

HICON ENGINEERING COMPANY (P) LIMITED

An ISO 9001 : 2015 Company



OPENING
DOORS
to the
world



Based in Greater Noida, India

We have built up area of 40000 sqft. in Greater Noida with a pan-india services support network. Customers have confidence in Hicon and its ability to deliver what is committed.

Director's Message

“Since the very beginning professional expertise, commitment and entrepreneurship have characterised Hicon employees. These human assets will carry us forward and ensure our customers the best imaginable services and support well into the future. This is why we continue to invest in our employees”

Experience has its Benefits

Hicon Engineering Co. Pvt. Ltd. (HECPL) has, for over 15 years specialised in the supply, manufacture & installation of insulated panels and door for various industries like Cold Rooms, Operation Theatres, Blood Banks, Clean Rooms, Telecom, Defence etc.

PRODUCT RANGE

- COLD ROOM/STORAGE PANELS
- CLEAN ROOM PANELS
- TELECOM SHELTERS
- WALL PARTITIONS

1 Insulated Puff Panel



2 Doors for Cold Room/Storage

- FOOD PROCESSING
- COLD CHAIN
- DAIRY
- MEAT FISHERIES
- OTHER SPECIAL AREA



INSULATED PUFF PANEL

• Hicon PUFF (Polyurethane Foam) Insulated panels are having different types of skins i.e.

- Pre-Coated Galvanized Sheets
- Aluminum Sheets
- Stainless Steel Sheet
- Plain Galvanized Sheets

• Floor Panels (Ply & alluminum chequered sheets)

• Panels are manufactured by using Polyurethane Insulation, which adhered to the interior of skin layers providing increased structural strength

• All panels have tongue and groove construction of Cam-Lock fastening system consisting of hooked locking arms on one side and end of panels connected by plastic hook to match lock in pins on the other side of the panel (Metal Cam-Lock are also available on demand)

• Panels are conveniently assembled at site and the joining and disassembling of the panels is done by using an Allen Key Tool.



TECHNICAL SPECIFICATIONS OF PUFF PANELS

PARTICULAR	SPECIFICATION
Density	40 ± 2 Kgs m ³
Compressive Strength at 10% deformation	2.1 Kgs/cm ³
Tensile Strength	4.0 Kgs/cm ²
Bending Strength	4.2 Kgs/cm ²
Adhesion Strength (Foam to Steel)	3.0 Kgs/cm ²
Dimension Stability (48 hours)	
-25 °C	0.1 %
+38 & 90% RH	0.1 %
+100 C	0.4 %
Closed Cell Content	90-95%
Temperature Range	-180 °C to +140 °C
Temperature conductivity at 0 C (Design Value 0.220 K Cal/m-hr/C or 0.223 w/m K)	0.018 K Cal/m-hm/c
Water Absorption	0.1 % volume at 100% RH
Vapor Permeability (At 90% RH & 38 C)	0.8/0.12 GMS/HR m ² as per IS-11239
Fire Properly Extent to burn as per BS 4735	Max 100 mm
Type	Self-Extinguishing

Main Features of Puff Panels

- Low interior temperature range of +50 degree c to -40 degree c.
- Panel thickness of 40mm to 200mm.
- Special wall and ceiling interlocks to maintain "zero" leakages.
- Maximum integration of the components.
- Puff panels have high insulation capacity & high resistance.
- Food grade ss sheet is used for preservation.
- Uniformity of panels dimensions.
- Excellent resistance to ultra violet light.
- Engineered for easy and quick installation and commissioning.



Sliding Door



COLD CHAIN SLIDING DOORS

(Manual/Automatic)

FOR CHILLER, FREEZER & BLAST FREEZER

The Door slides on an overhead track which is made of high quality aluminum extrusion with indentation for 3D movement to ensure complete hermetic sealing while closing.

The door is surrounded by four side rubber sealing gasket which ensure hermetic sealing, thereby reducing the risk of loss of cooling and control the temperature.

Hicon can provide double leaf sliding doors with perfect sealing.

FEATURES

Best suited for temperature control areas.

Hermetic sealing to prevent leakages.

Robust european technology.

Easy to operate, energy efficient.

Best quality to last year after year.

With emergency release.



