

ACP
Expert in Controlled Environment

AIRCARE

PROJECTS PVT. LTD.
(ISO 9001:2015 COMPANY)

**THE ART OF
CONTROLLED ENVIRONMENT
MANAGEMENT**

- 1 MODULAR CLEANROOM WALL PARTITION & CEILING SYSTEM**
- 2 HVAC SYSTEM**
- 3 CLEANROOM EQUIPMENT**
- 4 CLEANROOM ACCESSORIES**
- 5 ALL TYPES OF CLEAN ROOM & INDUSTRIAL FLOORING**
- 6 HVAC COMPONENTS**
- 7 COMMISSIONING & VALIDATION OF CLEANROOM**
- 8 DOCUMENTATIONS AS PER REGULATORY**
- 9 COMPLETE HOSPITAL SOLUTION (NABH)**

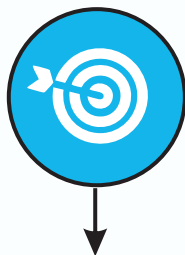


WHAT WE DO

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.



OUR MISSION

To become a best solution provider for contamination free environment



OUR VISION

To maintain client satisfaction at all the times with superior workmanship, services, quality products and on time Delivery.

→ 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

WE SERVE FOR THE FOLLOWING VERTICAL

→ Life Sciences → Pharmaceutical → Bio Technology

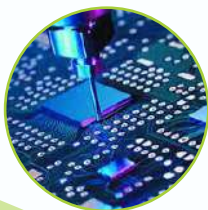
→ Medical Device → Manufacturing Companies

→ Laboratory & Research → Industrial Labs → Nanotech

→ Electronics → i Robotics → Cold Storage

→ Transformer & Cable Industries

→ Hospitals



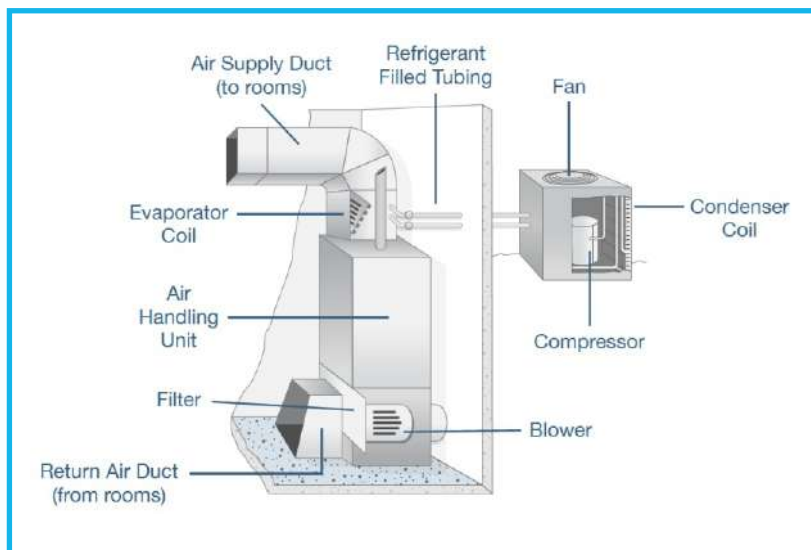
Cleanroom is a controlled environment with a low level of environmental pollutants such as dust, airborne microbes, aerosol particles, and chemical vapors. Eliminating sub - micron airborne contamination is really a process of control. The only way to control contamination is to control the total environment 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's 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, Risers, Grills, Volume Control Dampers, Fire Dampers, Ducting, Insulation and Condensing Units. For design and manufacturing of Clean 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 Risers
- ➔ Grills & Lowers
- ➔ Volume Control Dampers
- ➔ Air Filters
- ➔ HVAC Controls
- ➔ VRF
- ➔ Dx



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. Aircare 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 40 ± 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
- Cooling 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 | → Recirculation Air Handling Units |
| → Ceiling Suspended Air Handling Units | → Ventilation Air Handling Units |
| → Double Skin Air Handling Units | → Heat Recovery Ventilator (HRV) |
| → Single Skin Air Handling Units | Air 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 Risers

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 & 150 mm

Modular Cleanroom complete accessories supports your cleanroom by providing control over Contamination, Static, Micro-organisms, 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.

TYPES OF CLEAN ROOM PANELS (STRUCTURAL)

- ➔ Progressive Panel
- ➔ Semi Progressive Panel
- ➔ Non Progressive Panel



AIRCARE'S CLEAN ROOM DOORS

AIRCARE's clean room 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 / Siding 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 Absorption Facility
- ➔ Cleanroom Compatible
- ➔ Available Toughened Glass
- ➔ Easily Cleanable Civil Wall Window

And Modular Double Glazed View Panels

AIRCARE PROJECTS OFFERS THE FOLLOWING CLEANROOM EQUIPMENTS

- Pass Boxes (Pass Thru)
- Laminar Flow Units (FAFU)
- 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

FEATURES

- Robust In Construction
- Good Finish
- Ultra Violet Lights Protection For Sterility
- Coving Provided Inside The Baby. 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
- Stainless Steel (SS). Ss304, Ss316
- Galvanized Iron (GI) Powder Coted



LAMINAR AIR FLOW UNIT (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 filter status arrangement.

