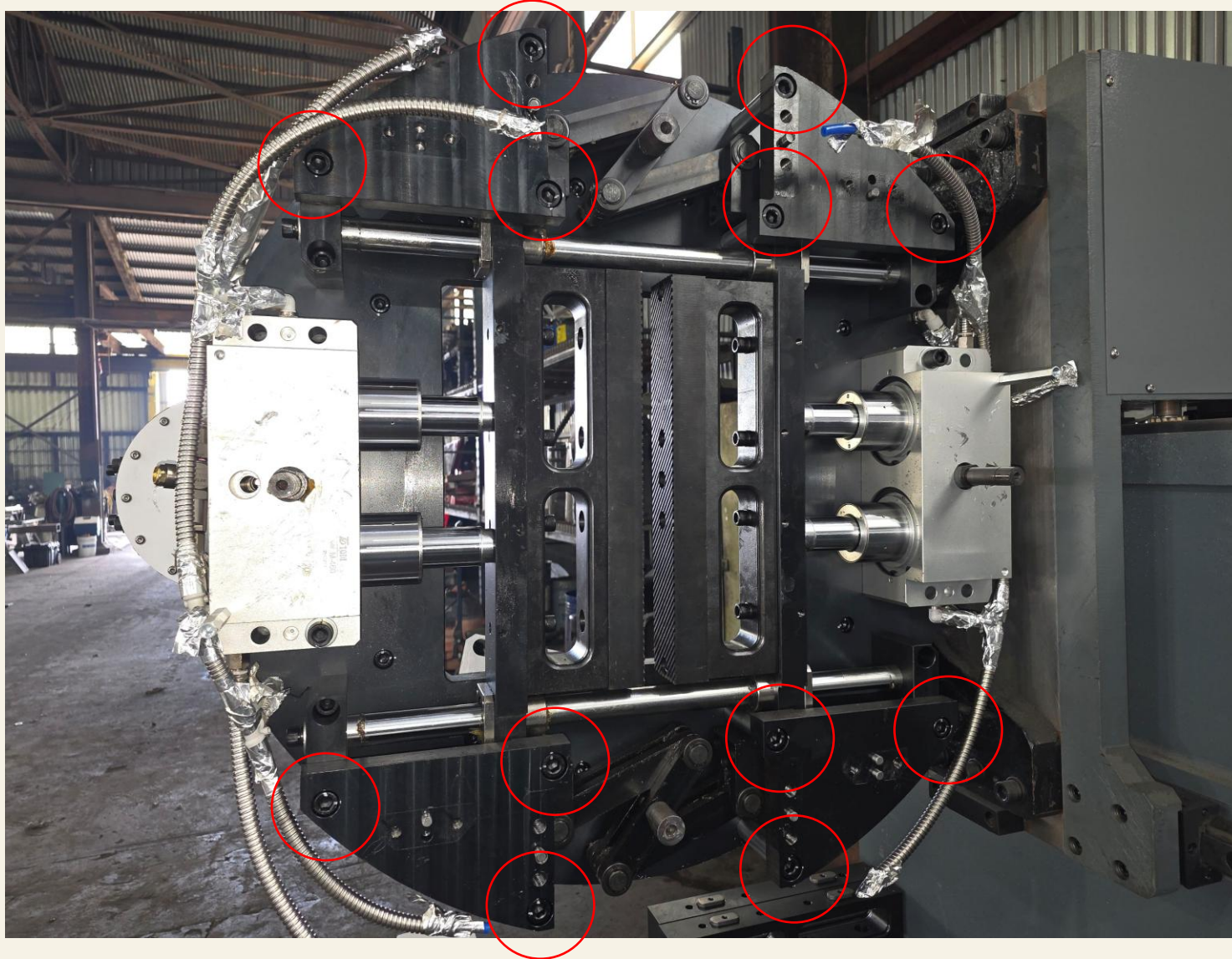


# REMOVE FRONT CLAMPS



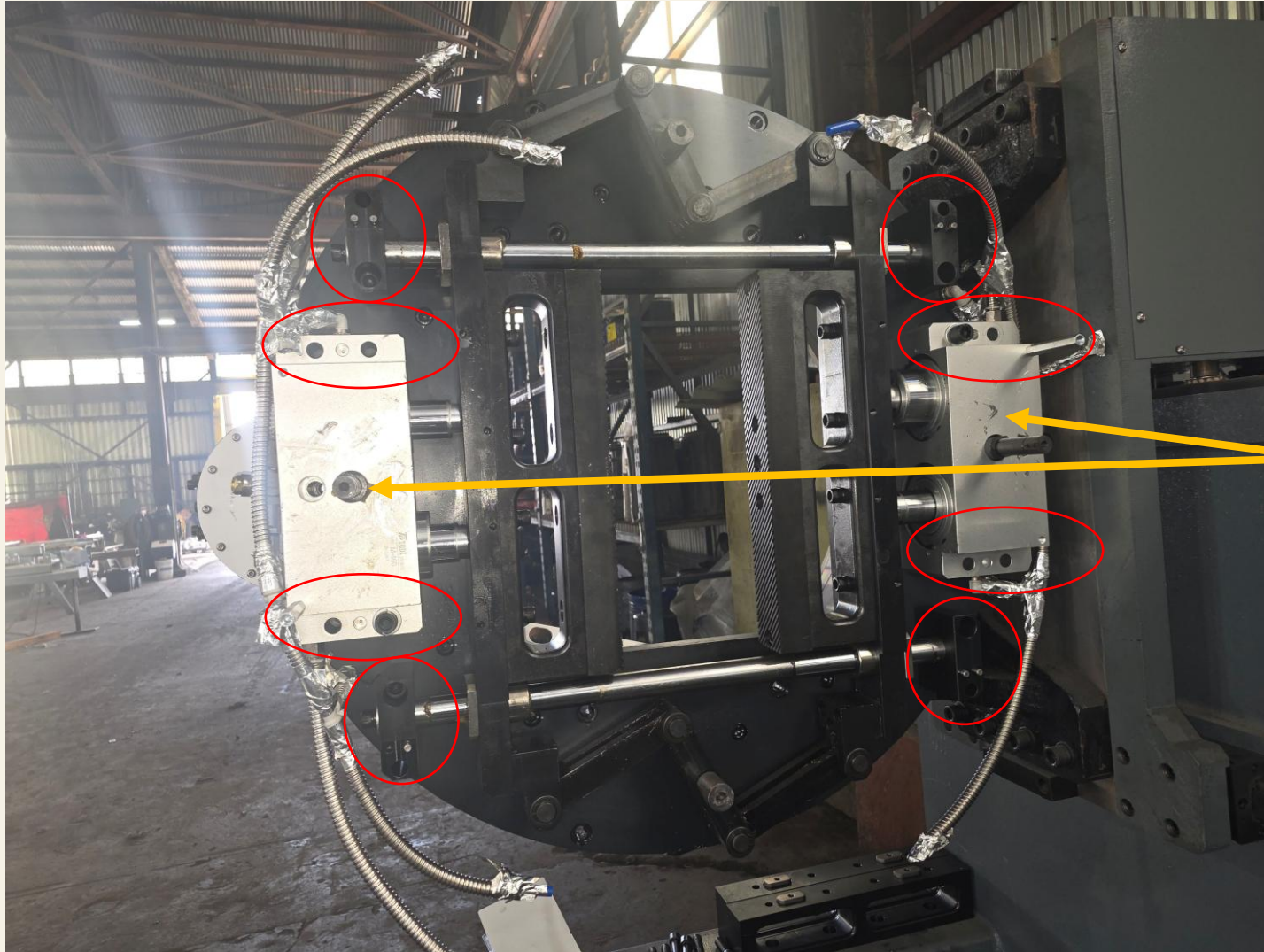
- The front clamps should come out as the picture on the left shows

# REMOVE REAR CLAMPS



- Remove all screw in the red circles. Use allen key M8, M10, M12
- After removing the screws, the plates won't come off by themselves, you have to pry it out lightly and it will come out toward you.

# REMOVE REAR CLAMPS



- Remove all screw in the red circles. Use allen key M8, M10, M12
- Remove all hoses off the clamping cylinders

Clamping cylinders

# REMOVE REAR CLAMPS



- Use the crowbar to pry the rear forward toward you after securing the strap as in the picture on the left.
- Make sure all hoses are removed off the back plate just like the picture on the right



# REMOVE THE SUPPORT PLATE



- Remove all screw in the red circles. Use allen key M8, M10, M12
- Use 2 long M12 screws just like the picture on the right to crane the front plate.

