



Electro Mechanical Refrigeration
Air Conditioning
Integrated Solutions Provider



TOTAL ELECTRICAL & MECHANICAL SOLUTIONS



INTRODUCTION

TEAM Solutions has firmly established itself as a leading designer and supplier of Commercial and Industrial Cold Storage, Refrigerated Transportation, Controlled Atmosphere Rooms etc. We offer our customers the very best quality PUR / PIR & FM Approved Sandwich Panels with Industrial and Commercial Refrigeration System as well as Modular Housing, and Metallic Modular Components. Our focal point of business is COLD CHAIN SOLUTION PROVIDER. As a Consultant & Contractor, we cover designing, supplies, installation and life span backup services with availability of spares.

Committed to the highest standards of manufacture and customer service, the company is able to offer custom built solutions in accordance to the customer's requirements and to supply the finished items at affordable prices with the shortest possible delivery time with **TURNKEY SOLUTIONS**.

From the first acknowledgement of an inquiry to the final handing over the project, **TEAM Solutions** aims to work with their customers to ensure total satisfaction with the design, pricing, delivery and final installation. The in-house CAD department is operated by experienced professionals who are trained in design to meet the customer's total requirements at the optimum value in terms of cost, efficiency and practicality. Our design is based on **ASHRAE** and meet all International Standards. **TEAM Solutions** Team works on latest software for designing & calculation of heat loads of cold chains facility that ensure preciseness in the work & operations.

Production is subject to rigorous checks at all stages of the manufacturing process to ensure that the final quality is what the customer expects from the latest and best reputed manufacturer in the region.

Installation and maintenance are handled by our competent trained team of experienced engineers and technicians. This ensures that the job is completed on time as well as **FIRST CALL FIX** for services. We give exceptional warranties for our product and round the clock services by considering all customers are on higher priorities.

TEAM Solutions has project team which follow PMI Rules. This includes from Project Planning to the final handing over to the client. **TEAM Solutions** already executed benchmark projects in Middle East, Saudi Arab and Pakistan which includes from biggest food processing & storage facilities.

APPLICATIONS



Ice Cream & Dairy Foods Processing



Pharmaceutical Blast Chillers



Fruits & Vegetable Distribution Centers



Modular Blast Chillers



Fish Processing



Slaughter House & Meat Processing



Air Blast Freezers



Refrigerated Warehouses



Controlled Atmosphere Rooms



Stainless Steel Walk in Coolers



Controlled Atmosphere Rooms for Ripening



Industrial Blast Freezers



Controlled Atmosphere (CA Rooms) Banana Ripening / Store

Controlled atmosphere storage is used to extend the storage life of seasonable perishable products when refrigeration alone is not sufficient. The technique can be used for many fruits and vegetable and historically has been the principle storage method for the world's Apple corp. CA storage is completely natural that changes the ratio of the constituent gases in the normal atmosphere so that the respiration activity of the product being stored is reduce to a minimum.

The use of Controlled atmosphere in cold storage rooms allows a longer preservation for many fruits and vegetables (especially apples pears, kiwi fruits) from 2 to 3 times compare to normal cold store and it provides a best quality of the product.



Ripening is a process in fruits that causes to become more palatable. In general, a fruit becomes sweeter, less green, and softer as it ripens. Even though the acidity of fruit increases as it ripens, the higher acidity level does not make the fruit seem tarter.



COLD STORAGE Commercial Refrigeration



For the walk-in cold stores and other all-small scale refrigeration needs, various brands of European origin equipment are selected and installed according to the highest standards of practice. The systems are controlled by programmable digital controller to ensure fully automatic trouble free operations.

Temperature range starting from +18 degree centigrade to -60 degree centigrade to be designed and installed using various refrigerant such as R-22, R-134a, R-404A, R-407A, R507A and CO₂.

The new millennium holds many implications for the overall refrigeration industry. The introduction of new technologies make it possible to bring about radical changes in foodstuff sector, from production to consumption. In order to meet this new demand and offer effective support for our

- Walk-in Cold Storages
- All small-scale refrigeration needs
- Controlled by programmable digital controller
- Fully automatic trouble free operations





Supermarket Equipment



TEAM Solutions offers innovative products for preserving and displaying fresh food, chilled and frozen.

