

Installation

Safety Warning

When installing a positioned, please ensure to read and follow safety instruction.

- All input and supply pressure to valve, actuator, and other related devices must be turned off.
- Use bypass valve or other equipment to avoid entire system “shut down.”
- Make sure there is no remaining pressure in the actuator.

Tools for Installation

- ① Hexagonal wrench
- ② Screw Drivers (+) and (-)
- ③ Spanners for hexagonal-head bolts

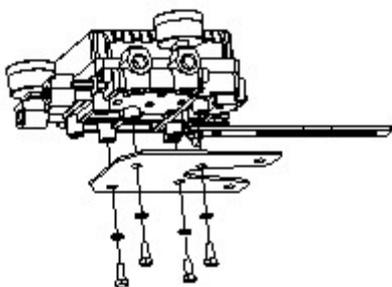
YT-1200L Installation

YT-1200L should be installed on linear motion valve such as globe valve or gate valve using spring return type diaphragm or piston actuator. Before installation, be sure to check for following installation components.

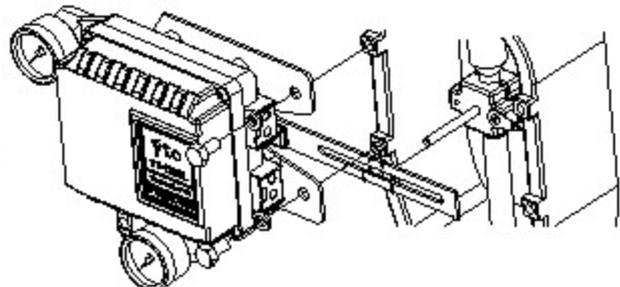
- ① YT-1200L main body
- ② Feedback lever and lever spring
- ③ Flange nut (bottom side of YT-1200L)
- ④ 4 pcs of hexagon head bolts (M8 x 1.25P)
- ⑤ 4 pcs of M8 plate washer

Installation Steps

1. Proper bracket must be made in order to attach positioned on the actuator yoke. Please consider following when making a bracket.
 - A. Feedback lever should be leveled at 50% of the valve stroke. (refer to step G)
 - B. Feedback lever connection bar of the actuator damp should be installed at the positioned that the valve stroke and numbers which indicated on the feedback lever must be fitted. (refer to step H)
2. Attached YT-1200L to the bracket, which was produced in previous step, by using bolts.
<Fig 1> Please refer to backside of the unit for size of the bolts. The standard size of bolt is M8 x 1.25P and other bolts sizes are available. Please contact YTC sales department.
3. Attach YT-1200L (with bracket) to the actuator yoke – DO NOT TIGHTEN COMPLETELY.
4. Connect YT-1200L feedback lever to the actuator clamp. The gap on the YT-1200L feedback lever is 65mm. The connection bar thickness should be less than 6.3mm. <Fig 2>

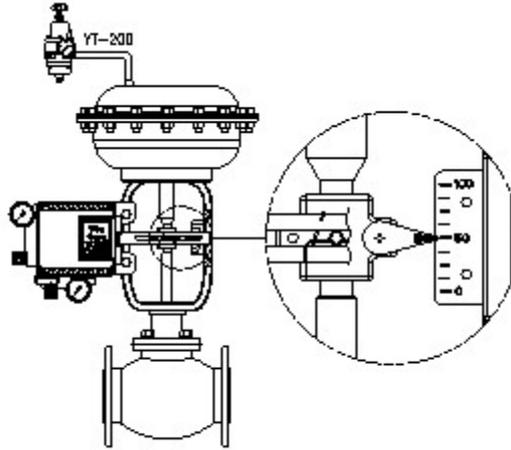


<Figure 1>



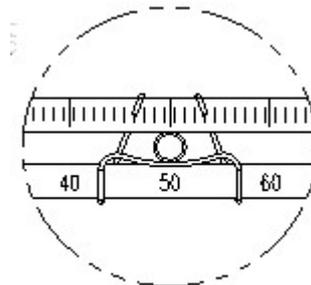
<Figure 2>

5. Connect air filter regulator to the actuator temporarily. Set supply pressure of the regulator in order to position the actuator damp at 50% of valve stroke. <Fig 3>



