



GAS CHILL
Energy.Redefined

COMPANY PROFILE 2023

Untethered innovation. Unlimited expertise. Unwavering reliability.





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■ About Us

In an ever-changing environment that's in constant search for smart energy supply, innovative solutions are inevitable, and this where Gas Chill comes in.

Gas Chill is an Egyptian company established in late 2006 to provide inventive world class cooling & heating solutions using the latest groundbreaking technology.

Gas Chill's core objective is to provide the most revolutionary environmentally friendly energy supply techniques, not only in Egypt but the MENA region.

Gas Chill's innovative energy solutions, products and services support its clients and help them gain competitive edge in their markets through tailoring its solutions to meet their current and future requirements as they grow, in addition to overcoming any of the clients' financial constraints by adopting different financial models.

ISO Management Standards are a series of frameworks that help in running our business effectively, and is proof from a third party that the organization complies with these standards. Gas Chill has ISO 9001, 14001, and 45001 certificates.





■ Vision

Continuously redefining energy solutions to enable efficient and sustainable utilization of energy to best serve the society and the environment.



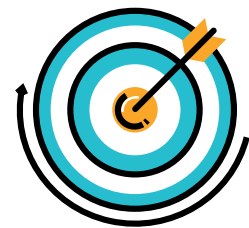
■ Strategy

Our strategy is to be a major part of Energy Redefined solutions; by providing one-stop concept, pre and post sales services, and financial returns to allow our customers gain competitive edge in their markets.



■ Core Values

We believe in, and grow our core values of innovation, commitment, integrity, safety, and teamwork, by providing superior products and services, seeking renewal via continuous education and learning, applying new technologies and best business practices, and encouraging our employees to be highly productive and to grow personally and professionally.



■ Services provided

Gas Chill applies the “one-stop” concept in its operations; presales, installation & testing, project management, fully-integrated solutions, and a distinctive after-sale service. Such concept has been at the heart of Gas Chill projects’ implementation.

- Design and value engineering.
- Installation, commissioning, and testing.
- Project management.
- After-sales maintenance.
- Operation and facility management.
- Optimized district cooling systems - fit to size and purpose.
- Tailored EPC contracts to cater for Clients’ requirements, time, and budget.
- Long term investments and trust-to-trust relationships.



■ Financial Models

In order to meet the market's changes and to provide our customers with the best solution possible for their projects; Gas Chill provides different kinds of financial models to suit all requirements:

- Build, Own, and Operate (BOO), Gas Chill will develop, finance, design, build, own, operate, and maintain the Cooling Plant.
- Build, Own, Operate, and Transfer (BOOT), Gas Chill will develop, finance, design, build, own, operate, maintain, and transfers the Cooling Plant to the owner after a period of time set between both parties.
- Engineering, Procurement and Construction (EPC), Gas Chill provides turn key solutions where it sells, delivers, installs, implements and maintains the integrated solution that fulfills the customers' requirements.



District Cooling System

■ Ownership Structure

Egypt Kuwait Holding's EKH investments in the energy and energy-related segment in Egypt is done through its 100%-owned subsidiary NATENERGY.



EKH was established in 1997 by leading Kuwaiti and Egyptian businessmen and institutions that had the vision to establish a new company that would become a key participant in the economic liberalization efforts that were being undertaken by reform-minded governments throughout the Middle East and North Africa (MENA) region, and has become one of the fastest growing companies in the Middle East with an authorized capital of USD 500 million.

EKH has a continuous ability to create value and follows investment strategy that focuses on the creation of subsidiary companies in high-growth sectors where the MENA region has a strong competitive advantage.

EKH currently has investments in 5 countries:

- Egypt
- Kuwait
- Sudan
- Syria
- United Arab Emirates

The Company has a diversified portfolio of investments in the fertilizers, energy, manufacturing, insurance and information technology sectors.

NATENERGY is a holding company dedicated for current and prospective integrated clean energy solutions together with spin-off technologies and applications. It orchestrates harmonically, with its affiliates: diversified developments and assertive spread of business in Egypt and in the MENA region.

