



# Fraunhofer

## TESTED<sup>®</sup> DEVICE

J. Schmalz GmbH  
FMC-SW-HD 400 9R13  
Report No. SC 1606-831

### Particle Emission

### Qualification Certificate

This is to certify that the product mentioned above, provided by

**J. Schmalz GmbH**  
Glatten, Germany

has been awarded a Fraunhofer certificate TESTED DEVICE bearing the report number SC 1606-831.

When operated under the specified test conditions, the large-area gripper system FMC-SW-HD 400 9R13 is suitable for use in cleanrooms fulfilling the specifications of the following Air Cleanliness Class according to ISO 14644-1:

Test parameter(s)	Air Cleanliness Class
operating pressure = 6 bar (ultra-pure compressed air) evacuation time = 12 s release time = 8 s cycles per minute = 3	4
<b>Overall result</b>	<b>4</b>

Detailed information and parameters of the test environment can be found in the Fraunhofer IPA test report.

Stuttgart, October 10, 2016

on behalf of   
Frank Bürger, Project manager Fraunhofer IPA

DUPLICATE

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)