5800T Installation Instructions

Live Load Kit Designed by Chesterton to Fit Fisher® Valve Body Design E

1. **Precaution:** System should be shut down, depressurized, drained, and cool before valve is handled. Observe all plant safety requirements.
2. **Check the condition of the valve for the following:**
   - 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 ±0.010 TIR/FT (0,25 TIR/M).
   - The Packing Box Ring should be in the bottom of the stuffing box.
3. The stuffing box 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.
4. Verify the split carbon sleeve height provided is correct. The height of the carbon sleeve should be 0.187" (4,75 mm) shorter than the calculated height. The calculated height is the difference between the stuffing box depth and the measured packing set height. The packing height is approximately four times the cross section for the 5800 Wedge Set and approximately six times the cross section if installed with two braided end rings. Install the Split Carbon Sleeve (5100, 5101) in the bottom of the stuffing box. Make sure the two halves align and are seated properly on the stuffing box bottom.
5. If end rings are used, install one ring using a Chesterton Valve Tamping Tool. Care must be taken to insure the skive-cut ends are properly mated. Firmly tamp the ring to the bottom of the box.
6. Carefully install graphite wedge rings starting with an End Cap, followed by an I.D. Sealing Ring, O.D. Sealing Ring, I.D. Sealing Ring, and End Cap. *(See Packing Configuration)*
   a) Install rings over the valve stem by twisting slightly, never open rings with a hinge like action.
   b) Stagger ring joints 90°.
   c) 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.
7. If end rings are used, install one ring at the top of the set.
8. Gently seat the packing set with the Chesterton Tamping Tool.
9. Install the new gland studs provided. Verify the B7 studs and the 2H nuts provided are of the same or better grade than the studs and nuts being replaced.
10. Install the packing follower and packing gland flange. Make sure the packing follower enters into the stuffing box.

    Note: If the Packing Gland Flange is of the older type, the two raised surfaces on the top of the flange should be machined flat to permit the proper installation of the live loading assemblies.
11. Lubricate the studs and bottom of the nuts with Chesterton recommended anti-seize compound. If a non-Live Load Kit, proceed to Step 13b. If Live Loading is used, lubricate the assembly components (Belleville springs and flat washer) with Chesterton recommended anti-seize compound. Verify the springs and flat washers are properly stacked. (*See Packing Configuration)*
12. Install a live loading assembly on each stud. The cut away portion of the outer guide should face the stem.

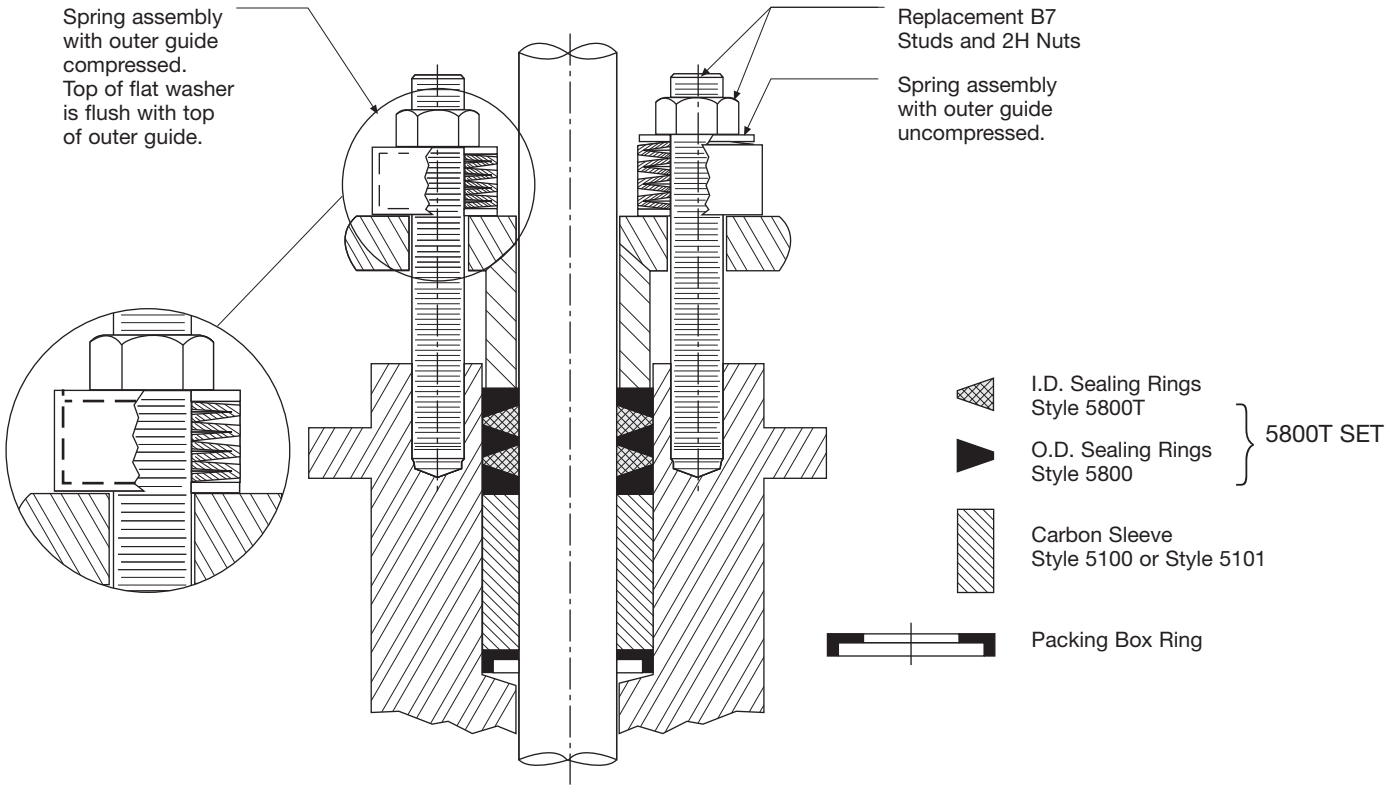
13a. Install the two packing gland nuts. Tighten each nut until finger tight. Alternately tighten the gland nuts until the top surface of the flat washer is flush or even with the top, flat surface of the outer guide. Verify that the packing gland is square and perpendicular to the stem.

