

# Inverted Dual High Pressure Fluid Filter Assemblies



**WARNING:** High pressure fluids are hazardous. To prevent serious injury when installing and servicing filters, shut off the fluid pump and relieve the fluid pressure before disconnecting any fittings or hoses.

## Introduction

See Figure 1. The Nordson dual-filter assemblies are designed for constant demand applications where it is impractical to stop production for filter cleaning or servicing. Each filter assembly is shipped with 0.006 in. reinforced screens. (For CleanSpray systems, install 0.002 in. screens). Refer to the Inverted High Pressure Fluid Filter instruction sheet part 331290 for filter repair and parts information.

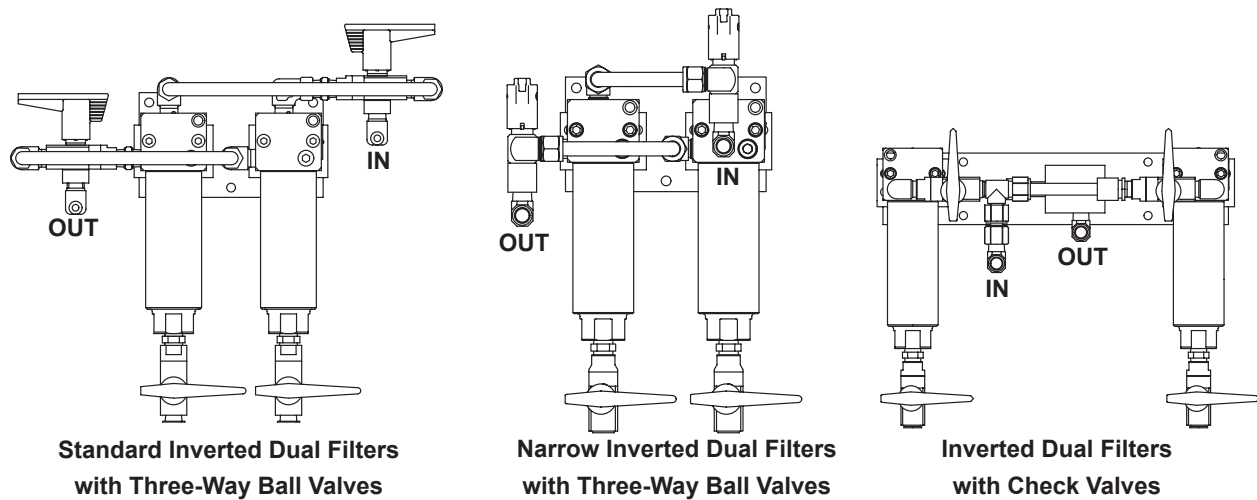


Figure 1 Inverted Dual High-Pressure Fluid Filter Assemblies

Specifications	Standard Inverted Dual Filters with Three-Way Ball Valves	Narrow Inverted Dual Filters with Three-Way Ball Valves	Inverted Dual Filters with Check Valves
Overall Height	424.2 mm (16.7 in.)	424.2 mm (16.7 in.)	355.6 mm (14 in.)
Mounting Plate Length	177.8 mm (7 in.)	177.8 mm (7 in.)	368.3 mm (14.5 in.)
Mounting Plate Width	101.6 mm (4 in.)	101.6 mm (4 in.)	76.2 mm (3 in.)
Input/Output Fittings	1/2-20 JIC	1/2-20 JIC	1/2-20 JIC
Maximum Operating Pressure	207 bar (3000 psi)	207 bar (3000 psi)	207 bar (3000 psi)

## Mounting

Mount the filter assembly in the downward position as illustrated in Figure 1.

**NOTE:** Torque filter bowl to 15–20 ft-lbs. Do not over-tighten. Connect input and output fluid hoses to the IN and OUT 1/2-20 JIC fittings as shown in Figure 2 - Figure 4. Flush the filter with solvent prior to the first use. Failure to do so could result in paint contamination.

## Valve Handle Positions

### Standard Inverted Dual Filters with Three-Way Ball Valve

See Figure 2 for handle positions.

