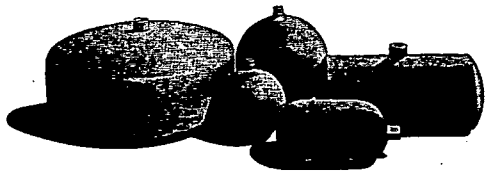
Arthur Harris & Co.

Dept. H. **210–218 N. Aberdeen Street** **Chicago 7, Ill.**

Engineers—Metal Float Manufacturers

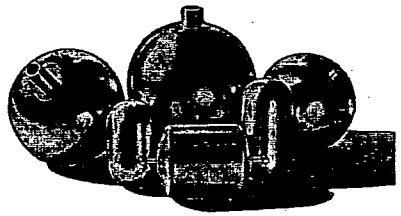
Harris Floats

Harris Floats are made in a wide range of sizes in ball, column, disk, conical, cylindrical and rectangular shapes, and can be made of virtually any workable metal for open tank or high pressure and temperature installations. Some of the metals used in the manufacture of Harris Floats are Copper, Copper Plated Steel, Brass, Aluminum, Admiralty, Everdur, Monel, Nickel, Inconel, Stainless Steel, types 304 and 316, etc., and Steel, depending on the corrosion factors of the installation and the pressures under which they must operate.



Harris Copper Floats

Harris Copper Ball Floats are made of two separate bodies, soldered together and then heavily copper plated to provide a seamless surface. They are usually supplied with a hexagonal female spud although other special connections can be furnished. These seamless copper ball floats are carried in stock in 3 in., 4 in., 5 in., 6 in., 7 in., 8 in., 10 in. and 12 in. diameters . . . for 25 lb, 50 lb, 100 lb and 150 lb working pressures. Special sizes to 18 in. diameter and special high pressure copper floats are made to order.



Harris Stainless Steel Floats

Harris Stainless Steel Ball Floats for low or high pressure and corrosion resistance are carried in stock in diameters of 2½ in. to 12 in. Sizes from 12 in. to 14 in. diameters are made to order.

All Harris Stainless Steel Floats are joined by Atomic Hydrogen Welding which produces an unusually smooth, uniformly strong and ductile weld, free from oxides or pin holes.

Corrosion Resistant Floats

Floats that must operate in corrosive liquids can be made of any workable metal that is resistant to the specific liquid in which they are to be used.

Plated Floats

Floats can be plated with copper, nickel, chrome, zinc, tinned or lead coated where called for by the installation.

Float Connections

A variety of connection styles are available, suitable for practically any type of attachment, including a tube through the center.

Harris Float Catalog



A very complete catalog, with much technical engineering data, is available to prospective float users on request. The Harris engineering staff will be glad to consult with you on any float problems.

Aerco Corporation

Paris Avenue, P. O. Box 128

Northvale, N. J.

AERCO'S Controlled "HTR" (Heat Transfer Rate) Heat Exchanger is a Tank Type Water Heater featuring an Internal Compensator which:

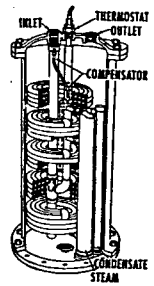


Figure 1—Sectional drawing of Aerco Tank Type Water Heater

- *Anticipates* changes in *required steam flow before* the actual heat transfer takes place.
- *Meters the steam flow* accurately in direct proportion with load.
- *Prevents surges* in steam flow, *eliminating need for large storage.*
- *Maintains ACCURATE control* of outlet water temperature.
- *Prevents OVERRIDE* of outlet temperature on sudden interruption of water flow.

For **UNIFORMLY VARYING LOADS** (i.e. Hospital General Water Supply), the ability of the above heater to prevent steam flow surges **ELIMINATES** the need for large **STORAGE.**

For **NON-UNIFORMLY VARYING LOADS** or periodic high peak flows and low average demands (i.e. Small Commercial Laundry), the AERCO TANK TYPE WATER HEATER with an Accumulator and Recirculating Pump (as shown in Figure 2) gives a low cost combination which also permits:

- *Minimum storage volume* for peak demands.
- *Minimum steam input* for required load.
- *Accurate* controlled outlet water temperature under *all* load conditions.

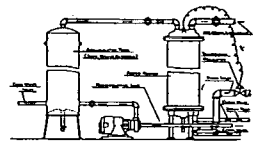


Figure 2—Aerco Tank Type Water Heater in combination with Accumulator and Recirculating Pump

CONSTRUCTION

Shell fabricated to *ASME* Code Standards, of Flange Quality Steel with copper lining. Shell ends Cast-iron or Bronze. Internal parts of Copper or Brass. Tested for 125 psig operating pressure. Capacities, 300 to 25,000 gph.

OPERATION

Cold water enters top, flows down through the Compensator, then up across steam coils to discharge at top. Steam feeds into coils through Steam Riser and leaves through Condensate Return.

Compensator anticipates and controls heat transfer rate by sensing changes in flow or incoming temperature before water passes over the heating coils. It accomplishes this by causing variations of temperature to occur at the Regulator bulb which are definitely related to changes in flow and incoming temperature as well as the final temperature.

Send for BULLETIN #23; SIZING DATA and COMPARATIVE PERFORMANCE DATA BULLETINS (Aerco Tank Type Heater vs. Conventional Storage Type Heater).