

## SKIT/S-HFO ULTRAPUR-OILY WATER SEPARATOR



### ***Oily Water Separator for ships and offshore application***

- *Filterless type, selfcleaning system with automatic interval backflushing.*
- *Typetested in accordance with IMO – Resolution MEPC. 60 (33) with all relevant international approvals.*
- *EC – Conformity in accordance with MED European Marine Equipment Directive.*
- *The system meets all requirements of MARPOL 73/78.*
- *The gravity separator with built-in coalescer is constructed in accordance with recent research of hydrodynamics.*
- *Space saving compact design capacities from 0,1 m<sup>3</sup>/h up to 10 m<sup>3</sup>/h.*
- *Automatic operation for unattended machinery spaces.*
- *High efficiency! Oil content in the effluent less than 1,0 ppm during all tests.*
- *Favourable prices!*
- *Sales and service world-wide.*



**RWO** WATER TECHNOLOGY



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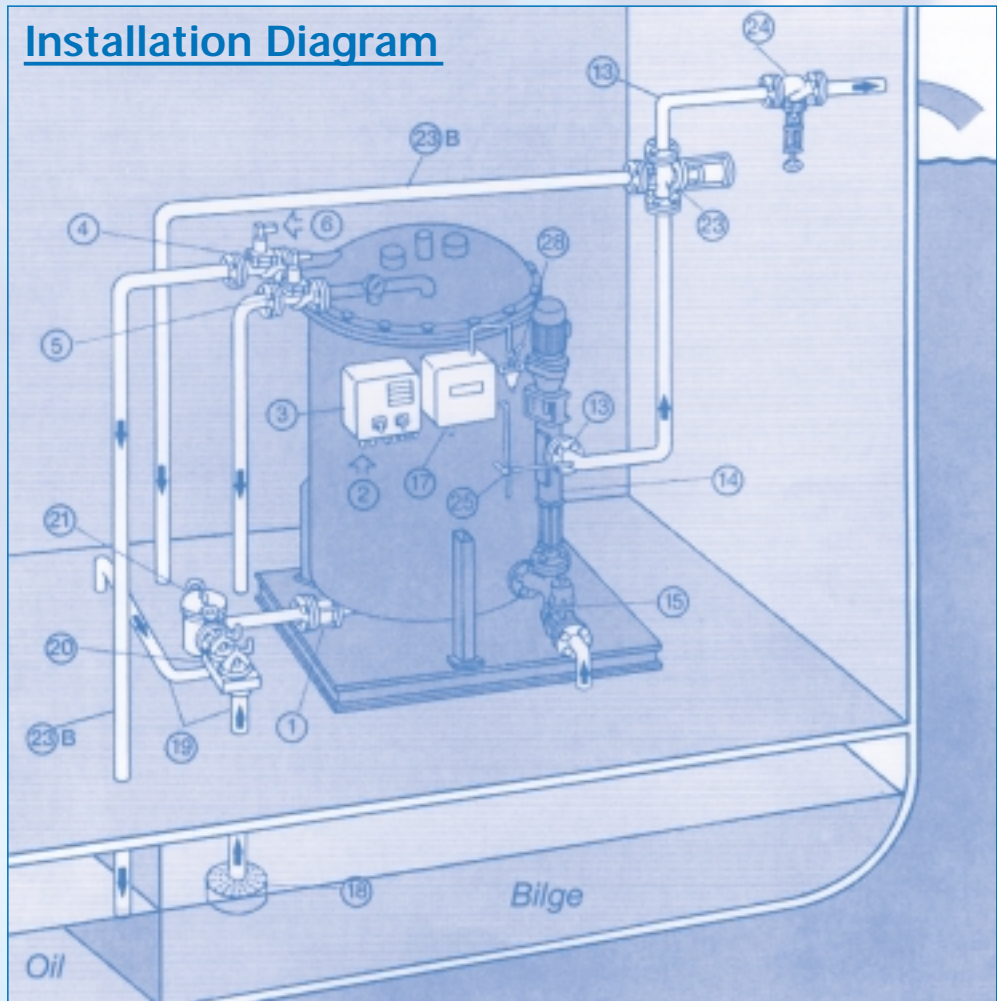
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*A member of the Sterling Fluid Systems Group*



