

Temporary steam, hot and warm water solutions

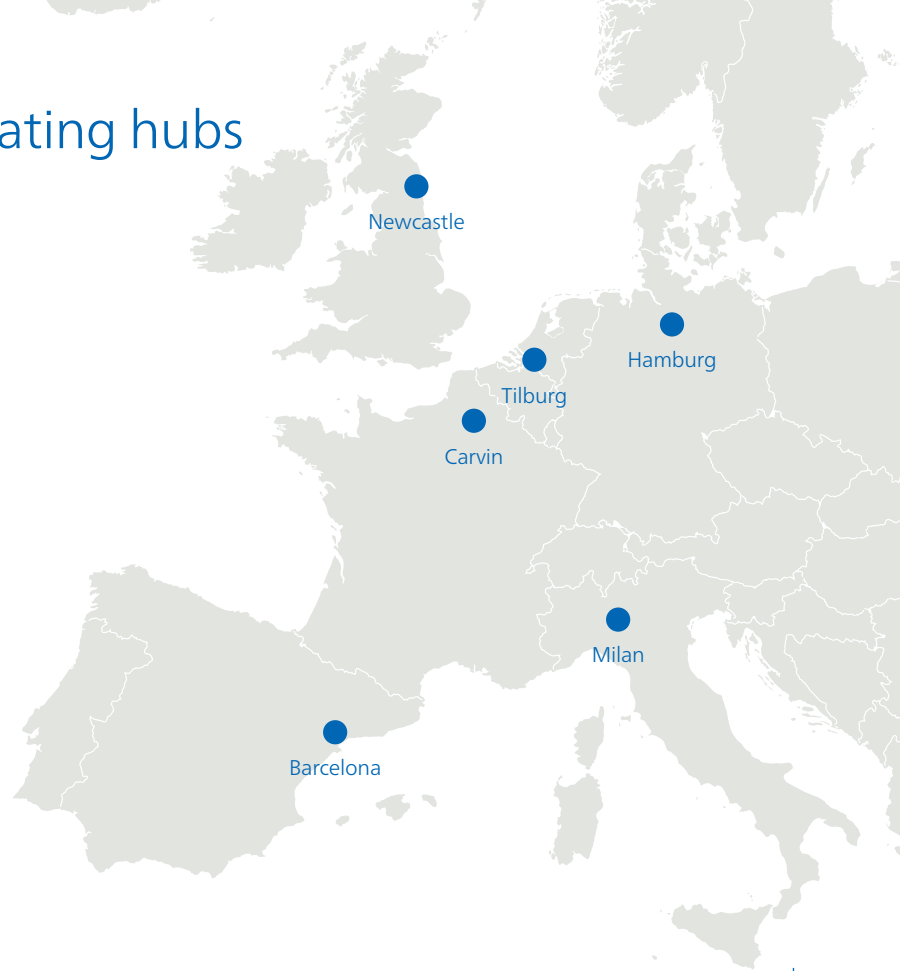


Part of the Atlas Copco Group

Specialty Steam and heating hubs across Europe

For short or long term, demands, **planned contingencies** or **emergencies**, Eco Steam and Heating Solutions is available 24/7 to assist you and provide the most **cost- and energy-effective temporary steam, hot and warm water solutions**. Our fleet consists of state-of-the-art material that allows us to design solutions that will meet your specific needs. Quality of service, environmental care and personnel safety are guaranteed. An industry first.

Our network of Steam and heating hubs is connected to all Atlas Copco Specialty Rental locations across Europe. Assuring quick and efficient interventions for emergencies or planned contingencies.



Part of the Atlas Copco Group



Fleet

Minimize downtime and disruption

Whilst a regular occurrence, we hear from many people that a boiler's service can often be here before they know it! However, taking a proactive approach is critical to ensuring minimum downtime and disruption.

To mitigate the impact boiler maintenance may have on your productivity, we can supply you with a temporary solution to cover boiler outages in industrial or manufacturing. District heating and warm or hot water application as well. A well planned and executed hire boiler installation can mean a seamless transition from permanent to temporary solution, leaving operations running at 100% and minimizing the impact during the install and transitional phase.

Early planning is therefore critical to guarantee that you have secured the most suitable temporary solutions.

