

aggreko

Revolutionise industry with **next generation steam technology**

Coil steam boilers



GREENER UPGRADES™

Space. Speed. Safety.

Steam is once again revolutionising industry as more and more sectors and businesses invest in energy-efficient steam boiler technology.

In turn, this is creating a growing need for temporary solutions to cover everything from additional capacity, maintenance and shutdowns to emergency breakdowns, repairs and upgrades. Which is why we've added the next generation of steam boilers to our fleet.

More than just an ordinary steam boiler, Aggreko steam boilers are designed to maximise space, speed and safety.



Space

While our steam boilers are big on efficiency, they're compact in size. Almost half the weight of other traditional fire tube steam boilers. With a 10ft or 20ft container footprint depending on output, they can fit into tight spaces and easily onto a trailer, with no need for expensive transport costs.



Speed

Our revolutionary design means there's no need to store and heat large volumes of water. Quality, dry processed steam can be produced on-demand in as little as 3 minutes.



Safety

Safety is our highest priority. The low water volume design of our steam boilers ensures high levels of safety.

Steam boilers from Aggreko

2T/hr Steam Boiler

Size ISO 10ft high-cube	Compatible For light oil/natural gas/HVO
Steam capacity 2 tonnes per hour	Net heating capacity 1227 kW
Steam operating pressure Up to 14 bar	Length x width x height 3.05m x 2.43m x 2.89m
Power supply 400 V, 3-phase, 50 Hz	Weight Transport weight 5,700 kg Operational weight 9,600 kg



5.5T/hr Steam Boiler

Size ISO 20ft high-cube	Compatible For light oil/natural gas/HVO
Steam capacity 5.5 tonnes per hour	Net heating capacity 3437 kW
Steam operating pressure Up to 14 bar	Length x width x height 6.05m x 2.43m x 2.89m
Power supply 400 V 3-phase / 50 Hz	Weight Transport weight 10,680 kg Operational weight 15,500 kg



Features and benefits

Features	Benefits
 Space	Containerised design - Our steam boiler houses all elements in one container - coil steam boiler, chemical treatment, blowdown tank, water softener and hotwell tank.
	Small tank - Unlike a traditional steam boiler, our steam boiler has a smaller reservoir using less water
	Compact installation - Our steam boilers typically weigh less than half the weight of a traditional steam boiler and can be delivered and sited without the use of a costly crane
 Speed	Single tube - Features just one single coiled tube, shaped like a spring
	Faster start up - Produces high-quality dry processed steam quicker than conventional steam boilers
 Safety	Longer run time - Due to the lower volume of water, run times are up to 3.5 times longer than traditional fire tube boilers, reducing manual intervention

Inside the 5.5t coil steam boiler – quality produced efficiently

Coil

The coil is designed for optimal heat transfer at all steam output levels, its arrangement maximises efficiency and prevents hot spots.

Steam separator

A highly efficient design produces at least 99.5% dry saturated steam, even under variable loads.

Dual fuel burner

Burns with gas/diesel or HVO to minimise carbon footprint. Complies with the toughest emission standards for NOx.

Blowdown tank

The blowdown tank manages salt and molecule buildup in boiler water to save fuel, water and chemicals.

Chemical dosing tank

The chemical dosing tank introduces chemicals into the water that remove residual oxygen and form a protective layer on the steam boiler internals.

Steam back pressure control valve

Ensures that the pressure is always above the set minimum pressure to avoid the risk of flooding when the steam generator is under extremely high load.

Deaerator/Hotwell tank

Stores water in a circulation tank to increase the supply and respond quickly to sudden demand. Removes oxygen from softened water to prevent boiler rust.

High pressure feed water pump

Ensures stable flow across varying pressures without being affected by high water temperatures. It is robust, reliable, and low.

Heat recovery steam generator (HRSG) feedwater

Optional connections for the feed water supply of the Aggreko steam generator with heat recovery.

