

Welding Instructions

General

The following instructions are applicable for socket-weld and butt-weld end valve. **Extended weld-ends are excluded as they are designed for in-line welding.**

- Please read the welding instructions and safety precautions carefully before the installation.
- For optimum result and long life, follow the valve series IOM Disassembly & Assembly guides which can be found on Habonim website.
- Standard valves may be installed in either direction.
- Uni-directional valves must be fitted with the arrow pointing downstream.
- The working area should be clean and clear of any debris that could contaminate or score the valve sealing area.
- A kit with replacement body inner and outer seals is provided with the valve package.

ONLY Habonim authorized parts should be used.

Installation

1. With the valve in an open position, hold the valve and remove the body bolts.
2. Separate the ends from the body and remove the seats and inner body seals.

Dispose of the inner body seals (Figure 1)

3. Support the ball to prevent it from falling out of the valve body.
4. Turn the valve to the close position and slide the ball out from the body center section.
5. Place all components on a clean surface, clear of welding splatter.
6. Reassemble body end connectors to the valve body.
7. Align the valve to the pipeline. Ensure proper fit to minimize pipe load. Tack weld only (**Figure 1**).
8. Dismantle body bolts and remove valve center section. Place parts on a clean surface, clear of welding splatter.
9. Protect the body end connector faces from welding splatter and complete the welding.
10. Turn the handle to the closed position and slide the ball into the center section.
11. Turn the handle to the open position and replace the body inner and outer seals from the kit provided and assemble the seats (**Figure 2**).

Do not reuse the inner body seals.

12. Keep the valve in the open position until the flushing process is complete.
13. Ease the body assembly between the ends. Take care not to score the connector faces or damage the seals. Tighten the body bolts hand tight.
14. Tighten the body bolts according to the torque values shown in **table 1** and according to tightening patterns shown in **figure 3**.

Pipe Flushing

Flushing is an important precaution taken to prevent damage to the valve ball and seats. While flushing, keep the valves in a **fully "open" position**, to allow dirt, sand, girt, welding slag or other debris to be flushed thoroughly from the pipeline.

When the flushing media is clean, the valve can be closed.

Actuated valves in the failsafe "close" position should be activated to the "open" position during the flushing procedure.

WARNING: Not Flushing the pipeline after the welding can cause damage to the valve, ball, and seats.

Figure 1

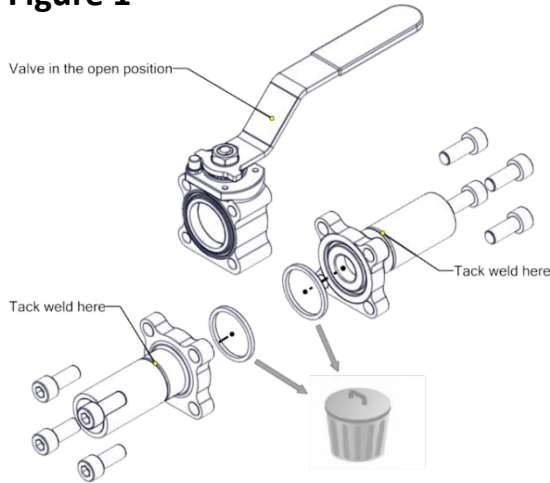


Figure 2

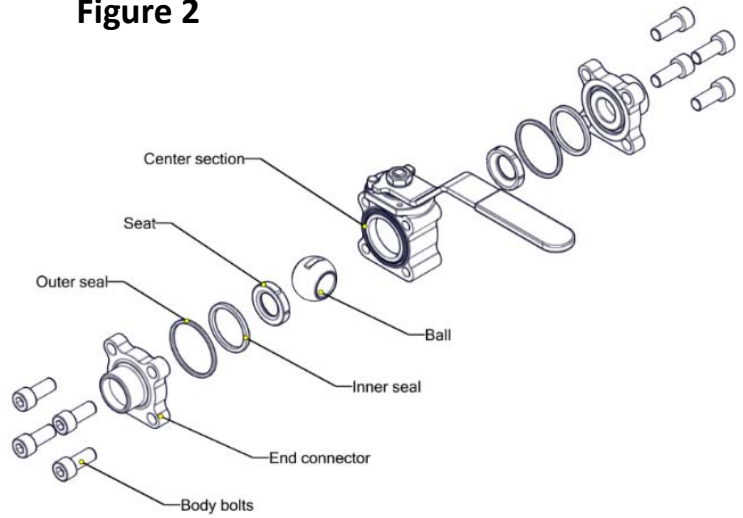


Table 1 – 47 Series valves

Bolt material	Thread	Valve size	Required torque	
			N-m	Lb-In
Carbon Steel: Class 8.8 Grade L7 Grade B8M	M8	½" - ¾"	20	180
	M10	1" - 1¼"	40	350
	M12	1½" - 3"	65	575
Stainless Steel: Grade A2-70 Grade A4-80	M16	4"	180	1590
	M20	6"	350	3100

Table 1.1 – 27 Series valves

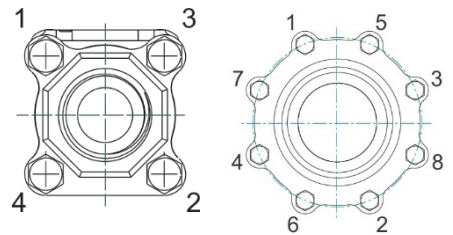
Bolt material	Thread	Valve size	Required torque	
			N-m	Lb-In
Carbon Steel: Class 8.8 Grade L7	M8	¼" - ¾"	30-35	265-310
	M10	1" - 1¼"	65-75	575-665
	M12	1½" - 2"	100-120	885-1060
Stainless Steel: Grade B8M Grade A4-80	M16	2½" - 3"	250-300	2210-2655
	M20	4" - 6"	490-550	4340-4870

Table 1.2 – 28 Series valves

Bolt material	Thread	Valve size	Required torque	
			N-m	Lb-In
Carbon Steel: Class 8.8 Grade L7	M8	¼" - ¾"	30-35	265-310
	M10	1"	65-75	575-665
	M12	1¼" - 1½"	100-120	885-1060
Stainless Steel: Grade B8M Grade A4-80	M16	2" - 3"	250-300	2210-2655
	M24	4" - 6"	870-970	7700-8585

Figure 3

47 series



27/28 series

