



# *Series 3000c*

## *Hydronic Boilers*



## *Condensing Hydronic Boilers*

- *Modular Design*
- *Ultra High Efficiency*
- *Field Erectable*



## Structural Skid

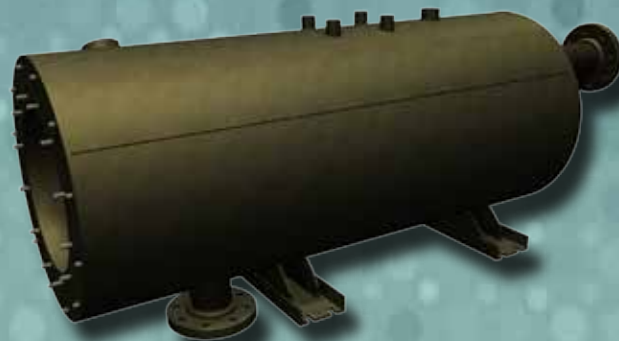
**T**he Series 3000C rugged structural steel skid provides stability during transport and installation. Wide beam flanges distribute weight evenly across the boiler room floor during flooded operation.

- **Engineered and Built in Accordance With the Latest ASME Boiler Codes.**
- **Completely Wired and Piped for Service Connections.**
- **Fully Modulating Burner Operation.**
- **Premium 2" Thick High-Density Insulation.**
- **"Off-the-Shelf" Industry Standard Parts Used Where Possible for Serviceability.**
- **Probe Type Auxiliary and/or Primary Low Water Cutoff.**
- **Epoxy Painted 20ga. Galvanized Steel Sheet Jacket.**
- **Siemens Temperature Controller, Automatic Operating Control, and High Limit Manual Reset Control.**

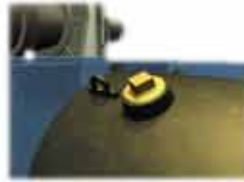
- **Exceeds Industry Standards for Heating Surface Area for Exceptional Efficiency.**
- **Pressure Tested to 1.5X Operating Pressure. (225psi for 150psi Vessels)**
- **Furnace Diameters and Combustion Area Volume Optimized For Lox NOx Operation.**

### **Standard Available Options**

- **Customizable Controls and Connections**
- **Additional Inspection Openings**
- **Burner Make and Model**
- **O2 Trim System**
- **"Linkage-less" Modulation**







### Inspection Openings

3" npt inspection openings for inspection and routine maintenance. Additional openings are available upon request.



### Tubes & Turbulators

Schedule 40 Stainless steel tubes and turbulators designed to break up laminar flow and maximize heat transfer.



### Low Water Control

Probe type sensor and Warrick relay are used for reliable primary and/or secondary shutdown.



### Burner

Burners are available to operate with natural gas, a variety of fuel oils, or a combination of gas and oil. NOx output levels may be specified as low as sub 30 PPM when burning natural gas and 70 PPM for burning #2 fuel oil.



### 537 Kunkle Safety Relief Valves

The Kunkle 537 Safety relief valves serve the dual purpose of relieving overpressure created by thermal expansion under normal "on" and "off" firing conditions, and overpressure in the form of water or steam created in over-firing due to failure of electrical or other controls.

