JUMAG

The best of steam

Our products and services

With our high-end steam equipment and services, we've been getting the best out of steam every day for more than 40 years. Reliable, failsafe and resource-saving.

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THE BEST FOR OUR CUSTOMERS

At JUMAG, you get the best steam boiler for your requirements. Individually or as a complete system, for sale or for rent, electric, oil- or gas-powered. Complete them with the appropriate components. In addition, we are by your side with advice and services.

WE ARE JUMAG

TECHNOLOGY AND INNOVATION LEADER IN ALL THINGS STEAM

What makes JUMAG so special? The extremely robust pressure vessel and energy-efficient design. We are constantly challenging existing technologies and setting new standards.

REPEATEDLY PROVEN AND TAILORED TO FIT

Together we will find the right product. In the tried and tested standard version or as a customised solution.

ECONOMICALLY EFFICIENT AND SAFE

Optimise your operations using our modular steam systems.

MADE IN GERMANY

We guarantee consistently superior quality, short delivery routes and the highest level of expertise.

SUSTAINABILITY

We are constantly working to become even more climate-friendly. In everything we do.

MAINTENANCE

We provide maintenance contracts with fair terms and are available to assist you 24/7.

CONSULTATION

Priceless: For us, consulting and system optimisation are simply part of the job.

BUY OR RENT

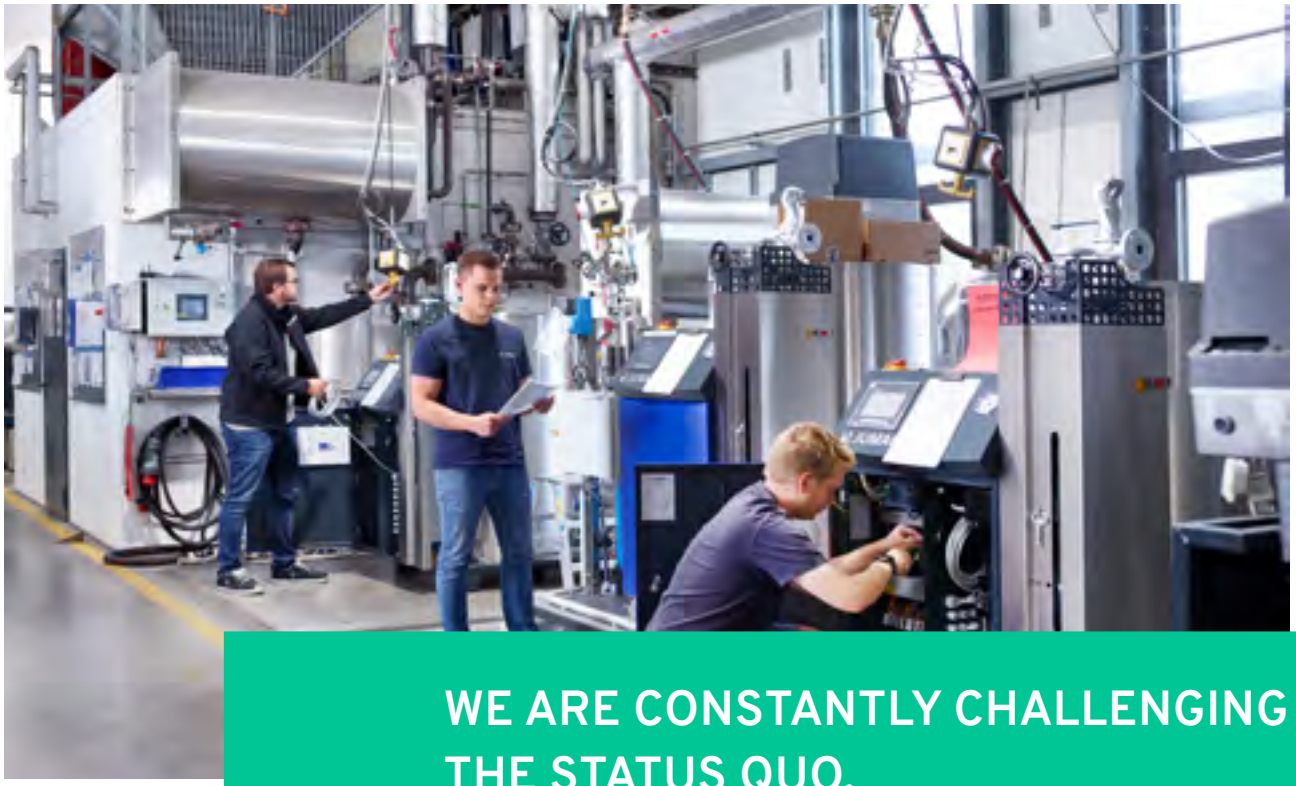
You can also rent any of our equipment, including mobile steam systems. Immediately ready for connection and operation.

SIMPLE SETUP

Most of our steam boilers are not subject to TÜV inspection or monitoring.

PROOF OF OUR CAPACITY FOR INNOVATION: PATENTS

Numerous patents show that JUMAG is one of the most innovative companies in the industry. Our products are continuously evolving and represent the state of the art in steam generation.



WE ARE CONSTANTLY CHALLENGING THE STATUS QUO.

Because we are engineers. We are curious and ambitious. Forward-thinking. We don't settle for "good".
We want to be better. Every day anew. We are like steam. We find ways to rise up and never stand still.
JUMAG – the best of steam.

"THERE IS ALWAYS A WAY UP!"

ENERGY SOURCES

AS REQUIRED

OIL / GAS

HYBRID

ELECTRICAL

WHAT MAKES JUMAG SUCH AN ATTRACTIVE PARTNER?

Our steam boilers are fitted with the energy source that best suits your requirements and local conditions. You don't necessarily have to choose between the two: Simply combine oil or gas with electric.

ADVANTAGES OF OIL OR GAS-POWERED STEAM BOILERS

- Compact / small installation surface
- High energy efficiency
- Robust and long-lasting
- Flexibility in the choice of fuel
- High power density

ADVANTAGES OF ELECTRIC STEAM BOILERS

- Climate-neutral footprint (residual PV energy utilisation)
- Compact construction
- Pure steam in accordance with DIN EN 285 is possible
- Easy to maintain
- Precise control
- Simple installation and operation

