



CASE STUDY

VOITH HYDRO

OFFICES & MACHINE ENCLOSURES

PROJECT NAME

Voith Hydro - Moving Wall Machine Enclosure, with Remote

LOCATION

New Martinsville, West Virginia
(Along the Ohio River)

ENCLOSURE TYPE

Automated Machinery

PROJECT DETAILS

Allied Modular was commissioned to design and manufacture a 60'L x 40'W x 20'H modular, machine enclosure for Voith Hydro. The enclosure would be constructed to house and repair several massive hydro-rings from the Hannibal Locks and Dam, a hydropower station located in Martinsville West Virginia, along the Ohio River.

SCOPE OF WORK

This project presented many unique opportunities for Allied Modular to demonstrate our thirty years of modular machine enclosure experience. The project scope of work included:

- Design and manufacturing of a 48,000 cubic foot modular enclosure with retractable walls for crane access.
- When retracted, the opening needed to be wide enough to allow access for an 18-foot-wide hydro ring.
- The enclosure required an integrated, two-story office building that would be used to monitor the operations within the enclosure.



CHALLENGES

Voith required a two-story office installed in the center of the machine enclosure. The office would house staff who would oversee the repairs on the massive hydro rings. The dimensions requested were for a 40'W x 20'L structure. Positioning an office in the center of the machine enclosure presented some engineering challenges. Ultimately, the decision was made to design a retracting wall system on each end of the office. The retractable walls would integrate with the office's roof and operate via remote control with each side retracting over the office structure. When open, the retractable walls would allow for the placement of the 18-foot hydro rings within each enclosure.

When engineering the moving wall system, special care was taken to ensure all electrical and mechanical remained continuously functional during the moving of the wall systems.

Additionally, a system had to be devised to prevent both walls from being retracted simultaneously.



INTERESTING POINTS

Allied Modular worked extensively with the engineers at Voith not only to design the enclosure and controls, but to make assembly easy for their staff. During the install process, Voith never needed to contact Allied Modular. It was assumed that work had not begun; however when contacted, Voith reported they had already completed the install.

CONTACT US

Allied Modular Building Systems

642 W Nicolas Ave
Orange, CA 92868

Phone: 1-888-836-7850
Fax: 1-800-588-6792

Email: sales@alliedmodular.com

Hours: Monday - Friday 7AM-5PM