

CLEANCAR[®]

Manufacturer of Modular Operation Theatre
Equipments



ABOUT US

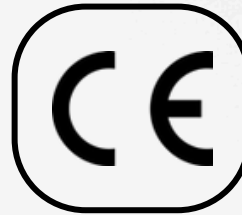
Cleancare today has been reckoned as the pioneering manufacturer, trader, and wholesaler of best-quality products. Our global reputation is achieved under the statutory responsibility to deal in an extensive range of many anticipated products, industrial products, including household items and components.

We procure best-suited inventory of raw materials and utilize cutting edge manufacturing technology to develop remarkable quality products that are globally demanded its practicable costs, durable performance, elegant design, appealing looks and industry-proven fabrication.

We understand that every customer comes with a unique set of needs, besides, we invest substantial resources in conducting worldwide market research to anticipate the client needs. Our line of products is carefully developed and rigorously inspected by using latest techniques to assure our patrons with its worth. Further, we work under deep scrutiny of quality controllers who make sure to conduct timely audits and verify every product range.

Cleancare India specializes in designing, manufacturing, and installing Modular Operation Theatre equipment

Manufacturing of Modular Operation Theatre Equipments



One-stop destination for MOT, MGPS, CSSD, Industrial Laundry and premium kitchen equipment solutions

MOT

MODULAR OPERATION THEATRE

Categories of Equipment We Offer

1. WALL AND CEILING PANELS

Cleancare India profile has a groove which fits seamlessly into modern designs, providing the area with an added layer of style. The panels are supplied pre-primed, making and applying a final coat.

The wall will be constructed using 1mm EGP sheet panel in the front panels & 1mm EGP sheet at the back panel. The Ceiling panel will be constructed using .8mm EGP SHEET panel in the front panels & .8mm EGP sheet at the back

panel. The core between two panels will consist of rigid polyurethane foam, which has been injected under high pressure, with a minimum, density of $40 \pm 2 \text{ kg/m}^3$. The individual wall panels shall use the tongue and groove technology for joining two panels, no welding will be allowed. The gaps between panels be suitably filled with metal filler/epoxy and sanded flush.

Thermal Insulation

- Low thermal conductivity ($\sim 0.022\text{--}0.03 \text{ W/m}\cdot\text{K}$), delivering high energy efficiency and up to $\sim 40\text{--}50\%$ heating/cooling savings
- Keeps interiors cool in summer and warm in winter
- Reduces energy consumption in AC/cooling systems
- Sturdy enough for temperature (-180C to $+140\text{C}$)

Lightweight & Strong

- Light weight, compact & construction friendly
- High strength-to-weight ratio, easy to handle and transport
- Modular pre-fabrication enables fast, precise construction
- Reduces structural load on buildings
- Offers good mechanical strength.

Quick & Easy Installation

- Prefabricated panels fitted with tongue-and-groove or cam-lock joints for watertight sealing
- Significantly reduced on-site time and labor costs
- Readily available in a range of lengths

Durability & Weather Resistance

- More durable and soundproof than traditional plasterboard
- Weather proof, with resistance to moisture, UV, and extreme climates
- Long lifespan with low maintenance
- Long-lasting with minimal maintenance
- Resistant to corrosion, rust, and pest damage
- Self withstanding power (does not need any base structure for installation)
- Acoustic & Fire Performance
- Made with fire-retardant grade PU foam
- Slows fire spread and enhances safety
- Sound insulation around $25\text{--}30 \text{ dB}$, depending on thickness
- Fire-rated options—self-extinguishing or fire-retardant



► Hygienic & Ecological

- Closed-cell PUF offers moisture barrier and mold resistance—ideal for cleanrooms/cold storage
- Recyclable materials, and energy-saving performance
- Scratch less
- High Elusion
- High Toughness
- Non-toxic materials, CFC-free PU foam
- Helps in sustainable building design
- Sheets are pre-painted and ready to be painted
- Anti-Bacterial

► Versatility & Customization

- Custom thicknesses (30–200 mm), lengths (up to 15m)
- Various finishes, textures, colors
- Suitable for walls, roofs, partitions, cold rooms, modular buildings, etc.
- Surface options: GI, PPGI, SS, or Aluminium sheets

2. LAMINAR AIR FLOW

ALUMINUM PLANAIR: (Laminar Air flow)

Laminar Air flow ventilation is used in modern operating theatre to reduce the number of infective organisms present in the air, which may lead to post-operative infection of the wound. The Plan Air Ceiling shall be constructed out of 1.5 mm Aluminum material, overall size 2400 x 2400mm or larger as per actual layout with SS 304 diffuser, having six no's HEPA filters (terminal filters). The plenum should provide the required air volume to achieve the temperature, pressure and humidity specified, and terminal velocity at the diffuser face. All HEPA filters shall be factory tested and certified in accordance with international standards. Air shall be diffused into the theater uniformly over the total area.