ADVANTAGES OF HYBRID STEAM SYSTEMS

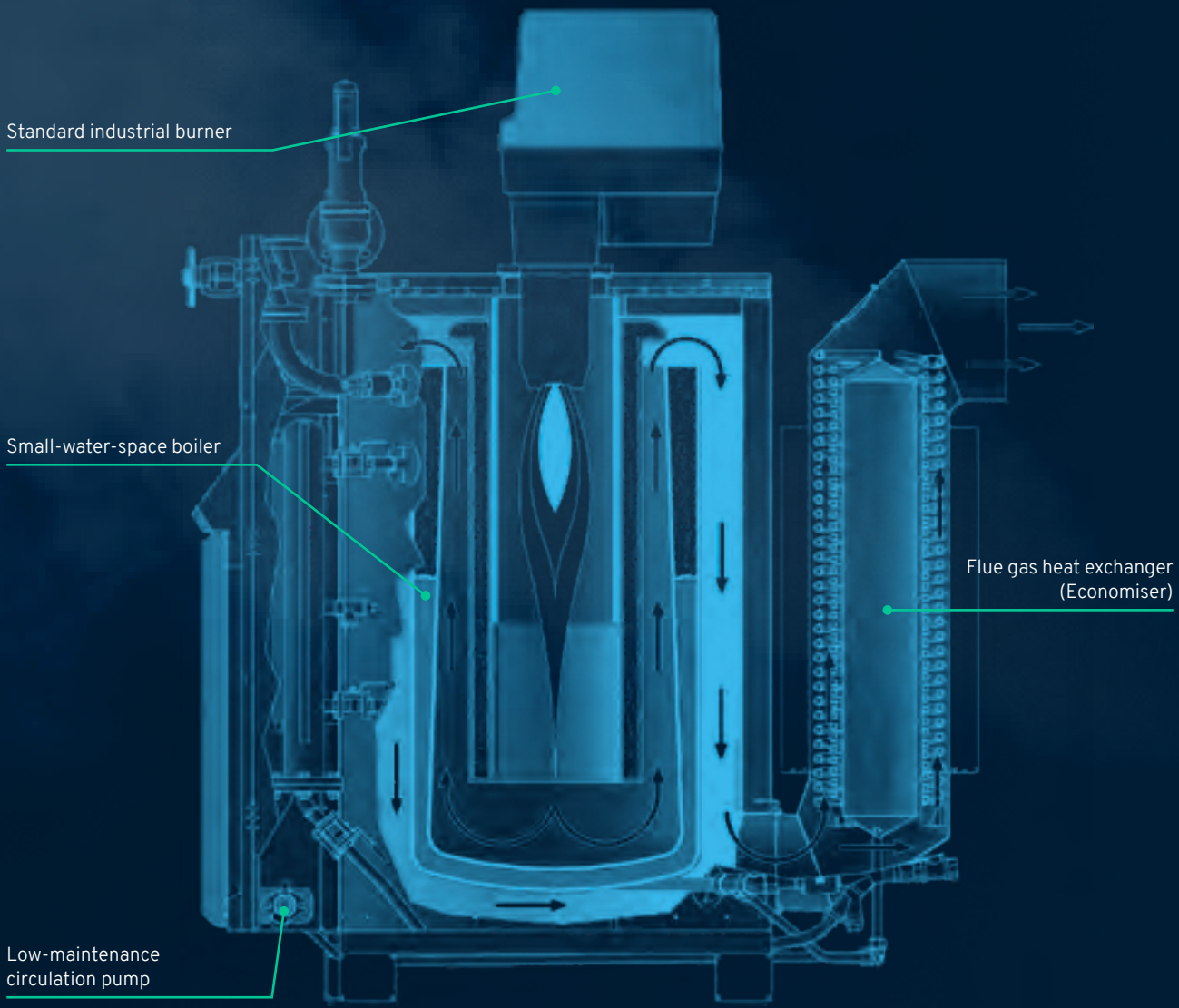
- The best of both worlds
- Maximum flexibility in fuel use
- Increased uptime and reliability
- Energy-efficient and cost-optimised

STEAM BOILER

OIL/GAS IN DETAIL

OIL/GAS-FIRED (DG AND FLO)

- In a class of their own: The DG and FLO steam boilers combine the benefits of the large water boiler with those of a quick steam boiler.
- No forced-flow boiler, i.e. no pipe coil or piston pump.
- Depending on the water level, a low-maintenance circulation pump tops up the feed water through the economiser.
- The flue gas of the flash burner transfers energy to the water in the pressure vessel using several flues.
- The low flue gas temperature is a sign of how efficiently JUMAG steam boilers operate – by utilising the energy released in the exhaust gas and during combustion, efficiencies of more than 100% are mathematically possible.
- Unique, robust pressure vessel with double-walled small-water-space boiler and up to 12 mm wall thickness for high residual energy storage capacity.


Standard industrial burner
Small-water-space boiler
Flue gas heat exchanger
(Economiser)
Low-maintenance
circulation pump

STEAM BOILER DG

OIL OR GAS-FIRED - FROM 100 TO 560 KG/H OF STEAM

The oil or gas-fired steam boilers in the DG series deliver steam outputs of 100 - 560 kg/h, depending on the appliance. A multiple of this output is possible as a multiple unit.

Fig.: JUMAG steam boiler DG

Also available in stainless steel on request

For hire!

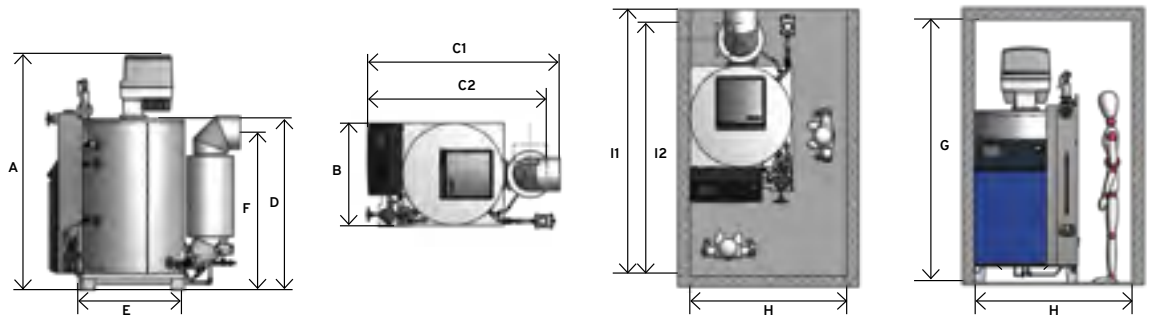
We also offer all steam boilers for hire.
Find out more at:
jumag.de/en/produkte/rental-systems/

Technical data

Boiler type	DG 160	DG 260	DG 360	DG 460	DG 560
DGRL 2014/68/EU Category III	PS * V < 1,000				
Steam output up to	160 kg/h (2.6 kg/min.)	260 kg/h (4.3 kg/min.)	360 kg/h (6.0 kg/min.)	460 kg/h (7.6 kg/min)	560 kg/h (9.3 kg/min.)
Heat load	110 kW	175 kW	245 kW	315 kW	400 kW
Heat output	105 kW	170 kW	235 kW	300 kW	380 kW
Total volume incl. Eco (V)	27 l	45 l	60 l	75 l	75 l
Low water level	7 l	10 l	12 l	15 l	15 l
Net weight	580 kg	700 kg	800 kg	1200 kg	1300 kg
Max. pressure	13 barg (discharge pressure of the relief valve)				
Working pressure	6 to 11 barg (lower pressures possible via JUMAG pressure reduction station)				
Heat up time (material-compatible)	approx. 5 mins	approx. 8 mins			
Max. oil flow rate (11.8 kWh/kg)	9.3 kg/h	14.8 kg/h	20.7 kg/h	26.7 kg/h	33.9 kg/h
Max. natural gas flow rate (10.35 kWh/m³)	10.6 m³/h	16.9 m³/h	23.7 m³/h	30.4 m³/h	38.6 m³/h
Power supply	400 V / 50 Hz				
Power supply value	2.4 kW	3.2 kW	3.2 kW	4.0 kW	4.0 kW

This data is applicable for the following operating conditions:
Use of a flue gas heat exchanger (economiser) / feed water temperature of 90°C / operating pressure of 6 barg / operation at max. 100 m above sea level.

Dimensions key (using example diagram of DG)



Dimensions

Boiler type	DG 160	DG 260	DG 360	DG 460	DG 560
Total height A	1,521 mm	1,764 mm	2,049 mm	2,044 mm	2,142 mm
Total width B	815 mm	829 mm		936 mm	
Total depth C1 (at backwards bend)	1,411 mm	1,631 mm		1,756 mm	
Total depth C2 (at bend turned by 90° or straight up)	1,206 mm	1,370 mm		1,484 mm	
Minimum charging height D	1,130 mm	1,368 mm	1,568 mm	1,565 mm	
Minimum charging depth E	812 mm	856 mm		981 mm	
Connection height F with 90° bend	795 mm	1,437 mm			
Minimum height setup space G	1,771 mm	2,014 mm	2,299 mm	2,294 mm	2,392 mm
Minimum width setup space H	1,315 mm	1,329 mm		1,436 mm	
Minimum depth setup space I1 (at backwards bend)	2,081 mm	2,301 mm		2,426 mm	
Minimum depth setup space I2 (at bend turned by 90° or straight up)	2,000 mm	2,240 mm		2,368 mm	

STEAM BOILER FLO

OIL OR GAS-FIRED – 1,060 KG/H OF STEAM

The JUMAG of drum boilers: **FLO steam boiler** with a steam capacity of up to 1,060 kg/h.

