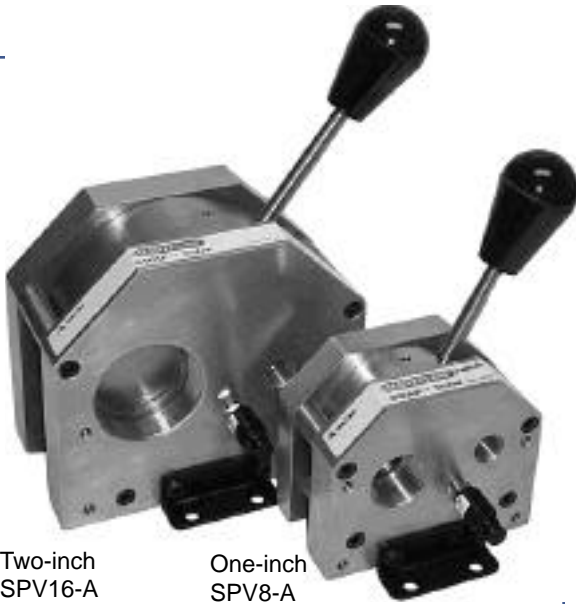


# SWAP<sup>™</sup> VALVE

## Pneumatic Mold Cooling Water Purge



Two-inch  
SPV16-A

One-inch  
SPV8-A

### General Description

The Smartflow<sup>®</sup> SWAP<sup>™</sup> Valve is a simple, manually selectable device that supplies cooling water to the mold during processing. Secondly, it supplies air to purge the water from the mold, cooling lines, Supply and Return manifolds prior to tool change. And, it provides a manual vent to release built-up air pressure within the cooling water loop, after purging.

The 3-position shear valve is a proven design. Ball detents, with approximately 15 pounds breakaway force, retain the valve selector handle in the chosen position (WATER, PURGE or VENT).

An included check valve should be installed in the return line downstream from the Return manifold to prevent backflow to the mold.

Tubing may be connected to the manual vent-drain port so any residual water after the purge cycle can be drained into a suitable container or drain.

An optional spring-loaded, locking mechanism on the valve selector assembly is available for molders who require additional protection from accidental valve movement.

### Application

The SWAP<sup>™</sup> Valve is well-suited for cooling water Supply lines up to 2-inch NPT on frequently changed tools that are hung on injection molding machines. It is permissible to adapt ¾, 1¼, and 1½-inch line sizes providing adequate cooling water flow can be achieved.

Typical mounting is on the press frame or the safety door frame. Mounting on any suitable surface, such as a platen, mold or manifold stand is acceptable.

### Operation

For Normal Processing: Select **WATER**.  
Cooling Water is available to the Supply manifold. Purge Air is blocked.

To Evacuate Cooling Water: Select **PURGE**.  
Purge Air is available to the Supply manifold. Cooling Water is blocked.

To Bleed-Off Trapped Pressure and Drain Residual Water: Select **VENT**.  
Press Manual Vent-Drain Valve.  
Purge Air is blocked.  
Cooling Water is blocked.

### Molder Benefits

- ◆ **Timesaving:** Saves 15-20 minutes of unproductive tool change time by eliminating the tasks of draining multiple Supply and Return hoses plus cleaning-up water spills.
- ◆ **Tool Condition:** Protects tools from corrosion build-up during downtime and storage by evacuating water quickly and thoroughly.
- ◆ **Supply Line ID:** Permits fast identification of Supply lines by noting which manifold is connected to the SWAP<sup>™</sup> Valve.
- ◆ **Water Shut-Off:** SWAP<sup>™</sup> Valve shuts-off Supply water conveniently near the machine control, rather than with conventional ball valves on the water drops/risers or Supply manifold, typically located at the opposite side of the press.
- ◆ **Full Port Design:** Permits maximum cooling water flow at minimum pressure drop.
- ◆ **Safety-Housekeeping:** Eliminates root cause of accidents around the press by keeping personnel and floors dry.
- ◆ **Optional Positive Lock:** Eliminates accidental movement of valve selector handle.

