



#### **CONTENTS**

4-7	Sustainable refrigeration technology
8-9	Our sales network
10-11	Headquarters Waldenburg
12-13	Production facility Lithuania
14-17	Production and Quality
18-19	SKADEC Cloud
19	Intelligent machine control
20-21	Natural refrigerant R290
22-23	Applications
24-25	The SKADEC training program
26-35	Product overview
36-39	References





## SUSTAINABLE REFRIGERATION **TECHNOLOGY**

The name SKADEC is derived from the name **SKADI** and the designation ECO. Skadi is known in Norse mythology as the goddess of winter; she is associated with strength, sharpness and courage to do new things. This is exactly what has characterised our approach since the first development steps in 2012/2013. Since then, we have specialised in sustainable refrigeration and air conditioning technology with natural refrigerants, especially in systems with environmentally friendly propane (R290).

With the spin-off of SKADEC from the Kratschmayer group of companies, we have been a strong partner for life cycle cost savings and demand-oriented cooling and heating for commerce and industry using energy-saving and environmentally friendly technologies since 2018.

Our corporate values are sustainability, quality and reliability. At our locations in Waldenburg and Kaunas, we live these values in a dynamic and motivated team. We want to set an example for the future through our work in reliably providing this sustainable technology for everyone to the highest quality standard.

## YOUR PARTNER FOR **SUSTAINABLE AIR CONDI-**TIONING, COOLING AND HEATING TECHNOLOGY

Founded in 2018 as a specialist for natural refrigerants

- » Developed in Germany in accordance with VDE and DIN
- >> Very high quality standard
- » Competent advice during project planning
- » Risk management in Germany
- Customized products and software solutions
- » Early fault detection and preventive maintenance





2000+ realised projects



2 production plants with 12000 m<sup>2</sup>



200+ employees

#### **CE Declaration of Confor**mity and certification

#### Standards and guidelines adhered to:

- » DIN EN 378
- » Pressure Equipment Directive
- » Low Voltage Directive
- » Machinery Directive
- » Electromagnetic Compatibility

All products offered come with a CE Declaration of Conformity.





## **OUR HISTORY** The first idea to develop chillers with the natural refrigerant propane (R290) itself

The foundation stone of software development is laid

SKADEC **Foundation of SKADEC GmbH Opening of the first sales office** 

building in Waldenburg **Expansion of production in Lithuania Opening production** plant 1 in Lithuania Foundation of Skadec Norge AS **Opening production** 

Move into the new administration

plant 2 in Lithuania



#### Headquarters

Hohebuch 13 74638 Waldenburg Tel.: +49 7942 94491 000

#### 2. Sales South-West

89601 Schelklingen Tel.: +49 171 3391390

#### 3. Sales South-East

82467 Garmisch-Partenkirchen Tel.: +49 170 9003323

#### 4. Sales Austria

85662 Hohenbrunn Tel.: +49 151 70263653

#### 5. Sales Mid-East

96199 Zapfendorf Tel.: +49 15155232135

#### 6. Sales East

13057 Berlin Tel.: +49 15122062969

#### 7. Sales North

25693 St. Michaelisdonn Tel.: +49 151 51698232







#### 8. Sales West

48336 Sassenberg Tel.: +49 151 18988747

#### 9. Sales Rhein-Ruhr

52249 Eschweiler Tel.: +49 151 52808132

#### 10. Norge AS

7010 Trondheim Tel.: +47 73603073



## HEADQUARTERS WALDENBURG

The origins and future of the family-owned company SKADEC lie in Waldenburg. This is where the heart of the manufacturer of chillers and heat pumps with natural refrigerants beats.









Our highly experienced and professional team assembles our chillers, heat pumps, hydraulic modules and other products for cooling and heating technology at our two production plants in Lithuania. We rely on state-of-the-art production technologies with high precision to create innovative and energy-efficient solutions for heating and air conditioning technology.

All components – from compressors and heat exchangers to hydraulic components and control systems – are carefully assembled and tested on a production area of over  $7000 \text{ m}^2$  to ensure the highest quality standards.



Employees from the engineering, production and quality assurance departments work closely together to achieve continuous improvements and constantly increase the efficiency of the heat pump systems. This close collaboration ensures that every chiller and heat pump is not only reliable and durable, but also fulfils the highest standards of energy efficiency and environmental friendliness.

