

SC5000w SemiChill Compact Recirculating Cooler

5 models for industrial applications, up to 10 kW cooling capacity, customizable

Recirculating Cooler for industrial applications (basic model, additional options for specific requirements available).

The SemiChill series offers powerful recirculating coolers. These units have been especially designed for applications in the semiconductor industry. Five models are available, with cooling capacities from 2.5 to 10 kW (air- or water-cooled). Working temperature ranges from +5 to +35 °C which can optionally be extended from -20 to +130 °C. Also available is a selection of powerful pumps. The units can be modified to provide heater capacities up to 5 kW. Selection between different electronic modules to conform to simple or high demands such as, for example flow rate and conductivity measurement, external temperature control or integration of the coolers via analogue signals, RS232, devicenet or ethernet. A large range of accessories and options including DI filters, microfilters, USB adapters, etc. is available.



Your advantages

- For the most demanding applications
- Space-saving, no lateral ventilation
- Handles and castor make relocation easy
- Industrial grade mains power switch and emergency cut-off
- Pressure gauge
- Liquid level indicator
- Front filling port
- Low noise level
- PID temperature control
- ATC3 3-point calibration
- Early warning system for low liquid level
- Warning and safety functions
- Modular design allows selection between different options
- Water cooled model

Technical Data

Order No.	9500051XXP3H0
Model series	SemiChill
Category	Recirculating Coolers
Working temperature range (°C)	-5 ... +35 Standard -20 ... +130 Option
Temperature stability (°C)	±0.1
Setting / display resolution	0.1 °C
Integrated programmer	1x10 steps
Temperature Display	LED Option

Heating capacity (kW)	12.0 Option								
Cooling capacity (Medium Ethanol)	<table border="0"> <tr> <td>°C</td> <td>20</td> <td>0</td> <td>-10</td> </tr> <tr> <td>kW</td> <td>5</td> <td>2.5</td> <td>1.2</td> </tr> </table>	°C	20	0	-10	kW	5	2.5	1.2
°C	20	0	-10						
kW	5	2.5	1.2						
Pump capacity flow rate (l/min)	33								
Pump capacity flow pressure (bar)	3.5 Standard 4.3 Option								
Bath opening / bath depth (W x L / D cm)	Ø = 7 / - cm								
Pump connections	NPT 3/4"								
Barbed fittings diameter (inner dia. / mm)	3/4"								
Filling volume liters	43 ... 60								
Refrigerant stage 1	R452A								
Filling volume refrigerant stage 1 (g)	1520								
Global Warming Potential for R452A	2140								
Carbon dioxide equivalent stage 1 (t)	3.253								
External Pt100 sensor connection	integrated								
Digital interface	RS232 Optional: Profibus								
Ambient temperature	5...40 °C								
Dimensions W x L x H (cm)	59 x 67 x 112								
Weight (kg)	153								
Sound pressure level (distance 1 m) max. (dBA)	69								
Classification according to DIN12876-1	Classification III (FL)								
Cooling of compressor	Water								
Available voltage versions	400 V / 3 Ph. / 50 Hz 208-230 V / 60 Hz								

Refrigerant specifications are valid for the 50 Hz version.

Characteristics

Display



Easy to read

Large LED temperature display for actual value and setpoint (resolution 0.1 °C)



A perfect view

Ample, easy to read VFD Comfort display for simultaneous display of 3 values, warning functions, high temperature cut-off, pump stages (resolution 0.01 °C)



Pump stage and liquid level

Backlit indicator for selected pump stages and filling volume on Presto® PLUS, Magnum 91 & Forte HT

Operation



Time saving

Comfortable and simple operation for setpoint adjustment

Temperature Control



Precise

PID Temperature control with set control parameters, temperature stability ±0.02...±0.2 °C



Highest measuring accuracy

'Absolute Temperature Calibration' for manual compensation of a temperature difference, 3-point calibration

Refrigeration Technology



Consistent cooling capacity

Easily removable venting grid for quick and easy cleaning

ACC **100 % Cooling capacity**
 'Active Cooling Control' for cooling available throughout the entire working temperature range, fast cool-down even at higher temperatures

S3 **For flammable bath fluids**
 Classification III (FL) according to DIN 12876-1

Technical Features

SMART PUMP **Clever pump system**
 Reliable and consistent pump capacity, electronically adjustable pump stages

Pt100 **Control from the external application**
 External Pt100 sensor connection for precise measurement and control directly in the external application

RS232 **Serial connection**
 RS232 interface for PC connection, e.g. for data communication and recording of measured values

1x10 **Easy program control**
 Integrated programmer for the execution of time and temperature dependant profiles, 1 temperature profile with 10 steps max., with real time clock

h **Automatic control of operating time**
 Electronic countdown-timer function for timer-programmed unit shut-down, standby mode after programmed time expires

Warning & Safety Functions

Low **Early warning system for low liquid level**
 Maximum safety for applications, optical and audible alarm, allows user to refill bath fluid before the unit shuts down

High/Low **Early warning system for high/low temperature limits**
 Maximum safety for applications, optical and audible alarm, convertible to automated cut-off function

High **Enhanced protective functions**
 Maximum safety, adjustable high temperature cut-off or dry-running protection, additional display of setpoints permits easy and precise adjustments