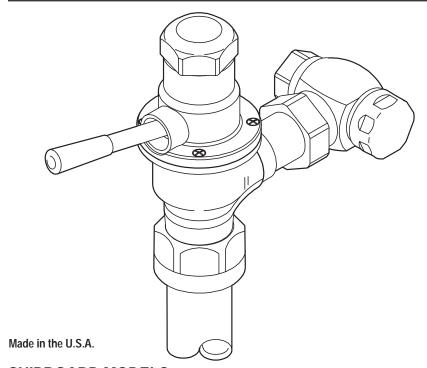


Dolphin® Flushometer

INSTALLATION INSTRUCTIONS FOR STANDARD EXPOSED CLOSET AND URINAL FLUSHOMETERS



SHIPBOARD MODELS

For Saltwater and Seawater, and all Shipboard Flushometers, Sloan Valve Company recommends furnishing Dolphin Valves with a Ground Joint Supply Stop. Specify "-GJ" (Ground Joint) variation. Standard Shipboard Flushometers use Ground Joint Supply Stops.

Saltwater and other non-potable water supplies typically do not require the use of Vacuum Breakers. To furnish the valves less the vacuum breaker, specify the "-XYV" variation.

Type I and Type II shipboard models: For U.S. Navy per Military Specification MIL-V-0015010F (Ships)

STANDARD MODELS

Exposed Closet Flushometer

- 1-1/2" (38 mm) Top Spud
- Model 110/111
- Model 115; Model 115-1.6
- 1-1/2" (38 mm) Back Spud
- Model 120

Exposed Urinal Flushometer 3/4" (19 mm) Top Spud

Model 186-1

SHIPBOARD MODELS

Model Type I Class A

Exposed Shock Proof Closet Flushometer

• 1-1/2" (38 mm) Shock Proof Scored Outlet

Model Type I Class B

Exposed Rigid Installation Closet Flushometer

• 1-1/2" (38 mm) Rigid Installation

Model Type II Class A

Exposed Shock Proof Urinal Flushometer

• 3/4" (19 mm) Shock Proof Scored Outlet

Model Type II Class B

Exposed Rigid Installation Urinal Flushometer

• 3/4" (19 mm) Rigid Installation

Installation of the Sloan Dolphin Flushometer provides the quality, long life, and water economy that makes Sloan Flushometers the most dependable ever. Dolphin Flushometers are engineered to provide quiet performance under severe water conditions including the use of salt water and do not require water pressure to positively shut off.

Sloan Dolphin Flushometers are designed for easy installation and maintenance and come complete with a metal lever handle, Bak-Chek®

Control Stop, Vandal Resistant Stop Cap, and a variety of optional flush connection options to meet both land and shipboard use requirements.

The following instructions will serve as a guide when installing the Sloan Dolphin Flushometer. As always, good safety practices and care are recommended when installing your new Flushometer. If further assistance is required, contact you nearest Sloan Representative office.

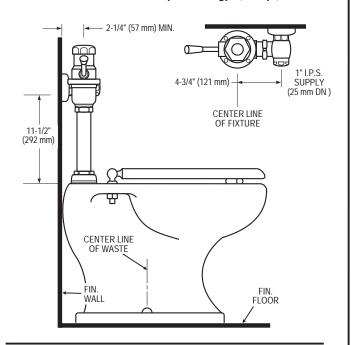
LIMITED WARRANTY

Sloan Valve Company warrants its Exposed Dolphin Flushometers to be made of first class materials, free from defects of material or workmanship under normal use and to perform the service for which they are intended in a thoroughly reliable and efficient manner when properly installed and serviced, for a period of three years (1 year for special finishes) from date of purchase. During this period. Sloan Valve Company will, at its option, repair or replace any part or parts which prove to be thus defective if returned to Sloan Valve Company, at customer's cost, and this shall be the sole remedy available under this warranty. No claims will be allowed for labor, transportation or other incidental costs. This warranty extends only to persons or organizations who purchase Sloan Valve Company's products directly from Sloan Valve Company for purpose of resale.

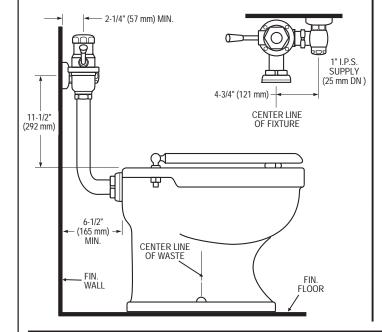
THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. IN NO EVENT IS SLOAN VALVE COMPANY RESPONSIBLE FOR ANY CONSEQUENTIAL DAMAGES OF ANY MEASURE WHATSOEVER.

