

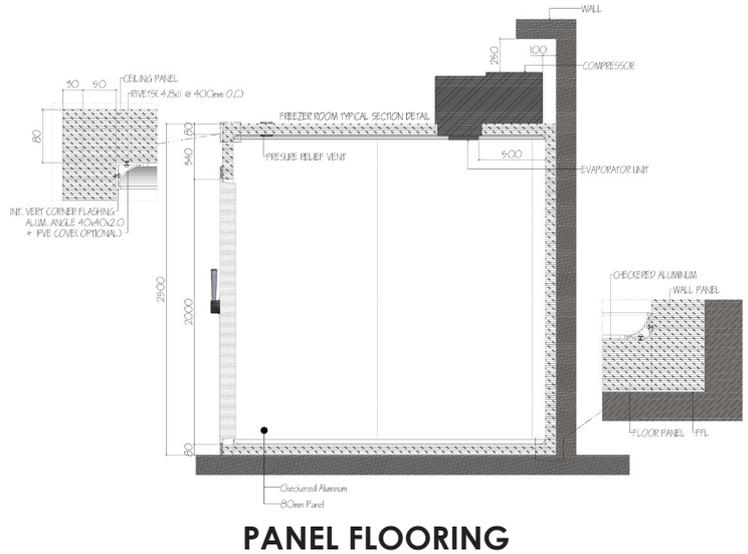
# FREEZER - CHILLER ROOM COLDROOM SPECIFICATIONS

## Construction Of The Room(S):

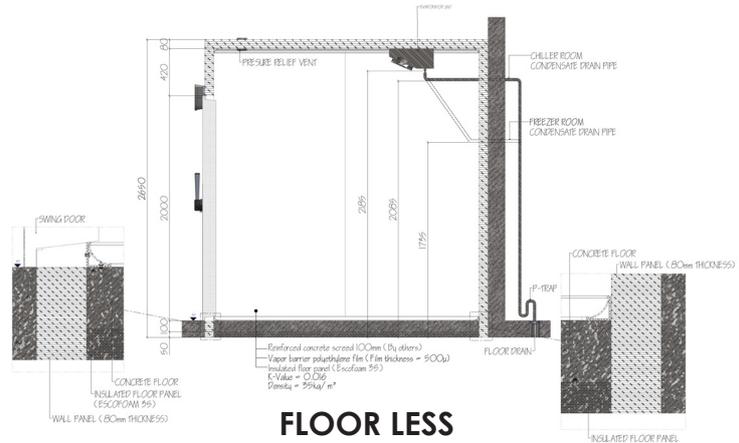
Installation, Commissioning and Engineering are to be supervised by Professional Refrigeration Engineers. Our Engineers are expected to operate the rooms and monitor the cooling to reach expected temperatures. For a Freezer, the expected temperature target is as low as  $-20^{\circ}\text{C}$ . For a Chiller, expected temperature target is as low as  $+1^{\circ}\text{C}$ .

## Room Material Specifications:

- **Insulation:** CFC Free, Rigid Injected Polyurethane Foam.
- **Density:** 42 kg/m<sup>3</sup>.
- **Thickness:** 80mm (+0 temp Rooms), 80mm (-0 temp Rooms)
- **Cladding:** 06 mm P.V.C coating anti-bacterial
- **Fire Rating:** Meets redundancy requirements based on DIN 4102 class B3 and according to ASTM class B3 and ISO 3582.
- **Construction:** Panels are joined together by two systems Male-Female + Cam-Lock.
- **Flooring:** Panel Flooring: 80mm insulated panels with 1.5mm Checkered Aluminum on top  
Floorless: 50mm insulation foam with 100mm concrete slab on the top
- **Doors:** To supply single left/right hinged manual doors with. All fittings including rubber gasket Internal Safety Handles are to be standard white or special order of any suitable color to be specified by the client. Door hinges rise the door body as they open so as not to rub the floor, and fall as they close to insure no thermal leakage and full insulation. As a safety measure the door handles illuminate from inside the room to help worker reach to handle immediately if the door suddenly closes and lights go out. Wall-Ceiling Joints are designed with hygienic monolithic arrangement with no sharp edges to avoid an accumulation of dirt and germs (look above PVC cove and angle).  
o Lighting: Heavy Duty, Water Proof, Low Energy, Florescent Lighting.
- **Lighting:** Heavy Duty, Water Proof, Low Energy, Florescent Lighting T5.
- **Installation:** Panels: Pre-Cut as per site dimensions and client requirements.  
Condensing Units and Evaporators: Pre-Wired to suit site conditions.  
Installation Time: Installation time is from 1 to 2 days, thanks to Pre-Design works.



