Shelving and Storage Equipment

When it comes to enough space to work in, most chefs will say the person who designed the kitchen was never going to have to work in it, or the kitchen was designed when food sales were not as busy as the present. That means the maximum use of available space is important which means efficient shelving and storage.

Not only must there be efficient use of space with shelving, but it has also to conform to good food safety practice and increasingly, to employee health and safety requirements. Lifting from high shelves involving stretching or standing on a raised surface could be viewed as an employee safety risk.

With walk-in coldrooms and freezer rooms it is important to maximise the storage areas through good racking and shelving, since the running costs over a year will be very similar for a coldroom under-stocked and one that has shelving which utilises as much space as possible.

Shelving fixed to the walls of the kitchen or the dry store area is still widespread, but it is impractical to move it, cleaning is more difficult and since all kitchens evolve in layout it does not make for sensible use of the storage area.

The most effective shelving is a modular system. This usually comes as a flatpack or semi-fitted. As part of a new kitchen or refurbishment, the installer will put the shelving together, but it is literally snap and click, often without any nuts or bolts to fix. Self-assembly is very straightforward.

Advantages of modular shelving systems include mobility, versatility and the ability to remove shelving for washing, either through a dishwasher or in a sink. The uprights on modular shelving have anchor points for shelf support brackets, so many or just two or three shelves can be fitted according to the goods in store and their size.

Changing shelf height is very simple and additional shelves and support brackets can be bought. A good system will allow for shelving to be fitted around a corner, often without the obstruction of a support post on the leading edge of the corner, further increasing the versatility of the unit. Where transporting of shelving is a feature needed in a kitchen, modular racking systems mounted on castors are available.

The materials available

There are a wide range of materials used in shelving, each with their advantages, but the one material which has a food safety question mark against it is wood. In theory, wood is cheap and for dry goods storage such as tins presents no food safety risks. But things other than tins get stored on wooden shelving and it can become soiled and be a breeding ground for bacteria. A regular and thorough cleaning routine using a sanitiser will keep the wood clean, but in practice this is unlikely to happen.

Zinc chromate - Usually the cheapest material for shelving, useful where cost is very important to the buyer. It performs well for ambient dry goods storage, but if used in the

damp environment of a coldroom over a period of time it can produce a type of white rust which needs to be cleaned off.

Coated wire – This is metal, usually as a mesh or parallel bars, which is given a plastic coating, similar to the racking used in a domestic fridge. This is a versatile material which can be used in both coldrooms and for ambient racking. Care has to be taken that in a coldroom rust does not begin to break through at bends and joints. In a coldroom environment, cracking can occur in the plastic coating, which as well as allowing corrosion to break through, gives a cleaning problem.

Anodised aluminium – This is one of the less expensive materials and has strength, stain resistance and the anodised coating makes it easy to keep clean. Can be used in both dry goods storage and in coldrooms and freezer rooms.

Stainless steel – The most durable of construction materials, good to keep clean and corrosion problems are very rare. The choice of kitchens where there is a desire for high performance and the willingness to pay for it.

Shelf construction

There are several construction forms for the actual shelf, but they fit within two types – solid shelves and slatted shelves. A solid shelf is useful if small items are being stored, such as cooking utensils or small jars which would topple over on a slatted shelf.

Slatted shelves are the more popular. These allow air to circulate freely around food, important in storing fresh food at ambient temperature and for coldroom storage. The slats allow for a good circulation of the cold air around the food. For use in wine storage, then round slats are useful as they allow bottles to be racked horizontally and put on top of each other.

Dunnage racks

Dunnage is a technical word that describes a low-sited ambient racking system that keep heavy items just off the ground to prevent moisture, heat and cold from rising up through the ground and spoiling product. Having foodstuffs raised off the ground also helps to be a barrier to walking and crawling pests. Typical products stored on dunnage shelving are sacks of potatoes and other bulky vegetables such as onions and carrots. Dunnage shelving needs to be very robust, able to withstand heavy and prolonged weights being stored on it.

Cleaning shelving

With modular shelving, the slatted shelves can be lifted out and in most cases put through a dishwasher. For parts of modular shelving which cannot be put into a dishwasher such as the upright frame, a medium bristle brush with hot soapy water will clean off spillages and a sanitising spray will help remove residual bacteria. A hot power wash spray gun normally used for cleaning solid floors is another way of cleaning shelving, but check with the manufacturer’s instructions.

Immediate cleaning should be done when there is a spillage of cooked food or leaching of fluid from meat and fish.

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