

# **Rotary Screw Compressors**

#### **SX-HSD Series**

With the world-renowned SIGMA PROFILE \*\*
Flow rate 0.25 to 87.3 m³/min, Pressure 5.5 to 15 bar

# KAESER KOMPRESSOREN – The global compressed air systems provider

Carl Kaeser Sr established his company as a machine workshop in the town of Coburg in 1919, but it was his decision in 1948 to begin manufacturing reciprocating compressors that started the company on its road to becoming one of the most globally renowned compressed air systems providers. The final breakthrough came in the 1970s with the development of the rotary screw compressor featuring the energy-saving SIGMA PROFILE, which led the company to achieve its current position as one of the world's foremost compressor manufacturers.

KAESER KOMPRESSOREN today employs around 7000 people worldwide. It is their dedication and skill that enable the company to be ranked amongst the largest and most successful manufacturers of compressed air systems, exporting compressors and compressed air treatment equipment to almost every corner of the globe.

#### **Main plant, Coburg**

KAESER's headquarters in Coburg currently employs approximately 2000 people. The facility covers an area of over 150,000 m² and produces an extensive range of compressors. All locations in the international KAESER group of companies are linked together by the very latest information and network technology.

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# More compressed air for less energy

#### **KAESER SIGMA PROFILE**

The SIGMA PROFILE developed and continually optimised by KAESER KOMPRESSOREN is highly efficient and achieves significant energy savings. All KAESER rotary screw airends feature this energy-saving rotor profile and are designed to ensure maximum energy

efficiency operating at specifically optimised speeds. Generously sized, precision-aligned roller bearings and close-tolerance machining guarantee long service life and outstanding reliability.





## Energy-saving rotary screw airend with SIGMA PROFILE rotors

A given drive power can be used to turn a smaller airend at high speed or a larger airend at optimised speed. Larger, lower-speed airends are more efficient and deliver more compressed air for the same drive power.

This is why KAESER builds airends with optimised rotor profiles that operate at the slowest drive speeds possible. Every KAESER rotary screw compressor quickly pays for itself through significant savings in energy costs.

#### **Energy-saving SIGMA CONTROL 2 compressor controller**



The internal SIGMA CONTROL 2 controller coordinates compressed air generation and consumption. This intelligent control system helps to avoid unnecessary losses, especially in partial load operation. KAESER offers a variety of different control modes to suit every possible operating requirement.

The SIGMA CONTROL 2 fulfils the highest standards for an internal compressor controller and is based on exceptionally dependable industrial computer technology. The control unit is linked to interchangeable input and output modules, allowing flexible matching to all available KAESER rotary screw compressors, rotary screw blowers, reciprocating compressors and rotary lobe blower systems, as well as to external communications

systems. The industrial PC saves the last 200 operational events, helping you and KAESER Service to identify and trace potential faults quickly. Furthermore, the integrated web server enables you to display operating data, maintenance and fault messages on any PC.

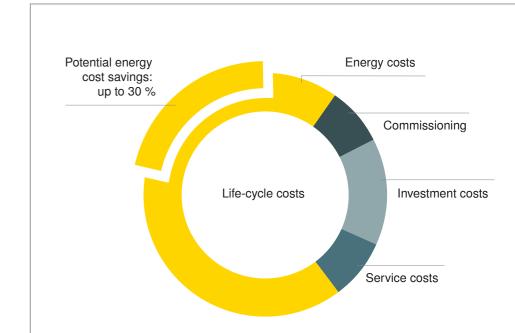
The SIGMA CONTROL 2 can be operated in any of 30 selectable languages, whilst a logical menu structure simplifies operation. Software updates and operating parameters can be quickly uploaded and transferred via the SD card slot. This minimises service costs and allows the SD card to be used for long-term storage of key operating data.

#### Low life-cycle costs

Energy costs taken over the lifetime of any compressor add up to many times that of the initial capital cost, which can make any difference in purchase price a false economy. Efficiency and reliability are vital in the production of compressed air and KAESER achieves these objectives with quality, durable components that are built to last. Energy-saving KAESER rotary screw compressors can help users to reduce their compressed air costs significantly.

Benefit the environment and save costs with heat recovery:

Reusable heat generated during compressed air production represents considerable savings potential, since 100% of the electrical energy supplied to a compressor is converted into heat. This is energy that can be utilised. In fact, up to 96% of the energy that is used to produce compressed air remains available for reuse. This not only enables huge annual financial savings, but also helps to reduce CO2 emissions considerably. The scale of the savings depends on the size of the compressors and the primary energy source used (electricity, gas, fuel oil). It is even possible for many older compressor models to be retrofitted with a heat recovery system



# **Compact KAESER rotary screw compressors**

# up to 22 kW

KAESER rotary screw compressors provide outstanding efficiency and reliability. The SXC, SX, SM, SK and ASK series use a belt drive to achieve this. KAESER was one of the first compressor manufacturers to introduce this type of drive system. The automatic tensioning device') ensures the belt drive achieves consistently high transmission efficiency over the entire service life of a KAESER rotary screw compressor. Drive performance therefore remains unchanged throughout the machine's life cycle.

At the same time, the automatic tensioning device reduces maintenance costs.

The soundproof enclosure reduces operating noise to a minimum – normal conversation can take place right beside the running compressor.

SX series models are equipped instead with a flat drive belt that does not require additional tensioning.



#### **Automatic belt tensioning**

A high-performance V-belt with automatic tensioning guarantees highly effective power transmission from the drive motor to the airend. This helps save energy and maintenance costs, and contributes to the compressor's exceptional reliability.



#### SIGMA CONTROL 2

The internal SIGMA CONTROL 2 controller ensures efficient compressor control and monitoring at all times. The large display and RFID reader provide effective communication and maximum security. Multiple interfaces offer exceptional flexibility, whilst the SD card slot makes updates quick and easy.



#### SIGMA PROFILE ☆ airend

At the heart of every rotary screw compressor lies a new, premium-quality airend featuring KAESER's energy-saving SIGMA PROFILE rotors. KAESER airends are equipped with flow-optimised rotors, which contribute significantly to the overall system's class-leading specific package input power.

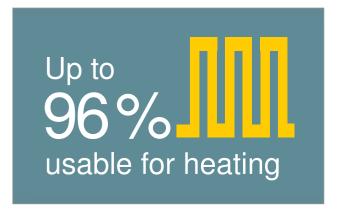




#### **Maintenance-friendly**

All maintenance work can be carried out from one side of the unit. The left-hand housing cover is easily removed, allowing excellent accessibility to all components.

(SM 13 T shown in image)



#### **Heat recovery**

Each rotary screw compressor converts the (electrical) drive energy supplied to it almost exclusively into thermal energy. Up to 96% of this energy can be recovered and reused for heating purposes. This not only reduces primary energy consumption, but also improves the company's total energy balance.

# Image: SXC 8, AIRCENTER SK 22 (IES), AIRCENTER SX 8 (IES), AIRCENTER SM 13 (IE4)

# **KAESER** rotary screw compressors

# Compressed air stations up to 15 kW

With KAESER's intelligent system design, the compressor and refrigeration dryer are separate, independently functioning modules. This protects the dryer from exposure to heat from the compressor package, thereby enhancing reliability.

The dryer shutdown feature (not available on SXC models), selectable via the compressor controller, is linked to operation of the compressor and significantly reduces energy consumption. All components are generously sized, yet easily accessible for maintenance and servicing work.

The integrated refrigeration dryer ensures that the compressed air station delivers dry, high-quality air, thereby protecting your machines from corrosion damage.



#### **Connect and go**

Simply connect a power supply and the air distribution network to this compact, complete system and it is ready for immediate operation. No further installation work is necessary.

(SM 13 AIRCENTER shown in image)



#### **KAESER FILTER products for pure air**

Thanks to lowest possible differential pressure, genuine KAESER FILTER products (option) efficiently ensure compressed air of all purity classes according to ISO 8573-1. The filter elements can be replaced quickly and cleanly.

(AIRCENTER SM 13 shown in image)



#### Service-friendly design

The left-hand housing cover is easily removed to facilitate excellent accessibility to all service points. Sight glasses allow the convenient inspection of fluid levels, condensate drain and drive belt tension whilst the unit is in operation.

(AIRCENTER SM 13 shown in image)



#### **SIGMA CONTROL 2**

The internal SIGMA CONTROL 2 controller ensures efficient compressor control and monitoring at all times. The large display and RFID reader provide effective communication and maximum security. Multiple interfaces offer exceptional flexibility, whilst the SD card slot makes updates quick and easy.



#### **SIGMA PROFILE airend**

At the heart of every rotary screw compressor lies a new, premium-quality airend featuring KAESER's energy-saving SIGMA PROFILE rotors. KAESER airends are equipped with flow-optimised rotors, which contribute significantly to the overall system's class-leading specific package input power.

# Medium and large KAESER rotary screw compressors from 18.5 to 500 kW

KAESER ASD to HSD series rotary screw compressors not only produce more compressed air for less energy, but also leave nothing to be desired in terms of versatility, ease of operation, maintenance and environmental friendliness.

This is thanks to precisely matched, optimally adjusted SIGMA PROFILE airends developed and manufactured in-house by KAESER KOMPRESSOREN.

Energy efficiency is further enhanced by the use of highly efficient IE4 motors and variable-speed fan motors (from the CSD series onwards).

Maintenance-friendly design and repairability are assessed and optimised by KAESER service technicians from the early stages of the development process.

The Electronic Thermal Management (ETM) system dynamically regulates fluid temperature. This not only saves additional energy, but also reliably prevents condensate formation and the associated moisture damage.



#### **SIGMA PROFILE airend**

At the heart of every rotary screw compressor lies a new, premium-quality airend featuring KAESER's energy-saving SIGMA PROFILE rotors. KAESER airends are equipped with flow-optimised rotors, which significantly contribute to the overall system's class-leading specific package input power.





#### SIGMA CONTROL 2 controller

The internal SIGMA CONTROL 2 controller ensures efficient compressor control and monitoring at all times. The large display and RFID reader provide effective communication and maximum security. Multiple interfaces offer exceptional flexibility, whilst the SD card slot makes updates quick and easy.



