

#### THE ART OF CONTROLLED ENVIRONMENT MANAGEMENT

- 1 HVAC & AIR HANDLING SYSTEM
- 2 MODULAR CLEAN ROOM SYSTEM
- **3** VALIDATION SERVICES
- **4** TURNKEY CLEAN ROOM / AIR SOLUTIONS
- 5 MODULAR OT & ACCESSORIES

#### MODULAR CLEANROOM PROJECTS

- Flexible configurations
- Easily modified as requirements change
- Filtration from ISO 4 to ISO 8
- Low design costs
- Consistent quality
- Predictable performance
- Full regulatory compliance

# > HVAC PROJECTS

- Conceptualization
- Design area classification
- Pressure Zoning / Balancing
- System Grouping
- Basic & Detail Engineering
- Preparations of BOQ
- Execution & Site management
- Commissioning & Validation
- Documentations as per USFDA, TGA & WHO cGMP

## CLEANROOM EQUIPMENT

- Dynamic / Static Pass Box
- Dispensing / Sampling Booth
- Laminar Airflow Unit
- Reverse Laminar Airflow Unit
- Air Shower
- Bio-Safety Cabinet

#### ➔ CLEANROOM SERVICES

- Revamp / Up-Gradation of Existing Plant Facilities
- HVAC / Cleanroom Project
- Implementation
- Turnkey Solution under Single Source

#### → MODULAR OT

- Operation Room Panelser
- Hermetically Sealed Metal Doors
- Operation Theatre Room Accessories

# WHAT WE DO

AIRCARE PROJECTS offers a spectrum of services from ideation to commissioning for both turnkey and partial projects of Modular clean room & HVAC.

Our team of professionals specially mastered to evaluate in Cleanroom design and execution by using latest cGMP guidelines, local and international accreditation agencies i.e. FDA, US FDA, SO, PICS and EUGMP standards. The result provides customized designed layouts to accommodate the specific demands of client's environmental requirements within budgets and time schedules. Our Experienced Project Management Staffs Closely Reviews Equipment Specifications And Oversee All Aspects Of The Design Reliability Of Products, Materials Used And The Effectiveness Of The Systems Installed. This Level Of Attention Guarantees That Facilities Meet And/or Exceed Our Client's Expectations. We Also Do Periodical Service On Contract Basis To Preserve The Equipment Efficiency And See That No Major Break Downs Causes And Affects The Systems



# AIRCARE PROJECTS OFFERS

- Conceptual Study & Design
- Heating Ventilation And Air-Conditioning Systems (HVAC)
- Modular Paneling
- Cleanroom Equipment
- Validation & Documentation
- Turnkey Projects
- Door Inter-Locking System
- Modular Operation Theater



# WE SERVE FOR THE FOLLOWING VERTICAL



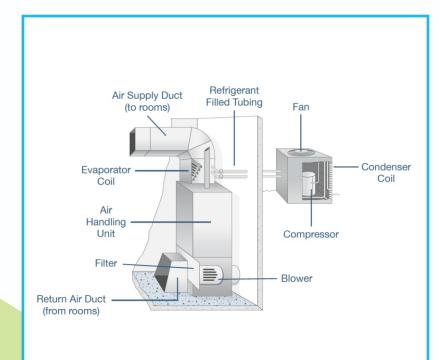
Cleanroom is a controlled environment with a low level of environmental pollutants such as dust, airborne microbes, aerosol particles, and chemical vapors. Eliminating sub-micron airborne contamination is really a process of control. The only way to control contamination is to control the total environment air flow rates, direction, pressurization, temperature, humidity and specialized filtration all need to be tightly controlled. Also the sources of these particles need to control whenever possible. Cleanrooms should be planned and manufactured using strict protocol and methods. Cleanroom design will vary for different line of production facilities like electronics, pharmaceutical, Biopharmaceutical, medical device industries and other critical manufacturing environments.

# CONCEPTUAL STUDY & DESIGN

AIRCARE PROJECTS majorly concentrating on conceptual study of the Cleanroom projects. This will give you the initial cost reduction and maintenance cost also. Suitable cleanroom planning will reduce the space and electrical usage for HVAC components. Our total designs will follow the latest cGMP guidelines, local and international accreditation agencies i.e. FDA, US FDA, ISO, PICS and EUGMP standards.

