

Seacocks & Accessories

BV Series Full Flow Ball Valves Installation, Operation, and Maintenance

Installation: Thread the seacock onto an appropriately sized bronze thru-hull fitting. You may need to cut down the length of the thru-hull so that it does not bottom out inside the seacock before proper compression of the hull and backing block has been achieved.

Use marine grade caulking between the seacock flange and the backing block, and between the thru-hull fitting flange and the hull.

Orient the seacock so as to provide unobstructed access to the seacock handle, assuring full movement of the handle is possible.

Thru-bolt the seacock securely to the backing block with stainless steel bolts, and in accordance with ABYC Project H-27.

Connect the seacock to the vessel bonding system with 14 gauge wire and a ring connector. A bonding screw bolt is provided on the seacock flange for this purpose. Connection to the vessel bonding system must be in accordance with ABYC Projects E-1, E-2 and E-9.

Operation: Rotate the handle to the mechanical stop in the vertical position to open the seacock. Rotate the handle to the mechanical stop in the horizontal position to close the seacock.

Winterization: Freezing will damage the seacock. To properly winterize, close the seacock and break the hose connection at the top of the seacock to drain the water from the connected plumbing. Remove the drain plugs on the side of the seacock body to drain the remaining water from the seacock body. Replace and tighten the drain plugs.



Plumbing Connections: GROCO seacocks are designed to provide a full flow of water to your engines and equipment. We recommend that full flow fittings (GROCO FF and FFC Series) be used for the top connection. We realize that some installations will be dictated by hose sizes already in place, so GROCO offers a full range of standard flow fittings as well (PTH and PTHC Series).

Use TFE thread tape on pipe connections and double-clamp hose connections.

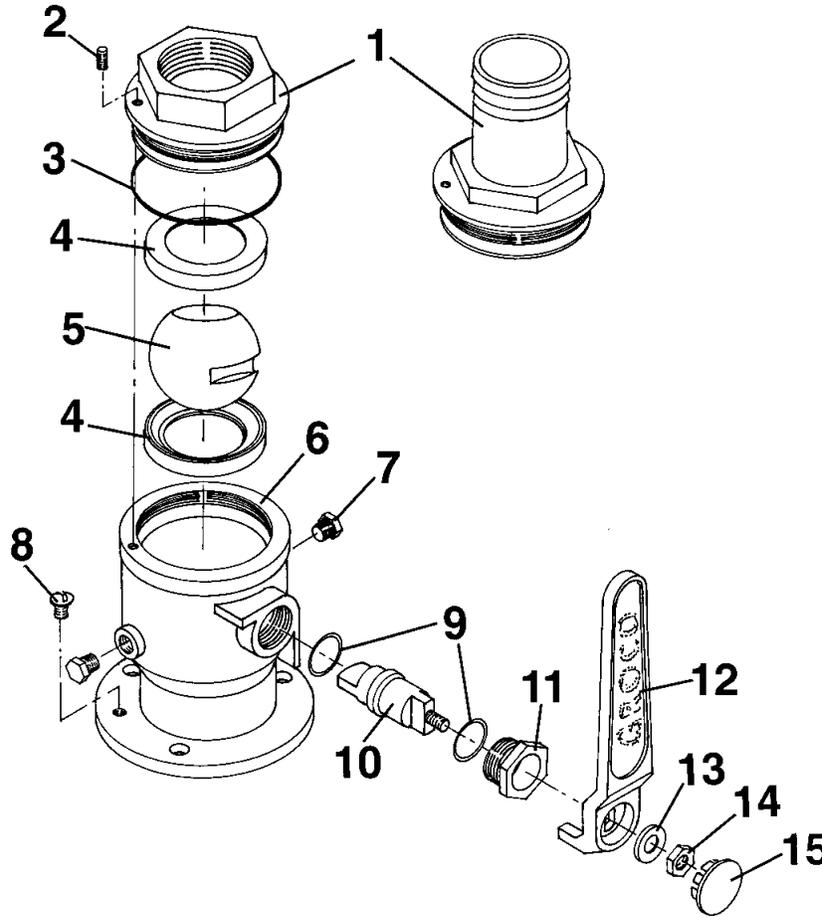
Maintenance: No routine maintenance is required.

If the replacement or service of internal parts is ever required, the valve is designed for in-field serviceability. The bronze top nut is removeable by first removing set screws (2, 3, or 4 depending on model and size). The top nut can now be unscrewed, providing access to the ball and ball seats.