# PRODUCTION AND QUALITY

At SKADEC, we attach great importance to the quality of our products. Our heat pumps and chillers are characterised by their high quality workmanship and high reliability.

Thanks to our very high level of vertical integration, we keep a close eye on every production step and can therefore ensure maximum precision. Quality is randomly checked after each work step to ensure that our products meet the highest standards. We pay particular attention to the wiring of our control cabinets,

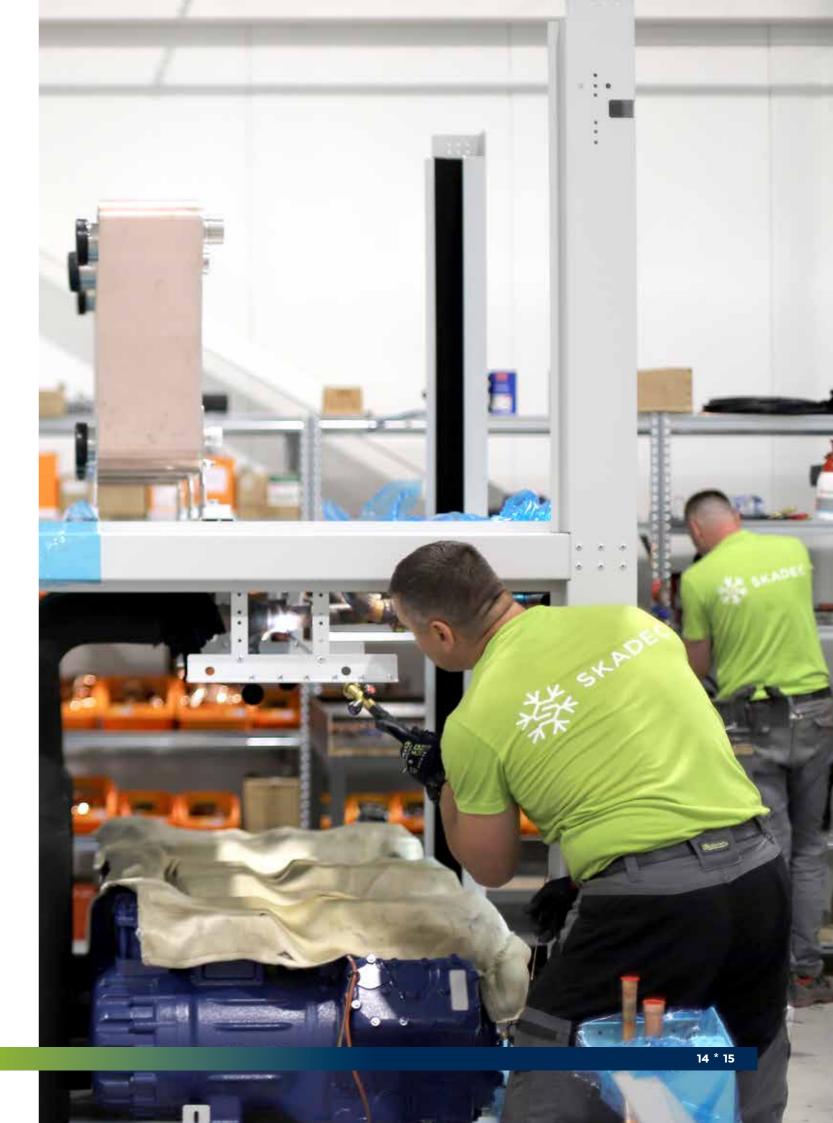
which is carried out strictly in accordance with VDE standards. In this way, we guarantee maximum safety, reliability and conformity of our electrical systems. Our customers can rely on our solutions to work efficiently for years to come - an investment that pays off.



**Control cabinet construction** 



Assembly







**Powder coating plant** 



**Professional CNC punching** 

## **SKADEC CLOUD**

#### Your advantages with the SKADEC Cloud

Thanks to our intelligent control system, you can keep your refrigeration machines and heat pumps under control at all times efficiently, flexibly, and with future-proof technology. Our innovative software enables remote maintenance, real-time monitoring, and precise analyses to optimize your operations. We rely on freely programmable controllers to regulate and control our systems. These form the ideal basis for incorporating our many years of experience in refrigeration, air conditioning, and heating technology into our specially developed control algorithms. When developing the control programs, our in-house programming department focuses particularly on user-friendliness, high availability, and efficiency of the systems.