#### **Environmentally friendly fluid filter**

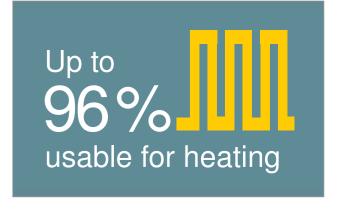
The eco-filter elements housed in the aluminium fluid filter enclosure are "metal-free". They can therefore simply be disposed of thermally at the end of their service life.



#### Dynamic temperature control

The innovative Electronic Thermal Management system dynamically controls fluid temperatures according to the prevailing operating conditions. This not only ensures reliable prevention of condensate accumulation, but also boosts energy efficiency.

(ASD 60 shown in image)



#### **Heat recovery**

Each rotary screw compressor converts the (electrical) drive energy supplied to it almost exclusively into thermal energy. Up to 96% of this energy can be recovered and reused for heating purposes. This not only reduces primary energy consumption, but also improves the company's total energy balance.

# DSD 240 T BOWD ASD 60 T BOWD ASD 60 T (E4), DSD 240 T (E4)

# **KAESER modular rotary screw compressors** with refrigeration dryer up to 132 kW

These advanced rotary screw compressors are versatile, reliable and highly efficient.

With an add-on refrigeration dryer module, these economical complete compressor stations provide a dependable supply of quality compressed air.

Because the compressor and refrigeration dryer are installed in separate cabinets, the dryer is protected from exposure to heat from the compressor package, thereby enhancing reliability.

The dryer shutdown feature, which is linked to operation of the compressor, significantly reduces energy consumption.

(CSD 105 T shown in image)





#### **Future-proof refrigerant**

The new F-Gas Regulation EU 517/2014 is intended to minimise emissions of fluorinated greenhouse gases and therefore contribute to limiting global warming.

KAESER's new T-systems are designed to operate with R-513A refrigerant, which benefits from a very low GWP (Global Warming Potential) value. This means that these efficient dryers will remain future-proof throughout their entire life cycle.



#### **Dependable KAESER centrifugal separator**

A KAESER centrifugal separator with electronic ECO-DRAIN condensate drain is installed upstream from the refrigeration dryer, ensuring reliable condensate preseparation and drainage, even at high ambient temperatures and humidity levels.

(CSD 105 SFC shown in image)



#### **SIGMA CONTROL 2**

The internal SIGMA CONTROL 2 controller ensures efficient compressor control and monitoring at all times. The large display and RFID reader provide effective communication and maximum security. Multiple interfaces offer exceptional flexibility, whilst the SD card slot makes updates quick and easy.

# **KAESER** rotary screw compressors with

# **SIGMA FREQUENCY CONTROL**

SM SFC to HSD SFC series compressors from KAESER are exceptionally efficient, variable-speed rotary screw compressors. SM, SK and ASK SFC models use KAESER's minimal-maintenance belt drive system, which features automatic belt tensioning to ensure optimum power transmission.

Large, low-speed KAESER airends with energy-saving SIGMA PROFILE rotors provide outstanding performance throughout their entire control range.

Variable-speed rotary screw compressors from the SM SFC to the HSD SFC series are all capable of 100% duty cycles without any increase in maintenance requirements.

### Systems with frequency-controlled synchronous reluctance motor

ASD, BSD, CSD and CSDX series models are equipped with a synchronous reluctance motor. A recent study shows that a typical compressed air consumption profile falls between 30-70% of maximum usage. This is where a rotary screw compressor equipped with variable speed control and a synchronous reluctance motor can fully demonstrate its energy-efficiency advantages in the partial load range. Moreover, these motors achieve the best possible efficiency class of IE5.



#### High efficiency in partial load operation

Synchronous reluctance motors achieve significantly higher efficiency in the partial load range than asynchronous motors. This helps achieve savings of up to 10% compared with conventional frequency-controlled systems.



#### **Standard IEC 61800-9-2**

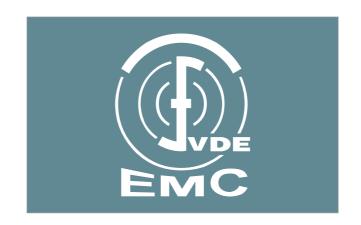
The European Ecodesign Standard IEC 61800-9-2 defines the requirements for drive systems in electrically driven production machines. It specifies a required level of system efficiency, taking into account losses from the motor and frequency converter. With 20% lower losses compared to the benchmark, KAESER systems meet this standard with ease.



#### **Maximum energy efficiency**

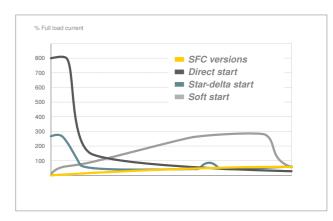
KAESER's frequency-controlled systems meet the IES2 system efficiency standard, which represents the highest possible level under IEC 61800-9-2. The IES2 standard indicates 20% lower losses compared to the benchmark.





#### **Complete system EMC-certified**

It goes without saying that the SFC control cabinet and SIGMA CONTROL 2 controller are tested and certified both as individual components and as a complete system to EMC directive EN 55011 for Class A1 industrial power supplies.



#### Soft start with no damaging current spikes

The soft rise in motor starting current from zero to full load without current spikes results in an almost unlimited motor starting frequency (i.e. the number of motor starts possible within a given time period without overheating). Continuously variable acceleration and deceleration significantly reduce the stress on moving components.

# **Internal compressor controller:** SIGMA CONTROL 2

The internal SIGMA CONTROL 2 controller coordinates compressed air generation and consumption. This intelligent control system helps to avoid unnecessary losses, especially in partial load operation.

The SIGMA CONTROL 2 fulfils the highest standards for an internal compressor controller and is based on exceptionally dependable industrial computer technology. The control unit is linked to interchangeable input and output modules, allowing flexible adaptation not only to all available Kaeser rotary screw compressors, but also to external communication systems.





#### **Troubleshooting support**

The industrial PC saves the last 200 operational events, helping you and KAESER Service to identify and trace potential faults quickly. Furthermore, the integrated web server enables you to transmit operating data, maintenance and fault messages and display them on any PC.

#### **Designed for international use**



The SIGMA CONTROL 2 offers 30 selectable languages and its clear menu structure enables easy operation.



#### Quick and easy updates

Software updates and operating parameters can be quickly uploaded and transferred via the convenient SD card slot, minimising update and service costs. Furthermore, the SD card can be used to store key operating data.

#### SIGMA CONTROL 2 - network capable

ASD to HSD models can be connected as standard to control technology via the SIGMA CONTROL 2 controller. For SX-ASK systems, connection to control technology via the SIGMA CONTROL 2 controller can be selected as an option.



## The function keys in detail



### ON key - Green LED - switches the compressor 'ON' -> automatic self-control operation. LED indicates 'Compressor ON'.



line-by-line upwards.

UP key – scrolls display text



nfo key - calls up current event



DOWN key – scrolls display text line-by-line downwards.

line-by-line to the right.



RIGHT key - scrolls display text

#### ional functions



Idle operation key - switches the compressor from Load to



LEFT key – scrolls display text line-by-line to the left.



switches remote control mode 'ON' and 'OFF'.



"Traffic light" functions

- indicates "Data communication to other systems interrupted

Fault - Red LED - indicates

"Compressor fault". Compressor is shut down on fault.



Escape key – returns to next

highest menu level



LED – activates / deactivates the set timer function.



Maintenance - Yellow LED indicates "Maintenance due" or "Maintenance counter expired" or "Warning".



Return key – initiates jump to next submenu or accepts value.



Load operation - Green LED indicates "Compressed air being



Controller voltage ON – Green LED – indicates "Main switch ON, mains and supply voltage



Acknowledge key – confirms fault messages and – when permitted – resets the fault



Idle operation – Green LED – "Compressor running, no air

# Information technology – Tailored system solutions

## Advanced control technology SIGMA AIR MANAGEMENT SYSTEM

The further-refined 3-Dadvanced Control system calculates a multitude of switching options in advance and selects the most efficient one to suit the specific needs of the application. Compressor flow rate and energy consumption are therefore always optimally matched according to actual compressed air demand.

In combination with the integrated, multi-core processor industrial PC, the adaptive 3-Dadvanced Control is able to ensure optimised performance at all times.

Furthermore, the SIGMA NETWORK bus converters (SBU) provide users with a host of possibilities to enable the system to be individually tailored to meet their exact requirements. The SBUs can be equipped with digital and analogue input and output modules, as well as with SIGMA NETWORK ports.

This allows information such as alarm messages, flow rate, pressure dew point and performance measurement data to be gathered and displayed easily.

