

**ATLAS**  
**INCINERATORS**  
PART OF G&O MARITIME GROUP ■



CHOOSE THE MOST  
ENVIRONMENTALLY  
FRIENDLY MARINE  
INCINERATOR





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## THE SIMPLER WAY TO ELIMINATE YOUR WASTE

At Atlas Incinerators we pioneer better, cleaner ways to deal with waste, both in the maritime and offshore industry. Our focus is on simplicity of operation and clean, advanced high efficiency burning.

Today shipping companies and offshore operators face growing pressure to operate more sustainably. Meanwhile, increasingly remote operational locations make it harder and more expensive to discharge garbage to shore.

Atlas Incinerators offer the solution. Our unique advanced designs burn both your solid waste and sludge oil in a cheap and efficient way, saving you thousands of dollars a year. Our innovations make it simple for your crews to operate the incinerator.

Now our latest evolutionary leap forward, the X10 Titan, offers game-changing advantages – smaller, much lighter, with a single burner offering higher capacity and performance, and no sludge oil heating.

### EASY INSTALLATION REDUCES COST

- ~ Complete compact unit comprising all parts
- ~ Skid-mounted or containerised

### EASY, EFFICIENT OPERATION CUTS TIME

- ~ Burn oil with up to 50% water content without pilot fuel
- ~ Simultaneous incineration of oil sludge and solid waste – no waste storage
- ~ Non-back-firing sluices available
- ~ 24-hour operation

### LOWER ENVIRONMENTAL IMPACT

- ~ We use technology for a lower environmental impact that no other incinerator on the market can offer
- ~ Diesel oil consumption only for heating up the incinerator
- ~ Minimal power consumption
- ~ Unique 3-chamber design for optimised burning

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## WHY INCINERATE AT ALL?

**Incineration is recognised** as the most viable garbage and sludge disposal solution in the maritime industry and remote locations.

Helping our customers lower their environmental impact is a key focus for us. We are continuously developing new solutions to reduce impact, and we use technology that is unique on the market.

With Atlas Incinerators you can achieve “clean ship” status in accordance with Clean Ship Notation.

- ~ Save the time and cost of discharging sludge oil and garbage to shore or another location
- ~ No need to store waste – avoid smell, garbage drain water and need for cold storage
- ~ Lack of port facilities is not an issue

- ~ Remove the temptation for crew to illegally dispose of waste over the side or sludge via ‘magic pipe’ – risking imprisonment and huge fines
- ~ High temperature incineration is better for the environment and achieves ‘clean ship’ status in accordance with Clean-Ship Notation



## WHY ATLAS INCINERATORS? WORK WITH AN ADVANCED PARTNER

**Atlas Incinerators** are the most reliable and operationally cost-efficient incinerators on the market.

We have spent almost 50 years producing and perfecting the simplest yet highest functioning designs: maximum efficiency with minimum complexity. The results are simple, easy to operate incinerators that deliver low emissions, without features that add operational cost and complication.

