



# Classic™

FUEL-FIRED VERTICAL  
TUBELESS BOILERS

4 – 60 HP



Horizontal and Vertical  
Feedwater / Condensate Return  
Systems and Blow-down Tanks

# FULTON FUEL-FIRED VERTICAL TUBELESS BOILERS

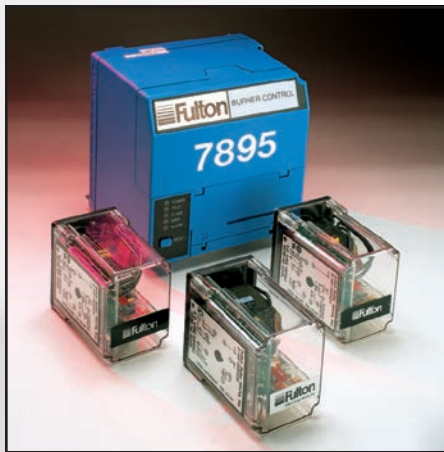
## FULTON: AN INDUSTRY LEADER SINCE 1949

Since Fulton's invention of the vertical tubeless boiler in 1949, Fulton has been the leading U.S. manufacturer of this type of boiler. For over 60 years, more than 100,000 boilers have been produced and distributed world-wide.

Every Fulton boiler is built and stamped to ASME Code and registered with the National Board of Boiler and Pressure Vessel Inspectors. Fulton boilers are UL listed boilers – not just the burner or electrical components – the entire boiler and they are CSA approved.

*A vertical tubeless boiler is a relatively simple design, offering years of trouble-free operation*

Many Fulton boilers over 30 years of age are still in operation today. There are no tubes or coils to rust or burn out periodically, therefore, no retubing costs, no downtime. No downtime means increased productivity.

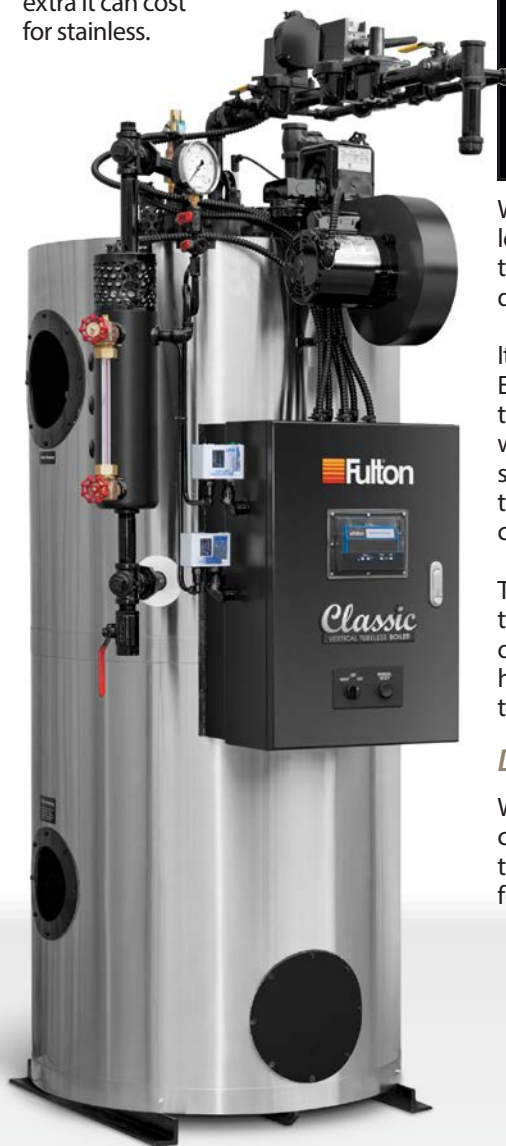


*Complete control panel box houses all necessary operating components*

The 7800 Series Microprocessor based controls are standard. A trouble shooting display module is optional. Fulton's commitment to continuous product improvement is reflected in the efficiency, quality, and ruggedness of these superior standard fuel-fired boilers.

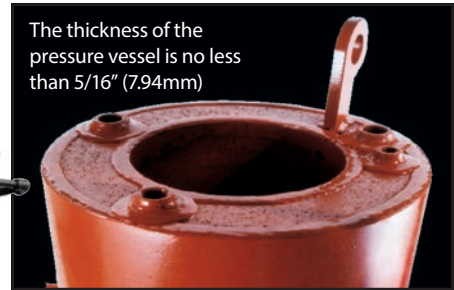
*All Fulton Boilers can be ordered with a polished stainless steel jacket*

Ask your Fulton distributor how little extra it can cost for stainless.



