



Iskra **pio** d.o.o.
Industrial equipment manufacturer

ROOMS AND EQUIPMENT



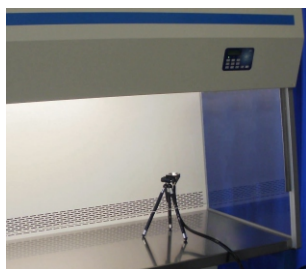
In addition of Iskra PIO's clean technology equipment production we also perform validations of:

- laminar flow work-benches (class I, II, III)
- clean rooms

We perform validations to confirm clean and safe working conditions. We have a qualified team and annually calibrated measuring devices for validations. After the process we prepare validation report, which is acceptable for inspection services.

Following tests can be included in the validation tests:

• **Airborne Particle Counts**



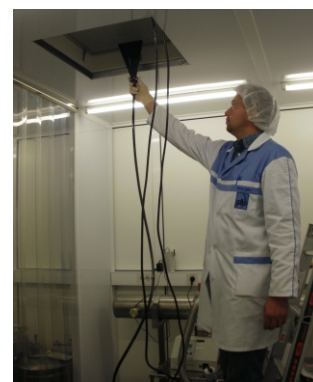
The purpose of this test is the determination of the airborne particles level in a clean room or laminar flow workbench in accordance to ISO 14644-1 standard.

The instrument used to perform the test is a Laser Particle Counter.

• **Filter in Place Leak Test**

In this test we check the quality of the filter. The test verifies the integrity of installed filter, housing and sealing.

Instruments used to perform the test are an aerosol generator and photometer/laser particle counter.



• **Air Flow Volumes/Air Change Rates**



The objective of this test is to check if the airflow volume and air change rate are in accordance to the design values.

- **Temperature/Humidity Test**



This tests' goal is to check if the temperature and relative humidity in the room are in accordance to the design values and if they have different temp/humidity sond and logers.

- **Smoke Patterns**



In this test we check if the real airflows direction is in accordance to the design direction.

- **Leak test**

Leak test is proving the tightness of the equipment.

- **KI-DISCUS test**



The European Standard for microbiological safety cabinets EN12469:2000 defines the KI-DISCUS test as a method for validating the operators protection capabilities of the cabinet. The KI Discus test enables determination of operator protection factors for biological safety cabinets class I and class II.

The main purpose of the OEL (Occupational Exposure Limits) test is to determine operators exposure to potentially hazardous substances while performing manufacturing process.

- **Sensors calibration**

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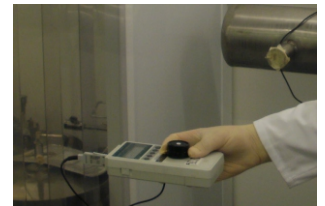
- **Room Pressurisation Test**

The objective of this test is to check if the differential pressure between separate rooms or zones is in accordance to the design value.



- **Light Levels and Noise Levels**

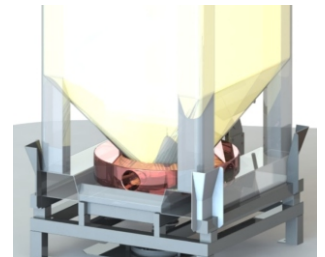
The objective of this test is to check if the light or noise level is in accordance to the design value.



- **Recovering time**

The objective of this test is to check how long does it take the room to recover from contamination.

- **OEL test**



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