# Crescent DualSPIN™





Dubai, United Arab Emirates





After many years of development, research and product testing, Crescent has developed the new DualSPIN™ deoiling hydrocyclone liner.

Manufactured using the latest state-of-the-art machining techniques, the Crescent DualSPIN™ liner is now the most efficient hydrocyclone liner on the market.



By using this modern new technology, Crescent is able to machine a superior inlet into the liner, coupled with its highly engineered internal profile throughout the liner, enabling the highest efficiency of oil removal to date.

For optimal performance, deoiler hydrocyclones require precisely maintained pressure differentials. The oil-water mixture is introduced tangentially into the Deoiler liner via the inlet slot(s).

# **Product Benefits**

## Compact design, replacing substantially larger equipment.

- y Increased hardness on the inlet section combats erosion from solid particles entering.
- No moving parts and minimal maintenance.
- No special tools needed to remove and replace.
- Can be designed to replace existing manufacturers' liners, improving process performance.
- Outlet oil content reduced significantly.
- Available in a range of alloys from Stainless Steel to Super Duplex, Inconels, and Titanium.















The shape and velocity of the incoming flow initiate a vortex motion, causing the mixture to spin. As the diameter within the liner narrows, the rotational acceleration increases. It is this diameter reduction within the liner that makes the Crescent DualSPIN™ unique in its increased performance. This spinning flow pattern generates centrifugal forces, which facilitate the separation of the two liquids: oil and water. The denser water is pushed outward against the liner's inner wall, allowing the lighter oil to rise toward the center, forming a thin oil core.





#### Over 50 Years of Produced Water **Treatment Experience**

Crescent Engineering has been trusted for over five decades to deliver advanced, efficient separation solutions to the energy sector.



### **Easily Upgrade Poor-Performing Liners**

Crescent DuelSPIN can be machined to match your existing tubesheet openings and dimensions - seamless integration, improved performance.

The heavier water exits through the tube, creating the underflow stream. By managing the pressure differentials across the liner, the lighter oil is compelled to move in the opposite direction, forming the core. This oil core is then directed through a centrally located top opening, resulting in the overflow or reject stream. The outcome is a straightforward yet efficient separator, operating with minimal residence time and featuring no moving parts.

The design of the DualSPIN™ hydrocyclone is engineered for both performance and exceptionally low maintenance requirements. It contains no moving parts, and the materials used in its construction have been specifically selected for their erosion resistance. Moreover, it offers multiple options for flow turndown.

Unlike many other liners, it requires no special tools for removal and replacement when swapping active liners for blank liners.

All our DualSPIN™ liners can be machined to match existing operators' tubesheet openings and end-to-end dimensions, meaning any existing operators can easily upgrade and replace poor performing liners.









