AMERICAN DISTRICT STEAM DIVISION

ADSCO INDUSTRIES, INC.

20 MILBURN ST. BUFFALO 12, N. Y.
PLANTS, BUFFALO, N. Y.—RICHMOND, CALIF.

EXPANSION JOINTS—HEATERS
HEAT EXCHANGERS—STRAINERS
SEPARATORS



INSTANTANEOUS HEATERS

Adsco instantaneous heaters are made in a large variety of types, including the simple U-bend instantaneous shown above, which is used to heat water for showers, dishwashers, laundries, and other purposes. These heaters are also used as Convertors for furnishing hot water to space heating systems.

Many straight-tube, float-head units are used as closed feed-water heaters, boiler blow-down heaters, and for various uses in the process industries.



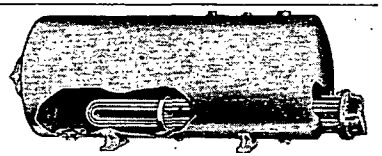
TANK SUCTION HEATERS

Adsco tank suction heaters reduce viscosity of heavy oil or other fluids so they can be pumped economically. Instead of employing pipe coils on the bottom of the tank to raise the temperature of all the liquid, only the liquid to be pumped is heated. Steam waste is eliminated. These heaters are furnished with nozzle for welding into storage tanks or with flange for bolting to existing flanged nozzle.



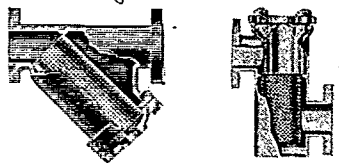
OIL PRE-HEATERS

Adsco oil pre-heaters help obtain the highest performance from fuel oil by heating it properly for complete combustion in the burner. In many cases, the work done by oil pre-heaters permits the use of heavier grade, less costly fuel oil. These heaters frequently are used with Adsco tank suction heaters, the two units making an efficient team.



STORAGE HEATERS

Adsco storage heaters are built in accordance with the *ASME* code for working pressures desired. Tanks are made of flange-quality steel, nickel-clad or stainless-clad steel, or copper silicon alloy. Where alloy tanks are used, tube sheets are of non-corrosive metal, so that service water does not come in contact with any ferrous parts. Steel tanks can be lined with Adsco Phenolic 6-2 or Adscote bitumastic to prevent corrosion. All units are equipped with cold-water spreaders. Manholes are heavily reinforced. Copper U-bend heating element is easily removed for cleaning.



STRAINERS

Adsco strainers remove dirt, scale and other foreign matter from steam, gas, air, water and oil lines. Their installation ahead of every regulator, pump, valve or trap protects this delicate equipment, reduces maintenance and prevents expensive shut-downs.

Type Y strainers with flanged ends, left, have large screen surfaces and are easily cleaned. Sizes 1½ in. to 14 in., pressures to 600 psig.

Type S strainers, right, are usually installed on suction side of pump. Five cover designs are available: lever and toggle, toggle and bolt, clamp, through bolt, and stud-bolt.

Adsco separators (not shown here) remove moisture, oil and small solid matter from steam, air and gas lines. Available in vertical up-flow and down-flow as well as horizontal types. Sizes to 10 in. and pressures to 300 psig.

Aerco Corporation

Paris Avenue, P.O. Box 248
Northvale, N. J.

AERCO's Controlled "HTR" (Heat Transfer Rate) Heat Exchanger is a Compact Storage Water Heater featuring an Internal Compensator which:

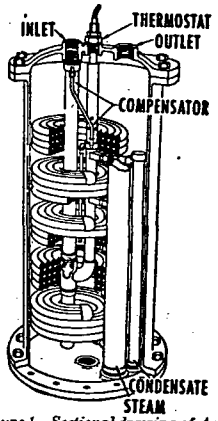


Figure 1—Sectional drawing of Aerco Compact Storage Water Heater.

- *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 COMPACT STORAGE 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.

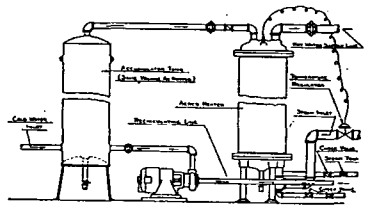


Figure 2—Aerco Compact Storage Water Heater in combination with Accumulator and Recirculating Pump.

CONSTRUCTION

Shell fabricated to *ASME* Code Standards, of Flange Quality Steel with plastic or 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 booklet: "THE NEW APPROACH To the Design of Hot Water Supply Systems" and Bulletin #22 for capacity data and sizes.