DOLPHIN VALVE ROUGH-IN — Figure A

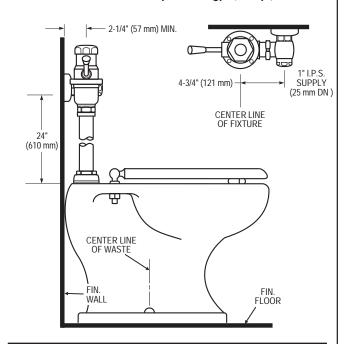
MODEL 110 — Water Saver, 3.5 gpf (13.2 Lpf) † MODEL 111-1.6 — Low Consumption, 1.6 qpf (6.0 Lpf) †



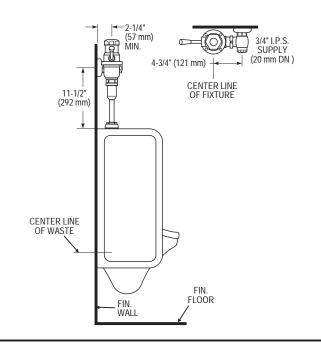
MODEL 120 — Water Saver, 3.5 gpf (13.2 Lpf) † MODEL 120-1.6 — Low Consumption, 1.6 gpf (6.0 Lpf) †



MODEL 115 — Water Saver, 3.5 gpf (13.2 Lpf) † MODEL 115-1.6 — Low Consumption, 1.6 gpf (6.0 Lpf) †



MODEL 186-1 — Low Consumption, 1.0 qpf (3.8 Lpf) ‡



- † These factory settings are made at 40 psi (275 kPa). Actual flush volume will vary with pressure and flow rate. Valve flow rate can be adjusted between 0.5 gpf/1.9 Lpf and 16.0 gpf/60.6 Lpf.
- ‡ These factory settings are made at 40 psi (275 kPa). Actual flush volume will vary with pressure and flow rate. Valve flow rate can be adjusted between 0.25 gpf/0.9 Lpf and 12.0 gpf/45.4 Lpf.

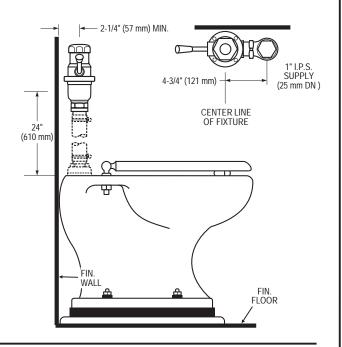
Note: Items shown by dotted lines are not supplied by Sloan Valve Company. Shock Proof Installations do not include fixture connections, clamp or rubber hoses. For Saltwater and Seawater, and all Shipboard Flushometers, Sloan Valve Company recommends furnishing Dolphin Valves with a Ground Joint Supply Stop. Specify "-GJ" (Ground Joint) variation. Standard Shipboard Flushometers use Ground Joint Supply Stops.

Saltwater and other non-potable water supplies typically do not require the use of Vacuum Breakers. To furnish the valves less the vacuum breaker, specify the "-XYV" variation.

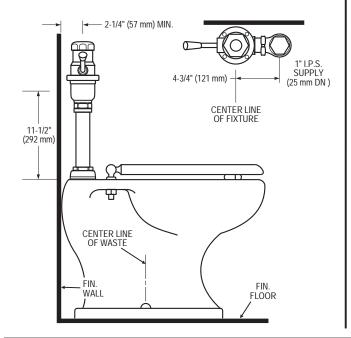
Shipboard Flushometer valves can be supplied with a Sil-Braze Inlet Adapter. For Type I Water Closet applications, use a 1" (25 mm) adapter; for Type II Urinal applications, use a 1/2" (13 mm) adapter.

