ATLAS
INCINERATORS

MARINE LIFE WITHOUT FOOTPRINTS

Oil sludge and garbage incinerators for the marine and offshore Industries

Why incinerate?

- Incineration at high temperatures is eco-friendly, giving the ”Clean-Ship”-notation.
- Lack of Port Reception Facilites is not a problem.
- No costs for discharging sludge oil and garbage.
- No storage of waste giving odours, garbage drain water and requirement for cold storage.
- Crew are no longer tempted to illegally dispose of solid waste over the side, or sludge oil via a “magic pipe”, risking the Captain’s or their own imprisonment as well as huge fines for the Owner.

A committed partner

Atlas Incinerators A/S specialises in plants for incinerating oil sludge and waste from ships and offshore installations. We have delivered more than 8000 plants worldwide, and our expertise includes effective technical solutions and full service, all of which have put us among the world’s leading suppliers of marine incinerators. Our incinerators come with type approvals from all internationally recognised ship classification societies.

Type approval from all internationally recognised ship classification societies

Global network

Atlas Incinerators is a worldwide enterprise with production facilities in Denmark and China as well as licence production in Korea. Our head office is located in Denmark and we have an international network of agents representing us in over 30 countries.

Efficient waste handling

With an incinerator on board, all waste can be incinerated at sea be it sludge, lubricating oil or household waste, thereby reducing sea pollution.

An active partner

Atlas Incinerators is your guarantee of efficient waste incineration throughout the life of your incinerator. As your dedicated business partners we supply crew training, training DVDs, and operating manuals and place local service centres, spare part centres and service technicians at your disposal.

Atlas Incinerators offers many unique advantages

PLC display facilitating the monitoring of sludge oil combustion

Easy installation

- **Flue gas fan is not required.** A fan is both inconvenient and expensive since it requires extra installation and frequent maintenance. The Atlas Incinerator exhaust draught air ejector principle eliminates the need for a flue gas fan and is a simple and efficient solution that reduces operation shutdowns and maintenance costs.
- **Only one sludge oil mixing tank** is required, a separate water settling tank is not necessary.
- **Compact complete unit** comprising all parts such as pumps and fans etc.
- **Can be delivered skid-mounted or containerised** in order to ease installation of the equipment at shipyards or on board vessels. Our solutions include incinerators with tanks and all interconnecting piping and cabling supplied on a common base frame or in a container.

