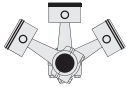


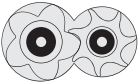
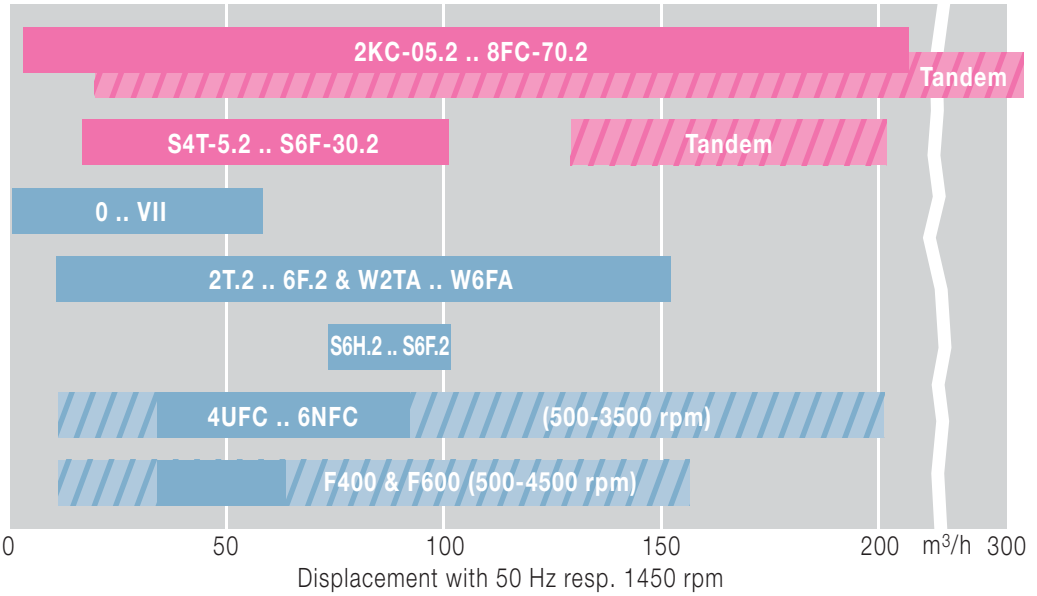




