

CSG SERIES

UNFIRED CLEAN STEAM GENERATOR



FEATURES:

- Accurate Pressure Control
- Fully packaged for quick and easy single point connections
- Available in vertical or horizontal construction options.
- Fully modulating energy input
- Engineered using steam or boiler water as the heating medium
- Complete Factory Packaged Controls
- Available in electronic or pneumatic controls
- NEW Advanced Electronic PID controls with touchscreen user interface and compatible with Building Management System via ModBus IP or built-in BacNet IP
- Ideal for New or Retrofit applications
- All 316 Stainless Wetted Surfaces for clean steam
- ASME B&PV Code Sec. VIII, Div. 1 Stamped, (UB or U Stamp options)
- Warranty: Tube Bundle (3) years, Shell (5) years

The CSG Series of Unfired Clean Steam Generators from Sussman provide engineers and facility professionals with superior performance in commercial and institutional applications. The steam generator vessels are designed with high-quality materials that meet ASME standards and generate clean steam, making them well suited for sterilized environments such as hospitals, medical centers, and pharmaceutical laboratories. Depending upon application requirements, solutions are available for low, medium, and high-pressure clean steam options.

Installation is simple, as all components are mounted and pre-piped before shipment, requiring only connections to the services. The advanced electronic PID controls with a touchscreen user interface are compatible with Building Management System via Modbus IP or built-in BacNet IP.

STANDARD USG PACKAGE INCLUDES:

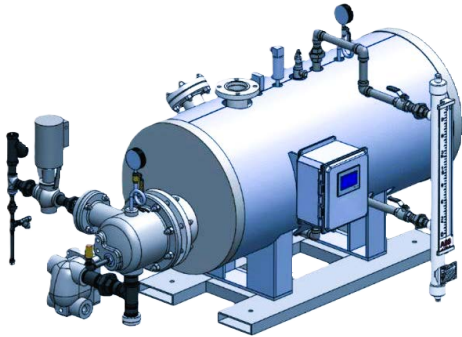
- ASME Code Constructed and National Board Registered Vessel
- Fiberglass Insulation
- 22 Gauge standard galvanized Steel Jacket
- Carbon Steel Support Skid Base
- Pressure Gauge and vacuum breaker on head
- Manual and automatic Blow Down Valve on timer basis
- Magnetic Level Controller
- Internal Steam Separator
- High Pressure & Low Water Cut Off
- ASME Pressure Relief Valve

STANDARD FEATURES:

- Remote Enable/Disable
- Remote Alarm
- Vacuum Breaker
- Unfired Steam Generator Make Up Water Feed
- High Water Cut-Off Option for Unfired Steam Generator

OPTIONAL FEATURES:

- Total Dissolved Solids Monitor for surface blowdown
- Automatic Blow Down Timer & Automatic Blow Down Valve
- Economizer for condensate sub-cooling option
- Centrifugal boiler blow off cooler



APPLICATIONS:

- Ideal for new or retrofit installations
- Suitable for both single or multiple unit installations
- Commonly used of humidification, sterilization, basic heating and industrial applications
- Support variety of applications including:
 - Hospitals/ Medical Centers
 - Universities
 - Nursing Homes
 - Pharmaceutical
 - Food Processing
 - Hotels
 - Apartment Buildings
 - Art Museums
 - Bio-Medical Research Labs
 - Commercial Laundries

SPECIFICATIONS:

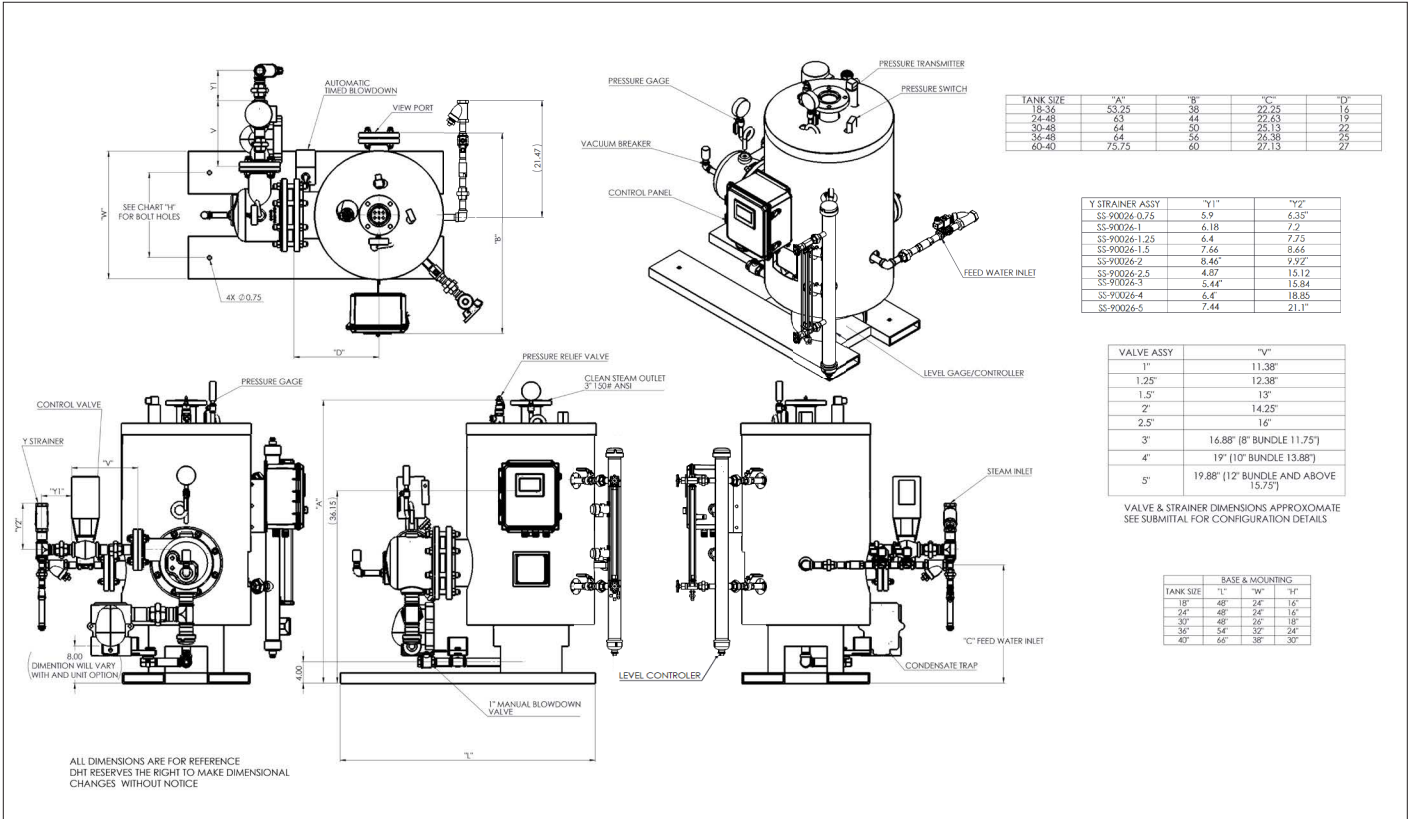
ENERGY SOURCE: STEAM

Electrical Requirements	110V/1Ph/60Hz
Full Load Amperage Draw	4 Amps
Max. Primary Steam Supply Pressure	150 PSIG
Max. Clean Steam Pressure	Up to 90 PSIG (Consult factory for higher pressure)
Adjustable Pressure Control	up to 90 PSIG
Adjustable Over Pressure Limit Control	10-100 PSI (standard) 35-200 PSI (high pressure steam greater than 100 PSI)
Steam Outlet Connections	Standard 3 inches (optional larger sizes)
Standard Listing & Approvals	ASME B&PV Code Sec. VIII, Div. 1 Stamped (U or UB Stamp options)