#### (1)

# SIGMA AIR MANAGER 4.0 (SAM 4.0) master controller

- Adaptive 3Dadvanced Control
- Live P&I diagram

Fast and active overview of the entire compressed air station

- Versions: SAM 4.0-4, SAM 4.0-8, SAM 4.0-16
- Upgradeable: Software upgrade accommodates expansion of the compressed air station – no change of hardware required
- 6 digital inputs, 4 analogue 4-20 mA inputs, 5 relay outputs
- One pressure transducer included
- 7 SIGMA NETWORK ports for compressors with SIGMA CONTROL 2 and/or SIGMA NETWORK bus converter (SBU)
- Optionally with SNW-PROFIBUS-Master for connection to existing stations with SIGMA AIR MANAGER

#### **(2)**

#### KAESER CONNECT -Control technology connectivity

Available communications modules: PROFIBUS DP, PROFINET IO, Modbus TCP, Modbus RTU, EtherNet/IP

#### (3

## KAESER CONNECT - Visualisation via integrated web server

- Long-term data storage for reporting, analysis, controlling and audits, ISO 50001 energy management
- Targeted compressed air cost minimisation
- Detailed energy cost reports
- · Cost blocks can be added individually
- No need for separate software (viewed via Internet browser)
- Visualisation via Gigabit Ethernet interface for remote visualisation
- · Current information available at all times online

#### **(4)**

#### **SIGMA NETWORK**

KAESER-specific, secure network for machine control and communication

#### (5)

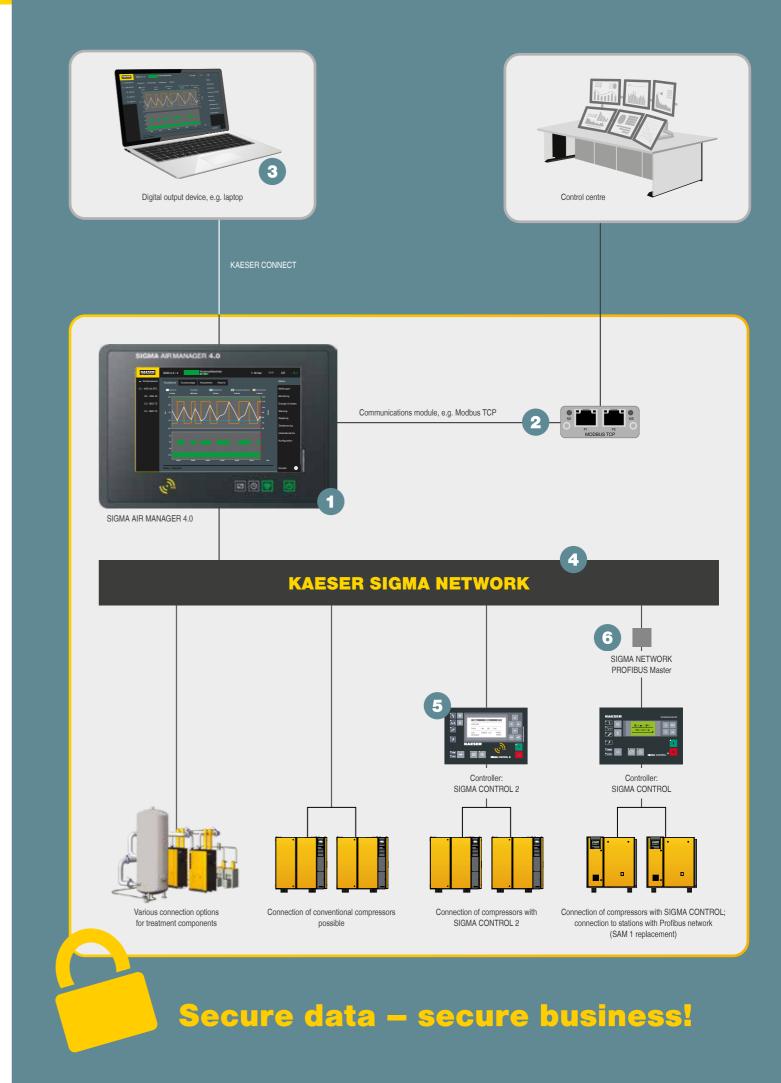
## Connection of compressors with SIGMA CONTROL 2

Connection of compressors equipped with SIGMA CONTROL 2 is performed via the SIGMA NETWORK

#### (6)

#### Connection of existing SAM Profibus networks with SNW-PROFIBUS-Master

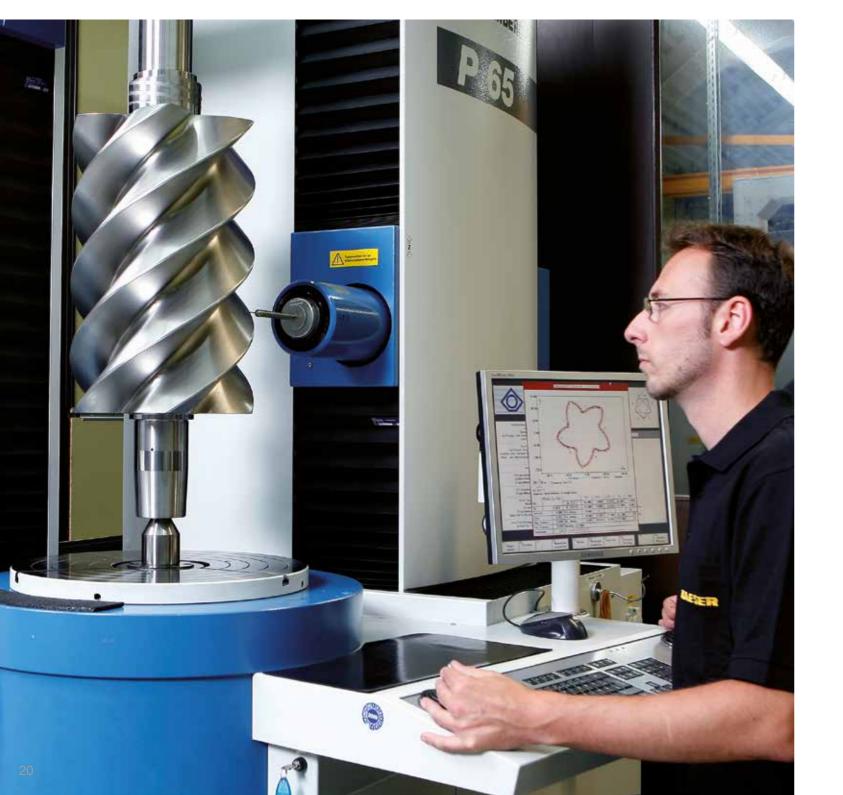
Existing compressed air stations with Profibus networks can easily be connected using the (optional) SNW-PROFIBUS-Master



# **Premium quality, precision-machined**

To achieve maximum precision, components for KAESER rotary screw compressors are machined in climate-controlled rooms, using the very latest tooling machines.

Dedicated and highly qualified personnel draw on years of engineering experience to ensure unrivalled product quality and consistency. This is complemented by continuous monitoring of manufacturing tolerances, for example using 3-D measurement equipment that detects variations with micron accuracy.





#### **Future-oriented**

Continuous optimisation of existing products and a constant pursuit of fundamental innovation at KAESER's state-of-the-art Research and Development Centre (left) ensure that KAESER maintains and extends its competitive edge with compressors and compressed air components that deliver maximum cost-effectiveness, ease of maintenance and reliability.



#### **Meticulous assembly**

All airends and compressor systems are assembled to the highest standards by qualified specialists in accordance with KAESER's Quality Management System.



#### **Precision milling and grinding**

The SIGMA PROFILE rotors are machined on CNC profile grinders with micron accuracy to assure minimal tolerances and optimum efficiency.



#### **Rigorous inspection**

Each rotor pair undergoes rigorous inspection for fitting accuracy and interplay.



#### Flexible machining centres

Rotors and housings for KAESER airends are produced in state-of-the-art, climate-controlled machining centres. Quality management to DIN/ISO 9001 ensures unrivalled product quality.



As one of the world's largest compressor manufacturers and compressed air system providers, KAESER KOMPRESSOREN is represented globally by a highly professional sales and service network that ensures KAESER products and services operate at the peak of performance at all times and with maximum availability.

One of the key requirements for any compressed air application is maximum availability. This can be achieved by using only the very best and most efficient components, in conjunction with meticulous service and maintenance. Premium service plays a key role in ensuring that your compressed air supply system operates at the peak of its performance at all times and provides maximum production reliability.

Compressed air needs to be available all day, every day, which is why technical support staff, replacement parts and service technicians are on hand in most service organisations 24/7.

The service number can be found at **www.kaeser.com** (select your country).



#### **Maximum availability**

Global networking and data communications enable remote diagnostics and demand-oriented maintenance of Internet-compatible KAESER products. This technology assures enhanced availability and optimised overall efficiency for your compressed air supply.



#### **Outstanding customer service**

Our goal is total customer satisfaction, which is why we have created a worldwide service network that provides global customer support. Expert service technicians and engineers are available throughout the world to give fast, reliable help whenever you need it, wherever you need it.



#### **Genuine KAESER parts**

When it comes to maintenance and repair work, KAESER service specialists use only genuine KAESER parts, whose reliability has been proven through extensive long-term testing. Only genuine KAESER parts can guarantee tested quality and legal certainty.

# More and more users are choosing KAESER KOMPRESSOREN



#### Cleaning, packaging, filtration

KAESER rotary screw vacuum packages with special KAESER vacuum airends are just as suited to extraction, testing, packaging, drying and degassing processes as they are to filtration applications or the filling of bottles and tubes. These vacuum systems are also equipped with the advanced, industrial PC-based SIGMA CONTROL 2 controller.



#### **PET bottle production**

KAESER KOMPRESSOREN has developed a highly cost-effective system solution for this expanding field of application. The SIGMA PET AIR bottle production system comprises a low-pressure stage (rotary screw compressor, control air), a high-pressure stage (booster, blowing air) and efficient refrigeration drying. In addition to outstanding operational reliability, users benefit from low investment and operating costs.



#### **Pressure and vacuum applications**

KAESER rotary lobe or rotary screw blowers are used in pressure / vacuum applications such as aerating wastewater clarifiers, conveying powder or granular materials, drying, suction cleaning, testing and packaging.



#### **Workshops, trades and industry**

The majority of industrial compressed air requirements are met by rotary screw compressors, which are also increasingly being used for trades and workshop applications. KAESER rotary screw compressors with the SIGMA PROFILE reflect this growing trend: hundreds of thousands of these economical and dependable compressors are already in operation worldwide.



