

OMEGA\_ENG



OMEGA-ENGINEERING-LTD



OMEGA.ENGINNERING



# Unlocking the Potential of Advanced Refrigeration Technology

[WWW.OMEGA-SAUDI.NET](http://WWW.OMEGA-SAUDI.NET)



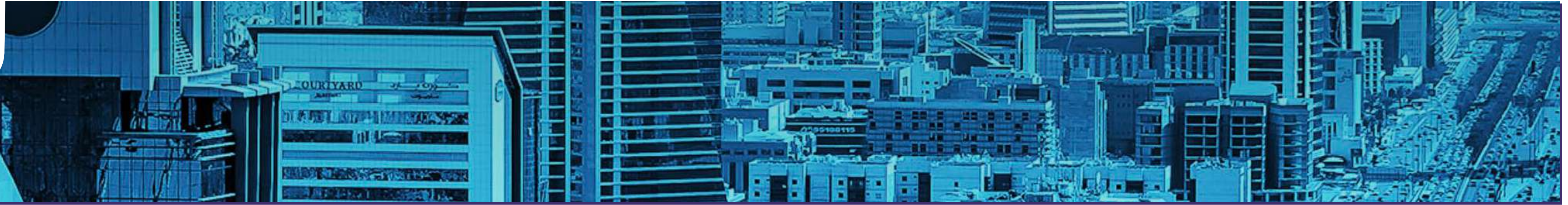
Optimum solution provider

**M**anaged with high skills

**E**ngineering of modern era

**G**uarantee after sales

**A**bsolute customer satisfaction



## ABOUT US

**In 1976 OMEGA Engineering Company was established in Riyadh to meet a growing demand for Applied Refrigeration Technology in the Region.**

**OMEGA Projects has covered the widespread of Saudi Arabia, Yemen, Qatar, UAE, Bahrain and Jordan with a multitude of prestigious projects for reputable Clients.**

**Background experience together with innovative in-House services have completely satisfied the various applications of customer requirements, which include Custom Engineered Refrigeration Plants, Cold Storage Complexes, Industrial and Commercial Installations also Speciality Large-scale Air Conditioning Works for Food Processing Factories, Bakeries and Dry Warehouses and Pharmaceuticals.**

**Over the past decades, determined to maintain a leading position in Engineering Supremacy, OMEGA consolidated strong associations with various respected international and local manufacturers and supplies of Plants, Equipment and Materials in order to offer continuing Quality, Realistic Prices and Efficient Services.**

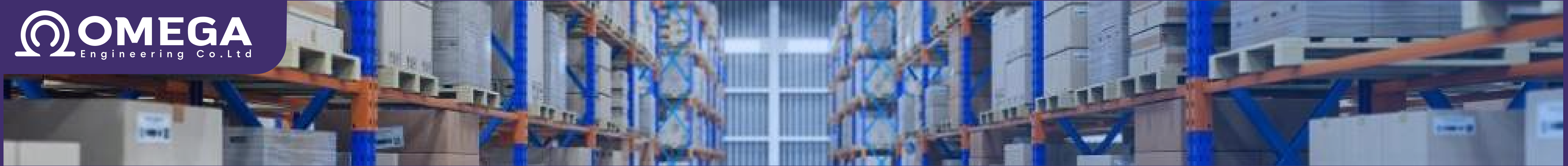


## **OUR MISSION**

**We design plants and solutions to meet the exact project requirements keeping always in mind reliability, cost-effectiveness and lowest operation cost with execution to the highest standards, thus ensuring the best return on investment. It is our commitment to provide practical advice and value-added engineering where needed, to make sure our client is having right Plant at the right cost.**

**Should the owner be interested in having a Turn-key package, then OMEGA can offer complete cold storage projects including, steel building, civil works, ancillaries and electro-mechanical installations.**

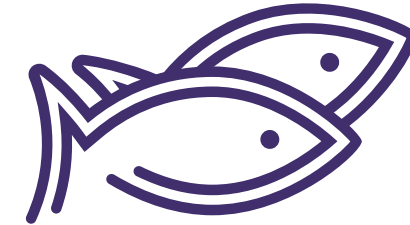
**OMEGA provides complete project backup after hand over, starting with a free comprehensive guarantee period, then operation & maintenance contracts and a stock of spare parts.**



