Where Quality Meets Innovation

INGRESS+

Your true **companion for Industrial Solutions**

Company Profile

Where Quality Meets Innovation

Ingress+ is a leading manufacturer of Clean room Partitions, furniture and steel doors that has a wide application in the Industry. We are an ISO 9001: 2015 certified company maintaining all the standards for a quality product and offering the "VALUE FOR MONEY" to all our customers.

Established in 1984, Mangla Sons Group has been into steel business for the distribution of TATA steel flat products – GC, GP, GPSP and Dura shine. It is a Chandigarh Tricity based company having a turnover of more than 350 crores. As time and Industry demanded, Mangla sons Pvt. Ltd. has diversified its production and entered into the field of manufacturing high quality factory fabricated ducts under the brand name of ECO DUCT™ produced from lead free sheet bring a revolution in the industry. Another vertical, Steelonox is into manufacturing of commercial Kitchens which has a wide application in hospitality sector.

We have the knowledge and know how when it comes to producing the right product at the right price in a required time frame. Not only do we manufacture but also install and stand behind our product with a warranty of pride. Our products are designed keeping in mind quality standards and the requirement of the client.

INGRESS+

Vision
We envision better tomorrow's for the people as well as mother Earth. It's our vision to give back something good to our Mother Nature in return of so many gift we have got from her. We are constantly striving to develop innovative technologies that bring back the goodness of nature in our life.

Mission
We aim to contribute to the present technical excellence with our committed research and development efforts. Our aim is to simplify life with ground - breaking solutions and use the benefits of technology to enrich everyone's life.

Philosophy
We believe in giving our consumers full value for their money. It's our belief that people appreciate quality as well timeliness; and we believe in doing our best to honour our promises and exceed our patrons' expectations every time ducts are designed keeping in mind quality standards and the requirement of the client.

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Our Product Range

▸ Clean Room Doors
▸ Clean Room Partitions
▸ Clean Room Furniture
▸ Fire Resistant Doors
▸ Metal Doors
▸ Clean Room Storage System
▸ Stainless Steel Partitions

**ISO CERTIFIED
MANUFACTURING FACILITY
TUV.** ISO 9001:2015

Clean Room Doors

We are enlisted as one of the foremost Clean Room Doors Manufacturers in India. Made using galvanized steel, the Clean Room Doors offered by us are highly praised in the market. These doors can be tailor made to suit the varied requirements of the esteemed clients. Doors are available in variety of paints finishes with various options of hardware to suit your need. Door leaf are made from 0.8/1.00/1.2mm thick zinc coated galvanized steel sheet in double skin to the thickness of 44/45/46/47mm. Door frame are made of 1/1.2/1.6mm GI sheet with internal stiffeners & reinforcement like hinge plate, other hardware mounting plates.

Specifications
Single leaf and double leaf frames
Finishing in pure or epoxy polyester powder coating
Ability of accepting glazing in many configurations with louvers, air vents, and a wide range of hardware

Metal Doorsteps Available In
Sizes up to 2600mm
Height : 3000mm

Clean Room Partitions

We offer in the market advanced Galvanized Iron Clean Room. Ingress partitioning walls of Galvanized Iron Clean Room are manufactured by use of nominal GPSP Sheets. The make-up panels are fabricated as per the sizing layout of the drawing. Ceiling systems and partition walls are made in compliance with the exact technical specifications required for controlled environment rooms.

Bonded With :

▸ PUF
▸ Honeycomb paper core
▸ High density mineral wool/ Rock wool

Wall Sheet Quality :

▸ LFQ
▸ light chromate
▸ Zero spangle
▸ 120gsm zinc coating

Dimensions :