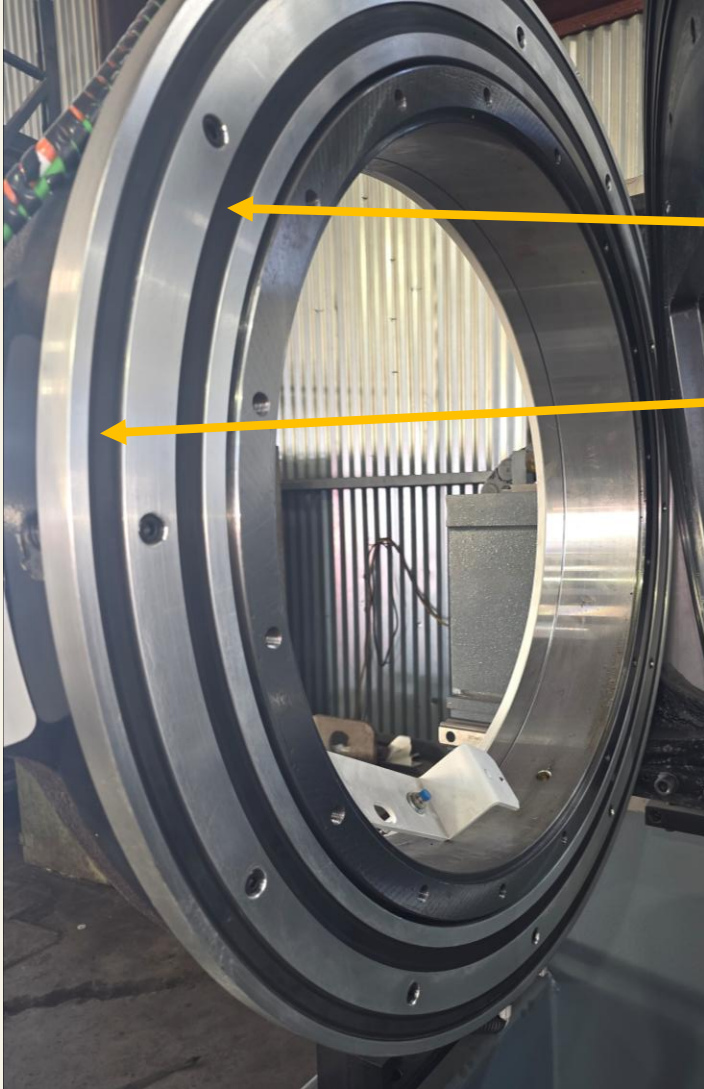


# REMOVE THE SUPPORT PLATE

- You can use your hands to pull the front plate toward you to remove it.



# REPLACING THE SEALS



You can use a flat screw driver to remove the inner seal by prying it out and pull it out.

You can use a flat screw driver to remove the outer seal by prying it out and pull it out.

To put the seals in, squeeze the seal just like the picture on the right and push it in to install.



# PUTTING BACK SUPPORT PLATE



- Crane the plate up as shown on the right image
- Put back all the screws for the plate as shown on the left image



# PAY ATTENTION TO THESE PINS



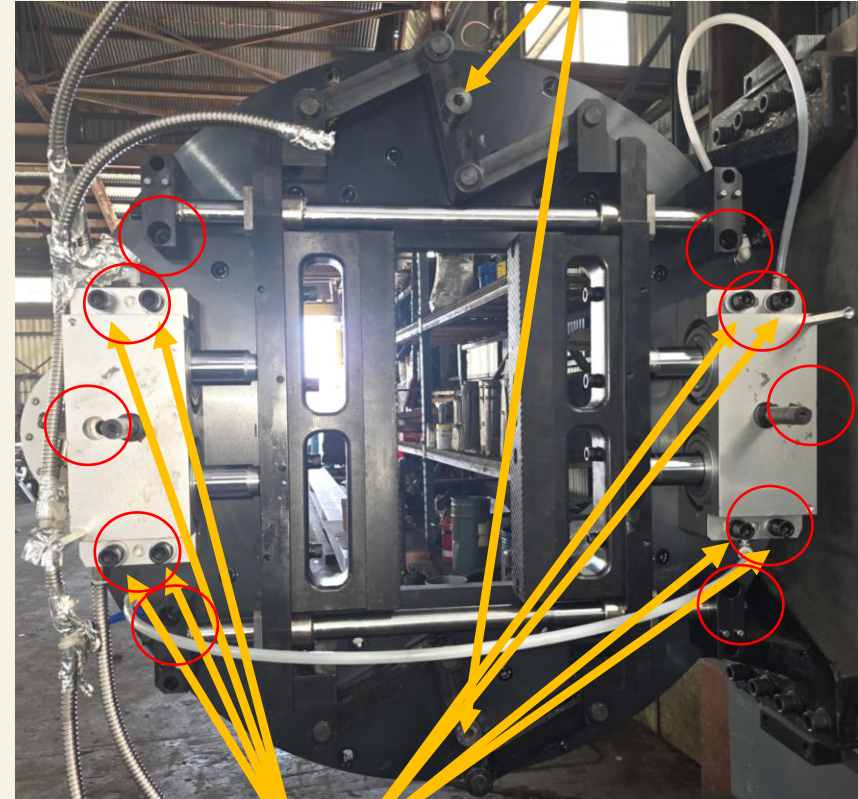
- Pay attention to these pins because you will need to align the rear clamp assembly to these pins.

