



## Voith Hydro 13.2m Dorries VTL

### PROJECT:

A complete electrical rebuild and retrofit of a 13.2m Dorries VTL

### CUSTOMER:

Voith Hydro: York, Pennsylvania.

Voith Hydro is a supplier of advanced hydroelectric equipment, technology and services in the renewal energy market. Their North American headquarters in York are home to one of the world's largest dedicated hydro turbine equipment manufacturing facilities.

### OVERVIEW:

In spring 2008, Team Machine Tools was asked to undertake a complete electrical rebuild and retrofit of Voith Hydro's 13.2m Dorries VTL. While Team had worked with Voith previously on smaller machines such as their 3M VTL, this project was of a much bigger magnitude, as the 13.2m VTL is one of the five largest machines in North America.

And to make the project even more challenging, there was a time frame of 10 weeks to install the new components, as this VTL was central to Voith Hydro's manufacturing and its downtime had to be minimal.

### PROJECT MILESTONES:

To meet the timeline of 10 weeks, Team did all the designs and preparatory work at their own facility far in advance of the actual installation.

Once on site, Team Machine replaced all the VTL's original electrical components, including a new Siemens 840D CNC system, new servo and spindle motors and drives, two operator panels, complete new wiring, and also integrated the original 100 KW DC table motor with a new drive and system.

To increase the machine's reliability (and as an added-value), Team also calibrated the scales and motors separately, so the machine could operate accurately if the linear scale should fail.

At the machine's retrofit completion, it achieved C-axis positioning with a +/- 2 arc seconds with table capacity up to 300 tons.

### PROJECT OUTCOME:

The customized electrical refit of the 13.2 VTL resulted in a completely updated machine that was now running at optimal performance.

As the minimum downtime of this VTL was vital, Team was given 10 weeks to install the new components. Team Machine completed the job in 7 weeks and met all Voith Hydro's in-house health and safety requirements as well as all commercial issues.

Voith Hydro was extremely satisfied with the retrofit project and as a result, referred Team Machine to other customers.

