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Dishwashers

Dishwashers, like many other appliances, are available as free-standing, built-in or fully integrated models. See p. 128 for implications of these descriptions.

**Full size** models 600 mm wide × 850 mm deep claim to be large enough for 12 place settings.

**Slim** models 450 mm wide are available for 9 place settings. There is also a **Compact** model 600 mm wide × 450 mm high for 6 place settings, for building into tall units. All these models have a drop-down counterbalanced door. There are also under worktop models with one or two pull-out drawers for 6 or 12 place settings.

**Place setting**

A place setting consists of:

- 240 mm diameter dinner plate
- 230 mm diameter soup plate
- 165 mm diameter side plate
- 140 mm diameter saucer
- 87 mm diameter cup
- 120 mm high glass
- Knife and fork
- Soup spoon
- Dessert spoon
- Teaspoon

**Drying**

In most machines, dishes are dried from the heating element at the base of the machine. Some model have active drying where the steam is carried away by convection. More expensive models have a fan which circulates the hot air to speed up the drying time.
Energy

Dishwashers should display an energy label which will give ratings from A (good) to G (bad) for: energy efficiency (A–G), energy consumption (kWh/cycle), cleaning performance (A–G), drying performance (A–G), number of place settings, water consumption (litres/cycle) and noise (dB(A) re 1 pW). See p. 40.

Manufacturers sometimes advertise their models as:

A,A,B (energy/washing/drying) or B,B,C

They claim that dishwashers are more energy efficient than hand washing as they use little more than two sink bowls of water, 14 to 16 litres of water being typical figures for dishwasher consumption.

Half load programmes may save only 10–20% of water so they are not as efficient as waiting until the dishwasher is full. Reducing the amount of water rather than the temperature makes for a more efficient wash.

Water connection

Most manufacturers recommend cold fill only. Previously, if there was hot water in the house heated by gas or oil, it was more efficient to connect to this supply. Today, however, machines are much more sophisticated and have programmes with water temperatures ranging from cold to 70°C (see p. 139) so the machine would not be able to adjust the temperature of the centrally heated water down from say 60°C to 50°C for an economy wash.

Another factor is that water should not be too hot when first entering the machine as food residues will tend to stick to the crockery rather than be washed off.
Noise

Dishwashers are noisy. Better models have good sound absorbing linings to the casing. Decibel ratings range from about 43 to 59 dB(A).

Features

The following features may be included:

- hinged cup rack in upper basket
- height adjustable upper basket useful if large diameter plates need to fit in rack underneath
- foldable rack in bottom basket provides more room for pans
- refill warning lights for rinse-aid and salt replacement
- time delay switch useful for economy tariff when machines can be run at night
- child safety lock prevents door being opened during cycle
- anti-flooding device detects leaks in hose and shuts off water supply
600 mm wide semi-integrated dishwasher with SS door for 12 place settings – by Candy

450 mm wide freestanding dishwasher for 9 place settings in SS – by Smeg

600 mm wide double ‘Dish Drawer’ in embossed SS for 6 + 6 place settings by Fisher & Paykel

600 w × 480 d × 460 h fully integrated ‘compact’ dishwasher for 6 place settings – by AEG

Dot matrix function display control panel on top edge of fully integrated dishwasher door – by Küppersbuch

Dishwashers
Programmes

Typical programmes to be found are:

- **pre-wash**: cold water rinse when machine not used daily
- **half load wash**: uses 10–12% less water
- **quick wash**: 30°C for 30 min
- **delicate wash**: 40°C for fine glass and china
- **economy wash**: 50°C (may not remove tea stains)
- **normal wash**: 65°C
- **intensive wash**: 65°C or 70°C with pre-wash
- **automatic**: 55–65°C, claims to select appropriate programme for maximum efficiency of water, energy and time

Programme times for a full size normal wash can vary from 120 to 155 min.