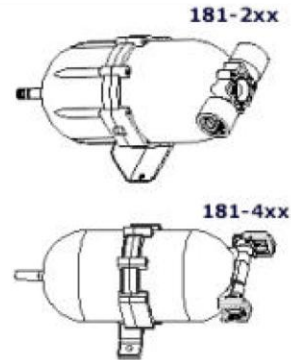


ACCUMULATOR TANK Model 181-2XX (1/2 – 14 F-NPT ports) or 181-4XX (Snap Fit Ports) INSTALLATION MANUAL

The SHURflo Accumulator tank is a bladder type pressure storage vessel and/or pulsation dampening device designed to hold water under pressure.

The accumulator tank provides additional water storage to assist the pump in meeting the total demands of the system. It extends pump life by eliminating pump pulsating on/off. Makes water available at a moments notice w/o cycling the pump.



- The standard accumulator is pre-charged to 20 psi [1.4 bar] at the factory for ground shipment. Do not exceed this pressure for long-term storage, shipping, or during system non-use. Accumulators with more than 40 psi [2.7 bar] pre-charge and no liquid pressure may damage the bladder.
- It is recommended the pre-charge be checked on a monthly basis. Use a standard tire pressure gauge to check the pressure. The pre-charge valve stem cap **MUST** be tight to prevent air leakage.
- The accumulator may be placed anywhere in the pressurized side of the plumbing. The ports are non-directional in flow and do not have to be plumbed in line (one side can be plugged).
- Can be mounted in any position. However, for complete sanitizing/winterizing, the recommended mounting position is with pre-charge valve stem up. **Do not** freeze or mount near a high heat source.
- Models with 1/2-14 ports: Insert the rubber washers in each port. Threaded fittings (plastic/nylon only) should be torqued approximately 1/2 to 1 turn after *hand-tightened*. **Never** exceed 6 ft/lbs [88 Nm] of torque on the ports. Plumb the system using high pressure (2x pump rating), braided, flexible tubing to minimize vibration/noise.

RV/MARINE APPLICATIONS

The accumulator contributes to longer pump life, less noise, less amperage draw, and reduced water pulsation. The most efficient use of the accumulator occurs with the pre-charge set at the **SAME** pressure as the pump's pressure switch "turn on" setting. Typically, a 40 psi [2.7 bar] pump will turn on at 20 psi [1.4 bar]. Therefore, the pre-charge should also be 20 psi [1.4 bar]. The pre-charge **MUST** be set in a "static" condition (pump off and at least one water fixture opened).

Approximately 15% of the total volume will be stored liquid. Depending on pre-charge pressure to the accumulator, in relation to the pump turn on/off pressures, stored liquid is about 2 to 4 oz. [60-120 ml]. If accumulator tank pre-charge exceeds pump turn on pressure, the liquid volume is reduced.

BEVERAGE APPLICATIONS

For applications requiring an intermittent flow rate at a given pressure, the proper pre-charge is the *minimum* pressure required at the dispense valve. For example, if a system requires a *minimum* pressure of 30 psi [2.0 bar] (for correct brix, etc.), the pre-charge should be set at 30 psi [2.0 bar] to permit the most reserve storage capacity.

WATER HAMMER APPLICATIONS

When used as a dampening device/water hammer or noise suppressor, the pre-charge should be set at the operating (dynamic) pressure. Place a gauge in the offending plumbing where the accumulator can be mounted. Adjust the valve so the noise is generated and read the pressure. Set the pre-charge to the observed pressure, remove the gauge, and install the accumulator. Refer to SHURflo Service Bulletin #1024 for application information.

SPECIFICATIONS

Maximum Working Pressure:	125 psi [25 bar]
Total Volume: (gas/liquid):	21 oz. [620 ml]
Temperature Range:	34-120° F [1-49°C]
Diameter:	3 3/4" [95 mm]
Length:	8 3/4" [22 cm]
Listings:	NSF listed
Housing Material:	Nylon
Bladder Material:	Butyl
Threaded Ports: (-201, -202, -203)	1/2-14F-NPT
Snap Fit Ports Fittings:(-4xx)	Available in Nylon or SS 1/4", 3/8" and 1/2" barb, straight or 90° elbow. A 3/8" straight John Guest® adapter is also available. Refer to Beverage Catalog # MS-060-062 for fitting #s. Std. fittings supplied with SHURflo pumps are 3/8" barb fittings.
Mounting Bracket: (std on -4xx / optional on 2xx series)	Two 7/32" [5.3 mm] ϕ holes at 4-1/16" [103 mm] centerline apart

LIMITED WARRANTY

SHURflo warrants the 181 series accumulator to be free from material and workmanship defects (under normal use and service) for a period of one (1) year from the date of manufacture or one (1) year use, with proof of purchase, not to exceed two (2) years in any event.

The limited warranty will not apply to accumulators that were improperly installed, misapplied, or are incompatible with components or liquid not manufactured by SHURflo. Failure due to foreign debris is not covered under the terms of this limited warranty. SHURflo will not warrant any accumulator, which is physically damaged or altered outside the SHURflo factory.

Warranty claims may be resolved by an authorized dealer service center, or by SHURflo. Returns are to be shipped with charges pre-paid. Package all returns carefully. SHURflo will not be responsible for freight damage incurred during shipping to a service center.

SHURflo's obligation under this warranty policy is limited to the repair or replacement of the accumulator. Accumulators found not defective (under the terms of this limited warranty) are subject to charges to be paid by the returnee for the testing and packaging of "tested good" units. Warranty returns will be shipped on a freight allowed basis. SHURflo reserves the right to choose the method of transportation.

SHURflo is not responsible nor will it reimburse for labor necessary to remove and reinstall an accumulator if found defective.

This limited warranty is in lieu of all other warranties, expressed or implied, and no other person is authorized to give any other warranty or assume obligation or liability on SHURflo's behalf. SHURflo shall not be liable for any labor, damage or other expense, nor shall SHURflo be liable for any indirect, incidental or consequential damages of any kind incurred by the reason of the use or sale of any defective product or part. This limited warranty covers products distributed within the United States of America. Other world market areas should consult with their distributors for any deviation from this document.