# PUTTING BACK REAR CLAMPS

2 Make sure you can slide these 2 cylinders in the holes on the plate

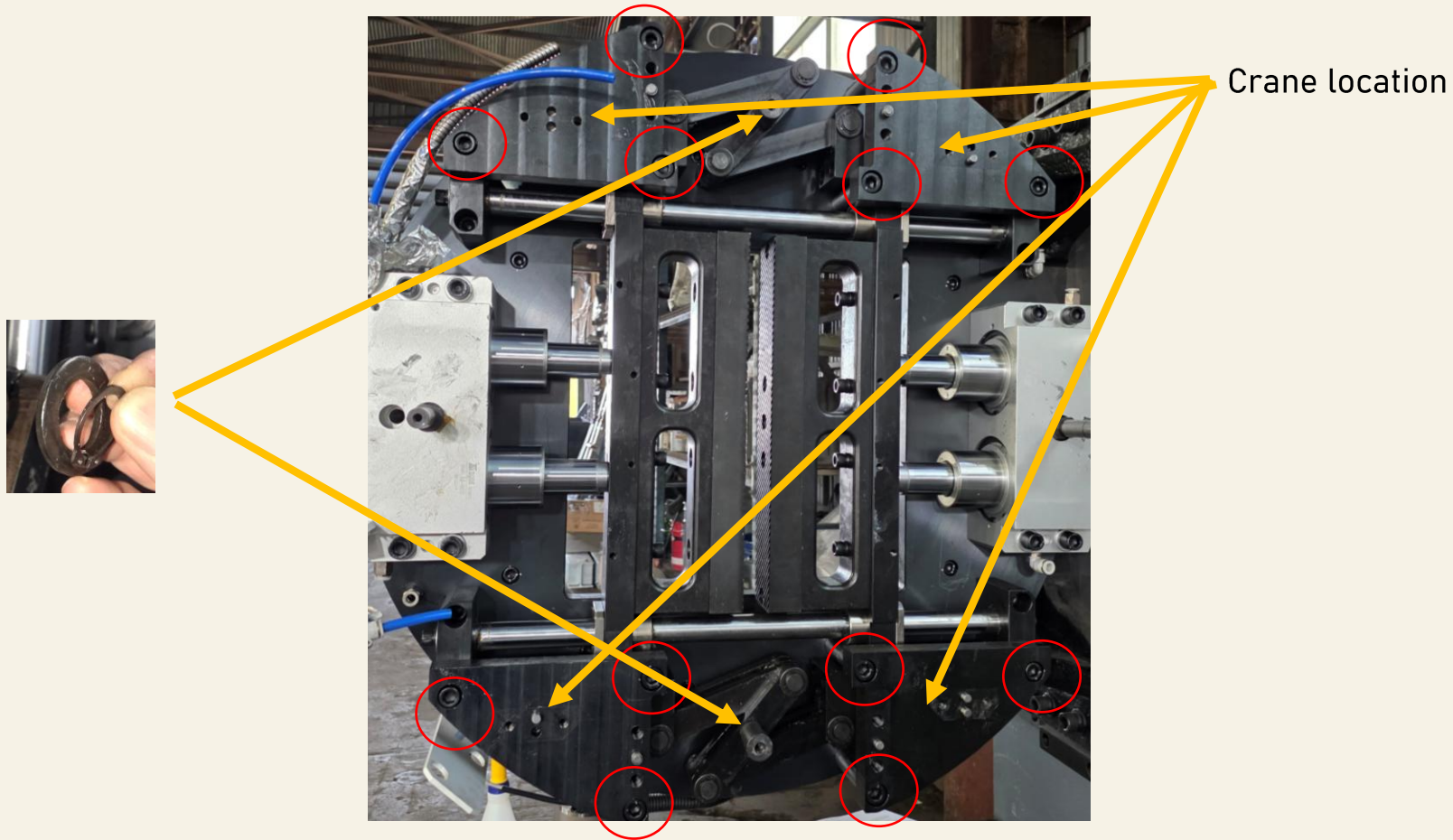


Crane location

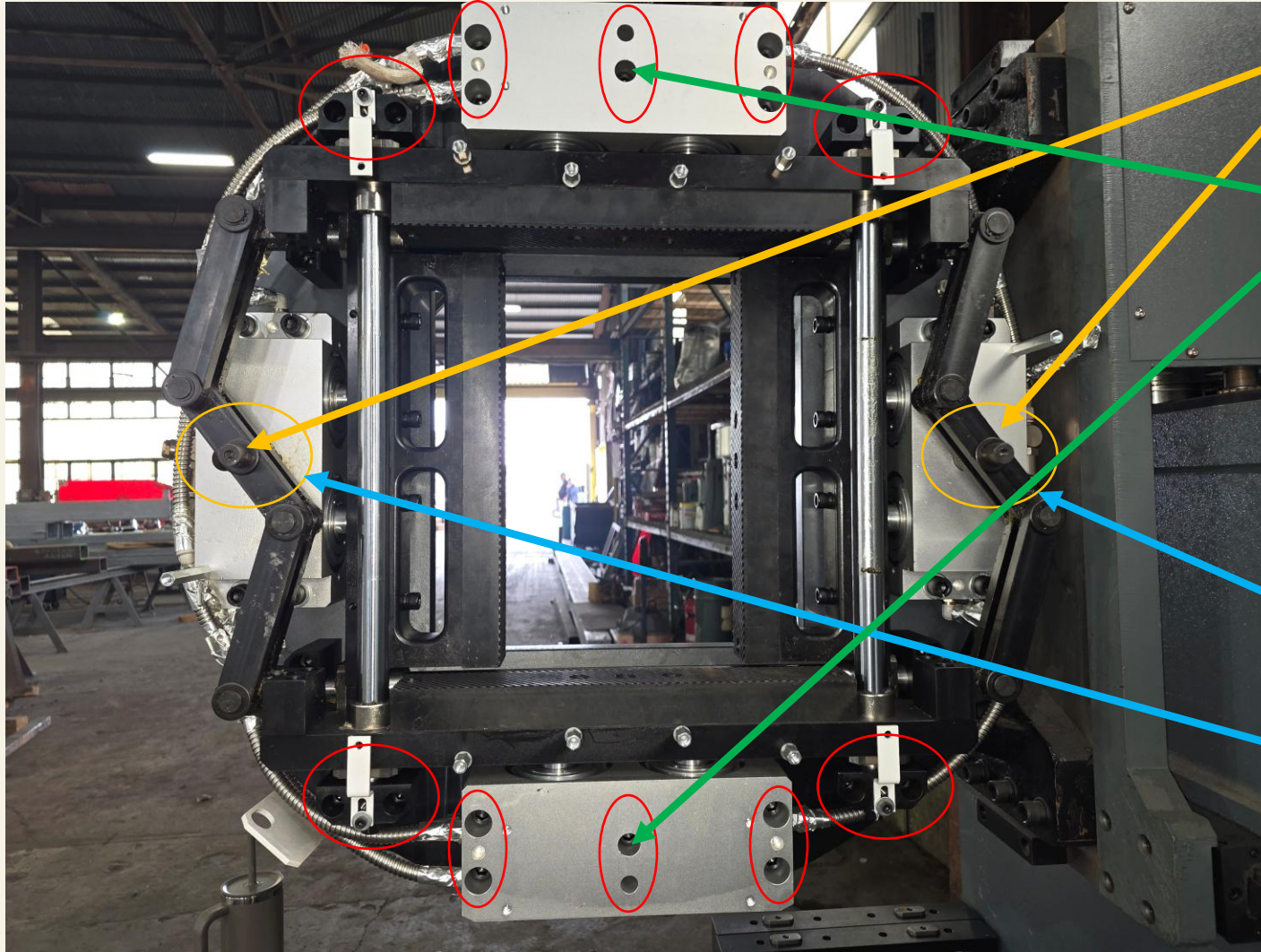


1 Put these screws in first, and screws in just a few threads

# PUTTING BACK CORNER PLATES



# PUTTING BACK FRONT CLAMPS



- Slide the assembly into these 2 steel rods about 1"
- Align these 2 clamps and put in the bolts slightly but don't tight because you will need it loose to put in the 2 side bars.
- Put back lock rings with plier