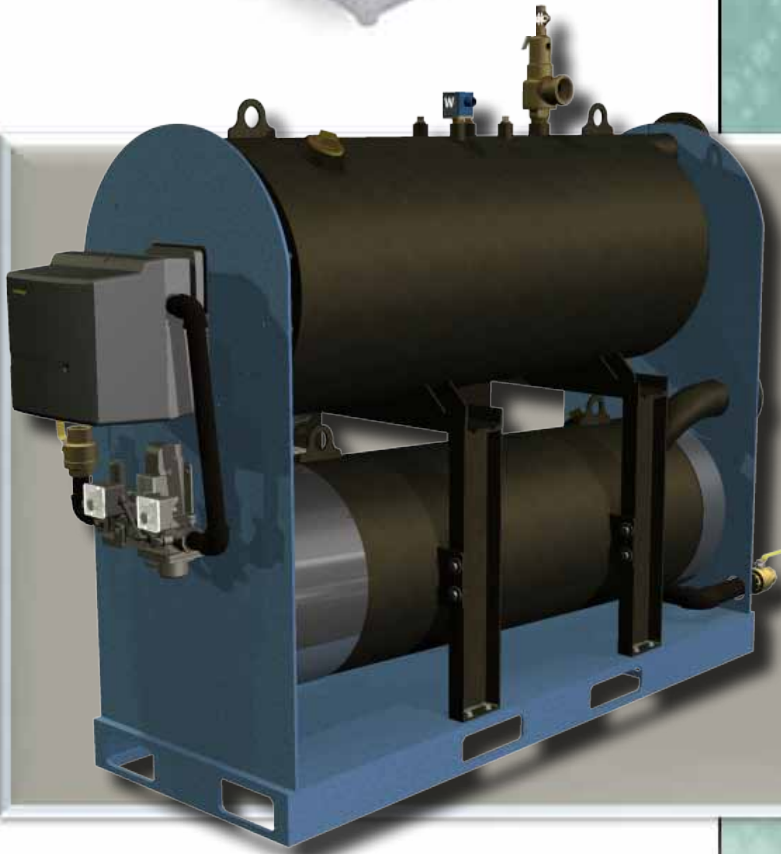


## **Built to the Highest Quality**

Williams & Davis guarantees each of our boilers will meet, and typically exceed, every ASME standard. All units are operationally tested and shipped as an integrated package when practical, ready for quick connection to utilities. As such, we demonstrate our confidence in our boilers by offering the industry's best pressure vessel warranty of 5 years (20 year available) with an approved water testing and treatment program.

## **Linkage-less Controls**

Williams & Davis offers a variety of linkageless systems designed to control the air and fuel ratio of the burner more closely than a conventional linkage type system. Individually driven servos ensure the fuel and air are mixed more precisely over the entire operating range of the burner thus reducing the excess oxygen required to achieve complete combustion. Lower excess oxygen levels result in more efficient combustion and a significant reduction in fuel costs.

