



STEAM GENERATORS



PACKAGED STEAM GENERATORS

THE MODULATIC® LINE

VAPOR POWER INTERNATIONAL



MODULATIC® STEAM GENERATORS

Once Through Water Tube Units:

Steam from: 18 BHP to 220 BHP (620 to 7,590 PPH)
Pressure from: 15 PSIG – 3200 PSIG

The Modulatic® steam generator is available in capacities up to 220 BHP and has a compact footprint saving you space. In less than 5 minutes the Modulatic can go from a cold start to full output and is available in design pressures required for your industry.

A Modulatic steam generator skid packaged with a feedwater system, blowdown separator, and softener saves engineering and installation expenses. The compact footprint requires minimal floor space, creating more building space for production equipment.

For over a century, our company has been serving the needs of a wide range of industries that require steam. We have earned a reputation as the premier designer and manufacturer of boilers, steam generators and liquid phase heaters used worldwide.

USER BENEFITS

- **RAPID START UP**
From cold start to full load in five minutes
- **LOW INSTALLATION COSTS**
Packaged, compact units require only half of the floor space needed for firetube boilers
- **QUICK RESPONSE TO LOAD CHANGES**
Cycle time of less than 30 seconds
- **LONG LIFE EXPECTANCY**
Rugged design and components, ASME design
- **SAFE DESIGN**
Risk of catastrophic failure eliminated, no latent energy
- **HIGH QUALITY STEAM**
Guaranteed 99%+ dry steam
- **MINIMUM ON-OFF CYCLING**
Turndown ratios up to 10 to 1 for handling wide range of loads
- **MINIMUM PREPURGE ENERGY LOSS**
Compact size allows prepurge in seconds
- **LOW FUEL REQUIREMENTS**
Air preheating and combustion zone for complete combustion
- **COIL THICKNESS**
Minimum of 1000 psi for longer coil life
- **SIMPLIFIED FUEL SWITCHING**
Only have to turn selector switch, no burner changes required
- **MINIMAL SOOT POTENTIAL**
Separate combustion chamber prevents coating coils with partially burned fuels
- **COMPLETE LINE**
Seven sizes to fit for any application



APPLICATIONS

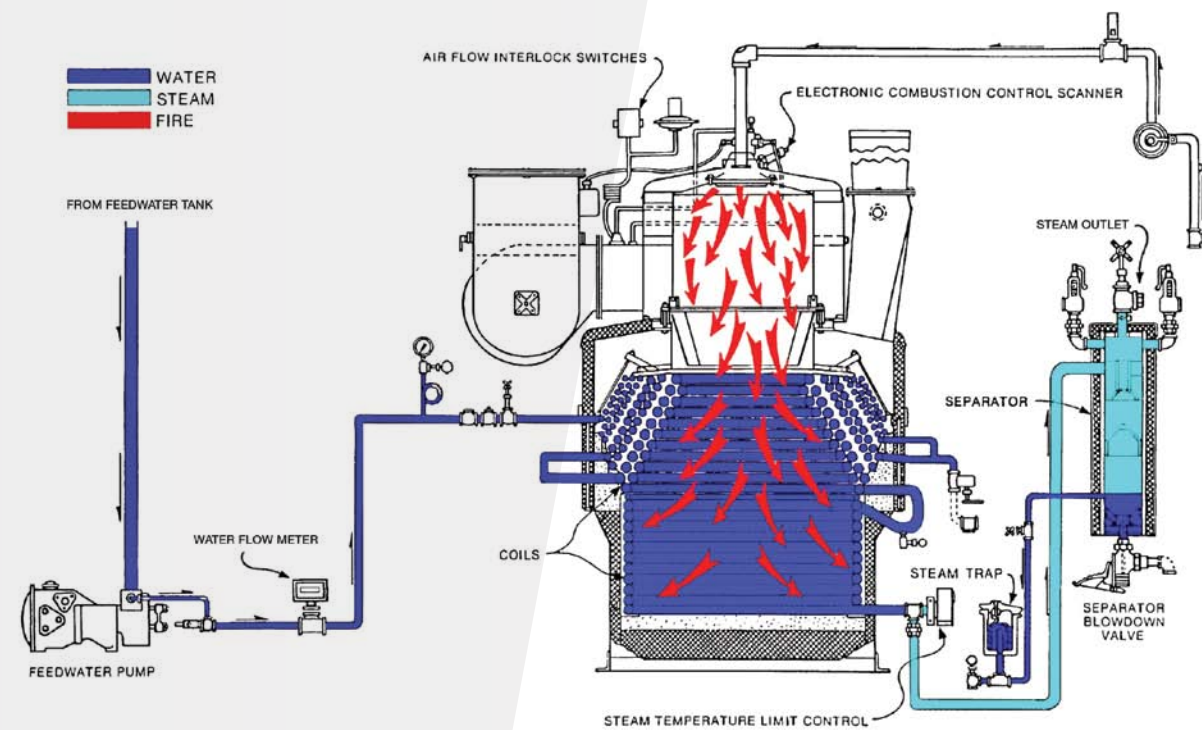
- Brewery & Distillation
- Chemical Processing
- Equipment Testing
- Food Processing
- Healthcare Facilities
- Marine - Barges & Ocean Vessels
- Oil & Gas Processing
- Process Steam & Heat
- Waste Water Treatment Facilities