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*design and specifications are  
subject to change without notice.*

# SWAP™ VALVE

## Pneumatic Mold Cooling Water Purge

### Specifications

Maximum Pressure .....150 psi  
 Maximum Operating Temperature.....250°F (121°C)  
 Normal Working Air Pressure.....80 to 100 psi  
 (integral snubber prevents hose “whip” during purging)  
 Weight  
     1" (SPV8-L).....11.5 lbs (5.2 kg)  
     2" (SPV16-L).....30 lbs (13.5 kg)  
 Pressure Drop Across Purge Valve.....1 psi at 50gpm

### Connection Sizes

Water inlet .....1"NPT(F) or 2"NPT(F)  
 Water outlet.....1"NPT(F) or 2"NPT(F)  
 Air inlet.....3/8"NPT(F)  
 Manual vent drain.....10-32(F)

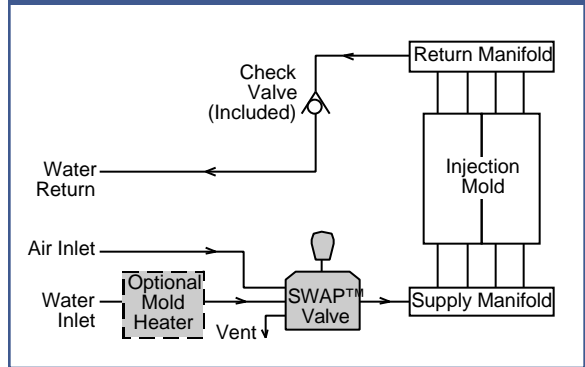
### Wetted Parts

Body.....360 Brass  
 Valve Disc .....303 Stainless Steel  
 O-Rings.....EPDM  
 Check Valve.....Brass

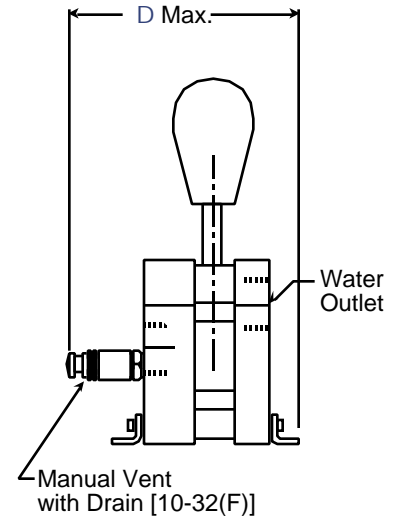
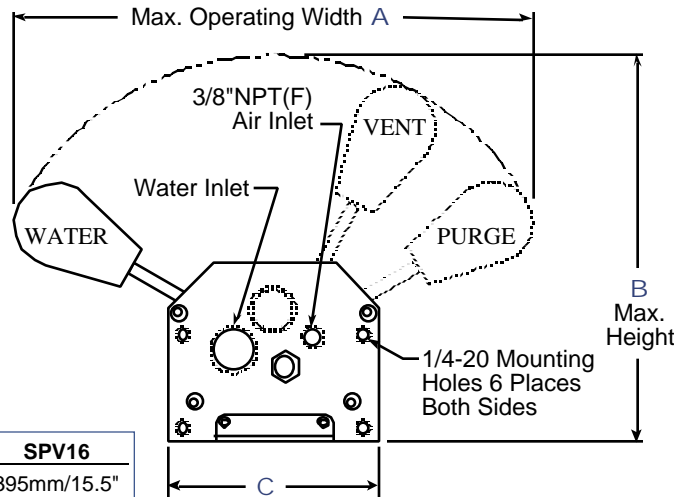
### Model Numbers

**SPV8-A** 1"NPT(F)  
 SWAP™ Valve  
**SPV8-L** 1"NPT(F) SWAP™  
 Valve with Locking Pin  
**SPV16-A** 2"NPT(F)  
 SWAP™ Valve  
**SPV16-L** 2"NPT(F) SWAP™  
 Valve with Locking Pin

### Typical Hook-Up Schematic



### Dimensions



Dimension	SPV8	SPV16
A	295mm/11.6"	395mm/15.5"
B	221mm/8.7"	297mm/11.7"
C	119mm/4.7"	173mm/6.8"
D	130mm/5.1"	160mm/6.3"

drawing not to scale

Linear =  $\frac{\text{mm}}{\text{inch}}$