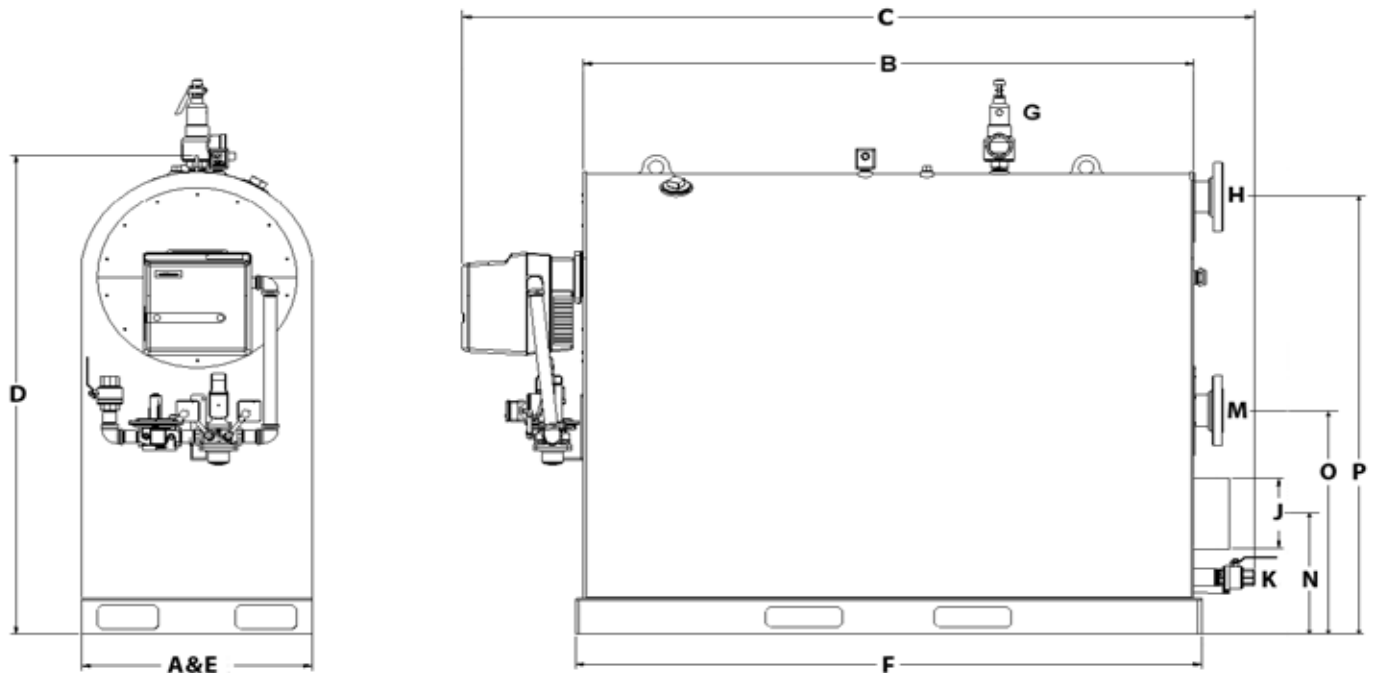


- *3 Pass Water-back*
- *Low Radiant Heat Losses*
- *High Gas Velocities*
- *High Efficiency*
- *Space Saving Design*
- *Optional 10:1 Turndown*
- *Standard Field Erected Sectional Design*

# Specifications

## Dimensions : *Series 3000C Hydronic Boiler*

Models			3030C	3060C	3090C	3120C
Input		BTU/Hr.	1,000,000	2,000,000	3,000,000	4,000,000
		BHP	30	60	90	119
		KCAL/Hr.	252,000	503,992	755,988	1,007,986
Output		BTU/Hr.	860,000	1,720,000	2,580,000	3,440,000
		BHP	26	51	77	102
		KCAL/Hr.	216,733	433,467	650,201	866,935
A	Overall Width	IN	24	30	30.9	36.9
		MM	609.6	762	787.4	939.8
B	Boiler Length	IN	84	88	100	104
		MM	1,803.40	1,905	2,311.4	2,413
C	Overall Length	IN	99	103	115	119
		MM	2,768.6	2,870.2	3,175	3,276.6
D	Boiler Height	IN	71	75	78.35	81
		MM	1,803.40	1,905	1,990.09	2,057.4
E	Skid Width	IN	24	30	30.9	37
		MM	609.6	762	787.4	939.8
F	Skid Length	IN	86	90	102	106
		MM	2,184.4	2,286	2,590.8	2,692.4
G	Safety Relief Opening	IN	2	2	2	2
		MM	50.8	50.8	50.8	50.8
H	Hot Water Supply	IN	3	4	4	6
		MM	101.6	101.6	101.6	152.4
J	Flue Gas Exhaust Outlet	IN	10	10	12	14
		MM	254	254	304.8	355.6
K	Drain Connection	IN	1-1/4	1-1/4	2	2
		MM	31.75	31.75	50.8	50.8
M	Hot Water Return	IN	3	4	4	6
		MM	76.2	101.6	101.6	152.4
N	To Center of Flue Outlet	IN	16	17	18	19
		MM	406.4	431.8	457.2	482.6
O	To Center of Return Water Inlet	IN	31	31	35	35
		MM	787.4	787.4	889	889
P	To Center of Supply Water Outlet	IN	61	61	65	65
		MM	1,549.4	1,549.4	1,651	1,651





