THERMOWORX
Talk to the expert

Modular Cold Rooms
Walk-in Freezers
Portable Cold Rooms





A Game Changing | High Performance | Quick Fitment | Low Cost | Low Carbon Foot Print





COLD CHAIN
REFRIGERATION SYSTEMS
PU / PIR PANELING

COOLMATRIX

Traditionally the construction of cold store facility has posed a significant investment, for businesses In terms of time and money. At ***Themoworx*** we developed Modular technology called COOLMATRIX for Cold Rooms to focus efficiency and reliability.

Did You Know ?

- It is estimated that almost 35% of food is lost in Pakistan due to not having COLD ROOMS and Cold chain system.
- Current Post-harvest practices are old and slow delays reduce the shelf life of fresh produce, for example: 1 hour delay at field condition of 35C can lead to a 24hour loss in shelf life of food.
- Quick cooling of fresh produce on site significantly improves quality and shelf-life.
- **COOLMATRIX** , cold rooms are specially design for quick and efficient cooling of produce even at site.

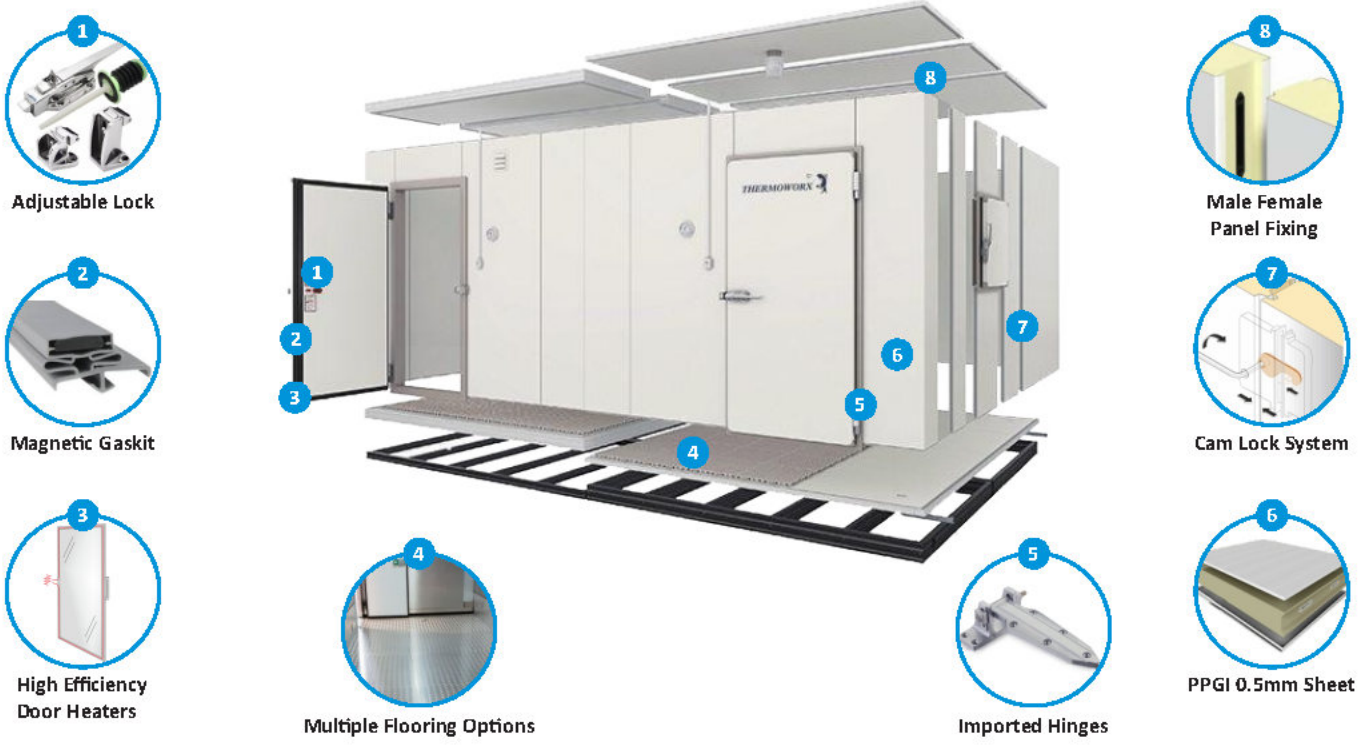
COOLMATRIX Paneling Insulation System

Saving energy is the core design element of **COOLMATRIX** cold room boxes. As cost of energy is severely affecting Cold Chain and temperature controlled warehouse business around Pakistan. Cost of producing cold is 12 times more expensive than to produce heating. Therefore in **COOLMATRIX** Technology, we adopted high efficiency paneling system which gives lowest value of THERMAL CONDUCTIVITY (Ability to transfer heat). Which greatly reduces Annual operational as well as maintenance cost. Key Features are

- Heavy duty Sliding and Hinged Doors with Imported Hardware
- Cam Lock technology for panel joining.
- Machine Made PIR / PU Sandwich Panels
- PPGI 0.5mm Sheet on both sides
- Thickness of insulation 50mm to 150mm
- Lowest Thermal conductivity Value in Market *(K=0.15 Btu-Inch/Hr.F.Sqft)*
- Density of Insulation 40 ~ 42 kg/m³

Insulation Performance @ K-0.15 Btu. In / Hr.ft2.F		
Panel Thickness	U Value Btu/H.ft2.F	R Value Hr.ft2.F / Btu
2" / 50 mm	0.075	13.333
3" / 75 mm	0.050	20
4" / 100 mm	0.037	27
5" / 130 mm	0.030	33.333
6" / 150 mm	0.025	40

We produce PU/PIR Panel On High Pressure Mixing Machine to ensure Density from 40 to 43 Kg/m3 to Have the best Value of Insulation effect.



