

KTI.



KTI-Pfersch Kältetechnik

PLIP

Plate Ice Plants

 Made
 in
 Germany

KTI – Your #1 Choice for Turnkey Cooling Solutions

Family owned and dedicated to customers worldwide



Caroline Walleter-Plersch, M.Sc., and Dipl. Ing Rupert Plersch, CEOs of KTI-Plersch

Founded in 1986, KTI-Plersch Kältetechnik GmbH is a 100% family owned company. As the inventor of the first containerized turnkey refrigeration plant, KTI has installed more than 3,000 units all over the world, including Cold and Ice Water Plants, Flake Ice and Plate Ice Plants as well as our highly sophisticated Mobile Ice Storages. KTI's well-experienced team of refrigeration specialists is able to provide the best support to find the ideal design for customers' individual requirements. For more than three decades, KTI stands for high-end, cutting-edge refrigeration plants of highest quality. With its headquarter in Germany, service companies worldwide and a global network of agents and partners all over the world, KTI is able to attend to customers' needs reliably and within the shortest time. KTI's highly qualified and international engineers and technicians provide a unique 24/7 service – anywhere, anytime.



Vision

KTI is a renowned manufacturer of innovative refrigeration & heating solutions and is leading its core markets by delivering customer focused advisory, high-end engineering and service excellence.

At KTI, we are committed to the following principles:

- We place utmost emphasis on the quality of our products and processes. We stand for first-class, cutting-edge refrigeration and heating plants of highest standards.
- We are customer service oriented. To guarantee custom-made plant concepts and reliable operations of every plant, we globally employ a highly qualified team of engineers and service technicians.
- We provide unique after-sales service and support to our customers worldwide.

Customer Satisfaction is our Ultimate Goal.

PLIP – Plate Ice Plants

Energy Efficiency with Highest Flexibility

Your Advantages

- Substantial energy advantage up to 45 %
- Environment-friendly refrigerant
- Fully containerized - up to 200 tons ice production per day
- Low maintenance due to non-rotating ice makers
- No corrosion thanks to stainless steel ice generators
- Compatible with next generation KTI Mobile Ice Storages (MIS)
- Highly flexible through different optional operation modes



KTI Plate Ice Plants & Mobile Ice Storages

A perfect combination

Plate Ice Plants have always been considered as reliable products to produce ice in the most efficient way, however storing and delivering of plate ice requires the utmost experience and know-how.

KTI, being the world's #1 in this field, designed and developed a highly reliable Mobile Ice Storage (MIS) to guarantee secure and efficient handling of plate ice.

KTI Plate Ice Plants (PLIP) together with KTI Mobile Ice Storages are the perfect combination and fulfill future needs in respect to energy efficient ice production, cost and power saving.



Plate Ice Plant on an Ice Storage

Mobile Containerized Plate Ice Plants

KTI redesigned its PLIPs to offer a reliable and more economical way to provide cooling energy and to optimize the production of ice towards power saving concepts. With Ammonia as refrigerant, all new PLIPs work environment-friendly and meet the 2028-goals of the "Climate Conference of Paris". Plate ice is formed on stainless steel plate evaporators. Depending on the required ice

thickness a water film freezes on the surface for a certain period followed by defrosting the ice plates. After this, the cycle starts again with freezing. All PLIPs are engineered and prefabricated by KTI in Germany with high-end components from renowned European manufacturers for an efficient operation, which will lower the costs, thanks to both less consumption of power and reduction in maintenance activities.

Compared to conventional ice production systems, KTI's PLIPs give you one more big advantage:

Plate Ice Plants optionally produce either

- Plate Ice, only
- Ice Water and Plate Ice
- or Ice Water, only.

High-end Components Guarantee Highest Reliability



Stainless steel plate ice generator



Ammonia separator with ammonia pump



Open-type screw compressors with oil separator

Technical Features

Ice Capacity:	20 - 200 tons/day per unit	Condenser:	Evaporative condenser, water or air cooled upon request		
Ice Thickness:	3 - 10 mm (adjustable)	Ice generator:	Stainless steel plate heat exchanger, non-rotating		
Refrigerant:	Ammonia (NH3), Freon upon request	Operation:	Flooded forced by pump, dry expansion upon request		
Execution:	Standard, tropical	Machinery room:	40-ft container (from 160 tons 2 containers), air condition and insulation upon request	Safety standard:	Leak detecting & warning, exhaust system
Conformity:	CE, CSA, UL, further available upon request	Power supply:	400 V - 50 Hz 520 V - 50 Hz other voltages and frequencies upon request	Machine control:	Siemens SPS, Color-Touchscreen, Remote Monitoring
Compressor:	Screw type	Optional:			Integrated Pre-Chiller

Optional* Operation Modes For Highest Flexibility

Performance: Ice production only

When the ice storage is full, the plant will automatically chill the water in the cold water tank (recirculation mode). When the ice is consumed, the ice plant starts to produce ice again. If the plant is not producing, it will always maintain the water temperature of the cold water using the recirculation mode.