#### Remote service and maintenance



Access the machine from anywhere via our router and perform updates and optimizations remotely. Adjust setpoints, perform quick checks, or analyze detailed operating data—all with just one click. Individual access to each unit down to the actuator level allows you to analyze, isolate, or even remedy the causes of errors remotely.

#### **Condition monitoring**



Track the current performance of the machine and check whether the machine reliably meets the required heating or cooling capacities and achieves efficiency values.

#### **Alarm management**



Receive push notifications or emails in the event of malfunctions or critical conditions. The alarm manager provides a detailed overview of identified problems. If an on-site appointment is necessary, spare parts can be organized and the technician can be informed about the malfunction and possible causes of the error before the initial visit. This saves time, money, and stress!

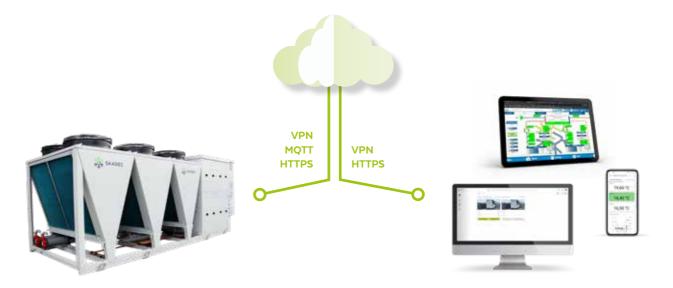
#### **Predictive maintenance**



Plan upcoming maintenance in good time. Save up to 80% of the time spent on the machine, reduce response times, and increase the efficiency of your technicians. Our solution creates added value for you and your customers.

## Access anywhere anytime

Ob vom Büro oder unterwegs, mit dem Desktop PC, Tablet oder Smartphone, die SKADEC Cloud bietet Ihnen die volle Kontrolle über Ihre Maschine. Egal, ob zum Anpassen von Sollwerten, zum Quick-Check oder zur detaillierten Analyse. Ihre Maschine ist nur ein Klick entfernt. Mit der Cloudlösung von SKADEC haben Sie vollen Zugriff auf alle relevanten Daten und Funktionen.



App Download for free!







#### Fleet Manager



With Fleet Manager, you can centrally manage and monitor all SKADEC systems under your care. This provides a detailed overview of all machines, the ability to analyze and plan upcoming maintenance and malfunctions.

#### Safety



The SKADEC Cloud uses powerful, IP-enabled programmable logic controllers (PLCs) with their own web server for process and data visualization. Secure connections via VPN routers (ISO27002, IEC62443-2-4) ensure data protection.

THE GREEN COOLING 18 \* 19



R290 also known as propane

R290 is a natural refrigerant. It is used very efficiently in chillers and heat pumps and convinces everyone through its environmentally friendly properties. Wherever possible, we have been using the natural refrigerant R290 for years. It helps protect the ozone layer and reduce greenhouse gas emissions to a minimum. As it is abundantly available in nature, we will continue to drive research and development into R290 in the future, in order to provide you with a cost-effective alternative to the very highest standards of efficiency and quality.

- » Natural future-proof refrigerant
- )> GWP\* of 0,02, ODP\*\* of 0.
- » High energy efficiency and high annual performance factor
- » Cost-effective: Funded by the national climate protection initiative (up to EUR 200,000 in funding)
- Cost-effective in service and operating costs
- » Very good thermodynamic properties

The advantages of R290 in our machines

Sustainability, energy efficiency, redundancy, plant safety and life cycle costs are considered criteria in our newly developed future-proof chillers and heat pumps. They are designed in such a way that the refrigerant charge is low and high system availability is ensured. A comprehensive safety concept ensures safe operation of the systems.

- » Not subject to the F-gas Regulation, even if this is tightened in the future
- » Reduced operating costs
- ightharpoonup Low pressure position, below 28 bar
- Safe operation even at high outside temperatures
- » Efficient operation in summer and winter

<sup>\*</sup>GWP (Global Warming Potential) according to AR6: The value of the relative global warming potential indicates the contribution of a refrigerant to global warming. The reference value is CO2 with a GWP of 1.

<sup>\*\*</sup>ODP (Ozone Depletion Potential): The ozone depletion potential indicates the relative effect on ozone layer depletion. All natural refrige¬rants have the value 0.

