



NAVAIR
INTERNATIONAL PVT. LTD.



CLEAN ROOM SOLUTIONS



PANELS / DOORS / GLAZING

www.navairindia.com



NAVAIR PRODUCTION FACILITY



AWARDS & RECOGNITION



NAVAIR
INTERNATIONAL PVT. LTD.

FROM THE CEO'S DESK

Dear Patrons,

NAVAIR International Private Limited, It took us a few decades to establish ourselves in the space of Clean Room Partitions. Partnering with numerous institutions and providing them with tailored solutions. Our commitments and precision standards of quality are the cornerstone of our reputation.

Starting our journey in 1982 to serve the nation with what matters most to mankind, Security & Peace of mind, we began and soon pioneered the art in the field of passive fire protection solutions. We take pride to announce that we are responsible for the concept of Passive Fire Protection in India. In order to serve the Healthcare & Pharmaceutical Industries we have added Clean Room Solutions to our Product Portfolio.

We swear by our quality standards. Exceeding industry standards in terms of internal and external quality checks, we are the only company in the industry who has a wide product range i.e. Steel and Wooden Doors, Fire Retardant paints for Wood surfaces, Intumescent Fire Resistant frames for Cables and Load bearing Steel Structures, Fire rated Foams and Fire Stops, Clean Room Partitions & doors all under one umbrella NAVAIR.

NAVAIR, a brand that offers a comprehensive solution to its partners, at par with international product standards. We are proud winners of National Award of Import Substitution by the Honorable Govt. of India for our manufactured product.

In the endeavor to expand our product portfolio, we have tied up with several global leaders. We are OEMS with M/s Vetrotech Saint Gobain India for Fire Rated Glazing Products, Importers and Dealers of Fire Rated Hardware, with leading global hardware brands, importers and turnkey solution providers for Intumescent Paints for Loading Bearing Steel Sections with M/s Nullifier U.K.

We Pledge - To be the pride of this country and to humbly service our esteem partners in business with the best solutions.

We look forward to your continued and endless support, so we could support you endlessly.

Asheet Taneja
CEO, Navair International Limited

Construction

The walls for clean room application are generally constructed with two metallic skins with a chosen infil. Walls with such a construction are commonly termed as "Sandwich panels". Our wall systems are designed with panels upto 1120mm width and 3000mm height. Specialized single skin cladding are designed as per the construction needs.

The walls can be designed with fire rating as well.

Infil

Depending on the application needs (temperature, acoustic, mechanical strength) and cost considerations the infil can be Kraft paper in Honeycomb construction, resin bonded mineral wool or Poly Urethane Foam (PUF).

Surface Finish

The surface of walls can be bare metal (generally in the case of stainless steel skins), paint (pre painted skins or powder coated in standard RAL shade).

Mounting

The wall panels are mounted on either a "C" channel or specifically designed section to serve as raised floor track.

Cutouts

Wall are designed with accurately designed factory made cutouts to accommodate services such as electrical, pipe lines and instruments.

Skins

Our clean room walls are constructed out of zinc coated steel or stainless steel with varied specifications suiting the application and cost requirements. The sheet thickness can vary from 0.5mm to 1.0mm.

Thickness

Generally the thicknesses are 50mm, 60mm, 80mm and 100mm.

Variants for specific needs can be designed.

Joints

The joints are designed to meet clean room class requirements and construction needs. Therefore a joint could be hairline or with a defined spacing sealed with moisture resistant and microbial growth resistant adhesive or "Pilaster" for demountability.

Risers

We design risers as an integral part of the wall system. The construction could be flushed or surface mounted depending on the wall thickness and airflow requirements. The design also takes into consideration the grill and duct connection needs.

Service Panels

Service panels are designed as an integral part of our wall systems. These panels are designed to accommodate clean room utilities and functional requirements such as fire & electrical systems and pass boxes.

