

# HL-HD Specifications

## Air supply and extraction system for clean rooms

### 1. General

This description sets out the requirements for the design, manufacture, supply and installation of an air supply and extraction system suitable for wall and ceiling installation in clean rooms. The system must meet the highest standards in terms of air purity and flexibility.

### 2. Application

The system is designed for air blowing and return in clean rooms, using HEPA filters with polyurethane (PU) seals. The system must allow for wall and ceiling installation.

### 3. Materials and construction

The unit is made of galvanised steel with a RAL9010 epoxy paint finish, oven-baked for optimal durability and aesthetic appeal. The unit is assembled and sealed at the factory with a galvanised steel plenum. The sealing surface (mating surface) is completely smooth and contains no welds. Top and side connections are available for flexible installation.

The system is suitable for installing HEPA filters with a thickness of 68 mm or 110 mm, simply by changing the position of the clamping system.

The diffusers are easy to open/close and are available in perforated, helicoid-jet or 4-way versions for air distribution tailored to each room. They are hinged with a fall-proof safety feature on one side and are closed with a quarter-turn screw on the other.

### 4. Functionality and performance

The unit is equipped with 2 pressure tap kits: a 100% test tap for filter integrity testing and a pressure tap kit for monitoring the filter differential pressure.

Wall and ceiling installation via a universal fixing system (support brackets).

The assembly complies with class L1 according to standard EN 1881 and class C according to standard EN 1775.

Solutions for modular ceilings (600x600 and 600x1200 mm) are also available.

### 5. Options

- Rectangular side connector.
- Specific RAL colour on request.
- Alternative filter height available on request.

### 6. Quality assurance

All components and the installation must comply with the standards and directives in force for clean rooms and operating theatres.

Full documentation of the installation, including test results, must be provided.

This technical description provides a comprehensive basis for specifying a versatile and reliable air supply and extraction system for clean rooms.

