

## **Renewable Natural Gas (RNG) - Primary**

### ***The Equipment***

Suction Blower / Compressor

### ***The Challenge***

A large Renewable Natural Gas producer in the U.S. required moisture and particulate removal to primarily treat their biogas. These filters are for the inlet of a compressor that has a gas stream of Methane, Nitrogen, Water, H<sub>2</sub>S, and CO<sub>2</sub>. This filtration is one of the initial steps in treating the biogas in order to upgrade it to Renewable Natural Gas.

### ***The Solution***

Solberg's engineering team reviewed the biogas process data and designed an element and filter vessel to satisfy the application and site-specific layout requirements. The element and filter vessel construction consisted of stainless steel metallic components to handle the H<sub>2</sub>S that is present in the gas stream. The element contained a specific core to meet a burst pressure rating. The media selected can handle the water present and meet the particulate/contaminant size and efficiency requirements while maintaining a very low differential pressure. Precise element pleat height and spacing were optimized to promote maximum loading potential and element longevity.

### ***Results***

Integrating a Solberg-supplied solution accomplished the task of capturing the desired particulate while maintaining a low differential pressure. The Stainless Steel construction is critical to maintaining element integrity and longevity while exposed to H<sub>2</sub>S. Custom supports and dimensionally specific inlet and outlet locations allowed for a seamless drop-in solution. Additional units have been procured for more installs at existing sites.



Rev: RNGBIO US0723J