1. **Steam traps** are a type of automatic valve that filters out condensate (i.e. condensed **steam**) and non-condensable gases such as air without letting**steam** escape. In industry, **steam** is used regularly for heating or as a driving force for mechanical power.

Steam is formed when water vaporizes to form a gas. In order for the vaporization process to occur, the water molecules must be given enough energy that the bonds between the molecules (hydrogen bonds, etc.) break. This energy given to convert a liquid into a gas is called 'latent heat'.

Steam-based heating processes use latent heat and transfer it to a given product. When the work is done (i.e. steam has given up its latent heat), steam condenses and becomes condensate. In other words, condensate does not have the ability to do the work that steam does. Heating efficiency will therefore suffer if condensate is not removed as rapidly as possible, whether in steam transport piping or in a heat exchanger.

A **steam trap** is a device used to discharge condensate and non condensable gases with a negligible consumption or loss of live [steam](https://en.wikipedia.org/wiki/Steam). Most steam traps are nothing more than automatic [valves](https://en.wikipedia.org/wiki/Valve). They open, close or modulate automatically. The three important functions of steam traps are:

1. Discharge condensate as soon as it is formed.(Unless it is desirable to use the sensible heat of the liquid condensate)
2. Have a negligible steam consumption.(i.e. being energy efficient)
3. Have the capability of discharging air and other non-condensable gases.