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS	GI POWDER COATED PANELS / SS PANELS	PRE PAINTED GI PANELS
SKIN	0.6 / 0.8 / 1 mm	0.5 / 0.6 mm
STRUCTURAL FRAME WORK	GI / SS	NA
INSULATION	PUF / MINERALWOOL / HONEY COMB CRAFTPAPER	PUF
CONNECTING PROFILE	PVC / AL / GI	NA
BASE PROFILE	GI RAISED FLOOR TRACK / U TYPE	GI U TYPE
SEALANT	FOOD GRADE SILICON SEALANT	FOOD GRADE SILICON SEALANT
WIDTH	1120 mm	1000 mm
HEIGHT (MAX)	3000 mm	3000 mm
PANEL THICKNESS	44 / 60 / 80 / 100 / 160	50 / 60 / 80 / 100
COATING THICKNESS	60-80 μ	30-40 μ
FINISH	POWDER COATED / SS HAIRLINE / SS MIRROR	PRE PAINTED
COLOUR	AS PER RAL	AS PER RAL SHADE
COVING	65R / 50R	65R / 50R

* The Above sketches are only indicative, actual products may vary.

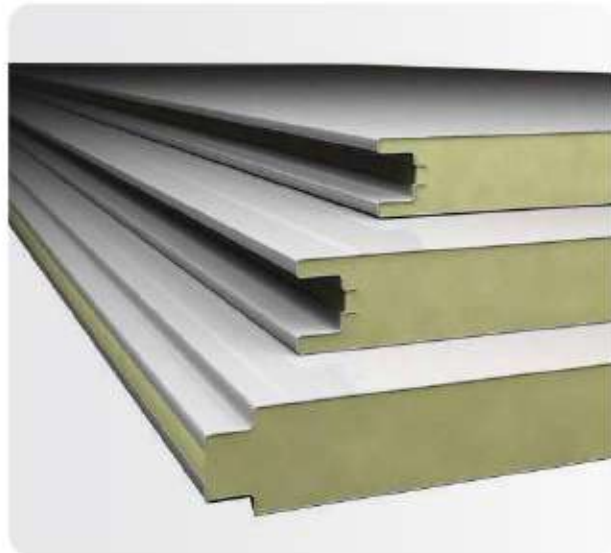
INFILL



RESIN BONDED
MINERAL WOOL

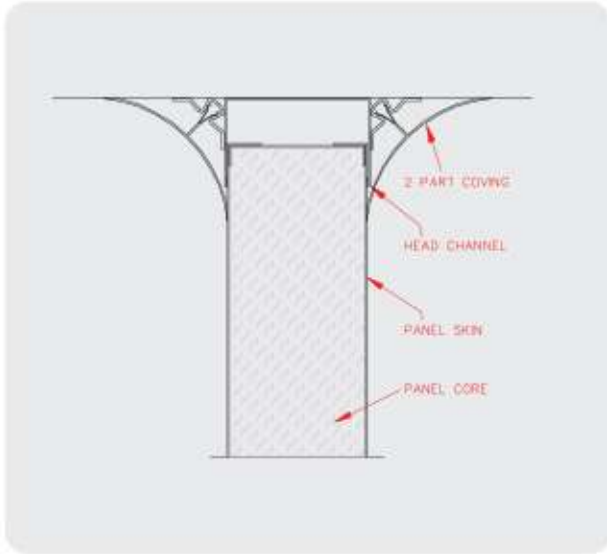


KRAFT PAPER IN HONEYCOMB
CONSTRUCTION

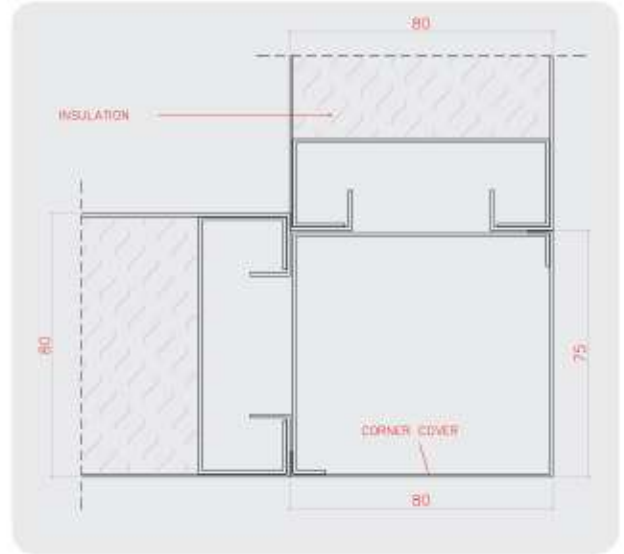


POLY URETHANE FOAM (PUF)

