

Enviro-Temp
Recycling heat to generate hot water.



 **Turbotec**[®]

Hot water from a cooling system?

It sounds counterintuitive, but it's really quite logical. While a central air conditioning or refrigeration system cools the air, it creates a lot of excess hot waste gas. But with Enviro-Temp, that hot gas isn't wasted. Instead, it is diverted through our vented double-wall heat exchanger, where it safely and efficiently heats commercial hot water for free, dramatically reducing the use of the existing water heating system. Enviro-Temp is environmentally friendly, eminently practical, and exceptionally engineered.

Hot water is just the beginning.

In addition to hot water, Enviro-Temp also delivers longer compressor life and greater A/C or refrigeration system efficiency. Because Enviro-Temp returns the hot gas to the cooling system at a much lower temperature, the compressor doesn't work as hard to cool it, the system draws less power, and work load is reduced — increasing efficiency, reducing the carbon footprint and decreasing dependency on fossil fuel.

Where can Enviro-Temp be used?

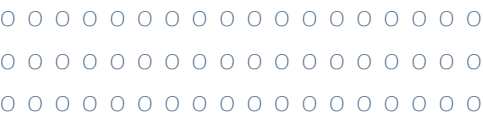
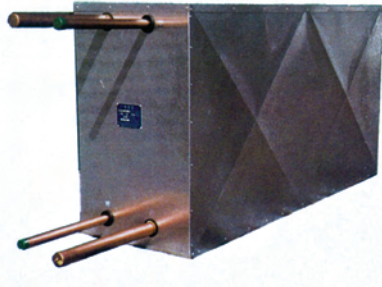
Enviro-Temp is easy to add to new or existing commercial or industrial applications or to any facility that utilizes air conditioning or refrigeration.

Commercial:

Enviro-Temp is ideally suited for restaurants, laundries, sports complexes, hotels, medical facilities, schools and other commercial uses.

Enviro-Temp's small footprint is the perfect match for 10 to 200 ton commercial/ industrial A/C system. It is best suited for establishments where A/C use is greater, resulting in a typical ROI of one to three years. Geography is less of a factor where Enviro-Temp is used with a commercial refrigeration system in the 120,000 to 2,400,000 Btu/hr range, and ROI is typically one year or less.

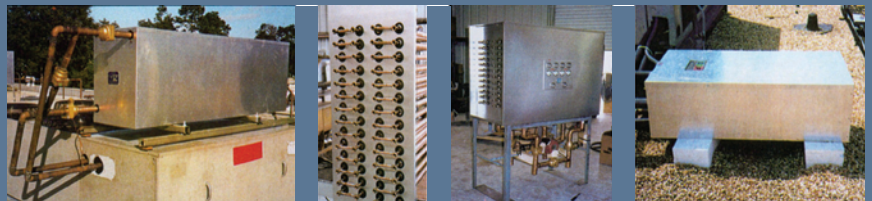
Heat exchangers at the heart of the Enviro-Temp are UL and CSA listed for safe use with R-410A at 600psig.



"One of the most productive and least expensive methods of recovering waste heat is a system which reclaims the excess energy or "superheat" generated by closed-loop air conditioning or refrigeration cycles. Installed... in 72 Steak N' Shakes as part of a total energy conservation package. It has helped cut gas bills by more than 70 percent." **Energy Management Technology**

"Following installation in May ... of 40 and 70-ton heat recovery units in our hotel, I am happy to report that we have reduced our monthly diesel fuel gallonage by 900/month.