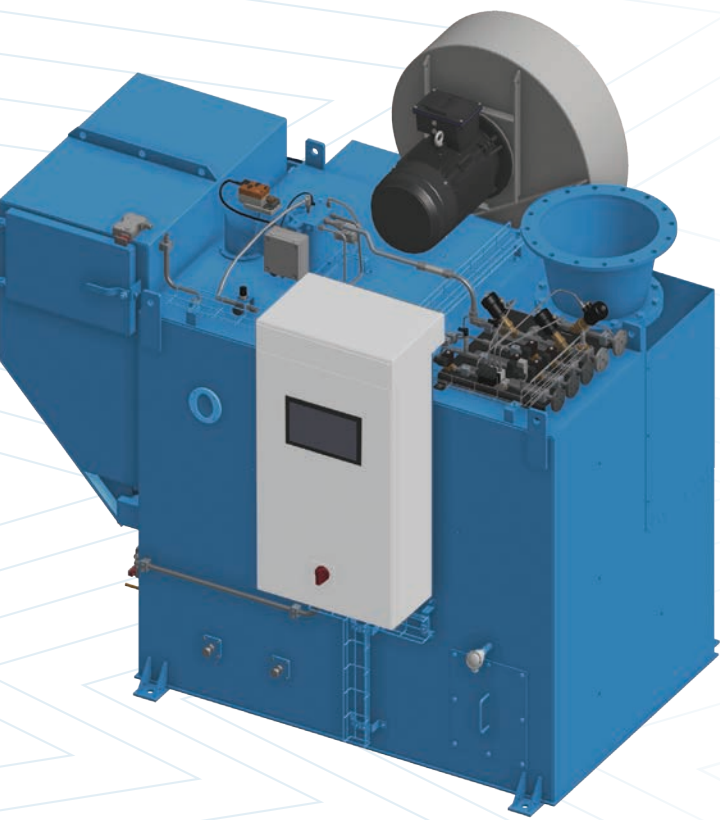
Our design- and engineering team have always focused on easy-to-operate designs, in order to avoid challenges with i.e. filters and exhaust fans, like many incinerators have. This makes our incinerators more cost-efficient.

At our modern production facilities in Denmark and China, and a licensee in Korea, incinerators are built to the same high standards. After purchase we make your life easy through a network of agents in over 30 countries. We supply crew training, spare part centres and service technicians when you need them, wherever you are in the world – from the Arctic to Africa and beyond.

- ~ Unrivalled experience since 1974
- ~ More than 9000 units installed worldwide
- ~ Serving marine, offshore industries and land applications
- ~ Power plants, hospitals, airports
- ~ Transportable containerised incinerators
- ~ Our latest incinerator, the X10 Titan, is even more efficient – smaller footprint, lighter structure, simpler process, minimal energy usage and higher capacity







# THE X10 TITAN: A GAME-CHANGER FOR MARINE INCINERATION

**One burner and no oil sludge heating:** our new X10 Titan generation of incinerators are smaller, lighter, smarter and far more efficient – delivering lower NOx emissions when burning oil waste with high water contents.

The X10 Titan incinerates sludge oil and solid waste simultaneously, while consuming minimum energy. But the real game changer is that the sludge oil is not heated before burning, which means that the incinerator consumes an absolute minimum of energy.

The new design also offers significant savings for both

shipyards and shipowners. The entire incineration process has been simplified and shortened, significantly reducing operational hours on board.

Combustion capacity is greater than the Atlas Series. Capacity is increased by 18–35% depending on the water content of the waste. These improvements have been achieved with a smaller combustion chamber and a 40% reduction in weight.

Multiple electronic safety systems are in place to monitor safe functioning. Electronic safety systems prevent overheating, backfiring and

operation related risks. All our incinerators are function-tested and tested at peak load before delivery.

- ~ Reduced NOx emissions
- ~ Consumes less energy
- ~ Reduces installation costs
- ~ Reduces maintenance costs
- ~ Higher capacity
- ~ No settling or preheating is needed, saving valuable crew time
- ~ Compact design with less weight equals increased payload for the ship owner



The X10 Titan comes with the well-known Atlas advantages such as no flue gas fan and long-lasting cast refractory lining. In addition to this, it has several new advantages.

