



Modular Operation Theatre

about us



M/s MEDICARE PLUS HEALTH CARE PVT. LTD. is a Company incorporated under Indian Companies Act 1956'.

M/s MEDICARE PLUS has been actively involved in the Trading of Medical Equipments , Manufacturing Of Hospital Furniture & Design, Installation & Commissioning of Central Medical Gas Pipeline System & Medical Architectural Solutions .

To highlight a few of our achievement in this, in a short period of 8 years we have commissioned more than 100 projects and are enjoying a leading position in the our segment across northern Part Of India These Areas Covered by well skilled Sales team..

M/s Medicare PLUS has never looked back. Today we have grown considerably and consistently with the strategic tie-up with India's leading medical solutions providers M/s Allengers Medical Systems Ltd., Maestros Mediline Systems Ltd., Fresenius Medical Care ,B BRAUN, Tufft Surgical Instruments and can proudly admit to having created a niche for ourselves in the field of Medical Equipments , Medical Funiture and Medical Pipeline Distribution System in & around Northern India U.P. Our client list corroborates this and does not dismiss it as mere boasting. Our strongest aspect being "Innovative Solutions & Round the Clock Availability of Quality after Sales Service", suggested by our motto "Our Service is Just a Call Away.

"We have team of trained engineers and skilled professionals.We have sufficient stock of spares to take care of an efficient back up service. Our Services include any medical equipments , medical Furnitures and designing, supplying, installing and maintaining central Medical Gas (Oxygen, Nitrous Oxide, Compressed Air, & Vacuum) pipeline systems along with their respective accessories. Our product range are in a constant phase of evolution, so that our clients not only enjoy our quality services but also enjoy the benefits of long lasting quality products as well. Finally we thank you, please feel free to contact us in case of any doubts / queries / inquiries. We would be happy to oblige.









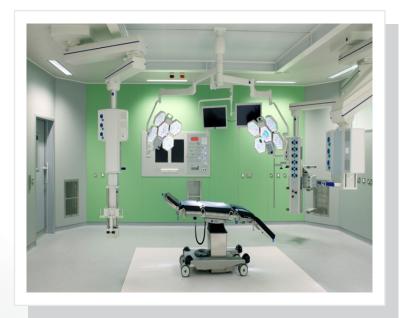
ZINK COATED STEEL / SS PANEL / PUFF PANEL / GLASS PANEL

Galvanized steel is produced by dipping bare steel in a bath of molten zinc metal, a protective coating is formed by metallurgical reaction between iron and zinc, providing both a barrior and cathodic protection that pritects steel, delivering a rust and maintanance free system in most environments for many years. The zinc iron alloy layers of the steel coating are harder than steel and are unaffected typical rough handling, during erection. The walls are constructed using 1.60mm thick Zintex steel panels, backed by 12mm gypsum board panels having flame resistance & The individual wall panels are bolted / tag welded together along with Anti Bacterial based coating system on wall, ceiling, which protects against the growth of micro-oraganism, such as mould, funbgi, yeast and bacteria on its surface. Meets with Fire safety Norms, abrasion resistance and can withstand with impact of trolleys, along with incl. nitric acid and caustic soda test, resistance to phosphine, coats of antibacterial & antifungal paint equivalent to a minimum dry film thickness of 300 microns.

Note: Stainless Steel Wall Panels can also be done, having the same properties as that of Zintex Steel, except having much better corrosion resistance and also being mor expension.

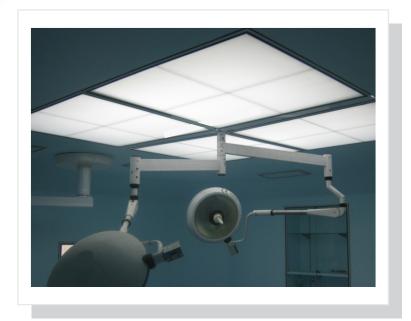
CONCEPT OF MODULAR OPERATING THEATRE

Surgical Site Infections (SSIs) are the second to the most common site of health care associated infections (HAIs).



