



LESLIE
CONTROLS, INC.

A subsidiary of CIRCOR International, Inc.

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**Installation, Operating and
 Maintenance Instructions
 Supplement**

**10/2.5.1.F
 Rev. 2**

**AEROFLOW SUPPLEMENT
 ANSI 4500 Aeroflow**

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FIGURE 1 – 4500 AEROFLOW WITH SPECIAL THERMAL GROWTH TRIM3

INSTALLATION & OPERATION

Refer to standard IOM 10/2.5.1 for installation & operation.

CAUTION!

All warnings from standard valve IOM must be followed

NOTE: Refer to Fig. 1 for assembly.

MAINTENANCE

VALVE ASSEMBLY

1. Carefully position a new seat ring gasket (511) in the body (303) recess. Install seat ring (510) with seating surface upward.
2. Install load ring (504) on top of seat ring (510).
3. Before installing seat ring retainer (505) in valve, lubricate silver plated set screws (503) with a nickel based anti-seize compound (Never-Seez, Jet Lube, Nickel or equiv.) then screw silver plated set screws (503) into seat ring retainer (505) with cup point end of set screw flush with bottom surface of retainer.
4. Position the seat ring retainer (505) on top of seat ring flange. (Bolts may be used as handles in two setscrew holes to aid in installing seat ring retainer.) When retainer is in place, remove bolts and insert setscrews. Grip one end of spiral retaining ring (505), pull through top body diameter and insert one end into body groove. Insert ring into groove until the full ring is installed. To compress the seat ring gasket and load seat ring, tighten setscrews according to the following procedure to ensure that gasket is fully compressed and evenly loaded:
 - a) Initially tighten setscrews finger tight (2-3 ft-lbs).
 - b) Develop the required screw torque by moving around the ring in a screw-to-screw sequence to ensure all screws are equally stressed. Apply

the torque in three steps according to the following table:

5.	Step	Torque, ft lbs
	1	15
	2	30
	3	35

6. Assemble the pilot plug assembly per standard IOM 10/2.5.1.
7. Attach the cage (600) and cage O-ring (602) to the bonnet (302) using (601) screws (tight to 30-35 ft-lbs) and slide into valve body (303) over the plug assembly.
8. Assemble the pressure seal (307), backing ring (308), split ring (310) and bonnet retainer (309).
9. Snug the nuts (305/306) up using studs (304) until bonnet is fully seated against the pressure seal then tighten an additional 2 turns.
10. Pressurize valve to the Cold Working Pressure (CWP) or the Production Hydro Pressure, whichever is appropriate, to seat the pressure seal gasket (307).
11. Depressurize the valve.
12. Snug nuts to 10-20 ft-lbs.

INSPECTION AND CLEANING

The standard valve IOM should be followed for all inspection and cleaning procedures.

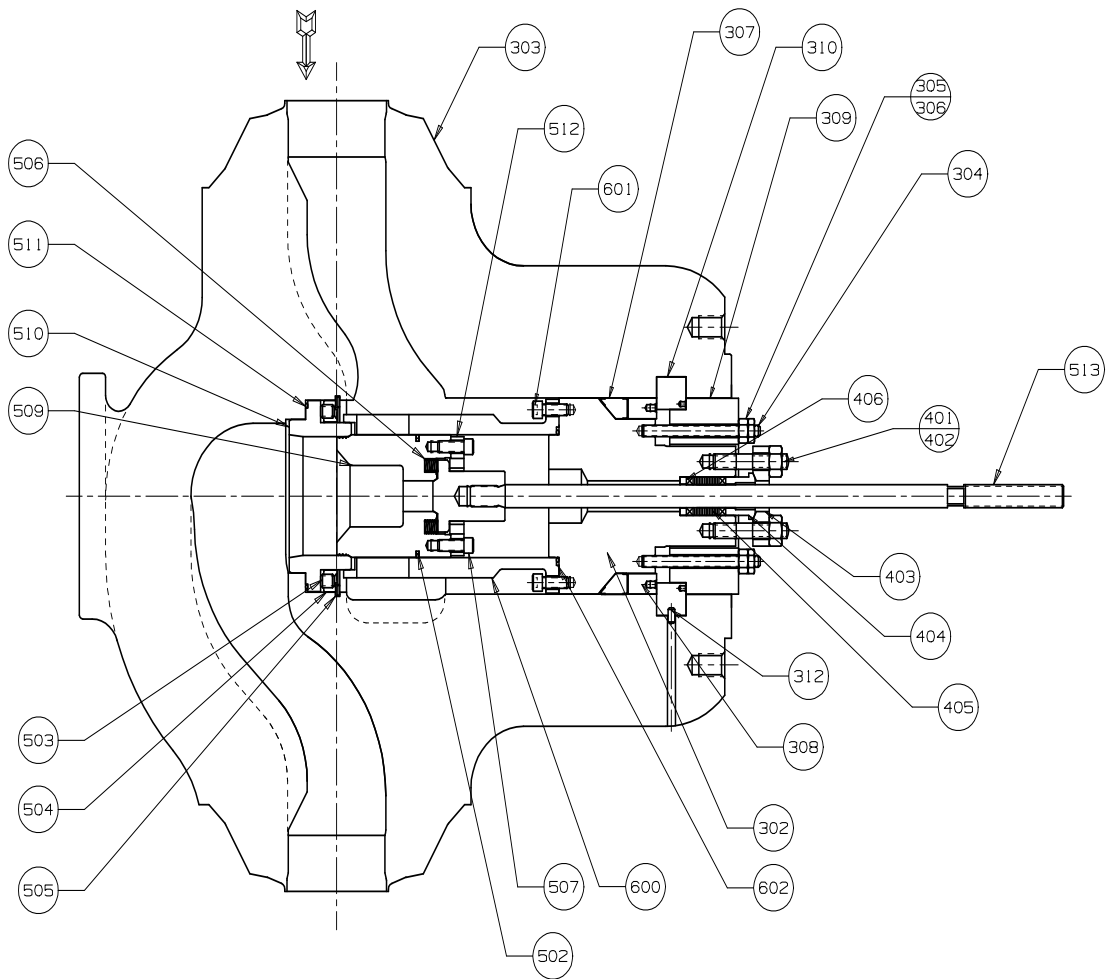


Figure 1 – 4500 Aeroflow with Special Thermal Growth Trim



It is solely responsibility of system designer and user to select products and materials suitable for their specific application requirements and to ensure proper installation, operation and maintenance of these products. Assistance shall be afforded with selection of materials based on technical information supplied to Leslie Controls Inc.; however, system designer and user retain final responsibility. Designer should consider applicable Codes, material compatibility, product ratings and application details in selection and application. Improper selection, application or use of products described herein can cause personal injury or property damage. If designer or user intends to use product for an application or use other than originally specified, he must reconfirm tat selection is suitable for new operating conditions. Life expectancy for this product defaults to warranty period of sales contract.