The compressor specialist promotes environmentally compatible solutions at the world’s largest trade fair for buses and coaches

**BITZER compresses the bus sector**

- The mobile all-rounder: SPEEDLITE
- Compact and powerful: ROADSTAR
- Controlled power: ECOLINE with CRI

*Sindelfingen/Kortrijk, 20.10.2017. The next steps into a green future: From 20 to 25 October, BITZER, the world’s largest independent manufacturer of refrigeration compressors, is presenting its climate-friendly solutions for bus applications at Busworld 2017 at stand 110 in hall 1.*

Vehicle air conditioning systems should be ever more compact and lighter: BITZER has given this particular emphasis during the development process and has combined these requirements in all of its compressors. At its 160-square-metre stand, the company is presenting its environmentally compatible compressor technology for a wide variety of air conditioning and heat pump applications for buses, including for natural refrigerants and with a high level of energy efficiency.

At the moment, alternative drives is the subject most preoccupying the bus sector. Especially in the transit bus segment, a trend away from the classic internal combustion engine and towards electrically driven buses can be seen. With our SPEEDLITE compressors, we are in a good position to meet the challenges in the bus sector. Electrification plays a higher-level role for us in the latest new
developments for buses, where we combine the classic development of compressors with frequency inverters that are especially tuned for that particular application,’ emphasises Oliver Rathfelder, Director of Sales Transport at BITZER.

**Mobile cabin cooling and air conditioning applications**

BITZER SPEEDLITE compressors impress with their broad application limits and make significant contributions to increasing the efficiency of systems. Thanks to the EC motor technology and the integrated frequency inverters, it is possible to infinitely adjust the power between 2,500 and 8,000 rpm. ‘This ensures that the power will be ideally adjusted for all operating conditions,’ adds Rathfelder. The wide speed range also offers the option of a compact, lightweight design, resulting in new opportunities in the design of systems.

The smaller SPEEDLITE, ELV21, only weighs 10 kg, is available in voltage variants of 24 V DC and 400 V AC and opens up new applications in compact air conditioning systems. With its low height, the ELV21 is ideally suited for roof-mounted and frontal systems. Despite their compact design, the SPEEDLITE compressors are very powerful. The ELV21 is available in two displacement sizes, with cooling capacities from 1.3 to 3.5 kW (ELV2109) or from 0.9 to 5.5 kW (ELV2113). The powerful ELV51 SPEEDLITE compressor impresses with its broad application limits and makes significant contributions to the increased efficiency of systems. It only weighs 25 kg and offers a refrigerating capacity from 7.5 to 25 kW with a supply voltage from 750 V DC or 400 V AC.

**Unique in bus air conditioning**

ROADSTAR compressors have been successfully used for mobile air conditioning applications since 2011. The highly reliable aluminium compressors were specially developed for mobile use and are suitable for air conditioning and refrigeration applications in all conventionally driven types of bus as well as for refrigerated vehicles. The ROADSTAR 4GFC(Y) boasts an extraordinary displacement of 744 cm³ and delivers power corresponding to that of a six-cylinder compressor. It is thus especially suited for use in articulated and double-decker buses as well as for applications in hot regions. Due to its improved bottom plate with better oil management, it needs less oil than comparable models, thus reducing its weight even further. In addition to that, it is also very reliable, even under extreme...
Press information

conditions, and it is powerful while at the same time very efficient as well as being very easy to service.

Optimised capacity control through CRII
At the stand, you will also find the semi-hermetic reciprocating compressor from the ECOLINE series with the CRII optimised capacity control. The drive gear was adapted here to guarantee certain emergency running characteristics under difficult operating conditions and meet the special requirements of mobile use. CRII replaces the previous BITZER CR system and is available as an optional accessory for the new generation of ECOLINE compressors. Its unbeatable benefit: the backwards-compatible system enables practically infinite capacity control. This enables system efficiency to be increased by up to 15 per cent, pressure fluctuations to be reduced and evaporation temperature to be raised. In the case of a change of load, the system only needs a short response time whereby the compressor capacity can be adapted to the actual cooling demand.

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
Images may only be used for editorial purposes. This usage is free of charge if ‘Photo: BITZER’ is given as the source and a complimentary copy is forwarded to us. Images may not be modified or altered, except to crop out the background surrounding the main subject.
Image 1: Perfect when on the move: SPEEDLITE compressors (here: ELV21) are space saving and quiet with low vibration levels

Image 2: The four-cylinder ROADSTAR 4GFC(Y) is just as powerful as a six-cylinder, but much more compact
Press information

Image 3: All previous models of BITZER ECOLINE reciprocating compressors can be retrofitted with CRII cylinder heads.