SOLUTIONS FOR SUSTAINABLE **SUPERYACHTS**



ERMATECH GROUP

Sustainability is no longer about doing less harm.
It's about doing more good.



Group of Companies

Complete Solutions

About ERMA TECH GROUP

ERMA TECH GROUP is a global leader in sustainable maritime technologies, uniting ERMA FIRST, EPE Systems Division, RWO, Ecochlor, HASYTEC, METIS and other affiliated companies and strategic partnerships. With more than 50 years of expertise and with a presence in more than 50 countries we deliver award-winning solutions in decarbonisation, water and wastewater, marine equipment and services – helping our customers achieve a net-zero future whilst protecting vessels, oceans and the planet.

About ERMA FIRST

Founded in 2009 and headquartered in Greece, ERMA FIRST is a global leader in ballast water technology solutions. The ERMA FIRST robust systems ensure worldwide compliance, provide operational simplicity and reduce operational expenditure. The ERMA FIRST customer-centric approach also offers flexible and convenient servicing through a trusted network of engineers worldwide. ERMA FIRST provides sales, maintenance and training to clients via a network of offices in 46 countries. ERMA FIRST is the winner of the Lloyd's List Technical Achievement Award (2013) and the Green4Sea Technology Award (2016).

About EPE

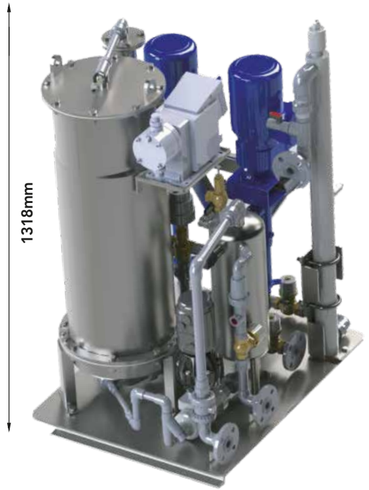
Environmental Protection Engineering (EPE) S.A. is a global environmental company that provides a wide range of products and services including: Emergency oil & chemical spill response, marine and industrial spill response, management of hazardous and non-hazardous waste, environmental rehabilitation and protection services, consulting services and training services. By continuously investing in research, development and implementation of innovative technologies, Environmental Protection Engineering S.A. (EPE) is now considered to be the largest Environmental Services Provider Company in the Eastern Mediterranean.

About RWO

For over 45 years, RWO has been supplying future-proof solutions for marine water treatment - made in Germany. The product portfolio includes equipment for the treatment of drinking and process water as well as systems for pollution prevention such as oily water separators or sewage treatment plants. Today RWO is recognized as a technological leader in the field of oil/water-separation with over 16.000 units delivered worldwide. More than 40 sales and service stations ensure short communication links and local availability of trained service engineers.

About HASYTEC

HASYTEC is a Germany-based provider of advanced ultrasonic antifouling technology for the maritime industry. Its DBPi® system uses intelligent, high-frequency ultrasound to prevent biofouling and biocorrosion on critical vessel surfaces and seawater systems, including propellers, sea chests, cooling systems, freshwater generators and thrusters. Designed for continuous, low-maintenance operation, the technology provides a chemical-free approach to biofouling prevention while helping vessel operators protect system reliability, maintain operational efficiency and reduce cleaning and maintenance requirements. HASYTEC technology is developed and manufactured in Germany.



CS-FIT

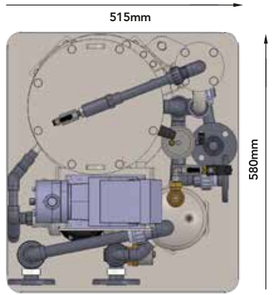
Superyacht Sewage Treatment

RWO
PART OF ERMA TECH GROUP

CS FIT is a physiochemical sewage treatment plant that fully complies with the requirements of IMO/MEPC.227(64). The accessibility from one side allows ship designers to plan space in the engine room on a whole new level. Both its very compact size and extended treatment capacities make CS FIT ideal for modern Superyachts that accommodate up to 80 people on board.

Det Norske Veritas (DNV) Certified.

MARINE EQUIPMENT DIRECTIVE
DNV
2014/90/EU



COMPACT DESIGN





POSEIDON FIT & OWS-COM

Oily Water Separators

epe YACHTING
PART OF ERMA TECH GROUP

POSEIDON FIT is a versatile 5/15ppm OWS, supplied with a loose pump that can be installed in various locations and has the capability for bilge transfer. It consists of two stages; the coalescer and the emulsion breaking unit. The coalescer, equipped with a self-cleaning filter, works on a continuous mode, by-passing the second stage and thus prolonging the lifetime of the filters. If the Oil Content Monitor measures an effluent with oil content of more than 4/14ppm at the 1st stage outlet, then the emulsion breaking unit begins its operation.



