Smart and sustainable

**Unbeatable efficiency – BOGE’s new refrigerant dryer sets standards**

**Smallest CO2 footprint and lowest power consumption – BOGE is setting new standards with the development of the innovative DT refrigerant dryers. The frequency-controlled cooling compressor and the speed-controlled fan are merely two of the clever features ensuring ideal operation that is adapted to the actual requirement. Furthermore, the new models are particularly environmentally friendly.**

This energy balance is unique – with the expansion of its DT refrigerant dryer series, the compressed air specialist from Bielefeld eclipses similar products. The established refrigerant dryers DT 4 to DT 140 that guarantee a constant dew point of 3 °C at a free air delivery of 0.4 to 14 m³/min, are now complemented with new models that provide a free air delivery of 18 to 75 m³/min. They are available as fixed speed or frequency-controlled models and with water cooling as an option. A key component of the new generation is the hermetically enclosed cooling scroll compressor which, from a flow rate of 18 m³/min, is also available as a frequency-controlled version (DT 180 F).

**Economical and exceptionally adaptable**

The DT series cooling scroll compressor allows operation low in vibrations and noise. With the frequency-controlled version, BOGE is now making a strong statement with regard to energy efficiency. This dryer flexibly adjusts energy consumption to the thermal load as well as flow quantity of the refrigerant and requires low start-up currents, thus reducing power consumption, especially in partial load. Requirement-dependent adjustment leads to minimisation of energy costs, which has a positive effect on Total Cost of Ownership. Frequency control ensures that, even when there is little demand, the drying capacity remains ideal and the pressure dew point is stable. Five operating modes allow individual configuration. “By selecting the relevant operating mode, the operator can prioritise maximum energy savings or the ideal pressure dew point“, explains Gunnar Heise, Product Manager at BOGE. “In the 5th operating mode, the refrigerant dryer automatically switches between the individual modes to guarantee the perfect results.” Another savings effect: If the flow rate falls below 20%, the control can turn off the cooling compressor altogether. The condensate in the heat exchanger then cools the compressed air until the dew point exceeds the target value. Only once this happens does the cooling compressor come back on. The frequency-controlled fan also reduces energy consumption. Frequency control results in precise monitoring of the cooling capacity, leading to ideal temperature management and drying efficiency.

**A clear overview and small CO2 footprint**

The refrigerant dryer features a large display which shows all values clearly – from the utilisation of the frequency-controlled compressor, electronic expansion valve and speed-controlled fan to individual parameters such as temperature, evaporation and condensing pressure. Consistent collection of data is the foundation of process optimisation and it supports trouble-shooting. Maintenance cycles can also be planned more effectively. Using numerous interfaces, the DT refrigerant dryers offer ideal connectivity and can therefore be integrated perfectly into existing infrastructure.

As standard, the DT series uses the environmentally friendly and future-proof R 513 A refrigerant that boasts low global warming potential. The cooling circuit is hermetically sealed, rendering annual leakage tests by certified refrigeration engineers unnecessary. In this way, BOGE easily complies with the F-Gas Regulation EU 517/2014, improves the CO2 footprint and thus makes an important contribution to sustainability.

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### **Captions:**

Image 1: With the expansion of its DT refrigerant dryer series, BOGE has launched particularly efficient and environmentally friendly models that are characterised by exceptionally low power consumption.

**Über BOGE**

Mit der Erfahrung von mehr als 115 Jahren gehört die BOGE KOMPRESSOREN Otto Boge GmbH & Co. KG zu den ältesten Herstellern von Kompressoren und Druckluftsystemen in Deutschland. Das Unternehmen ist einer der Marktführer. Ob Schraubenkompressoren, Kolbenkompressoren, Scrollkompressoren oder Turbokompressoren, komplette Anlagen oder einzelne Maschinen – BOGE erfüllt unterschiedlichste Anforderungen und höchste Ansprüche. Präzise und qualitätsbewusst. Das international tätige Familienunternehmen beschäftigt rund 800 Mitarbeiter und wird von Dr. Sebastian Göbel geführt. Seinen internationalen Kunden bietet BOGE mit zahlreichen Verkaufsbüros und Tochtergesellschaften einen umfassenden Service. Das Unternehmen liefert seine Produkte und Systeme in weltweit mehr als 120 Länder.

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