DOLPHIN VALVE ROUGH-IN — Figure A (Continued)

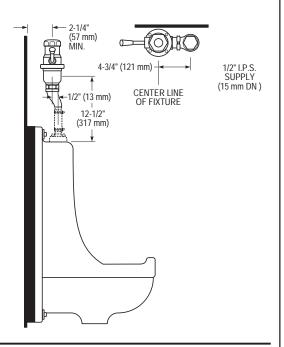
Shipboard Model Type I Class A Shock Proof — 3.5 gpf/13.2 Lpf †



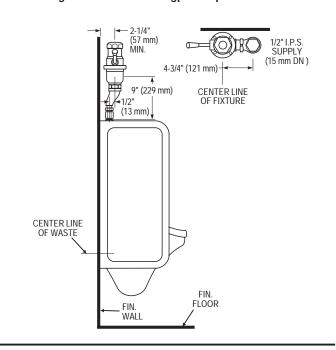
Shipboard Model Type I Class B Rigid Installation — 3.5 gpf/13.2 Lpf †



Shipboard Model Type II Class A Shock Proof — 1.0 gpf/3.8 Lpf ‡



Shipboard Model Type II
Class B Rigid Installation — 1.0 gpf/3.8 Lpf ‡



- † These factory settings are made at 40 psi (275 kPa). Actual flush volume will vary with pressure and flow rate. Valve flow rate can be adjusted between 0.5 gpf/1.9 Lpf and 16.0 gpf/60.6 Lpf.
- ‡ These factory settings are made at 40 psi (275 kPa). Actual flush volume will vary with pressure and flow rate. Valve flow rate can be adjusted between 0.25 gpf/0.9 Lpf and 12.0 gpf/45.4 Lpf.

Note: Items shown by dotted lines are not supplied by Sloan Valve Company. Shock Proof Installations do not include fixture connections, clamp or rubber hoses.

For Saltwater and Seawater, and all Shipboard Flushometers, Sloan Valve Company recommends furnishing Dolphin Valves with a Ground Joint Supply Stop. Specify "-GJ" (Ground Joint) variation. Standard Shipboard Flushometers use Ground Joint Supply Stops.

Saltwater and other non-potable water supplies typically do not require the use of Vacuum Breakers. To furnish the valves less the vacuum breaker, specify the "-XYV" variation.

Shipboard Flushometer valves can be supplied with a Sil-Braze Inlet Adapter. For Type I Water Closet applications, use a 1" (25 mm) adapter; for Type II Urinal applications, use a 1/2" (13 mm) adapter.

PRIOR TO INSTALLATION

Perform the following functions using the rough-in guides illustrated in Figure A:

- · Install closet or urinal fixture.
- Install drain line.
- Install water supply line.

Important Notes:

- ALL PLUMBING SHOULD BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES AND REGULATIONS.
- WATER SUPPLY LINES MUST BE SIZED TO PROVIDE AN ADEQUATE VOLUME OF WATER FOR EACH FIXTURE.
- FLUSH ALL WATER LINES PRIOR TO MAKING CONNECTIONS.
- A GROUND JOINT STOP IS RECOMMENDED FOR ALL SALT WATER APPLICATIONS.
- A VACUUM BREAKER USUALLY IS NOT REQUIRED WHEN WATER SUPPLY IS NON-POTABLE. SPECIFY "-XYV" VARIATION WHEN ORDERING.
- A VACUUM BREAKER IS NOT SUPPLIED WITH SHIPBOARD MODELS.

The Sloan Dolphin Flushometer is an adjustable valve designed to operate with 10 to 100 psi (69 to 689 kPa) of water pressure. The type of fixture selected determines the minimum pressure required by the valve. Consult fixture manufacturer for minimum pressure requirements.

Most Low Consumption water closets (1.6 gpf/6.0 Lpf) require a minimum flowing pressure of 25 psi (172 kPa).

TOOLS AND SUPPLEMENTAL MATERIALS REQUIRED FOR INSTALLATION

- Slotted screwdriver
- 1/16" hex wrench for wall flange.
- Smooth jawed spud wrench or Sloan A-50 "Super-Wrench™" for couplings.

INSTALLATION

Step 1A — Install Optional Sweat Solder Adapter (Figure 1)

Note: DO NOT use in saltwater applications.

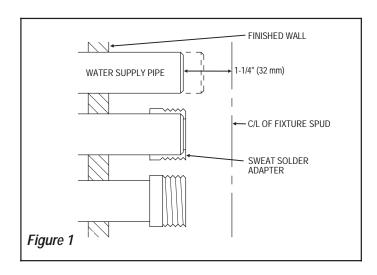
Install the threaded Adapter only if your supply pipe does not have threaded ends. If your installation includes a supply line with a threaded iron pipe nipple, skip ahead to Step 2.

