

Heat Recovery (HR) Systems

Heat the plant while saving a bundle in heating costs. Any plant with heat producing machinery or processes can save millions of BTUs a day and keep heating fuel costs to a minimum.

HydroThrift heat recovery options are flexible. You can reclaim as little or as much previously lost heat as needed, when you need it. Installation is simple and the system can usually pay for itself in less than a year in water and fuel savings.

How they work. Warm coolant leaves the equipment in your plant -- furnaces, air compressors, hydraulic units, electricals, induction heaters -- at temperatures between 100 and 140 degrees F and is returned to the pump and control unit. Next, the warm coolant is pumped to the heat recovery unit where the heat is transferred. The recovery units may be one of several types:



- finned heating coil
- fin / propeller fan unit heater
- fin / centrifugal fan unit heater
- shell and tube heat exchanger
- plate and frame heat exchanger



The heat is dissipated directly into the plant area or into ductwork for transfer to other areas of the plant. It can also be utilized through the plate and frame or shell and tube heat exchangers(s) to preheat boiler feed water or other process fluids. This otherwise lost heat becomes useful and nearly cost-free



When the heat recovery equipment may not utilize all the heat available, as in warm weather, the excess heat is rejected to the main heat exchanger, either the larger dry-type or evaporative closed-loop fluid cooler located outside the plant.

During cold-weather operation, the heat recovery unit(s) may remove enough heat from the coolant to provide adequate process cooling and distribute the entire heat load inside the plant where it's needed. Heat recovery units may also be used as cost-efficient air circulators in warm weather.

Installation is simple. The heat recovery unit(s) for your closed-loop cooling system can be installed virtually anywhere in the plant, controlled manually or automatically to deliver previously wasted heat.

