



# Fraunhofer

## TESTED<sup>®</sup> DEVICE

Franke GmbH  
LTD-0320-Z

**Report No. FR 2410-1564**

### Single product Particle Emission in Cleanroom (atmospheric)

### Qualification Certificate

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

**Franke GmbH**  
Aalen, Germany

has been awarded a Fraunhofer certificate TESTED DEVICE bearing the report number FR 2410-1564.

The slewing ring with direct drive LTD-0320-Z was assessed in compliance with ISO 14644-14. When operated under the specified test conditions (room temperature:  $22^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$ ; relative humidity:  $45\% \pm 5\%$ ), it 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
Installation position: $45^{\circ}$ angle Travel distance: $-180^{\circ}$ to $+180^{\circ}$ Cycles per minute: $n = 2$ Payload: 50 kg	4
Overall result	

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

FR 2410-1564  
Report No. first document

Stuttgart, June 3, 2025  
Place, date of first document issued

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Report No. current document

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Place, current date

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

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](http://www.tested-device.com).

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



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IPA