

## FOR IMMEDIATE RELEASE:

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Fluid Quip Technologies Starts-up Fifth MSC™ System at Green Plains Shenandoah, IA Completing First Step of Green Plains Ethanol Facility Diversification Strategy

The Fluid Quip Technologies (FQT) Maximum Stillage Co-Products MSC™ system start up commenced at the Green Plains Shenandoah, IA Ethanol Facility. The MSC™ protein separation system began operations producing 50% Still Pro 50™ protein within 24 hours of startup. This marks the fifth MSC™ system operating, globally, with three additional MSC™ systems currently under construction.

"We are excited to implement this technology across our platform and collaborate with our biotechnology partners to further increase margins and add value to the products we produce." said Todd Becker, president and chief executive officer of Green Plains. GP selected the patented FQT MSC™ technology as part of the GP diversification strategy into high-value protein products. FQT provided the MSC™ technology, engineering, core equipment, construction management, and startup and training for the Shenandoah system.

Plants running the MSC™ protein system continue to operate profitably, during these low margin periods, due to the highly profitable 50% protein product which is sold as a high value functional feed ingredient. "A 15 to 20 cent per gallon margin uplift for any plant, is a stay-in-business advantage for any plant right now," says **Neal Jakel**, FQT Partner, Strategy and Development. "This technology is truly a game changer for plants to diversify their revenue stream from the volatile corn and ethanol commodity markets. Leaders in the industry like Green Plains recognize that a diversification strategy is one of the best ways to achieve robust and predictable margins."

In 2019 the Green Plains organization, led by CEO Todd Becker, made the decision to further diversify their ethanol facilities, to insulate revenue generation from the energy market pitfalls. Shenandoah is the first GP plant to have the MSC™ system installed and the first one operational. A second GP Ethanol facility is currently undergoing installation of the FQT MSC™ system and is expected to come online later this year.

The GP Shenandoah plant processes approximately 26 million bushels of corn annually to produce 75 million gallons of ethanol as well as distillers' grains and distillers corn oil. With MSC™, the plant will diversify to produce 50,000 tons of include the new high-value protein coproduct, increase distillers corn oil yield up to 20%, and also achieve overall plant capacity gains, without sacrificing DDGs quality.

## **Innovative Technology**

FQT leveraged its years of experience in the corn wet milling and ethanol industries to develop the MSC technology. Fluid Quip Technologies developed the patented MSC technology exclusively for dry mill ethanol plants to produce high-value co-products. The bolt-on technology uses a series of mechanical processes to separate protein from the solids after ethanol distillation. Centrifuges are used to isolate protein from residual fiber and carbohydrates. Once the protein is isolated, it is sent to a protein dryer where it is dried into a high-quality meal.





## **About FQT**

Fluid Quip Technologies® is headquartered in Cedar Rapids, Iowa, and has provided technologies for more than 2.3 + billion gallons per year of biofuels production. FQT was founded on the extensive experience and knowhow within the corn wet milling, ethanol and related ag production industries. The engineering and technical leadership team have been developing and implementing new technologies and process solutions applicable to the biofuels and biochemical markets for more than 30 years. FQT has commercialized multiple patented and patent-pending technologies to enhance the base corn-to-ethanol dry grind process, create new and novel alternative co-products, and supply the growing need for carbohydrate feed stocks into the biochemical market.

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