

# TGR-18R2 SERIES MASTER VALVE

The Transfer Gas Remote (TiGR) system is a pneumatically controlled valve used for high pressure compressed gas applications. This is a normally closed valve which means it is in the closed position and can only be opened by means of an air supply to the actuator. The TiGR system allows the operator to open and close the valve from a remote distance giving operators protection from valve site dangers such as fires or uncontrolled releases of gases. This valve has a pressure rating of 4000 PSI at 70° F and available with brass or stainless steel valve bodies. The valve seat material is available in the standard Kel-F or optional Vespel. The valve seals consist of an Etylene Propylene Rod T-Seal, and a Teflon coated stainless steel seal washer. An operational panel is also available making installation easier and quicker for the user.

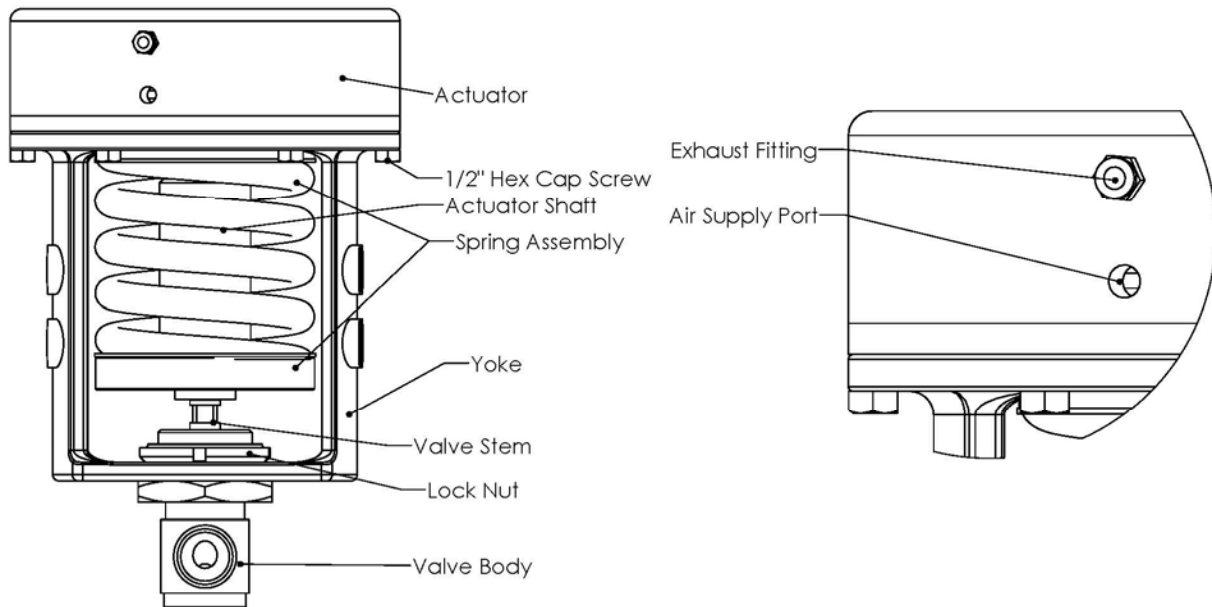


Part no.	Valve Body	Inlet Connection	Outlet Connection
TGR-18R2A	Brass	1/2" NPT	1/2" NPT
TGR-S18R2A	Stainless Steel	1/2" NPT	1/2" NPT
TGR-18R2E	Brass	3/4" NPT	3/4" NPT
TGR-S18R2E	Stainless Steel	3/4" NPT	3/4" NPT
TGR-18R2F	Brass	CGA1340 1" 11-1/2NPS-R.H.	CGA1340 1" 11-1/2NPS-R.H.
TGR-S18R2F	Stainless Steel	CGA1340 1" 11-1/2NPS-R.H.	CGA1340 1" 11-1/2NPS-R.H.
TGR-18R2FL	Brass	CGA 1350 1" 11-1/2NPSL L.H.	CGA 1350 1" 11-1/2NPSL L.H.
TGR-S18R2FL	Stainless Steel	CGA 1350 1" 11-1/2NPSL L.H.	CGA 1350 1" 11-1/2NPSL L.H.