# CORNERSTONE OF OUR SUCCESS

SKADEC machines offer flexible and efficient solutions for a wide range of industries and applications. Our chillers and heat pumps are designed to fulfil different requirements and offer maximum performance in different environments:



#### Office and administration buildings:

Ensure a pleasant indoor climate and energy-efficient cooling in your office and administration rooms - for a productive working environment.



#### Industry:

Our systems offer high-performance cooling and heating solutions for industrial processes that depend on reliability and efficiency.



#### Retai

Create the ideal temperature for your sales areas and storage rooms to protect goods and customers alike.



#### **Public buildings**

Our technology helps public buildings to reduce their energy costs while ensuring a comfortable climate for visitors and employees.



#### Hotel

Offer your guests maximum comfort with reliable and quiet cooling and heating solutions for all areas of the hotel.



#### Refrigerated storage:

For the storage of temperature-sensitive goods, we offer precise and efficient refrigeration technologies that guarantee the highest quality and safety.

Thanks to our customised solutions, our machines are able to meet a wide range of requirements - from retail outlets to large industrial plants.

THE GREEN COOLING

22 \* 23

# THE SKADEC TRAINING PROGRAMME

Our training programme covers all important aspects to prepare you optimally for the use of our machines:

#### Security concept:

Understand our proven safety concept and learn how to apply it effectively to ensure safe operation.

#### Control:

Learn all about how our machines work and how to operate them to ensure smooth and efficient day-to-day operations.

#### Commissioning:

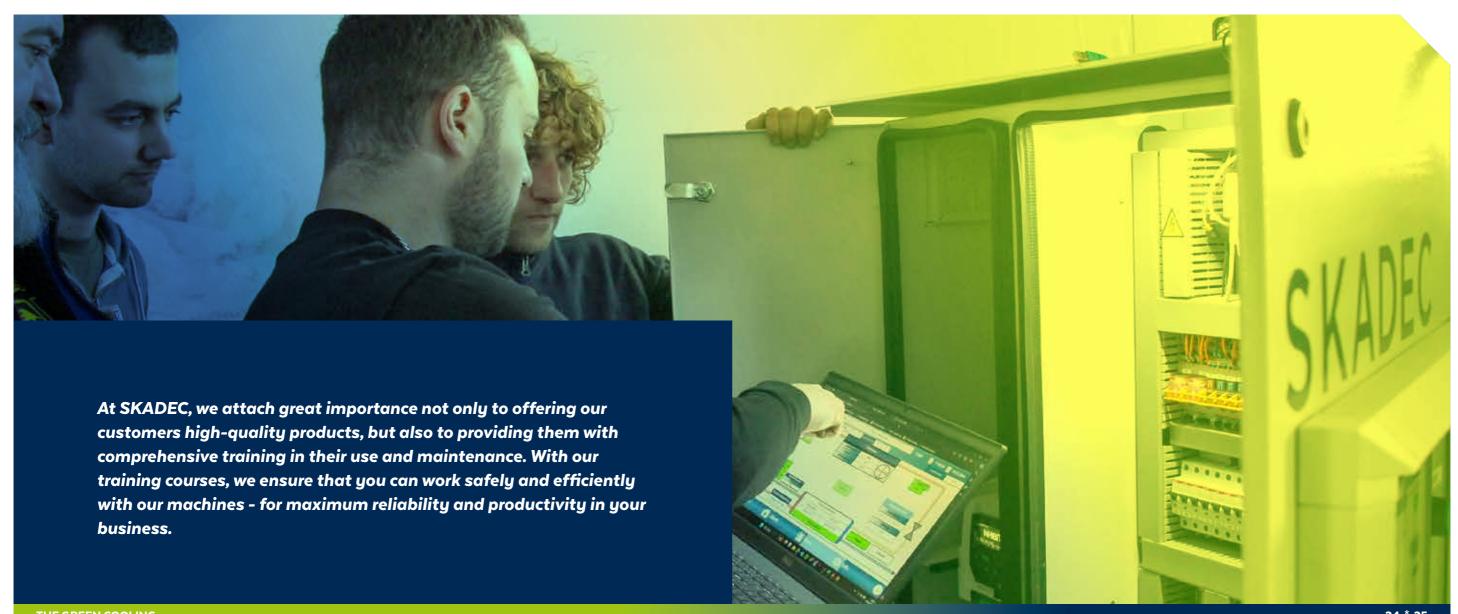
We will guide you through the commissioning of our machines and train you in all the necessary steps.

