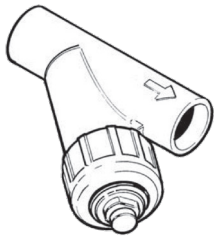
RESIN TRAP (PVC) INSTALLATION INSTRUCTIONS

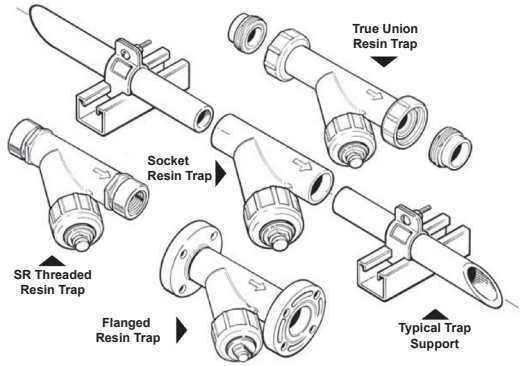
SWT P/N RT200PC, RT300PC, RT400PC



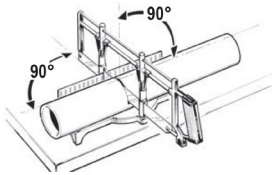
Resin traps may be mounted in either horizontal or vertical positions. However, attention should be paid to flow direction as indicated on the strainer body. The strainer basket should be pointed downward to properly collect sediment and facilitate flushing.

Read all applicable instructions & procedures thoroughly before starting. Suitability of the intended service application must be determined prior to installation. Plastic piping systems must be engineered, installed, operated and maintained in accordance with accepted standards and procedures for plastic piping systems. It is absolutely necessary that all design, installation, operation and maintenance personnel be trained in proper handling, installation requirements and precautions for installation and use of plastic piping systems before starting. Resin Traps are designed for direct in-line installation without any adjustments.

See "Precautions and Warnings" for all installations in this instruction.

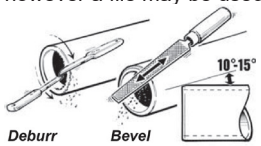


SOLVENT CEMENT WELDED JOINTS



STEP 1 Pipe Preparation: Prepare connecting pipes as required. Pipe ends must be cut square at 90° using a wheel type cutter or a saw and miter box.

Regardless of the cutting method used, burrs will be created, which must be removed. All pipe ends should be beveled at 10° to 15°. A deburring tool is recommended, however a file may be used in its place as shown.



Wipe away all loose dirt and moisture from pipe end and valve socket.

***CAUTION:* Care must be taken to prevent primer or cement contact with seat or internal strainer components. True Union style End Connectors should be removed from strainer body for installation.**

STEP 2 Primer Application - Primer is necessary to penetrate & soften both pipe and socket connector surfaces in order for the solvent cement to properly bond. Using a brush or applicator size no less than 1/2 the pipe diameter, apply a liberal coat of primer with a circular, scrubbing motion to the inside socket of the Resin Trap, until the surface is softened and semi-fluid. This will occur in 5 to 15 seconds depending on size and temperature. Apply primer to the outside of new pipe ends in the same manner extending application area to slightly beyond the insertion depth of the Resin Trap socket, or End Connector on True Union style.

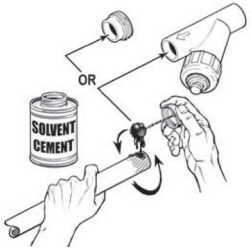
APPLY A SECOND COAT TO BOTH PIPE AND SOCKET.

Check the penetration and softening by scraping the primed surfaces. A few thousandths of the semi-fluid surface should easily be removed.

REPEAT PRIMER APPLICATION IF NECESSARY.

THE MOST FREQUENT CAUSE OF JOINT FAILURE IS INADEQUATE PRIMER PENETRATION AND SOFTENING OF BONDING SURFACES DURING THE WELDING OPERATION.

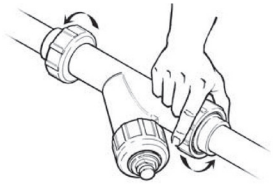
STEP 3 Solvent Cement End Connection - Solvent Cement must be applied IMMEDIATELY to the primed surfaces before the primer dries, in an alternating 3-coat application. Using a brush or applicator no less than 1/2 the pipe diameter, apply a liberal coat of solvent cement to the primed pipe surfaces. Next, apply a light to medium coat to the primed socket surface, then apply an additional liberal coat again to the pipe.



Allow joint to cure according to solvent cement manufacturer's instructions.

STEP 4 Immediately following the application of solvent cement, and before it begins to set, insert the pipe end into the Resin Trap socket, push with a 1/4 twisting motion to evenly distribute the solvent cement within the joint. A full bead of solvent cement should form around the circumference of the joint. Hold joint together for approximately 30 seconds to make sure that the pipe does not back off of socket. Use a cloth to remove any excess cement from the exterior juncture. Assemble other pipe into the Resin Trap.

