

GERTSEN & OLUFSEN 

MEMBRANE BIOREACTOR

Advanced Waste Water Treatment



G&O MARITIME GROUP

MARINE LIFE WITHOUT FOOTPRINTS

GERTSEN & OLUFSEN BIOREACTOR

G&O Advanced Waste Water Treatment Plant in Full Compliance with IMO MEPC 227(64) Regulations

ADVANCED DESIGN

Gersten & Olufsen A/S is a maritime solutions provider meeting the toughest requirements. We combine the use of cost effective solutions with cutting edge technology, without compromising of the environmental concerns.

Gertsen & Olufsen is using an activated sludge process combined with an anoxic nitrogen removal and simultaneous phosphorus precipitation.

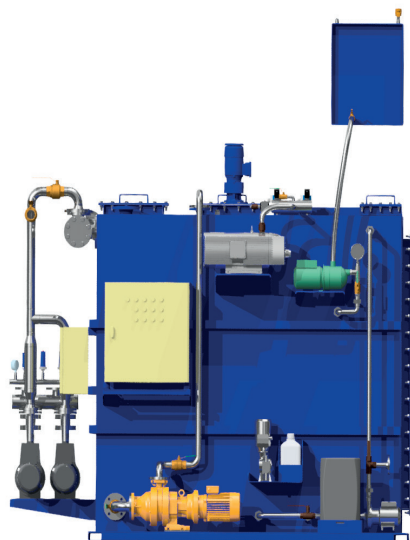
Sludge, solids as well as E-Coli separation before ultrafiltration/membrane unit combined with a biological oxidation unit.

The membrane sewage treatment design and technology is based on the the thorough and operational experiences gained with more than 800 conventional units delivered and in operation world wide since 2002, which has proven that G&O sewage treatment plants offers high

efficiency, fully operational flexibility of the vessel and low maintenance requirements.

Additional key features include:

- Flexible control and operational features to switch in and out of specific areas.
- Custom designed systems – e.g. where space limitations disqualify the use of standard systems
- Tailor-made Split units – e.g. for retrofit projects
- Minimum maintenance requirements
- Danish design, made in EU
- Fitted with high-end quality components from reliable long term European suppliers
- Designed for gravity and vacuum systems
- Low power consumption
- Easy operation/minimum manual operation
- Easy access for inspections.



ULTRA COMPACT SOLUTIONS

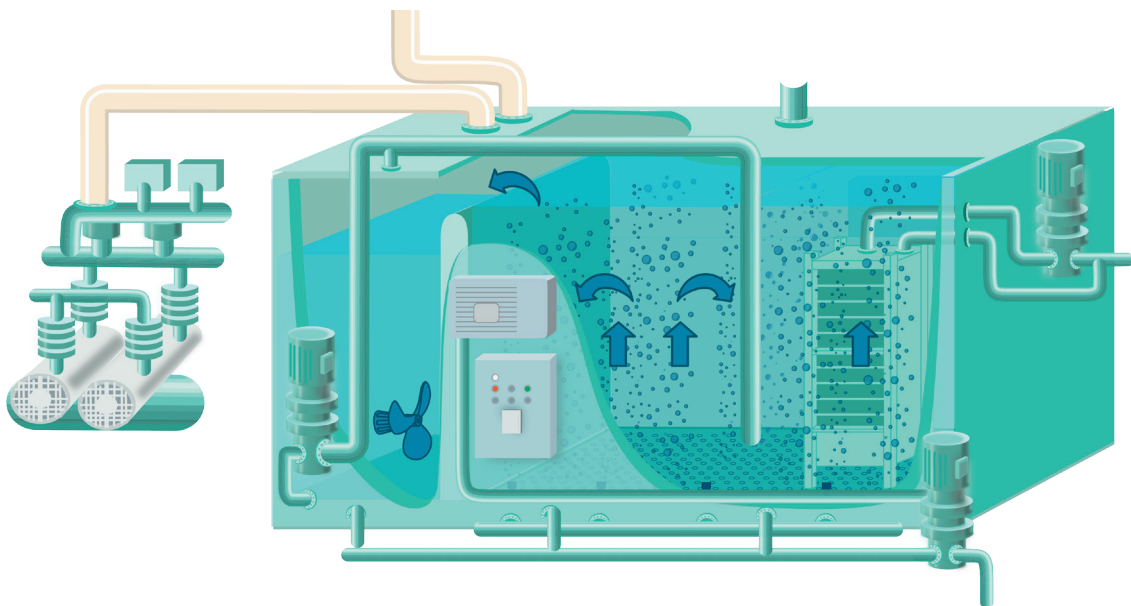
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TECHNICAL FACTS

- 15/30 standard design covering a range of: 1,2 m³/d - 990 m³/d
- Ultra compact design and low weight
- Organic removal of Nitrogen and Phosphor
- Available in painted black steel & stainless steel
- EEx and ATEX systems available for i.e. Offshore use
- Ultrafiltration/membrane, outlet < 0,04 - 0,3 µm (0.0003 millimeters)
- Unique 30 degree operational approval
- Odour-free
- Full SCADA interface available
- IMO 227(64) including special areas (Baltic Sea) /section 4.2
- Class approval available from all the major Classification societies.
- Docking inspections and Service agreement available
- Vacuum equipment, grease separation and sludge handling systems available
- Inlet buffer tank included

IMO MEPC 227(64) - Meeting and exceeding IMO rules

The G&O Bioreactor is tested and type approved by an accredited institution in accordance with IMO MEPC 227(64). All test results meets and exceeds the IMO Rules.



TECHNICAL SPECIFICATIONS FOR STANDARD PLANTS

Specifications					
NX-C			NX-N		
MODEL	DESIGN HYDRAULIC LOAD m ³ /day	ORGANIC LOAD BOD kg/day	MODEL	DESIGN HYDRAULIC LOAD m ³ /day	ORGANIC LOAD BOD kg/day
NX 10-C	1,7	0,6	NX 10-N	-	-
NX 20-C	3,3	1,2	NX 20-N	1,2	0,6
NX 25-C	6,6	2,3	NX 25-N	2,5	1,2
NX 30-C	9,9	3,5	NX 30-N	3,9	1,9
NX 35-C	13,2	4,7	NX 35-N	5,1	2,4
NX 40-C	16,5	5,9	NX 40-N	6,5	3,1
NX 45-C	19,8	7,0	NX 45-N	7,6	3,6
NX 50-C	26,4	9,4	NX 50-N	10,1	4,9
NX 55-C	39,6	14,1	NX 55-N	15,2	7,3
NX 60-C	52,8	18,7	NX 60-N	20,1	9,6
NX 65-C	79,2	28,1	NX 65-N	30,2	14,5
NX 70-C	118,8	42,2	NX 70-N	45,2	21,7
NX 75-C	264,0	93,7	NX 75-N	100,3	48,1
NX 80-C	495,0	175,7	NX 80-N	187,9	90,1
NX 90-C	990,0	351,5	NX 90-N	375,8	180,2



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G&O Maritime Group provide value, safety and reliability to the global maritime industry through green, innovative quality solutions.