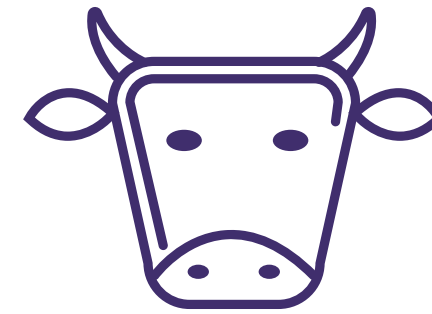
## WE SERVE THESE SECTORS



Fruits & vegetables  
cold storage



Sea food processing  
cold storage



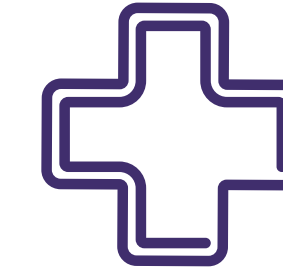
Red meat slaughterhouse  
cold storage



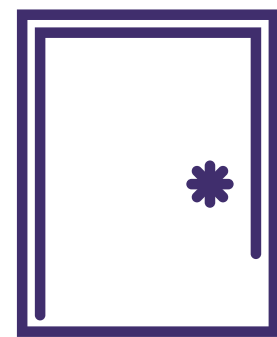
Poultry slaughterhouse  
cold storage



Freeze Dryer  
systems



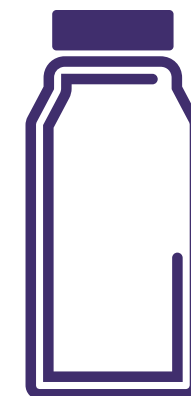
Pharmaceuticals  
industries



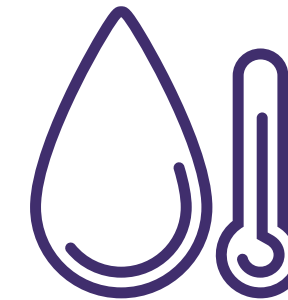
Frozen products  
cold room



Bakery products  
cold storage



Dairy cold storage



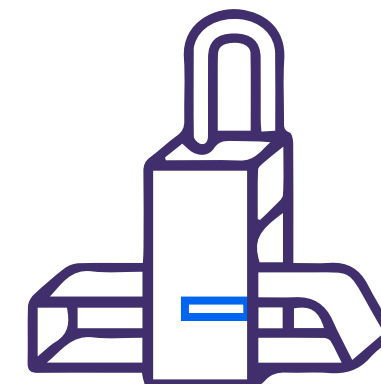
Humitek quick  
cooling systems



Logistic warehouse  
refrigeration systems



Atmosphere controlled  
cold storage



Food Processing Plants

## Refrigerated Storage

### Cold Rooms

Walk-in cold rooms at Wholesale shops, Restaurants, Supermarkets, Palaces, Labour camps, Catering facilities, Hotels, Pharmacies, Hospitals, Flower shops, Butcheries, Medicine & Vaccine stores...etc.

### Cold Stores

Ranging from small to very large sizes, at factories, central warehouses, sales and distribution depots, logistic companies operations...etc.

Special needs for potato, onions, delicate fruits storage, humidity control...etc., also chemical storage with explosion proof standards can be offered.



## Insulated Enclosures

OMEGA provides all requirements for a turn-key job, inclusive insulated panels, doors, floor, lights, under-floor heating and accessories.

Insulated panels (PIR or PUR) come in various thicknesses, finish in polyester, plastisol, stainless steel or stucco aluminium to suit the project requirements.

Our product line covers all types and sizes of Insulated Doors, whether hinged or sliding , manual or electrical.





## Commercial Refrigeration Plants

A Full range of small to medium size stand-alone plants are available to operate Small to Medium scale Refrigeration requirements such as :  
Cold Rooms Units, Water Chillers, Flake Ice Machines ...etc.

Even such units are the simplest of all , yet we make sure that selection is the best according to proper engineering practice , thus providing correct operation at lowest running cost , with least maintenance requirements.



## Semi-industrial Refrigeration Plants

Refrigeration packages comprising Freon Compressor Racks are the best suited for medium size projects: Cold Stores, Blast Freezers, Water Chillers, Air Chillers and all kinds of typical applications in this range.

Compressors can be either Reciprocating or Screw type depending on the project demand.



## Industrial Ammonia Refrigeration Plants

We can meet any large scale Cooling Requirements with most efficient and reliable solutions. Such plants come with single or multiple operating temperatures and are based on MYCOM-Japan Compressors, and will be fully automatic for optimum running conditions.

Central Monitoring and Controlling of the Plant with Alarms and Data handling system is part of the installation.

They are used for larger Cold Stores, Industrial water or Glycol chillers (that will serve Process cooling and Air conditioning) , Freezing, Chilling plants and Multi-purpose demands.

Heat Recovery options can be incorporated where applicable, to reduce initial and running costs.



