SCI Series 8155-A

2-Piece, Forged Brass, Threaded-End, Ball Valve

Installation, Operation and Maintenance Instructions

Figure 1 – SCI Series 8155-A 2-Piece Brass Ball Valves

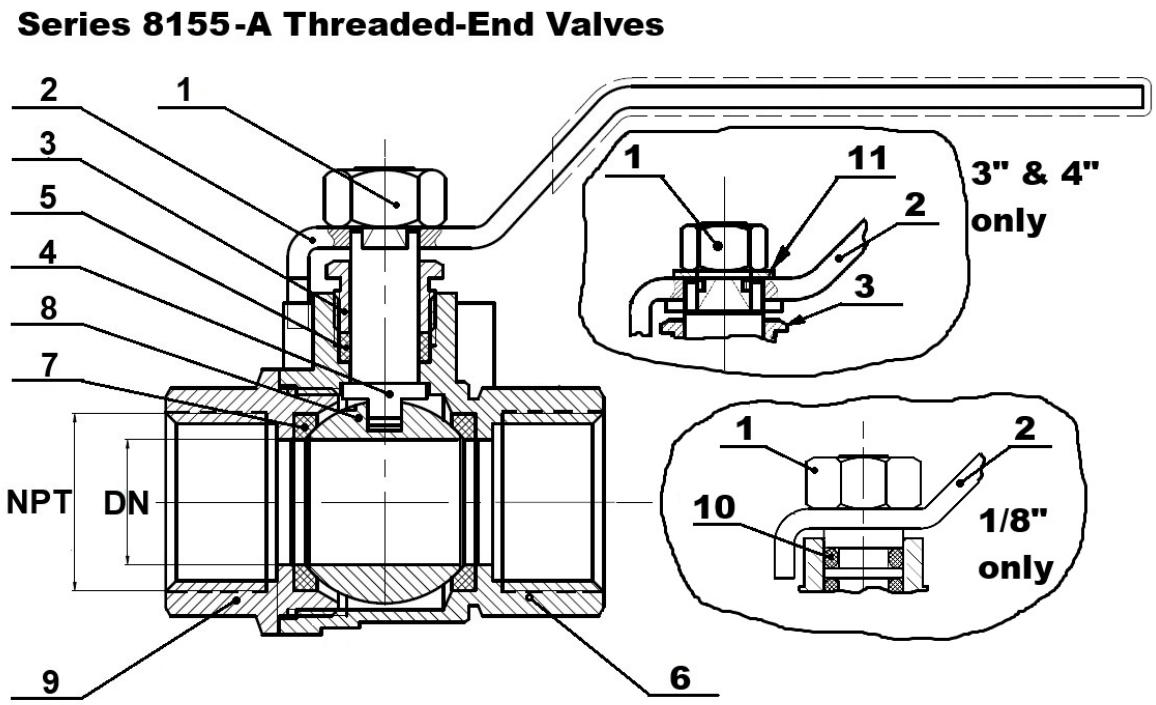

Table 1 – SCI Series 8155-A List of Materials (See Figure 1 for items illustrated)

Item No.	Part Description	Material
1	Handle Nut	Nickel Plated Forged Steel ASTM A570 Gr. A
2	Handle	Chrome Plated Forged Steel AISI 1008
3	Packing Nut	Forged Brass ASTM B124 C37700 (except 1/8”)
4	Stem	Forged Brass ASTM B124 C37700
5	Stem Packing	PTFE
6	Body	Forged Brass ASTM B124 C37700
7	Seat Ring (2)	PTFE
8	Ball	Chrome Plated Brass ASTM B124 C37700
9	Body End Cap	Forged Brass ASTM B124 C37700
10	O-Ring Stem Seal	NBR rubber
11	Handle Washer	Forged Steel ASTM A570 Gr. A (3” & 4” only)

Valve Installation [See Figure 1 and Table 1 for part numbers listed in parentheses ( )]

WARNING – SCI Series 8155-A valves are NOT intended for installation into systems that have a LEAD-FREE service requirement or in POTABLE WATER service. These valves typically have a plastic hang-tag under the valve handle (2) which indicates the valve is NOT SUITABLE FOR POTABLE WATER SERVICE.