MODULATIC® FLOW DIAGRAM

The Modulatic® is a once through watertube boiler with a positive displacement pump. The burner management system controls the amount of feedwater admitted to the coils by regulating the speed of the pump, based on the steam pressure set point compared to the actual reading.

The fuel-air ratio curve changes the amount of fuel and combustion air in direct proportion to the flow of water being sent to the coils. Dry steam is then produced in the steam separator where approximately ninety percent of the water is converted into steam. The water remaining is removed by a steam trap.

The hot gases envelop the entire tube surface to achieve very high heat transfer rates and provide 99%+ dry steam output



Integral Control Panel

A factory wired control panel contains all controls and indicators necessary for the safe operation of the unit. A programmed operating sequence is also incorporated for simplified startup. Available equipment includes linkageless burner controls, touch screen controls interface, variable speed combustion air blower, oxygen trim, remote communication and data acquisition, and more.

Built to Meet Standards

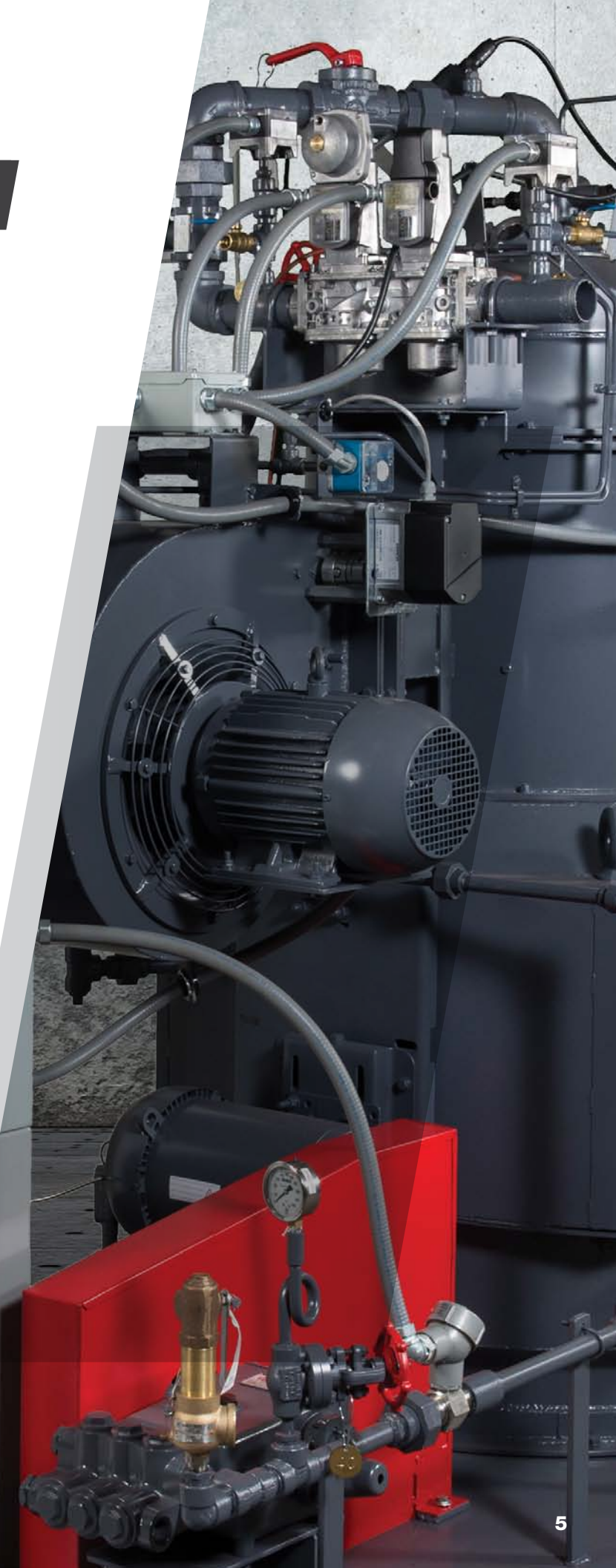
Every unit is built to ASME Standards, Hartford inspected and National Board registered. CSA, Coast Guard, American Bureau of Shipping, Factory Mutual, Lloyds and other approvals are also available upon request.

