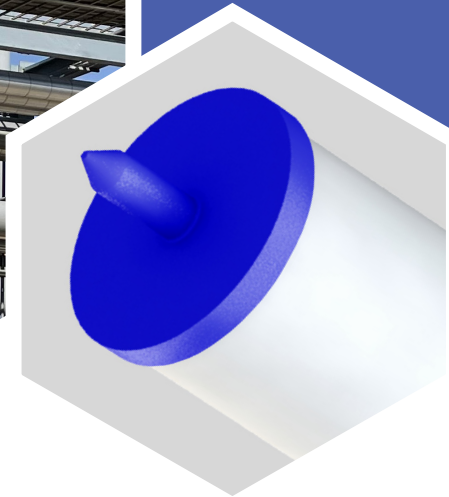
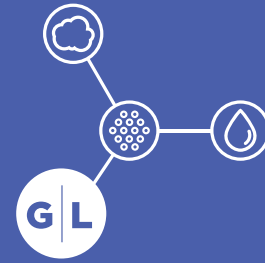




CYPHON® 46 SERIES



## FTC Cyphon® 46 Solution for Fortune 500 Natural Gas Pipeline Transportation Company

### PROBLEM

---

One of the largest independent midstream infrastructure companies in the United States engaged in the gathering, compressing, treating, processing, and selling of natural gas was experiencing performance and safety issues. At one of its plants in the Permian Basin, compressor lubricating oils entrained in the plant inlet gas were bypassing their inlet coalescer and contaminating the amine system, resulting in foaming of the amine. In addition, extraction of the elements necessitated the unsafe and forceful use of a rope, winch, or vehicle that put employees at risk for workplace injury.



Before (left) and after (right) Cyphon 46 elements were in service for 60 hours.

Measurable liquids were almost immediately seen in the first and second stage sight glasses after the Cyphon 46 elements were installed.

## ANALYSIS

The design of the coalescer element then-used by the company carried an inherent design flaw that allowed the bypass of liquid contamination and lubricating oils to travel downstream. The coalescer vessel sight glasses showed that very little to no liquid was dropping out of the coalescers into the two liquid sump inlet chambers, proven by cracked and peeling solids on the sight glass from lack of moisture. Furthermore, the removal of filters from the pressure vessel was very difficult due to a combination of solids buildup on the seal location caused by the bypass at the seal and the swelling of the seals from rapid gas decompression. Additionally, the polyester depth coalescer media was fragmenting off the element, resulting in noncompatible fibrous polyester migrating downstream and contaminating the amine unit.

## SOLUTION

To enhance performance, safety issues, and fluid quality downstream, FTC recommended a cost-effective solution that encompassed a pre-filtration element and a high-efficiency coalescer in a single element. FTC's proprietary Cyphon 46 high-efficiency, micro-fiber pleated coalescing media would reliably intercept unwanted liquid contaminants from the gas stream and also increase the capacity for such contaminants.

Additionally, its patent pending Versa® seal technology would eliminate bypass at the seal and allow for easy extraction of the elements, mitigating safety concerns.

## RESULTS

Following the pivot to Cyphon 46 elements, which carry gas micron ratings of 0.3 micron @ 99.98%, the midstream infrastructure company reported an immediate improvement in performance and safety. The customer was tremendously pleased with the results, as the new coalescing elements fit the OEM housing perfectly without modification. Performance quality was enhanced as a result of the increased efficiency and capacity for the removal of solid and liquid contaminants. Measurable liquids were almost immediately seen in the first and second stage sight glasses eliminating downstream liquid contamination. Importantly, and as a critical factor to the plant, Versa's self-releasing seal design was aligned with the customer's focus on environmental, health and safety via one quick pull to unlock its novel sliding mechanism for simple extraction by hand without force, special tools, or unsafe field operations. Reflecting the exceptional performance of FTC's solution, the customer committed to converting all the housings at that gas plant and to expand the solution to its sister facilities.

## ABOUT FTC

Filtration Technology Corporation (FTC) has an impressive history of developing and delivering innovative filtration and separation products and solutions since 1987. FTC's extensive line of proprietary and industry-standard products covers liquid-solids filtration, gas-liquid separation, liquid-liquid separation, and gas-solids filtration. The company's ongoing development of game-changing products has propelled FTC to the enviable forefront of filtration technology with a proven track record of enhancing operations, improving processes, reducing downtime, and boosting quality control for valued clients in a wide range of industries.