



Our Splashback Absorber Panel (SAP) Heat Recovery System (HRS) recycles wasted heat from industrial kitchens, enabling cost reduction of up to 60% in targeted energy costs for food service sites.

The system absorbs wasted heat created when cooking and uses this heat to provide the premises with free, hot water.

The method

Using a SAP installed close to the main heat source within the kitchen, either directly behind a chargrill or cooker, or within a canopy, heat is absorbed by the plate and transferred into a sealed water circuit. It is then circulated through a coil in our buffer cylinder for hot water generation.

When water is drawn off from the hot water cylinder it is now supplied by water from the buffer cylinder which will be considerably hotter than mains cold, providing substantial energy savings for the end user.

It makes perfect sense when you think about it:

- ✓ A conventional hot water system stores water at approximately 60 -70°C
- ✓ Mains cold water enters a building at approximately 10°C
- ✓ This water needs to be heated from 10°C to 60°C
- ✓ A large amount of energy is needed to enter the water to increase its temperature.
- ✓ Establishments must be hygienic and therefore require a lot of hot water.



All of this energy costs money

The HRS delivers high performance in a challenging environment - recovering low-grade waste heat and reintroducing it to the system. In doing so, it overcomes grease fouling issues.

It has long been conventional in heat recovery to use an extended surface (finned) HX and water-based working fluids to carry heat from the waste air stream to the positions where the heat can be distributed in the system.

Using our experience of this solution, we determined that this finned approach greatly inhibits realisable heat recovery due to the fouling of the HX.

So, we came up with our own; a novel plate HX, suited to extracting energy from exhaust streams containing particulates.

Using our design expertise, we extended the plate's surface without the need for fins to further promote heat exchange and achieve heat quality matching.

These steps dramatically reduce the risk of fouling and allow cleaning-in-place.

TECHNICAL INFORMATION

- ✓ Our heat recovery plate can be supplied in a black or stainless steel finish and can be sized to suit site conditions.
- ✓ Our manufacturing complies with EN ISO 15614-11 standards.
- ✓ All plates are produced with PED (European Pressure Directive) calculations, burst tests according to AD Merkblatt 2002, and pressure tested to 10 bar as a minimum.
- ✓ Our WRAS approved hot water cylinders and buffer vessels are made from high quality stainless steel.
- ✓ All production is quality controlled to ISO 9001.