

Non-pressurised oil-water separator MESB-DL

Flow rate: 100 to 1000 l/h

1. Function

The non-pressurised MSEB-DL oil-water separator is a patented **m**echanical **e**mulsion and **s**uds **b**reaker. It is used to maintain industrial washing baths and water-based cooling lubricants by separating outside oils from the medium being maintained.

An eccentric screw pump (available separately) conveys the medium from the inside to the outside through the coalescence elements. Here, outside oils are separated by the patented microfibre elements. This is done by screening, flow path interference, impact, and adhesion.

Tiny drops of outside oil to form into ever larger drops that due to the difference in density and buoyancy rise out of the elements and collect as a film on the surface. Along with the flow of the continuous phase, the film flows to the outlet of the system, where it is then skimmed off via a height-adjustable drainage channel.

The continuous phase is conveyed via a double dam to the outlet and is non-pressurised when it leaves the system. It can be discharged via hydrostatic pressure into tanks (not included) positioned underneath. The oil phase is held back by the dam, preventing remixture.



2. Operating parameters

MESB-DL type	100	250	400	1000
Flow rate [l/h]	100	250	400	1000
Operating temperature [°C]	min. 15 - max. 65			
Operating pressure [bar]	max. 6			

3. Dimensions and weights

MESB-DL type	100	250	400	1000
Dimensions LxWxH [mm]	1010x360x940	1160x360x940	1070x510x1110	1170x510x1110
Weight empty [kg]	53	60	87	95
Connections [inches]				
Inlet	G ¹ / ₂	G ³ / ₄	G1	G1 ¹ / ₄
Outlet	G ³ / ₄	G1	G1 ¹ / ₄	G1 ¹ / ₂
Oil drain	G1	G1	G1	G1
Sludge drain	G1 ¹ / ₂	G1 ¹ / ₂	G1 ¹ / ₂	G1 ¹ / ₂
Drain	G ¹ / ₂	G ¹ / ₂	G ¹ / ₂	G ¹ / ₂

4. Technical data

4.1 Electrical data	
Voltage	230 VAC/50 Hz or 400 VAC (60 Hz on request)
Power consumption [kW]	< 0.5 (optional pump)
Operating modes	Manual (optional control)
Motor protection	Provided loose in ISO housing (optional control)

4.2 Tank – piping - valves	
Materials	
Tank*:	1.4571
Connections:	1.4571
Ball valve:	1.4408
Pressure gauge (0 – 6 bar):	Stainless steel, Al, glycerine

* dip treated

4.3 Pump (optional)				
MESB-DL type	100	250	400	1000
Model	Eccentric screw			
Dry run protection	Optional			
Flow rate [l/h]	100	250	400	1000
Suction height [m]	Approx. 6			
Discharge pressure [bar]	Max. 2			
Coalescence elements	1 x EB-050-036	1 x EB-050-050	3 x EB-050-036	3 x EB-050-050

4.4 Built-in components				
MESB-DL type	100	250	400	1000
Coalescence elements	1 x EB-050-036	1 x EB-050-050	3 x EB-050-036	3 x EB-050-050

4.5 Options available on request	
Eccentric screw pump	
Control	
Dry run protection	

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