Before replacing the top nut it is recommended that the O-Ring seal be replaced. Lubricate the O-Ring with TFE or silicon grease before screwing the top nut back on.

The stem seals are accessible by removing the handle and unscrewing the brass nut. Pull the stem straight out for access to the TFE stem seals.

BV and BVH Series Full Flow Seacocks Parts and Assembly



Item	Name	Qty	BV-750	BV-1000	BV-1250	BV-1500	BV-2000	BV-2500	BV-3000	BV-4000
1	Pipe Lock Nut	1	BV-752	BV-1002	BV-1252	BV-1502	BV-2002	BV-2502	BV-3002	BV-4002
2	Lock Screw	2	632X38SOC	632X3850C						
3	O-Ring	1	2-122	2-127	2-135	2-140	2-150	2-154	2-157	2-161
4	Ball Seat	2	BV-756	BV-1006	BV-1256	BV-1506	BV-2006	BV-2506	BV-3006	BV-4006-1
5	Ball	1	BV-754	BV-1004	BV-1254	BV-1504	BV-2004	BV-2504	BV-3004	BV-4004
6	Valve Body	1	BV-750-B	BV-1000-B	BV-1250-B	BV-1500-B	BV-2000-B	BV-2500-B	BV-3000-B	BV-4000-B
7	Drain Plug	2	1827HB							
8	Screw	1	1024X14HB	1420X34HB						
9	Seal	2	1-015	1-017	1-017	1-116	1-116	1-118	1-118	1-216
10	Driver	1	BV-751-A	BV-1001-A	BV-1001-A	BV-1501-A	BV-1501-A	BV-2501	BV-2501	BV-4001
11	Nut	1	BV-503	BV-1003	BV-1003	BV-1503	BV-2003	BV-2503	BV-2503	BV-4003
12	Handle	1	BV-508	BV-1008	BV-1008	BV-1508	BV-1508	BV-2508	BV-2508	BV-4008
13	Washer	1	14FS	516FS	516FS	38FS	38FS	12FS	12FS	12FS
14	Bolt	1	1228X38SS	1420X12HS	1420X12HS	3816X58HS	3816X58HS	1213HSL	1213HSL	3816X34HS
15	Cap	1	PFW-10	PFW-11	PFW-11	PFW-12	PFW-12	PFW-13	PFW-13	-

SBV Series Full Flow Safety Ball Valves Installation, Operation, and Maintenance

Installation: Thread the seacock onto an appropriately sized bronze thru-hull fitting. You may need to cut down the length of the thru-hull so that it does not bottom out inside the seacock before proper compression of the hull and backing block has been achieved.

Use marine grade caulking between the seacock flange and the backing block, and between the thru-hull fitting flange and the hull.

Orient the seacock so as to provide unobstructed access to the seacock handle, and the Quick Release Plug.

Thru-bolt the seacock securely to the backing block with stainless steel bolts, and in accordance with ABYC Project H-27.

Connect the seacock to the boat's bonding system with 14 gauge wire and a ring connector. A bonding screw bolt is provided on the seacock flange for this purpose. Connections to the vessel bonding system must be in accordance with ABYC Projects E-1, E-2 and E-9.

Plumbing Connections: GROCO seacocks are designed to provide a full flow of water to your engines and equipment. We recommend that full flow fittings (GROCO FF and FFC Series) be used for the top connection. We realize that some installations will be dictated by hose sizes already in place, so GROCO offers a full range of standard flow fittings as well (PTH and PTHC Series). Use TFE thread tape on pipe connections and double-clamp hose connections.

Operation: Rotate the handle to the mechanical stop in the vertical position to open the seacock. Rotate the handle to the mechanical stop in the horizontal position to close the seacock.

Winterization: Freezing will damage the seacock. To properly winterize, close the seacock and break the hose connection at the top of the seacock to drain the water from the connected plumbing. Remove the Quick Release Plug to drain water from the seacock body. Replace the Quick Release Plug.

Quick Release Plug: In an emergency the engine to which



Service Adaptor

the SBV Safety Seacock is connected can be used as a high capacity bilge pump. To utilize this feature, bilge water level must be higher than the top of the Quick Release Plug Port. First, close the seacock, then grasp the pull-ring, turn the QR plug 90-degrees counter-clockwise, and pull the plug straight out. The QR plug cannot be removed unless the valve handle is in the closed position. Your engine can now draw water from the flooded bilge and pump it overboard through the exhaust system.