Duplex water softener

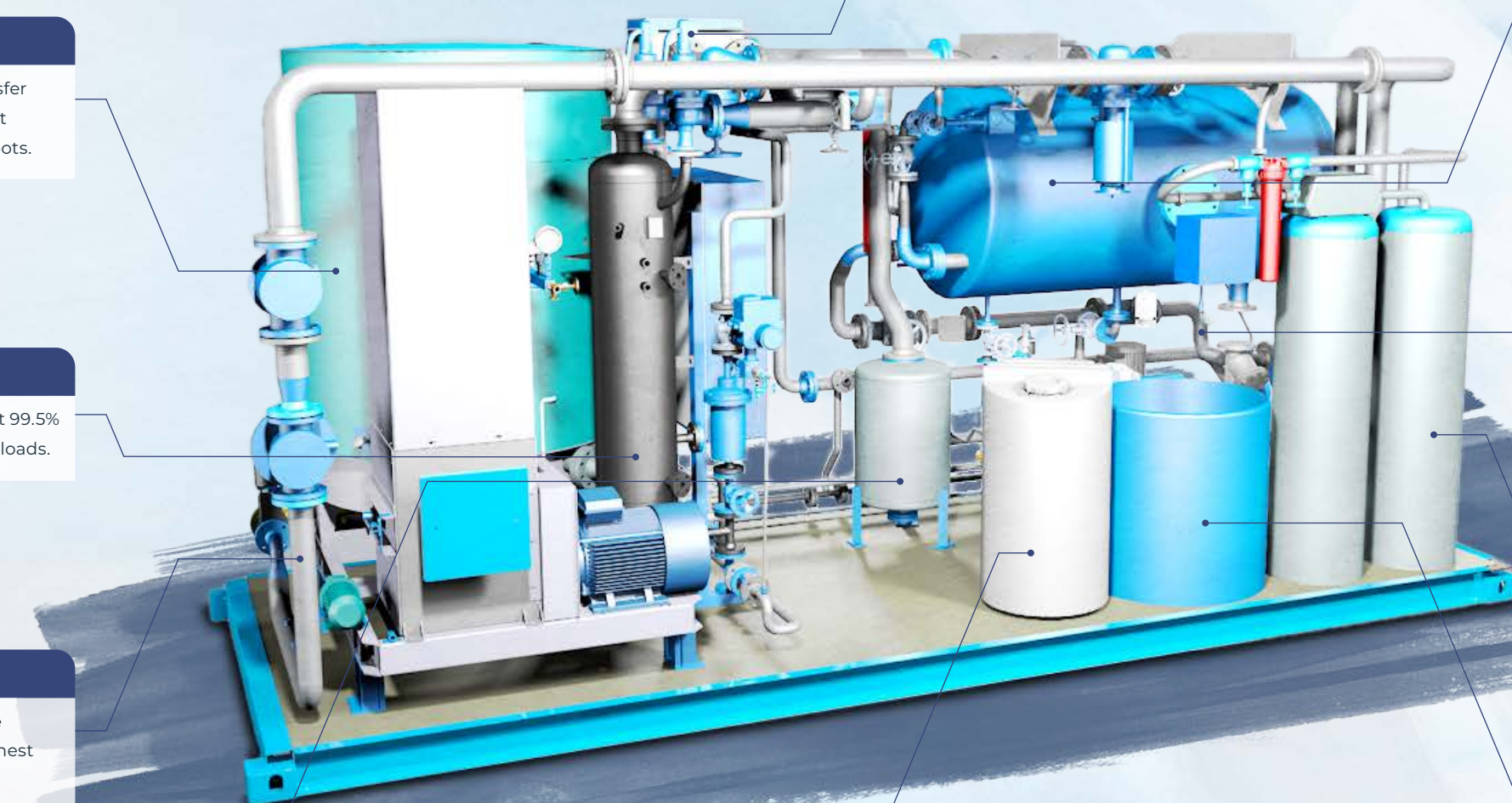
Removes calcium, magnesium, and bicarbonate.

Heat recovery steam generator blowdown

Optional connections for the Aggreko steam generator blow-off system for heat recovery.

Brine tank

Contains salt which is used to fill the water softener.



Simple yet ingenious

A revolutionary design - take a closer look at our 3 feature components.

Pump, coil and steam separator.



Pump

Manufactured specifically to provide forced circulation through the coil. The feedwater pump ensures stable flow over a wide range of varying pressure conditions. Operation does not rely on mechanical seals, packing rings or glands and is completely unaffected by high water temperature. Robust and reliable construction is designed to minimise ongoing maintenance.

The pumping rate is synchronised to the burner firing rate so that the steam output can be scaled up and down as required.

Coil

Developed for optimum heat transfer at all steam output levels. The coil is a single water tube which is stacked in spirally wound layers in the upper section to form a 'water wall' around the combustion chamber of the lower section. The arrangement of coils, their diameter, the spacing between layers, and the gaps between tube turns within various temperature zones are all designed to maximise efficiency and prevent hot spots.