EC-conformity  
acc. MED certified

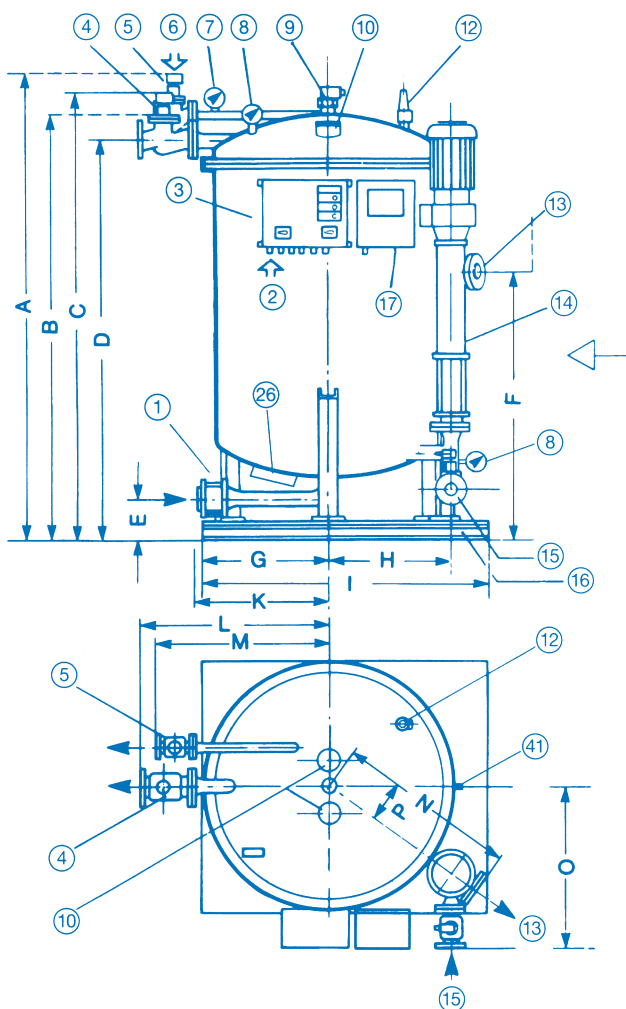
*In accordance with the requirements of the corresponding class the effluent outlet (13) has to be fitted with the required*



The oily water separator may not be installed in hazardous location and has to be protected against frost.



## Dimensioned Sketch



Standard Voltage:  
380 V/50 Hz/3 Ph  
220 V/50 Hz/3 Ph  
440 V/60 Hz/3 Ph  
220 V/60 Hz/3 Ph

other voltage on request

compressed air supply: 6–8 bar  
clean water supply 1 bar

Technical data and dimensions are  
subject to further modification.

Items 17-25 are not included in the  
standard scope of supply and  
have to be specified separately.

\* not with SKIT S 0,1

- ① Non-return valve  
(at Skit 0,1-2,5 the valve is  
installed inside the vessel)
- ② Connection for power supply
- ③ Automatic oil drain controlbox
- ④ Pneumatic piston valve  
(oil outlet) with pilotvalve
- ⑤ Pneumatic piston valve  
(backwashing outlet to the  
bilge) with pilotvalve
- ⑥ Air inlet, size 1/4" (8 mm dia)
- ⑦ Air-pressure gauge (0-10 bar)
- ⑧ Vacuum-pressure gauge  
(-1/+5 bar)
- ⑨ Sensorelectrode
- ⑩ Heating\*
- ⑫ Safety valve
- ⑬ Clean water overboard  
discharge
- ⑭ Mohnopump
- ⑮ Pneumatic pistonvalve  
(backwashing inlet), with  
pilotvalve
- ⑯ Foundation
- ⑰ Oil monitor (15-ppm-Alarm)
- ⑱ Suction strainer with bottom  
valve
- ⑲ Suction pipe
- ⑳ Suction valve chest
- ㉑ Suction strainer
- ㉒ Back flow to bilge
- ㉓ Pneumatic three-way valve,  
with pilotvalve  
(recirculation to bilge)
- ㉔ Springloaded discharge valve
- ㉕ Three-way ballvalve  
(Sample water inlet and clean  
water inlet for flushing)
- ㉖ Hand hole (Skit/S2.5 ÷ 10.0)
- ㉘ Funnel (sample water outlet  
connection) 1/2 inch
- ㉙ Zinc anode

## Technical Data SKIT/S-aquaclean®

Type S	capacity (m³/h)	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	Q	R	1 (DN)	4 (R"/DN)	5 (R"/DN)	13 (DN)	15 (R"/DN)	Power KW	Weight kg
0.1	0.1	770	650	770	650	60	—	100	390	295	170	280	280	—	—	0	60	195	15	1/2	1/2	25	1/2	0.5	70
0.25	0.25	880	765	880	765	70	425	150	350	400	220	300	300	360	235	0	70	300	15	1/2	1/2	25	1/2	1.5	95
0.5	0.5	1015	905	1015	905	75	560	175	390	600	215	340	340	385	255	0	155	350	25	3/4	1/2	25	1/2	2.5	120
1.0	1.0	1230	1115	1230	1115	80	570	225	440	700	285	415	415	440	255	0	165	450	25	3/4	1/2	25	1/2	2.5	165
1.5	1.5	1450	1320	1450	1320	80	605	250	500	650	310	450	450	460	195	0	165	500	32	3/4	1/2	25	1/2	3.0	230
2.5	2.5	1755	1590	1615	1480	200	770	375	415	750	295	560	560	565	450	30	220	750	32	1	3/4	50	1/2	5.0	265
5.0	5.0	1970	1850	1825	1675	175	875	560	575	1050	560	770	770	760	550	30	240	1050	50	1	3/4	50	3/4	5.5	560
10.0	10.0	2415	2195	2230	1970	225	1090	650	675	1300	560	930	930	880	610	30	335	1300	65	40	32	65	1	6.5	900

