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Compressor specialist BITZER is showcasing its product range at South America's most important trade fair for refrigeration and air conditioning technology, Febrava in São Paulo

## Full focus on energy efficiency

*São Paulo/Sindelfingen, 12.09.2017. Compressor specialist BITZER is showcasing its product range, including its most important innovations, at the 20th Febrava fair at São Paulo Expo Exhibition & Convention Center on stand F10 from 12 to 15 September 2017.*

Since the 1950s, the world's largest independent manufacturer of refrigeration compressors has been up and running in Brazil, and for more than 20 years in São Paulo. "We have matching solutions for all applications on every continent, especially with regard to energy efficiency. Next to the three main refrigeration compressor technologies reciprocating, screw and scroll, we offer condensing units, heat exchangers and pressure vessels. Our quality proves its worth all over the world – not only in the demanding moist and warm climate conditions in Brazil and all over South America," says Fernando Bueno, Managing Director of BITZER Brazil.

## ECOLINE+: progress through intelligence

BITZER ECOLINE+ 4- and 6-cylinder reciprocating compressors for transcritical CO<sub>2</sub> applications are equipped with Line Start Permanent Magnet Motors (LSPM), an enhanced motor technology which forges ahead into better efficiency ranges. It increases annual performance figures by more than 10 per cent. These motors can be directly connected to 50 or 60 Hz electrical supplies and, whether for full- or part-load, they offer a completely new level of efficiency. The new mechanical capacity control for transcritical CO<sub>2</sub> applications enables systems which are just as efficient for full- and part-loads as

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is otherwise only possible today when using frequency inverters. So that users can fully exploit the potential of this technology, BITZER has also developed a new operating concept with optional intelligent (IQ) modules ensuring that the new ECOLINE+ reciprocating compressors can be easily, quickly and cost-effectively integrated into a variety of system configurations.

## **Screw compressors: high performance**

In the area of screw compressor technology, BITZER is presenting the OSKA.95 compressor, which has been optimised in terms of ammonia for industrial and large commercial use. With a climate-neutral refrigerant, OSKA.95 models can be used down to  $-45^{\circ}\text{C}$  evaporating temperature without any need for a dedicated low-temperature version. They perform outstandingly in high-, medium- and low-temperature application thanks to their wide application envelope and automatic Vi adaptation. What can also be seen are the CSH screw compressors, which have been designed for use in liquid chillers as well as other air conditioning and heat pump applications. They stand out from the competition with the widest application range in their class, shortest installed length, additional cooling for extreme operating conditions as well as the optimised oil management system.

## **ORBIT: team-oriented and compact scroll compressors**

One of the key benefits of BITZER's ORBIT 6, 20 hp scroll compressors is that, with a height of 56 cm and a weight of 90 kg, it's much more compact and lightweight than comparable products. Because BITZER has also fully standardised manufacture and mounting, the new ORBIT 6 scroll compressors reduce complexity in the OEM's factory and can easily replace older compressors with minimal changes to the system. The ORBIT 8 scroll compressors were developed especially for air conditioning applications. They are easy to install, offer high energy efficiency when fully or partially loaded and have the lowest noise emissions in their capacity class. What is more, the energy consumption is extremely low, especially at low condensing temperatures. Both series have expanded operating diagrams for heating or telecommunication cooling applications. Additionally, all ORBIT series compressors can be applied with frequency inverters without the need for special models.

## **ECOSTAR condensing units: energy efficient and easy to use**

With the ECOSTAR LHV5E and LHV7E, BITZER has developed two air-cooled and particularly energy-efficient series of condensing units meeting the highest environmental requirements with regard to efficiency criteria. The products thus offer long-term planning and investment security for users. Low noise and reliable operation, ease of installation and use, as well as their low maintenance are distinguishing features of the LHV5E and LHV7E units. Both condensing unit series feature an

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improved mini-channel condenser, which means they need less refrigerant, while also being more efficient than their predecessors. ECOSTAR also features electronically commutated fans to save a significant amount of energy. Users can smoothly adjust the speed of the fans and the integrated ECOLINE VARISPEED compressor. This enables energy-optimised operation with a low number of switching cycles. The new condensing units also offer a reliably long lifespan and low maintenance demands. The enhanced unit controller with remote monitoring as standard provides comprehensive functions to ensure reliable and efficient operation at all times.

## **VARIPACK frequency inverters: using energy efficiently**

The VARIPACK frequency inverter series is designed for safe and easy speed control and has been specially modified for refrigeration and for the operation of BITZER reciprocating compressors. They adjust to ideally suit the system's current cooling requirements, reducing both energy consumption and running costs. The precise coordination of compressor and frequency inverter saves additional energy and thus increases compressor efficiency in full- and part-load. The external VARIPACK frequency inverters are suitable for refrigeration systems, air conditioning systems and heat pumps and can be integrated both in single compressors and in compound systems. They are also designed for modern motor concepts, including the permanent magnet motors of the ECOLINE+ reciprocating compressors.