STEP 5 Attach Strainer Body to End Connector Socket and begin to tighten Union Nut.



DO NOT USE ANY TYPE OF THREAD SEALANTS. "HAND TIGHTEN ONLY."

BE SURE THAT THE FACE OF THE END CONNECTOR SOCKET IS SQUARELY ALIGNED (FLUSH) WITH THE STRAINER BODY AND IS FLUSH AGAINST THE O-RING.

Attach final Union Nut to Strainer Body.

DO NOT USE THE REMAINING UNION NUT TO DRAW TOGETHER ANY GAPS BETWEEN THE END CONNECTOR AND THE TRAP BODY.

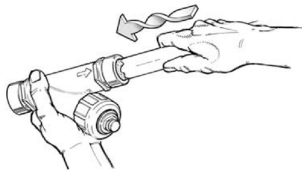
THREADED CONNECTIONS

***WARNING:* SOME PIPE JOINT COMPOUNDS OR TEFLON PASTES MAY CONTAIN SUBSTANCES THAT COULD CAUSE STRESS CRACKING TO PLASTIC. TRANSITIONS TO METAL PIPE REQUIRE THOROUGH CLEANING AND DEGREASING TO REMOVE ANY PIPE THREAD CUTTING OIL.**

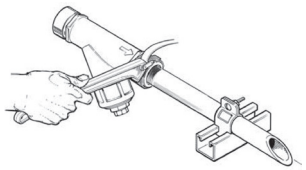
Safe Water Technologies highly recommends the use of Spears® **BLUE 75™** thread sealant.

STEP 1 Apply Joint Sealant - Threaded connections require application of a quality grade thread sealant to seal and lubricate the joint assembly. Sealants must only be applied to male pipe threads. Please follow the sealant Manufacturers' Application/Installation instructions. Choice of another appropriate thread sealant is at the discretion of the installer.

STEP 2 Assemble Joint - 1 to 2 turns beyond "FINGER TIGHT" are generally all that is required to make a sound plastic threaded connection. Unnecessary OVER TIGHTENING will cause damage to both pipe and Trap socket.

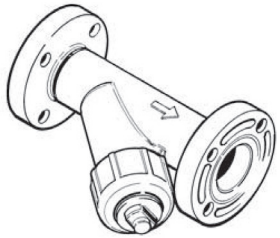


STEP 3 Wrench Make Up - Threaded pipe and strainer components must always be installed using commercially available strap wrenches. Do not use conventional pipe wrenches, which can cause damage to plastic piping materials. Apply wrench make-up of no more than 1 to 2 turns beyond finger-tight thread engagement. Care must be taken in final positioning so as to avoid the need to "Back-up" the wrench assembly.



Strainer Basket must be pointed DOWN for proper operation.

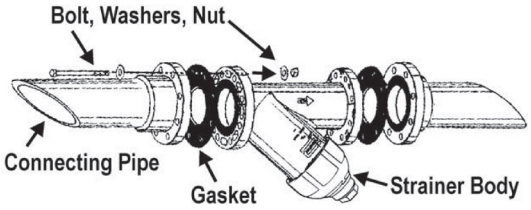
FLANGED CONNECTIONS



Once a flange is attached to the pipe or valve, the method of joining two flanges are as follows:

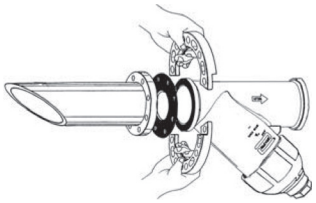
STEP 1 Use of well lubricated bolts & flat washers are required. Use an anti-seize lubricant such as IMS Copper Flake.

STEP 2 With a 1/8" gasket having a shore "A" durometer of approximately 60 in place, align the bolt holes of the mating flanges by rotating the ring into position. Insert all bolts, washers, and nuts. Tighten the nuts by hand until they are snug.



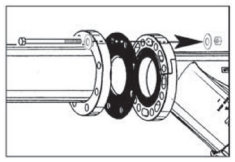
AT THIS TIME, BE SURE THAT THE FLANGE AND GASKET SURFACES ARE FLUSH AND SQUARELY ALIGNED.

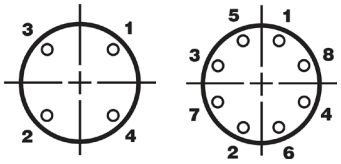
SPECIAL SPLIT RING FLANGE INSTRUCTIONS FOR 3" & 4" STRAINERS



Place rings as shown over the flange hubs at each end of the strainer body. Insert new bolts, washers and nuts into new pipe system flanges, through gasket and into the split ring flange in alignment. Continue to instruction 3.