When there is no longer an emergency, replace the QR Plug, turn 90-degrees clockwise, and open the seacock.

Service Adaptor: In non-emergency situations the Quick Release Port can be used to assist with routine maintenance. With the valve closed and the Quick Release Plug removed the Service Adaptor (included) can be inserted and locked with a clockwise turn. Garden hose thread is provided for connection to dockside water for cooling system flushing, or for connection to a GROCO vane pump to pump antifreeze into the cooling system for winterization.

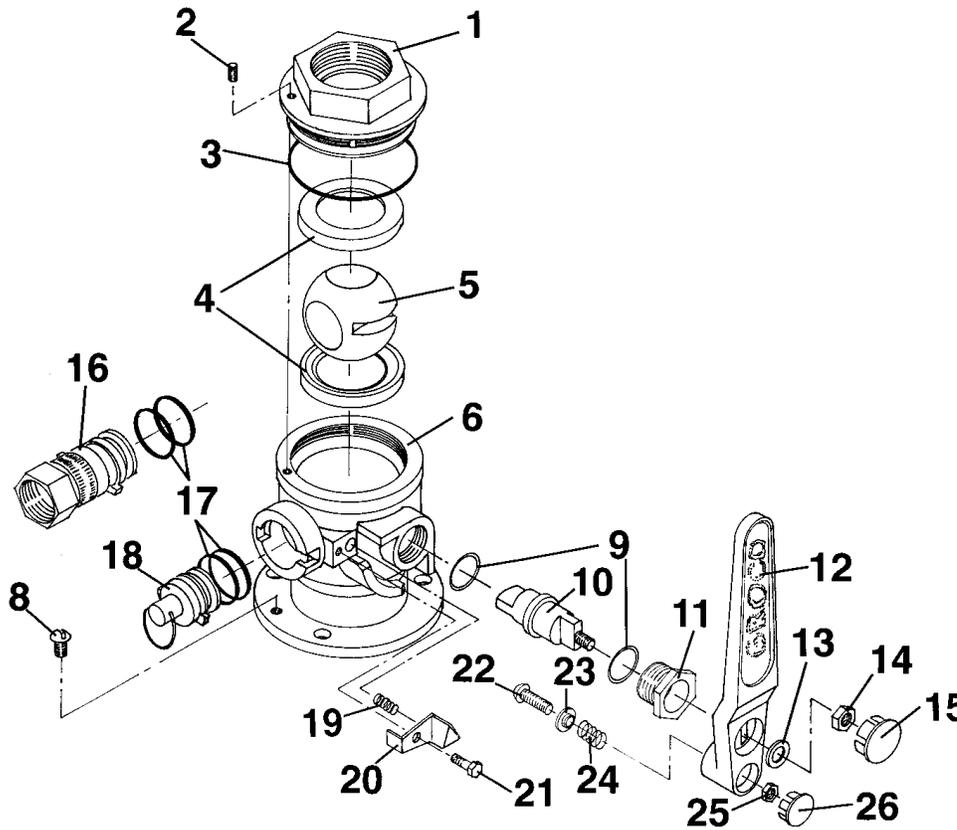
Bilge Strainer Kit: GROCO BSA Bilge Strainer Kits are available in 1-1/4" through 3" sizes to match all SBV sizes. The kit includes a bronze bilge strainer, adaptor to fit the QR port, and pipe-to-hose fittings. Order BSA-(SBV size).

Maintenance: No routine maintenance is required, but if the replacement or service of internal parts is ever required, the valve is designed for in-field serviceability. The bronze top nut is removeable by first removing set screws (2, 3, or 4 depending on model and size). The top nut can now be unscrewed providing access to the ball and the ball seats.

Before replacing the top nut the O-Ring seal should be replaced. Lubricate the O-Ring with TFE or silicon grease before screwing the top nut back on.

The stem seals are accessible by removing the handle and unscrewing the brass nut. Pull the stem straight out for access to the TFE stem seals.

