

नेपाल सरकार  
कृषि तथा पशुपन्छी विकास मन्त्रालय  
प्रधानमन्त्री कृषि आधुनिकीकरण परियोजना  
परियोजना कार्यान्वयन इकाई, कास्की

**SPECIFICATIONS OF COLD ROOM**

Design Criteria	
Product to be stored	Vegetables
Incoming Product Temperature	Range between 18 to 30 degree celcius
Cold Room Temperature	0°C to 4°C and above if required)
Pull Down Time	24 hrs
Approximate Storage Quantity	5.5 MT
Number of Chamber	1 cold room

S.N.	Descriptions	Requirement Specification	Offered Specification	Offered Rate
1	Body			
a	Overall Size of Room	10x10x8 feet (Lx B x H)		
b	Insulation Work for Wall, Ceiling and Floor	Puff Pannel of 75 mm thickness including 0.45 mm ±0.5mm PPGI (Pre-Painted Galvanized Sheet) sheet on both sides insulated by 40 ± 2 kg /m3 density PUF (Poly-Urathene Foam) Panel with Tongue & Groove joint with Camlock System		
c	Door	Thermally sealed flush type swing door with heavy duty hinges and handles with door closer for push type gasket, kick plate on outside of door and safety release knob placed at inner side for safety precautions with door opening side as per requirement Door opening at least 750mm * 1800 mm		
		PVC transparent strip curtains of door size having thickness 2-4 mm		
2	Refrigeration system			
a	Outdoor Unit	Compressor Supply, Installtion, Testing & Commissioning of Hermatically sealed Rotary / Scroll type Compressor all complete Condenser Air cooled Condenser with condenser fan ,Copper tubings embided with Aluminium / hydrophilic blue fins with other accessories like Oil Sperator ,liquid reciever ,Solenoid valve, Filter dryer sight glass etc all complete pipes and fittings.		
b	Indoor Unit	Evaporator Supply & Installation of wall mounted Indoor Evaporator unit with pure copper coil/tube Electrical/Air Defrost heater, thermostatic expansion valve, drain pipe		

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S.N.	Descriptions	Requirement Specification	Offered Specification	Offered Rate
		Ambient Temp. Operation 46°C		
		Storage Temp. 0°C-4°C		
		Voltage/Frequency/Phase- 220-240V/50Hz/Single		
		Working Refrigerent R410A/R404A/R134A/R-32 (CFC Free)		
		cooling capacity 24000 BTU/approx. 7 Kw (2TR)		
		Air Flow Volume (Wet CFM) - 500-650		
3	Humidifier	Supply, installation, transportation, testing and commissioning ultrasonic Humidifier with capacity of minimum 3 ltr/hr, auto shut down feature when tank is empty, water float valve to maintain the level with all control accessories for humidity control		
4	Automatic fresh air damper of suitable size and capacity	Material of construction GI or SS		
5	Contol Pannel/IOT	Supply of Refrigeration Control Panel microprocessor based temperature indicator & Automatic temperature controller, temperature setting up/down limit control, User parameter and Administration menu setting Automatic and manual control function, intelligent compressor protection Installation of IOT enabled Control Units consisting of IOT-enabled controllers, Humidity and temperature sensors ( $\pm 1\%$ rh tolerance) for digitalization of the system and remote access to the storage and remote control.		
6	Mechanical Accessories	Self Screws, Nails, Adhesive with other essential materials		
7	Electrical Accessories	wires, wires holder, cable ties, vapour proof lights etc of suitable size and number		
8	Installation on Site	Complete Supply delivery & installation of Cold room must be done by Supplier at site allocated by office.		
9	Warrantee on machine parts	at least one year warrantee		
10	Testing of machine before handover	testing, commissioning and handover of cold room machine must be done in presence of office representatives		

Prepared by  
**Er. Arjun Gautam**  
Agricultural Engineer  
NEC No. 405 Agriculture "A"  
category

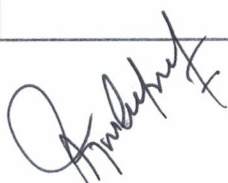
Approved by 

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Cold Room Temperature	0°C to 4°C and above if required)
Pull Down Time	24 hrs
Approximate Storage Quantity	7 MT
Number of Chamber	1 cold room

S.N.	Descriptions	Requirement Specification	Offered Specification	Offered Rate
1	Body			
a	Overall Size of Room	a) 12x11x8 feet (Lx B x H)		
b	Insulation Work for Wall, Ceiling and Floor	Puff Pannel of 75 mm thickness including 0.45 mm ±0.5mm PPGI (Pre-Painted Galvanized Sheet) sheet on both sides insulated by 40 ± 2 kg /m3 density PUF (Poly-Urathene Foam) Panel with Tongue & Groove joint with Camlock System		
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