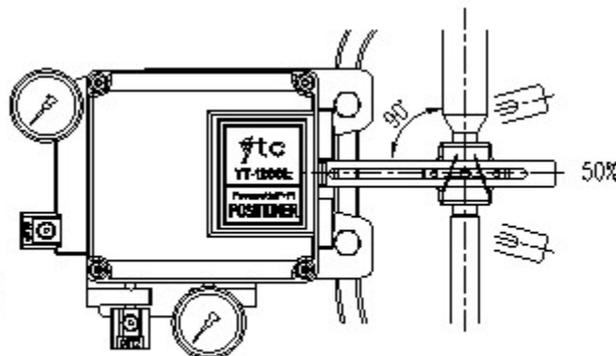
<Figure 3>

6. Insert connection bar into the YT-1200L feedback lever. The connection bar should be inserted at the 50% point on the feedback lever, which would help to reduce hysteresis. <fig 4>



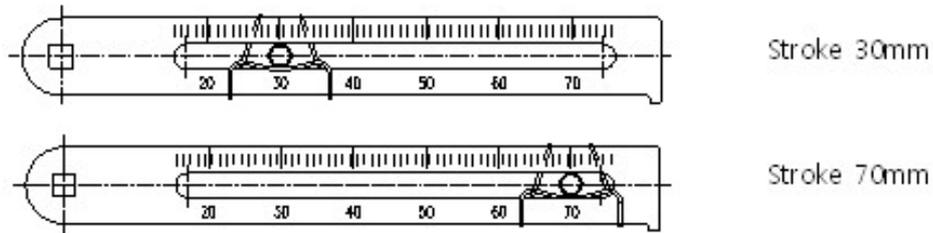
<Figure 4>

7. If connection bar does not point at 50% point, then adjust bracket or feedback link bar position. Failure to position at 50% would lower the linearity of the positioner. <fig 5>



<Figure 5>

8. Check valve stroke. The stroke numbers are indicated on the feedback lever. Position connection bar at the number on the feedback lever according to the valve stroke. <fig 6>
To adjust, move the bracket or the connection bar.



<Figure 6>

NOTE

After installing YT-1200L, operate the valve from 0% to 100% stroke by using air filter regulator. Both of 0% and 100%, the feedback lever should not touch the lever stopper, which is located on the backside of YT-1200L. <fig 7>

If the feedback lever touches the stopper, YT-1200L should be installed further away from the center of the yoke.

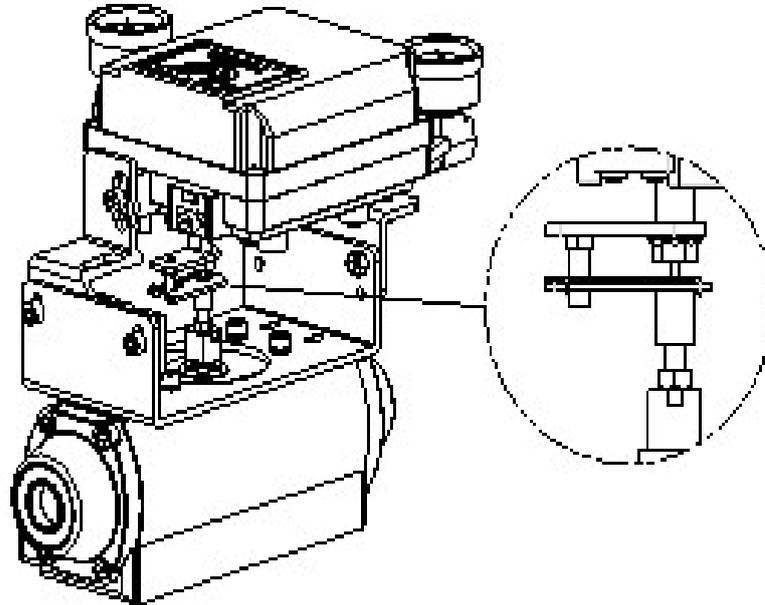
9. After the proper installation, tighten all of the bolts on the bracket, the feedback lever, and the connection bar.