*Unique features begin with simplicity*

The furnace (pressure vessel) is, simply stated, a "pipe within a pipe". The top mounted Fulton power burner sends a spinning cyclonic flame into and down the center furnace chamber.



The thickness of the pressure vessel is no less than 5/16" (7.94mm)

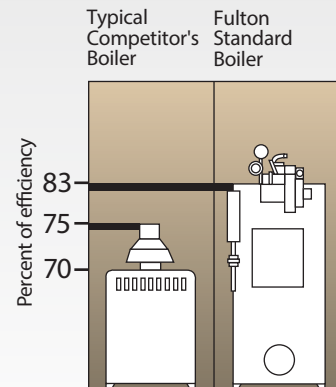
With fuel to steam efficiencies in the low 80's. The Classic has time proven top mounted matched burner with the downward cyclonic flame.

It features the Fulton engineered Flue Gas Enhancing System (FGE). A highly efficient two pass design, the Fulton FGE system works by using a massive heat transfer surface with high velocity flue gasses traveling over a cylindrical grid of heat convection fins.

Through controlled velocities these fins transmit additional heat evenly to the outer side of the water vessel, creating high efficiencies with lower stack temperatures.

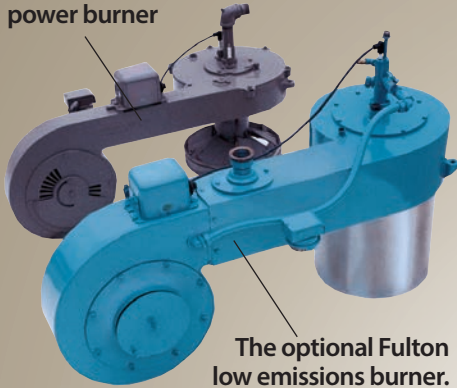
*Dramatic stack temp. reductions*

With the Fulton Classic stack temperatures can be from 100-150°F below standard two pass designs and have cut previous fuel bills in half!



# A LOOK INSIDE FULTON'S VERTICAL TUBELESS BOILER

The Fulton standard top fired power burner



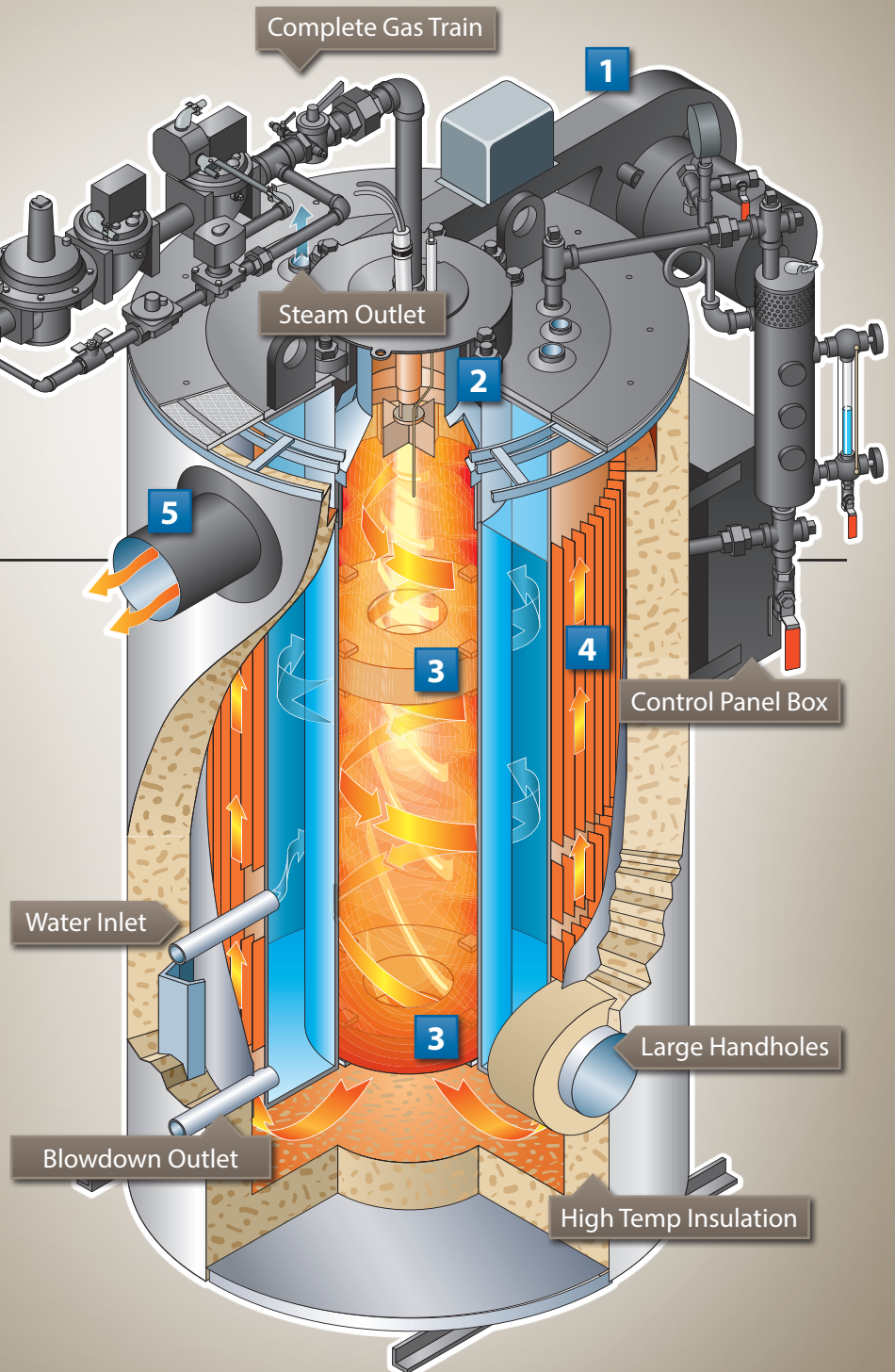
The optional Fulton low emissions burner.  
( $< 20\text{PPM NO}_x$  and  $< 60\text{PPM CO}$ )

