

CERTUSS

Steam Generators



T H E F U T U R E O F
STEAM GENERATION



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CERTUSS Company History

WHO WE ARE

When Hans Joachim Schroder founded his company CERTUSS Warmetechnik GmbH in 1957, his primary goals were to manufacture reliable, low-noise Steam Generators, easy to maintain and for continuous operation. These objectives formed the basis of a successful company, which is now operating world-wide. The concentration on a clearly defined product line, systematic research, development and a highly trained team of professionals, enables equipment production of the highest standard aligned with a Certified Quality Management system according to DIN EN ISO 9001:2008.

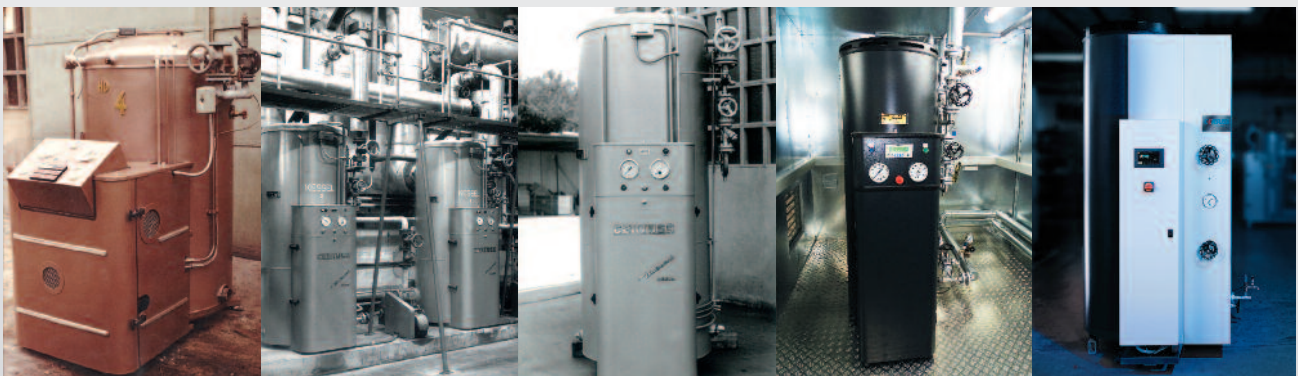
All CERTUSS Steam Generators are type tested according to European Pressure Equipment Guideline DGRL 97/23/EC, along with ASME and UL regulations for the US market. CERTUSS offer seven construction groups within their range of fossil fuel Generators with outputs ranging from 80kg/hr to 2000kg/hr and operating pressures up to 32 bar G. To accompany the Generator, CERTUSS also offer their CVE Package Plant Module, where all of the associated ancillary items are pre-piped, pre-wired and factory tested.

Fuel types offered are Gas, Light Oil, LPG and Bio Fuel, with combination burners offered on all units from 500kg/hr upwards. Also available are a range of Electric Steam Generators from 6kW to 120kW.

CERTUSS also hold full electronic documentation of every Generator manufactured over the past 30 years, with full spares support for each Generator guaranteed for up to 20 years after commissioning. With their UK service centre, the main German manufacturing base, and USA Group members along with 34 other agencies worldwide CERTUSS offer the latest steam technology and exemplary service.

“Our history is the cornerstone that supports our current success, continued growth allows us to push innovation in the future”

Mathias K. Brauner, CEO, CERTUSS Germany



W H O W E W O R K W I T H

Thanks to our long company history we have had the privilege of working with many large and well-known companies and establishments from various industries.

CERTUSS Steam Generators have the advantage of being applicable in nearly **all industries**. We choose to keep our product line **clearly defined and scalable**.

We have gathered experience in **over 80 different sectors**, some of which are listed below, and have worked with diverse applications.

We have many customers in **service and hospitality** who use our Generators for chemical cleaning, disinfecting, laundering and other service purposes. For example we have installed Generators in many **Hyatt, Kempinski, Four Seasons** and **Holiday Inn Hotels**.

Another major sector we serve is the **healthcare sector**, including the chemical and pharmaceutical industry. CERTUSS Generators are applied in hospitals, cosmetics, plastics, mineral oil processing, pharmacies, and other chemical processes. Besides hospitals we have also worked with chemical and pharmaceutical companies, for example **B.Braun, Evonik, BASF, Merck, Procter & Gamble** or **Unilever**.

Additionally the **food and beverage** industry offers many applications for our Steam Generators. Examples are meat, milk, mineral water, soft drink, flavor, oils and sugar processes as well as alcoholic beverage, juice, coffee, tea productions or luxury food goods like candy, tobacco products or pralines. In this sector CERTUSS Generators are used by, for example, **Coca-Cola Companies, Dr. Oetker Frozen Foods** as well as **Nestle Group**.

Finally, diverse companies from the **automotive, construction and mechanical engineering** sector have purchased CERTUSS Generators for use in sanitation, ceramics and glass, cement production, heating, and woodworking. **Samsung Germany, Siemens, Philips Components** are customers we have served to this day.

With all the German **car manufacturers** located in our manufacturing home country, CERTUSS has had the privilege to work for **Volkswagen, Mercedes Benz** and **BMW**.

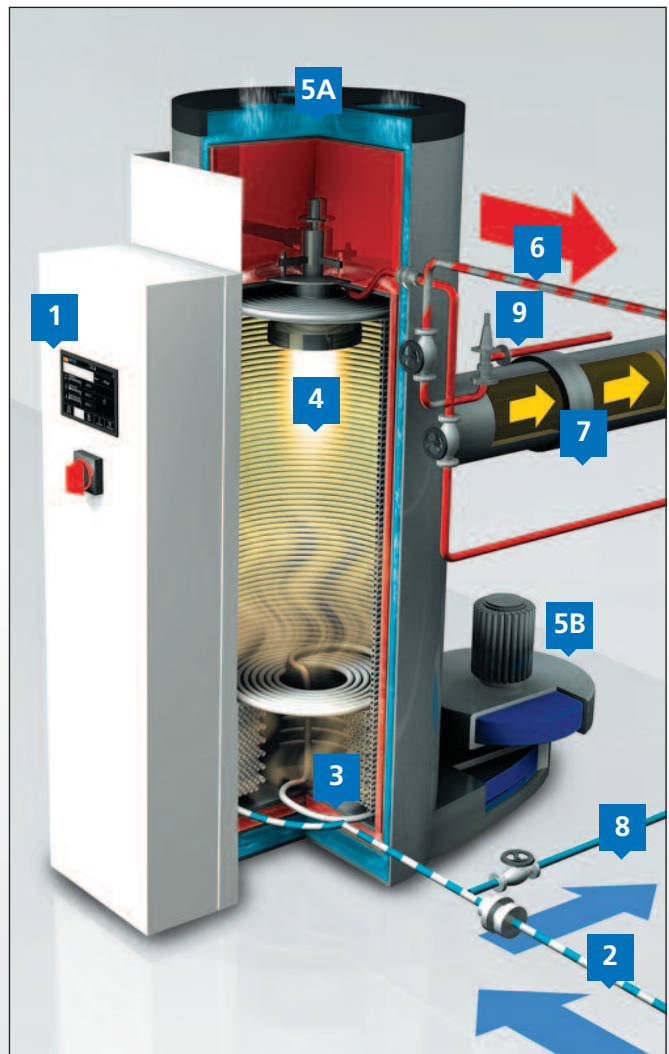
All that is left to say now is that if you like German cars, you'll **love** our Generators!