# SX - ASK series

#### Rotary screw compressors up to 22 kW

| Model  | Working<br>pressure  | Flow rate <sup>1)</sup> Complete system at working pressure | Max.<br>gauge<br>pressure | Drive<br>motor<br>rated<br>power | Dimensions<br>W x D x H | Compressed air connection | Sound pressure level ") | Weight |
|--------|----------------------|---|---------------------------|----------------------------------|-------------------------|---------------------------|-------------------------|--------|
|        | bar                  | m³/min  | bar                       | kW                               | mm                      |                           | dB(A)                   | kg     |
| SX 3   | 7.5<br>10            | 0.34<br>0.26  | 8<br>11                   | 2.2                              | 590 x 632 x 970         |                           | 59                      | 140    |
| SX 4   | 7.5<br>10<br>13      | 0.37<br>0.37<br>0.26  | 8<br>11<br>15             | 3                                | 590 x 632 x 970         | - G 34                    | 60                      | 140    |
| SX 6   | 7.5<br>10<br>13      | 0.60<br>0.49<br>0.38  | 8<br>11<br>15             | 4                                | 590 x 632 x 970         | - G %                     | 61                      | 145    |
| SX 8   | 7.5<br>10<br>13      | 0.80<br>0.68<br>0.55  | 8<br>11<br>15             | 5.5                              | 590 x 632 x 970         |                           | 64                      | 155    |
|        |                      |   |                           |                                  |                         |                           |                         |        |
| SM 10  | 7.5<br>10<br>13      | 0.94<br>0.78<br>0.60  | 8<br>11<br>15             | 5.5                              | 630 x 790 x 1100        |                           | 62                      | 220    |
| SM 13  | 7.5<br>10<br>13      | 1.32<br>1.09<br>0.85  | 8<br>11<br>15             | 7.5                              | 630 x 790 x 1100        | G 3/4                     | 65                      | 240    |
| SM 16  | 7.5<br>10<br>13      | 1.62<br>1.37<br>1.09  | 8<br>11<br>15             | 9                                | 630 x 790 x 1100        |                           | 66                      | 240    |
|        |                      |   |                           |                                  |                         |                           |                         |        |
|        | 6                    | 2.16  | 6                         |                                  |                         |                           | 67                      |        |
| SK 22  | 7.5<br>10<br>13      | 2.02<br>1.69<br>1.33  | 8<br>11<br>15             | 11                               | 750 x 895 x 1260        |                           | 66                      | 312    |
|        | 6                    | 2.69  | 6                         |                                  |                         | G 1                       | 68                      |        |
| SK 25  | 7.5<br>10<br>13      | 2.52<br>2.13<br>1.73  | 8<br>11<br>15             | 15                               | 750 x 895 x 1260        |                           | 67                      | 320    |
|        |                      |   |                           |                                  |                         |                           |                         |        |
| ASK 28 | 6<br>7.5<br>10<br>13 | 3.17<br>2.86<br>2.40<br>1.93                                | 6<br>8<br>11<br>15        | 15                               | 800 x 1100 x 1530       |                           | 65                      | 485    |
| ASK 34 | 6<br>7.5<br>10<br>13 | 3.87<br>3.51<br>3.00<br>2.50                                | 6<br>8<br>11<br>15        | 18.5                             | 800 x 1100 x 1530       | G 1 ¼                     | 67                      | 505    |
| ASK 40 | 6<br>7.5<br>10<br>13 | 4.45<br>4.06<br>3.52<br>2.94                                | 6<br>8<br>11<br>15        | 22                               | 800 x 1100 x 1530       |                           | 69                      | 525    |

#### Rotary screw compressors up to 90 kW

| Model    | Working<br>pressure               | Flow rate <sup>1)</sup> Complete system at working pressure | Max.<br>gauge<br>pressure                         | Drive<br>motor<br>rated<br>power | Dimensions<br>W x D x H   | Compressed air connection | Sound pressure level ")          | Weight |                                  |      |
|----------|-----------------------------------|---|---|----------------------------------|---|---------------------------|----------------------------------|--------|----------------------------------|------|
|          | bar                               | m³/min  | bar   | kW                               | mm  |                           | dB(A)                            | kg     |                                  |      |
| ASD 35   | 7.5<br>10                         | 3.16<br>2.63  | 8.5<br>12   | 18.5                             | 1460 x 900 x 1530   |                           | 65                               | 610    |                                  |      |
| ASD 40   | 7.5<br>10<br>13                   | 3.92<br>3.13<br>2.58  | 8.5<br>12<br>15                                   | 22                               | 1460 x 900 x 1530   | G 1 ¼                     | 66                               | 655    |                                  |      |
| ASD 50   | 7.5<br>10<br>13                   | 4.58<br>3.85<br>3.05  | 8.5<br>12<br>15                                   | 25                               | 1460 x 900 x 1530   | G 1 1/4                   | 66                               | 695    |                                  |      |
| ASD 60   | 7.5<br>10<br>13                   | 5.53<br>4.49<br>3.71  | 8.5<br>12<br>15                                   | 30                               | 1460 x 900 x 1530   |                           | 69                               | 750    |                                  |      |
| BSD 65   | 7.5<br>10<br>13                   | 5.65<br>4.52<br>3.76  | 8.5<br>12<br>15                                   | 30                               | 1590 x 1030 x 1700  |                           | 69                               | 970    |                                  |      |
| BSD 75   | 7.5<br>10<br>13                   | 7.00<br>5.60<br>4.43  | 8.5<br>12<br>15                                   | 37                               | 1590 x 1030 x 1700  | G 1 ½                     | G 1½                             | 70     | 985                              |      |
| BSD 83   | 7.5<br>10<br>13                   | 8.16<br>6.85<br>5.47  | 8.5<br>12<br>15                                   | 45                               | 1590 x 1030 x 1700  |                           | 71                               | 1060   |                                  |      |
| CSD 90   | 6<br>7.5<br>8.5<br>10<br>12       | 9.61<br>8.85<br>8.45<br>7.60<br>6.63                        | 6<br>7.5<br>8.5<br>10<br>12                       | 45                               | 1790 x 1100 x 1900  |                           | 68<br>67<br>67<br>67<br>67       | 1340   |                                  |      |
| CSD 110  | 6<br>7.5<br>8.5<br>10<br>12<br>15 | 11.40<br>10.65<br>10.17<br>9.30<br>8.20<br>7.05             | 6<br>7.5<br>8.5<br>10<br>12                       | 55                               | 1790 x 1100 x 1900  | G 2                       | 71<br>70<br>69<br>70<br>69<br>70 | 1410   |                                  |      |
| CSD 130  | 6<br>7.5<br>8.5<br>10<br>12       | 14.70<br>12.90<br>12.00<br>11.10<br>9.95<br>8.26            | 6<br>7.5<br>8.5<br>10<br>12                       | 75                               | 1790 x 1100 x 1900  |                           | 73<br>72<br>72<br>71<br>69<br>69 | 1600   |                                  |      |
| CSDX 145 | 6<br>7.5<br>8.5<br>10<br>12       | 15.85<br>15.40<br>14.20<br>12.80<br>11.63                   | 6<br>7.5<br>8.5<br>10<br>12                       | 75                               | 2100 x 1280 x 1950  |                           | 72<br>72<br>72<br>71<br>71       | 1890   |                                  |      |
| CSDX 175 | 6<br>7.5<br>8.5<br>10<br>12       | 19.50<br>18.10<br>16.70<br>15.50<br>13.85<br>12.10          | 6<br>7.5<br>8.5<br>10<br>12<br>2100 x 1280 x 1950 |                                  | 18.10 7.5<br>16.70 8.5 90 2100 x 1280 x 1950<br>15.50 10 13.85 12 |                           | 90 2100 x 1280 x 1950            |        | 76<br>75<br>72<br>74<br>75<br>75 | 2030 |

**ASD - CSDX series** 

Performance data as per ISO 1217: 2009, Annexe C
Sound pressure level as per ISO 2151 and basic standard ISO 9614-2, operation at maximum working pressure; tolerance: ± 3 dB (A)

Performance data as per ISO 1217: 2009, Annexe C

Sound pressure level as per ISO 2151 and basic standard ISO 9614-2, operation at maximum working pressure; tolerance: ± 3 dB (A)

# **DSD** to **HSD** series

#### Rotary screw compressors up to 500 kW

| Model    | Working<br>pressure | Flow rate <sup>7</sup> Complete system at working pressure | Max.<br>gauge<br>pressure | Drive<br>motor<br>rated<br>power | Dimensions<br>W x D x H | Compressed air connection | Sound pressure level ") | Weight |
|----------|---------------------|--|---------------------------|----------------------------------|-------------------------|---------------------------|-------------------------|--------|
|          | bar                 | m³/min   | bar                       | kW                               | mm                      |                           | dB(A)                   | kg     |
| DSD 145  | 7.5                 | 14.00  | 9                         | 75                               | 2450 x 1730 x 2150      |                           | 69                      | 2950   |
| DSD 175  | 7.5<br>10           | 16.92<br>13.60   | 8.5<br>12                 | 90                               | 2450 x 1730 x 2150      | DN of                     | 70                      | 3090   |
| DSD 205  | 7.5<br>10<br>13     | 21.00<br>16.59<br>13.06                                    | 8.5<br>12<br>15           | 110                              | 2450 x 1730 x 2150      | DN 65                     | 72                      | 3360   |
| DSD 240  | 7.5<br>10<br>13     | 25.15<br>20.40<br>16.15                                    | 8.5<br>12<br>15           | 132                              | 2450 x 1730 x 2150      |                           | 74                      | 3430   |
|          | 7.5                 | 25.15  | 8.5                       |                                  |                         |                           |                         |        |
| DSDX 245 | 10<br>13            | 20.40<br>16.15   | 12<br>15                  | 132                              | 2690 x 1910 x 2140      |                           | 74                      | 3950   |
| DSDX 305 | 7.5<br>10<br>13     | 30.20<br>24.70<br>19.78                                    | 8.5<br>12<br>15           | 160                              | 2690 x 1910 x 2140      | - DN 80                   | 75                      | 4450   |
|          | 7.5                 | 37.85  | 8.5                       |                                  |                         |                           |                         |        |
| ESD 375  | 10<br>13            | 30.13<br>24.34   | 12<br>15                  | 200                              | 2960 x 2030 x 2140      |                           | 75                      | 5000   |
| ESD 445  | 7.5<br>10<br>13     | 42.20<br>37.32<br>29.67                                    | 8.5<br>12<br>15           | 250                              | 2960 x 2030 x 2140      | - DN 100                  | 76                      | 5060   |
|          | 7.5                 | 48.20  | 8.5                       |                                  |                         |                           |                         |        |
| FSD 475  | 10<br>13            | 37.63<br>29.52   | 12<br>15                  | 250                              | 3495 x 2145 x 2360      |                           | 79                      | 6580   |
| FSD 575  | 7.5<br>10<br>13     | 58.40<br>47.57<br>37.00                                    | 8.5<br>12<br>15           | 315                              | 3495 x 2145 x 2360      | DN 150                    | 79                      | 6750   |
|          | 7.5                 | 66.40  | 8.5                       |                                  |                         |                           |                         |        |
| HSD 662  | 10<br>13            | 54.44<br>43.72   | 12<br>15                  | 360                              | 3570 x 2145 x 2350      |                           | 71                      | 8100   |
| HSD 722  | 7.5<br>10<br>13     | 72.40<br>59.48<br>47.87                                    | 8.5<br>12<br>15           | 400                              | 3570 x 2145 x 2350      | DN 450                    | 72                      | 8500   |
| HSD 782  | 7.5<br>10<br>13     | 78.40<br>65.31<br>53.07                                    | 8.5<br>12<br>15           | 450                              | 3570 x 2145 x 2350      | - DN 150                  | 72                      | 8600   |
| HSD 842  | 7.5<br>10<br>13     | 84.40<br>71.15<br>58.27                                    | 8.5<br>12<br>15           | 500                              | 3570 x 2145 x 2350      |                           | 73                      | 8700   |