Watch a 3D animation at <https://www.youtube.com/watch?v=LcP7HwH0VEg&t=8s>

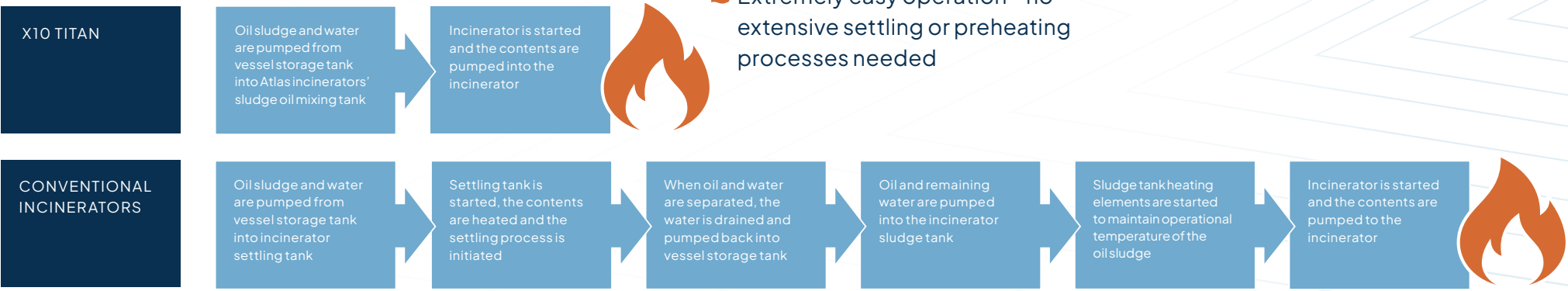
## NEW ADVANTAGES FOR SHIPOWNERS:

- ~ One burner fits all = substantial savings on spare parts compared to having multiple burners
- ~ Savings on spare parts due to having only one tank, no heating connections, no steam or thermal oil valves or regulation equipment
- ~ Energy savings due to lower power, fuel and compressed air consumption
- ~ Extremely easy operation - no extensive settling or preheating processes needed

## NEW ADVANTAGES FOR SHIPYARDS:

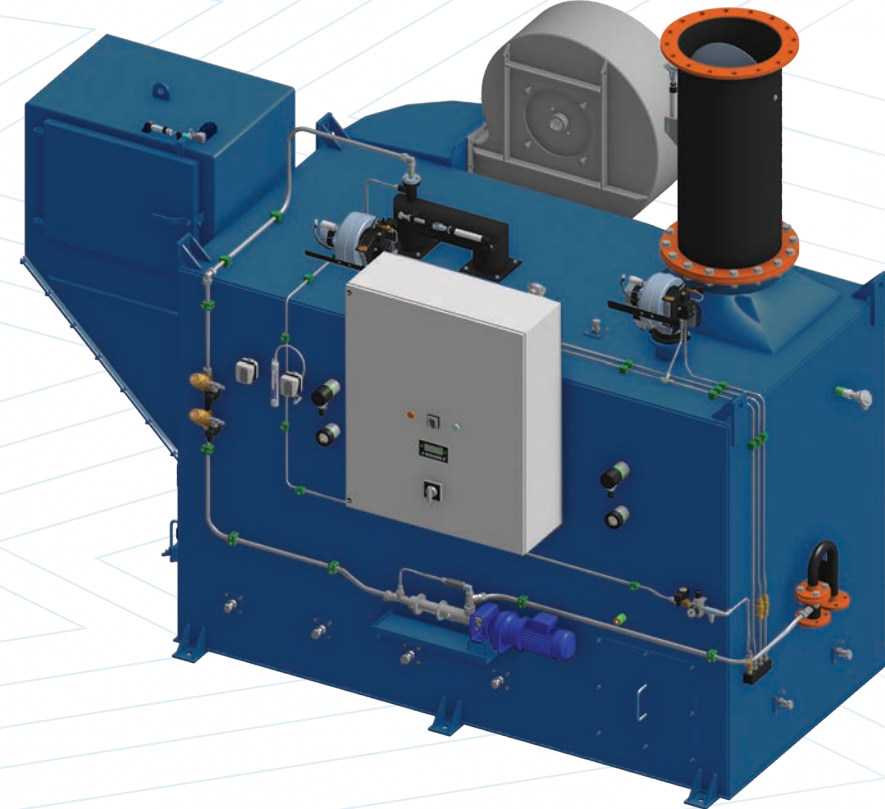
- ~ Easy installation and savings on pipe installation costs as steam or thermal oil connections to the sludge oil mixing tank are no longer needed
- ~ Incinerator and one sludge tank only, required to be installed in the machinery space/ incinerator room
- ~ More compact incinerator design – less space required and less weight

## HOW IT WORKS





## THE ATLAS: EFFICIENT OPERATION



The Atlas Incinerator's three-chamber design is one of the many reasons that we easily meet the construction regulations and rigorous emission rules issued by the IMO. Extra combustion air is injected into the afterburning chambers, destroying all unburned particles. All chambers are protected by high-temperature castable lining.

