TÜV Rheinland Energy GmbH
Gefahrstoffe, Mikrobiologie und Hygiene

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23 February 2021

Type test certificate (Update)

Dear Sirs,

We have measured the total oil content (aerosols, liquids and vapours) in the outlet air stream of an Atlas Copco Z series oil-free rotary screw compressor. The measurements were done in accordance with the following guidelines and standards:

ISO 8573-1 : 2010 Part 1 : Contaminants and purity classes

ISO 8573-2 : 2018 Part 2: Oil aerosol content method B1 (full flow method)

ISO 8573-5 : 2001 Part 5: Test methods for oil vapour and organic solvent content

This being a type test, covering the entire range of aircooled and watercooled oil-free screw compressors, between 55kW and 900kW, a model was randomly selected for the tests. The tests were carried out at the outlet of the air compressor without any cooling or oil removal devices in between the compressor and the measurement point. Different pressures and temperatures were maintained at the measurement point to check if there was any variation in the measurements. The conditions of the test were:

Temperatures at the measurement point : 20°C, 40 °C and 50 °C

Pressures at the measurement point : 1 bar(a) and 8 bar(a)

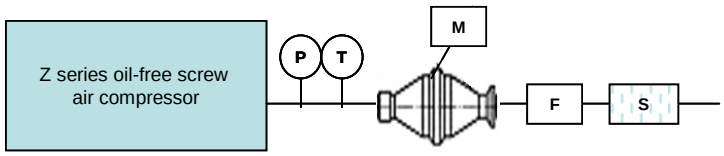
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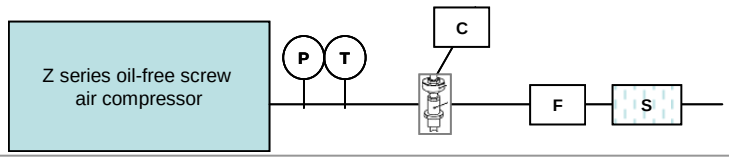
Geschäftsführung
Dirk Fenske

Amtsgericht Köln HRB 56171

Principle diagram for full flow measurement of Aerosols and liquids as per ISO 8573 Part 2, method B1



Principle diagram for measurement of oil vapour and organic solvent content as per ISO 8573 Part 5



Legend :

P : Pressure indicator

T : Temperature indicator

M : Measurement point with membrane

F : Flow meter

S : Silencer

C : Measurement point for oil vapour

It is to certify that at all the test conditions, no traces of oil (including all hydrocarbons C6 and above) could be determined in the compressed air stream. Based on this test, we can certify the results to be valid for the oil-free screw compressor range ZR/ZT 55-900 VSD.

It is to certify further that the quality of air from the above compressors qualifies to be in the category ‘Class 0’ in terms of total oil content, as defined in the standard ISO 8573-1 : 2010 Part 1.

TÜV Rheinland Energy GmbH

i.A. i.V.

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