#### Modular with refrigeration dryer and air receiver - up to 15 KW

| Model        | Working pressure | Flow rate <sup>*)</sup> Complete system at working pressure | Max.<br>gauge<br>pressure | Drive<br>motor<br>rated<br>power | Refrigeration<br>dryer<br>model | Pressure<br>vessel<br>capacity | Dimensions<br>W x D x H | Compressed<br>air<br>connection | Sound<br>pressure<br>level ") | Weight |
|--------------|------------------|---|---------------------------|----------------------------------|---------------------------------|--------------------------------|-------------------------|---------------------------------|-------------------------------|--------|
|              | bar              | m³/min  | bar                       | kW                               |                                 | 1                              | mm                      |                                 | dB(A)                         | kg     |
| SXC 3        | 7.5<br>10        | 0.34<br>0.26  | 8<br>11                   | 2.2                              | CT 4                            | 215                            | 620 x 980 x 1480        |                                 | 68                            | 285    |
| SXC 4        | 7.5<br>10<br>13  | 0.45<br>0.36<br>0.26  | 8<br>11<br>15             | 3.0                              | CT 4                            | 215                            | 620 x 980 x 1480        |                                 | 69                            | 285    |
| SXC 6        | 7.5<br>10<br>13  | 0.60<br>0.48<br>0.37  | 8<br>11<br>15             | 4.0                              | CT 8<br>CT 4<br>CT 4            | 215                            | 620 x 980 x 1480        | G 34                            | 69                            | 290    |
| SXC 8        | 7.5<br>10<br>13  | 0.80<br>0.67<br>0.54  | 8<br>11<br>15             | 5.5                              | CT 8<br>CT 8<br>CT 4            | 215                            | 620 x 980 x 1480        |                                 | 69                            | 300    |
| AIRCENTER 3  | 7.5<br>10        | 0.34<br>0.26  | 8<br>11                   | 2.2                              | ABT 4                           | 200                            | 590 x 1090 x 1560       |                                 | 59                            | 285    |
| AIRCENTER 4  | 7.5<br>10<br>13  | 0.46<br>0.37<br>0.26  | 8<br>11<br>15             | 3                                | ABT 4                           | 200                            | 590 x 1090 x 1560       |                                 | 60                            | 285    |
| AIRCENTER 6  | 7.5<br>10<br>13  | 0.60<br>0.49<br>0.38  | 8<br>11<br>15             | 4                                | ABT 8<br>ABT 4<br>ABT 4         | 200                            | 590 x 1090 x 1560       | G 34                            | 61                            | 290    |
| AIRCENTER 8  | 7.5<br>10<br>13  | 0.80<br>0.67<br>0.55  | 8<br>11<br>15             | 5.5                              | ABT 8<br>ABT 8<br>ABT 4         | 200                            | 590 x 1090 x 1560       |                                 | 64                            | 300    |
| AIRCENTER 10 | 7.5<br>10<br>13  | 0.94<br>0.78<br>0.60  | 8<br>11<br>15             | 5.5                              | ABT 15                          | 270                            | 630 x 1220 x 1720       |                                 | 62                            | 420    |
| AIRCENTER 13 | 7.5<br>10<br>13  | 1.32<br>1.09<br>0.85  | 8<br>11<br>15             | 7.5                              | ABT 15                          | 270                            | 630 x 1220 x 1720       | G ¾                             | 65                            | 440    |
| AIRCENTER 16 | 7.5<br>10<br>13  | 1.62<br>1.37<br>1.09  | 8<br>11<br>15             | 9                                | ABT 15                          | 270                            | 630 x 1220 x 1720       |                                 | 66                            | 440    |
|              | 6                | 2.16  | 6                         |                                  |                                 |                                |                         |                                 | 67                            |        |
| AIRCENTER 22 | 7.5<br>10<br>13  | 2.02<br>1.69<br>1.33  | 8<br>11<br>15             | 11                               | ABT 25                          | 350                            | 750 x 1370 x 1880       |                                 | 66                            | 579    |
|              | 6                | 2.69  | 6                         |                                  |                                 |                                |                         | G 1                             | 68                            |        |
| AIRCENTER 25 | 7.5<br>10<br>13  | 2.52<br>2.13<br>1.73  | 8<br>11<br>15             | 15                               | ABT 25                          | 350                            | 750 x 1370 x 1880       |                                 | 67                            | 587    |

#### Technical data for add-on refrigeration dryer

| Model  | Refrigeration dryer power consumption | Pressure<br>dew point | Refrigerant | Refrigerant<br>charge | Global warming potential | CO <sub>2</sub> equivalent | Hermetic refrigeration circuit |
|--------|---------------------------------------|-----------------------|-------------|-----------------------|--------------------------|----------------------------|--------------------------------|
|        | kW                                    | °C                    |             | kg                    | GWP                      | t                          |                                |
| CT 4   | 0.18                                  | +3                    | R-513A      | 0.17                  | 631                      | 0.1                        | Yes                            |
| CT 8   | 0.28                                  | +3                    | R-513A      | 0.24                  | 631                      | 0.2                        | Yes                            |
| ABT 4  | 0.18                                  | +3                    | R-513A      | 0.17                  | 631                      | 0.1                        | Yes                            |
| ABT 8  | 0.28                                  | +3                    | R-513A      | 0.24                  | 631                      | 0.2                        | Yes                            |
| ABT 15 | 0.37                                  | +3                    | R-513A      | 0.39                  | 631                      | 0.25                       | Yes                            |
| ABT 25 | 0.41                                  | +3                    | R-513A      | 0.62                  | 631                      | 0.4                        | Yes                            |

SXC - AIRCENTER SX / SM / SK

<sup>&</sup>quot;) Performance data as per ISO 1217: 2009, Annexe C

<sup>&</sup>quot;) Sound pressure level as per ISO 2151 and basic standard ISO 9614-2, operation at maximum working pressure; tolerance: ± 3 dB (A)

# SX T - DSD T series

#### Modular rotary screw compressors with refrigeration dryer - up to 132 kW

| Model    | Working<br>pressure  | Flow rate <sup>-)</sup> Complete system at working pressure | Max.<br>gauge<br>pressure | Drive motor rated power | Refrigeration<br>dryer<br>model | Dimensions<br>W x D x H | Compressed<br>air<br>connection | Sound pressure level ") | Weight |
|----------|----------------------|---|---------------------------|-------------------------|---------------------------------|-------------------------|---------------------------------|-------------------------|--------|
|          | bar                  | m³/min  | bar                       | kW                      |                                 | mm                      |                                 | dB(A)                   | kg     |
| SX 3 T   | 7.5<br>10            | 0.34<br>0.26  | 8<br>11                   | 2.2                     | ABT 4                           | 590 x 905 x 970         |                                 | 59                      | 185    |
| SX 4 T   | 7.5<br>10<br>13      | 0.46<br>0.37<br>0.26  | 8<br>11<br>15             | 3                       | ABT 4                           | 590 x 905 x 970         |                                 | 60                      | 185    |
| SX 6 T   | 7.5<br>10<br>13      | 0.60<br>0.49<br>0.38  | 8<br>11<br>15             | 4                       | ABT 8<br>ABT 4<br>ABT 4         | 590 x 905 x 970         | G ¾                             | 61                      | 190    |
| SX 8 T   | 7.5<br>10<br>13      | 0.80<br>0.68<br>0.55  | 8<br>11<br>15             | 5.5                     | ABT 8<br>ABT 8<br>ABT 4         | 590 x 905 x 970         |                                 | 64                      | 200    |
| SM 10 T  | 7.5<br>10<br>13      | 0.94<br>0.78<br>0.60  | 8<br>11<br>15             | 5.5                     | ABT 15                          | 630 x 1090 x 1100       |                                 | 62                      | 295    |
| SM 13 T  | 7.5<br>10<br>13      | 1.32<br>1.09<br>0.85  | 8<br>11<br>15             | 7.5                     | ABT 15                          | 630 x 1090 x 1100       | G ¾                             | 65                      | 315    |
| SM 16 T  | 7.5<br>10<br>13      | 1.62<br>1.37<br>1.09  | 8<br>11<br>15             | 9                       | ABT 15                          | 630 x 1090 x 1100       |                                 | 66                      | 315    |
|          | 6                    | 2.16  | 6                         |                         |                                 |                         |                                 | 67                      |        |
| SK 22 T  | 7.5<br>10<br>13      | 2.02<br>1.69<br>1.33  | 8<br>11<br>15             | 11                      | ABT 25                          | 750 x 1240 x 1260       | G 1                             | 66                      | 387    |
|          | 6                    | 2.69  | 6                         |                         |                                 |                         |                                 | 68                      |        |
| SK 25 T  | 7.5<br>10<br>13      | 2.52<br>2.13<br>1.73  | 8<br>11<br>15             | 15                      | ABT 25                          | 750 x 1240 x 1260       |                                 | 67                      | 395    |
| ASK 28 T | 6<br>7.5<br>10<br>13 | 3.17<br>2.86<br>2.40<br>1.93                                | 6<br>8<br>11<br>15        | 15                      | ABT 40                          | 800 x 1460 x 1530       |                                 | 65                      | 580    |
| ASK 34 T | 6<br>7.5<br>10<br>13 | 3.87<br>3.51<br>3.00<br>2.50                                | 6<br>8<br>11<br>15        | 18.5                    | ABT 40                          | 800 x 1460 x 1530       | G 11/4                          | 67                      | 600    |
| ASK 40 T | 6<br>7.5<br>10<br>13 | 4.45<br>4.06<br>3.52<br>2.94                                | 6<br>8<br>11<br>15        | 22                      | ABT 40                          | 800 x 1460 x 1530       |                                 | 69                      | 620    |
| ASD 35 T | 7.5<br>10            | 3.16<br>2.63  | 8.5<br>12                 | 18.5                    | ABT 60                          | 1770 x 900 x 1530       |                                 | 65                      | 705    |
| ASD 40 T | 7.5<br>10<br>13      | 3.92<br>3.13<br>2.58  | 8.5<br>12<br>15           | 22                      | ABT 60                          | 1770 x 900 x 1530       |                                 | 66                      | 750    |
| ASD 50 T | 7.5<br>10<br>13      | 4.58<br>3.85<br>3.05  | 8.5<br>12<br>15           | 25                      | ABT 60                          | 1770 x 900 x 1530       | G 11/4                          | 66                      | 790    |
| ASD 60 T | 7.5<br>10<br>13      | 5.53<br>4.49<br>3.71  | 8.5<br>12<br>15           | 30                      | ABT 60                          | 1770 x 900 x 1530       |                                 | 69                      | 845    |
| BSD 65 T | 7.5<br>10<br>13      | 5.65<br>4.52<br>3.76  | 8.5<br>12<br>15           | 30                      | ABT 83                          | 1990 x 1030 x 1700      |                                 | 69                      | 1100   |
| BSD 75 T | 7.5<br>10<br>13      | 7.00<br>5.60<br>4.43  | 8.5<br>12<br>15           | 37                      | ABT 83                          | 1990 x 1030 x 1700      | G 1½                            | 70                      | 1115   |
| BSD 83 T | 7.5<br>10<br>13      | 8.16<br>6.85<br>5.47  | 8.5<br>12<br>15           | 45                      | ABT 83                          | 1990 x 1030 x 1700      |                                 | 71                      | 1190   |