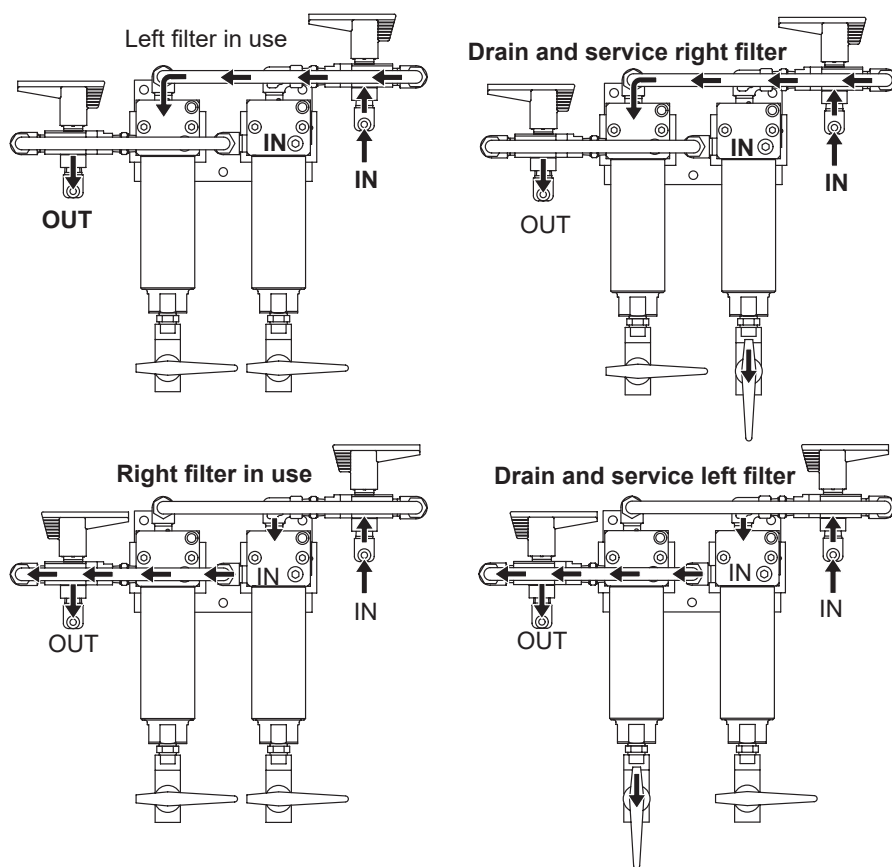


Figure 2 Handle Positions –Inverted Dual Filter Assembly with Three-Way Ball Valve –Standard