Simple change of the firing type: Exchange the burner in the case of a subsequent energy type change (e.g. from oil to gas)

Pressure-dependent burner control (modulating in gas mode, 3-stage in oil operation)

Smooth & intelligent water level control

Simple operation with full text touch screen control

Self-monitoring using PLC control

Simply constructed control cabinet

Low-maintenance circulation pump integrated into the control cabinet

Small-water-space boiler: Robust pressure vessel

Independent due to modern standard burners

High steam quality with minimal residual moisture in the steam

> 100% efficiency possible with second downstream economiser (not shown)

Many components and surfaces in high-quality stainless steel

High energy efficiency (up to 97% efficiency) due to maximum flue gas heat use

Automatic blow down with desalination function

Fig.: JUMAG steam boiler FLO

For hire!

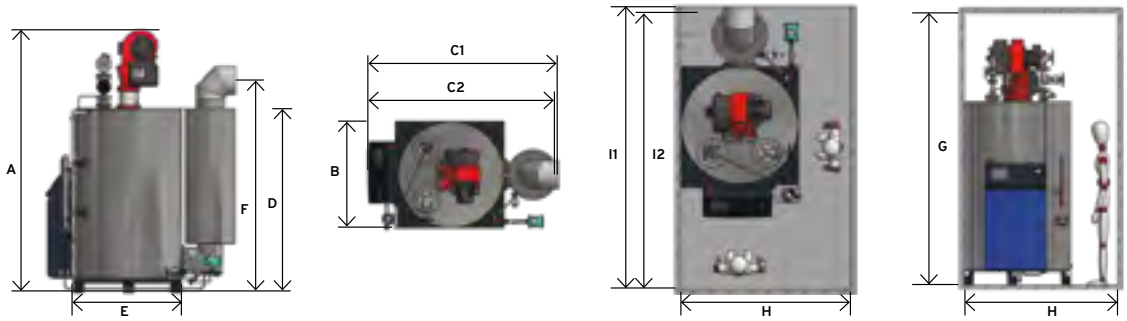
We also offer all steam boilers for hire.
Find out more at:
jumag.de/en/produkte/rental-systems/

Technical data

Boiler type	FLO 1060
DGRL 2014/68/EU Category III	PS * V < 3,000
Steam output up to	1,060 kg/h (17.7 kg/Min.)
Heat load	760 kW
Heat output	720 kW
Total volume incl. Eco (V)	228 l
Low water level	40 l
Net weight	2,250 kg
Max. pressure	13 barg
Working pressure	6 to 11 barg (lower pressures possible via JUMAG pressure reduction station)
Heat up time (material-compatible)	approx. 10 mins
Max. oil flow rate (11.8 kWh/kg)	64.4 kg/h
Max. natural gas flow rate (10.35 kWh/m^3)	73.4 m^3/h
Power supply	400 V/50 Hz
Power supply value	6.0 kW

This data is applicable for the following operating conditions:
Use of a flue gas heat exchanger (economiser) / feed water temperature of 90°C / operating pressure of 6 barg / operation at max. 100 m above sea level.

Dimensions key (using example diagram of FLO)



Dimensions

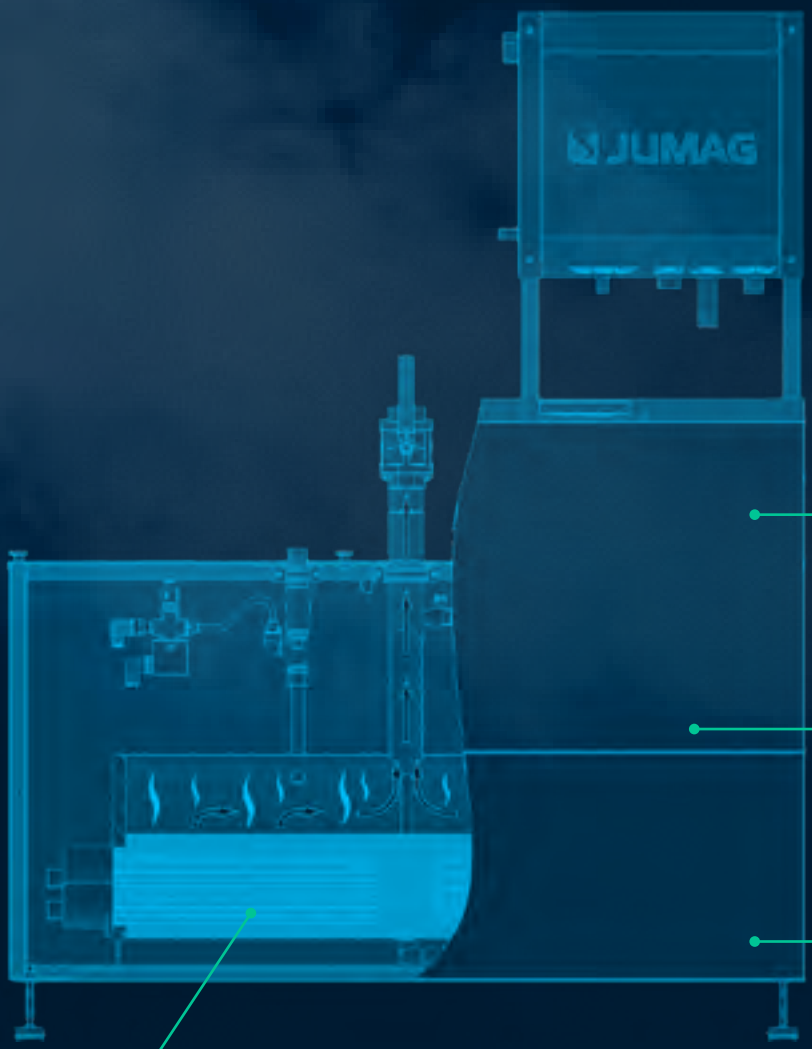
Boiler type	FLO 1060
Total height A	2,620 mm (oil burner) 2,794 mm (gas burner)
Total width B	1,130 mm
Total depth C1 (at backwards bend)	2,033 mm
Total depth C2 (at bend turned by 90° or straight up)	1,753 mm
Minimum charging height D	2,071 mm
Minimum charging depth E	1,196 mm
Connection height F with 90° bend	2,234 mm
Minimum height setup space G	3,158 mm
Minimum width setup space H	1,630 mm
Minimum depth setup space I1 (at backwards bend)	2,703 mm
Minimum depth setup space I2 (at bend turned by 90° or straight up)	2,710 mm

STEAM BOILER

ELECTRICS IN DETAIL

ELECTRICALLY OPERATED (EDI)

- Depending on the water level in the pressure vessel, the feed water is refilled into the pressure vessel through the integrated boiler pump.
- Specially developed, longer heating elements with a larger diameter ensure a low surface load. This leads to:
  - longer service life
  - less scaling
  - better heat distribution
  - increased safety
  - efficient energy conversion
  - lower maintenance requirements
- Wear-free control of the heating rods: Thyristors switch during phase change without voltage, unlike contactors, which switch and wear out with voltage. Thanks to the thyristors, the power grid is protected because current peaks are avoided during switching.
- All media-contacting parts are optionally available in high-quality stainless steel.



