



CONVERSION KIT

FOR INSTALLATION OF WATSON
 McDANIEL HD-SERIES PILOT TO
 SPENCE E-SERIES VALVE

INSTRUCTION PART NO. 2386500

REVISION 0

CONVERSION KIT CONTENTS

- (1) Pilot Adapter Assembly (complete with pilot adapter w/blowdown, male branch tee and 1/4" x 1/4" x 2" Pipe Nipple with 1/2" x 1/4" NPT Reducer Bushing)
- (1) Diaphragm Orifice Assembly
- (1) Bleed Orifice
- (1) 1/8" NPT to 5/16" OD Tube Compression Fitting Elbow ("diaphragm fitting")
- (1) 1/8" NPT to 5/16" OD Tube Compression Fitting Straight Adapter
- (2) Lengths of 5/16" Copper Tubing

INSTRUCTIONS

Note: Proper thread sealant should be used where appropriate. Components listed in capital letters are included in conversion kit, listed above.

1. Prior to working on the valve, make certain that steam service to the valve has been shut off and the valve is properly isolated and relieved of all pressure. The valve should also be cool to the touch.
2. Begin by removing pilot tubing and fittings from Spence valve for access to the pilot. Once this is complete, remove the existing pilot.
3. Thread the **PILOT ADAPTER ASSEMBLY** to the Spence Main Valve body.
4. Thread the **1/8" NPT TO 5/16" OD TUBE COMPRESSION FITTING ELBOW** into the diaphragm port of the Spence Main Valve body.
5. Take the appropriate length of **COPPER TUBING** to connect from the bottom connection of the **MALE BRANCH TEE** to the **DIAPHRAGM FITTING**. Bend tubing as necessary for proper installation.
6. If using a pressure pilot, insert the **DIAPHRAGM ORIFICE** into the end of the tubing to be connected to the **DIAPHRAGM FITTING** (**DIAPHRAGM ORIFICE** is not necessary for temperature pilot). Connect tubing to the **DIAPHRAGM FITTING** and **MALE BRANCH TEE**.
7. Thread the **1/8" NPT TO 5/16" OD TUBE COMPRESSION FITTING STRAIGHT ADAPTER** into the main valve bleed port.
8. Take remaining **COPPER TUBING** for connection from the top connection of the **MALE BRANCH TEE** to the main valve bleed port **COMPRESSION FITTING** and bend as necessary for proper installation.
9. Insert the **BLEED ORIFICE** into the end of the tubing to be connected to the **MALE BRANCH TEE**. Connect tubing to the **MALE BRANCH TEE** and bleed port **COMPRESSION FITTING**.
10. Check that all fittings and threaded connections are tightened appropriately.
11. Follow manufacturer recommended Installation and Start-Up procedures.

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