AUTOCLAVE

It is a device used to sterilize objects by exposing them to high pressure steam at 121 °C for around 15-20 minutes, this means that all bacteria, viruses, fungi and spores are destroyed.

❖ Principle:

The sterilizing action depends on the heat of pressurized steam which is about 2.2 bar at 121 °C, (when heat water in a closed container like autoclave we can raise the temperature of water above boiling temperature).

❖ Parts of autoclave:

- Safety screws.
- Autoclave door(lid)
- Pressure gauge (indicate pressure)
- Safety valve.
- pressure release valve.
- Plastic rubber.
- Timer.
- Water level indicator.
- Thermometer (give temperature)
- Thermostat
- Electrical heater (heat supply

❖ Types of autoclave.

1- Pressure cooker autoclave

2- Vertical autoclave

3- Table-top autoclave

4- Stationary autoclave

❖ The uses of Autoclaves

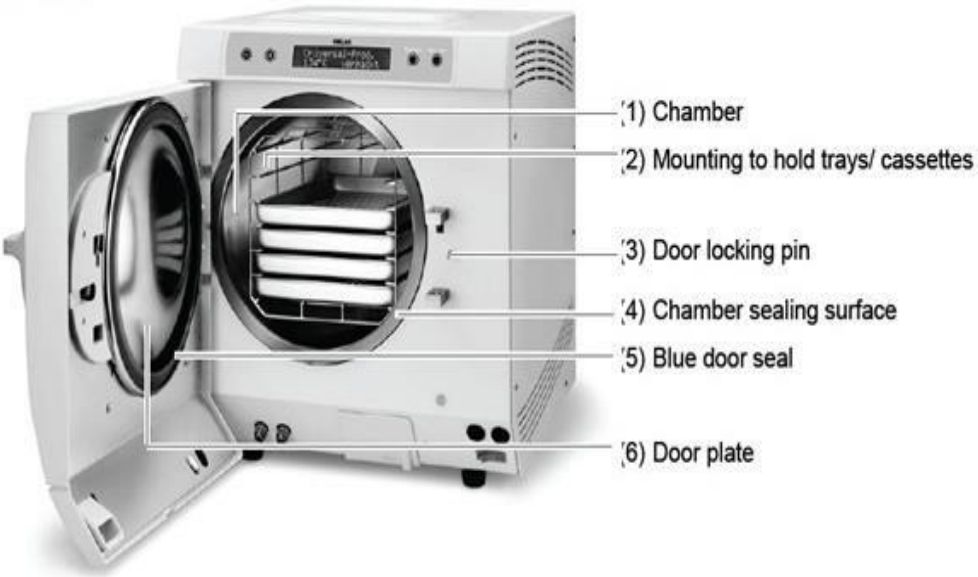
It is used mainly for the sterilization of the objects, which include laboratory glassware, surgical instruments and medical waste.

❖ Method of operation

1- Fill the bottom of autoclave with distilled water.

2- Place the objects within the basket.

3- close the lid and tighten the screws.

4- adjust the temperature, pressure and time and run the autoclave.

5- Upon completion of the sterilization time, discards steam by opening the valve then opens the lid.