# Description of Process

Fig. 1 Oily water separation

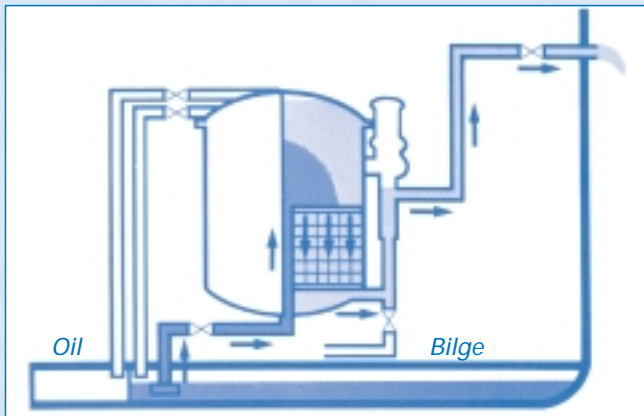


Fig. 2 Oil discharge

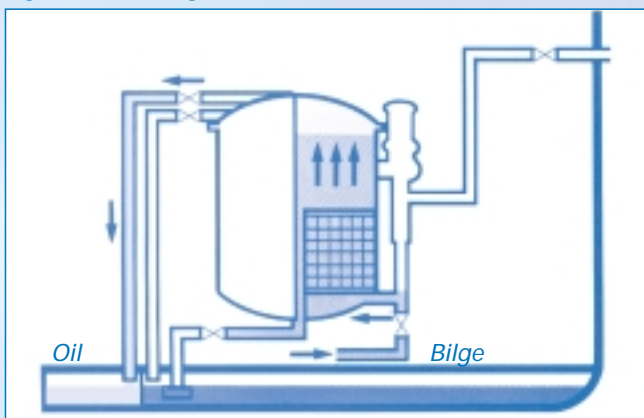
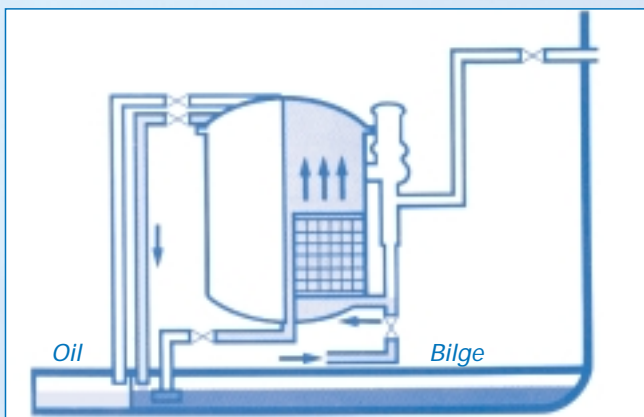


Fig. 3 Backwashing



**T**he RWO-oily water separator SKIT/S is the combination of a gravity separator with a built-in coalescer.

The system works with a completely new principle of hydrodynamics. Latest physical trends concerning oil-in-water dispersion, homogeneous fluid mechanics and coalescence effects are incorporated in the SKIT/S-system.

Fig. 1

## Oily Water Separation

The oily water is drawn from the bilge through the separator by an eccentric helical rotor pump, so that an additional mixture of oil and water is avoided.

As a result of the excellent homogeneous fluid mechanics in the SKIT-oily water separator and the difference of density between oil and water the rough separation of oil takes place immediately by gravity

Flowing through the built-in modern coalescer which is a very open-porous type, smallest oil droplets are separated by the extremely oleophilic surface. This system features the outstanding efficiency of the SKIT/S-oily water separator.

Fig. 2

## Oil Discharge

The separated oil flows upwards and is collected on the surface. A powerful electric heating supports the separation. The oil-level is detected by the RWO-sensor unit.

Fig. 3

## Backwashing

Immediately after discharging the oil the time-controlled backwashing is started. Clean water is used for backwashing. The coalescer is cleaned from oil and dirt by periodical backwashing. The mixture of oil sludge and water is drained off to the bilge.

The fully automatic oil discharge- and backwashing-cycle is a special feature of the SKIT/S-oily water separator. The periodic flowreverse enables continuous operation without clogging of the coalescer which cleans itself while operating.

**RWO oil/water-separation – more than 7000 references world-wide.**