

# **Kathmandu Cold Store & Refrigeration Udhyog**



Kathmandu Cold Store & Refrigeration Udhyog, located in Chandragiri Municipality-12, Balambu, Chundevi Chowk, Kathmandu, has been manufacturing Cold Rooms and Refrigerated trucks with its native resources for the last two decades. Nepal has witnessed considerable change in technology during the past decade.

Our mission is to provide the highest quality equipment, installation, and service to the food sector, hospitality, and other related markets. We strive to be the leading supplier of commercial foodservice equipment in Nepal. Our products are mostly used to store Pharmaceuticals items, Chemicals, Fruits and Vegetables like potato, onion, garlic, and tomato, Ice- Cream, Dry Fruits, Bakery Products, Frozen Food, Horticulture, Meat & poultry, etc.

Our company and all employees are committed to providing excellent customer services and products in a professional and ethical manner including background checks for all the employees. Our company maintains a healthy work environment fulfilling all basic requirements essential in the production zone.

## OUR PRODUCTS



Cold Room is used for the Storage of frozen foods, vegetables, Ice-Cream, Horticulture, Pharmaceuticals, Chemical, Dairy & Bakery, Dry fruits, etc. The required temperature for the cooling procedure lies between  $+15^{\circ}\text{C}$  to  $-40^{\circ}\text{C}$ . We have multiple thickness options like 50 mm, 75 mm, 100 mm, 120 mm, and 150 mm. Following are the products that can be stored in a cold room.

- a) Fruits and Vegetables.
- b) Horticulture products.
- c) Ice cream.
- d) Dry Fruits.
- e) Bakery Products.
- f) Frozen Foods.
- g) Pharmaceutical and Chemical items.
- h) Meat & Poultry.

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### **Technical specifications:**

- **Thickness:** 50 mm, 75 mm, 100 mm, 120 mm & 150 mm
- **Surface Material:** PPGI (Pre-painted galvanized iron) sheet, S.S. (Stainless Steel) Sheet (Grade 304) & Surface finish 2B & Mate). Inside & Outside different metals can be placed as per the requirement of the customer.
- **Floor:** i.) For Kota stone or concrete floor, PUF slab with both side tar felt sheet.  
ii.) For Kota stone or concrete floor, on both surfaces, metal panels in which each side fits with Cam-lock and prevent temperature loss.  
iii.) Aluminum Checkered plate with marine ply.  
iv.) FRP cladding on floor.
- **Door:** i.) Flush type swing door with FRP profile, imported hardware, push-type gasket & replaceable heater for easy door operation and long life.  
ii.) Over-Lap Type Swing Door with frame with metal covering by using heavy duty hardware for better strength.
- **Room Size:** i.) Length & Width: Minimum 6.66 ft and larger size in multiples of 0.9514ft  
ii.) Standard Height of the cold room is 8ft but it can be customized as per the requirement of the customer.

### **Accessories**

The accessories for the cold room include a sliding door, Hatch Door, Pressure Ventilator, View Port and Strip Curtain. Wall guard, door accessories, High Low-Temperature Alarm, Inside Safety Alarm, and Ramp with Checkered Plate. These accessories are more convenient and provide easy operation along with security for its users.



### Technical specification of PUF panels

S.N.	Parameters	Description
1	PUF Density	40±2 Kg/m <sup>3</sup>
2	Insulation Material	Polyurethane foam
3	Temperature Range	+20°C to -40°C
4	Panel Type	Discontinuous type with camlock
5	Type of Panel Joints	Cam-lock joints. Its body material is made up of nylon Glass reinforced with GI sheet.  Panels with camlock joints are easy to assemble and are leakage resistant.
6	Corner Panel Available	290 mm x 290 mm.
7	Maximum length of joint less panel	The maximum length of the panel which can be made without joint is 20.93 feet.

8	Ceiling Suspension items with Specs	MS bolt with thermal breaking cap.4 mm thickness×80×80 mm Aluminum/MS washer plate for load distribution Anchor bolt (MS) hanging bolt with 40 mm washer 2.0mm Anchor bolt (MS) hanging bolt with 40 mm washer 2.0 mm thickness sealing to panel MS road clamp with an insulated crown.
9	Closed Cell Content	90 to 95%
10	Vapor Permeability	5.5 mg/PASM
11	Water Absorption	Less than 2%
12	Fire Grade of Polyurethane Panel	FR Grade B2(ire Resistant Grade)
13	Compressive Strength at 10% Deformation	0.21 N/ sq.mm (For PUF only)
14	Tensile Strength	0.58 N/ mm <sup>2</sup> (For PUF only)
15	Adhesive Strength (Foam to Sheet)	2.9 kg/m <sup>2</sup>
16	Panel Facing Availability	With Rib or plain on Demand (Ribs are provided for more strength)
17	Wall & Ceiling Panel surface Material	<ul style="list-style-type: none"> <li>• PPGI (Pre-Painted Galvanized Iron sheet), Thickness 0.45 mm</li> <li>• S.S. (Stainless Steel) sheet, thickness 0.4 mm.</li> </ul>
18	Floor Panel facing Material	<ul style="list-style-type: none"> <li>• PUF panel with both side tar felt sheet</li> <li>• PUF panel with both side PPGI sheet.</li> <li>• PUF panel with outside PPGI sheet and inside S.S. sheet.</li> </ul>

