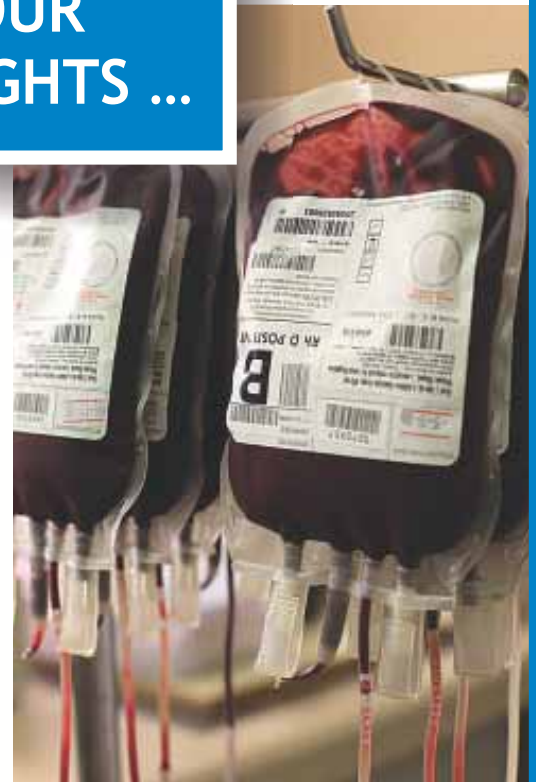


RINAC COLD AND CLEAN SOLUTIONS



WE
CUSTOMISE
YOUR
THOUGHTS ...



COLD ROOM AND CLEAN CONSTRUCTION
FOR HEALTH CARE INDUSTRY.

Drugs, Vaccines and biotech products are complex entities and temperature sensitive, it is imperative that they require precise and continuous temperature conditions while storage and in transit, which ensure their potency. That's what RINAC cold chain and clean room solutions promise to equilibrate with.

HOW DO WE CUSTOMIZE YOUR THOUGHTS...

- Concept to completion support
- Chutes to ensure cargo is not exposed
- Customised water chiller packages
- Rack type refrigeration for varied load energy efficiency
- Cooling & Freezing Equipments designed for Indian Ambient conditions
- Customised for swift temperature pull down needs
- Provision for temperature mapping and data mining
- Pharma Grade construction
- Thermal Efficient Material of Construction
- Eco friendly / CFC free RPUF panels and Refrigeration system
- Expandable and re-locatable construction
- Customised and concealed utility provisions
- FDA approved construction



COMPREHENSIVE RANGE, FINELY-ENGINEERED FEATURES

RINAC'S COLD ROOM SOLUTIONS ARE USED TO STORE DRUGS, VACCINES AND BIOTECH PRODUCTS. NATURALLY, THEY ARE DESIGNED TO BE SAFE AND USER-FRIENDLY, WHILE ALSO BEING ENERGY-EFFICIENT, WORLD-CLASS PERFORMERS.

PANELS

- Pre-fabricated, insulated, metal laminated panels best suited for freezing and chilling
- Rigid Polyurethane Foam (RPUF) insulation
- Pre-Painted Galvanised Steel (PPGS) or Stainless Steel (SS) metal laminate
- Insulation thickness from 60mm up to 200mm
- Panel width of 1200mm
- Panel length up to 12500mm
- Joinery through camlocks and finished with a silicone sealant

DOORS

- Pre-fabricated, insulated doors with great features
- Swing, sliding, roll-up types
- Non-corrosive, non-metallic hinges, door handles, and locks

- Self-closing hinges
- Heaters on door leaf and frame
- Audio alarm for 'door-open' condition
- View port with anti-condensate glass
- Lock defeat mechanism
- Positive seal mechanism for all door types to avoid cold air loss

FLOORS

- A range of floors for various applications
- Aluminium/ SS checkered plate for dry and light-weight operations
- Bituminous felt with PCC floor for heavy and wet operations
- Altro-vinyl floors for heavy traffic operations
- Floor breathers and heaters where applicable

COVINGS

- A must for all who value hygiene
- Food grade PVC or metallic covings
- Wall-to-wall, wall-to-ceiling, and wall-to-floor covings available
- Cornice cups to ensure three-dimensional integration at the corners of the cold room

ELECTRICALS

- Rinac cold rooms come fitted with:
- IP 54 or more protected light fittings
- Shatter-proof polycarbonate cover glass, which is professionally designed for cold room lighting
- Weather-proof switches, where required
- Embedded conduit for wiring
- Safety devices like relays, SPPs, and timers
- Alarm annunciators
- IP 55 control panel, built-in with condensing unit

STATE-OF-THE-ART REFRIGERATION SYSTEMS:

- Hermetic or semi-hermetic compressors
- Air-cooled or water-cooled condensation systems
- High efficiency evaporators equipped with auto defrost features
- Hot gas defrost
- All metallic casings are in galvanised steel with powder-coating finishes. This enables them to withstand H500 SS test
- Safety systems like high and low pressure cutouts, microprocessor-based thermo controls
- Drain-tray and drain-pipe heaters
- Vibration eliminators in refrigerant piping
- Temperature controllers
- Humidification systems with indicators and controllers

ACCESSORIES AND CUSTOMISATIONS

- Fine-tuned to match needs:
- Pressure relief valves for freezer rooms
- Push and kick plates for doors
- Ramp for entry at door
- Strip curtains to operate at freezing temperatures without stiffening
- Hatch doors
- Air curtains



WELCOME TO THE WORLD OF RINAC CLEAN ROOMS.