The benefits of early planning for your temporary solution are extensive

- ✓ **S**olve and identify any problems or concerns in advance
- ✓ **T**ake the pressure off the outage period
- ✓ **E**nsure availability of the most appropriate asset
- ✓ **A** planned approach can be accounted for within annual budgets
- ✓ **M**inimise impact on operations

Plug and steam

Hypermobile modular steam solution

When faced with a sudden decline in steam production or availability, getting a temporary steam installation onsite, and up and running, is time-consuming. And when steam is running, time is a commodity we don't have. Logistical restrictions, commissioning, etc.

Thanks to ECO's hypermobile specialty steam solutions, we are not only onsite quickly, but we can start steam production even quicker. Our signature "Plug and steam" solutions are available from 650 kg/hour up to 2.5 ton/hour and starting from a 20' container.



Advantages for you:

- ✓ Immediate availability
- ✓ Maximum capacity on minimal footprint
- ✓ Swift commissioning
- ✓ Dual fuel and low NOx burner
- ✓ Automatic continuous desalting
- ✓ Safe platform access
- ✓ User-friendly
- ✓ Hypermobile – no special logistical requirements
- ✓ CE, TUV and SIL certified
- ✓ Integrated feedwater tank and feedwater pumps

Three pass fire tube boilers equipped with dual fuel burners. Natural gas or light oil fuel

Furthermore, the low NOx design guarantees emissions in accordance with MCPD. These temporary solutions satisfy all legal requirements and regulations in the area of PED 97/23/EC, as well as all applicable environmental, noise and safety requirements.



Advantages

- ✓ Mobile and hypermobile packaged boilers
- ✓ Easy and safe installation process
- ✓ From single boiler to complete boilerhouse
- ✓ Emissions according MCPD
- ✓ CE, TUV & SIL certified
- ✓ Up to 22t/h
- ✓ Integrated feedwater pumps
- ✓ Special authorization for Germany

Warm and hot water solutions

Never in the cold

Warm and hot water boilers are mainly used in heating applications for local and district heating as well as industrial process heating systems. The difference between the two is temperature. Warm water applications reach a maximum temperature of 110°C. And hot water goes up to a maximum temperature of 190°C. Our units are capable of reaching outputs of 150 kWth up to 14,5 MWth. The entire fleet seamlessly connects to your installation to ensure optimal working parameters and avoid any quality losses. From managing a specific temperature or performance to pressure parameters, we have all bases covered. Depending on timing or urgency, smaller units in 10 or 20ft containers can be mobilized quickly, but tailor-made solutions are also available. Including accessories either integrated or available as separate unit.



Temporary steam and heating solutions

Reliable, safe, agile and efficient

For many processes in food and beverage, (petro)chemicals or paper, steam is a vital utility. If you have a temporary demand for steam, whether planned or unexpected, we have a reliable, safe and energy-efficient solution on rent.

Maintenance, testing or temporary production increase; we make sure you receive a bespoke solution to keep your production running full steam.

To ensure you get a fast start-up and a safe installation, ECO Steam and Heating Solutions powerful fire tube boilers are energy-sufficient and come complete with all the necessary accessories.

Besides industrial applications, our fleet also supports public and private district heating applications. With fluctuating seasonal demands, temporary hot or warm water solutions are ideal for covering to cover a seasonal demand increase.

Wherever and whenever you might need support during your project, our service technicians are on call 24/7.



Some of
the segments
we serve



Chemicals



Refineries



Food and Beverage



Pulp and paper



District heating

Technical specifications

Temporary steam

Steam boilers in 20-foot container/CE assembly					
Capacity	Max. working pressure	Max. design pressure	Transport weight	Measurements L x W x H	Fuel
650 kg/hr	14 Barg	16 Barg	approx. 8.400 kg	6,2 x 2,5 x 2,9 m	l.oil/natural gas
1.000 kg/hr	14 Barg	16 Barg	approx. 8.700 kg	6,2 x 2,5 x 2,9 m	l.oil/natural gas
1.500 kg/hr	14 Barg	16 Barg	approx. 10.800 kg	6,2 x 2,5 x 2,9 m	l.oil/natural gas
2.000 kg/hr	14 Barg	16 Barg	approx. 11.200 kg	6,2 x 2,5 x 2,9 m	l.oil/natural gas
2.500 kg/hr	18 Barg	20 Barg	approx. 11.800 kg	6,2 x 2,5 x 2,9 m	l.oil/natural gas
4.000 kg/hr	16 Barg	18 Barg	approx. 19.800 kg	9,9 x 3,0 x 3,3 m	l.oil/natural gas