Efficient operation

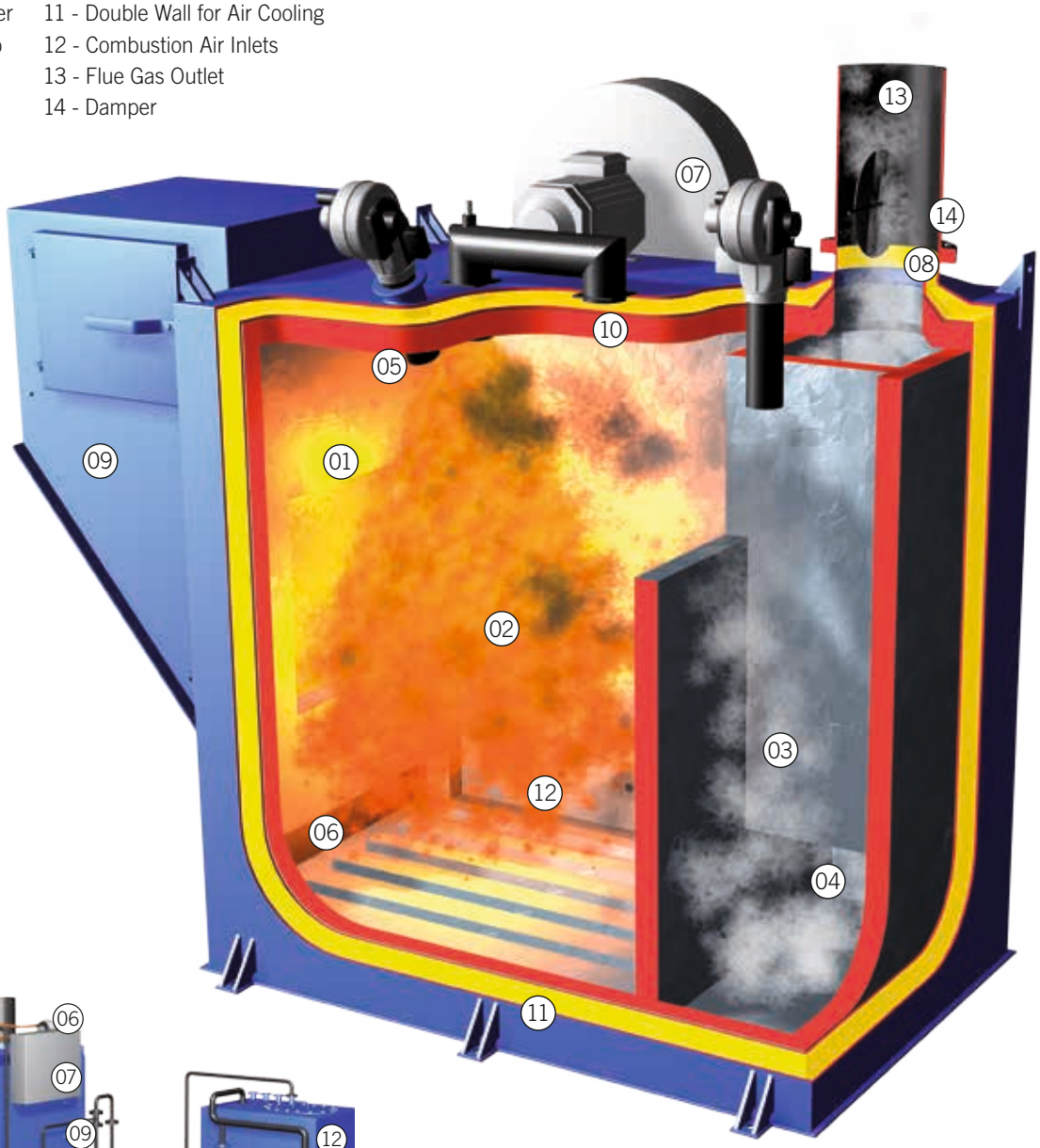
- **Burning oil with up to 50% water content.** The sludge treatment tank with its emulsification and comminution system makes it possible to burn sludge oil with a water content of up to 50% without pilot fuel and without repeated flame failures. Cutting blades ensure that any solid particles will be comminuted and burned with the sludge oil.
- **Simultaneous incineration of oil sludge and solid waste.** Atlas Incinerators can co-incinerate solid waste and oil sludge. Prompt waste incineration is hygienic and eliminates the need for waste storage on board.
- **Non back-firing sluices are available in three sizes** holding waste sacks of 30, 70 and 120 l, respectively.
- **Draining the sludge oil tank is not required.**
- **Sludge burner with no moving parts** reduces maintenance work.
- **Self cleaning strainer** in the sludge line.
- **No maintenance work required on flue gas fan.**
- **Long lasting castable refractory lining.**
- **24-hour operation.**