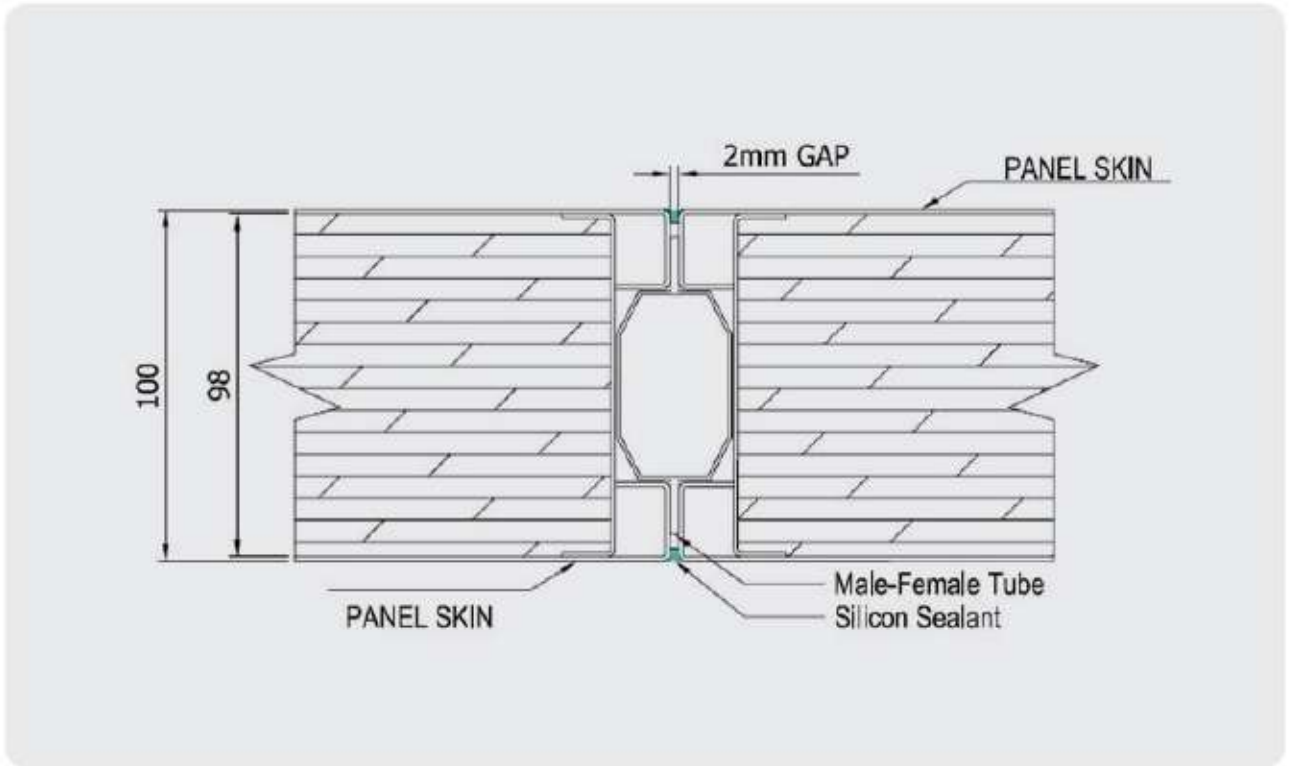
MEETING SECTION DETAILS



WALL TO CEILING
JOINT WITH COVING



WALL TO WALL CORNER
JOINT WITH CORNER COVER



PANEL TO PANEL JOINING DETAILS

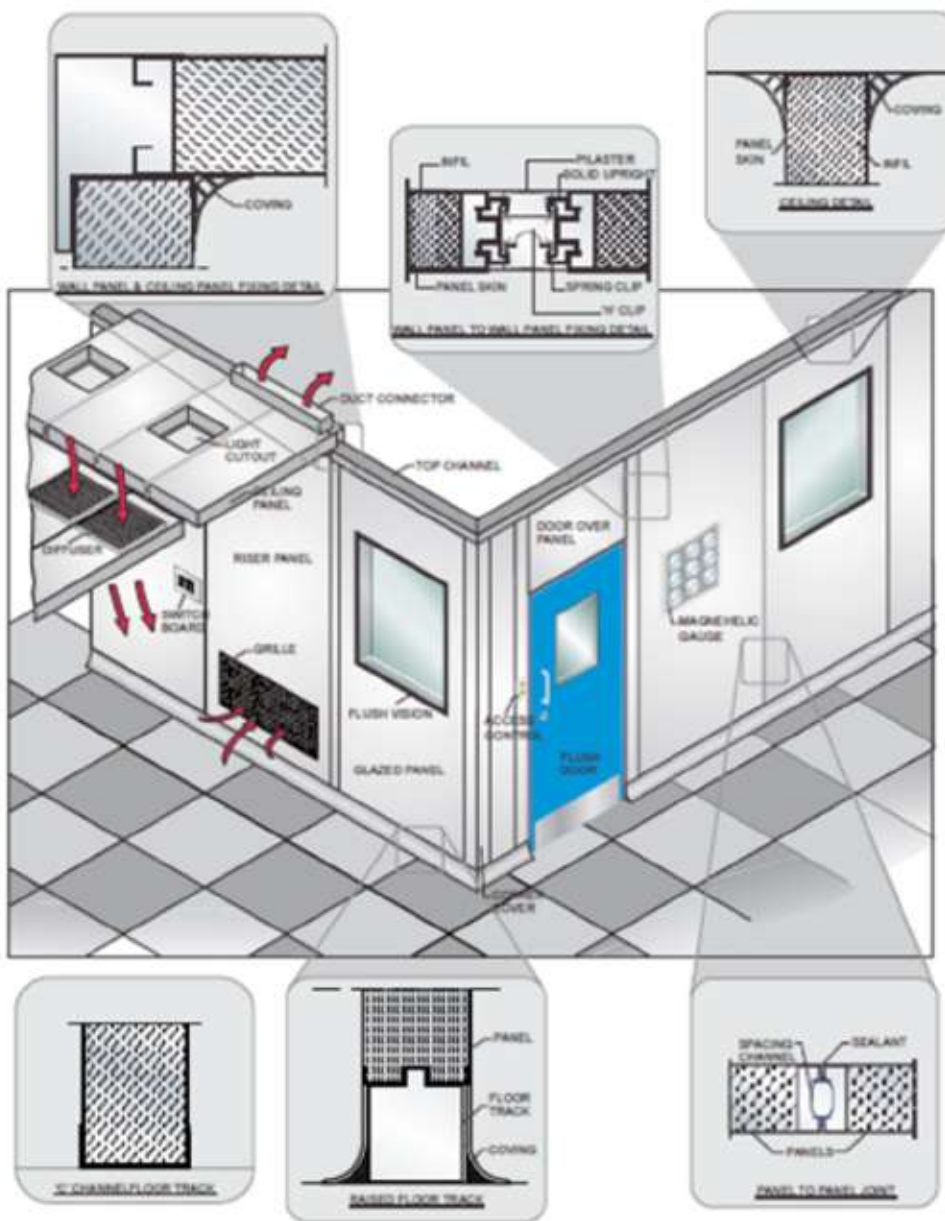
* The Above sketches are only indicative, actual products may vary.

CLEAN ROOM CEILING

The Ceiling Membrane is of Vital importance to the integrity and performance of any cleanroom. The concept of ceiling can vary from simple suspended lay-in grid types to sophisticated 'walk on' construction

