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

BURNHAM®
Commercial Boilers
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.

- 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 — 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.

<table>
<thead>
<tr>
<th>Boiler Model (1)</th>
<th>Gas Efficiencies</th>
<th>Oil Efficiencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>V903A</td>
<td>82.5%</td>
<td>86.0%</td>
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<tr>
<td>V904A</td>
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<td>V906A</td>
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<tr>
<td>V912A</td>
<td>82.1%</td>
<td>86.0%</td>
</tr>
</tbody>
</table>

GAS EFFICIENCIES

- **Water**
  - Combustion Efficiency: 82.5%
  - Thermal Efficiency: 80.0%

- **Steam**
  - Combustion Efficiency: 82.5%
  - Thermal Efficiency: 80.0%

OIL EFFICIENCIES

- **Water**
  - Combustion Efficiency: 86.0%
  - Thermal Efficiency: 82.1%

- **Steam**
  - Combustion Efficiency: 86.0%
  - Thermal Efficiency: 82.1%

CAST IRON NIPPLES

Ensure the integrity of the section assembly and resist petroleum-based chemicals and flue gases.

CAST IRON VERTICAL DESIGN

Vertical flue design with pinned heating surface for maximum heat extraction.
Optional Energy Management Interface

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.

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### V9A Series RATINGS & EQUIPMENT LISTING

<table>
<thead>
<tr>
<th>Boiler Model</th>
<th>H.P.</th>
<th>Gross Output</th>
<th>Steam MBH</th>
<th>Water MBH</th>
<th>Oil MBH (GPH)</th>
<th>Gas MBH</th>
<th>Net Firebox</th>
<th>Pressure in Firebox</th>
<th>I=B=R Dia.</th>
<th>I=B=R (3) BURNER INPUT</th>
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</thead>
<tbody>
<tr>
<td>V903A</td>
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<td>347</td>
<td>260</td>
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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. 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.

### Standard Equipment

- 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, L4006A (low fire hold aquastat).
- Steam: 15 PSI
- Water: 80 PSI (standard relief valve provided is 50 PSI) (30 PSI and 80 PSI relief valve optional)

### 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.

Please consult Burnham Commercial website for boiler dimensional data, piping configurations and burner models/specifications.