

PLASTIC SOLENOID VALVE

MODELS: OP442, OPP442, OP443 & OPP443

INSTALLATION INSTRUCTIONS

1. INSTALLATION:

Models OP442 have 1/4" NPT pipe connections and Models OP443 have 3/8" NPT pipe connections. The valves may be installed in any position except with the coil under the body (i.e. not upside down). Make sure fluid flow is in the same direction as the arrow on the side of the valve body. Apply pipe compound sparingly to the male threads only. Hand tighten and then turn 1 1/2 times with a wrench.

CAUTION: Overtightening the threads may damage the body. Support any connecting pipe that puts strain on the valve.

NOTE: If pipe compound is applied to the valve's internal threads, it may enter the valve and interfere with its operation.

NOTE: Wiring must comply with local and National Electrical Codes.

WARNING: Do not use Teflon® tape to seal internal plastic threads as the extra thickness of the tape may cause the plastic to crack. Use a nonwelding liquid sealant instead.

2. FLUIDS:

Valves are intended for water, air, light oil, and other noncorrosive fluids. They should *not* be used for gasoline and other hazardous or explosive fluids. Maximum fluid temperature is 180° F (82°C). Ambient temperature shall not exceed 120°F (48.8°C).

WARNING: NOT FOR USE WITH HAZARDOUS OR CORROSIVE OR EXPLOSIVE FLUIDS.

3. OPERATION:

When the solenoid coil is deenergized, the plunger is held away from the bottom plug by means of a kickoff spring, thus keeping the small "pilot port" in the center of the diaphragm plate open. This releases the pressure on top of the diaphragm allowing incoming pressure to lift it off the large center port. When the coil is energized, the solenoid plunger is pulled to the bottom plug closing the pilot port. Fluid passes through the small diaphragm bleed holes until pressure is equalized on both sides of the diaphragm to shut off the larger port.

4. SPECIFICATIONS:

Maximum operating pressure differential: 125 PSI
Flow factor (Cv): 1.0
Power: 11 Watts

Maximum working pressure: 150 PSI
Maximum temperature: 180°F fluid temp; 120°F ambient temp.
Volt-Amp rating: Inrush - 19 VA Holding - 15 VA

5. TROUBLE SHOOTING:

A) Failure to close:

1. Coil burnout or an open circuit to the coil.
2. No power or low voltage.
3. Dirt prevents the plunger/diaphragm from opening
4. Low differential pressure (3psi min.).

3. Dirt on valve seat or in diaphragm bleed holes.
4. Low differential pressure (3psi min.).
5. High differential pressure that exceeds 125psi.

C) Water Hammer:

Quick acting valves may cause water hammer when operated. If this occurs, it may be minimized by the use of a standpipe or other commercially available shock absorber installed near the valve inlet.

B) Failure to open:

1. Coil still energized.
2. Valve installed backward.

CAUTION: WHEN SERVICING UNIT BE SURE THAT REPLACEMENT PARTS HAVE BEEN INSTALLED ACCORDING TO DRAWING.

RETURNS: NO MERCHANDISE MAY BE RETURNED FOR CREDIT WITHOUT DEMA'S WRITTEN PERMISSION. RETURN MERCHANDISE AUTHORIZATION NUMBER REQUIRED IN ADVANCE OF RETURN.