NATENERGY provides efficient energy solutions in Natural Gas transportation, along with the design and implementation of its networks, Power generation & distribution provision of District Cooling and Electromechanical services through its affiliates NATGAS, Fayum gas, KAHRABA, Nubaria, and Gas Chill.

■ Global Partners

Gas Chill provides integrated solutions in collaboration with its local, regional, and global partners.

Gas Chill is entitled to using the latest heating and cooling Absorption technology relying primarily on Natural Gas/diesel oil/steam/LPG/waste energy and solar energy.

Absorption technology is quiet, vibration-free, highly reliable, requires low maintenance and low operating cost, robust, durable, and the fact that it is energy saving makes it ideal for all Heating/Cooling applications.



Global Partners



Kawasaki Thermal Engineering

KTE is a subsidiary of  **Kawasaki** Corporation, the leading Japanese based Company. Engaged in the development, manufacture, sale, repair and maintenance of Absorption Chillers and multi-purpose boilers.

KTE started in the mid 90's, currently considered as a pioneer provider of absorption chillers in the world, providing cooling units starting from 80 tons.

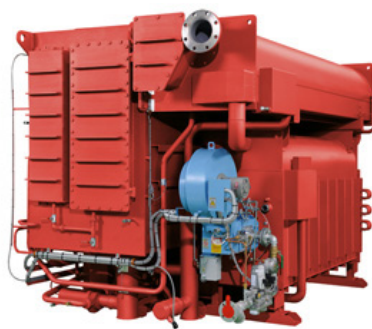
KTE has acquired both ISO certificates, ISO 9001 for the design and development, supply, production, installation and incidental service of air conditioning products by natural gas, which ensures that all products are completely manufactured and tested to the highest standards. As well as ISO 14001 for Environmental Management System.

KTE produces Chiller units with capacities ranging from 80TR to 1,000TR used in both commercial and industrial applications, and use Natural Gas, Diesel, Hot Water, and Steam as sources of energy.

Efficio SERIES

NZ

COP 1.51



NH/NU/NE

COP 1.43 / 1.39 / 1.33



Package Type



Global Partners



ROBUR is the leading Italian manufacturer of Gas fired Air-cooled Absorption Chillers for residential, commercial and industrial applications.

ROBUR was the first company in Europe to obtain the ISO 9001 certification in the heating & cooling sector.

The only Air-Cooled Absorption Chiller worldwide.

Uses Ammonia as its refrigerant.

Maximum capacity is 5TR/unit.

Units are connected to each other to fulfill cooling requirements.

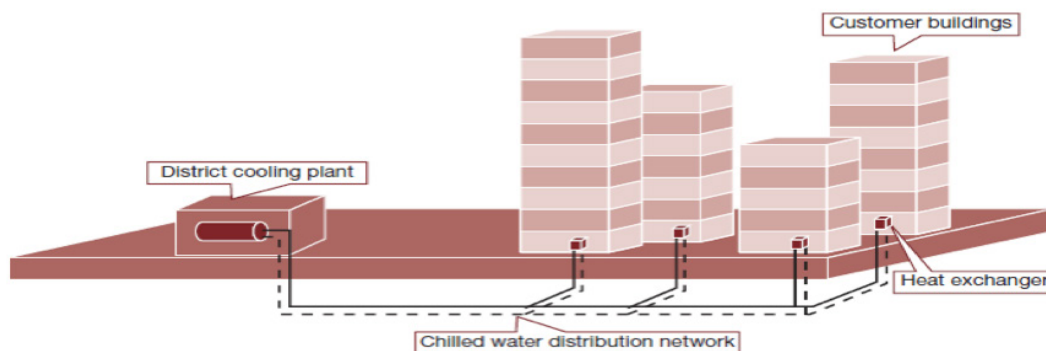


Chiller Type:

Single effect steam fired chiller
Chiller Capacity: 140 TR or 490 kW

District Cooling System

■ District Cooling System



District Cooling System (DCS)