NOTE: For Vespel seat insert add "V" to end of part no.  
Example: TGR-18R2A becomes TGR-18R2AV

**CAUTION:** This valve is not for acetylene or MAPP gas service.

Made in the U.S.A



**WARNING:** While servicing, the valve body should not be subjected to any pressurized gas.

**WARNING:** The spring assembly is not serviceable, and attempting to service the spring assembly could result in serious injury or death.

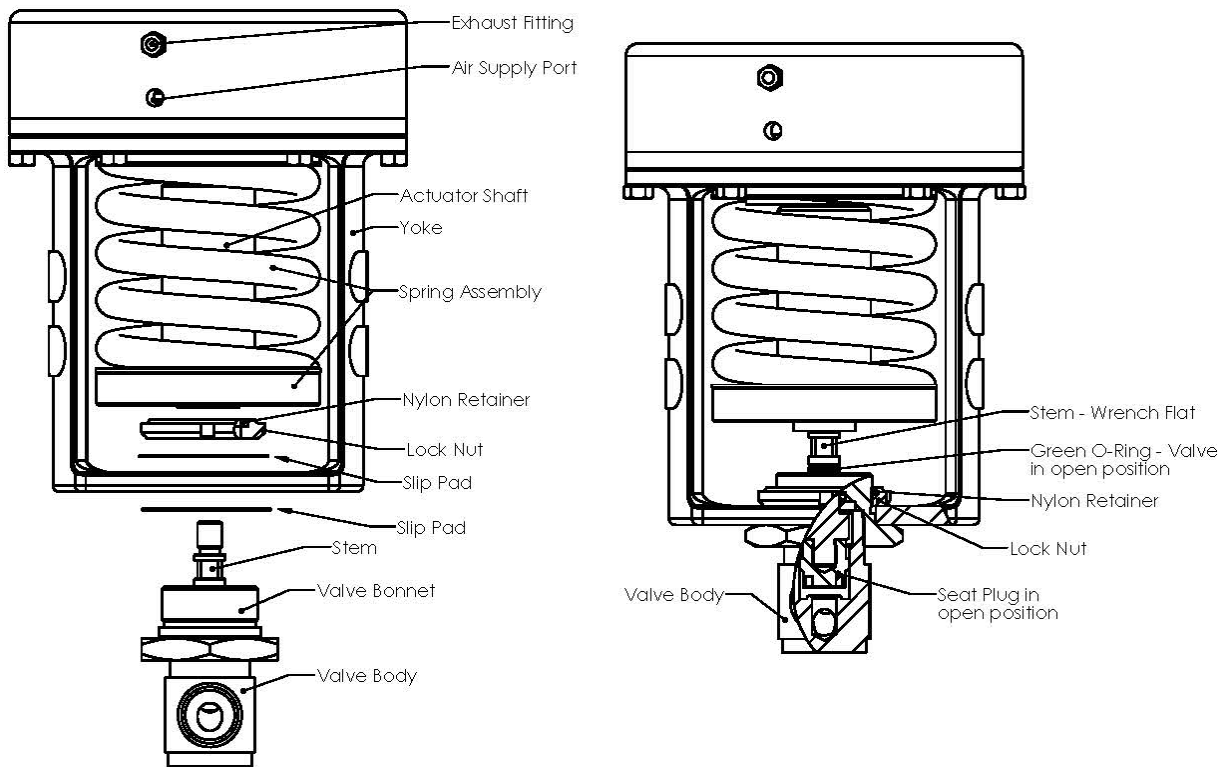
#### Actuator Removal Instructions

1. Remove the six 1/2" hex head cap screws and lock washers that secure the yoke to the actuator.
2. Remove the exhaust fitting and attach an air supply (100PSI – 130PSI) to the exhaust port. The air supply line needs to be flexible and have adequate slack to maneuver the actuator.
3. Activate the actuator through the exhaust port.
4. Rotate the actuator counter clockwise to unscrew the actuator from the yoke assembly.

#### Actuator Attachment Instructions

1. Attach an air supply (100PSI – 130PSI) to the exhaust port and activate the actuator. The air supply line needs to be flexible and have adequate slack to maneuver the actuator.
2. Screw the actuator clockwise onto the actuator shaft until seated.
3. Turn the actuator counter clockwise until the first available 1/2" cap screw holes line up.
4. Screw the 1/2" cap screws with lock washers through the yoke into the actuator hand tight.
5. Deactivate the actuator and remove air supply from exhaust port.
6. Tighten the 1/2" hex head cap screws in a uniform pattern to 20 ft/lbs.
7. Reinstall the exhaust fitting in exhaust port.

