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:

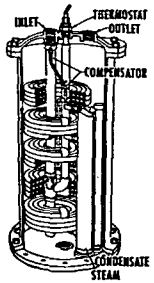


Figure 1—Sectional drawing of Aerco Tank Type Water Heater

- *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, *eleminating 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.

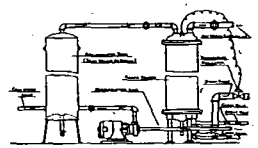


Figure 2—Aerco Tank Type Water Heater in combination with Accumulator and Recirculating Pump

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).

DAVIS ENGINEERING

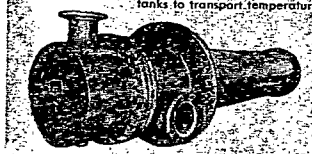
(A DIVISION OF AMERICAN METAL PRODUCTS COMPANY)

520 MAIN AVENUE, WALLINGTON, NEW JERSEY
MAILING ADDRESS: P. O. BOX 959, PASSAIC, NEW JERSEY

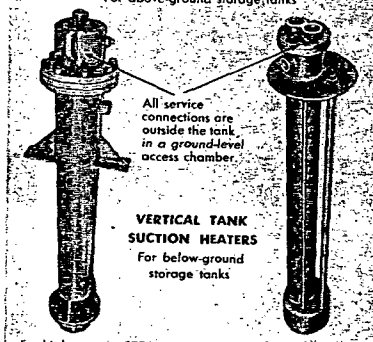
Paracoil HEAT TRANSFER EQUIPMENT

Paracoil fuel oil heaters for every application.

TANK SUCTION HEATERS
To heat viscose fluids in bulk storage tanks to transport temperatures.



HORIZONTAL TANK SUCTION HEATERS
For above-ground storage tanks

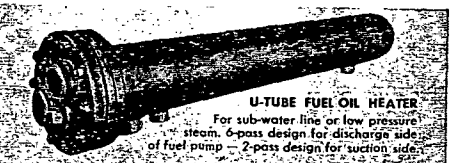


All service connections are outside the tank in a ground-level access chamber.

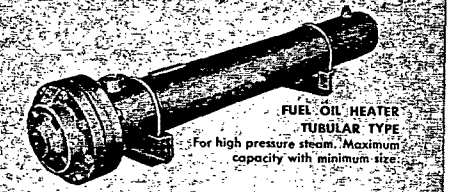
VERTICAL TANK SUCTION HEATERS
For below-ground storage tanks

For high-pressure STEAM as heating medium

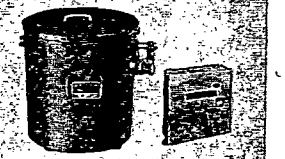
For hot circulated FLUID as heating medium



U-TUBE FUEL OIL HEATER
For sub-water line or low pressure steam. 6-pass design for discharge side of fuel pump — 2-pass design for suction side.

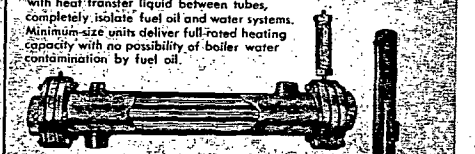


FUEL OIL HEATER TUBULAR TYPE
For high pressure steam. Maximum capacity with minimum size.



"PARAPROBE" OIL LEAK DETECTION SYSTEM
Protects against oil contamination by continuously checking purity of condensate leaving steam-type fuel oil heaters.

"THERMO-FILM" SAFETY TYPE FUEL OIL HEATER
Double tube elements (one tube inside another) with heat transfer liquid between tubes, completely isolate fuel oil and water systems. Minimum-size units deliver full-rated heating capacity with no possibility of boiler water contamination by fuel oil.



TANK SUCTION BELL HEATERS
For below-ground storage tanks small-to-moderate demand installations.

12 square feet of heating surface

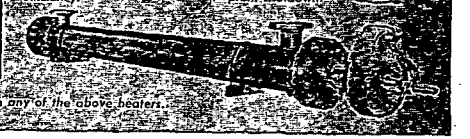


6 square feet of heating surface



SELF-CLEANING TYPE HEATER
Interior baffles can be moved back and forth along tube surfaces to scrape away fouling deposits and restore full efficiency.

INDIRECT TYPE "GF" GAS FIRED FUEL OIL HEATER
Combination steam evaporator and tubular fuel oil heater. No flame contacts oil tubes; gas generates a supply of steam to heat oil. Maintains oil line temperatures during periodic main boiler plant shutdown.



Write for specifications on any of the above heaters.