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Sinks and mixers

Of all appliances, the sink is the workhorse of the kitchen. Research shows that about 60% of the time spent in the kitchen is at the sink, compared with about 20% at the cooker. For this reason alone, it is important that the right sink is chosen at the outset.

The sink is also the least likely appliance to be replaced, partly because of the expense of altering the plumbing but mostly because it will affect the worktop in which it sits, where the cut-out hole will almost certainly be different or the bowl(s) may be an integral part of the worktop material.

For locating the sink within the kitchen, see pp. 41, 42.

A single sink bowl is not enough for washing food, filling pans, disposing of waste, hand washing dishes and/or clothes, doing flowers, etc. Ideally houses have a separate utility/laundry room with a large deep sink for laundry which can also deal with washing muddy boots, soaking clothes and filling vases.

Even in the smallest kitchen a '1½ bowl sink' is preferable to a single sink bowl as it allows for slops to be disposed of in the smaller sink.

In seriously small kitchens, where there is room for only a single bowl, choose the largest possible so that a smaller washing up bowl may be used within the sink, leaving space around for rinsing dishes or disposing of waste.

The small kitchen may also benefit from a chopping board accessory designed to fit over the sink bowl which will extend the available worktop area when the bowl is not in use.

Types of sinks

Sinks come in the following broad categories:

Inset	a sink top inserted into a hole cut out of the worktop and secured with a self-rimming flange.
Sit-on	sink top designed to fit over a specific sized base cupboard which will butt up against adjoining worktop surfaces and leave an undesirable dirt-trapping slot.
Under-mounted	individual or double bowl units fixed to the underside of work tops made of solid material.
Integral with worktop	bowls cast or welded to a worktop of the same material, i.e. composite stone, Corian, SS, etc.
Individual	individual bowl(s) such as the traditional fireclay Belfast sink which can sit on or be adjacent to worktops or draining boards.

Sink unit surrounds should include holes for mixers to contain water splashes and keep limescale spotting off the adjacent worktop. Ideally sink mixers should be *wall mounted* to avoid the problem of scale and dirt accumulating round the base of mixers. But this involves making a duct behind the sink to accommodate pipework and to allow the underside of the spout to project about 110 mm over the sink top.

Waste outlets are better positioned at the rear of the sink bowl to allow more flat area as a work surface. This prevents plugs from being accidentally removed and makes for more accessible storage space in the cupboard underneath the bowl.

Note that the depths of sinks can vary from as shallow as 120 mm to as deep as 250 mm.

Building Regulations require a minimum 40 mm trap with 75 mm depth of seal for sinks. In practice it is best for all sink wastes to be fitted with *bottle traps* so that blockages and lost jewellery can be more easily removed, but note that waste disposers must NOT be fitted to a bottle trap. See p. 95.

A good feature found in some adjacent sinks is a slight indent in the dividing wall between the sinks which will divert water overflowing from one full bowl into the other.

Beware 'universal' configuration of sink and draining boards. These are sink units which have a tap hole punched in both sides of the unit, allowing the unit to be handed as required. This results in the unused tap hole being filled with a blank, causing an obstruction around which dirt will collect. More expensive ranges have the option of RH or LH drainers which avoid this problem.

Sink accessories

Sinks are often supplied with optional *accessories* such as:

mixer tap

plumbing set, i.e. wastes, linking pipework and trap

drainer basket

draining trays

strainer bowl – a colander generally for smaller sink

chopping board – hardwood, to fit larger bowl

Some or all of these may be included in the package price. Check that the mixer, in particular, is the model required and whether the client needs the accessories and will have enough cupboard space to store them.

Stainless steel sinks

Stainless steel is still the prime choice for kitchen sinks.

It is virtually indestructible, rustless, seamless and non-porous, so is hygienic and continues to look good after many years of hard use. The resilient properties of the sheet material soften impact blows.

The only products known to dull the metal are very strong bleaches and silver dipping liquid.

The recommended composition of the material is:

18/8 nickel/chrome content (18/10 is better) to BS 1449 Part 2 and Euronorm 88.71, grade 304 with thicknesses ranging from 0.9 to 1.5 mm.

The underside of bowls should be applied with sound-deadening panels or a material such as bituminous rubber compound to minimise drumming.

