

# Natural or Propane Gas-Fired Boilers

*Quality Engineered for Efficiency and Dependability*

## *Q90-200 Series*



**Olsen**  
*Heating & Cooling Products*

An ECR International Ltd. Brand

## Q90-200 Series Gas-Fired Water Boiler

# Warm-Up To Higher Efficiency With The Q90-200

The *New* Quantum Q90-200 hot water boiler by Olsen delivers all the benefits of the Quantum 90 plus added features that will appeal to every homeowner. Like the Q90, it achieves the optimum combination of high efficiency, innovative technology, and simplicity of design, making it an ideal choice for today's heating customer.

### Remarkable 90% AFUE Efficiency

The Q90-200 dramatically reduces fuel consumption and *pays for itself* with substantial annual fuel savings. Its efficiency is increased beyond 90% when used in low temperature systems, such as in floor radiant systems. (See Performance Chart facing page).

### Revolutionary Cast Aluminum "MonoBlock" Heat Exchanger

This *one-piece* heat exchanger design eliminates leaks that can occur due to section interface with sectional heat exchangers. The greater thermal conductivity of cast aluminum transfers heat *three times faster* than conventional cast iron, producing enormous gains in heat-up speed and operating efficiency. Also, the packaged boiler weighs *only 278 pounds* for easier installation.

### Simplified Controls

The Quantum Q90-200's control design is engineered to maximize reliability. The Q90-200 incorporates an integrated boiler control with high limit and low water cut-off for operation, safety and diagnostics. Ignition is provided by a hot surface igniter and a single stage gas valve. Dual pressure switches ensure air intake and exhaust vents are clear. All components are easily accessible through the removable door.

### Sealed Combustion, Direct-Vent Forced Draft System

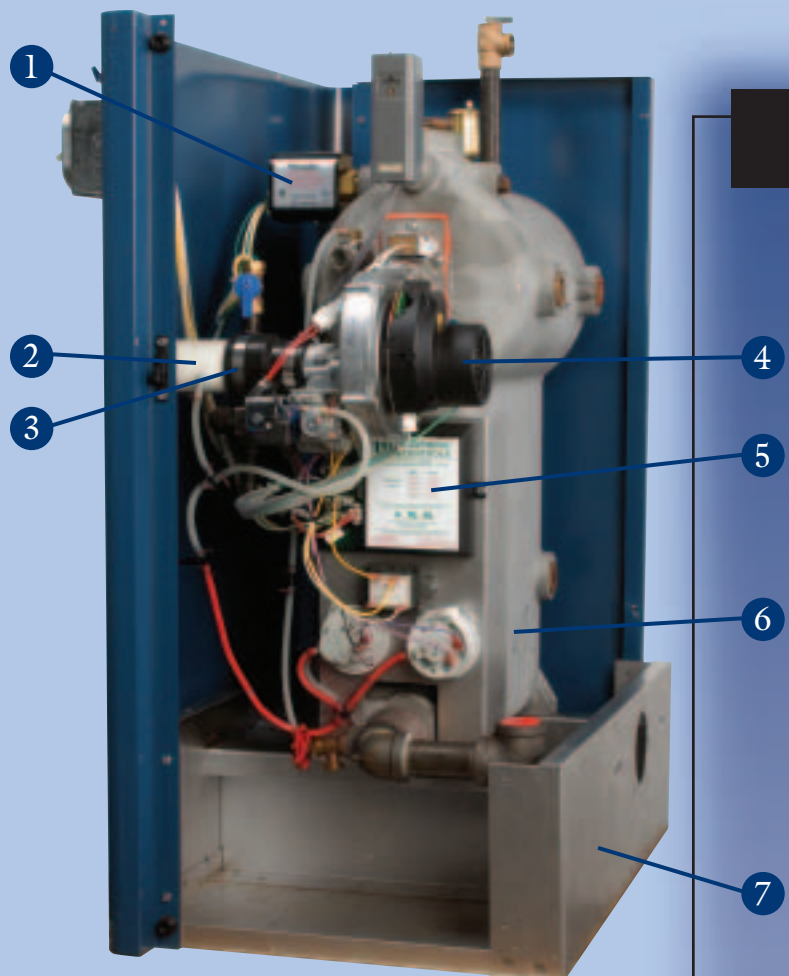
Unlike conventional atmospheric boilers, the Q90-200 draws fresh air from outdoors for combustion, instead of air from inside the home. Therefore it does not compete with other appliances for its air supply. With this design the Q90-200 runs quieter and more efficiently than a traditional boiler.