## Narrow Inverted Dual Filters with Three-Way Ball Valve

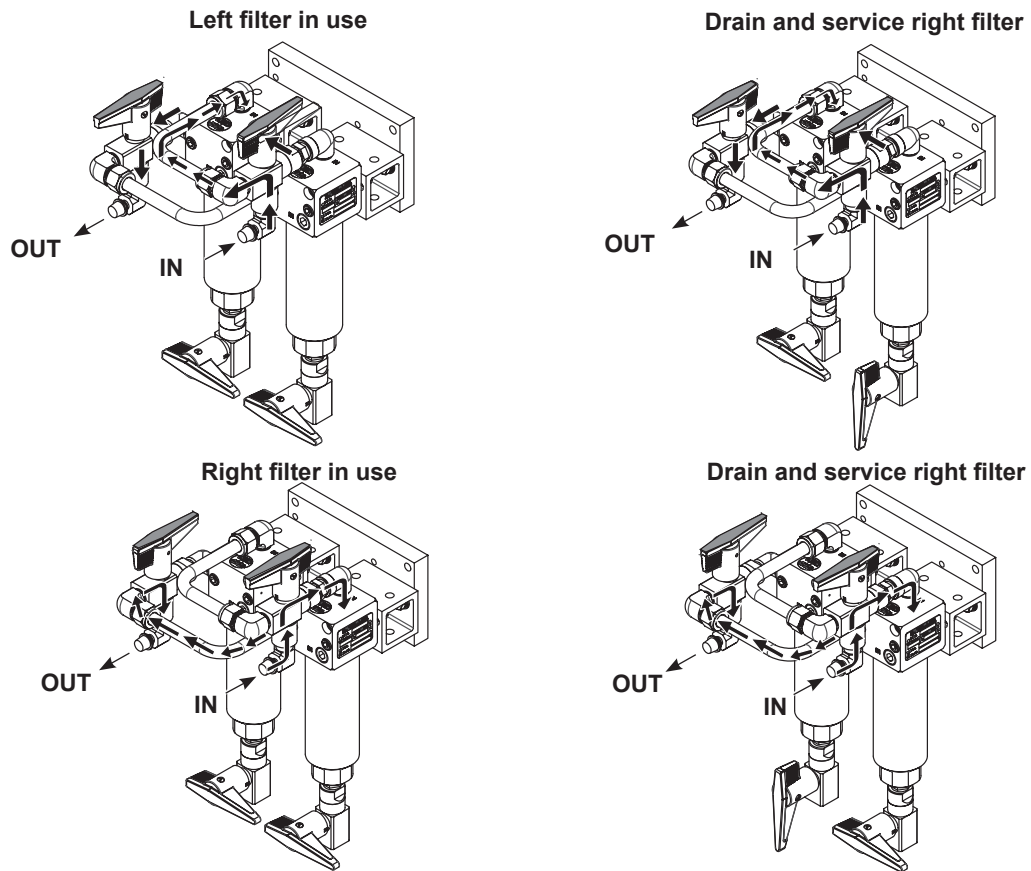


Figure 3 Handle Positions—Inverted Dual Filter Assembly with Three-Way Ball Valve – Narrow

## Inverted Dual Filters with Check Valves

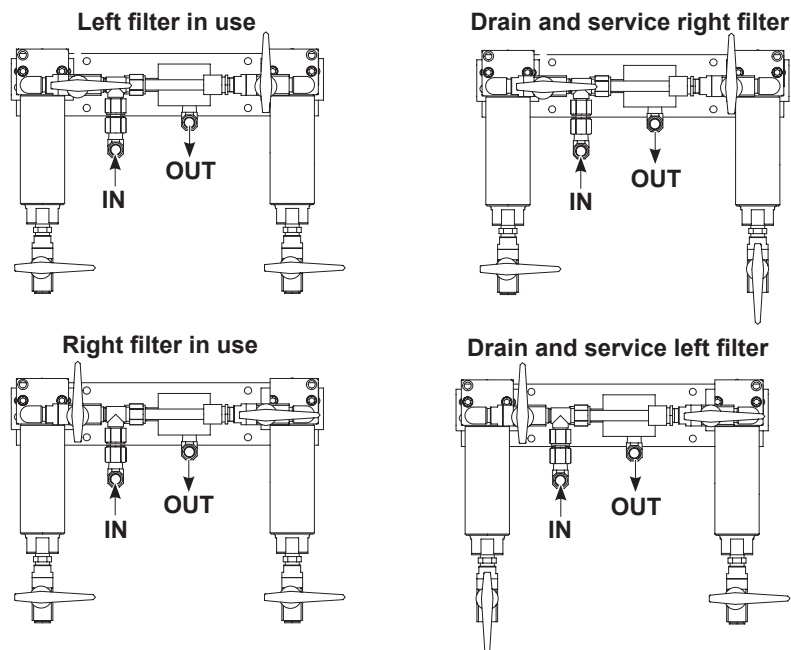


Figure 4 Handle Positions -Inverted Dual Filter Assembly with Check Valves

## Parts

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

### Standard Inverted Dual-Filter with Three-Way Ball Valve

See Figure 5.

Item	Part	Description	Quantity	Note
—	338431	FILTER, dual, three-way valve, stainless steel	1	
1	750130	• VALVE, ball, stainless steel	2	
2	973059	• NIPPLE, hex, 3/8 x 3/8 x 1.45 in., stainless steel	4	B
3	337717	• HOUSING, filter, stainless steel	2	
4	161106	• SCREEN, reinforced, 0.006 in.	4	C, D
5	338184	• SPRING, compression, 4.50 x 0.855 x 0.12 in.	2	
6	972718	• ELBOW, male, 37°, 1/2–20 x 3/8 in. NPT	2	B
7	247673	• VALVE, ball, three-way, stainless steel	2	
8	338435	• TUBING, outlet, dual-filter, stainless steel	1	
9	971451	• ELBOW, male, hydraulic, compression, 1/2 in. tube x 3/8 in. NPT	2	B
10	973180	• ELBOW, pipe, hydraulic, 90°, 3/8 in., stainless steel	1	B
11	338433	• TUBING, inlet, dual-filter, stainless steel	1	
12	973423	• PLUG, pipe, socket, standard, 3/8 in., stainless steel	2	
13	338427	• BRACKET, standoff, filter	2	
14	161376	• PLATE, mounting	1	
15	983051	• WASHER, flat, 0.344 x 0.688 x 0.065 in., zinc	8	
16	983150	• LOCK WASHER, split, 5/16 in., steel, nickel	8	
17	981333	• SCREW, hex, 5/16–18 x 0.875 in., cap, zinc	4	
18	984140	• NUT, hex, regular, 5/16–18, steel, zinc	4	
19	338844	• SCREW, socket, 5/16–18 x 3 in., black	4	
20	338178	• BASE filter, stainless steel, right-hand	2	
21	940302	• O-RING, PTFE, 1.625 x 1.75 x 0.06 in.	2	A
22	971512	• CONNECTOR, male, elbow, 0.50 tube x 0.38 in. NPT, stainless steel	2	B
NS	1612251	LUBRICANT, O-ring, Parker, 2 oz	AR	A
NS	900481	ADHESIVE, pipe/thread/hydraulic sealant	AR	B

