

**GOLDEN TEMPLE**

AMRITSAR

**SPECIFICATIONS FOR WALK IN CHILLERS**

**CLIENT**

SHIROMANI GURDWARA PARBANDHAK COMMITTEE.

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## PREAMBLE

The tenders being invited for **Golden Temple Amritsar**.

The following tender specifications are included:

- Pre fabricated Walk in Chiller.

The bidders are required to follow the instruction given and **“return the said document duly filled in with rates”**.

The Following is to be mentioned in the envelope **“Quotation C.R. for Golden Temple Amritsar**  
Quotations should be in the name of:

SECRETARY

SHIMROMANI GURDWARA PARBANDHAK COMMITTEE

AMRITSAR.

The owners reserve the right to reject any tender or a part of tender without giving any reason and do not bind themselves to accept lowest or any tender.

The owners will not be responsible for, nor pay for any expenses or losses, which may be incurred by the bidders in preparation and submission of the tender.

Before the acceptance of any offer, visits may be made by the owners or consultants to the bidders work to inspect the facilities and satisfy themselves on technical and operational matters. The bidders shall afford whatever assistance is required in this process.

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**GOLDEN TEMPLE AMRITSAR**  
**Special Terms & Conditions for Pre-Fabricated Cold Rooms**

- 01. Cold Room Contractor (C.R.C.)** shall ask the owner in writing within one week of receiving tender documents- for any clarifications and shall promptly bring to the owner's attention any discrepancy, duplication or omission that may come to his notice.
- 02. A.** C.R.C shall furnish total price installed, with break-up of prices giving F.O.B. (U.S.\$) rates and onwards, including cost of sea-worthy packing/containerization, sea-freight, insurance, import duty with E.P.C.G. benefit, octroi (if applicable), customs clearance charges, work contract tax, C.S.T., service charge and any other costs etc.
- B.** C.R.C. shall indicate separately for each item or a lump sum cost, for installation, gas filling, piping, testing and commissioning. Connection of all utilities will be done by C.R.C agency as per the utilities plans to be submitted by C.R.C. within one week of placing orders.
- C.** C.R.C. should confirm that all equipment quoted would carry manufacturer's warranty of 12 months from the date of complete handing over.
- D.** It shall be the responsibility of the C.R.C for complete work including supply, assembly, Installation, commissioning, testing & handing over to clients.
- 03** The C.R.C. shall study all drawings and specifications before making the bid and shall clearly indicate any change or deviation in his bid from those given in the drawings and specifications, so that they can be taken into consideration at the time of making comparison of prices.
- For any deviations in the Make & Model Nos., the C.R.C. shall indicate the compatibility of production capacity, thermal rating of insulation, consumption of utilities i.e. electricity, exhaust/ ventilation etc and the power rating of the compressors, heat rejection etc.
- 04** C.R.C. shall submit two (2) sets of catalogue cuts in original of all equipment quoted. The item nos. and quantities shall be clearly indicated on top right side of the catalogue. Accessories and optional equipment included in the prices shall be clearly indicated in red.
- 05 a.** The C.R.C. shall submit a list of factory recommended spare parts for one (1) year satisfactory operation along with prices along with the quotation.
- b.** The C.R.C. shall submit a table showing the table for heat load calculations for each Cold Room i.e. B.T.U's/Hr and recommended H.P. ratings of respective compressors while submitting quotations.
- c.** C.R.C. shall also submit a chart showing fresh Air and Exhaust requirement to ventilate the water cooled condensing units for each of the Cold Room., along with the quotation.
- 06** C.R.C. shall be required to submit two (2) copies of catalogue cuts and installation drawings of all equipment in order to obtain Owner's approval prior to shipment of goods.

07 C.R.C. will be required to complete the works within the given time schedule indicated below:

	<u>Description</u>	<u>Time In Weeks/ Days</u>
1.	Approval of installation drawings & catalogues by client/ consultant and for re-submission of drawings for obtaining final approval.	ONE (1) WEEK
2.	Manufacture & delivery to port of shipment	FOUR (4) WEEKS
3.	Transportation	<b>ONE (1) Week (INDIAN PANEL) or FOUR (4) WEEK for IMPORTED PANEL</b>
4.	Installation of equipment including hook-up	TWO (2) WEEKS
5.	Testing & commissioning/ Handing Over	____ MONTH/YEAR

