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SORCOOL

HOT FOR FUTURE COOLING

TECHNICAL DATA

Contents

The best way of cooling while also protecting the climate and your budget!

Developed and manufactured in Germany.

Adsorption Chiller: Turning heat into cold.

SORCOOL IS THE TECHNOLOGY LEADER FOR ADSORPTION TECHNOLOGY.

We develop and manufacture innovative, energy-efficient solutions for refrigeration.
Our adsorption chillers are in use more than 800 times worldwide - and in a wide range of applications.

SorCool adsorption technology can be used for cooling wherever waste heat is available.
As no electricity has to be used for cooling, our cooling technology reaches a new dimension of energy efficiency. Our cooling systems are successfully used in industrial manufacturing, building cooling, data centers and many other applications. They are also ideal for connection to combined heat and power plants, and can save considerable energy and CO_2 emissions in mobile applications such as ships.

ADVANTAGES

- Up to 90% reduction in power requirement
- Water as the refrigerant
- Almost noise-free
- Cooling modules contain no moving parts
- No replacement of the refrigerant or Adsorbents required
- Robust and virtually maintenance free

PHYSICS

Our technology works on the principle of solid matter sorption - called adsorption. In adsorption processes, water vapor is „drawn in“ and absorbed by the sorption material, in our case silica gel/zeolite, and absorbed, causing water to evaporate and cold to be generated. When the material is saturated, it is regenerated by adding heat.

Proven and tested numerous times

eCoo:
Saves your budget and the environment.

Our eCoo range of silica gel-based refrigeration units have proven their worth over the years in hundreds of installations around the world. From mild northern Europe to the tropical sultriness of Southeast Asia, our established adsorption units prove their reliability and performance every day.

With drive temperatures ranging from 50°C to 95°C, our eCoo refrigeration units are suitable for many applications. eCoo is the result of all our experience in mechanical, ergonomic and control optimization.

TECHNICAL FEATURES

- Adsorbent: Silica gel
- Refrigerant: Water
- Function-tested and speed-controlled high-efficiency pumps for all circuits integrated
- Power or efficiency optimized Mode of operation allows adaptation to any heat source
- Integrated communication services: BACnet IP, BACnet MS/TP and Modbus RTU
- Integrated free cooling mode: no additional hydraulics or software required
- Monitoring of reservoir temperatures for hot and cold water possible
- Cloud-based visualization and remote programming possible

Technical data eCoo-line.

Model	eCoo 10	eCoo 10X	eCoo 20
Article number	A700045	A700040	A700031 / A700048
Application range			
Hot water temperature	50 – 95 °C	50 – 95 °C	50 – 95 °C
Recooling water temperature	22 - 40 °C	22 - 40 °C	22 - 40 °C
Chiller water temperature	8 - 21 °C	8 - 21 °C	8 - 21 °C
Max. operating pressure	3 bar	3 bar	3 bar
Basic performance data			
Refrigeration power	up to 16,7 kW	up to 25 kW	up to 33,4 kW
COP_{TH}	up to 0,65	up to 0,65	up to 0,65
Dimensions / Weight			
W x D x H	875 x 765 x 2.004 mm	875 x 765 x 2.500 mm	875 x 1.465 x 2.004 mm
Floor space required	0,67 m²	0,67 m²	1,28 m²
Empty weight	ca. 370 kg	ca. 550 kg	ca. 785 kg
Power drawn / power connection			
At typical pressure losses *	260 W	511 W	520 W
At claiming the max. delivery height *	800 W	911 W	1.600 W
Power supply	230 V, 50/60 Hz	230 V, 50/60 Hz	230 V, 50/60 Hz
Hot water circuit			
Volume flow	2,5 m³/h	3,75 m³/h	5 m³/h
Max. additional delivery height	464 mbar	296 mbar	400 mbar
Connection - external thread	G 1 ¼“ AG	G 2“ AG	G 2“ AG
Heat rejection circuit / Heating water circuit			
Volume flow	5,1 m³/h	7,65 m³/h	10,2 m³/h
Max. additional delivery height	690 mbar	309 mbar	640 mbar
Connection - external thread	G 1 ½“ AG	G 2“ AG	G 2“ ½ AG
KaltWaterkreislauf			
Volume flow	2,9 m³/h	4,35 m³/h	5,8 m³/h
Max. additional delivery height	630 mbar	492 mbar	520 mbar
Connection - external thread	G 1 ¼“ AG	G 2“ AG	G 2“ AG
Components			
Controller	Siemens Climatix	Siemens Climatix	Siemens Climatix
Integrated system separation			optional

