



BU-3175

MAINTENANCE INSTRUCTIONS FOR 60UV4*, 60UV6* and 60UV9* - ATO5
AIR-OPERATED NEEDLE VALVES

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1.0 REFERENCE

- 1.1 Assembly Drawing C-1300 for 60UV4*, 60UV6* and 60UV9* air-operated needle valves.
- 1.2 BU-3057 - Maintenance instructions for ATO* and ATC* air actuators.

2.0 PURPOSE

- 3.1 To establish maintenance instructions for the 60UV4*, 60UV6* and 60UV9* air-operated needle valves.

3.0 SCOPE

- 3.1 This maintenance instruction (BU-3157) is to be used for the 60UV4*, 60UV6* and 60UV9 actuated needle valves.

4.0 INSTRUCTIONS

CAUTION: *Vent all pressure from system and actuator before removing valve for maintenance.*

4.1 DISASSEMBLY

- 4.1.1 Remove valve from system and place in a vise equipped with "soft jaws".
- 4.1.2 Loosen the hex nut securing actuator adjustment screw. Loosen adjustment screw to relieve spring pressure.
- 4.1.3 Connect an air line to the ¼" NPT female connection in the actuator. Pressurize actuator with 75 to 80 psi air and maintain pressure throughout the maintenance procedure.
- 4.1.4 Loosen and remove hex socket cap screws (items 10) that hold the valve body (item 2) and bottom mounting plate (item 12) together.
- 4.1.5 Loosen hex jam nut (item 11) and rotate actuator and bottom plate subassembly counterclockwise until coupling (item 5) disengages from the stem (item 4).
- 4.1.6 Remove actuator and bottom plate subassembly from valve body (item 2). Refer to BU-3057 for instructions on the maintenance of the actuator assembly. Depressurize actuator before performing any maintenance on the actuator head assembly.
- 4.1.7 Remove hex nut (item 11) from stem. Loosen and remove the packing gland (item 3) and stem (item 4) from the body.



4.1.8 Using a packing puller, carefully remove the top packing washer (item 6), packing (items 7 and 8), and bottom washer (item 9) from the body. Be careful not to scratch the surface of the body packing bore.

4.2 ASSEMBLY

4.2.1 The assembly technician shall, as a minimum check all repair kit components for the cleanliness and damage such as nicks, dents or scratches.

4.2.2 The assembly technician shall lubricate selected components of the valve assembly with an approved lubricant as follows:

4.2.2.1 The stem (item 4) shank in the area of the packing.

4.2.2.2 The external threads of the packing gland (item 3).

4.2.3 Slip the bottom washer (item 9), packing (items 7 and 8) and top packing washer (item 6) into the body packing bore.

4.2.4 Place the packing gland (item 3) over the stem. Thread into body and tighten to approximately 50 lb-ft. Thread hex nut (item 11) to shoulder on the stem.

4.2.5 Grasping the actuator and plate assembly, carefully align and engage the stem with the coupling (item 5). With the actuator still under pressure and retracted from Para. 4.1.3, rotate the actuator and bottom plate sub-assembly clockwise until the bottom plate (item 12) contacts the body.

4.2.6 Install and tighten the hex socket cap screws (items 10) that hold the bottom plate (item 12) to the body (item 2).

4.2.7 Tighten the hex jam nut (item 11) against coupling (item 5).

4.2.8 Depressurize the actuator assembly. Adjust jam nut at the top of the actuator to provide the approximate spring compression as shown on the valve assembly drawing or in the catalog.

General Note: *Butech Pressure Systems recommends that refurbished valves be pressure tested before being returned to service.*



RECORD OF REVISION

REV NO	DESCRIPTION OF CHANGES	DATE	BY	APPR
0	Original document	12/08/03	DTG	DTG