



Fraunhofer

**TESTED[®]
DEVICE**

Gimatic S.p.A.
MRE16180

Report No. GI 1302-637

DUPLICATE

Statement of
Qualification

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Customer: Gimatic S.p.A.
Via Enzo Ferrari, 2/4
25030 Roncadelle (BS)
Italy

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

MRE16180 is suitable for use in cleanrooms fulfilling Air Cleanliness Class 6.

Component tested:

Category: Automation Components
Subcategory: Positioning Systems
Type: MRE16180

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

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

Measuring instruments: Optical Particle Counter:
Model LasAir II 110 manufactured by PMS 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:

- Cycles/minute:30
- Range of movement:0° to 180°

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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.

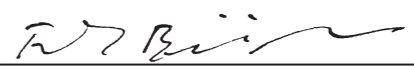
Fraunhofer Institute for
Manufacturing Engineering and Automation IPA

Department Ultraclean Technology
and Micromanufacturing

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Germany

Stuttgart, March 21, 2013

Place, Date


i.A. Project manager