* Adsorption chiller power consumption varies with operating conditions

eCoo 20X	eCoo 30	eCoo 30X	eCoo 40X
A700041	A700027	A700042	A700043
50 – 95 °C 22 - 40 °C 8 - 21 °C 3 bar	50 – 95 °C 22 - 40 °C 8 - 21 °C 3 bar	50 – 95 °C 22 - 40 °C 8 - 21 °C 3 bar	50 – 95 °C 22 - 40 °C 8 - 21 °C 3 bar
up to 50 kW up to 0,65	up to 50 kW up to 0,65	up to 75 kW up to 0,65	up to 100 kW up to 0,65
875 x 1.465 x 2.500 mm 1,28 m² ca. 1.152 kg	875 x 1.864 x 2.004 mm 1,63 m² ca. 1.238 kg	875 x 2.165 x 2.500 mm 1,89 m² ca. 1.728 kg	875 x 2.930 x 2.500 mm 2,56 m² ca. 2.300 kg
1.022 W 1.822 W 230 V, 50/60 Hz	984 W 1.768 W 230 V, 50/60 Hz	1.543 W 2.743 W 230 V, 50/60 Hz	2.064 W 3.664 W (2x) 230 V, 50/60 Hz
7,50 m³/h 287 mbar DN 65	2,5 m³/h 816 mbar G 1 ¼“ AG	11,25 m³/h 282 mbar DN 65	15,00 m³/h 280 mbar DN 65
15,30 m³/h 282 mbar DN 80	15,30 m³/h 590 mbar G 2 ½“ AG	22,95 m³/h 278 mbar DN 80	30,60 m³/h 271 mbar DN 80
8,70 m³/h 481 mbar DN 65	8,70 m³/h 271 mbar G 2“ AG	13,05 m³/h 476 mbar DN 65	17,40 m³/h 472 mbar DN 65
Siemens Climatix	Siemens Climatix optional	Siemens Climatix	Siemens Climatix

Adsorption meets compression.

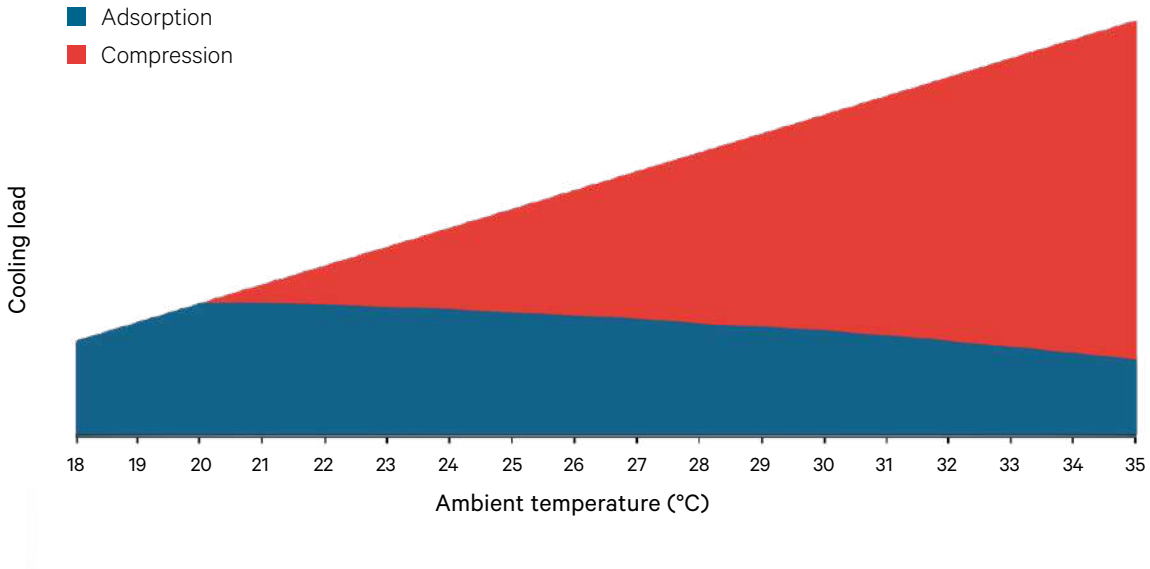
HybridChiller:
Adsorption meets compression.

FOR THE FIRST TIME IN THE HISTORY OF CHILLERS, ADSORPTION AND COMPRESSION REFRIGERATION TECHNOLOGY WERE COMBINED. THE RESULT: THE HYBRIDCHILLER.