#### Practical work on the refrigeration circuit:

Through practical training on the refrigeration circuit, we provide you with the knowledge you need to carry out maintenance work independently.

#### Remote maintenance:

Our machines offer advanced remote maintenance options. In our training courses, we show you how to use these effectively to minimise downtimes.



THE GREEN COOLING 24 \* 25

### **AIR COOLED HEAT PUMPS**



#### **AIR COOLED CHILLERS**



#### Air cooled heat pump SH.B



#### **Technical details:**

- » Heating capacity 60 kW 230 kW (A7 W45)
- Cooling capacity 50 kW 180 kW (A35 W7)
- » Max. outlet temperature 65°C
- » Min. ambient temperature -20°C
- » Reciprocating compressor
- » Capacity control via frequency converter
- » Noise-reduced design
- » Powerful PLC control
- ) Integrated hydraulic module optional
- ) Integrated heat recovery optional

#### Natural refrigerant

» R290

Air cooled chiller

(with freecooling) SC.A

#### Technical details:

- Cooling capacity 50 kW 1,500 kW (A35 W7)
- » Max. ambient temperature 42°C
- » Reciprocating or screw compressor
- » Capacity control via frequency converter
- )> EC fans
- » Noise-reduced design
- » Powerful PLC control
- ) Integrated freecooling optional
- » Integrated hydraulic module optional
- ) Integrated heat recovery optional

#### Natural refrigerant

- » R290
- » R1270

Cooling capacity 50 kW - 180 kW

#### Heating capacity 60 kW - 230 kW

#### Cooling capacity 50 kW - 1500 kW

#### Air cooled heat pump SH.D



#### **Technical details:**

- >> Heating capacity 230 kW 820 kW (A7 W45)
- Cooling capacity 180 kW 720 kW (A35 W7)
- » Max. outlet temperature 65°C
- » Min. ambient temperature -20°C » Reciprocating compressor
- » Capacity control via frequency converter
- » Noise-reduced design
- » Powerful PLC control
- » Integrated hydraulic module optional
- ) Integrated heat recovery optional

#### Natural refrigerant

» R290

#### Air cooled chiller (with freecooling) SC.G



#### **Technical details:**

- Cooling capacity 100 kW 1,500 kW (A35 W7)
- » Max. ambient temperature 42°C
- » Reciprocating or screw compressor
- » Capacity control via frequency converter
- )> EC fans
- » Noise-reduced design
- » Powerful PLC control
- » Integrated freecooling optional
- ) Integrated hydraulic module optional
- ) Integrated heat recovery optional

Natural refrigerant » R290

- » R1270

Heating capacity 230 kW - 820 kW

Cooling capacity 180 kW -720 kW

Cooling capacity 100 kW - 1500 kW





26 \* 27 THE GREEN COOLING

## WATER COOLED HEAT PUMPS AND CHILLERS



## WATER COOLED COMPACTCHILLERS



Water cooled heat pumps and chillers SC.C. / SH.C



#### Technical details:

- » Heating capacity 60 kW 620 kW (W7 W45)
- Cooling capacity 50 kW 480 kW (W7 W45)
- » Reciprocating compressor
- » Capacity control via frequency converter
- » Noise-reduced design
- » Powerful PLC control
- » Integrated freecooling optional
- ) Integrated hydraulic module optional
- >> For indoor and outdoor installation

#### Natural refrigerant

- » R290
- » R1270
- CO<sub>2</sub> (subcritical)

#### Versions:

- » Hydraulically reversible
- » Refrigeration reversible

#### Technical details:

- >> Heating capacity 17 kW 83 kW (W7 W45)
- Cooling capacity 13 kW 65 kW (W7 W45)
- » Max. outlet temperature 55°C
- » Reciprocating compressor
- Capacity control via frequency converter
- » Powerful PLC control
- » Separate hydraulic module optional
- » Indoor installation

Refrigerant charge <2,5 kg

#### Natural refrigerant

» R290

#### Versions:

» Modularly expandable

Heating capacity 60 kW - 620 kW
Cooling capacity 50 kW - 480 kW

Heating capacity 17 kW - 83 kW
Cooling capacity 13 kW - 65 kW

## Water cooled heat pumps and chillers SC.F. / SH.F



#### Technical details:

- >> Heating capacity 400 kW 3,200 kW (W7 W45)
- "> Cooling capacity 300 kW 2,500 kW (W7 W45)
- Screw compressor
- » Capacity control via frequency converter
- » Noise-reduced design
- » Powerful PLC control
- ightarrow Integrated freecooling optional
- ) Integrated hydraulic module optional
- » For indoor and outdoor installation

