# They All Know Applied Air. Do You?



# Grand Haven Boat Storage Cold Case, Solved.

The winter winds that whip Grand Haven, Michigan's shoreline can drop to -20° F, ceasing all activities, including boat repairs. So, Grand Haven Storage, LLC built heated storage condominiums, where boat owners could work in preparation for spring. How did they heat the 5,000-square-foot storage docks?

They called on Applied Air.



The temperature control solution for important projects.

### **PROBLEM**

#### EVENLY HEATING A 50' X 100' AREA THAT HAS 32' CEILINGS IS NO EASY TRICK.

Grand Haven Storage owners paid \$500,000 a slot to own a waterfront structure large enough to house their massive boats and work on them through the winter. For that kind of money they expected a heating system to provide even temperatures top to bottom at a reasonable cost. Gas fired units suspended from the ceiling would be cheap enough to install, but they wouldn't warm the air down low. Hot water boilers on the floor could affordably heat the entire space, but the installation costs were prohibitive. The project developers relied on Applied Air to suggest an alternative.

## **SOLUTION**

#### AIR TURNOVER UNITS OFFERED THE BEST OF ALL WORLDS.

Reasonable to install, cheap to operate and capable of evenly heating the entire storage area, air turnover units proved to be the ideal solution for heating the Grand Haven Storage docks. Applied Air recommended IFJ-Single units, featuring 5500 CFM and 250,000 BTU/output, in each of the 19 storage docks on the property. Each unit runs on a 1/2 HP motor at 115/60/1 volts, efficiently heating the space from top to bottom at less than a 10-degree differential anywhere in the enclosure. The units were installed inside the dock space at floor level during summer of 2004 for property occupation later that fall.

# **RESULT**

Once the owners settled in for the winter, many visited the property regularly, performing boat repairs throughout the coldest months. Additionally, many parked RVs, spare cars and smaller boats in their condominiums, making Grand Haven Storage one of the busiest ports along the shore. Average heating costs remained low. And, as winter thawed and the dock doors opened, the consensus was Grand Haven Storage was a worthwhile investment.





"Some of the yachts that moor at the property barely clear the 32-foot ceilings. Owners are all over the place, working on top of their boats, as well as down low. We needed to heat the entire space evenly, and we had to do it at a reasonable cost. Applied Air provided a solution that satisfied our buyers and preserved our profit margins."

John Vanden Bos Grand Haven Storage LLC

If you have a large area to heat, contact Applied Air System to receive a "designer's report" on how you can save heating costs by utilizing air turnover systems. Applied Air can also offer a

computerized CFD study that will allow you to predict temperature variations and energy costs within your space for any type of heating equipment.



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