- It combines in one unit the environmentally friendly energy efficiency of adsorption with the precision and perfor mance of compression. This makes it possible, for example, to cover peak loads without having to keep adsorp tion capacity in reserve, or to compensate for fluctuations in the available waste heat. The sophisticated control system ensures optimum interaction of the components under all operating conditions.

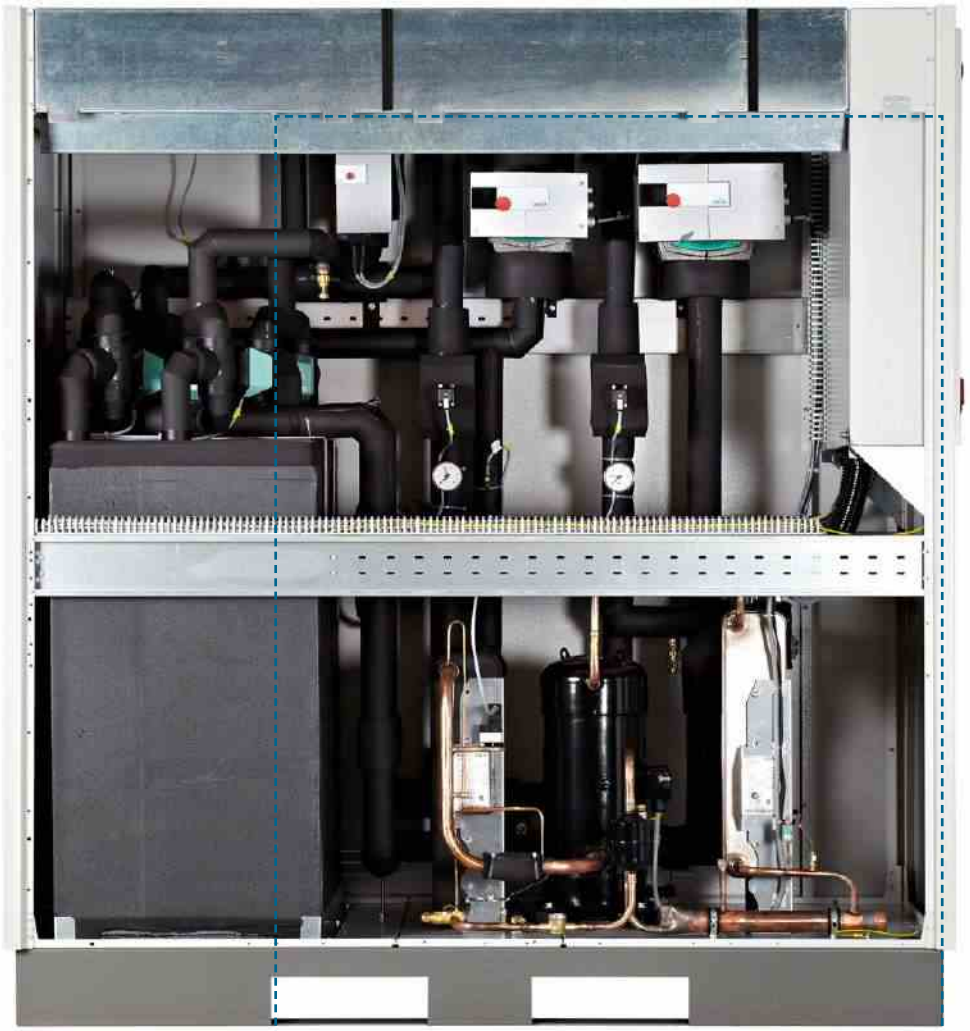
- The HybridChiller cleverly exploits the advantages of both technologies. This leads to new application possibi- lities and increased efficiency. The efficiency is demonstrated, among other things, by the outstanding ESEER value of 19.6

- The HybridChiller variant is available for all our adsorption chillers



The HybridChiller provides the right amount of cooling at any time and for any load. The intelligent control system decides on a monovalent or bivalent use of compression and adsorption depending on the cooling requirement and waste heat quantity. This means that load peaks can also be cushioned precisely and without delay. Maximum efficient operation is thus guaranteed.

The concept.



TECHNICAL FEATURES

- Adsorption and compression in a single unit
- Precise control and synchronization of both parts
- Available for all SorCool adsorption chillers
- Compressor sizes between 15 and 60 kW

FEATURES OF THE COMPRESSION PART:

- Hermetic scroll compressor
- Water cooled
- Brazed stainless steel heat exchangers as evaporator and condenser
- Electronic expansion valve
- R 513A or R 290 (propane) as refrigerant
- Speed control by Inverter

Technical data Hybrid-line.

