

Food preparation and catering

Increase carbon savings without
compromising on quality



Washing equipment

A variety of washing equipment is utilised in any catering operation which can use substantial amounts of energy and water. Savings are achievable through the implementation of best practice working procedures when using washing apparatus. Moreover, a range of energy efficient equipment is available to recover heat from washing procedures and make better use of the energy consumed.

As with cooking equipment, the staff who use washing equipment can have a significant impact on the levels of wastage and energy use. The table below provides a checklist to ensure that cleaning activities are as energy efficient as possible.

Washing equipment savings checklist

<input checked="" type="checkbox"/>	Maximise dishwasher loads by fully loading and correctly stacking.
<input checked="" type="checkbox"/>	Ensure that taps are switched off after use and that food and utensils are not washed under running water.
<input checked="" type="checkbox"/>	Keep equipment well maintained – ensure heating elements, jets, sprays, thermostats and drains are clean and unclogged.
<input checked="" type="checkbox"/>	Use the economy setting on dishwashers.
<input checked="" type="checkbox"/>	Ask staff to report leaking washers or taps.
<input checked="" type="checkbox"/>	Consider use of low temperature sanitising liquids.

Water treatments

Poor water quality, particularly hard water which is high in dissolved minerals, can lead to scale and build-up on pipe work. This reduces efficiency of the washer system and can cause maintenance issues. Consider using automatic water treatment or adding a water softener to the supply. This will improve overall efficiency as well as deliver a better wash result with less detergent.

Consider water saving devices

All catering facilities could benefit from the installation of water conserving devices such as:

- *Tap controls* – These switch taps off after a certain time and are useful in communal facilities such as toilets and hand washing basins.
- *Water efficient flow restrictors and aerators* – These reduce the volume of water coming out of a tap and can reduce consumption without diminishing the service to staff, provided the water pressure is adequate.
- *Automatic shutoff valves for spray washers* – these supply water for pre-rinsing operations only when required by the user (see picture).



Consider heat recovery from the wash cycle

Heat recovery condenser devices can be installed in larger machines to reduce energy consumption by 25%. Further energy reductions can be achieved cost effectively by the incorporation of a heat pump in the exhaust system. This can increase energy savings by 50% compared to a standard set up. Both approaches can minimise exhaust vapour discharge into the kitchen, reducing ventilation and extraction costs and improving working conditions.

Specifying new equipment

Two can be better than one

If demand is likely to be variable for glass washers or dishwashers, it can pay to install two smaller items of equipment rather than one large one. It is more efficient to run a small washer with a full load, leaving the other switched off, than to run a large, half empty washer.

Procuring energy savings

Develop and implement an energy efficient catering equipment procurement policy, specifying low energy models in preference to others. When specifying new equipment, consider models with the following added features:

- Well insulated dishwashers that retain heat within the unit.
- Low water-use dishwashers with efficient filtration and recirculation of rinse water which can save on both water and the energy used to heat it.
- Washing equipment with preinstalled heat recovery.
- Machines that are capable of taking a hot water supply (preferably from a central gas boiler) and do not rely on expensive hot water generated within the machine from electricity.

Heat recovery condenser devices can be installed in larger machines to reduce energy consumption by 25%