

### Background

The forming section of a paper machine, often referred to as the “wet end,” is where a slurry of fibers are filtered onto a continuous fabric loop to form a wet web of fiber, which is later pressed and dried to form a solid sheet in the paper-making process.

As the name implies, the wet end is a damp environment, creating harsh conditions for the materials and equipment used in the forming section of the paper machine. Further, as many as fifteen different chemicals can be used in this section of the process. All this results in a challenging environment that requires ongoing attention from those tasked with maintaining and operating the paper machine.



*Paper machine forming section, or “wet end”*

### Solution

Recognizing the opportunity to extend service life in these conditions, Control Southern designed a control valve assembly tailored to resist these harsh conditions. The combination of a stainless steel Fisher® Vee-Ball control valve and an all-stainless steel QTRCO actuator makes for an unbeatable design for this tough environment.

### Results

One customer had begun to “valve out” these wet end vacuum system valves due to poor control resulting from rust and actuator air leaks. Having used traditional cast iron material actuators that required replacement every 2 to 3 years, this customer jumped at the opportunity to address this challenge with an all-stainless steel product solution. This positive change significantly reduced work order frequency and labor associated with maintenance events. Wet end operation also improved since the valves were returned to service and tuned for peak performance using Fisher FIELDVUE™ digital valve controllers.

#### BEFORE



*(TOP VIEW) The existing actuator experienced significant damage due to the harsh operating environment.*

#### AFTER



*(SIDE VIEW) The all stainless steel replacement assembly has significantly improved operational performance for this application.*