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### Valve Removal Instructions

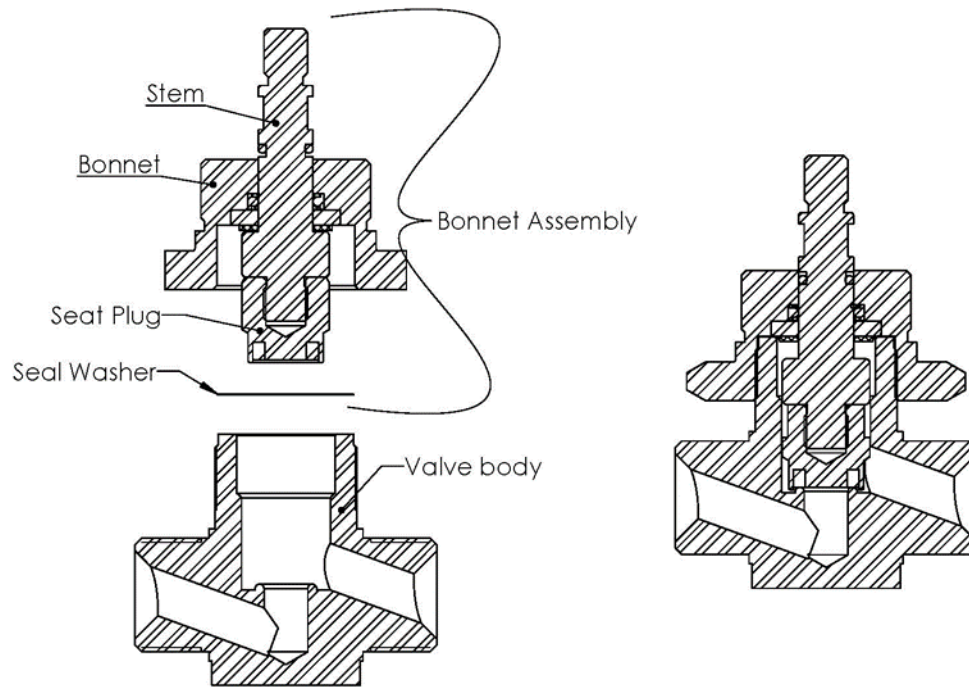
1. Attach an air supply (100PSI – 130PSI) to the air supply port and activate the actuator.
2. Using a spanner wrench, turn the lock nut counter clockwise off the valve body.
3. Deactivate the actuator. The valve body should push out of the yoke approximately 3/8”.
4. Using a 1/2” open end wrench, remove the valve body from the actuator shaft by turning the stem clockwise.

### Valve Installation Instructions

1. To insure the valve assembly does not un-torque from bonnet during installation, secure the valve bonnet in a vice.
2. Attach an air supply (100PSI – 130PSI) to the air supply port and activate the actuator. The air supply line needs to be flexible and have adequate slack to maneuver the actuator.
3. Place slip pad over valve bonnet.
4. Place yoke assembly then slip pad then lock nut over valves stem / bonnet. The Nylon retainer portion of the lock nut should be towards spring assembly.
5. Screw the yoke assembly into the valve stem 2-3 turns.
6. Screw the locknut clockwise onto the valve body hand tight.
7. Using a 1/2” open end wrench, turn the stem counter clockwise into the yoke shaft until it bottoms out. Tighten to approximately 10 in/lbs.
8. Using a spanner wrench, tighten the locknut against the yoke and torque to approximately 50 ft/lbs.

**Note:** The valve assembly to yoke is not a rigid attachment. It is designed to have some rotational movement to prevent valve bonnet from losing torque in transit mode.

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### Valve Assembly Instructions

1. Bonnet assembly consist of seat plug, stem, seal washer, bonnet and bonnet components. Do not remove stem from bonnet assembly. Doing so could cause damage to the seals.
2. Insert seal washer into bonnet assembly.
3. Invert valve body and screw bonnet assembly onto valve body until hand tight.
4. Torque bonnet assembly to 250 ft/lbs.

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