

V9A Series

CAST IRON COMMERCIAL WATER OR STEAM BOILER



**UP TO 82.7%
THERMAL
EFFICIENCY**

447 TO 2367
MBH INPUT

OIL, GAS OR
OIL/GAS
COMBINATION

30, 50 OR 80 PSI

CAST IRON
SECTIONAL DESIGN

WATER OR STEAM

TOP OR REAR
VENTING

EXCLUSIVE
OPTIONAL SBC™
BOILER CONTROL
MAXIMIZES
SYSTEM EFFICIENCY



V9A Series CAST IRON COMMERCIAL WATER OR STEAM BOILER

Your Commercial Heating Solution!

Available in ten sizes with gross output ratings from 347 to 1900 MBH, the V9A Series fires gas, oil or combination gas/oil and is available equipped with either steam or water trim. The Series V9A has thermal efficiencies up to 82.7% meeting AHRI certification requirements.

Cast iron construction, ease of assembly, two venting options and stringent testing methods make the V9A Series boiler by Burnham Commercial your commercial heating solution.

American-Made Cast Iron Construction

Burnham Commercial's unique cast iron formula has an extremely high silicon content, making it stronger and more flexible. It offers better thermal shock resistance and greater heat transfer capabilities than other cast iron products.



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• MANUFACTURED WITH QUALITY

Casting Solutions operates a state-of-the-art foundry, in Zanesville, Ohio, ensuring quality and availability of boiler sections.

• CAST IRON NIPPLE DIFFERENCE

V9A sections are held together using cast iron nipples, which are well known as being of the highest standard for boiler construction. Unlike gaskets used by many other boiler manufacturers, cast iron nipples are impervious to flue gases, oils, petroleum-based chemicals and other contaminants, which means fewer costly repairs and a longer lasting boiler.



Installation & Service Flexibility

The cast iron sectional design of the V9A boiler makes it easy to maneuver through doorways and into the boiler room. In addition to being shipped as loose sections, the boiler is available with factory-assembled sections or as a completely packaged and fire-tested unit. Packaged units, fastened to a steel skid, are easily maneuvered through standard 36" x 80" doorways.

• HASSLE-FREE SECTION ASSEMBLY

V9A boiler sections have reinforced lugs that are used to assemble the sections with individual draw rods resulting in fast, strain-free assembly.



The sections can be assembled using two common tools—a 3/4" drive ratchet with a 1-1/16" deep socket and wrench. The sections are surface ground to ensure smooth surface mating. An elastic sealant and fiberglass rope are used on all section joints for a completely sealed and pressure-tight assembly.

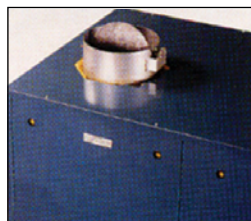
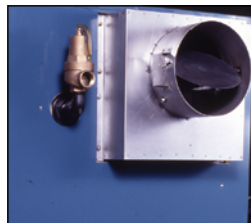


• EXTENSIVE TESTING METHODS — ASME APPROVED

Each boiler section is hydrostatically tested at 2-1/2 times the rated working pressure at the foundry. Factory-assembled sections are tested a second time at 1-1/2 times the rated working pressure.

