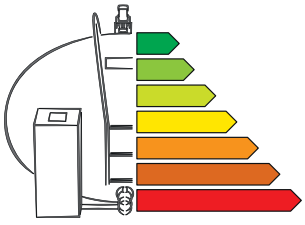
SPAR-HEAT

Heat recovery unit with double-walled coil heat exchanger



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Recovering heat from the refrigeration process...

Fabdec have pioneered heat transfer technology in stainless steel since 1960, producing vessels for all industries in our UK manufacturing facility.

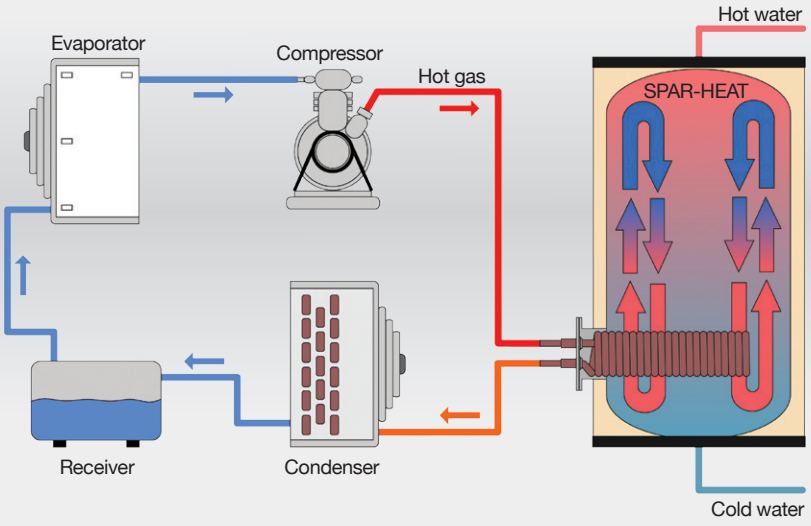
Every refrigeration system is effectively a heat pump. The refrigerant changes state during the cooling process and the compressor creates an excess of waste heat, which is rejected into the atmosphere.

The goal of heat recovery is to capture this waste heat and convert it into **free hot water**.

SPAR-HEAT is a durable stainless steel cylinder with double-walled spiral heat exchangers designed to recover the waste heat in a safe and efficient manner, generating hot water at temperatures of up to 60°C.

Immersion heaters can then boost it up to 85°C.

How SPAR-HEAT fits into the refrigeration circuit



SPAR-HEAT - Overview

- 130L – 3000L range
- Multiple heat exchanger coil options
- Durable duplex stainless steel
- Little maintenance as without moving parts
- Market leading insulation with CFC-free polyurethane foam
- Safe potable water protection thanks to secure double wall heat exchange
- Hygienic scratch resistant plastisol cladding
- Immersion bosses for boosting water temperature

Typical SPAR-HEAT installation

A typical restaurant cold room with cooling capacity of 4kW will produce in excess of 5kW of waste heat which could generate up to 100L of hot water every hour by utilising heat recovery.

That's a saving of just over £1.00 per hour if your water heater is currently electric, up to £4,000* a year of energy savings.

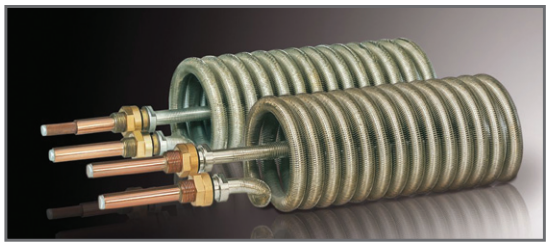
*Based on £0.30/KWh unit cost and 365 days

Stainless steel cladding is an option for outdoor installation

Standard Dimensions

Volume (litres)	Coil heat exchangers	Height (mm)	Diameter (mm)
150	1	1085	576
215	1	1480	576
305	up to 2	2028	576
400	up to 2	1380	756
500	up to 3	1665	756
680	up to 3	2256	756
840	up to 3	2750	756
1125	up to 3	2047	1005
1775	up to 3	2565	1090
2155	up to 4	1995	1290
3000	up to 6	2960	1290

Refrigerant inlet/outlet pipe 14.3mm; Coil size 1.82 m^2
Maximum condensing duty per circuit 25kW
(criteria for maximum condensing duty is the pressure drop)
* To=0°C, Tk=50C°, Refrigerant: R404A / R449a



The heat exchanger consists of an outer tin-plated spirally wound high finned tube, and an inner (refrigerant side) copper tube. The double walled structure prevents the possibility of drinking water from mixing with refrigerant oil, meeting DIN standard EN12897 and PD5500.

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