SBV Series Full Flow Safety Seacocks Parts and Assembly



Item	Name	Qty	SBV-1250	SBV-1500	SBV-2000	SBV-2500	SBV-3000
1	Lock Nut	1	BV-1252	BV-1502	BV-2002	BV-2502	BV-3002
2	Lock Screw	1	632X38SOC	632X38SOC	632X38SOC	632X38SOC	632X38SOC
3	O-Ring	1	2-135	2-140	2-150	2-154	2-157
4	Ball Seat	2	BV-1256	BV-1506	BV-2006	BV-2506	BV-3006
5	Ball	1	SBV-1254	SBV-1504	SBV-2004	SBV-2504	SBV-3004
6	Valve Body	1	SBV-1250-B	SBV-1500-B	SBV-2000-B	SBV-2500-B	SBV-3000-B
8	Screw	1	1024X14HB	1024X14HB	1024X14HB	1024X14HB	1024X14HB
9	Seal	2	1-017	1-116	1-116	1-118	1-118
10	Driver	1	BV-1001-A	BV-1501-A	BV-1501-A	SBV-2501	SBV-2501
11	Nut	1	BV-1003	BV-1503	BV-2003	BV-2503	BV-2503
12	Handle	1	SBV-1008	SBV-1508	SBV-1508	SBV-2508	SBV-2508
13	Washer	1	516FS	38FS	38FS	12FS	12FS
14	Bolt	1	1420X12HS	3816X58HS	3816X58HS	1213HSL	1213HSL
15	Cap	1	PFW-11	PFW-12	PFW-12	PFW-13	PFW-13
16	Adaptor	1	SBVSA-1255	SBVSA-1505	SBVSA-2005	SBVSA-2505	SBVSA-3005
17	O-Ring	1	2-118	2-120	2-128	2-136	2-144
18	QR Plug	1	SBV-1255	SBV-1505	SBV-2005	SBV-2505	SBV-3005
19	Spring	1	07-0002-00	07-0002-00	07-0002-00	07-0002-00	07-0002-00
20	Safety Stop	1	SBV-1259	SBV-1509	SBV-2009	SBV-2509	SBV-3009
21	Bolt	1	1032X12HSS	1032X12HSS	1032X12HSS	1032X12HSS	1032X12HSS
22	Keeper	1	Rivet-3	Rivet-3	Rivet-3	Rivet-3	Rivet-3
23	Washer	1	PFW-9	PFW-9	PFW-9	PFW-9	PFW-9
24	Spring	1	07-0001-00	07-0001-00	07-0001-00	07-0001-00	07-0001-00
25	Locknut	1	1420HSL	1420HSL	1420HSL	1420HSL	1420HSL
26	Cap	1	PFW-10	PFW-10	PFW-10	PFW-10	PFW-10

SBV-P Series Full Flow Safety Ball Valves Installation, Operation, and Maintenance

Installation: Thread the seacock onto an appropriately sized bronze thru-hull fitting. You may need to cut down the length of the thru-hull so that it does not bottom out inside the seacock before proper compression of the hull and backing block has been achieved.

Use marine grade caulking between the seacock flange and the backing block, and between the thru-hull fitting flange and hull.

Orient the seacock so as to provide unobstructed access to the seacock handle, and to the in-line ball valve that is fastened to the side port.

Thru-bolt the seacock securely to the backing block with stainless steel bolts, and in accordance with ABYC Project H-27.

Connect the seacock to the boat's bonding system with 14 gauge wire and a ring connector. A bonding screw bolt is provided on the seacock flange for this purpose. Connections to the vessel bonding system must be in accordance with ABYC Projects E-1, E-2 and E-9.

Plumbing Connections: GROCO seacocks will provide a full flow of water to your engines and equipment. We recommend that full flow fittings (GROCO FF and FFC Series) be used for the top connection. We realize that some installations will be dictated by hose sizes already in place, so GROCO offers a full range of standard flow fittings as well (PTH and PTHC Series).

SBV-P has a threaded side port that is provided for use with an in-line ball valve. Use a bronze close pipe nipple and a valve suitable for salt water applications (GROCO IBV series). Then choose the plumbing termination most appropriate for your use. We recommend completing the installation by including a GROCO BS series bilge strainer with connecting pipe-to-hose adaptors. Use TFE thread tape on pipe connections and double-clamp hose connections.



SBV-P With NPT side port



SBV-P with In-line valve, BS Bilge Strainer, and pipe-to-hose adaptors

Operation: Rotate the handle to the mechanical stop in the vertical position to open the seacock. Rotate the handle to the mechanical stop in the horizontal position to close the seacock.