AIRCARE'S RANGE OF LAMINAR AIR FLOW UNITS

- Vertical Laminar Flow Units
- Horizontal Laminar Flow Units

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
- Stainless Steel (SS) SS-304, SS-316
- Galvanized Iron (GI) Powder Coated



BIOLOGICAL SAFETY CABINETS

AIRCARE's range of Bio-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 variety 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



BIOLOGICAL SAFETY CABINETS 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**

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 Air 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

- **Completely 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 99.99, Of Particles > 0.3 Microns From The Air Stream**
- **Equipped With Interlocking Doors, Automatically Released When Power Fails**
- **Emergency Stop Buttons On Both Doors Immediately Disengage Interlocks And Halt Air Shower**
- **Light Weight And Modular Design Enables Easy Shipping And Transfer Of The Unit**



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

- Cleanliness Class 100 Particle Retention : 0.3 Micron Standard : FED 209E
- Velocity : 100FPM + 20% Illumination : 4ft. 40w With Diffuser
- Noise Level : 60-65 Decibels
- Power Supply : 220v Single Phase

FLOORINGS

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

SPECIAL FEATURES

- High Survives To Chemicals & Stress Factors
- Highly Hygienic Lowest Life Cycle Cost
- Low Slippage
- Seamless And Non Porous Available In Antistatic
- Easy To Clean

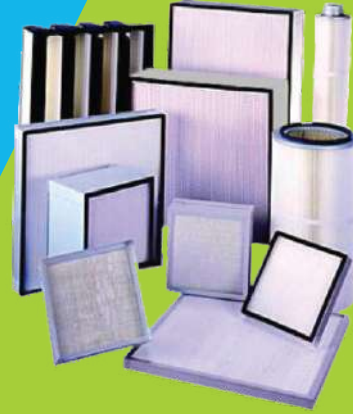


FILTERS

AIRCARE's serves complete range of air filters with low pressure drop across the filters with high energy saving. Pre, fine, and HEPA /ULPA filters meet to filtration standards En779/EN1822/ISO16890

PRE / FINE FILTERS

- ➔ Filters Class: G2-f9 grades (20micron To 1micron)
- ➔ Frame: Moc-al/ss/gi Powder Coated
- ➔ Media : Nonwoven Synthetic/glass Fibre
- ➔ Ipd: 4-5mmwc(pre Filters), 8-12mmwc(fine Filters)
- ➔ Fpd :25mmwc(pre Filters-g2-g4grade), 45mmwc (fine Filters Grade M5-f9)
- ➔ Sizes: Standard (610x610x 450x450, 305x305, Etc. As Well As Customize Sizes Are Available.
- ➔ Temp: Ambient / Upto 120 Degree.



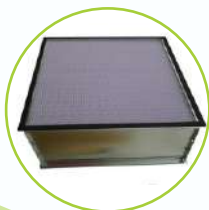
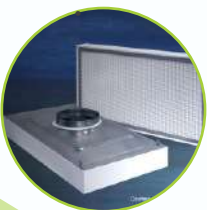
HEPA / ULPA FILTERS – AIRCARE MINIPLEAT / DEEPPLEAT

HEPA and ULPA filters meet the highest requirements for clean air and sterility in the demanding HVAC and in sensitive industrial processes. Efficiencies from 99.99% on 0.3 micrometer to 99.9995% on 0.1 – 0.2 micrometer particles.

- ➔ Grade : H13- U16
- ➔ Media: Imported Glass Fibre Media
- ➔ Frame: Alu Extruded/ss Met Finish
- ➔ Separator: Hot Melt / Aluminium
- ➔ Gasket: Pu / neoprene / Gel Seal
- ➔ Standard Sizes: 610x610, 450x450, 305x305 Etc
- ➔ Special/customized Sizes Available: Yes
- ➔ Ipd- At Rated Air Flow 0.45m/s To 1.25m/s
- ➔ Recommended Final Pressure Drop: 500pa
- ➔ Temp: 70 Degree

TERMINAL HOUSING FOR HEPA FILTERS IN CLEANROOMS

- ➔ Moc : Ms /gi Powder Coated
- ➔ Colorcode: Customize
- ➔ Volume Control Damper : Gear Operated Square Type
- ➔ Connection : Square Type / Side Connection
- ➔ Installation : Fitting Into T Grid Systems,
- ➔ Integration With Clean Room Perforated Grill : Aluminum/gi Powder Coated, Ss perforated Sheet



AIRCARE OFFERS VALIDATION & DOCUMENTATION FOR COMPLETE CLEANROOM FACILITIES

Cleanrooms and flow cabinets have to be validated in accordance with a maintenance and validation program tailored to the individual process. Depending on the ISO class, cleanrooms with ISO class 6 or higher are usually validated with an interval of 12 months, for cleanrooms or flow cabinets with ISO class 5 or lower, the validation interval is usually 6 months. Validation can be done according to a standard Predetermined International (ISO14644-1:2015), EU GMP Classification are validation protocols, and it serves to ensure that the cleanroom is properly Designed, Installed and Functions for its Intended ISO classification...