FEATURES

By using the **water tube boiler** principle, the CERTUSS technology for generating steam offers **maximum safety, reliability and instant availability of high quality steam**.

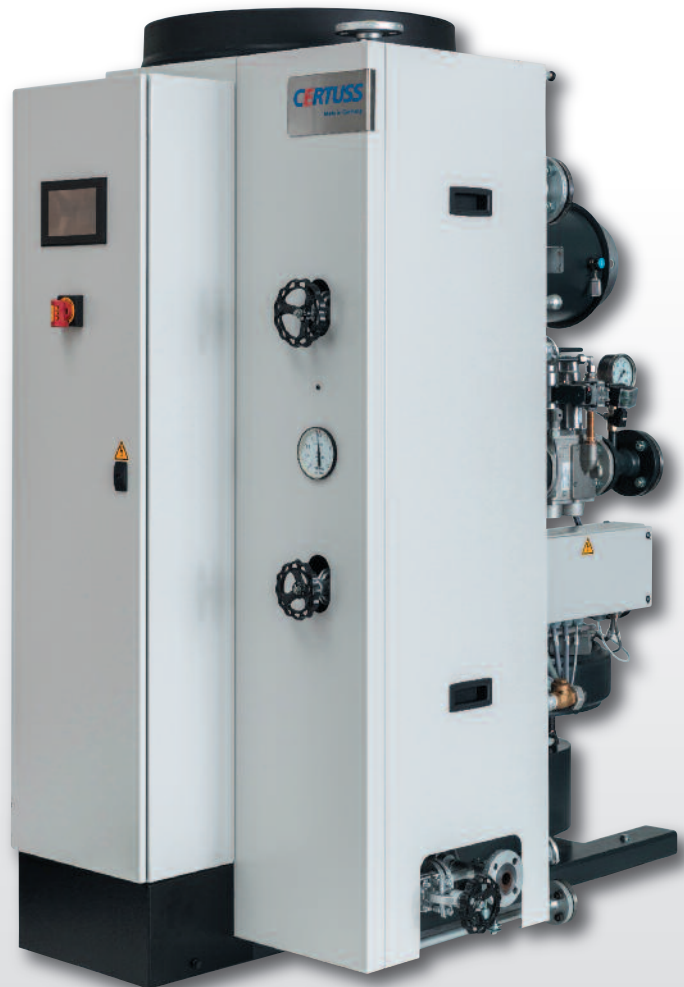
- 1** The **touch screen control panel** simplifies operation and control of the generator. All configurations and settings of steam pressure are made here.
- 2** The **pre-heated feed water** is delivered to the Generator at approx. 85 to 95°C. The heat frees the oxygen from water and reduces the risk of oxygen corrosion.
- 3** The **heat exchanger** coil is supplied with water through the feed water inlet. The change of phase from water to steam begins.
- 4** The modulating, **integral burner** with the fastest response time, provides precise steam pressure control down to **0.01 BAR G**.
- 5A** Insulation material is made obsolete by guiding the **combustion air** from the top of the Generator through an outer shell, and from there into an inner, secondary shell.
- 5B** The **combustion air intake & fan** draw in warm air through the triplex system to preheat the combustion air and keep the outer jacket cool.
- 6** When the steam has been produced, it leaves the generator through the **steam outlet** and is then ready for use.
- 7** The **flue gas outlet** connects to the chimney with or without an Economizer.
- 8** Sediment is flushed out through the **steam generator coil blowdown valve**.
- 9** The **safety relief valve** opens automatically to discharge excess steam when the pressure is too high.



The Junior TC series includes the smaller sized Generators for customers who require low amounts of steam. All Junior TC Generators are equipped with an easy to use **touchscreen panel** that simplifies operation. They are our most space saving steam solutions. They can serve constant and fluctuating demands in steam, with steam available in **under 5 minutes**.

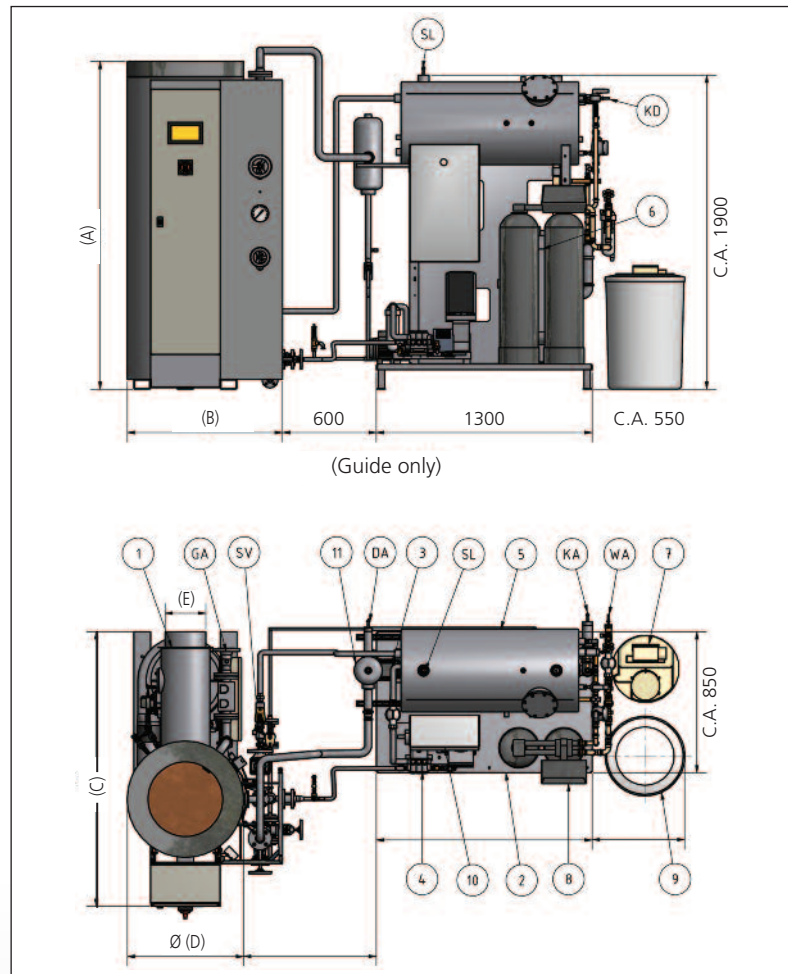
F E A T U R E S

- Space saving
- Installation without foundation support
- Robust steel construction
- Triplex air insulation creates good air circulation within the generator and preheats the combustion air
- Integrated, 1st stage CERTUSS burner system (NG, LPG, Light Oil)
- Noise and vibration reduction, anti-vibration mountings
- Economical fast energy transfer reducing radiation losses
- Vertical expansion free centrally suspended heating coil with bottom blowdown
- Replaceable evaporation section
- Easy and quick cleaning of the heating system, without removal
- Fully automated operation
- Exemplary customer service and spare parts available 365 days
- Thermal Efficiency >93% (without Economiser)
- Full adjustable output of steam
- BMS compatibility with Profibus/CANbus, Modbus, BACnet etc.,
- 7" Touch Control (TC) screen



Specifications

1. Junior TC Steam Generator
2. CVE Utility Unit
3. Pre Pressure Pump
4. Feed Water Pump
5. Feed Water Tank
6. Blowdown Vessel
7. Chemical Dosing
8. Water Softening Plant
9. Brine Tank
10. Control Panel
11. Steam Separator
12. Water Filter



- DA. Steam Connection
 WA. Water Connection
 SL. Tank Vent (To Atmos)
 SV. Safety Valve (To Atmos)
 KA. Drain Connection
 KD. Condensate Connection
 BA. Fuel Connection

