ENERGY RECOVERY
OIL FREE AIR COMPRESSOR

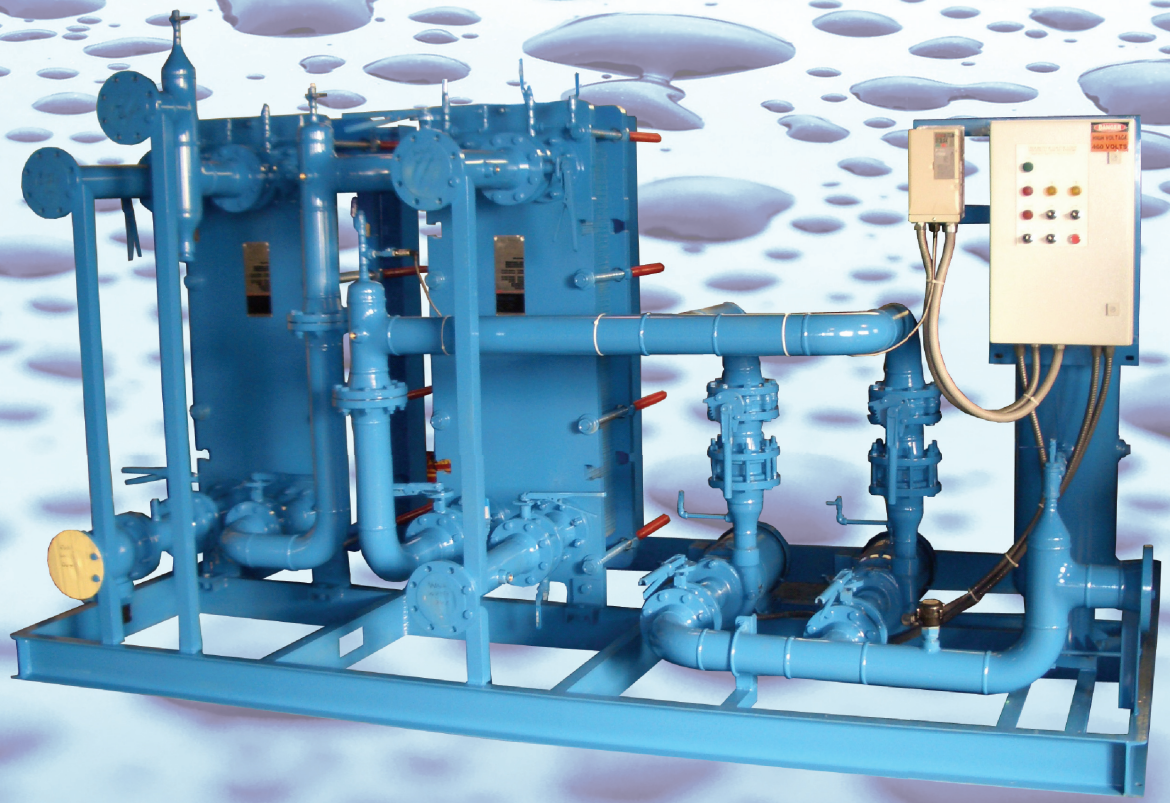
THE RECOVERY SYSTEM REDUCES ENERGY TO COMPRESS AIR BY 90%

100% OF KW REQUIRED TO COMPRESS AIR IS REJECTED AS HEAT.

75% TO 90% OF THIS HEAT IS RECOVERABLE

A 200hp air compressor will produce 559,900 BTUH. With a recovery potential of 90%, 515,000 BTUH, or 5.1 Therms is 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.....$36,600.00
(6000 HRS. X 5.1 THERMS/HR X $1.00)



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THE DETAILS OF ENERGY RECOVERY

The **Thermotech** HWS-OL, Hot Water System introduces a strong consideration for a water-cooled compressor on new installations and a sales opportunity for existing water cooled installations where the requirement for heating water exists; food processing, chemical, and boiler feed water.

