

System separator (water to water chiller)

Economical, offering value and sustainability



Many institutes have in-house cooling water supply. This cooling water is usually too cold, e.g. to cool a laser or an electron microscope or the water is often poor quality, has an inconsistent flow and/or temperature.

The KÜHLMOBIL system separator offers the ideal solution to these problems and has very small dimensions. It works without a compressor and therefore without refrigerant - energy expenditure is necessary only for the delivery pump, since the cooling capacity of the domestic water system is used. The sketch on the following page shows the basic operating principle. The purchase price of such a device with this higher performance is far below that of a compressor-cooled device.

Water to water chillers from Van der Heijden-Labortechnik GmbH are available in the same performance variants as the standard KÜHLMOBIL. All models are specially designed according to the existing cooling water network and can be supplied up to a power of 150 kW. The standard models are all equipped with a bypass, pressure gauge and flow monitor.

In the case of faults of any kind, the device will be switched off. The temperature control is carried out on the secondary side by a valve on the primary side automatically regulating the amount of domestic water. The stepper motor works in fine steps, so that a high temperature stability is achieved.

This type of cooler is lower in price compared to refrigeration systems with compressors, but with the higher benefits or lower energy consumption, size and noise levels, being extremely compact, particularly well soundproofed and relatively quiet at high power. Waste heat to the surrounding area is almost negligible. There are no condensation problems, as the primary side is essentially isolated.

If these types of KÜHLMOBIL are rigged, feet instead of casters are available.

This device works with a 3-way motor valve. The analogue control signals (0-10 V) allow constant temperatures to be achieved and temperature fluctuations to be quickly compensated. The unit is also available with an engine valve, which is controlled by a microprocessor-controlled PID controller.

Information required

To design such a cooler, the following in-house water data are required:

- Water outlet temperature of the domestic water side or inlet temperature into the cooler
- Pressure difference of the domestic water network
- What quantity of water is available?

Give us a call.

We are happy to design a suitable device for you