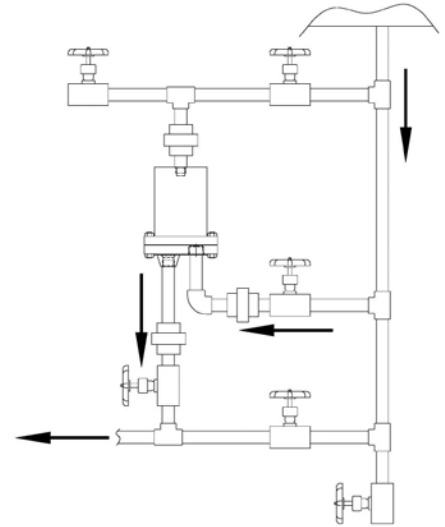


RECOMMENDED INSTALLATION INSTRUCTIONS: CLARK FLOAT OPERATED TRAPS

RECOMMENDED TRAP LOCATION

1. Install trap in plain view. Accessibility is important for inspection and maintenance.
2. Install below the unit being drained to allow for gravity assisted drainage.
3. Route an equalization line between the unit being drained and the trap. This connection prevents air binding. Units such as the 540 series that have a vertical top inlet do not need this equalization line.



RECOMMENDED STEPS BEFORE INSTALLATION

1. Ensure that the trap is properly sized for the application
 - a. Pressure rating for the trap should correspond to the highest pressure to which it will be subjected.
 - b. The trap should be sized to match the lightest (lowest specific gravity) fluid with which it is expected to operate.
 - c. Float traps are selected for condensate load, not pipe size.
2. Ensure that all accumulated foreign material is removed from the lines through a blow down or other cleaning procedure.

RECOMMENDATIONS FOR OPERATION AND INSPECTION

1. Upon start-up, open valves slowly to prevent water hammer or shock loading.
2. After installation, set up a periodic trap testing and maintenance program. Critical, high pressure, and large traps require more frequent inspection. During testing, do not confuse flash steam with blow-through. Flash steam is expected during the discharge cycle. A leaking trap blows steam continuously.

INSTALLATION RECOMMENDATIONS

1. Check inlet and outlet identification and/or flow direction markings prior to connecting trap.
2. Install trap so that the cover, which holds the float mechanism, is level and at bottom.
3. Include a shut-off valve in the inlet line to allow for valve servicing.
4. Install an outlet shut-off valve for trap testing, and to protect the trap against back flow from return lines during servicing.
5. Union connections can be used in the trap connection lines to ease trap removal.
6. Testing outlet connections can be installed as a means for checking trap operation.
7. A strainer installed upstream of a trap is always desirable. If strainers are unavailable, provide a dirt leg below trap level.
8. To assure effective drainage, ensure that the trap outlet is at a lower pressure than the trap inlet.

9. Provide bypass connection for manual venting of air at start-up. Bypass line also serves to drain system when trap maintenance is required.
10. To prevent risk of return line backflow during shutdown, install outlet line check valve if equipment being drained is not in continuous operation.
11. If freezing temperatures may occur, provide a manual drain connection for use during shut-down.

TRAP TROUBLESHOOTING		
Trap Condition	Reason	Remedy
1. Trap does not discharge	A. Condensate does not flow to trap because of obstruction in inlet or outlet line, trap, or equalizer line.	A. 1. Check lines for obstructions. 2. Ensure that inlet & outlet valves are open. 3. Check for improperly installed check valves. 4. Ensure trap is clean.
	B. Inlet pressure may be greater than rated trap pressure.	B. Replace trap or seat with one which is properly rated.
	C. Pressure in equalizing line is greater than trap inlet.	C. Relocate equalizing line.
	D. Differential pressure is greater than the rated differential pressure.	D. Replace trap or seat with one which is properly rated.
	E. Specific gravity of liquid is lighter than trap rating	E. Replace trap or seat with one which is properly rated.
	F. Defective float (leaking or collapsed)	F. Replace float (ensure float is rated properly for operating pressure)
	G. Defective spring may cause spring plunger to bind and seal trap (4200 only).	G. Replace spring, clean adaptor block, and check that plunger moves freely.
2. Trap does not shut off or drains condensate too slowly	Trap may be undersized due to low pressure or high condensate flow.	Determine condensate load, and check against trap flow at pressure conditions. Change valve and/or seat as appropriate.
3. Blows steam – hot trap	Valve mechanism held open by foreign material or by worn mechanism.	Remove foreign material and repair or replace defective seal and disk
4. Trap capacity appears to decrease	Reduction in differential pressure due to decreased inlet pressure or increased back pressure	Check inlet and outlet lines for obstructions. Check for any open bypasses.