

SEPARATION IN PERFECTION

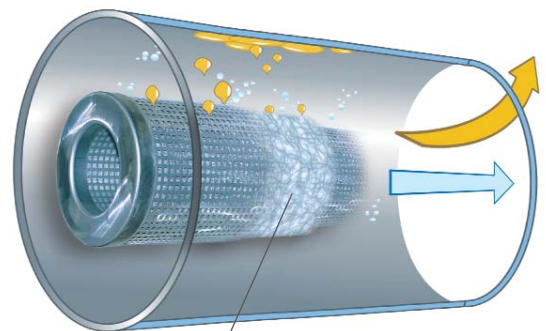
EFFICIENT FINEST DROPLET SEPARATION

MECHANICAL EMULSION BREAKER MESB



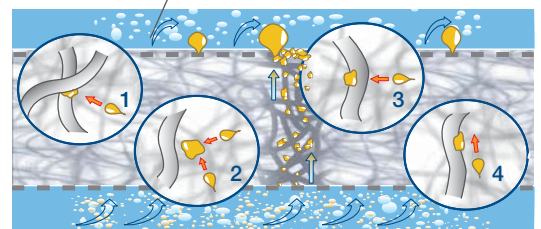
In process technology, coalescence is the flowing together of two drops or the dispersal of a droplet in the mother phase. Our emulsion breakers support this effect. They continuously group together dispersed droplets to form larger drops, which are then separated by gravity as a discontinuous phase from the main continuous phase.

When designing our systems, we incorporate all the relevant material and process data and the customer's performance specifications to provide an individual, customised solution. NFV units operate perfectly, even with droplets of only 1 µm diameter and viscosity differences of only 1% – and almost all kinds of liquid. The simple construction and chemical stability of the components means that they can even be used with aggressive or highly viscous media and at high operating temperatures.



Element inside a pressure tank

Principle of coalescence in a micro fibre bed



*1. Screen effective
2. Flow collision*

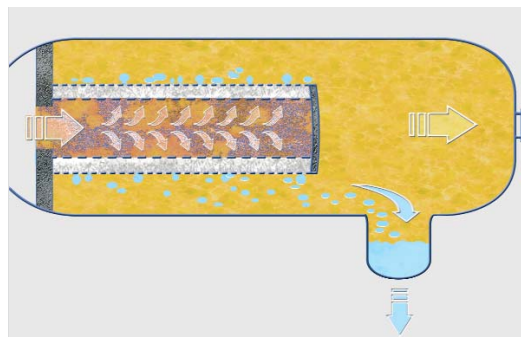
*3. Interception
4. Inertial impaction*

THE BASIC PRINCIPLE: COALESCENCE

HOW THE MESB FUNCTIONS

1st example: Water from oil

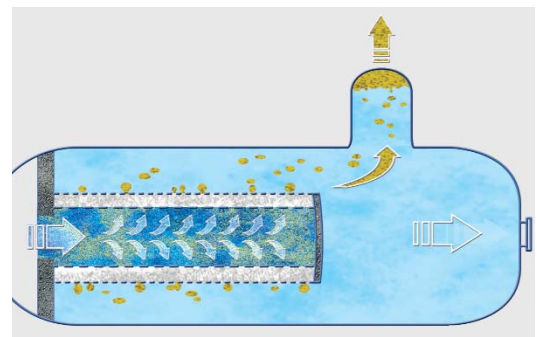
High demands are set on the purity grade of hydraulic oils, lubricants, control oils and fuels. As a component in oil and fuel treatment systems NFV finest droplet separators dependably separate any water droplets that have entered the oil through fine leaks or condensation.



2nd example: Oil from water

The separation of emulsified oil and water phases is essential for environmentally-friendly treatment and recovery.

NFV Emulsion Breakers use sortclean components and can be used even with highly contaminated media.





MESB 70



MESB 400/S

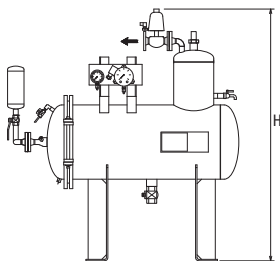


MPEB Deoiler 2000

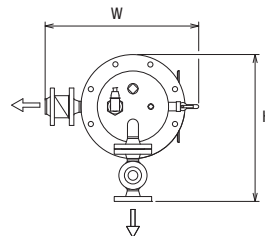
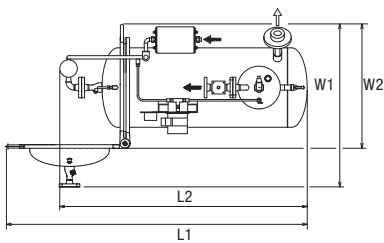
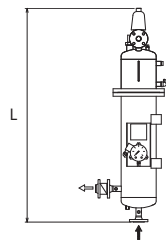


MPEB 5

Horizontal configuration MESB



Vertical configuration MESB-VT



MESB (l/h)	L1 (mm)	L2 (mm)	W1 (mm)	W2 (mm)	H* (mm)	MESB-VT (l/h)	L* (mm)	W (mm)	H (mm)
50	1400	1100	950	650	1150	50	800	300	300
100	1400	1100	950	650	1150	100	1100	400	500
250	1400	1100	950	650	1150	250	1200	400	500
500	1550	1250	950	650	1350	500	1700	500	500
1000	1750	1450	1100	800	1550	700	1700	1000	700

* incl. 300mm Service

Please note: the unit sizes listed here are guideline values which can change depending on the specific application.



MAHLE Industriefiltration

develops and builds advanced filtration and separation technology for use in a wide range of industrial applications and in power plants, civil and military ship-building.

The company is part of the MAHLE Group, one of the top 30 automotive suppliers globally and the world market leader for combustion engine components, systems and peripherals.

NFV and AKO products are used in the following applications:

- Bilge water deoiling
- Ballast water treatment
- Cooling lubricant and detergent processing
- Industrial waste water cleaning
- Separation systems (petrochem. industry)
- Oil and fuel treatment for engines, turbines and gears; heavy oil filtration
- Protection of hydraulic units, pipe lines, transfer and circulation systems

CUSTOMISED UNITS MODULAR AND COST-EFFECTIVE

We will fit all units or unit groups to comply with your precise process context. We use our many decades of experience and sophisticated computer-aided programmes to develop special material and process parameters for use in individual unit configurations.

Metal processing industry

Critical process media demand the utmost care during utilisation, recovery and disposal. You're on the safe side with NFV Emulsion Breakers for cooling lubricants, pressurised air condensate, washing units and detergents, and waste water contaminated with oil/heavy metals.

Chemical and petrochemical industry

The processes used in the primary industry demand high purity from contamination. Only a high level of fuel/oil treatment, waste water treatment and crude oil dewatering can ensure that the plant remains fully operative and capable of producing marketable products.

Power stations

Since the liberalisation of the energy industry, power plants are more and more under pressure to compete. NFV Emulsion Breakers optimise fuel/oil treatment, waste water treatment and cooling cycles. Our emulsion breakers extend the life-spans of units and the service life of oil used in turbines, transmission systems and transformers.

Shipping, marine operations

The future of shipping lies in clean vessels. NFV units for finest deoiling in special areas ≤ 5 ppm, condensate deoiling and fuel/oil treatment provide the best results that today's technology offers.





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