• REAR OR TOP VENTING

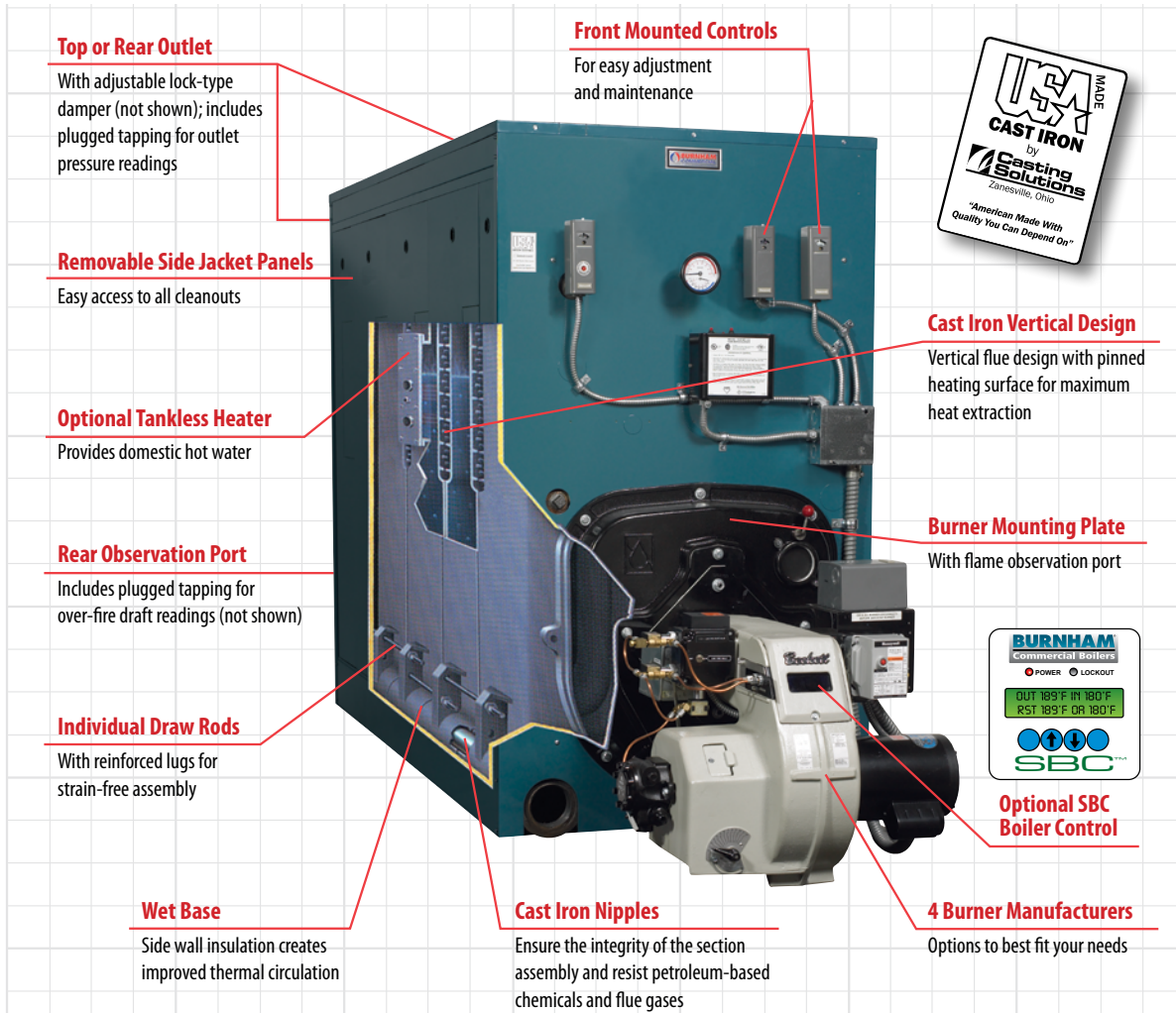
As a forced draft boiler, the V9A provides optimum draft for controlled efficiency, eliminating the need for high chimneys or induced draft fans. A unique feature of the V9A boiler is that it can be vented from the rear or the top. This enables easy chimney or sidewall venting for maximum installation flexibility. Top outlet venting saves floor space and reduces installation time and materials. A plugged tapping is provided to make flue outlet pressure readings.



V9A Series COMMITMENT TO QUALITY

V9A Series — Hot Water or Steam Boiler
 Maximum Allowable Working Pressure (MAWP):
 80 PSI-Water; 15 PSI-Steam

Burnham Commercial, "America's Boiler Company," has earned a reputation for quality and dependability. Built for a variety of applications, the V9A Series is right for your next job.



Boiler Model (1)	GAS EFFICIENCIES				OIL EFFICIENCIES			
	Water		Steam		Water		Steam	
	Combustion Efficiency	Thermal Efficiency	Combustion Efficiency	Thermal Efficiency	Combustion Efficiency	Thermal Efficiency	Combustion Efficiency	Thermal Efficiency
V903A	82.5%	80.0%	82.5%	80.0%	—	—	—	—
V904A	82.5%	80.1%	82.5%	80.1%	86.0%	82.1%	86.0%	82.1%
V905A	82.4%	80.1%	82.4%	80.1%	85.5%	82.4%	85.5%	82.4%
V906A	82.4%	80.1%	82.4%	80.1%	85.2%	82.5%	85.2%	82.5%
V907A	82.3%	80.1%	82.3%	80.1%	85.1%	82.6%	85.1%	82.6%
V908A	82.3%	80.2%	82.3%	80.2%	84.9%	82.6%	84.9%	82.6%
V909A	82.6%	80.2%	82.6%	80.2%	84.8%	82.7%	84.8%	82.7%
V910A	82.2%	80.2%	82.2%	80.2%	84.8%	82.7%	84.8%	82.7%
V911A	82.1%	80.3%	82.1%	80.3%	84.7%	82.7%	84.7%	82.7%
V912A	82.1%	80.3%	82.1%	80.3%	84.7%	82.7%	84.7%	82.7%



