

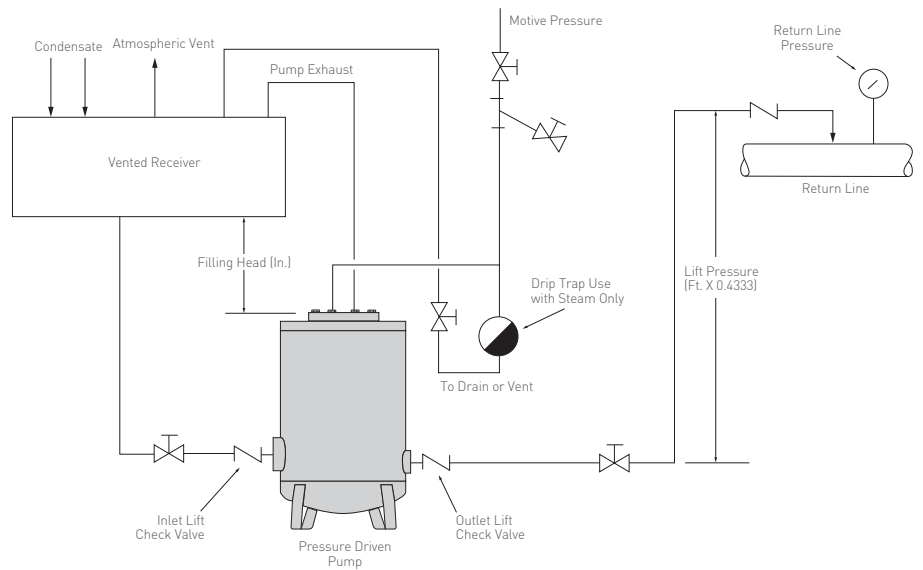


YARWAY CONDESAVER™ SERIES STEAM CONDENSATE RETURN PUMPS INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

Before installation, these instructions must be carefully read and understood.



FIGURE 1
Vented Receiver Application



INSTALLATION

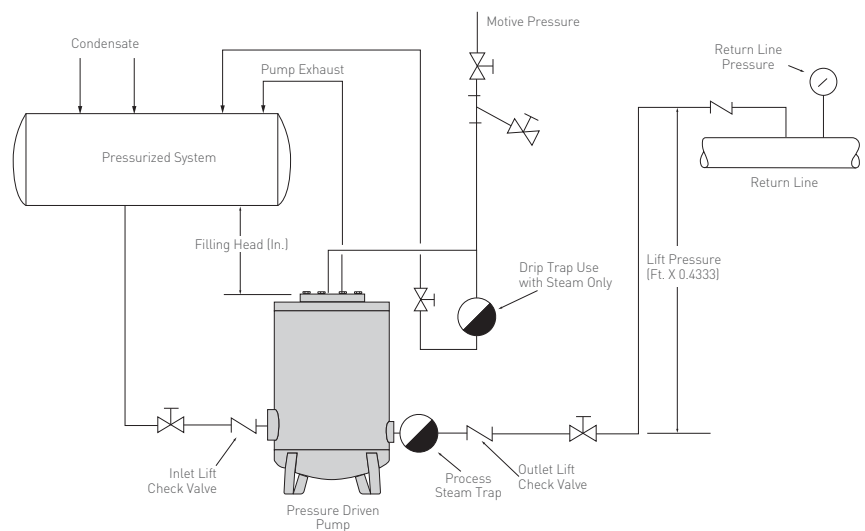
The unit should be installed in a level position. Follow the piping arrangement of Figure 1 for a vented receiver application or Figure 2 for a pressurized receiver application. Upstream piping must always be equal to or larger than the check valve connection size and block valves must be full ported to achieve rated capacities. The pump should not be used to support the weight of the piping.

To prevent water hammer and damage to the pump's outlet check valve when lifting condensate large heights, install a check valve at the highest point of the return line.