### Safe, Economical CPVC and PVC Vent Pipe

Cooled flue gas can be safely vented through inexpensive readily available and easy to install PVC, after 5 feet of CPVC provided with the unit. The air intake also utilizes PVC pipe.

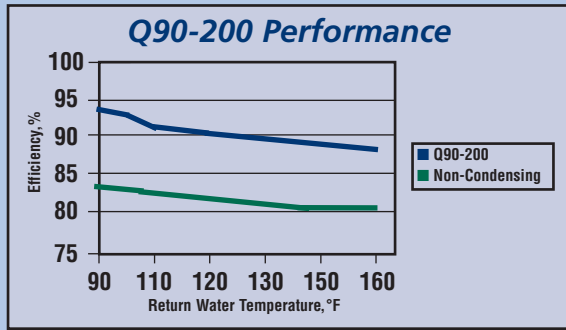
### Environmentally Friendly

The Q90-200's direct-vent system, premix gas burner and low flame temperature reduce CO and NOx emissions (acid rain and smog components) by more than 30% and 50% respectively.





Come home to the safety and comfort of sealed combustion technology.



## Ideal for Use with in floor Radiant Systems

When used in combination with radiant systems, which use low supply and return water temperatures, the Q90-200's efficiency is increased beyond 90%. Unlike cast iron boilers, the Q90-200 does not require a return bypass or injection pumping system to preheat return water prior to entering the heat exchanger. This saves on material and labor costs since the cast aluminum heat exchanger works best at low water temperatures.

## PAYBACK

**Quantum Q90-200 ..... 90% AFUE**

Typical 20-year old Boiler ..... 70% AFUE

Difference in AFUE ..... 20%

Increased Efficiency over 70% Model ..... 28.57%  
(20% ÷ 70%)

The increased efficiency of the Q90-200 could save you approximately 28% on your heating bill each year... which means, if you pay \$1500 annually in fuel bills to space heat your home, you could save as much as **\$428 per year!**

**Now that's payback!**

## Q90-200 Boiler Details.

- 1 Low Water Cut-off
- 2 PVC Vent Pipe
- 3 Air/Fuel Ratios
- 4 Forced Draft Fan
- 5 Integrated Boiler Control (IBC)
- 6 Cast Aluminum Mono Block
- 7 Combustible Floor Plate

- Supply-Side Pumping
- Easy Maintenance

## FULL PORT ISOLATION VALVE

Full Port Isolation Ball Valves offer a full 1-1/4" passage to maximize boiler water flows. An exterior handle clearly indicates the valve position.



The ball valves allow the boiler piping to be switched from threaded pipe to copper piping, without the need for additional fittings, saving the installer valuable time!

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## Natural or Propane Gas-Fired Boilers

MODEL	INPUT (MBH)*	HEATING CAPACITY (MBH)*	I=B=R NET RATING (MBH)*	AFUE (%)	FLUE DIAMETER	SHIPPING WEIGHT (POUNDS)
** Q90-125	125	112.5	98	90.0	3"	278
** Q90-150	150	135.0	117	90.0	3"	278
** Q90-175	175	157.5	137	90.0	3"	278
** Q90-200	200	180.0	157	90.0	3"	278

\* 1 MHB = 1,000 BTH/h.