CERTUSS Junior Steam Generator

Construction Group	Capacities			Firing Stages	Pressures		Consumption			Measurements (mm)			Connections						Free Air cm ²					
	Steam Output kg/h	Heat Output kW	Heat Input kW		Max. WP BarG	Max. AP BarG	Light Oil kg/h	Natural Gas m ³ /h	Liquid Gas m ³ /h	Height (A)	Width (B)	Depth (C)	Steam Generator Ø (D)	Flue Gas Tube Ø	Flue Gas (Centre)	Weight kg	Electrical Connection kW	Oil Connection DN	Natural Gas DN	Liquid Gas DN	Feed Water Connection DN	Steam Connection DN	High	Low
1	80	53	58	1	(8-14-22-29)	(10-16-25-32)	4.9	5.47	2.2	1500	700	1210	500	180	1050	320	1.2	3/8"	20	20	1 1/4"	15	116	232
	120	79	87				7.4	8.2	3.4														174	348
2	150	99	109	1	(8-14-22-29)	(10-16-25-32)	9.2	10.2	4.2	1580	740	1375	560	200	1120	420	1.35	3/8"	32	20	1 1/4"	20	218	436
	200	131	145				12.3	13.67	5.6														290	580
3	250	164	182	1	(8-14-22-29)	(10-16-25-32)	15.3	17.16	7.1	1850	830	1510	640	250	1360	520	1.45	3/8"	40	20	1 1/4"	25	364	728
	300	196	218				18.4	20.56	8.4														436	872
	350	230	255				21.5	24.05	9.9														510	1020
	400	262	291				24.5	27.45	11.3														582	1164

The Universal TC series is equipped to serve constant, as well as fluctuating, **high steam** demands making these Generators our most high performing solutions. Due to an extremely short heat up time, steam is available after **less than 5 minutes**. The touch screen control panel facilitates operation and gives a bundled overview of current pressures and configurations. Additionally the Generator can easily be operated remotely.

FEATURES

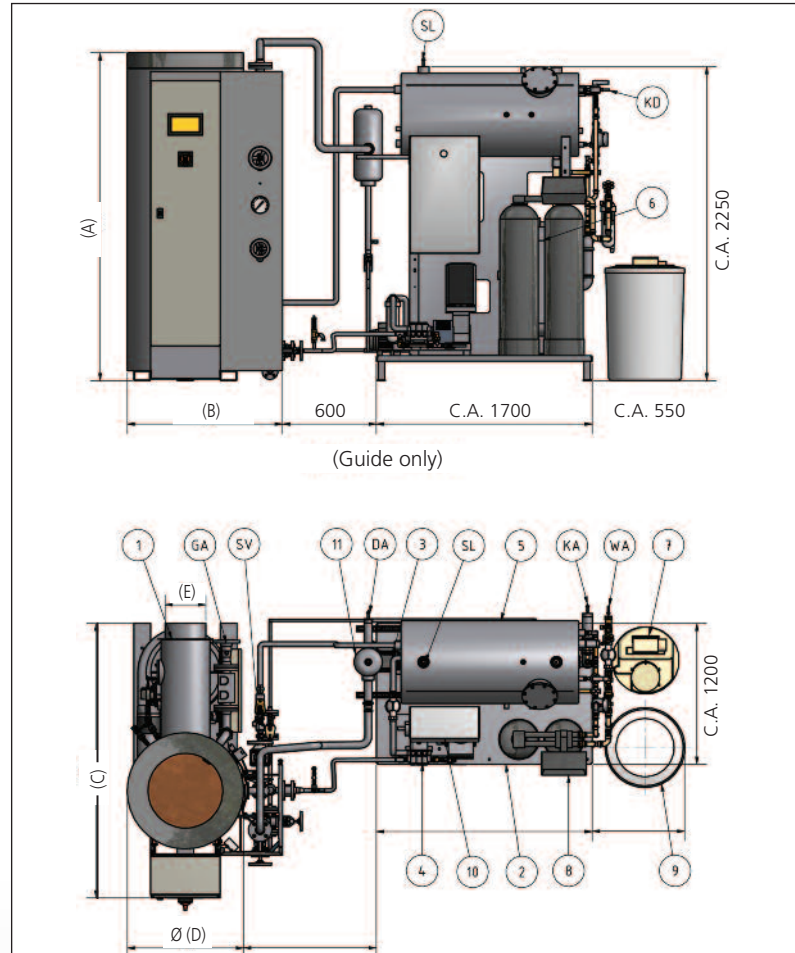
- Space Saving
- Installation without foundation support
- Robust steel construction
- Triplex air insulation creates good air circulation within the generator and preheats the combustion air
- Integrated, 2 stage modulating* CERTUSS burner system (NG, LPG, Light Oil and Dual Fuel)
- Noise and vibration reduction, anti-vibration mountings
- Economical fast energy transfer reducing radiation losses
- Vertical expansion free centrally suspended heating coil with bottom blowdown
- Replaceable evaporation section
- Easy and quick cleaning of the heating system, without removal
- Fully automatic operation
- Exemplary customer service and spare parts available 365 days
- Thermal Efficiency >93% (without Economiser)
- Full modulation from 50% to 100% (NG, LPG)*
- BMS compatibility with Profibus/CANbus, Modbus, BACnet etc.,
- 7" Touch Control (TC) screen



Specifications

1. Universal TC Steam Generator
2. CVE Utility Unit
3. Pre pressure pump
4. Feed Water Pump
5. Feed Water Tank
6. Blowdown Vessel
7. Chemical dosing
8. Water softening plant
9. Brine Tank
10. Control panel
11. Steam separator
12. Water filter

- GA. Fuel
 SV. Safety Valve
 DA. Steam
 SL. Tank Vent
 KA. Drain
 WA. Water
 KD. Condensate



CERTUSS Universal TC (Touch Control) Steam Generator

Construction Group	Capacities			Firing Stages	Pressures		Consumption			Measurements (mm)			Connections						Free Air cm ²					
	Steam Output kg/h	Heat Output kW	Heat Input kW		Max. WP BarG	Max. AP BarG	Light Oil kg/h	Natural Gas m ³ /h	Liquid Gas m ³ /h	Height (A)	Width (B)	Depth (C)	Steam Generator Ø (D)	Flue Gas Tube Ø	Flue Gas (Centre)	Weight kg	Electrical Connection kW	Oil Connection DN	Natural Gas DN	Liquid Gas DN	Feed Water Connection DN	Steam Connection DN	High	Low
4	500	328	364	2	(8-14-18-22-29)	(10-16-20-25-32)	30.6	34.33	14.1	1980	930	1600	700	250	1460	950	5.0	3/8"	50	25	1 1/4"	32	728	1456
	600	393	436				36.8	41.13	16.9														872	1744
	650	427	485				39.8	45.75	18.3														970	1940
5	700	459	510	2	(8-14-22-29)	(10-16-25-32)	42.9	48.11	19.7	2290	1160	1870	870	300	1750	1100	5.5	3/8"	65	40	1 1/4"	1020	2040	
	850	557	619				52.1	58.39	24.0													1238	2476	
6	1000	656	728	2	(8-14-22-29)	(10-16-25-32)	61.3	68.67	28.2	2535	1260	2125	1000	350	1940	1500	9.5	3/8"	65	40	1 1/4"	1456	2912	
	1300	853	947				79.8	89.33	36.7													1894	3788	
7	1500	984	1093	2	(8-14-22-29)	(10-16-25-32)	92	103.11	42.3	2675	1380	2310	1100	500	2025	2300	13.0	1/2"	80	50	1 1/4"	2186	4372	
	1800	1180	1311				110.4	123.67	50.8													2622	5244	
	2000	1312	1457				123.0	137.45	56.5													2914	5828	