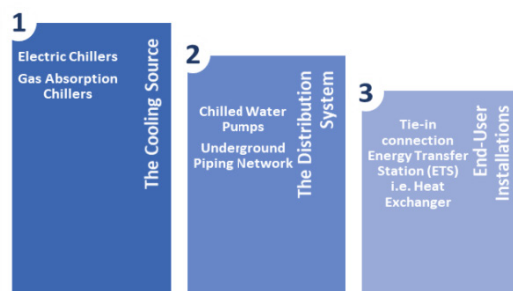
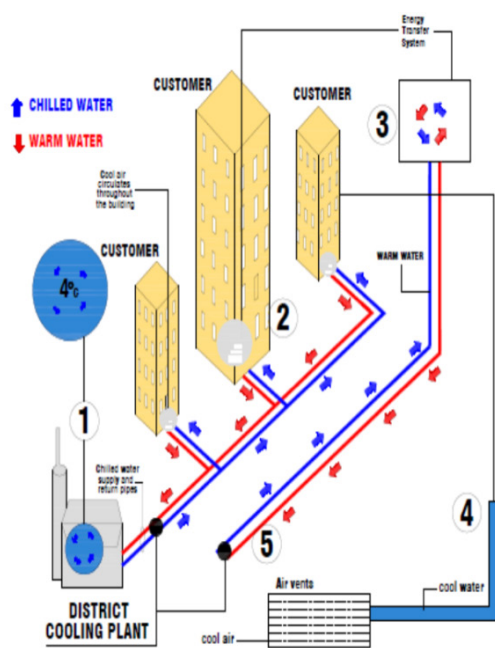
distributes thermal energy in the form of chilled water from a central source to multiple buildings through a network of underground pipes.

The idea is to use one central source instead of separate systems (conventional systems) for each building creating both economic and environmental benefits.

The system is highly robust and customizable since the water used can be either potable water/ TSE (treated sewage effluent) or seawater and the plants may be either electricity or gas driven.

District Cooling is considered as an important practice, in new modern cities, to ensure the sustainability of natural resources, saving energy and reducing the impact on the environment.

■ How it works



- Step **1** Central Plant Chills Water
Typically around 4-7°C and then distributes through a network of underground insulated pipes to the end-user's buildings
- Step **2** Energy transfer System (ETS)
Chilled water is pumped into the network to the ETS located at end user's building
- Step **3** A chilled water network in the end-user building
Circulates the cold water through fan coil and air handling units
- Step **4** Air is then forced past the cold water piping
In the end-user's building to produce an A/C environment
- Step **5** Chilled water is returned
to the central plant to be re-chilled and recycled

Benefits of District

■ Benefits of District Cooling



40% - 60%
less energy consumption



Decreases
initial capital investment
and spreads costs over a
longer period of time



