

GRINNELL COMPANY^{INC.}

Heating, Industrial and Power Plant Piping, Fittings, Hangers,
Valves, Pipe Bending, Welding, Piping Supplies, Etc.

Executive Offices: Providence, R. I.

National Distributors of Thermoflex Traps and Heating Specialties

For data on other Grinnell Products, see pages 966-968

Thermoflex Specialties

The heart of all Thermoflex Traps is the Hydron Bellows.

The Hydron Bellows is formed under hydraulic pressure. This powerful internal pressure locates any weakness of any nature in the tubing. Such hydraulic pressure is many times more severe than any pressure the Trap will ever be called upon to control. Every Thermoflex Trap, therefore, is practically indestructible.

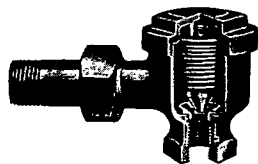
Thermoflex Traps have an exceptionally large orifice. This large orifice combined with high lift, insures fast action and freedom from clogging.

We supply Thermoflex Traps guaranteed for steam pressures of 25 lb. to 50 lb and to 125 lb. Complete information and details of typical installations will be gladly sent on your request. Ask for Catalogue on Thermoflex Heating Specialties.

Valves, Traps, Gauges, Etc.

The Thermoflex line includes: Radiator Traps, Offset Traps, Blast Traps, Drip Traps, High Pressure Traps, Vent Traps, High-grade Packless Inlet Valves, and the Thermoflex Alternator, Thermoflex Compound Gauge, Thermoflex Damper Regulator.

No. 12 Thermoflex Radiator Trap

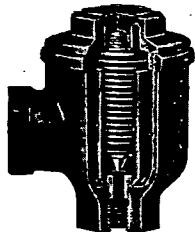


The full eight-fold Thermoflex-Hydron Bellows is guaranteed because of the Hydron-forming process. Body is heavy bronze construction throughout, with renewable seat.

Fully nickel-plated with highly polished trimmings. The No. 12 is made in angle and in corner patterns, with $\frac{1}{2}$ in. inlet and $\frac{1}{2}$ in. outlet tappings. The inlet neck is double thick to allow for expansion strains. Guaranteed for steam pressures up to 25 lb.

See also Pages 966-968

Thermoflex High Pressure Traps



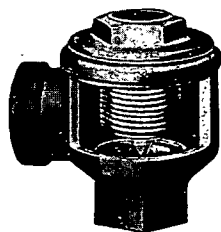
The No. 100A Thermoflex Trap is guaranteed for steam pressures from 50-125 lb. Must not be used where the steam temperature exceeds 400 °F.

For use with all types of process work, Laundry Machinery, Kitchen Equipment, Hospital Sterilizers, Vulcanizers, Dry Kilns, Unit Heaters, Street Steam Service, etc., in fact any place that a trap is desired for service at the above pressures.

Small, compact and inexpensive. Extra heavy body. Renewable nickel steel seat and disc. Bellows made from special bronze tubing and encased in brass sleeve to prevent distortion due to pressure.

Regularly furnished without unions, plain nickel finish. Can be furnished with unions, polished nickel or chromium plated at extra cost.

No. 4 Thermoflex Drip Traps



Used for dripping mains, risers, coils and unit heaters. Semi-steel body, bronze cap and inserted renewable bronze seat, angle pattern only, without unions. Can be used for any general purpose where a finished, nickel-plated trap is not necessary, and at a lower cost. Guaranteed for steam pressures up to 25 lb.

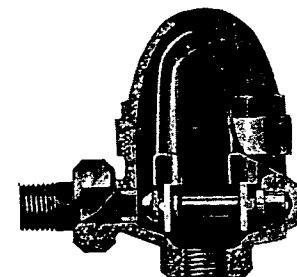
William S. Haines & Company

12th and Buttonwood Sts., Philadelphia, Pa.

Manufacturers of Equipment for Vapor and Vacuum Heating Systems

PRODUCTS—Haines Vento Radiator Traps, Medium Pressure and Blast Type Traps, Combined Float and Thermostatic Blast Traps, Air Eliminators, Heavy Duty Float Traps, High Pressure Traps, Boiler Return Traps and Packless Inlet Valves and Modulating Supply Valves.

All Haines Traps, whether designed for pressures below atmosphere or pressures in excess of 100 lb. per square inch, employ as their operating member a specially constructed Bourdon Tube—the principle that actuates the steam gage.



Haines Thermostatic Trap

The tube is of tempered steel. It is charged with a volatile fluid and hermetically sealed. It is the expansion and contraction of the fluid, under varying temperatures, that furnishes the operating power.

The tube is mounted vertically on a horizontal valve motion. The end opposite the valve is anchored so that the travel of the tube either opens or closes the valve piece.

The thermostatic member is outboard the valve seat and closes the valve against the flow of steam. This arrangement prevents fouling of the trap due to scale or other foreign matter and permits a thorough draining of the unit to which it is attached.

THERMOSTATIC TRAPS

Haines Thermostatic Traps are constructed to endure, as well as to operate efficiently, in sizes ranging from $\frac{1}{2}$ to $1\frac{1}{2}$ in. They are thoroughly inspected and proved in our test laboratory under operating conditions to insure their serviceability.

MODULATING VALVES

Haines Modulating Valves are permanently packed, furnished with a genuine Jenkins Bros. valve disc. Its modulating features permit varying the amount of steam admitted to the radiator.

They seat tightly and open full area on less than a complete turn. Furnished in Lever, Round Handles or Lock Shield type. The body is made of heavy brass, nickel plated with polished trimmings.

Made in sizes from $\frac{1}{2}$ to 2 in. in angle, straightway or corner patterns.



Haines Modulating Valve