V9A Series RATINGS & EQUIPMENT LISTING

Boiler Model (1)	Boiler H.P.	Gross Output MBH (2)	Steam		Water MBH	BURNER INPUT		Net Firebox Volume (Cu. Ft.)	Pressure in Firebox (In. Wtr. Column)	I=B=R Dia. (In.)
			MBH	Sq. Ft.		Oil (GPH) (4)	Gas (MBH)			
V903A	10.3	347	260	1,083	302	N/A	447	3.2	0.33	7
V904A	14.4	483	362	1,508	420	4.2	606	4.8	0.38	7
V905A	19.3	646	485	2,021	562	5.6	808	6.4	0.31	8
V906A	24.1	808	606	2,525	703	7.0	1,010	7.9	0.38	8
V907A	28.6	959	719	2,996	834	8.3	1,198	9.5	0.36	8
V908A	33.2	1,110	833	3,471	965	9.6	1,386	11.0	0.35	10
V909A	40.1	1,342	1,014	4,225	1,167	11.6	1,674	12.6	0.35	10
V910A	45.6	1,528	1,168	4,867	1,329	13.2	1,905	14.2	0.40	10
V911A	51.2	1,714	1,323	5,513	1,490	14.8	2,136	15.7	0.45	12
V912A	56.8	1,900	1,474	6,142	1,652	16.4	2,367	17.3	0.49	12

1. Suffix "S" indicates steam boiler, "W" indicates water boiler. Suffix "G" indicates gas-fired, "O" indicates oil fired and "GO" indicates combination gas/oil fired.

2. Boiler ratings are based on 12.5% CO2 on oil; 9.7% CO2 on gas, and .10 in. water column pressure at boiler flue outlet.

3. I=B=R net ratings shown are based on piping and pick up allowances which vary from 1.333 to 1.289 for steam and 1.15 for water.

Consult manufacturer for installations having unusual piping and pick up requirements, such as intermittent system operation, extensive piping systems, etc.

4. The I=B=R burner capacity in GPH is based on oil having a heat value of 140,000 BTU per gallon.

Ratings shown above apply to altitudes up to 1000 feet on oil and 2000 feet on gas. For altitudes above those indicated, the ratings should be reduced at the rate of 4% for each 1000 feet above sea level.

Note: Maximum allowable working pressure (MAWP):

Steam: 15 PSI

Water: 80 PSI (standard relief valve provided is 50 PSI) (30 PSI and 80 PSI relief valve optional)

Standard Equipment

- ALL BOILERS:** Sections unassembled, flush insulated jacket, burner mounting plate, burner adapter plate, rear flue outlet damper (top outlet optional), flue canopy, rear observation port cover, target wall (V903A), and miscellaneous plugs, bushing and fittings, L4006B (low fire hold aquastat).
- STEAM TRIM:** 15 PSI safety valve, L404F pressuretrol, gauge glass assembly, steam gauge.
- WATER TRIM:** 50 PSI safety relief valve, L4006A high limit, pressure/temperature gauge.
- OIL BOILERS:** Flange mounted flame retention oil burner furnished with two (2) stage fuel unit, primary control and dual oil valves.
- GAS BOILERS:** Flange mounted gas burner with standard controls meeting the latest UL requirements, dual gas valves, gas-electric ignition with proven gas pilot, flame rod on JR burner, ultra violet flame detector on others, electronic programming controls and components are factory wired in a burner mounted control panel.
- GAS/OIL BURNERS:** Flange mounted combination gas/oil burner with standard controls meeting latest UL requirements, manually operated fuel transfer switch for dual fuel changeover, dual gas valves and oil valves, electric ignition with proven gas pilot on both fuels (direct spark ignition of oil is optional), ultra-violet flame detector, electronic programming controls and components are factory wired in a burner mounted control panel.

PLEASE CONSULT BURNHAM COMMERCIAL WEBSITE FOR BOILER DIMENSIONAL DATA, PIPING CONFIGURATIONS AND BURNER MODELS/SPECIFICATIONS.

Optional Energy Management Interface

SBC Control

Maximizes system efficiency while providing peer-to-peer network, burner modulation, boiler monitoring and diagnostic displays, outdoor air reset, warm weather shutdown and domestic hot water priority features.

Universal Gateway

- Can be connected to a building's Energy Management System (EMS) using simple menu selections and wiring a 4-20mA input.
- Connects to EMS using modbus protocol
- Optional EMS Gateway to BacNet or LonWorks.
- Allows EMS controls to adjust either the SBC central heating setpoint or the firing rate.

Optional Equipment

Assembled sections; completely packaged (includes manual reset high limit and manual reset low water cutoff); packaged and fire-tested; top outlet flue damper; tankless heaters; side inspection tappings with brass plugs; 30 PSI and 80 PSI safety relief valves (water); combustion and hydronic controls to meet special applications including F.M., I.R.I., and ASME CSD-1.

All Burnham Commercial products are currently in compliance with the Energy Policy and Conservation Act and are registered with the Department of Energy (DOE) in accordance with Federal Register 10 CFR Parts 429, 430, & 431.