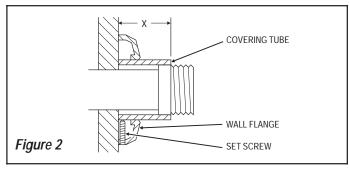
Measure distance from finished wall to centerline of Fixture Spud. Cut water Supply pipe 1-1/4" (32 mm) shorter than this measurement. Chamfer O.D. and I.D. of water supply line.

Slide Sweat Solder Adapter onto water supply pipe until end of pipe rests against shoulder of Adapter. Sweat solder Adapter to water supply pipe.

Install Wall Flange and Covering Tube (Figure 2)

Determine length of Covering Tube by measuring distance from finished wall to the first thread of Adapter (dimension "X" in Figure 2). Cut Covering Tube to this length.





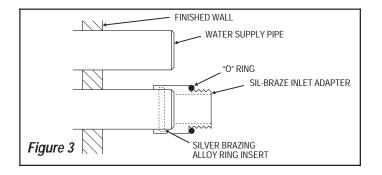
Slide Covering Tube onto water supply pipe. Slide Wall Flange over Covering tube until it rests against the finished wall. Secure the Wall Flange and the Covering Tube with the Set Screw. Tighten with a 1/16" hex wrench.

Step 1B — Install Sil-Braze Inlet Adapter (Figure 3) (for Shipboard Models only)

If you are not installing the Sil-Braze Inlet Adapter that can be furnished with a Shipboard Flushometer, skip ahead to Step 2.

ASSEMBLY

- A. Insert solder ring into Sil-Braze Inlet Adapter.
- B. Place Adapter over end of copper pipe. For Shipboard Type I Closet Valves, the diameter of this copper pipe is 1" (25 mm); for Shipboard Type II Urinal Valves, the diameter of this copper pipe is 1/2" (13 mm).
- C. Solder Adapter to copper pipe. Allow pipe and Adapter to cool before proceeding.



IMPORTANT NOTES

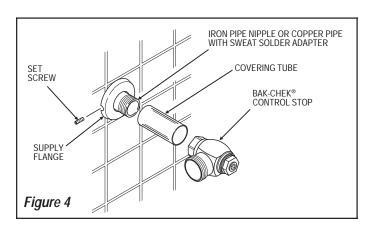
With the exception of the Control Stop inlet, DO NOT USE pipe sealant or plumbing grease on any valve component or coupling!

- D. Place "O" ring over the male thread of the Adapter. Make sure that the "O" ring is seated against the shoulder of the adapter.
- E. The Control Stop has a 1" (25 mm) straight thread that must be tight against the "O" ring.

Step 2 — Install Control Stop (Figure 4)

Install the Sloan Bak-Chek® Control Stop to the water supply line with the outlet positioned as required. Tighten the Control Stop coupling with a wrench.

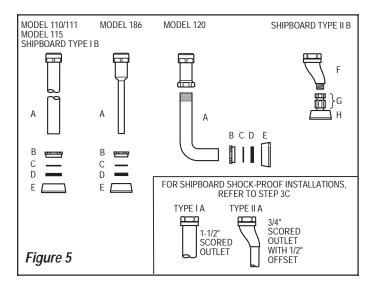
Note: Stops furnished with Sil-Braze Adapter have a straight thread with an O-ring seal. DO NOT use pipe dope on this connection.



Step 3A — Install Vacuum Breaker Flush Connection (Figure 5)

Note: A Vacuum Breaker usually IS NOT required when water supply is non-potable. Specify "-XYV" variation when ordering. If you have already installed a Class A Shock Mount, skip ahead to step 4.

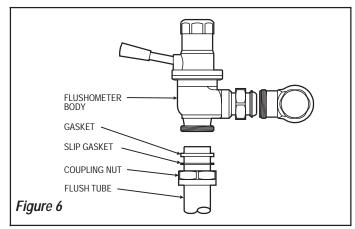
For all installations except for Shipboard Shock Proof and Type II Class B Rigid Installation, slide the Spud Coupling (B), Nylon Slip Gasket (C), Rubber Gasket (D), and Spud Flange (E) over the Vacuum Breaker Tube (A) and insert the tube into Fixture Spud. Hand tighten the Spud Coupling (B) onto Fixture Spud.



For **Type II Class B Rigid Installation**, position the 3/4" Spud Flange (H), then attach the 3/4" to 1/2" Reducer (G) to the 1/2" Spud and to the 3/4" Flush Connection with 1/2" Offset (F).

Step 3B — Install "-XYV" Variation (less Vacuum Breaker) (Figure 6)

Slip Coupling Nut, Slip Gasket, and Gasket over Flush Tube. Slip Flush Tube into the Bottom of the Flushometer Body. Hand tighten Coupling Nut to secure.