These complications of surgical procedures cause considrable morbidity and, when these occur deep at the site of the procedure, can carry mortality as high as 77%. There are several key stemps or "chains" that have to be connected to result in infection. However, for SS is the initial introduction of microbial pathogens occurs most often during the surgical procedure performed in the Operating Theatre (OT). Thus to reduce the risk of SSI, a systematic but realistic approach must be applied with the awareness that this risk is influenced by characteristics of the patient, operation, personnel and health care facility. Following the path lowards putting all essential benefits in an Operation Theatre a new sphere rises which now is called with "Modular OperationTheatre."





PLANAIR SYSTEM WITH LAMINAR FLOW

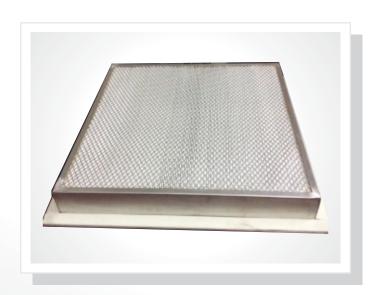
Mediline Air and light integrated Plan-air confirms to class 100 Certified Performance to DIN to 4799 and ISO 14644. Plan-Air Celing system with undirectional airflow. Plenum unit, Holding structure & Top plenum are made of 1.6mm thick Aluminum Sheet, with aluminum extrusion frame & sealed gasket conforming to DIN 4799 standards for the air distribution system with HEPA filter having efficiency 9997% down to 0.3 micron, The laminar flow system is having such design that it provides "S" class HEPA filter. Diffuster: 2 layer monofilament precision woven polyster of uniform porosity with an open area of sufficient resistance to create laminar from diffusers face and integral lighting provides an illumination level

in excess of 15000 LUX in operating area and 10000 LUX other electronic stop-less dimming down to 5% without flicker. An air change is defined as occurring when a volume of air equivalent to the volume of the room has been supplied to or removed from that room.

The air change rate is calculated by dividing the air supply rate by the room volume. Ventilation rates in operating theatress should equate to around 20 ACH or above.

HEPA FILTER

Air Filtration: The AHU must be an air purification unit and air filtration unit. There must be two sets of washable flange type pre filters of capacity 10 microns and 5 microns with aluminum / SS 304 frame within the AHU. The necessary service panels to be provided for servicing the filters, motors & blowers. HEPA filters of efficiency 99.97% down to 0.3 microns or higher efficiency are to be provided in the OT and not in the AHU.







HERMETICALLY SEALING DOORS

Hermetically sealing doors are available in both Sliding and none Sliding type of doors with option for manual or automated operation (applicable only with Hermetically sealing doors). automation employs for door with the help Microprocessor based Electronic Control Unit for controlling movement with low noise level motor. The acceleration and speed of the door can be adjusted. These Doors comes with a special inside & outside lever handle that lifts out the door blade from its hermetic closing position, thus allowing effortlessly open / closing manual operation of these heavy doors, for smooth & effortess sliding, the door is having special nylon top rollers with double roller bearings. The system comes complete with Elbow switch / foot (optional) switch & radar switch (touch less sendor) for operation of Door, with glass vision window & necessary accessories etc. The automation controller for the door is microprocessor base with regulated electro-mechanical sliding door drive and the automation is having the capacity to operate a door with weight of 250 kg & maximum door with of 3500mm. The Automation of Door carries the variable/adjustable opening and closing speeds, with opening speed adjustable between 120mm / sec ---- 800mm / sec and the closing speed adjustable between 120mm/sec----500mm/sec.

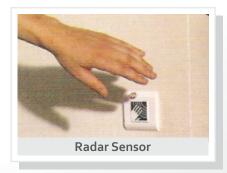














OPERATION THEATRE CONTROL PANEL (TOUCH SCREEN)

Touch Panel With the touch sensitive monitor, which can be operated directly at the touch of a finger, operating and monitoring of OT parameters like temperature, humidity is now very simpler. The graphical interface is capable of displaying all kinds of complex topologies. The status and command information is presented in a manner that is well structured and clear. 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.



