



valid until: March 25, 2031

Fraunhofer

TESTED[®] DEVICE

Norgren GmbH
RA/192032/M/75

Report No. NO 2511-1684

Single product Particle Emission in Dry-Cleanroom

Qualification Certificate

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

Norgren GmbH
Alpen, Germany

has been awarded a Fraunhofer certificate TESTED DEVICE bearing the report number NO 2511-1684.

The ISO compact double acting cylinder RA/192032/M/75 was assessed in compliance with ISO 14644-14 and VDI-EE 2083 Part 4.3. When operated under the specified test conditions (room temperature of $22\text{ °C} \pm 1\text{ °C}$; dew point: $-40\text{ °C} \pm 5\text{ °C}$), it is suitable for use in dry-cleanrooms fulfilling the specifications of the following Air Cleanliness Class according to ISO 14644-1:

Test parameter(s)	Air Cleanliness Class
Installation position: horizontal 1 s per single stroke (0.5 Hz) Test load: 0.4 kg	5
Overall result	

Lubricant is clearly visible on the exterior. Therefore, use of the test piece in clean/hygienic areas is considered to be critical.

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

NO 2511-1684 Stuttgart, March 25, 2026
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

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.

The norms stated generally refer to the version valid at the time of the tests.

DUPLICATE