| Model      | Working pressure                  | Flow rate <sup>-7</sup> Complete system at working pressure | Max.<br>gauge<br>pressure         | Drive motor rated power | Refrigeration<br>dryer<br>model | Dimensions<br>W x D x H | Compressed air connection | Sound<br>pressure<br>level ")    | Weight |
|------------|-----------------------------------|---|-----------------------------------|-------------------------|---------------------------------|-------------------------|---------------------------|----------------------------------|--------|
|            | bar                               | m³/min  | bar                               | kW                      | kW                              | mm                      |                           | dB(A)                            | kg     |
| CSD 90 T   | 6<br>7.5<br>8.5<br>10<br>12       | 9.61<br>8.85<br>8.45<br>7.60<br>6.63                        | 6<br>7.5<br>8.5<br>10<br>12       | 45                      | ABT 132                         | 2210 x 1100 x 1900      |                           | 68<br>67<br>67<br>67<br>67       | 1540   |
| CSD 110 T  | 6<br>7.5<br>8.5<br>10<br>12<br>15 | 11.40<br>10.65<br>10.17<br>9.30<br>8.20<br>7.05             | 6<br>7.5<br>8.5<br>10<br>12<br>15 | 55                      | ABT 132                         | 2210 x 1100 x 1900      | G 2                       | 71<br>70<br>69<br>70<br>69<br>70 | 1610   |
| CSD 130 T  | 6<br>7.5<br>8.5<br>10<br>12<br>15 | 14.70<br>12.90<br>12.00<br>11.10<br>9.95<br>8.26            | 6<br>7.5<br>8.5<br>10<br>12<br>15 | 75                      | ABT 132                         | 2210 x 1100 x 1900      |                           | 73<br>72<br>72<br>71<br>69<br>69 | 1800   |
| CSDX 145 T | 6<br>7.5<br>8.5<br>10<br>12       | 15.85<br>15.40<br>14.20<br>12.80<br>11.63                   | 6<br>7.5<br>8.5<br>10<br>12       | 75                      | ABT 200                         | 2520 x 1280 x 1950      |                           | 72<br>72<br>72<br>71<br>71       | 2170   |
| CSDX 175 T | 6<br>7.5<br>8.5<br>10<br>12       | 19.50<br>18.10<br>16.70<br>15.50<br>13.85<br>12.10          | 6<br>7.5<br>8.5<br>10<br>12<br>15 | 90                      | ABT 200                         | 2520 x 1280 x 1950      | G 2½                      | 76<br>75<br>72<br>74<br>75<br>75 | 2310   |
| DSD 145 T  | 7.5                               | 14.00   | 9                                 | 75                      | ABT 250                         | 2750 x 1730 x 2150      |                           | 69                               | 3220   |
| DSD 175 T  | 7.5<br>10                         | 16.92<br>13.60  | 8.5<br>12                         | 90                      | ABT 250                         | 2750 x 1730 x 2150      |                           | 70                               | 3630   |
| DSD 205 T  | 7.5<br>10<br>13                   | 21.00<br>16.59<br>13.06                                     | 8.5<br>12<br>15                   | 110                     | ABT 250                         | 2750 x 1730 x 2150      | DN 65                     | 72                               | 3630   |
| DSD 240 T  | 7.5<br>10<br>13                   | 25.15<br>20.40<br>16.15                                     | 8.5<br>12<br>15                   | 132                     | ABT 250                         | 2750 x 1730 x 2150      |                           | 74                               | 3700   |

#### Technical data for add-on refrigeration dryer

| Model   | Refrigeration dryer power consumption | Pressure<br>dew point | Refrigerant | Refrigerant charge | Global warming potential | CO <sub>2</sub> equivalent | Hermetic refrigeration circuit |
|---------|---------------------------------------|-----------------------|-------------|--------------------|--------------------------|----------------------------|--------------------------------|
|         | kW                                    | °C                    |             | kg                 | GWP                      | t                          |                                |
| ABT 4   | 0.18                                  | +3                    | R-513A      | 0.17               | 631                      | 0.1                        | Yes                            |
| ABT 8   | 0.28                                  | +3                    | R-513A      | 0.24               | 631                      | 0.2                        | Yes                            |
| ABT 15  | 0.37                                  | +3                    | R-513A      | 0.39               | 631                      | 0.25                       | Yes                            |
| ABT 25  | 0.41                                  | +3                    | R-513A      | 0.62               | 631                      | 0.4                        | Yes                            |
| ABT 40  | 0.60                                  | +3                    | R-513A      | 0.41               | 631                      | 0.26                       | -                              |
| ABT 60  | 0.80                                  | +3                    | R-513A      | 0.75               | 631                      | 0.47                       | -                              |
| ABT 83  | 0.90                                  | +3                    | R-513A      | 1.20               | 631                      | 0.8                        | -                              |
| ABT 132 | 1.30                                  | +3                    | R-513A      | 1.04               | 631                      | 0.66                       | -                              |
| ABT 200 | 1.60                                  | +3                    | R-513A      | 1.10               | 631                      | 0.69                       | -                              |
| ABT 250 | 1.80                                  | +3                    | R-513A      | 1.71               | 631                      | 1.08                       | -                              |

Performance data as per ISO 1217: 2009, Annexe C
Sound pressure level as per ISO 2151 and basic standard ISO 9614-2, operation at maximum working pressure and maximum speed; tolerance: ± 3 dB (A)