PANEL FLOORING



FLOOR LESS

## Cooling Material Specifications:

- **Condensing units:** Zanotti remote unit/Zanotti mono block
- **Evaporator:** Zanotti made in Italy
- **Refrigerant:** R-404
- **Electrical Rating:** 380v/3ph (unless otherwise specified)

## Site Requirement:

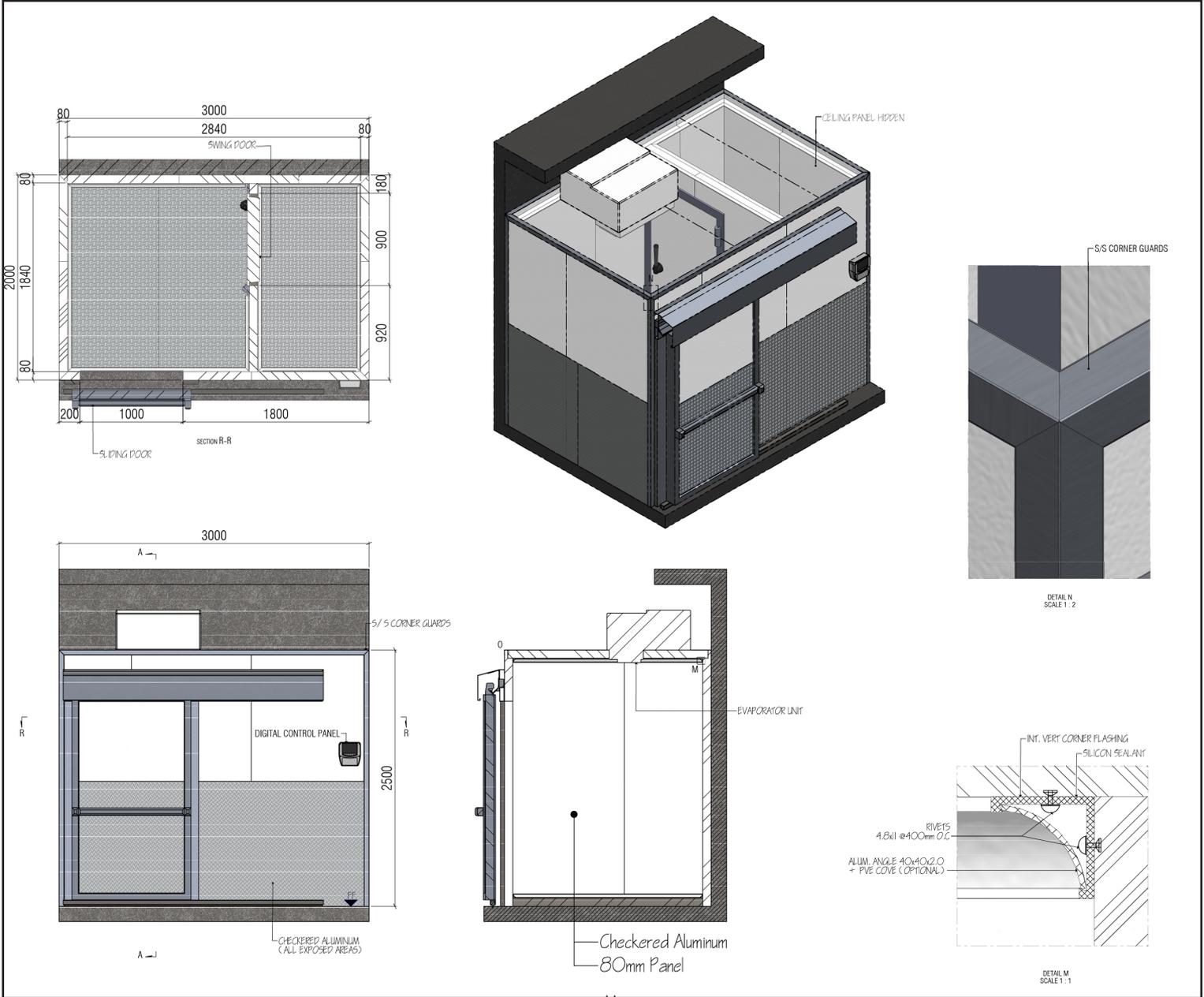
- Separate electrical circuit breakers for each room's condensing unit (CP). The circuit breaker needs to be located as per Raqtan electrical design drawing. o
- Floor and walls need to be perfectly leveled. o
- Condensing unit location must be within 6 meter from evaporator with max 4 meter vertical rise. If need to be higher it must be re-evaluated to cover additional material and CU HP costs. CU stand must be installed as per Raqtan drawing\*\*. If CU location will require a crane, it will be expected that it is located in required location before installation\*\*. o
- All utilities as per Raqtan design to be prepared before installation.



# FREEZER - CHILLER ROOM COLDROOM SPECIFICATIONS

## Engineering and Design:

- Our Engineering and Design Team studies every cold room order separately.
- Every project will have its own Custom Design and Engineering Work with full layout and electro-mechanical details.



