IPA

valid until: December 1, 2028

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TESTED®
DEVICE

Asyril SA
Asycube 530
Report No. AS 2311-1470

DUPLICATE

Statement of
Qualification

Single product
Particle Emission

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Statement of Qualification · Single product

Customer

Asyril SA
Z.I. du Vivier 22
1690 Villaz-St-Pierre
Switzerland

Component tested

Category: Automation components

Subcategory: Transfer Systems and Bearing

Product name: Asycube 530
(manufacturing date: 6/27/2023; weight: 31 kg; serial number: A23240084)

Random sampling of particle emissions (airborne) at representative sites

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

Test devices: 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
- Temperature: ..... 22 °C ± 0.5 °C
- Relative humidity: ..... 45 % ± 5 %

Test procedure parameters:

- Frequency: ..... 26 Hz

Parameter Set 1:

- 1. Long-axis centering: ..... Amplitude = 60 %; Duration = 250 ms
- 2. Cross-axis centering: ..... Amplitude = 75 %; Duration = 250 ms
- 3. Flip: ..... Amplitude = 75 %; Duration = 300 ms
- 4. Wait: ..... 2000 ms

Parameter Set 2:

- 1. Long-axis centering: ..... Amplitude = 40 %; Duration = 250 ms
- 2. Cross-axis centering: ..... Amplitude = 50 %; Duration = 250 ms
- 3. Flip: ..... Amplitude = 50 %; Duration = 300 ms
- 4. Wait: ..... 2000 ms

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Test result / Classification

When operated under the specified test conditions, the feeding system Asycube 530 is suitable for use in cleanrooms fulfilling the specifications of the following Air Cleanliness Classes according to ISO 14644-1:

Test parameter(s)	Air Cleanlines Class
Amplitude = 75 %	6
Amplitude = 50 %	5
Overall result	**6**

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

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on behalf of
Dr.-Ing. Frank Bürger, Project Manager Fraunhofer IPA

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