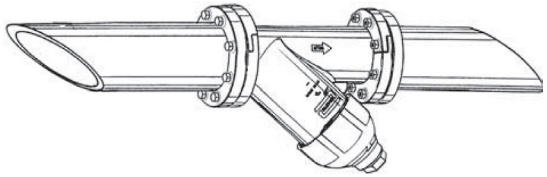
DO NOT USE BOLTS TO BRING TOGETHER IMPROPERLY MATED FLANGES.





BOLT TORQUES	
Strainer Size	Torque Value
1/2" to 1-1/2"	12 ft. lbs.
2" to 4"	25 ft lbs.
6" Venturied	40 ft lbs.

STEP 3 Tighten Bolts - Establish a uniform pressure over the flange face by tightening the bolts in 5 ft. lbs. increments following a 180° opposing sequence as shown in the table above. Care must be taken to avoid "BENDING" the flange when joining it with another.



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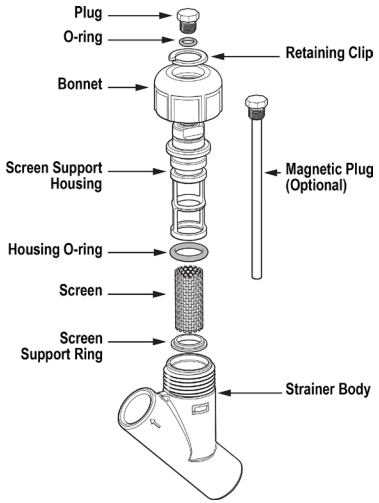
MAINTENANCE & SERVICE INSTRUCTIONS

The Screen Support Housing can be easily accessed from the Bonnet Nut for screen replacement or internal component service. CAUTION: Before servicing, the system should be shut down, depressurized and drained.

STEP 1 Remove Bonnet Nut by turning it in a counterclockwise direction. **NOTE:** Screen housing is attached to the inside of the bonnet nut and will slide out when nut is removed. Remove Screen Support Ring and Screen. Clean all components and replace as necessary. To service or replace O-ring, remove Retaining Clip from top of Bonnet Nut and separate Screen Support Housing from Bonnet Nut. Examine O-rings for debris or damage. Clean or replace as necessary.



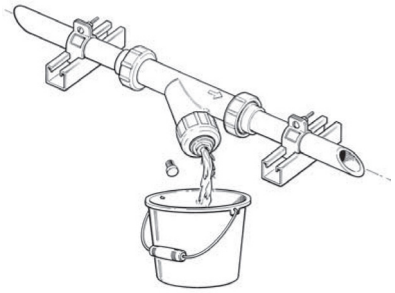
STEP 2 Reinstall Screen into Screen Support Housing, and then install Screen Support Ring. **NOTE:** Make sure that tabs on Screen Support Ring are aligned properly with end of Screen Support Housing before snapping into place. Apply a mild soap & water solution to O-ring and slide the reassembled Screen Support Housing back into the Strainer Body. **NOTE:** If O-ring was serviced, insert Screen Support Housing into Bonnet Nut and reinstall Retaining Clip. Turn Bonnet Nut in a clockwise direction until properly seated.

QUICK FLUSH

STEP 1 Depressurize system (Or install a Bleed-off valve and remove O-ring sealed Drain plug.

STEP 2 Flush to remove debris.

STEP 3 Reinstall Drain plug. Tighten snug.



PRECAUTIONS AND WARNINGS

CAUTION: The system must be designed and installed so as not to pull the components in any direction. Pipe system must be cut and installed in such a manner as to avoid all stress loads associated with bending, pulling, or shifting. All piping systems must be supported.

CAUTION: *BEFORE THE STRAINER IS CYCLED*, all dirt, sand grit or other material shall be flushed from the system. This is to prevent scarring of internal components.

WARNING: System should not be operated or flushed out at fl ow velocities greater than 5 feet per second.

NOT FOR USE WITH COMPRESSED AIR OR GAS

WARNING: Do not use compressed air or gas to test any PVC or CPVC thermoplastic piping product or system, and do not use devices propelled by compressed air or gas to clear the systems. These practices may result in explosive fragmentation of system piping and components causing bodily injury or death.

All air must be bled from the system during the initial fluid fill. Pressure testing of the system must not be made until all solvent cement joints have properly cured. Initial pressure testing must be made at approximately 10% of the system hydrostatic pressure rating to identify potential problems prior to testing at higher pressures.

Read all applicable instructions and procedures thoroughly before starting. Suitability of the intended service application must be determined prior to installation. Please review **"Material Considerations in Application and System Design"**, in the Materials section of Spears®' *THERMOPLASTIC VALVE PRODUCT GUIDE & ENGINEERING SPECIFICATIONS, V-4*, for important additional considerations related to valve installations. Plastic piping systems must be engineered, installed, operated and maintained in accordance with accepted standards and procedures for plastic piping systems. It is absolutely necessary that all design, installation, operation and maintenance personnel be trained in proper handling, installation requirements and precautions for installation and use of plastic piping systems before starting.

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