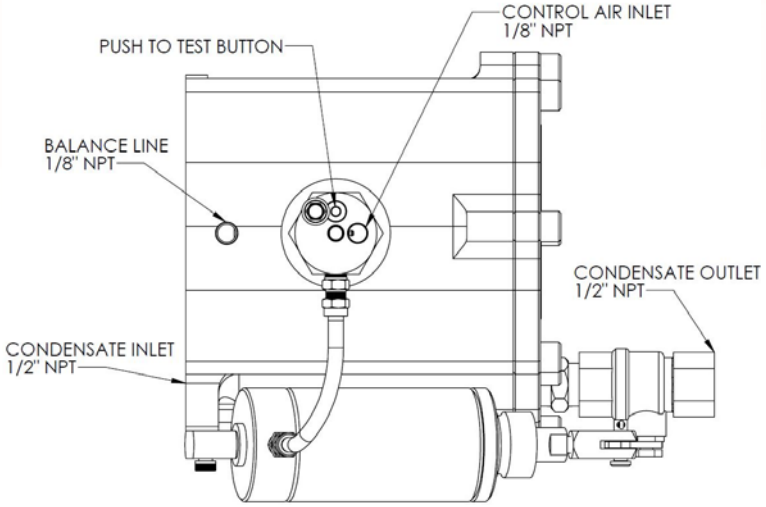
INSTALLATION GUIDE



SPECIFICATIONS AND MATERIALS OF CONSTRUCTION	
Part Number	**LH50-0LAAA**
Max Liquid Temp—°F (°C)	170 (76.7)
Max Liquid Pressure—PSIG (BARG)	200 (13.7)
Control Air Pressure—PSIG (BARG)	40 (2.8) to 130 (8.96)
Capacity—HP (SCFM)	100 (500)
Housing and Front Plate	Anodized Aluminum
Control Circuit and Air Cylinder	Aluminum
Float	Polyurethane
Housing Seal and O-Rings	Fluorocarbon
Fittings	Brass
Ball Valve	Nickel Plated Brass
Front Plate Hardware and Clevis	Zinc Plated Steel
Control Lever and Shouldered Bolt	Stainless Steel

INSTALLATION STEPS

1. Prior to installing the trap, isolate, depressurize and blow down the vessel being drained to remove excessive rust, scale, and dirt knocked loose during piping installation.

2. Remove the trap from the box and set it in an upright position where it will be connected. For balance line installations, ensure that the top of the trap is lower than the bottom of the vessel being drained.

3. Using 1/2" pipe, connect the vessel being drained to the 1/2" liquid inlet on the base of the trap. Be sure to install inlet and outlet isolation valves between the vessel being drained and the trap. This will allow easy removal of the trap "on the run" during any preventive maintenance activities.

4. Using 1/2" pipe, connect the trap discharge outlet to a drain pipeline or enclosed/covered trough. The discharged liquid is under pressure and can splash back if directed downward toward the bottom of a simple, shallow, open through-type floor drain. Please ensure that the ball valve does not rotate during the discharge pipe installation. The linkage between the ball valve and air cylinder must be vertical to prevent binding.

5. Connect the balance line from the trap to the appropriate connection point on the vessel being drained. The balance line is used to prevent a vapor lock in the trap. It is very important that the balance line never droops or slopes upward. The method 3 installation requires that the trap be vented to atmosphere. In this case the provided needle valve should be installed in the balance line port and opened 1/16th to 1/8th of a turn. The resulting air flow through the needle valve should be 0.2 to 0.4 SCFM.

6. Connect the control air supply line to the control air inlet port on the trap. **It is recommended to install a 5 micron air filter/ separator on the control air supply line**. In addition to the filter, always use the cleanest and driest air possible to ensure long term, maintenance free operation. (Reference Premium Install Kit P/N: KTLH50-K2)

7. Restart/re-pressurize system and check for leaks at pipe and fitting connections.

Water HOG™ a product of Control Devices, LLC

Installation Methods

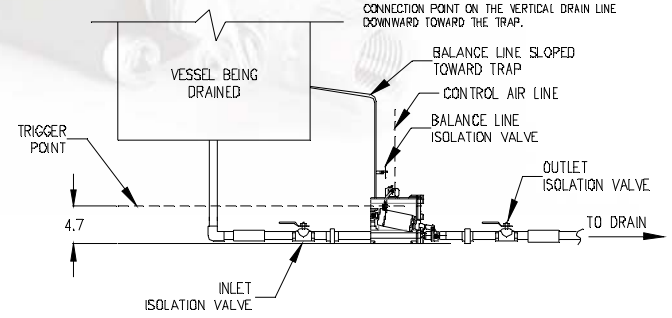
DATE	REV	REVISION RECORD	ECN NO.
9/13	A	RELEASED FOR PRODUCTION	13-437
9/13	B	ADDED ISOLATION VALVE NOTES	13-468

METHOD 1

USE THIS PIPING LAYOUT DRAWING IN THE CASE WHERE THE BOTTOM OF THE VESSEL BEING DRAINED IS ABOVE THE TRIGGER POINT OF THE TRAP BUT NOT HIGH ENOUGH TO CONNECT THE BALANCE LINE TO THE VERTICAL SECTION OF THE DRAIN LINE.

CONNECT THE BALANCE LINE TO THE VESSEL BEING DRAINED SUCH THAT THE PRESSURE OF THE LIQUID ENTERING THE TRAP IS THE SAME AS THE PRESSURE ON THE BALANCE LINE.