YT-1200R Installation

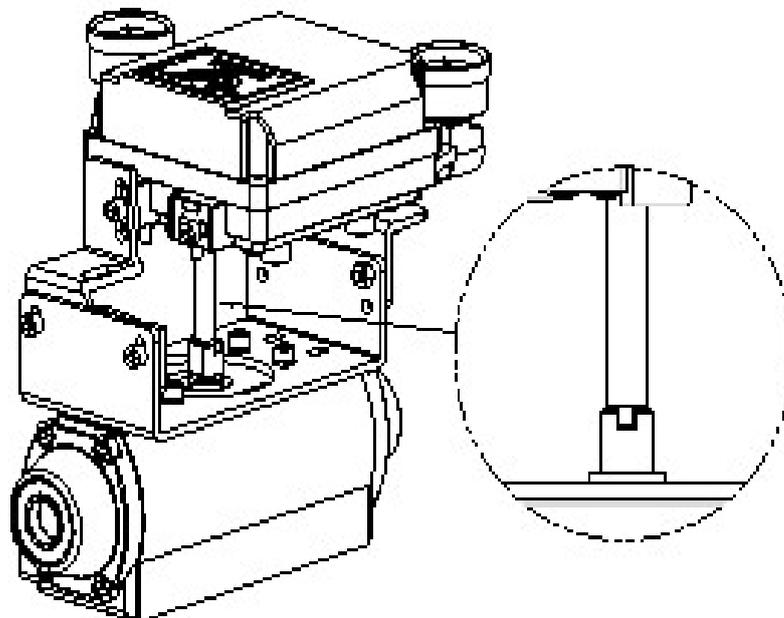
YT-1200R should be used for rotary motion valve, that is ball valve, butterfly valve using rack and pinion, scotch yoke or complex type actuator, which its stem rotates 90 degrees. Before installation, be sure to check for following installation components.

- ① YT-1200R main body
- ② Fork lever and lever spring
- ③ 1 set of bracket (3 pcs)
- ④ 4 pcs of hexagon head bolt M8 x 1.25P
- ⑤ 4 pcs of M8 plate washer