Thyristors ensure a long service life for the electrical components

Integrated centrifugal pump

High-quality stainless steel

Large heating elements

STEAM BOILER EDI

ELECTRICALLY OPERATED UP TO 120 KW - 160 KG/H STEAM

Electrical steam boiler EDI impresses with outstanding steam quality, also permitting ultrapure steam. Boilers and all components in contact with the medium can be manufactured in stainless steel.

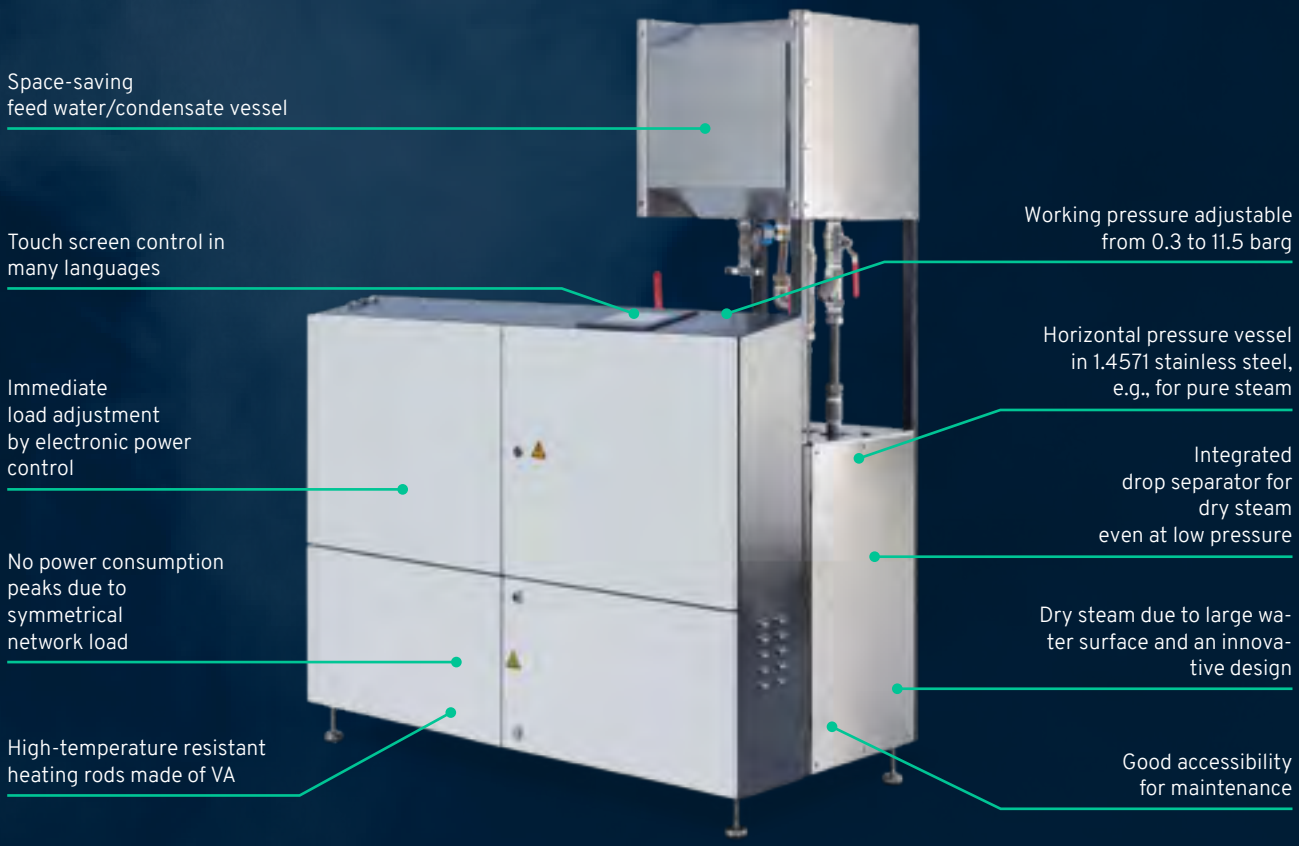


Fig.: JUMAG electrical steam boiler EDI with integrated feed water/condensate vessel

Basic version without feed wa-
ter/condensate tank
(optionally with castors)

For hire!

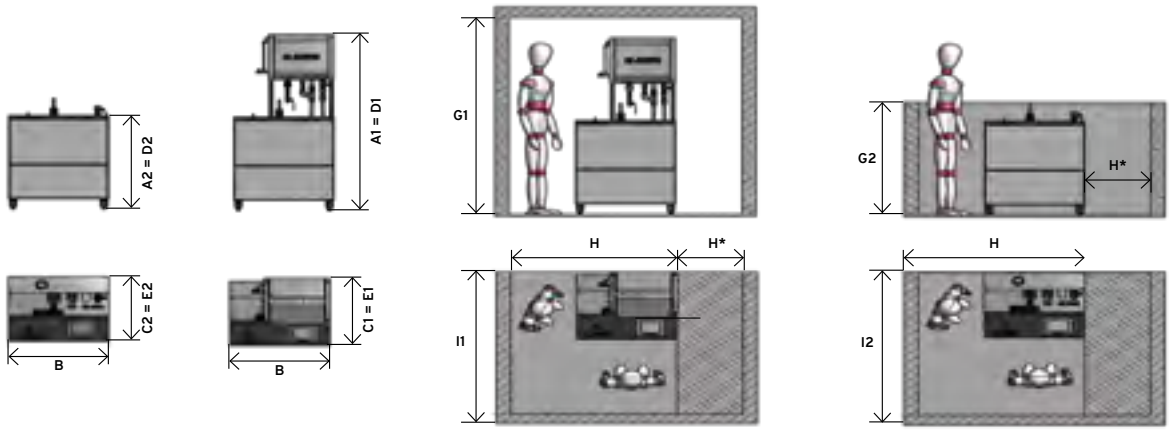
We also offer all steam boilers for hire.
Find out more at:
jumag.de/en/produkte/rental-systems/

Technical data

Electrical steam boiler	EDI 20	EDI 40	EDI 60	EDI 80	EDI 100	EDI 120
Operating pressure (blow-off pressure relief valve) DGRL 2014/68/EU category II at (PS*V < 200)	5.3 barg		3.4 barg		2.6 barg	
Operating pressure (blow-off pressure relief valve) DGRL 2014/68/EU category III at (PS*V < 1,000)	13 barg					
Steam output up to	26.5 kg/h 0.44 kg/min.	53 kg/h 0.88 kg/min.	80 kg/h 1.32 kg/min.	106 kg/h 1.77 kg/min.	132.5 kg/h 2.2 kg/min.	160 kg/h 2.64 kg/min.
Heat output	20 kW	40 kW	60 kW	80 kW	100 kW	120 kW
Working pressure	0.3 barg – 11.5 barg					
Heat up time (material-compatible)	approx. 15 mins	approx. 7.5 mins	approx. 8 mins	approx. 6 mins	approx. 6.5 mins	approx. 5.5 mins
Volume pressure vessel	37.7 litres		58.8 litres		76.7 litres	
Low water level (STB)	14.3 litres		31.5 litres		40.5 litres	
Power supply	400 V / 50Hz					
Power supply value	22.2 kW	42.2 kW	62.2 kW	82.2 kW	102.2 kW	122.2 kW
Pre-fuse customer-side	min. 35 A – max. 63 A	63 A	min. 100 A – max. 125 A	125 A	min. 160 A – max. 200 A	200 A
Net weight	190 kg	200 kg	250 kg	260 kg	300 kg	310 kg

