

## DYNAMIC CENTRIFUGAL COALESCER

The dynamic centrifugal coalescer increases the performance of produced water separation systems. It is a combination of centrifugal forces and coalescing effect. An element (core) consisting of thousands of tubes (pore size 0.4 - 1.4mm) is brought into rotation. The multi-phase liquid with different mass-densities passes through the Core. Because of the centrifugal forces, the droplets of the discontinuous phase coalesce on the walls of the tubes. Oil droplets >5 micron increase up to 200 micron. The DCC is a non-plugging coalescing technology and a proven solution technology for increasing performance of Produced water treatment.



### FEATURES & BENEFITS

- Straightforward centrifugal pump technology
- No absorbers, chemicals or consumables needed
- Collects droplets down to 1 micron
- Performs under varying conditions, with respect to volume flow, pressure, temperature, specific gravity and oil concentration
- Applicable for all oil/water separators (hydrocyclones, IGF, DAF, CPI, etc.)
- Compact design
- Allows for steep increase of hydraulic capacity of separators
- 3 models cover capacity range up to 200 m<sup>3</sup>/hr
- Ability to perform low cost, non-disruptive testing
- Limited capex and opex requirements
- Tolerant to high motion operation (FPSOs)
- Long operating life

### APPLICATIONS

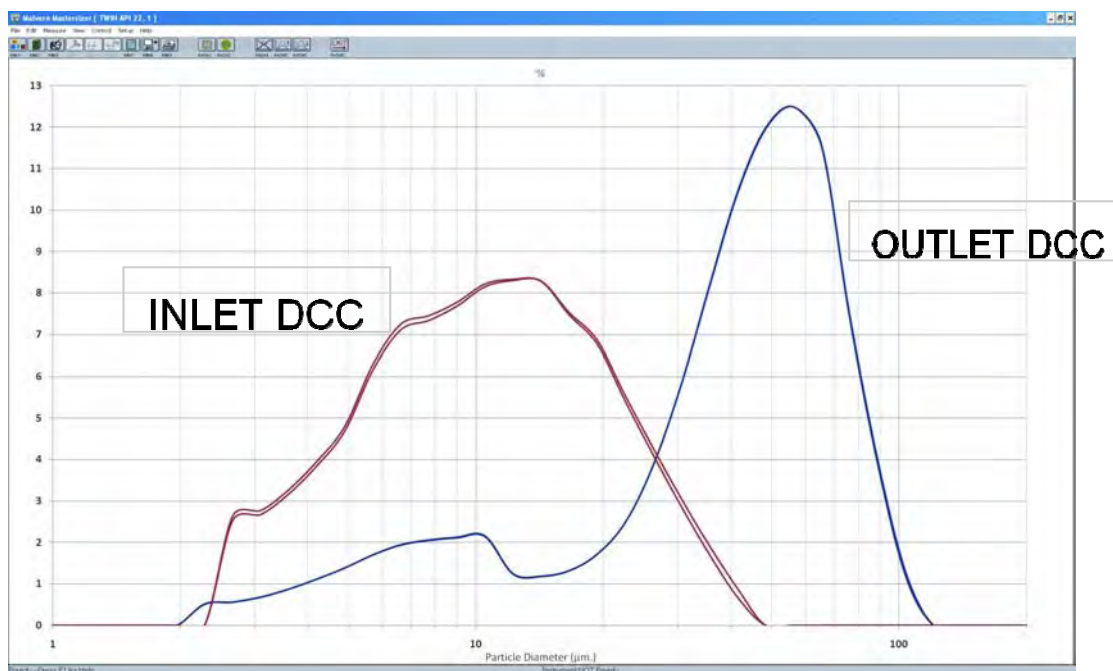
- Produced water treatment  
New system and upgrade existing systems
- Well testing
- Run-off water / Bilge water
- Slopwater treatment
- Frac fluids
- Waste water clean up

(OS507-05.0-2010 )

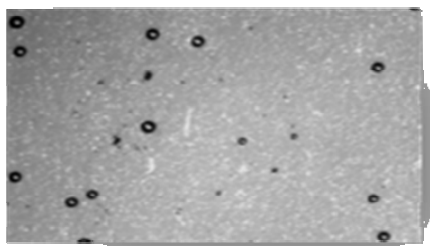
## TECHNICAL SPECIFICATIONS

Specifications	DCC-15	DCC-30	DCC-45
Capacities ranging from 1 to 100 m3/hr (6100 bpd)	1-10 m3/hr	15-80 m3/hr	50-200 m3/hr
Footprint	< 1 m2	< 2 m3	< 3 m3
Wet weight	< 100 kg	< 500 kg	< 1000 kg
Energy requirement per m3	< 0,3 kW	< 0,1 kW	< 0,1 kW
Horizontal with outer bearings on both sides		X	X
Vertical with outer bearings on both sides	X		
ATEX electric motor	X	X	X
Maximum operating temperature	90 °C	90 °C	90 °C
Maximum operating pressure	15 barg	30 barg	30 barg

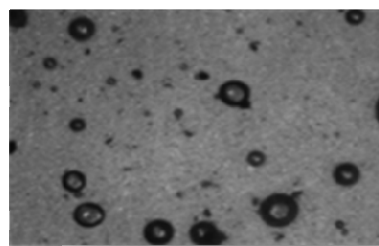
## OIL DROPLET SIZE DISTRIBUTION BEFORE AND AFTER DCC



Produced Water API 22 crude:  
200 ppm oil



**INLET DCC**



**OUTLET DCC**