Model	eCoo 10 HC 30	eCoo 20 HC 30	eCoo 20 HCN 60
Article number	A700220	A700222	A700224
Basic performance data			
Total cooling capacity	up to 46,7 kW	up to 63,4 kW	up to 92,8 kW
Adsorption cooling capacity	up to 16,7 kW	up to 33,4 kW	up to 33,4 kW
Compression cooling capacity	up to 30 kW	up to 30 kW	up to 59,4 kW
COP_{TH}	up to 0,65	up to 0,65	up to 0,65
Adsorption - application range			
Hot water temperature	50 – 95 °C	50 – 95 °C	50 – 95 °C
Recooling water temperature	22 - 40 °C	22 - 40 °C	22 - 40 °C
Chiller water temperature	8 - 21 °C	8 - 21 °C	8 - 21 °C
Max. operating pressure	3 bar	3 bar	3 bar
Dimensions / weight			
W x D x H	874 x 1.465 x 2.004 mm	875 x 1.864 x 2.004 mm	875 x 2.930 x 2.004 mm
Floor space required	1,32 m²	1,63 m²	2,56 m²
Empty weight	ca. 840 kg	ca. 1.680 kg	ca. 1.700 kg
Power drawn / power connection			
Power supply	400 V, 3 Ph, 50/60 Hz	400 V, 3 Ph, 50/60 Hz	400 V, 3 Ph, 50/60 Hz
Power drawn	30 V	90 V	–
Hot water circuit			
Volume flow	2,50 m³/h	5 m³/h	5 m³/h
Max. additional delivery height	350 mbar	320 mbar	320 mbar
Connection - external thread	G 1 ¼“ AG	G 2“ AG	G 2“ AG
Heat rejection circuit / Heating water circuit			
Volume flow	6,50 m³/h	13 m³/h	13 m³/h
Max. additional delivery height	710 mbar	640 mbar	640 mbar
Connection - external thread	G 2“ AG	G 2 ½“ AG	G 2 ½“ AG
Chilled water circuit			
Volume flow	7,40 m³/h	14,80 m³/h	14,80 m³/h
Max. additional delivery height	171 mbar	150 mbar	150 mbar
Connection - external thread	G 2“ AG	G 2 ½“ AG	G 2 ½“ AG
Components			
Controller	Siemens Climatix	Siemens Climatix	Siemens Climatix
Integrated system separation	standard	standard	standard

Sample configurations - contact us for more models

Adjusted for high efficiency.

Recooler: Optimized heat dissipation for your system.

PERFECTLY CONTROLLABLE

- Continuous variation of fan speed via standard signal (0-10 V).
- Control for temperature-controlled, stepless variation of the fan speed in the control cabinet.
- Completely wired and assembled.

OPTIMIZED FOR SPACE

- Vertical installation - thanks to spraying designed for it - reduces footprint and influences sound direction.

OPTIONAL

- Spraying system (fluid: water) designed for temporary spraying of the recirculating spraying of the recooler fins via spray lance
- Partially assembled (spray lance packed separately), incl. pressure reducer, solenoid valve and drain cock for the spraying system (eRec / eRis 10 | 40 WV).

TWO VARIATIONS

- eRec – for highest efficiency at temperature differences of 2 K
- eRis – for most cost-efficient setup and smaller footprint

Technical data Recooler.

Recommendations for eCoo 10

Recooler eRec	without spray system		with spray system	
Model	**eRec 10 | 29**	**eRec 10 | 40**	**eRec 10 29 WV**	**eRec 10 | 40 WV**
Article number	700341	700232	700342	700240
Performance data				
Recooler capacity	up to 29 kW	up to 40 kW	up to 29 kW	up to 40 kW
Recooling medium	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)
Water temperature (inlet/outlet)	29,6 / 25 °C	31,3 / 25 °C	29,6 / 25 °C	31,3 / 25 °C
Nominal volume flow	5,9 m³/h	5,9 m³/h	5,9 m³/h	5,9 m³/h
Max. operating pressure	4 bar	4 bar	4 bar	4 bar
Water consumption			max. 6 m³ / Jahr	max. 6 m³ / Jahr
Temperature air (inlet/outlet)	22,7 / 26,4 °C	23,0 / 26,3 °C	22,7 / 26,4 °C	23,0 / 26,2 °C
Air flow	24.000 m³/h	36.000 m³/h	24.000 m³/h	37.000 m³/h
Pressure loss at nominal volume flow	290 mbar	220 mbar	290 mbar	220 mbar
Ventilators				
Ventilators	2 x EC Ventilators	3 x EC Ventilators	2 x EC Ventilators	3 x EC Ventilators
Sound pressure level (in 10 m)	34 dB(A)	36 dB(A)	34 dB(A)	36 dB(A)
Dimensions / Weight				
W x D x H	4.230 x 1.170 x 1.510 mm	6.130 x 1.170 x 1.510 mm	4.230 x 1.050 x 1.260 mm	6.130 x 1.050 x 1.260 mm
Unladen weight	438 kg	612 kg	438 kg	612 kg
Floor space required	4,95 m²	7,17m²	4,23 m²	7,17m²
Tubing content	46,1 l	53,5 l	46,1 l	53,5 l
Power drawn / power connection				
Power drawn	0,54 kW	0,72 kW	0,54 kW	0,78 kW
Power supply	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz

