



**Fraunhofer**

**TESTED<sup>®</sup>  
DEVICE**

Atlas Copco Tools  
ETP STB34-06-I06-BD-W  
**Report No. AT 1509-785**

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: Cordless pistol grip nutrunner Tensor ETP STB34-06-I06-BD-W  
(manufacturing date: 5/2015; color: black; serial number: A7541764)

## Test result / Classification

When operated under the specified test conditions, the cordless pistol grip nutrunner Tensor ETP STB34-06-I06-BD-W is suitable for use in cleanrooms fulfilling the specifications of the following Air Cleanliness Class according to ISO 14644-1:

Testparameter	Air Cleanliness Class
Cycle on time = 5 s Cycle off time = 5 s Cycles per minute = 6 Load = none	8
<b>Overall result</b>	<b>8</b>

## 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 ± 0.5 °C
- Relative humidity: ..... 45 % ± 5 %

Test procedure parameters:

- Cycle time, in motion: ..... t = 5 s
- Cycle time, motionless:..... t = 5 s
- Cycles per minute:..... 6
- Load:.....none

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   
Frank Bürger, Project Manager Fraunhofer IPA