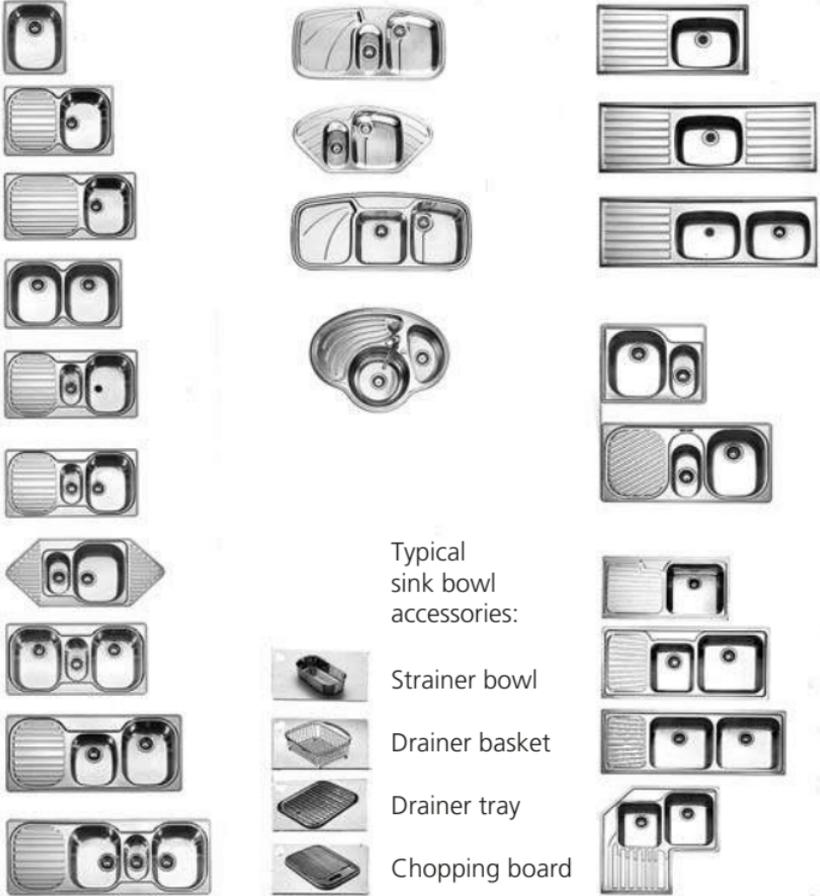
In hard water areas, limescale spots will show up on stainless steel. These cause no harm and can be removed easily with vinegar or proprietary limescale removing liquids.

The finish is usually polished but, at slight extra cost, linen, brushed and satin finishes are available for the surrounds and draining boards. These will help to disguise limescale spotting and fine scratches, although the normal polished finish will acquire a 'brushed' look in time anyway so these finishes are somewhat questionable.

Stainless steel sink bowls can also be welded on to *stainless steel worktops*. See p. 166.

Stainless steel sinks are available in many configurations:

single round bowl	inset or undermounted
single rectangular bowl	inset or undermounted
double rectangular bowls	inset or undermounted
single bowl with drainer(s)	inset or sit-on
double bowls with drainer(s)	inset or sit-on
corner bowl(s) with drainer(s)	inset



Typical sink bowl accessories:

-  Strainer bowl
-  Drainer basket
-  Drainer tray
-  Chopping board

Inset stainless steel sinks and accessories by Franke

Brass sinks

This is a limited range of individual sinks and inset bowls with drainers available in brass. Inevitably they tarnish and the manufacturers recommend 'cleaning on a daily basis with a water soluble cleaner'. This should deter most clients except for those with a fleet of servants.

Plastic sinks

Plastic sinks are made of polypropylene or other polymers. They can stain and are not as heat resistant as other sink materials. They tend to be used in economy installations and carry only a limited guarantee.

Solid surface sinks

These are sinks made of silica, recycled glass, quartz or other stone particles bound in a matrix of tough acrylic resins with various proprietary names generally ending in 'ite' as they come in granite-like colours ranging from nearly white in tone to nearly black.

They claim to be strong, durable, resistant to impact, scalding, staining, and are heat resistant to 180°C. The quality of individual makes may be judged by the guarantees which range from 10 to 20 years.

Despite claims of indestructibility, manufacturers advise never to use undiluted bleach on the surface.

Ceramic sinks

Made of glazed fireclay, ceramic sinks are heavy and thick in profile. They have a hard, non-porous surface giving good resistance to detergents, abrasive acids, alkalis, hot and cold temperatures. The glaze has a shiny bleachable, hygienic appearance is generally white in colour, but it will chip if subject to heavy blows.

They are available in standard inset bowl and drainer patterns and also as so-called *Butler sinks* with deep rectangular single or double bowls and in traditional *Belfast* shapes.

Ceramic sinks can be set under solid material worktops, often with the deep front side exposed to view. These sinks are heavy and need substantial support.