Recooler eRis — without spray system — with spray system

Model	eRis 10 | 29	eRis 10 | 40	eRis 10 | 29 WV	eRis 10 | 40 WV
Article number	700362	700244	700363	700252
Performance data				
Recooler capacity	up to 29 kW	up to 40 kW	up to 29 kW	up to 40 kW
Recooling medium	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)
Water temperature (inlet/outlet)	29,6 / 25 °C	31,3 / 25 °C	29,6 / 25 °C	31,3 / 25 °C
Nominal volume flow	5,9 m³/h	5,9 m³/h	5,9 m³/h	5,9 m³/h
Max. operating pressure	4 bar	4 bar	4 bar	4 bar
Water consumption			max. 6 m³ / Jahr	max. 6 m³ / Jahr
Temperature air (inlet/outlet)	21,1 / 27,2 °C	21,5 / 27,0 °C	21,5 / 26,7 °C	23,0 / 26,2 °C
Air flow	14.000 m³/h	22.000 m³/h	17.000 m³/h	26.000 m³/h
Pressure loss at nominal volume flow	420 mbar	250 mbar	490 mbar	210 mbar
Ventilators				
Ventilators	1 x EC Ventilators	2 x EC Ventilators	1 x EC Ventilators	2 x EC Ventilators
Sound pressure level (in 10 m)	35 dB(A)	35 dB(A)	37 dB(A)	36 dB(A)
Dimensions / Weight				
W x D x H	2.330 x 1.490 x 1.510 mm	3.630 x 1.170 x 1.510 mm	2.730 x 1.050 x 1.580 mm	5.030 x 1.050 x 1.260 mm
Unladen weight	340 kg	440 kg	355 kg	425 kg
Floor space required	3,47 m²	7,17m²	2,87 m²	5,28 m²
Tubing content	46,1 l	53,5 l	36,5 l	42,7 l
Power drawn / power connection				
Power drawn	0,41 kW	0,56 kW	0,58 kW	0,50 kW
Power supply	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz

Technical data Recooler.

Recommendations for eCoo 10X and eCoo 20

Recooler eRec	without spray system		with spray system	
Model	**eRec 20 | 58**	**eRec 20 | 80**	**eRec 20 | 58 WV**	**eRec 20 | 80 WV**
Article number	700343	700233	700344	700241
Performance data				
Recooler capacity	up to 58 kW	up to 80 kW	up to 58 kW	up to 80 kW
Recooling medium	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)
Water temperature (inlet/outlet)	29,6 / 25 °C	31,3 / 25 °C	29,6 / 25 °C	31,3 / 25 °C
Nominal volume flow	11,8 m³/h	11,8 m³/h	11,8 m³/h	11,8 m³/h
Max. operating pressure	4 bar	4 bar	4 bar	4 bar
Water consumption			max. 9 m³ / Jahr	max. 9 m³ / Jahr
Temperature air (inlet/outlet)	22,7 / 26,4 °C	23,0 / 28,1 °C	22,7 / 26,4 °C	23,0 / 28,0 °C
Air flow	47.000 m³/h	47.000 m³/h	48.000 m³/h	48.000 m³/h
Pressure loss at nominal volume flow	280 mbar	230 mbar	280 mbar	230 mbar
Ventilators				
Ventilators	4 x EC Ventilators	4 x EC Ventilators	4 x EC Ventilators	4 x EC Ventilators
Sound pressure level (in 10 m)	37 dB(A)	37 dB(A)	37 dB(A)	37 dB(A)
Dimensions / Weight				
W x D x H	4.230 x 2.290 x 1.510 mm	5.030 x 2.290 x 1.510 mm	4.230 x 1.050 x 2.380 mm	5.030 x 1.050 x 2.380 mm
Unladen weight	791 kg	841 kg	791 kg	841 kg
Floor space required	9,69 m²	11,52 m²	2,87 m²	5,28 m²
Tubing content	94,7 l	86,5 l	94,7 l	86,5 l
Power drawn / power connection				
Power drawn	1,08 kW	1,0 kW	1,08 kW	1,04 kW
Power supply	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz

