

## Fraunhofer

## TESTED® DEVICE

Atlas Copco IT AB ETD M08 ABL V2 and MF400 Report No. AT 1401-686

Statement of Qualification





## **Statement of Qualification**

Customer: Atlas Copco Industrial Technique (IT) AB

Sickla Industriväg 19 105 23 Stockholm

Sweden

**Component tested:** 

Category: Working Place and Operation

Subcategory: Work Equipment

Type: Screwdriver ETD M08 ABL V2 with controller MF400

## 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 2083-9.1; ISO 14644-1

Each standard stated refers to the version valid at the time of testing.

Optical Particle Counter:

Model LasAir II 110 with measuring channels of  $\geq 0.1\,\mu\text{m}$ ,  $\geq 0.2\,\mu\text{m}$ ,  $\geq 0.3\,\mu\text{m}$ ,  $\geq 0.5\,\mu\text{m}$ ,  $\geq 1.0\,\mu\text{m}$  and  $\geq 5.0\,\mu\text{m}$ 

• 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.

Position:	horizontal
• Tool:	
Revolutions per minute:	400 rpm
• Motion interval:	t=4.5s
Stonnage interval	t-15c

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

The screwdriver ETD M08 ABL V2 with controller MF400 is suitable for use in cleanrooms fulfilling the following Air Cleanliness Class:

Parameter	Air Cleanliness Class
n = 400 rpm	ISO 3

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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

Department Ultraclean Technology and Micromanufacturing

Nobelstrasse 12 70569 Stuttgart Germany Stuttgart, February 12, 2014

Place, Date

i.A. D. Bring

