



MACKEA
PROTECH
ENGINEERING AND AUTOMATION

MFGRS. HVAC, CLEANROOM PANELS AND EQUIPMENT



Cleanroom Partitions and Doors



About MACKEA

MACKEA is a group of MACK Pharmatech has been working continuously in the field of manufacturing Pharma and lab equipment's since 1999. As pioneers in this field, the solutions from Mack were readily accepted by the customers. Since then, with its unflinching focus on customer requirements, Mack has evolved into the largest manufacturer of Environmental chamber in India. We are an ISO 9001:2015 organization certified by BSI for the scope of manufacture, Installation, and servicing of laboratory equipment. With the vision to widen our product range, Mack has launched new products - Cleanroom panels and Air Handling Unit, under the name of MACKEA, to serve requirements of customer.

MACKEA has in-house manufacturing facility & experienced R&D team. We apply continuous development processes and technology tools to our needs as well as those of our clients.

MACKEA tends to maintain the standards set by MACK for quality & service. Our extensive dealings with the leading pharmaceutical companies have given us a deep insight into learning methods, processes and standards. Understanding consumer needs and the ability to map it to successful technology/product is our distinctive quality.

VISION

To be the leading manufacturer of cleanroom equipment and air handling unit.

MISSION

- To be the leading manufacturer of cleanroom equipment and air handling unit.
- To exceed customer expectation by delivering the best quality product with quality product with quality swift service
- To adopt and devise advanced manufacturing techniques for ceaseless enhancement in quality and improvement in delivery performance.
- To supply technologically advanced product and to bid 24x7 service.

OUR COMMITMENT



DR. KIRAN BADGUJAR
[Co-Founder & Director]

MACKEA is committed to be indispensable and manufactures of HVAC, Control Panel & Equipment. We must, as a team, remain hyper-sensitive to the changes for acute projection and continuously improve our professional knowledge and skills.



MANOJ CHAUDHARI
[Co-Founder & Director]

Our commitment always ensures; our products are in compliance with GMP and other manufacturing regulations, on time delivery without any compromise in quality and 24X7 service backup for proper maintenance service of our products through experts and expertise in electronics and mechanical engineering.

CLEANROOM PARTITIONS AND CEILING

MACKEA has wide range of cleanroom partitions and ceiling systems having technical requirements of high specifications, controlled environments such as microelectronics, food processing plants, pharmaceutical, as well as biotech industry.

WALL

To make perfect cleanroom, the necessary ingredient of cleanroom is wall panels. Wall panel is a most important part of our product. We manufactured this wall panels in standard size and also customized sizes are available on the requirement.



SPECIFICATIONS

- Standard size: 1200 X 3000mm (Up to 6000mm Height).
- Thickness: 0.6/0.8/1 mm.
- Skin Type: GPSP / SS 304 Sheet.
- Panel Thickness: 50 / 80 / 100 / 150 mm.
- MOC : GI Pre-Coated/GI powder-coated/SS – 304.
- Fastened to extruded aluminium / GI profiles.
- Duct grill cut out as per design.
- In-built power sockets and Magnehelic gauges.
- In-built Return Air Riser 80 mm and above.
- Infill : PUF (40kg/m³)/ Rockwool (96kg/m³) (other infill options available on request).

CEILING

To make perfect cleanroom, one of the most important part is ceiling. MACKEA provide ceiling which designed to fulfill every requirement and maintain quality standard which consist with the rest of room panels. These ceiling panels are placed on a particle tight extruded aluminium grid matrix with silicon sealant.



SPECIFICATIONS

- Standard size: 1200 X 3000 mm (Up to 6000 mm Length)
- Thickness: 0.6/0.8/1 mm
- MOC: GI Pre-Coated / GI powder-coated/SS – 304.
- Factory-made Cut-outs (For Filter & Light Fixtures and other Services)
- Panel Thickness: 50 / 80 mm
- Skin Type: GPSP / SS 304 Sheet
- Ceiling suspension.
- Infill: PUF (40kg/m³)/ Rockwool (96kg/m³) (Other In-Fill options available on request).

