

Two-Way Ball Valves and Ball Valve Manifolds

Specifications

Nordson two-way ball valves and manifolds regulate or change the direction of fluid flow. Ball valves and manifolds have the following specifications.

Ports:	3/8-in. NPT
Seals:	PTFE
Maximum working pressure:	207 bar (3000 psi)
Maximum working temperature:	232 °C (450 °F)
Valve dimensions:	See Figure 1
Manifold dimensions:	See Figures 2 and 3

Ball Valve Repair

See Figure 1.

Disassembly

1. Remove the fillet-head screw (5) from the handle (4). Remove the handle from the ball valve.
2. Remove the flat spring (3) from the stem (1).
3. Unscrew the stem gland nut (6) from the housing (10). Pull the stem (1) out of the valve body.
4. Remove the thrust washer (7) and the stem packing (2).
5. Unscrew the body cap (9) from the housing.
6. Remove the ball (12) and ball seats (11). Remove and discard the body seal (8).

Clean and inspect the valve parts. Replace any worn or damaged parts.

Assembly

1. Install new ball seats (11) in the housing (10) and body cap (9). Install the new ball (12) into the housing, then screw the body cap into the housing hand-tight.



CAUTION: Do not tighten the body cap while the valve is cold. This forces the body seats out of the housing and cap seats.

2. Install a new thrust washer (7) in the housing.
3. Install a new stem packing (2) on the stem (1). Insert the stem (1) into the valve body, aligning the end of stem (1) with the slot in the ball (12).
4. Install the stem gland nut (6) over the stem (1). Screw the gland nut into the housing and tighten it hand-tight.
5. Heat the ball valve for 2.5 hours at 350 °F (177 °C) to form the ball seats, then tighten the body cap (9) and stem gland nut (6) securely while the valve is still hot.
6. When the valve has cooled, insert the flat spring (3) into the groove in the stem (1).
7. Install the handle (4) over the stem (1). Align the holes in the handle and stem. Install the fillet-head screw (5) into the handle and tighten it securely.

