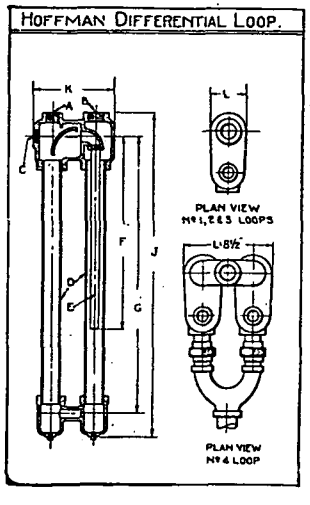


Hoffman Differential Loop

Hoffman Differential Loop

The Differential Loop is the safety device for maintaining a steady water line in vapor and vapor vacuum systems. It is entirely automatic, non-adjustable and has no moving parts to stick at a critical moment.

In operation the water rises in the return main **only** to a certain predetermined height. The loop then functions, blowing over a small quantity of steam which closes the No. 10 or 11 Valve used for venting the system and then compresses the air which is "bottled up" in the return main and builds up a pressure which prevents further rise of water in the vertical part of the return beyond the predetermined amount. As soon as this is accomplished, and the action is almost instantaneous, the loop reseals and no more steam is blown over until the differential pressure is lost. It will be readily seen that, by the alternate blowing over and resealing of the loop, a constant differential pressure will be maintained between the steam main and return main. Also by the maintenance of this differential no matter how high the boiler pressure goes, circulation will start in a radiator as soon as the inlet valve is opened even though the return main vent is closed through loop action.



Standard Differential Loops are made in four sizes, to handle systems up to 15,000 sq. ft. of radiation. For larger systems the No. 4 Loops can be installed in a battery.

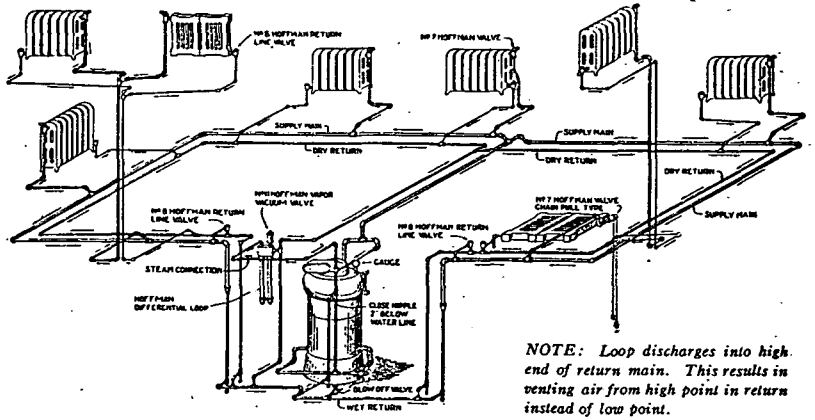
No. 1 and No. 2 Loops should not be used where the low point in the dry return is less than 24 in. above boiler water line; with the No. 3 and No. 4 Loops this distance must be at least 30 in.

DIMENSIONS AND CAPACITIES OF HOFFMAN DIFFERENTIAL LOOPS

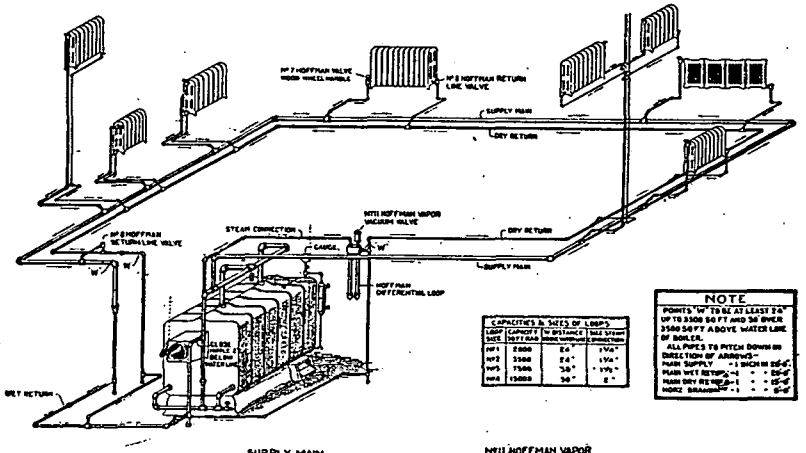
Loop No.	A	B	C	D	E	F	G	J	K	L	Capacity Sq. Ft. Rad.
1	¾"	1¼"	1¼"	1½"	½"	18¼"	26"	30⅝"	7⅝"	3"	2000
2	¾"	1¼"	1¼"	1½"	¾"	18¼"	26"	30⅝"	7⅝"	3"	3500
3	¾"	1½"	1½"	2"	1"	25"	32"	37¾"	10"	3¾"	7500
4	¾"	2"	2"	2"	1"	25"	32"	37¾"	10"	8½"	15,000

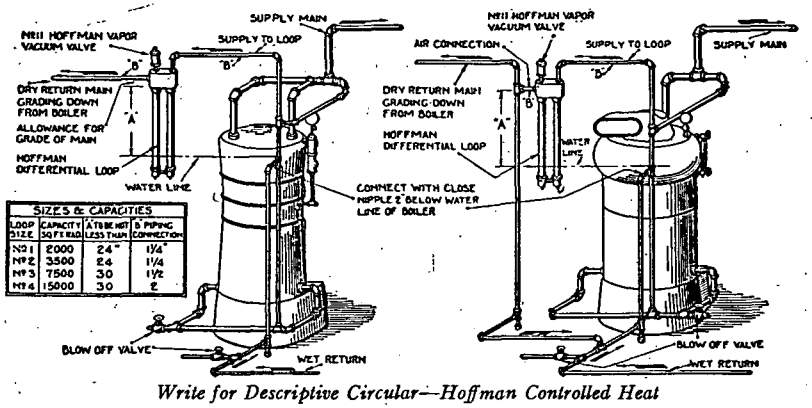
Write for Descriptive Circular—Hoffman Controlled Heat

TYPICAL INSTALLATIONS HOFFMAN "CONTROLLED HEAT" EQUIPMENT



NOTE: Loop discharges into high end of return main. This results in venting air from high point in return instead of low point.





Write for Descriptive Circular—Hoffman Controlled Heat