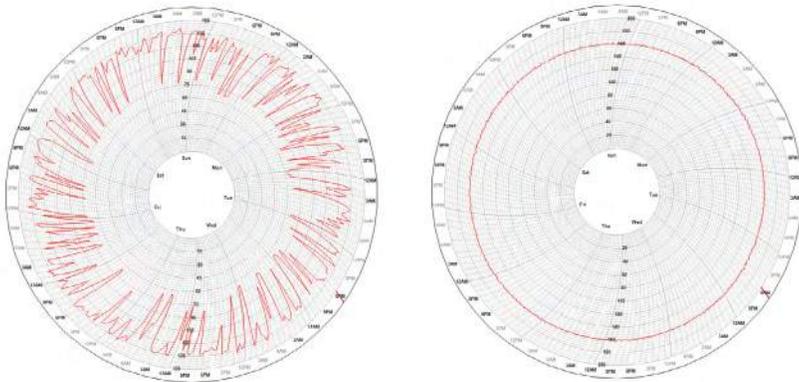
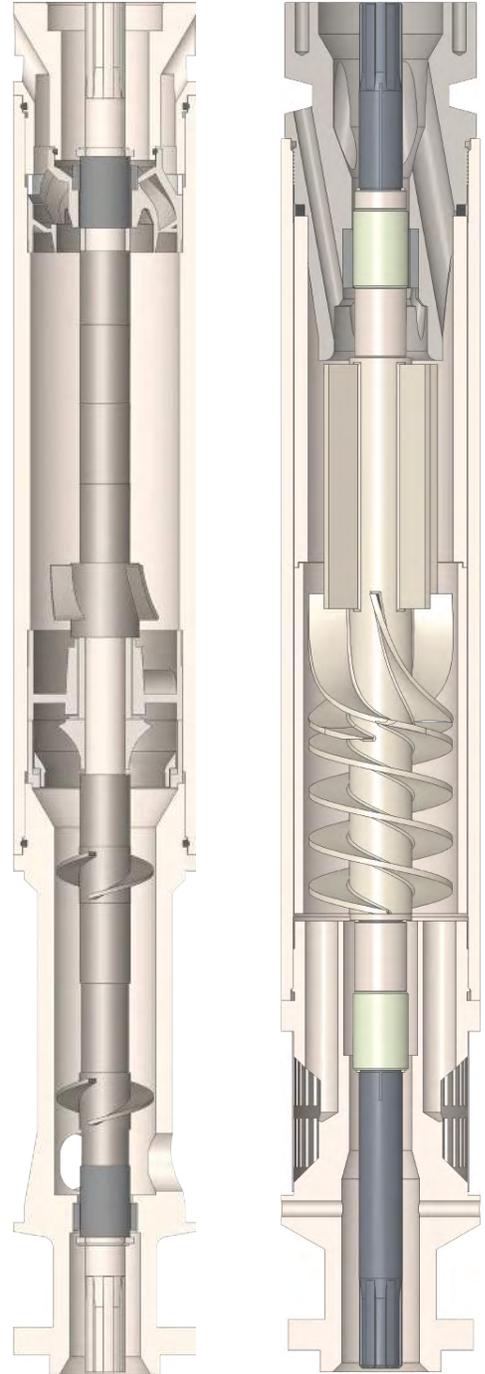


WHIRLAWAY™ Gas Handling

Increased Uptime and Run Life in High-Gas Wells

WHIRLAWAY™ Gas Handling devices are designed to improve the performance, increase the longevity and enhance the return on investment (ROI) of an UNBRIDLED™ ESP System. WHIRLAWAY™ Rotary and Vortex Gas Separators effectively isolate and expel free gas to the annulus in order to reduce free gas volumes from entering the BLACKGOLD™ or GRINDSTONE™ Pumps. Gas separation applications increase well uptime and ROI by preserving pump performance and wear on the equipment. The WHIRLAWAY™ Gas Handling devices will provide optimized maximum production and increased pump performance with lower drawdown, decreased gas locking and reduced gas interference. Ultimately, WHIRLAWAY™ Gas Handling devices are cost efficient and result in more uptime.



WHIRLAWAY™ GAS HANDLING

- 338, 400, 513 sizes
- Standard or corrosion resistant metallurgies
- High strength shaft options for higher horsepower applications

Rotary Gas Separator

The WHIRLAWAY™ Rotary Gas Separator is highly effective in gas separation for declining wells that have a high gas to oil ratio (GOR) or gas to liquid ratio (GLR). Features include corrosion-resistant metallurgies and enhanced radial bearings. This higher standard provides significantly better wear characteristics, which assures longer runtimes, reduced gas interference, and ultimately fewer interventions.



Vortex Gas Separator

The WHIRLAWAY™ Vortex Gas Separator provides an additional tier of gas separation for applications in harsh environments. Providing more effective gas separation with higher flow rate capacity, Vortex Gas Separators operate at an extended flow range with greater efficiency. The WHIRLAWAY™ Vortex design is better for handling abrasive solids which increases uptime and reduces interventions of the system. The Vortex is also available with corrosion-resistant metallurgies and high strength shafts.

Advanced Gas Handling Capabilities

In order to lower the risk of gas locking and to keep ESP systems running reliably, Dover has engineered a number of innovative gas handling solutions. A recent innovation, the WHIRLAWAY™ 400GKX, is a robust, low bottomhole pressure device designed to condition wellbore fluids for the lift pumps.

The corrosion- and abrasion-resistant device homogenizes the fluid and increases the internal pressure, which serves to break up large gas slugs while encouraging free gas back into solution. The device can reliably process fluids containing more than 40% free gas. And when the 400GKX is used in conjunction with tandem WHIRLAWAY™ Gas Separators, a formidable gas handling system is created that yields several important benefits:

- Reduced gas locking in pumps
- Lower wellbore draw downs
- Increased pump uptime and longer pump life
- Reduced lease operating expenses (LOEs)
- Enhanced operator financial performance on a well-by-well basis.