CERTUSS Verified Equipment for Junior & Universal TC

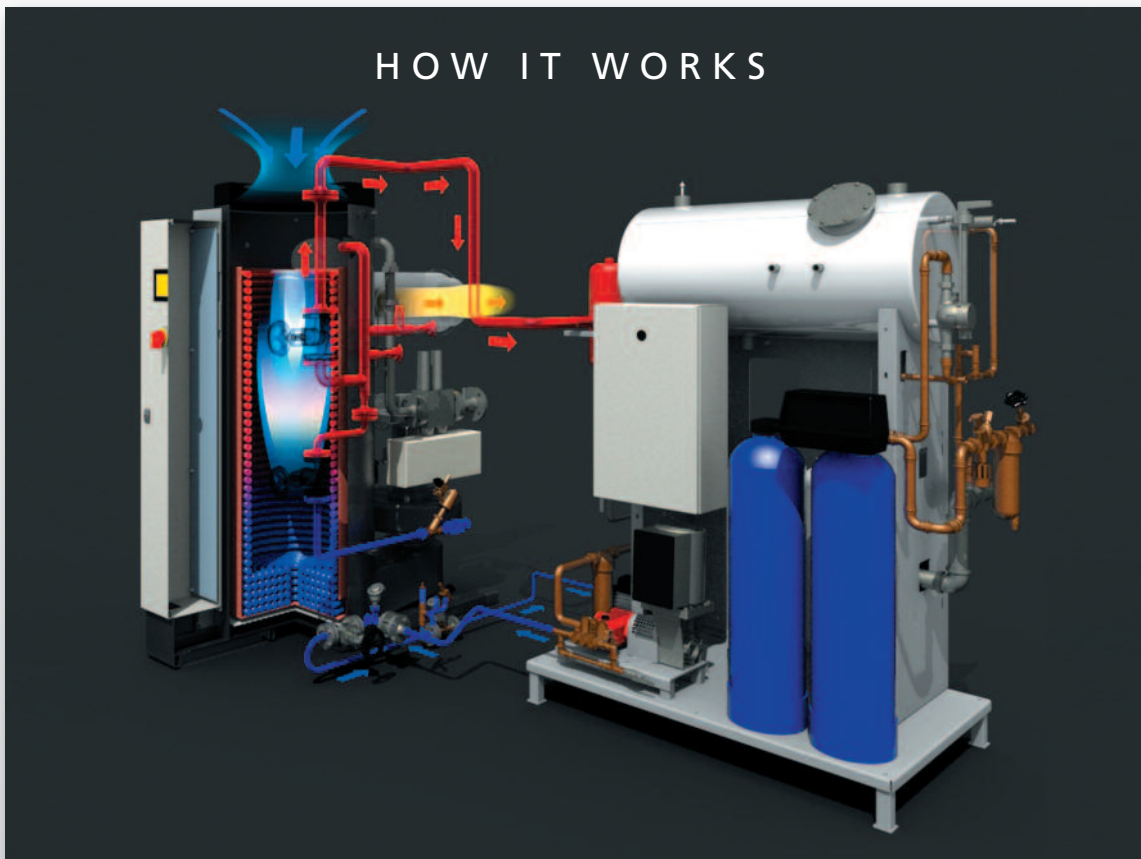
The **CVE** supply unit combines all components needed to supply the Steam Generator in one compact body. Instead of having to combine many single parts, our CVE offers all **necessary add-on's** for supply and water treatment in one. Thereby complex on-site installations are obsolete and factory-tested functional reliability is assured.

FEATURES

- Duplex or Simplex water softening plant including Automatic dosing
- Brine tank
- Feed water tank with pre-heater
- Steam separator
- Blow-Down Vessel with automatic after cooler
- Control Panel
- Blowdown heat recovery system
- Pre -Pressure Pump
- Testomat; conductivity monitor



HOW IT WORKS



A D V A N T A G E S

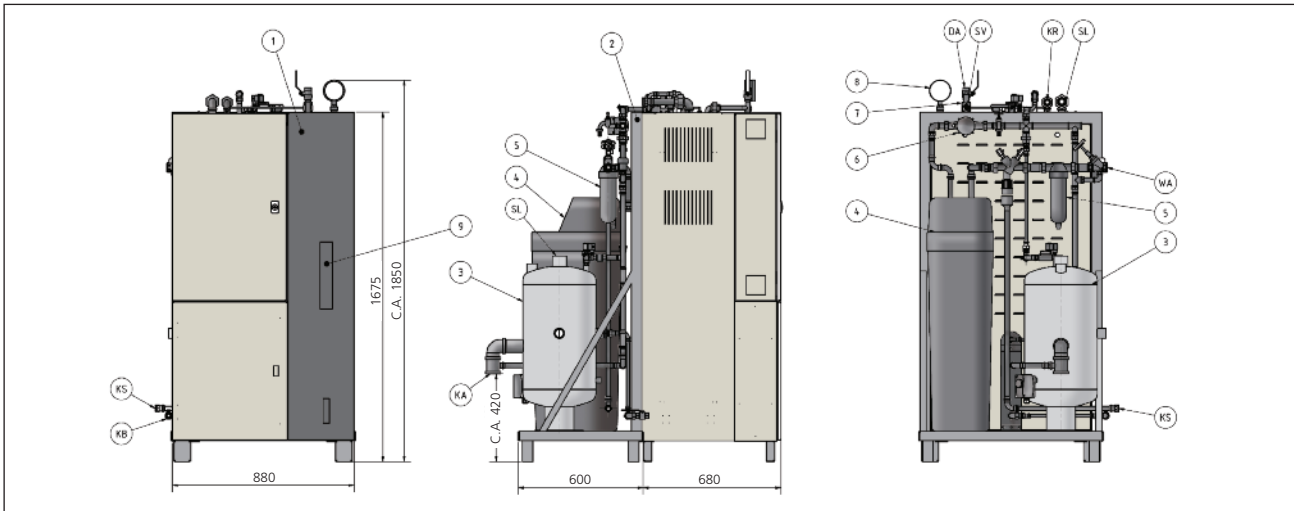
- All supply and water treatment components for CERTUSS Steam Generators are supplied as a single unit and are CERTUSS verified.
- Fast, economical commissioning, ready for operation
- Easy maintenance access
- Enhanced safety due to factory pre-installation of water, steam and electrical connections
- Less space required due to compact design
- Simple on site single point installation
- Complete with electrical sub distribution
- Durable galvanised base frame
- Use of approved, high quality materials
- 3D drawings available for easy design and layout



Type	For Steam Generators with steam output kg/h	Dimensions (mm)			Connections					Electrical Connection	Load Current (A)
		Height	Width	Depth	Raw Water DN	Waste Water DN	Rinsing Water (softening) DN	Ventilation (feed water tank) DN	Condensate DN		
Junior	80-120	1950	1300	850	1"	2"	1/2"	2"	1 1/4"	3 x 400V / 50 Hz	10
	150-200										10
	250-400										10
Universal	500-600	2300	1700	1200	1"	2"	1/2"	DN 100	1 1/2"		16
	700-850										20
	1000-1300										20
	1500-1800										25
Multiple Units	2 x 80-120	2300	2200	1200	1"	2"	1/2"	2"	1 1/4"		16
	2 x 150-200										16
	2x 250-400										16
	2 x 500-600										25

*incl. Connected load of steam generators

All rights reserved to make technical changes



- | | | | |
|-------------------------------------|---|----------------------|----------------------|
| 1. Electric Steam Generator E 6-72M | 5. Water filter | DA. Steam Connection | WA. Water Connection |
| 2. Utility unit CVE E 6-72M | 6. Water meter | KA. Drain | KR. Condensate |
| 3. Mixing cooler 50 ltr. | 7. Safety valve | SV. Safety Valve | KS. Drain |
| 4. Water softening plant | 8. Manometer | SL. Vent Outlet | KB. Blowdown |
| | 9. Roller indicator level regulator / limiter | | |

E6M - 72M: The New Generation Of The Classic Generator: The electric steam generators E6M - E72M are genuine CERTUSS steam generators. They are distinguished by their short heat-up time and low space requirement. They are low-loss and extremely reliable in construction proven over decades. The E6M - E72M achieves immediate output adjustment, simplified operation and increased ease of maintenance.

