

PLYMOUTH WATER

NATURAL OR PROPANE GAS-FIRED BOILERS

- *Series 2*
- *Ultra High Efficiency Model*



Dunkirk®
America's Hottest Boiler Value!

An ISO 9001-2000 Certified Company

PLYMOUTH WATER

NATURAL OR PROPANE GAS-FIRED BOILERS

- **Series 2**
Efficiency as High as 81.6%
- **Ultra High Efficiency Model**
Efficiency as High as 84.1%

The Plymouth Water Boiler by Dunkirk offers the best combination of heating comfort, efficiency, reliability... and affordability, making it one of America's Hottest Boiler Values.

Heating Efficiency

With its high efficiency, a Plymouth hot water boiler is an outstanding choice for performance and low operating cost.

Electronic Ignition

(Option) Pilot is lit automatically and stays lit only when needed, eliminating fuel waste.

Integral Draft Diverter

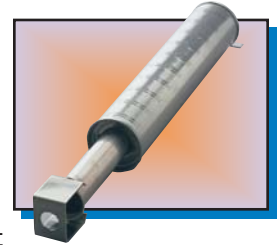
Dunkirk utilizes built-in draft diverter technology that is factory designed to protect against carbon monoxide back drafts. Unlike competitor's diverters erected in-field, Dunkirk eliminates any installation guesswork to ensure your family's safety.

Effikal Vent Damper

Automatically closes when the boiler turns off, preventing heated air from escaping up the chimney. Effikal provides one of the strongest vent damper warranties in the industry.

Titanium Burners

Dunkirk's exclusive high-tech titanium composite burners resist corrosion and oxidation while withstanding more heat than conventional stainless steel or aluminized burners. They provide superior strength and longevity and are backed by a full 3-year warranty, triple the industry standard.



Cast Iron Sections & Push Nipples

Dunkirk utilizes cast iron to construct the boiler's heat exchanger to provide heat transfer, reliability and strength. Since like materials expand and contract in the same proportion during heating and cooling, cast iron push nipples and sections produce stronger, more water-tight seals than steel push nipples or rubber gaskets.



Easy Maintenance

Dunkirk's exclusive "isolating valves" on circulators eliminate the need to drain the system, making replacement quick and easy. Industry standard controls are readily available, making Dunkirk Boilers easy to service.

Easy Installation

Surprisingly compact, the Plymouth Water Boiler fits in tight spaces and is supplied assembled, with controls that are accessible and completely wired. Piping is also at hand for easy connection to the system. Controls can be mounted on the right or left side of our boilers, to fit any location requirement.



Dunkirk Quality

Since 1928, American-made Dunkirk Boilers have been leading the industry in value and reliability with innovative designs and premium quality components. Assured performance has placed Dunkirk quality at the top in trusted reliability (99.91%*). Every gas boiler we manufacture is test fired prior to shipment. This boiler is certified by CSA in the United States and Canada; heat exchangers by ASME; and efficiency ratings by the Hydronics Institute.



Strongest Warranty in the Industry

Dunkirk backs all of its residential cast iron water boilers with a full twenty year warranty covering the entire heat exchanger. Most competitor's warranties cover heat exchanger sections only and most are pro-rated making the homeowner financially responsible.



* Data on file - Dunkirk Boiler

FEATURES & BENEFITS

Vent Damper
Automatically closes when unit turns off preventing heat loss.

Baked Enamel Steel Jacket
Factory installed insulation keeps off-cycle heat losses to a minimum in an attractive and compact package.

Integral Draft Diverter
provides safety from back drafts and accommodates low ceiling heights.

Cast Iron Quality
Provides effective heat transfer, reliability and strength.

Titanium Burners
Dunkirk's exclusive burners provide greater resistance to corrosion and oxidation. Withstands 15% more heat than conventional burners from competitive units.

Aquastat Control
The brain of the boiler... controls the operation of the burner system, fuel delivery, circulator, and vent damper. It also monitors water temperature to ensure safe, reliable operation.

Isolation Valves
Exclusive components that are part of the circulating pump which eliminates the need to drain the system when replacing the pump therefore reducing service time.

Taco Circulating Pump (Grundfos optional)
Included with the boiler and circulates hot water throughout the system to provide heat quickly and evenly. (Some models may be shipped for supply-side pumping)

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!

Electronic or Standing Pilot Ignition
Electronic pilot automatically lights the pilot when needed, eliminating fuel waste.

PLYMOUTH WATER STANDARD EQUIPMENT

- Assembled boiler with insulated jacket, factory crated
- Integral draft diverter — built into jacket
- Combination high limit control and circulator relay
- Flame rollout safety shutoff (fuse link) and manual, reset blocked vent safety shutoff, with spare fuse link included.
- Combination pressure/temperature gauge (packed separately)
- 1 1/4" Taco (or Grundfos) circulator pump with isolation (ball) valves (shipped separately for field mounting)
- 3/4" boiler drain valve
- 30 lb. ASME relief valve
- Vent damper
- Completely installed and wired gas control system with burners and manifold, consisting of:
 - Titanium composite burners
 - Automatic redundant combination gas valve, 24 volt

Electronic Ignition Only

- Intermittent Pilot Control, 100% shut-off continuous re-try
- Combination pilot burner/ electrode/flame sensor