Specifications:

Dimension : 700mm x 700mm x 165mm

Circuit Voltage : 24V & 12V DC
Digital Clock : (HH: MM: SS)

 ${\bf Elapsed\ Clock} \qquad : \quad {\rm (HH:MM:SS)\ (Start-Stop-Reset)}$

Separate Switch for Display ON/OFF

Light Control : 3 Channel (2 for peripheral Light & 1 for Plan air)

o-1oV Dimming Range 2 Channel (2 for OT light on/off)

Temp/Humd. : Display room Temp. & Humidity

Gas Alarm : 5 Channel (4 Gases + 1 Vacuum) High / Low / Normal / Indication)

Hans Free Phone : Dialing & Receiving Calls with caller ID
Hepa Filter : Shows Hepa Filter status (Normal / Choke)

Music Player : Plays mp3 & other supported files



OPERATION THEATRE CONTROL PANEL (DIGITAL)

- All the controls within the theatre are located on a membrane type control panel (6 Service Tiles) mounted flush in the theatre wall with distribution board complete with all accessories. A remote electrical distribution board is provided to allow access to the panel for maintenance, with access to the theatre.
- Each Control Panel shal contain: One Time elapse clock, One Standard Clock, Temp and Humidity Indicators, Temp and Humidity Set Point Adust, Plenum Lighting Controls, Medical Gas alarms, Hand free Phone.



X-RAY VIEWING SCREENS (TWIN PLATES)

The theatre is equipped with a twin plate X-Ray Viewing Screen, recessed in the wall and designed to provide a high level of control luminance, from a unit that is easy to clean and maintain. (Dimming range 3-100%) (Size: 948mm). The X-Ray viewing screen illumination is by high frequency fluorescent lamps, controlled by dimming ballast. The front panel operating theatre wall (or may as an option be integrated within the control panel fascia), The fluorescent lamps provide a uniform level of illumination across the entire front panel.







Size: 940 x 640 x 50 mm

EQUIPMENT STORAGE UNIT

Equipment storage unit is made of 1.55mm thick EGP 120 GSM Zinc coated steel complete with all accessories of dimension approved by the user & is flush mounted into the theatre wall with a sterile jointing system & is suitably partitioned / shelved to allow storage for common endoscopic equipments, has the facility of secure locking.

OPERATING LIST - WRITING BOARD

Operating List - Writing Board is flush mounted system with a sterile jointing. Operating List - Writing Board is made of 1.50mm thick, white laminate board thus results the excellent quality of visibility, This White laminate board is firmly bonded to a 1mm steel sheet for additional rigidity and it can be conveniently cleaned.



PRESSURE RELIEF DAMPER (PRD)

Pressure Relief Damper (Cascade Pressure Stabilizer) is installed / provide in each operation theatre to prevent cross contamination of air from clean and dirty areas. Suitably sized air Pressure Relief Damper is strategically placed, enable differential room pressure to be maintained and ensure that when door are opened between clean and dirty area. Counter-weight system is provide in the PRD to maintain positive pressure inside the operation theatre. Air pressure stabilizers have unique capacity of controlling differential pressure & open fully at pressure only fractionally above the threshold pressure. The PRD body is epoxy coated ad per standard BS colors & meets international quality and safety requirements. High class electrolyzed steel plate is used for body and with high grade stainless steel for blades. The prd are accurate to a range of 1 Pascal over their working range of 5-35 pa.





ANTI STATIC CONDUCTING FLOORING

One of the most challenging and anxiety-inducing decisions buyers encounter involves the selection of the correct ESD floor. It involves marriage of competing interests, including cost, durability, eragonomics, compliance with safety standards, appearance, total cost of ownership and of course ESD properties. Flooring system is of 2mm thick seamless conductive tiles having ESD/EMI (Conductiive) pritection characteristics with perfectly curved flush covering & all well welded joints.

HATCH BOX

The Hatch box made out of high grade of Stainless Steel sheets of Stainless Steel Standard Ss304 for disposal of dirty lines / waste & it is equipped with two electronically controlled door with indicators for monitoring of door operation, with designed in such a way that only one door will be opened at one time. The UV light will be so installed that it is kept on while both doors are closed, this UV light has to be automatically turned off in case of opening of either of the doors.