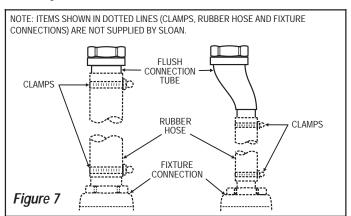
Step 3C — Install Class A Shock Mount (Figure 7) (for Class A Shock Mount Models only)

Specify "-XYV" variation when ordering and skip ahead to Step 3B. If you need to install a Class A Shock Mount, skip ahead to Step 3C; if you have already installed a Class A Shock Mount, skip ahead to Step 4.

Class A Shock Mount Shipboard Flushometer Valves connect to fixtures with a rubber hose. Sloan Valve Company does not supply rubber hose, clamps, and fixture connections.

ASSEMBLY

- A. Cut the Flush Connection tube to the proper length at the site of installation. Allow a minimum length of 5" (127 mm) between the tube ends when using rubber hose.
- B. Clamp hose to the scored end of the Flush Connection tube. If Flush Connection Tube needs to be shortened, do not cut off all of the scoring.



IMPORTANT NOTES

With the exception of the Control Stop inlet, DO NOT USE pipe sealant or plumbing grease on any valve component or coupling!

Step 4 — Install Flushometer (Figures 8A and 8B) SLOAN ADJUSTABLE TAILPIECE (FIGURE 8A)

Insert Adjustable Tailpiece into Control Stop. Wet O-ring seal with water to lubricate. Hand tighten Tailpiece Coupling to secure.

Note: If rough-in measurement exceeds 5-1/4" (133 mm), Sloan also can supply longer tailpieces.

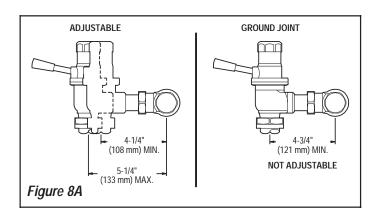
SLOAN GROUND JOINT TAILPIECE (FIGURE 8A)

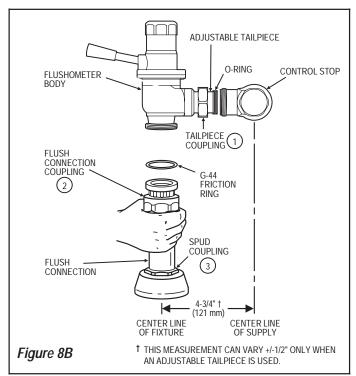
Place end of Ground Joint Tailpiece against Control Stop. Hand tighten Tailpiece Coupling to secure.

ALL FLUSHOMETERS (FIGURE 8B)

Align Flushometer on top of Flush Connection and hand tighten Coupling to secure.

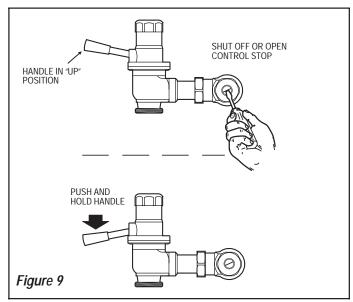
Align Flushometer Body and securely tighten (in order) first the Tailpiece Coupling (1), then the Flush Connection Coupling (2), and last the Spud Coupling (3).





Step 5 — Flush Out Supply Line (Figure 9)

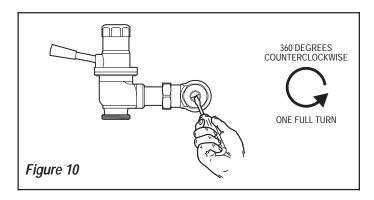
Shut off Control Stop. Turn on water supply. Open Control Stop and activate Dolphin Flushometer Valve by pushing Handle down. Hold the Handle in the down position until all dirt and debris is flushed out from the supply line and the water flowing into the fixture is clean. Release the Handle to begin the flush cycle. When the handle returns to the "UP" position, the flush cycle will finish.



Step 6 — Adjust Control Stop (Figure 10)

Adjust Control Stop to meet the flow rate required for the proper cleansing of the fixture. Open Control Stop counterclockwise **one full turn** from the closed position. Activate Flushometer. Adjust Control Stop after each flush until the rate of flow delivered properly cleanses the fixture. After adjustment process is complete, tighten Control Stop Cap to eliminate vandalism.