Winterization: Freezing will damage the seacock. To properly winterize, close the seacock and break the hose connection at the top of the seacock to drain the water from the connected plumbing. Open the connected in-line ball valve to drain water from the valve body.

Side Port and Valve: In an emergency the engine to which the SBV-P Safety Seacock is connected can be used as a high capacity bilge pump. To utilize this feature, bilge water level must be higher than the top of the connected BS Series Bilge Strainer (or higher than the in-line valve if plumbing is terminated at the valve). First, close the seacock, then open the in-line valve. Your engine can now draw water from the flooded bilge and pump it overboard through the exhaust system. When there is no longer an emergency, close the in-line valve and open the seacock.

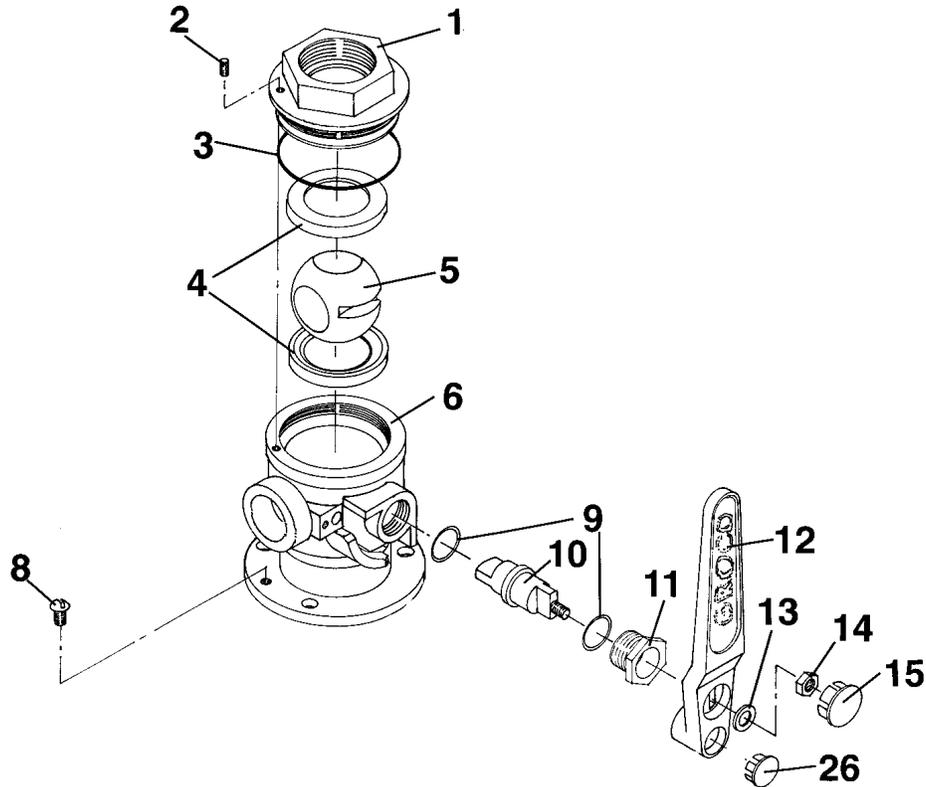


BS Series Bilge Strainers are available in sizes from 3/4" to 3" NPT

for in-field serviceability. The bronze top nut is removeable by first removing set screws (2, 3, or 4 depending on model and size). The top nut can now be unscrewed providing access to the ball and ball seats. Before replacing the top nut the O-Ring seal should be replaced. Lubricate the O-Ring with TFE or silicon grease before screwing the top nut back on.

The stem seals are accessible by removing the handle and unscrewing the brass nut. Pull the stem straight out for access to the TFE stem seals.