# SM - CSDX SFC series

#### Modular rotary screw compressors with SIGMA FREQUENCY CONTROL - up to 90 kW

| Model        | Working pressure | Flow rate <sup>-)</sup> Complete system at working pressure | Max.<br>gauge<br>pressure | Drive<br>motor<br>rated<br>power | Min.<br>pressure<br>bandwidth | Speed range min max.                      | Dimensions<br>W x D x H | Compressed<br>air<br>connection | Sound<br>pressure<br>level ") | Weight |
|--------------|------------------|---|---------------------------|----------------------------------|-------------------------------|---|-------------------------|---------------------------------|-------------------------------|--------|
|              | bar              | m³/min  | bar                       | kW                               | bar                           | rpm                                       | mm                      |                                 | dB(A)                         | kg     |
| SM 13 SFC    | 7.5<br>10<br>13  | 0.39 - 1.40<br>0.40 - 1.19<br>0.42 - 0.95                   | 8<br>11<br>15             | 7.5                              | ± 0.1                         | 1200 - 3766<br>1500 - 3884<br>2000 - 4025 | 630 x 790 x 1100        | G ¾                             | 67                            | 250    |
| SK 22 SFC    | 7.5<br>10<br>13  | 0.62 - 1.98<br>0.63 - 1.67<br>0.57 - 1.38                   | 8<br>11<br>15             | 11                               | ± 0.1                         | 1200 - 3510<br>1500 - 3552<br>1800 - 3660 | 750 x 895 x 1260        | - G1                            | 67                            | 329    |
| SK 25 SFC    | 7.5<br>10<br>13  | 0.81 - 2.55<br>0.84 - 2.25<br>0.83 - 1.91                   | 8<br>11<br>15             | 15                               | ± 0.1                         | 1200 - 3660<br>1500 - 3696<br>1800 - 3872 | 750 x 895 x 1260        | GI                              | 68                            | 337    |
| ASK 34 SFC   | 7.5<br>10<br>13  | 0.94 - 3.60<br>0.80 - 3.14<br>0.88 - 2.70                   | 8<br>11<br>15             | 18.5                             | ± 0.1                         | 1060 - 3691<br>1075 - 3752<br>1420 - 3865 | 800 x 1100 x 1530       | 0.11                            | 68                            | 530    |
| ASK 40 SFC   | 7.5<br>10<br>13  | 0.94 - 4.19<br>0.80 - 3.71<br>0.88 - 3.17                   | 8<br>11<br>15             | 22                               | ± 0.1                         | 900 - 3692<br>900 - 3741<br>1200 - 3870   | 800 x 1100 x 1530       | G 1 ¼                           | 70                            | 550    |
| ASD 35 SFC   | 7.5              | 0.88 - 4.00   | 8.5                       | 18.5                             | ± 0.1                         | 767 - 3033                                | 1540 x 900 x 1530       | G 1 ¼                           | 67                            | 700    |
| ASD 40 SFC   | 7.5              | 1.05 - 4.64   | 8.5                       | 22                               | ± 0.1                         | 900 - 3563                                | 1540 x 900 x 1530       | G 1 ¼                           | 68                            | 755    |
| ASD 50 SFC   | 7.5<br>10<br>13  | 1.07 - 5.27<br>1.00 - 4.58<br>0.93 - 3.82                   | 8.5<br>13<br>13           | 25                               | ± 0.1                         | 750 - 3433<br>900 - 3550<br>900 - 3100    | 1540 x 900 x 1530       | - G1¼                           | 68                            | 735    |
| ASD 60 SFC   | 7.5<br>10<br>13  | 1.26 - 6.17<br>1.00 - 4.76<br>0.93 - 4.14                   | 8.5<br>15<br>15           | 30                               | ± 0.1                         | 750 - 3330<br>900 - 3750<br>900 - 3366    | 1540 x 900 x 1530       | G 1 74                          | 70                            | 795    |
| BSD 75 SFC   | 7.5<br>10<br>13  | 1.54 - 7.44<br>1.51 - 6.51<br>1.16 - 5.54                   | 10<br>10<br>15            | 37                               | ± 0.1                         | 900 - 3933<br>900 - 3500<br>900 - 3719    | 1665 x 1030 x 1700      | G 1½                            | 72                            | 1020   |
| CSD 90 SFC   | 7.5<br>10        | 1.94 - 8.66<br>1.79 - 7.50                                  | 8.5<br>12                 | 45                               | ± 0.1                         | 900 - 3522<br>1000 - 3600                 | 1840 x 1100 x 1900      |                                 | 71<br>68                      | 1370   |
| CSD 110 SFC  | 7.5<br>10<br>13  | 2.29 - 10.48<br>1.90 - 9.14<br>1.58 - 7.79                  | 8.5<br>12<br>15           | 55                               | ± 0.1                         | 900 - 3667<br>900 - 3730<br>900 - 3711    | 1840 x 1100 x 1900      | G 2                             | 70<br>69<br>70                | 1390   |
| CSD 130 SFC  | 7.5<br>10<br>13  | 2.90 - 12.82<br>2.31 - 11.37<br>1.88 - 9.18                 | 8.5<br>12<br>15           | 75                               | ± 0.1                         | 900 - 3610<br>900 - 3845<br>900 - 3750    | 1840 x 1100 x 1900      |                                 | 73<br>72<br>70                | 1420   |
| CSDX 145 SFC | 7.5              | 3.55 - 14.53  | 8.5                       | 75                               | ± 0.1                         | 1000 - 3387                               | 2100 x 1280 x 1950      |                                 | 72                            | 1700   |
| CSDX 175 SFC | 7.5<br>10        | 3.83 - 17.11<br>3.45 - 14.33                                | 8.5<br>12                 | 90                               | ± 0.1                         | 900 - 3497<br>1000 - 3500                 | 2100 x 1280 x 1950      | G 2 ½                           | 73<br>72                      | 1870   |

# DSD - HSD SFC series

#### Modular rotary screw compressors with SIGMA FREQUENCY CONTROL – up to 515 kW

| Model        | Working pressure | Flow rate <sup>-)</sup> Complete system at working pressure | Max.<br>gauge<br>pressure | Drive<br>motor<br>rated<br>power | Min.<br>pressure<br>bandwidth | Speed<br>range<br>min max.             | Dimensions<br>W x D x H | Compressed<br>air<br>connection | Sound<br>pressure<br>level **) | Weigh |
|--------------|------------------|---|---------------------------|----------------------------------|-------------------------------|--|-------------------------|---------------------------------|--------------------------------|-------|
|              | bar              | m³/min  | bar                       | kW                               | bar                           | rpm                                    | mm                      |                                 | dB(A)                          | kg    |
| DSD 145 SFC  | 7.5              | 3.67 - 15.73  | 8.5                       | 75                               | ± 0.1                         | 450 - 1667                             | 2690 x 1730 x 2150      |                                 | 70                             | 3190  |
| DSD 175 SFC  | 7.5<br>10        | 3.67 - 18.43<br>3.50 - 15.60                                | 10                        | 90                               | ± 0.1                         | 450 - 1942<br>450 - 1700               | 2690 x 1730 x 2150      |                                 | 71                             | 3330  |
| DSD 205 SFC  | 7.5<br>10<br>13  | 4.45 - 21.22<br>4.20 - 18.30<br>4.97 - 15.16                | 10<br>10<br>15            | 110                              | ± 0.1                         | 450 - 1883<br>450 - 1645<br>650 - 1713 | 2690 x 1730 x 2150      | DN 65                           | 73                             | 3340  |
| DSD 240 SFC  | 7.5<br>10<br>13  | 5.57 - 23.47<br>5.33 - 20.08<br>4.96 - 16.57                | 8.5<br>12<br>15           | 132                              | ± 0.1                         | 450 - 1673<br>550 - 1800<br>650 - 1877 | 2690 x 1730 x 2150      |                                 | 75                             | 3670  |
| DSDX 245 SFC | 7.5<br>10<br>13  | 5.57 - 27.17<br>5.58 - 23.35<br>4.95 - 19.27                | 8.5<br>12<br>15           | 132                              | ± 0.1                         | 450 - 1933<br>550 - 2087<br>650 - 2149 | 2940 x 1910 x 2140      |                                 | 75                             | 4700  |
| DSDX 305 SFC | 7.5<br>10<br>13  | 6.85 - 33.03<br>5.35 - 28.46<br>5.18 - 24.01                | 8.5<br>12<br>15           | 160                              | ± 0.1                         | 450 - 1985<br>450 - 2052<br>550 - 2191 | 2940 x 1910 x 2140      | DN 80                           | 76                             | 4800  |
| ESD 375 SFC  | 7.5<br>10<br>13  | 8.60 - 37.60<br>8.22 - 32.51<br>6.40 - 27.48                | 8.5<br>12<br>15           | 200                              | ± 0.1                         | 450 - 1850<br>550 - 1952<br>550 - 2037 | 3200 x 2030 x 2140      |                                 | 76                             | 5480  |
| ESD 445 SFC  | 7.5<br>10<br>13  | 10.60 - 43.20<br>8.33 - 37.89<br>7.77 - 31.94               | 8.5<br>12<br>15           | 250                              | ± 0.1                         | 450 - 1710<br>450 - 1884<br>550 - 1960 | 3200 x 2030 x 2140      | DN 100                          | 77                             | 5660  |
| FSD 475 SFC  | 7.5<br>10        | 10.60 - 49.87<br>9.93 - 44.08                               | 8.5<br>12                 | 250                              | ± 0.1                         | 450 - 1993<br>550 - 2197               | 3740 x 2145 x 2360      | DN 150                          | 79                             | 6930  |
| FSD 575 SFC  | 7.5<br>10<br>13  | 13.33 - 59.83<br>12.90 - 50.85<br>11.55 - 45.00             | 8.5<br>12<br>15           | 315                              | ± 0.1                         | 450 - 1870<br>550 - 2050<br>650 - 2257 | 3740 x 2145 x 2360      | DN 150                          | 80                             | 7300  |
| HSD 662 SFC  | 7.5<br>10        | 10.40 - 66.35<br>8.50 - 57.50                               | 8.5<br>12                 | 382                              | ± 0.1                         | 450 - 1710<br>450 - 1863               | 4370 x 2145 x 2350      |                                 | 73                             | 9100  |
| HSD 782 SFC  | 7.5<br>10<br>13  | 11.90 - 77.80<br>10.00 - 65.50<br>8.00 - 55.78              | 8.5<br>12<br>15           | 410                              | ± 0.1                         | 450 - 1690<br>450 - 1723<br>450 - 1860 | 4370 x 2145 x 2350      | DN 150                          | 74                             | 9600  |
| HSD 842 SFC  | 7.5<br>10<br>13  | 11.90 - 87.30<br>10.00 - 74.44<br>8.00 - 63.44              | 8<br>12<br>15             | 515                              | ± 0.1                         | 450 - 1813<br>450 - 1895<br>450 - 2045 | 4370 x 2145 x 2350      |                                 | 75                             | 1010  |

Performance data as per ISO 1217: 2009, Annexe E
Sound pressure level as per ISO 2151 and basic standard ISO 9614-2, operation at maximum working pressure; tolerance: ± 3 dB (A)