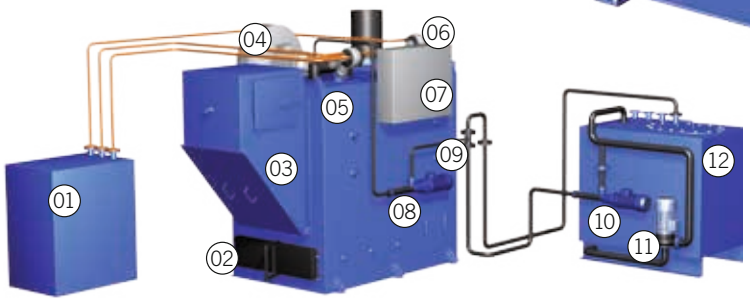
Minimising environmental impacts

- **Incinerators from Atlas Incinerators A/S are designed to meet all the latest and strict emission requirements from IMO** (The International Maritime Organisation).
- **The unique 3 chamber incinerator** helps minimise emissions - a truly environmental solution to ship waste disposal
- **Long retention time in the afterburning chambers** secures emissions well below IMO requirements.
- **Diesel oil consumption only for heating up the incinerator.**

Components Overview

01 - Charging Door
02 - Combustion Chamber
03 - Afterburning Chamber
04 - Second Afterburning Chamber
05 - Oil Burner with Built-in Pump
06 - Ash Cleaning Door
07 - Air Blower
08 - Induced Draught Air Ejector
09 - Sluice for Solid Waste
10 - Sludge Burner
11 - Double Wall for Air Cooling
12 - Combustion Air Inlets
13 - Flue Gas Outlet
14 - Damper





01 - Diesel Oil Tank
02 - Ash Cleaning Door
03 - Hot Loading Sluice
04 - Air Blower
05 - Primary Oil Burner
06 - Secondary Oil Burner
07 - Control Panel
08 - Sludge Dosing Pump
09 - Self-Cleaning Strainer
10 - Circulation Pump
11 - Mill Pump
12 - Oil Sludge Mixing Tank

Safe and efficient incineration

The Atlas Incinerator unique 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. The extra air flow prevents any unburned particles or flames from escaping from the incinerator and entering the chimney.
All chambers are protected by high-temperature castable lining.

Oil Sludge/Liquid Waste

The Oil Sludge Mixing Tanks are designed for comminution and agitation of the contents giving full access for: Oil sludge from separators, oil water separator, bilge water, sewage, black and grey water. No pilot fuel is required when the water content is below 50%.

Integrated system for solid waste

Our plants simultaneously incinerate solid waste and sludge oil without readjusting the plant.
Our sluices are designed as double-door sluices, i.e. non back-firing sluices.
Sluices are available in three sizes holding waste sacks of 30, 70 and 120 l, respectively.
For offshore platforms and vessels with large volumes of solid wastes,
we can supply plants for incinerating solid wastes only.

Safety and testing

Electronic monitoring includes a number of safety systems to prevent overheating, backfiring and operation-related risks, etc.
All our incinerators are function-tested and tested at peak load before delivery.

- MED (EC type Examination Certificate ensuring IMO requirements are met, issued by DNV)
- USCG Approval

and are type approved by:

- ABS
- GL
- DNV
- CCS
- RMRS
- NKK
- BV

Since starting business in 1974, we have met the standards required by:

- Lloyds Register of Shipping
- Croatian Register of Shipping
- RINA
- KR
- See - Berufsgenossenschaft

- and many other agencies

Self-cleaning strainer in the sludge line

Maintenance-free sludge burner of own design without any moving parts

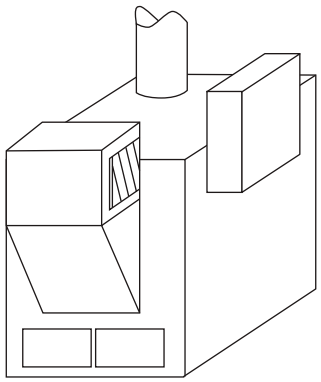
Waste Bags from

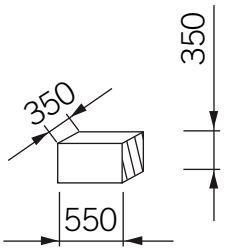
The air cooled waste sluice allows plastic bags to be used without any problems of plastic melting in the sluice.

