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DEVICE

ABB Engineering (Shanghai) Ltd.
IRB1200-7 / 0.7
Report No. AB 1507-774

DUPLICATE

Statement of
Qualification

Riboflavin Test
(Equipment)

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Statement of Qualification

Customer

ABB Engineering (Shanghai) Ltd.
No. 5, Lane 369, Chuangye Road
201319 Pudon District, Shanghai
China

Component tested

Category: Automation Component

Subcategory: Robotics

Product name: IRB1200-7/0.7
(date of manufacturing: 19/9/2014; color: white; serial number: 1200-900002; cleanroom sealing on axis 5; member of the IRB1200 M2004 family)

Cleanability test (riboflavin test)

Standards/Guidelines: VDMA information sheet »Riboflavin test for low-germ or sterile process technologies – Fluorescence test for examination of cleanability«. The norms stated refer to the relevant editions applicable at the time of the tests.
ISO 4628-1.
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Test environment parameters: Laboratory

Test procedure parameters:

- Test solution: .....0.2 g riboflavin, 5 g hydroxethylcellulose .....in 1000 ml ultrapure water
- Application of test solution: ..... pump spray
- Drying time: ..... approx. 2 - 3 h
- Cleaning method: ..... wiping
- Cleaning medium: .....ultrapure water
- Number of wiping cycles: 3
- UV light: .....λ = 366 nm

Cleanability can only be assessed qualitatively and is assessed based on the amount and size of defects occuring.

Test result / Classification

The examination of cleanability of IRB1200-7/0.7 was investigated according to VDMA information test sheet. The following test result could could be provided:

- The robot IRB1200-7/0.7 (SN: 1200-900002) manufactured by ABB Engineering (Shanghai) Ltd. can be cleaned well using a simple wiping procedure with ultra-pure water.
- The fluorescence test identified several critical areas.
- It is extremely difficult to clean these areas of the robot effectively. These areas have to be cleaned especially thoroughly or using a more complex procedure, e.g. by removing certain parts before cleaning.
- The ability to clean the robot effectively could be improved by eliminating most of the depressions or undercuts.

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

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Place, date of first document issued

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Place, current date

on behalf of
Frank Bürger, Project Manager Fraunhofer IPA

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