Under-mounted sink bowls – by Carron



Ceramic sink with rear shelf which can be punched for mixer tap by Villeroy & Boch



L-shaped solid surface sink unit for a corner situation – by Carron



'Waterstation' with revolving top built into a corner or free-standing by B&L Rieber



Sit-on SS sink unit – by Carron

Different types of kitchen sink

Sink taps and mixers

Brassware for sinks has developed into an art form of its own, very often with price tags to match. It is not unusual for the mixer to cost considerably more than the sink.

Historically, the kitchen sink had two high-necked *pillar taps*, from which the *mixer valve* or *combination tap* was developed, usually in the form of a *bridge mixer* with pillar taps mounted on adjustable unions so as to fit variable centre line dimensions of pre-drilled tap holes.

Eventually two tap holes were standardised at 180 mm centres so the more elegant *deck mixer* appeared.

All these patterns are still available which is useful for replacing existing fittings.

From this 'two tap-hole' situation came the *monobloc* mixer with a single body, a single spout and two tap handles on either side.

About the same time, *ceramic disc* operation was developed which has several advantages over the traditional *screw-down* (or *compression*) handles as they have the benefit of a quick quarter-turn for full flow, need no washer replacement and have a long working life.

Then the monobloc ceramic disc *single lever mixer* emerged which is the most efficient type as it requires only one hand to operate and it saves water as a single quick downward action is all that is needed to shut off the water supply.

Mixers with cross top or round handles have screw-down operation while mixers with ceramic discs have various forms of lever handles.



Pillar taps



Bridge mixer



Deck mixer



Monoblock mixer



Single lever mixer

Evolution of the tap mixer shown here with current models by Ideal Standard

Filtered water mixers

There are monobloc single lever mixers which supply filtered cold water from a cartridge housed in the cabinet under the sink (see also p. 62).

Note that some models require minimum 3 or 5 bar water pressure.

These are available in various patterns such as:

- monobloc mixer with three handles for hot, cold and filtered water.
- monobloc mixer with two handles, where the cold handle is turned in the opposite direction for filtered water.
- monobloc mixer with two independently rotating spouts, with one handle for hot and cold water and the other for filtered water.
- single lever mixer where the lever is turned in an anti-clockwise direction for filtered water.

Rinsing spray attachment

Several mixers have provision for a separate *rinsing spray* or *hand spray* attached to a flexible hose which sits alongside the mixer in a separate tap hole.

There are also mixers with a rinsing spray which pulls out of the mixer spout.

The ultimate version of this type is the so-called '*professional*' or '*chef's*' deck mixer which has a long adjustable spring balanced powerful rinsing spray designed to rinse and wash both inside AND outside the sink bowl if required.

Note that this type of mixer generally requires minimum 5 or even 7 bar water pressure.



'Professional' mixer with spring balanced long powerful spray attachment by Blanco



'Semi-professional' mixer with height adjustable hand-set – by Blanco



Mono block mixer with 500 mm pull-out spray by Astracast



Single lever mixer with pull-out spray by Hansgrohe



Single lever mixer for filtered cold water by Ideal Standard



Single lever mixer for filtered cold water by Astracast



Hydrotap delivers both boiling and chilled filtered water from an under-sink heater and chiller by Zip



Three hole sink mixer by Ideal Standard



Wall-mounted single handle mixer with swivel spout-by Vola



Wall-mounted two handle mixer with swivel spout-by Vola

Sink mixers

Tap holes

Tap holes can be a problem, first and foremost because limescale and grime gathers round the tap base.

It is far better to install a *wall-mounted mixer* leaving the sink-top or countertop free of holes. Unfortunately there are not many wall-mounted models available and accommodating a duct behind the counter is not always possible.

Tap holes in metal sinktops tend to be pre-drilled and it is not always possible to get the desired sink pattern with the right number of holes. This may result in having to use a blank, hand-rinse or soap dispenser to fill an unwanted hole. Sink bowls mounted under solid surface or stone countertops get over this problem as tap holes can be drilled as required.

Tap construction

Most mixers are *dual flow* where hot and cold water is separated within the spout and is only mixed at the spout outlet. This is to avoid the possibility of *backflow* which might contaminate the mains cold water supply.

Where *single flow* mixers are installed, they must be fitted with *double check valves* to conform to WRAS requirements.

Check that mixers specified will operate with the available water pressure. Models can vary from needing a minimum of 0.2 bar up to 0.7 bar (roughly 2 m up to 7 m head of water).

Sink taps are made of brass and come with various finishes:

bright chrome	bronze
satin chrome	brushed nickel
brushed steel	gold plate
polished brass	epoxy powder-coated colours

Sources: Astracast, BGL Rieber, Blanco, Carron, Franke, Hansgrohe, Ideal-Standard, Villeroy & Boch, Vola, Zip