



**INNOVATIVE
PRODUCTS**

Oklahoma City, Oklahoma USA

INSTALLATION GUIDE



520 Beacon Place
Oklahoma City, Oklahoma
73127

PH: 1 (405) 440-0010
www.innovative123.com

ROTARY TO LINEAR TRANSLATOR

RTL

PATENT PENDING

RTL INSTALLATION PROCEDURE

Recommended sequence of assembly is RTL to valve body and then Actuator to RTL/Body assembly.

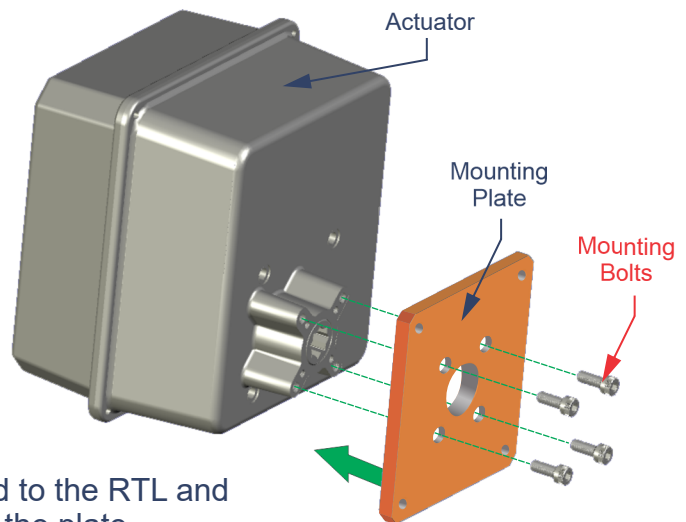
RTL Actuator Installation – Quick Checklist

Electrical & Prep Steps

1. ☐ Connect actuator wiring
2. ☐ **Confirm actuator is fully closed (0.0% open)**

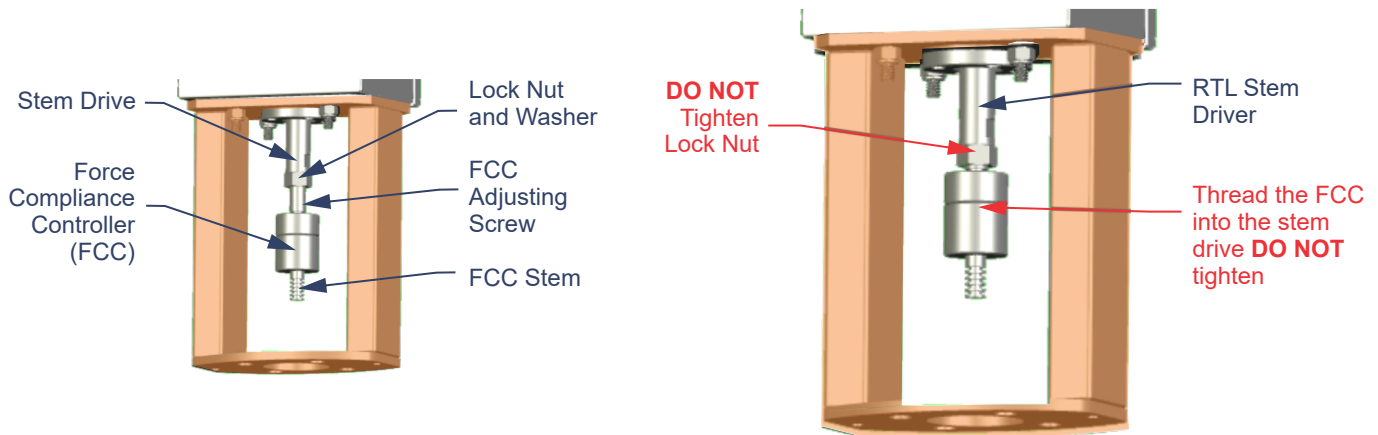
Mechanical Setup

3. ☐ Mount Actuator Mounting Plate on the Actuator by securing it with the bolts provided.

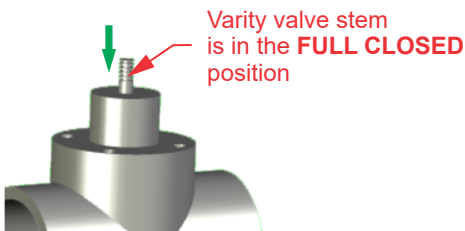


Note the mounting plate is loosely attached to the RTL and the actuator mounting bolts are inserted in the plate

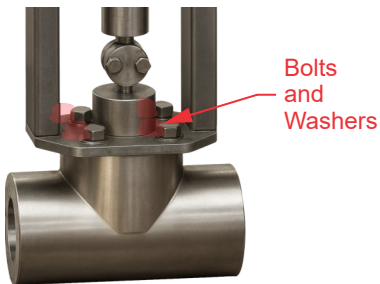
4. ☐ Loosen Lock Nut and thread Force Compliance Controller (FCC) all the way into the RTL Stem Drive.