# Wide Range of Applications

*Asphalt Cement*



*Bottling Companies*



*Clothing*



*Feed Mills*



*Hospitals*



*Hotels*



*Laundry*



*Lumber Mill*



*Meat Processing*



*Nat. Gas Refineries*



*Oil Drilling*



*Pharmaceutical*



*Polystyrene Foam*



*Power Generation*



*Research*



*Schools*



*Additional Product Offering*

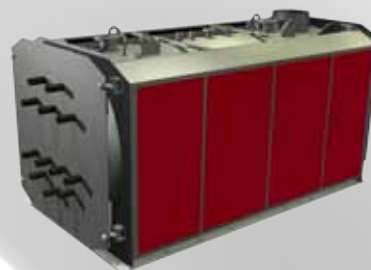
*Series 4000D*



4-pass Dry-back Scotch Marine Boiler

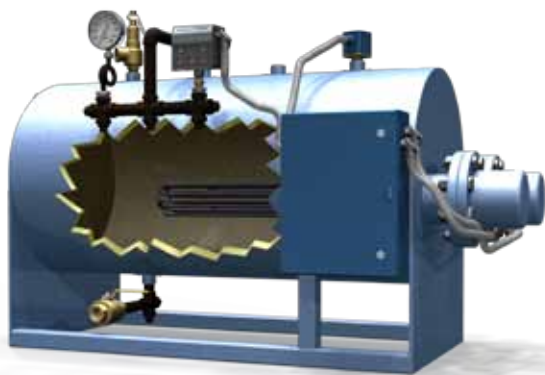
*Series 1000B*

NEW



Heat Recovery Systems

*Series 1000E*



Electric Boilers

*Series 2000V*



Vertical Tube and Tubeless Boilers

*Blow-Down Sep.*



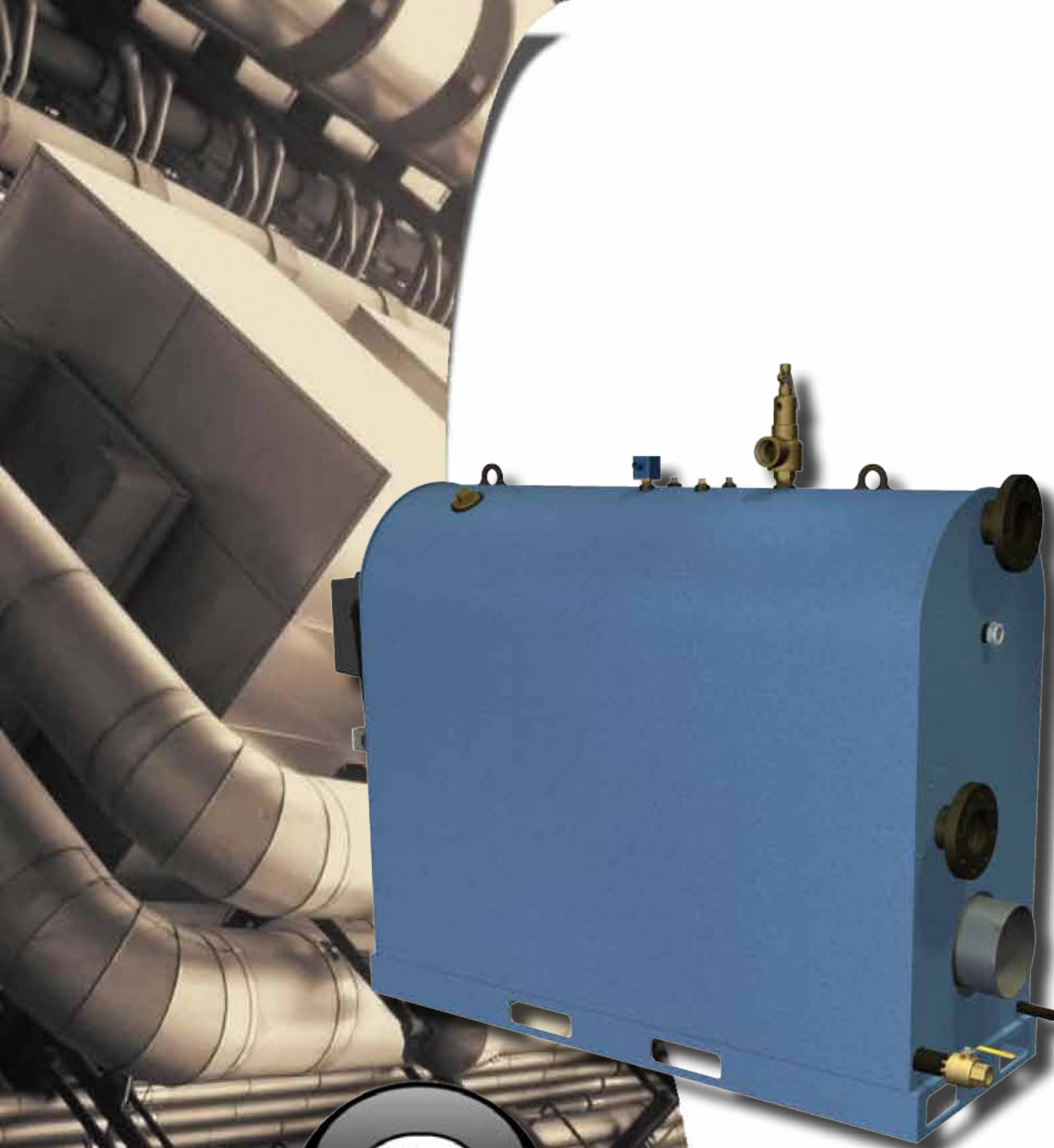
Blow-down Separator

*Feed-water*



Vertical or Horizontal Feed-water Systems





Your Authorized Williams & Davis Representative



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