

Hvac & Cleanroom System & Solution



# **Corporate Office: -**

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# Factory Address: -

Zone 1: Plot No. AM – 82, Additional MIDC Industrial Area, Murbad Shahpur Road, Murbad, Kalyan – 421401

Zone 2: Plot No. M – 85, Additional MIDC Industrial Area, Murbad Shahpur Road, Murbad, Kalyan – 421401



## **HISTORY:**

- AMICRON CLEANTECH PVT LTD (Formerly known as AIR MICRON CLEANTECH) is one of the leading designers, manufacturers, contractors of Air Handling Units / Ventilation / Exhaust Systems / OT Hospital Projects / Pharmaceutical Project along with other HVAC equipment in India required for various industries having its manufacturing Unit located at MIDC – MURBAD, 40 Kms away from Mumbai City.
- AMICRON is a 12 years old venture, specializes in Conceptualization, Design, Construction and Validation of Modular Operation Theatre (O.T) Plenums, Unidirectional Air Flow Systems (formerly known as Laminar Air Flow Systems), Clean rooms, Biosafe environs, Containment facilities and other associated controlled environments, Sampling & Dispensing Booths, Sterilizing, Biological Safety Cabinets, Air Showers, Garments Storage Cubicles, Pass Boxes, Modular Wall & Ceiling Panels, Doors and View Panels etc, Pre-filters & HEPA filters and other clean air devices.
- It is with great pride we would like to mention here that we have successfully completed various projects in <u>HVAC / Cleanroom Solution / Modular Operation Theatre application</u>.
- We also undertake Annual maintenance & operation contract for Hospitals, Pharma Industries, showrooms & industrial premises.
- Our production facilities offer accurate and automatic fabrication equipment along with a well-coordinated work force of highly skilled technicians to manufacture Pre-engineered & Pre-fabricated for clean room applications.

Now, **AMICRON** is coming up with more experience & qualitative work with best of our efforts. We can carry out any challenge in manufacturing and we can meet customized order as per customer's requirement. We have all MS/SS fabrication facility consist of well qualified & skill fitters, welders, packers etc. We have well Experience Engineer trained Labour & staff.

Consistent quality control starting at the receipt of goods, followed by repeated checks in the individual attention, right up to the constant top quality of our fabrication work.

## **COMPANY PROFILE:**

- Amicron is strongly known for its quality, timely delivery / project execution and services
- Amicron deals with designs, supply, installation, testing and commissioning of proper air management systems for suitable application.
- Our products & services mostly useful for all applications like Modular O.T Systems, Pharmaceutical Industries, Heavy Engineering Industries with Cleanroom concept, Comfort Air-conditioning, etc.
- In order to satisfy the market demand and the requirements of the clients, the company constantly makes innovation and develops new products. The company constantly increases the investment; it has got the certificates of quality system certificate.
- Perfect quality guarantee systems and advanced design technology makes products quality stay in the leading position in the market.



## **MODULAR OPERATION THEATRE**

### **<u>CEILING LAMINAR AIR FLOW (L.A.F) / O.T PLENUM:</u>**

AMICRON Clean makes customized Ceiling suspended laminar air flow unit as per the Site conditions & client requirement. The size & type of LAFUs depend on the type of process and size of the connecting process equipment. For Operation Theatre purpose, we have a standard size with various optional accessories as following:

- 1) 8ft x 8ft
- 2) 8ft x 6ft
- 3) 8ft x 4ft
- 4) 6ft x 6ft
- 5) 6ft x 4ft

Amicron manufactures state of the art Ceiling suspended OT Plenum (Laminar Air Flow) having bottom operated HEPA filter arrangement (Efficiency 99. 97% down to 0.3 micron) with Anti-Microbial Air Light Diffuser.



## **4** <u>AIR HANDLING UNIT (AHU):</u>



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**AMICRON** is leading manufacturer of Clean Room and Air-conditioning Equipment's. Amicron offers Air Handling units that are developed and powered with innovative technology to provide customer satisfaction. We offer various kinds of air handling units ranging from lower to a larger capacity of 500cfm to 75000cfm. Our range of air handling units includes single skin air handling units and double skin air handling units with thermal break and non-thermal break profile and panel thickness is from 25 & 50 mm.

