

## DUDATE





## Fraunhofer TESTED® DEVICE Gimatic S.r.I. Gripper MPPM1606-KIT-GMP Report No. GI 1410-728

Statement of Qualification

Particle Emission

## **Statement of Qualification**

| Customer:        | Gimatic S.r.I.<br>Via Enzo Ferrari, 2/4<br>25030 Roncadelle - Brescia<br>Italy                      | <b>Test result / Classification:</b><br>(in acc. with ISO 14644-1) | The<br>fulfi<br>Hov<br>inte<br>age<br>cou |
|------------------|---|--|---|
| Component tested |   |  | the                                       |
| Category:        | Automation Component  |  |   |
| Subcategory:     | Positioning System  |  |   |
| Product name:    | Parallel gripper MPPM1606-KIT-GMP<br>(Lot-No.: ODL-S02845; manufacturing date: 7/8/2014; color: bla | ack/clear)   |   |

## Random sampling of particle emissions (airborne) at representative sites

| Standards/Guidelines:        | VDI 2083-9.1; ISO 14644-1<br>The norms stated refer to the relevant editions applicable at the time of   |
|------------------------------|--|
|                              | the tests.   |
| Test devices:                | Optical particle counter:<br>LasAir II 110 and LasAir III 110 with measuring ranges $\ge 0.1 \mu\text{m}$ , $\ge 0.2 \mu\text{m}$ ,<br>$\ge 0.3 \mu\text{m}$ , $\ge 0.5 \mu\text{m}$ , $\ge 1.0 \mu\text{m}$ and $\ge 5.0 \mu\text{m}$ |
| Test environment parameters: | <ul> <li>Cleanroom Air Cleanliness Class (according to ISO 14644-1):</li></ul>   |
| Test procedure parameters:   | Control unit:supplied by customer     Cycle time:2 s     Cycles per minute:  |
|                              |  |
|                              |  |

**Fraunhofer** 

**IPA** 

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.

For further information about the test environment and parameters, please refer to the Fraunhofer IPA test report.

Fraunhofer Institute for Manufacturing Engineering and Automation IPA

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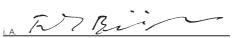
he parallel gripper MPPM1606-KIT-GMP is suitable for use in cleanrooms ulfilling the specifications of Air Cleanliness Class 4.

lowever, due to wear, it is to be noted that particles accumulate in the nterior of the tested MPPM1606-KIT-GMP system. With time, as the gripper ges and the silicon cover suffers from material fatigue, these particles ould be emitted in an uncontrolled manner (e.g. via cracks or gaps) into he production environment.

Stuttgart, May 22, 2015

Place, date of first document issued

Place, current date



Frank Bürger, Project Manager Fraunhofer IPA

This document only applies to the named product in an unchanged state and is valid from the date of issue for a period of 5 years. The document can be verified under www.tested-device.com