Recooler eRis — without spray system — with spray system

Model	eRis 20 | 58	eRis 20 | 80	eRis 20 | 58 WV	eRis 20 | 80 WV
Article number	700364	700245	700361	700253
Performance data				
Recooler capacity	up to 58 kW	up to 80 kW	up to 58 kW	up to 80 kW
Recooling medium	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)
Water temperature (inlet/outlet)	29,6 / 25 °C	31,3 / 25 °C	29,6 / 25 °C	31,3 / 25 °C
Nominal volume flow	11,8 m³/h	11,8 m³/h	11,8 m³/h	11,8 m³/h
Max. operating pressure	4 bar	4 bar	4 bar	4 bar
Water consumption			max. 9 m³ / Jahr	max. 9 m³ / Jahr
Temperature air (inlet/outlet)	21,5 / 26,6 °C	21,5 / 27,0 °C	21,5 / 26,7 °C	21,5 / 27,0 °C
Air flow	33.000 m³/h	44.000 m³/h	35.000 m³/h	44.000 m³/h
Pressure loss at nominal volume flow	370 mbar	240 mbar	440 mbar	280 mbar
Ventilators				
Ventilators	3 x EC Ventilators	4 x EC Ventilators	3 x EC Ventilators	4 x EC Ventilators
Sound pressure level (in 10 m)	37 dB(A)	38 dB(A)	36 dB(A)	36 dB(A)
Dimensions / Weight				
W x D x H	5.230 x 1.170 x 1.510 mm	3.630 x 2.290 x 1.510 mm	6.139 x 1.050 x 1.260 mm	4.230 x 1.050 x 2.380 mm
Unladen weight	620 kg	770 kg	630 kg	771 kg
Floor space required	6,12 m²	8,31 m²	6,44 m²	4,44 m²
Tubing content	60,2 l	80,6 l	71,3 l	94,7 l
Power drawn / power connection				
Power drawn	0,9 kW	1,12 kW	0,93 kW	0,88 kW
Power supply	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz	230 V, 50 Hz

Technical data Recooler.

Recommendations for eCoo 30 and eCoo 20X

Recooler eRec	without spray system		with spray system	
Model	**eRec 30 | 87**	**eRec 30 | 120**	**eRec 30 | 87 WV**	**eRec 30 | 120 WV**
Article number	700345	700234	700234	700242
Performance data				
Recooler capacity	up to 87 kW	up to 120 kW	up to 87 kW	up to 120 kW
Recooling medium	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)
Water temperature (inlet/outlet)	29,6 / 25 °C	31,3 / 25 °C	29,6 / 25 °C	31,3 / 25 °C
Nominal volume flow	17,7 m³/h	17,7 m³/h	17,7 m³/h	17,7 m³/h
Max. operating pressure	4 bar	4 bar	4 bar	4 bar
Water consumption			max. 12 m³ / Jahr	max. 12 m³ / Jahr
Temperature air (inlet/outlet)	22,6 / 25,9 °C	23,0 / 27,2 °C	22,6 / 25,9 °C	23,0 / 27,1 °C
Air flow	78.000 m³/h	86.000 m³/h	80.000 m³/h	89.000 m³/h
Pressure loss at nominal volume flow	230 mbar	180 mbar	230 mbar	180 mbar
Ventilators				
Ventilators	6 x EC Ventilators	6 x EC Ventilators	6 x EC Ventilators	6 x EC Ventilators
Sound pressure level (in 10 m)	43 dB(A)	45 dB(A)	43 dB(A)	45 dB(A)
Dimensions / Weight				
W x D x H	5.230 x 2.290 x 1.510 mm	6.130 x 2.290 x 1.510 mm	5.230 x 1.050 x 2.380 mm	6.130 x 1.050 x 2.380 mm
Unladen weight	1.095 kg	1.150 kg	1.095 kg	1.150 kg
Floor space required	11,98 m²	14,04 m²	5,49 m²	6,43 m²
Tubing content	120,3 l	178,3 l	120,3 l	178,3 l
Power drawn / power connection				
Power drawn	2,4 kW	3,06 kW	2,52 kW	3,24 kW
Power supply	400 V, 50 Hz	400 V, 50 Hz	400 V, 50 Hz	400 V, 50 Hz