Lower
annual maintenance,
operation and spare part
costs



Up to 30%
Thermal Storage
capability of potential
output



25 years
Equipment Replacement
time span



**Higher
reliability**
due to load diversity
allowing for greater
operational efficiency

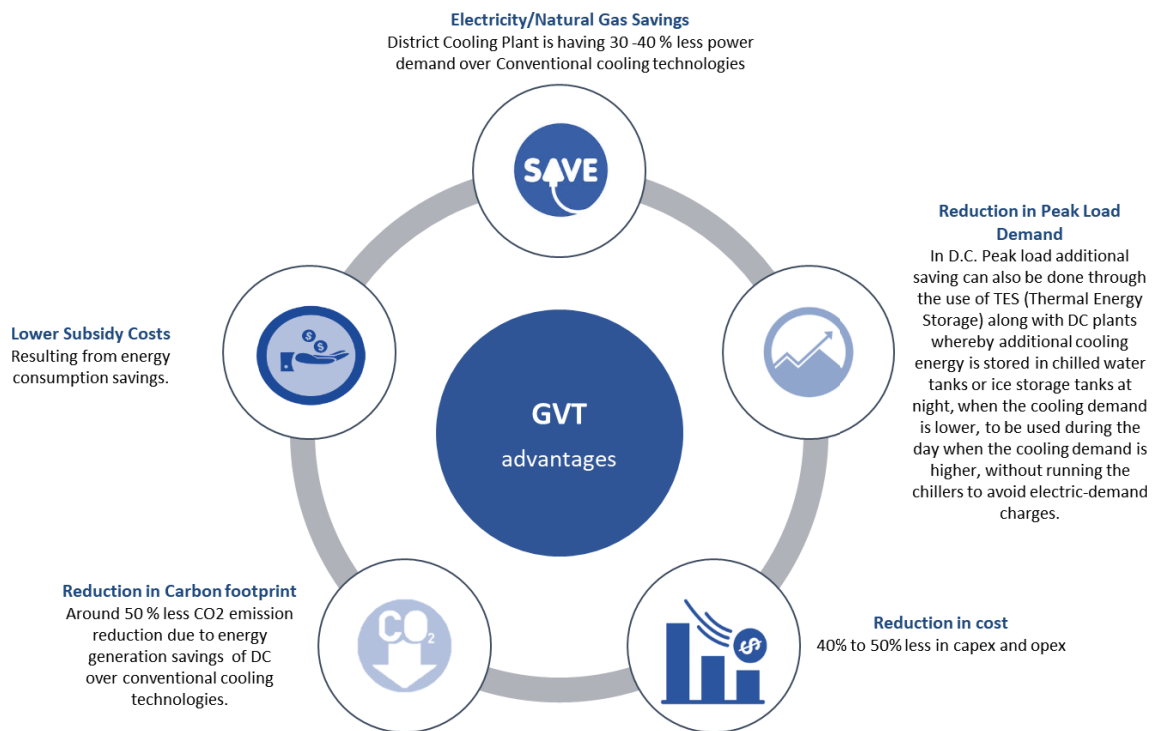


Enhance real-estate
value by freeing up space



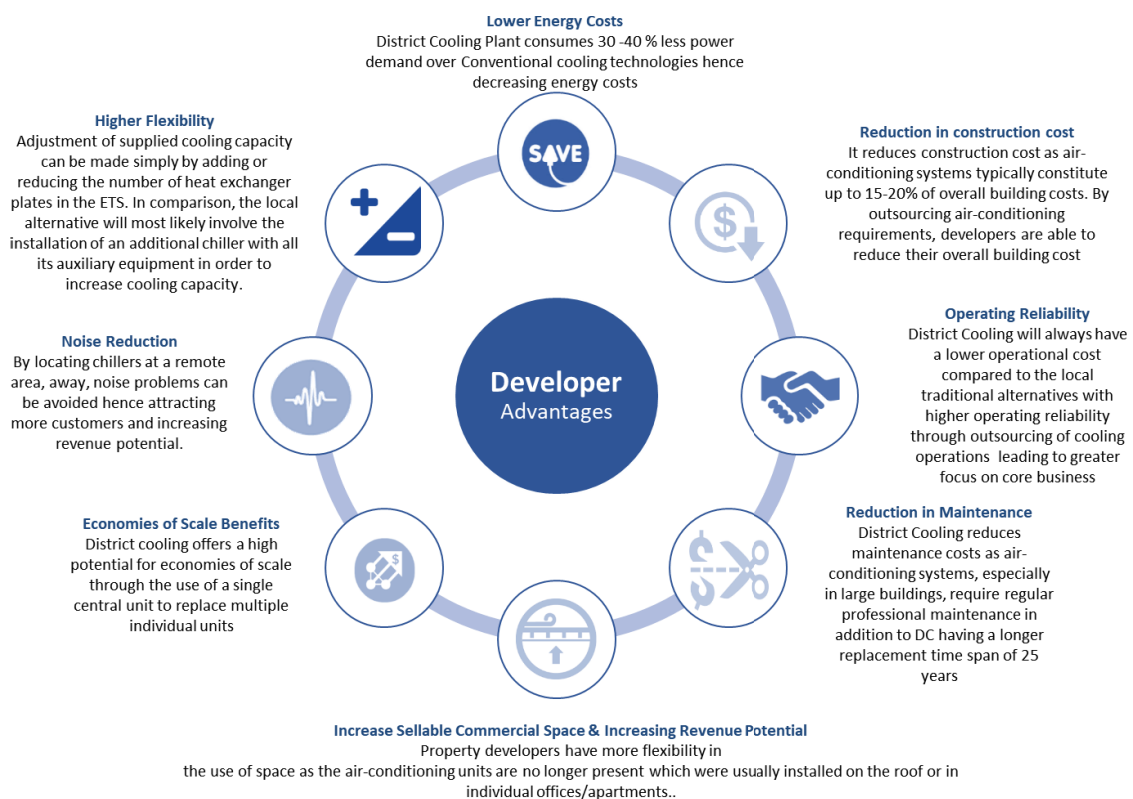
**Environment-
Friendly**
by reducing CO2
emissions