Standing Pilot Only

- Pilot burner and thermocouple

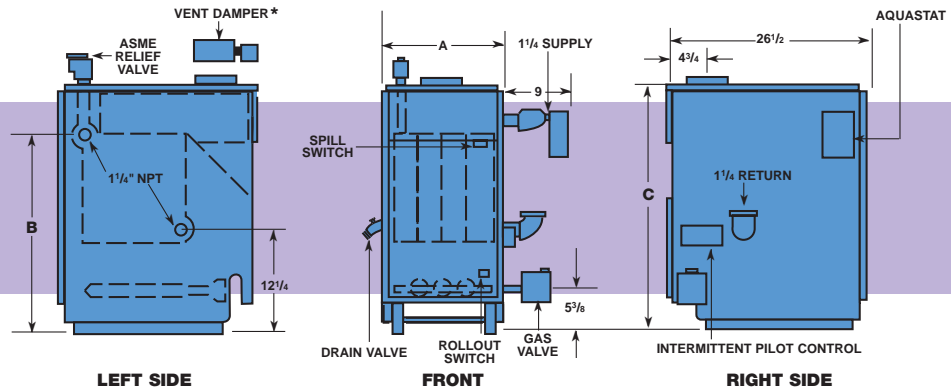
OPTIONAL EQUIPMENT

- Propane gas-fired boilers
- Propane-fired conversion kit
- Combustible floor plate — 14614031 for 2-6 section; 14614032 for 7-9 section
- Fill-Trol #110 for 2-5 Sections
- Fill-Trol #111 for 6-9 Sections
- Electronic Low Water Cut Off now available to meet the latest codes requirements

Height Dimensions:

Left Side (B)	
Series 2	23 1/4" ¹¹
Ultra	29" ¹¹
Right Side (C)	
Series 2	31 3/8" ¹¹
Ultra	36 3/8" ¹¹

DESIGN CERTIFIED FOR
NATURAL & PROPANE GASES



Plymouth Water Series 2



GAS-FIRED HOT-WATER BOILERS

RATINGS & CAPACITIES

BOILER MODEL NUMBER		NUMBER OF SECTIONS	† NATURAL GAS & PROPANE GAS			DIMENSIONS (INCHES)		A.F.U.E.	
INTERMITTENT IGNITION WITH VENT DAMPER	STANDING PILOT WITH VENT DAMPER		AGA INPUT MBH**	HEATING CAPACITY MBH**	NET I=B=R RATING MBH**	FLUE DIAMETER	"A" WIDTH	INTERMITTENT IGNITION WITH VENT DAMPER	STANDING PILOT WITH VENT DAMPER
PWB-2D	PVWB-2D ^①	2	37.5	30	26	4 ††	8	81.4	80.0
PWB-3D	PVWB-3D	3	70	57	50	5	11 1/4	81.6	80.4
PWB-4D	PVWB-4D	4	105	85	74	6	14 1/2	81.5	80.4
PWB-5D	PVWB-5D	5	140	113	98	6	17 3/4	81.3	80.3
PWB-6D	PVWB-6D	6	175	142	123	7	21	81.1	80.2
PWB-7D	PVWB-7D	7	210	170	148	7	24 1/4	81.0	80.1
PWB-8D	PVWB-8D	8	245	198	172	7	27 1/2	80.8	80.0
PWB-9D	PVWB-9D	9	280	226	197	7	30 3/4	80.7	80.0

^① This size not available in propane
New York City MEA Number 39-86E VOL. IV

Plymouth Ultra Ultra High Efficiency Model



GAS-FIRED HOT-WATER BOILERS

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INTERMITTENT IGNITION WITH VENT DAMPER	STANDING PILOT WITH VENT DAMPER		AGA INPUT MBH**	HEATING CAPACITY MBH**	NET I=B=R RATING MBH**	AGA INPUT MBH**	HEATING CAPACITY MBH**	NET I=B=R RATING MBH**	FLUE DIAMETER	"A" WIDTH	INTERMITTENT IGNITION WITH VENT DAMPER	STANDING PILOT WITH VENT DAMPER
WPSB-3D	WPVSB-3D	3	75	63	55	70	59	51	5	11 1/4	84.0	82.6
WPSB-4D	WPVSB-4D	4	112.5	94	82	105	88	77	6	14 1/2	84.0	82.7
WPSB-5D	WPVSB-5D	5	150	126	110	140	118	103	6	17 3/4	84.1	82.8
WPSB-6D	WPVSB-6D	6	187.5	157	137	175	147	128	7	21	84.1	82.9
WPSB-7D	WPVSB-7D	7	225	188	163	210	176	153	7	24 1/4	84.0	83.0
WPSB-8D	WPVSB-8D	8	262.5	220	191	245	206	179	7	27 1/2	83.9	83.1
WPSB-9D	WPVSB-9D	9	299	251	218	280	235	204	7	30 3/4	83.7	83.2

* Add 5-1/2" to height for Vent Damper
** MBH = 1,000 Btuh
Btuh = British Thermal Unit Per Hour

† For Altitudes above 2,000 ft. ratings should be reduced at the rate of 4% for each 1,000 ft. above sea level. Canada only - Boilers may be used at high altitude by using a certified field conversion kit, resulting in a 10% derate. In Canada, PWB Series boilers firing propane gas are not allowed to use vent dampers. Heating Capacity is based on D.O.E (Department of Energy) test procedure.

†† 2 section boilers are equipped with a 3" diameter flue collar on the draft diverter, and use a furnished 3" x 4" increaser fitting to install the furnished 4" vent damper.

- The ratings marked Net I=B=R Ratings indicate the amount of remaining heat input that can be used 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 in 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 to 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.

- These boilers may be installed on combustible flooring when placed on combustible floor plate.
- These gas-fired boilers are sectional cast iron boilers design certified by CSA in the U.S. and Canada (Series 2 only) for use with natural gas 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 cast iron heating boilers. They are capacity rated in accordance with the code of The Hydronic Institute.

Dunkirk®

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Specifications and dimensions are subject to change without notice.

Made in America by American Craftsmen.

REV. 12/05

An ISO 9001:2000 Certified Company

An ECR International Brand

