Come Clean

Find out how to choose the most reliable and environmentally friendly washing machine, reducing the water, energy and detergent you use.

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Introduction

By 2000, 85% of all UK households had a washing machine, and an average family now washes 5 loads a week[1]. Although we wash our clothes at lower temperatures (around 20°C) than we did 20 years ago (due to improvements in the design and efficiency of machines and detergents), we are washing them more frequently, using more energy, more water and more detergents. Of total UK domestic electricity consumption in 1998 washing machines accounted for 8.4%. Washing machines account for 10% of carbon dioxide produced by use of household appliances[2]. Most washing machines in the UK are manufactured in Europe, though UK manufacturers include Hoover, Creda and Belling[3].

Labelling

Within Europe, to help consumers choose the most environmentally friendly washing machine (in terms of energy efficiency and water consumption), there are two EU labelling schemes: the mandatory **EU Energy Label** and the voluntary **EU Ecolabel**.

Compulsory since 1996, the **EU Energy Label** rates how efficiently the washing machine washes (at a temperature of 60°C), the speed the drum spins, its capacity and energy consumption. At present, the machines are graded from A-C, with A being the most efficient. Before 2000, the range was A-G, but the manufacturers have now voluntarily agreed to withdraw all models below energy efficiency class C. By 2000, some 88% of 165 washing machines from 17 brands were awarded an energy efficiency rating of A or B, and the remainder, C ratings. Although the EU Energy label relies on self-assessment by the manufacturers, it is supported with accuracy checks by the industry, and allows a 15% margin for errors.

The **EU Ecolabel** is a voluntary ecolabel which measures washing and rinsing performance. It also ensures that information identifying which plastic parts of the washing machine which can be recycled is provided in the machine's manual. Specific environmental criteria has to be met for the manufacturing process, and minimal packaging used.

The **EU Ecolabel** (after consultation with leading European manufacturers) recognises outstanding energy efficiency performance of washing machines, already awarded the EU Energy label, that exceed grade A's energy criteria by 10%. At present, there have been no companies within Europe that have applied for the EU Ecolabel licence, but this may change in the near future so it is worth asking manufacturers' customer services about their plans.

Tips when buying a washing machine

- Think about how much washing you produce, the size of drum and capacity that would suit your load, and how often you use your current washing machine. Smaller machines use less energy and water so consider a smaller machine for your needs but don't offset this by using it more often. It is worth noting that there is almost no difference in average energy efficiency performance between top and front loading machines,[4] but twin tub and top loading machines use more water.
- Look at the standard EU Energy label for overall classification grades and details of energy consumption and spin speeds. Find out if machines with grade A have exceptional energy efficiency performance.

- Ring up the customer service department of manufacturers for technical information and advice about their top performing models.
- Read up on independent surveys in publications such as *Which?*, and *Ethical Consumer*, and consult the internet for up to date background information (see bibliography).
- Don't overload the machine. It can cause poor wash results, damage your clothes, and even damage the machine. However use 'full load' whenever possible, since using a half load setting will save energy and water but not as much as using the machine less frequently.
- If you have to mix garments, choose the garment in the wash load with the lowest temperature and gentlest cycle and follow the recommendations on its care label. (For example, you would wash 60°C and 40°C items together on the 40°C setting).
- Avoid using the pre-wash cycle whenever possible and try to wash at 40°C or less.

Domestic Tumble Dryers

Domestic Tumble Dryers & Combination Washer Dryers use a lot of electricity which is expensive, inefficient for water heating, and environmentally damaging. Most of our electricity is produced by burning fossil fuels which emit carbon dioxide and contribute to global warming, so think about whether you really need a dryer and how you would ensure it was used efficiently (for some people, the temptation to dry a single shirt in a dryer is too much). It is also worth noting that the UK Consumers Association's studies have repeatedly found combination washer dryers to be the most unreliable domestic appliance you can buy.[5] Check out alternative ways of drying your washing (e.g. drying on a clothes line outside or an airer indoors), or use the commercial gas dryers at launderettes - more efficient and cheaper than electricity.