■ Benefits to Government

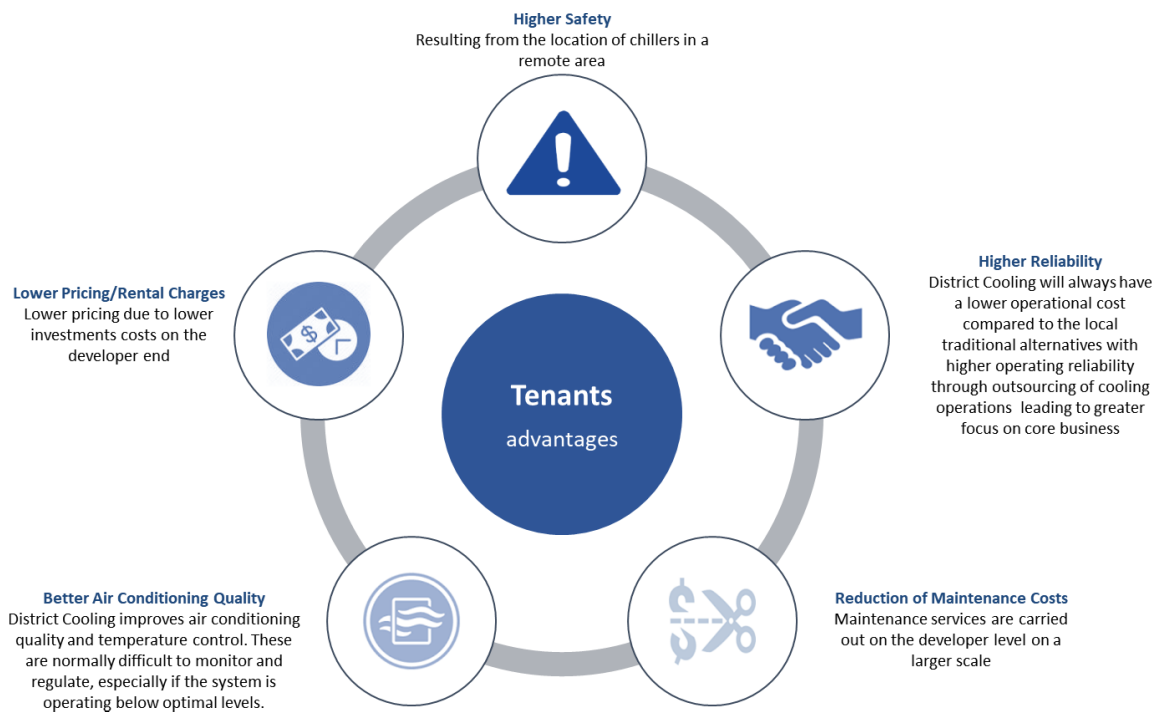


Benefits of District

■ Benefits to Developers



■ Benefits to Tenants



Gas Chill References

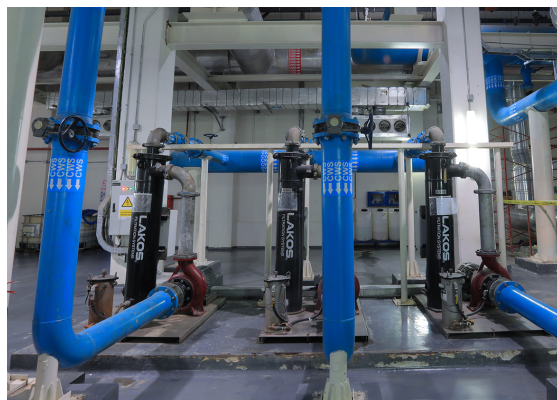
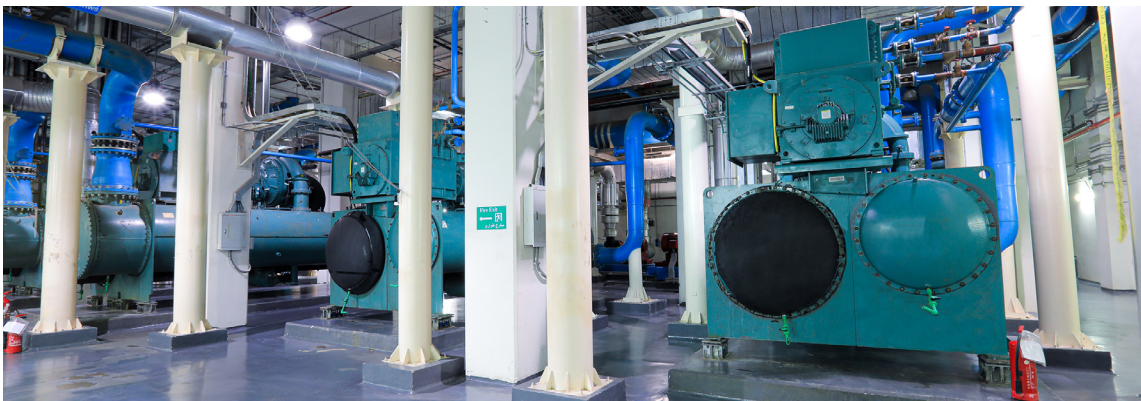
■ Cairo Festival City DCP (Phase 1) – New Cairo

In early 2010, Gas Chill was awarded to design and build a centralized chilled water plant to fulfill all CFC project's cooling needs, specified to be 15,000 TR for phase 1; the scope of work included:

- Design of phases 1&2 of the project, in cooperation with Allied Consultants, one of the leading engineering and project management firms in the Middle East.
- Structure and architecture for the District Cooling Plant (DCP) for phases 1&2 and water tank.
- All Mechanical, Electrical, Plumbing and Fire Fighting works in the DCP.
- All HVAC, piping, and duct works in the DCP.
- Testing and commissioning.
- Staff training, operation and maintenance of the DCP for 1 year.

The District Cooling Plant (DCP) at CFC in its 1st phase will serve the retail, shopping and entertainment, and the Southern Business District. Thus, use of one central source instead of local systems for each separate building and will create economic and environmental benefits.

References



Gas Chill References

■ Americana District Cooling Plant – Sheikh Zayed

Americana DCP is located at Sheikh Zayed road with a cooling capacity of 4,200 TR to serve Americana's project and other adjacent projects' HVAC loads (EDITA & Bonyan). The scope of work included:

- All Mechanical, Electrical, Plumbing and Fire Fighting works in the DCP.
- Airside electromechanical works.
- All HVAC, piping, and duct works in the DCP.
- Installing two chilled water pipes to EDITA & Bonyan's heat exchangers.
- Testing and commissioning.
- Staff training, operation and maintenance of the DCP for 1 year.