Double Leaf Sliding Doors



Technical Specifications- Slider Door

S.No.	Description	Technical details
1.	Door Leaf	<ul style="list-style-type: none"> • Insulated sandwich panels of 0.60mm thick PPGL/SS304 sheet with 100% CFC-free, pressure injected high density (43kg/m³), 2 components PIR fire resistant polyurethane core. • Sheet: 0.6mm thick, PPGL/SS304 grade. • Polyester Sheet: 1.5mm FR grade polyester, yellow, white and blue colors • Polyurethane <ul style="list-style-type: none"> ➤ 2- components Polyurethane Rigid. ➤ Dimensional stability at +100⁰C & -25⁰C (2% max) ➤ Density 43kg/m³ with max variation 2% in weight and volume. ➤ Panels framed all four sides with aluminum extruded profiles. • Door Leaf thickness: 60mm, 100mm, 120mm, 150mm & 200mm
2.	Wall Frame	<ul style="list-style-type: none"> • Aluminium extruded 6063 T6 grade, 20 micron anodized T99 wall frame with inbuilt recess for heaters. • Inbuilt reinforcement slots. • Puff insulation provided in Alum. Frame for insulation and additional strength.
3.	Rail	<ul style="list-style-type: none"> • Heavy duty profiles in aluminium alloy grade 6063 T6 grade. • Unique system that allow the door to slide “down and in” simultaneously at an angel of 45⁰ utilizing the weight of the door to give a perfect hermetic seal when closed. • The rail comes with a canopy with slopping top in 0.8mm thick.
4.	Rollers	<ul style="list-style-type: none"> • Wheel chair in AISI 304 grade hard wearing and self-lubricating rollers of special grade nylon and double roller bearing for noiseless and effortless operating for years. Two dimensional adjustments on the wheelchair make door blade positioning and alignment very easy.
5.	Sealing Gasket	<ul style="list-style-type: none"> • Silicon EPDM sealing gaskets on the door leaf FDA approved gaskets also available. • Easily replaceable gasket systems.
6.	Opener	<ul style="list-style-type: none"> • Best in Class opener of special grade keeps it corrosion resistance. • Out Side Opener: Design Hermetic Opener with solid AISI 304 Grade Stainless Steel Handle and Nylon Grip • Inside Opener : Solid AISI 304 Stainless steel Handle with Nylon Grip.
7.	Cladding	<ul style="list-style-type: none"> • 0.60mm thick cladding to protect and reinforce the cut out opening in panel wall.
8.	Pad Lock	<ul style="list-style-type: none"> • Slider Door Lock or Padlock arrangement on track side, with emergency release on non-track side.
9.	Bottom Guide	<ul style="list-style-type: none"> • Friction-free guide angle with SS304 & nylon guiders.

INSULATED HINGED DOORS

Chiller / Freezer / Blast Freezer

FLUSH DOOR



OVERLAP DOOR



- The door help to maintain the insulation values, prevent loss of refrigeration, through hermetic sealing.
- Emergency release located on the inside of the door leaf.
- Door frame with an aluminum sill installed flush with the floor, for freezer application. Both the sill and the door frame are fitted with a heater tape.

APPLICATION AREA

- Food processing
- Cold chain
- Ripening chamber
- CA chamber
- Pack house
- other special areas

FEATURES

60 to 150mm polyurethane insulation for positive & negative hermetically sealing, energy efficient, easy operation.

European quality, now "Made in India"

Manufacturing Techniques guarantee extreme rigidity.

Finished available PPGI Sheet, SS 304 Sheet, Polyester Sheet

Customised Door Size available

3 side heavy duty exchangeable EPDM rubber gaskets on the door leaf.