This data is applicable for the following operating conditions: Feed water temperature of 15°C / Working pressure of 6 barg

Dimensions key (using example diagram of EDI)



Dimensions

With feed water/ condensate vessel	EDI 20/40	EDI 60/80	EDI 100/120	Without feed water/ condensate vessel	EDI 20/40	EDI 60/80	EDI 100/120
Total height A1	1,798 mm			Total height A2	1,040 mm	1,105 mm	1,120 mm
Total width B	765 mm	1,176 mm	1,430 mm	Total width B	765 mm	1,176 mm	1,430 mm
Total depth C1	703 mm			Total depth C2	673 mm		
Minimum charging height D1	1,798 mm			Minimum charging height D2	1,040 mm	1,105 mm	1,120 mm
Minimum charging depth E1	703 mm			Minimum charging depth E2	673 mm		
Minimum height setup space G1	2,000 mm			Minimum height setup space G2	1,200 mm		
Minimum width setup space H	1,265 mm	1,676 mm	1,930 mm	Minimum width setup space H	1,265 mm	1,676 mm	1,930 mm
Maintenance space H*	-	500 mm		Maintenance space H*	-	500 mm	
Minimum depth setup space I1	1,463 mm			Minimum depth setup space I2	1,433 mm		

STEAM BOILER EDI 360

ELECTRICALLY OPERATED UP TO 360 KW - 480 KG/H STEAM

The EDI 360 electrical steam boiler impresses with maximum safety, compact installation dimensions and excellent steam quality. Pure steam is also possible. Boilers and almost all components in contact with the medium can be manufactured in stainless steel.

Power supply from above, all connections easily accessible

Integrated efficient control cabinet cooling with heat recovery

Touch screen control in many languages

Immediate load adjustment by electronic power control

No power consumption peaks due to symmetrical network load

Intelligent and individual low-wear control of the heating rods

Pressure can be precisely maintained in a modulated way that is easy on the power grid

Working pressure adjustable from 3 to 10 barg

High energy storage thanks to large water header

High-temperature resistant heating rods made of VA

Water level control via modern vibration limiters

Good accessibility for maintenance

Dry steam due to large water surface and an innovative design

Pressure vessel and housing cladding made of high-quality stainless steel

Rear side without connections for space-saving installation and easy access for maintenance

Fig.: JUMAG steam boiler EDI 360

For hire!

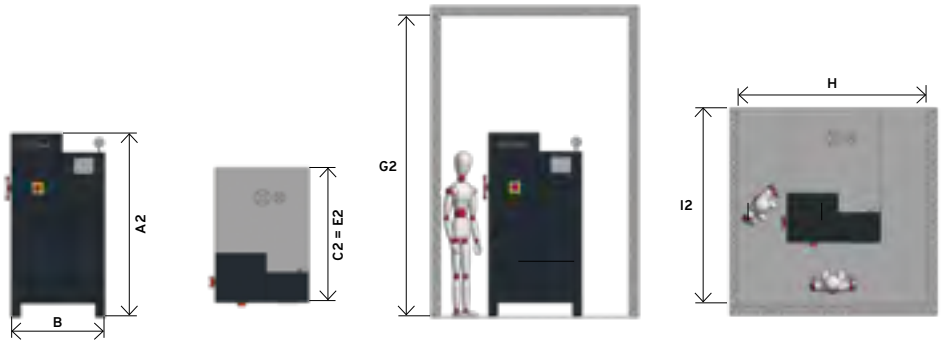
We also offer all steam boilers for hire. Find out more at: jumag.de/en/produkte/rental-systems/

Technical data

Electrical steam boiler	EDI 360
Operating pressure (blow-off pressure relief valve) DGRL 2014/68/EU category III at PS*V<3,000	13 bar
Steam output up to	480 kg/h 8 kg/min.
Heat output	360 kW
Working pressure	3 to 10 barg * (lower pressures possible via JUMAG pressure reduction station)
Heat up time (material-compatible)	approx. 5 mins
Volume pressure vessel	228 l
Low water level (STB)	140 l
Power supply	400 V / 50 Hz
Power supply value	362.2 kW
Pre-fuse customer-side	600 A
Steam output connection	DN 50
Blow down pipe connector	DN 20
Ventilation pipe connector	DN 25
Net weight	850 kg

This data is applicable for the following operating conditions:
Feed water temperature of 15°C / Working pressure of 6 barg
* Working pressures greater than 10 barg possible on request.

Dimensions key (using example diagram of EDI 360)



Dimensions

Electrical steam boiler	EDI 360
Total height A2	1,965 mm
Total width B	990 mm
Total depth C2	1,425 mm
Minimum charging height	1,990 mm
Minimum charging depth E2	1,425 mm
Minimum height setup space G2	3,165 mm
Minimum width setup space H	2,590 mm
Maintenance space	800 mm
Minimum depth setup space I2	2,125 mm

EDI 960

ELECTRICALLY OPERATED UP TO 960 KW - 1,280 KG/H STEAM

NEW

Power supply from above

Intelligent and individual control of the heating rods

Touchscreen control in many languages and compatible with the entire JUMAG product portfolio

Pressure can be precisely maintained in a modulated way that is easy on the power grid

Immediate load adjustment by electronic power control

Integrated efficient control cabinet cooling with heat recovery through via heat pump

Compact construction / Everything on one platform

Fig.: JUMAG steam boiler EDI 960 front

Technical data

Electrical steam boiler	EDI 360
Operating pressure (blow-off pressure relief valve) DGRL 2014/68/EU category III at PS*V<3000	13 bar
Steam output up to	~1.28 t/h 21 kg/min.
Heat output	960 kW
Working pressure	0.5 to 1.5 barg
Heat up time (material-compatible)	approx. 15 mins
Volume pressure vessel	~1,400 l
Low water level (STB)	876 l
Power supply	400 V / 50 Hz
Power supply value	1,017.3 kW
Pre-fuse customer-side	3 x 1,500 A
Steam output connection	DN 65
Blow down pipe connector	DN 25
Ventilation pipe connector	DN 32
Net weight	4,500 kg

Dimensions

EDI 960	
Total height h	2,150 mm
Total length l	2,623 mm
Total width b	1,908 mm
Maintenance space a1	1,300 mm
Maintenance space a2	500 mm
Maintenance space a3	800 mm
Maintenance space a4	Space for connectors

This data is applicable for the following operating conditions:
Feed water temperature of 15°C / Working pressure of 6 barg
* Working pressures greater than 10 barg possible on request.

The EDI 960 electric steam boiler impresses with its boiler size of 1,400 litres. An integrated heat pump ensures efficient cooling of the load area while simultaneously heating the feed water. It fulfils the quality standards of DIN EN 12953 and 13445.

