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Test certificate
Validation according ISO 8573-1: 2010 Part 1:
Contaminants and purity classes

Dear Sirs,

We have measured the aerosol oil content in the outlet air stream of an Atlas Copco oil-free screw vacuum pump. 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 : 2007 Part 2: Test methods for aerosol oil content method B1 (full flow method)

For the tests an oil-free screw vacuum pump type: DHS 100 VSD+ was selected. The tests were carried out at the outlet of the oil-free screw vacuum pump without any oil removal devices in between the screw vacuum pump and the measurement point. The conditions of the test were:

Temperature at the measurement point (Membrane):	approx. 45 °C
Pressure at the measurement point (Membrane):	approx. 220 mbar (e)
Pressure at the inlet (vacuum side) of the oil-free screw vacuum pump:	1000 mbar (a)
Screw vacuum pump flow at the outlet:	approx. 39.5 m ³ /h

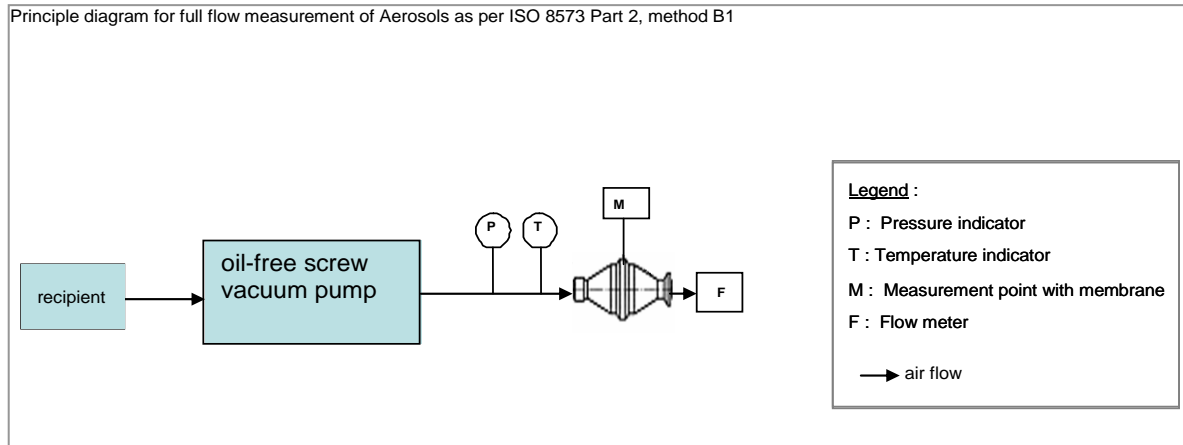
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Geschäftsführung
Dirk Fenske

Amtsgericht Köln HRB 56171

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



It is to certify that at the test conditions, no aerosol oil ($c < 0.01 \text{ mg/m}^3$) deriving from the screw vacuum pump (including all hydrocarbons C6 and above) could be determined in the outlet air stream. On the basis of this test, we can certify the results to be valid for the above mentioned oil-free screw vacuum pumps range DHS 65 VSD+ - DHS 300 VSD+.

It is to certify that the quality of air from the above oil-free screw vacuum pumps qualifies to be in the category 'Class 0' in terms of aerosol oil content, as defined in the standard ISO 8573-1 : 2010 Part 1

A detailed report with all conditions of the tests and results is available.

Best Regards



i. V.

Dr. rer. nat. Walter Dormagen



i. A.

Dr. rer. nat. Norbert Horlemann