▸ Thickness : 60/80/100 mm
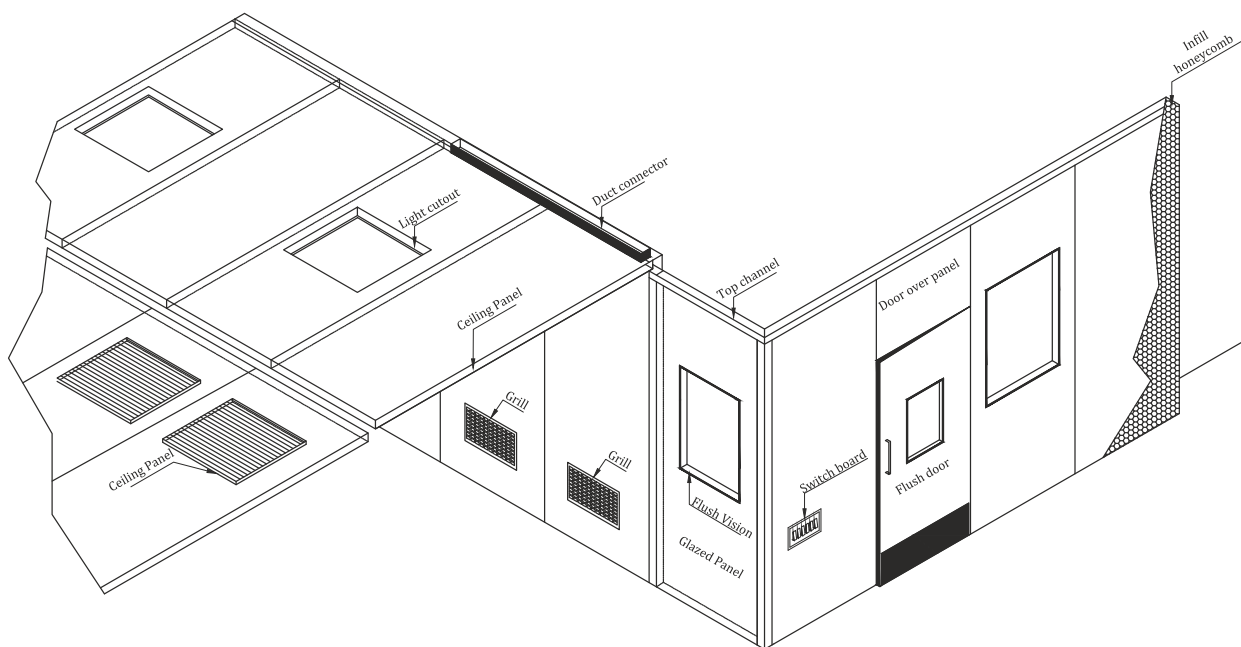▸ Width : 160mm to 1200mm
▸ Height : 2440mm to 5000mm

Applications :

▸ High technology electronic manufacturing
▸ Legislation-controlled healthcare packaging

Features of Ceilings and partitions :

▸ Inert
▸ Non particle-shedding
▸ Forms part of a clean room aseptic envelope for compliance with cGMP standards

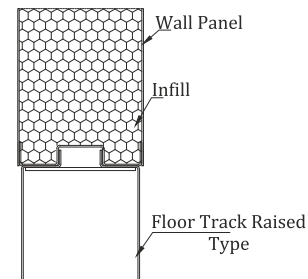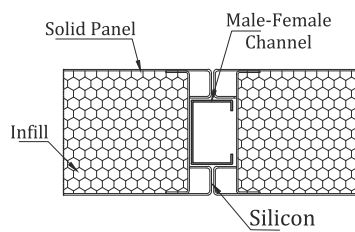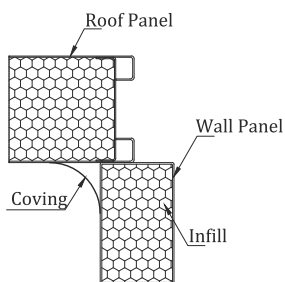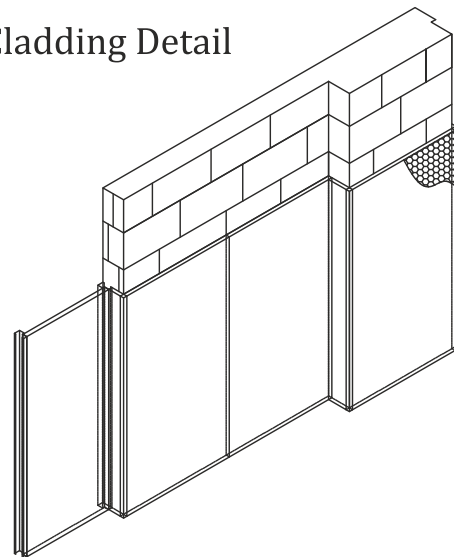**INGRESS+**

Ceiling Panel · Light cutout · Duct connector · Ceiling Panel · Grill · Top channel · Door over panel · Infill honeycomb · Switch board · Flush door · Flush Vision · Glazed Panel · Grill
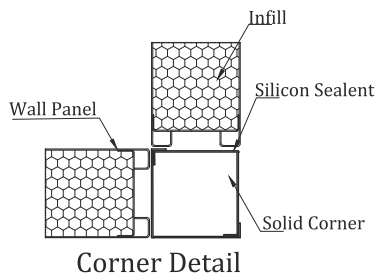
Purity Classes for Sterile zones