For Quotations please contact your nearest regional office or use our 9200 Universal # or email us at [info@raqtan.com](mailto:info@raqtan.com).

**Disclaimer:** The above information is not to be used without the pre-authorization of Raqtan Trading Food Service Equipment Marketing Department. The above is not to be used for design or not to be taken literally. All the information above can be changed at anytime without pre-notification of the user. \*Please note that the above specs are for cold rooms with medium size room (max 5 a side and 4 meter high). Larger rooms will not adhere to this specification sheet and a customized design and engineering works shall be formulated for it.

**\*\*Crane and Stand charges are not included in our pricing.**

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## Product Storages Recommendations

PRODUCTS	STORAGE TEMP °C	% RH	STORAGE PERIOD
APPLES	-1 to +1	85 - 90	2-7 M*
APRICOTS	-0.5 to +1.6	78 - 85	1-2 W*
BANANAS	11.7	85	2 W
BEANS, DRIED	0.07	70	6 M
BEEF (FRESH)	1.75	87	3 W
BEEF (FROZEN)	-18 to -20	80 - 85	3-8 M
BUTTER	-10 to -1	75 - 80	6 M
CABBAGE	0 to +1	85 - 90	1-3 M
CARROTS, BUNDLED	0	85 - 90	1-2 W
CAULIFLOWER	0 to +2	85 - 90	2-3 W
CUCUMBERS	+2 to +7	75 - 85	2 W
CHEESE	-1 to +1.5	65 - 75	3-10 M
CHERRIES	+0.5 to +1	80	1-3 W
CHOCOLATE	4.5	75	6 M
DATES	-4.5	75	12 M
EGGS	-1 to -0.5	80 - 85	8 M
FISH (FRESH)	-0.5 to +4	90 - 95	1-2 W
FISH (FROZEN)	-20 to -12	90 - 95	8-10 M
GRAPES	-1 to +3	85 - 90	1-4 M
HONEY	1	75	6 M
ICE CREAM	-30 to -20	85	2-12 W
LAMB (FRESH)	0 to +1	80 - 90	5-10 D
LAMB (FROZEN)	-24 to -12	80 - 90	10 M
LEMONS	+5 to +10	80 - 90	2 M
LETTUCE	0 to +1	85 - 90	1-2 M
LOBSTER	-7	80	1 M
MARGARINE	0.5	80	6 M
MELONS	+2 to +7	80 - 90	1-8 W
MILK	0 to +2	80 - 85	1 W
MUTTON (FRESH)	0	80 - 85	10 D
MUTTON (FROZEN)	-12 to -18	80 - 85	3-8 M
ORANGES	0 to +1.2	85 - 90	8-10 M
PEAS, GREEN	0	80 - 90	1-3 W
PEACHES	-0.5 to +1	80 - 85	2-4 W
PARSLEY	1.5	80	1-2 W
POTATOES	+3 to +6	85 - 90	6 M
POULTRY (FRESH)	0	80	1 W
POULTRY (FROZEN)	-30 to -10	80	3-12 M
TOMATOES, GREEN	+10 to +20	85 - 90	3-4 W
VEGETABLES, FROZEN PACKED	-24 to -18	---	6-12 M

## Sample of our works



Chiller-Freezer Room, Wall-Floor & Ceiling seamless monolithic finish with alarm system system above freezer heated door (optional)



Chiller room, Evaporator installation with ceiling suspension system.



42m long x 12m high ceiling -22C Room, Blower (Evaporator) installation, anti-freeze LED lamps with back up battery (optional), and heated drains.

## Volume Versus Load Matrix

VLC* MATRIX					
COLD ROOMS			FREEZER ROOMS		
VOLUME (MS)	POWER LOAD (KW)	COMPRESSOR (HP)	VOLUME MS	LOAD KW	COMP HP
0.00	1.30	1.0	0.00	1.50	1.5
10.00	1.30	1.0	10.00	1.50	1.5
20.00	2.00	1.0	20.00	3.00	2.0
30.00	3.00	1.5	30.00	4.00	3.0
40.00	4.00	2.0	40.00	4.50	3.0
50.00	6.00	3.0	50.00	5.50	5.0
100.00	8.00	5.0	100.00	9.00	10.0
150.00	11.00	7.5	150.00	12.00	10.0
200.00	14.00	7.5	200.00	14.40	15.0
250.00	17.00	10.0	250.00	15.00	15.0
300.00	21.00	10.0	300.00	17.40	22.0
350.00	24.00	10.0	350.00	19.00	22.0
400.00	27.00	15.0	400.00	20.00	22.0
450.00	28.00	15.0	450.00	21.40	22.0
500.00	30.00	15.0	500.00	24.00	27.0

\*Volume against Load against Compressor Matrix