The spiral construction of the coil is extremely robust and counteracts the effects of expansion during rapid heating and cooling.

Separator


A highly efficient centrifugal design that has no moving parts. The very high steam quality is produced even under variable load conditions and is at least 99.5% dry saturated. The steam/water mixture is directed over a series of vanes and separated by means of centrifugal force. The water is collected, and dry steam is discharged through the top outlet.

Steam boilers for business

Our steam boilers can support your operations, from petrochemical and refining to manufacturing, pharmaceuticals, food and beverage and healthcare. Whether needed as part of your daily operations, to resolve capacity challenges, for equipment testing, maintenance and turnarounds, replacing inefficient equipment or scaling up production, our mobile products can be installed on-site quickly and efficiently to cater for your needs.



Manufacturing



Food and beverage

Cleaning

Evaporation

Sterilisation


Dairy pasteurisation

Cooking

Sanitisation

Distillation

Brewing



Plastics and rubber

Injection moulding


Pellet drying

Moulding

Extrusion

Forming

Heating




Metal production

Refining

Shaping

Space heating



Pulp and paper


Bleaching

Cooking

Drying

Boiling

Pulping




Textiles

Dyeing

Printing

Finishing



Pharmaceuticals

Chemical reactions

Sterilisation

Humidification

Distillation

Crystallisation

Evaporation



PCR

Process heating

Distillation

Vessel and tank heating

Start up steam cleaning

Tracing and heating

Shutdowns

Hydrogen production

Cleaning and sterilisation

Waste incineration

Chemical production and reactions

Line cleaning

Coking



Chemical processing

Compression

Thermoforming

Boiling

Chemical reactions



Utilities

Heating and cooling plants

Cogeneration plants

Hot water for district heating

Hot shutdown

Gas turbines



Healthcare

Cleaning

Humidification

Space heating



FM, government and defence

Space heating

Cleaning



Shipping

Hot water systems

Cleaning

Power tooling

GREENER UPGRADES™

We're committed to offering flexible, and sustainable power and temperature control solutions to support customers in making choices that are kinder to the environment. These small switches make a big difference in lowering NOx, particulate matter and CO2 emissions, and reducing fuel consumption.

Our investment in new technology, alongside our consultative approach, delivers sustainable solutions for our customers that improve efficiencies and lower costs.

Load on demand

Load on demand is a smart solution that can be used to accommodate fluctuating demand, delivering scalable power when you need it most. The fully automated system can switch the engines on and off to produce only as much power as is needed for better efficiency, reduced fuel and lower emissions.



Rightsizing

Generators that are oversized or poorly matched for their chosen application will lead to inefficiencies. With rightsizing we can match the power generation capacity with your specific power demands, maximising efficiency, minimising fuel usage and reducing emissions.

Stage V generators

Aggreko is proud to be the first UK hire company to design and manufacture our own Stage V generators. Developed to a high specification, we have the largest fleet available nationwide, with models ranging from 30 kVA - 1350 kVA. Robust and fuel efficient, our low noise, low emission generators can deliver on your temporary power needs without sacrificing performance. Not simply following the standard but setting it.



Battery Energy Storage Systems (BESS)

We are proud to house the widest range of battery fleet from 45 kVA - 1 MVA which can be used across a variety of applications for a large range of sectors, enabling you to maximise your operational output whilst minimising downtime and emissions.



PowerMX

Increase your resilience and benefit from the power of multiple generators in one compact container. Perfect for variable power needs, and with the ability to operate effectively even at low loads, our high density PowerMX range house multiple Stage V engines in one 20ft container that can work together for maximum power, or independently to suit demand for optimum efficiency. With Stage V engines fitted as standard you can be sure of reduced emissions and fuel consumption.

PowerMX2 is our 1250 kVA generator containing 2 x 650 kVA engines.

PowerMX3 is our 1350 kVA generator containing 3 x 450 kVA engines.



Oil-free air compressors

Our electric driven VSD and Stage V 100% oil-free air compressors are compliant with the strictest air quality standard ISO 8573-1 Class O. Delivering the cleanest air to protect your processes, products and people, our compressors are more efficient, resulting in lower energy costs and, with no oil to consider, a reduction in maintenance costs and downtime too. They are also kinder to the environment producing low emissions and without the requirement to dispose of oil or condensate.



