AASTHA

TECHNOLOGY U CAN TRUST

Air Handling Unit

Aastha Cleanroom Systems Private Limited

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Aastha is one of the leading Turnkey Project Solution Providers for Pharmaceutical, Healthcare, Food, Herbal, Cosmetic, Veterinary, and Chemical Plants. AASTHA India offers projects as per WHO, USFDA, PICS, MHRA, TGA & GMP regulations.

We approach every project from the clients viewpoint and deliver on time, on budget and to exceptional standards. We pride ourselves in being transparent and open with our clients. This builds a level of trust that sets us apart from the crowd, and is reinforced by repeat business levels of over 90%.

GMP STANDARD

Establishment Year	2004
Factory Location	Mahad, MH. INDIA
Factory Area	13842 Sq. Mtrs.
Employees	200+
Corp Office	Mumbai, INDIA

Our projects are based on detailed drawings, controlled and validated design, care of details, respect of the production and installation time schedule.
We provides complete Turnkey solutions – Engineering Support for designing, cost-effective solutions and On-site support during installation for your projects.

A One Stop Solution towards the Successful Implementation of Any
CLEANROOM
Development Project from Concept to Completion

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We Understand Your Needs for Cleanroom

SOLUTIONS FOR CLEANROOM

We Design`

With an experience in architectural, & mechanical field, our engineers designed your cleanroom exactly to your needs with the International Standards to achieve the desired needs of cleanroom .

Project Planning

Our Engineers & Designers , closely work with your Team to understand the needs at the earlier stage and thus by saving the potentials.

Production

The High Quality of Manufactured products at our factory guarantees Quality , Functionality & Reliability.

Installation

The secret behind the Successful Installation is Experienced Teams
Having installed over 100 + cleanrooms , we assure our cleanroom installation shall meet the all requirements.

CLEAN ROOM VALIDATION

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CLEANROOM

What is Cleanroom ?

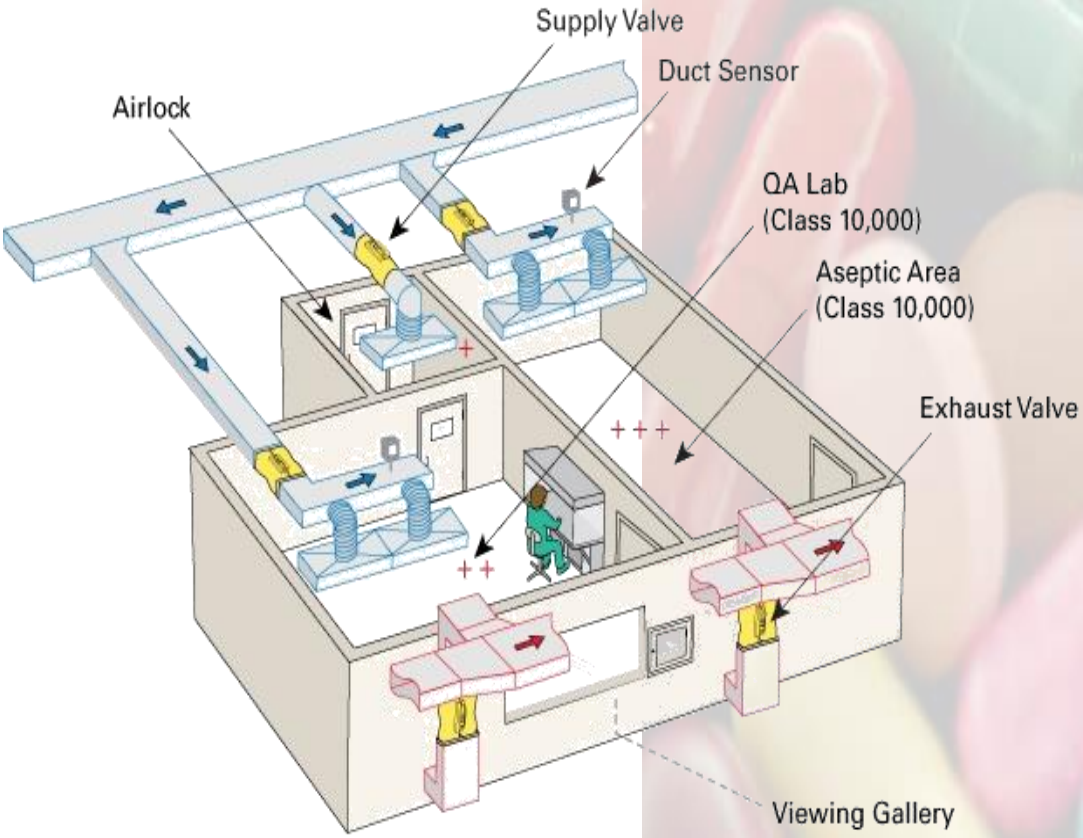
A room in which concentration of airborne particles is controlled and which is constructed and used in a manner to minimize the introduction, generation and retention of particles and microbes inside the room and in which other relevant parameters, e.g. temperature, humidity and pressure are controlled as necessary

