

# Understanding Food transport, Holding and Regeneration Systems

Service points are often some distance from the kitchen and food needs to be kept hot between leaving the kitchen and presentation to the customer. If the food has been pre-cooked and chilled the trolley needs not only to transport the food under chill, but to also heat the food back up to a safe and pleasant to eat temperature. Trolleys can transport individual plated meals or bulk dishes.

While food transport, holding and regeneration systems are often associated with public sector catering they offer huge benefits to the profit sector. Function suites, hotels with banqueting suites, conference centres, outside event caterers – anywhere that food needs to be safely transported and either kept cool or re-heated find them invaluable. While their image is of keeping food hot or heating up food, many of them are just as good as keeping food cool.

There are different types of hot-holding food trolleys.

*Mobile hot cupboard trolleys* – These are well insulated which maintains food temperature during transport to the service point and have internal heating elements which can be plugged into an electricity supply on arrival to main food temperature. Some have a steam generation system which in addition to keeping the food hot, will keep it moist, preventing drying out and skinning of sauces.

They can also provide a full meal service with options of a bain-marie for hot sauces, over-counter lighting and service areas and an outward finish which can make them look part of the board room furniture

*Regeneration trolleys* – These have a much more powerful heating system. They are designed to accept chilled or frozen food, keep it chilled during transport, then heat it back up to a safe and pleasant serving temperature close to the point of service. They can take either individual plated meals or bulk food dishes and the heating process begins when the regeneration trolley is plugged in to an electricity source close to the point of service.

The more advanced trolleys have split and insulated compartments so that while food intended to be served hot is heated, that which needs to be kept chilled, such as sandwiches, desserts and salads, is held at chill temperature. Most of them will take food from chill to serving temperature in one hour.

Big users of this regeneration trolley system are hospitals and schools, where food may be prepared in a central production kitchen and transported across a large site.

*Thermal Boxes* - Transportation boxes are insulated containers which can range from units which hold just a few food boxes to those which are capable of holding gastronorm-size containers and include a plug-in heat facility. It is also possible to get them with a chilling mode for transporting food under refrigeration.

The basic construction is normally a plastic case with a double skin and a high density insulation between the skins. Commercial holding boxes are far superior in construction and insulation properties to leisure cool boxes, which should not be used for professional food service.

Cleaning of the boxes is paramount, so examining for internal corners where food debris may collect is important and it is very useful if the box and lid can pass through a commercial dishwasher.

### **Features to look for when buying**

What is the regeneration time? With a fleet of trolleys possibly in use twice a day, a few minutes extra on regeneration time can add up to a substantial additional energy cost over a year.

Have someone with a detailed knowledge of energy costing calculate the cost of bringing food up to temperature. A trolley may have an impressive heat-up time, but may be very heavy on energy use.

Examine the ease of cleaning on both hot-holding and regeneration trolleys, which can be expressed as a labour cost in a viability plan.

Is there a good serving area on top of the trolley and are there optional extras of a gantry and table extension for service?

## **Look after it!**

Regeneration trolleys have been a major step forward in the last 10 years in delivering high-quality and hot food at every level of foodservice, from banqueting to hospitals. Yet any item of equipment which involves chilled food and reheating chilled food has to have a double levels of preventative care. Care of the equipment itself and care that the highest possible standards in food safety and hygiene are maintained.

Every regeneration trolley should have a thorough cleaning after every service. There are different systems in use which need different cleaning routines, but the manufacturer will have clear cleaning guidelines and all staff members should understand and follow them.

Food holding systems are similar to regeneration trolleys in that they are usually transportable around a site, but their use is to keep hot food hot without drying out, rather than bring frozen or chilled food up to a serving temperature. The same high regard for thorough cleaning is needed to remove any food debris, but since more advanced hot holding trolleys may have steam injection to keep food moist and prevent skinning and drying, the point where the steam comes in must also be kept clean.

Regeneration trolleys are relatively trouble-free. The main point to watch is that the thermostats and heating elements are correctly working. Regular probing of food with a digital thermometer as part of good handling practice will show if an engineer needs to visit as well as being a requirement under HACCP.

The biggest cause of repairs to regeneration trolleys is miss-handling by staff, bumping trolleys against each other or into solid objects such as walls. Many trolleys are fitted with bumpers to cushion rough handling, but there are always lots of protruding objects and surfaces around a kitchen which can collide with dials and connection points on the trolley if staff are careless with movement of the trolley.

Castors can also be subject to abuse by rapid movement over very uneven floors. Castors are designed to last as long as the trolley and if one needs replacing, then miss-use is almost certainly the reason.

## **In brief**

### **Do**

- Thoroughly clean after each use
- Keep castors lubricated
- Regular temperature probe checks on cabinet heat displays
- Use very hard water with steam injectors
- Train staff on the correct way to transport trolleys

### **Don't**

- Let mobile trolleys be moved while still plugged in
- Overload beyond manufacturer's recommendations
- Knock into walls during transit
- Run without any food in
- Serve food until it has reached correct serving temperature

## **How to find out more about food holding, transport and regeneration equipment**

Talk to the experts.

The Catering Equipment Suppliers Association

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Note to editors:

Key items of prime cooking equipment have their own section in this guide - this information guide takes in prime cooking equipment not covered elsewhere.



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