

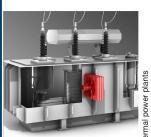
Knowledge is POWER – Motion Force Control is our Business
HYQUIP Limited New Brunswick Street Horwich Bolton Lancashire BL6 7JB UK





# **HYDAC**

# Your Partner for Expertise in Cooling Systems.



All the requirements...

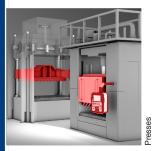
H.I.B Systemtechnik GmbH is a subsidiary of HYDAC International which employs 9,000 worldwide.

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.



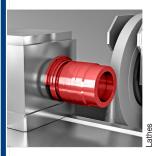
## ...for efficient cooling solutions

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.







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## From the prototype to series production.

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







ISO9001 CERTIFIEDQUA Our own development centre

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

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.

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.





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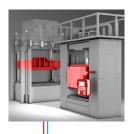
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## RFCS Chiller System

### 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.





### **RFCS-G Series**



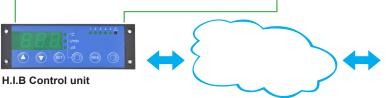
### **RFCS-D Series**



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

Temperature control / Remote maintenance





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# HYDAC RFCS Chiller System

## **Technical specifications**



Series	Part- No.	Code	Cooling capacity  [kW] 1)	Coolant IW 3)	Refrigerant R134A R407C		performance /	Conne
							Pump Flow rate	
G0	3962725 F	FCS-G0-001000-W-L-R23-2-IW	1	х	х		10 l/min @ 1,5 bar	2 x
	3963108 F	FCS-G0-001500-W-L-R23-2-IW	1,5	х	х		10 l/min @ 1,5 bar	2 x
	3963364 F	FCS-G0-002000-W-L-R23-2-IW	2	х	х		10 l/min @ 1,5 bar	2 x
D2	4254834	RFCS-D2-003300-W-L-R23-2-IW	3,3	х	х		15 l/min @ 2 bar	2 x
	3971674	RFCS-D2-003300-W-L-R24-4-IW	3,3	х	х		15 l/min @ 2 bar	2 x
G2	4097886	RFCS-G2-003300-W-L-R24-2-IW	3,3	х	х		15 l/min @ 2 bar	2 x
	4098037 F	FCS-G2-003300-W-L-R24-4-IW	3,3	х	х		40 l/min @ 3 bar	2 :
<b>D</b> 3	4255398	RFCS-D3-004500-W-L-R24-4-IW	4,5	х	х		40 l/min @ 3 bar	2:
	4118292	RFCS-D3-005800-W-L-R24-4-IW	5,8	х		х	40 l/min @ 3 bar	2
<b>G</b> 3	4078585 F	FCS-G3-004500-W-L-R24-4-IW	4,5	х	х		40 l/min @ 3 bar	2 :
	4078648 F	FCS-G3-005800-W-L-R24-4-IW	5,8	х		х	40 l/min @ 3 bar	2:
<b>D</b> 4	4118335	RFCS-D4-007000-W-L-R24-4-IW	7	х	х		40 l/min @ 3 bar	2
<b>G</b> 4	4098041 F	FCS-G4-007500-W-L-R24-4-IW	7,5	х	х		40 l/min @ 3 bar	2 :
	3958491 F	FCS-G4-009500-W-L-R24-4-IW	9,5	x x 40	l/min @	3 bar		2 :
G5	4098139	RFCS-G5-012000-W-L-R24-4-IW	12	х		х	40 l/min @ 3 bar	2
		FCS-G5-015000-W-L-R24-4-IW 15 4						
G6	4098192 F	<del> 440V ±10% - 50/60Hz 1230 x 601 x  </del>  FCS-G6-032000-W-L-R24-4-IW 32 7	5 I/min @ 3	bar 2 x 1-1/4	" 400x x	4100577	RFCS-G7-040000-W-	L-R24-4
	RFCS-G7- RFCS-G8-	050000-W-L-R24-3-IW 50 150 I/min ( 080000-W-L-R25-3-IW 80 150 I/min (	@ 3 bar 2 x 1 @ 3 bar 2 x 1	-1/2" 1000x -1/2" 2400x	x 409824 x 425889	8 RFCS 6 RFCS	-G7-060000-W-L-R24- -G8-100000-W-L-R25-	<del>3-IW 60</del> 3-IW 100
<b>G</b> 7								2 x ′
G8								
	4255685	RFCS-G8-125000-W-L-R25-3-IW	125	х		х	250 l/min @3 bar	2
	4255686	RFCS-G8-150000-W-L-R25-3-IW	150	x		x	250 l/min @3 bar	2 :

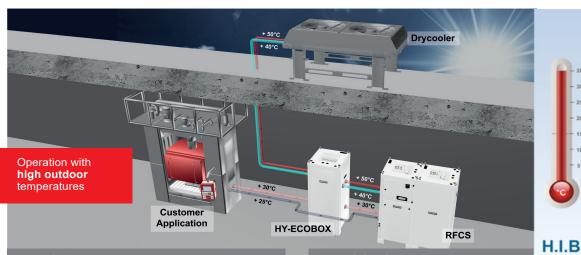
Cooling capacity based on 35°C ambient air / water to condenser and 20°C process fluid supply temperature 3) IW = Industrial water/Water-Glycol
 Standard, other voltages on request





## **Centralized cooling systems**

Chiller with air blast heat exchanger and HY-ECOBOX



### **RFCS Chiller:**

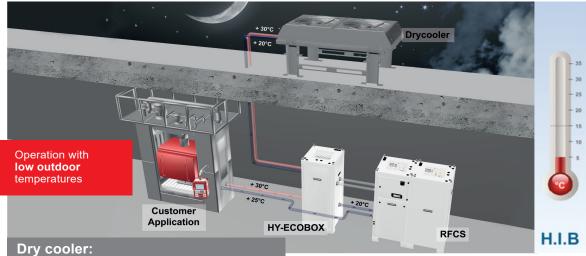
The RFCS produce cold water in different classes independent from local ambient temperatures for cooling customized applications.

In this case, the chiller is designed with a water cooled condenser that dissipates its process heat to a seperate 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.



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

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## Global Presence. Local Expertise. www.hydac.com



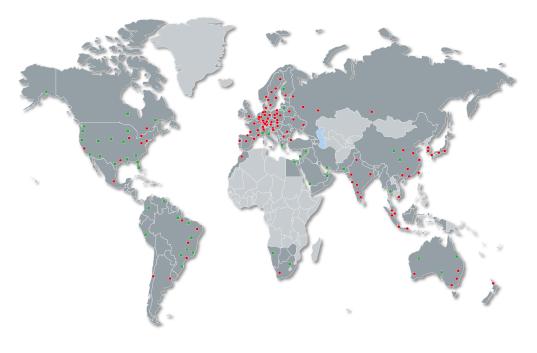












- HYDAC Head Office
- HYDAC Companies
- HYDAC Sales and Service Partners

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