Cleanrooms are classified from ISO 1 to ISO 9. These standards are based on the number of particles allowed per unit volume of air within the space. The physical size of a particle is measured in a unit called as a micron (µm).

To put the size of a micron into perspective; a human hair is approximately 75 microns thick. A typical room in a home would contain more than 10,00,000 particle of 0.5 µm and above, this roughly equates to a class ISO 9 clean room.

Pressures must also be kept static and over the atmospheric pressure in order to prevent infiltration into the room. New air inputs must be balanced along with the release of air from the room to keep the pressure value maintained.

Clean rooms are used in many different industries in addition to Pharmaceutical, Healthcare, Food, Processing, including Cosmetic, FMCG, military, aerospace, and computer manufacturing.



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CLEANROOM

Class 100 – The cleanest room on this list; this class is frequently used in labs and hospitals because it is designed to never permit over 100 particles (0.5 microns or bigger) per cubic foot of air.

Features:

- EU3/EU4 level filters
- EU9 pocket filters in at the entrance
- EU14 box filtering from the ceiling
- Air leaves the environment through wall grilles

Class 10,000 – This classification of clean room is the one mostly
commonly used in the food industry and limits particles to 10,000.

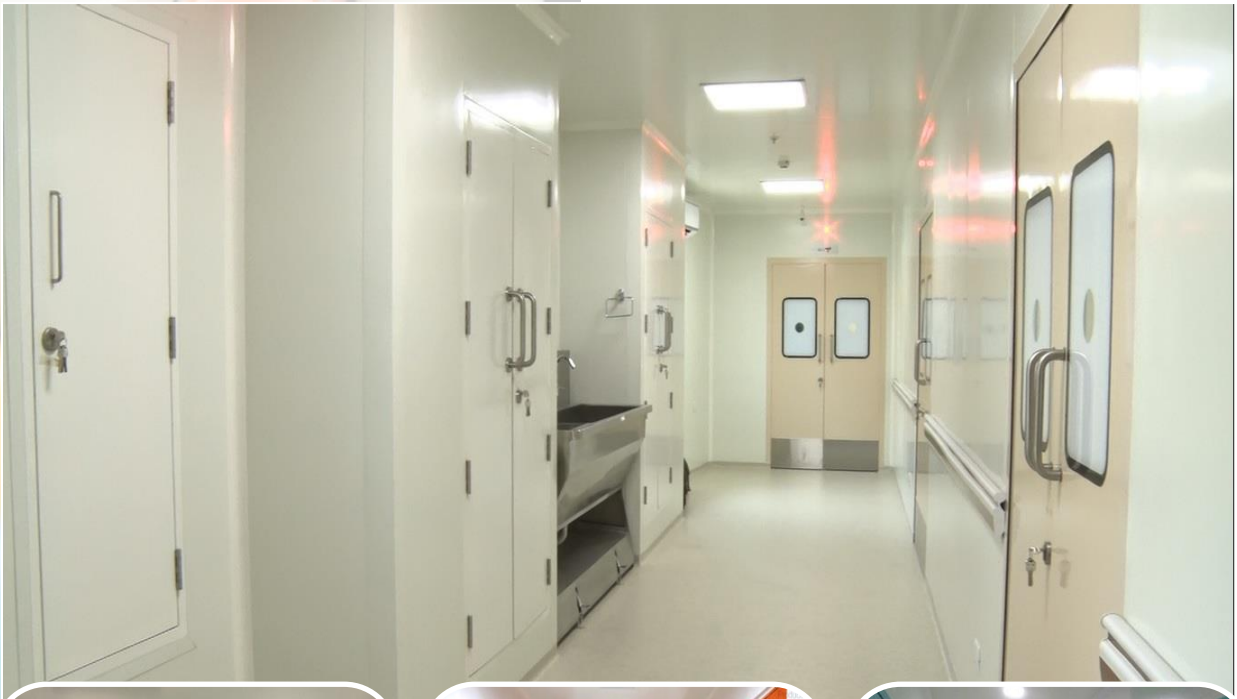
Features:

