

MAGNETEK ENGINEERED SYSTEMS

The Port Condo and Marina maximizes storage space



Project — The Port Condo and Marina

Location — Fort Lauderdale, Florida

Application — Vertical Boat Storage Facility

Products Used

- IMPULSE®•VG+ Series 2 Vector Drive
- IMPULSE®•G+ Series 2 Adjustable Frequency Drives
- *telePilot*™ Handheld Radio Transmitter
- Runway and Trolley Festoon
- Programmable Logic Controller
- Human Machine Interface

CHALLENGE

- Maximize boat storage on a small parcel of waterfront land
- Improve boat lifting capacity and efficiency
- Decrease damage to stored boats
- Provide a clean and quiet facility

SOLUTION

- Provide Magnetek's automated bridge crane control system
- Deliver an 11% increase in boat storage capacity
- Increase lifting height and weight capacity
- Eliminate the use of traditional forklifts to move and lift boats

With the increasing scarcity and cost of waterfront property for marinas, the boat storage industry is searching for a solution that can maximize storage space and provide a safe and secure marina for boat owners. Magnetek's Engineered Systems Group offers a solution that could change the way boats are stored in dry docks around the country.

The boating industry is growing, while dock space is diminishing. Supply isn't keeping up with demand. Waterfront developers are eliminating boat slips from projects, and hurricanes and tropical storms have destroyed many others. Environmental regulatory land use restrictions have cut supply even further.

For decades, Magnetek has been providing automated bridge crane systems for applications as varied as foundries, offshore oilrigs, lumberyards, aerospace and manufacturing. Now the automated technology that uses hoists to move large loads along beams and rails has been applied to boat storage. The system uses computer-controlled, precision lifting for the storage of boats, utilizing a customizable, secure boat cradle instead of a forklift. Using this technology, the marina owner can expand their dry dock capacity to new heights.

ADVANTAGES OF USING MAGNETEK'S ENGINEERED SYSTEMS GROUP

- Expertise in crane, hoist and monorail control systems
- Experience in automated overhead crane storage-retrieval systems
- Turn-key design, programming and field start-up
- 100 years of combined experience in the Engineered Systems Group providing automated crane, hoist and monorail systems

The automated boat storage facility contains an overhead crane that travels down an aisle between rack structures. It can manually or automatically lift one boat at a time from the water, transport it through a wash station, and then to a selected storage location. The crane also moves boats from their berths to the water. They are stored in racks perpendicular to the aisle, inside an enclosed building that is positioned partly over the water where there is a single pier location for boat pickup and drop-off.

Bridge cranes, when applied to marina applications, allow marina owners to expand their dry dock facilities vertically. This allows for more boat storage on a much smaller footprint. By allowing marina owners to expand up, not out, precious waterfront property can be maximized in terms of usage and revenue for marina owners.

In addition to increasing revenue, the vertical storage system is cleaner and quieter. By using Magnetek's automated systems, the use of forklifts traditionally used to remove boats from the water and stack them can be eliminated. These forklifts may also lose lifting capacity after a certain height and are unable to lift the heaviest boats. Magnetek's engineered system for marina applications does not have these limitations.

Also, as an added benefit for marina and boat owners, the system is gentler on boat hulls; it virtually eliminates the hull and gel-coat damage typically associated with forklifts. Magnetek's crane control system doesn't emit soot and grease, and is quieter than traditional forklift boat stacking operations. Finally, indoor storage offers protection from salt air, salt water and the sun's UV rays.