



valid until: January 21, 2031

# Fraunhofer

## TESTED<sup>®</sup> DEVICE

Bosch Rexroth AG  
BSHP 25-SNS NRTVG FKM seal  
**Report No. BO 2511-1694**

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

### Qualification Certificate

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

**Bosch Rexroth AG**  
Schweinfurt, Germany

has been awarded a Fraunhofer certificate TESTED DEVICE bearing the report number BO 2511-1694.

The Standard Ball Rail System BSHP 25-SNS NRTVG (lubricated, FKM seal) was assessed in compliance with ISO 14644-14. When operated under the specified test conditions (room temperature:  $22\text{ °C} \pm 0.5\text{ °C}$ ; relative humidity:  $45\% \pm 5\%$ ), 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
$ED_1 = 20\%$ ; $v_1 = 0.1\text{ m/s}$ ; $t_1 = 25280\text{ ms}$	4
$ED_2 = 60\%$ ; $v_1 = 0.1\text{ m/s}$ ; $t_2 = 4213\text{ ms}$	2
$ED_2 = 60\%$ ; $v_2 = 0.4\text{ m/s}$ ; $t_3 = 1078\text{ ms}$	4
$ED_2 = 60\%$ ; $v_3 = 1.2\text{ m/s}$ ; $t_4 = 431\text{ ms}$	5
<b>Overall result</b>	<b>5</b>

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

BO 2511-1694  
Report No. first document

Stuttgart, January 21, 2026  
Place, date of first document issued

--  
Report No. current document

--  
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.