CO Series (Main feature of changeable orifices to achieve different capacities)

The CO Series is a thermostatic expansion valve with a replaceable port component that allows changeability to the nominal capacity. The valve is used to adjust the refrigerant supply volume in the evaporator by sensing the superheat degree of the evaporator outlet through a thermal sensing bulb and external (internal) balance.

Features

- Replaceable port components for variability, matching and maintenance
- Adjustable superheat degree design
- Power head uses continuous laser welding, providing high welding strength and a long diaphragm life
- Available MOP function
- Connection: Weld, Screw
- Standard capillary tube length: 60 in. (1.5 m)

Operating Conditions

- Applicable refrigerants: R134A, R404A, R407C, R448A, R449A, R22, R410A and R507, etc.
- Max working pressure: 667 psi (4.6 MPa)
- Medium temperature range: -40°F to 158°F (-40°C to 70°C)
- Ambient temperature range: -22°F to 131°F (-30°C to 55°C)
- Maximum thermal bulb temperature: 212°F (100°C)
- Maximum valve body temperature: 230°F (110°C)
- Static state superheat degree adjustment change: 0 K to 8 K
- Static state superheat degree setting: 4 K
- Relative humidity: 95%

Robertshaw
RANCO • PARAGON • CASTFUTURA

Customer Service
+1 800 304 6563
HVACCustomerService@robertshaw.com

Technical Service
+1 800 445 8299
TechnicalService@robertshaw.com

www.robertshaw.com

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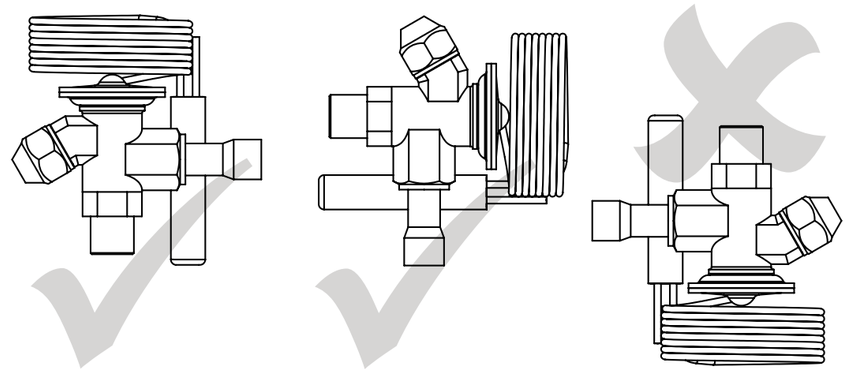
Installation Guide
CO Series
Thermostatic Expansion Valves

1. TXV Placement

When placing the TXV into the system, ensure it is upright or on the side. Do **NOT** place the valve upside-down. See the diagram below.



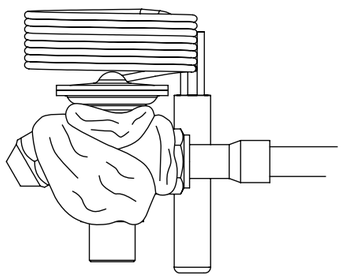
2. Brazing Installation

a. Before brazing, wrap a wet rag around the valve to keep the internals cool.

b. During the brazing process, uncoil the sensing bulb and move it away from the valve.

c. To ensure a clean environment, flow nitrogen through the valve. This will help to prevent oxidation.

d. We recommend using a 15% silver brazing alloy. During the brazing process, be conscious of where the torch is pointed. Do not point the torch towards the valve body.