Performance: Ice water / ice production

The plant can produce half of its maximum capacity as ice and half as ice water at the same time, for example a PLIP 120 is able to produce 60 tons of ice and up to 100 m³ of ice water per day. If the plant is not producing, it will always maintain the water temperature of the cold water using the recirculation mode.

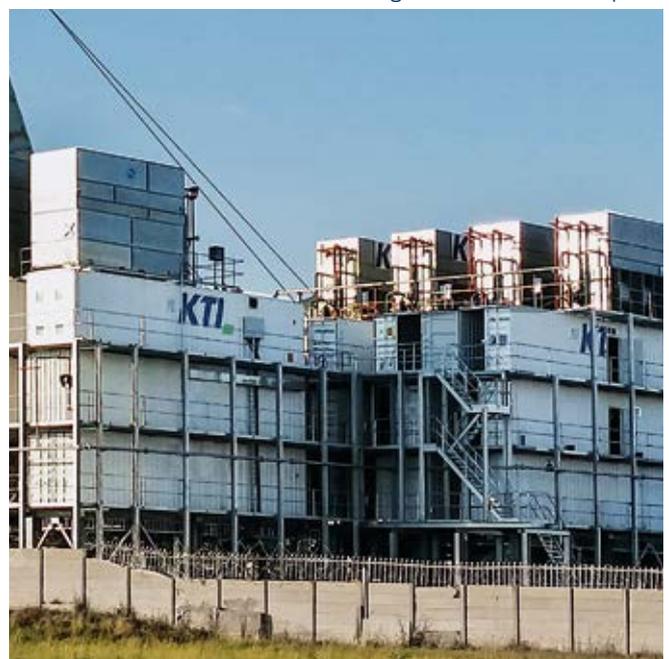
Performance: Ice water production only

In times when only ice water is needed, the plant is operated in the water chilling mode and produces ice water up to its maximum capacity. If the plant is not producing ice water, it will always maintain the water temperature of the cold water using the recirculation mode.

*slight modifications are required



PLIP 168 on top of MIS 23



Multiple PLIP 200 setup (1600 tons in total per day)

MIS – Mobile Ice Storages

The Perfect Combination to a Turnkey Solution

All Plate Ice Plants can be installed and operated on top of a specially designed KTI Mobile Ice Storage with storage capacities from 23 to 120 tons. After intensive research and development as well as peak performance tests in KTI's own test facility under severe

climate conditions in Dubai, the design of the highly reliable KTI ice storages was modified to serve the conditions required by plate ice. The combination of a PLIP and a MIS results in one of KTI's turnkey solutions. With all accessories like platforms, stairways, water tanks as well

as ice delivery and weighing systems holistic turnkey solutions are available, which require the shortest time for installation and commissioning on-site.



2x PLIP 100 on top of MIS 75 and Cold Water Plant beside

Mobile and Fully Automatic

- Mobile ice storages for 23 to 120 tons
- Integrated ice rake for automatic ice leveling and discharge
- Patented air circulation and room cooling system

Bolted Ice Storages

- From 40 to 250 tons
- Hot-dipped galvanized steel structure
- Can be shipped in containers anywhere in the world

Mobile and Semi-Automatic

- Automatic loading
- Manual discharge
- Insulated ice storage with room cooling
- Mobile 20ft or 40ft container
- Integrated discharge screw conveyors



Ice storage with rake system



Production of prefabricated ice storages

Our Strength

- Dedicated to customer care
- Worldwide service network
- Highly qualified teams of service engineers and technicians
- Efficient fleet of fully equipped service cars
- KTI's own spare parts warehouses in Balzheim, Dubai, Doha, Dammam, Jeddah, Riyadh and Sao Paolo
- 24/7 availability
- Training centers in Dubai and Germany
- Training of service staff and customer personnel by German engineers according to German regulations

Complementing our portfolio of turnkey industrial refrigeration & heating solutions, KTI-Plersch Kältetechnik GmbH offers highly professional technical support and after-sales services. For over 30 years, KTI employs comprehensively qualified teams of professional engineering masters and service technicians worldwide.

KTI has set up service centers including warehouses for spare parts in Germany, U.A.E.,

Qatar, Saudi Arabia and Brazil to guarantee support for all customers. This enables us to minimize our respond and on-site arrival times. Working very closely, KTI's headquarter, overseas offices, branches, and agencies, provide a unique customer-focused after-sales service – highly reliable, everywhere in the world, all year round.