30 litres to 120 litres

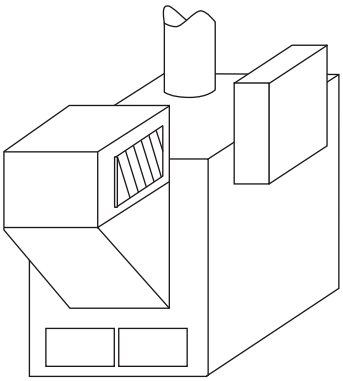
Primary blower - Flue gas fan is not required

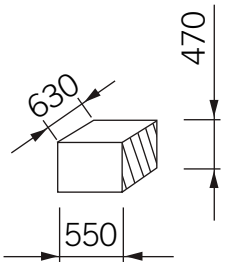
Volume of waste sluice



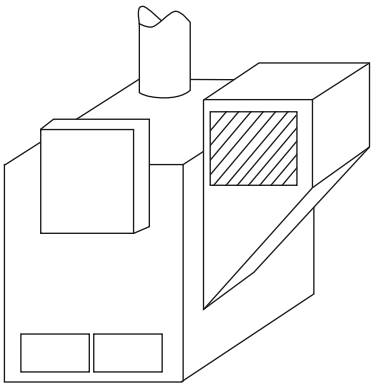


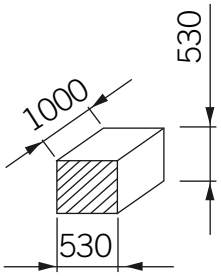
WS - Waste sluice (standard)
For type 200, 400, 600, 800, 1200
For approx. 30 l waste bags





B WS - Big waste sluice
For type 400, 600, 800, 1200, 1500, 2400
For approx. 70 l waste bags



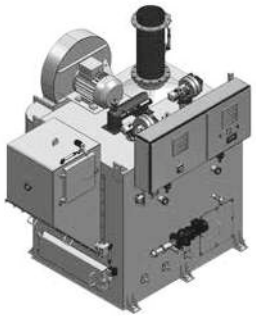


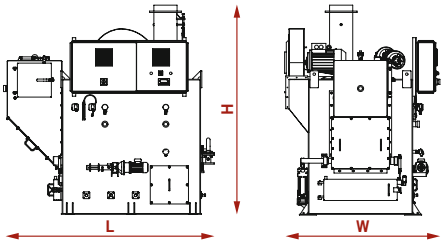
XL WS - Extra Large waste sluice
For type 1200, 1500, 2400
For approx. 120 l waste bags

Feeding door
Dimension in: mm

Capacities from 2

Top outlet





Alternative outlets

INCINERATORS	ATLAS 200 SL WS P	ATLAS 400 SL WS P	ATLAS 600 SL WS P
Data			
Combustion Capacity (kW)	209	465	581
Combustion Capacity (kcal/h)	180.000	400.000	500.000
Combustion Capacity Solid Waste IMO waste specification	40 kg/h max. 160 kg/24 hours	70 kg/h max. 280 kg/24 hours	100 kg/h max. 400 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	50 l/h at 0% water content **66 l/h at 20% water content** 100 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	2481 x 1806 x 2457
Big waste sluice (for 70 l bag) Dimensions L x W x H (mm)		2716 x 1806 x 2457	2716 x 1806 x 2457
XL waste sluice (for 120 l bag) Dimensions L x W x H (mm)			
Weight approx (kg) with standard waste sluice	3200	3700	5000

Incinerator combination possibilities

S Solid waste

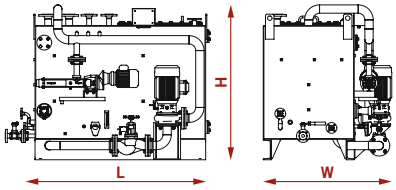
L Liquid waste

WS Waste Sluice (hot loading sluice)

P PLC Controlled Unit (Standard on all incinerators for liquid oil waste)

M Integrated mixer tank (if water content in sludge exceeds 50%)