\*\* Indicates an Energy Star® Product.

BTH/H = British Thermal Units Per Hour.

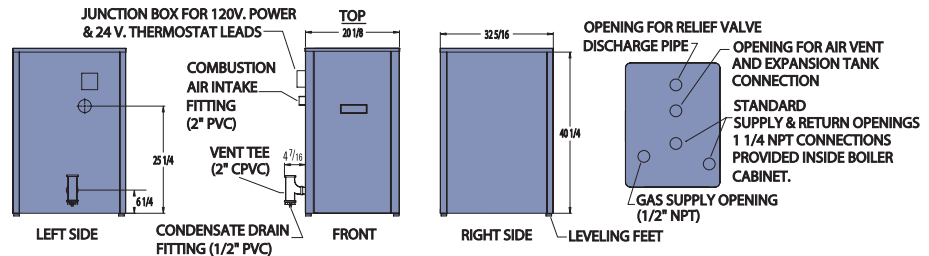
The ratings marked "NET I=B=R RATINGS" indicate the amount of energy that can be applied to heat the radiation or terminal units. The Net I=B=R ratings shown are based on an allowance of 1.15 in accordance with the factors shown on the I=B=R Code as published by the Hydronics Institute.

Selection of boiler size should be based upon "NET I=B=R RATING" being equal or greater than the calculated heat loss of the building.

Consult manufacturer before selecting a boiler for installations having unusual piping and pick-up requirements. Q90-200 boilers may be installed on combustible flooring.

These gas-fired boilers are design certified by C.S.A. in the United States and Canada for use with natural and propane gas. They are constructed and hydrostatically tested for a maximum working pressure of 50 psi in accordance with A.S.M.E.

(American Society of Mechanical Engineers) Boiler and Pressure Vessel Code Section IV standards for heating boilers. They are capacity rated in accordance with the code of the Hydronics Institute.



### SPECIFICATIONS

- GAS-FIRED, DIRECT-VENT CONDENSING HOT WATER BOILER
- May be installed on combustible flooring
- 1" clearance on all sides and top to combustible construction
- Not required on right, 8" on left
- 24" clearance front and left side, 8" top clearance for servicing
- 0" clearance for Vent and Air Intake Pipes to combustible construction

### CONNECTIONS

- 120 Volts AC, 60 Hertz, 1 Phase, Less than 12 Amps
- VENT PIPE & AIR INTAKE PIPE
  - Vent pipe - first 5' is schedule 40 2" CPVC (provided), then schedule 40 3" PVC
  - Air intake - schedule 40 3" PVC
- Water In/Out ..... 1-1/4" NPT
- Gas In ..... 1/2" NPT
- Condensate Drain ..... 1/2" PVC

### Q90-200 STANDARD EQUIPMENT

- Assembled Boiler with painted cabinet.
  - Hi limit aquastat.
  - Transformer.
  - 1 1/4" Taco (or Grundfos) circulator with isolation ball valves.
  - Low water cut off.
  - Temperature and pressure gauge.
  - 30 psi ASME relief valve.
  - Air vent.
  - Service switch.
- Completely installed and wired safety control system with burner consisting of:*
- Microprocessor based Integrated Boiler Control.
  - Stainless steel premix burner.
  - Automatic gas valve.
  - Hot surface igniter.
  - Casting temperature safety switch.
  - Air flow proving switches (2).
  - Forced draft blower.

### OLSEN QUALITY HEATING

Olsen hydronic boilers lead the industry in value, with premium design and componentry. Just compare our quality to cost ratio, and your boiler choice will become perfectly clear.

### 15-YEAR LIMITED HEAT EXCHANGER WARRANTY

All Olsen boilers are backed by Olsen's reputation for quality and service to customers.



For more information on Olsen heating and cooling products contact your local ECR International Ltd. - Olsen Division distributor or call our customer service department at 1-888-259-7253.



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