

# SWAP® VALVE

## Quickly Purge Cooling Water Using Shop Air

### General Description

The Smartflow SWAP Valve 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 before tool change. It also provides a manual vent to release built-up air pressure within the cooling water loop after purging.

A 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 after the purge cycle any residual water can be released into a container or drain.

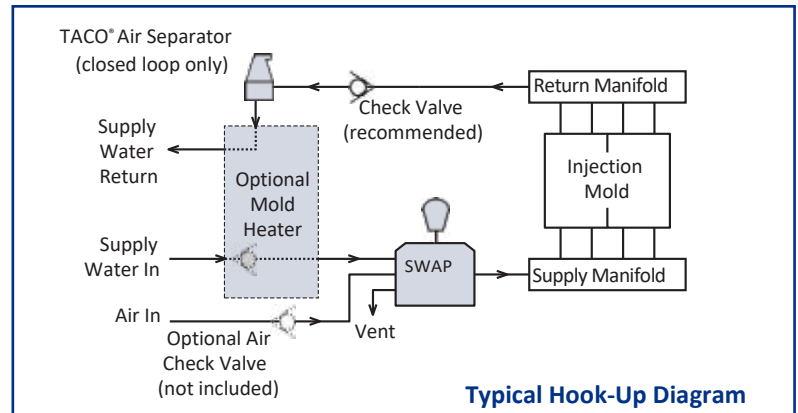
An optional spring-loaded, locking pin is available for molders who require two-hand operation. This prevents accidental valve handle movement.

### Benefits

- Implements SMED by dramatically reducing tool change time.
- Identifies supply lines by noting which manifold is connected to the SWAP Valve.
- Full port design provides maximum cooling water flow with minimum pressure drop.
- Prevents slip hazard by keeping shop floors dry.
- Prepares injection mold for preventive maintenance and storage.
- Optional Positive Locking Pin prevents accidental valve handle movement.



Reinforced Molded Body with Stainless Disc  
 Available in 1" Reinforced Molded Body with Stainless Steel Disc or Brass (via special order,)  
 U.S. Patent No. 6,471,503



Typical Hook-Up Diagram

### Application

The SWAP valve is well-suited for cooling water supply lines up to 2-inch NPT. It is permissible to adapt 3/4", 1-1/4" and 1-1/2" line sizes providing adequate cooling water flow can be achieved.

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

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 Trapped Pressure and Drain Residual Water	Select VENT. Press Manual Vent-Drain Valve. Purge air is blocked. Cooling water is blocked.

## Molded Body, Stainless Disc (1" only)

### Specifications

Maximum Pressure	150psi (10.3bar)
Maximum Operating Temperature	250°F (121°C)
Normal Working Air Pressure	80 to 100psi
Pressure Drop across Purge Valve	1psi at 50gpm

### Wetted Parts

Body	Glass-Filled Nylon
Valve Disc	Stainless Steel
O-Rings	Model# EPDM
Check Valve (recommended)	Brass



#### Model # Options with Check Valve

Item #	Thread Size	Locking Pin	Weight
SPV8AM	1" NPT	No	2.5 kg / 5.5 lbs
SPV8LM	1" NPT	Yes	

#### Model # Options without Check Valve

Item #	Thread Size	Locking Pin	Weight
SPV8AMN	1" NPT	No	2.1 kg / 4.7 lbs
SPV8LMN	1" NPT	Yes	

## TACO® 4900 Series Air Separators

TACO 4900 Series Air Separators are designed for the complete elimination of air from closed loop water circulating systems. Small air bubbles and micro-bubbles adhere to surfaces on pall rings in the water path and join together to form larger air bubbles. The combined bubbles travel up through the water and into the conical air chamber to be released by the vent at the top.

Recommended for use with **SMARTFLOW SWAP Valve** in a closed loop cooling water system.



### Specifications

Connection Sizes	1" & 2" NPT(F)
Housing Material	Brass
Pall Ring Material	Stainless Steel
Venting Unit Materials	Stainless Steel
	EPDM, Viton, Engineered Plastics
Operating Pressure Max	150psi (10bar)
Operating Temperature Max.	240°F (115°C)
Operating Temperature Min.	25°F (-4°C)
Media	Water or Water/Glycol
Max. Velocity	5ft/sec

Item #	Connection size	A	B	C	Weight	
					kg	lbs
49100	1"	5-1/2"/139mm	6-3/4"/171mm	4-3/8"/111mm	2	4.5
49200	2"	6-5/8"/169mm	8-7/16"/214mm	5-3/16"/131mm	2.7	6.0

## Accessories All Models - Brass Check Valves/O-Rings



Item #	Description
PVCV100	Brass Check Valve 1" NPT
PVCV200	Brass Check Valve 2" NPT
PVOSET100A	O-Ring
PVOSET200A	O-Ring