Vented Receiver and Pressurized Receiver

To prevent upstream equipment flooding while the pump is discharging, a condensate receiving vessel should be installed directly above the Condensaver™ Series with the necessary filling head distance between the bottom of the receiver and the top of the pump.

FIGURE 2
Pressurized Receiver Application



YARWAY CONDENSATER™ SERIES STEAM CONDENSATE RETURN PUMPS

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

COMMISSIONING

1. Open the motive pressure line block valve. If steam, ensure that the steam trap is functional.
2. Open the block valves on the inlet and outlet condensate lines to commission the system.

NOTE

Proper operation can be verified by observing the level in the sight glass. During the fill cycle the level should rise and during the discharge cycle, it should fall.

WARNING

Hot discharge from this product may cause severe burns. Discharge must be piped away or directed so that persons in the vicinity are not endangered. This product must be isolated, vented and cool to the touch before repairing or inspecting.

MAINTENANCE

The Yarway CondenSaver™ Series does not require frequent service. It is recommended, however that routine maintenance be performed at least on a yearly basis, depending on the quality of the liquid being pumped. During this service, the system including strainers, tanks, valves and piping should be flushed or cleaned to prevent the accumulation of rust and other contaminants from fouling the check valves or the working mechanism of the pump.

NOTE

Any malfunction of this product must be reported to the service department. Repare made to the product by unauthorized personnel will void the warranty.

DISASSEMBLY

1. Remove the entire internal operating mechanism from the pump by removing the eight hex bolts (19)
2. Remove the operating mechanism from the top flange (15) by removing the two hex bolts (19). The valve internals will come out with the valve actuator plate (9). Discard the valve internals.
3. Remove and discard the valve bodies from the top flange (15).
4. Clean any debris from the operating mechanism and the top flange (15). Inspect the moving parts. Replace any worn or damaged components.

REASSEMBLY

1. Install the new valve bodies. The body with the captivated ball is the inlet valve body and must be installed in the hole ported to the ½ in. NPT connection. Torque the bodies to 30 to 40 ft-lbs (41 to 54 N•m).
2. Place the new valve internals in the slots on the valve actuator plate (9). The valve internal for the inlet plate has the narrow tip. Reinstall the operating mechanism to the top flange (15) with the two hex bolts (19). Torque to 40 to 50 ft-lbs (54 to 68 N•m)
3. Check the operating mechanism for proper tripping operation by carefully raising and lowering the float (1). All parts should move freely and the valves should change position with a snap action.
4. Reassemble the pump using a new gasket. A thread lubricant should be applied to the threads of the eight hex bolts. Torque to 70 to 75 ft-lbs (95 to 101 N•m)

TROUBLESHOOTING

In the event of operational difficulties, refer to Table 1 to identify and correct the problem.

TABLE 1. TROUBLESHOOTING GUIDE

Symptom	Possible Cause	Corrective Action
Pump does not deliver rated capacity	Insufficient filling head	Raise filling head
	Clogged strainer	Clean the strainer
	Insufficient motive pressure	Increase motive pressure
	Back pressure too high	Reduce back pressure
	Inlet check valve is leaking	Clean or replace valve
Pump fills but does not cycle	Damage float	Replace float
	Broken Spring	Replace spring
	Mechanism jammed with debris	Clean the pump and free up the mechanism
Constant discharge of steam or air	Valves have a seat leakage	Replace the inlet and exhaust valves
Liquid is being discharged from the exhaust port	Damage float	Replace float
	Broken Spring	Replace spring
	Mechanism jammed with debris	Clean the pump and free up the mechanism

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INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

