GAUMER PROCESS
HEATERS
SYSTEMS
CONTROLS

Electric Steam Boilers

Type GES - 12 KW to 180 KW
Trimmed at 100 PSIG

APPLICATIONS

- Laboratory use, steam for tanks, reactors, autoclaves, dyestuffs, food products, cosmetics, jacketed vessels for processing waxes, paraffins, glues, resins, varnishes, sterilizers, pipe tracing, and humidification.

LISTINGS

- Built in accordance with Section I of ASME Boiler and Pressure Vessel Codes. It is UL Listed and CSA certified.

AVAILABILITY

- Some sizes in Gaumer Company stock, others in three (3) to four (4) weeks, specials in six (6) to (10) weeks.

STANDARD FEATURES

- Liquid Level / LWCO McDonnell-Miller 150 controller automatically maintains proper water level and powers down the generator when water supply in the boiler drops below a safe operating level.
- Water Level Sight Glass allows constant observation of water level while boiler is operating.
- Blowdown / Drain Valve facilitates the emptying of the pressure vessel during blowdown/drain sequence.
- Main ON-OFF switch and Pilot Light mounted through cabinet front.
- Integrally mounted and wired magnetic contactors.
- Electric Heating Elements have stainless steel sheath material and are welded construction.
- Manual Reset Pressure Control provides high limit pressure shut down with manual reset.
- Operating Pressure Control maintains proper steam pressure within steam boiler.
- ASME Coded Steam Safety Valve automatically opens should excess steam pressure develop inside generator.
- Steam Pressure Gauge allows visual observation of steam pressure.
- Fully insulated pressure vessel minimizes heat loss and maximizes energy savings.
- Rugged construction makes steam generator suitable for most industrial applications.

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Bhp	Condensate (Lbs./Hr.)	Gaumer Catalog Number	kW:	Volts	Quantity Circuits	Quantity Switches	Width (in.)	Length (in.)	Height (in.)	Net Wt. (lbs.)
1.224	36.2	**GES12-208**	12	208	1	1	20	28	36	230
1.224	36.2	**GES12-240**	12	240	1	1	20	28	36	230
1.224	36.2	**GES12-480**	12	480	1	1	20	28	36	230
1.734	51.2	**GES18-208**	17	208	1	1	20	28	36	240
1.734	51.2	**GES18-240**	17	240	1	1	20	28	36	240
1.734	51.2	**GES18-480**	17	480	1	1	20	28	36	240
2.448	72.3	**GES24-208**	24	208	2	1	23	33	44	300
2.448	72.3	**GES24-240**	24	240	2	1	23	33	44	300
2.448	72.3	**GES24-480**	24	480	1	1	23	33	44	300
2.958	87.4	**GES29-208**	29	208	2	1	23	33	44	310
2.958	87.4	**GES29-240**	29	240	2	1	23	33	44	310
2.958	87.4	**GES29-480**	29	480	1	1	23	33	44	310
3.468	102.5	**GES34-208**	34	208	2	1	23	33	44	310
3.468	102.5	**GES34-240**	34	240	2	1	23	33	44	310
3.468	102.5	**GES34-480**	34	480	1	1	23	33	44	310
4.692	138.7	**GES46-208**	46	208	4	1	23	33	44	315
4.692	138.7	**GES46-240**	46	240	3	1	23	33	44	315
4.692	138.7	**GES46-480**	46	480	2	1	23	33	44	315
5.916	174.8	**GES58-208**	58	208	4	1	23	33	44	380
5.916	174.8	**GES58-240**	58	240	3	1	23	33	44	380
5.916	174.8	**GES58-480**	58	480	2	1	23	33	44	380
6.936	205	**GES68-208**	68	208	4	1	23	33	44	390
6.936	205	**GES68-240**	68	240	4	1	23	33	44	390
6.936	205	**GES68-480**	68	480	2	1	23	33	44	390
10.404	307	**GES100-208**	102	208	6	2	28	34	59	625
10.404	307	**GES100-240**	102	240	6	2	28	34	59	625
10.404	307	**GES100-480**	102	480	3	2	28	34	59	625
13.872	410	**GES136-208**	136	208	8	3	30	36	59	785
13.872	410	**GES136-240**	136	240	8	3	30	36	59	785
13.872	410	**GES136-480**	136	480	4	3	30	36	59	785
16.014	475	**GES160-240**	157	240	8	3	30	36	61	785
16.014	475	**GES160-480**	157	480	4	3	30	36	61	785
18.36	543	**GES180-240**	180	240	9	3	30	36	61	790
18.36	543	**GES180-480**	180	480	5	3	30	36	61	790