ISO Classification number (N)	Maximum concentration limits (particulates/m^3 of air) for particles equal to and larger than the considered sizes shown below (concentration limits are calculated in accordance with equation (1) in 3.2					
	0.1μm	0.2μm	0.3μm	0.5μm	1 μm	5 μm
ISO Class 1	10	2				
ISO Class 2	100	24	10	4		
ISO Class 3	1000	237	102	35	8	
ISO Class 4	10000	2370	1020	352	83	
ISO Class 5	100000	23700	10200	3520	832	29
ISO Class 6	1000000	237000	102000	35200	8320	293
ISO Class 7				352000	83200	2930
ISO Class 8				3520000	832000	29300
ISO Class 9				35200000	8320000	293000
NOTE: Uncertainties related to the measurement process require that concentration data with no more than tree significant figures be used in determining the classification level.						

Corner,Wall & Column Cladding Detail

Infill

Silicon Sealent

Wall Panel

Solid Corner

Corner Detail

Roof Panel

Wall Panel

Coving

Infill

Roof to Panel Detail

Solid Panel

Male-Female Channel

Infill

Silicon

Panel to Panel Detail

Wall Panel

Infill

Floor Track Raised Type
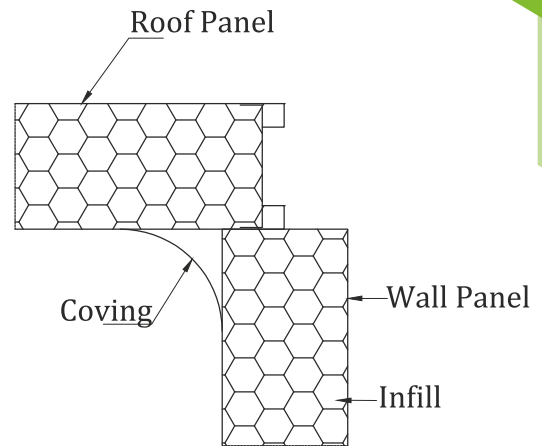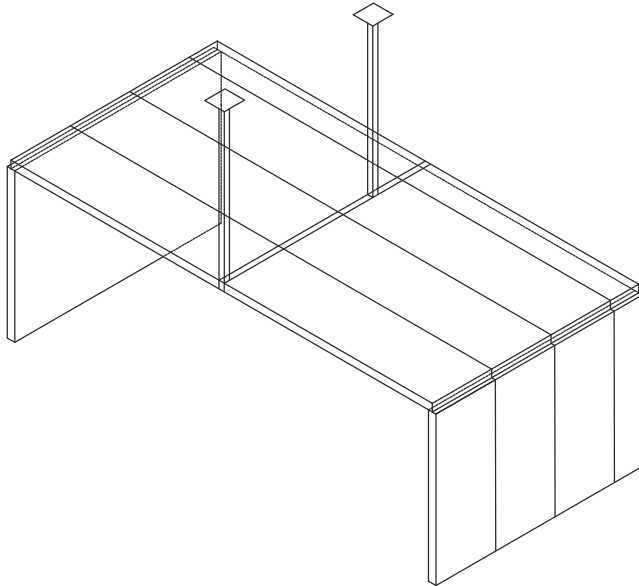
Panel Base Detail

Modular Clean Room Technical Specifications

Panel Width   : 1200mm, 1150mm and 900mm as standard Panel thickness of 44/60/80/100/120mm
                   with ability to carry and conceal services, return air ducts/risers.
Panel Height   : Up to 6000mm with provision to have stacked panels for higher level applications
Base Detail   : Raised / C-Type Base
Infill Material : Mineral Wool, Honeycomb kraft paper with aluminium core ensures panel rigidity &
                   Polyurethane Foam
Panel Weight   : Depend upon specification and thickness of Panel
Surface Finish : Epoxy Polyester Powder coated as per RAL. colours, SS Finish (matt/mirror finish)
Panel Connection : Each Panel is connected to its adjacent unit or door unit with a friction type
                    Heavey Duty Clip. This allows speedy installation and dismantling
Glazing   : Double Flush glazing with 5mm toughened glass on both sides within a stainless Steel / Powder
                   coated framing
Door   : Steel lock formed construction - optional double and single glazed
Acoustic   : Solid panel - Rw 41 db - (BS 5821)
Air Leakage   : Silion sealant for sealed application

Ingress Load Bearing Ceiling

80mm Pre-engineered Partitions
Load bearing capacity of 150kg/m^2

Roof Panel

Wall Panel

Coving

Infill

Roof to Panel Detail
Truss system for hanging

(Wall panels supports the ceiling panels
and are rested on it)

Load Bearing Ceiling

Load Bearing Ceiling Panels are made with 0.8mm thick GPSP sheet / stainless steel with zinc coating between 90-120gsm bonded with infill of polyurethane foam or honeycomb kraft paper with aluminium core or glass wool forming a rigid 60/80mm thick panel to nominal size as required. Modular width of ceiling panel is 900mm standard and can be fabricated up to 4000mm in length. Panels are stiffened properly to allow person to access over the entire surface.