Double Leaf Hinged Door



Hinged Door



Double Leaf Hinged Door

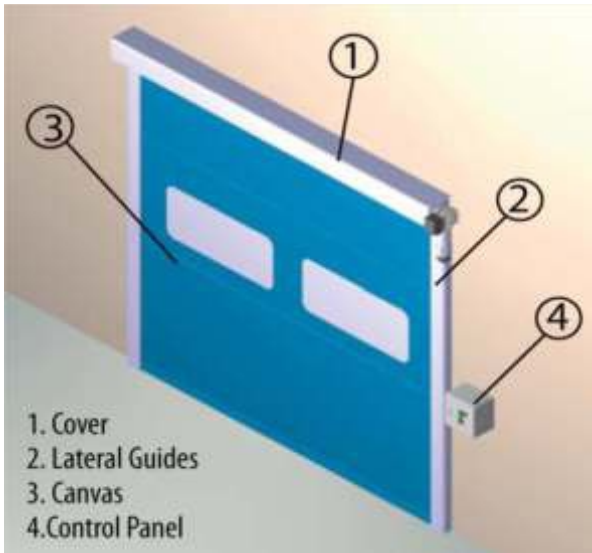


Technical Specifications- Swing Door

S.No.	Description	Technical Details
1	Door Leaf	<ul style="list-style-type: none"> • Insulated sandwich panels with 100% CFC-free, pressure injected high density (43kg/m³), 2-component PIR/Polyurethane core. • Finish 0.6/ 0.8 m, PPGL/SS304 grade sheets or 1.5 mm FR grade polyester finish door. • Polyurethane • 2- component polyurethane rigid • Dimensional stability at +100⁰C -25⁰C (2% max) • Density 43Kg/m² as per DIN53420. • Condensation resistance at 38⁰C and 88RH> max variation 2% in weight and volume. • Door leaf thickness: 60mm,80mm,100mm,120mm,150mm and 200mm. • Galvanized reinforcement plates for extra durability of door at hinges and locks location.
2	Wall Frame	<ul style="list-style-type: none"> • Aluminium extruded 6063 T6 grade, 20 micron anodized T99 wall frame with inbuilt recess for heaters. • Inbuilt reinforcement slots. • Puff insulation provided in Alum. Frame for insulation and additional strength.
3.	Sealing Gasket	<ul style="list-style-type: none"> • EPDM sealing gaskets on the door leaf. • Easily replaceable system available. • FDA approved gaskets available.
4.	Hinges	<ul style="list-style-type: none"> • Diecasted heavy duty Rising hinges tested for upto 75000 cycles. • 2 hinges can withstand load upto 80 kg.
5.	Opener(Inside/Outside)	<ul style="list-style-type: none"> • Best in class opener of special grade keeps it corrosion resistance. • Handle tested for upto 75000 cycles. • Outside handle – Grey and Black Color. • Inside Handle- Green Color. • Very durable profile cylinder fitted on the outside opener • Highly dependable emergency release mechanism to ensure 100% safety.
6.	Optional Items	<ul style="list-style-type: none"> • Vision Panel- Double glazed view port in gaskets for five application. • Double glazed viewpoint in Aluminium frame with heating mechanism. • Kick Plate • Stainless steel SS304 grade/Aluminium 1.2 mm/0.8 thick chequered sheet.

ROLLING HIGH SPEED DOORS

Motorized high-speed door in aluminum structure to be installed indoor



TECHNICAL DESCRIPTION

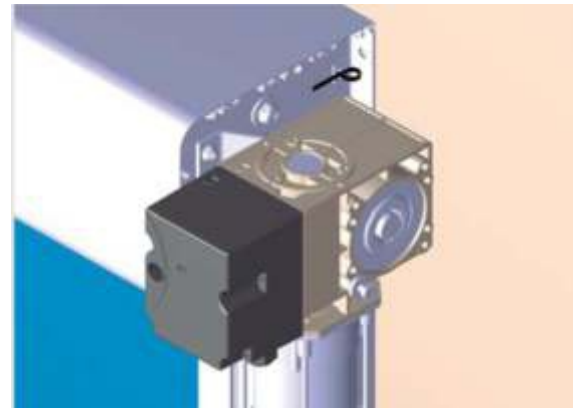
HICON HIGH SPEED DOOR in aluminum structure is suitable for its installation in heavy traffic areas with fast opening and closing requirements. Its has been designed for its use in warehouses or premises of nay industrial sector: Logistics, Automobile.....

The door is composed by a PVC canvas and an aluminum frame with drum cover and galvnised steel supports.

The noise reduction function is achieved thanks to the replacement of the steel ribs in the canvas by high-density polymer profiles with mould exclusively designed for **HICON** as wall as joints system which reduces the noise in motion providing better airtightness.

OPERATION

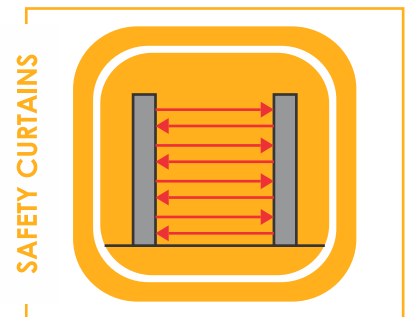
The door operates by the combination of a geared motor up to 0.55kW and an electric control panel with inverter. This system regulates the motor's speed when the canvas gets closer to the highest point and also to the lowest, reducing any vibration and giving a longer life to the set. the system provides a faster opening/closing when it rotates the canvas cylinder to open or to close the door. In the event of blackout, it is possible to declutch the motor and use the handle to open or to close the door. This motor works at 130 rpm and its power inputs is 230V single phase. Its control panel is composed by protection and power components, as well as a frequency inverter.



Encoder motor attached to door's frame

SAFETY SYSTEMS

The HIGH-SPEED PRAE door incorporates a new system: the wireless system safety curtains. This safety curtains operates during the closing, stopping the door and opening it again when it detects an object. It is essential for the traffic of goods and persons through the premises, preventing any possible accident.