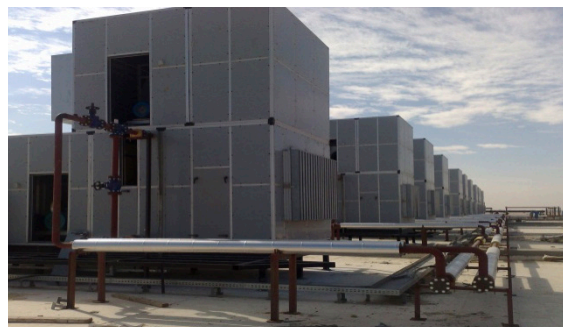
References



Gas Chill References

■ Eastern Company

Eastern Company's West Building for Manufacturing Requirements located in 6 October with a total capacity of 1,000 TR (chillers plant) and 3000 TR (Airside), Gas Chill is a turnkey supplier for the project with a total value of EGP 21.8 Million.



■ Misr University for Science and Technology

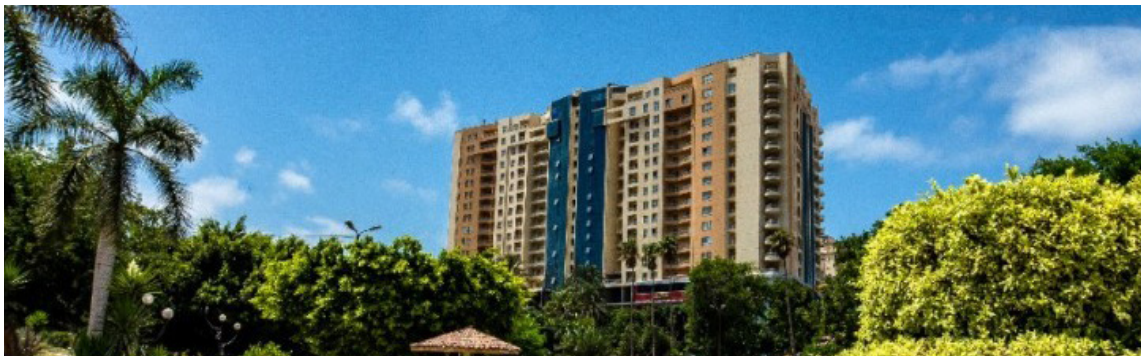
MUST project is a DCP to serve the entire university buildings, with a total capacity of 6,500 TR and a total value of EGP 35 Million (only thirty five million egyptian pounds). The project will be implemented over phases.



Gas Chill References

■ Cleopatra Plaza – Alexandria

Cleopatra Plaza is a residential and commercial building in Alexandria with a total capacity of 1,400 TR and a value of EGP 17 million. Gas Chill is a turnkey supplier in this project, responsible for HVAC plant and Airside of the commercial area.



■ Arkan Mall

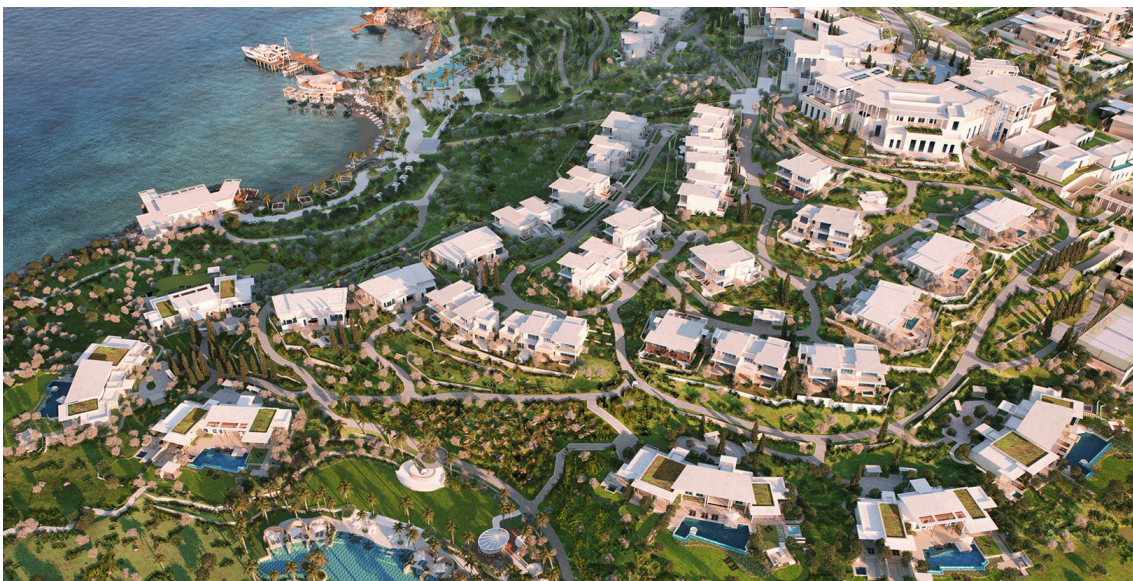
Arkan Mall is located in Sheikh Zayed – 6 October City, with a cooling capacity of 1,700 TR. Our scope of work includes supply and installation of chillers plant c/w all components, with a total value of EGP 9,500,000.