Sludge Oil Mixing Tank



TANKS	Sludge Oil Mixing Tank		
Data	**500**	**1200**	**2600**
Capacity (m^3)	0.5	1.2	2.6
Dimensions L x W x H (mm)	1205 x 748 x 1660	1802 x 1130 x 1362	2302 x 1330 x 1682
Empty weight approx (kg)	500	700	1000

Types of heating for Sludge Oil Tank

S Steam heated

T Thermal Oil heated

E Electric heated

SUBJECT TO CHANGE WITHOUT NOTICE

00 to 2400 kW

ATLAS 800 SL WS P	ATLAS 1200 SL WS P	ATLAS 1500 SL B WS P	ATLAS 2400 L P
814	1163	1500	2326
700.000	1.000.000	1.290.000	2.000.000
100 kg/h max. 400 kg/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
70 l/h at 0% water content **95 l/h at 20% water content** 140 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
2898 x 1990 x 2842	3358 x 2138 x 2872		
3106 x 1990 x 2842	3544 x 2138 x 2872	4045 x 2803 x 3000	5300 x 2803 x 3200
	2997 x 2686 x 2872	4045 x 2833 x 3000	5300 x 2833 x 3200
6100	7000	9500	13000

Safety devices prevent unintentional opening of doors

How to order: Atlas Incinerators

ATLAS X X X X X X X X X X X X

- M: Mixing tank and PLC controlled unit (For adding diesel oil automatically if water content >50%)
- P: PLC controlled
- WS: Waste Sluice
- B: Big Sluice (Sizes 600, 800, 1200, 1500 and 2400 only)
- XL: Extra Large Sluice (Sizes 1200, 1500 and 2400 only)
- L: Liquid waste
- S: Solid waste
- Approx. capacity in kW

Example: Atlas 800 SL BWS M:
Atlas (800 kW). For incineration of both solid and liquid waste.
Equipped with Big Waste Sluice and Mixing tank.

