

References SANCO

Vöhringen plant

The following picture shows part of the extensive copper tube installations in the gas equipment at the Vöhringen plant.

In the gas equipment the technical gases nitrogen and hydrogen are both frozen-stored and liquid-stored.

The liquefied gases are conducted through evaporators and in the mixing installation shown they are mixed to a usable gas which consists of 5% hydrogen and 95% nitrogen.

The usable gas in the thermal treatment installations serves as protective gas and avoids oxidation of the products during the annealing process.



Thanks to its viscosity even at low temperatures the copper tube is not only perfectly suitable for the installation of technical gases but also less expensive than stainless steel. The tubes are hard soldered and connected using silver solder.

All nominal diameters from 12 up to 42mm are used for the installation. The pipes for nitrogen are operated using a pressure of up to 18 bar, and the test pressure is 25 bar. Hydrogen tubes are operated using a pressure of 8 bar and a test pressure of 16 bar.

The requirements for the gas-tightness of a hydrogen piping are very high.

Therefore helium is used as a test medium.

The pipes have mainly been installed in the external areas. Thanks to its corrosion resistance the copper pipe can be used without further protective coatings and it ensures continued safe operation.