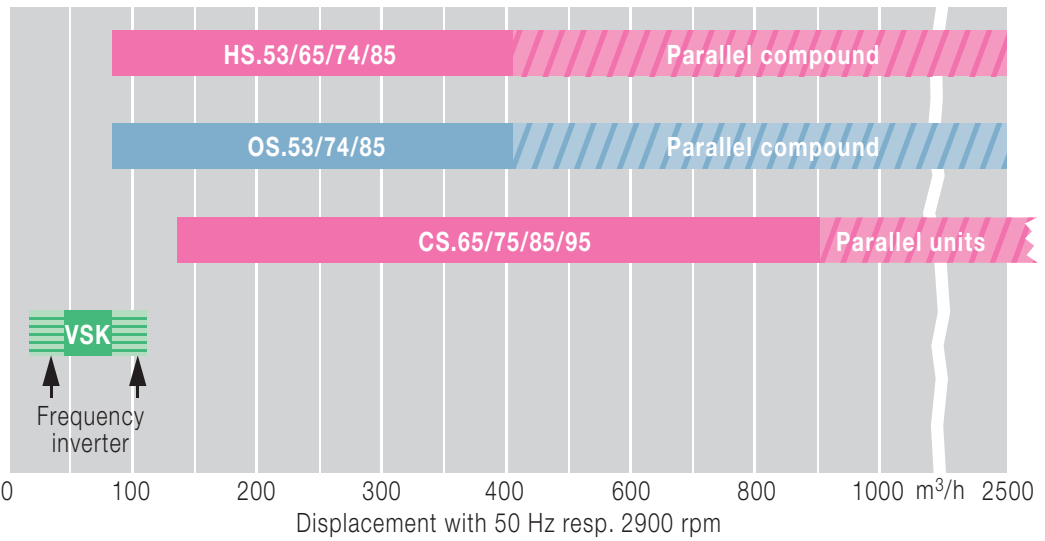
# APPLICATION RANGES



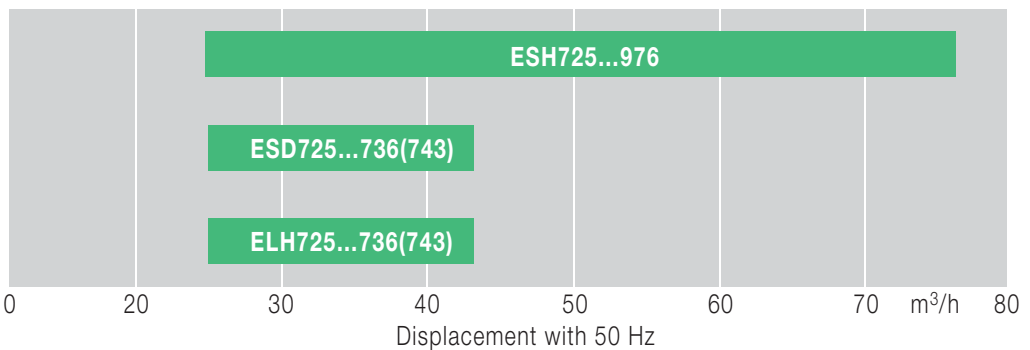
Semi-hermetic  
1-stage



Semi-hermetic  
Screws



Standard  
Vertical Scroll



## Semi-hermetic design

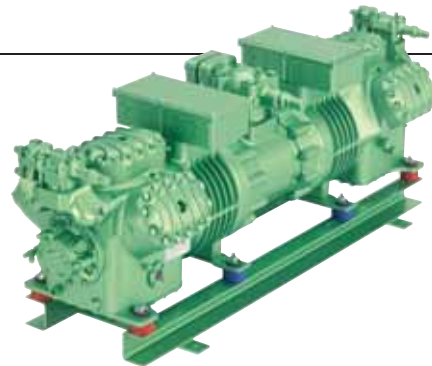
BITZER owes a considerable portion of its success to its well-known OCTAGON® series and ".2 Generation" reciprocating compressors. These compressors are particularly efficient, sturdy, reliable, low-vibration and silent and can thus be put to many uses in heat pump, air conditioning and refrigeration applications, extending from medium temperature to low temperature applications requiring small and medium capacities. In addition, the modern design meets the specific requirements for all modern refrigerants.



4.1 .. 221 m³/h
0.5 .. 70 HP

## Tandem compressors

The tandem concept is the simplest way of connecting OCTAGON® series respectively single or two-stage ".2 Generation" compressors in parallel. The compressors are mounted via the joint suction gas chamber at the motor sides. Efficient capacity control is achieved by switching one of the compressors or by blocking cylinders (possible with 4-cylinder compressors).



22.7 .. 303 m³/h
4 .. 100 HP

## 2-stage design

The 2-stage ".2 Generation" compressors have not only proven their worth for the extreme thermal loads of R22 low temperature applications, but are to this day demonstrating their versatility and reliability in climatic chambers, in vacuum drying and other applications. This technology efficiently and reliably covers application ranges with evaporation temperatures as low as -70°C.

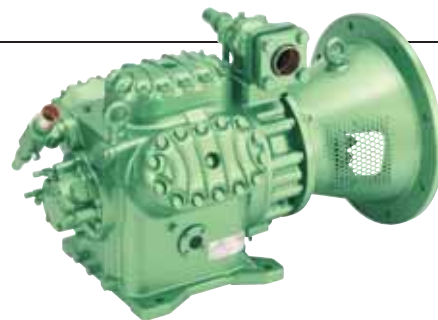


19.7 .. 101.1 m³/h
5.5 .. 30 HP

## Open drive design

The ".2 Generation" open drive compressors are frequently used to meet special requirements, for instance in marine applications, in explosion-proof design and/or systems with NH<sub>3</sub>. They are equipped with a particularly reliable shaft seal and can be operated either with directly flanged-on motor or by means of V-belts.