Safeguarding customer satisfaction by delivering excellent service is KTI's highest priority.

 **Made
in
Germany**



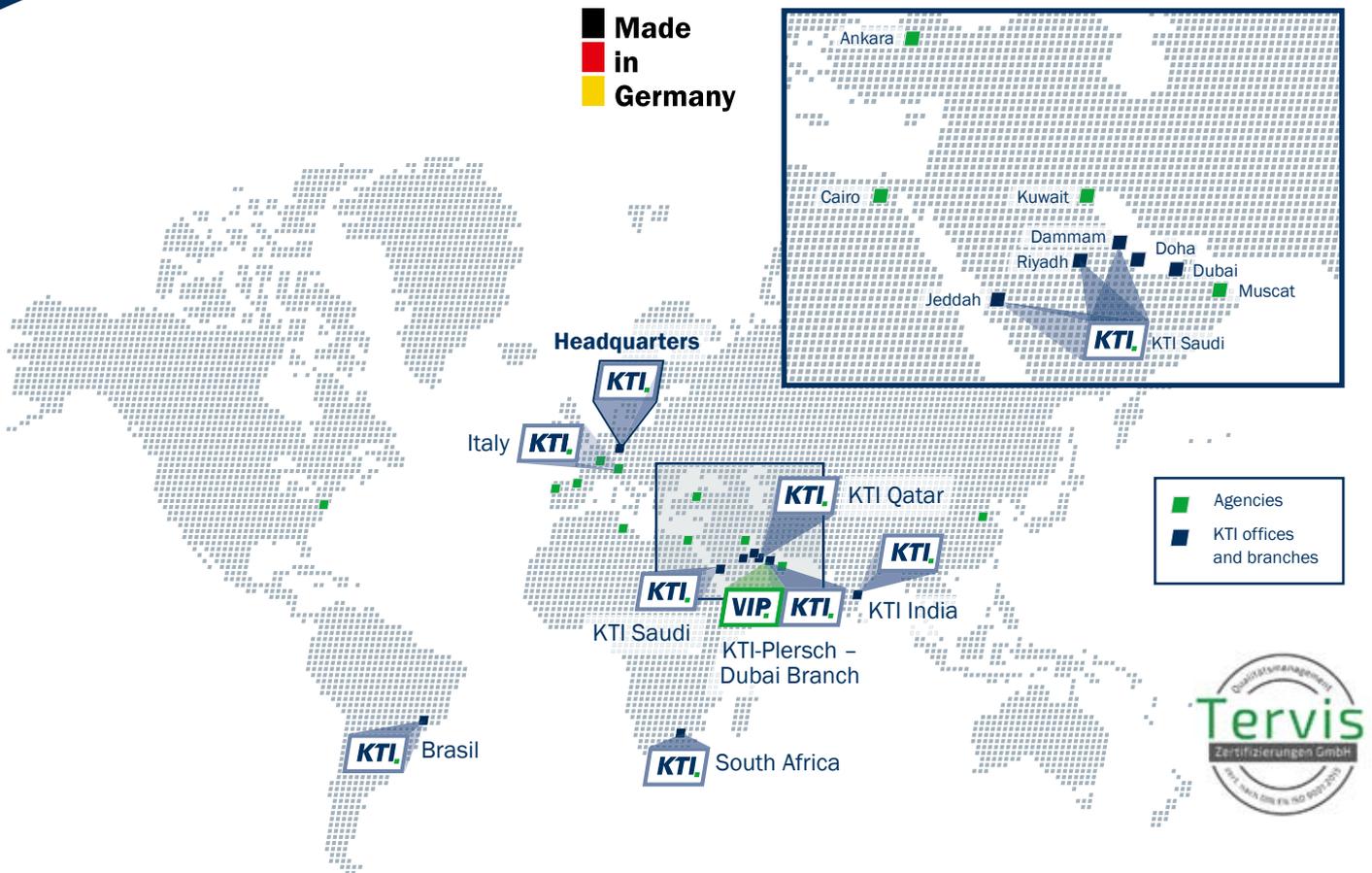
Your Benefits

- KTI service mentality
- German quality standard
- Enhanced reliability
- Optimized running costs
- Longer life expectancy
- Minimized breakdowns
- 100% spare parts availability
- Permanent service availability
- On-site and inhouse training
- Service contracts

KTI Excellent Service and After Sales

„Excellent service and maximum availability of spare parts is crucial for us to guarantee our customers' satisfaction!“

KTI Agencies and Registered Offices



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