BLAZE® TECHNOLOGY

MULTI-PHASE CHARGE PUMP

EXCLUSIVE TECHNOLOGY

Produce High GVF Volumes Without Sacrificing Reliability

In today's multi-phase production flow regime, deploying leading-edge solutions for high gas volume fraction (GVF) wells is critical to enhancing the life of your ESP and improving reservoir drawdown.

Successfully deployed around the world, the Multi-Phase Charge Pump (MPCP) is famous for reliably producing up to 75% free gas - far exceeding the 40% free gas limitations of a conventional tapered ESP design alone.

The MPCP has increased the economic viability of high GVF wells and reduced the production losses associated with switching from ESP to other forms of artificial lift.

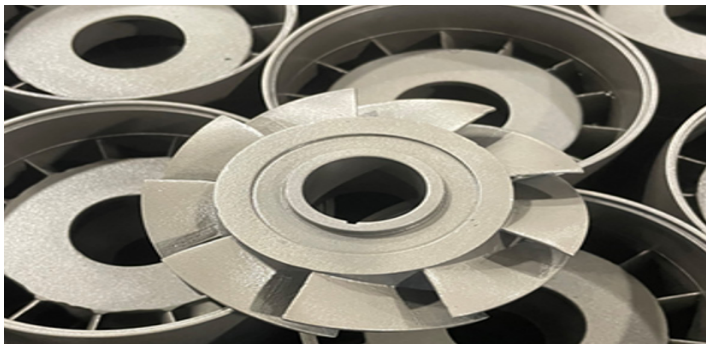
While the MPCP excels at producing gas, it has historically been less efficient at producing solids. In high GVF sandy applications, sand (being denser than the produced fluid) disproportionately collects between the impeller diffuser wall thus leading to wear. As wear increases, the pump's ability to produce head decreases, significantly reducing the effectiveness of the pump.

This known issue has kept this pump from having a significant impact on unconventional assets until now.

A Solution for High GVF Sandy Applications

ELS has addressed this challenge by incorporating our exclusive BLAZE® technolgy into the MPCP, increasing the abrasion resistance of the pump by up to 4X.

By combining the benefits of BLAZE with the proven gas handling of helical pump technology, we can now produce high GVF volumes without sacrificing reliability in sandy applications.



ADVANTAGES

- Capable of handling up to 75% GVF
- Increases production by allowing increased drawdown
- Stabilizes pump operation and increases reliability and runtime at lower PIP by eliminating or reducing gas lock events
- Increases motor run life and reliability by eliminating or reducing overheating events

DESIGN FEATURES

- BLAZE impellers, diffusers and flow conditioner increase run life in sandy applications
- Flow conditioner to reduce gas separation and harmonize flow, reducing the head de-rate of the production pump
- 1:1 bearing ratio

POTENTIAL APPLICATIONS

- Oil wells with excessive free gas volume 40% or greater
- Shale oil applications
- Up dip horizontal wells that slug
- Gas well dewatering
- Oil wells with non-vented packers

Contact your local representative for more information on ESP products and services.