COOLMATRIX Advantages

- Highly durable
- Unparalleled Energy efficiency
- Innovative design
- No heavy steel structure of building required
- Turnkey solution
- Reduced construction cost
- Accelerated Buildup speed / Factory made
- Reduced operational Cost 23% lesser than the Boxes in the Market
- Warehouse hygiene / fire Safety
- Sustainability
- Superior fire protection



Walk in Chiller / Freezer for Meat & Vegetables



Cold Rooms for Pharma Vaccination & Hospital Industry



For Restaurants & Fast Food

Refrigeration System













- Split Type Refrigeration Units 03 KW to 100 KW for both chilling and freezing application.
- Mono-block / Packaged Refrigeration Units with multiple options.
- We Use Copeland USA / Bitzer Germany / Danfoss Compressors and Components.
- Plug and Play Quick and easy Installation system.
- Available in Packaged and Split Formats.
- Operate-able even at 50 C Ambient Temperature.
- Semi Sealed and Scroll Compressor Options.
- Refrigeration Units are available from +15 C to -40 C Application.
- Energy saving High Efficiency Direct driven Evaporator and Condenser Fans 100% Imported.

Portable Cold Storage System

To manage the high cost of energy and fuel, first time in Pakistan; **THERMOWORX** is introducing portable cold storage solution for in field / outdoor usage. Which can also be powered with Solar Energy. These cold rooms are containerized for the easy maneuvering and relocation. (Existing Container can also converted to Cold Room Boxes)

Key Features

- Low cost In field solution; which can greatly improve shelf life of commodity / Foods.
- 60% Lesser In cost than the other options in the range.
- Easy to mobilize and relocate.
- No Infra-structure / Building is required.
- Plug and Play Operation
- Specially designed for Outdoor Applications.
- High Efficiency, Solar Powered (Optional).
- Quick Installation
- Customizable to Freezer / Chill Room
- Hybrid Power arrangement. Gives its maximum Energy savings.
- No special skill required to Operate.
- Good for Rental Business.











REACH US

+92 300 4574883
+92 303 4241992
+92 316 5809371

Plot No. 105-B,
Punjab Small Industrial Estate II,
Sunder, Lahore-Pakistan.

info@thermoworx.pk
sales@thermoworx.pk
projects@thermoworx.pk