#### Natural refrigerant

- » R290
- » R1270
- » CO<sub>2</sub> (subcritical)

#### Versions:

- » Hydraulically reversible
- » Refrigeration reversible

Water cooled chillers
SC.S / SH.S

**Water cooled** 

chillers

SC.I / SH.I



#### Technical details:

- Heating capacity 15 kW 87 kW (W7 W45)
- Cooling capacity 12 kW 67 kW (W7 W45)
- » Max. outlet temperature 75°C
- » Scroll compressors
- » Capacity control via frequency converter
- » Powerful PLC control

Refrigerant charge <3kg

Natural refrigerant

» R290

#### Versions:

- » Modularly expandable
- » Refrigeration reversible

Heating capacity 400 kW - 3200 kW

Cooling capacity 300 kW - 2500 kW

Heating capacity 15 kW -87 kW Cooling capacity 12 kW - 67 kW





THE GREEN COOLING

28 \* 29

## R600A HIGH-TEMPERATURE HEAT PUMPS



## 4-PIPE ENERGY CENTRE AND SPECIAL-PURPOSE MACHINES



#### Water cooled high-temperature heat pump SH.C



#### Technical details:

- » Max. outlet temperature 90°C
- >> Heating capacity 60 kW 400 kW
- » Reciprocating compressor
- » Capacity control via frequency converter
- » Noise-reduced design
- » Powerful PLC control
- » Integrated hydraulic module optional
- >> For indoor and outdoor installation

#### **Natural refrigerant**

» R600a

#### 4-pipe energy centre



#### **Technical details:**

- » Heating capacity 145 kW 330 kW (W45 A7)
- » Cooling capacity 130 kW 290 kW (W7 A35)
- » Max. outlet temperature 65°C
- » Simultaneous heating and cooling
- » Reciprocating compressor
- » Capacity control via frequency converter
- )> EC fans
- » Powerful PLC control
- ) Integrated hydraulic module optional

#### Natural refrigerant

» R290

#### Heating capacity 60 kW - 400 kW

#### Water cooled high-temperature heat pump SH.F



#### Technical details:

- » Max. outlet temperature 90°C
- » Heating capacity 400 kW 2,200 kW
- » Screw compressor
- » Capacity control via frequency converter
- » Noise-reduced design
- » Powerful PLC control
- ) Integrated hydraulic module optional
- » For indoor and outdoor installation

#### Natural refrigerant

» R600a

## Special-purpose machine of any design



#### Technical details:

» Reciprocating, screw, scroll compressor

Heating capacity 145 kW - 330 kW

Cooling capacity 130 kW - 290 kW

- » Capacity control via frequency converter
- )> EC fan
- » Powerful PLC control
- ) Integrated freecooling optional
- » Integrated heat recovery optional
- » Integrated hydraulic module optional

#### Natural refrigerant

- » R290» R1270
- » R600a

#### Conventional

- » R1234ze
- » R515B» R513A
- » R454B
- » R32

Heating capacity 400 kW - 2.200 kW



50 100 200 400 1000 1200 1600

THE GREEN COOLING

30 \* 31

### **DRYCOOLER**

#### **Table version**

#### **Technical details:**

- "> Up to 350 kW cooling capacity at 40°C/45°C, 34% MEG and ambient temperature +35°C
- )> EC fan



#### Optional:

- » Foldable fans
- » Self-draining design
- » Repair switch
- » Control cabinet
- » Rubber vibration damper
- » Spring vibration damper
- » Powerful PLC control

#### V-shape version

#### Technical details:

- » Up to 1,200 kW cooling capacity at 40°C/45°C, 34% MEG and ambient temperature +35°C
- )> EC fan
- » Single row design
- » Double row design

#### Optional:

- » Foldable fans
- » Repair switch
- » Control cabinet
- >> Rubber vibration damper
- » Spring vibration damper
- » Powerful PLC control

## **HYDRAULIC MODULES**



## Custom built hydraulic modules

Hydraulic modules are planned and manufactured for specific projects according to the customer's specifications. They are available either with steel frames, transport frames or fully assembled in containers. The modules available include pump groups, buffer tanks, heating and cooling circuit manifolds as well as turnkey technology centers in containers. In the choice of components, there are no restrictions.