The low speed compressors 0..VII complete the open compressor series to smaller capacities.

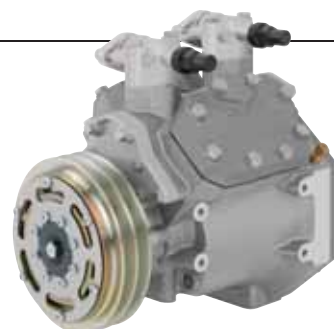


19.7 .. 151.6 m³/h
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## Compressors for transport applications

BITZER reciprocating compressors perform their tasks in a variety of transport applications. These silent aluminum lightweights in open drive design are employed in bus air conditioning ranging from small minibuses to double-decker buses or in transport refrigeration systems.

Frequency-controlled semi-hermetic aluminum compressors are out at sea cooling modern containers while OCTAGON® compressors used in the air conditioning of passenger trains, suburban trains and locomotive driver's cabs have already traveled millions of miles.



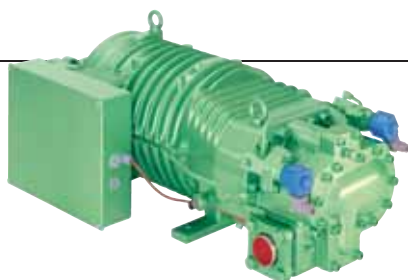
34.7 .. 84.4 m³/h
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# SCREW COMPRESSORS

## Semi-hermetic design (HSK/HSN)

84 .. 410 m<sup>3</sup>/h  
20 .. 140 HP



For more than 25 years, BITZER has been producing small and medium capacity semi-hermetic screw compressors. The high power density and the external oil separator concept make it possible to realize simple paralleling ranging from larger commercial applications to industrial plants. The result is a high degree of reliability and efficiency, even in the plant's partial load range.

## Semi-hermetic compact screws (CSH and CSW)

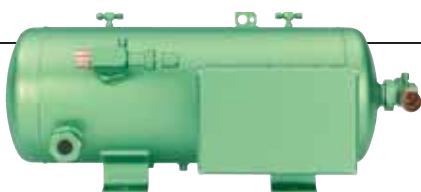
137 .. 910 m<sup>3</sup>/h  
35 .. 300 HP



Compact screws are equipped with integrated oil separator and four-step or continuously variable slide capacity control. Thanks to this feature, the compressor is easy to integrate in short circuits, such as water or brine chillers. The economizer is integrated in the slide control and can thus be operated effectively both during full and partial load.

## Hermetic design (VSK)

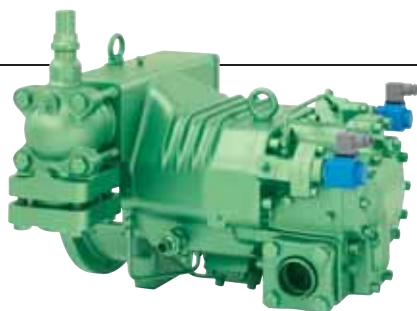
46 .. 80 m<sup>3</sup>/h  
15 .. 25 HP



The hermetic VSK compressors are tailored to the special requirements of railway air conditioning. As particular advantage, these compressors offer a low installation height they owe to their horizontal design and a large speed control range resulting from a frequency inverter drive.

## Open drive design (OSK/OSN)

84 .. 410 m<sup>3</sup>/h



The open drive screw compressors were developed for use with coupling and coupling housing to directly flange on electric motors. In combination with the particularly reliable shaft seal, assembling an open drive compressor is conceivably easy. A special version of the OS series is also available for use with NH<sub>3</sub> or in explosion proof zones.