Important Note: The Sloan Dolphin Flushometer is engineered for quiet operation. Excessive water flow creates noise, while inadequate water flow may not satisfy the needs of the fixture. Proper adjustment is made when the plumbing fixture is cleansed after each flush without splashing water out from the lip and a quiet flushing cycle is achieved.



IMPORTANT NOTES

With the exception of the Control Stop inlet, DO NOT USE pipe sealant or plumbing grease on any valve component or coupling!

Step 7— Adjust Duration of Flush (Figure 11)

The Sloan Dolphin Flushometer can be adjusted to meet the flushing requirements of any plumbing fixture. The flush volume in gallons per flush (or liters per flush) may be changed by adjusting the Regulating Screw.

DOLPHIN FLUSHOMETER VALVE ADJUSTMENT RANGES	Factory Setting†	Minimum Flush Volume	Maximum Flush Volume
Clos	et Models		
110, 115, 120, Type I Class A Shock Proof, Type I Class B Rigid Installation	3.5 gpf (13.2 Lpf)	0.5 gpf (1.9 Lpf)	16.0 gpf (60.6 Lpf)
111, 115-1.6, 120-1.6	1.6 gpf (6.0 Lpf)	0.5 gpf (1.9 Lpf)	16.0 gpf (60.6 Lpf)
Urin	al Models	•	•
186-1, Type II Class A Shock Proof, Type II Class B Rigid Installation	1.0 gpf (3.8 Lpf)	0.25 gpf (0.9 Lpf)	12.0 gpf (45.4 Lpf)

[†] Factory settings are made at 40 psi (275 kPa). Flush volume will vary with pressure and flow rate.

Remove the Cover Nut from the Valve body. Use a flat blade screwdriver, slightly rotate the Regulating Screw located in the center of the oil chamber.

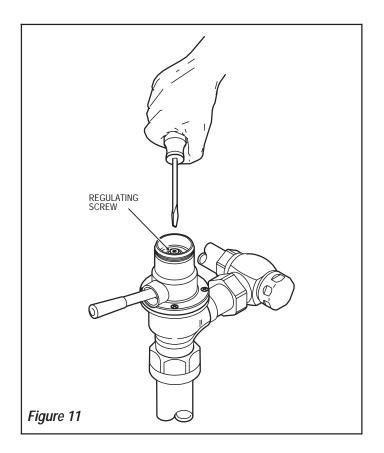


CLOCKWISE increases length of flush and therefore increases flush volume



COUNTERCLOCKWISE decreases length of flush and therefore decreases flush volume

When the water delivered properly cleanses fixture, replace Cover Nut and tighten with a wrench.



IMPORTANT NOTES

TROUBLESHOOTING GUIDE

REFER TO DOLPHIN MAINTENANCE GUIDE FOR COMPLETE VALVE ASSEMBLY AND DISASSEMBLY INSTRUCTIONS.

1. PROBLEM: Flushometer does not function.

> CAUSE: Control Stop or Main Valve is closed.

SOLUTION: Open Control Stop or Main Valve.

CAUSE: Handle Socket Assembly is damaged.

SOLUTION: Replace (DO-20) Handle Socket Assembly.

2. PROBLEM: Volume of water is inadequate to siphon fixture.

> CAUSE: Control Stop is not open enough.

SOLUTION: Adjust Control Stop for desired delivery of water

volume.

CAUSE: Timing of Flushometer closure is set too fast.

SOLUTION: Remove DO-1 Cover Nut. Use a small blade

> screwdriver to turn DO-3 Regulating Screw clockwise. Flushometer should be set so valve closure occurs between 7 and 12 seconds.

CAUSE: Water supply volume or pressure is inadequate.

SOLUTION: If no gauges are available to properly measure

supply pressure or volume, completely open Control Stop and hold down Flushometer Handle without allowing it to close. If fixture siphons, increase timing of closure (see previous solution). If fixture does not siphon, steps must be taken to increase the supply pressure and/or volume. Contact fixture manufacturer for minimum water

supply requirements of fixture.

3. PROBLEM: Flushometer closes immediately.

CAUSE: Oil Chamber of Upper Body is empty.

SOLUTION: Remove DO-1 Cover Nut. Fill Oil Chamber with

SAE 10 Oil.

CAUSE: Piston seal is worn or damaged.

SOLUTION: Replace DO-6 Piston O-ring seal. Refer to

Dolphin Maintenance Guide for complete

assembly and disassembly instructions.

