



# Fraunhofer

## TESTED<sup>®</sup> DEVICE

USmatic GmbH & Co. KG  
Belt-Conveyor No. 229 550 00  
**Report No. US 1011-537**

DUPLICATE

Statement of  
Qualification

# Statement of Qualification

**Customer:** USmatic GmbH & Co. KG  
Motorstrasse 34b  
70499 Stuttgart  
Germany

**Test results:**  
(according to ISO 14644-1)

The Belt-Conveyor No. 229 550 00 is suitable for use in cleanrooms fulfilling the Air Cleanliness Class 4.

## Component tested:

Category: Automation components  
Subcategory: Transfer system  
Type: Belt-Conveyor No. 229 550 00

## Random check measurements of particle emission (airborne) at representative points

Test procedure: According to VDI 2083 Part 9.1

Measuring instruments being used:

- Model LPSA 210 manufactured by PMS with measuring channels of  $\geq 0.2 \mu\text{m}$ ,  $\geq 0.3 \mu\text{m}$ ,  $\geq 0.5 \mu\text{m}$  and  $\geq 5.0 \mu\text{m}$
- Model LasAir II 110 manufactured by PMS with measuring channels of  $\geq 0.1 \mu\text{m}$ ,  $\geq 0.2 \mu\text{m}$ ,  $\geq 0.3 \mu\text{m}$ ,  $\geq 0.5 \mu\text{m}$ ,  $\geq 1.0 \mu\text{m}$  and  $\geq 5.0 \mu\text{m}$

Test parameters of the test environment:

- Cleanroom of Air Cleanliness Class ISO Class 1 (according to ISO 14644-1)
- Air flow velocity: 0.45 m/s
- Air flow guidance: vertical unidirectional air flow from ceiling to floor
- Temperature:  $22 \text{ }^\circ\text{C} \pm 0.5 \text{ }^\circ\text{C}$  ( $71.6 \text{ }^\circ\text{F} \pm 0.9 \text{ }^\circ\text{F}$ )
- Relative humidity:  $45 \% \pm 5 \%$

Test parameters of the test execution:

- Belt-Conveyor: - USmatic No. 229 550 00  
- USmatic motor 400 125 00
- Conveying velocity: ca. 6 m/min

The measuring equipment used for the qualification is regularly calibrated and is based on national and international standards. In the case where no national standards exist, the measuring procedure used corresponds with technical regulations and norms valid at the time of the measurement. The documents drawn up for this procedure are available for viewing.


The validity of this certificate applies only to the mentioned product in this particular condition for a duration of 5 years.  
Further information: [www.tested-device.com](http://www.tested-device.com).

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Stuttgart, March 15, 2011  
Place, Date

  
i. A.   
Project manager