

KEEPING THE CATCH FRESH AT GADRE MARINE WITH ENERGY-EFFICIENT COOLING SOLUTION



Gadre Marine in India is one of the leading exporters of high-quality seafood and aquaculture products across the world. The company is well-known in the seafood processing industry for its premium quality of production and storage processes. The global popularity of Gadre Marine is attributed to its world-class infrastructure, industry best practices and stringent safety standards.

Thermax's energy-efficient cooling solution is a part of the seafood exporter's refrigeration plant keeping the processed catch fresh for export. The uninterrupted productivity and exemplary

performance of the solution have resulted in customer delight and strengthened our partnership with Gadre Marine.

ON THE LOOK FOR ENERGY CONSERVING SOLUTION

Gadre Marine was setting up a new fish processing plant at Mangalore, India exclusively to process ground fish (Surimi). The plant was also to serve as an allied cold storage facility. While seeking an efficient cooling solution for the refrigeration facility, the company was determined to deploy one that will also systematically conserve power, space and water.

THERMAX'S PROVEN TRACK RECORD IN COOLING REFRIGERATION UNITS

As the new plant was a green field premium project, Gadre Marine was looking to partner with an experienced market leader for commissioning the cooling solution. Thermax's successful history of cooling storage units combined with our impressive after-sales service instigated the seafood exporter to collaborate with us. After studying the requirements of the storage facility, our experts suggested evaporative condenser as the one-point solution for the company's cooling demands.

CAPTURING FRESHNESS EFFECTIVELY

In Seafood industry, effective storage of the processed catch and preventing it from perishing is the most crucial process. The processed fish is subjected to various degrees of chilling in a variety of utilities such as blast freezer (-40 °c), blast chiller(-10°c), pre-cooler, chill room, freezer room, plate freezer and brine chiller. Refrigeration plants encapsulate the cooling utilities and cater to their cooling requirements. Such refrigeration systems are designed for continuous operation to ensure maximum shelf life of the processed fish. Considering its high reliability, Thermax's evaporative condenser was the right choice for capturing the freshness of the fish.

CRUCIAL REQUIREMENTS TO BE MET

Assessing the criticality and scope of the application, certain aspects of the installation had to best suit the customer requirements. They were the following,

- Highest-quality material of construction
- Short manufacturing lead time
- Strong and established after-sales service
- Steady machine performance despite varied climatic conditions

In line with the requirements, Thermax's evaporative condensers were customized to perfectly fit the refrigeration unit's cooling demands.

SYSTEMATIC PLANNING FROM THERMAX'S TEAM

Four evaporative condensers of 1500 KW each were supplied in a single shot to Gadre Marine's refrigeration plant, which posed a big challenge in view of their enormity. Designing the condensers for counter flow and constructing them with stainless steel was an added complexity. The challenges were overcome by Thermax team's meticulous planning and thoughtful designing, resulting in an excellent and timely installation at the site.



The condensers have been running successfully without any disruption since the commissioning and have contributed to huge energy savings at Gadre Marine. Thermax's fast execution and reliable service have prolonged our relationship with the seafood exporter leading to a total of ten Thermax evaporative condensers commissioned in the company's plants so far.

"The Evaporative Condensers were commissioned and handed over in July 2018 and July 2017 and since then are under successful operation and working satisfactorily," says Vilas Dorkhade, HOD of Refrigeration at Gadre Marine.

The seafood industry largely depends on the efficiency of refrigeration systems for exporting the processed food. Owing to rising energy prices and energy optimisation trends, the industry began finding ways to improve its storage/refrigeration systems. As evaporative condensers offer savings on space, water and power, the industry has well-embraced them for cooling its refrigeration units.