12 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 \times 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 \times 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



 $600 \text{ w} \times 480 \text{ d} \times 460 \text{ h}$ fully integrated 'compact' dishwasher for 6 place settings – by AEG



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



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 quick wash delicate wash economy wash normal wash intensive wash automatic	uses 10–12% less water 30°C for 30 min 40°C for fine glass and china 50°C (may not remove tea stains) 65°C 65°C or 70°C with pre-wash 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.