These valves may be installed in the pipeline in any orientation or position using good piping practice. However, it is recommended to install the valve with the handle (2) above the flow axis (in horizontal pipe) for optimum access and operation of the valve by the user. For threaded-end valves, use a suitable joint compound or PTFE tape on pipe threads inserted into the body (6) and end cap (9) for ease of fit-up and to seal the threads.

The valve and pipe connections should be clean and free of foreign material, including metal shavings, and debris.

Turn the pipe into the valve until it is hand tight.

Two wrenches must be used when joining the pipe to these valves.

1. Apply one flat-faced wrench to the valve hex that is CLOSEST to the pipe joint that is being tightened
2. And use a pipe wrench on the pipe.

The wrench that is closest to the joint and on the valve (wrench #1) will prevent the torque from being transmitted through the valve's body joint.

Wrench makeup is approximately 1-1/2 turns after installing the pipe hand tight.

DO NOT over-tighten the valve onto the pipe, as this can damage or distort the valve.

Valve Operation [See Figure 1 and Table 1 for part numbers listed in parentheses ( )]

These are quarter-turn (90° rotation) ball valves which are typically fitted with a lever handle (2) for manual operation. The valve body (6) also contains travel stops at fully open and closed positions.

To open the valve, turn the handle (2) counterclockwise. The handle (2) should be in-line or parallel to the axis of the pipe, which indicates the valve is in the OPEN position.

To close the valve, turn the handle (2) clockwise. The handle (2) should be perpendicular to the axis of the pipe, which indicates the valve is in the CLOSED position.

Valve Maintenance [See Figure 1 and Table 1 for part numbers listed in parentheses ( )]

Safety Precautions Prior to Performing Maintenance:

DANGER – Do not attempt to perform maintenance on valves in pressurized lines. Doing so may result in severe injury or death if there is an uncontrolled release of system pressure.

Before removing a valve from the pipeline, determine which media may be flowing through the valve. The media may be corrosive, toxic, flammable or contaminated. When there is evidence of hazardous fluids having flowed through the valve, additional precautions should be taken to avoid contact with these fluids and additional precautions should be taken when handling the valves during removal. Review the Safety Data Sheet (SDS) for any hazardous flowing fluids for any additional precautions. As a minimum, the following additional precautions should be taken.

1. Always wear OSHA-approved Safety Eyewear or face shields.
2. Always wear protective gloves and overalls or a chemical-resistant apron.
3. Wear protective footwear (e.g., safety shoes).
4. Wear protective headgear as required for the work area (e.g., hard hat – if required).
5. Ensure that running water is easily accessible (e.g., to rinse fluids from hands or valve / parts).
6. Have a suitable fire extinguisher ready if working with flammable media.

Check pipeline gauges to ensure that no pressure exists on either the upstream or downstream sides of the valve before performing any maintenance.

Ensure that any trapped media is released from the valve and piping by operating the valve slowly to the half-open position. Then leave the valve in fully open position during maintenance.

Valve Maintenance:

Stem Packing (5) Adjustment:

If leakage is evident from the stem packing (5) area, tighten the packing nut (3) beneath the handle (2) approximately 1/8 of a turn. If the leakage persists, repeat the tightening sequence again. If the leakage cannot be corrected by tightening the packing nut (3), replace the valve. See Table 2 for maximum recommended torques on the packing nut (3).

Table 2 – SCI Series 8155-A Ball Valve Packing Nut Torques (See Figure 1 for items illustrated)

Valve Size	Packing Nut (3) Torque, Lbf-in	Packing Nut (3) Torque, N-m
1/4" – 3/8"	88	10
½"	123	14
¾"	159	18
1"	177	20
1-1/4"	247	28
1-1/2" & 2"	354	40
2-1/2"	486	55
3" & 4"	486	55