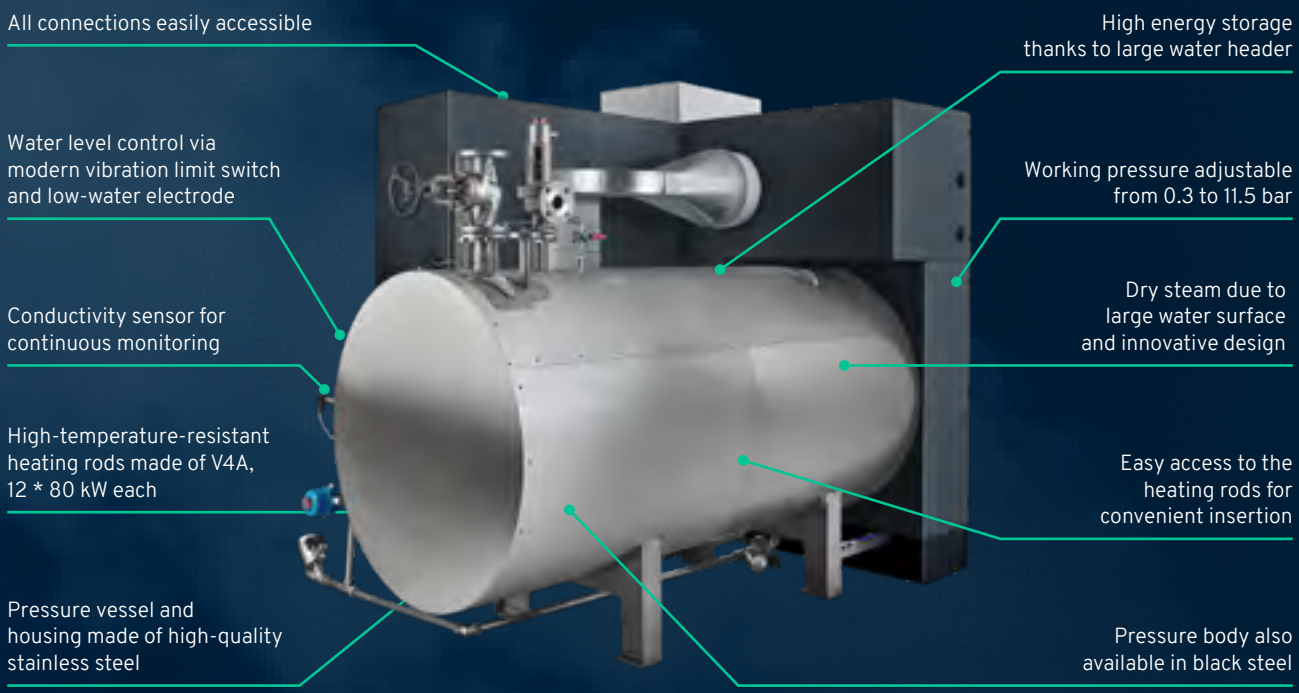
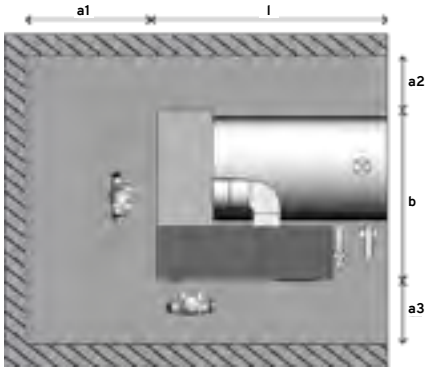
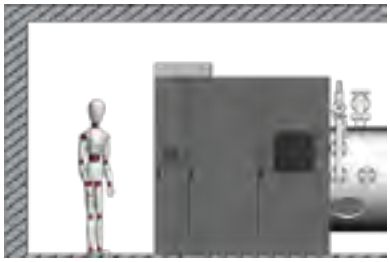


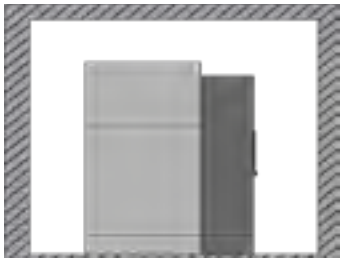
Fig.: JUMAG steam boiler EDI 960 rear side

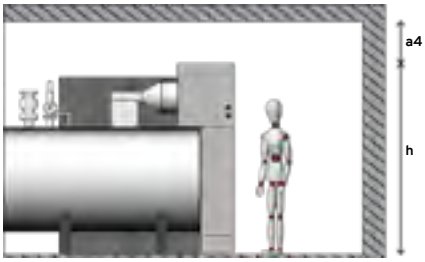
For hire!

We also offer all steam boilers for hire.
Find out more at:
jumag.de/en/produkte/rental-systems/









NEMO

OIL OR GAS-FIRED – HOT WATER BOILER

NEW

The **NEMO hot water boiler** is the ideal solution for small businesses with limited space and finances. No water is lost, thanks to its closed circuit. This means that no new feed water needs to be treated. Other components, such as the blow down vessel, are also no longer required. This saves space and costs.

Technical data

	NEMO 260	NEMO 500
DGRL 2014/68/EU	Category III	Category III
Max. permissible operating pressure (PS)	6 barg	13 barg
Max. working pressure	5 barg	12 barg
Test pressure pressure vessel (PT)	23 barg	22.2 barg
Heat load	175 kW	360kW
Heat output	157 kW	340kW
Total volume (V)	49 litres	215 litres
Max. permissible temperature (TS)	165 °C	195 °C
Heating time in minutes	5	10
Max. oil flow rate (11.8 kWh/kg)	14.8 kg/h	30.5 kg/h
Max. gas throughput (10.35 kWh/m^3)	16.9 m^3/h	34.7 m^3/h
Min. gas flow pressure	17 mbar	20 mbar
Flue gas system connecting piece connector (inner diameter)	301 mm	301 mm
Flue gas mass flow	0.08 kg/s	0.17 kg/s
Min. chimney draught (at 150°C)	5 Pa	5 Pa
Power supply	400 V / 50 Hz	400 V / 50 Hz
Power supply value	3.2 kW	3.2 kW
Ambient temperature	5 °C - 35 °C	5 °C - 35 °C
Net weight	700 kg	1300 kg
Sound level	58 dbA (oil) 61 dbA (gas)“	76 dbA (oil) 76 dbA (gas)“
Gas connector	1"	1"
Supply connection (PN16)	DN25	DN25
Recirculation connection (PN16)	DN25	DN25
Relief valve connection 6 bar (PN16)	DN32	DN25