Features

- Side panels ensure effective laminar flow
- Involves low-risk substances
- Provides dust free air space
- Robust in construction
- Good finish
- Longer life

► Applications:

- Microbiological manipulations
- Bio-assays and sterility testing
- Provides protection for open vessels of chemicals, solvents or powders
- Operations in parenteral production, hospitals, food and beverage, agriculture, animal husbandry, avionics and biotechnology

► Specifications:

- Cleanliness class: 100
- particle retention: 0.3micron
- Velocity: 90FPM+20%
- Noise level: 60-65 dB
- Standard: FED 209E
- MOC: Aluminum Powder



3.FLOORING ROLL

Providing & fixing flexible PVC sheet flooring with having a total thickness of 2mm and weight of 3kg/m². Colours and pattern detail shall be dispersed throughout the thickness of the wear layer. ESD shall conform to group P of wear resistance as per EN 649, Flammability of class Bfl-s1 as per EN 13501-1, slip resistance as per DIN 51130 group of R9, having REACH registration No, 1907/2006 contains no substance mentioned in SVHC list. Impact sound reduction of 3 dB as per ISO 140-8, residual indentation of 0.05mm as per EN 433, color fastness rating >6 as per ISO 105-B02, Vertical resistance (R1) less than 1X10(6) -10(8) as per EN 1081 and surface resistance less than 1X10(6)-1X10(8) electrical insulation to ground greater than 50 K as per VDE 0100, static electric charge of < 2.0 kV as per EN 1815, thermal resistance of 0.04m²K/W as per EN 12667, thermal conductivity of 0.25W/mKa.

Effective Static Control

- Quickly conducts and drains static charges from people, equipment, or carts to ground.
- Prevents electrostatic discharge (ESD) damage to sensitive electronics or equipment.

Personnel & Equipment Protection

- Reduces electrostatic discharge risk, safeguarding electronic components and preventing static-induced shocks or sparks
- Reduces risk of ignition in explosive or flammable environments .
- Offers faster and more efficient charge dissipation than static-dissipative flooring.
- Essential in operation theatres, ICUs, server rooms, clean rooms, and electronics labs.
- Reduces risk of sparks in explosive or flammable environments.

Robust & Long-lasting

- Made with 100% solids epoxy or urethane—durable, abrasion-resistant, and able to withstand heavy foot and forklift traffic
- Chemical resistant, tolerating oils, solvents, and cleaning agents—ideal for industrial labs and manufacturing

Grounding Compatibility

- Designed to be grounded using copper strips or conductive adhesives.
- Maintains continuity across flooring for uniform grounding.

Seamless Hygiene-Friendly Design

- Integral, non-porous surface minimizes bacterial growth and simplifies cleaning
- Suitable for cleanrooms, healthcare, pharmaceutical environments .
- Easy to clean and maintain with ESD-safe cleaning products.
- Durable surface resists wear and tear over time.

Customizable Appearance & Layout

- Available in a variety of colors, textures, and finishes without compromising conductivity
- Available in vinyl tiles/sheets, conductive rubber, or conductive epoxy coatings.
- Choice of material depends on usage and load-bearing requirements



4. PAINT ANTIBACTERIAL

Filling of all joints and cavities with epoxy filler and sanded flush to provide a seamless finish. Sprayed/ painted with Antibacterial paint, wall glaze or equivalent to a minimum dry film thickness of 300 microns having overlap floor covering, ceiling system and door frames to provide a continuous sealed surface. Anti-Microbial Protection and prevention of the growth of mould, bacteria and yeasts.