Factory Tested

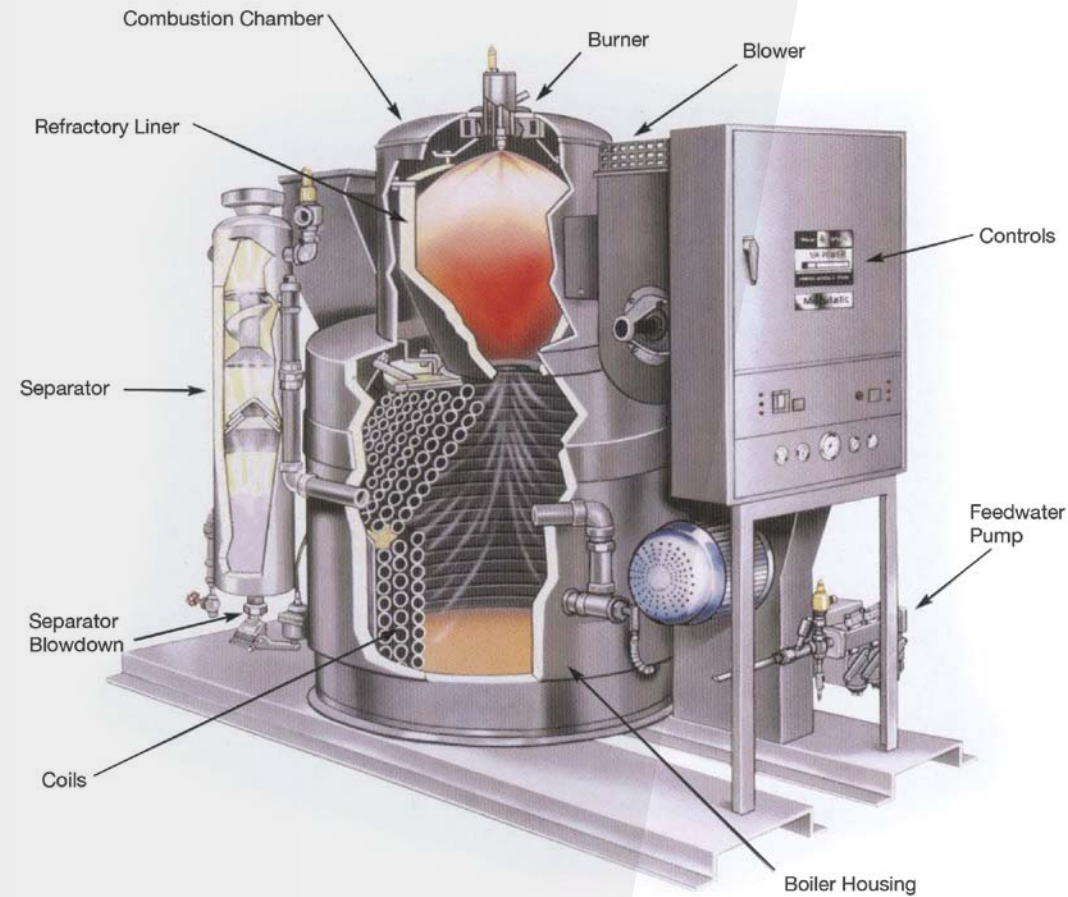
All units are fire tested at the factory, with their individual controls to assure proper operation and to allow for control adjustments which avoid installation delays.