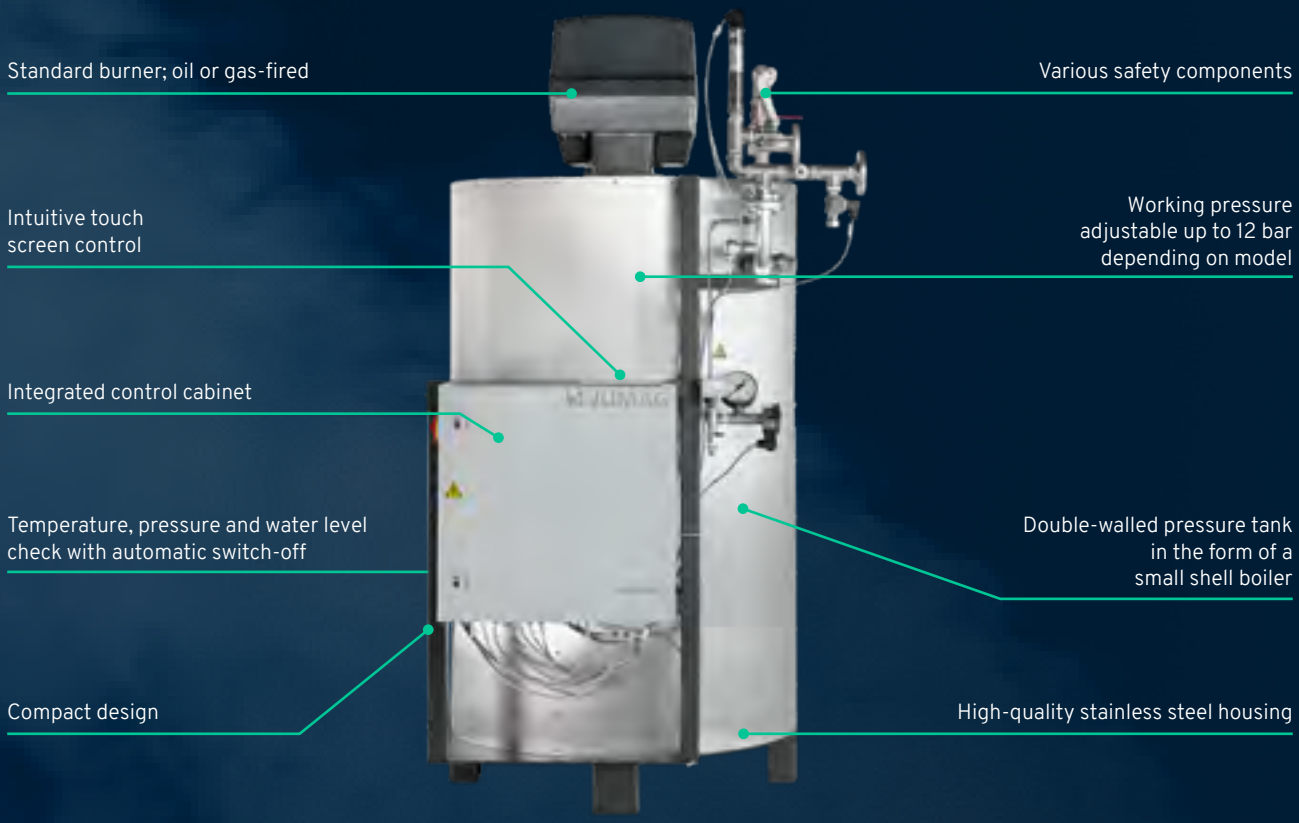


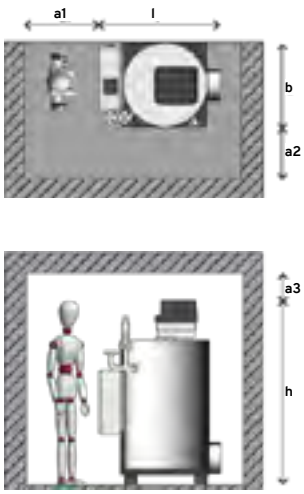
Fig.: JUMAG hot water boiler NEMO

For hire!

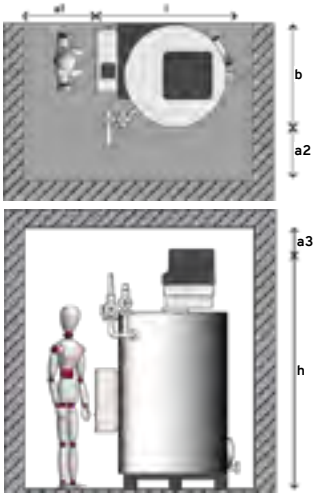
We also offer all steam boilers for hire. Find out more at: jumag.de/en/produkte/rental-systems/

Dimensions key

NEMO 260



NEMO 500



Dimensions

NEMO	260	500
Total height h	1,765 mm	2,266 mm
Total length l	1,161 mm	1,353 mm
Total width b	800 mm	986 mm
Maintenance space a1	700 mm	700 mm
Maintenance space a2	500 mm	500 mm
Maintenance space a3	250 mm	250 mm

STEAM SYSTEMS

SINGLE, COMPACT, MULTIPLE AND CONTAINER STEAM SYSTEMS

Compact steam systems can make do with minimal installation space. Pre-assembled ready for connection, optimally matched to each other and adapted to your requirements. Flexible as an oil- or gas-fired system, or in hybrid operation with electrically operated steam boilers.

Fig.: Compact steam boiler, example configuration

Also available in stainless steel on request.

For hire!

We also offer all steam boilers for hire.
Find out more at:
jumag.de/en/produkte/rental-systems/

CONTAINER STEAM SYSTEMS

Container steam systems, installed and delivered ready for connection, can be used outside buildings or as mobile systems.

SINGLE AND MULTIPLE UNIT STEAM SYSTEMS

Single and multiple unit steam systems are coordinated, complete solutions. Multiple unit steam systems ensure optimum use and redundancy.

Fig.: Multiple unit steam system with second economiser on base frame

Fig.: Container steam system details

Fig.: Interior, container steam system

Fig.: Container steam system

COMPONENTS

INFEED WATER TREATMENT, BLOW DOWN AND DESALINATION

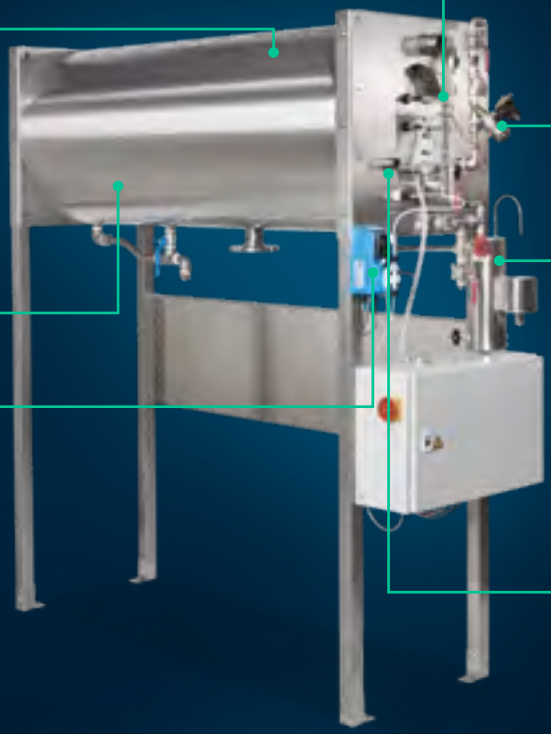


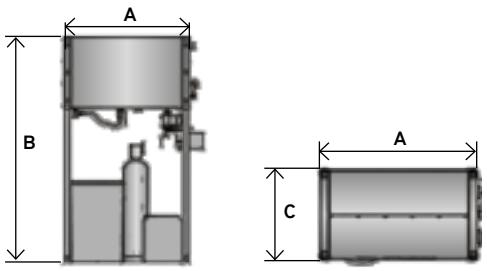
Fig.: Feed water/condensate vessel, example configuration

Fig.: Blow down container, example configuration

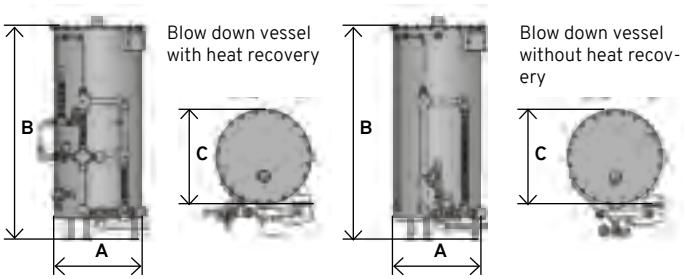
Feed water/condensate vessel technical data and dimensions

Plant type: SWG	220	330	570	860	1140	1540	2050
Fresh water feed (Male thread at the vessel/female thread at the valve)	½“					1“	
Boiler feed (flange)	DN50		DN65			DN80	2 x DN80
Ventilation (male thread)	2“		2 ½“			DN100	
Overflow/drainage (female thread)	1“		1 ½“			2“	
Condensate return flow (male thread)	1“		1 ½“			1 x DN65 + 1 x 1 ½"	
Steam nozzle (male thread)	1“						
Steam pre-heating shut-off valve (female thread)	½“ / 1“						
Sampling cooler connector (female thread)	½“						
Width at the bottom A	1,150 mm	1,650 mm	1,150 mm	1,650 mm	2,150 mm	1,617 mm	2,117 mm
Inner stand distance	527 mm		827 mm			1,142 mm	
Height (adjustable) B	2,000 mm		2,000 mm - 2,400 mm			2,194 mm - 2,554 mm	
Depth C	645 mm		965 mm			1,250 mm	
Volume	220 l	330 l	570 l	860 l	1,140 l	1,540 l	2,050 l
Weight	155 kg	180 kg	230 kg	265 kg	300 kg	415 kg	475 kg

