IPA

Cleanroom (atmospheric)

valid until: October 24, 2030

Fraunhofer

TESTED®
DEVICE

Gimatic s.r.l.
Parallel gripper MPXM1612
Report No. GI 2510-1678

DUPLICATE

Statement of
Qualification

Single product
Particle Emission
in Cleanroom
(atmospheric)

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Statement of Qualification · Single product

Customer

Gimatic s.r.l.
Via Enzo Ferrari 2/4
25030 Roncadelle (BS)
Italy

Tested product

Category: Automation Components

Subcategory: Positioning Systems

Product name: Extra stroke parallel gripper MPXM1612
(manufacturing date: 7/21/2025; color: black; batch number: ODL-AE12563)

Random sampling of particle emissions (airborne) at representative sites in cleanroom under atmospheric conditions

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

Test equipment: 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
- Room temperature: 22 °C ± 0.5 °C
- Relative humidity: 45 % ± 5 %

Test procedure parameters:

- Control unit: supplied by customer
- Installation position: horizontal
- Cycle time: t = 2.0 s (1.0 s for opening; 1.0 s for closing)
- Working gripper time per cycle: 0.60 s
- Load: none

Test result / Classification

The extra stroke parallel gripper MPXM1612 is suitable for use under the specified test parameters (room temperature: 22 °C ± 0.5 °C; relative humidity: 45 % ± 5 %) in cleanrooms of the following Air Cleanliness Classes according to ISO 14644-1:

Test parameter(s)	Air Cleanlines Class
Installation position: horizontal Cycle time: 2.0 s (1.0 s for opening; 1.0 s for closing) Working gripper time per cycle: 0.60 s Load: none	6
Overall result	

Lubricant is clearly visible on the exterior. Therefore, use of the test piece in clean / hygienic areas is considered to be critical.

Please note: Transport damages, incorrect installation, oil leakage, aging behavior, corrosion 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

Business unit
Testing and Certification

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on behalf of
Dr.-Ing. Frank Bürger, head of business unit Testing and Certification

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**.