Best buys

Which? magazine[6] surveyed five front loading machines claiming A rating for efficient energy use and recommended AEG Oko Lavamat 72630 and the Bosch Maxx WFL 2450 GB as Best Buys. This repeats a pattern for the last few years for AEG and Bosch, who upgrade their models very frequently.

Additional features

Fuzzy Logic are sensors which detect the weight of the load, wash type (fabric type), calculate the programme needed, and the amount of water and detergent required. The machine can then adjust washing conditions to the optimum without the user needing to select the correct cycle for the load. Hot fill machines are a good option as they use available hot water from domestic boilers (heated from the sun if you have solar water heating) instead of heating up cold water using the electrical element (using electricity is inefficient and environmentally damaging). Economy wash/Eco button feature saves water and energy by reducing temperature.

Recycling and reuse

Every year in the UK, large domestic appliances such as washing machines, fridges and cookers comprise 39% of the 900,000 tonnes of discarded electrical and electronic goods. Over 75% of these goods are recycled either after collection by the council or by scrap merchants sorting and working at local dumps. At present, local Councils collect appliances, often free of charge, but it is worth asking the supplier if they can recycle your old machine.

However, at a European level, there are plans to promote the refurbishment, re-use and recycling of these household goods in the EU member states with the introduction of the Waste Electrical and Electronic Equipment Directive (WEEE) in 2004. This will place responsibility on all manufacturers to recycle all their machines in circulation. Consequently, refurbishing and repairing faulty models will reduce landfill flows and provide reconditioned models for a second hand market. Contact The Furniture Recycling Network for details of organisations that might be able to recondition your machine. (see below)

Detergents and the alternatives

- Be wary of recommendations by manufacturers and detergent suppliers as to how much detergent is required by your machine for each wash cycle. You can normally reduce the amount and still get good washing results. We all tend to use far more detergent than we need. Try it and see!
- Aim to buy environmentally friendly washing detergents like Ecover and Bio-D (both of which can be refilled at some outlets, so saving packaging too) and EU Ecolabelled products like Down to Earth.
- Better still, get rid of detergents altogether and use Eco-balls, (available from CAT Mail Order department), which produce ionised oxygen that activates the water molecules naturally, lasting up to 750 washes. For heavy stains or to get that 'clean' smell, adding a small amount of detergent can be effective. Less detergent means less need for rinsing, again saving water and energy.
- Hand wash small loads, using 125ml pure soap & 4 litres hot water or 60ml baking soda / borax & 1 litre hot water (to cut grease add 60ml lemon juice)[7].
- Shared community resources and laundrettes reduce environmental impact by reducing the number of machines needed, as well as by having larger washers and gas dryers.

Bibliography

1) *Ethical Consumer* Feb/March 1999
2) *Ethical Consumer* Dec 1997/Jan1998
3,5) *Ethical Consumer* Aug/Sept 2000
4) *Appliance Efficiency* – IDEA Newsletter, issue 1 vol 4 2000
6) *Which?* magazine May/June 2001
7) *Watershed Sentinel* Feb/March 2001

Contacts and websites

History of Washing Machines – inventors.miningco.com
D.E.F.R.A – tel 0207 2386000.
EU Ecolabel – www.defra.gov.uk
Energy Efficiency Advice Centres – tel 0845 7277200.
Ethical Consumer – www.ethicalconsumer.org; tel 0161 2262929.
***Which?* magazine** – www.which.net; tel 0845 3074000.
AEG – www.aeg.com; tel 0870 5350350.
Bosch – www.bosch.co.uk; tel 0190 8328200.
Hoover/Candy – www.gias.co.uk; tel 0120 4556101.
Hotpoint – www.hotpoint.co.uk; tel 0870 9066066.
Belling – www.bellingappliance.co.uk; tel 0170 9579901.
Miele – www.miele.co.uk; tel 01235 554455.
Siemens – www.siemens.co.uk; tel 0870 2400070.
Ecover – www.ecover.com; tel 0163 5528240.
Cat Mail Order– www.cat.org.uk; tel 01654 705959.
The Furniture Recycling Network– tel 01924 375252.

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