All hydraulic modules are visualised as a 3D model before assembling and made available to the customer for approval. In the detailed representation, the arrangement of the components, space conditions and walkways can be evaluated. This saves you time, personnel and costs on the construction site.

#### Software solutions for hydraulic modules



You need a suitable automation solution for your hydraulic station? SKADEC can supply you with the control cabinet including the PLC-based controller, optionally pre-installed and wired to the frame or the technology container. Our customised solutions offer maximum flexibility with a consistently high quality. The user-friendly control system can be operated intuitively via 7", 10" or 15" touch panel. In addition, the load management of the cooling and heating system can be regulated via the central PLC controller.

#### v-snape version

### **BUFFER TANKS**

Customised buffer tank configuration

#### Possible design:

- » Volume 200 10,000 litres
- » S235JR steel, V2A V4A stainless steel
- » Insulation diffusion thickness 20mm, 40mm, 60mm
- » Polyester fibre fleece thermal insulation
- Salvanised steel or stainless steel protective jacket
- ) Inlet bends
- » Separating plate
- » Nozzle tube



Latent storage systems / PCM storage

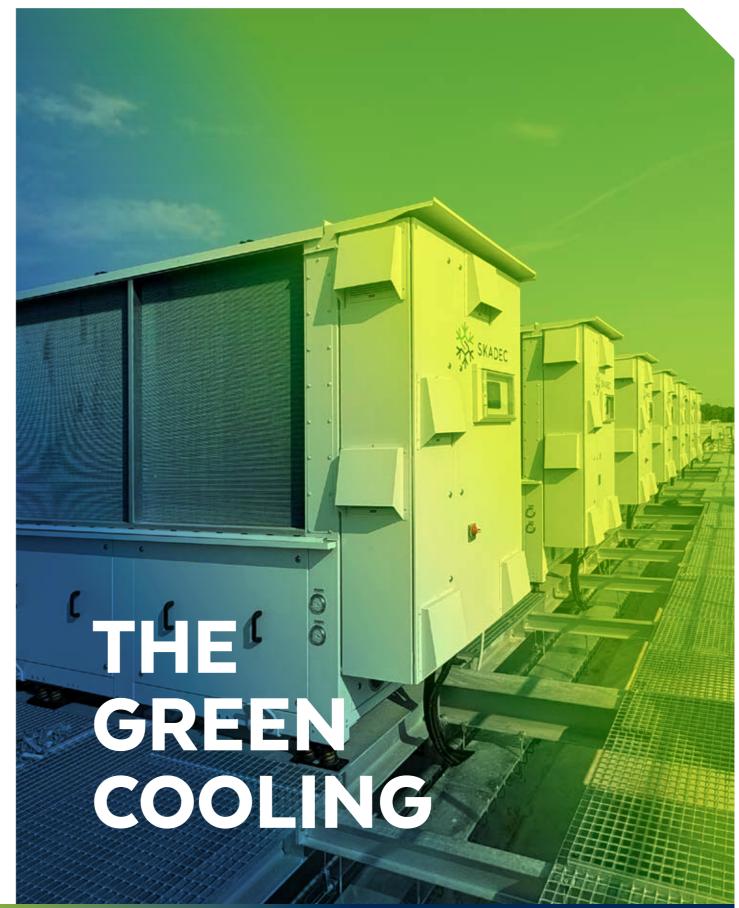
#### Cold storage for the economic operation of brine plants

The latent storage system can store thermal energy and release it when required. The storage is based on the latent heat of fusion principle (phase change of the medium) with the advantage of storing large amounts of energy in a very small space. The PCM (phase change material) is located in airtight welded spheres made of plastic (HDPE) in a buffer storage and is frozen in charging mode or melted in discharging mode with the help of a liquid carrier medium (e.g. glycol).



#### Advantages

- » Reduction of peak loads
- » Storage of renewable energy in the form of thermal energy (e.g. electricity from the photovoltaic system)
- » No maintenance costs
- » High storage density on a small footprint
- » PCM material available for 0 to -38°C supply temperature



THE GREEN COOLING 34 \* 35

## REFERENCES

Our products are used in numerous industries and for a multitude of applications

SKADEC water chillers and heat pumps stand for highest quality, reliability, sustainability and energy efficiency. Wherever possible, we rely exclusively on natural refrigerants such as R290, R1270, R600a or CO2.

