H_2O_2 STERILISATION

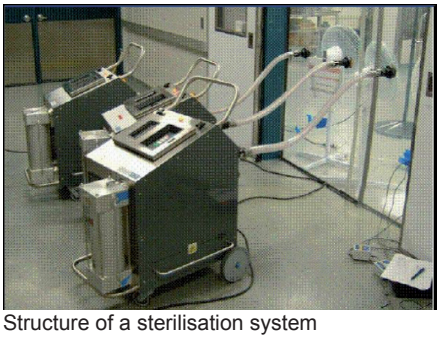
Hydrogen peroxide is increasingly being used as a method of bio-decontamination and sterilisation in the pharmaceutical industry or in the field of medicine. Both equipment and entire rooms can be sterilised with H_2O_2 vapour.

The H_2O_2 vapour is produced in a generator and transported to the area of application by means of a carrier gas (usually air). The process is also termed VHP (Vaporised Hydrogen Peroxide) sterilisation.

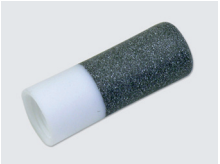
In many areas which are sterilised by H_2O_2, a humidity measurement is necessary during normal use. Capacitative polymer sensors are often used for this. These sensors are attacked by H_2O_2 and even at low H_2O_2 concentrations a significant drift of the sensor characteristics occurs. In order to prevent these false readings, the humidity sensor must be removed during phases of H_2O_2 vaporisation.
As solution to this problem is the use of a special filter cap, which protects the humidity sensor from H_2O_2. With this, the humidity sensor can remain in the system during sterilisation.

Properties of the H_2O_2 filter:
The filter cap consists of a PTFE sinter filter, in which a catalyst is embedded. The catalyst decomposes the H_2O_2 into harmless water and oxygen, so that the humidity sensor in the filter cap is not exposed to H_2O_2 and no drift occurs.

With the aid of the filter cap the relative humidity can also be measured during the phases of H_2O_2 application. This is of interest, as the effectiveness and duration of some sterilisation methods also depend on the relative humidity in the system.


Structure of a sterilisation system

- **E+E solution**



H_2O_2 Filter HA010115
Catalytic filter for H_2O_2 environments

Specially developed for use with H_2O_2 sterilisation

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