YT-1200R Install Example



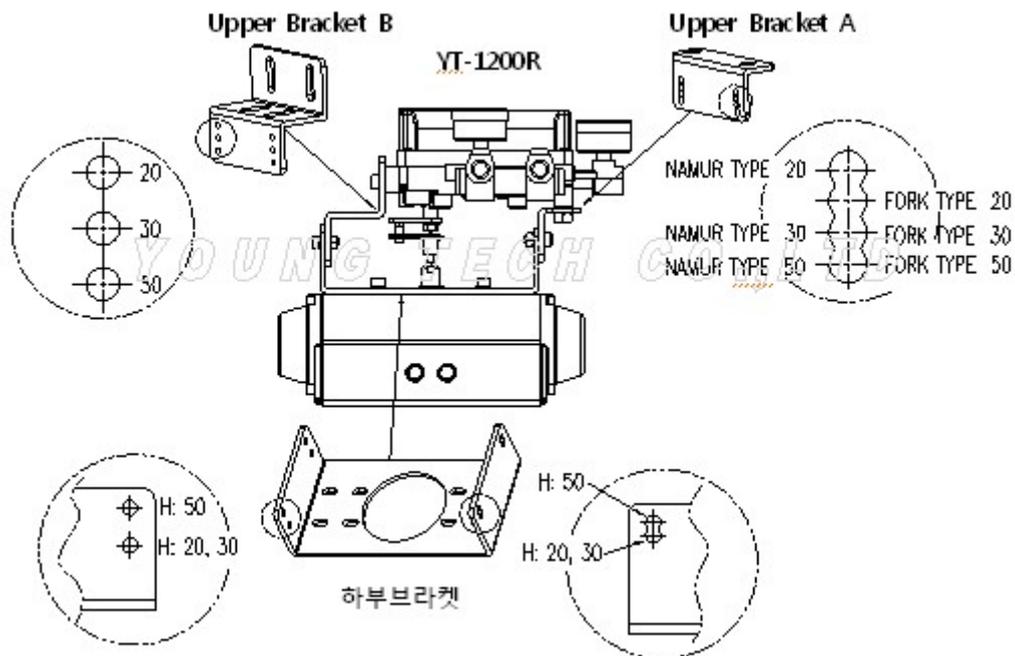
YT-1200R on Fork Lever



YT-1200R on NAMUR Lever

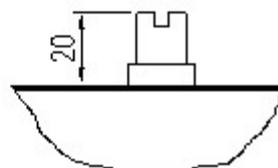
Bracket Information

YT-1200R is supplied with standard bracket. The bracket can be used for fork lever and NAMUR bracket. Please see <fig 8> for more detailed information.



<Figure 8>

1. Standard actuator stem height (H) is 20, 30, or 50 mm. After check "H", assemble with the bracket as shown in <fig 8 & 9>

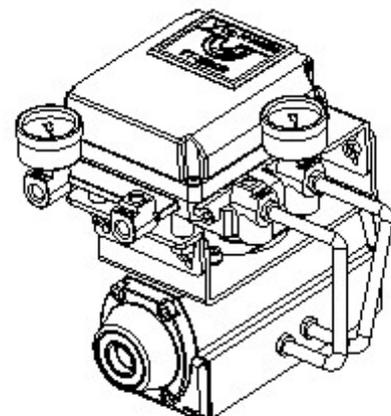


<Figure 9>

Actuator Stem (H)

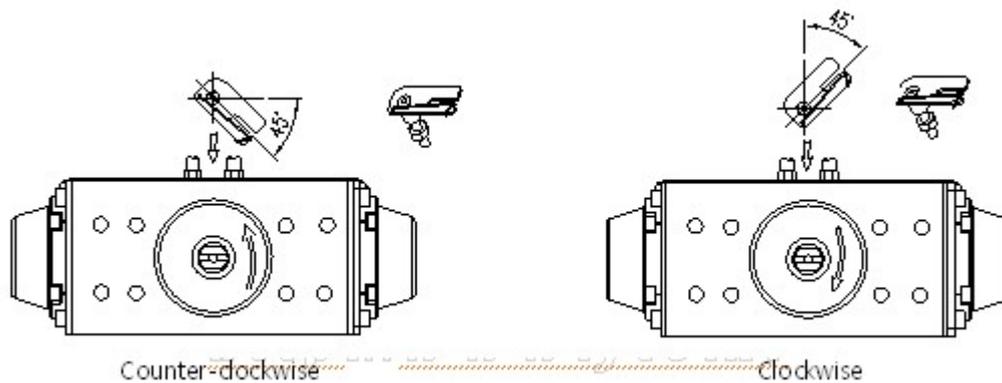
Actuator

2. Attached bracketed YT-1200R to the actuator by using hexagonal-headed and wrench bolts. Size of the bracket hole is 6mm. When tightening bolts, use spring washer or similar for complete attachment to the actuator, so YT-1200R will not be shaken by vibration or any other impact. The direction of bracket is different by the operating condition, but in general, the positioned is installed as shown. <fig 10>