- 08 Successful C.R.C. will be required to submit assembly/ installation drawings with details to scale not less than 1:25 separately for each Cold Room ordered for owner's review and approval prior to manufacture. Drawings should show details of construction and materials to be used and indicate the requirements of plinths depressions, drains, etc. required to be provided by others. Drawings should indicate the room Layout Plan, sizes, finishes, sections drawings thru Cold Room door, section drawings thru evaporator coil, all relevant dimensions, location of control panels, layout plan showing location of condensing units with sizes, electrical data etc.
- 09 C.R.C. will be required to submit samples of materials and components in order to satisfy the Owner in advance of the standards and quality of workmanship, handles, temperature gauges, channels, hinges and other such hardware shall be submitted for approval along with the drawings.
- 9 C.R.C. is required to verify all dimensions from site of all equipment ordered with him and of other equipment that may have impact on his equipment being procured from elsewhere.
- 11 All items shall suit space conditions. All dimensions given are approximate only and in all cases, where equipment is intended to occupy fixed locations and spaces, the physical conditions of the building are to control the absolute sizes.
- 12 C.R.C. shall be furnished all necessary information and measurement of the job site. Others shall secure this information at the site of installation.
- 13 C.R.C. shall be required to lease with Project Manager regarding accessibility of his equipment to the site of location and make necessary arrangement for their access.
- 14 The C.R.C. shall provided all necessary holes and/or openings in the equipment, which may be, required for the proper installation of the plumbing, electrical, ventilating and refrigeration connections. Location of remote condensing units shall be co-ordinated by CRC as per site conditions and shall also suitably co-ordinate the positioning and requirements of electrical power points at such locations as provided by C.R.C & to liase with Project Manager & Electrical Contractor at site.
- 15 C.R.C. shall submit a programme of manufacture, delivery and installation and the likely dates for inspection within one (1) week of placing orders.

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- 16 C.R.C. will be required to show the equipment to the Owner's representative during fabrication i.e. prior to assembly and before dispatch.
  - 17 C.R.C. or his agents shall be responsible for the installation of all his equipment and to get the utility connections made under their supervision by the C.R.C. workers as approved by Project Manager and to ensure the satisfactory operation/functioning of all their equipment
  - 18 Final inspection of all equipment shall be carried-out at the site by Owner's representative after installation has been completed and the equipment has been hooked-up to systems and draw backs/deficiencies, if any, during that time shall be attended to by the C.R.C, within the stipulated completion date of \_\_\_\_\_(Month/Year).
  - 19 All equipment and parts will be covered by a warranty for a period of one year from the date the equipment is commissioned, C.R.C shall be required to promptly attend to all request for repairs and replacement of equipment supplied by him during the warranty period.
  - 20 The C.R.C shall hand over after satisfactory testing & commissioning four (4) copies of the following:
    - i) Detailed equipment Data in the Performa approved by Consultant/Owner.
    - ii) Drawings indicating the equipment layout and utilities as installed.
    - iii) Manufacturer's maintenance manuals and operating instructions.

**GOLDEN TEMPLE AMRITSAR**  
**BILL OF QUANTITY OF WALK IN CHILLER & FREEZER**

ITEM NO.	QTY	ITEM DESCRIPTION	ROOM SIZE (WxDXH) mm	DOOR SIZE	SLIDING DOOR OPENING DIRECTION
FS-06	1	WALK-IN-REFER – VEG REFER	7875 x 7050 x 2600	1200W x 1950H	LEFT TO RIGHT
FS-12	1	WALK-IN-REFER – MILK REFER	9650 x 4600 x 2600	1200W x 1950H	(1) NO. RIGHT TO LEFT (1) NO. LEFT TO RIGHT
K-29	1	WALK-IN-REFER – CHEF'S REFER	7300 x 5450 x 2600	1200W x 1950H	LEFT TO RIGHT
CK-13	1	WALK-IN-REFER – VEG REFER	6600 x 8700 x 2600	1200W x 1950H	(2) NOS. RIGHT TO LEFT
SK-06	1	WALK-IN-SWEET – REFER	11875 x 5000 x 2600	900W x 1950H	LEFT TO RIGHT
CM-39	1	WALK-IN-REFER – REFER	3000 x 6600 x 2600	1200W x 1950H	RIGHT TO LEFT

**GENERAL NOTE**

Successful Cold Room Contractor will be required to submit assembly/ installation drawings with details to scale not less than 1:25 separately for each Cold Room ordered for owner's review and approval prior to manufacture. Drawings should show details of construction and materials to be used and indicate the requirements of plinths depressions, drains, etc. required to be provided by others. Drawings should indicate the room Layout Plan, sizes, finishes, sections drawings thru Cold Room door, section drawings thru evaporator coil, all relevant dimensions, location of control panels, layout plan showing location of condensing units with sizes, electrical data etc.

