SEAL WELL PRODUCTS®

Installation: Slip Connections

Valve bodies are rated 150 PSI Static Pressure @ 72°F (22°C) Non Shock - Not recommended for use on systems exceeding 100 PSI at 120°F (48.8°C).

STANDARD SWING STYLE Model Numbers: 17SCTU-15, 17SCTU-20, 17SCBV-15SU, 17SCBV-15TU, 17SCBV-20SU & 17SCBV-20TU (cracking pressure of 0 PSI)

QUIET SPRING LOADED SWING STYLE Model Numbers: 17QSCTU-15, 17QSCTU-20, 17QSCBV-15SU, 17QSCBV-15TU, 17QSCBV-20SU & 17QSCBV-20TU (cracking pressure of 1/2 PSI)

#1 - Design the system piping layout and cut piping to the appropriate length as indicated under the A-B-C dimension on the chart below in order to accommodate the length of the valve from its internal pipe stops.

- Piping must not be smaller than the pump discharge.
- A minimum of 2 feet (.61 m) of static head is recommended over the check valve for positive sealing.
- In an EFFLUENT system, the pipe must be capable of handling semi-solids of at least 3/4" (19mm) in diameter.
- In an SEWAGE system, a 2" valve MUST be used, and the pipe must be capable of handling semi-solids of at least 2" (51mm) in diameter.
- VERTICAL installation is recommended when pumping SOLID FREE liquids.
- HORIZONTAL installation is critical when pumping SOLIDS OR SEIMI-SOLIDS, if necessary valves can be installed up to 45°. Vertical installation could result in solids settling back down onto the valve preventing the flapper from opening on pump start-up.
- Some pump manufacturers recommend drilling a vent hole to prevent air-locking of the pump (typically located in the basin between the pump and check valve). Refer to pump installation instructions.

FIG.1

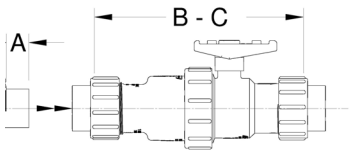


FIG.2

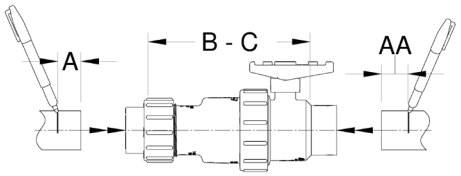
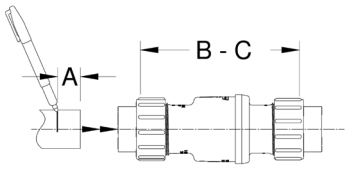


FIG.3



#2 - Debur end of the pipes and clean both pipe ends and slip sockets of the valve. All parts that are to be solvent cemented must be clean of all foreign materials.

#3 - Mark both the inlet and discharge pipes to "A" dimension provided in the chart below to indicate how far the pipe must be inserted into the socket connections as indicated in FIG.1 to FIG.3 (Note the "AA" dimension for the discharge on the "SU" single union combo valves)

Ref. No.	Standard Model Number	Quiet Model Number	Connection x Outlet	A Dimension			AA Dimention			B-C Dimentions		
				inch		mm	inch		mm	inch		mm
Swing Check Valves												
FIG.1	17SCTU-15	17QSCTU-15	1-1/2" Slip Union x 1-1/2" Slip Union	1-1/16	1.0625	27	-	-	-	7-7/8	7.875	200
	17SCTU-20	17QSCTU-20	2" Slip Union x 2" Slip Union	1-1/8	1.125	29	-	-	-	8-5/8	8.625	219
Combination Ball Valve & Swing Check Valves												
FIG.2	17SCBV-15SU	17QSCBV-15SU	1-1/2" Slip Union x 1-1/2" Slip	1-1/16	1.0625	27	1-9/32	1.281	32.5	7-15/16	7.938	202
	17SCBV-20SU	17QSCBV-20SU	2" Slip Union x 2" Slip	1-1/8	1.125	29	1-5/16	1.3125	33	9-3/16	9.188	233
FIG.3	17SCBV-15TU	17QSCBV-15TU	1-1/2" Slip Union x 1-1/2" Slip Union	1-1/16	1.0625	27	-	-	-	10-3/8	10.375	264
	17SCBV-20TU	17QSCBV-20TU	2" Slip Union x 2" Slip Union	1-1/8	1.125	29	-	-	-	11-9/16	11.563	294