The BITZER Group is the world's largest independent manufacturer of refrigeration compressors. BITZER is represented across the globe through distribution companies and production facilities for reciprocating, screw and scroll compressors, pressure vessels and heat exchangers. In 2016, 3,400 employees generated sales of €680 million.

## **Overview of images**

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# Press information

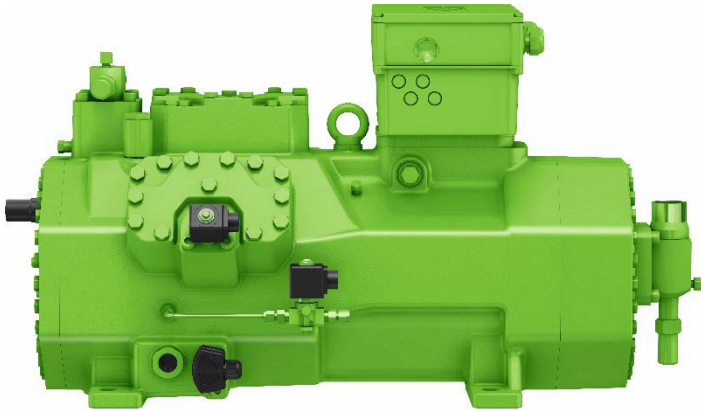


Image 1: The ECOLINE+ reciprocating compressors offer optimal efficiency both for full- and part-load

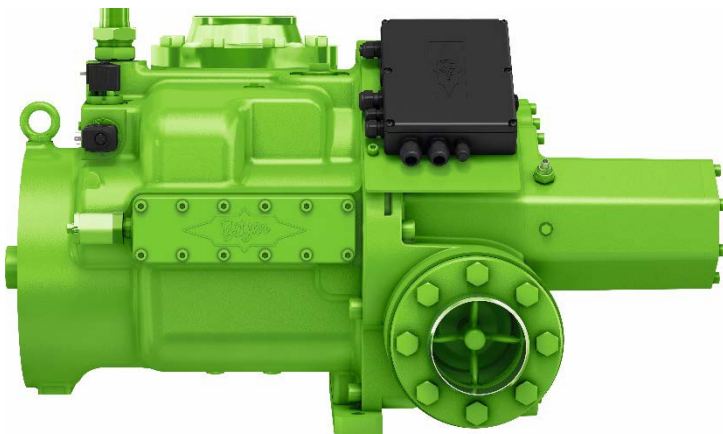


Image 2: BITZER will be introducing specialist visitors to the OSKA.95 screw compressor with a displacement of up to 1,015 m<sup>3</sup>/h at 50 Hz

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Image 3: Lightweight, space-saving and versatile: BITZER ORBIT 6



Image 4: The LHV5E and LHV7E condensing units (here: LHV5E) are particularly energy efficient and offer long-term planning security for users

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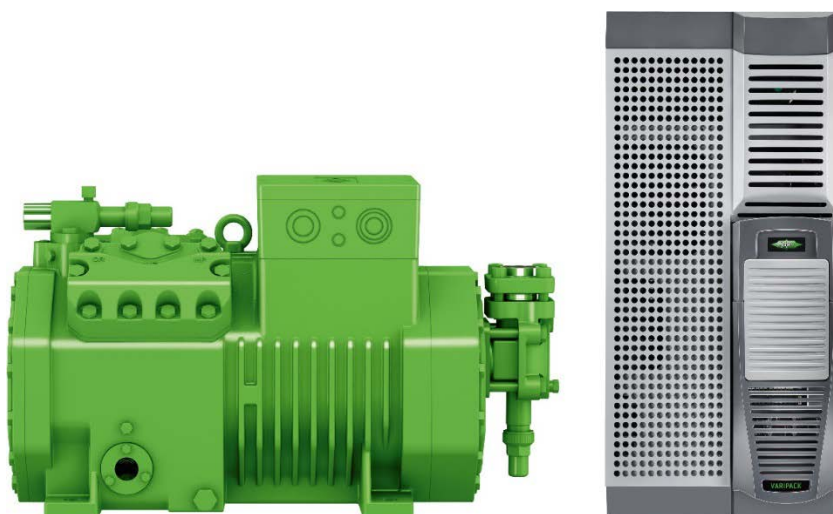


Image 5: The VARIPACK product series is designed for safe and easy capacity control and has been specially modified for refrigeration and for the operation of BITZER refrigeration compressors

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