## Accessories for screw compressors



BITZER offers an extensive range of accessories for use with screw compressors. For individual applications, a selection can be made from differently sized primary and secondary oil separators and water- or air-cooled oil coolers. The pressure vessels comply with current pressure vessel directives.

# SCROLL COMPRESSORS



## Hermetic design (ESH/ESD)

Predominantly in the field of air conditioning where smaller capacities are needed, scroll compressors complement the related rotative screw compressor technique. Their outstanding feature is the patented suction gas cooling which serves to achieve a thermal equilibrium between orbiting and fixed spiral.

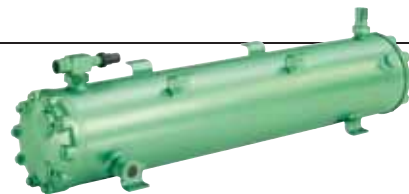


25 .. 76 m<sup>3</sup>/h  
7.5 .. 27 HP

# PRESSURE VESSELS

## Shell and tube condensers

High-performance finned tubes are at the heart of this condenser series. At very compact dimensions, they facilitate the efficient condensation of common H(C)FC refrigerants. The condensers are available both in standard design and as sea water version. What's more, condensers with second refrigerant outlet can also be used as desuperheaters.



8 .. 913 KW

## Liquid receivers

More than 18 volume stages offer a wide choice of receivers, each of them available in horizontal or vertical design, suitable for a great variety of applications. By covering all standard refrigerants, as well as R410A, NH<sub>3</sub>, CO<sub>2</sub>, and by providing versions with extra large connections, for instance, the BITZER range of receivers attracts by its great diversity.

Apart from approval according to current standards, comprehensive accessories such as visual and electronic minimum and maximum level control, continuous level control or mounting rails for compressor installation are available.





# CONDENSING AND COMPRESSOR UNITS



## Condensing units with reciprocating compressors

BITZER and BITZER subsidiaries manufacture air- and water-cooled condensing units in different designs for the particular needs of individual markets.

Equipment features are adapted to the requirements of individual regions. Versions with large condenser, two fans, receiver, oil separator, weatherproof housing or extensive control system are available.

In addition, some BITZER subsidiaries manufacture parallel compounding systems comprising reciprocating or screw compressors in line with local market requirements.

## QUALITY

### Consistent BITZER Quality Worldwide

Maximum reliability is called for in every application of refrigeration and air-conditioning. BITZER complies with ISO 9001/2000 for consistent quality in all steps of product life. In addition the factories in Rottenburg and Schkeuditz (both Germany) and Castelo Branco (Portugal) fulfill the environmental certifications according EN ISO 14001 and EMAS.

For all production facilities worldwide the quality standard "made by BITZER" is valid. That means the same production and quality control methods are incorporated world wide including helium leak test and running test of all produced compressors.

ASERCOM certification gives customer confidence in documented performance data of real market compressors.



## BITZER on-site

BITZER as a competent and experienced contact person is on-site in over 20 countries with own sales offices or production plants. Furthermore the BITZER distribution network contains over 170 agencies worldwide. The addresses of all BITZER contact persons are available on the Internet at: [www.BITZER.de/address](http://www.BITZER.de/address).

## Website

The BITZER website is more than just another internet site. The philosophy at BITZER is to share freely the information on its products and applications to support its costumers faster and better. The site provides direct access to the most used documents and information. The site also features links to regional home pages to keep customers close to important events.



## Product selection software

Fast, simple and accurate selection of BITZER products is possible with the BITZER software. It includes current and former models for both new selections and service requirements. Beside the performance data for individual operating conditions of all common refrigerants, performance tables, polynomial data according to ARI540 and EN12900 and technical data are available as well.



## eP@rts – Spare parts selection software

This interactive spare parts identification and selection tool is a milestone in the refrigeration business. Its easy clear interface and content are a tribute to BITZER's continued dedication to customer service tools.





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