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Bar and Service Equipment

Aims and learning outcomes

The aim of this chapter is to provide the knowledge and skills to operate food and beverage equipment. On completion of this chapter the learner should be able to:

- Describe the various types of large and small equipment within the bar area
- Explain the use and maintenance of bar equipment
- Identify the major glassware types available within the bar area
- Identify food service equipment and broadly explain their relevant use in the food service area.

3.1 Introduction

The storage, preparation and service of food and beverages in the bar and food service areas involves understanding how to source and operate various small and large pieces of equipment. This is crucial to the practice of good service and to delivering food and drink products to the highest standards in the bar. This equipment can differ depending on the food and drinks to be prepared and served, and the particular type of bar and dining areas, for example if the bar and food service areas are located within a hotel, restaurant, cruise liner or night club.

3.2 Bar area – large equipment

Glass washing machines

The primary objective of any good glass washing machine is to produce glasses that are hygienic and sparkling clean. The machine cycle must be rapid because turnover of glasses at busy times is important in the licensed industry (a good glass washing machine will wash about 1,152 glasses or 48 racks per hour at a setting of 75 seconds cycle, whereas a longer wash cycle of 150 seconds should produce 576 glasses per hour).

Glass washing machine, best practices:

- Never leave glasses to dry in the glass washing machine
- Maintain correct water temperature and sufficient detergent levels dispensed in the correct amounts
- Glass washing machines can be adjusted to suit your bar, for example water hardness, water pressure, chemical dosage
- Clean the machine and clear any blockages at the water jets, filter and rinse bars
- Wash glasses that have been used for dairy products, including specialist coffees, separately
- Do not wash trays, food containers or cutlery in the glass washing machine
- Never remove glasses from the machine before it has finished its full wash and rinse programme.

Ice making machines and ice purity

Ice is one of the most important ingredients in the bar industry. Ice must be clean and fresh and free of any flavour save water.

Modern ice making machines are self-cleaning and you can program the machine electronically to change its output based on daily and seasonal demands. These refrigerated machines are usually made of rustproof materials (stainless steel or heavy duty plastic) they contain a pump inside which circulates the water from a tank. Premium icemakers always contain a good filtration system, to ensure pure water and minimal build-up of chlorine and minerals found in most drinking water. The water runs through tubing to a freezer assembly, which freezes it into a single sheet of ice. The frozen sheet is then forced through a screen to produce ice cubes, or crushed to produce crushed ice. Different types of screens produce different sizes and shapes of ice cubes. Each machine however makes only one type and size of ice, but in some modern machines you can adjust cube size. When the ice is made, it is dumped into a storage bin where it is cool and fresh. This minimizes broad surface to surface contact with adjacent cubes in the bin, such as with square cubes, which can result in cubes freezing together in clusters. When the bin fills to capacity, a sensor inside the bin stops the ice making process until there is room to make and store more fresh ice. The main decisions affecting the icemaker's production are: available space - the warmer the air around it and the warmer the water it is fed, the less ice it will produce; heat generation in the bar; how many areas it will serve; ventilation; sanitation standards of the located area.

Types of ice

Ice can be crushed, shaved, cracked, or cubed, depending on the food or drinks it is intended to assist. The more ice you use in a drink, the cooler the drink will be, but remember that too much ice will also dilute a drink. This is particularly true of crushed ice. Other factors to consider are:

- **Clarity:** ice should be completely clear, made with pure, sanitary drinking water that produces no 'off' taste, color, or odour.
- **Displacement:** cubes should 'pack' well into the glass; you never want a customer to think they are paying for a drink that's mostly ice. The shape of the cube also determines how much of its surface touches the liquid and, therefore, how quickly it works to chill the drink.
- **Density:** how 'hard' or 'soft' the ice is frozen determines how quickly it interacts with the drink. The cubes also should not be so soft that they stick together in the ice machine or bucket. Local temperature and humidity impact density, as does where the icemaker is located in the bar, and its temperature setting.

Food safety and ice

Regular surveillance of ice for contaminants is vital for the protection of public health and consumer confidence. In most countries we use more ice than bread, and like any other type of food or drink we ingest, it can become contaminated and retain bacteria, causing illness.

The sampling and testing of ice from food premises is supervised by the health boards in each country, with ice samples taken for microbiological assessment. You should never: refreeze ice, scoop or transfer ice by hand, use glasses or ice buckets as ice scoops or store bottles or other foods in the ice machine. Contamination can also occur from other internal and external factors – two-thirds of the service calls for icemakers can be traced to dirty compressor and condenser coils. These coils hold refrigerant, which is pressurized and turns from liquid to vapour and back again during the cooling process. Bacteria can build up if ice machines and equipment are not sufficiently serviced and maintained, but contamination is most likely caused through the handling of ice by serving staff, customers or the following:

- Road works near the premises can effect the quality of your water supply from the rising mains.
- Ices cubes made in trays in the deep freeze section of domestic type fridges, as this involves more handling.
- The ice bucket – Health Board samples of ice taken from ice buckets in bar premises indicated high levels of contamination.
- The ice location – the machine is located in the cellar in most premises, and it is important that this area be rodent proof, clean and tidy, and that the materials used on surfaces, floors, walls and ceilings are within the hygiene regulations.
- Ice cube machines should be thoroughly emptied out and cleaned regularly at frequent intervals, so that they can continue to produce E.coli free ice cubes, which is the primary objective. This cleaning should include the water jets and all internal ice contact areas within the machine. Water and air filters used in conjunction with the ice machine should be changed at least once annually; sometimes in poor water quality areas this filter should be changed 2-3