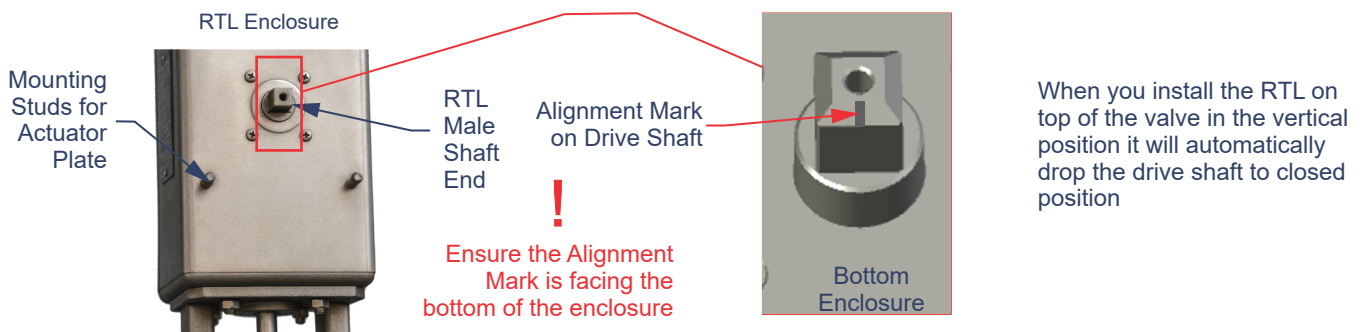
5. ☐ **Confirm the stem on the valve is fully closed.**



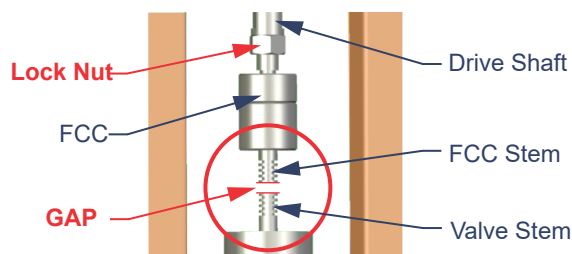
6. ☐ Install RTL ASSEMBLY on valve Body with the four bolts and washer provided



7. ☐ Locate the RTL Male shaft end on the backside of the assembly, it will be centered between the four mounting studs.

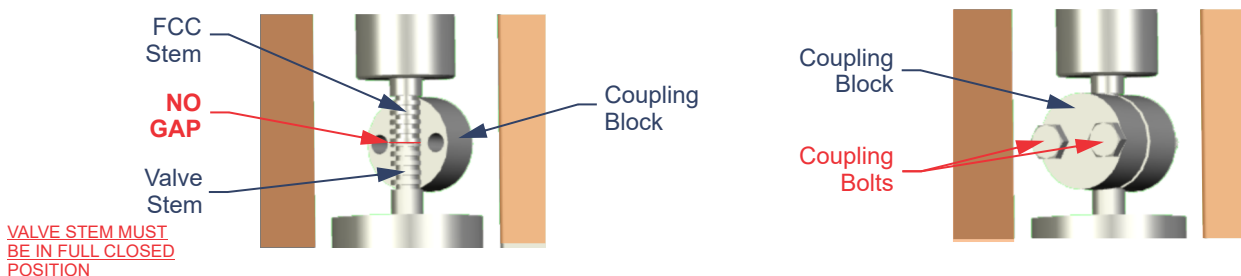


8. ☐ Adjust the FCC downward by threading it out of the RTL Drive Shaft. The correct position is just touching the top of the valve stem with NO GAP between FCC and valve stem. **DO NOT TIGHTEN THE LOCK NUT** on the FCC



