

MVSGI

High-Capacity Steam Generator

- Steam Pressures to 250 psig or 450 psig (17.2 Barg or 31 Barg)
- Steam Capacity from 3,466 to 33,032 lbs / hr
- 1,150 - 10,960 kW
- 117 - 1,114 bhp
- 3,924 - 37,393 Mbh
- 4,160 - 6,600 Volts, 3ph
- ASME Section I Pressure Vessel Carbon Steel, Code "S"
- INCOLOY® 800 Sheath Heating Elements
- 0-100% Proportional Power Control
- Two ASME Safety Relief Valve(s)
- High Pressure Limit Switch with Manual Reset
- Mechanical Float Water Feed Control with Low Water Cutoff Control
- Auxiliary Low Water Cutoff Control
- Pressure Gauge, Water Level Sight Glass and Double Blow Down Drain Valves



Description

VSGI high capacity steam generators are uniquely designed for larger industrial applications. The use of medium voltage ranges allows for an economical installation, along with highly efficient operation.

MVSGI Generators are ideal for stand-by operations requiring high pressure steam in remote areas of the plant, which might incur excessive pipe heating losses or expensive piping runs from a traditional, centralized steam supply.

MVSGI Generators are particularly suited for use in off season periods when steam is needed for critical processes or humidification during main Generator shutdowns.

Features

Advanced power control provides an operating range of 0-100% of Generator capacity. Solid state power components, along with optimized logic control, allow for an almost infinite number of step controls. This setup delivers instantaneous power conversion to heat energy and ensures all available power is directly delivered to the process.

Standard Trim Pressures at 250 psig (406°F) or 450 psig (460°F) to meet most application demands.

Water Feed Control and Low Water Cutoff automatically maintains the correct water level and shuts off the generator if the level drops below safe limits.

Auxiliary Low Water Cutoff provides backup protection if the water level drops below safe limits.

Water Level Sight Glass provides for visual observation of the water level.

Steam Pressure Gauge provides for visual indication of steam pressure

Long Life Chromalox DirectConnect™ Heating Elements provide uniform direct immersion heating for rapid heat up and efficient power delivery.

Two Full Port Blow Down Drain Valves are provided to accommodate blowdown to ensure clean vessel operation.

Vessel Insulation and Jacketing is provided around the entire pressure vessel to reduce energy loss and ensure efficient heater operation.

Anti-Condensation Heater for element terminal enclosure is provided to prevent internal moisture accumulation.

Inspection Port provided for easy access during routine maintenance schedules.

Pre-installed Spare Element Capacity to ensure full kW operation can be available during critical operation periods

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High-Capacity Steam Generator *(cont'd.)*

Standard Size Specifications

Steam Capacity			Heat Rating		Pressure & Temperature Ratings				Part Number				
Steam lb/hr	Mbh	bhp	kW	Volts	Design Parameters		Max. Operating Conditions						
3,466	3,924	117	1150	4160	250psig@406°F	17.2barg@207°C	235psig@401°F	16.2barg@205°C	022-307547-001				
6,932	7,847	234	2300						022-307547-002				
13,864	15,694	468	4600						022-307547-003				
20,796	23,541	701	6900						022-307547-004				
5,485	6,209	185	1820	6600					450psig@460°F	31.0barg@237°C	423psig@454°F	29.1barg@234°C	022-307547-101
11,001	12,453	371	3650										022-307547-102
22,001	24,906	742	7300										022-307547-103
33,032	37,393	1,114	10960										022-307547-104
3,466	3,924	117	1150	4160	450psig@460°F	31.0barg@237°C	423psig@454°F	29.1barg@234°C					022-307547-201
6,932	7,847	234	2300										022-307547-202
13,864	15,694	468	4600										022-307547-203
20,796	23,541	701	6900										022-307547-204
5,485	6,209	185	1820	6600					450psig@460°F	31.0barg@237°C	423psig@454°F	29.1barg@234°C	022-307547-301
11,001	12,453	371	3650										022-307547-302
22,001	24,906	742	7300										022-307547-303
33,032	37,393	1,114	10960										022-307547-304

*Generator and Control units can be mounted separately or together based on site location conditions.