Туре	AMICRON make Horizontal /Vertical /Ceiling Suspended
Model	Double/Single Skin/Double Decker
Capacity	400 CFM to 50000 CFM
Static Pressure	25 mm to 150 mm of Water Gauge
Inner Skin MOC	0.6mm thick PPGI / 0.6mm thick S.S 304
Outer Skin MOC	0.6mm thick PPGI
Panel Thickness	25 mm / 50 mm thick
Panel Infill	Sandwich construction with CFC Free PUF Insulation – 40 Kg/m <sup>3</sup> Density
Frame Work	Extruded aluminum profile with nylon fitting
Base Frame	GSS Frame
Coil	4 / 6 / 8 Row Copper Tube with aluminum fins
Drain	S.S 304 Material
Motor	3 Phase TEFC Squirrel Cage Motor – Eff 2 / Eff 3
Fan	Forward and Backward Fan (Belt Driven / Plug type Direct driven)
Filters	50mm thick pre filter (10 $\mu$ ) / 300mm thick fine (3 $\mu$ ) / 300mm thick HEPA filter (0.3 $\mu$ )





## **4** MODULAR WALL & CEILING PANELS:

AMICRON Wall / Ceiling panels are manufactured in standard sizes and can also be customized depending



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on the requirement. Amicron provides complete turnkey solutions for the Modular Operation Theatre right from designing, manufacturing, execution & Validation as per the International & Govt. approved Standards.

The Wall & Ceiling panels are available in various options:

- 1. Stainless Steel (S.S 304 / S.S 316)
- 2. Galvanized & Powder Coated (P.P.G.I)
- 3. Galvanized with Anti-Microbial Paint



#### **PRE FABRICATED OT SWING DOORS:**

**AMICRON** offers special O.T Swing Type Doors having insulated Sandwiched panels with our unique self-designed Aluminium profile & gaskets to minimize the leakages across doors. Option for double glazed



viewing glass can be provided. All the necessary Door accessories like S.S 304 "D" type Handle, S.S 304 Ball bearing Hinges, Door Closer, Door Lock with Cylinder, S.S 304 Kick Plate, Door drop Seal, etc. shall be provided with the doors.

Sizes shall be as per the customer requirement depending upon the opening, available in Single / Double Flaps. Concealed drop seal for the doors shall also be provided at bottom to avoid any external contamination / leakages.



**DOUBLE LEAF** 

#### **PRE FABRICATED OT HERMATICALLY SLIDING DOORS:**



#### **4** <u>SURGEON CONTROL PANEL:</u>

**AMICRON** offers entire set up of Modular Operation Theater Control Panel (Surgeon Control Panel). Safety standards are key factors taken into consideration and well adhered to.



With the touch sensitive monitor, which can be operated directly by the touch of a finger, operating and monitoring of OT parameters like temperature, humidity is now very simpler. The graphical User interface is capable of displaying and controlling all kinds of complex OT parameters. The end result is an overall system that is both modular and flexible, enabling it to be adapted or expanded, or to accommodate new technologies.

All the controls for the modular operation theater are provided on a membrane type and touch screen type, microcontroller based electronic control panel which is mounted on the theater wall.



#### The Surgeon Control Panel consists of following Features:

- 1. Real Time Clock
- 2. Elapsed Time & Count Down Time (Timer)
- 3. Peripheral Light Control with Dimmer
- 4. OT Light On/Off
- 5. HVAC (AHU) On/Off
- 6. Temperature with Set points
- 7. Humidity with Set points
- 8. Medical Gas Alarm for 5 Gases & 1 Vacuum
- 9. Hepa Filter Status Indicator
- 10. Hands Free Telephone (Intercom)
- 11. Digital Differential Pressure
- 12. Music Player / Audio Alarm
- 13. USB Stick Port, Plug & Play

#### **4** <u>X-RAY VIEWER</u>

**AMICRON** Digital X-Ray Viewing Screens are made up high quality opaque acrylic sheet and electrolyzed steel with powder coated material that displays a magnified image. These viewing screen are very useful in viewing the image in hospital like ultrasound, radiology etc. These are very hygienic and very easy to clean. These are available in single, double, three and four plate models.



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## **4** <u>MAGNETIC WRITING BOARD:</u>

AMICRON Magnetic Writing Board is flushed into the Clean room wall, thereby making the Clean room seamless and does not permit dust or any particles to enter the clean room from the joints. The board is also coated with an antimicrobial coating making it useful for all clean rooms. Because of the magnetic property the magnetic duster and the magnetic marker can be stick directly on the writing board and you do not need to keep the marker and the duster hence making it extremely useful for all clean room applications.





## **4** O.T STORAGE CABINET:

**AMICRON** manufactured OT Storage Unit is ergonomically designed made with 1.50 mm thick E.G.P. Zinc coated steel panels homogeneously filled with poly urethane foam. The doors of the storage cabinet house vacuum insulated glass, these doors are installed on the storage units with the help of imported fittings allowing an opening allowance of 160 degrees. The storage unit is divided in 2 equal parts and each part having individual doors with locking system. Each part is provided with steel racks which is completely detachable type.



