IPA

Cleanroom (atmospheric)

valid until: May 7, 2031

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TESTED®
DEVICE

Cobetter & Xinkailai
Pipeline SZ03VQC25C00011P
Report No. HA 2605-1772

Statement of
Qualification

Single product
Particle Emission
in Cleanroom
(atmospheric)

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Statement of Qualification · Single product

Customer

Hangzhou Cobetter Filtration Equipment Co. Ltd.
Heshang New Materials Industry Part, Xiaoshan District
311300 Hangzhou. Zhejiang Provice
China

Tested product

Category: Energy Supply

Subcategory: Cable Systems

Product name: Water and gas pipeline SZ03VQC25C00011P
(manufacturing date: 3/12/2025; color: white; article number: SZ03VQC25C00011P; batch number: 5N13174)

Random sampling of particle emissions (airborne) at representative sites in cleanroom under atmospheric conditions

Standards/guidelines: ISO 14644-1, -14
The norms stated generally refer to the version valid at the time of the tests.

Test equipment: Optical particle counter:
LasAir II 110 and LasAir III 110 with measuring ranges ≥ 0.1 µm, ≥ 0.2 µm, ≥ 0.3 µm, ≥ 0.5 µm, ≥ 1.0 µm and ≥ 5.0 µm

Test environment parameters:

- Cleanroom Air Cleanliness Class (according to ISO 14644-1): ..... ISO 1
- Airflow velocity: ..... 0.45 m/s
- Airflow pattern: ..... vertical laminar flow
- Room temperature: ..... 22 °C ± 0.5 °C
- Relative humidity: ..... 45 % ± 5 %

Test procedure parameters:

- Parameter Set 1:
  - Velocity: ..... v = 250 mm/s
  - Acceleration: ..... a = 3000 mm/s²
  - Travel distance: ..... s = 0.4 mm
- Parameter Set 2:
  - Velocity: ..... not in operation
  - Acceleration: ..... not in operation
  - Travel distance: ..... not in operation

Test result / Classification

The water and gas pipeline SZ03VQC25C00011P is suitable for use under the specified test parameters (room temperature: 22 °C ± 0.5 °C; relative humidity: 45 % ± 5 %) in cleanrooms of the following Air Cleanliness Classes according to ISO 14644-1:

Test parameter(s)	Air Cleanlines Class
s = 0.4 mm v = 250 mm/s a = 3000 mm/s²	1
Not in operation	1
Overall result	**1**

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

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.

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on behalf of
Dr.-Ing. Frank Bürger, head of business unit Testing and Certification