HVO fuel

In April 2022, we made the commitment to phase out diesel within our fuel management services, in favour of HVO. Proven to eliminate up to 90% of net CO2 greenhouse gas, significantly reduce NOx, particulate matter and carbon monoxide emissions, while being 100% biodegradable, non-toxic and odour-free.



Aggreko Remote Monitoring

With ARM we can monitor the health of our equipment from a central operation.

ARM also enables us to analyse consumption data. This is key when reviewing the performance and efficiency of our solutions onsite. By monitoring loads and times of power use we can determine if and where improvements can be made. These insights and our expertise can maximise efficiencies and reduce emissions, energy and fuel costs for our customers.

You'll benefit from:

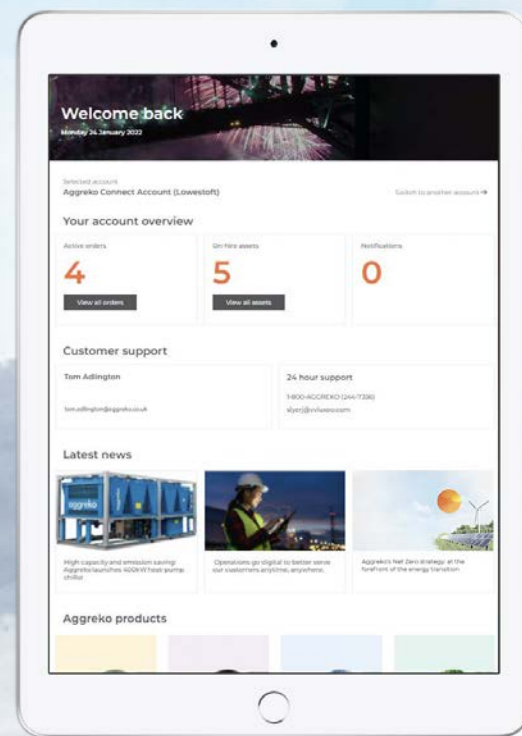
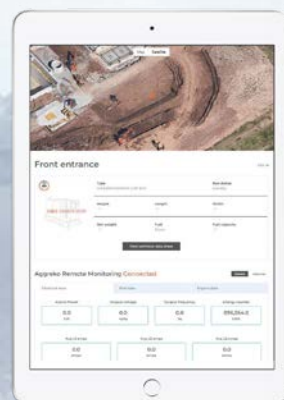
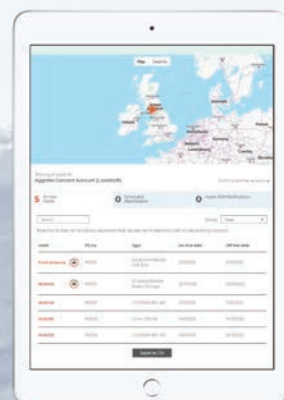
- Round-the-clock remote monitoring services – 24/7 365 days a year
- Rapid response to emergencies
- Monitoring of key product data to enhance efficiencies



Aggreko Connect

Aggreko Connect is your online hub providing access to all your information in one central place. It delivers insights into your business enabling you to maximise your operational efficiency. With speed and simplicity, you can view equipment on-hire, review your orders, and even monitor kit performance.

It will also highlight should equipment stop or if a fault occurs so any issues can be remedied. These actionable insights at your fingertips prevent downtime and deliver peace of mind.



Choose Aggreko

Our team deliver a full service to our customers, from cables to kit, fuel to software. We work in partnership to help guide businesses through their power and temperature control challenges delivering energy solutions that lower harmful emissions and reduce fuel costs in the process.

In conjunction with the right technology, we are committed to innovation and continue to test our equipment to maximise efficiencies. This insight along with experience and knowledge of our industry allows us to deliver the right solutions with optimum operating capabilities.

How your business can benefit



Lower emissions

helping you reach your carbon reduction targets



Low noise

ideal for projects when sound needs to be kept to a minimum



Reduced fuel usage and costs

saving money on your bottom line



Optimising energy usage effectively

delivering greater efficiencies



Actionable insights

remote monitoring through ARM which allow you to optimise, control and manage your on-hire fleet through the technical support desk



Fast installation and commissioning

plug and play with the Aggreko ecosystem, saving you time and hassle

Talk to **Aggreko** today to see how we can **support you**



aggreko



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