

Coalescing oil separator systems

DATA ACQUISITION FORM*

Oil separation

Date: _____

Contact information

Company	
Address	
Name / position	
Telephone / mobile / e-mail	

Description of the current application

Application		Filtration concept	
Component information		Filter service life	
Type of system		Oil separation	
Pump data		Cleanliness requirement	

System data

Manufacturer		Number of baths	
Model		Description of baths	
System type		Tank volume	
Process integration		Operating temperature	

Medium

Medium		Cleaning agent	
Bath service life		Type of contamination	
Contamination content [mg/l]		Foreign oil in the system	
Permitted oil content [%]		Foreign oil density	
Viscosity [cSt.]			

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PRELIMINARY QUESTIONNAIRE

for the calculation of OLSW unit quotes

The oil separation efficiency of the coalescing separators can reach up to 99.98 %. The actual amount of oil removal possible depends on different parameters. These include the integration situation (direct tank connection or via skimmers), the pre-filters and coalescing elements used, the circulation rate ($\frac{\text{Tank volume}}{\text{Bypass flow rate}} < 2 \text{ h}$ is recommended), the density of the oil mixture to be removed and the total contamination content of the aqueous system. Automated detection of the amount of oil removed and a 10 l collection canister are always supplied as standard.

OLSW-30



The unit is suited to use in small (<1000 l) and medium sized (1000 – 2500 l) tanks. Oil removal of up to 30 l per day is possible.

OLSW-100



The unit is suited to use in medium (1000 – 2500 l) and large (> 2500 l) tanks. Oil removal of up to 185 l per day is possible.

Instruction manual

The relevant documentation is available in three languages

German

English

French

Filter elements and coalescing elements

In most cases, it is recommended to equip the separator system with **coarse** elements. In certain cases, it can be useful to select the **medium** filtration level so that an increased separation performance and a higher fluid quality can be achieved. The **fine** level can be used in final-stage washers to achieve the highest possible oil separation performance. The system filtration must be adjusted to the chosen filtration level of the pre-filter and coalescing element. For the **coarse** filtration level, filters with $\beta > 90 \%$ and a filtration rating < 50 μm are recommended. Highly efficient absolute filtration is possible with the **medium** and **fine** filtration levels.

coarse

medium

fine

Hose lines

Hose lines must be mounted to integrate the unit into the system. Hoses with lances (300 mm) which can be mounted onto the edge of the tank are also available.

Hose 3 m

5 m

not required

Lances (300 mm)

Surface skimmer with hose

Surface skimmers can be used to collect oil that has floated to the surface (especially in demulsifying systems). Please annotate the previous point with the appropriate hose length.

required

not required

Electrical connection cable with phase inverter

A 16A connection cable is required to operate the unit. This is available in different lengths and can be supplied along with a phase inverter (pump direction of rotation).

5 m

10 m

_____ m

not required

Automated oil drain

The oil that has been separated can automatically be drained from the unit into an external container via an electrically controlled valve. A limit phase inverter is used to detect the amount of oil in the container and send an opening signal to the valve. The fill level in the external collection container must be monitored by the customer as standard. The following options can be chosen.

Automated oil drain is required

Level sensor to monitor the fill level of the external collection container (without container)
Automated oil drain must be selected

External collection container to hold the separated oil and fill level monitoring (container size and design is dimensioned according to the specific application)
Automated oil drain must be selected

I4.0 Connectivity package

Two digitalisation options can be selected to monitor the unit and its functioning.

Remote access
- Direct access to current data
- Notifications via e-mail (e.g. errors, pending filter changes, oil drain)

Online monitoring via HYDAC Condition Monitoring
- Access to HYDAC – CMX (Condition Monitoring Expert Portal)
- Data history storage
- Possibility of data analysis
- Unit cockpit with current status display

Data connection to other monitoring systems via OPC UA, MQTT, HTTPS
(e.g. to Siemens Mindsphere)

Service and maintenance contract

Either a standard service and maintenance contract or an enhanced service and maintenance contract can be selected.

Standard
- Annual inspection of unit functioning including filter replacement

Enhanced
- Standard remote access in conjunction with digitalisation options **and** online monitoring for remote maintenance, monitoring and analysis in the event of errors
(remote access and online monitoring must be selected)