		<ul style="list-style-type: none"> <li>• PUF panel with outside PPGI sheet and inside 9 mm thick marine ply with 2 mm thick aluminum checkered sheet.</li> <li>• PUF panel with outside S.S. sheet and inside 9 mm thick marine ply with 2 mm thick aluminum checkered sheet.</li> </ul>
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## **REFRIGERATED TRUCKS**



The construction of Heavy Structure is made with a Pre-Fabricated joint less GRP single panel. It is known as (GLASS FIBER REINFORCED PLASTIC). All side panels and top panels are made with wooden structure and bottom panels with metal structure. The insulated walls are thickened to 75 mm in Small vehicles and 100 mm in Mini Trucks and 120 mm in Heavy loading trucks. Single Door is fitted for small vehicles whereas double door is fitted for medium and heavy loading trucks.

## **SLIDING DOOR**

### **Features of sliding doors:**

- Heavy duty imported hardware
- Formed in place door panels

- S.S door frame
- Heavy duty structure and wheels for easy operation.
- Door guide to keep door on track
- Gasket to seal off air leak
- Durable and long service life, corrosion and wear resistant
- Easy maintenance & robust in design
- Outstanding ease of operation by manual
- High standard of hygiene and easy to clean surfaces

### Technical specification for sliding door

<b>Door Panel</b>	75 mm /100 mm /120 mm thick (rigid polyurethane foam)
<b>Door frames</b>	Assembly in panel
<b>Surface color</b>	The surface color is available in RAL 9002 with pre-painted galvanized iron sheet, stainless steel sheet (Grade304),
<b>Insulation</b>	High pressure injected polyurethane insulation with, <ul style="list-style-type: none"> <li>• thermal conductivity 0.022 w/mk</li> <li>• density <math>40 \pm 2</math> kg/m<sup>3</sup></li> <li>• tensile strength 0.58n/mm<sup>2</sup></li> <li>• vapor permeability 5.5 mg/PSM</li> </ul>

<b>Hardware</b>	<ul style="list-style-type: none"> <li>• Anodized aluminum upper guide rail</li> <li>• Availability of floor (F) guide clamp</li> <li>• Brackets in reinforced compositematerial and zinc-coated metal</li> <li>• Outside opening devices with leverhandle</li> <li>• Mounting on pre-fabricated panel</li> </ul>
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## REFRIGERATION SYSTEM

### Features of Condensing Unit:

- High cooling with low power consumption
- Designed for high ambient condition up to 55°C
- Condensing coil with inner grooved copper tubes & aluminum fins
- Efficient fans with external motors for single phase and three phase
- High & low pressure cut out including mounting brackets, wired to terminal strip
- Large size filter drier, moisture indicator, solenoid valve, oil separator and accumulator
- Shell & tube type condenser with high cooling capacity for high ambient conditions

### Features of Evaporating Unit:

- **Fan-** High reliability, lower temperature resistance and low noise external rotor fans.
- **Coil-** High efficiency heat exchange with in line tube system for minimum loss of airflow between fans and large surface area for better cooling
- **Defrost-** Use electrical heating corrosion resistant pipe, leakage proof, long life.
- **Unit Body-** Aluminum, PU type powder coated, corrosion resistant and nice appearance body
- **Maintenance-** compact, adjustable & easy openable side panels for easy installation



Kathmandu Cold Store & Refrigeration Udhyog is among leading manufacturers and suppliers of highly efficient Cold Room/Storage in Nepal, which is very easy to operate and is better in performance. This tailor-made product range is built with premium quality range of material in standard size and customized specification to fulfill the customer needs.

Kathmandu Cold Store & Refrigeration Udhyog has been able to set a benchmark for engineering endeavors in its own land. It has been a platform for engineering graduates, technicians, marketing, and administrative personnel. With long years of research on its own product and its betterment, the company has placed its foot strongly in the sector of Cold Storing and refrigerating systems.