Small, Complete And Safe: The E6M - E72M are complete, ready to operate, electronically controlled steam generators with built in feed water tank and water pump along with all the safety devices for pressure and temperature. Only the disposal and supply lines are to be installed by the customer.

Manual, Remote-Controlled Or Automatic: Controlling is carried out either manually by simply pressing buttons or with an optional "Thermotimat" automatic control within the unit. Controlling via a central control system / building services system or an external impulse is also possible for the display and transfer of operating and fault messages. The heart of the E6M - E72M consists of a PLC control system that displays the operating and fault messages with corresponding fault codes.

Electronically Controlled Electrical Heating: The output of the heating elements is controlled progressively through semiconductor contactors. This ensures virtually constant steam pressure under a symmetrical load of the power supply. The respective operating pressure range can be present progressively.

Optional - Output Selection Switch: On multiple stage generators the heating output can be limited

Optional - Automatic Desalination: A device for fully automatic time - controlled desalination can be integrated and guarantees constant high steam quality

Optional - Automatic Blowdown: The E6M - E72M steam generators can additionally be equipped with an automatic blowdown. The pressure vessel is then de-slimed at every shutdown

Installation Conditions: In accordance with the European Pressure Equipment Category II or III depending on the operating pressure. They have been tested in accordance with the EC type examination.

FEATURES

Operator Convenience

- Easy to service compact device, easy to operate
- Optional supply system for water treatment and water cooling
- Access possible through normal doors up to 1m wide
- Wide solid bases to ensure safe transportation on the side or front
- Direct front access to all parts for easy maintenance

Efficient

- Short heat-up time
- Fully electronic pressure and output control, immediate load adjustment
- Electrical heating elements made of stainless steel with large heating surface
- Constant network load without consumption peaks
- Output limitation by selection switch starting on model E18 M (optional)

Operation and Installation

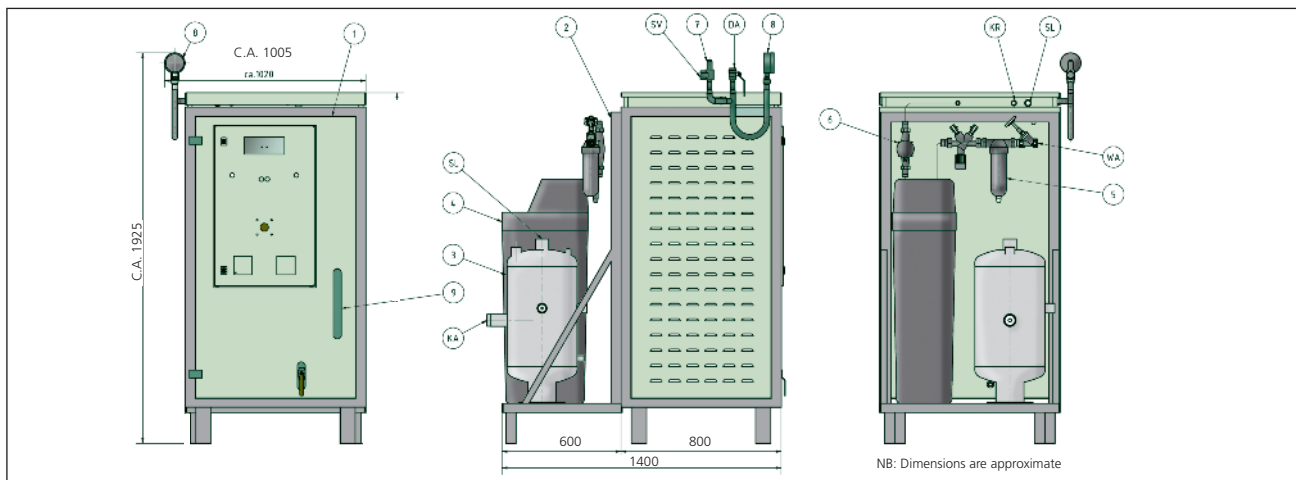
- Low space requirement, reduced and robust heavy-duty model in an elegant design
- Can be installed in work areas
- Fully automatic operation by means of time control or remote pulse (with supplementary equipment)
- Automatic blowdown (optional)
- Automatic desalination (optional)

Safety and Quality

- Function and malfunction indications can be linked to central control system / building services control system provided by customer
- Series production in the framework of the CERTUSS range
- Spare parts supply guaranteed for 20 years
- Stainless steel version of all parts in contact with water and steam for pure option



Technical Data E6M - E27M		E6	E12	E16	E18	E22	E24	E28	E32	E36	E40	E48	E56	E64	E72	
Steam Output	kg/h	8	16	21	24	29	32	37	42	48	53	64	75	86	97	
Heat Output	kW	6	12	16	18	22	24	28	32	36	40	48	56	64	72	
Power Stages		1 - Stage				2 - Stages					3 - Stages					
Electrical Connection up to 0.6 Mpa (6 bar) up to 1.2 Mpa (12 bar)	kW															
		6.8	12.8	16.8	18.8	22.8	24.8	28.8	32.8	36.8	40.8	48.8	56.8	64.8	72.8	
		7.8	13.8	17.8	19.8	23.8	25.8	29.8	33.8	37.8	41.8	49.8	57.8	65.8	73.8	
Operating Voltage		3 x 400V / 50Hz														
Admissible Pressure	MPa	0.6 / 1.0 / 1.2														
	bar	6 / 10 / 12														
Working Pressure min/max	MPa	0.35 - 0.55 / 0.35 - 0.8 / 0.35 - 1.1														
	bar	3.5 - 5.5 / 3.5 - 8.0 / 3.5 - 11														
Water Capacity	ltr	28														
Dimensions HxWxD	mm	1850 x 880 x 680 (depth including mounting approx 785mm)														
Empty weight (appx)	kg	320														
Connections	DN	Water vapour 1" / Feed water 1/2" / Steam 1/2" / Safety Valve blow-off line 1" / Condensate 3/4"														
Regulations	Germany	In accordance with PED 97/23 EC up to 0.6 MPa (6 bar) category II, above 0.6 MPa category III														



- | | | | |
|----------------------------------|---|----------------------|----------------|
| 1. Electric Steam Generator E100 | 6. Water meter | DA. Steam Connection | KR. Condensate |
| 2. Utility unit CVE E 100 | 7. Safety valve | SV. Safety Valve | KA. Drain |
| 3. Mixing cooler 50 ltr. | 8. Manometer | SL. Vent | |
| 4. Water softening plant | 9. Roller indicator level regulator / limiter | WA. Water | |
| 5. Water filter | | | |

E100: a genuine CERTUSS: The electrical steam generator E100 is a genuine CERTUSS meaning rapid heat-up time, low space requirement, easy to service, low loss, immediate output adjustment.