1

2

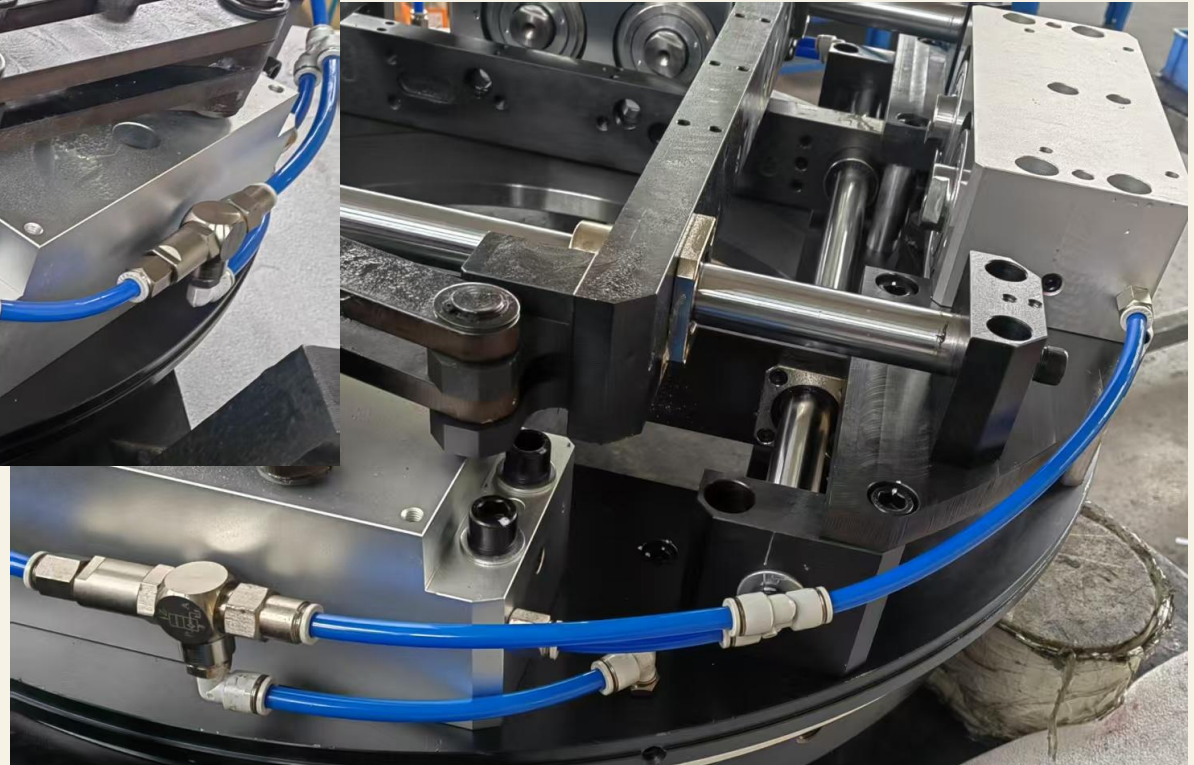
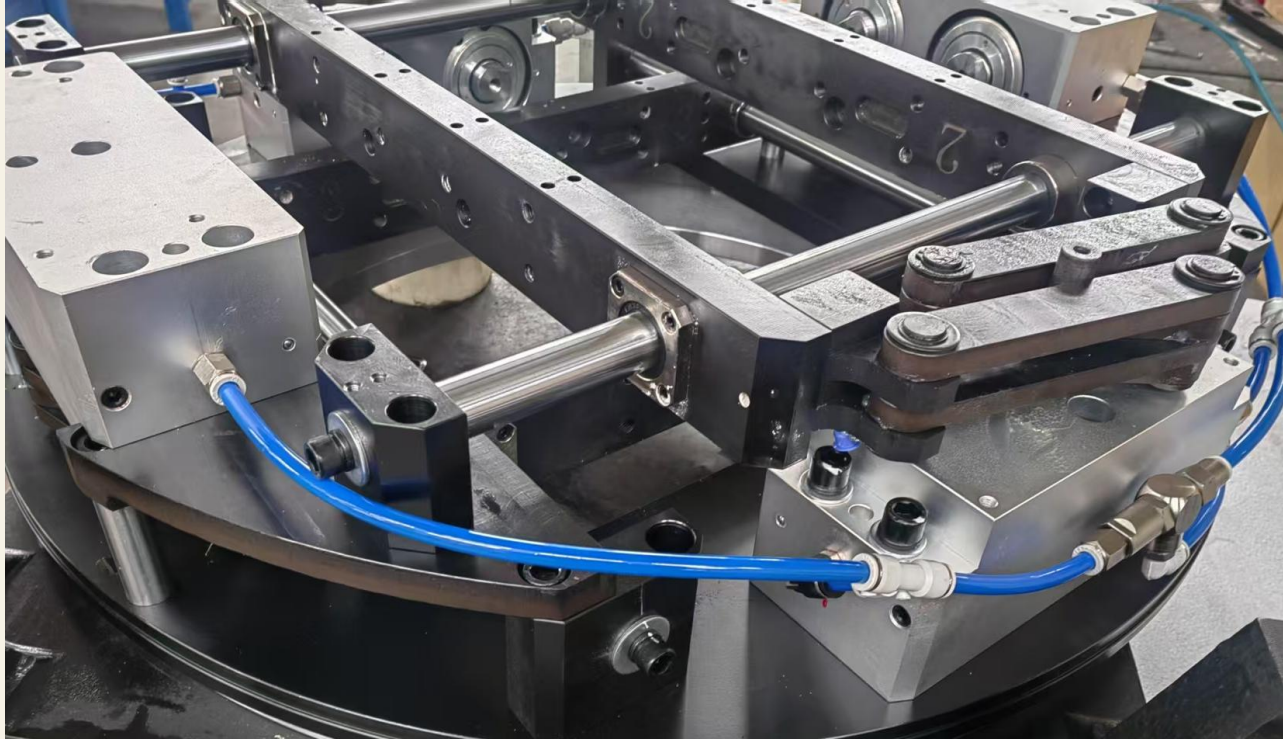
3