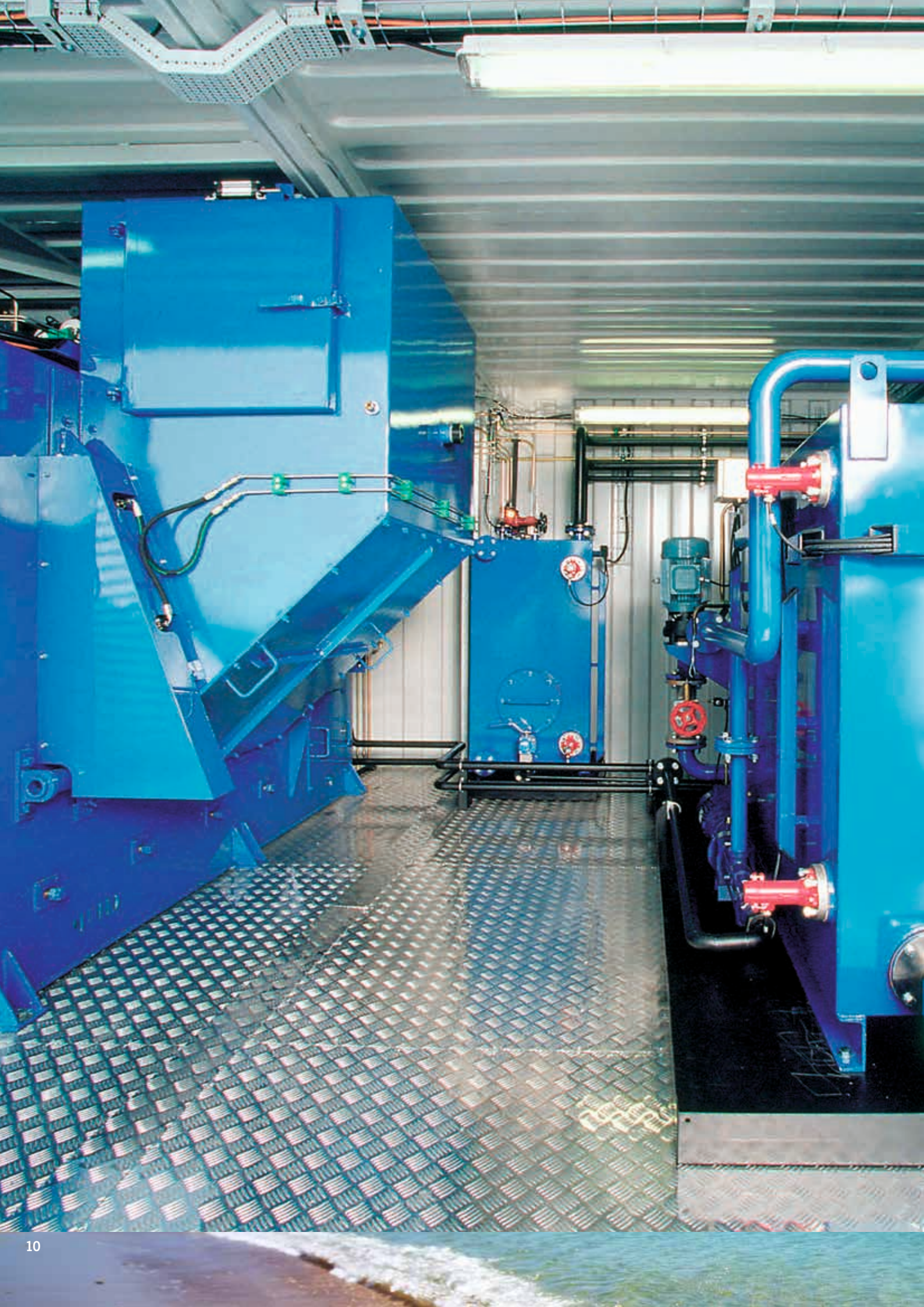
	Diesel Oil Tank	
4000	**300**	**600**
4.0	0.3	0.6
2100 x 1813 x 1670	737 x 550 x 1430	987 x 700 x 1430
1500	180	260

How to order: Atlas Sludge Tanks

ATLAS X X X X X P

- PLC controlled
- S: Steam-heated
- T: Thermal oil heated
- E: Electrically heated
- Approx. capacity in Litre

Example: Atlas sludge tank 1200 S P:
Atlas sludge tank, 1200 Litre, Steam-heated, PLC controlled



Save space and installation costs

Atlas containerised incinerators

If a new ship has not been designed with an incineration plant, Atlas Incinerators can supply a simple containerised solution.
The container is placed on deck and just needs connecting to the ship's installations. On delivery the container is complete with all installations. It has been tested and is ready for operation and use on site.
Depending on the size of the plant, incinerators will be delivered in a 10' or 20' ISO container, or in dimensions matching the space available.

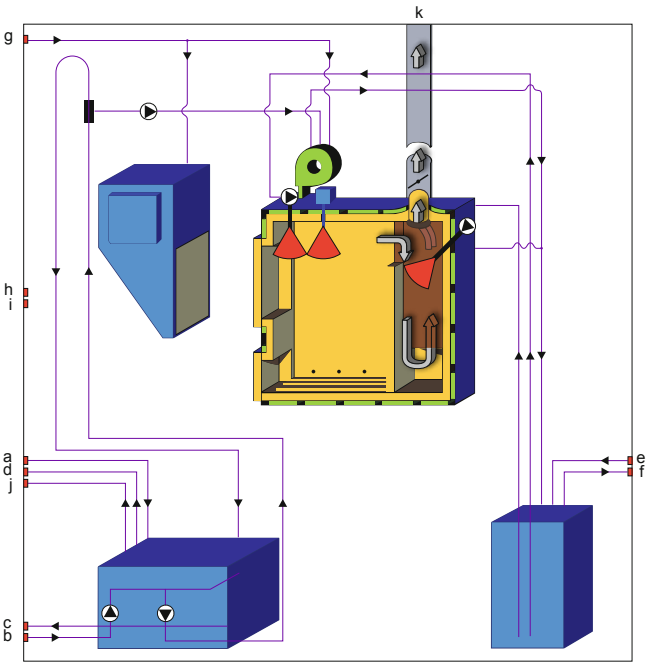
Standard equipment on containerised solutions