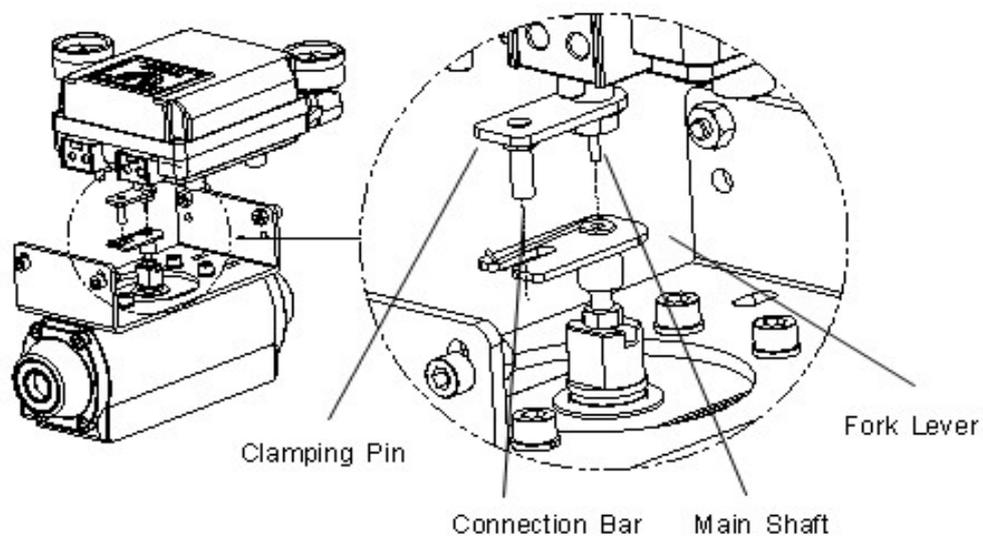
<Figure 10>

3. Set rotation position of the actuator stem at zero point, "0%". For a single type of actuator, it is easy to check zero point, because the actuator stem is positioned at zero point when there is no supply pressure. If double acting actuator is used, check actuator stem's rotation direction (clockwise or counter-clockwise) by supplying pressure.
4. Install the fork lever as shown in <fig11> after setting actuator stem at zero point. Check the direction of the actuator stem – clockwise or counter-clockwise. Installation angle of the fork lever should be 45 degrees based on the linear shaft. For NAMUR the angle does not matter.



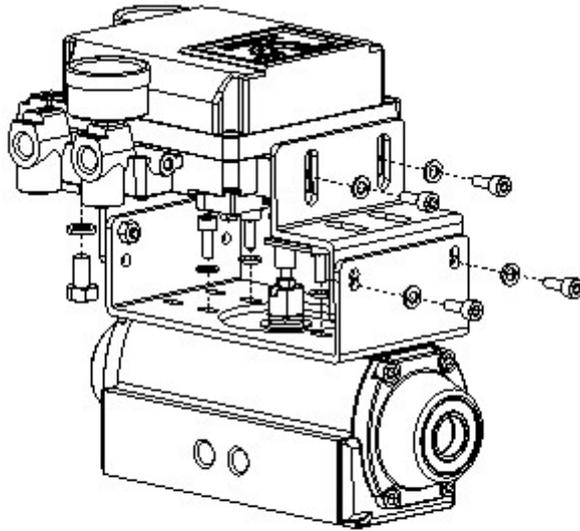
<Figure 11>

5. After setting fork lever position, lock nuts which are assembled on bottom of the fork lever.
6. Attach YT-1200R to the bracket. Fix the damping pin on the main shaft of YT-1200R and insert connection bar into the fork lever slot, so it can be locked to the fork lever spring. This sets the alignment of the main shaft of YT-1200R and center of the actuator stem. Bad alignment of the main shaft and the actuator stem lowers YT-1200R's durability, because too much force will be on the main shaft of YT-1200R. <fig 12>



<Figure 12>

7. Tighten YT-1200R base and the bracket with hexagon-headed bolts and plate washer. It is recommended to tighten four bolts after checking YT-1200R's position. <fig 13>



<Figure 13>