## **SPECIFICATION OF CHILLER**

<b>Internal Room Temperature</b>	+34°F (+1°C)
<b>Panel</b>	
Make	DESMOND OR INDIAN APPROVED EQUAL.
Thickness	60 mm or 75 mm
Material and thickness of material	
Walls	
Exposed	20 gauge Stainless steel of type 304 No. 3-finish
Unexposed	22 gauge Galvanized steel
Ceiling	
Exposed	20 gauge Stainless steel of type 304 No. 3-finish
Unexposed	22 gauge Galvanized steel
Floor	
Unexposed	14 gauge Galvanized steel
Insulation	Rigid P.U. foam
Density	40kg/m <sup>3</sup> to 44kg/m <sup>3</sup>
"K" Factor	0.133 BTU per hour / foot square / F° / inch
Yield compression strength	350 kg for floor 200 kg for walls
<b>Joinery details</b>	
Cam locks	Wall to wall, wall to ceiling, wall to floor (holes plug sealed with vinyl caps) Other Joinery is not allowed in the cold room
T joints	"T" corners for common cold rooms should form integral 90° corner panels  Or Integral "T" corner panels,
<b>Door</b>	
Type	Hinged and Flushed
Material	16 GA Stainless Steel
Accessories	<ol style="list-style-type: none"> <li>1. Man-inside push-button and audio-visual alarm</li> <li>2. High temperature audio-visual alarm</li> <li>3. Panic exit device operating from inside (Push Release Type)</li> <li>4. Kick plates on door shall be of 69 mm height of No.16 GA.S.S. on both sides</li> <li>5. See through strip curtain</li> <li>6. Built-in cylindrical lock, with cam lift-type self-closing door</li> <li>7. Bottom of door provided with sweeping rubber wiper sealing gasket</li> <li>8. Jam protection</li> <li>9. Vapour proof CFL room light (300 Lux evenly</li> </ol>

	<p>distirubuted) IP-66 Rated</p> <p>9. Slim line evaporator coil fan w/ air defrost and both alarm</p> <p>11. Digital Temperature indicator and temperature setting flushed with cold room panel.</p>
<b>Condenser</b>	Semi-hermetic
Make	Tecumseh or Copeland or Bitzer or approved equal
Cooling	<b>WATER-COOLED</b>
Refrigerant	R-134-A for all refrigerators (or approved equivalent), which shall be C.F.C. free and environmentally friendly & easily available in India.
<b>Evaporator</b>	Slim line (Horizontal).
Make	BOHN or GUNTER or approved equal.
<b>Wall Trap</b>	Make:- Viega Model :- 5636.1 to be supplied with open able SS 304 Box of size 90 mmx80 mmx400 mm (WxDxH)
<b>B.T.U Rating</b>	Cold Room Vendor to specify.
	<b>Port for networking For HACCP Compliance</b>

**After assembly of panels, Cold Room supplier shall ensure the following:-**

- All interior corners including floor shall be covered .All internal horizontal and vertical corners between joints of panels shall be sealed closed with silicon sealant, as part of Cold Room Supplier's scope of work.
- All resultant exposed 90° gaps on the exterior, between Cold Room panel and finished floor level and all resultant exposed gaps between Cold Room wall panels and adjoining 90° civil walls and civil structural columns shall be sealed closed thru S.S angles, properly grouted/ anchored to ensure a clean hygiene finish, supply and installation of S.S angles to be part of scope of work of Cold Room supplier and wherever 90° corner does not occur with flush walls, resultant gaps to be sealed closed with silicon sealant in an approved manner.
- Cold Room supplier shall also ensure that all resultant gaps above the Cold Room between the Cold Room ceiling panel and the adjacent false ceiling level shall be sealed closed with false ceiling panels flush with outside face of Cold Room, fixing of false ceiling panels by false ceiling contractor.
- In the event that false ceiling is not being provided in any part of kitchen, the resultant exposed gaps above the Cold Room between the Cold Room ceiling panel and the underside of suffix of roof slab shall be closed/ sealed with S.S with outside face of Cold Room, fixing of **S.S will be the scope of cold room vender** board shall be by other agency but executed under supervision by Cold Room Supplier.
- During fixing of slim-line evaporator coils, Cold Room supplier shall ensure a clearance height of 6'-3" (1905 mm) clear below the condensate drain outlet and shall position the evaporator coil as indicated in the plan attached. Condensate Copper **pipe outlet** shall be suitably taken out of wall panel and punctured thru civil wall as the case may be, and copper piped to waste point on wall and terminated, piping to be suitably S.S clamped, waste point has been indicated in the plan attached.
- The wall trap to be supplied by cold room vendor and installed by plumbing contractor. Cold room vendor to coordinate.
- All the electrical connections and fixtures inside or outside cold room to be IP 66 rated.



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## Design Parameter

- Supplier shall submit a separate data sheet showing the B.T.U's table, as per their calculations for each of the Cold Room, for review by clients/ consultants. Following considerations to be taken Temperature of incoming products at 24<sup>o</sup> C to +42<sup>o</sup> C to be considered
- The perishables product load to be stored and with drawn from the Cold Room shall be considered on the basis of storage baskets and pans kept on 5-tiered shelving racks positioned all along the wall (50 Kg/ Sq. m )
- **Pull down time to be considered as 12 hrs.**
- The capacity of the refrigeration system should be re-verified by supplier as per their standards
- The usage of doors (opening and closing) should be considered for a high volume of operation. Ambient of 43<sup>o</sup> C (APPROX 20 times in one hrs).