



**Spiral Pipe Mill  
Feedback System Design and Prototyping**

VGO was retained to design and prototype a feedback system for a spiral pipe rolling mill.

The mill produces large diameter spiral pipe by helically welding continuous sheet steel. The process requires high forces and complex equipment to maintain alignment and account for inconsistencies in the sheet steel.

In order to aid in setup and diagnostics, a system for providing real time feedback to operators as to the force and displacements in the system was necessary.

VGO utilized a combination of Finite Element Analysis (FEA), laboratory testing, and field data acquisition to design sensors and systems which provided sufficient signal resolution.

The completed system established a template for future instrumentation of other equipment.

