

# Thermal devices

## Thermostat

A device **that maintains a constant selectable temperature** inside a certain space . In practice, it can take the form of a closed volume with double walls that are filled with insulation. Inside this volume, a constant temperature is maintained by the regulation.

## Sterilizer and autoclaves

They are devices for sterilizing tools and textiles using heat.

### Autoclave

Vessel with excess water vapor pressure and a temperature of 120°C.

## Water baths

Containers with electric heating element and stirrer, controlled to a constant temperature. Similar to thermostats.

## Tempered operating tables

Artificial hypothermia during surgical interventions. Under the table top is a pipe with water that keeps the patient's body temperature at a constant selected temperature.

## Cooling device

Equipment where the temperature is artificially reduced significantly below the ambient temperature.

- **Compressor principle** of cooling – a suitable gas (ammonia) is sufficient, which then liquefies in the condenser, and in the evaporator inside the refrigerator the liquid evaporates, the gas expands and cools the surroundings.
- **Absorption principle** – ammonia is absorbed in water and expelled from the water again outside the refrigerator.

## Links

### Related articles

- Disinfection
- Sterilization (hygiene)

### Source

- KUBATOVA, Senta. *Biophoto* [online]. [cit. 2011-01-31]. <<https://uloz.to/1162346/biofot.doc>>.