Kills & Inhibits Microbes

- Actively destroys bacteria on painted surfaces.
- Can reduce up to 99.9% of bacteria

Long-Lasting Protection

- Durable antimicrobial action even after years of wear, resistant to detergents, disinfectants, and repeated cleaning
- Maintains microbicidal efficacy through the paint's lifetime, often without leaching active agents

Ideal for High-Touch & Sensitive Areas

- Hospitals (OT, ICU, wards)
- Food processing areas
- Classrooms, childcare centers
- Public transport interiors
- Cleanrooms & laboratories

Stain & Mildew Resistance

- Resists mold, mildew, and algae growth in moisture-prone areas like bathrooms and kitchens
- Stain-resistant and washable, often with high scrub ratings for heavy-traffic zones
- ecoprofinishes.com
- Washable and stain-resistant
- Maintains hygiene even with regular cleaning and disinfectant use

Low-Odor, Eco-Friendly Formulations

- Water-based, low-VOC or VOC-free, safe for sensitive environments like hospitals, schools, and homes
- Non-toxic and non-allergenic
- Durable, easy-to-clean surfaces, ideal for frequent maintenance, and resists yellowing and cracking .

Versatile Applications

- Suitable for walls, ceilings, doors, furniture, metal, wood, and high-touch areas in hospitals, clinics, kitchens, schools, daycares, and food-processing units .
- Forms a protective hygienic barrier, useful for coating interior walls and equipment
- ecoprofinishes.com



5. TOUCH SCREEN SURGEON CONTROL PANEL

A touch-screen control panel for modern Operation Theatres (OT), integrating OT environment monitoring, equipment control, communications, and data logging on a sleek, wall- or flush-mounted interface.

The room control panel is design to cope with changing technology & equipment in operating environments. Control Panel is user friendly & ease of operating & maintaining purpose.

AThe panel is “Touch Screen; configured to incorporate all the services that operation room staff required. The Panel contains as below:

- Time Day Clock
- Time Elapse Day Clock
- General Lighting System
- Medical Gas Alarm Panel
- Hand Free Telephone set with memory
- Temperature & humidity indicator with controller
- HEPA Filter Status
- Room Pressure Indicator



6. AUTOMATIC SLIDING DOOR

Operating rooms are responsible for performing surgery and rescuing critically ill patients, the working quality of which will directly affect postoperative recovery and medical result. Along with the improvement of medical conditions, the application of clean operating rooms has become more popular, and the equipment of clean operating rooms has become one of the important indicators of hospital construction. It plays a significant role in reducing exogenous surgical infection. Therefore, automatic Sliding doors that can meet higher and more special requirements are needed at the entrance of operating room

► Hermetic Sealing:

- Equipped with a high-quality gasket that ensures up to 99.99% air tightness at standard pressure.
- Helps maintain air pressure differential between rooms, reducing contamination risks.

► Smooth, Noiseless Operation:

- Operated using electromechanical systems with microprocessor control.
- Fitted with plastic rollers with double bearings for silent and frictionless movement.

► Multiple Activation Options:

- Can be operated via elbow switches, hand sensors, foot switches, or remote controls.
- Dual switch types available (e.g., proximity and infrared).

► Durable Track System:

- Uses extruded aluminum tracks with angled surfaces to reduce resistance and wear.
- Rollers provided both above and below the track for enhanced stability.

► High-Quality Materials:

- Door leaf made of HPL (High-Pressure Laminate) or stainless steel fixed to an aluminum extruded frame.
- Core filled with CFC-free polyurethane foam for insulation and microbial resistance.
- Vision window with double-glazed, hermetically sealed glass (typically 300x300 mm).

► Emergency Manual Operation:

- Doors can be easily opened or closed manually in case of power or system failure.
- Fitted with strong, stainless steel handles and high-grade cylindrical locks.

► Perfect Leveling:

- Installed on perfectly leveled floors (max permissible level difference ± 1 mm) to maintain seal integrity.

► Applications:

- Ideal for modular operating rooms, ICUs, cleanrooms, laboratories, and infection control zones.



7. X - RAY BOARD

Keeping the needs of doctors in mind along with the continuously changing demands of hospitals and nursing homes, we have developed a sleek and effective LED Viewing system to view MRI, CT and X-Ray images

▶ Flush-Mounted Design:

- Integrated into the modular wall panel system.
- Seamless finish with no dust traps—ensures hygienic surface for sterile environments.

▶ LED-Based Illumination:

- Uses high-intensity LED lights for bright, uniform viewing.
- Energy-efficient with low heat generation.
- Dimmable light intensity to suit viewing preferences and different film densities.

▶ Quick Startup:

- Instant-on feature with no flicker or warm-up time.