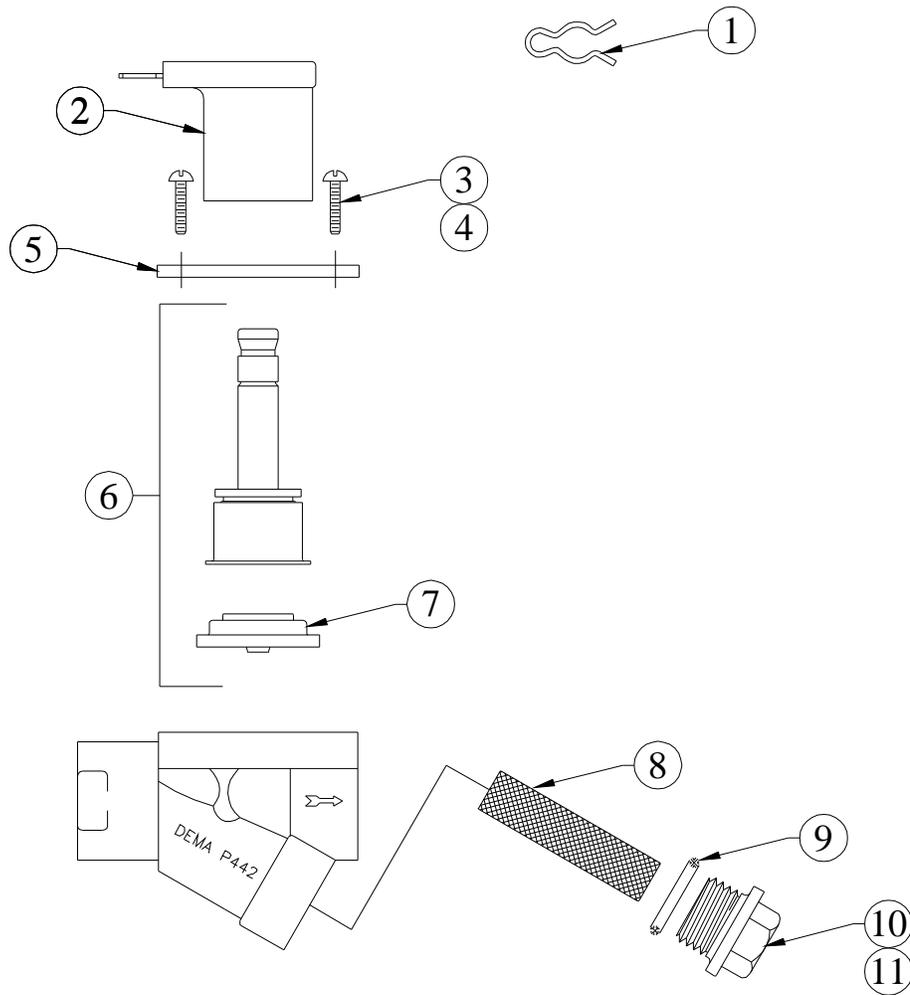
WARRANTY: DEMA products are warranted against defective material and workmanship under normal use and service for one year from the date of manufacture. This limited warranty does not apply to any products which have a normal life shorter than one year or failure and damage caused by chemicals, corrosion, improper voltage supply, physical abuse, or misapplication. Rubber and synthetic rubber parts such as "o"- rings, diaphragms, squeeze tubing and gaskets are considered expendable and are not covered under warranty. This warranty is extended only to the original buyer of DEMA products. If products are altered or repaired without prior approval of DEMA, this warranty will be void.

Defective units or parts should be returned to the factory with transportation prepaid. If inspection shows them to be defective, they will be repaired or replaced without charge, F.O.B. factory. DEMA assumes no liability for damages. Return merchandise authorization number, to return units for repair or replacement, must be granted in advance of return.

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NO.	PART NO.	DESCRIPTION
1	30-33	Hairpin Clip
2	O41-9-5	Solenoid Coil (Specify Voltage)
3	44-116-1	#8 X 1/2" HiLo Screw (2 Req'd)
4	44-116-2	#8 X 3/8" HiLo Screw (1 Req'd)
5	41-37	Flange
6	41-44-1	Operator Kit Assembly
7	41-15-10	Diaphragm, EPDM
8	41-36-1	Strainer Screen (60-mesh SS)
9	21-8	O-Ring Seal, Buna-N
10	41-60	Screen Cap (OP442 & OP443)
11	41-60-2	Screen Cap (OPP442 & OPP443)