

JIS

JAPANESE INDUSTRIAL STANDARD

Testing methods for collection efficiency of airborne microbe samplers

JIS K 3836^{—1995}

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In the event of any doubt arising,
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Testing methods for collection efficiency
of airborne microbe samplers

K 3836-1995

1. Scope This Japanese Industrial Standard specifies the methods for testing the collection efficiency of the airborne microbe samplers used for measuring the concentration of the airborne microbes in bioprocess.

Remarks: The following standards are cited in this Standard:

- JIS B 8330 Testing methods for turbo-fans and blowers
- JIS B 9920 Measuring methods for airborne particles in clean room and evaluating methods for air cleanliness of clean room
- JIS B 9921 Light scattering automatic particle counter
- JIS B 9927 Cleanroom – Air filters – Test methods
- JIS K 0557 Water used for chemical analysis
- JIS T 8202 Portable type thermal anemometer
- JIS Z 8122 Contamination control – Vocabulary
- JIS Z 8901 Dusts and aerosols for industrial testing

2. Definitions For the purpose of this Standard, in addition to those specified in JIS Z 8122, the following definition applies.

airborne microbe sampler The device to collect the microbes floating in the air on to a suitable culture medium and, after cultivating for the specific time, obtain the number of collected microbes from the number of colonies of microbes appearing on the surface of culture medium.

3. Outline of testing method The method specified herein is that the biotic particles for testing (hereafter referred to as "biotic particles") or the abiotic particles for testing (hereafter referred to as "abiotic particles") are generated and then these particles are collected by means of the airborne microbe sampler in order to compare the measured values of the concentration (number of particles per unit volume) of the generated particles and the concentration of the particles collected by the airborne microbe sampler by this comparison, to test the collection efficiency of the airborne microbe sampler.

4. Test condition

4.1 Biotic particles The living beings used for the biotic particles shall be strong against the physical condition such as dry, hardly perished during the test, capable of being generated stably for a specific time as single substance by using a generator and not hazardous to human body (1).

These particles are sprayed by an aerosol constant generator. The particle size distribution is measured by the light scattering automatic particle counter specified in 5.2.