

Clean Room in Yagi Factory

1. Introduction of the clean room

A clean room is completed on the second floor in the second building at Yagi Factory. Eliminating contaminants and bacteria from a production line leads to the **manufacturing with extremely little possibility of contamination**, which is required especially in producing medical, analysis or semiconductor equipment.



2. Overview of the clean room

Traditional types of a clean room require large scaled equipment for supplying clean air to the room through the ducts installed in the attic after taking air from the outside with the fan. Our newly installed clean room is equipped with the state-of-the-art clean air system which is an improved energy saving type without having a machine house outside nor ducts in the attic. The classification of the cleanliness is Class 7 (class 10,000 in FED-STD-209).

It consists of air conditioners with a HEPA filter unit on the top of them and four balloon ducts installed on the ceiling from which laminar flows of clean air are gently sent out (Photo1).

We operate this room under the following rules.

- Wear a dust-free garment, hood, and antistatic shoes, which are exclusive use in the clean room, to enter the room.
- Receive the air-showing after going through the double-sheet shutter (photo 2).
- Clean the floor thoroughly with the dedicated mop for the room at the time of starting work.
- Wear clean gloves and face mask to conduct assembling or inspection tasks in the room.

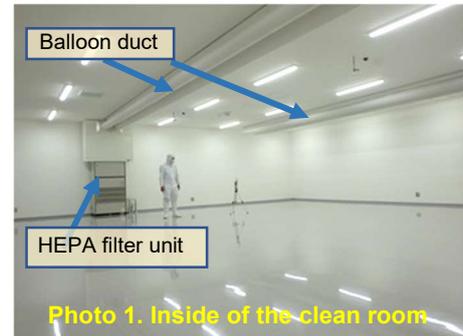
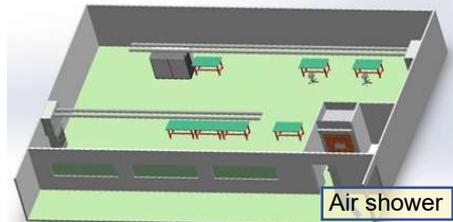


Photo 1. Inside of the clean room



Overview of the layout: 11 m x 20 m



Photo 2. Air shower

3. Evaluation the cleanliness

The cleanliness at 22 points in the room were measured by counting the particles of 0.5 μm using the particle counter based on the JIS standard. The cleanliness was classified as Class 6 (class 1000 in FED-STD-209), in which the average particle count was 127/cubic-feet (20 – 260 for 10 minutes). The photo 3 shows the number of the particles of 0.5 μm was 22 for one minute, means 220/cubic-feet for 10 minutes in the measurement standard. The outside the room had the particles of 1.51 million/cubic-feet, which is 7000 times of that of the room, meaning the high performance of the clean room system.

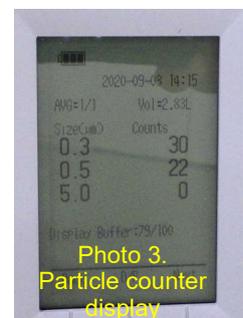


Photo 3. Particle counter display

FUTA-Q Co., Ltd.

URL <https://futaku.co.jp>

E-mail futaku-info@futaku.co.jp

[Headquarters]
33-3 Karahashi-keiden-cho, Minami-ku, Kyoto
City, Kyoto Pref. 601-8454
Tel: +81-75-661-2931

[Tokyo Office]
San-Roze Musashino No.501,
1-2-9, Naka-cho Musashino-shi 180-0006
Tel: +81-422-27-7629