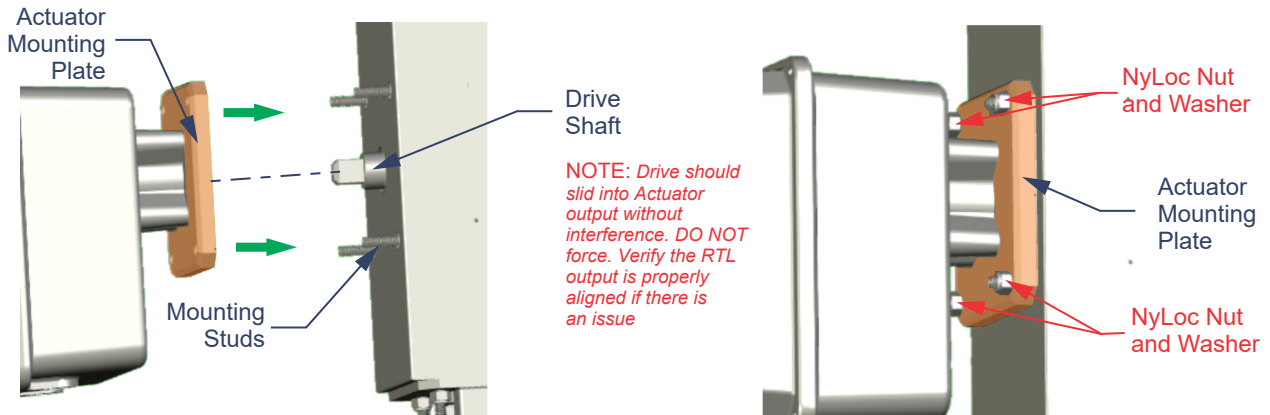
NOTE: After adjusting FCC verify the alignment mark is properly aligned as indicated in step 7

9. ☐ Install Coupling Block, **HAND-TIGHTEN** bolts.

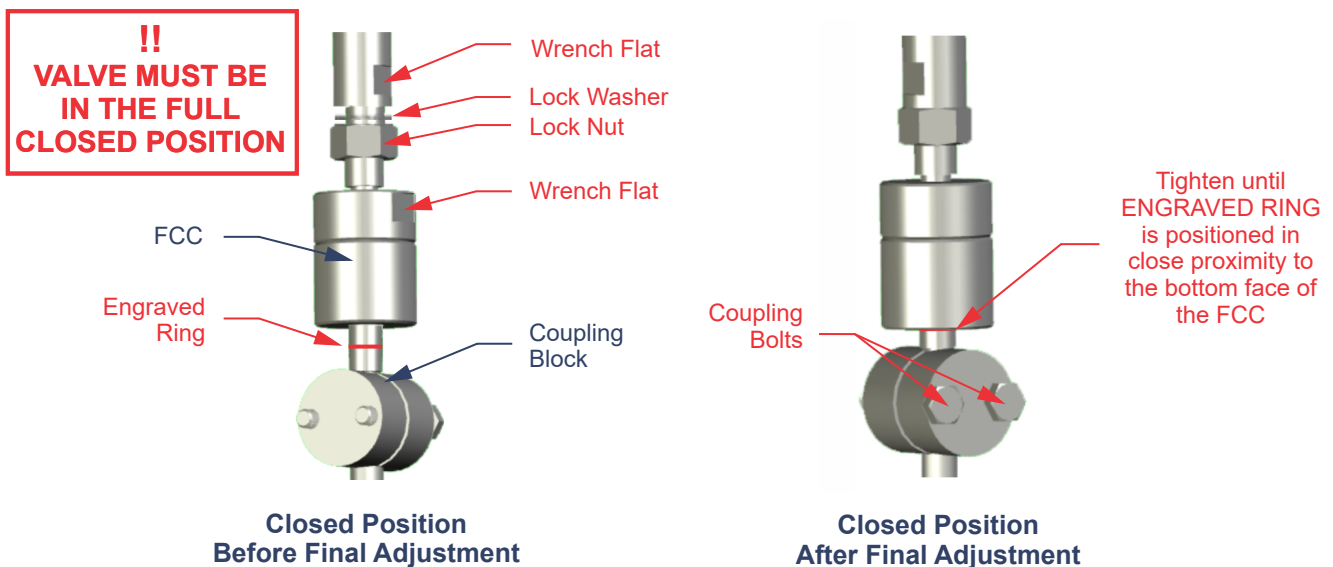


Final Assembly & Calibration

10. ☐ Attach actuator mounting plate to the RTL assembly, it should slid directly on, there should be NO valve stem movement, secure with washer and 4 ea Nyloc nuts and washers provided with the unit.



11. ☐ Hold RTL shaft on **WRENCH FLATS** and turn the FCC clockwise until **ENGRAVED RING** on the stem coincides with the bottom of the FCC. This step sets a predetermine force applied to the valve seat preventing damage and leakage.
12. ☐ Tighten FCC lock nut.
13. ☐ Tighten Coupling Block bolts



Final Check

14. ☐ Power the system and verify full open and full closed movement. The engraved ring on FCC stem is visible when the valve is opening. The ring will not be visible when the valve is closed.
15. ☐ **Assembly complete — calibrated and ready to go. Nice work!**