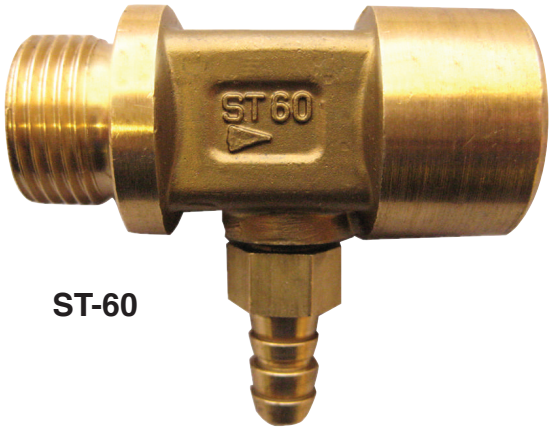
SUTTNER
AMERICA COMPANY

ST-60 & ST-62 Chemical Injectors

Manual



ST-60

ST-62

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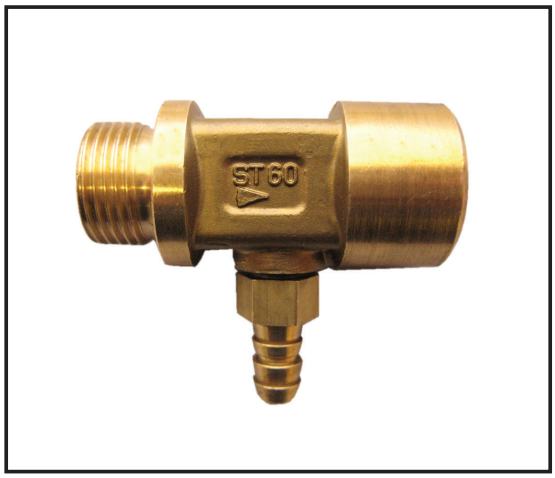


Model ST-60

· Forged Brass Housing
· 3 Orifice Options
· Viton O-rings
· Stainless Steel Spring
· Stainless Steel Ball

Model ST-62

· Forged Brass Housing
· Adjustable Orifice Size
· Viton O-rings
· Stainless Steel Spring
· Stainless Steel Ball

A downstream injector is installed "downstream" or after the pump in the high pressure cleaning system. Downstream injectors rely on a pressure differential. A restrictive orifice is used to create a venturi suction, and the pressure differential **is** created by using a large orifice spray nozzle. We generally recommend using a nozzle with a minimum orifice **size** of 30.0 (0.141 in. diameter). A smaller nozzle may sometimes be used, but the added restriction may result in ineffective suction rates or no suction at all. Excessive restriction downstream of the injector can also be caused by elbows, fittings, small diameter discharge hose, or added lengths of discharge hose. The excessive restriction may reduce the pressure differential to a point where the injector suction capabilities are **lost**

NOTE: Choosing a smaller orifice ***size*** than recommended will result in higher pressure loss, although the injector will still function. Using a larger orifice **size** than recommended may eliminate siphoning capabilities.

SPECIFICATIONS

	Model ST-60	Model ST-62
PRESSURE, MAX	3600 PSI	3600 PSI
ORIFICE	3 OPTIONS	ADJUSTABLE
FLOW RATE, MIN	1.0 US GPM	ADJUSTS to 8 GPM
FLOW RATE, MAX	5.0 US GPM	ADJUSTS to 8 GPM
INLET	3/8" MNPT	3/8" FNPT
OUTLET	3/8" FNPT	3/8" FNPT
HOSE BARB	1/4" HOSE BARB	1/4" HOSE BARB
SIPHON RATE	10:1	10:1

The ST-62 injector allows for water flow adjustment from the pressure pump. By adjusting the water flow through the ST-62, a restriction causes a vacuum which allows the detergent to be drawn through the hose barb when a large orifice nozzle is used. With the adjustment feature, the ST-62 can be used with a variety of water flows, replacing injectors with fixed orifices that are sized to specific water flows.

INJECTOR RATIOS

Injector ratios are approximate. They vary with the lift required, downstream restrictions, viscosity, temperature, etc.. To determine the exact siphon ratio for your application:

1. Operate the injection feature for one minute.
2. Measure how much detergent was used.
3. Subtract the amount of injected detergent from the total amount of liquid discharged.
4. Divide this number from the amount of injected detergent. Example: If the total amount of liquid discharged equals 5 gallons, and the detergent injected equals 58 oz. (0.45 gallon), the exact ratio would be determined as follows: 5.0 - 0.45 = 4.55, 4.55/0.45 = 10. The ratio is 10 parts water to 1 part detergent.

MOUNTING and OPERATING INSTRUCTIONS

1. Connect the discharge port of the cleaner to the inlet port of the injector (the arrow on the injector housing should point in the direction of water flow).
2. Connect downstream components (such as discharge hose/gun) to outlet port.
3. Connect the detergent hose to the hose barb and secure.
4. Place the other end of the hose into the detergent.
5. Turn on the water (on the ST-62, also turn adjustment to maximum counter-clockwise).
6. To activate injector, employ the large orifice nozzle. The ST-62 will now need to be adjusted clockwise for detergent suction.

TROUBLESHOOTING

Symptom	*Possible Cause*	*Action*
No Suction	Metering valve (if applicable) is closed	Open metering valve to desired setting
	Detergent hose not submerged	Ensure the intake hose is submerged in the detergent
	Obstructed intake hose	Check hose for kinks, obstruction or cuts. Ensure the filter (if applicable) is clean
	Too much restriction	Ensure the large orifice nozzle is being used and that the outlet hose is large enough for pump flow (refer to page 2)
	Too much vertical lift	Place chemical container level with injector intake
	Intake check valve clogged	Ensure chemical intake check valve is clean and working properly. Replace with kit #200060720 if necessary
	Improper orifice size	Size injector orifice in ST-60 according to water flow (refer to chart on page 2). Adjust the knob on the ST-62
Water flows back through the chemical line	Intake check not working properly	Ensure the ball and spring in the intake check valve are installed correctly, not damages or corroded. Replace with kit #200060720

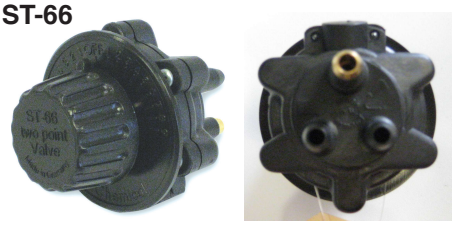
ST-61 (Item No. 999061500)
The ST-61 metering valve connects to the chemical inlet barb without special tools. Made of a glass filled poly material, it is extremely corrosion resistant.

ST-66 (Item No. 200066500)
Chemical flow can be metered and shut **off** remotely from the injector with the **ST-66.** Made of high grade polymers, stainless steel, and brass, it is the industry standard for panel mount chemical metering valves. With **two** inlets, it also allows switching from one solution to another. Simply **turn** the knob to the desired side and setting of the easy to read legend plate.

ST-31 (Item No. 200031600) and
ST-31R (Item No. 200031610)
This weighted plastic strainer keeps debris out of the injector and cleaning system. The ST-31R has a built in stainless steel and Viton check valve to prevent water flow back into the soap container.

ST-61

ST-66



ST-31/ST-31R