

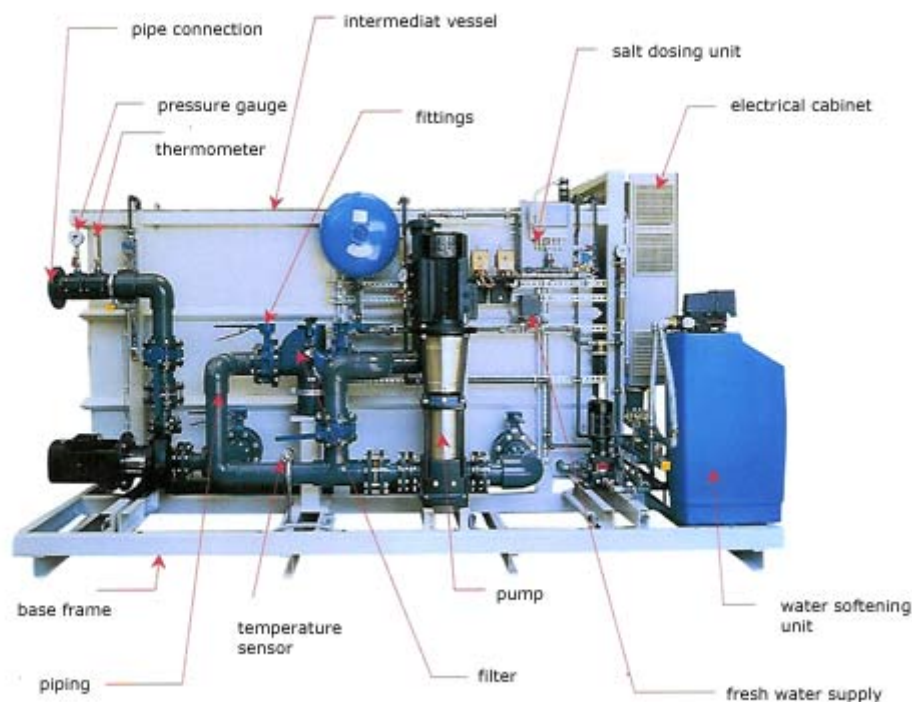
Cooling water units

Cooling water system

Our activities are focused on cooling of process water for customers of the industry, such as glass and plastic production, wire industry but also foundries, forging and squeezing plants.

We offer engineering including evaluating of technical solutions, design and construction of the equipment as well as the complete electrical and electronic equipment to control the plant.

The following picture shows you a typical cooling water unit, which is ready to use and installed on a steel frame.



Our cooling water units are equipped as follows:

- steel frame
- vessels, pumps, filter
- heat exchanger (only for closed circuit systems)
- electrical cabinet

- internal piping to the cooling tower
- internal wiring of all sensors and drives



In case the available space for such cooling water units is limited at the plant site, we are able to supply special cooling water units designed in a regular container, as shown on the picture on the left.

Cooling tower

The cooling tower is a water/air-heat exchanger. In this tower the water to be cooled is in direct contact with the ambient air. During this counter-current process the heat of the water is transferred to the air by convection and evaporation. In the cooling tower nozzles distribute the water evenly and the water is passing a special packing inside the tower.

The main cooling effect results of evaporating of the water. The losses in water is about 1-4% of the complete water throughput, depending on the operation parameters. Such water losses have to be replaced within the cooling circuit.



nominal cooling power from 35 to 1'050 kW

Grain cooler

Grain cooling devices are successfully used to conserve all kinds of grain, fruits independent of any weather conditions.

A fast cooling of the grains avoids unnecessary respiration losses, gives security to the storage and reduces significantly the development of pest, independent whether the storage is dry or humid.

The results are healthy goods and a competitive sales price.



The cooling devices of the LK-MI series do all have the following specifications, which are state-of-the-art:

- compact and mobile design with CFC-free cooling media
- control of the cold air in order to guarantee constant temperature during changing environmental conditions
- combined after heating device, comprising electrical and hot-gas heating elements to reduce the humidity in the out-blowing cooling air
- choice of different operation modes

The control of the complete unit and the cooling process itself is done with a PLC. A display with clear text as well as a keyboard and the required push-buttons are available for the operator to run the cooling device.

Grain coolers are useful for storage capacities starting from 70 tons per day up to 200 tons per day. The installed electrical power depends on the cooling capacity and is between 8 kW up to 28 kW. Special customer requirements can be realised.