NOTE: A. Apply O-ring grease before assembly.

B. Apply pipe/thread/hydraulic sealant adhesive before assembly.

C. Two screens are installed in the filters, and two are shipped with the assembly as spares.

D. CleanSpray systems require 0.002 in. screen 161102. Refer to page 10 for optional screen sizes.

AR: As Required

NS: Not Shown



## Narrow Inverted Dual-Filter with Three-Way Ball Valve

See Figure 6.

Item	Part	Description	Quantity	Note
—	1609319	FILTER, dual, three-way valve, stainless steel, narrow	1	
1	750130	• VALVE, ball, stainless steel	2	
2	973059	• NIPPLE, hex, 3/8 x 3/8 x 1.45 in., stainless steel	4	A
3	337717	• HOUSING, filter, stainless steel	2	
4	161106	• SCREEN, reinforced, 0.006 in.	2	C, D
5	338184	• SPRING, compression, 4.50 x 0.855 x 0.12 in.	2	
6	972718	• ELBOW, male, 37°, 1/2–20 x 3/8 in. NPT	2	
7	247673	• VALVE, ball, three-way, stainless steel	2	
8	338178	• BASE filter, stainless steel, right-hand	2	
9	973423	• PLUG, pipe, socket, standard, 3/8 in., stainless steel	2	A
10	940302	• O-RING, PTFE, 1.625 x 1.75 x 0.06 in.	2	B
11	-----	• TUBING, inlet/outlet, dual-filter, stainless steel	2	
12	971512	• CONNECTOR, male, elbow, 0.50 tube x 0.38 in. NPT, stainless steel	4	A
13	973180	• ELBOW, pipe, hydraulic, 90°, 3/8 in., stainless steel	2	A
14	981912	• SCREW, drive, round, 2 x 0.125 in., zinc	2	
15	983051	• WASHER, flat, 0.344 x 0.688 x 0.065 in., zinc	8	
16	983150	• LOCK WASHER, split, 5/16 in., steel, nickel	8	
17	984140	• NUT, hex, regular, 5/16–18, steel, zinc	4	
18	338844	• SCREW, socket, 5/16–18 x 3 in., black	4	
19	161376	• PLATE, mounting	1	
20	981340	• SCREW, socket, 5/16–18 x 0.750 in., black	4	
21	1107710	• BRACKET, standoff, filter	2	
22	900752	• CAP PLUG, tapered, 0.547 in. O.D.	2	
NS	1612251	LUBRICANT, O-ring, Parker, 2 oz	AR	B
NS	900481	ADHESIVE, pipe/thread/hydraulic sealant	AR	A
NS	-----	TAPE, pipe thread	AR	A

NOTE: A. Apply pipe/thread/hydraulic sealant adhesive before assembly.