- EU3/EU4 level filters
- EU8 pocket filters in at the entrance
- EU14 box filtering from the ceiling
- Air leaves the environment through wall grilles

Class 100,000 – This class of clean rooms is designed to limit particulates to 100,000 and is popular in the medical and manufacturing industries.

Features:

- EU3/EU4 level filters
- EU8 pocket filters in at the entrance
- EU13 absolute filters in at exit
- Distribution of filters from the ceiling
- Air leaves through ceiling grilles
- Features finely permeable fabric channels



PRODUCT SPECIFICATION

GENERAL SPECIFICATION

The Aastha range of Air Handling Units are designed to meet all the ventilation requirements for commercial and industrial buildings meeting with current standards for construction and operation.

BASE FRAME CONSTRUCTION

The base frame is constructed from Galvanised steel section Duly Powder Coated with longitudinal and cross members, the base frame incorporates lifting points

EXTERNAL AIR HANDLING UNITS

Full weatherproof facilities are available for externally mounted units. The units have a rigid weatherproof roof complete with gutter profile allowing clear drainage with all sections fully sealed to prevent the ingress of water through any panels.

MATERIALS

The frame is a pentapost rigid closed section aluminium alloy. The panels have perimeter inner seals with the unit panels seals seating onto the pentapost section ensuring that there is no air leakage into the AHU. All modules, panels and sections with the AHU are manufactured to air leakage classification 2A. The closed section framework provides air gap insulation within the cavity. The unit panels are nominal 25mm or 45mm double skin insulated panels. The panel insulation is high density mineral wool slab which provides good thermal or acoustic properties. Special finishes can be incorporated to meet specific requirements.

FILTRATION

The filter section will incorporate bag and/or panel filters suitable for front or side withdrawal. The panel type filters will be disposable or washable in accordance with specification requirements. Filter panels are held in rigid galvanised steel holding frames complete with seals to prevent leakage. Magnahelic gauges can be provided if required. Each filter section will be provided with a full access section to allow ease of filter replacement.

PRODUCT SPECIFICATION

INLET SECTIONS

All units can be provided with grilles or louvres to suit the application. This can be in the form of a weatherproof louvre, inlet grille or bird/insect mesh. Dampers will be opposed blade multi leaf type manufactured in silver anodised aluminium extruded section with low pressure drop characteristics when open. Opposed or parallel blade dampers will have an interlocking gear drive on each blade. Damper blades can be provided in steel with special paint finishes or stainless steel in accordance with particular specification requirements. Sealing edge strips are provided for low air leakage operation. The mixing box will have a single compartment for re circulation and fresh air mode of operation and a twin compartment for recirculation, exhaust and fresh air.

