



## **BETA MAX INTERIOR HOIST GIVES CONTRACTOR HUGE LIFT IN \$239 MILLION MIAMI AIRPORT EXPANSION PROJECT**

Miami International Airport is among the busiest airports in the world, with over 80 airlines traveling to approximately 150 destinations around the globe. Among U.S. airports, MIA ranks first in international freight and third in international passengers. Its annual impact on local tourism, cruise, international banking, trade and commerce is a staggering \$18.5 billion, and the airport and related aviation industries contribute over 237,000 direct and indirect jobs to the South Florida economy.

Earlier last year, MIA officials hired Hensel Phelps Construction Company, a nationally known general contractor, to be the general contractor for the South Terminal expansion. The project, which includes a brand new, \$169-million terminal and a \$70 million concourse, would encompass erection of the two edifices as well as paving and utilities.

Hensel Phelps needed a hoist to transport materials during the construction process but a traditional outside hoist would have presented space constraints. “There was an active air site within 45 feet of the terminal, not to mention an active public transport system within 30 feet on the other side, which made exterior space extremely limited. We had to come up with an interior solution to meet our vertical transportation and material handling needs,” said Brad Cumpton, a superintendent with Hensel Phelps.

After investigating his options, Cumpton turned to Beta Max Inc., of Melbourne, Florida. Beta Max has been providing the construction and restoration industries with hoists and work platforms since 1985. Hensel-Phelps was familiar with one of the company's signature products, the Max Climber 2000 Material Hoist System, which was already in use before Cumpton became involved in the project.

Interestingly, the idea to install the Max Climber 3300 came internally through Hensel Phelps's Opportunity for Improvement (OFI) Program, in which employees can make suggestions to the Continuous Improvement Process team on how to make jobs run more smoothly. One of the workers suggested that a bigger Beta Max hoist be utilized in the South Terminal to move things along more quickly. Based on the employee's suggestion, as well as the space restraints, it was decided that the Max Climber 3300 was the optimal piece of equipment for the task.

Currently, the Max Climber 3300 Transport Platform Hoist System is operating in the new terminal building, along with a Max Climber 2000. Additionally, Hensel Phelps installed a Max Climber 2000 in the concourse area. The hoists are being used to lift a variety of materials, including concrete placement, drywall, metal studs, masonry, and electrical equipment.

The Max Climber 3300 features heavy-duty galvanized mast sections with a payload lifting capacity of up to 3,300 pounds and is also equipped with a side and front-loading basket, which is extendable to 13.75 ft. in length by 5 ft. in width.

To ensure worker safety, the Max Climber 3300 includes an unloading ramp with side fencing and roof enclosure, along with a certified safety brake system. The loading ramp is made of heavy aluminum and features a rugged basket floor with an open/close system design for easier loading and unloading. The Max Climber 3300 Hoist includes tandem rollers to accommodate all installations and a dual two-speed

motor drive system. The Max Climber 3300 can carry passengers under new ANSI codes.

For Cumpton, the small size of the Beta Max hoist was a crucial factor. “The Beta Max hoist gave us a solution that was more conducive to the parameters and restrictions of the project. We needed something that would sit inside the terminal, in the middle of the footprint, on the existing concrete floors,” he said. “The structural design of the building dictated that the hoist’s footprint could only place so many pounds per square foot on the floors. The hoist does everything we need it to from a functional perspective, and it weighs far less than the conventional buck or ‘material’ hoist.”

Cumpton pointed to the ease of operation as another major advantage of the Max Climber 3300 over competitive hoists. The machine’s simplicity facilitated the process of training his subcontractors and multiple employees to operate the hoist, which in turn precluded the need for a full-time professional operator and translated to substantial cost savings. Even using conservative figures, Cumpton estimates that the savings, based on the cost per hour and the insurance of a full time operator, is at least \$57,000 per year.

The hoist has had no breakdowns or malfunctions since its installation, and it is in use for 24 hours per day,” said Cumpton. “It requires only routine maintenance just once per week and it has performed flawlessly.” Hensel Phelps estimates the Beta Max hoist will remain in place until about two to three months prior to the project’s completion, next winter.

Based on this positive experience, Cumpton asserted that he would unhesitatingly use Beta Max hoists again. “Interior hoists present fewer issues from a structural standpoint, primarily because the traditional exterior hoists tend to be

much heavier,” he said. “Beta Max hoists are ideal for interior applications because they combine high performance with ease of use and a low cost.”

Hensel Phelps has already received positive feedback from MIA for its speedy progress and expects the terminal will be filled with passengers shortly.

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