We design ceiling in such a way that it allows incorporating flush lighting Fittings. Air-conditioning filters, Grils, diffusers and other ceiling mounted equipments and the accuracy within is achieved through laser punched technique.

Technical Data

- Roof panel is 4000mm (L) x 900mm (W) x 80mm (Th)
- Each roof panel is designed to withstand concentrated load of 150kg/m^2
- The self-weight of roof panel (4000mm x 900mm) is conservatively taken as 33kg/m^2
- Roof panels are self supported upto 3.5 mtrs
- Ceiling can be made self supporting with use of MS and Aluminium Truss.

Technical Specifications

Technical Specification	PCGI (Powder Coated)	SS	PPGI (Pre-Painted)
Sheet thickness	0.6 / 0.8 / 1.0 mm	0.8 / 1.0 mm	0.5 / 0.6 mm
Structural Frame work	GI	SS	GI
Infill	PUF/PIR/GLASS WOOL/ PAPERCORE	PUF/PIR/GLASS WOOL/ PAPERCORE	PUF
Connecting Profile	GI	GI	GI
Base Profile	GI RAISED FLOOR TRACK / U TYPE	GI RAISED FLOOR TRACK / U TYPE	GI (U TYPE)
Sealant	SILICON SEALANT	SILICON SEALANT	SILICON SEALANT
Panel width	1130/1200 mm	1130/1200 mm	1130/1200 mm
Panel Height (Maximum)	4500 mm	4500 mm	4500 mm
Panel Thickness	44 / 60 / 80 / 100 / 160	44 / 60 / 80 / 100 / 160	50 / 60 / 80 / 100 / 120 / 160
Powder Coating Thickness	70 - 80	NA	35 - 40
Finish	EPOXY POLYESTER POWDER COATED	SS FINISH (MATT/MIRROR FINISH)	Pre-Painted
Colour	STANDARD RAL SHADES	STANDARD SS	STANDARD RAL SHADES
Coving	R50 / R65	R50 / R65	R50 / R65

Fire Resistant Doors

We have in store for our customers Fire Resistant Doors that matches international standards and are made using high-end technology. Clients can avail these in different sizes with the choice of glazing, single or double doorsets, fire resistant self closing louvers, optional fixed over panels and optional temperature rise (insulation) configurations.

Specifications

▶ Available in fire resistant levels from 30 minutes up to 2 hours and testing as per BS 476 Part 20 & 22, IS3614 (Part 2)
▶ Shutter sheet thickness : 1.0 mm
▶ Infill material : Rock Wool (96 kg /cu.m)
▶ Frame sheet thickness : 1.5mm
▶ Complete Ironmongery from : Dorma or any other compatible make

Finish

▶ Pure Polyester Powder Coated (Jotun Make) 60-80 Micron
▶ Standard size vision panel
▶ 6 mm thickness Fire Rated Glass (Fire Rated Wired Glass)
▶ Double Skin Shutter: 44 mm thickness (GI sheet On Both sides)
▶ Provision of fixing
  ● Panic Bar
  ● SS D-Type
  ● Lever Handle with Lock
  ● SS Push Plate
  ● SS Flush Bolt
  ● SS Ball Bearing Hinges
  ● Door Closers
  ● Anchor Fasteners with Cap

Metal Doors

Metal Doors are widely appreciated for their unmatched attractiveness, longer functional life and optimum resistance to heat & water. Made available by us in several specifications, these doors find application in a number of offices, homes and hotels.

Door panels are available in variety of paints finishes with various options of hardware to suit your need. Door leaf are made from 0.8/1.00/1.2mm thick zinc coated galvanized steel sheet in double skin to the thickness of 44/45/46/47mm. Door frame are made of 1.2/1.6mm GI sheet with internal stiffeners & reinforcement like hinge plate, other hardware mounting plates.

We deal with a wide range of Steel Security Doors & Stainless-Steel Doors. The range made available in the market by us is inclusive of Interior Steel Door, Stainless Steel Doors and Safety Doors. We also provide Installation Services to our client.