▶ Viewing Panels:

- Available in 1, 2, or 3-panel configurations depending on requirement.
- Each panel supports standard 14" x 17" or 17" x 17" X-ray films.

▶ Light Diffusion Technology:

- Ensures uniform light distribution across the film
- without dark spots.

▶ Easy Film Loading:

- Provided with spring-loaded film clips or magnetic
- holders for quick loading/unloading.

▶ Durable & Safe Materials:

- Body made of powder-coated steel or aluminum.
- Heat-resistant and safe for continuous use.



8. WRITING LIST BOARD

The writing unit shall comprise of flush mounted 1.5mm thick, white laminate board, bonded to a 40mm high density fireboard sheet for additional rigidity. The unit shall be opened to create a wall mounted writing surface within operating room. The white board shall be constructed from 1.6mm thick, white laminate board.

▶ Flush-Mounted Design:

- Installed flush with modular wall panels.
- Ensures a seamless surface with no joints or gaps—helps maintain OT hygiene standards.

▶ Magnetic Surface (Optional):

- Allows use of magnetic clips or markers to hold papers or display notes.

▶ Writable & Erasable:

- Compatible with dry-erase markers.
- Leaves no ghosting or ink stains after repeated use.

▶ Scratch-Resistant and Durable:

- Surface is scratch-proof and impact-resistant, ideal for daily use in clinical environments.

▶ Standard & Custom Sizes:

- Typically available in sizes like 600mm x 600mm, 600mm x 900mm, or as required by OT layout.

▶ Visibility:

- High-contrast surface (usually white or light-colored) for better readability even from a distance.

▶ Mounting & Stability:

- Securely mounted within MOT modular panels for vibration-free usage.
- Firm support for writing without flexing or shaking.



9. PRESSURE RELIEF DAMPER

The writing unit shall comprise of flush mounted 1.5mm thick, white laminate board, bonded to a 40mm high density fireboard sheet for additional rigidity. The unit shall be opened to create a wall mounted writing surface within operating room. The white board shall be constructed from 1.6mm thick, white laminate board.

► Maintains Positive Pressure:

- Automatically regulates air pressure by releasing excess air when pressure exceeds a set limit.
- Helps maintain positive pressure in OT to prevent contaminated air from entering.

► Self-Adjusting Blades:

- Equipped with gravity-based or spring-loaded blades that open and close based on internal pressure.
- No manual intervention required.

► Hygienic Construction:

- Made from stainless steel (SS 304/316) or powder-coated aluminum—corrosion-resistant and easy to clean.
- Designed with smooth surfaces to avoid dust/microbial accumulation.

► Air-Tight Sealing:

- Provides tight shut-off when blades are closed to maintain room pressure integrity.
- Fitted with gasket lining for better sealing performance.

► Flush-Mounted Design:

- Can be installed within modular panels or walls to ensure a seamless, cleanroom-compatible finish.

► Low Noise Operation:

- Operates silently without disturbing the
- sterile environment.

► Size Variants:

- Available in various sizes like 300×300 mm, 400×400 mm, or custom sizes as per design.



10. Storage Unit

SS304 Stainless Steel Storage in the Medical Field. SS304 stainless steel is highly valued in the medical field for its exceptional properties. Its high corrosion resistance ensures that medical instruments and pharmaceuticals remain uncontaminated and safe. The non-reactive nature of SS304 prevents any chemical interactions with stored items, making it ideal for sensitive medical environments.

► Material Construction:

- Made from high-grade Stainless Steel.
- Corrosion-resistant, rust-proof, and suitable for sterile environments.
- Non-magnetic and easy to clean and disinfect.

► Modular & Wall-Mounted Design:

- Designed to be flush-mounted within modular wall panels.
- Seamless finish with no gaps or crevices—prevents dust and microbial buildup.

► Multiple Storage Options:

- Comes with shelves, lockable cabinets, and/or drawers for safe storage of surgical consumables, medicines, or instruments.

- Glass front doors for easy visibility.

► Soft-Close Mechanism:

- Smooth, noise-free opening/closing with hydraulic or soft-close hinges.
- Designed to blend with modular OT aesthetics

► Customizable Sizes & Compartments:

- Available in standard and custom dimensions (e.g., 900×450×1800 mm or as per requirement).
- Internal compartments can be tailored to specific departmental needs.
- Stainless steel handles with lock-and-key systems for secure storage



11. PERIPHERAL LIGHT

Keeping the needs of our customer in mind along with the continuously changing demands of hospitals, hotels, commercial and residential projects we have developed an effective LED Ceiling Light.