In accordance with the European Pressure Equipment Directive 97/23 EC the E100 is classified as Category III with a product of the water contents (l) x maximum permissible steam pressure (bar) < 1000. It has been tested in accordance with the EC type examination.

The steam generator E100 has less-restricted conditions for installation and operation in the EC member states.

E100: small, complete and safe: The E100 is a complete ready to operate electronically controlled steam generator with built-in feed water tank and feed water pump, as well as dual implementation of safety devices for pressure and temperature. Only the disposal and supply lines are to be installed by the customer. Control is carried out by means of a multifunction display, with all the functions and alarms being shown in plain text. The desired operating steam pressure can be adjusted continuously between 4 bars and the maximum steam pressure (6, 10 or 12 bar).

All the operating and fault indications can be passed on to a Building Management System provided by the customer.

Automatic Blowdown device: The steam generator E100 can be additionally fitted with an automatic blowdown facility. Whereby blowdown of the pressure system occurs after each manual shutdown or automatic operation.

Electronically controlled electric heating: Heating is carried out by means of a compact heating element with a large heating surface. The heating output is adjusted continuously by means of a pressure sensor, distributed amongst three electronic power contactors. A standard manual power selector switch can be used to limit the heating output between 1/3 and 2/3 of the load.

E100 with "Thermotimat" fully automatic operation: With "Thermotimat" as optional equipment, fully automatic start and shutdown operation by means of an integrated time clock or customer provided external pulse from machines, remote controllers, etc. is possible.

1 MPa (10 bar) = 145 psi
 10 psi = 0.069 MPa (0.69 bar)
 1 kW = 3413 BTU
 1000 BTU = 0.293 kW



FEATURES

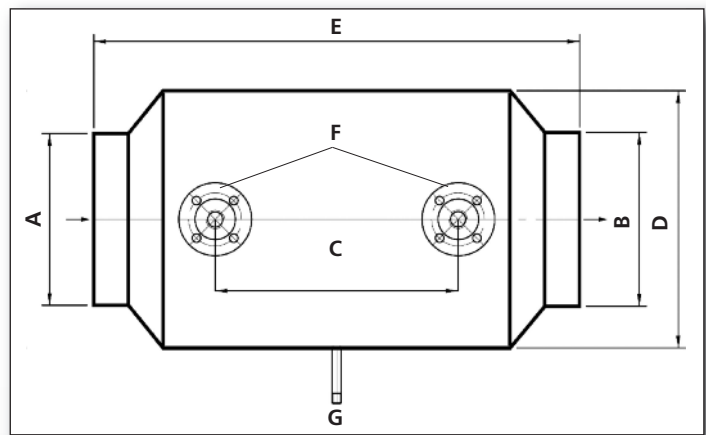
- Low space requirement, robust heavy-duty model
- Easy to service compact device, easy to operate
- Series fabrication within the total CERTUSS program
- Rapid start up time < 3 minutes to produce steam
- Fully electronic pressure and output control, immediate load adjustment
- Fully automatic operation by means of integrated time clock or remote pulse (with supplementary equipment)
- Can be installed in work areas
- Electrical heating rods of stainless steel
- Low heating area load—high durability
- Function and malfunction indications can be linked to Building Management System provided by customer
- On request, all boiler parts made of stainless steel for pure steam production
- Optional supply unit for water conditioning and waste water cooling
- Exemplary customer service and spare parts availability

Technical Data E100		Measurements, weights and further values are rounded up. Indicated pressure are overpressure values. Output values stated are related to 10°C feed water temperature and 0.6MPa (6 bar) steam overpressures. Delivery complete including stainless steel water feed tank. Rights reserved for technical alterations.	
Steam Output	kg/h	135	160
Heat Output	kW	100	120
Electrical connection	kW	105	125
Operating voltage	V/50 Hz	3 x 400, alternative voltage on request	
Admissible pressure	MPa	Optional equipment 0.6 / 1.0 / 1.2 (6 / 10 / 12 bar)	
Working Pressure max	MPa	0.5 / 0.8 / 1.0 (5 / 8 / 10 bar)	
Water capacity	ltr	38.8	
Dimensions (HxWxL)	mm	1925 x 1005 x 800	
Empty weight appr.	kg	415	
Connections	DN	Vent 1" / Feed water 1/2" / Steam 1/2" / Safety Valve blow-off line 1" / Condensate 3/4"	
Regulations	Germany	Boiler group III (PSxV<1000) does not require permit for installation, approval and TÜV monitoring	

CERTUSS Economiser **CERTECON** for Junior TC **80 – 400**

An innovative solution for saving energy during operation of the oil- or gas-heated CERTUSS Steam Generators of the Junior 80 – 400 series.

Depending on the output level, operating pressure and utilisation of the Steam Generator, the combustion-specific degrees of thermal efficiency increases to up to **5%**.



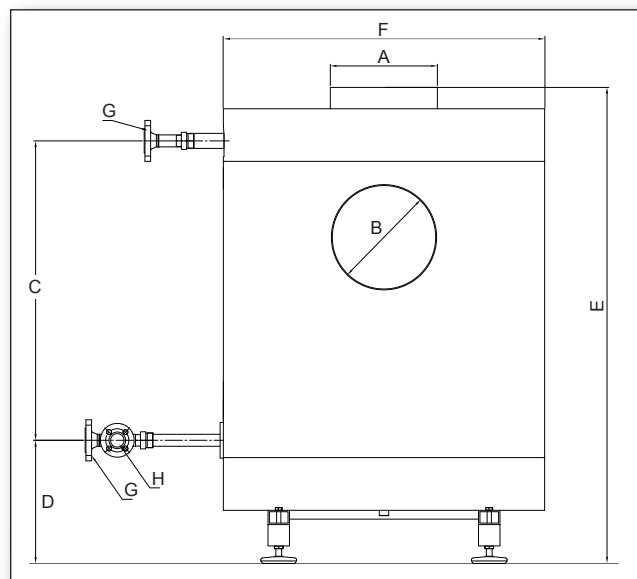
CERTECON Junior		80 – 120	150 – 200	250 – 400	
A	Flue gas inlet Ø internal	mm	178	203	254
B	Flue gas outlet Ø external	mm	178	203	254
C	Connecting piece distance	mm	216	267	356
D	Height	mm	254	279	368
E	Width	mm	284	635	737
F	Water inlet / outlet	BSPT	1/2"	1/2"	3/4"
G	Drain flue gas condensate	BSPT	1/2"	1/2"	1/2"
	Heat output at full load up to	Kw	0.06 – 0.11	0.06 – 0.30	0.27 – 0.41
	Weight without water	Kg	24	33	66
	Water capacity	Lt	0.90	2.0	3.86
	Operating overpressure max.	BarG	39.98	39.98	39.98

Specifications subject to be changed

Economiser for Universal TC

CERTUSS Economiser **CERTECON** for Universal TC **500 – 2000**

The CERTUSS Economiser increases the degree of **generator efficiency** and reduces CO² emissions for generator systems fired by **natural gas or light oil**. As flue gas heat exchanger, it uses exhaust gas heat to increase the temperature of the boiler feed water and reduces fuel use by up to **5%** and gains efficiency up to 5%.



