

# DUPLICATE





# Fraunhofer TESTED® DEVICE RK Rose+Krieger GmbH RK DuoLine S60 Clean Report No. RK 1404-704

Statement of Qualification

Particle Emission

## **Statement of Qualification**

### **Customer:**

RK Rose+Krieger GmbH Potsdamer Strasse 9 32375 Minden Germany

Test result/Classification: (in acc. with ISO 14644-1)

# Para

### Subcategory:

**Component tested** 

Product name:

Category:

Automation Components

Linear Units

RK DuoLine S60 Clean (article number: TD16A5A1A13C01821; manufacturing date: CW 12/2014; stroke: 1500 mm)

### Random sampling of particle emissions (airborne) at representative sites

Standards/Guidelines:	VDI 2083-9.1; ISO 14644-1 The norms stated refer to the relevant editions applicable at the time of the tests.	
Test devices:	Optical particle counter: LasAir II 110 with measuring ranges $\ge 0.1 \mu$ m, $\ge 0.2 \mu$ m, $\ge 0.3 \mu$ m, $\ge 0.5 \mu$ m, $\ge 1.0 \mu$ m und $\ge 5.0 \mu$ m	
Test environment parameters:	<ul> <li>Cleanroom Air Cleanliness Class (according to ISO 14644-1): ISO 1</li> <li>Airflow velocity:</li></ul>	
Test procedure parameters:	• Extraction:	

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**IPA** 

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.

For further information about the test environment and parameters, please refer to the Fraunhofer IPA test report.

Fraunhofer Institute for Manufacturing Engineering and Automation IPA

Department of Ultraclean Technology and Micromanufacturing

Place, current date

Nobelstrasse 12 70569 Stuttgart Germany







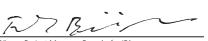


When operated without an extraction system, the linear unit RK DuoLine S60 Clean (TD16A5A1A13A01821) is suitable for use in cleanrooms fulfilling the following air cleanliness specifications according to ISO 14644-1:

meter	Air Cleanliness Class		
0.1 m / s; a = 4.0 m / s²	ISO 5		
0.25 m/s; a = 4.0 m/s²	ISO 6		
0.5 m/s; a = 4.0 m/s²	ISO 7		
rall result	ISO 7		

Stuttgart,	September	12,	2014
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Place, date of first document issued



ger, Project Manager Fraunhofer IPA

This document only applies to the named product in an unchanged state and is valid from the date of issue for a period of 5 years. The document can be verified under www.tested-device.com