At this time, we are able to say that we make free hot water because the ... units paid for themselves in five months. We are very pleased with their performance and subsequent savings." **Causeway Inn**

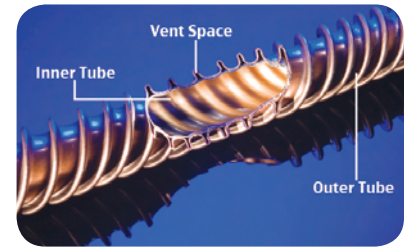


"When we first investigated heat recovery, our calculations indicated we would save roughly \$800 per month in natural gas costs for our boiler. In the summer ...our gas bills were \$1200 to \$1300 per month. Our gas bill for June, ...was just over \$100 and that's for the driers in the laundry. The boiler broke down in May, and we're in no hurry to replace it, because your two 64-ton heat recovery systems are supplying all the hot water we need for 350 people and the laundry." **Bethany Towers**

Enviro-Temp. Another great idea from Turbotec.

Enviro-Temp is the latest in a long line of industry-leading innovations from Turbotec Products, Inc. We are the only resource you need for high-performance, high-quality heat exchanger products for virtually any space conditioning, refrigeration, plumbing, and water heating application. For more than 35 years, Turbotec has been a leader in innovative heat exchange technology. Learn more about us and all our products at turbotecproducts.com.

Enviro-Temp's Vented Double Wall



Enviro-Temp Physical Specifications

Model No.	Nominal Capacity (TONS)	Nominal (1) Water Flow (GPM)	Total Pump Head (FT-H ₂ O) @ Nominal GPM	Nominal (2) Heat Transfer (BTU/HR)	Length (IN)	Width (IN)	Height (IN)	Ref. O.D. (IN)	Water O.D. (IN)	Dry Weight (LB)
E-341-10	10	2.50	18.0	54000	69	14	12	.875	.875	63
E-341-15	15	3.75	17.0	81,000	69	14	14	1.125	.875	80
E-341-20	20	5.00	16.0	108,000	69	14	16	1.125	1.125	98
E-341-25	25	6.25	15.0	135,000	69	14	19	1.375	1.125	115
E-341-30	30	7.50	14.0	162,000	70	14	21	1.375	1.375	132
E-341-40	40	10.00	22.0	216,000	72	14	26	1.625	1.625	171
E-341-50	50	12.50	21.0	270,000	72	14	30	1.625	1.625	205
E-341-60	60	15.00	19.5	324,000	72	14	35	2.125	1.625	240
E-341-80	80	20.00	16.5	432,000	73	28	30	2.125	2.125	289
E-341-100	100	25.00	20.0	540,000	73	28	37	2.625	2.125	409
E-341-150	150	37.50	17.0	810,000	74	28	50	3.125	2.625	571
E-341-200	200	50.00	14.0	1,080,000	74	28	63	3.625	3.125	739

1) Head loss at nominal water flow is 1.2 ft-H₂O

2) Nominal heat transfer based on R-22 air-cooled system with 220 F compressor discharge temp., 125 F saturated condensing temp., and 70 F entering water temp.

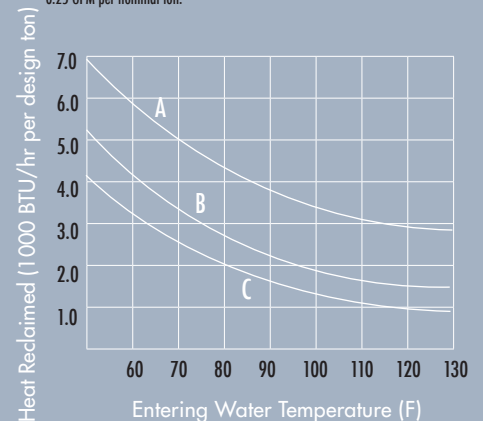
Capacity Data

Condenser Type	Capacity Curve	Compressor Discharge Temp (F)	Saturated Condensing Temp (F)
Air Cooled	A	220	125
Water Cooled	B	180	105
Evaporative Cooled	C	160	95

Notes:

1) The design cooling capacity of the refrigeration circuit defines the design tons. The nominal capacity rating of the Enviro-Temp Heat Recovery Unit defines the nominal tons.

2) Performance is based R-22, 45 F Sat. Evap. Temp., and minimum water flow of 0.25 GPM per nominal ton.





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