The oil sludge mixing tanks offer full access for oil sludge from separators, oil water separator, bilge water, sewage and black and grey water. No pilot fuel is needed when the water content is below 50%. The Atlas simultaneously incinerates solid waste and sludge oil without any adjustments.

Our incinerators are safe to operate due to electronic safety systems which prevent overheating, backfiring and operation related risks. All our incinerators are function-tested and tested at peak load before delivery.



## MARINE. OFFSHORE. LAND INSTALLATION. SOLUTIONS FOR ALL REMOTE LOCATIONS

Atlas Incinerators provide a range of incinerators for all kinds of remote locations. We are proud to be the first choice for ship owners but increasingly our solutions are also required in offshore oil and gas installations, as well as other remote locations on land.

As drilling for oil and gas moves further offshore and to more remote areas, discharging garbage to shore via supply boats is becoming more difficult and expensive. Incinerators are becoming the rational choice.

### SPECIAL OFFSHORE SOLUTIONS

Offshore incinerators often require special solutions, and we can provide either a containerised or skid-mounted incinerator installed in a non-hazardous area. Low noise levels are also often an important parameter on an offshore accommodation block or rig, and we can deliver sound attenuated containers.

### POWER PLANT SOLUTIONS

Our incinerators are often used alongside power plants to burn sludge oil, where a turnkey power plant is required in a developing country. Here we provide a containerised or skid-mounted solution, and our incinerators will typically run 24/7, 365 days per year.

### REMOTE AND HARSH ENVIRONMENT SOLUTIONS

Our incinerators also operate in remote and often harsh environments such as environmental clean-up in Congo or The Royal Danish Army base Station Nord in Greenland. For land installations, we also offer flue gas cleaning for customers with ambitious emission reduction targets.





INCINERATOR CAPACITIES

INCINERATORS	ATLAS 200	ATLAS 400	X610 TITAN	X910 TITAN	ATLAS 1200	ATLAS 1500	ATLAS 2400
Data							
Combustion Capacity (kW)	209	465	684	1097	1163	1500	2326
Combustion Capacity (kcal/h)	180.000	400.000	588.000	944.000	1.000.000	1.290.000	2.000.000
Combustion Capacity Solid Waste IMO waste specification	40 kg/h max. 160 kg/24 hours	70 kg/h max. 280 kg/24 hours	100kg/h max 400 kg/24 hours	125kg/h max. 750kg/24 hours	230 kg/h max. 920 kg/24 hours	230 kg/h max. 920 kg/24 hours	230 kg/h max. 920 kg/24 hours
Combustion Capacity Liquid Waste (IMO standard is 20% water content)	20 l/h at 0% water content 24 l/h at 20% water content 40 l/h at 50% water content	42 l/h at 0% water content 53 l/h at 20% water content 84 l/h at 50% water content	59 l/h at 0% water content 78 l/h at 20% water content 118 l/h at 50% water content	94 l/h at 0% water content 125 l/h at 20% water content 189 l/h at 50% water content	100 l/h at 0% water content 135 l/h at 20% water content 200 l/h at 50% water content	129 l/h at 0% water content 170 l/h at 20% water content 258 l/h at 50% water content	200 l/h at 0% water content 263 l/h at 20% water content 400 l/h at 50% water content
Standard waste sluice (for 30 l bag) Dimensions L x W x H (mm)	1830 x 1884 x 2150	2823 x 1898 x 2096			3358 x 2138 x 2872		
Big waste sluice (for 70 l bag) Dimensions L x W x H (mm)					3544 x 2138 x 2872	4076 x 2929 x 2900	5300 x 2803 x 3200
XL waste (for 120 bags) Dimensions L x W x H (mm)					2997 x 2686 x 2872	4078 x 2959 x 2900	5300 x 2833 x 3460
X10 waste sluice (for 124 l bags) Dimensions L x W x H (mm)			2032 x 1906 x 2165	2509 x 2030 x 2184			
Weight approx (kg) with standard waste sluice	3200	3700	3066	3730	7000	9500	13000

All incinerators are available with different capabilities, including solid waste and/or liquid waste, a hot loading sluice, different sluice sizes, mixing tanks and PLC controlled (standard on all incinerators for liquid oil waste).