► Low-Glare Illumination:

- Provides diffused ambient lighting to complement the main surgical light.
- Designed to reduce eye strain for surgeons and staff during long procedures.

► Shadow-Free & Uniform Light Distribution:

- Ensures even illumination across the OT room without creating harsh shadows.
- Helps maintain visual comfort and clarity.

► LED Technology:

- Uses high-efficiency LED lights with low power consumption and long life.
- Generates minimal heat, maintaining OT temperature.

► Flush-Mounted Design:

- Installed flush with modular false ceiling panels.
- Creates a seamless, clean surface with no dust traps—ideal for sterile environments.

► Low Heat Emission:

- LED fixtures emit minimal radiant heat, maintaining thermal comfort in the OT.

► Silent Operation:

- Designed with fanless heat dissipation for noise-free operation.

► Durable & Hygienic Materials:

- Made of powder-coated aluminum, stainless steel, or polycarbonate lenses—easy to clean and resistant to disinfectants.

► Compliance:

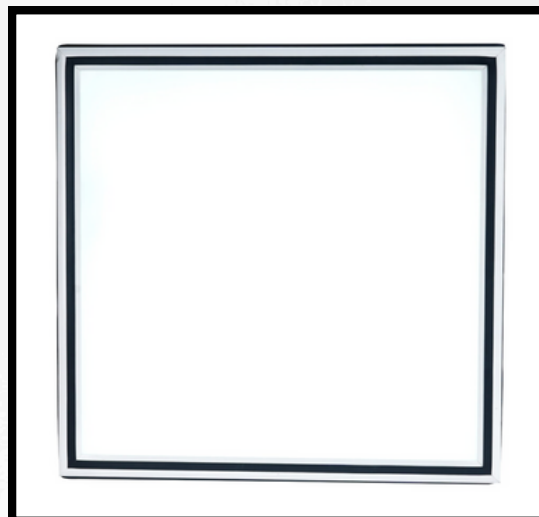
- Meets CE, and NABH guidelines for hospital lighting in critical zones.

► Energy Efficient:

- Consumes significantly less power than conventional fluorescent or CFL lights.
- Often compatible with emergency power backup (UPS or inverter) systems.

► Design Flexibility:

- Available in rectangular, square, or linear configurations.
- Can be integrated with ceiling-mounted systems and airflow devices (e.g., laminar flow units).



12. Electrical System

All high-voltage equipment is installed in a separate enclosure. The remote cabinet houses the operating lamp transformers, mains failure relays, electrical distribution equipment, and circuit protection equipment for all circuits within the operating theatre. All internal wiring terminates in connectors with screw and clamp spring connections. Individual fuses or miniature circuit breakers protect all internal circuits. All internal wires are marked with plastic ferrule-type cable markers for ease of identification. Power sockets within the Operating Theatres and ancillary areas match those in the rest of the hospital.

➤ Isolated Power Supply (IPS):

- Prevents electrical shock risks in wet locations.
- Ensures uninterrupted power for critical medical equipment.

➤ Dedicated Distribution Boards:

- Located locally within each OT.
- Supplies power to all OT-specific circuits like lights, medical gas panels, equipment, etc.

➤ Dedicated Distribution Boards:

- Backup provided to life-saving equipment and critical devices like anesthesia machines, OT lights, monitors, etc.

➤ Surge Protection Devices (SPD):

- Protects sensitive electronic equipment from voltage surges and spikes.

➤ Circuit Protection:

- Uses Miniature Circuit Breakers (MCBs) or fuses for individual equipment and circuits.
- All wires are properly terminated and marked for easy maintenance.

➤ Cable Management:

- All cables (power, data, fire, CCTV, communication) are run via trunking, conduits, or cable trays, as per hospital safety norms.
- PVC insulated copper cables.

➤ Smart Monitoring & Control:

- Power panels include indicators, alarms, and insulation monitoring devices.
- Energy meters help track consumption.

➤ Labelled & Standardized Components:

- All switches, sockets, DBs, panels are clearly labelled for easy identification and safety.