TEAM Solutions has state of the art supermarket equipment and after sales service provides KSA, MiddleEast and Pakistan.



Transport Refrigeration



The insulated truck body is fitted to any chassis as per client specification: - Bodies of 2.0 to 6.5m are supplied to suit pickups, trucks and vans.

Temperature can range from +15 degree centigrade to -27 degree centigrade. All container doors are manufactured air tight with single or double leaves. Doors are fitted with top quality European and American stainless steel hardware.

Well-tested and reputable brands for transport refrigeration units are used for refrigerated trucks and insulated containers.





ICE MAKING

ICE MAKING:

Ice is a universal means of refrigeration. Ice is available in several forms like **FLAKE ICE**, **BLOCK ICE** and **SNOW**.

FLAKE ICE:

Flake ice is small ice in flat pieces. it is used in cooling seafood, meat processing and in a whole range of industrial processes. The most important application of TEAM Solutions Flake ice plants is in the concrete industry, where flake ice is used to control the concrete Temperature, particularly in hot climates.

Slightly sub-cooled (-7°C) flake ice is also a dry ice, which means that the latent heat the principle source of the cooling energy 100% available. Flake ice is free flowing. Its flake does not stick together nor do them from blocks. Therefore it is easy to store and to handle. Due to the above features and because of it moderate production costs, compared to most of the other kind of ice, flake ice is used in large quantities in many industrial in food processes.

- Fishing industry
- Meat Industry
- Concrete Industry
- Poultry Industry
- Dairy Industry
- Baking Industry

BLOCK ICE:

Block is often demanded in various industries specially with our fabricated ice plant system which combined less space and higher production with less-power consumption will provide higher profit margin to our client while easy operation giving greater Customer satisfaction.





SOLAR POWERED COLD ROOMS



TEAM Solutions build modular, solar-powered walk-in cold room, where farmers can buy storage through a pay-as-you-go system to preserve their perishable foods.

TEAM Solutions installs cold rooms in food markets and at farms, allowing farmers to keep their produce fresh by stacking it in clean crates inside the rooms. **The rooms are solar powered and big enough to walk inside**, while insulating panels retain the cold. The cold rooms are equipped with rooftop solar panels, generating electricity that is stored in high-capacity batteries to power the refrigerating unit.

Farmers using **TEAM Solutions** are offered a flexible pay-as-you-store subscription model. In preparation for storage, farmers transfer their perishable foods into crates, paying a daily \$0.50 fee for each crate stored. So far, 10 cold rooms are in operation, with 50 more to be deployed in 2018.



Relevance of solution:

In developing countries, approximately 40% of total food production is lost before it reaches the market, hitting small farmers without access to proper storage the hardest.

By providing afford-able, off-grid, solar-powered cold storage in walk-in stations, **TEAM Solutions** reduces food waste and en-ables small farmers to raise their income by selling a bigger proportion of their crops.



PRODUCTS

Subject to availability



Temperature & Humidity
Controllers



Water Cooled
Condensing Units



Air Cooled Condensing
Units



Suction Line Heat
Exchangers



Parallel Compressors
Condensing Units



Suction Line Driers



Data Loggers



Fixed Pressure Switches



Compressor Oil Electronic
Controller



Programmable Controllers



Solenoid Valves



Programmable Controllers



Oil Differential Controller



Suction Line Driers



Refrigeration Controllers



Oil Separators



Crankcase Pressure
Controllers



Compressor Drives



Electronic Regulator
Valves



Electronic Expansion
Valves

PRODUCTS



Unit Coolers for Walk in Freezers



Refrigeration Unit Coolers



Air Cooled Condensers



Large Condensing Units



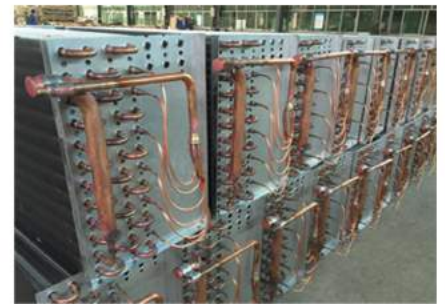
Blast Freezer Unit Coolers



Refrigerated Ware House Coolers



Horizontal Air Cooled Condensers



Unit Cooler Coils



Big Air Cooled Condensers



Small Air Cooled Condensers



Vee Type Air Cooled Condensers







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