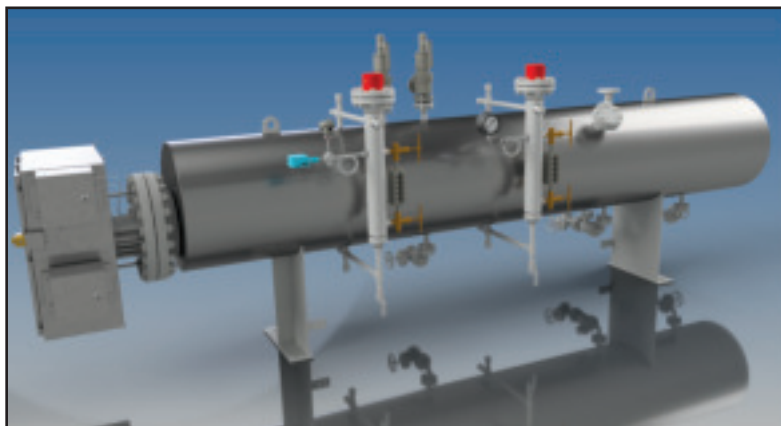


## MVSBI

### High-Capacity Steam Boiler



- Steam Pressures to 250 psig or 450 psig (17.2 Barg or 31 Barg)
- Steam Capacity from 3,469 to 22,025 lbs / hr
- 1,151 - 7,308 kW
- 117 - 745 bhp
- 3,927 - 24,935 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

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

MVSBI boilers 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. MVSBI boilers are particularly suited for use in off season periods when steam is needed for critical processes or humidification during main boiler shutdowns.

#### Features

- **Advanced power control** provides an operating range of 0-100% of boiler 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) psig to meet most applications demands.

- **Water Feed Control and Low Water Cutoff** automatically maintains the correct water level and shuts off the boiler 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 pressure boiler blowdown to ensure clean vessel operation.
- **Vessel Insulation and Jacketing** is provided around the entire pressure vessel to reduce energy cost 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.

HEAT TRANSFER

## MVSBI High-Capacity Steam Boiler

### Options

#### Higher or Lower Pressure Ratings

**UL and/or IEC Rating** – Available on applicable product designs

**Steam Superheater** – Available separately or pre-mounted.

**Standby Water Heater** – To maintain higher water temperatures for rapid heat-up response times.

**Feed Water Systems** – For providing pressurized water to boiler inlet.

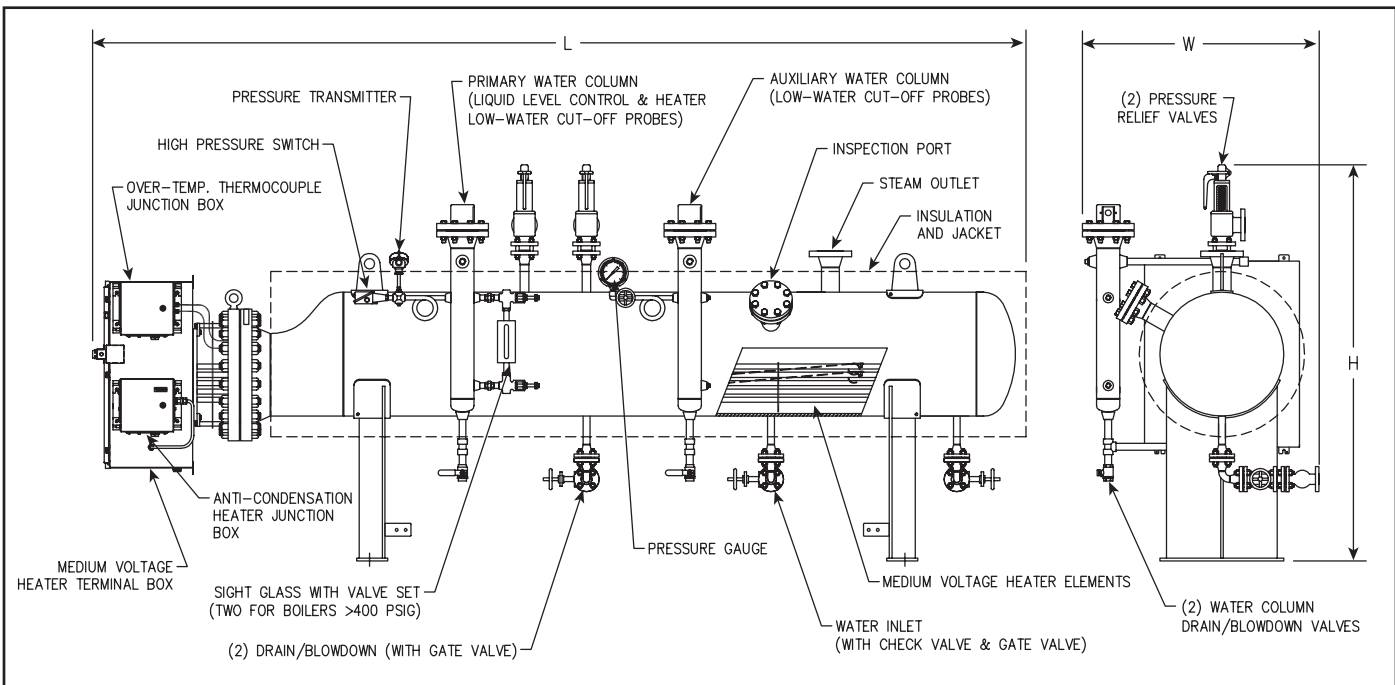
**Condensate Return System** – For recovery of steam condensate for boiler water feed.

**Auto Blowdown System** – To eliminate the need for daily manual blow down operations.

**Vacuum Breaker** – To prevent siphoning of condensate from system during shut downs.

**Blowdown Separator** – For blow down of a boiler where steam and hot water can not be discharged directly to a drain.

### Typical Layout & Dimensions



### Standard Size Specifications

Voltage	kW	Steam Lbs / hr	Mbh	bhp	Boiler Dimensions (In / mm)*			Dry Weight (lbs./Kg)
					W	L	H	
4160	1151	3,469	3,927	117	46 / 1168	217 / 5512	77 / 1956	4,200 / 1,905
4160	2303	6,941	7,858	235	55 / 1397	218 / 5537	87 / 2210	8,300 / 3,765
4160	4606	13,882	15,716	469	66 / 1676	220 / 5588	101 / 2565	16,200 / 7,350
4160	6909	20,823	23,574	704	76 / 1930	222 / 5639	115 / 2921	23,800 / 1,100
6600	1827	5,506	6,234	186	55 / 1397	218 / 5537	87 / 2210	7,200 / 3,300
6600	3654	11,013	12,467	372	66 / 1676	220 / 5588	101 / 2565	14,000 / 6,350
6600	7308	22,025	24,935	745	76 / 1930	228 / 5791	121 / 3073	27,400 / 12,426

\*Boiler 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.