B. Apply O-ring grease before assembly.

C. Two screens are installed in the filters, and two are shipped with the assembly as spares.

D. CleanSpray systems require 0.002 in. screen 161102. Refer to page 10 for optional screen sizes.

AR: As Required

NS: Not Shown

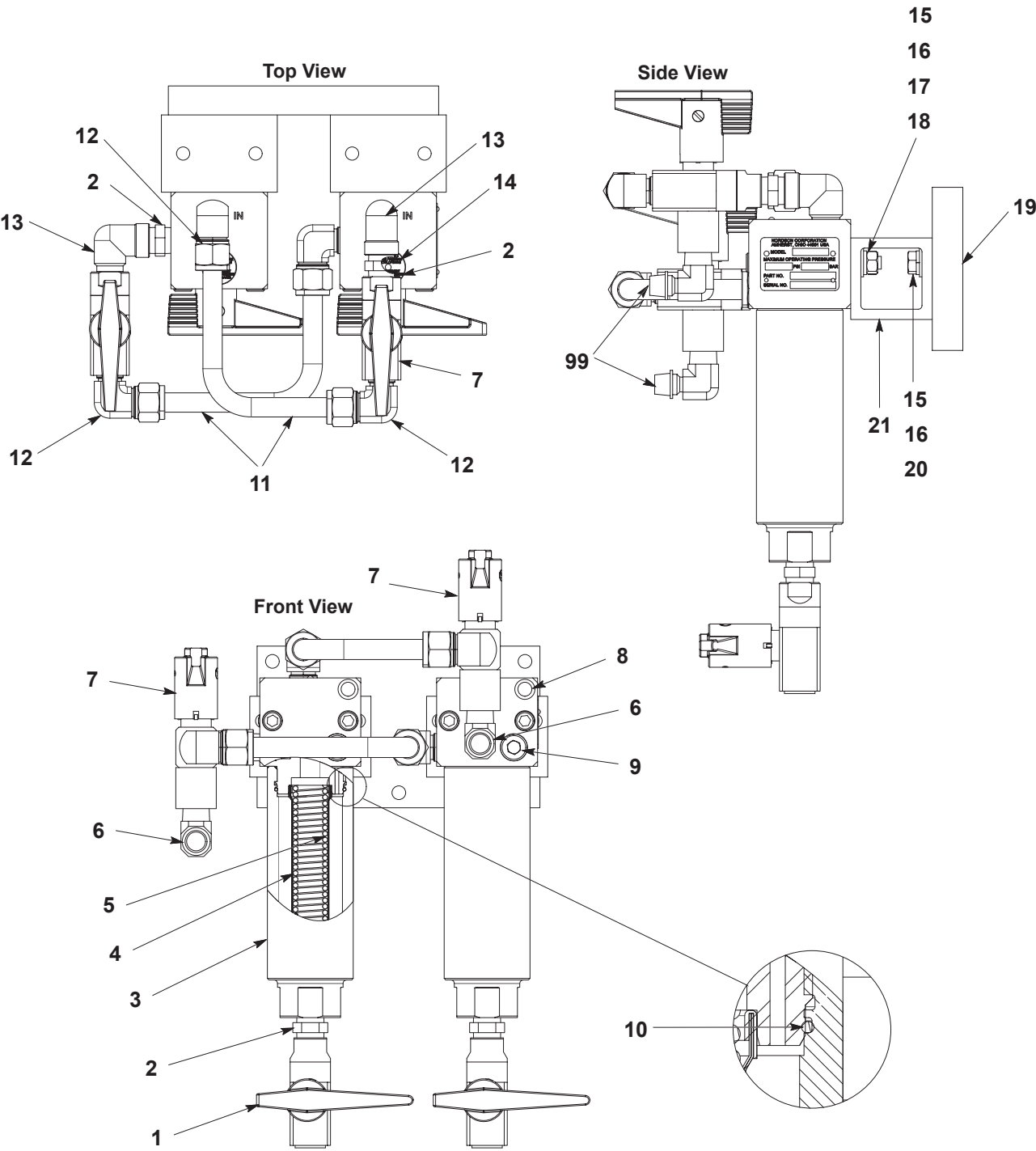


Figure 6 Narrow Inverted Dual-Filters with Three-Way Ball Valves

## Inverted Dual-Filter with Check Valve

See Figure 7.