WALKABLE CEILING

Ceiling are designed as Walkable Type and Non Walkable Type. Walkable Ceilings can bear a load of 150kg per Sq meter. Walkable Ceilings are designed suitable with stiffness to allow a person to walk over the surface.



RISER PANELS

We design risers as an integral part of the wall system.

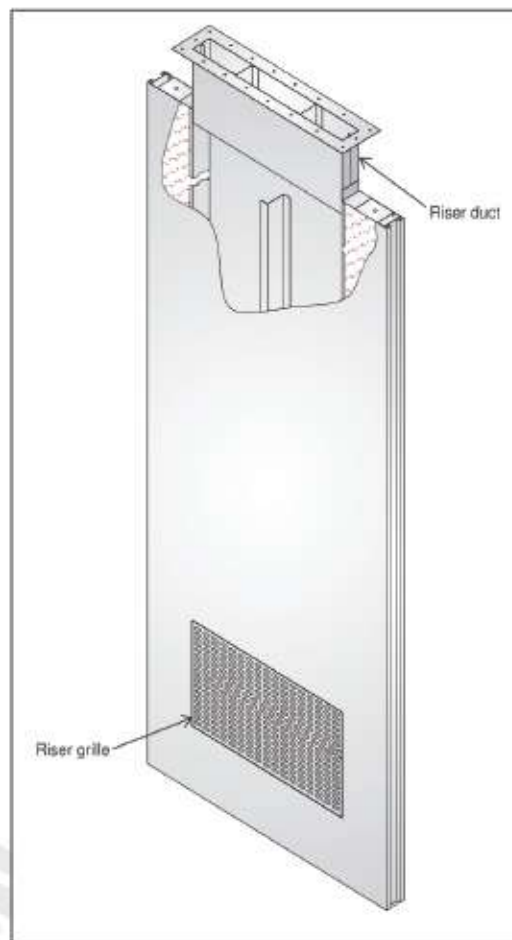
The construction could be flushed or surface mounted depending on the wall thickness and airflow requirements.