*Fulton fuel-fired boilers can be ordered with combination fuel capabilities or be converted to combination fuels simply and economically.*

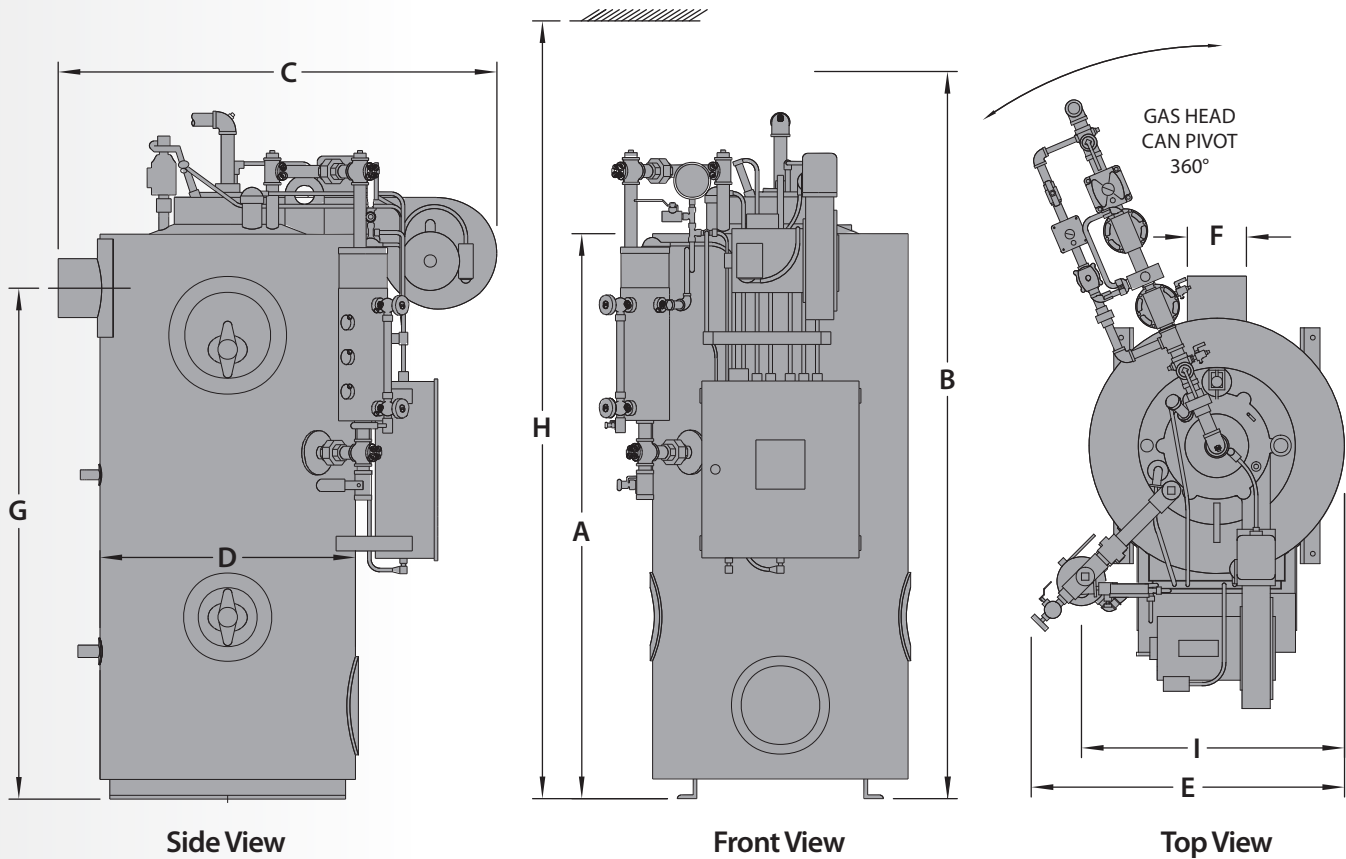
All fuel-fired boilers feature the Fulton designed and manufactured top mounted down fired forced draft burner.