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#### 4 <u>SS 304 SCRUB:</u>

**AMICRON** manufactures a vast array of OT Surgical Scrub Sink with options of Automatic / Foot operated Scrub sink. The scrub sink is polished to a satin finish in S.S 304 material. The scrub sink is fitted out with automatic sensor tap (2 nos) with foam flow attachments and automatic sensor operated betadine dispensers (1 nos).. These products have foot operated panel using



operated taps. In our range we are offered OT Surgical Scrub Sink with Single, double and triple bays.





#### **4** <u>SINGLE & DOUBLE ARM PENDANT:</u>

**AMICRON** make Single Arm pendent made of Aluminum powder coated box, under the expert supervision of our team of experts. We offer superior quality Single Arm Pendants, which are manufactured using sophisticated technology and quality raw material. These Single Arm Pendants are fitted with height- adjustable motor arm. Our Single Arm Pendant offers optimal horizontal and vertical movement with the aid of moveable axes.



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#### The Single Arm Pendant consists of following Features:

- 1. Provision for two oxygen, one Nitrous Oxide, two vacuum and one compressor air medical gas outlets with pressure & vacuum gauges, Medical Alarms, etc.
- 2. Available with twin 5/15 Amp 220 V electrical sockets, 4 splash proof type & one I.V hooks and two heavy duty monitor trays.
- 3. Load bearing capacity of monitor trays is up to 70 kg.
- 4. Movable arm length: 1000 mm
- 5. Console and pendent box of the single arm pendant move at 330-degree maximum movement.

#### The Double Arm Pendant consists of following Features:

- 1. Provision for two oxygen, one Nitrous Oxide, two vacuum and one compressor air medical gas outlets with pressure & vacuum gauges, Medical Alarms, etc.
- 2. Available with twin 5/15 Amp 220 V electrical sockets, 8 splash proof type & one I.V hooks and two heavy duty Equipment Shelves
- 3. Load bearing capacity of monitor trays is up to 90 kg.
- 4. Movable arm length: 1000 + 750mm
- 5. Console and pendent box of the double arm pendant move at 330-degree (Each Joint maximum movement.

#### <mark>↓</mark> <u>VINYL FLOORING:</u>

**AMICRON** provides high quality, homogeneous press tile with excellent wear and tear resistance. The static charges generated due to friction could lead to the damage of the sensitive electronic device, data loss, system malfunction or even lead to accidental fires. We provide effective protection against static charges. The floor finish in the operating room will be 2mm Antibacterial, Anti-fungal, Conductive vinyl flooring, laid on a semi conductive adhesive base. The floor finish will terminate at the room perimeter passing over a concealed cove former and continuing up the wall for 100mm.



All joints will be welded with electrodes of the same compatible material to provide a continuous sealed surface. The floor will have an electrical resistance of 2.5x10 to 10 6 Ohms, as per DIN 51953





## **4** <u>EPOXY FLOORING:</u>

**AMICRON** Theatre flooring is performance and functionality led and our flooring solutions exceed the requirements of the Hospital Building. Due the highly sensitive electronic devices used in theatres which emanate electrostatic discharges, hospital operating theatre flooring must be dissipative in order to protect staff and the patient.

Theatre floors need to be slip resistant, completely seamless and easy to maintain to offer the maximum hygienic flooring solution. At Amicron, we understand all the components which are necessary to supply flooring for theatres.





## PASS BOX / HATCH BOX:

**AMICRON** make Static and Dynamic pass boxes thrives to meet the customer specific requirements and to the highest standards. Option of choosing the type of pass box depends on the containment level and transfer of material from one class of cleanliness to other class of cleanliness.

#### STATIC PASS BOX:

Static pass box equipment are fabricated with powder coated 304 / 316 grades stainless steel and high quality components and are capable of eradicating pollutants completely from the air. These static pass boxes are installed in manufacturing areas and filter the incoming air in order to keep the air free from dust



and other contaminants. With UV light along with hour meter, Fluorescent light, buzzer indicator to know the material is kept inside and indicating lamp, these static pass boxes provide excellent working performance in the clean room unit.

#### **DYNAMIC PASS BOX:**

Dynamic Pass Box equipment are made of powder coated high grades stainless steel (304 / 316 / 316 L) with international quality standard components including mechanically or electrically interlocked doors and UV light. This dynamic pass box equipment is equipped with suction filter made of stainless steel with 95% down to 5µ efficiency (EU-4rating) and supply filter made of aluminum with 99.999% down to 0.3 µ (EU-14 Rating.) An interlock guard system controls the inlet and the outlet of PASS BOX not be opened at the same time, in order to prevent the cross contamination.



