

Fraunhofer

TESTED® DEVICE

Atlas Copco Tools Nutrunner QST42-50CT **Report No. AT 1211-623**

Statement of Qualification





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Customer: Atlas Copco Tools Central Europe GmbH

Langemarckstraße 35 45141 Essen Germany

Component tested:

Category: Working Place and Operator

Subcategory: Work Equipment

Type: Electric fixtured nutrunner QST42-50CT

Random check measurements of particle emission (airborne) at representative points

Test procedure:

Measuring instruments:

Test parameters of the test environment:

Test parameters of the test execution:

According to VDI 2083 Part 9.1

Optical Particle Counter:

Model LasAir II 110 manufactured by PMS with measuring channels of $\geq 0.1 \, \mu m$, $\geq 0.2 \, \mu m$, $\geq 0.3 \, \mu m$, $\geq 0.5 \, \mu m$, $\geq 1.0 \, \mu m$ and $\geq 5.0 \, \mu m$

• Cleanroom Air Cleanliness Class (according to ISO 14644-1): ISO 1	
Air flow velocity:	0.45 m/s
Air flow guidance:	vertical unidirectional air flow
Temperature:	22°C \pm 0.5°C (71.6°F \pm 0.9°F)
Relative humidity:	45 % ± 5 %

Position:	horizonta
Tool:	withou
Angle:	360° forwar
Cycle:	14 cycles/mi
	Position: Tool: Angle: Cycle:

• Power supply:..... Power MACS 4000 power supply Main Switch Box

...Power MACS 4000 controller TC4000-P-ES

Test results / Classification: (according to ISO 14644-1)

The electric fixtured nutrunner QST42-50CT is suitable for use in clean-rooms fulfilling Air Cleanliness Class 4.

The measuring equipment used for the qualification is regularly calibrated and is based on national and international standards. In the case where no national standards exist, the measuring procedure used corresponds with technical regulations and norms valid at the time of the measurement. The documents drawn up for this procedure are available for viewing.

The validity of this certificate applies only to the mentioned product in this particular condition for a duration of 5 years.

Further information: **www.tested-device.com**.

Fraunhofer Institute for Manufacturing Engineering and Automation IPA

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Nobelstrasse 12 70569 Stuttgart Germany Stuttgart, December 17, 2012

Place, Date

i. A. D. Bring

