

HOFFMAN "CONTROLLED HEAT" EQUIPMENT

WITH BOILER RETURN TRAP

For Hoffman "Controlled Heat" installations fired with oil or gas burners, or soft coal, where pressures are generally built up quickly, or where Unit Heaters or other devices requiring a constant pressure in excess of 8 ounces, are used, we recommend the Hoffman Boiler Return Trap equipment. At low pressures, water returns by gravity to the boiler but when the pressure exceeds this point, the Boiler Return Trap functions to maintain the prompt return of condensate to the Boiler. The balanced, double-seated valve mechanism opens quickly when the high water level of the trap is reached, allowing rapid equalizing of pressures.

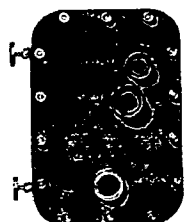
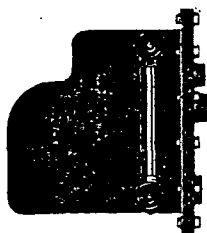
Air is freely vented thru the Receiver Vent but is not permitted to return to the system thru the valve.

Boiler Return Traps and Receiver Vents are made in four sizes of the following capacities: No. 30—2000 sq. ft. No. 31—2900 sq. ft. No. 32—5300 sq. ft. No. 33—8000 sq. ft. These capacities are based on a condensation rate of $\frac{1}{4}$ lb. per sq. ft. of radiation per hour and one operation of the trap per minute.

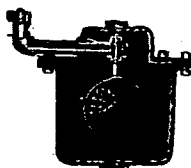
The sketch below shows the general piping arrangement where the Boiler Return Trap and Receiver Vent are installed.

The Receiver Vent provides ample storage capacity for the condensate which accumulates during the period that the Trap is discharging to boiler and prevents temporary flooding of the dry returns. Minimum differential between the boiler water line and low end of dry return is therefore required.

Operation of the Return Trap is noiseless as all working parts are enclosed and the balanced valve construction permits the use of light counter-weights. Interior parts are made of non-corrosive materials. Detailed literature supplied on application.

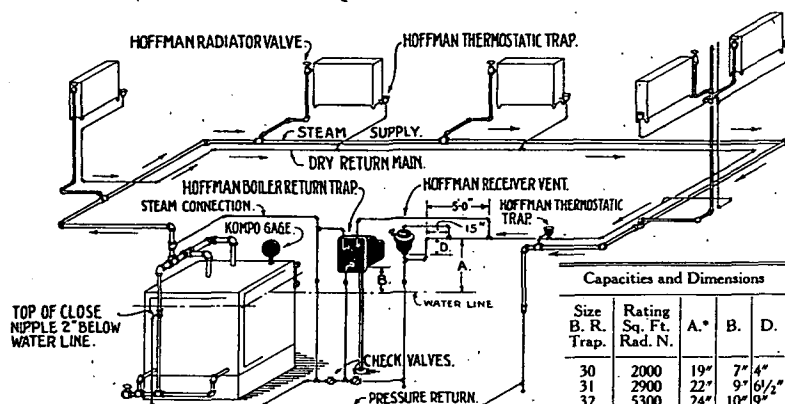


Boiler Return Trap



Receiver Vent

TYPICAL LAYOUT USING BOILER RETURN TRAP EQUIPMENT



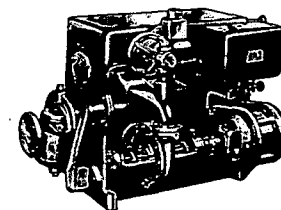
TYPICAL HOFFMAN CONTROLLED HEAT SYSTEM USING
BOILER RETURN TRAP AND HAVING PRESSURE RETURN.

Size B. R. Trap.	Rating Sq. Ft. Rad. N.	A.*	B.	D.
30	2000	19"	7"	4"
31	2900	22"	9"	6 1/2"
32	5300	24"	10"	9"
33	8000	26"	11"	9"

*Minimum to Bottom of Pipe.