- Incinerator
- Sludge Oil Mixing Tank
- Diesel Oil Tank
- Lighting System
- CO2 or Water Mist Fire Fighting Equipment
- Ventilation
- Chimney
- External Emergency Switch
- Manifolds for external piping connections and Brattberg cable penetration

Options for containerised solutions

- Air compressor
- Emergency escape door
- Generator
- Separate Funnel (onshore installations only)
- Weatherization for polar and desert conditions
- Customised solutions:
  For example 10', 20', 40' or 2 x 20' side by side, with the possibility for extension modules to meet clients specific space available.

Container Connections



Connections:

a Sludge Oil Inlet
b Steam Inlet
c Condensate Outlet
d Sludge Oil Tank Ventilation
e Diesel Oil Inlet
f Diesel Oil Tank Ventilation
g Compressed Air Inlet
h Electrical Power Supply
i Emergency Switch
j Overflow Outlet
k Funnel

Complete containerised solutions including fire fighting system

Easy installation

- Plug & Play

If a plant is to be installed below deck, a skid-mounted solution from Atlas Incinerators is a rational, easy-to-install choice. It cuts installation time and ensures correct mounting and function. On delivery the plant has been tested and is ready for use on site.

Standard equipment on skid-mounted solutions

- Incinerator
- Sludge Oil Mixing Tank
- Diesel Oil Tank

Supplied with all interconnecting piping, electric cabling and necessary components mounted on a common base frame.

Options for skid-mounted solutions

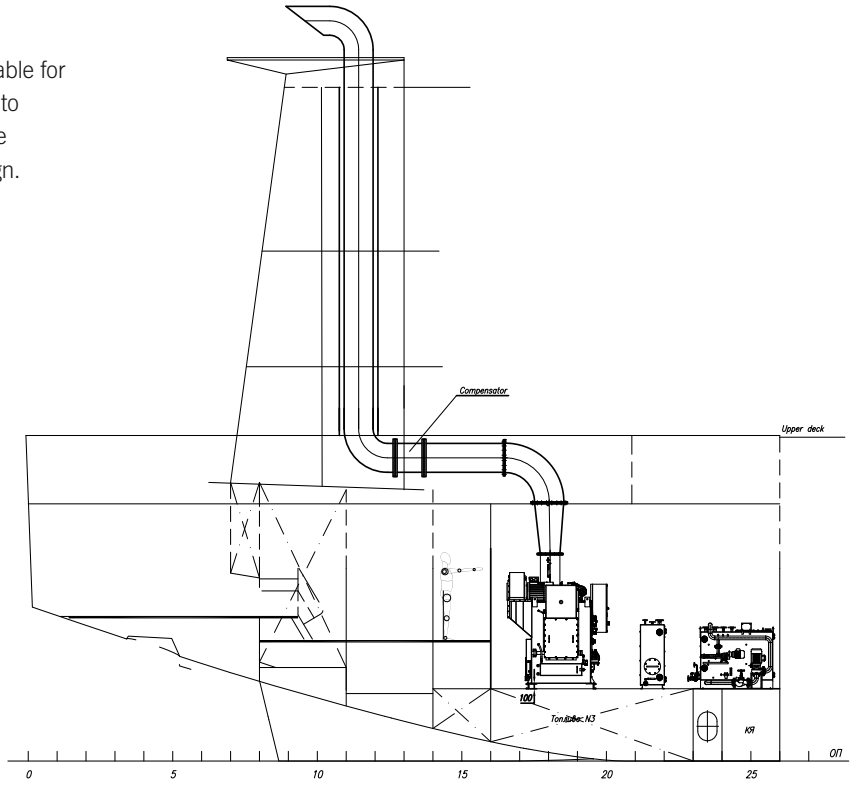
- Air Compressor
- Separate Funnel (onshore installations only)