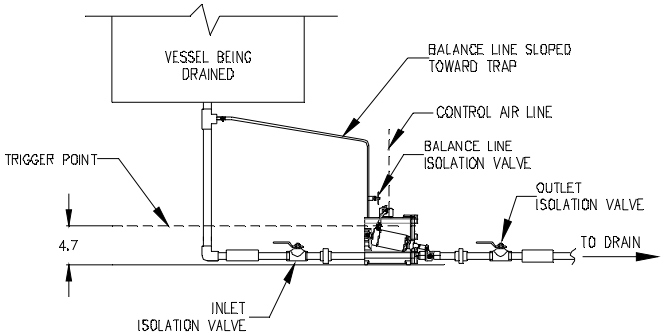
THE BALANCE LINE MUST BE SLOPED FROM THE CONNECTION POINT ON THE VERTICAL DRAIN LINE DOWNWARD TOWARD THE TRAP.



METHOD 2

USE THIS PIPING LAYOUT DRAWING IN THE CASE WHERE THE BOTTOM OF THE VESSEL BEING DRAINED IS ABOVE THE TOP OF THE TRAP ENOUGH THAT THE BALANCE LINE CAN BE CONNECTED TO THE VERTICAL SECTION OF THE DRAIN LINE AS SHOWN.

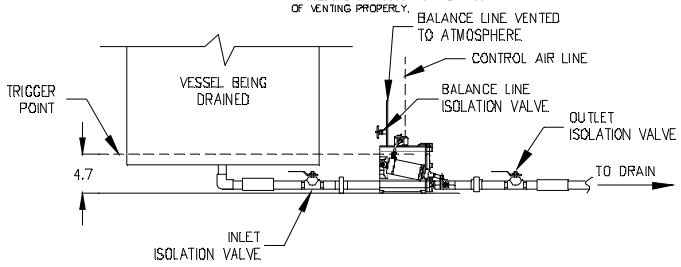
THE BALANCE LINE MUST BE SLOPED FROM THE CONNECTION POINT ON THE VERTICAL DRAIN LINE DOWNWARD TOWARD THE TRAP.



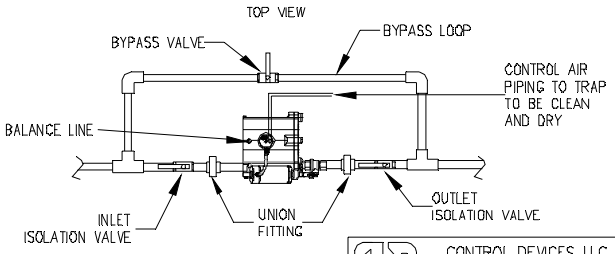
METHOD 3

USE THIS PIPING LAYOUT DRAWING IN THE CASE WHERE THE BOTTOM OF THE VESSEL BEING DRAINED IS BELOW THE TRIGGER POINT OF THE TRAP (4.7 INCHES ABOVE THE FLOOR).

IN THIS CASE, THE BALANCE LINE MUST BE VENTED TO ATMOSPHERE TO PREVENT LIQUID FROM ACCUMULATING INSIDE THE VESSEL BEING DRAINED. SEE THE PRODUCT INSTALLATION GUIDE FOR THE PROCEDURE ON ADJUSTING THE AMOUNT OF VENTING PROPERLY.



TYPICAL BYPASS CIRCUIT



CONTROL DEVICES LLC
1666 LARKIN WILLIAMS ROAD FENTON, MO 63026

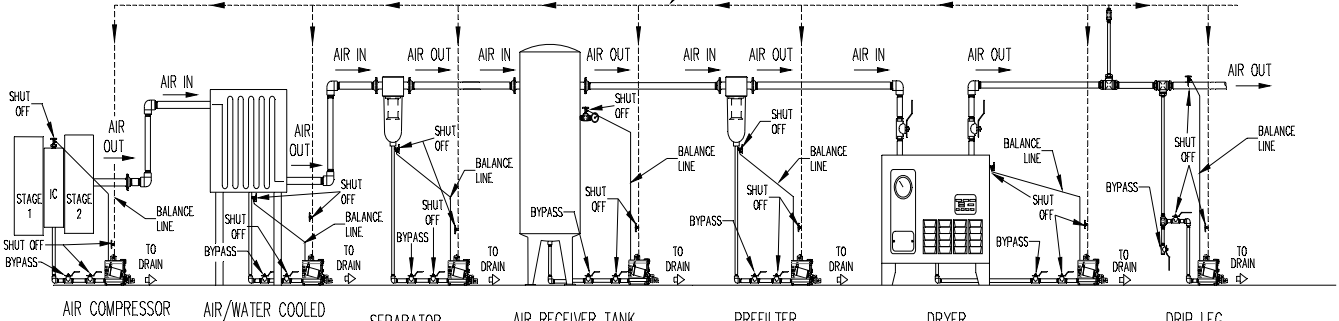
WATER HOG TRAP INSTALLATION

DATE	DRAWING NUMBER	SIZE	DRAWN BY
08/06/13	IG-LH51001	A	MT

UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES

Installation Locations

1. Connect balance line to vessel being drained, to header leaving vessel being drained, or vent to atmosphere – do not manifold balance lines together.
2. Balance line balances reservoir of trap to vessel being drained. Control air operates air cylinder. These two should not be connected together.
3. Bring control air from clean dry source downstream of dryer if possible, can manifold control air lines together.



WATER HOG LOCATIONS