We are here for supporting you



Company Introduction – KSB Seil Co., Ltd.

1990 Started local manufacturing of the ODME under the technical licence with Seres, France.

1992 Started local manufacturing of the VRC system under the technical licence with KSB Amri, France.

1999 Acquired ISO 9001 certification from DNV.

1999 Developed the Hydraulic actuator(HQ series).

1999 Awarded the prize of High Superior Technology Company by KOTEC.

2000 Moved into a new factory at Noksan Industrial Zone in Busan.

2004 ODME Alliance with SERES France for the new model ODME S-3000

2004 Opened Singapore office.

2005 Completed the Construction of the 2nd Factory.

2005 Opened Shanghai office in China.

2006 Establishment of Singapore Branch Office.

2006 Given a citation of Superior Small & Medium Enterprise Businessman. (Busan, Ulsan SMIPC)

2006 Establishment of Shanghai factory.

2007 Establishment of Mokpo Branch Office.

2011 Merged into KSB.

Delivery Reference of O.D.M.E. (As of March. 2012)

	V.L.C.C	F.P.S.O	P.C	C.O.T	SHUTTLE	DRILL SHIP	SRV	OTHERS	TOTAL
1991 - 99	76	1	140	101	6	6		17	347
2000	10		17	13	1	1		1	43
2001	8	3	23	17	1			1	53
2002	13		36	29	1				79
2003	7	1	68	31	2				109
2004	10	2	65	33	2				112
2005	6	1	93	44					144
2006	9	2	101	44					156
2007	12		129	30	2	5			178
2008	16		176	40	1	5	2		240
2009	16		78	46	2	8		1	151
2010	28	1	64	65	3	11			172
2011	28		39	49	2	3		1	122
2012	2	2	34	21	12	10		1	82
2013			7	7	2	3			19
2014				5					5
TOTAL	241	13	1070	575	37	52	2	22	2012

S-3000 – Oil Discharge Monitoring Equipment

KSB Seil Busan Factory

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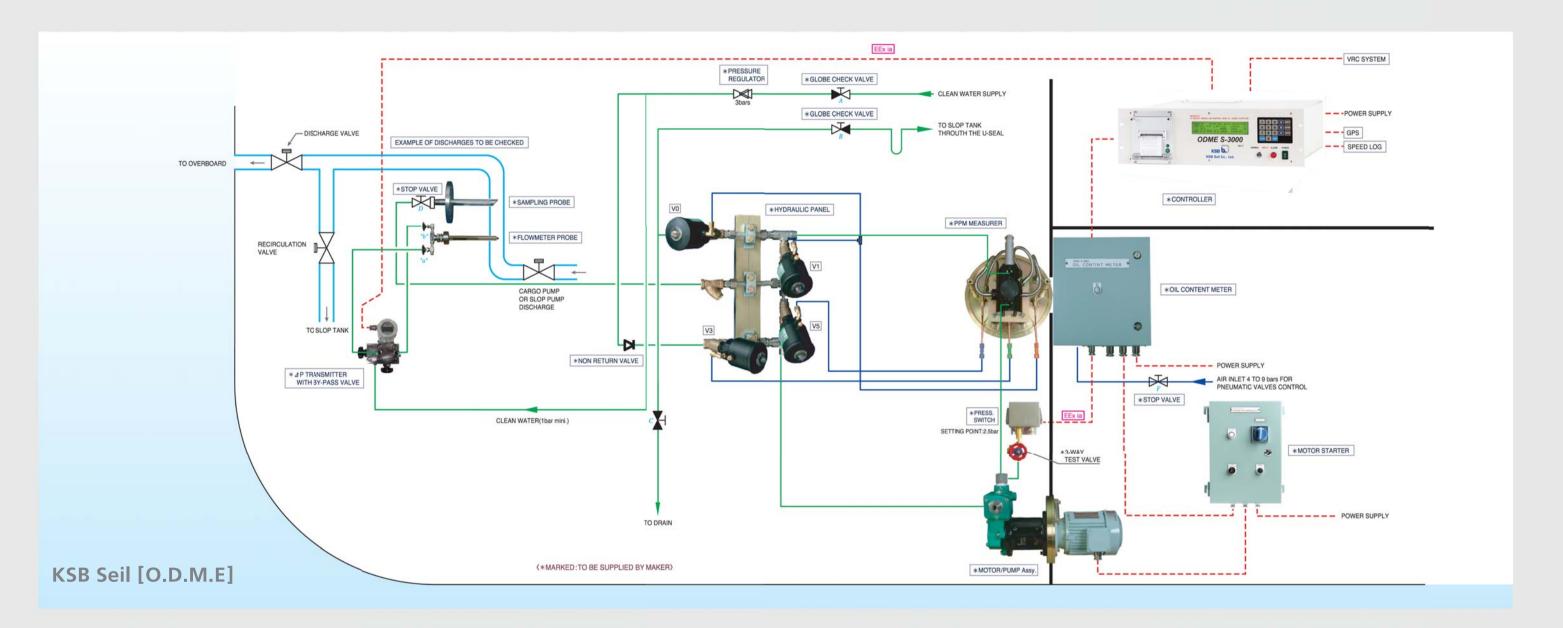