Steam boilers for external use / CE assembly					
Capacity	Max. working pressure	Max. design pressure	Transport weight	Measurements L x W x H	Fuel
6.000 kg/hr	25 Barg	28 Barg	approx. 28.800 kg	9,5 x 2,8 x 3 m	l.oil/natural gas
10.000 kg/hr	27 Barg	30 Barg	approx. 39.800 kg	10,3 x 3,0 x 3,4 m	l.oil/natural gas
12.000 kg/hr	25 Barg	28 Barg	approx. 52.000 kg	11,7 x 3,5 x 3,8 m	l.oil/natural gas
16.000 kg/hr	22 Barg	24.5 Barg	approx. 52.000 kg	11,7 x 3,5 x 3,8 m	l.oil/natural gas
22.000 kg/hr	21 Barg	23.5 Barg	approx. 68.000 kg	12,4 x 3,9 x 4 m	l.oil/natural gas

Technical specifications

Warm water

Warm water boilers in 10-foot container					
Capacity	Max. design pressure	Max. temp.	Transport weight	Measurements L x W x H	Fuel
150 kWth	10 Barg	110 °C	approx. 3.500 kg	3,5 x 2,5 x 2,6 m	l.oil/natural gas
250 kWth	10 Barg	110 °C	approx. 3.600 kg	3,5 x 2,5 x 2,6 m	l.oil/natural gas
350 kWth	10 Barg	110 °C	approx. 3.700 kg	3,5 x 2,5 x 2,6 m	l.oil/natural gas
500 kWth	10 Barg	110 °C	approx. 4.100 kg	4,5 x 2,5 x 2,6 m	l.oil/natural gas

Warm water boilers in 20-foot container					
Capacity	Max. design pressure	Max. temp.	Transport weight	Measurements L x W x H	Fuel
700 kWth	16 Barg	110 °C	approx. 6.200 kg	6,2 x 2,5 x 2,8 m	l.oil/natural gas
1.100 kWth	16 Barg	110 °C	approx. 7.800 kg	6,2 x 2,5 x 2,8 m	l.oil/natural gas
1.500 kWth	16 Barg	110 °C	approx. 9.800 kg	6,2 x 2,5 x 2,8 m	l.oil/natural gas
2.000 kWth	16 Barg	110 °C	approx. 9.800 kg	6,2 x 2,5 x 2,8 m	l.oil/natural gas
2.500 kWth	16 Barg	110 °C	approx. 11.400 kg	6,8 x 2,5 x 2,8 m	l.oil/natural gas

Warm water boilers in custom-made container					
Capacity	Max. design pressure	Max. temp.	Transport weight	Measurements L x W x H	Fuel
5.000 kWth	16 Barg	110 °C	approx. 29.800 kg	11,6 x 3,9 x 3,9 m	l.oil/natural gas
6.000 kWth	16 Barg	110 °C	approx. 32.600 kg	11,6 x 3,9 x 3,9 m	l.oil/natural gas

Technical specifications

Hot water

Hot water boilers in 20-foot container/CE assembly

Capacity	Max. pressure	Max. temp.	Transport weight	Measurements L x W x H	Fuel
650 kWth	16 Barg	190 °C	approx. 7.200 kg	6,2 x 2,5 x 2,9 m	l.oil/natural gas
1.100 kWth	16 Barg	190 °C	approx. 8.800 kg	6,2 x 2,5 x 2,9 m	l.oil/natural gas
2.000 kWth	16 Barg	190 °C	approx. 10.800 kg	6,2 x 2,5 x 2,9 m	l.oil/natural gas

Hot water boilers in custom-made container/CE assembly

Capacity	Max. pressure	Max. temp.	Transport weight	Measurements L x W x H	Fuel
2.500 kWth	16 Barg	180 °C	approx. 18.200 kg	7,8 x 3,0 x 2,95 m	l.oil/natural gas
5.000 kWth	16 Barg	205 °C	approx. 32.600 kg	11,6 x 3,9 x 3,9 m	l.oil/natural gas