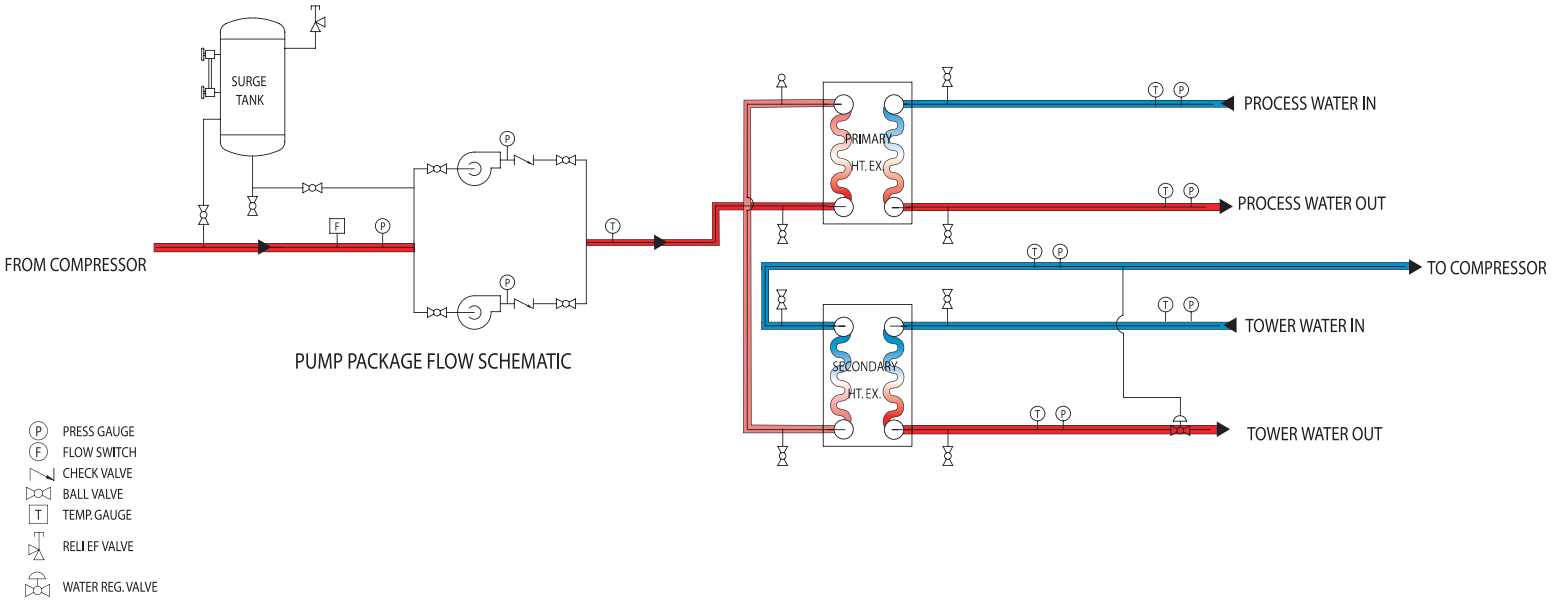
The HWS is a closed loop pump skid, heat exchanger package using dual heat exchangers, mounted in series. The cooling system for the compressor is now a closed loop glycol cooling system, eliminating any fouling potential of heat exchangers.

The first plate style heat exchanger provides primary cooling for the air compressors while raising the temperature of city water/ process water 20F, recovering the available BTU's. This is the interruptible water source for the hot water heater, boiler feed, etc. that continues to control the final process termperature. The nominal water flow is 25 gpm/100hp of air compressor cooling.

The secondary plate style heat exchanger acts as a trim cooler using the existing cooling water source, generally a cooling tower. The thermostatic water temperature regulating valve controls the leaving glycol fluid temperature, ie inlet fluid temperature to the air compressor

The heat exchangers, pumps, controls, valves and gauges will be on one skid. And you can have as much redundancy as the customer requires.

RECOMMENDED INSTALLATION



PUMP PACKAGE FLOW SCHEMATIC