RWO
PART OF ERMA TECH GROUP

More than 16000 ships have already been equipped with RWO's oily water separators since RWO started its business in 1975. The OWS-COM system uses a combination of highly effective open porous coalescer with automatic backflushing, together with a second stage emulsion breaking oil and hydrocarbon polisher. The periodical backflushing keeps the coalescer surface clean and offers long lasting operation according to IMO MEPC.107(49). The OWS-COM is part of RWO's leading Total Water Management offer.



*Available in all sizes and forms.



DPBI®

Ultrasonic Antifouling

HASYTEC
PART OF ERMA TECH GROUP

DPBi® uses advanced ultrasonic technology to help prevent marine growth, biofouling and biocorrosion on suitable underwater surfaces and equipment.
The system continuously adapts its ultrasonic output to changing operating conditions, providing biocide-free protection while reducing maintenance requirements and supporting equipment performance and vessel efficiency.

Applications: Hulls, propellers, thrusters, sea chests, seawater systems and other suitable underwater equipment.





oneTANK BWTS

Ballast Water Treatment System



ERMA FIRST
PART OF ERMA TECH GROUP

oneTANK is a simple, low-cost ballast water treatment option intended for vessels that do not need the typical complex, high capacity solutions. Its small size and minimal connections offer reliable results, and a fast and easy shipyard experience. The "do it yourself" model allows operators to install and commission their own systems. We provide the applications engineering and include remote support.

USCG & BWMS
Code Approved

SMALLEST FOOTPRINT

Fresh Water Solutions

Treatment Systems

Sustainability on board also means the elimination of plastic bottles. With the fresh water solutions that EPE Yachting offers, yachts can now independently produce fresh mineral water. Our systems ensure the highest quality water possible, free from harmful bacteria. You can now get rid of all plastic water containers and enjoy tasteful fresh water at