Our customers include globally renowned industrial and commercial groups. Our broad product portfolio offers solutions for all applications in the small and large capacity range. Our flexible and efficient production enables us to deliver systems tailored to customers' needs and application areas with short delivery times.





#### **Chemical industry**

For a long time, the German chemical industry has been a driving force in the international market. No company can afford plant failures with resulting downtimes. For the required process cooling in production, SKADEC has therefore focused on maximum plant availability and high machine redundancy.

#### Performance data

3 1274 kW cooling capacity (2x R290 water chiller)

#### Data processing centers

Server cooling in data centers has become increasingly important in recent years. SKADEC R290 water chillers with free cooling are ideal for energy-efficient and sustainable IT cooling. The intelligent control system installed as standard guarantees maximum system availability. SKADEC was able to supply four chillers with free cooling for the cooling of air-conditioning cabinets and a heat pump for building heating and cooling.

#### Performance data

- 3 2412 kW cooling capacity (4x R290 chiller)
- » 2408 kW free cooling capacity
- 360 kW heating capacity (1x R290 heat pump)



#### Office building

The world's largest automotive supplier decided to rely on heating and cooling solutions with the natural refrigerant R290 for its new campus. For the end customer, the climate neutrality of its sites is paramount, so the focus of this project was on sustainability and energy efficiency. There are now two air-water chillers and two water-water heat pumps on the roof of the building, which ensure an optimal climate for 2,000 employees.

#### Performance data

- 3 1032 kW cooling capacity (2 x R290 chiller)
- 3464 kW heating capacity (2 x R290 heat pump)

THE GREEN COOLING 36 \* 37

#### References



#### **Public buildings**

For comfortable temperatures while studying. Wuppertal University decided years ago to rely on sustainable refrigeration technology. In various projects, SKADEC has supplied R290 water chillers with integrated free cooling of different

- 3 1918 kW cooling capacity (5x R290 water chiller)
- » 1593 kW free cooling capacity

#### **Logistics centres**

Reliable heat pumps are a decisive advantage for the efficient temperature control of warehouse and office areas. The reversible heat pumps can be used for both heating and cooling, which fulfils the requirements of storing temperaturesensitive goods. By using the heat pumps, energy consumption can be optimised and operating costs reduced. The solution also helps to reduce CO2 emissions and ensures a sustainable energy supply in logistics centres.

#### Performance data

- » 1603 kW cooling capacity
- » 1058 kW heating capacity
- (4x R290 heat pump)





#### Hotel

Operational safety, maximum availability and energy efficiency take centre stage in the planning and design of our heat pumps. Hotel guests in particular are very sensitive and always want reliable hot water for showers, air-conditioned rooms in summer and cosy warmth in winter. Low-noise solutions are also an important factor nowadays. Sound-insulating bonnets with high noise reduction (up to 20 db(A)) are used in this project.

#### Performance data

- >> 520 kW cooling capacity
- » 560 kW heating capacity (4x R290 heat pump)



#### **Production**

Production facilities have a wide range of heating and cooling requirements, be it heating or cooling the hall and neighbouring office buildings, process cooling or domestic hot water heating. In this project, all requirements are met by our reversible R290 heat pumps. The use of natural refrigerants was very important to the client, and we were able to present an optimal solution thanks to our experience.

#### Performance data

- 3 1011 kW cooling capacity
- 3 1410 kW heating capacity (7x R290 heat pump)

#### Retail trade

For food retailers, system failures cause inconvenience to customers. The heat pump, specially designed for high operational reliability, has two completely separate refrigeration circuits and three frequency-controlled reciprocating compressors. The fine-tuned power supply enables the required cooling capacity to be delivered extremely precisely and energy-efficiently.

#### Performance data

- 3 140 kW cooling capacity
- » 196 kW heating capacity (1x R290 heat pump)



#### **Automotive industry**

Simulated environmental conditions play an important part in the automotive industry. SKADEC supplied water-cooled R290 chillers for process cooling. The units were manufactured according to the factory's specifications and each equipped with a Siemens S7-1500 PLC.

#### Performance data

» 1200 kW cooling capacity (-5°C outlet temperature) (4x R290 water chiller)

38 \* 39 THE GREEN COOLING

SKADEC GmbH \* Hohebuch 13 74638 Waldenburg \* Germany T +49 7942 94491-000 www.skadec.de Follow SKADEC on Social Media: in