13b. For Non-Live Loaded kits use calibrated torque wrench, alternating between bolts. Verify that the packing gland is square and perpendicular to the stem.

14. To properly consolidate the packing: Actuate the valve 10 times, retighten the packing gland nuts at the end of the last down / in-stroke. Actuate the valve 10 more times, retighten the packing gland nuts at the end of the last down / in-stroke.
15. Follow normal safety precautions when returning the valve to service.
16. It is advisable to check gland adjustment after a few hours of service. Take up as necessary.

If the valve does not actuate properly at the compressed assembly height, or the actuator is sized for PTFE packing, release all packing gland load completely. Then gradually tighten the packing gland nuts until no leakage is observed. Do not tighten to the point where the stem will not actuate. *See Torque and Friction Values.*

PACKING CONFIGURATION



Radial Min. Inches/mm	Uncompressed Axial Min. Inches/mm	Compressed Height Inches/mm	Bolt Diameter Inches/mm	Configuration	AWC Live Load Item #
0.480 / 12,19	0.785 / 20,0	0.688 / 17,47	0.312 / 7,92	1 in par/8 in ser	030776
0.480 / 12,19	0.835 / 21,21	0.764 / 19,40	0.437 / 11,10	1 in par/8 in ser	030912
0.650 / 16,51	0.977 / 24,81	0.883 / 22,42	0.562 / 14,27	1 in par/8 in ser	030959
0.650 / 16,51	1.007 / 25,57	0.883 / 22,42	0.562 / 14,27	1 in par/8 in ser	031023

Torque and Friction Values

BODY RATING : CLASS 150 & 300										
Valve Size Inches	Stem O.D. Inches/mm	Box I.D. Inches/mm	Bolt/Stud Dia. Inches/mm	Bolt/Stud Length Inches/mm	Box Depth Inches/mm	LL Item #	Complete Kit Item #	No LL Kit Item # *	Predicted Packing Friction Lbs. / KG	Torque Ft-lbs / N-M
1"-1.5"	0.375 / 9,5	0.875 / 22,2	0.312 / 7,9	2.750/ 69,9	2.562 / 65,07	030776	009045	148211	150 / 68	5 / 7
2" / 3" / 4"	0.500 / 12,7	1.000 / 25,4	0.437 / 11,1	3.250 / 82,5	3.500 / 88,90	030912	009046	148212	155 / 70	7 / 9
6" / 8"	0.750 / 19,0	1.375 / 34,9	0.562 / 14,3	4.250 / 108,0	3.812 / 96,82	030959	009047	148213	167 / 76	9 / 12
BODY RATING : CLASS 600										
Valve Size Inches	Stem O.D. Inches/mm	Box I.D. Inches/mm	Bolt/Stud Dia. Inches/mm	Bolt/Stud Length Inches/mm	Box Depth Inches/mm	LL Item #	Complete Kit Item #	No LL Kit Item #*	Predicted Packing Friction Lbs. / KG	Torque Ft-lbs / N-M
6" / 8"	0.750 / 19,0	1.375 / 34,9	0.562 / 14,3	4.250 / 108,0	3.812 / 96,82	031023	009048	148214	255 / 115	13 / 18

** No LL Kit: Contains packing & bushing only.*

*** These kits designed to fit the following Fisher® Valve Models EAC, EAD, EC, ED, EHAT, EHD, EHT, EJ, EP, ES, ENC, END, ENJ, EWPP and ENS.*

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