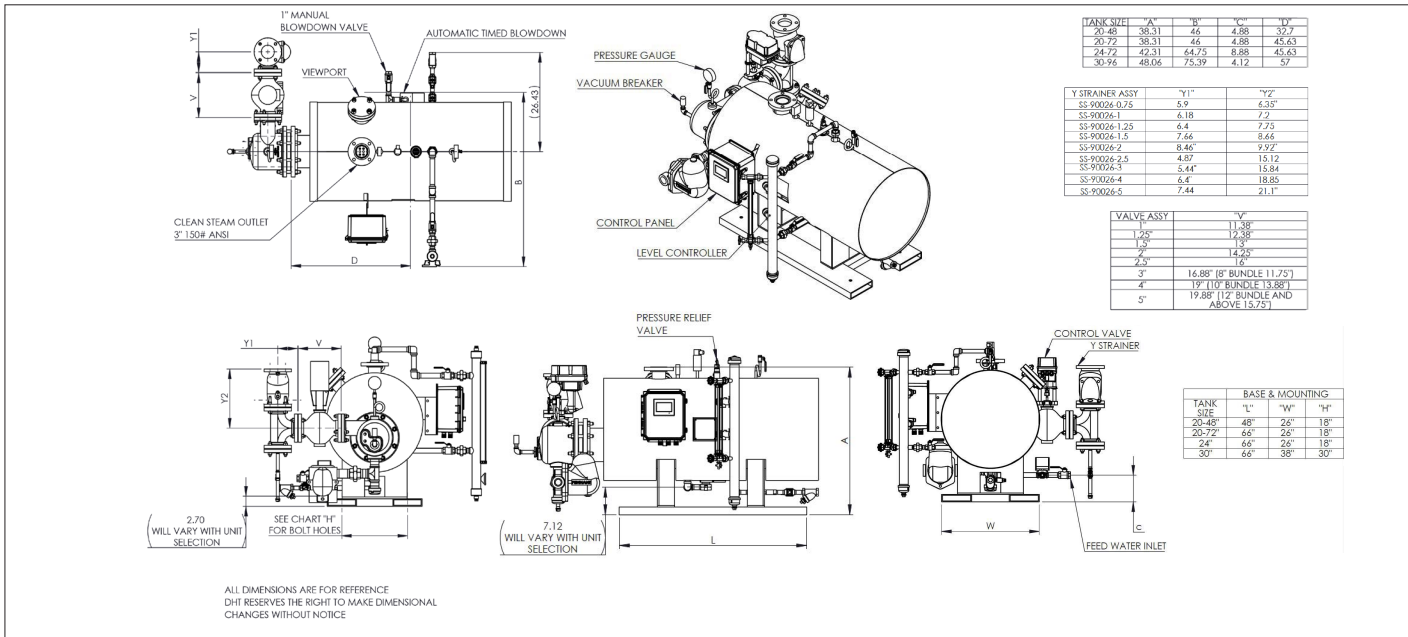
ENERGY SOURCE: HIGH TEMP HOT WATER

Electrical Requirements	110V/1Ph/60Hz
Full Load Amperage Draw	4 Amps
Max. Primary Hot Water Supply Temp	450F
Max. Clean Steam Supply Pressure	Up to 90 PSIG (Consult factory for higher pressure)
Adjustable Pressure Control	up to 90 PSIG
Adjustable Over Pressure Limit Control	10-100 PSI (standard) 35-200 PSI (high pressure steam greater than 100 PSI)
Steam Outlet Connections	Standard 3 inches (optional larger sizes)
Standard Listing & Approvals	ASME B&PV Code Sec. VIII, Div. 1 Stamped (U or UB Stamp options)

VERTICAL CONFIGURATION:



HORIZONTAL CONFIGURATION:



Note: Dimensions and Specifications subject to change without notice.

STEAM HEAT EXCHANGERS CONTROLLER:

FEATURES:

- 4.3" Wide HMI Touchscreen display
- Feedforward Logic Controller includes 1/8 DIN with LCD display (back-up interface).
- Data Logging
- Fault Log
- Trending/Graphing
- Compatibility with Modbus IP and BacNet IP BAS system standard without the need for external gateway.
- A gateway can be used for all other protocols



The NEW SEB state of the art control system offers unmatched performance and full user configurable for steam generation applications. It features a durable pressure sensor transmitting a 4 to 20mA signal. The signal transmits directly into the advanced PID controller, which in turn sends a signal to the electrically activated fully modulating and fast acting control valve to achieve accurate temperature control over various demand situations. The controller has a 4.3-inch TFT color touchscreen user interface and is compatible with a Building Management System via Modbus IP or built-in BACnet IP. Optional communications gateway is also available for RS485 communication.

SPECIFICATIONS:

Enclosure Dimensions	12"H x 10" W x 6" D
Display	4.3" TFT Color LCD
Graphics Display Resolution/ Colors	480 x 272 pixels w/ 16 million display colors
Backlight	White LED, service life 50,000 hours and 24hr operation
Brightness control	16 Levels (Adjusted with touch panel)
Operating Mode	Single Tone, Visual Indicator
Memory	8Gb
Supply Voltage	120/240 VAC
Certifications	NEMA 4, UL

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