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Keckley Ball Valves

Installation, Operating, and Maintenance Instructions

2-Piece NPT Seal-Welded Ball Valves:
(BVS2, BVSC, BVS3, BVS6, BVSO, BVSD)

I. Initial Inspection

A. Remove valve from packaging; remove thread protectors and discard, if so equipped.
B. Inspect pipe threads for any damage caused in shipment or handling.
C. Confirm Valve Size is correct for installation.

II. Installation

A. Confirm Male NPT threads on piping to be assembled to valve meet gauging specifications of ASME B1.20.1 (NPT) or B1.20.3 (NPTF).
B. Thread sealant/lubricant is required to establish a bubble-tight seal between piping threads and valve threads. It will not be possible to establish a leak-free seal without thread sealant.
C. We recommend that the “tailpiece” (Part # 2) end of the valve be installed on the high pressure side, towards the pressure generating source.
D. Hand-engage piping to each side of valve, and hand tighten.
E. Attach an adjustable wrench (NOT a pipe wrench) to the flats provided on the valve body or valve tailpiece having the NPT thread being engaged. Do not hold the body while torquing the pipe into tailpiece or vice-versa. **CAUTION:** Valve will be permanently damaged or destroyed if tailpiece is rotated relative to body, or body is rotated relative to tailpiece!!
F. Tighten piping into valve thread using reasonable torque to seal - DO NOT OVER-TORQUE.
G. Use same method to install piping into alternate valve NPT port.

III. Operation

A. After Installation, confirm handle has adequate clearance by rotating 90 degrees from open to closed position and back to open.
B. All Keckley ball valves are designed for on-off operation only. DO NOT attempt to “throttle” with Keckley ball valves, unless they are specifically designed for and tagged “FOR THROTTLING SERVICE”.
C. If application is in STEAM PIPING, be cautious when operating valve-handle will be HOT!

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IV. Initial Pressurization of System

A. Upon initial pressurization of piping system, check all connections for leaks and correct if required.
B. Once system reaches “Steady State” conditions of operating pressure and operating temperature, it will be necessary to make initial stem packing adjustment. Tighten Part #9, “Stem Packing Gland” to 50 in-lbs on ¼”-½” sizes, 110 in-lbs on ¾”-1” sizes, 130 in-lbs on 1¼”-3” sizes, and 305 in-lbs on 4” size.

V. Maintenance

A. Keckley Ball Valves require no maintenance other than periodic stem packing adjustment in applications where many cycles of on-off operation occur on a weekly basis.
B. In high-cycle applications, check stem packing area regularly to confirm there is no leakage from stem packing. If leakage occurs, follow step #IV-B to correct.

VI. Repair

A. None of the Keckley Ball Valves listed are field repairable or shop rebuild-able.

VII. Modification of Piping Layout

A. Many times, the reason valves are purchased is to allow modifications to the original piping layout sometime in the future. In these cases, the valve is closed, sometimes with full pressure on the “upstream” side of the valve, and pressure/line fluid is drained from the downstream side of the valve.
B. The next step is the removal of piping from the “downstream” side of the valve to allow downstream piping modifications:

CAUTION!! CAUTION!! CAUTION!! CAUTION!!

ALWAYS ENGAGE AN ADJUSTABLE WRENCH ON THE “FLATS” AT THE END OF THE VALVE WHERE DOWNSTREAM PIPING IS ATTACHED, AND CAREFULLY REMOVE PIPE FROM VALVE BODY, INSURING THAT VALVE DOES NOT ROTATE AND TAILPIECE DOES NOT UNTHREAD FROM BODY.