### HEATING VENTILATION AND AIR CONDITIONING SYSTEMS (HVAC)

HVAC is the system which is using to provide heating ventilation and air-conditioning for controlled environment. HVAC SYSTEM will play the vital role in contamination control for cleanroom projects. The major components using in cleanroom air distribution is Air Handling Units, Filter Modules, Raisers, Grills, Volume Control Dampers, Fire Dampers, Ducting, Insulation and Condensing Units. For design and manufacturing of dean air distribution components we have to follow latest guidelines and standards of ASHRAE, ISHRAE, SMANCA and ARI.



# **HVAC COMPONENTS**

- 🔶 AHU
- Ducting
- Insulations
- HEPA Modules
- Return Raisers
- Volume Control Dampers
- Chilled Water & DX Systems
- HVAC Electrification
- VRF
- Ox
- Condensing unitChillers

Air Handling Unit (AHU) is a device used to circulate air as part of a heating, ventilating, and air-conditioning system. An air handler is usually a large metal box containing a blower along with motor arrangement, cooling and heating coils, different types of filter chambers, and volume control dampers. Air handlers usually conned to duct distribution system that distributes the conditioned air through the building and returns it to the AHU. HECTRA offers wide range of Air handling units suitable for cleanroom and comfort applications. Air handling units are custom made only. We are offering thermal and non-thermal Brake Air handling units also. The AHU panel thickness is available in 50mm and 25mm as per client's requirements.

# Features

- The anodized aluminum sections are corrosion free from multiple environments. Aluminum profiles available
  in thermal brake and non-thermal brake
- The infill material of panels is polyurethane foam up to 38±2 Kg/cum densities. This will give you low heat transfer rate from atmosphere to AHU inside conditioned air. So that power consumption will go down
- Ocoling and Heating coils material of construction is copper. This coil withstand for long run
- Available in 50mm and 25mm thick panel construction



#### **AIRCARE PROJECTS offers wide range of Air Handling Units**

- Floor Mounted Air Handling Units
- Ceiling suspended A, Handling Units
- Double Skin All Handling Units
- Single Skin Air Handling Units

- Recirculation Air Handling Units
- Ventilation Air Handling Units
- → Heat Recovery Ventilator (HRV)
  - A, Handling Units

# AIRCARE'S MODULAR CLEAN ROOM PANELS

AIRCARE's Modular Cleanroom panel system have several unique features to build State-of-the-Art Cleanrooms and other controlled environment for various applications. Self-bearing wall provided in modular units consisting of :

- Flush surfaces for easy cleaning and complying with cGMP requirements.
- Practically no maintenance.
- Good stability due to advanced architectural design.
- → Attractive appearance.
- Custom designed solutions from a single room to complete departments.
- Full modularity.
- (•) Easy to assemble and dismantle.



#### **PRODUCTS:**

- Wall Panels
- Ceiling Panels
- Snap fit Coving
- Doors
- View Glasses
  - Return Raisers

#### MATERIAL OF CONSTRUCTION:

- Powder coated / Pre-painted
- Stainless Steel
- High Pressure Laminate

Available in infill material of PUF / ROCK WOOL / EPS Ceiling Panels available in Walkable / Non-Walkable Modular panel available thickness: 50, 60, 80, 100 & 150mm Modular Cleanroom complete accessories supports your cleanroom by providing control over Contamination, Static,Microorganisms, Humidity and other critical operating conditions. Our accessories include Aluminium Powder Coated / Anodized Coving, PVC Coving, 2D / 3D corners etc., which are designed with the cGMP guidelines.]

# AIRCARE'S HERMITICALLY SEALED METAL DOORS

AIRCARE's hermetically sealed metal doors have been specifically designed for the areas where hygiene and the control of air leakage is critical. The doors offered by us are extremely durable & are hermitically sealed for proper air tightness. The door has a unique wrap around frame with a neoprene seal incorporated which enables the door to seal perfectly. Our cleanroom doors are extremely durable and are available in different models for cleanrooms, and other special purposes.

