‘FREE’ Hot Water

Lancer Ecco Heat™ provides free hot water directly through your existing refrigeration or air conditioning system.

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LANCER | HEAT RECOVERY SYSTEMS

Free hot water from your refrigeration plant™

...see how it works at lancerheatrecovery.com

Ecco-Heat™

The Ecco Heat™ heat recovery units recover “waste” heat from refrigeration and air conditioning systems to heat water by de-superheating the discharge vapour before the condenser.

A heat recovery hot water service is of major advantage for users such as restaurants, hotels, motels, supermarkets, hospitals, cafeterias, dairies, food processors and fast food outlets.

Lancer’s Heat Recovery Systems are made up of two parts, a de-superheater and a water storage tank.

The de-superheater features a double wall tube in tube heat exchanger making it suitable for potable water with a counter flow design for maximum heat transfer. The optional water storage tank consists of a 316 stainless steel tank insulated with polyurethane foam and protected with a polymer casing.

A Lancer Heat Recovery System can re-claim approximately 15-25% of the total heat that would otherwise be rejected by the condenser.

A 50kW unit running on R404A will provide approximately 48,000kj of energy per hour from the host systems output. It will heat 315 litres of water raising the temperature approximately 35°C every hour. A 16kW system will raise the water temperature approximately 12°C every hour.

Note: Actual heat reclaimed will depend on system operation.

Product Features

- Operates on any potable water supply
- Designed for high pressure water supply
- Suitable for connecting to refrigeration and air conditioning systems
- Suited to new and existing refrigeration plants
- Fast payback period
- Suitable for potable water
- Simple to install
- Optional water storage tank/s
- Fully insulated with heavy gauge 316 stainless steel lining
- 12 month manufacturer’s warranty

Applications

- Heat recovery units are suitable for use in connection with walk in coolers, freezers and some air conditioning systems
- The amount of hot water generated will vary according to running time and size of refrigeration or air conditioning system
- Ecco-Heat™ considerably reduces the heat rejection requirement of the normal condenser
- Heat recovery hot water service is of major advantage to restaurants, hotels, motels, laundries, supermarkets, hospitals, cafeterias, dairies, meat packers, resorts, food processors, egg processors, nursing homes, recreational clubs, fast food outlets, schools & colleges.
- Due to continuing product improvements, product information and specifications may change at any time, without notice.

Performance Data

- Unit will reclaim approximately 15% of the total heat that would otherwise be rejected.
- System will heat approximately 315 litres of water raising the temperature 30°C in a six (6) hour period, assuming the refrigeration capacity of 10kW and compressor running 85% of the time.

Product Specifications

DIMENSIONS

50kW Unit	**16kW Unit**
Width: 560mm	420mm
Length: 845mm	635mm
Height: 265mm	200mm

WEIGHT

32.5kg	15.5kg

HEAT EXCHANGE COIL

- Tube in tube heat exchanger
- Outside hot gas tube steel tested @450 PSI
- Inside tube double walled vented copper – UL listed for potable water
- Double wall with vents between walls isolates water from refrigerant tested at 450 PSI

WATER CIRCULATION PUMP

- Grundfos 120W stainless steel
- Single phase 230V 50Hz
- No pump lubrication required
- Optional water storage tank/s – fully insulated with 316 stainless steel liner

PUMP ON/OFF CONTROL

Head pressure control – adjustable

TUBING CONNECTIONS COPPER

50kW Unit	**16kW Unit**
Refrigerant 1 1/8” OD	5/8” ID
Water 5/8” OD	1/2” OD

ENCLOSURE

430 Grade Stainless Steel

Pressure Switch Settings				
Refrigerant	**Set Point (KPa)**	**Set Point (PSI)**	**Differential (KPa)**	**Condensing Temp**
R22	1200	175	200	35°C
R404A	1700	240	200	35°C
R134a	800	116	200	35°C