



Fraunhofer

**TESTED[®]
DEVICE**

Atlas Copco Tools
IRTT-B 75A-10

Report No. AT 1510-786

DUPLICATE

Statement of
Qualification

Particle Emission

Statement of Qualification

Customer Atlas Copco Tools Central Europe GmbH
Langemarckstrasse 35
45141 Essen
Germany

Component tested

Category: Working Place and Operator

Subcategory: Work Equipment

Product name: In-line rotary transducer IRTT-B 75A-10
(manufacturing date: 11/2014; color: black; serial number: 43260974)

Random sampling of particle emissions (airborne) at representative sites

Standards/Guidelines: VDI 2083-9.1; ISO 14644-1
The norms stated refer to the relevant editions applicable at the time of the tests.

Test devices: Optical particle counter:
LasAir II and LasAir III 110 with measuring ranges $\geq 0.1 \mu\text{m}$, $\geq 0.2 \mu\text{m}$, $\geq 0.3 \mu\text{m}$, $\geq 0.5 \mu\text{m}$, $\geq 1.0 \mu\text{m}$ and $\geq 5.0 \mu\text{m}$

Test environment parameters:

- Cleanroom Air Cleanliness Class (according to ISO 14644-1):..... ISO 1
- Airflow velocity:.....0.45 m/s
- Airflow pattern:..... vertical laminar flow
- Temperature:22 °C \pm 0.5 °C
- Relative humidity: 45 % \pm 5 %

Test procedure parameters:

- Installation position: horizontal
- Cycle
 - 1. Loosen test screw:..... angle $\alpha = 1000^\circ$
 - 2. Tighten test screw:..... torque M = 40 Nm
 - 3. Pause: duration t = 15 s
- Cycles per minute:..... 4

Test result / Classification

When operated under the specified test conditions, the in-line rotary transducer IRTT-B 75A-10 is suitable for use in cleanrooms fulfilling the specifications of the following Air Cleanliness Class according to ISO 14644-1:

Test parameter(s)	Air Cleanliness Class
Tighten test screw: torque M = 40 Nm	7
Overall result	7

The measuring devices used for the qualification tests are calibrated at regular intervals; their results can be traced back to national and international standards. In cases where no national standards exist, the test procedure implemented complies with the technical regulations and norms applicable at the time of the test. The relevant documentation can be viewed on request at any time.

For further information about the test environment and parameters, please refer to the Fraunhofer IPA test report.

Fraunhofer Institute for Manufacturing Engineering and Automation IPA

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Place, date of first document issued

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Place, current date

on behalf of 
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