The design also takes into consideration the grill and duct connection needs.

Return air riser grills are fabricated by way of capsule perforated area of 900X300mm and are fixed to the Panels with the help of dome bolts.

The unique design of the riser allows the capsule perforated i.e. riser grill cover to be removable for maintenance and cleaning purposes. Module width being 1120mm / 1000mm and is an integral part of the solid panel, we have a system of measuring a standard rise panel, duct area will be deducted from the module. All solid area will be considered in solid partitions.

Finished pure polyester powder coating of 60/80 microns is applied for a smooth surface finish.



FLUSHING ACCESSORIES FOR ROUNDED CORNERS



1/8 Sphere Corner



1/4 Sphere Corner



Horizontal / Vertical Coving



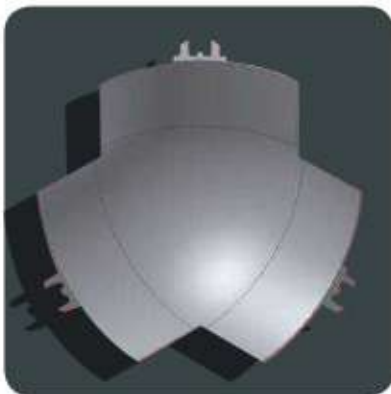
90° Flush Vertical Profile



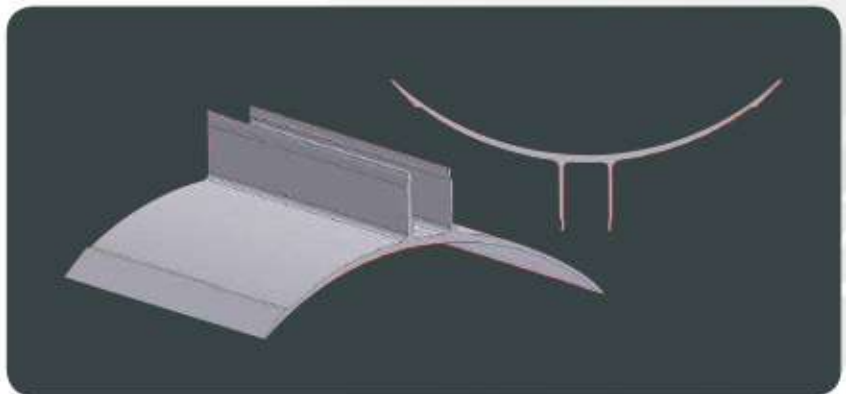
180° Flush Vertical Profile



2-D CORNER



3-D CORNER

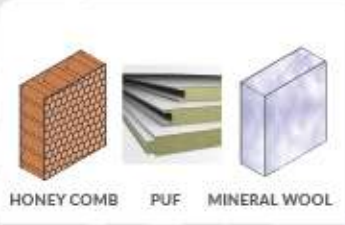


STANDARD COVING WITH BACKING MEMBER

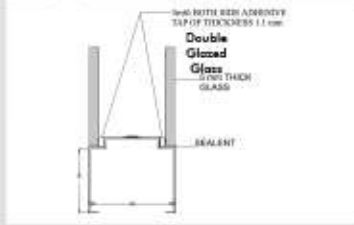


DOUBLE LEAF DOOR

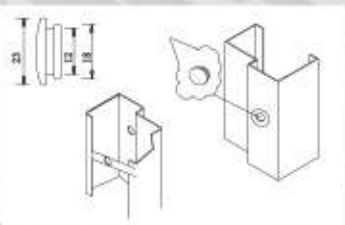
INNER FILLING



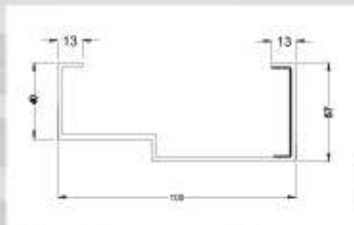
**DOUBLE GLAZED
FLUSH TYPE GLASS**



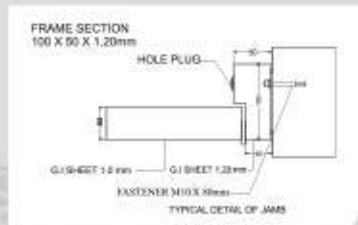
DOOR BOTTOM DROP SEAL



ANCHOR COVER



FRAME SECTION



**STEEL FRAME & SHUTTER
SECTIONED VIEW**

* The Above sketches are only indicative, actual products may vary.