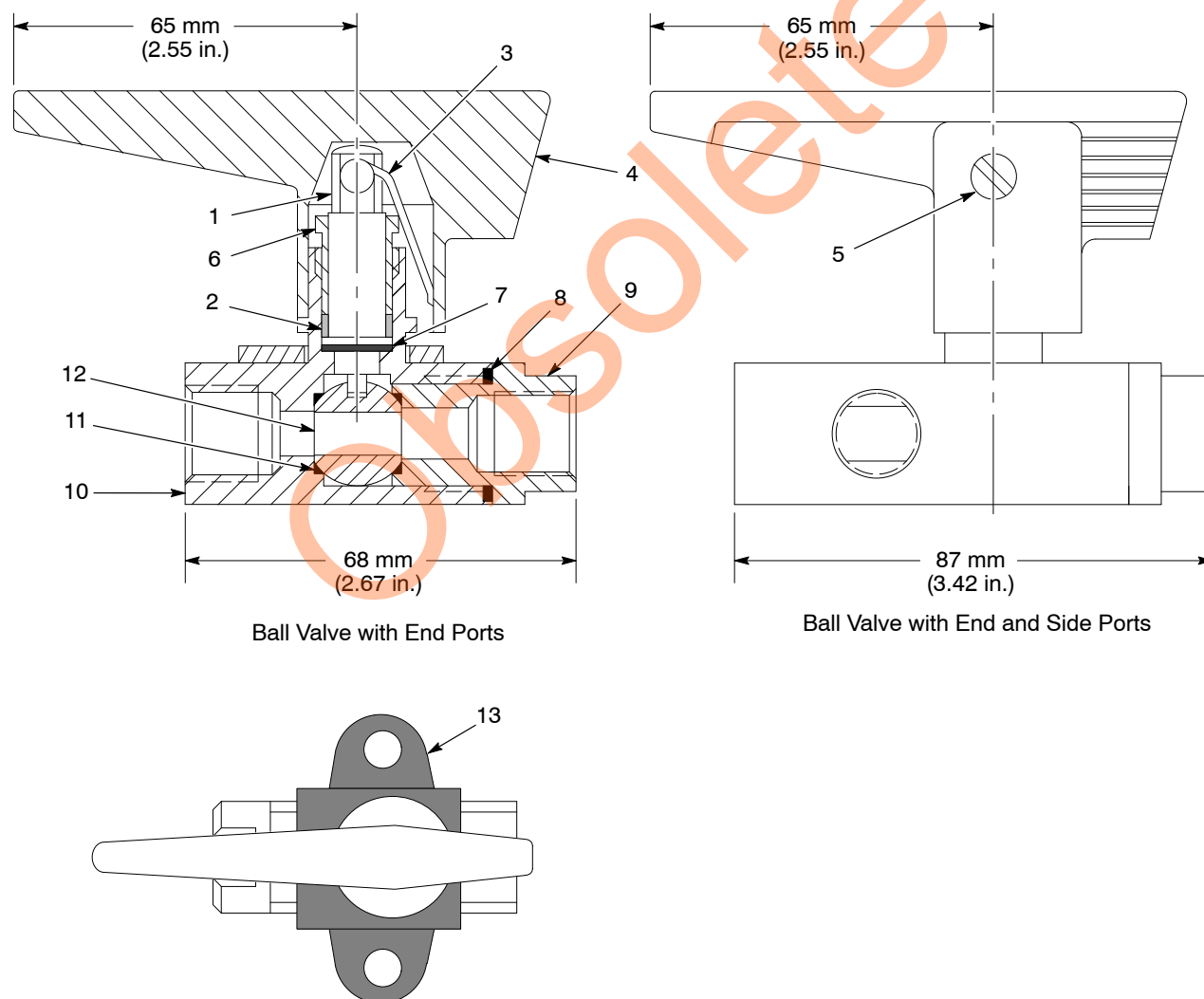


Figure 1 Ball Valve Dimensions and Parts

Parts

To order parts, call the Nordson Finishing Customer Support Center at (800) 433-9319 or your local Nordson representative.

Ball Valves

See Figure 1.

Item	Part	Part	Part	Description	Quantity	Note
—	750040	—	—	VALVE, ball, nickel	1	
—	—	750061	—	VALVE, ball, nickel, with side port	1	
—	—	—	750130	VALVE, ball, stainless steel	1	A
1	750044	750044	750134	• STEM	1	
2	750046	750046	750046	• PACKING, stem	1	
3	750048	750048	750048	• SPRING, flat, 1.125 x 0.218 OD x 0.026 in.	1	
4	750049	750049	750049	• HANDLE	1	
5	750050	750050	750050	• SCREW, fillet head, #8-32 x 0.875 in., steel, zinc, grade 5	1	
6	750045	750045	750045	• NUT, gland, stem	1	
7	750047	750047	750047	• WASHER, thrust, 0.343 x 0.500 x 0.020 in.	1	
8	750060	750060	750060	• SEAL, body	1	
9	750056	750056	750136	• CAP, body	1	
10	750041	750062	750131	• HOUSING, valve	1	A
11	750059	750059	750059	• SEAT, ball	2	
12	750135	750135	750135	• BALL	1	
13	750055	750055	750055	OPTIONAL BRACKET	1	
NOTE A: 316 is etched on the housing of stainless steel ball valves for identification.						

Ball Valve Repair Kit

See Figure 1.

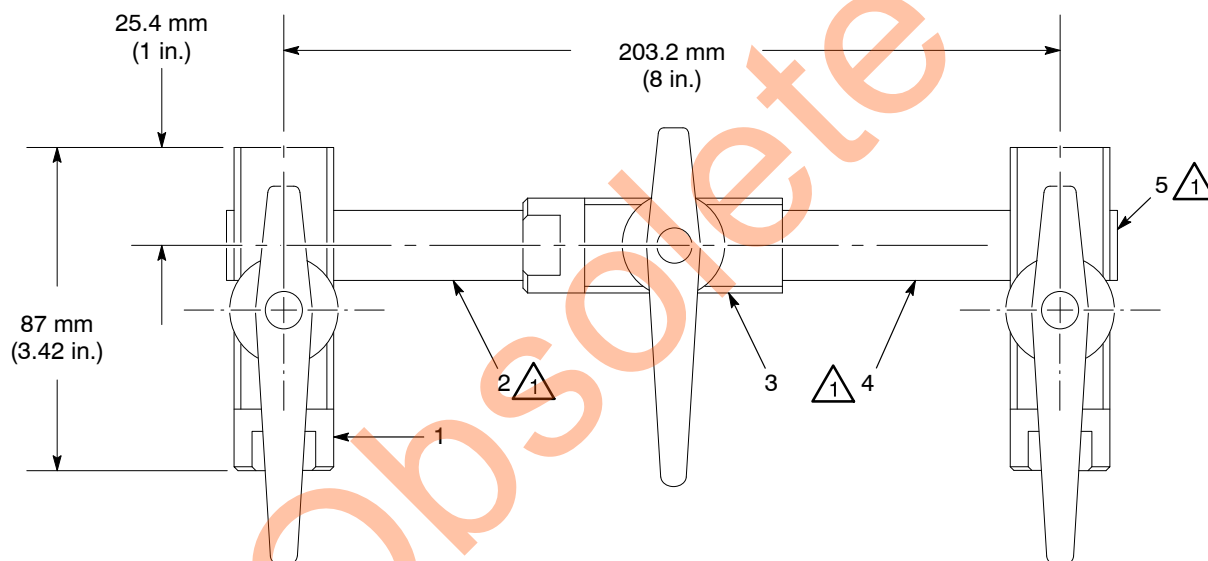
Item	Part	Description	Quantity	Note
—	106251	KIT, service, packing valve	1	
2	750046	• PACKING, stem	1	
3	750048	• SPRING, flat, 1.125 x 0.218 x 0.026 in.	1	
7	750047	• WASHER, thrust, 0.343 x 0.500 x 0.020 in.	1	
8	750060	• SEAL, body	1	
11	750059	• SEAT, ball	2	

Ball Valve Manifolds

Nickel-Plated Ball Valve Manifold

See Figure 2.

