SM-P Series **Fully Automatic Electrolysis** Sewage Treatment Plant www.skmarintec.co.kr SK TM MARINTEC Installation example SM-300P 2 unit for KNOC Drill ship Doo Sung (Korea National Oil Company) 2015. 03



MAIN PRODUCTS SM-P SERIES S.T.P FOR VESSEL



MEPC.227(64)

BV Class MED Certificate
IMO Res. MEPC. 159(55), MEPC.227(64) MARPOL 73/78
Acquired Korea Government's Approval Cert.
No.2015–028~036

Feature

1. Convenient operation

As digital system by electro control, (when the plug in) this plant operates itself automatically (No need Back-flushing process by hand).

2. Outstanding efficiencies

This plant is suitable for black water with fast Sewage Treatment (10~15min/cycle).

3. Saving costs

This plant saves a lot of costs comparing to other STP like biological method and has other benefits like compact, emulsion treatment, etc.

4. Powerful sterilizing action

By Electrolysis Method.

 Our plant is fully satisfied with tightened IMO regulations of MPEC 227(64) recently (Revised 2010).

5. Convenient management

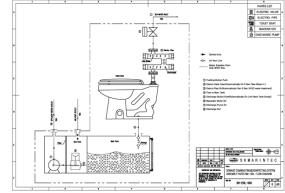
Using by knock-down system for easier installation.

MAIN PRODUCTS BM-150L SEWAGE COMMINUTING & DISINFECTING EQUIPMENT

Feature

- Type Approved products that meet the latest marine pollution prevention performance standard by KOREA government.
- 2. Approved by Ship Safety Technology Authority KST.
- 3. Mounted extra powerful macerator no blockage pipe.
- 4. Using the electrolysis sterilization flushing, convenient and no need maintenance price.
- 5. No need sub-tank, no leaking odor.
- 6. It can be discharged into the sea within 3 nautical miles from the land, because kill E.coli completely.







OTHER PRODUCTS

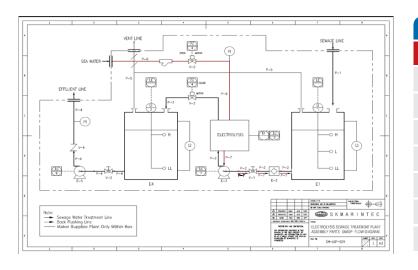








FLOW DIAGRAM (AUTO BACK-FLUSHING)



MEPC.227(64) Discharge limits								
Description	MEPC.227(64)							
Faecal-Thermotolerant Coliform	s 100/100 ml							
Suspended Solids	35mg/l							
BOD5	25 mg/l							
COD	125 mg/l							
Chlorine	0.5 mg/l							
T-N	20 mg/l							
T-P	1.0 mg/l							

TECHNICAL DATA

Туре	Number of Persons	Hydraulic Load [m³/d]	Organic Load [kg BOD5/d]	Length [mm]	Width [mm]	Height [mm]	Dry Weight [kg]	Wet Weight [kg]
SM-16P	16	1.1	0.65	1,100	770	1,230	430	555
SM-25P	25	1.7	1.01	1,200	770	1,230	463	603
SM-35P	35	2.4	1.42	1,200	770	1,230	496	666
SM-45P	45	3.1	1.83	1,200	870	1,230	528	724
SM-60P	60	4.2	2.44	1,250	870	1,430	561	779
SM-80P	80	5.6	3.25	1,350	870	1,430	594	849
SM-100P	100	7.0	4.06	1,350	970	1,430	627	945
SM-150P	150	10.5	6.10	1,450	970	1,430	640	1,039
SM-300P	300	22.5	13.07	2,250	970	1,630	973	1,948
SM-450P	450	33.75	19.07	3,200	970	1,800	1,100	2,560
POWER	220V, 380V, 415V, 440V / 50Hz, 60Hz / 3Ø							

SM-P SERIES ADVANTAGE

Small and light Knock-Down method, automatic Back-Flushing function by digital board method.

Fuel efficiency saving costs, short establishing time and no back- flushing by 100% automatic operation.

Disinfection and resolution during sewage treatment in the pipe without any separate electrolysis (patent registration article 10–1245310).

No need to worry about any leakage under even high pressure and heat.

Approved sewage treatment test to meet more consolidated performance criteria according to IMO MEPC.

Satisfy the domestic and international performance criteria-IMO-Resolution MEPC. 227(64)

Approved sewage treatment test to meet CE standard by the design considering the safety.

Safety assurance adopting the advanced explosion proof types against the key components.

Saving chemical costs, etc.

Automatic generation of hypo-chlorous (Hocl) acid eliminating coliforms bacillus and bad smell.

Free of charge for Main Parts for 2 years.

Electrolysis Tubular pipe and main board are served free of charge for 2 years and perfect After Service.

PRODUCT VIEW(SM-P SERIES)



[Product Decomposition]



[Product Assembly]

CASE OF INSTALLATION



[Before Replacement] (Government Research Vessel1)



[After Replacement]



[Before Replacement] (Government Research Vessel2)



[During Replacement Work]



[After Replacement]



[Oil Tanker] (New Installation)



[Car ferry] (New Installation)



[Cruise ship] (Replacement)

COMPANY HISTORY

- 2012. 04 : SKMARINTEC Established.
- 2012. 06: Patent No. 10–1157145 (Sewage Treatment method using by Sewage Treatment system).
- 2012. 06: ISO 9001 Certificate.
- 2012. 08: WPS certificate by RINA Class.
- 2013. 03 : Patent No. 10–1245329 (Electrolysis Sewage Treatment Plant).
- 2013. 04: Approved Corp Research Institute by KOITA.
- 2013. 07 : Type Approval Cert. No. 2013–018. IMO 159(55) by KST.
- 2013. 08 : CE(MED) Cert. No. 34113/A0 EC MEPC.159(55) by BV Class.
- 2013. 10: Certificate of Green Technology. (Cert. No. GT-13-00217)
- 2013. 11: Certificate of Green Technology Product. (Cert. No.GTP-13-00137)

- 2014. 01 : UL 508 Cert. No. 20140130-E465084. (Programmable Controllers)
- 2014. 05 : Type Approval No. FS14T00011 by CCS Class.
- 2014. 06 : UL ANSI/ISA 12.12.01 (Programmable Controllers for use in Hazardous Locations).
- 2015. 11 : Excellent Performance Certification (SMBA)
 No. 25–1185.
- 2015. 12 : S.T.P Type Approval Cert. No. 2015–036.
 IMO 159(55), 227(64) by Korea Government.
- 2016. 06 : Sewage Comminuting & Disinfecting Equipment Type Approval Cert. No. 2016–030.
- 2016. 06: Patent No. 2016–0063296 Electrolysis Sewage Comminuting & Disinfecting System.
- 2016. 06: Patent No. 2016–0063305 Tube type Electrolysis Sewage Comminuting & Disinfecting System.

PATENT AND CERTIFICATES



ISO9001



Excellent Performance Cert



Green Technology Cert.



Green Product Cert.



MED Cert.



KST Type Approval



CCS Type Approval



RINA Type Approval



CR Type Approval



WPS-RINA



Patent 1



Patent 2









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