Rinac's solutions are backed by tremendous domain knowledge with flexible manufacturing system. Any wonder then that Rinac can offer completely customised clean rooms for all the segments within its purview.

Of course, all of Rinac's products have passed strict scrutiny of statutory validating and certifying agencies such as USFDA and EUGMP, and are the most acceptable construction solutions in regulated markets.

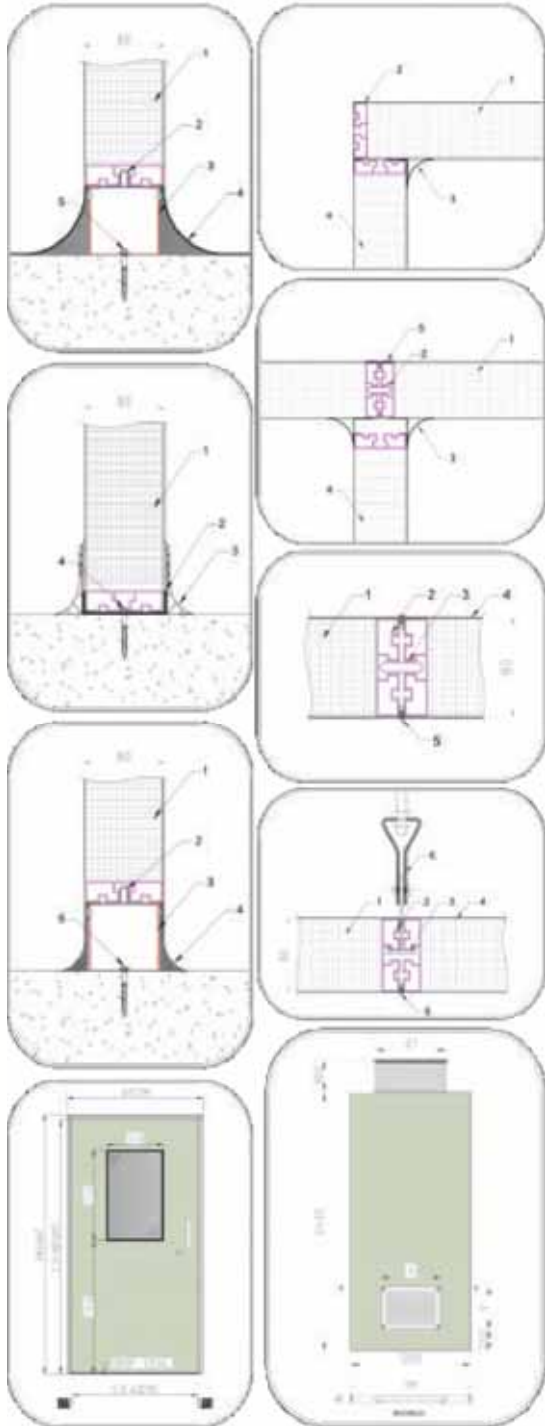
Here are a few more facts and features that Rinac's cold rooms bring with them:

- All clean rooms from Rinac conform to the 'Class 1000' norm
- All clean room walls from Rinac have embedded RA risers, which serve as concealed conductors for electrical equipment and covings for related joinery
- Rinac's products are engineered to deliver safety, convenience, and efficiency
- All of Rinac's pre-fabricated panels can be dismantled and relocated.



Rinac Clean Rooms

Robust construction



RINAC CLEAN ROOM SPECIFICATIONS

A typical Rinac cleanroom has certain features in compliance with GMP standards. These include:

- MOC for walls and ceilings. The prefabricated modular insulated panels come with a steel laminate.
- Infill made of RPUF/Rockwool. Remove TF EPS
- Laminate, which comprises pre-painted galvanised steel
- Laminate colour. Rinac uses the Standard RAL 9002. However, other colour options are available too.
- Doors, which come with:
 - MOC matching the walls
 - 900 X 2100 clean room class doors
 - Bottom drop seal
 - View port with double-glazed glass
 - A choice of various colours
- Door hardware is available in choices of 'D'-handle, door lock, and hinges in SS 304
- Wall construction, which comes in progressive and non-progressive varieties
- Ceiling construction, which comprises floating ceiling for rock wool panels

AREAS OF APPLICATION

Rinac's feature-rich clean room solutions can be used in several types of applications.

- Constructions up to class 1000
- Pharmaceutical clean room for powders, orals, and injectables





We, at Rinac, begin with seamless solutions for cold chain and modular construction. Soon, a relationship develops, empowered by our domain expertise, service excellence, and customising capabilities. As the bond deepens, you will discover that we invest in curiosity, innovation, and ingenuity; constantly questioning perfection, and leveraging our resources to nurture each relationship into a win-win proposition. What's more - warm, pro-active support is always just a call away through RinaCare, our dedicated relationship service group.

For about a decade and half, Rinac has been the chosen partner for industry leaders, providing an unrivalled range of solutions and superior value. But that's just the tip of the iceberg.

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