Item	Part	Description	Quantity	Note
—	750067	MANIFOLD assembly, ball valve, nickel plated	1	
1	750061	• VALVE, ball, nickel plated, with side port	2	
2	973052	• NIPPLE, extra heavy, $\frac{3}{8}$ x 2.50 in., steel	1	
3	750040	• VALVE, ball, nickel plated	1	
4	973053	• NIPPLE, extra heavy, $\frac{3}{8}$ x 3.00 in., steel	1	
5	973422	• PLUG, pipe, socket, flush, $\frac{3}{8}$ in. NPT, zinc	2	



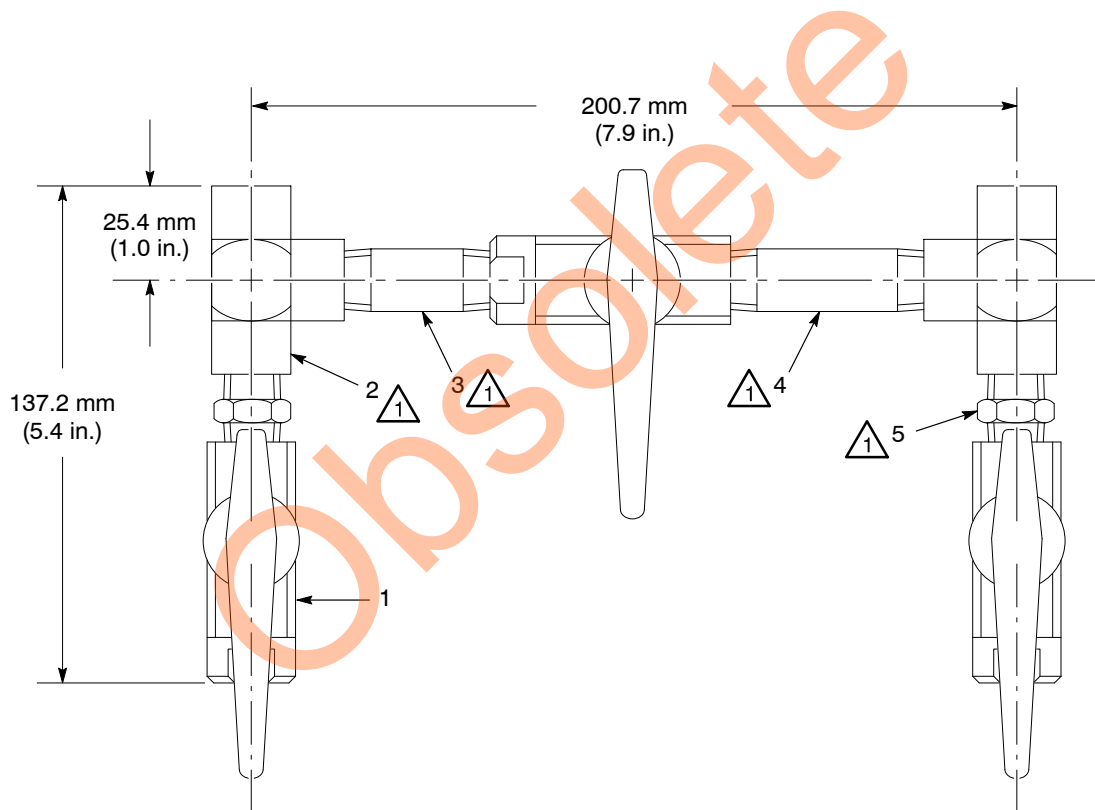
△₁ Apply pipe thread adhesive/sealant part 900481 (Loctite® High Temp SS567) to fitting threads before assembling.

Figure 2 Nickel-Plated Ball Valve Manifold

Stainless Steel Ball Valve Manifold

See Figure 3.

Item	Part	Description	Quantity	Note
—	126148	MANIFOLD assembly, ball valve, stainless steel	1	
1	750130	• VALVE, ball, stainless steel	3	
2	973266	• TEE, pipe, hydraulic, $\frac{3}{8}$ in., stainless steel, passivated	2	
3	973048	• NIPPLE, extra heavy, $\frac{3}{8}$ x 2.00 in., stainless steel	1	
4	973054	• NIPPLE, extra heavy, $\frac{3}{8}$ x 2.50 in., stainless steel	1	
5	973059	• NIPPLE, hex, $\frac{3}{8}$ x $\frac{3}{8}$ x 1.45 in., stainless steel	2	



△ Apply pipe thread adhesive/sealant part 900481 (Loctite® High Temp SS567) to fitting threads before assembling.

Figure 3 Stainless-Steel Ball Valve Manifold

Obsolete

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