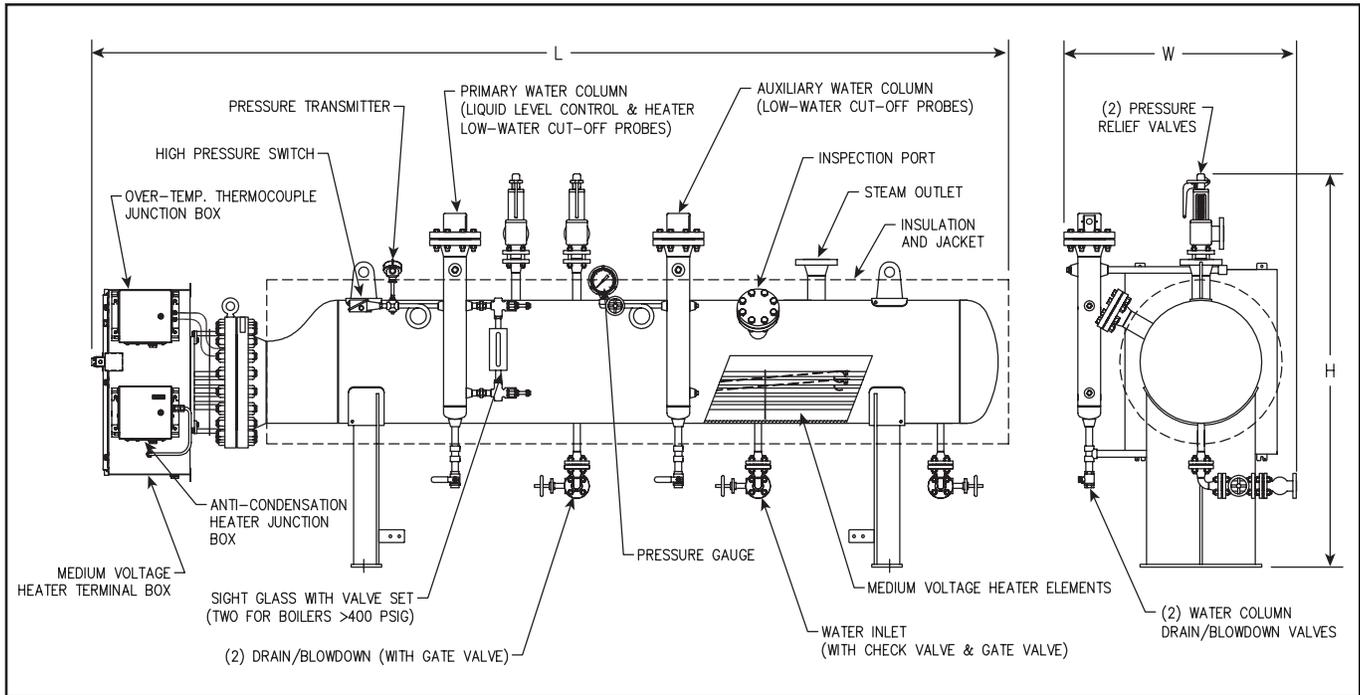
**Under the U.S. Federal Safe Drinking Water Act, it is unlawful to install or use this product in any service that comes into contact with water for human consumption (including drinking, food, or beverage preparation, hand washing, or teeth brushing). This product is intended exclusively for use in non-potable service.

***Steam capacity based on producing saturated steam at 212°F with 50°F feed water.

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High-Capacity Steam Generator (cont'd.)

Typical Layout & Dimensions



Typical Layout & Dimensions

Steam Capacity			Heat Rating		Dimensions & Weights (in/mm, lbs/kg)*					
Steam lb/hr	Mbh	bhp	kW	Volts	Width	Length	Height	Dry Weight	Oper. Weight	Part Number
3,466	3,924	117	1150	4160	46/1169	217/5512	77/1956	4200/1906	5900/2677	022-307547-001
6,932	7,847	234	2300	4160	55/1397	218/5538	87/2210	6200/2813	9100/4128	022-307547-002
13,864	15,694	468	4600	4160	66/1677	220/5588	101/2566	11200/5081	15900/7213	022-307547-003
20,796	23,541	701	6900	4160	76/1931	222/5639	115/2921	16500/7485	24300/11023	022-307547-004
5,485	6,209	185	1820	6600	55/1397	218/5538	87/2210	5700/2586	8600/3901	022-307547-101
11,001	12,453	371	3650	6600	66/1677	220/5588	101/2566	10500/4763	15200/6895	022-307547-102
22,001	24,906	742	7300	6600	76/1931	228/5792	121/3074	18400/8347	27200/12338	022-307547-103
33,032	37,393	1,114	10960	6600	82/2083	229/5817	121/3074	22600/10252	34200/15513	022-307547-104
3,466	3,924	117	1150	4160	46/1169	217/5512	77/1956	4700/2132	6400/2903	022-307547-201
6,932	7,847	234	2300	4160	55/1397	218/5538	87/2210	6900/3130	9800/4446	022-307547-202
13,864	15,694	468	4600	4160	66/1677	220/5588	101/2566	12800/5806	17500/7938	022-307547-203
20,796	23,541	701	6900	4160	76/1931	222/5639	115/2921	18800/8528	26500/12021	022-307547-204
5,485	6,209	185	1820	6600	55/1397	218/5538	87/2210	6400/2903	9300/4219	022-307547-301
11,001	12,453	371	3650	6600	66/1677	220/5588	101/2566	12200/5534	16800/7621	022-307547-302
22,001	24,906	742	7300	6600	76/1931	228/5792	121/3074	20900/9481	29700/13472	022-307547-303
33,032	37,393	1,114	10960	6600	82/2083	229/5817	121/3074	25100/11386	36600/16602	022-307547-304

HEAT TRANSFER

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