Hot water boilers for external use/CE assembly

Capacity	Max. pressure	Max. design pressure	Transport weight	Measurements L x W x H	Fuel
approx. 3.95 MWth	25 Barg	28 Barg	approx. 28.800 kg	9,5 x 2,8 x 3 m	l.oil/natural gas
approx. 6.55 MWth	27 Barg	30 Barg	approx. 39.800 kg	10,3 x 3,0 x 3,4 m	l.oil/natural gas
approx. 10.5 MWth	22 Barg	24,5 Barg	approx. 52.000 kg	11,7 x 3,5 x 3,8 m	l.oil/natural gas
approx. 14.5 MWth	21 Barg	23,5 Barg	approx. 68.000 kg	12,4 x 3,9 x 4 m	l.oil/natural gas



Accessories

Complete setups to the smallest details

Economiser

Economiser			
Capacity	Water intake temp.	Max. power	Type
6.000 kg/hr	105°C	approx. 260 kW	Eco I 1750/12-10
10.000 kg/hr	105°C	approx. 514 kW	Eco I 1750/12-10
16.000 kg/hr	105°C	approx. 784 kW	Eco I 1750/12-12
20.000 kg/hr	105°C	approx. 1.060 kW	Eco I 1750/12-16

Complete setups to the smallest details

Deaerators

LP Deaerators in container				
Volume	Max. pressure	Max. temp.	Transport weight	Measurements L x W x H
12 m ³	0,5 Barg	105 °C	approx. 7.200 kg	6,2 x 2,5 x 2,9 m
HP Deaerators in container/CE assembly				
Volume	Max. pressure	Max. temp.	Transport weight	Measurements L x W x H
10 m ³	6 Barg	160 °C	approx. 7.400 kg	6,2 x 2,5 x 2,9 m
12 m ³	6 Barg	160 °C	approx. 7.800 kg	6,2 x 2,5 x 2,9 m

Complete setups to the smallest details

Feedwater tanks

Boiler feedwater tanks in container				
Volume	Max. pressure	Max. temp.	Transport weight	Measurements L x W x H
3 m ³	atmospheric	85 °C	approx. 4.600 kg	6 x 2,5 x 2,8 m
14 m ³	atmospheric	85 °C	approx. 6.100 kg	6 x 2,5 x 2,9 m

Complete setups to the smallest details

Oil tanks

Oil tanks in 10-foot container			
Volume	Certified	Transport weight	Measurements L x W x H
3 m ³	IBC / Kiwa / Vlare	approx. 2,900 kg	3 x 2,5 x 2,6 m

Oil tanks in 20-foot container			
Volume	Certified	Transport weight	Measurements L x W x H
5 m ³	Kiwa / Vlare	approx. 4.300 kg	6 x 2,5 x 2,8 m
10 m ³	Kiwa / Vlare	approx. 5.400 kg	6 x 2,5 x 2,8 m
16 m ³	Kiwa / Vlare	approx. 6.200 kg	6 x 2,5 x 2,8 m

Complete setups to the smallest details

Pneumatex

Pneumatex – automatic expansion unit in container				
Volume	Max. pressure	Max. temp.	Transport weight	Measurements L x W x H
2 m ³	7,8 – 10 Barg	90 ° / 110 °C	approx. 3.200 kg	3 x 2,5 x 2,6 m
4 m ³	7,8 – 10 Barg	90 ° / 110 °C	approx. 4.600 kg	6 x 2,5 x 2,9 m
5 m ³	7,8 – 10 Barg	90 ° / 110 °C	approx. 4.900 kg	6 x 2,5 x 2,9 m

Complete setups to the smallest details

Water treatment

Transportable water softeners			
Hourly capacity	Capacity	Transport weight	Measurements L x W x H
1,5 m ³	67 m ³ / 1 °D	approx. 550 kg	2 x 0,7 x 2,1 m
2,5 m ³	152 m ³ / 1 °D	approx. 620 kg	2 x 0,7 x 2,1 m
3,5 m ³	211 m ³ / 1 °D	approx. 660 kg	2 x 0,7 x 2,1 m

