

Atlas Copco ensures compressors survive Siberian winter

20 June 2018, 10:11

Pieter Jan Jordaens

Atlas Copco, leading manufacturer of compressors and generators, with a branch office in Wilrijk, searched for and found a way of having mobile compressors operate at an ambient temperature of -50 °C. This was achieved through testing in the climatic chamber of the OWI-Lab (Offshore Wind Infrastructure Application Lab).

A Siberian company with a production site in the coldest region of Russia needed up to 43,000 m3/h of 100% oil-free air to be used for the preventive maintenance of its turbocompressors and approached Atlas Copco to achieve this. Since it involved an outdoor set-up in an environment where temperatures can regularly drop to -40 °C, a tailor-made solution was required that would be especially designed for and validated at extremely low temperatures.

Atlas Copco’s engineers met the challenge head-on. After all, technical modifications to the equipment were required for these temperatures. The modifications ranged from the use of alternative liquids, new doors and additional removable covers to a software update and tailor-made accessories and set-up.



©Sirris

Validation in climatic chamber

All these changes had to be validated. For this Atlas Copco used OWI-Lab's climatic chamber in the Port of Antwerp. The temperature in testing chamber was brought down to -50 °C until stable temperatures were reached. A cold-start test was performed for which two compressors were set up next to each other. The first compressor was used for validation with regard to low temperatures and the second one was tested for product development. The test was considered a success when the standard supply of compressed air was achieved.

Interested in testing your gear for specific weather conditions? Get in touch!

Authors



Pieter Jan Jordaens