Recooler eRis — without spray system — with spray system

Model	eRis 30 | 87	eRis 30 | 120	eRis 30 | 87 WV	eRis 30 | 120 WV
Article number	700365	700246	700366	700254
Performance data				
Recooler capacity	up to 87 kW	up to 120 kW	up to 87 kW	up to 120 kW
Recooling medium	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)
Water temperature (inlet/outlet)	29,6 / 25 °C	31,3 / 25 °C	29,6 / 25 °C	31,3 / 25 °C
Nominal volume flow	17,7 m³/h	17,7 m³/h	17,7 m³/h	17,7 m³/h
Max. operating pressure	4 bar	4 bar	4 bar	4 bar
Water consumption			max. 12 m³ / Jahr	max. 12 m³ / Jahr
Temperature air (inlet/outlet)	21,3/ 25,8 °C	21,5 / 26,9 °C	21,4 / 25,4 °C	21,5 / 26,3 °C
Air flow	58.000 m³/h	64.000 m³/h	67.000 m³/h	74.000 m³/h
Pressure loss at nominal volume flow	470 mbar	220 mbar	360 mbar	230 mbar
Ventilators				
Ventilators	4 x EC Ventilators	4 x EC Ventilators	4 x EC Ventilators	6 x EC Ventilators
Sound pressure level (in 10 m)	44 dB(A)	44 dB(A)	45 dB(A)	43 dB(A)
Dimensions / Weight				
W x D x H	3.630 x 2.290 x 1.510 mm	5.030 x 2.290 x 1.510 mm	5.030 x 1.050 x 2.380 mm	5.230 x 1.050 x 2.380 mm
Unladen weight	700 kg	1.000 kg	841 kg	980 kg
Floor space required	8,31 m²	11,52 m²	5,28 m²	5,49 m²
Tubing content	60,2 l	80,6 l	86,5 l	120,3 l
Power drawn / power connection				
Power drawn	2,36 kW	2,08 kW	1,96 kW	2,34 kW
Power supply	400 V, 50 Hz	400 V, 50 Hz	400 V, 50 Hz	400 V, 50 Hz

Technical data Recooler.

Recommendations for large systems

Recooler	eRec without spray system		eRis without spray system	
Model	**eRec 80 | 232**	**eRec 80 | 320**	**eRis 80 | 232**	**eRis 80 | 320**
Article number	700352	700239	700372	700251
Performance data				
Recooler capacity	up to 232 kW	up to 320 kW	up to 232 kW	up to 320 kW
Recooling medium	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)
Water temperature (inlet/outlet)	29,6 / 25 °C	31,3 / 25 °C	29,6 / 25 °C	31,3 / 25 °C
Nominal volume flow	47,2 m³/h	47,2 m³/h	47,2 m³/h	47,2 m³/h
Max. operating pressure	4 bar	4 bar	4 bar	4 bar
Water consumption				
Temperature air (inlet/outlet)	22,6 / 26,4 °C	23,0 / 26,8 °C	21,5 / 26,0 °C	21,5 / 27,5 °C
Air flow	183.000 m³/h	252.000 m³/h	155.000 m³/h	159.000 m³/h
Pressure loss at nominal volume flow	430 mbar	170 mbar	360 mbarr	250 mbar
Ventilators				
Ventilators	12 x EC Ventilators	16 x EC Ventilators	10 x EC Ventilators	12 x EC Ventilators
Sound pressure level (in 10 m)	48 dB(A)	49 dB(A)	47 dB(A)	49 dB(A)
Dimensions / Weight				
W x D x H	11.830 x 2.290 x 1.510 mm	10.095 x 2.370 x 2.300 mm	9.930 x 2.290 x 1.510 mm	10.030 x 2.290 x 1.510 mm
Unladen weight	2.318 kg	3.260 kg	1.725 kg	2.339 kg
Floor space required	27,09 m²	23,93 m²	22,74 m²	22,97 m²
Tubing content	283,7 l	416,1 l	186,2 l	179,3 l
Power drawn / power connection				
Power drawn	6,36 kW	9,12 kW	5,7 kW	6,96 kW
Power supply	400 V, 50 Hz	400 V, 50 Hz	400 V, 50 Hz	400 V, 50 Hz

Integration into your environment.

