

## Project

**Name**  
"Pride of the Susquehanna"  
Riverboat

**Location**  
Harrisburg, PA

**Completion Date**  
May 2, 2014

## The Team

**HVAC Contractor**  
HB McClure  
Harrisburg, PA

**HVAC Distributor**  
RF Fager Company

## Fujitsu Equipment

- (2) AOU36RLXFZ Outdoor Condensing Units
- (4) AUU18RLF Indoor Ceiling Cassettes
- (2) UTY-LNHUM Remote Control



## Heating and Cooling a Historic Riverboat

The Pride of the Susquehanna Riverboat is an authentic stern-driven paddle wheeler, built in 1988 as a community service project by the Harrisburg Area Riverboat Society, Inc. for the benefit of the people of and visitors to the Harrisburg, Pennsylvania area. The Pride is one of only 7 remaining "authentic" paddle wheel riverboat in the United States. This means that the Pride ONLY uses the paddle wheels for both propulsion and steering. There are no propellers, rudders or other forms of propulsion or steering. Truly a gem in our modern world!

Since her construction and launch in 1988, the Pride has carried over three-quarters of a million passengers. She's has been, and is continually, used for weddings, parties, business functions, a whole variety of themed dinner cruises, Murder Mysteries, and the ever popular Pirates on the Pride. In recent years, the Pride's events expanded drastically to include fun events like Arooga's Wing Night, Hard-shell Crab Nights, Blues, Jazz, cover bands & Happy Hour Cruises, Family Nights, Wine & Cheese Cruises, and much more.

The Pride is offered by the Riverboat Society as a low-cost, fun alternative activity for the public to enjoy its beautiful natural resource, the Susquehanna River. Proceeds from all cruises (besides helping to keep the riverboat running!) go towards the community service projects that benefit seniors, children, military veterans and more. We work with various local organizations, including the Humane Society of Harrisburg, the "Feel Your Boobies" Breast Cancer Awareness Foundation, and many

more. Riding the "Ride the Pride" helps keep this wonderful historic landmark "afloat", benefiting the community!

### Design Challenge

The original HVAC system was installed during the ship's construction. It consisted of a 3.5-ton rooftop with the duct system installed between deck levels. After the trunkline was installed, structural frame work was welded into place. Then an ornate tongue & groove and custom stained-glass ceiling system was installed. The original equipment was undersized and never adequately conditioned the space. The owner felt locked into that system capacity due to the inability of increasing the duct size.

HB McClure were called in to see what they could do. After calculating the cooling load of 5.85 tons, their challenge was how to install a comfortable HVAC system with minimal impact on the existing aesthetics of the ship. The bulkhead structure and slopped apron roof above the ceiling provided minimal access for equipment placement and line set routing. The old rooftop unit sat adjacent to the upper level observation deck and was unsightly and very loud.

This was a very visible project in the Harrisburg local market place. Several prominent mechanical contractors were requested to make recommendations to the board of directors. There were different factions on the board; each with their own viewpoint and objectives. HB McClure's competition told the board

that their approach would not physically fit into the tight spaces available. They advised the board to include a contingency in both the construction timeframe and construction budget if they went with McClure's proposal.

## Solution

This project was a perfect application for ductless split systems. The shallow depth of the Fujitsu compact cassette [AUU18RLF] was especially helpful in this situation because every ¼" of space above the ceiling was critical. In addition, the wireless remote feature was beneficial to allow us to complete the installation without the need to compromise the aesthetics of the space. The variable capacity and quiet operation of the equipment were added selling features.

## Results

The installation went perfectly! The contractor's installation crew completed the work in time for their Mother's Day Cruise. The system was installed without requiring a single cosmetic change to the ship. The contractor's team received kudos from the board of directors and the ship's crew not only about the job installation, but about the comfort the equipment now delivers.

## What's new with H.B. McClure?

During negotiations for this contract, a competitor told the owners that H.B. McClure's approach was impossible to install. Maybe impossible for them! Through pre-planning and hard work McClure proved them wrong by doing the job on time and on budget.



**“I cannot believe how quiet this system is. You can't even hear the outdoor units when you sit near them on the upper deck. And the indoor units are as quiet as you told us they'd be!”**

