

FREE HOT WATER

ENERGY RECOVERY

FLOODED SCREW AIR COMPRESSORS

HOT WATER HEAT RECOVERY SYSTEM

97% OF KW REQUIRED TO COMPRESS AIR IS REJECTED AS HEAT.

80% OF THIS HEAT IS IN THE OIL COOLER.

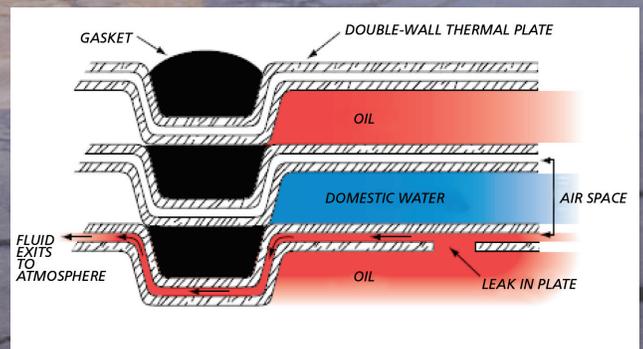
50% TO 90% OF THIS HEAT IS RECOVERABLE

A 200hp air compressor will produce 559,900 BTUH. With a recovery potential of 80%, 448,000 BTUH, or 4.5 Therms are available for process water heating. The accepted cost for a therm. of natural gas is \$1.00, a therm being 100,000 BTUH.

POTENTIAL ANNUAL SAVINGS.....\$27,000.00
(6000 HRS. X 4.5 THERMS/HR X \$1.00)



DOUBLE WALL HEAT EXCHANGER CUT-AWAY



AUTHORIZED DISTRIBUTOR

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THE DETAILS OF FREE HOT WATER

Thermotech offers the HWS, Hot Water System; a double wall Plate style heat exchanger to recover the heat the oil cooler would normally discharge to atmosphere or cooling water. The double wall configuration separates the hot oil from the water with a small air gap, vented to atmosphere. Oil contamination of the hot water system is eliminated. The loss of heat exchange caused by the air gap is offset by the large surface area capabilities of the plate design heat exchanger. This is a relatively small package thru 600hp.

The basic design is offered to increase 75F ground water (city water) to 140F.

The HWS, Hot water System is a system to recover the BTUH, heat otherwise lost. A thermostatic water temperature regulating valve controls outlet water temperature, when possible. Changes in compressor loading or modulation will reduce the ability

to reach the design discharge temperature. Existing water heaters/boilers control the final temperature.

Installation is plumbing the return oil line from the sump to the HWS inlet. The HWS outlet is piped to the inlet of the onboard oil cooler (air or water). Installation is after the thermostatic oil temperature by pass line.

Any interruption of fresh water causes the compressor-mounted thermal mixing valve to utilize the oil cooler for partial or complete cooling.

The HWS is a complete, skid mounted package with 316 stainless steel, double wall heat exchanger, inlet and outlet temperature and pressure gauges, and 3 valve inlet, outlet bypass valves for isolation. Oil piping to be carbon steel, water piping 304 stainless steel. Options include inlet water strainer and temperature regulating valve(s).

RECOMMENDED INSTALLATION

