## TÜVRheinland® Genau. Richtig.

## Industrie Service Energie und Umwelt

TÜV Rheinland Energy GmbH 51101 Köln

Atlas Copco Airpower n.v. Atlas Copco Industrial Vacuum Division Boomssteenweg 957 2610 Wilrijk Belgium 931 / 21244640 / 01 claw

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19 October 2018

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 claw 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 claw vacuum pump type: DZS 150 V was selected. The tests were carried out at the outlet of the oil-free claw vacuum pump without any oil removal devices in between the claw pump and the measurement point. The conditions of the test were:

Temperature at the measurement point

(Membrane): approx. 63 °C

Pressure at the measurement point

(Membrane): approx. 160 mbar (e)

Pressure at the inlet (vacuum side)

of oil-free claw vacuum pump: 900 mbar (a)

Claw vacuum pump flow at the outlet: approx. 27.5 m<sup>3</sup>/h

TÜV Rheinland Energy GmbH

Am Grauen Stein

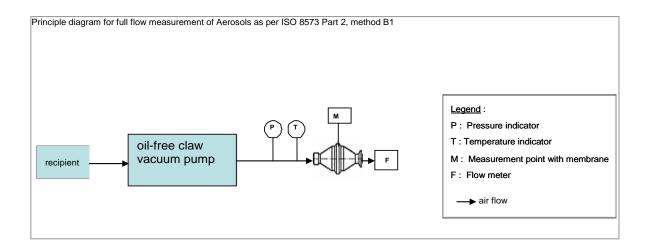
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Geschäftsführung Dirk Fenske

Amtsgericht Köln HRB 56171





It is to certify that at the test conditions, no aerosol oil (c <0.01 mg/m³) deriving from the claw 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 claw vacuum pumps range DZS 065 V - DZS 300 V and oil-free multi claw vacuum pumps range DZM 600 VSD - DZM 1200 VSD.

It is to certify that the quality of air from the above oil-free claw 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. i. A.

Dr. rer. nat. Walter Dormagen Dr. rer. nat. Norbert Horlemann