

CASE STUDY

# A Change to Twist-Lok™ Elements Improved Efficiencies and Saved Money

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ENERGY COMPANIES IN NORTH  
AMERICA EXPERIENCED SIGNIFICANT  
IMPROVEMENTS BY SWITCHING TO  
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Elements form an essential part of the filtration process and are a consumable item that need to be maintained with a consistent change-out schedule.

A leading midstream services provider operates an expansive gathering system, with approximately 4,500 miles of natural gas gathering pipelines, located across nine counties within the Permian Basin in West Texas.

### THE CHALLENGE

Differential pressure is used to detect a contaminated or clogged filter and is a vital part of an efficient operation. As filters collect contaminants, pressure builds. When filters become clogged with particles, the differential pressure increases, and the operator can determine if the filter needs to be replaced.

Because there was little differential pressure, process operators were unable to determine when the cartridges needed to be changed. Therefore, filter elements were being changed prematurely which resulted in higher costs and increased downtime. To add to the challenge, the filters had two media options that did not meet the required micron efficiencies rating.

### THE SOLUTION

Jonell Systems engineers identified the issues and proposed Twist-LOK™ elements. The innovative elements fit into existing housing and have multiple media options available to best suit the application. Due to the versatile media options of the Twist-LOK™, Jonell constructed a media solution that improved their overall processes.

Designed to remove liquid and solid contaminants from natural and process gas, the assembled Twist-LOK™ cartridge provides a first stage 'outside-to-inside' flow direction filter element and a second stage 'inside-to-outside' flow coalesce element.

Twist-LOK™ uses a patent-pending gradient fit sealing system that includes multiple sealing points which have proven essential to the field in successfully reading differential pressures. This results in a greater ability to seal and reach terminal pressure even when risers are out of round or bent.

### THE RESULT

The media option from Jonell Systems was better suited to the process and removed more liquids and salts than the previous cartridge. The differential pressure readings guided the customer to optimize a change-out schedule which allowed them to replace only the side in need. By switching to Twist-LOK™, the provider received a superior filtration process and was able to incorporate a controlled maintenance schedule which led to decreases in operational downtimes and maintenance costs.