PARTS ORDERING

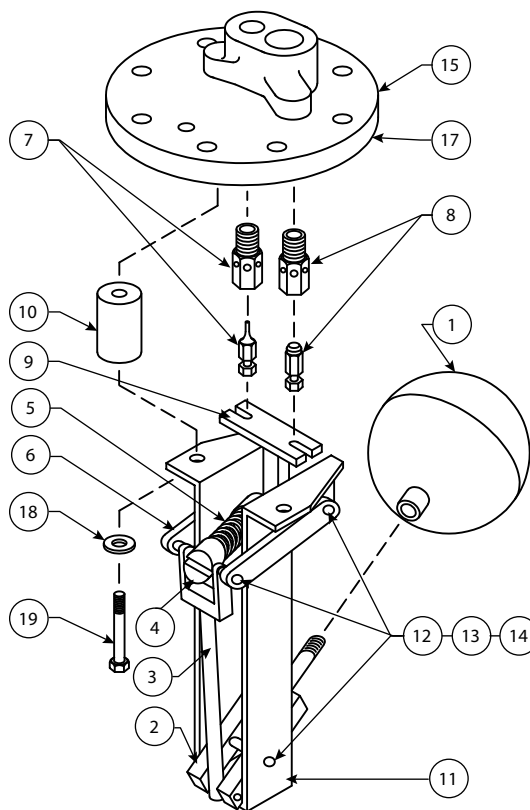
Description	Part Number
Pump Mechanism Assembly - SCP21 (Keys 1-17)	RSCP21M0012
Pump Mechanism Assembly - SCP25 (Keys 1-17)	RSCP25M0012
Pump Mechanism Assembly - SCP33 (Keys 1-17)	RSCP33M0012
Bonnet Gasket (Key 17)	RSCP6SK0012
Mechanism Spring Kit - SCP25 and SCP33 (Keys 4, 5, 12, 14 and 17)	RSCPSPR0012
Mechanism Valve Kit (Keys 7, 8 and 17)	RSCPVLV0012
1 in. CondenSaver Check Valve	RSCPCHK0012
1 ½ in. CondenSaver Check Valve	RSCPCHK0042
2 in. CondenSaver Check Valve	RSCPCHK0022
3 in. CondenSaver Check Valve	RSCPCHK0032

PARTS LIST

Item	Description
1	Float
2	Float Arm
3	Rear Link
4	Spring End Cap
5*	Compression Spring
6	Spring Arm
7*	Inlet Valve Assembly
8*	Exhaust Valve Assembly
9	Valve Actuator Plate
10	Stand Off
11	Frame
12	Shaft
13	Washer
14	Cotter Pin
15	Top Flange
16	Pipe Plug
17*	Gasket
19	Hex Bolt

* Recommended spare parts

FIGURE 3



YARWAY CONDENSATER™ SERIES STEAM CONDENSATE RETURN PUMPS

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

Right to know laws and OSHA standard 29CFR (1910.1200)

Material Safety Data Sheets on the following Yarway products:
Valves, Steam Traps and Strainers

The OSHA Hazard Communication Standard 29CFR 1910.1200, states that the standard does not apply to "articles." The standard defines an article as:

"A manufactured item formed to a specific shape or design for a particular use which does not release or otherwise expose an employee to a hazardous chemical under normal conditions of use."

The above named products fall within the definition of an "article", no Material Safety Data Sheets are available or are required. Our product is manufactured as an "end product."

If the product is a weld end the following applies.

WARNING

Materials used in manufacture of Yarway products are considered in a stable condition when shipped. However, under certain conditions purchasers could create potential hazardous conditions by their future operations.

CAUTION

Welding, cutting, burning, machining or grinding of this product can generate toxic dust and fumes of potentially hazardous ingredients. The dust or fumes can cause irritation of the respiratory tract, nose, throat, skin and eyes. It may cause temporary or permanent respiratory disease in a small percentage of exposed individuals. Use moderate ventilation when grinding or welding. Avoid breathing dust, fumes or mist. Avoid prolonged skin contact with dust or mist. Maintain dust levels below OSHA and ACGIH levels. Use protective devices. Wash hands thoroughly after contact with dust before eating or smoking.

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