Projects

- **Four Seasons Hotel Extension - Sharm El-Sheikh**

Gas Chill scope is the MEP works at the Utility Island providing the cooling (3,300 TR), heating (375 HP), electrical power (8,500 KVA), and fuel systems for the new extension (guest rooms, villas, restaurants, and ballrooms).



Gas Chill References



■ Icon Mall – New Cairo

Construction of a plant with a total cooling capacity of 750 TR to serve offices and commercial outlets.

Construction of the complete MEP works of the building

Chiller installed in the plants are Kawasaki Absorption Chillers.

Gas Chill Operation and Maintenance References

PLANT	LOCATION	TOTAL COOLING CAPACITY	ACTIVITY	SERVICE CONTRACT
Al Safwa Hospital	6 th of October	360 TR	Hospital	Maintenance
Osman Hospital	Maadi	120 TR	Hospital	Maintenance
Neuro Spine Hospital	6 th of October	240 TR	Hospital	Operation & Maintenance
Gelatin Company	Amriyah, Alexandria	500 TR	Pharmaceutical	Maintenance
Textile International of Egypt (TIE)	Free Zone, Nasr City	490 TR	Manufacturing	Operation & Maintenance
United Glass Company (UGC)	10 th of Ramadan	360 TR	Manufacturing	Maintenance
Al Marwa Foods (Juhayna)	6 th of October	180 TR	Manufacturing	Maintenance
Eastern Company	6 th of October	1,000 TR	Manufacturing	Operation & Maintenance
Ethydco Ethelen Plant	Burj Al Arab, Alexandria	420 TR	Manufacturing	Maintenance
Ethydco Polyethelen Plant	Burj Al Arab, Alexandria	1,000 TR	Manufacturing	Maintenance
Ethydco OSBL Building	Burj Al Arab, Alexandria	1,080 TR	Manufacturing	Maintenance
Misr University for Science & Technology (MUST)	6 th of October	4,800 TR	Education	Operation & Maintenance
Americana Plaza	6 th of October	2,800 TR	Commercial	Operation & Maintenance
Americana Plaza	New Cairo	800 TR	Commercial	Operation & Maintenance
Arkan Mall	6 th of October	5,900 TR	Commercial & Administration	Maintenance
GID Plaza	6 th of October	420 TR	Commercial & Administration	Maintenance
General Authority for Investment	Nasr City	1,050 TR	Administration	Operation & Maintenance
Katameya Dunes	New Cairo	800 TR	Hospitality	Maintenance
Metro Market	6 th of October	150 TR	Supermarket	Maintenance
Cairo Festival City (DCP)	New Cairo	15,000 TR	Commercial & Administration	Operation & Maintenance
General Authority for Investment	Nasr City	90 TR	Administration	Operation & Maintenance

Projects under construction

■ Cairo Festival City DCP (Phase 2) – New Cairo

GCL scope is the Civil & MEP works for the DCP Phase 2 which shall have an ultimate cooling capacity of 18,000 TR







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A dark, blue-tinted photograph of an industrial facility, likely a power plant or refinery. The image shows large, complex machinery with various pipes, valves, and structural supports. The lighting is dim, creating a moody atmosphere. The text "www.gaschill.net" is overlaid in the center of the image.

www.gaschill.net