#### AIRCARE PROJECTS OFFERS THE FOLLOWING TYPES OF DOORS

- → GI powder coated Metal Doors
- Stainless Steel (SS) Doors
- High Pressure laminated Doors
- Automatic/ Semi-automatic/Sliding Doors
- Fire Proof Doors

#### **SPECIAL FEATURES**

- Highly durable and smooth functioning
- Attractive designer outlook
- Easily cleanable
- Hermitically sealed
- Safety assured



### MODULAR DOUBLE GLAZED VIEW PANELS

AIRCARE's Civil Wall Window Double Glazed View Panels are fit flush with both surfaces of the wall panel system. Each unit is constructed with two panels of double layered and fixed with toughened safety glass. The two panels sit within a structured framework and air fills the space between the two panels. The window system is especially designed for the cleaning needs of the cleanroom system. It is completely silicone sealed and includes a micro-perforation profile with an integral silica gel moisture absorption system designed to eliminate fogging.



# **Special Features**

- Flush mounted to the walls
- Moisture adsorption facility
- 🕑 Cleanroom Compatible
- Available Toughened
- Easily CleanableCivil Wall Window and Modular Double Glazed View Panels

#### **FLOORINGS**

AIRCARE's Epoxy, PU and PVC floorings are pretty attractive and are availablein shiny or rough texture with protection film against water and so on. Epoxy flooring are technical floors which resists to chemicals, mechanical and stress factors. The great advantage is that they are hygienic and easy to clean.

#### SPECIAL FEATURES

Highly survives to chemicals & stress factors
 Highly hygienic
 Lowest Life cycle cost
 Low slippage
 Seamless and non porous
 Available in antistatic
 Easy to clean

#### Aircare Projects Offers The Following Cleanroom Equipments

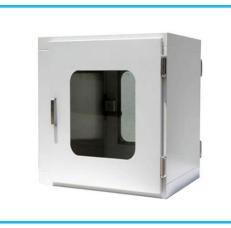
- ➔ Pass Boxes (Pass Thru)
- 🕑 Laminar Flow Units (LAFU)
- Biological Safety Cabinets
- Sampling and Dispensing Units
- Air showers

#### Other Cleanroom Related Products

- Dress Cabinets
- Cross over benches
- Door Inter-Locking System
- Lockers etc.,

### PASS BOXES (PASS THRU)

Our specially designed pass boxes are very well suitable for various industries like Pharmaceutical, Electronic, Bio-Technology, Nanotech industries and Hospitals. The advantage of our Pass Boxes are bacteria free, virus killing applications, indication alarm CE approved interlock systems. So that we have to prevent both doors from being opened at the same time. UV light and CFL light also interlocked with door magnets. If the both doors closed condition UV light switch on and CFL in off condition If any door open CFL will on UV will switch off. For dynamic Pass Boxes laminar air flow arrangement with blower, motor and HEPA filters.



#### **AIRCARE'S RANGE OF PASS BOXES**

🕑 Static Pass Boxes 🕑 Dynamic Pass Boxes 📀 Stainless Steel(SS). SS304, SS316

Galvanized Iron (GI) Powder coated

#### **FEATURES**

- → Robust in construction → Good finish → Ultra violet lights protection for sterility
- Coving provided inside the body. So that easily cleanable
- Electromagnetic inter locks are "CE" approved and long life
- Available in standard and custom made pass boxes
- Food grade neoprene gasket arrangement for air tightness

### LAMINAR FLOW UNITS (LAFU)

AIRCARE's range of laminar flow Units are good quality in construction, low level of operating noise and optimum product protection. The unit is easily disassembled and assembles for free movement from one place to other. Air is drawn through a H14 type HEPA filter and blown in a very smooth. Laminar flow units are UV lamps protection for sterilize the interior and contents when not in use. Laminar Flow Units are used at medical, pharmaceutical, electronic and industrial sectors. Laminar flow is only for product protection not for personal protection. Maghenelic Gauge/ digital alarm type HEPA filterstatus arrangement.

#### AIRCARE'S RANGE OFLAMINAR FLOW UNITS

- Vertical Laminar Flow Units
- Horizontal Laminar Flow Units
- Stainless Steel(SS).SS-304, SS-316
- → Galvanized Iron (GI) Powder Coated

#### **AIRCARE'S LAFU FEATURES**

- High performance direct driven centrifugalblowers
- Noise level is low
- 📀 Excellent finish
- HEPA Filters are long life
- HEPA filters status indication system
- Power consumption is low



#### **BIOLOGICAL SAFETY CABINETS**

AIRCARE's range of Bo-safety cabinets are good quality in construction, low level of operating noise and optimum personnel product and environmental protection from Bio hazards. AIRCARE offers wide verity of Bio safety cabinets as per industry norms.