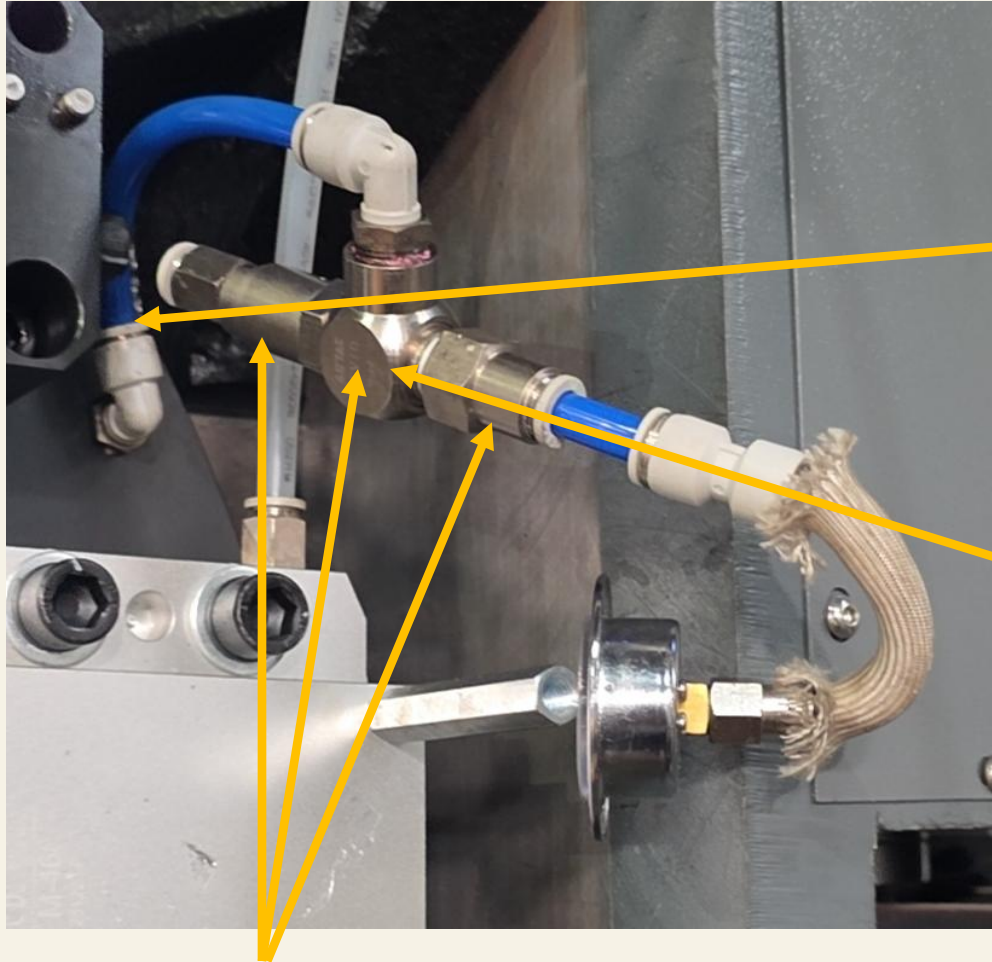
# PUTTING BACK HOSE ASSEMBLY



# PUTTING BACK HOSE ASSEMBLY

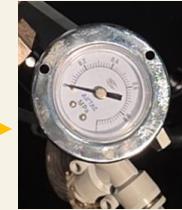


# TROUBLE-SHOOTING (CHECK TO SEE IF THE SEALS ARE BAD)

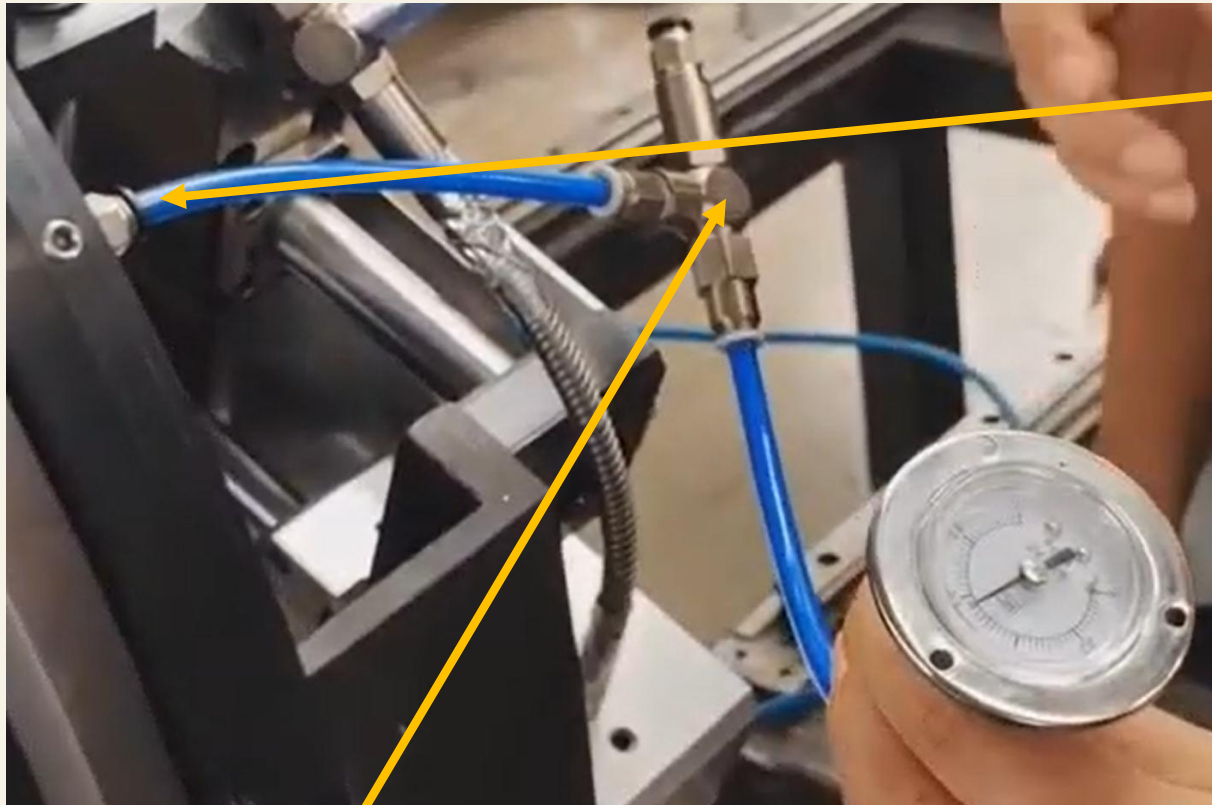


CHECK VALVE (make sure the gauge hose connects to the short side of the check valve and leave the long side open)

1. If the pressure gauge doesn't hold pressure after clamping (gauge shows ZERO) →
2. Take off the chuck cover and pull out this hose and put in the assembly as shown on the left image
3. Use the remote and press K5 to clamp the 3<sup>RD</sup> chuck.
4. Check to see if the gauge hold pressure.
  1. IF PRESSURE = 0
    - Change another check valve and test again
  2. IF PRESSURE holds value
    - Go to the next page



# TROUBLE-SHOOTING (CHECK TO SEE IF THE SEALS ARE BAD)



CHECK VALVE

1. Switch the whole test assembly to another pressure port on the black plate
2. Use the remote and press K6 to unclamp the 3<sup>RD</sup> chuck.
3. Check to see if the gauge hold pressure.
  1. IF PRESSURE = 0
    - There is a problem with the plate SEAL because this check valve assembly already held pressure on the other port.
  2. IF PRESSURE holds value
    - There is no problem with the plate SEAL
    - There is a **PROBLEM** with the **FIRST CHECK VALVE**