



# Fraunhofer

## TESTED<sup>®</sup> DEVICE

Atlas Copco IT AB  
ETD M27 ABL V2 and MF400  
**Report No. AT 1401-686**

DUPLICATE

Statement of  
Qualification

# Statement of Qualification

**Customer:** Atlas Copco Industrial Technique (IT) AB  
Sickla Industriväg 19  
105 23 Stockholm  
Sweden

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

The screwdriver ETD M27 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 5

## Component tested:

Category: Working Place and Operator  
Subcategory: Work Equipment  
Type: Screwdriver ETD M27 ABL V2 with controller MF400

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

Test procedure: According to VDI 2083-9.1; ISO 14644-1  
Each standard stated refers to the version valid at the time of testing.

Measuring instruments: 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  $\geq 5.0 \mu\text{m}$

Test parameters of the test environment:

- 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 %  $\pm$  5 %

Test parameters of the test execution:

- Position: .....horizontal
- Tool:..... without
- Revolutions per minute:.....400 rpm
- Motion interval:.....t=4.5 s
- Stoppage interval: .....t=4.5 s

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](http://www.tested-device.com).

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Stuttgart, February 12, 2014

Place, Date

*[Signature]*  
i.A. Project manager