STANDARD VALIDATION BY AIRCARE PROJECTS PVT LTD:

- ➔ Acph Test
- ➔ Pressure Difference Test
- ➔ Hepa Or Ulpa Filter Integrity Test/efficiency Test (pao Test)
- ➔ Particle Counts (concentration Of Airborne
- ➔ Particles / Non-viable Particle Count) Recovery Test
- ➔ Shoot Off Test
- ➔ Air Flow Pattern Test
- ➔ Temperature And Humidity Measurements
- ➔ Measurement Of Light Intensity (lux)
- ➔ Measurement Of Noise – Sound Pressure Level (db (a))



VALIDATION CAN BE PERFORMED IN THREE DIFFERENT WAYS

- ➔ “as Built” Validation: ➔ “at Rest” Validation: ➔ “in Operation” Validation:



AIRCARE'S COMPLETE HOSPITAL SOLUTIONS (NABH)

HERMATICALLY SEALED OT DOOR

Hermatically Sealed OT Door flat ,high structural strength, corrosion resistance, no dust, easy to clean .the most importantis easy installation for your projects.

There are three kinds of different material ,such as steel cleanroom doors, aluminum cleanroom doors, stainless steel cleanroom doors for choosing. The HPL cleanroom door is one of Wiskind's most popular clean room doors.



OPERATION-THEATER-LAMINAR-FLOW

Manufacturer and Exporter of Operation Theatre Laminer Flow for clean air for operation, like orthopedic surgery, to avoid, infections of operation wounds which may be fatal in certain cases, involving lots of legal complication these days. To keep the air clean of dust, fungus, microorganisms, filtration is the only system available.

- ➔ Compact & Slick Design
- ➔ Perforated Grill / Cg Screens To Protect Hepa Filters
- ➔ Puf Insulated Wall / Ceiling Panels & Doors
- ➔ Epoxy / Vynil Floors
- ➔ Available With Stainless Steel / Pcgi
- ➔ Positive Pressure In Ot Ensures No Entry For Outside Contaminated Air
- ➔ Class 100/iso 5 At Grill Level As Per Nabh Guidelines
- ➔ Temperature 21 ± 3 Dec C As Per Nabh Guidelines
- ➔ Humidity 40 – 60%
- ➔ Positive Pressure Minimum 15 Pascals
- ➔ Air Changes Minimum 20 Air Changes Per Hour
- ➔ Velocity 90 ± 20 % Fpm
- ➔ Following Nabh Guidelines For Testing And Calibration And Traceability As Per Nabh Standards



MODULAR OPERATION THEATER (MODULAR OT)

OPERATION THEATRE ROOM ACCESSORIES

We Deal With All Kind Of
Operating Room Accessories



HOSPITAL-ACCESSORIES

Hospital furniture along with modern medical equipments have important role to play in health care. They not only help surgeons to perform the critical surgery with utmost safety of patient, but also make patients feel comfortable during their stay in hospital or the surgery/post surgery as well. NET brand hospital furniture are designed and produced keeping safety, multitude of applications and functions in mind. Elegant looks, innovative designs and utility are highlights of our healthcare furniture.

LAB FURNITURE & FUME HOOD

We have Created & engineered around our core principles of Swiss quality, we build Modular furniture for Laboratories, modular furniture for offices, Schools and for pharmaceuticals company. We design each pieces of the furniture is built to last for lifetime. Our wide range of modular elements and adaptable furniture, help you design a modern space that conforms exactly to your individual needs.

OPERATION ROOM CONTROL PANEL

Our Range Of Modular Operation Room
Panels Are Suitable For Super Specialty &
General Operation Theater Rooms



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 Pre-Construction To Commissioning And Beyond
- Adopting New Initiatives And Modern Methods Over Products And Installations
- Promoting Delivery Through Frameworks Replacement Spares / Services Available

WIDEST RANGE OF CLEAN ROOM & HVAC SYSTEMS

List of Products & Services Offered By AIRCARE PROJECTS PVT. LTD.

- | | |
|---|---|
| 1 MODULAR CLEANROOM WALL PARTITION & CEILING SYSTEM | 5 ALL TYPES OF CLEAN ROOM & INDUSTRIAL FLOORING |
| 2 HVAC SYSTEM | 6 HVAC COMPONENTS |
| 3 CLEANROOM EQUIPMENT | 7 COMMISSIONING & VALIDATION OF CLEANROOM |
| 4 CLEANROOM ACCESSORIES | 8 DOCUMENTATIONS AS PER REGULATORY |
| | 9 COMPLETE HOSPITAL SOLUTION (NABH) |



For Cleanroom Environmental Solution at Single Source

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