SBV-P Series Full Flow Safety Seacocks Parts and Assembly



Item	Name	Qty	SBV-1250-P	SBV-1500-P	SBV-2000-P	SBV-2500-P	SBV-3000-P	SBV-4000-P
1	Lock Nut	1	BV-1252	BV-1502	BV-2002	BV-2502	BV-3002	BV-4002
2	Lock Screw	1	632X38SOC	632X38SOC	632X38SOC	632X38SOC	632X38SOC	632X3850C
3	O-Ring	1	2-135	2-140	2-150	2-154	2-157	2-161
4	Ball Seat	2	BV-1256	BV-1506	BV-2006	BV-2506	BV-3006	BV-4006-1
5	Ball	1	SBV-1254	SBV-1504	SBV-2004	SBV-2504	SBV-3004	SBV-4004
6	Valve Body	1	SBVP-1250-B	SBVP-1500-B	SBVP-2000-B	SBVP-2500-B	SBVP-3000-B	SBVP-4000-B
8	Screw	1	1024X14HB	1024X14HB	1024X14HB	1024X14HB	1024X14HB	1420X34HB
9	Seal	2	1-017	1-116	1-116	1-118	1-118	1-216
10	Driver	1	SBV-1001	SBV-1501	SBV-1501	SBV-2501	SBV-2501	BV-4001
11	Nut	1	BV-1003	BV-1503	BV-2003	BV-2503	BV-2503	BV-4003
12	Handle	1	SBV-1008	SBV-1508	SBV-1508	SBV-2508	SBV-2508	BV-4008
13	Washer	1	516FS	38FS	38FS	12FS	12FS	12FS
14	Bolt	1						3816X34HS

SSC Series Engine Flush Kit (Safety Seacock Conversion) Installation, Operation and Maintenance

The Concept: Converts most seacocks to Safety Seacocks, or adds an easy to access and use port into the engine cooling system for simplified winterization and maintenance.

SSC Series was introduced in response to customer comments about the virtues of GROCO's Safety Seacock series, and the desire to "convert" existing seacocks to Safety Seacock operation rather than having to replace an otherwise functional seacock that was already in place.

Installation: SSC series may be installed in any accessible location in the plumbing between the inlet seacock and the engine raw water pump. Most installations will be on top of an existing seacock or into the outlet side of a raw water strainer.

Greatest utility will be gained by installing SSC on top of a seacock because this is the lowest possible location in the bilge and will therefore allow bilge water level to be reduced to the lowest possible level.

SSC may be used with optional GROCO BSA Bilge Strainer and Adaptor Kit. Specify BSA-(SSC Pipe Size).



Maintenance: Remove the Quick Release Plug monthly and lubricate the O-Rings with TFE or Silcon Based grease. Do not use petroleum based lubricant.

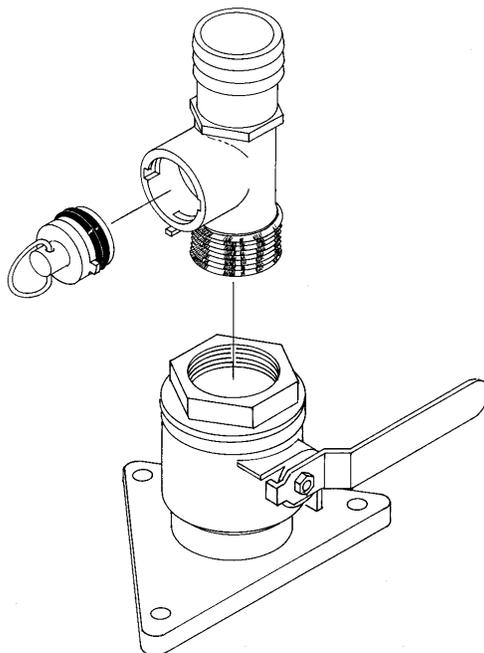
Operation: To utilize SSC the seacock must first be closed. Grasp the pull-ring and turn 90-degrees counter-clockwise. Pull the Quick Release Plug straight out.

Insert the Service Adaptor (included) and lock with a 90-degree turn clockwise. The service adaptor has garden hose threads for connection to dockside water for cooling system flushing or for use with a GROCO vane pump to pump antifreeze into the cooling system for winterization.

Refer to the drawings on the reverse side for possible applications and uses.

Safety Precautions:

- DO NOT remove the Quick Release Plug while the engine is running unless bilge water level is higher than the Quick Release Plug port.
- DO NOT remove the Quick Release Plug while the seacock is open. You will flood your bilge or you will sink your boat.
- While the Quick Release Plug is in place in the side of SSC, always "snap" the pull ring over the tab below the Quick Release Plug port.



