

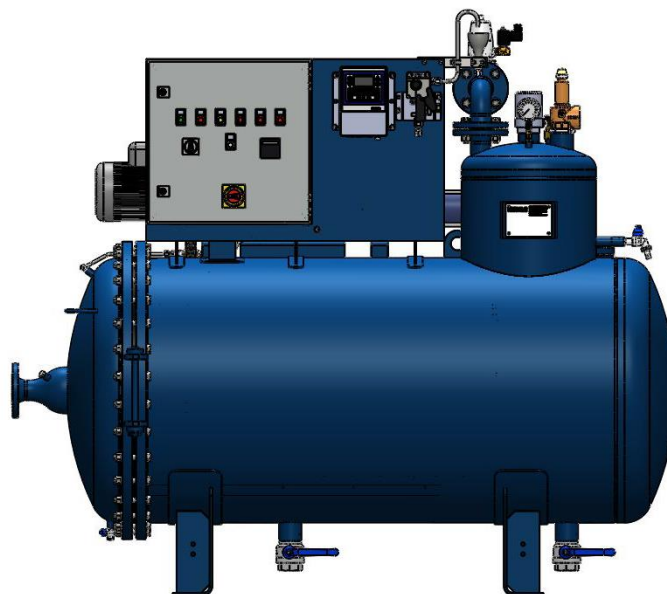
Oil-Water Separator MESB

Flow capacity: 1 m³/h to 100 m³/h

1. Brief description

Safe, fully automatic separation of oils from process water

- Use in industry, power stations and oil & gas
- Fully automatic operation
- Maximum effectiveness combined with long service times
- Mature technology and sturdy design
- High operational safety
- No chemicals
- Residual oil content down to less than 5 ppm
- Little space required thanks to compact design
- Low operating costs
- Low maintenance requirement
- Service-friendly and easy to use
- Global sales and service network in place



2. Function

The MESB (Mechanical Emulsion and Foam Breaker) is used for the separation of oil from different kinds of water.

The eccentric screw pump fitted to the system pumps the medium to the MESB, where it is separated. The tiny droplets of oil are grouped together in a microfibre bed (coalescence elements) to form large drops which then rise into the oil dome.

The oil is detected by a probe and discharged automatically. The medium at the MESB tank outlet is almost oil-free.

The service life of the coalescence elements is monitored using the differential pressure. If the differential pressure reaches 1.5 bar, the main alarm appears and the coalescence elements must be replaced.

3. Purpose

Medium:	Deoiling of water containing oil
Viscosity:	max.380 cST(at 100 °C)
Density:	max. 990 kg/m ³
Oil content inlet:	max. 1 – 2%
Oil content outlet:	down to ≤ 5ppm

4. Operating parameters

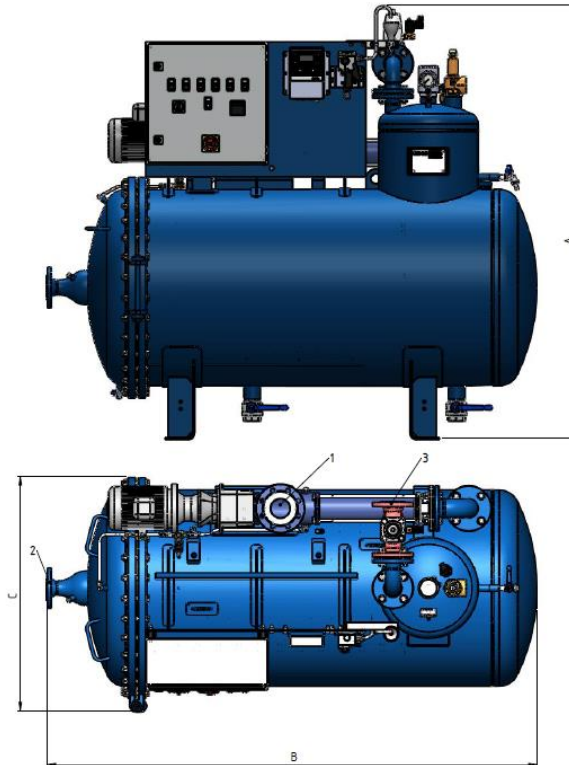
MESB type	1.0	2.5	5.0	10	20	50	100
Flow capacity [m ³ /h]	1.0	2.5	5.0	10	20	50	100
Ambient temperature [°C]	min. 2 - max. 55						
Operating temperature [°C]	min. 10 - max. 50						
Operating pressure [bar]	min. 0.7 - max. 3.5						
Pressure loss [bar]	max. 2.2						

5. Technical data

5.1 MESB type	1.0	2.5	5.0	10	20	50	100
Design pressure [bar]	3.5				6		
Design temperature [°C]	80						
Design code	GL / PED – AD2000						
Material	Steel						
Corrosion allowance [mm]	1						

5.2 Steel structure finishing	
Pipes:	Sand-blasted SA 2½, coated
Outside of tank:	Sand-blasted SA 2½, coated
Inside of tank:	Sand-blasted SA 2½
Colour:	RAL 5019
(double coating comprising primer coat and top coat – dry layer thickness: 120µm)	

6. Dimensions and main connections



	A [mm]	B [mm]	C [mm]	1 [Inlet]	2 [Outlet]	3 [Oil outlet]
MESB - 1.0	1400	750	1550	DN 32	DN 25	DN 20
MESB - 2.5	1850	850	2250	DN 50	DN 40	DN 25
MESB - 5.0	2000	1050	2300	DN 65	DN 50	DN 40
MESB - 10	2000	1050	2300	DN 65	DN 50	DN 40
MESB - 20	4000	1300	3000	DN 100	DN 80	DN 50
MESB - 50	5000	1800	3500	DN 150	DN 100	DN 50
MESB - 100	7500	2400	4000	DN 200	DN 150	DN 80

7. Features

MESB type	1.0	2.5	5.0	10	20	50	100
Pressure container	X	X	X	X	X	X	X
1 x set valve fittings	X	X	X	X	Option	Option	Option
1 x set MSR	X	X	X	X	Option	Option	Option
1 x oil alarm monitor	X	X	X	X	Option	Option	Option
Pump	X	X	X	X	Option	Option	Option
Switch cabinet	X	X	X	X	Option	Option	Option
Heaters	X	X	X	X	Option	Option	Option
Corrosion protection tank interior	X	X	X	X	Option	Option	Option

X = Standard

Option = Optionally available

8. Documentation

- Installation instructions
- Operating manual
- Maintenance instructions
- Spare parts list
- Declaration of conformity

9. Additional options

Deviating design (wall system), coating, voltage supply, volume flows and many other options available on request.