HYDAC Refrigerated Fluid Chiller Systems RFCS
All the requirements...

H.I.B Systemtechnik GmbH is a subsidiary of HYDAC International which employs 9,000 worldwide.

Located in the Bavarian town of Friedberg, it is the centre of excellence for refrigeration cooling technology. Innovative cooling systems for the machine tool and laser industries are developed and manufactured here. The intelligence demonstrated in our machines originates exclusively within our company.

...for efficient cooling solutions

The RFCS Refrigerated Fluid Chiller System cools various fluids such as water, water/glycol or oil down to, or below, the ambient temperature. The cooling system, which consists of a chiller, pump, tank and electronic control, operates independently and highly accurately to a specific setpoint.

Think green – Act green

The energy efficient, patented mixer principle, combined with a sealless submersible pump, makes this system the ideal component for your machining centre.
The coolers are produced in the Bavarian town of Friedberg and rightly deserve the "Made in Germany" seal of quality!

In order to provide a consistently high level of quality, all equipment must undergo a function and performance test.

Planning and advice from our specialists on site. We tailor the solution to your individual requirements.

Our own development centre produces market-driven, energy efficient and cutting-edge solutions, to stay one step ahead of the "state of the art".

For Service you can call on a comprehensive network of service engineers. Whether it is for repair at H.I.B or on site. We are at your service worldwide.

ISO 9001 CERTIFIED QUALITY
RFCS Chiller System

Two ranges – Multiple applications

In the standard versions, these cooling systems are designed as active coolers complete with compressor, air cooled condenser, submersible pump and electronic control. Whether integrated into a machine or used as a separate auxiliary cooler, the RFCS range of chillers will tackle any cooling task and guarantees quality for your products with utmost precision.

Separate auxiliary coolers with high capacities up to 250 kW for cooling tasks. Several units can be connected in parallel to expand the capacity as required.

Separate auxiliary cooler for cooling tasks in machine building (integration into the machine tool), capacities up to 7 kW

Temperature control / Remote maintenance

H.I.B Control unit

RFCS-G Series

RFCS-D Series
RFCS Chiller System

**Two ranges – Multiple applications**

In the standard versions, all RFCS chillers are designed as active coolers complete with compressor, air cooled condenser, submersible pump and electronic control. Whether integrated into a machine or used as a separate auxiliary cooler, the RFCS range of chillers will cater to cooling tasks in machine tool), capacities up to 7 kW.

Separate auxiliary cooler for cooling and dehumidification tasks.

**RFCS Series**

Several units can be connected in parallel circuits.

**Technical specifications**

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<td>601 x 574 x 1554</td>
<td>350</td>
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**Accessories**

- Higher capacity pumps available
- Vertical installation
- Adjustable defrost operation (central control)
- Extremely accurate control up to ±0.1 K
- Flow rate display and monitoring
- Serial interface for system monitoring
- Ambient temperature dependent control
- Several parallel circuits

**Advantages**

- No heat transfer through the RFCS into the building
- High energy-saving potential using the HY-ECOBOX
- Low thermal load for cooling tasks
- Serves as an energy manager in the refrigerating circuit
- It is possible to achieve an external water supply.

**Centralized cooling systems**

The HY-ECOBOX is an optional module which contributes to improving energy saving.

When operating with water supply, the HY-ECOBOX allows the cooling capacity of the RFCS to be adjusted in combination with a dry cooler.

1. Cooling capacity based on 35°C ambient air / water to condenser and 20°C process fluid supply temperature
2. All dimensions ±1.5 K (stock availability)
3. IW = Industrial water/Water-Glycol
4.Cooling tasks
5. Standard, other voltages on request

**Centralized cooling systems**

The HY-ECOBOX (optional) improves the cooling system’s energy efficiency. The HY-ECOBOX allows the cooling capacity of the RFCS to be adjusted in combination with a dry cooler.

The cooling capacity can be adjusted in different climate conditions by setting a setpoint independent from local ambient temperatures for cooling tasks.

The HY-ECOBOX ensures effective heat removal from a dry cooler or water cooling tower.

The HY-ECOBOX can also be used as an external water supply.

The HY-ECOBOX is a low-energy cooling module that is easy to install and use.

**HY-ECOBOX**

- Multi-ranges can be connected in parallel circuits
- Available for almost all units
- Available for almost all units
- Temperature independent from local ambient temperatures for cooling tasks
- Decreases the ambient temperature to improve energy saving
- Flow rate display and monitoring
- Serial interface for system monitoring
- Ambient temperature dependent control
- Several parallel circuits
Centralized cooling systems

Chiller with air blast heat exchanger and HY-ECOBOX

**RFCS Chiller:**

The RFCS produce cold water in different classes independent from local ambient temperatures for cooling customized applications. In this case, the chiller is designed with a water cooled condenser that dissipates its process heat to a separate cooling water circuit.

**HY-ECOBOX:**

The HY-ECOBOX is an optional module which contributes to improve energy saving. Whenever there is a correspondingly low ambient temperature, the active cooling operation of the refrigerating circuit is switched off. Accordingly the system will work in a passive mode. The use of the HY-ECOBOX as energy manager is therefore only possible in combination with a drycooler.

**Dry cooler:**

Water cooled RFCS chillers require a cooled water supply for heat removal. A drycooler is used as an efficient resource of achieving an external water supply.

**Advantages**

- Saves resources, no water consumption
- High energy-saving potential using the HY-ECOBOX
- No heat transfer through the RFCS into the building or water supply