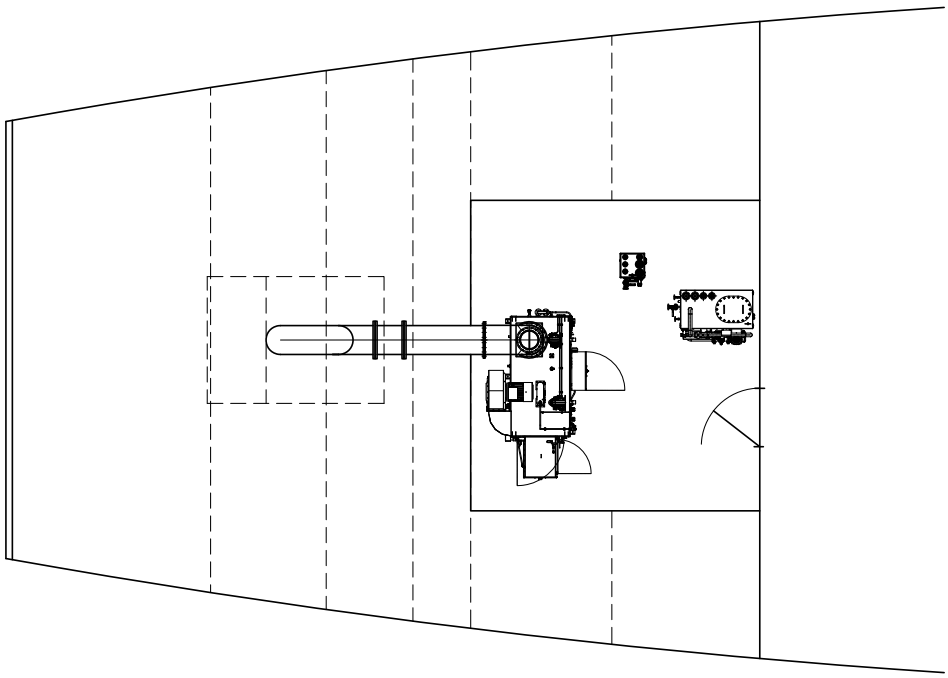
Mill pump ensuring comminution of any solid particles

Full support from the design stage the life of the ship

Design guidance

We have nearly 40 years experience, which is available for planning of your installation. Please do not hesitate to contact us if you have any questions concerning the installation of incinerators or tanks and funnel design.





and throughout

Spare parts available for incinerators supplied since 1974

Reliable service and spare parts supply

With an Atlas incinerator you get a thoroughly tested and well-documented straightforward and efficient plant.
Atlas Incinerators will provide back-up throughout the life of your incineration plant.
Our after-sales service is staffed with competent people who answer our hotline service phones and handle your spare part orders.
Selected service centres throughout the world are staffed with technicians who will remedy any incineration problems on board your ship. Our travelling technicians will assist with commissioning and help in case of complex operation problems.
We have all standard parts in stock and our service centres also stock parts.

Atlas Incinerators is the sole supplier of spare parts for ASWI, Vesta, Maxi, ATLAS and Hyundai-Atlas incinerators, and we have the original documentation necessary for delivering spares for units dating back to 1974 when the first incinerators were installed.

Installation and user manuals

All units are supplied with an installation, instruction and maintenance manual.
We also supply a training DVD for crew showing proper operation and maintenance procedures.

Agent:

ESVA Solutions

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