CERTECON Universal		500 – 600	700 – 850	1000 – 1300	1500 – 1800	
A	Flue gas inlet Ø internal	mm	254	305	356	508
B	Flue gas outlet Ø external	mm	178	305	343	495
C	Connecting piece distance	mm	737	850	902	940
D	Distance floor / connecting piece	mm	356			
E	Height	mm	1232	1320	1384	1448
F	Diameter	mm	787	902	1016	1092
G	Water inlet / outlet	BSPT	1"		1 1/4"	
H	Blowdown	BSPT	1/2"		1"	
I	Dewatering flue gas condensate		3/4"			
	Heat output at full load up to	Kw	0.44 – 0.67	0.89 – 1.11	1.34 – 1.86	2.08 – 3.28
	Weight without water	Kg	228	320	387	442
	Water capacity	Lt	23.88	43.11	51.59	71.58
	Operating overpressure max.	BarG	39.98	39.98	39.98	39.98

Specifications subject to be changed

The CERTUSS **fully equipped container unit** is our solution in case isolation from the rest of your plant is required. It contains all components necessary to operate an entire plant.

After connecting the main services and commissioning, steam is at your disposal in **less than 5 minutes**. The self contained unit is **flexible**, allowing permanent, as well as temporary positioning.

On inquiry we can take over full or partial installation of the steam system. If you choose to contract out to other companies, we can carry out consultation and supervision for your containerised unit.

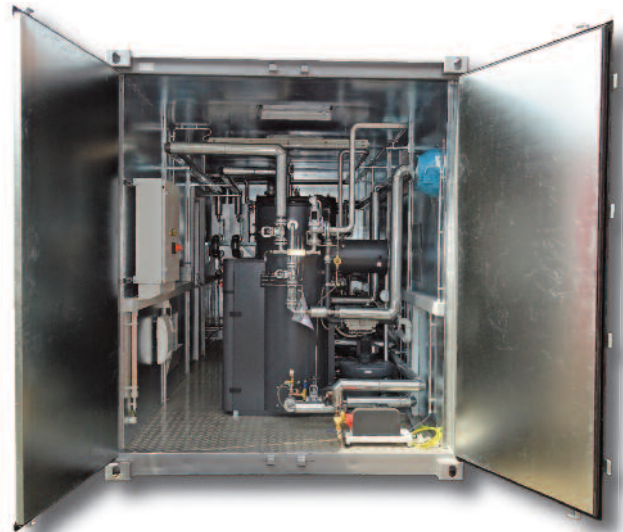
FEATURES

- Steam Generator(s)
- CVE supply unit
- Softening plant
- Pressure reducing station
- Steam distribution header
- Blowdown vessel with automatic after cooler
- Steam separator
- Condensate header
- Emergency stop switch
- ...and more



A D V A N T A G E S

- Customisable
- Space saving
- Complete installation of both Mechanical and Electrical components, leaving only site service connections to be made
- Fully insulated walls for protection of equipment against adverse weather conditions
- High grade steel walls internally and externally
- European standard paint finish to customer specification
- Fully insulated pipe services internally of the container
- Optional steel door or UPVC door to suit customer specification
- Full internal lighting
- Full internal heating
- Flexible for temporary or permanent location positioning; Mobile unit
- Removes requirement for separate boiler-house
- Allows customer full usage of valuable process floor space
- Access space for maintenance work is fixed
- Reduced costs for site installation work





Western

W A T E R T R E A T M E N T

CERTUSS UK has appointed Western Environmental Limited as our approved water treatment provider for our complete range of Steam Generators. Established in 1988, Western Environmental Limited provides a wealth of expertise in the field of industrial water treatment.

This expertise and skill is delivered to the customer via a team of well trained and friendly water treatment chemists who work in a close partnership with their clients. In addition, Western Environmental Limited employ state of the art electronic dosing and monitoring equipment, advanced internet based reporting systems, provide high quality water treatment chemicals manufactured in their own production plant and skilled engineers to ensure the optimum performance from your CERTUSS generator.

Western Environmental Limited have provided water treatment solutions for numerous CERTUSS steam generators over many years and their strong relationship with CERTUSS UK facilitates effective and comprehensive protection.



Contact: info@westerngroup.co.uk or visit
www.westerngroup.co.uk

CERTUSS UK aftersales support team are always at hand to help with your general needs, along with service and installation work to accommodate all customer requirements.

Within our aftersales team we have Engineers and Technical Advisors at hand to give all our customers constant support and piece of mind. We pride ourselves on our customer relationships, catering for the UK and Ireland, we carry an extensive range of spares ensuring an efficient and professional response to our customers needs.

S E R V I C E / C O M M I S S I O N I N G



C U S T O M E R S U P P O R T



T E C H N I C A L & P A R T S



Please feel free to contact us:-

Tel: +44 (0)121 327 5362

Fax: +44 (0)121 328 2934

Email: service@certuss.co.uk

- Extensive Parts Stock
- Factory Trained Service Engineers
- Technical Advice
- Full Operator Training

THERMOTIMAT Full Automatic Control System

Functions available

- Automatic Start
- Automatic Blow-down
- Programmable start-up/shut off
- External Switching on/off
- Automatic fuel change over for combination burners
- Pressure drop cut in at Network – Lag/Lead

VOLT FREE CONTACTS - 6 OR 12

Functions available

- 6 or 12 operating or fault messages transferrable to – BMS Facility

GSM INTERFACE

Functions available

- Allows the control system of the steam generator to be placed on the internet via a mobile network using a SIM card.
- Ability to connect from a workplace to a Generator through a browser such as Internet Explorer, Safari, Firefox etc.

LAG/LEAD FACILITY

Functions available

- Changeable base load boiler
- Cut in of a Steam Generator in stand-by mode after a malfunction of a duty Generator
- Cut in of a stand-by Generator when a pre-selected steam network pressure is not reached.

INTERFACE MULTIPLE SYSTEM/NETWORK

Functions available

- Integration of 1-4 Generators into a company network without PROFIBUS. With the display of the Generator available at the assigned remote station
- With Automatic “Thermotimat” in place – Changeable base load- Cut in of a stand-by Generator on failure