Door Type:	Scientific Door
Criteria:	Clean Room
Fire Rating:	Not Applicable
Door Thickness:	44 mm
Standard:	Clean Room
Application:	Hygeine

DETAIL DESCRIPTION

1. Steel frame Profile Design- NCL 100x50
2. Frame manufactured with 1.2mm Galvanised Steel
3. Shutter Thickness- 44mm
4. Shutter infill- Honeycomb/Mineral wool/Polyurethane Foam (PUF)
5. Shutter manufactured with 0.8/1 mm Galvanised Steel-Sheet
6. Double Glazed Glass as per requirement (5mm std / as per user requirement)

RECOMMENDED HARDWARE

1. Stainless steel Ball Bearing Hinges- SUS 304 of size 100mm x 75mm x3mm
2. Door Closer- Having capacity up to 60 kg per leaf / Shutter
3. Mortise Dead Lock Set with Cylinder and estucheon- complete set with D Shape Pull Handle for pull side and push plate (SS 304) on Push side
4. Mortise Sash Lock with Cylinder, estucheon, lever handle - Complete Set for Push/Pull operation
5. Automatic Mortised Drop Down Door Bottom Seal
6. Perimeter Seal on periphery of frame
7. Any other special hardware as per user requirement

OPTIONAL HARDWARE

1. Door Coordinator
2. Concealed Flush bolt
3. Dust Proof Socket
4. Contact Less Hardware

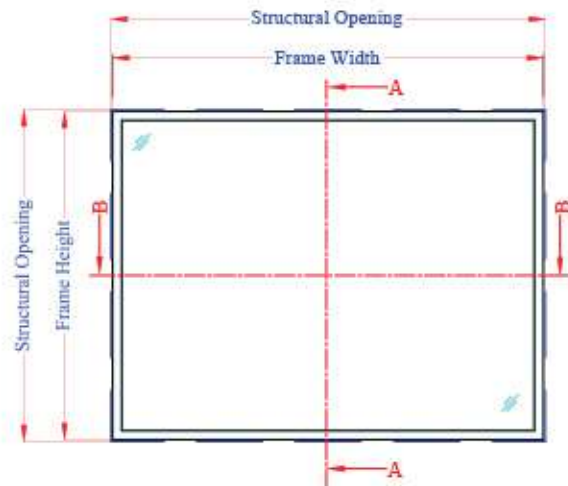
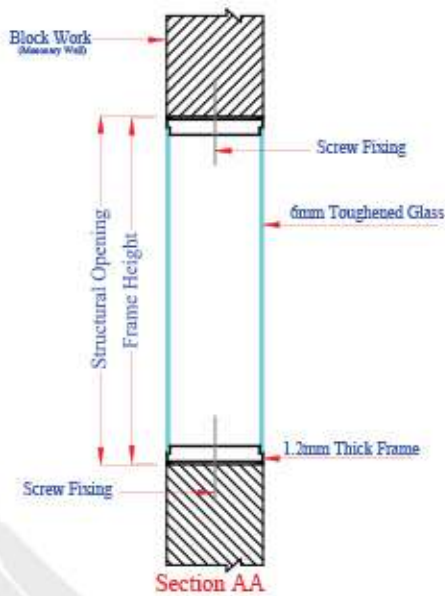
RECOMMENDED FINISHES

