

REAL™ Horizontal Gas Separator (Patent Pending)

The REAL™ Horizontal Gas Separator is the second part of a complete system designed for efficient artificial lift and maximizing drawdown in horizontal wellbores. In addition to directing gas up the annulus, the REAL™ Horizontal Gas Separator is the only system that conditions the flow entering pump intake - controlling the flow regime in the horizontal, build and vertical sections of the wellbore.

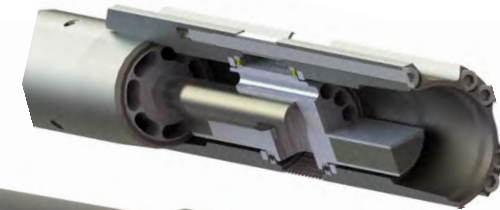
REAL™ Horizontal Gas Separator can be paired with various artificial lift methods, from reciprocating pump to ESPs.

Slugging and surging of fluids can cause inconsistent pump efficiency. The REAL™ Horizontal Gas Separator allows operators to maximize draw down and production rates for all applications. In order to condition the flow to create high quality fluid at pump intake, the REAL™ dampens fluid slugs, mitigates gas-entrained liquids (foam) creation, and pairs horizontal retention with a weighted intake port to ensure only the best quality of fluid at the bottom of the casing is drawn into the pump. This system is highly effective in wells that have a propensity to gas lock, have high gas interference, or struggle with formation back pressure and inefficient pumping due to entrained gas.

REVEAL™ (Patent Pending)
SLUG CATCHERS / GAS
OUTLET



RT SEALING /STABBING
ASSEMBLY (Patent Pending)

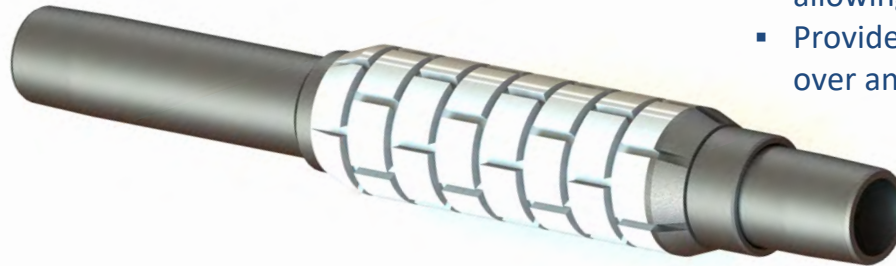


FLUIDSEEKER™ (Patent Pending)

WAVEBREAKER™ (Patent Pending)



WAVEBREAKER™
(Patent Pending)



* not a pack-off

- First line of defense, dampens slugging/surging inflow, inducing calm fluid from separator intake onwards
- Acts as a dam in the horizontal retention section, allowing quality fluid to build a level
- Provides a *tortuous path for gas and liquids to pass over and around it, assisting in gas breakout

FLUIDSEEKER™ (Patent Pending)



- Isolated, weighted intake orients to bottom of annulus
- Accesses only the best quality of fluid that has built up against the Wavebreaker™.

REVEAL™ SLUG CATCHERS (Patent Pending)

- Permits gravity separation and fluid retention in wellbore and micro-annulus
- Outlet ports combined with horizontal geometry allow gas that entered the separator (both free and in-solution) to break out and enter the annulus
- Reduces superficial gas velocity, mitigating entrained gas (foam) inducing calm, dense fluid flow back to Fluidseeker™ intake

RT SEALING ASSEMBLY (Patent Pending)

- Direct conduit from Fluidseeker™ to artificial lift intake, ensuring pathway for quality fluid production
- Artificial lift dip tube stabs into seating assembly for simple landing and retrieval