

Type 7120 Electric Steam Generator

For steam generation

Application

Electric steam generator with 300 kW for steam generation.

The electric steam generator with a 300 kW rating is a standard ready-to-use unit.

Complete boiler rooms with a rating of up to 900 kW can be implemented by using tailor-made accessories (e.g. SAMSON Type 7124, Type 7127 and Type 7128).

The Type 7121 Electric Steam Generator with up to 90 kW rating exists for lower steam outputs. We recommend the Type 7129 Electric Steam Generator with up to 1 MW rating for outputs greater than 900 kW.

Special features

- Directly available steam supply
- Flexible and scalable heating and steam supply to meet different requirements
- No primary energy transfer medium (oil or gas)
Eco-friendly steam generation when operated with green power
- Plug-and-play solution
- Integration into the process automation
- Compact design with an extremely high power density
- Excellent energy efficiency
- Very little installation work required with no additional pipework
- Low cost of operation and maintenance

Versions of the Type 7120 Electric Steam Generator

Versions

300 kW heating power · Design pressure up to max. 12 bar(a) · Operating pressure up to max. 11 bar(a) · Operating temperature up to max. 184 °C

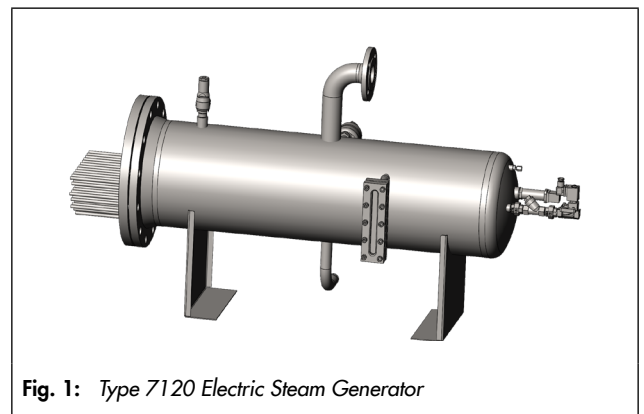


Fig. 1: Type 7120 Electric Steam Generator

Special versions

Our solution with the Type 7128 Boiler Room allows you to use up to three electric steam generators in combination with the following ready-to-use accessories:

- Type 7127 Boiler Feedwater System
- Type 7124 Blowdown Vessel
- Water treatment unit

Fields of application

Steam is an important utility required in various industries.

For generation of small to medium steam output as stationary units, SAMSON offers high-performance electric steam generators with 300 kW heating power. In comparison with conventional steam generators, fully electric steam generators are better suited to meet a varying steam demand in processes due to the fast start-up and flexible control of steam temperature and output. Furthermore, electric steam generators have a much higher efficiency.

Electric steam generators are highly versatile for use in a wide range of applications. They help maximize the efficiency and cost-effectiveness of processes (see Fig. 2).

Accessories

Accessories for operation of up to three 300 kW steam generators:

- Boiler feedwater system: SAMSON Type 7127
- Blowdown vessel: SAMSON Type 7124
- Boiler room: SAMSON Type 7128

Automotive industry <ul style="list-style-type: none"> • Parts cleaning • Shaping of plastic pipes in steam-pressure bending stations 	Construction industry <ul style="list-style-type: none"> • Clean-up of contaminated sites • Wood processing • Concrete works • Glass and ceramic industry 	Chemicals and petrochemicals <ul style="list-style-type: none"> • Processing and recovery of fats, oil and grease • Mineral oil refining • Tank cleaning
Service business <ul style="list-style-type: none"> • Dry cleaning • Disinfection • Hotels • Hospitals • Saunas • Textile processing 	Luxury foods industry <ul style="list-style-type: none"> • Distilleries • Chocolates • Confectionery • Tobacco products • Tee and coffee 	Beverage industry <ul style="list-style-type: none"> • Breweries • Soft drinks • Fruit juices • Mineral water springs
Textile industry <ul style="list-style-type: none"> • Dyeworks • Leather processing • Recycling • Textile printing • Weaving mills 	Food industry <ul style="list-style-type: none"> • Meat industry • Dairies • Bakeries • Mills • Refineries 	Other industries <ul style="list-style-type: none"> • Aviation and shipping • Surface treatment

Fig. 2: Fields of application

Table 1: Main properties and data

Type 7120 Electric Steam Generator		
Rating		300 kW · Other ratings available
Operating pressure (steam generator)		11 bar(a)
Design pressure (boiler)		12 bar(a); Operating pressure 1 bar below the design pressure Special boilers for higher pressures on request
Permissible operating temperature		-10 to +184 °C
Rated volume		90.2 l
Voltage		400 V, three phase, 50 Hz
Amperage		435 A
Steam output		400 kg/h
Materials	Boiler	Stainless steel
Design basis		DIN EN 12953, DIN EN 14222, DIN EN 12952, PED 2014/68/EU
Weight	Boiler unit	300 kg

The SAMSON Type 7121 Steam Generator is suitable for generation of small steam output and mobile use. The Type 7129 is to be used for larger outputs.

