

# INDUCED GAS FLOTATION



Enhydra's Induced Gas Flotation vessels are designed for polishing of produced water removing both emulsified oil droplets and fine solids particles. They are well proven for high performance separation.

Our flotation vessels are designed for a wide range of applications. Pressure, temperature, flow rates, oil/solids concentration and sludge handling capacity all affect the performance of flotation vessels. Each Enhydra flotation device is designed to meet the unique project challenges whilst delivering a compact and energy efficient solution.

## FEATURES AND BENEFITS

- Removal of free oil-in-water to less than 10ppm
- Removal of fine solids
- Unlimited turndown
- Suitable for high flow rates
- No moving devices or rotating parts
- Recirculation of clean water provides improved contact and performance
- Induced gas design with negligible gas consumption
- Micro Gas Bubble Flotation
- Optimised use of evolved gas when available
- Minimal pressure drop
- Sand jetting and removal

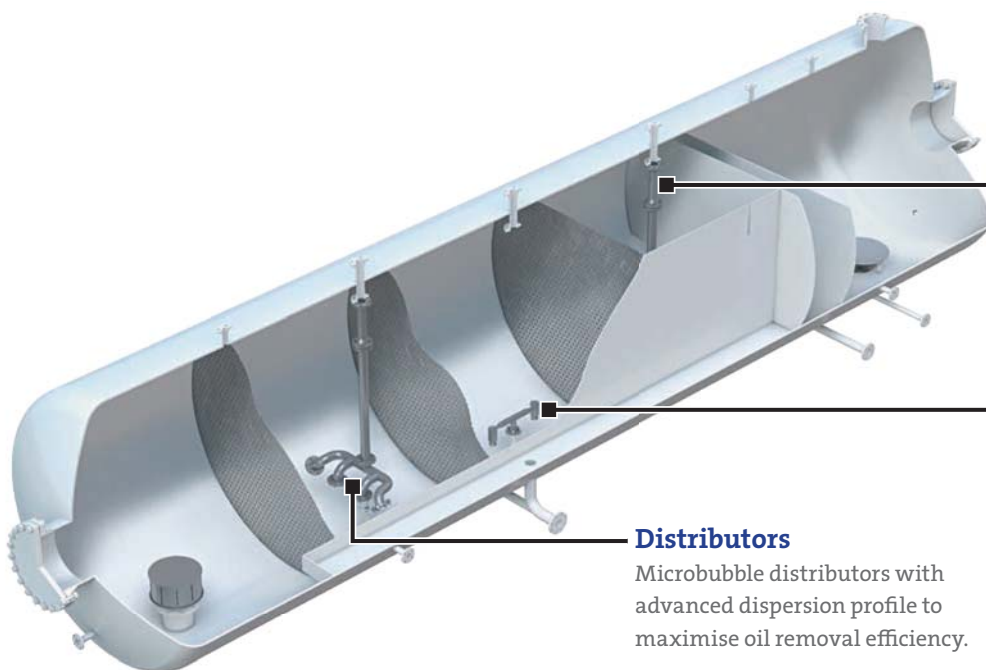
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## OPERATION

Our hydraulic Induced Gas Flotation systems operate by recycling cleaned water downstream of the IGF. Recycled water passes through eductors that draw fuel gas from the vessel head space and recirculate it for flotation. Recycled water flows to the bottom of the vessel through bespoke diffusers which generate micro gas bubbles to ensure efficient gas sparging of each flotation cell.

The entrained gas bubbles float oil droplets to the surface of the water where they form an unstable foam/scum. Gas is released into the vessel head space for recirculation the foam and oily water scum are removed by overflowing a weir into an oily water collection compartment.

Separation takes place in multiple flotation cells, the number of cells necessary is dependent upon the application and process conditions. Each flotation device is uniquely designed to meet the individual project challenges and outperforms other products.



### Eductor

Optimised gas entrainment ratio for high efficiency with minimal maintenance.



### Sand Jetting Internals

High performance nozzles for continuous online sand removal.

### Distributors

Microbubble distributors with advanced dispersion profile to maximise oil removal efficiency.