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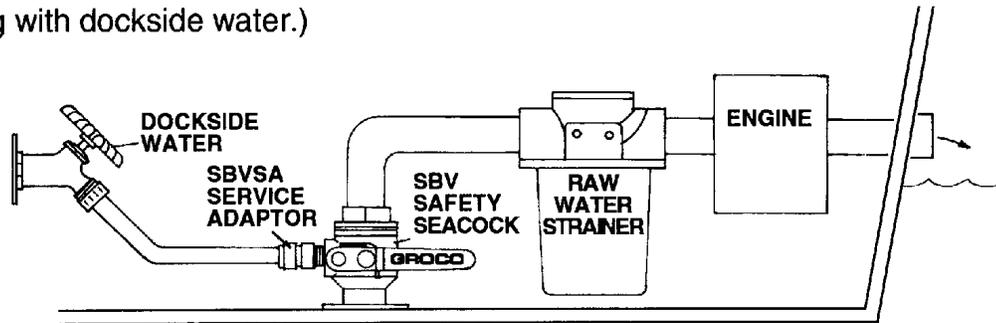
SPECIFICATIONS

Model	Pipe Size	Hose ID	O-Rings
SSC-750	3/4" NPT	3/4"	2-111
SSC-1000	1" NPT	1"	2-115
SSC-1250	1-1/4" NPT	1-1/4"	2-118
SSC-1500	1-1/2" NPT	1-1/2"	2-120
SSC-2000	2" NPT	2"	2-128
SSC-2500	2-1/2" NPT	2-1/2"	2-136
SSC-3000	3" NPT	3"	2-144

SSC SERIES ENGINE FLUSH KIT (SAFETY SEACOCK CONVERSION) Applications and Uses

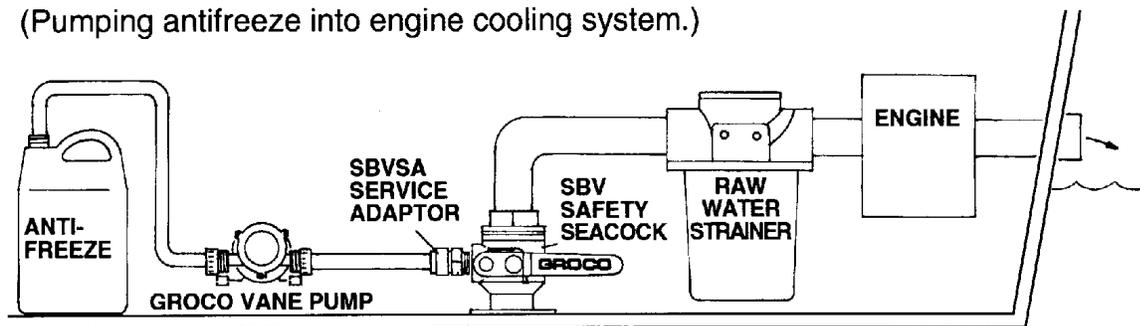
ENGINE COOLING SYSTEM FLUSHING

(Flushing with dockside water.)



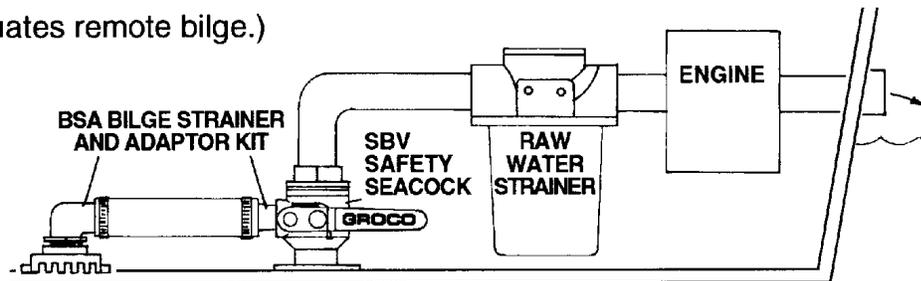
WINTERIZING

(Pumping antifreeze into engine cooling system.)



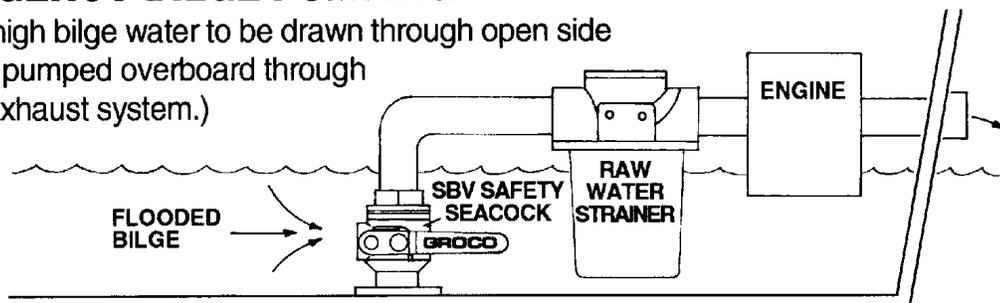
ROUTINE BILGE PUMPING

(Engine evacuates remote bilge.)