DOOR

MACKEA provide wide range of cleanroom compatible doors. Doors are compatible for avoiding the air existing from the room. These door have mechanically interlocked vertical edges which makes door light & heavy use. The vertical edges provide strength and rigidity for the door.



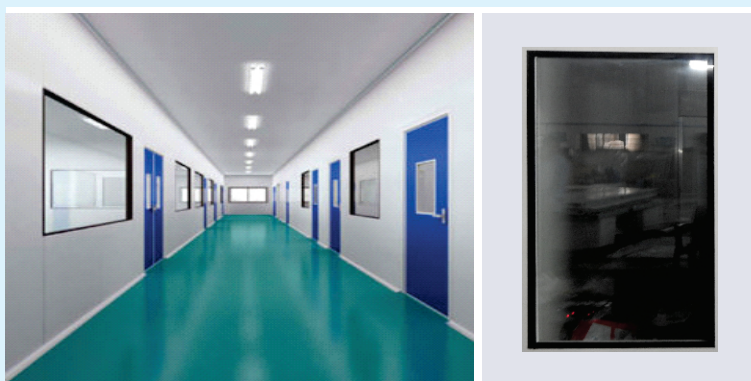
SPECIFICATIONS

- MOC- Frame- 1.2mm,GI powder coated
- Shutter-0.8mm/0.1mm P.C.G.I, SS304.
- Toughen glass
- Kick plate
- Push plate
- "D" type SS Handle heavy duty door closer.
- Custom dimensions available.
- Heavy duty structure for high durability.
- Infill- PUF/flameproof/Rockwool/honeycomb.

VIEW PANEL

MACKEA is among the top cleanroom solutions providing companies in the world.

MACKEA view panel system manufacturing technique, coupled with specification, provides an impervious smooth surface which is inherently strong, resistant to damage and chemical attack.



SPECIFICATIONS

- Surface treatment- coated.
- Toughen glass having thickness 6 to 10mm.
- As per application will provide vacuum glass.
- Flash mounted & double glass window with silica gel packet.
- Single glass window.

ACCESSORIES

Cleanrooms are unique in their construction, having virtually every component built in during production to suit all applications and to meet industrial requirements.

The major accessories required for cleanroom construction are.



COVING



3D CORNER COVING



VIEW PANELS



INBUILT RAISERS



CEILING CUTOUTS



WALL CUTOUTS



SCIENTIFIC DOOR



EMERGENCY DOOR

OUR INFRASTRUCTURE

Cleanrooms are unique in their construction, having virtually every component built in during production to suit all applications and to meet industrial requirements.

The major accessories required for cleanroom construction are.



CNC SHEARING MACHINE



CNC BENDING MACHINE



CNC LASER CUTTING MACHINE



PUFF FOAMING MACHINE

Our Manufacturing Facility Includes :

- CNC Bending Machine
- CNC Shearing Machine
- CNC Laser Cutting Machine
- Fully Automatic High & Low Pressure Puff Foaming Machine
- 6 Meter Long Hydraulic Creff Bed
- 3 Meter Long Hydraulic Creff Bed

AIR HANDLING UNIT (AHU)

MACKEA provide wide range of air handling unit which is use in various application from small industrial application to large industrial application.

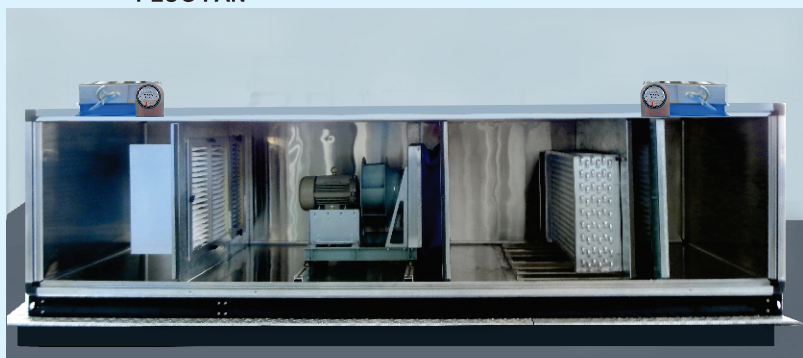
The product range of MACKEA of all items, systems, components, have been developed to satisfy clean-up demand of low energy consumption.