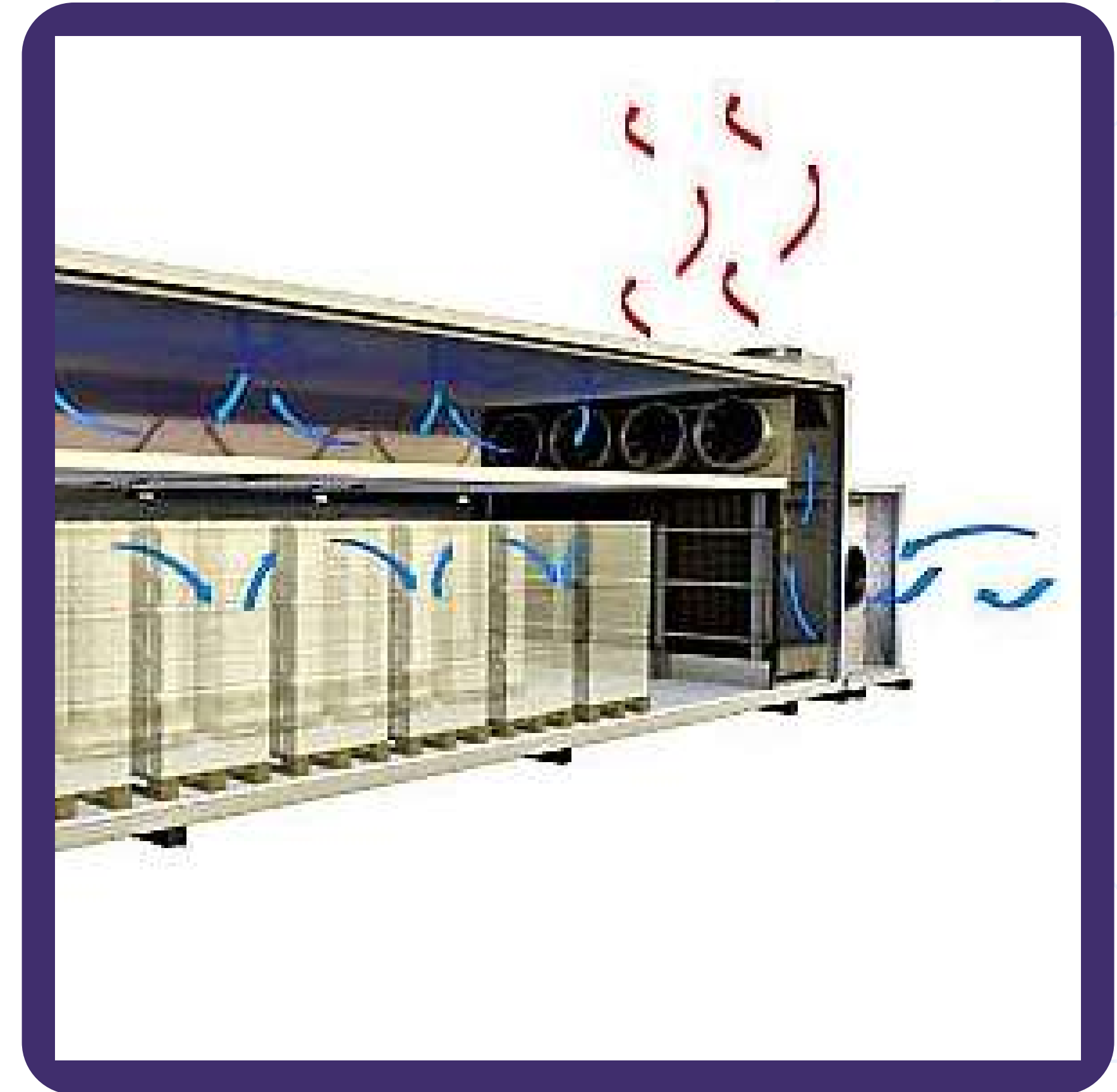
## Air Chilling Tunnels

Specially designed plants to cool-down whole chicken after evisceration to storage/distribution temperature. The Cooling System is designed to maintain required quality throughout the production.



## Trolley Freezers

Used to freeze a variety of Meat, Poultry and Sea food products. Design is made in accordance with product specifications and freezing time to achieve best results. They are simple, reliable and have low capital cost.



## Falling Film Water Chillers

Constructed of Laser-welded stainless steel plates , Falling Film Chillers are a simple, efficient and reliable method to cool water and other liquids. They can achieve large temperature differences.

Maintenance is very easy. Best for cooling Mains Water to Low temperatures that is used in food processing and other applications.



## Spiral Freezers & Chillers

Ideal for continues Freezing and Chilling of Products, they integrate within the production line and guarantee a constant product quality with major saving on manpower cost.

Spirals are used for a wide variety of products such as Cheese, Burgers, Nuggets, Shrimps, Packed Food...etc.



## Flake Ice Machines

Complete capacity range from 0.4 to 25 Ton per Day each unit, connected to a Freon or Ammonia plant.

Ice thickness from 1.6mm to 2.5mm to match requirement.

Flake ice is used in Fisheries, Meat processing, Bakeries and concrete cooling .... Etc.





