Fraunhofer

TESTED®
DEVICE

Bosch Rexroth AG
Ball Catch 3842524986
Report No. BO 2112-1289

Statement of
Qualification

Single product
Particle Emission

Fraunhofer
IPA

Statement of Qualification · Single product

Customer

Bosch Rexroth AG
Löwentorstrasse 74
91136 Stuttgart
Germany

Component tested

Category: Working Place and Operator

Subcategory: Equipment Parts

Product name: BALL CATCH P20/30/45, 3842524986
(manufacturing date: 9/2021; color: black; article number: 3842524986)

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:

- Weight: ..... m = 20 kg
- Cycles: 1/min
- Cycle description:
  - Cylinder opens: ..... t_o = ~ 1 s
  - Pause: ..... t_p = 28 s
  - Cylinders closes: ..... t_c = 1 s
  - Pause: ..... t_p = 28 s
- Parameter Set 1:
  - Installation position: ..... horizontal
- Parameter Set 2:
  - Installation position: ..... vertical

Test result / Classification

When operated under the specified test conditions, the BALL CATCH P20/30/45, 3842524986 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
Cycles: 1/min Installation position: horizontal	7
Cycles: 1/min Installation position: vertical	7
Overall result	**7**

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

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BO 2112-1289 — Report No. first document
Stuttgart, April 13, 2022 — Place, date of first document issued

-- — Report No. current document
-- — Place, current date

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

This document only applies to the named product in its original state and is valid for a period of 5 years from the date the first document was issued. The document can be verified under **www.tested-device.com**.