TANKS FOR ATLAS	Sludge oil mixing tanks				Diesel oil tanks	
Data	500	1200	2600	4000	300	600
Capacity (m3)	0.5	1.2	2.6	4.0	0.3	0.6
Dimensions L x W x H (mm)	1205 x 748 x 1660	1802 x 1130 x 1362	2302 x 1330 x 1682	2100 x 1813 x 1670	737 x 550 x 1430	987 x 700 x 1430
Empty weight approx (kg)	500	700	1000	1500	180	260
TANKS FOR X10 TITAN	Sludge oil mixing tanks		Diesel oil tank			
Data	SOT10	SOT18	DOT 5			
Capacity (m3)	1.0	1.8	DOT5			
Dimensions L x W x H (mm)	1108 x 852 x 2156	1784 x 852 x 2156	651 x 837 x 2156			
Empty weight approx (kg)	602	855	335			

Sludge tanks are available with different options, including PLC controlled, and steam-heated, thermal oil heated or electrically heated. Sludge tanks for the X10 design comes without pre-heating

SUPPORTED BY SUPERB GLOBAL SERVICE

We provide complete technical support through the design stage and throughout the life of the vessel or installation. We can help you either directly or through local partners located around the world – either way you have access to a 24/7 service.

Our service centres throughout the world have spare parts on stock and are staffed with skilled technicians who will remedy any incineration problems you have on board your ship. If you need help to come to you, our travelling technicians will assist with commissioning and help in case of complex operation problems.

At our production and office facilities in Denmark, we have all standard parts in stock. And our dedicated Service Team are there to help you when you need our support, wherever you are.





# G&O MARITIME GROUP

## MARKET-LEADING BRANDS IN ONE PIONEERING GROUP

Gertsen & Olufsen is one part of the G&O Maritime Group, a global leader in the maritime and offshore industry.

G&O Maritime Group brings together a range of other strong brands each one a pioneer and market leader in their field. By joining forces, we are able to share resources and expertise and drive a greater range of products and competitive solutions.

Today we employ passionate people across the world with deep knowledge about the maritime industry. Our experience is vast, our products have delivered innovations to the industry over and over again, and we maintain a powerful environmental focus.

We are here to deliver advanced solutions to the maritime industry's biggest and toughest challenges.



### G&O COMPENSATORS



### HJ Lubricators



Compensators that eliminate vibrations at the source, reducing cost, improving comfort, and cutting fuel spend.

Piston rod stuffing boxes for two stroke engines continuously improved to live up to new fuel types entering the market.

Leading global provider of cylinder lubrication systems for two stroke marine engines.

Valves and venting equipment reducing emissions from cargo while keeping vessels, equipment and crews safe every day.

### G&O BIOREACTORS



### Global Boiler Services

Biologically cleaning of grey and black waste water before it is discharged.

Incineration of waste and oil sludge, eliminating the need for discharging to shore while reducing emissions from incineration.

Specialised 24/7 solutions for the maintenance, repair, and optimisation of marine boilers and critical equipment.