PERIPHERAL LIGHTS

Specifications:

Led Life : 50,000 Hours

Colour Rendering : 90%
Efficiency : 85%
Colour Temperature : 2700k
Maximum Surface Luminance : 3000 Lux
Wattage : 24 Watts

Dimensions : 585mm x 245mm



O.T. PENDANTS

MOVEABLE PENDANT - DOUBLE ARM



Moveable Pendant Double arm is having the operational movement of only horizontal way comprising moveable pendent with 1 x 1000mm long arm having weight carrying capacity of more than 80Kg, 8 no's electrical sockets 5/15 ampere, one monitor shelf and 6 nos. of gas outlets





MOVEABLE PENDANT - SINGLE ARM

Moveable Pendant Single arm is having the operational movement of only horizontal way comprising with 1000mm long arm having weight carrying capacity of more than 80Kg, 8 no's electrical sockets 5/15 ampere, one monitor shelf and 6 nos. of gas outlets.





Fixed Pendant is having 1000mm Console, having weight carrying capacity of more than 80Kg, 8 no's electrical sockets 5/15 ampere, One monitor shelf and 6 nos. of gas outlet





SWILL PENDANT

SWILL PENDANT system designed to provide Fix own Axis Rotation (270°) with Fix Shelf, medical gas outlets, electrical and specialty services. The ceiling pendant have comply with standard guidline. The Swill have extremely robust and revolve on high quality bearing, so that the pendant head glides. The pendant moving 180° or you can lock the position as per your requirements.



LAPAROSCOPIC/ENDOSCOPY PENDANT

Endoscopy Pendant Single arm is having the operational movement of only horizontal way comprising moveable pendant withlong arm having weight carrying capacity of more than electrical sockets 5/15 ampere, one monitor shelf and provision of gas outlets.







O.T. PENDANTS



MOVEABLE PENDANT DOUBLE ARM



MOVEABLE PENDANT SINGLE ARM



SWILL PENDANT



SURGICALS SCRUB SINK

Scrub Station is designed for use in operation theatre complex, providign surgeons with a convenient sink for pre-op scrub up. The Scrub Station is made out from heavy gauge high class Ss304 stainless steel sheet of 1.6mm thickness and seamless welded with brush up finish having tough, The Scrub Station comes along & equipped with front access panel, which is easily removed for access to the water control valve, waste connection, equipped with infrated sensor with built in range of adjustment & knee/foot operated functions with thermostatic mixing valve control is provided behind the access panel to maintain water temperature. The Scrub Sink is having pre user requirements, which make it very convenient to operate as of having user friendly functioning.



Single Bay ; 900 X 1380 X 580 mm Two Bay ; $1600 \times 1380 \times 580$ mm Three Bay ; $2100 \times 1380 \times 580$ mm



MOTORISED SANDWICH GLASS BLINDS



Discover Smoove open close RTSSimple and attractively - designed, the wireless touch command gets your drapery moving.



Discover Telis 4 RTSSimple and attractively - designed remote control to manage from 1 up to 5 applications on 5 groups of applications



Discover Thermosunis Indoor Wirefree Sensor Radio sensor that will automatically control a curtain based on a preset amount of sunlight and inside temperature.



Discover Telis 6 Chronis RTSAt dusk, the curtains close automatically and the light switches on.



HVAC DUCTING INSIDE OT'S

(A) ALUMINIUM DUCTING



- The Ducting Should Be Made Of Aluminium Material 18-20 Gauges Without Sharp Edge
- Should Be Provided And Ra Riser Should Terminate At Four Corner Of Ot.
- There Should Be A Gasket Of 3mm Food Grade Between The Joints

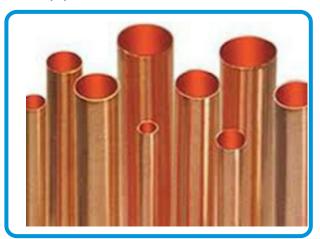
(B) RETURN AIR RISER WITH GRILL



- The Returne Air Riser Should Be Made Of Aluminium Material 20 Gauges Without Sharp Edge
- RA Riser Should Terminate at four Corners of O.T.
- There Should Be A Gasket Of 3mm Food Grade Between The Joints
- Aluminium Powder Coated Grill For Each Return Air Riser Duct Inside The Operating Room