## Contact Freezer

Contact Freezer is ideal for in-line process freezing of packed products in carton or freezing trays.

Used for freezing a variety of Meat & Sea food products in large size blocks.





### Ahmad A. Abed, Main Central Warehouse - Jeddah

Ammonia refrigeration plant for Cold Stores, Bakery, Chocolate etc. products.

**5,000 M<sup>2</sup>**  
*Project area*

**12 M**  
*Height*

### Al Della Food Factory - Sudair Industrial Area KSA

Complete refrigeration requirements for this factory.  
Ammonia serves Chilling, Freezing Spiral Freezer & Air Conditioning loads.

**3,400 M<sup>2</sup>**  
*Project area*





### Saaduddin Sweets - Al Kharj Industrial Area

Complete Cold Stores, Factory Air-conditioning, Spiral Freezer and Hot water generation from a Central Ammonia Plant.

**27,900 M<sup>2</sup>**  
Factory area

### Al Marai Depots - Around The Kingdom of Saudi Arabia

Complete Cold Stores with different temperatures for Dairy, Bakery products & Frozen items also. Projects were delivered as Turnkey inclusive Insulated enclosures, Doors, LED lighting with Motion sensors, Refrigeration system- complete. Centerlised Temperature monitoring was made available at the Control Offices.

**9,300 M<sup>2</sup>**  
*Riyadh area*

**6,800 M<sup>2</sup>**  
*Dammam area*

**6,200 M<sup>2</sup>**  
*Makkah area*





### Al Marai Cheese Blending Area - Al Kharj

The Area contains many Heat and Humidity sources, OMEGA met the challenge and satisfied the client's requirements, supplying a Special Design AHU, with Humidity Control and Fresh air supply intake with Self-Cleaning Filter, The installation also included supplementary Air Coolers, Piping, PLC, and BMS.

### Western Bakeries - Al Kharj

Complete Air Conditioning and piping works for both Factories and Ammonia Chilled Water Plant for phase-2

**18,000 M<sup>2</sup>**  
Phase 1 area

**22,000 M<sup>2</sup>**  
Phase 2 area





### **Al Marai in-bound – Cold Store - Al Kharj**

**3 N° Refrigeration plants with 15 N° of Screw Compressors for the Mega Cold store.**

**The project included 4 N° Freezers and 2 N° A/C Stores.**

**The total area is 30,000 M<sup>2</sup>, height 10.5M.**

**Our scope included under floor Anti-Frost system utilizing heat generated from the 2 N° Ammonia plants.**

### **Al Youm Poultry Slaughter House - Hail**

**OMEGA has supplied the complete Refrigeration requirements for this modern facility that has a production of 36,000 Birds / Hour.**

**4 N° Ammonia plants serve Chilling, Freezing Cold Stores and Air Conditioning loads.**

**Total 18 N° Mycom Compressors installed of which 5 N° are Internally-compounded type running at -45°C.**

**OMEGA has re-designed the system, achieving massive energy saving with many other benefits that was approved by the client.**





### **Al Marai Mega Dry Warehouses - Al Kharj**

**Completer Air Conditioning Works for a Fully Automated store size 100 x 100 x 23 Meter High using special-design AHU's and Duct work.**

### **King Abdulaziz World Cultural Center - Daharan**

**For this prestigious project, OMEGA has built a Special Design Archive storage for sensitive manuscripts & microfilms. The store is Temperature and Humidity controlled. Insulated structure and doors are Fire-rated at 2 hours. Lights & Fire Alarm were part of the package.**





### **Mars Chocolate Factory, King Abdullah Economic City Jeddah**

**A 4.4 MW Ammonia Chilled Water Plant:**

**For Mars Chocolate Factory Air conditioning, inclusive of, 2 heat pumps for producing Hot Water at 50°C and 70°C for melting chocolate.**

**The plant Energy Efficiency Ratio exceeds 6 watt / watt.**

### **Modern Slaughterhouse - Mina - Makkah**

**This world-size project has 4 Buildings with a total Slaughter capacity of 600,000 Sheep per day at peak, The Slaughter House has 84 quick Freezing rooms, 4 Freezer stores and is Fully Air conditioned, The plant contains 32 Large Compressors , 20 Condensers and 832 Air Coolers, The project was a great challenge in every aspect due to its strict time frame, work was around the clock utilizing a massive Work Force at the site and support facilities, The Slaughter House was supervised by the top level Saudi Authorities due to its importance & timing. It was the talk of the Press Locally and Internationally.**





## **BAJA Industrial Food Co. - Riyadh**

**Complete cold stores for the finest nuts, coffee, teas and dried fruits of all kind. Project was handed over as Turnkey inclusive Insulated enclosures, Doors, LED lighting, Central Refrigeration System - Complete.**



