Fraunhofer

TESTED®
DEVICE

Festo Competence for
Cleanroom Suitability Testing
Report No. FE 0008-190

Statement of
Qualification

Fraunhofer Institut
Produktionstechnik und
Automatisierung

Fraunhofer Institut
Produktionstechnik und
Automatisierung

Statement of Qualification

Customer:

Festo AG & Co.
Teckstr. 52
D-73734 Esslingen

Company trained:

Festo Pte. Ltd. Singapore
6 Kian Teck Way
Singapore 628754
Singapur

Personnel trained:

Christian Burdin
Jiang Hong

Training course held:

Assistance in performing cleanroom suitability tests on pneumatic components manufactured by Festo AG & Co.

Project contents (theory and practice):

Basis

- Qualification of operating materials
- Cleanroom technology
- Norms, guidelines and standards
- ESD behavior
- Cleanroom acceptance
- Clothing procedure/ conduct of personnel
- Decontamination/ use of airlocks

Measurement and cleanroom technology

- Inspection of existing equipment
- Existing cleanroom technology
- Altering cleanroom conditions
- Measurement technology

(cleanroom acceptance/ qualification of components)

- Cleaning technology/ equipment
- Hard-/ software for evaluation purposes
- Documentation

Cleanroom acceptance

- Particle emission measurements (cleanroom, minienvironment
- Qualitative/ quantitative analysis of airflow patterns (cleanroom, minienvironment)
- Analysis/ interpretation
- Documentation

Qualification of operating materials

- Fixing operating parameters
- Localizing particle sources
- Rough localization of particle sources
- Precise localization of particle sources
- Classification measurements
- Statistical analysis
- Calculation of cleanroom suitability derived from measurement values
- Classification of the operating material
- Documentation

Result:

On completion of the training measures, the above-mentioned employees of Festo Pte. Ltd. Singapore are in a position to assess the cleanroom suitability of their pneumatic elements.

Fraunhofer Institut Produktionstechnik und Automatisierung

Fraunhofer-Institut
für Produktionstechnik
und Automatisierung IPA

Abteilung Reinst- und Mikroproduktion
Department Cleanroom Manufacturing

Nobelstrasse 12
D-70569 Stuttgart

Stuttgart, Germany, August 2000
Place, date

Udo Sommer
Signature of person responsible