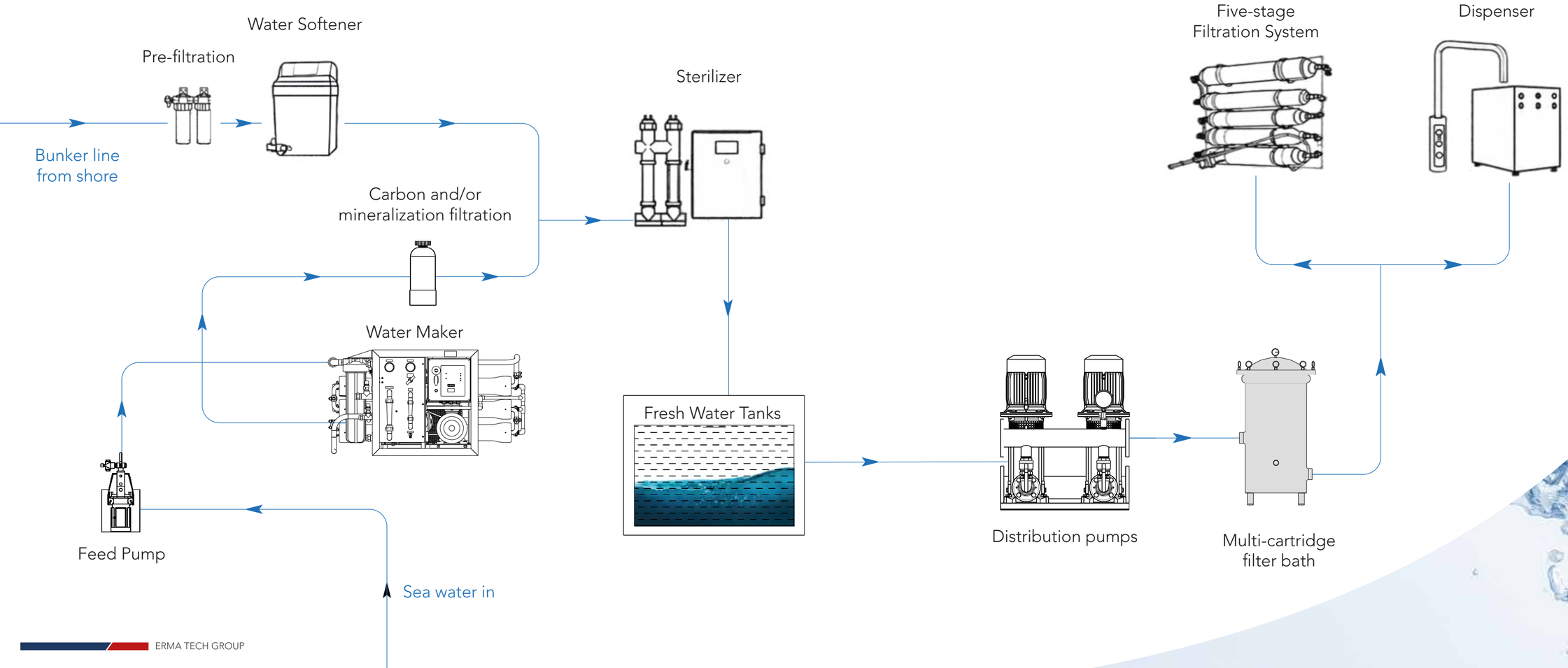


ALIOS

Reverse Osmosis Desalination

ALIOS is a reverse osmosis desalination system, able to produe reliable fresh water from the desalination of sea water. ALIOS is designed for all sizes of modern Superyachts, while maintaining a very compact size, making it ideal for both retrofits and newbuilds. It is manufacutured with top quality materials that ensure maximum efficiency through its life, while the automated backflushing with fresh water prolongs the life of the membranes and make certain that the produced fresh water will be rid of unwated substnances.




Water Softener
Pre-filtration
Bunker line
from shore
Carbon and/or
mineralization filtration
Sterilizer
Five-stage
Filtration System
Dispenser
Water Maker
Fresh Water Tanks
Distribution pumps
Multi-cartridge
filter bath
Feed Pump
Sea water in



CLEANER SKIES

HERMES

Black Smoke & Odor Eliminator

epe | YACHTING
PART OF ERMA TECH GROUP

EGT Series Systems offer reliable reduction of harmful emissions of diesel generators and main engines under all circumstances. The diesel particle filters (DPF) of the EGT Series collect the black smoke and the harmful particulate matter from the exhaust gases. Regeneration of the filters happens passively and actively, according to the operation profile of each yacht.



Tech Specifications

Complete Solutions

CS-FIT RANGE

Model	Capacity [m³/d]	People on Board (POB)	Skid Footprint			Footprint with loose pumps		
			Length [mm]	Width [mm]	Height [mm]	Length [mm]	Width [mm]	Height [mm]
CS-FIT 3	3.0	20	730	580	1039	580	500	1318
CS-FIT 6	6.0	60	855	690	1039	700	712	1295
CS-FIT 12	12.0	80	960	1050	1327	900	960	1327



POSEIDON FIT

Model	Capacity m³/h	Length mm	Width mm	Height mm	Power kW	Empty Weight kg
0.25	2.25	830	510	868	0.53	157
0.5	0.5	830	510	868	0.53	157
1.0	1.0	1100	800	1210	0.91	360
2.0	2.0	1450	860	1675	4.26	720



OWS-COM

Model	Capacity m³/h	Length mm	Width mm	Height mm	Power kW	Empty Weight kg
0.1	0.1	715	650	1100	0.8	125
0.25	0.25	960	750	1005	2.6	180
0.5	0.5	960	750	1050	3.2	195
1.0	1.0	1170	800	1220	3.2	270
2.5	2.5	1510	1060	1485	3.7	457



oneTANK BWTS

Operational Limitations:

Salinity: Not Applicable
Water Temperature: Not Applicable
Hold Time: >24 Hours
Min. Average Total Residual Oxidant (TRO): 5 mg/L
Min. Concentration-Time (CT): 120 mg-hr/L

Particulars

604mm x 559mm x 1,651mm, 216 kg
15 Amp 120 Volts, or 7.5 Amp 230 Volts
Fully automated controls to vessel alarm and monitoring system



ALIOS

Model	Capacity [ltrs/h]	Capacity [m^3/d]	Length [mm]	Length [mm] Membranes included	Width [mm]	Height [mm]
RO 3.0	140	3.4	850	1335	650	750
RO 4.0	180	4.3	850	1335	650	750
RO 4.0 Duplex	360	8.6	850	1335	650	1500
RO 5.0	200	4.8	850	1335	650	750
RO 10.0	425	10.2	1100	1600	800	850
RO 15.0	625	15.0	1100	1600	800	850
Models > 15.0 m^3/d			**Upon Request**			



HERMES

Model	Filter	DPF Volume	For Genset of	Length mm	Width mm	Height mm	Weight mm
EGT4-10	1	20L	100-250K	950	Φ500		75
EGT4-20	2	40L	200-350K	1170	675	585	265
EGT4-30	3	60L	300-450K	1730	675	585	390
EGT4-40	4	80L	400-600K	1170	675	1170	450

PM (measured as PM10)	>97% reduction
Sound Attenuation	Std. Engine Muffle / Additional Sound Insulation on request



Services

Premium Quality Professional Services

- Quality Water Testing
- Chemical Disinfection & Biofilm Treatment
- Grey & Black Water Drainage System Cleaning
- Integrated Fuel Treatment
- HVAC Duct System Cleaning
- Exhaust Gas System Cleaning
- Galley/Hoods System Cleaning
- Vacuum Sewage System Cleaning
- Scupper Drainage System Cleaning
- Sea Water Cooling System Cleaning
- Grease Traps and Macerator System Cleaning

ERMATECH GROUP

True Global Network of Service & Spare parts





www.ermatechgroup.com