#4 - Locate the flow direction arrow on the valve body to ensure proper orientation of the valve from the pump.
*Best practice is to install valves in the **VERTICAL** position when pumping **solid free** liquids.*

IMPORTANT: When pumping **solids/semi solids** valve must be installed **HORIZONTALLY** (up to 45° angle acceptable, see #1). Extra care must be taken to ensure the flow arrow points away from the pump AND the check valve body is oriented as per the marking on the valve body "HORIZONTAL USE THIS SIDE UP". Failure to position the swing check valve with the hinge of the flapper in the top center position will result in the valve not functioning properly.

IMPORTANT: Use only quality PVC solvents and Primers as indicated by the solvent manufacturer. Carefully follow the manufactuers instructions to ensure strong pressure-tight joints. Excessive cement and/or the incorrect type of cement can cause failures in thermoplastic products.
NOTE: When solvent welding PVC to ABS it is crucial to use a specially formulated ABS/PVC transition solvent.

#5 - Wearing gloves, solvent weld the pipe from the pump into the inlet connection of the valve, make sure the pipe is fully inserted into the slip socket. The pipe should contact the stop in the valve body (the mark on the piping must be flush with the end of the socket confirming the pipe has been fully inserted).

#6 - Solvent weld the outlet connection (piping from valve to discharge), make sure the pipe is fully inserted into the slip socket; the pipe should contact the stop in the valve body (the mark on the piping must be flush with the end of the socket confirming the pipe has been fully inserted).

#7 - Let connections cure as per solvent cement manufactuers instructions before pressure testing or putting the system into active duty.

#8 - IMPORTANT: Properly support and restrain discharge piping, the pipeline must be restrained to prevent lateral movement by end blocking at direction changes and at any reduction in pipe size. Failure to properly secure and restrain discharge pipe could result in damage to the valves, piping, or potential joint separation resulting in water / property damage due to repetitive hydraulic shock.

#9 - TEST: Once assembly is completed, the system should be checked to ensure there are no leaks.

GENERAL INFORMATION: Always consult applicable plumbing and/or building codes and local regulations to ensure compliance prior to installation.
Plastic piping systems should be installed and operated in accordance with established design and engineering standards and procedures. The products suitability must be determined by the installer/user to ensure suitability prior to installation. All mating piping system components should be inspected prior to assembly to ensure there is no damage or irregularities and that all connection engagements are within tolerance. Do not use any questionable components! Contact the appropriate manufacturer of the component in question to determine suitability.

WARNING: PVC valves/fittings are NOT for use on compressed air, natural gas (NG) or liquid propane (LP) lines. The use of our product in compressed air or gas systems automatically voids our warranty for such products and its use against our recommendations is entirely the responsibility and liability of the installer. PVC valves/fittings must not be tested using compressed air or gases in above or below ground locations. Boshart Industries will not accept responsibility for damage or impairment of its products, or other consequential or incidental damages caused by misapplication, incorrect installation/assembly, and/or exposure to harmful substances or conditions.

RELATED DOCUMENTS: This document has numerous helpful sump pump system design and installation tips which when followed will significantly reduce the risk of catastrophic failure & property damage due to failure caused by issues such as pump burnout, check valve failure, power outage, blocked or frozen discharge piping to list a few. Like your car or fridge it is impossible to predict how long the components will last, however it is a fact that at some point they will. Without proper safeguards and system maintenance you are one mechanical failure away from water damage / flooding.

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