13. SURGICAL SCRUB SINK (2-BAY)

Compact Surgical Scrub sink will be designed for use in Operation theatre complex providing surgeons with a convenient sink for pre up scrub up. Each fixture will be fabricated from heavy gauge type 304 stainless steel & will be welded construction polished to a satin finish. The scrub sink will be provided with a front access panel, which will be easily removed for access to the water control valve, waste connections, stoppers & strainers. & also, there is soap dispenser between the tap. Hands free operation will include infrared sensor with built in range of adjustment. Thermostatic Mixing Valve Control will be located behind the access panel & maintain constant water temperature. User defined settings of 1 to 3 min are available. This timing will be adjustable to meet individual application requirement, provided with infrared sensor thermostatic controlled taps with fail- safe Temperature controls

► Material Construction:

- Made from high-grade stainless steel (SS 304/316).
- Corrosion-resistant, rust-proof, and hygienic.
- Seamless body with rounded corners to prevent microbial growth and ensure easy cleaning.

► Touchless Operation:

- Operated using elbow, knee, foot pedal, or infrared sensor—prevents cross-contamination.
- Water flow is hands-free to maintain aseptic conditions.

► Integrated Automatic Water & Soap Dispensers:

- Optional infrared-based automatic soap and sanitizer dispensers for added hygiene.
- Some models have built-in timer-controlled water flow.

► Multi-User Design:

- Available in single, double, or triple station units to accommodate multiple users simultaneously.

► Splash-Proof Design:

- Deep basin and angled design prevent water splashing outside, maintaining cleanliness in the OT area.
- Integrated slope drain ensures fast water evacuation, avoiding standing water.

► Sensor-Controlled Water

Temperature (Optional):

- Some systems include thermostatic mixing valves or temperature regulators for warm water supply.

► 1 Wall-Mounted or Floor-Standing Installation:

- Designed for easy mounting on modular OT wall panels or freestanding with plumbing fixtures.



14. View window

View Window double insulated fixed glazing 6 mm thick toughened glass. Window frame is powdering coated aluminum of approved shape flush mounted with wall paneling Motorized horizontal Venetian Blinds of powder coated aluminum strips of vista level or equivalents of approved shade including necessary accessories. The motor will be reputed brand. The venetian blinds will be motorized for 90 degrees.

► Double-Glazed Toughened Glass

- Made from toughened/tempered safety glass.
- hermetically sealed for airtight installation.

► Flush-Mounted Design:

- Seamlessly integrated into modular wall panels.
- No protrusions—ensures smooth, cleanable surfaces.

► Hermetically Sealed:

- Airtight sealing to prevent air leakage, dust, and microbial ingress.
- Helps maintain OT pressure differentials.

► Size Options:

- Common sizes include 600mm x 600mm or customizable as per OT layout.
- Available in rectangular or square configurations.

► Clear or Frosted Finish:

- Offered in clear, frosted, or privacy-tinted glass for visibility control.
- Optional integrated blinds (manual or magnetic) for added privacy.

► Thermal & Acoustic Insulation:

- Offers soundproofing and heat insulation, improving OT comfort and focus.
- Reduces external noise penetration.

► Anti-Bacterial Coating:

- Some models come with anti-microbial coatings to prevent germ growth.

► Easy Maintenance:

- Smooth surface ensures quick and effective cleaning with hospital-grade disinfectants.

► UV-Protective Layer (Optional):

- Protects internal OT surfaces from UV rays if exposed to sunlight.



15. Single/ Double arm Pendants

Medical pendants are essential equipment used in Operation Theatres (OTs), Intensive Care Units (ICUs), and emergency rooms to organize and safely support medical devices, gas outlets, electrical points, and communication systems. These pendants provide a clean, accessible, and clutter-free working environment by suspending equipment from the ceiling, allowing free movement and easy access during surgical or critical care procedures. Their modular design helps improve workflow, enhances patient safety, and ensures efficient use of space in high-demand hospital settings.

Features of Single Arm Pendant:

► Structure:

- Single horizontal arm with vertical drop tube
- Compact design, suitable for small to medium-sized rooms

► Rotation:

- Typically rotates up to 330°
- Easy positioning for equipment access

► Usage:

- Ideal for minor surgeries, ICUs, and recovery rooms
- Suitable for light to moderate equipment load

► Installation:

- Ceiling-mounted; requires less space than double arm
- Simplified installation and maintenance

► Applications:

- ICUs, minor OT setups, endoscopy room



Features of Double Arm Pendant:

► Structure:

- Two horizontal arms for extended reach and flexibility
- Allows separation between gas outlets and electrical/data modules

► Rotation:

- Both arms can rotate independently (typically 330°)
- Greater movement range and adjustable positioning

► Usage:

- Suitable for major surgeries and high-dependency areas
- Can support heavier and multiple equipment setups

► Installation:

- Requires more ceiling space
- Offers better access and coverage of larger work areas

► Applications:

- Modular OTs, hybrid OTs, trauma care rooms, critical care units.