FACTORY INSTALLED OPTIONS

- Low Pressure Trim 15, 30, and 50 are options. Please Specify.
- Single Phase Wiring - Available on GES12 - GES24. Please Specify.
- Control Transformer with fused primary and fused/grounded secondary
- SCR Stepless Control with 100% turndown capability. Contact Gaumer for options.
- Ammeter or Voltmeter - Contact Gaumer for options.
- Auxiliary Low Water Cut-off (Use GES81017) utilizes an amplifier with solid state (SCR) switching for control of automatic low water cutoff. When water level falls below a safe operation level the boiler is de-energized. A sensing device detects current flow between a submerged probe and the shell. The unit is available as a backup to the primary mechanical type low water cutoff control.

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OPTIONAL EQUIPMENT

- Automatic Blowdown System (Use GES81600) automatically cycles boiler through daily shutdown, blowdown, and startup sequences. Consists of a brass body, motor driven, straight thru, self cleaning ball valve with Teflon seats. It handles particles and dirty fluid without the use of an upstream strainer or any other cleaning device. An electronic unit and timer controls the ball valve and boiler. Pilot lights indicate status of drain valve and boiler. If so equipped the blowdown function cannot be done manually.

- High Pressure Vacuum Breaker (Use GES89369) prevents the boiler from flooding as a result of the steam condensing internally and creating a vacuum after boiler shutdown. The breaker allows air to enter the shell breaking the vacuum. The Vacuum Breaker is required with a condensate return system and consists of a spring loaded disc and associated piping. It is plumbed to the boiler at the factory.

- Low Pressure Water Feed System (GES99117) used to supply makeup water to the boiler when incoming water pressure is at least 10 psig greater than desired operating pressure of the boiler.Completely factory plumbed and wired: (0-100)psig range - 1/2 NPT size. Consists of strainer, solenoid valve(120/1/50-60Hz), and check valve.

- Modulating proportional sequencer with operating mode indicator lights. Check Gaumer for details.

- High Pressure Cold Water Feed System - Type GES12-GES72 (Use GES38002) and Type GES100-GES180 (Use GES38020) are used to maintain constant water level in the steam boiler when boiler operating pressure is equal to or greater than the incoming water line pressure and condensate is not returned to the boiler.

- Condensate Return System should be used whenever condensate can be collected and reused in the boiler. A significant amount of energy can be saved by reusing the condensate. Also returned condensate is free of minerals and deposits found in most water supplies. Type GES12-GES72 (Use GES38083V) and Type GES100-GES180 (Use GES38084V) Each system consists of a condensate return tank, a motor and pump, and necessary plumbing. A 1/2 inch inlet is located on the tank to accept make-up water. A vent fitting is located on the top of the condensate tank for atmospheric venting. The return fitting is to be plumbed to the trapped condensate return line coming from the process. The tank has a ball check valve internally mounted and a floating arm and float ball that mechanically allows water to enter the tank as the original supply is used. The pump discharge outlet is connected to the boiler check valve. Pump motor must be wired to the boiler.

- Blowdown Separator prevents live steam from escaping during blowdown. Unit is ASME Code Stamped and accepts flash steam and effluent from the boiler blowdown valve, reduces the temperature and the pressure prior to discharge. Requires separate plumbing in the field to blowdown valve and a cold water supply. Check Gaumer for proper model selection.