COIL TYPES

Aastha provide coils for all types of heating and cooling applications: The coils are constructed from a rigid galvanized framework section with a copper header that the finned, coil tubes are brazed to. Each has flow and return screwed or flanged connections. Coils are fabricated from copper tube with Aluminium collars with fins spaced at pitches set to meet specific design performance requirements, providing excellent heat transfer characteristics. Special materials and finishes can be provided such as copper fins and electro tinning to meet particular specification requirements. All pipe and drain connections are fitted with flexible bushes to ensure an airtight seal and good vibration isolation. All coils are fitted with an air vent and drain plug as standard.

HEATING TYPES

Aastha can provide the following heating mediums:
Hot water coils are available for low, medium and high pressure hot water and steam applications and are manufactured as described in coil types above.

Electric

The electric heater elements are designed for black heat operation with 80/20 nickel chrome resistance wire centered in a protected metal tube packed with magnesium oxide. The element tubes are copper coated mild steel tubular or finned to meet the particular application. The units are complete with safety cut outs with manual reset. The control system operation is from remote thermostat or step control with pre wired switching and overheat protection. Thyristor/SCR control can be provided.

FANS

This section incorporates a fan and motor assembly to meet the specific air volume and pressure requirements for the application. A comprehensive range of fan types are available including centrifugal forward and backward curved fans, plug type, axial or mixed flow type fans. Special fan finishes can be incorporated to meet the particular specification and application requirements. The fan and motor assembly is mounted onto an independent sub frame with anti vibration mount isolation from the main unit frame and a flexible connection on the fan discharge preventing noise and vibration transmission. If direct drive fans are installed then anti vibration mounts would only be fitted as required dependant upon the fan selection and application. Motors will be cage rotor type with an aluminium or steel frame construction and will comply with current British and European standards. Motor sizes up to and including 5.5 kW shall be suitable for D.O.L starting, above 7.5 kW motors shall be suitable for StarDelta starting. Various methods of speed control are available as an option. Motors shall have Class `F` insulation to BS 2757 and shall be provided as standard with an IP54, TEFV enclosure.

PLUG CENTRIFUGAL FAN

Direct drive axial-centrifugal fans providing maximum performance with optimum efficiency. The fans are single-entry air intake with backward-curved blades. The impeller directly coupled to the motor shaft providing a space saving solution for simplifying installation and maintenance. Complete fan and motor assembly is supported by compressed anti-vibration mounting system.

Wiring

All AHUs be supplied non-wired. This maintains the integrity of the air handling unit as cable entries and connections can be properly protected and sealed. A full range of control accessories including damper actuators, pressure switches, valves, transmitters and signal conditioners can be fitted.

Ventilation Unit – Fresh Air / Exhaust Air

Ventilation Unit Exhaust
Capacity Range: 1,200 CFM to 40,000 CFM

Ventilation Unit - Fresh Air
Capacity Range: 1,200 CFM to 40,000 CFM

Compact, Low Height and Low Noise Ceiling Suspended Air Handling Unit to Fit Any Ceiling

Compact Low Height / Noise Ceiling Suspended AHU
Compact Low height units with low noise levels • Fitted with direct drive high energy efficient EC fans • Capacity Range: 1,200 CFM to 5,000 CFM.

Ceiling Suspended Ductable Unit (Belt Driven)
Capacity Range: 1,200 CFM to 12,000 CFM

Energy Recovery Units

Energy Recovery Unit (Cross Flow Type)
Capacity Range: 1,200 CFM to 30,000 CFM

Energy Recovery Unit (with Heat Pipe)
Capacity Range: 1,200 CFM to 30,000 CFM

Esteemed Projects

Quality Policy

"Quality" is the ultimate factor for success in every level of business and life. AASTHA chooses to maintain & be respectable in its quality standards to fulfill our responsibilities and objectives.
AASTHA and its employees are committed to comply with requirements and continue to improve the effectiveness of the Quality Management System in ensuring total product satisfaction. The industry will benefit from our product quality as a whole.
Thank you and assuring our best co operation all the times and looking forward strong business relations in future with you and your organizations.

Our Global Projects


Algeria


Bangladesh


Bolivia


Egypt


Ghana


Iran


Kenya


India


Nepal


Oman


Philippines


Vietnam


United Kingdom


United States

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