Item	Part	Description	Quantity	Note
—	338442	FILTER, dual, check valve, stainless steel	1	
1	941140	• O-RING, hot paint, 0.625 x 0.813 x 0.094 in.	1	A
2	166932	• BLOCK, adapter, 3/8 in. NPT	1	
3	972718	• ELBOW, male, 37°, 1/2–20 x 3/8 in. NPT	2	B
4	166931	• VALVE, check, stainless steel, 3/8 in. NPT	2	B
5	168543	• ADAPTER, 3/8 in. NPT	1	
6	750130	• VALVE, ball, stainless steel	4	
7	973059	• NIPPLE, hex, 3/8 x 3/8 x 1.45 in., stainless steel	2	B
8	337717	• HOUSING, filter, stainless steel	2	
9	973246	• ELBOW, male, pipe, hydraulic, 3/8 in., stainless steel	2	B
10	338429	• BASE, filter, stainless steel, left-hand	1	
11	971220	• CONNECTOR, male, 0.50 tube x 3/8 in. NPT, stainless steel	1	B
12	-----	• TUBE, 304 stainless steel, 0.50 x 0.049 in., 0.40 ft	1	
13	1094837	• TEE, male run, , 0.50 tube x 3/8 in. NPT x 0.50 tube, stainless steel	1	
14	973415	• PLUG, pipe, socket, standard, 1/4 in., stainless steel	1	
15	1094836	• ADAPTER, female, 0.50 in. tube x 3/8 in. NPT, stainless steel	1	B
16	338178	• BASE, filter, stainless steel, right-hand	1	
17	940302	• O-RING, PTFE, 1.625 x 1.75 x 0.06 in.	2	A
18	161106	• SCREEN, reinforced, 0.006 in.	4	C, D
19	338184	• SPRING, compression, 4.50 x 0.855 x 0.12 in.	2	
20	983051	• WASHER, flat, 0.344 x 0.688 x 0.65 in., zinc	8	
21	983150	• LOCK WASHER, split, 5/16 in., steel, nickel	8	
22	981328	• SCREW, hex, 5/16–18 x 0.625 in., cap, zinc	4	
23	984140	• NUT, hex, regular, 5/16–18, steel, zinc	4	
24	338844	• SCREW, socket, 5/16–18 x 3 in., black	4	
25	166933	• PLATE, mounting	1	
26	338427	• BRACKET, standoff, filter	2	
27	973423	• PLUG, pipe, socket, standard, 3/8 in., stainless steel	2	
NS	1612251	LUBRICANT, O-ring, Parker, 2 oz	AR	A
NS	900481	ADHESIVE, pipe/thread/hydraulic sealant	AR	B

NOTE: A. Apply O-ring lubricant before assembly.