16. DUCTING work

Ducting in a Modular Operation Theatre (MOT) is used to manage the airflow and maintain a sterile, controlled environment by supplying clean, filtered air and removing contaminated air. It plays a crucial role in infection control by supporting the Heating, Ventilation, and Air Conditioning (HVAC) system, ensuring laminar airflow, maintaining positive air pressure, and achieving the required air changes per hour (ACH). Ducting is typically installed above the ceiling and is essential in critical zones like the OT, scrub area, and preparation rooms to ensure consistent air quality and temperature control.

➤ Material:

- Made from high-quality aluminum sheets for durability and corrosion resistance.

➤ Air Quality Control:

- Supports HEPA-filtered laminar airflow for clean and sterile air supply.

➤ Air Pressure Management:

- Helps maintain positive pressure inside the OT to prevent entry of contaminated air.

➤ Thermal Insulation:

- Insulated to prevent temperature loss and condensation.

➤ Leak-Proof Construction:

- Properly sealed joints to avoid leakage and ensure efficient airflow.

➤ Fire Resistance:

- Fire-retardant materials and coatings used for added safety.



17. Medical Gas Pipeline System Inside OT

MGPS (Medical Gas Pipeline System) is used in Modular Operation Theatres (MOTs) to provide a continuous and safe supply of essential medical gases like oxygen, nitrous oxide, medical air, and vacuum directly to the operating area. It ensures efficient delivery of life-supporting gases during surgeries and critical procedures without the need for individual gas cylinders, reducing clutter and enhancing safety. MGPS is installed in areas such as OTs, ICUs, recovery rooms, and emergency departments where uninterrupted gas supply is vital for patient care and surgical operations.

► High-Quality Copper Pipelines:

- Provides uninterrupted delivery of medical gases like oxygen, nitrous oxide, medical air, and vacuum for surgical and life-support procedures.

► Centralized System:

- Gases are supplied from a central source (manifold or plant room) through a network of pipelines to the OT.

► High-Quality Copper Pipelines:

- Medical-grade, non-corrosive copper pipes ensure purity and prevent contamination.



18. OT Lights

OT (Operating Theatre) lights are used in Modular Operation Theatres (MOTs) to provide bright, shadow-free, and focused illumination during surgical procedures. They are essential for ensuring clear visibility of the surgical site, helping surgeons perform with precision and safety. OT lights are typically installed directly above the operating table and are designed to reduce heat, minimize glare, and offer adjustable intensity and positioning. These lights are used in all types of surgeries where high-quality lighting is critical for accurate and safe patient care.



➤ Shadow-Free Illumination:

- Designed to eliminate shadows and provide consistent lighting over the surgical area.

➤ High Intensity & Brightness:

- Adjustable light intensity (measured in Lux), typically ranging from 1,00,000 to 1,60,000 Lux for deep cavity illumination.

➤ LED Technology:

- Energy-efficient, long-lasting LED bulbs with minimal heat emission.

➤ Color Rendering Index (CRI):

- High CRI (≥ 95) ensures true tissue color visibility for better surgical accuracy.

➤ Adjustable Focus & Light Field:

- Focusable light beam with adjustable diameter to suit various procedures.

➤ Sterile Handle:

- Sterilizable central handle for easy positioning during surgery.

➤ Movement & Positioning:

- Multi-axis arm system allows smooth 360° rotation and precise movement.

➤ Low Heat Emission:

- Cold light with minimal infrared radiation to maintain patient comfort.

➤ Backup Power Compatibility:

- Can be connected to UPS/inverter systems for uninterrupted operation.

CLEANCARE

Manufacturer of Modular Operation Theatre
Equipments
We Serve...



Hospitality



Healthcare



Railway



Pharmaceuticals



Infrastructure



Institute / Universities



Launderers
& Dry Cleaners



Garment
Manufacturers

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Regional Office

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