

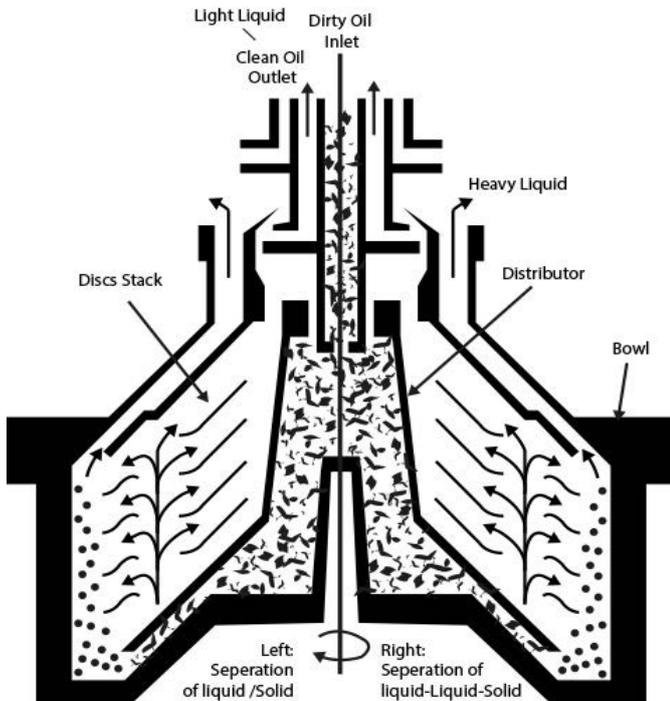
CASE:

Iceblasting of 260 Centrifugal Separator Dishes

- Ultra clean surface means everything performing ceramic coating

Ocean Team Group were to clean 260 greasy centrifugal separator dishes until they matched the highest standard of cleanliness prior to further improvement of a ceramic coating. The dishes are included in oil production, stacked to separate oil from water.

During refining processes, oil runs downward towards the separator and then back up through the dish holes. To avoid the oil raw material from sticking to the surface and limit the production, it is obligatory to ceramically coat the dishes. A ceramic coating though, is only performed if the dishes are completely free of fat, grease, particles and residue chemicals. The cleaner the centrifuge the faster and more efficient it will help separate oil and water. Ocean Team Group offers grand expertise and experience in cleaning without damaging the fragile surface.



▲ Separator - The dirty oil moves downwards towards the separator and back up through the dish holes and can easily stick to all surfaces.



▲ Iceblasting at the OTG workshop

Alternative Cleaning Methods

For a customer it is not easy to find the immediate and most environmentally friendly cleaning solution capable of dissolving micro sized grease particles without a subsequently necessary mechanical cleaning. It will both take time and the result is often not useable for efficient further production.

Sandblasting will damage the dishes to a degree, where a ceramic coating is not possible.

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Iceblasting - Gentle and Efficient

The iceblasting method does not affect the environment nor does it damage the dish's surface. Dry ice is carbon dioxide in solid form, produced by expanding fluid CO₂. Purifying using this method is very efficient and as the equipment never touches the product, damages as wear and scratches are avoided.

Ocean Team consider iceblasting as the optimal and most effective solution to obtain customer required cleanliness standards.



▲ *Stuck and burned oil and dirt prevent ceramic coating. These visuals show one of the centrifugal dishes prior to, during and after iceblasting.*



▲ *Last part of the process - drying off thin film.*

Useful Knowledge

Each dish is cleaned time efficiently. Ocean Team ended up with a visual cleanliness exceeding expectations, but when performing a cleanliness test it indicated a thin film created by the extreme low temperatures from iceblasting. Even though the dish was clean to the eye, it was important to dry off the surface in order to reach the ultimate desired effect. Ocean Team Group returned the cleaned dishes for ceramic coating. As the newly coated dishes reentered in to production, they enabled a faster production pace, less repair expenses and, nonetheless, increased production efficiency.



▲ *The iceblasting work process*