# **AIRCENTER SFC - DSD T SFC series**

#### Modular rotary screw compressors with SIGMA FREQUENCY CONTROL and refrigeration dryer - up to 132 kW

| Model            | Working<br>pressure | Flow rate <sup>-)</sup> Complete system at working pressure | Max.<br>gauge<br>pressure | Drive motor rated power | Speed<br>range<br>min max.                | Refrigeration<br>dryer<br>model | Dimensions<br>W x D x H | Compressed<br>air<br>connection | Sound<br>pressure<br>level ") | Weight |
|------------------|---------------------|---|---------------------------|-------------------------|---|---------------------------------|-------------------------|---------------------------------|-------------------------------|--------|
|                  | bar                 | m³/min  | bar                       | kW                      | rpm                                       |                                 | mm                      |                                 | dB(A)                         | kg     |
| AIRCENTER 13 SFC | 7.5<br>10<br>13     | 0.39 - 1.40<br>0.40 - 1.19<br>0.42 - 0.95                   | 8<br>11<br>15             | 7.5                     | 1200 - 3766<br>1500 - 3884<br>2000 - 4025 | ABT 15                          | 630 x 1220 x 1720       | G ¾                             | 67                            | 450    |
| AIRCENTER 22 SFC | 7.5<br>10<br>13     | 0.62 - 1.99<br>0.63 - 1.68<br>0.57 - 1.38                   | 8<br>11<br>15             | 11                      | 1200 - 3510<br>1500 - 3552<br>1800 - 3660 | ABT 25                          | 750 x 1370 x 1880       | G 1                             | 67                            | 596    |
| AIRCENTER 25 SFC | 7.5<br>10<br>13     | 0.81 - 2.57<br>0.84 - 2.27<br>0.83 - 1.91                   | 8<br>11<br>15             | 15                      | 1200 - 3660<br>1500 - 3696<br>1800 - 3872 | ABT 25                          | 750 x 1370 x 1880       | G 1                             | 68                            | 604    |
| SM 13 T SFC      | 7.5<br>10<br>13     | 0.39 - 1.40<br>0.40 - 1.19<br>0.42 - 0.95                   | 8<br>11<br>15             | 7.5                     | 1200 - 3766<br>1500 - 3884<br>2000 - 4025 | ABT 15                          | 630 x 1090 x 1100       | G ¾                             | 67                            | 325    |
| SK 22 T SFC      | 7.5<br>10<br>13     | 0.62 - 1.99<br>0.63 - 1.68<br>0.57 - 1.38                   | 8<br>11<br>15             | 11                      | 1200 - 3510<br>1500 - 3652<br>1800 - 3660 | ABT 25                          | 750 x 1240 x 1260       | G 1                             | 67                            | 404    |
| SK 25 T SFC      | 7.5<br>10<br>13     | 0.81 - 2.57<br>0.84 - 2.27<br>0.83 - 1.91                   | 8<br>11<br>15             | 15                      | 1200 - 3660<br>1500 - 3696<br>1800 - 3872 | ABT 25                          | 750 x 1240 x 1260       | G 1                             | 68                            | 412    |
| ASK 34 T SFC     | 7.5<br>10<br>13     | 0.94 - 3.60<br>0.80 - 3.14<br>0.88 - 2.70                   | 8<br>11<br>15             | 18.5                    | 1060 - 3691<br>1075 - 3752<br>1420 - 3865 | ABT 40                          | 800 x 1460 x 1530       | G 1 ¼                           | 68                            | 625    |
| ASK 40 T SFC     | 7.5<br>10<br>13     | 0.94 - 4.19<br>0.80 - 3.71<br>0.88 - 3.18                   | 8<br>11<br>15             | 22                      | 800 - 3672<br>900 - 3741<br>1200 - 3870   | ABT 40                          | 800 x 1460 x 1530       | G 11/4                          | 70                            | 645    |
| ASD 35 T SFC     | 7.5                 | 0.88 - 4.00   | 8.5                       | 18.5                    | 767 - 3033                                | ABT 60                          | 1540 x 900 x 1530       | G 1 ¼                           | 67                            | 795    |
| ASD 40 T SFC     | 7.5                 | 1.05 - 4.64   | 8.5                       | 22                      | 900 - 3563                                | ABT 60                          | 1850 x 900 x 1530       | G 1 ¼                           | 68                            | 850    |
| ASD 50 T SFC     | 7.5<br>10<br>13     | 1.07 - 5.27<br>1.00 - 4.58<br>0.93 - 3.82                   | 8.5<br>13<br>13           | 25                      | 750 - 3433<br>900 - 3550<br>900 - 3100    | ABT 60                          | 1850 x 900 x 1530       | 0.11/                           | 68                            | 830    |
| ASD 60 T SFC     | 7.5<br>10<br>13     | 1.26 - 6.17<br>1.00 - 4.76<br>0.93 - 4.14                   | 8.5<br>15<br>15           | 30                      | 750 - 3330<br>900 - 3750<br>900 - 3366    | ABT 60                          | 1850 x 900 x 1530       | G 1 ¼                           | 70                            | 890    |
| BSD 75 T SFC     | 7.5<br>10<br>13     | 1.54 - 7.40<br>1.51 - 6.51<br>1.16 - 5.54                   | 10<br>10<br>15            | 37                      | 900 - 3933<br>900 - 3500<br>900 - 3719    | ABT 83                          | 2080 x 1005 x 1700      | G 1 1/2                         | 72                            | 1200   |
| CSD 90 T SFC     | 7.5<br>10           | 1.94 - 8.66<br>1.79 - 7.50                                  | 8.5<br>12                 | 45                      | 900 - 3522<br>1000 - 3600                 | ABT 132                         | 2260 x 1100 x 1900      |                                 | 71<br>68                      | 1570   |
| CSD 110 T SFC    | 7.5<br>10<br>13     | 2.29 - 10.48<br>1.90 - 9.14<br>1.58 - 7.79                  | 8.5<br>12<br>15           | 55                      | 900 - 3667<br>900 - 3730<br>900 - 3711    | ABT 132                         | 2260 x 1100 x 1900      | G 2                             | 70<br>69<br>70                | 1590   |
| CSD 130 T SFC    | 7.5<br>10<br>13     | 2.90 - 12.82<br>2.31 - 11.37<br>1.88 - 9.18                 | 8.5<br>12<br>15           | 75                      | 900 - 3610<br>900 - 3845<br>900 - 3750    | ABT 132                         | 2260 x 1100 x 1900      |                                 | 73<br>72<br>70                | 1620   |

| Model          | Working<br>pressure | Flow rate <sup>-7</sup> Complete system at working pressure | Max.<br>gauge<br>pressure | Drive motor rated power | Speed<br>range<br>min max.             | Refrigeration<br>dryer<br>model | Dimensions<br>W x D x H | Compressed<br>air<br>connection | Sound<br>pressure<br>level **) | Weight |
|----------------|---------------------|---|---------------------------|-------------------------|--|---------------------------------|-------------------------|---------------------------------|--------------------------------|--------|
|                | bar                 | m³/min  | bar                       | kW                      | rpm                                    |                                 | mm                      |                                 | dB(A)                          | kg     |
| CSDX 145 T SFC | 7.5                 | 3.55 - 14.53  | 8.5                       | 75                      | 1000 - 3387                            | ABT 200                         | 2520 x 1280 x 1950      | - G 2½                          | 72                             | 1980   |
| CSDX 175 T SFC | 7.5<br>10           | 3.83 - 17.11<br>3.45 - 14.33                                | 8.5<br>12                 | 90                      | 900 - 3497<br>1000 - 3500              | ABT 200                         | 2520 x 1280 x 1950      | G 2 ½                           | 73<br>72                       | 2150   |
|                |                     |   |                           |                         |  |                                 |                         |                                 |                                |        |
| DSD 145 T SFC  | 7.5                 | 3.67 - 15.73  | 8.5                       | 75                      | 450 - 1667                             | ABT 250                         | 2990 x 1730 x 2150      | - DN 65                         | 70                             | 3470   |
| DSD 175 T SFC  | 7.5<br>10           | 3.67 - 18.43<br>3.50 - 15.60                                | 10                        | 90                      | 450 - 1942<br>450 - 1700               | ABT 250                         | 2990 x 1730 x 2150      |                                 | 71                             | 3610   |
| DSD 205 T SFC  | 7.5<br>10<br>13     | 4.45 - 21.22<br>4.20 - 18.30<br>4.97 - 15.16                | 10<br>10<br>15            | 110                     | 450 - 1883<br>450 - 1645               | ABT 250                         | 2990 x 1730 x 2150      |                                 | 73                             | 3620   |
| DSD 240 T SFC  | 7.5<br>10<br>13     | 5.57 - 23.47<br>5.33 - 20.08<br>4.96 - 16.57                | 8.5<br>12<br>15           | 132                     | 450 - 1673<br>550 - 1800<br>650 - 1877 | ABT 250                         | 2990 x 1730 x 2150      |                                 | 75                             | 3950   |

#### Technical data for add-on refrigeration dryer

| Model   | Refrigeration dryer power consumption | Pressure<br>dew point | Refrigerant | Refrigerant<br>charge | Global warming potential | CO <sub>2</sub> equivalent | Hermetic refrigeration circuit |
|---------|---------------------------------------|-----------------------|-------------|-----------------------|--------------------------|----------------------------|--------------------------------|
|         | kW                                    | °C                    |             | kg                    | GWP                      | t                          |                                |
| ABT 4   | 0.18                                  | +3                    | R-513A      | 0.17                  | 631                      | 0.1                        | Yes                            |
| ABT 8   | 0.28                                  | +3                    | R-513A      | 0.24                  | 631                      | 0.2                        | Yes                            |
| ABT 15  | 0.37                                  | +3                    | R-513A      | 0.39                  | 631                      | 0.25                       | Yes                            |
| ABT 25  | 0.41                                  | +3                    | R-513A      | 0.62                  | 631                      | 0.4                        | Yes                            |
| ABT 40  | 0.60                                  | +3                    | R-513A      | 0.41                  | 631                      | 0.26                       | _                              |
| ABT 60  | 0.80                                  | +3                    | R-513A      | 0.75                  | 631                      | 0.47                       | -                              |
| ABT 83  | 0.90                                  | +3                    | R-513A      | 1.20                  | 631                      | 0.8                        | _                              |
| ABT 132 | 1.30                                  | +3                    | R-513A      | 1.04                  | 631                      | 0.66                       | _                              |
| ABT 200 | 1.60                                  | +3                    | R-513A      | 1.10                  | 631                      | 0.69                       | -                              |
| ABT 250 | 1.80                                  | +3                    | R-513A      | 1.71                  | 631                      | 1.08                       | -                              |

Performance data as per ISO 1217: 2009, Annexe E Sound pressure level as per ISO 2151 and basic standard ISO 9614-2, operation at maximum working pressure and maximum speed; tolerance: ± 3 dB (A)

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