# Installation, Operating and Maintenance Instructions Supplement

10/2.5.1.G Rev. A

## **AEROFLOW SUPPLEMENT**

# Setting/Maintenance of Chesterton Live Loaded Packing

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### INSTALLATION

#### **CAUTION!**

All warnings from valve IOM must be followed.

NOTE: Refer to Fig. 1 for installation.

- 1. Install Packing Box Ring (9).
- 2. Install bushing (8).
- 3. Install Packing Rings (7) as shown. Install rings by twisting slightly, never open rings with a hinge like action. Stagger the ring joints 90°. Use outer most or next ring to push previously installed rings into stuffing box until all rings are in place. **DO NOT USE A TAMPING TOOL**, you may damage the sealing surface on the wedge shaped rings.
- 4. Gently seat the packing set with a tamping tool.
- 5. Install Packing follower (6), Packing studs (2), Packing Flange (5) as shown. Lubricate the studs with an Anti-Seize Compound.
- 6. Install the spring washers (4) in an alternating fashion as shown. Lubricate the washers with Anti-Seize Compound.
- 7. Install the Packing nut (3) and torque to the required value alternating between nuts (Verify that the packing gland is square and perpendicular to the valve stem.). **Keep in mind that a different spring washer kit is needed for each of the pressure service ranges.**

#### **Standard Trim Valves**

VALVE SIZE	TORQUE (Ft-lbs)	
<u>Up to 800 Psi service</u>		
1" through 4" valves	5	
6" valves	6	
8" through 12" valves	9	
800 Psi to 1500 Psi service		
1" Through 4" valves	9	
6" valves	11	
8" through 12" valves	16	
1500 Psi to 2600 Psi		
1" Through 4" valves	15	
6" valves	19	
8" through 12" valves	28	
2600 Psi to 4800 Psi		
1" Through 4" valves	27	
6" valves	N/A	
8" through 12" valves	N/A	

8. To properly consolidate the packing: Actuate the valve 10 times; retighten the packing nuts at the end of the last down stroke. Actuate the valve 10 more times; retighten the packing nuts at the end of the last down stroke.

### **MAINTENANCE**

- 1. Check the condition of the following components prior to assembly:
  - A 10 to 32 RMS (7.5 to 24 Ra) stem finish is required.
  - The stuffing box bore should be 125 RMS (94 Ra) or better finish.
  - The stem run out should not exceed +/- .010 TIR/Ft.
  - The stuffing box (packing bore) must be clean, i.e. completely free of any previous packing or foreign material.
  - The valve stem must be clean, free of nicks, scratches and burrs.

Check gland adjustment after a few hours of service. Retighten to the values given above as necessary.

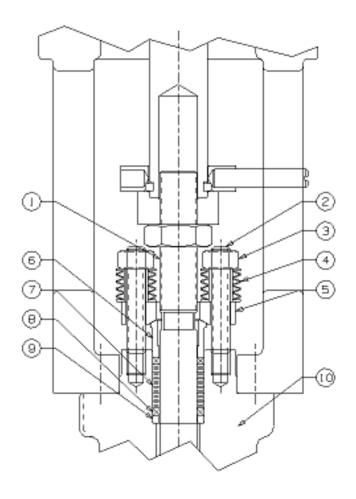


Figure 1 - Live Loaded Packing Arrangement

Item	Description	
1	Valve Stem	
2	Packing Studs	
3	Packing Nut	
4	Spring Washers	
5	Packing Flange	
6	Packing Follower	
7	Packing Set	
8	End Rings	
9	Packing Box Ring	
10	Valve Bonnet	