DOOR'S LATERAL



SAFETY CURTAINS



DOOR'S MOTOR



ANODIZED ALUMINUM FRAME

OPTIONS

Further to the technical characteristics of the **HIGH SPEED DOOR**, **HICON** offers other improvements to satisfy our customer's needs in their prefect choice.

- CHOICE OF VISION PANEL OPTIONS
- TUNNEL INSTALLATION OF THE DOOR
- MOTOR COVER

Hicon High Speed Doors

	Features	Product Benefits
1	Robust Construction	CE certified, built in conformity with European Directive EN 13241- 1:2003+A1:2011.
2	Optimized Production Flow	With opening speed upto 1.5 m/sec, they maximize efficiency across production cycle
3	Anti-crash Protection System	Enhanced safety features as per EN13241 for external zone and closing zone monitoring
4	Advanced Control Panel	SS 304 control box with inbuilt German VFD for speed adjustment and slow limits for protection.
5	Modular Construction	Low maintenance curtain design, with interchangeable modular sections for easy replacement in case of damage.
6	Adverse Weather Protection	Equipped with special steel wind bars to offer protection against wind loads of upto 120 km/hr. conforming to En12424.
7	Durable Guide Rail System	Extruded aluminum or special steel guide rail system for self-supporting construction and easy installation.
8	Exemplary Aesthetics	Available in a range of curtain color options, along with stylish guards for operator and roller assembly



	Features	Technical Details
1	Opening Speed	0.8 - 1.5 m/s (adjustable)
2	Closing Speed	0.8 m/s
3	Operating Commands	Three-station push button for Open-Emergency Stop-Close (Standard)
		Motion Sensor for Presence Detection (Optional) Loop Detector for Magnetic Field Detection (Optional) Remote Receiver footing
4	Push button	Three-Station push button on controller for Open-Stop-Close Single-station push button in SS 304 enclosure on one side (1 Nos)
5	Curtain Details	Curtain made of 900GSM (EN ISO 2286-2) high tensile self- extinguishing PVC fabric (as per DIN 4102), with 2.0mm thick vision panel and operating temperature of -10 to +70 deg. C Type of Coating: PVC
6	Motor	Heavy Duty European Direct Drive (German Make) (230V AC 50/60 Hz), IP 55 rated and certified as per Machine Directive IEC 34-1 / CE-IEC 72-1,with soft open and close limit
7	Space requirement	Motor side:- 450 mm, Bearing side:- 000mm, Lintel (Head room):- 500mm
8	Emergence	1 Nos. (Crank Handle Operation)
9	Series of Photo cells	2 Pair
10	Wind Resistance	Class 2 - All Doors
11	Soft Edge bottom patented system	Bottom with safety rubber and anti-crash system including safety transmitter
12	Design	Self-supporting side guide rails made of 2.0-2.5mm thick heavy steel material with precise bends and specialized rubber sealing for maximum insulation and self-repairing mechanism. Closing zone area monitoring available through safety photocells and anti- crash device provided as standard. Hood cover and motor cover made of galvanized steel. Door is made in conformity with European Directive EN 13241-1:2003+A1:2011



INSULATED FLIP FLAP DOORS

Hicon Flip-flap insulated swing doors is a multi-purpose door, ideal for manufacturing premises, food processing facilities, supermarkets, warehouses and particular in place with a mixture of walking and driving traffic. The door also helps reduce drought, dust and noise. It is maintenance-free.

- **Thickness:**
40mm.
- **Insulation material:**
CFC-free foam.
- **Springs:**
The hinges never require lubrication.
- **Bumpers:**
Made of black-polyethylene height 300mm.
- **Hinges:**
Made of saltwater-resistant anodized aluminum and stainless steel

DISPLAY GLASS DOOR

Supermarket Commercial Transparent



FEATURES

- **Sturdy Construction**
- **Superior Quality**
- **Easy To Install & Maintain**
- **Dimensional Accuracy**
- **Optimum Finish**
- **Robustness**

HICON CA DOORS

- ▣ Door leaf constructed of core of 100 mm insulation material, covered on both side with PPGI (Pre-painted steel) and finished all round with anodized aluminum profiles, thermal bridge
- ▣ Free equipped with an aluminum drop/lift rail system
100% gas tight due to unique inflatable profile system.
- ▣ Can be operated manually and automatically.
- ▣ Option for CA window in door.



Photos Gallery





HICON ENGINEERING COMPANY (P) LIMITED

📍 Plot No.: 108,109,152 & 153, Udyog Kendra (Toy City), ECOTECH III, Greater Noida - 201306 (U.P.) INDIA.

🌐 <http://hicon.co.in>

ravi@hicon.co.in

hicon@hicon.co.in

+91 76699 54777