B. Apply pipe/thread/hydraulic sealant adhesive before assembly.

C. Two screens are installed in the filters, and two are shipped with the assembly as spares.

D. CleanSpray systems require 0.002 in. screen 161102. Refer to page 10 for optional screen sizes.

AR: As Required

NS: Not Shown



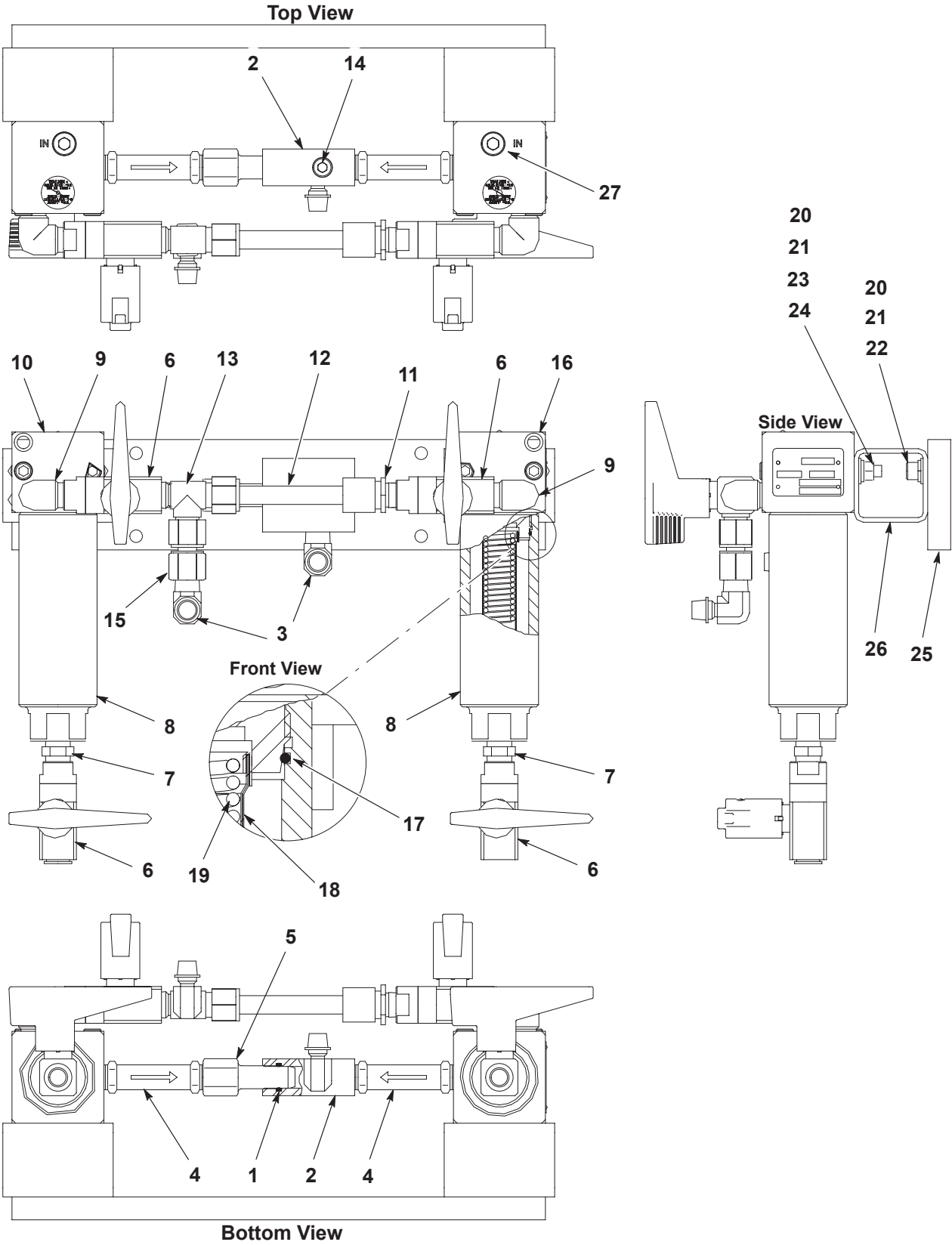


Figure 7 Inverted Dual-Filters with Check Valves

Optional Screens

Use this list to order different-sized screens as required.

Part	Description
161104	SCREEN, reinforced, legacy
161102	SCREEN, reinforced, 0.002 in. (use for CleanSpray systems)
161344	SCREEN, 0.002 in., assembly (use for CleanSpray systems)
161103	SCREEN, reinforced, 0.003 in.
1625395	SCREEN, reinforced, 0.004 in.
1601902	SCREEN, reinforced, 0.005 in.
161106	SCREEN, reinforced, 0.006 in.
161109	SCREEN, reinforced, 0.009 in.
161112	SCREEN, reinforced, 0.012 in.
161115	SCREEN, reinforced, 0.015 in.
161120	SCREEN, reinforced, 0.020 in.
161030	SCREEN, not reinforced, 0.030 in.

0.002 Screen Assembly with Adapter

Use this screen assembly with Clean Spray systems or low flow rate nozzles (below 0.015 gpm).

Item	Part	Description	Quantity	Note
–	161344	SCREEN, 0.002 in., assembly	1	
1	161339	• ADAPTER assembly, screen	2	
2	940210	• • O-RING, PTFE, 0.9385 x 1.063 x 0.063 in.	1	
3	161349	• • ADAPTER, screen	1	
4	161122	• SCREEN, reinforced, 0.002 in.	1	

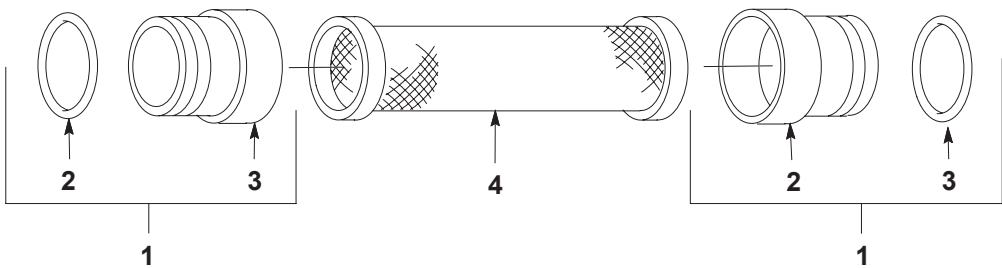


Figure 8 0.002 Screen Assembly with Adapter

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