



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.



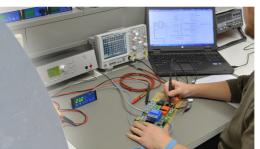




From the prototype to series production.

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.





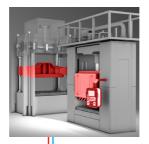


RFCS Chiller System

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

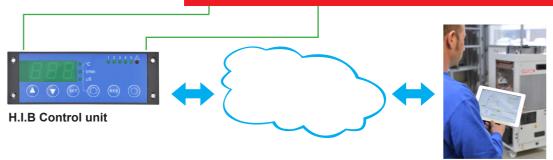


Separate auxiliary cooler for cooling tasks in machine building (integration into the machine tool), capacities up to 7 kW

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



RFCS Chiller System

Technical specifications



Series	Part- No.	Code	Cooling capacity [kW] 1)	Coolant IW 3)	Refrigerant R134A R407C		performance / Pump Flow	Connections	Electrical supply 5)	Dimensions LxTxH	Weight
							rate			[mm]	[kg] net
G0	3962725 F	FCS-G0-001000-W-L-R23-2-IW	1	х	Х		10 l/min @ 1,5 bar	2 x 1/2"	230V ±10% - 50/60Hz	443 x 561 x 440	43
	3963108 F	FCS-G0-001500-W-L-R23-2-IW	1,5	х	х		10 l/min @ 1,5 bar	2 x 1/2"	230V ±10% - 50/60Hz	443 x 561 x 440	45
	3963364 F	FCS-G0-002000-W-L-R23-2-IW	2	х	х		10 l/min @ 1,5 bar	2 x 1/2"	230V ±10% - 50/60Hz	443 x 516 x 440	48
D2	4254834	RFCS-D2-003300-W-L-R23-2-IW	3,3	х	х		15 l/min @ 2 bar	2 x 1/2"	230V ±10% - 50/60Hz	480 x 474 x 799	80
	3971674	RFCS-D2-003300-W-L-R24-4-IW	3,3	х	х		15 l/min @ 2 bar	2 x 1/2"	400/440V ±10% - 50/60Hz	480 x 474 x 799	80
G2	4097886	RFCS-G2-003300-W-L-R24-2-IW	3,3	х	х		15 l/min @ 2 bar	2 x 1/2"	230V ±10% - 50/60Hz	610 x 500 x 871	80
	4098037 F	FCS-G2-003300-W-L-R24-4-IW	3,3	х	Х		40 l/min @ 3 bar	2 x 1"	400/440V ±10% - 50/60Hz	610 x 500 x 871	80
D3	4255398	RFCS-D3-004500-W-L-R24-4-IW	4,5	х	х		40 l/min @ 3 bar	2 x 1"	400/440V ±10% - 50/60Hz	595 x 555 x 1131	130
	4118292	RFCS-D3-005800-W-L-R24-4-IW	5,8	х		Х	40 l/min @ 3 bar	2 x 1"	400/440V ±10% - 50/60Hz	595 x 555 x 1131	130
G3	4078585 F	FCS-G3-004500-W-L-R24-4-IW	4,5	х	Х		40 l/min @ 3 bar	2 x 1"	400/440V ±10% - 50/60Hz	741 x 500 x 871	130
	4078648 F	FCS-G3-005800-W-L-R24-4-IW	5,8	х		Х	40 l/min @ 3 bar	2 x 1"	400/440V ±10% - 50/60Hz	741 x 500 x 871	130
D4	4118335	RFCS-D4-007000-W-L-R24-4-IW	7	х	х		40 l/min @ 3 bar	2 x 1"	400/440V ±10% - 50/60Hz	601 x 574 x 1439	160
G4	4098041 F	FCS-G4-007500-W-L-R24-4-IW	7,5	х	Х		40 l/min @ 3 bar	2 x 1"	400/440V ±10% - 50/60Hz	601 x 574 x 1554	200
	3958491 F	FCS-G4-009500-W-L-R24-4-IW	9,5	x x 40	l/min @ 3	3 bar		2 x 1"	400/440V ±10% - 50/60Hz	601 x 574 x 1554	250
G5	4098139	RFCS-G5-012000-W-L-R24-4-IW	12	х		х	40 l/min @ 3 bar	2 x 1"	400/440V ±10% - 50/60Hz	601 x 601 x 2125	300
	4098188 F	FCS-G5-015000-W-L-R24-4-IW 15 4	0 l/min @ 3	par 2 x 1" 40	0/440V ±	10% - 50	/60Hz 601 x 601 x 212	5 300x x 409819	0 RFCS-G6-020000-W-L-R2	4-4-IW 20 75 I/min @ 3	bar 2 x
G6	4098192 F	/440V ±10% - 50/60Hz 1230 x 601 x / RFCS-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-IW 40 75	l/min @ 3 bar 1000x x 4098	193	380X X
	RFCS-G7	-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	18 RFCS 16 RFCS	-G7-060000-W-L-R24- -G8-100000-W-L-R25-	3-IW 60 150 I/min 3-IW 100 250 I/mi	@ 3 bar 2 x 1-1/2" 1000x x 4 n @3 bar 2 x 2" 2400x x	1255400	
									400/440V ±10% - 50/60Hz	1230 x 601 x 2125	
G7								2 x 1-1/2" 400)/ 48/98/x±10 %0-x5/2016/94H4200V±	10% - 50Hz 1858 x	
									1000 x 2134 400V ±10% -	50Hz 1858 x 1000 x	
									2134 400V ±10% - 50Hz 3	600 x 1200 x 2270	
									400V ±10% - 50Hz 3600 x	1200 x 2270 400V	
G8									±10% - 50Hz 3600 x 1200	x 2270	
	4255685	RFCS-G8-125000-W-L-R25-3-IW	125	х		х	250 I/min @3 bar	2 x 2"			2400
	4255686	RFCS-G8-150000-W-L-R25-3-IW	150	Х		х	250 l/min @3 bar	2 x 2"	400V ±10% - 50Hz	3600 x 1200 x 2270	2400