We have a highly modernized, state-of-the-art infrastructure, which is praised for the facilities it is equipped with. For the purpose of attaining smooth functioning, we have divided the entire facility into a number of units. Apart from providing a commendable range of doors, we also provide highly regarded door fitting services as per the clients' needs. Post manufacture, these doors are subjected to various levels of quality tests as well.

Clean Room Furniture

We offer the best customer choice for cleanroom furniture available on the market. We deliver products fully-assembled and ready for immediate use.

When selected and used properly, stainless steel furniture and equipment of Cleanroom can have an extremely positive impact on the performance of a cleanroom. Step over benches and transfer hatches encourage good protocol, whilst benches and chairs can improve operatives comfort and benefit morale.

If what you're looking for isn't within our standard range of cleanroom furniture, please get in touch with us, as we can manufacture bespoke stainless steel furniture to suit your application.

SS Apron Locker
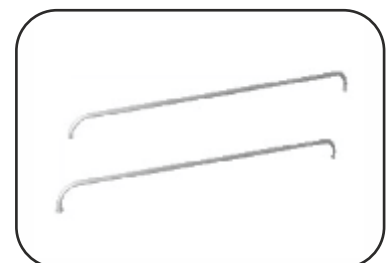

Cross Over Bench

Office Table

Foot Step

Sieve Inspection Cabinet
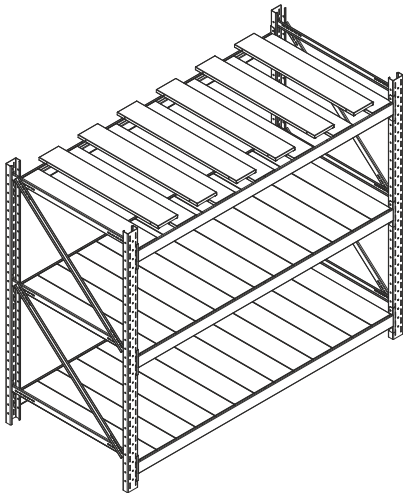

Stainless Steel Table
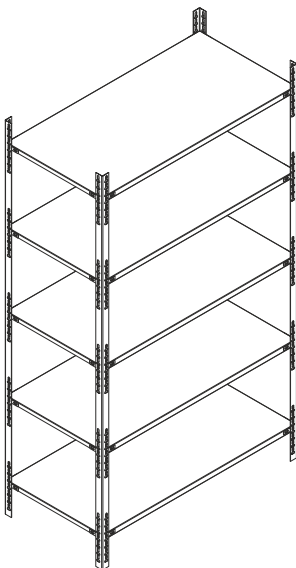

Wall Guard

Clean Room Storage System

We are renowned & one of the most well known manufacturers and suppliers of Clean Room Storage System not only in india but in the global market as well. Our Clean Room Storage System are fabricated from premium steel. Our designs are in accordance to the current trend and suit the industry requirement. We design the storage system according to the customer's specifications. We offer storage racks with load bearing capacity from 50 Kgs. to 2000 Kgs. per shelf and height upto 10 Mtr. Our storage system is further diversified as below
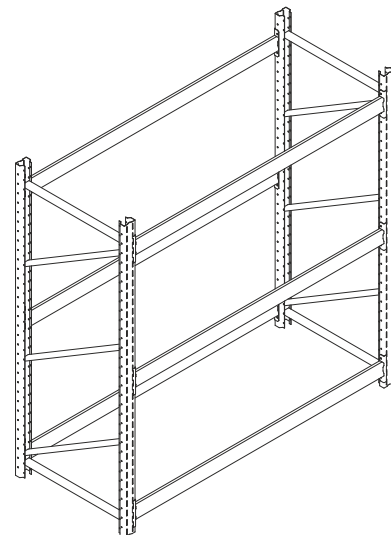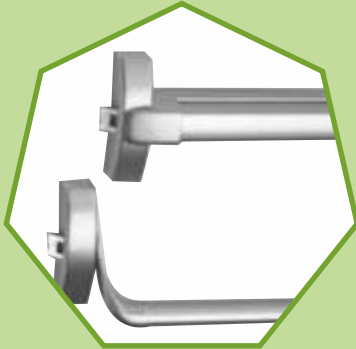
Heavy Duty Rack

Document Rack

Pallet Rack

Door Hardware Range

Door Closers

Panic Bars

Pull Handles

Drop Down Seal & Flush Bolt

Mortise Lock Body & Cylinders

Lever Handles

CERTIFICATION

OUR PATRONS

INGRESS⁺

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