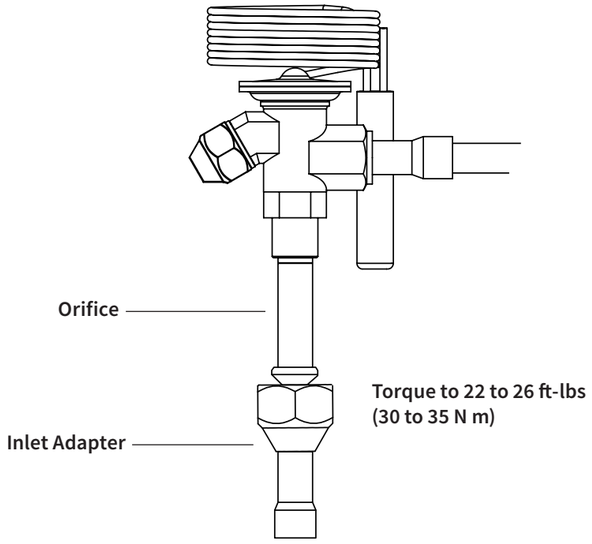


3. Threaded Connections

Braze the inlet adaptor to the liquid line. Then attach the TXV to avoid heating the internals during the brazing process. We recommend using a 15% silver brazing alloy.

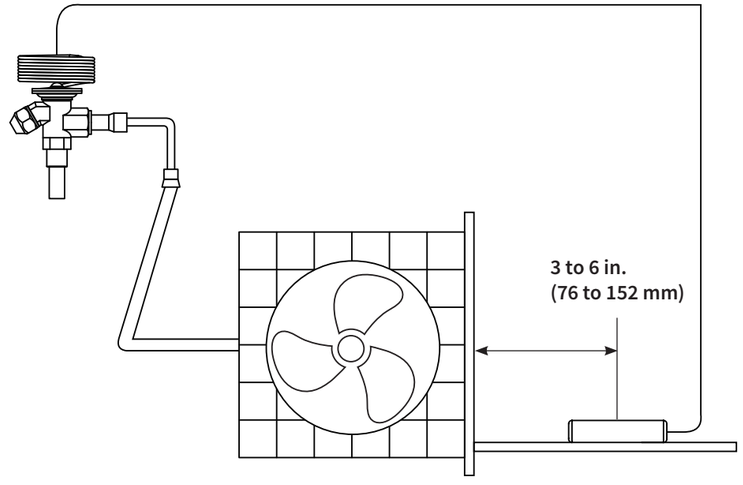
4. Orifice Installation

Start by inserting the orifice and installing the inlet adapter to the valve. Using two wrenches, tighten the adapter. See the diagram below for proper torque requirements.



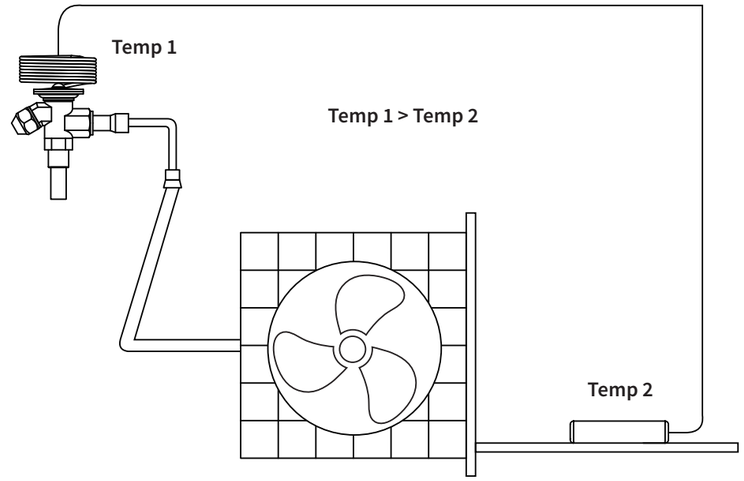
5. Sensing Bulb Installation

Before attaching the sensing bulb to the suction line, clean the desired section thoroughly. The bulb should be placed horizontally and no further than 6 inches away from the evaporator. Make sure to never place a flame near the bulb. This can cause damage to the valve by over-pressurizing the refrigerant.



6. Installation Check

To ensure the TXV was installed correctly, test the temperatures of the following areas. The power element at the top of the valve (Temp 1) should be greater than the temperature of the sensing bulb (Temp 2).



7. Superheat Adjustment

To adjust the superheat setting, turn the adjustment knob using a screwdriver. Turn the screw counterclockwise until the screw is fully turned to the stop position. Then, turn the screw clockwise until you reach a desired superheat. To avoid over adjustments, wait 10 minutes, then reevaluate if the desired superheat setting has been achieved. Finally, place the seal cap back on and torque to 7.5 to 11 ft-lbs (10 to 15 N m).