Features

- Full Steam in 5 Minutes
- Fully Modulating Output
- Compact Size & Weight
- High Pressure
- Safe Operation



MODULATIC® SPECIFICATIONS



BOILER TYPE: Sectionalized coil tube type, forced circulation, forced draft fired.

BURNERS: Air atomized burner for #2 fuel oil. Multi-orificed burner for natural gas or LPG. Burners available to meet low NOx and ultra-low NOx regulations.

IGNITION: Electric spark ignited, interrupted gas pilot on most units. Direct electric spark optional on #2 oil units where permitted.

SAFETY CONTROLS: Programmed flame safeguard control with flame detector, coil temperature control, low water cut-off control and steam pressure control.

OPERATING PRESSURES: Adjustable throughout operating range based on design pressure. Consult factory for special operating pressure ranges.

ELECTRIC POWER: Main - 230, 460 or 575 VAC, 3 Ph, 60 HZ. Control - 120 VAC, 1 Ph, 60 HZ, factory wired. Special voltages are available on request.

OPTIONAL EQUIPMENT: Automatic Blowdown, Stack Switch, Automatic Multiple Boiler Control, Annunciator Systems and equipment to meet special exacting codes.

DATA AND DIMENSIONS

Rated Capacity BHP	Equivalent Evaporation PPH from & at 212°F	Thermal Capacity Btu's/hr x 1000	Design Pressure psig	Approx. Fuel Consumption ♦			Dimensions Inches			Approx. Shipping Weight lbs*
				Oil GPH	IMP Gal.	Gas CFH	L	W	H	
18 ★	620	602	15-3200	5.3	4.4	760	54	41	48	1,500
40	1,380	1,340	15-3200	11.9	9.9	1,690	72	52	70	4,000
65	2,243	2,178	15-3200	19.3	16.1	2,750	84	48	77	4,200
100	3,450	3,350	15-3200	29.7	24.8	4,240	87	60	81	5,300
150	5,175	5,025	15-3200	44.5	37.1	6,350	100	60	109	7,200
200	6,900	6,700	15-3200	59.4	49.5	8,450	96	63	106	7,700
220	7,590	7,370	15-3200	65.3	54.4	9,300	96	72	108	8,900

- ♦ Based on #2 fuel oil at 141,000 Btu/U.S. gal. and natural gas at 1000 Btu/cu.ft. heat content
- ★ All models except 18 BHP are available as oil fired, gas fired or combination gas/oil units
- Based on 300 psig design pressure

Commissioning & Training

Vapor Power can provide complete commissioning as well as hands-on, or classroom training about the complete operation of your equipment.

Troubleshooting & Diagnostics

Vapor Power offers remote access and monitoring of your equipment.

Parts & Service

Vapor Power stands behind its products with original OEM parts, no matter the age of the equipment. We also offer direct factory training and service on-site.

AFTER MARKET

As one of the industry's leading manufacturers of boilers, packaged steam generators and thermal fluid heaters, Vapor Power International has everything you need to keep your boilers operating in top condition. That includes complete retrofit upgrade kits to outfit your boilers with the latest in controls and components.

- Control Panels
- Flame Safeguard Controls
- Linkageless Controls
- Temperature Controls

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