IMO RES. MEPC.108(49) ODME S-3000





- 440 × 360 × 177, 12 kg
- 16 bit CPU with Intel 80C196KC
- 40 × 4 Characters LCD Display 24 column matrix shuttle printer

- Membrane keypad



- 400 × 400 × 300, 32 kg
- Scattered I.R. Light method
- Multi cell sensor
- (Si-photodiode)
- Protected vibration
- 5-way Pneumatic Solenoid v/v with manifold



- - - - Auto/Manual key switch Overload relay

■ 250 × 300 × 180, 10 kg



- **Motor Starter**
- - **Pressure Switch**
 - 151 × 151 × 130, 2 kg
 - Measuring range: 0~16 bar
 - Automatic pump shut-down
 - Set point : 2.5 bar
- Motor/Pump Assy.

2.2 kW, D.O.L Motor

Centrifugal type pump

Class certified bulkhead

Pump suction head:

Max. 8 m

penetration



■ 360 × 283 × 180, 30 kg

4 optical fibers

Self cleaning system

penetration plate

Class certified bulkhead

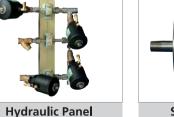


 \bullet 600 × 404 × 580, 15 kg

4 pneumatic valve

Sample water filter

■ 4~9 bar air supply









- 5K 65A for ballast system
- $311 \times 104 \times 102$, 9 kg ■ 16K 65A for cargo system
- - Pitot-tube type probe Intrinsically safe type
 - (EEX ia IIC)
 - Below ±1% accuracy

Company Introduction - KSB Seil Co., Ltd.

Guidelines and specifications for oil discharge monitoring and control systems for above 150 Gross Tons Tankers.

- Input Information: date and time (GMT), ship's position indication (GPS), instantaneous oil content (PPM), total oil limit, ship's speed, overboard valve feedback, flowrate
- Output Information (Displayed and Printed): date and time (GMT), ship's position indication (GPS), overboard valve open or closed discharge prohibited or permitted, instantaneous oil content (PPM) total oil limit, ship's speed, discharge condition, calibration or monitoring,
- type of cargo discharged, flow rate, each alarms condition, failure override, liter per nautical mile
- The U-seal must be installed in accordance with MEPC 108(49) 6.3.10, 'Sample water returning to the slop tank should not be allowed to free-fall in to the tank. In tankers equipped with an inert gas system a U-seal of adequate height should be arranged in the piping leading to a slop tank.'

Features

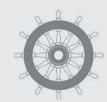
- Can be used as dirty and clean ballast, monitor control system.
- Intrinsically safe type, DP transmitter.
- Near and far infra-red detector using for Si-photodiode.
- Short response time(15 sec).
- Automatic back-flushing sequence of the complete hydraulic panel.
- Automatic zeroing and calibration.
- Self-cleaning measuring cell design.
- All informations displayed in 40×4 LCD.

- Microprocessor technology with RTC chip memories Y2K compliance.
- Communication between operators console and oil content meter by a current loop method.
- Insensitive to ships motion and vibration.
- Accuracy better than IMO RES. MEPC.108(49) requirements.
- Easy installation requiring little work & time.
- Flowmeter working by differential pressure.
- Log input by electrical or dry contact impulse.
- Automatic monitoring of up to multi channels

Alarms

- Oil Content meter failure
- Sample pump not powered
- No sample
- Clean water failure
- Flowmeter failure
- Printer paper failure
- Calibration failure

- PPM range exceeded
- Speed low
- 30 L/N.M exceeded Total oil limit exceeded
- Overboard v/v wrongly open
- Sample pump wrongly powered
- GPS signal failure
- 15PPM exceeded (in clean ballast mode)





Notified Body No. 0575 ISO 9001