PROFIBUS (SIEMENS) INTERFACE

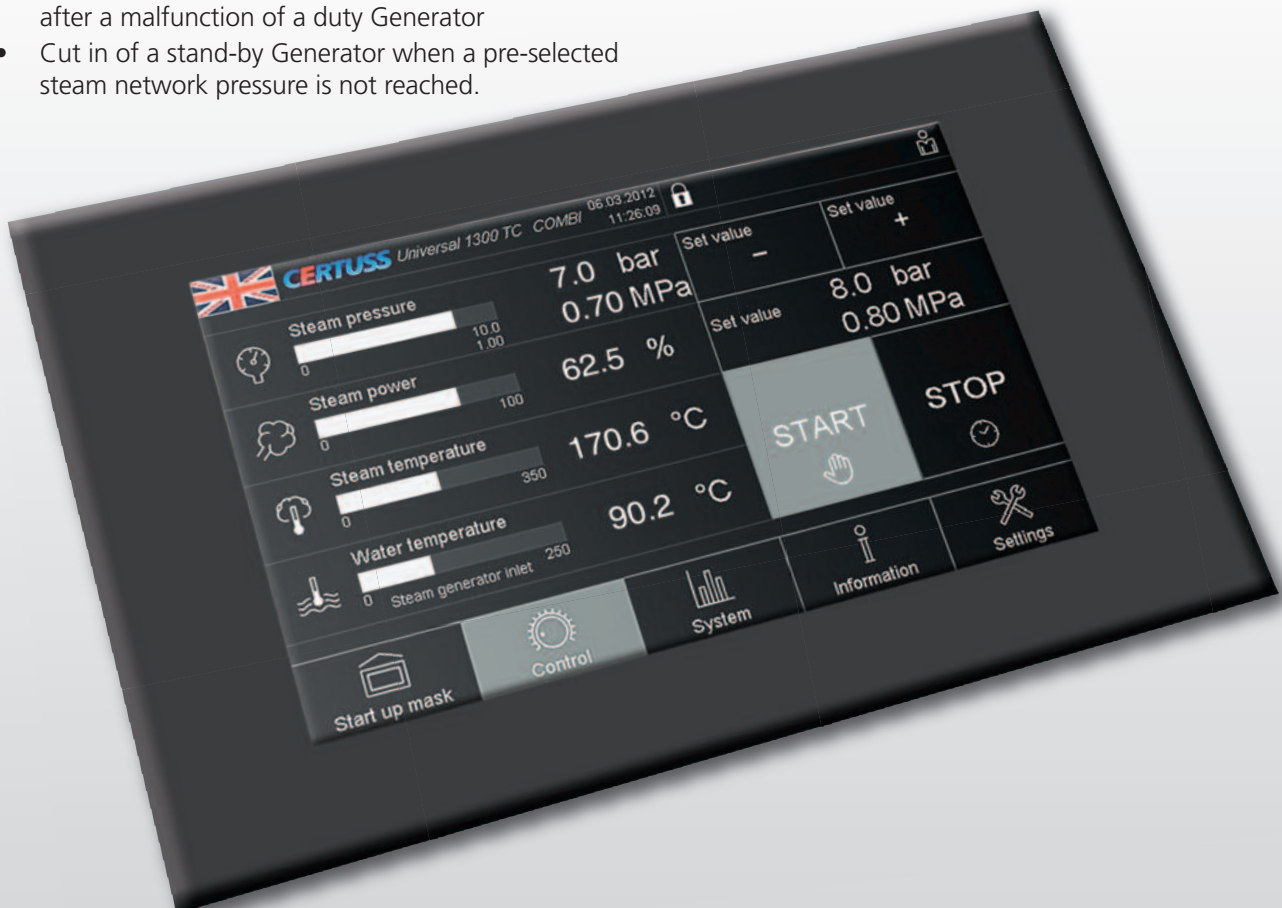
Functions available

- Integration of Generators into a control network with PROFIBUS. With the display of the Generator available at the assigned remote station
- With Automatic “Thermotimat” in place – Changeable base load- Cut in of a stand-by Generator on failure

DSL INTERFACE

Functions available

- With an Internet access a provider available, this allows the control system of the Generator to be placed on the Internet. With the full display of the Touch Screen available



All Advantages at a Glance

A D V A N T A G E S

- Start-up time of **3-5 minutes** with steam available
- **Minimal floor requirement**
- Up to **93%** thermal efficiency*
- Reduced corrosion due to **vertical** orientation
- Low water carrier equals **safe operations**
- **Fully automated, unmanned operation** available
- Silent operation, less than **75 dBa sound pressure**
- Reduction of piping costs due to **decentralised** plants
- **7" Touchscreen** display
- Remote access via **Ethernet, Wi-Fi or GSM (Cellular)**
- Remote maintenance and control possible with **iPad or iPhone**
- Predictive maintenance: informing of potential issues **before** they occur
- Redundancy with **multiple plant solution**
- Mildly warm operating generator due to **triplex air insulation vessel**
- Minimal and easy maintenance with spare parts available **up to 20 years**
- 365 days **aftersales support**
- **Less pollution** through low water drainage





Greggs Bakery - Manchester



Geipel Brewery - North Wales



Guys & St Thomas Hospital - London



Johnsons Laundry - Leeds



Tulip Foods - Bristol

C H E C K L I S T

1. Do you want **quick start-up times** and steam almost **instantaneously**?
2. Do you have a boiler constantly in hot **standby** mode?
3. Do you want to be more **environmentally friendly**?
4. Do you experience **fluctuations** in steam demand?
5. Do you have **limitations in space** or want to use your space more **efficiently**?
6. Do you want to operate your generator **remotely** without having an operator on site all the time?
7. Do you currently have an **aging** boiler?
8. Do you face difficulties obtaining **replacement** and **spare parts** for your boiler?
9. Do you experience efficiency losses due to long **distances** between the **production** and the **use** of steam?
10. Do you prefer a **point of use** steam source?
11. Do you have **maintenance** issues with your current boiler?
12. Do you have confidence in the **quality and reliability** of your existing boiler?

If you checked **4** or more of these questions you should consider buying a new, high efficiency steam generator by **CERTUSS!**

中华人民共和国
特种设备制造许可证
Manufacture License of Special Equip
People's Republic of China



Certificate

Standard **ISO 9001:2008**
Certificate Registr. No. 01 100 76026

TÜV Rheinland Cert GmbH certifies:
Certificate Holder: **Certuss Dampfautomaten GmbH & Co. KG**
Hafenstraße 65

Scope:



CERTIFICATE OF AUTHORIZATION

The named company is authorized by the American Society of Mechanical Engineers (ASME) for the scope of activity shown below in accordance with the applicable rules of the ASME Boiler and Pressure Vessel Code. The use of the certification mark and the authority granted by this Certificate of Authorization are subject to the provisions of the agreement set forth in the application. Any construction stamped with this certification mark shall have been built strictly in accordance with the provisions of the ASME Boiler and Pressure Vessel Code.

COMPANY: **CERTUSS Dampfautomaten GmbH & Co. KG**
Hafenstrasse 53-55
Krefeld 47809
Germany

SCOPE:
Manufacture and assembly of power boilers at the above location only

AUTHORIZED: **June 22, 2015**
EXPIRES: **June 22, 2018**
CERTIFICATE NUMBER: **49,570**

Richard Robinson
Vice President, Conformity Assessment

Joseph Lawson
Director, Conformity Assessment



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www.tuv.com



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CZ-796 07 Prost jov

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Zone d'activités
F-68700 Wattwiller

LCI group – Centre Nord Ouest France
39, rue Einstein
PA du Château – BP 60129
F-62211 Carvin

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JO-11821 Amman

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P.O. Box 5168 Hawally
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801 Lor 7 Toa Payoh #05-00, Wearnes Building
Singapore 319319

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CH-6216 Mauensee

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Priekopská 84
SK-03608 Martin-Priekopa

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SI-3311 Šempeter v Savinjski dolini

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Avenç del Daví, 22
Pol. Ind. Can Petit
E-08227 Terrassa (Barcelona)

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Barbaros Bulvari 93
TR-80690 Be ikt a -Istanbul

Ukraine

DP SLOVTERM
prospekt Shevchenka 7-A
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Kyievskaja oblast

United Arab Emirates

Saudi Arabia, Oman, Qatar, Bahrain
HRSFunke Heat transfers FZE
Jebel Ali Free Zone
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Dubai, UAE

United States of America

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Arlington Heights, IL 60004-1954

New England Applied Products
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Boston, MA 02127

J.Lorber Plumbing
19 Dark Hollow Rd
Pipersville, PA, 18947

Cici Boiler Rooms, Inc.
7811 Baumgart Road
Evansville, IN 47725

Power&Heat Systems
10005 Whitesel Road
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Suite 5 - 127
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Buckpitt & Co Inc
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CERTUSS

Steam Generators



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