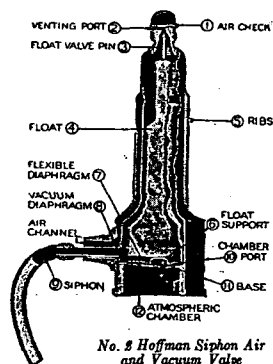


VENTING VALVES FOR ONE-PIPE VACUUM SYSTEMS



No. 2 Hoffman Siphon Air and Vacuum Valve

The No. 2 Siphon Air and Vacuum Valve is similar in construction to the No. 1, but in addition, when the radiator is once freed from air, return of air through the vent port is prevented. Through its use an ordinary one-pipe steam system may be changed into a vacuum type.

Radiator connection, $\frac{1}{2}$ in. Maximum guaranteed operating pressure, 10 lb. Furnished with special short siphons for narrow pattern radiators.

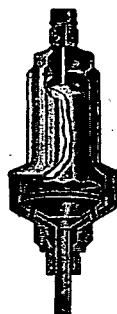
How the Hoffman No. 2 Vacuum Valve Operates—Normally venting port (2) through which air escapes is wide open until steam comes in contact with the float (4). Then the heat sensitive fluid in the float, the thermostatic member, is changed to gaseous state expanding the flexible diaphragm (7), raising the float and closing vent port.

If the radiator is shut off or for any reason steam contact ceases, the diaphragm contracts, and the float drops. But no air can re-enter the valve because the air check (1) makes the port a one-way street—air can go out but none can come back. So with the continuation of condensation of steam and prevention of air return a vacuum is formed in the system. Atmospheric pressure exerted through chamber port (10) causes diaphragm (8) to lift the float (4) and keep port closed.

In other words, the air check acts as a vacuum starter, prevents return of air for a short period until the vacuum formed in the valve permits atmospheric pressure, acting through port (10) to force diaphragm (8) upward, raising the float and doubly closing the vent port.

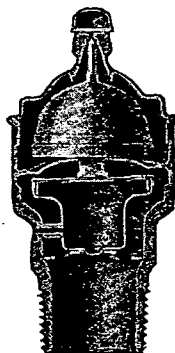
The No. 6 Float Air and Vacuum Valve is similar in design and application to the No. 5 with the additional feature of the Air Check or Vacuum starter above vent port and vacuum diaphragm in base. Used for venting ends of mains, vento stacks, etc., where water is liable to be present.

Pipe connection, $\frac{3}{8}$ in.; vent port for less than 3 lb. is $\frac{1}{8}$ in.; for 3 lb. and over is $\frac{1}{4}$ in. Unless otherwise ordered, will be shipped with $\frac{1}{8}$ in. port. Maximum guaranteed operating pressure, 10 lb.



No. 6

The No. 16 Air and Vacuum Valve is used for venting ends of steam and dry return mains. Valve is $3\frac{3}{8}$ in. high overall, permitting installation in lines close to ceiling. It has the special Hoffman feature, the combined check valve and vacuum diaphragm for preventing return of air to system. Pipe connection, $\frac{3}{4}$ in. Vent port $\frac{1}{8}$ in. dia. Maximum operating pressure, 10 lb.



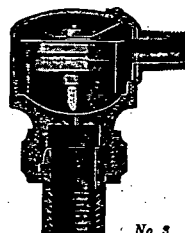
No. 16

The No. 3 Hoffman Air Line Valve is specially designed for Air Line, or as they are frequently termed "Paul" Systems. It is sensitive in action and closes the instant steam fills the radiator.

Radiator connection, $\frac{1}{2}$ in.; Air Line connection, $\frac{1}{4}$ in. Maximum guaranteed operating pressure, 10 lb.

THE HOFFMAN VALVE LOCK

Prevents theft of No. 1 and No. 2 valves in public buildings, etc. No extra tapping is required as lock is easily applied when valve is inserted in radiator. By using set screws, valve is locked in position and can only be removed by a special key.



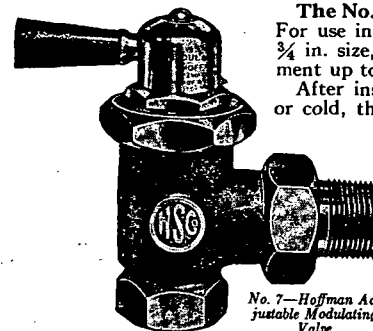
No. 3



Hoffman Valve Lock

Write for Descriptive Circular—Locking the Door Against the Heat Thief

HOFFMAN "CONTROLLED HEAT" EQUIPMENT

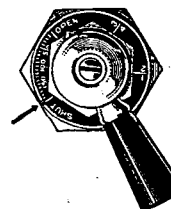


No. 7—Hoffman Adjustable Modulating Valve

The No. 7 Hoffman Adjustable Modulating Valve—For use in Vapor or Vapor Vacuum systems, is made in $\frac{3}{4}$ in. size, angle pattern only, having a range of adjustment up to 200 sq. ft. of direct cast-iron radiation.

After installation, whether the system is in operation or cold, the port of each valve is adjusted for the size of the radiator to which it is attached. Adjustment is simple; loosen a locknut; turn valve handle until proper number of graduations are visible on the dial plate; then tighten locknut. The valve handle may then be moved to admit sufficient steam to heat a quarter, half, three-quarter, or entire radiator. The valve stem stuffing box has a frictionless metallic fibre packing that will last indefinitely and require no attention, giving at the same time, a valve action so free that the pressure of only one finger is required to open the valve.

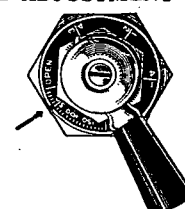
TOP DIAL PLATE ADJUSTMENT



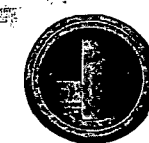
Dial set for 200 sq. ft.



Port Area for 200 sq. ft. Radiator



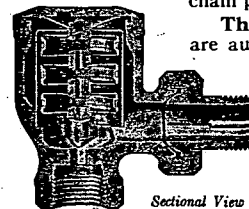
Dial set for 60 sq. ft.



Port Area for 60 sq. ft. Radiator

The visible adjustment aids the designing engineer by enabling heating contractor to make a final accurate adjustment which compensates for slight irregularities in pipe sizes, failure to ream pipe, installation of extra fittings not foreseen in original layout, etc. The advantages of an adjustable port in forced hot water systems to secure proper balance makes the No. 7 Valve especially adaptable for such use.

The No. 7 Valve is regularly supplied with lever handle. On special orders, it can be furnished with wood wheel, lock shield, closed top, extension stem and handle, or chain pull.



Sectional View

The Nos. 8 and 9 Hoffman Return Line Valves—These valves are automatic, non-adjustable, thermostatic and relieve all air and condensation without the loss of steam from radiators, pipe coils, indirect radiation, steam mains and risers, steam kettles, sterilizers and other devices where it is desired to get full efficiency and economy without waste of steam.

In service, they have established a reputation for efficiency and consistency of operation with the same degree of sensitiveness under either high or low pressure.

The body of the valve is made of cast steam metal; cap and tail piece are hot brass forgings; the thermostat of a special Hoffman alloy. In continued operation the thermostats will not break, stretch or lose their tension, giving long life and perfect operation.

CHIEF FEATURES

The valve consistently operates under a pressure range from 13 in. of vacuum to 50 lb. steam pressure. Water at a temperature of approximately 12 deg. less than the temperature corresponding to the steam pressure causes full valve opening and free discharge of condensation.

Write for Descriptive Circular—Hoffman "Controlled Heat"