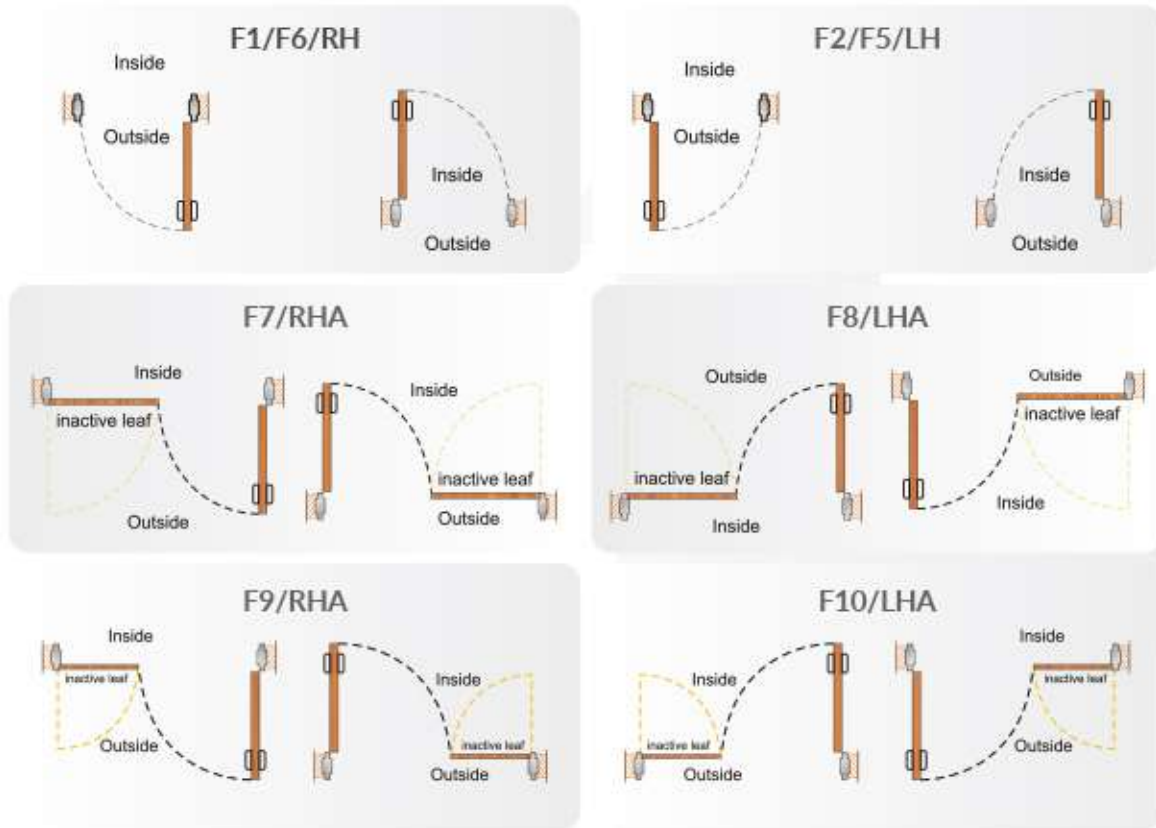
1. Powder Coating in desired RAL Shade
2. SS304 Hairline / SS 316 Mirror Finish

BOTH SIDE FLUSH GLAZING



SECTIONAL DETAILS OF FLUSH SIDE WINDOW / VIEW PANELS





* The Above sketches are only indicative, actual products may vary.

COLOR PALETTE



CLIENT LIST



PATANJALI
AYURVEDA LIMITED



ACCRETIVE HEALTHCARE



MODI MUNDI PHARMA



AASHIRBAD HEALTHCARE



TATA MEDICAL CENTRE



KOLKATA MEDICAL
COLLEGE AND HOSPITAL



MAGNETI MARELLI



ALKEM LABORATORIES



VEEBA FOOD SERVICES



MACDONALD'S



MERIL LIFESCIENCES



KUSUM HEALTHCARE



MEDITAB



AKORN INDIA PVT LTD.



AKUMS DRUGS AND
PHARMACEUTICALS



HEINZ



LOREAL'S



HINDUSTAN UNILEVER LIMITED



TEVA PHARMACEUTICALS
INDUSTRIES LIMITED



USV PRIVATE LIMITED



CADILA HEALTHCARE LTD



NAVAIR
INTERNATIONAL PVT. LTD.



Corporate Office:

Navair International Pvt. Ltd.
59/17 Guru Ravidas Marg,
2nd Floor, Kalkaji Extn., New Delhi

Tel.: +91 11 46865000
Email: info@navairindia.com
marketing@navairindia.com

Factory :

BARHI (SONEPAT)
Plot No. 468, Barhi Industrial Area
Sonipat, Haryana - 131001

Plot No. 399, Barhi Industrial Area
Sonipat, Haryana - 131001



www.navairindia.com