valid until: August 25, 2028

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TESTED®
DEVICE

Atlas Copco IT AB
ETD MT41-100-HM4
Report No. AT 2307-1439

DUPLICATE

Statement of
Qualification

Single product
Particle Emission

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Statement of Qualification · Single product

Customer

Atlas Copco Industrial Technique AB
Sickla Industriväg 15
SE-105 23 Stockholm
Sweden

Component tested

Category: Working Place and Operator

Subcategory: Work Equipment

Product name: Transducerized Screwdriver ETD MT41-100-HM4
(manufacturing date: week 19/2023; color: black; serial number: B5531227)
in combination with:

- Control and drive unit MT Focus 6000
  (manufacturing date: week 35/2020; color: black; article number: ..... 8432 0851 00; serial number: C2690001)
- MT Power Supply
  (manufacturing date: week 41/2020; color: black; article number: ..... 8432 0840 02; serial number: B2750237; model number: EP11701R)

Random sampling of particle emissions (airborne) at representative sites

Standards/Guidelines: ISO 14644-1, -14
The norms stated generally refer to the version valid at the time of the tests.

Test devices: Optical particle counter:
LasAir II 110 and LasAir III 110 with measuring ranges ≥ 0.1 µm, ≥ 0.2 µm, ≥ 0.3 µm, ≥ 0.5 µm, ≥ 1.0 µm and ≥ 5.0 µm

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:

- Installation position: ..... horizontal
- Frequency: ..... f = 2000/min
- Cycle: ..... movement: 15 s; pause: 5 s

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Test result / Classification

When operated under the specified test conditions, the Transducerized Screwdriver ETD MT41-100-HM4 in combination with Control and drive unit MT Focus 6000 and MT Power Supply is suitable for use in cleanrooms fulfilling the specifications of the following Air Cleanliness Classes according to ISO 14644-1:

Test parameter(s)	Air Cleanlines Class
Screwdriver: Installation position = horizontal Frequency = 2000/min Cycle = movement: 15 s; pause: 5 s	9
Control and drive unit MT Focus 6000	1
MT Power Supply	1
Overall result	**9**

Please note: Transport damages, incorrect installation, oil leakage, aging behavior, etc. can influence the test result.

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.

Detailed information and parameters of the test environment can be found in the Fraunhofer IPA test report.

Fraunhofer Institute for Manufacturing Engineering and Automation IPA

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on behalf of
Dr.-Ing. Frank Bürger, Project Manager Fraunhofer IPA

This document only applies to the named product in its original state and is valid for a period of 5 years from the current date the document was issued. The document can be verified under **www.tested-device.com**.