System Separation

Our high efficiency system separators are used to separate the closed loop recirculating chiller entering our machines from the external loop connected to the recirculating chiller / heat sink.

Whether freeze protection is required or an open cooling tower / heat sink is installed, our system separations can effectively protect the adsorption chiller with minimal energy and pressure loss.

Our circuit separators consist of highly efficient brazed plate heat exchangers specially designed for our adsorption chillers. Different sizes are available for each SorCool adsorption chiller. They are extremely compact compared to other technologies, taking up only one tenth of the footprint of a shell-and-tube heat exchanger or only half that of a gasket plate heat exchanger.

The robust design requires no seals and prevents leakage. This means stable thermal and hydraulic performance with minimal maintenance and operational downtime.

Since neither seals nor support devices are necessary, about 95% of the material is used for heat transfer.

The highly turbulent flow also allows small temperature differences to be used efficiently.

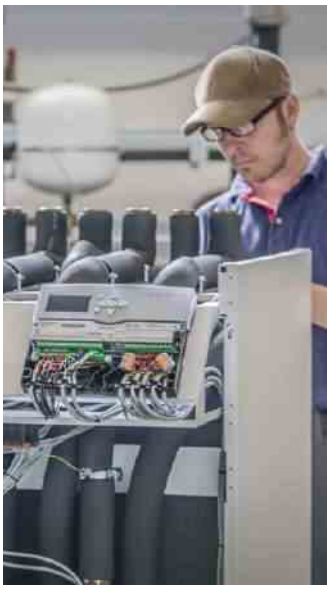
Technical data.

Model	ST-10	ST-10X	ST-20
Article number	A600026	A600020	A600029
General key performance			
Capacity	40 kW	60 kW	80 kW
Connectors	2“ gland, soldering 42 mm	2“ gland, soldering 42 mm	2“ gland, soldering 42 mm
Medium (inlet)	Water	Water	Water
Medium (outlet)	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)
Heat exchanger surface	7,66 m²	11,4 m²	15,6 m²
Dimensions			
W x D x H	243 x 151 x 525 mm	243 x 220 x 525 mm	243 x 289 x 525 mm
Floor space required	0,037 m²	0,054 m²	0,07 m²
Weight			
Unladen weight	35,4 kg	47,5 kg	59,6 kg
Operational weight	49,9 kg	69,4 kg	88,9 kg
Pressure loss			
Inlet	56,4 mbar	63,9 mbar	75,7 mbar
Outlet	89,7 mbar	102,0 mbar	119,0 mbar
Filling volume			
Inlet	6,99 l	10,6 l	14,2 l
Outlet	7,23 l	10,8 l	14,5 l

Model	ST-20X	ST-30X	ST-40X
Article number	A600025	A600024	A600022
General key performance			
Capacity	111,6 kW	180 kW	242 kW
Connectors	Compac-Flansch DN 65, 2 ½“ IG	Compac-Flansch DN 80, 2 ½“ IG	Compac-Flansch DN 80, 2 ½“ IG
Medium (inlet)	Water	Water	Water
Medium (outlet)	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)	Ethylenglykol - Water (34%)
Heat exchanger surface	19,6 m²	37,8 m²	54,7 m²
Dimensions			
W x D x H	243 x 331 x 525 mm	304 x 421 x 694 mm	304 x 600 x 694 mm
Floor space required	0,094 m²	0,13 m²	0,184 m²
Weight			
Unladen weight	77,2 kg	135 kg	185 kg
Operational weight	108 kg	207 kg	289 kg
Pressure loss			
Inlet	82,1 mbar	87,2 mbar	104 mbar
Outlet	126,0 mbar	104 mbar	105 mbar
Filling volume			
Inlet	15,2 l	35,1 l	50,8 l
Outlet	15,0 l	35,5 l	51,2 l

Planning assistance & support: A one-stop service package.

Together with engineers, planners and architects, SorCool designs energy-saving and individual cooling solutions for you, which meet all requirements regarding efficiency, economy and environmental friendliness. We accompany our customers from the planning stage through commissioning and installation up to after-sales service for our refrigeration systems. For the optimal design and integration of adsorption chillers into any cooling application, our support team together with our worldwide partner network offers you the best possible assistance.



OUR ENGINEERING SERVICES:

- Support for the most cost-effective design of your new refrigeration plant
- Detailed business case calculation with our proprietary calculation tool
- Information about possible state subsidies
- Support for hydraulic and electrical planning with hydraulic schematics and circuit layouts
- CAD support with 3D animations and data exchanges

SORCOOL

HOT FOR FUTURE COOLING

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