

PROJECT REPORT

**CUSTOMER**

Design Factory GmbH, Germany

PROJECT

Dry and oil-free compressed air for treating stainless steel

BOGE PRODUCTS IN ACTION

4 screw compressors (1 x S 61-2, 2 x S 125, 1 x S 125-2 with DUOTHERM), 1 DAV 300S adsorption dryer, 1 DCZ 341 activated carbon adsorber, microfilter, 1 airtelligence PROVIS master control



COMPRESSED AIR SUPPLY POLISHES TO A SHINE! Design Factory GmbH opts for BOGE systems for its plant optimisation

Design Factory GmbH (CMB) is an expert in producing exceptional surface designs on stainless steel and non-ferrous metals and supplies products to renowned customers throughout Europe. For its creative finishing processes, Design Factory GmbH requires large quantities of high-quality compressed air.

Before the plant was optimised using BOGE systems, oil and moisture continually found their way into the compressed air and then, via the blasting material, onto the surface of the product, causing immediate damage. Many expensive reworking procedures were then necessary. The security of supply of the existing system (with no redundancy) and the overall energy efficiency also left much to be desired.

BOGE designed the plant anew – ensuring right from the start that the compressed air has a residual oil content of just 0.01 mg/m³ and a pressure dew point of at least -25°C. This solution makes sure that neither oil nor moisture comes into contact with the product. Two compressors made by another manufacturer were replaced with two BOGE screw

compressors, types S 61-2 and S 125-2, to provide the required quantity of compressed air at 8 bar and a peak volume of approximately 60 m³.

A DAV 300S adsorption dryer was installed to ensure maximum drying. The compressed air is kept free of oil by the DCZ 341 activated carbon adsorber and the microfilter.

An airtelligence PROVIS master control selects the most energy efficient compressor combination for each specific demand, while carrying out as few switching procedures as possible in order to minimise idle time. Since the two screw compressors are equipped with the integrated BOGE DUOTHERM heat recovery system, a large proportion of the energy used in generating the compressed air is converted to heat and used to heat the production hall.

The result: Clean, reliable and highly efficient compressed air production that allows not only the stainless steel sheets to shine, but also those responsible for the optimisation at Design Factory GmbH.

PROJECT INFORMATION

> THE CHALLENGE

Design Factory GmbH needs large quantities of extremely clean compressed air for polishing and blasting stainless steel. In the past, oil and moisture from the ambient air found their way into the compressed air again and again, resulting in material damage. The security of supply and the overall energy efficiency of the system also left much to be desired.

> THE BOGE SOLUTION

Two screw compressors, types S 61-2 and S 125-2, reliably supply the required quantity of compressed air. A DAV 300S adsorption dryer and a DCZ 341 activated carbon adsorber ensure maximum compressed air quality. An airtelligence PROVIS master control and the integrated DUOTHERM heat recovery system optimise the energy efficiency of the system.

> THE RESULT

A clean, reliable and efficient compressed air supply system with the BOGE brand name!

More information on Design Factory GmbH can be found at: www.designfactory-cmb.de