PROBLEM: Length of flush is too short (Short Flushing).

CAUSE: Volume of oil in Oil Chamber of Upper Body is low.

SOLUTION: Remove DO-1 Cover Nut. Fill Oil Chamber with

SAE 10 Oil.

CAUSE: Timing of Flushometer closure is not adequately

adjusted.

Remove DO-1 Cover Nut. Using small blade SOLUTION:

screwdriver, turn DO-3 Regulating Screw

clockwise until a 7 to 12 second flush is achieved.

PROBLEM: Length of flush is too long (Long Flushing).

> CAUSE: Timing of Flushometer closure not adequately

> > adjusted.

SOLUTION: Remove DO-1 Cover Nut. Using small blade

> screwdriver, turn DO-3 Regulating Screw counterclockwise until a 7 to 12 second flush is

achieved.

PROBLEM: Oil is leaking from handle.

> CAUSE: Stem seals are worn or damaged.

Replace two (2) SH-75 Throttle Seal O-rings SOLUTION:

Refer to Dolphin Maintenance Guide for complete

assembly and disassembly instructions.

7. PROBLEM: Valve does not close completely (water trickle).

> CAUSE: Compression Spring is worn or damaged.

SOLUTION: Replace DO-16 Compression Spring. Refer to

> Dolphin Maintenance Guide for complete assembly and disassembly instructions.

CAUSE: Flex-Sac Assembly is worn.

SOLUTION: Replace DO-15 Flex-Sac. Refer to Dolphin

Maintenance Guide for complete assembly and

disassembly instructions.

CARE AND CLEANING INSTRUCTIONS

DO NOT use abrasive or chemical cleaners to clean Flushometers, they may dull the luster and attack the chrome finish. Use ONLY soap and water, and then wipe dry with a clean towel or cloth. When cleaning, protect the exposed Flushometer from any splattering of cleaner. Acids and cleaning fluids can discolor or remove chrome plating.

If further assistance is required, please contact the Sloan Valve Company Installation Engineering Dept. at 1-800-982-5839 or 1-847-671-4300.

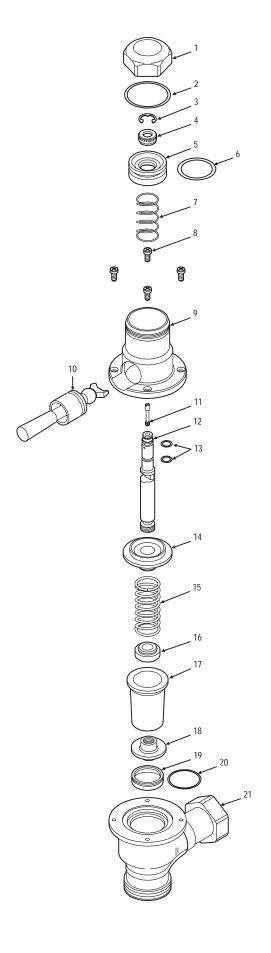
IMPORTANT NOTES

Parts List

Item No.	Part No.	Description
1	DO-1	Cover Nut NP
2	DO-2	"O" ring-Seat (1 required; 6 per pkg.) (Cover Ga
3	DO-28	Retaining Ring (1 required; 24 per pkg.)
4	DO-4	Stem Nut RB (1 required; 6 per pkg.)
5	DO-5	Piston
6	DO-6	"O" ring-Piston (1 required; 6 per pkg.)
7	DO-7	Piston Spring (1 required; 6 per pkg.)
8	DO-11	Cover Screw CP (4 required; 24 per pkg.)
9	DO-10	Upper Body NP
10	DO-20	Handle and Socket Assembly
11	DO-3	Regulating Screw RB (1 required; 6 per pkg.)
12	DO-9	Stem
13	SH-75	"O" ring-Throttle Seal (2 required)
14	DO-14	Bushing RB
15	DO-16	Compression Spring (Main Spring)
16	DO-17	Insert RB (1 required; 6 per pkg.)
17	DO-15	"Flex-Sac"
18	DO-18	Seating Nut
19	DO-21	Main Seat, Delrin
20	DO-22	"O" ring-Seat Assembly
21a	DO-13-NC	Lower Body NP-Closet
21b	DO-13-NU	Lower Body NP-Urinal