MEDICAL GAS PIPE LINE INSIDE OT

(A) COPPER PIPE LINE INSIDE OT

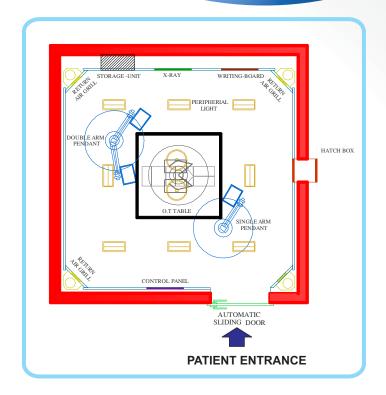


- Medical Grade Copper Tube/piping
- All Copper Pipe Must Be Duly Medical Grade, Seamless, Fully Degreased And Half Hard (Designeted To R250)
- It Should Confirms And Meets With The Latest, BS,EN 13348:2001 Standard. Chemical Composition As Per CU.DHP To 1190-1 And CW024A To EN 1412. Maximum Total Carbon Content 0.20mg/dm2.
- It Should Be Third Party Certified From Llyod Or Sgs Ormetallurgy Lab.
- Degreasing: All Pipes, Fittings And Valves Shall Be Degreased, Steam Cleaned Internally, Dried, shot Blasted And Blown Through With Medical Quality Air And Individually Capped At Both Ends After Passing A Visual Internal Inspection.
- Pipe Size Should Be Used As Mentioned Below: 15mm Od X 0.9mm Thickness And 22mm Od X 0.9mm Thickness And 28 Mm Od X 0.9mm Thickness



HVAC DESIGN PROCESS

- Room Size and Layout
- Lighting
- Equipment Layout
- Imaging Equipment
- Working layout



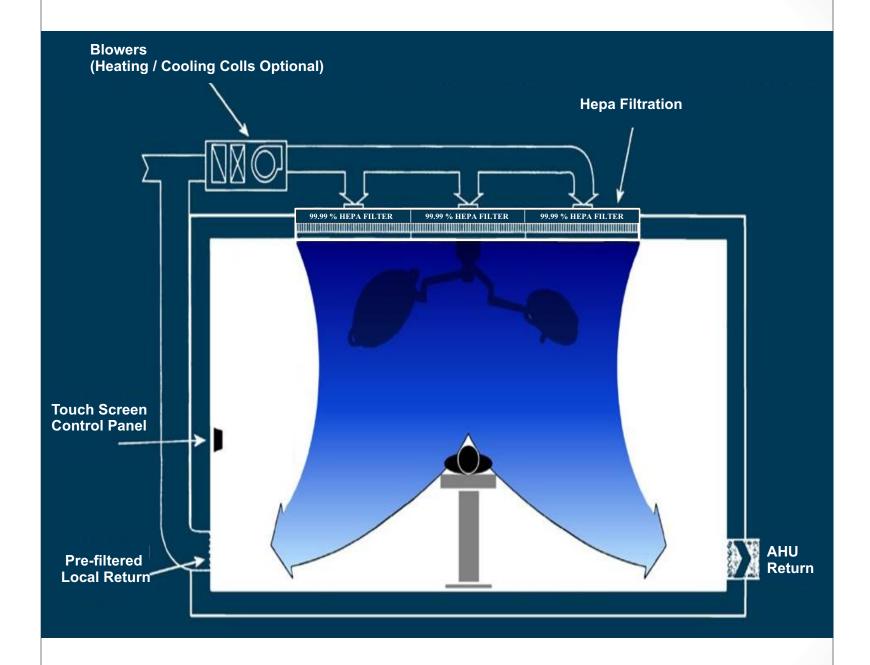


DESIGN CONSIDERATION

- Leminar Air Flow System
- Equipment Boom
- Anesthesia Equipment and Medical Gas Boom
- Light and Medical Boom



ULTRA CLEAN SURGICAL SUITES





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