

# Micro Thermo Technologies Controls at Sea



## Micro Thermo Technologies Provides Workboats Reliable and Connected HVAC/R Control At Sea

“Thank you for providing us with a great and knowledgeable team to be able to train and give insight in what we are trying to accomplish. We appreciate the dedication and determination shown to get the job done.”

**Chris J. Price**  
Marine Construction Department Manager  
SEALAND MECHANICAL, L.L.C.



### Customer Profile

Founded as Edison Chouest Boat Rental in Galliano, Louisiana, in 1960, the Edison Chouest Offshore companies (ECO) are recognized today as the most diverse and dynamic marine transportation solution providers in the world.

Sealand Mechanical LLC is a design build mechanical firm. The HVAC/R systems in ECO vessels are designed, built and operated by Sealand Mechanical LLC, based in Houma, Louisiana. Sealand Mechanical was founded 1985 to service the HVAC/R systems of Offshore Vessels.

### Business Challenge

Micro Thermo Technologies was brought in to build this solution by Baker Distributing. Baker Distributing Company is engaged in the marketing and distribution of air conditioning, refrigeration and heating equipment, parts and supplies.

Baker Distributing assisted Sealand to identify a fleet network solution. Being able to introduce Sealand Mechanical to Micro Thermo was the right step in providing the best in class control of shipboard HVAC/R system solutions.

Because of the challenging environment of being at sea for long periods of time, ship based systems have to be very reliable. With access to dry dock days or weeks away, crews need highly reliable systems.

In addition, these systems have to be easy and intuitive. The shipboard staff must be able to take care of running and managing these systems without being able to call in experts.

With ships at sea all around the globe, it's critical that all the ships HVAC/R systems be accessible from a single remote location to assist the crew in troubleshooting and monitoring performance.

### At A Glance

**Customer:** Sealand Mechanical LLC  
**Location:** Houma, LA  
**Distributor:** Baker Distributing  
**Location:** Metairie, LA  
**Industry:** Mechanical contractors with marine HVAC/R expertise

**Business Challenge:**  
Provide custom solutions to HVAC/R applications on vessels. Because of the nature of managing these systems while at sea, the systems had to be connected and reliable.

**Solution:**  
MT Alliance coupled with MT hardware to control chillers, refrigeration units and HVAC. In addition, remote access to the ship systems from shore and the Enterprise Facility Manager software to allow access and control of all the systems from a central location.

**Results:**

- Visibility into systems previously inaccessible remotely
- Single point management of an entire fleet
- Very high level of system reliability which is critical for vessels away from port
- Exceptional support for a global manufacturing footprint



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# Solution Overview

## Graphical Interfaces Simplify System Management

MT graphics capability creates a custom view of the entire vessel and all mechanical systems contained within. This allows for any technician to easily navigate the control system. Either locally or remote – access to the controls provide an excellent visual representation of what is happening. MT is controlling HVAC, refrigeration, and chillers, as well as monitoring various other systems throughout each vessel.

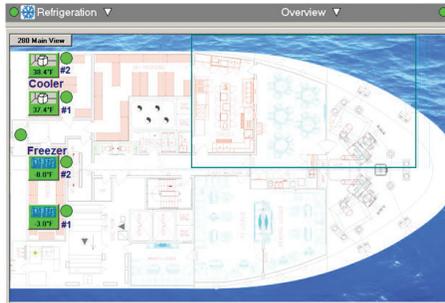


Figure 1: Graphical view of galley coolers

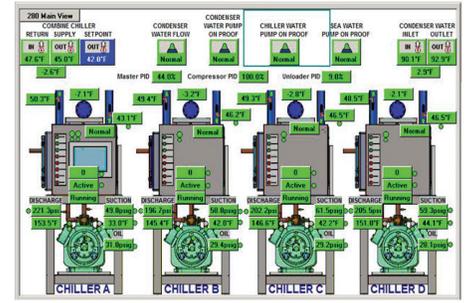


Figure 2: Graphical view of chillers

## Data Combined And Accessible Remotely

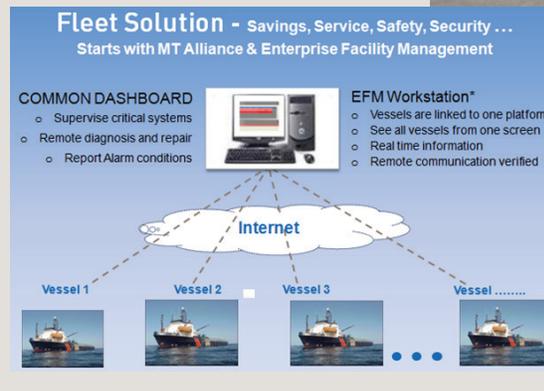
Micro Thermo controls provide highly reliable, highly accurate control of each individual system. A key expectation of Sealand was that all of this control be connected, sharing data with each other to optimize control and serving up this data remotely. The Micro Thermo Alliance system, with the Enterprise Facility Manager (EFM) provides and facilitates this connectivity. Now, all ships can share their data with a central location, allowing for real-time monitoring of all the systems under control across the fleet. Because this data is web-enabled, monitoring can be done anywhere there is an internet connection or an internet connected smartphone.

## Business Benefits

By providing best in class control of shipboard HVAC/R systems, MT provides the level of **support** and **reliability** that is essential for sea vessels. Graphical interfaces reduce the **time** and **effort** needed to manage these systems and remote, fleet-wide **connectivity** provides **remote monitoring** and control of critical subsystems.



Chouest H-280 "Blue Orca" under construction June 2013



For more information:

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