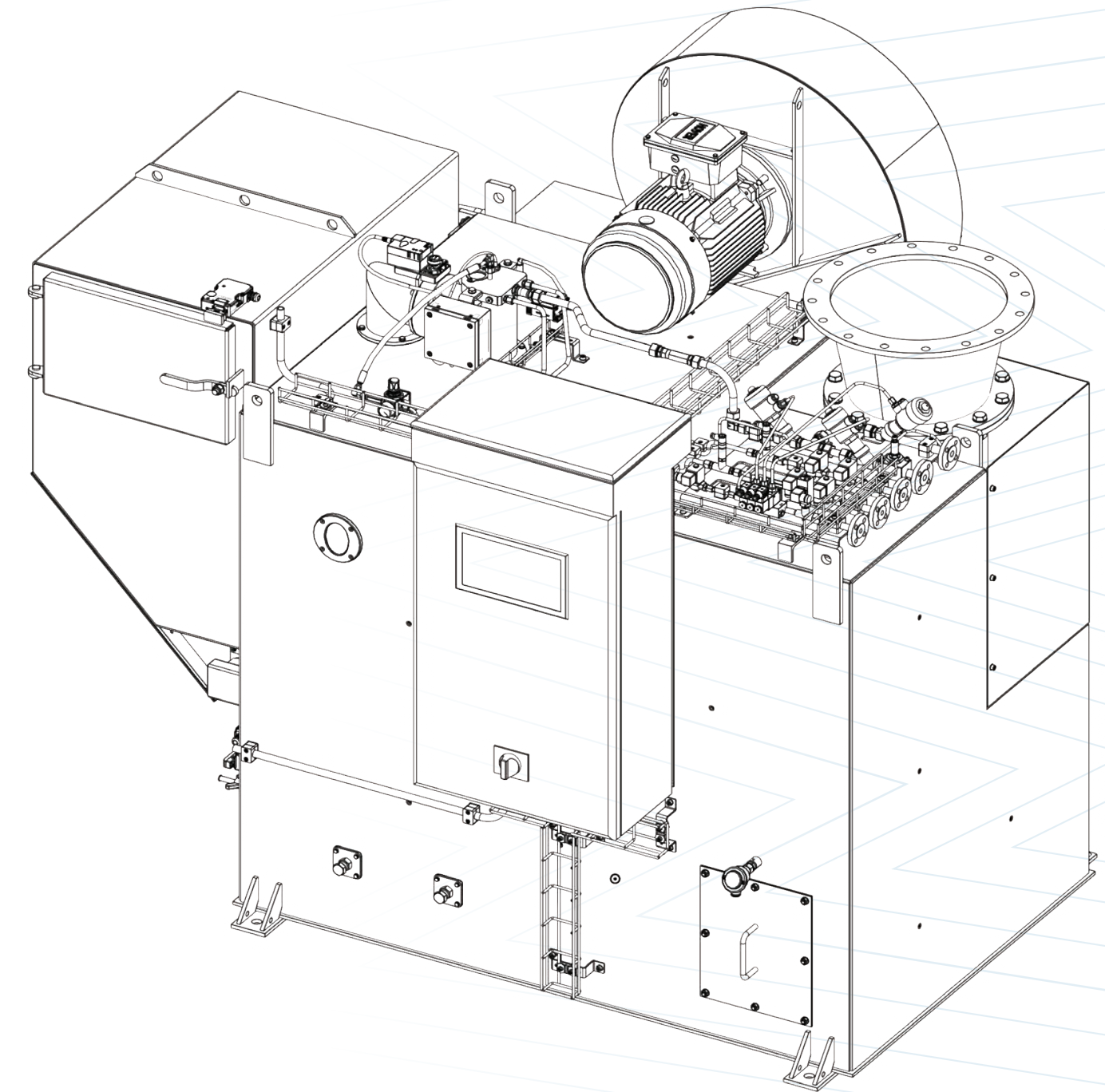
## THE ADVANCED INCINERATOR FOR TOMORROW'S SHIPS AND INSTALLATIONS

Atlas Incinerators provide cutting edge environmental benefits, advanced design and enormous efficiency gains.

Reduce your logistical hassles, save operational costs and shift to a more sustainable solution preventing waste and oil pollution of the oceans.

This is a cleaner, smarter waste solution for a challenging future.

**Contact us to find out more.**







G&O MARITIME GROUP®

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At G&O Maritime Group we enable our customers during the green transition in the maritime industry