Water softeners in 10 or 20-foot container			
Hourly capacity	Capacity	Transport weight	Measurements L x W x H
6 m ³	450 m ³ / 1 °D	approx. 2.600 kg	3 x 2,5 x 2,6 m
8 m ³	600 m ³ / 1 °D	approx. 2.800 kg	3 x 2,5 x 2,6 m
12 m ³	900 m ³ / 1 °D	approx. 3.700 kg	4 x 2,5 x 2,9 m
16 m ³	1.200 m ³ / 1 °D	approx. 4.400 kg	4 x 2,5 x 2,9 m
20 m ³	1.500 m ³ / 1 °D	approx. 5.400 kg	4 x 2,5 x 2,9 m

Complete setups to the smallest details

Heat exchangers

Hot water overflow tank			
Volume	System	Transport weight	Measurements
1 m ³	Atmospheric	approx. 300 kg	Ø=1,0 H=1,5 m
3 m ³	Atmospheric	approx. 1.400 kg	Ø=1,5 H=2,5 m

Cooling vessels			
Volume	System	Transport weight	Measurements
1 m ³	PED	approx. 400 kg	Ø=1,0 H=1,5 m

Complete setups to the smallest details

Pumps

Pump container			
Capacity	Discharge head circulation	Transport weight	Measurements L x W x H
15 m ³	295 mtr. W.C.	approx. 3.600 kg	3 x 2,5 x 2,9 m
30 m ³	218 mtr. W.C.	approx. 3.600 kg	3 x 2,5 x 2,9 m



**More than
machines**

A large project coming up?

We have the experts and equipment to meet every milestone. For short or long-term rental of high quality air, nitrogen, steam or reliable power and state-of-the-art accessories, we are able to meet your needs around the clock for the entire duration of the project.

Seeing is believing: Total Solution Visualization

Your requirements: by providing an accurate visual presentation of the setup, all involved parties can assess and coordinate prior to the pre-commissioning phase. This ensures the highest operational efficiency once installation commences. We can provide detailed 3D images, videos, 2D installation drawings, and more upon request. Even if footprint isn't your first concern, visualization has many other advantages.

Mitigate risks: thanks to accurate simulations QHSE focus points and other challenges can be determined well in advance and all involved parties can be briefed.

Certification and compliance: Total Solution Visualization allows us to provide all compliance documents needed for project certifications and other administrative requirements.

Peace of mind: by visualizing the setup, you know exactly what to expect. This allows you to align contractors well in advance, which, in turn, improves operational efficiency throughout the project.

Exceeding your expectations: by adding the Total Solution Visualization tool to our services, we further emphasize our Total Solution approach.



Full service and complete expertise

- **Calculation & design:** to answer your specific needs, our specialists make all calculations, design, and engineer a customized set-up according to industrial standards.
- **QSHE management:** the main focus points we take into account for your solution are quality, safety, health and environment.
- **Logistics:** your installation's entire journey is planned and arranged, to and from your premises in no time.
- **Installation:** trained technicians set up your installation on-site, safely and quickly.
- **Trainings:** our partnership is a two-way street. We gladly arrange introductory training sessions so your operators can manage our equipment.
- **Commissioning:** to ensure your production quality, our service engineers start up the installation with you and we will fine-tune the set-up together.



- **Operators:** trained employees (either yours or ours) operate the machinery on-site.
- **Maintenance and monitoring:** to make sure all the equipment runs in the perfect conditions required for your challenge, we visit your site regularly and we can monitor the equipment remotely.
- **24/7 service:** we remain available 24/7 for any questions, changing demands or emergencies.
- **Decommissioning:** the complete installation is dismantled and removed from your premises for you.
- **Certification:** CE, TUV, SIL



Project Management: the right people for the job

Our Project Management Team combines solid expertise with trusted industry experience. You are not looking for specific equipment, but a resource performing according to specific parameters. Your complete, extensive project will be examined down to the last detail and the team will design the right Total Solution for your unique project.



Eco offers more!

At **www.eco-steamandheating.com** you can read all about the temporary and permanent solutions that we can offer you with our steam, hot water and warm water installations. Here you will also find an extensive overview of the systems we offer for hire.

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