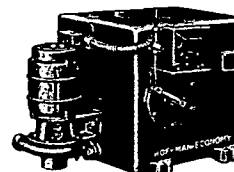
HOFFMAN-ECONOMY PUMPS

Vacuum Pumps—The Jet-Type Vacuum Producer enables this pump to deliver full rated capacity in extremely hot-water. There are no moving parts with close clearances. Single pump consists of one vacuum producer, centrifugal pump, cast-iron receiver and accumulator tank, automatic boiler feed control, motor and full automatic starting equipment, mounted complete. Duplex units consist of a single cast-iron tank, with two vacuum producers, two pumps, two motors, each pump and motor furnished with full automatic control. Standard pumps made in pressure of discharge range of 20—30 and 40 pounds. Capacities 2500 to 300,000 sq. ft. cast-iron radiation.



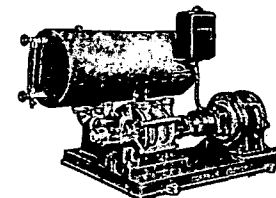
Single Vacuum Pump

Type E Condensation Pump is a compact unit shipped ready for installation. It consists of pump, motor, cast-iron tank with all necessary tank trimmings for automatic control. Pump is of close coupled type with impeller securely mounted on the motor shaft extension. These pumps give full capacity at 1750 r.p.m. and improved performance makes possible the use of comparatively small motors with consequent low consumption of electricity. Capacities, 1,000 to 20,000 sq. ft. cast-iron radiation. Discharge pressure for standard pumps 10—20—30 pounds. Discharge pressure up to 60 pounds can be furnished.



Type E Pump

Type B & C Condensation Units consist of pump, motor, steel tank and tank trimmings assembled on a single cast-iron base. The pump is direct connected to the motor through a flexible coupling. The pumping unit is of the multi-stage type and so constructed that access may be had to impeller and other interior parts without breaking the piping connections. Receiver is of heavy gauge welded steel securely attached to cast-iron feet by anchor bolts welded to the shell. Capacities range from 6,000 to 70,000 sq. ft. of cast-iron radiation, with discharge pressure up to 175 lbs. duplex or single units can be furnished.



Type B and C Pumps

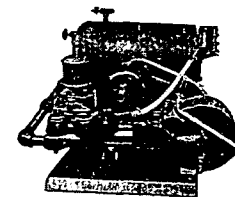
Vertical Underground Pumps and Receivers are designed for use on heating plants where the returns are located below basement floor levels, or otherwise too low for horizontal condensation pumps. The receiver is of heavy cast-iron suitable for underground use without danger of corrosion, making a cement lined pit unnecessary.

The pumps are of vertical bronze fitted centrifugal type suspended from the receiver cover and bearings may be renewed without removing impeller from shaft or shaft from pump. A flexible coupling connects motor to pump shaft. Shaft is protected from bearing wear by a removable sleeve. Receiver is equipped with float switch for automatic control of motor, this control being removable without disturbing pump or pipe connections. Duplex Units with two pumps and motors mounted in a single receiver of larger size can be furnished if desired. Capacities, 3000 to 30,000 sq. ft. of cast-iron radiation with discharge pressures ranging from 10 to 100 lbs. -



Vertical Type

The Reciprocating Pump and Receiver is recommended where high pressures of from 50 to 100 lbs. are met and moderately priced equipment is desired. These pumps operate on less power than required for centrifugal pumps, but are not as quiet, due to a slight pulsation at the end of each stroke and slight hum of the chain drive. As the pumps are usually installed in Laundries, Drying Plants or other industrial establishments, the slight noise is not objectionable. Receivers are of welded steel equipped with automatic float control. Capacities 1,000 to 10,000 sq. ft. Discharge pressures 50 to 150 pounds.



Reciprocating Pumps