#### AIRCARE'S RANGE OF BIO SAFETY CABINETS

- Class II, Type A2 BSC CABINETS
- Class II, Type B2 BSC CABINETS

#### **AIRCARE'S LAFU FEATURES**

- Good quality and high performance Bio-safety cabinets
- Low power consumption
- Noise level is low
- High protection for personnel product and environment. Total system is interlocked with micro processed base logic control
- Supply and exhaust HEPA filters are long life

#### SAMPLING AND DISPENSING UNITS



We hold expertise in offering a wide range of sampling and dispensing. Our designs are with open front containment systems with built-in scavenging arrangement. This unit is designed and made with stainless steel for providing safety to the operator and the surrounding environment. This booth (RLAF Unit) is equipped with a three stage filtration method, for providing excellent efficiency to the customers

#### **Specifications**

- Oleanliness Class 100 Particle retention : 0.3 micron Standard :FED 209E
- Velocity: 100FPM + 20% Illumination :4 ft. 40w with diffuser
- 👀 Noise level : 60-65 decibels Nozzles Adjustable SS
- Power supply : 220v single phase



#### **AIR SHOWERS**

AIRCARE's Cleanroom Air Shower Systems play vital role in removing surface particles from personnel and material prior to entering and exiting from a controlled environmental area. These At showers are installed before the entrance to cleanrooms and other controlled environments perfectly suitable for semi-conductors, pharmaceuticals, spray painting, micro-electronics, paint shop and packaging etc.



#### Features

- Ocmpletely self-contained, adjustable nozzles to remove surface contaminants
- Versatile design allows you position the Air Shower inside or outside the cleanroom
- ➔ Dual HEPA filters remove 99.90, of particles > 0.3 microns from the At stream
- $igodoldsymbol{\Theta}$  Equipped with interlocking doors, automatically released when power fails
- Emergency stop buttons on both doors immediately disengage interlocks and halt air shower.
- Dight weight and modular design enables easy shipping and transfer of the unit



#### AIRCARE OFFERS VALIDATION & DOCUMENTATION FOR COMPLETE CLEANROOM FACILITIES

- → Filter Integrity Test
- Particle Count
- → Air Velocity
- Illuminous
- → DB Level
- O Air Flow Pattern Test



We offer AMC and periodical services for new & existing Cleanroom facilities.

#### KEY DRIVERS FROM AIRCARE PROJECTS PVT. LTD.

- > To complete each project regardless of size or value with dedication
- Budgetary quotation during the planning stage with value engineered alternatives followed by firm predetermined prices
- Perfect coordination with customers through the entire process from preconstruction to commissioning and beyond
- Adopting new initiatives and modern methods over products and installations
- Promoting delivery through frameworks Replacement spares/services available

Modular Operation Theatre (Modular OT), manufactures and designing for hospital operation room, laboratories etc. Our modular operating theater equipment has been satisfying those conditions consists of a ceiling, slanted panels and wall. In addition, it has a high availability with high workability and enough functions, which is provided for the introduction of a new facility in the future.



#### **OPERATION ROOM PANELS**

Our range of Modular Operation Room Panels are suitable for super specialty & general operation theatre rooms.

#### HERMETICALLY SEALED METAL DOORS

AIRCARE PROJECTS is the Hermetically Sealed MetalDoors manufacturer in VADODARA, GUJARAT.Hermetically Sealed Metal Doors satisfy the moststringent requirements for environmentalcontrols.





## Operation Theatre Room Accessories

We deal with all kind of operating room accessories which are ranging from...





For Cleanroom Environmental Solution at Single Source

#### AIRCARE PROJECTS PVT. LTD.

#### Factory & Registered Office :

Plot No. 184, Por Industrial Park, Por - 391243, District - Vadodara, Gujarat, India. **Toll Free No.** : 18008896634 | **Mobile** :+91 9824009573 **E-mail:** info@aircareprojects.com | sales@aircareprojects.com | service@aircareprojects.com

#### Authorized Channel Partner (Africa Continental) :

Tenesa Healthcare Ltd (Pharmacy Division)

2, Godown Omonua street, Ire - Akari Estate, Isolo Lagos

**E-mail:** tenesahealthcare@gmail.com **Tel No :** +234- (O) 8062892430, 08023190507

Website: www.aircareprojects.com