



valid until: April 18, 2030

Fraunhofer

TESTED[®] DEVICE

Brooks CCS RS AG
Handling Unit X/Y/R
Report No. BR 2504-1613

Single product Particle Emission in Cleanroom (atmospheric)

Qualification Certificate

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

Brooks CCS RS AG
Tägerwil, Switzerland

has been awarded a Fraunhofer certificate TESTED DEVICE bearing the report number BR 2504-1613.

The EUV GUARDIAN LEAP HANDLING UNIT X/Y/R was assessed in compliance with ISO 14644-14. When operated under the specified test conditions (room temperature: 22 °C ± 0.5 °C; relative humidity: 45 % ± 5 %), it is suitable for use in cleanrooms fulfilling the specifications of the following Air Cleanliness Classes according to ISO 14644-1:

| Test parameter(s) | Air Cleanliness Class |
|---|-----------------------|
| X-Axis | 5 |
| Y-Axis | 4 |
| All-Axes $v_{x,1} = 1.0 \text{ m/s}$, $a_{x,1} = 1.0 \text{ m/s}^2$; $v_{y,1} = 0.5 \text{ m/s}$, $a_{y,1} = 1.0 \text{ m/s}^2$; $w_{r,1} = 180^\circ/\text{s}$, $w'_{r,1} = 180^\circ/\text{s}^2$ | 5 |
| All-Axes $v_{x,2} = 0.6 \text{ m/s}$, $a_{x,2} = 0.6 \text{ m/s}^2$; $v_{y,3} = 0.3 \text{ m/s}$, $a_{y,3} = 0.3 \text{ m/s}^2$; $w_{r,2} = 90^\circ/\text{s}$; $w'_{r,2} = 90^\circ/\text{s}^2$ | 5 |
| Overall result | 5 |

Please note: Transport damages, incorrect installation, oil leakage, aging behavior, corrosion etc. can influence the test result.

BR 2504-1613 Stuttgart, April 18, 2025
Report No. first document Place, date of first document issued

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Report No. current document Place, current date

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

DUPLICATE

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