EMERGENCY BILGE PUMPING

(Allows high bilge water to be drawn through open side port and pumped overboard through engine exhaust system.)



Maintenance, Parts and Assembly for SV Series Seacocks

The Concept: GROCO SV series seacocks were manufactured for the marine industry between 1960 and 1993. Production was discontinued in favor of the presently manufactured BV, SBV, and SBV-P series Full Flow Ball Valves.

SV series seacocks operate on the simple “expanding plug” principle. A wingnut on the back of each valve is hand-tightened when in the valve is in the desired open or closed position. Tightening the wingnut expands the rubber plug, thus sealing the valve.

Operation: When a change in valve position is desired, the wingnut is loosened enabling the operator to turn the valve handle to the new position. Re-tighten the wingnut each time.

Note: While the wingnut is loose the seepage of a small amount of water is normal.

Maintenance: Years of maintenance-free service can be expected. If the valve becomes difficult to turn, at haul-out remove and inspect the valve plug. The rubber should be free of bumps that might be created due to extended periods of non-use. (The pressure exerted by the tightened wingnut forces rubber into the drain plug hole and into the inlet and outlet ports, and older plugs do not quickly return to their original shape). Bumps may be removed with light sanding. Replace plugs with excessive bumps.

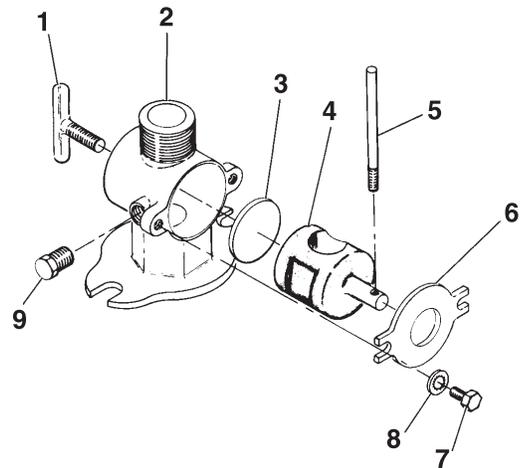
Lubrication: Lubrication is not normally required, but may aid in the easy operation of older valves. Remove the valve plug and coat lightly with silicon based

waterproof grease. Do not use petroleum based grease as it will chemically attack the rubber.

Some owners may prefer to replace the drain plug on the side of SV seacocks with a stainless steel grease zerk (the drain plug thread size for all SV seacocks is 1/8”-27 NPT) .

Winterization: Freezing will damage the seacock. To properly winterize the valve, move the handle to the closed position, and tighten the wingnut. Remove the drain plug on the side of the valve to drain the water from the valve body. Remove the hose or pipe at the top of the valve to drain the water from the connected plumbing.

Upgrading: Many boat owners prefer the simplified operation of GROCO BV, SBV, SBV-P or BVS series ball valves (No wingnuts to loosen and tighten, and no temporary water seepage). Your old SV series seacock may be replaced with a GROCO ball valve, Safety Seacock, or seacock/strainer combination.



Item	Name	Qty	SV-500	SV-750	SV-1000	SV-1250	SV-1500	SV-2000	SV-2500
1	Wingnut	1	SV-502	SV-752	SV-752	SV-1502	SV-1502	SV-2502	SV-2502
2	Body	1	SV-500-B	SV-750-B	SV-1000-B	SV-1250-B	SV-1500-B	SV-2000-B	SV-2500-B
3	Disc	1	SV-503	SV-753	SV-103	SV-1252	SV-1503	SV-2003	SV-2503
4	Plug	1	SV-506	SV-756	SV-1006	SV-1256	SV-1506	SV-2006	SV-2506
5	Handle	1	SV-506-A	SV-756-A	SV-1006-A	SV-1256-A	SV-1506-A	SV-2006-A	SV-2506-A
6	Cover	1	SV-501	SV-751	SV-101	SV-1251	SV-1501	SV-2001	SV-2501
7	Bolt	2 or 4	1420X12HB						
8	Lockwasher	2 or 4	14ETB						
9	Drain Plug	1	1827HB						

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