Dimensions key



Feed water/condensate vessel dimensions key



Blow down vessel dimensions key

Blow down vessel technical data and dimensions

Plant type:	Blow down vessel without increase	Blow down vessel with increase	ASG 450
Blow down feed (male thread)	1“		
Drain (female thread)	1“		1 ½“
Ventilation connection (male thread)	2“	3“	
Fresh water connections (female thread)	½“		1“
Feed water/condensate vessel overflow connection (male thread)	1“		2“
Width A	600 mm		680
Height B	1,100 mm	2,050 mm	1,785 mm
Depth C	650 mm		1,010 mm
Volume	140 l	290 l	450 l
Net weight without heat recovery	65 kg	94 kg	140 kg
Net weight with heat recovery	90 kg	119 kg	200 kg

COMPONENTS

STEAM DRYER

A good water separation in steam protects the system and increases steam quality. The build of the JUMAG steam dryer is based on the benefits of a cyclone steam dryer and combines them with other advantages:

- High separation rate of entrained water droplets
- Small water droplets are also separated by the centrifugal force
- Low pressure loss in the steam
- The steam dryer works efficiently even at low steam volumes

SECOND, DOWNSTREAM ECONOMISER

The second economiser is a heat exchanger that uses the energy contained in the flue gases for heating water, such as:

- The feed water supplied to the boiler
- The fresh, softened water supplied to the feed water/condensate container
- Soft water for other uses

It is installed on the flue-gas side between the first economiser and the chimney. The water to be heated flows to the flue gases to be cooled in a counter flow. The lower the temperature of the flowing water, the higher the efficiency.

PRESSURE REDUCTION STATION WITH ELECTRONIC CONTROL

JUMAG steam boilers mostly work with an adjustable steam pressure range of 6 – 11 barg. For working pressures between 0.3 – 6 barg or constant working pressure, pressure reducers are used. They are installed in the steam pipe between the steam boiler and the consumer.

The pressure reduction station with auxiliary energy compensates for large and quick pressure changes of the reduction line with quick reaction. A pneumatically controlled main valve can adjust the position of the valve smoothly on demand.

STEAM ACCUMULATOR

The use of steam accumulators is advisable for short-term, strongly fluctuating steam consumption. A water supply in the steam accumulator is heated at low steam consumption and stores energy accordingly. At a high steam consumption, the water will release its energy in the form of steam.

- The steam accumulator covers short-term steam consumption peaks
- Steam systems can be designed smaller for fluctuating steam demands due to smoothing and will run more evenly
- The JUMAG steam accumulator is adapted to JUMAG systems and makes use the advantages of the JUMAG system and JUMAG control

JUMAG CONNECT REMOTE – REMOTE ACCESS TO YOUR STEAM BOILERS

Control and monitor your system from any location!
Released end devices may be mirrored and operated in your network or via the internet, including via mobile end devices.

- Operator and authorised users can access the control via the internet and view or change process values
- The connection can be established by WLAN, LAN or mobile phone
- Data security through encryption. No external access to the operator's network

JUMAG customer service can access the plant directly or import program updates for fast support and remote maintenance.

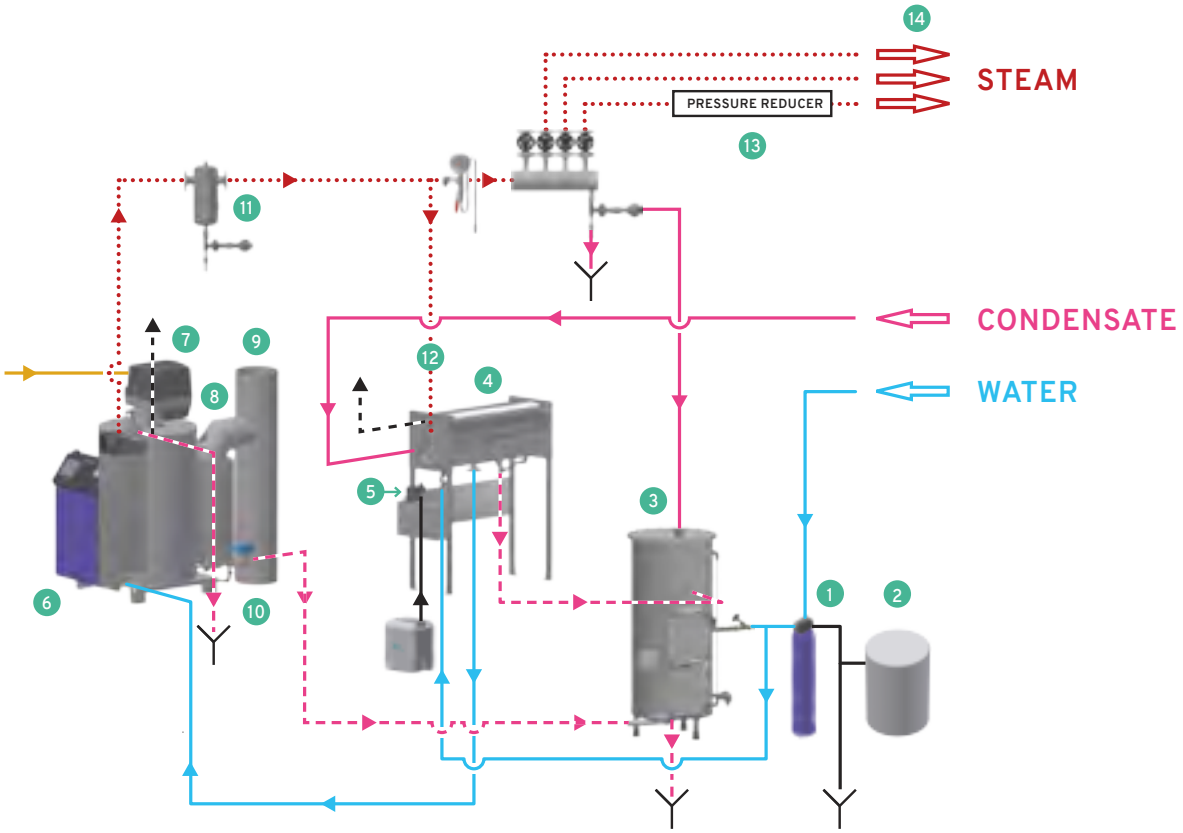
CONDENSATE RETURN FLOW SYSTEM

It is not always possible to feed condensate directly into the feed water tank with a natural drop or sufficient output pressure. In these cases, the condensate is collected at a low point in a condensate return system and pumped into the feed water container.

DEEPLY INGRAINED: SUSTAINABILITY

For over 40 years, our name has been synonymous with durable equipment of the highest quality and efficiency. We are constantly working on optimising consumption, saving CO2, and making processes and packaging more climate-friendly.

INSTALLATION FLOW CHART



Steam

Oil or gas supply

Water

Condensate

Blow-down water

1. Softening plant
2. Brine container
3. Blow down vessel with heat recovery
4. Feed water/condensate vessel
5. Metering pump
6. Steam boiler
7. Burner
8. Economisers
9. Chimney
10. Automatic blow down
11. Steam dryer
12. Feed water pre-heating module
13. Pressure reducer
14. Consumers

Steam generation **to perfection.**

LET US ADVISE YOU!

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