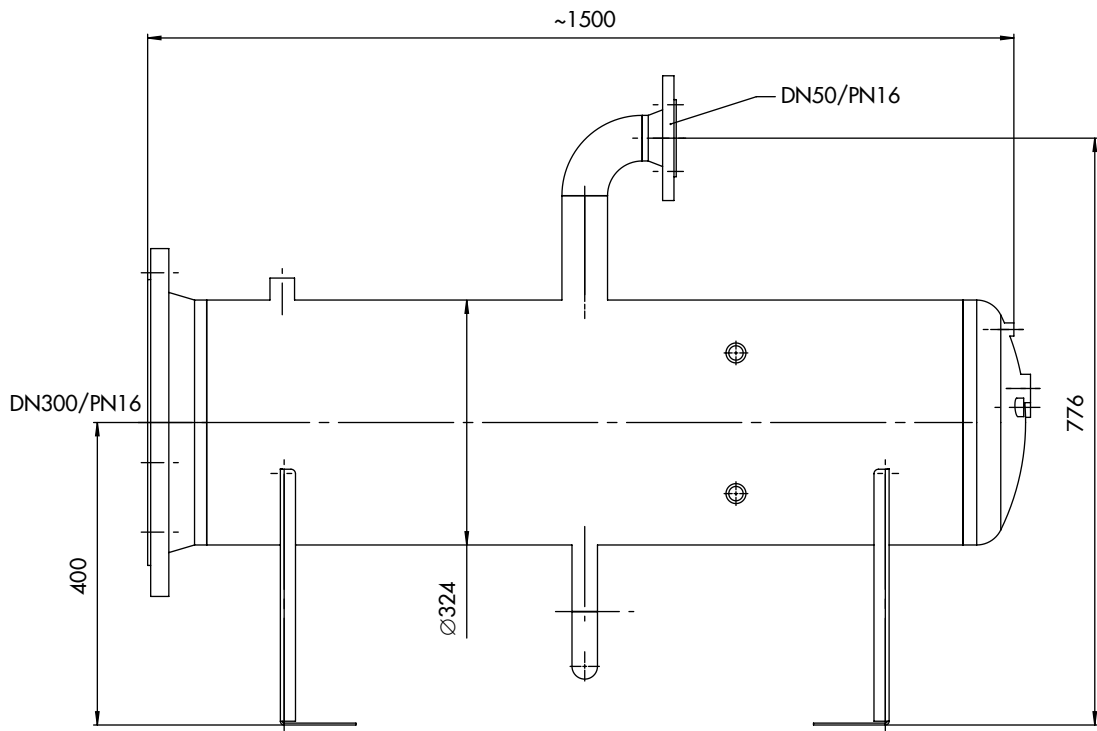


Fig. 3: Type 7120 Electric Steam Generator · Dimensions



RFQ Form for Type 7120 Steam Generator

Customer data						
Company						
Address						
Name						
Phone number						
E-mail						
Send your inquiry to your regional SAMSON contact or e-mail it to ► systems-de@samsongroup.com.						
Operating data						
	Type 7120-10	Type 7120-11	Type 7120-12	Type 7120-20	Type 7120-21	Type 7120-22
Operating data						
Operating temperature	(Standard max. 184 °C)	or other		°C		
Max. power	(Standard 300 kW)	or other		300 kW	600 kW	900 kW
Max. steam output	or other		kg/h (max. approx. 1200 kg/h = 900 kW)			
Feedwater pressure	bar(g)					
Options						
Type 7127 Boiler Feedwater System		Type 7124 Blowdown Vessel		Type 7128 Boiler Room		
Type 7150 Pressure Control System (steam output)		Pneumatic		self-operated		
		Electric				
Control valve (steam outlet)		Pneumatic		self-operated		
		Electric				
On/off valve (steam outlet)		Pneumatic		STL (up to 170 °C)		
		Electric		SPL		
Notes						