Accessories*

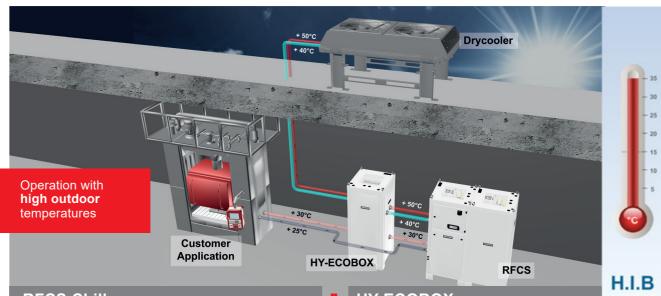
- Higher capacity pumps available
- Several parallel circuits
- Ambient temperature dependent control using separate temperature sensor
- Serial interface for system monitoring
- Filtration units for the refrigerant circuit
- Flow rate display and monitoring
- Extremely accurate control up to ±0.1 K, standard ±1.5 K**
- Speed controlled fans



available for almost all units
The standard temperature accuracy for RFCS-G7 + G8 is ±3 K

Centralized cooling systems

Chiller with air blast heat exchanger and HY-ECOBOX



RFCS Chiller:

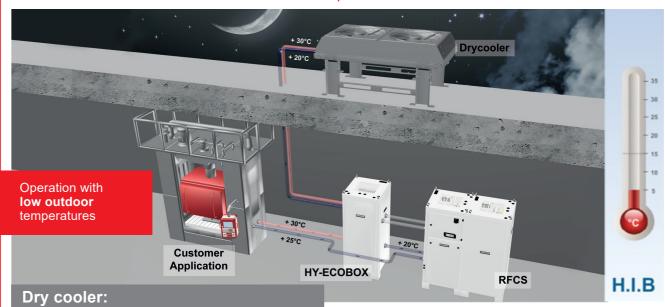
The RFCS produce cold water in different classes independent from local ambient temperatures for cooling customized applications.

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

НҮ-ЕСОВОХ:

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







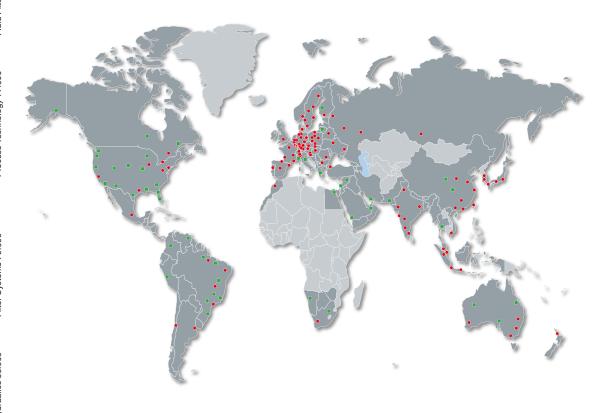








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