

# HFM Bilge Separator (IMO Res. MEPC.107)

## 3<sup>rd</sup> Stage Coalescer

- When the pressure difference between 2<sup>nd</sup> and 3<sup>rd</sup> stages becomes more than 0.07 MPa(0.7bar), wash inside with steam or hot water.
- Overhaul and wash periodically every 6 months.
- Check the zinc anode every 6 months

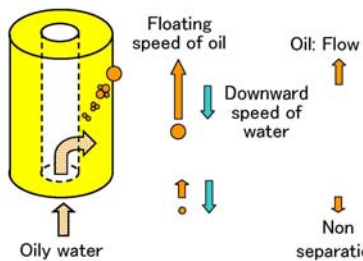
• More than 90% of de-emulsified oil is separated in this stage

## 4<sup>th</sup> Stage Fine Coalescer

- When the pressure difference between 3<sup>rd</sup> and 4<sup>th</sup> stages becomes more than 0.1 MPa (1bar), blow the surface with air.
- Replace the fine coalescer with spare unless the pressure difference drops to less than 0.1MPa(1bar).

- Fine coalescer is used
- Life of the coalescer is longer than a membrane or fine filter
- Separation principle is the same as the 3rd stage

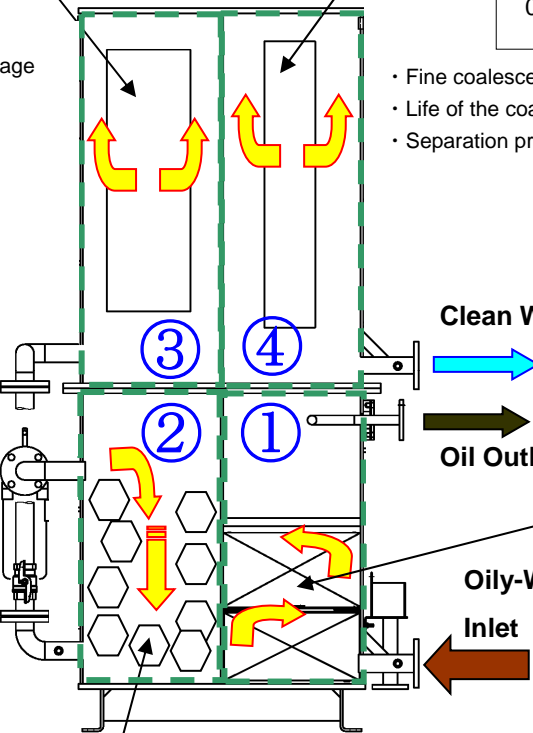
## Separation by Coalescer



Oil particles adhere to the coalescer element and combine with each other to form large drops

## Between 1<sup>st</sup> and 2<sup>nd</sup> stages T-shape Strainer

- When the pressure difference between 1st and 2nd stages becomes more than 0.04 MPa (0.4bar), clean the strainer inside by rotating the handle, during operation. The foreign matter is discharged out of the drain valve.



## 1<sup>st</sup> Stage Multiple Parallel Plates

- Overhaul this stage when 3<sup>rd</sup> stage is overhauled.
- Check the zinc anode every 6 months

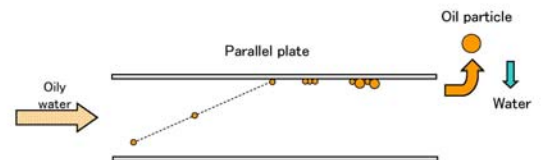
- No clogging in the parallel plates
- Separation of sludge and foreign matter due to very low flow speed

## 2<sup>nd</sup> Stage Emulsion Breaker

Filled quantity is to be checked once per 6 months and supplement the breaker if necessary. No need to wash nor replace.

- Emulsion breaking: Oil is de-emulsified as preparation for oil/water separation by the 3rd stage coalescer
- Patented Material
- Slow consumption rate
- No clogging
- Easy Maintenance

## Separation by Parallel Plates



\* Read our operation manual regarding detailed information of bilge separator.