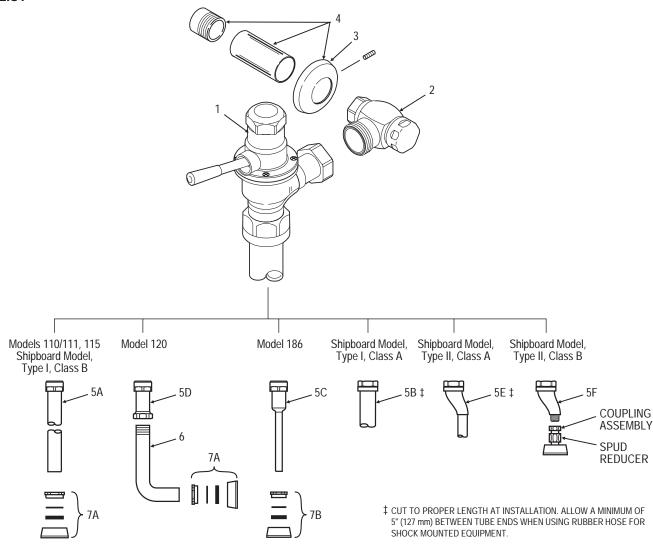
Replacement and Repair Kits

replaceme	citt and repair Rits	
A	DO-1000-A	Piston with "O" ring
	Component parts:	items 5 and 6
В	DO-1001-A	Repair Kit-Dolphin Handle
	Component parts:	items 10, 11, 12, and 13
С	DO-32	"Flex-Sac" Assembly
	Component parts:	items 17 and 18
D	DO-32-AA	Repair Kit-"Flex-Sac" Assembly
	Component parts:	items 2, 6, 13, 17, and 18
E	DO-32-AAN	Repair Kit-"Flex-Sac" and Stem
	Component parts:	items 2, 6, 7, 13, 15, 17, 18, 19b, and 20
F	DO-19-A	Seat Assembly with "O" ring
	Component parts:	items 19b and 20
G	DO-12-A	Upper Body Assembly
	Component parts:	items 1 through 7 and 9 through 18
Н	DO-13-A-NC	Lower Body Assembly for Closet
	Component parts:	item 21a, H-6 Coupling , CP, and NH-5 Ground
	DO 12 A MILI	Joint Tail, CP
	DO-13-A-NU	Lower Body Assembly for Urinal
	Component parts:	item 21b, H-6 Coupling , CP, and NH-5 Ground Joint Tail, CP $$



IMPORTANT NOTES

PARTS LIST



tem	Part	Description			
No.	No.	<u> </u>			
1	†	Valve and Handle Assembly			
2	H-710-A	Bak-Chek® Control Stop (Adjustable or Ground Joint)			
3	F-7	Supply Flange (Supplied When Valve is Not Ordered with Sweat Solder Kit)			
4	H-633-AA	1" (25 mm) Sweat Solder Kit with Cast Set Screw Flange ("-YBYC" Variation)			
	H-636-AA	3/4" (19 mm) Sweat Solder Kit with Cast Set Screw Flange ("-YBYC" Variation)			
5A	V-600-AA	1-1/2" (38 mm) x 9" (229 mm) Vacuum Breaker Assembly CP (Model 110/111; Shipboard Model, Type I, Class B)			
	V-600-AA	1-1/2" (38 mm) x 21" (533 mm) Vacuum Breaker Assembly CP (Model 115)			
5B	NF-1	1-1/2" (38 mm) Scored Outlet (Shipboard Model, Type I, Class A)			
5C	V-600-AA	3/4" (19 mm) x 9" (229 mm) Vacuum Breaker Assembly CP (Model 186)			
5D	V-600-AA	1-1/2" (38 mm) Vacuum Breaker Assembly CP (Model 120)			
5E	NF-29-A	3/4" (19 mm) Scored Outlet with 1/2" Offset (Shipboard Model, Type II, Class A)			
5F	F-29-A	3/4" (19 mm) Flush Connection with 1/2" Offset and 3/4" x 1/2" Reducer for 1/2" Spud (Shipboard Model, Type II, Class B)			
5	F-109	1-1/2" (38 mm) Flush Connection CP			
7A	F-5-A	1-1/2" (38 mm) Spud Coupling Assembly (Models 110/111, 115, 120)			
7B	F-5-A	3/4" (19 mm) Spud Coupling Assembly (Model 186)			
TOV	F-40	1/2" (13 mm) Sil-Braze Adapter			
SHOWN	F-40	1" (25 mm) Sil-Braze Adapter			

[†] Part number varies with valve model variation; consult factory.

NOTICE: The information contained in this document is subject to change without notice.