Heat exchangers, motors, & fans units fulfil the future demands for low energy consumptions.

All products of MACKEA manufactures to suit all environmental requirements. They provide easy installation and service. Many of the unit have plug & play control system.



PLUG FAN



AIR HANDLING UNIT (AHU)

SPECIFICATIONS

- MOC-G.I Powder coated/P.C.G.I/SS 304.
- Single skin/Double skin-25&43mm.
- CHW Cooling coil.
- DX Cooling Coil.
- HW Coil.
- Air Heater System.
- Non thermal& thermal break.
- Aluminium Profile.
- SS 304 Drain pan.
- Easy to maintaining & handling.
- Food Grackle Gasket.
- 40kg/m3 Puff Panel.
- DPP, CO2 Sensors.
- Low power Consumption.
- Low Noise Level including fire damper.

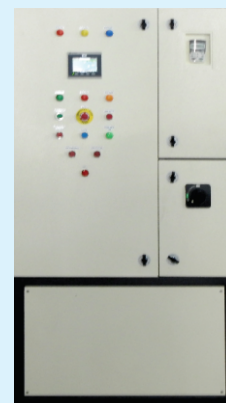
CONTROL SYSTEM

MACKEA provide AHU which is preinstalled, preconfigured, and having fully integrated control system. The operating data, set points, alarms, operating status time, setting is displayed on the controller. The function and parameters are selected from the HMI.

The temp, pressure, humidity as preloaded with the control system. The set points are modified at the field if required.

The control system is capable of performing various function such as

- Temperature control for supply air or room conditions.
- Relative humidity control
- Constant air volume control for supply air
- Run around coil heat exchanger control
- Electric heater control
- Cooling/heating coil water flow control
- Integration of DX coil with outdoor condensing unit
- Fresh/return/bypass/mixing/supply air damper control
- AHU shut off from external fire signal
- Possibility to access the control system remotely through WEB
- Possibility to add additional control/alarm points as per customer's need



CONTROL PANNEL

PLC FEATURES



Touch Screen Display



- PLC Based Control System.
- PC Communication Via Ethernet
- Online Monitoring on Graphic LCD 3.8" Touch Screen Display
- Password Protected AHU On / Off
- Password Protected Set Value Change
- Password Protected Settable Print Frequency.
- Snooze Hooter System
- Event Logger Facility
- Actual Status Monitoring of Major Utilities
(Temp, CO2, Pressure, Flow, Cooling System)

BMS Software (following 21 CFR PART 11 COMPLIANCE)

Features-

- Secured Audit Trail (user, Equipment, Alarm SMS, Events)
- E-records And E-signature with date and time stamp
- Real time analysis
- Graphical Analysis
- First time user login change password
- Password encryption
- Alpha numeric password and password ageing
- System administration
- Authorized multilevel username & password
- Data acquisition
- Offline analysis (in tabular and graphical analysis)
- Data generated on PDF format
- Realtime parameter setting
- My SQL (RDBMS) Database
- Automated Backup Facility
- Auto Logout, Account Blocking and Reactivating Facility
- Log Data, Event and Audit Trail Data Recording
- SMS, Email Alert System



LOGIN WINDOW





MACKEA PRODUCT LIST

1. Cleanroom Panel & Partitions
2. Air Handling Unit
3. Dynamic Pass Box
4. Static Pass Box
5. Horizontal Laminar Airflow Unit
6. Vertical Laminar Airflow Unit
7. Reverse Laminar Airflow Unit
8. Biosafety Cabinet
9. Fume Hood



MACKEA
PROTECH
ENGINEERING AND AUTOMATION

MFGRS. HVAC, CLEANROOM PANELS AND EQUIPMENT

Address :

Plot No B80, Malegaon MIDC Sinner
Dist. - Nasik- 422113.

Email ID :

sales@mackeaprotech.com
info@mackeaprotech.com

Contact us :

+91 8956935809