## THE COMBUSTION PROCESS

**1** Air is drawn into the power burner where it is mixed with fuel for optimum combustion. **2** The ignition assembly ignites the air/fuel mixture and sends a spinning cyclonic flame down the length of the furnace chamber, forming the first pass. **3** Flame retainer rings increase occupancy time of the flue gases increasing heat transfer. **4** The flue gases are turned at the base of the chamber and return over the heat convection fins that surround the entire water jacket. This is the second pass, which transfers additional heat to the water in the vessel. **5** The flue gases are then collected at the upper portion of the boiler and are expelled through the flue outlet.



# DIMENSIONS, WEIGHTS



## CLASSIC MODELS FB-A

| Classic Models FB-A                           |    | 4    | 6    | 9.5  | 10   | 15   | 20   | 25   | 30   | 50    | 60    |
|---|----|------|------|------|------|------|------|------|------|-------|-------|
| <b>Unit Size:</b>                             | HP | 4    | 6    | 9.5  | 10   | 15   | 20   | 25   | 30   | 50    | 60    |
| <b>Heights and Widths</b>                     |    |      |      |      |      |      |      |      |      |       |       |
| (A) Boiler Height                             | IN | 53   | 63   | 73.5 | 69.5 | 76   | 78.5 | 80.5 | 88.5 | 95    | 100.5 |
|   | MM | 1346 | 1600 | 1867 | 1765 | 1930 | 1994 | 2045 | 2248 | 2413  | 2553  |
| (B) Boiler Height With Trim and Fuel Train    | IN | 63.5 | 73.5 | 83   | 80   | 86   | 91.5 | 93.5 | 101  | 106.5 | 118.5 |
|   | MM | 1613 | 1867 | 2108 | 2032 | 2184 | 2324 | 2375 | 2565 | 2705  | 3010  |
| (C) Overall Depth Stack to Burner Fan Housing | IN | 44   | 44   | 44   | 45   | 47   | 59.5 | 60   | 66.5 | 77    | 77    |
|   | MM | 1118 | 1118 | 1118 | 1143 | 1194 | 1511 | 1524 | 1689 | 1956  | 1956  |
| (D) Boiler Diameter                           | IN | 26   | 26   | 26   | 28   | 30   | 39   | 39   | 46   | 55    | 55    |
|   | MM | 660  | 660  | 660  | 711  | 762  | 991  | 991  | 1168 | 1397  | 1397  |
| (E) Overall Width                             | IN | 35.5 | 35.5 | 35.5 | 37   | 39   | 46.5 | 47   | 52.5 | 60    | 60    |
| with Water Column                             | MM | 902  | 902  | 902  | 940  | 991  | 1181 | 1194 | 1334 | 1524  | 1524  |
| (F) Flue Outlet Diameter                      | IN | 6    | 6    | 6    | 6    | 8    | 10   | 10   | 12   | 12    | 12    |
|   | MM | 152  | 152  | 152  | 152  | 203  | 254  | 254  | 305  | 305   | 305   |
| (G) To Center of Flue Outlet                  | IN | 42   | 52   | 62   | 58   | 63   | 65   | 66   | 73.5 | 79    | 85    |
|   | MM | 1070 | 1320 | 1575 | 1473 | 1600 | 1651 | 1676 | 1867 | 2007  | 2159  |
| <b>Minimum Clearances</b>                     |    |      |      |      |      |      |      |      |      |       |       |
| (H) Clearance for Burner Removal * ✱          | IN | 72   | 82   | 92   | 86   | 92   | 96   | 98   | 106  | 114   | 124   |
|   | MM | 1828 | 2083 | 2337 | 2184 | 2337 | 2438 | 2490 | 2692 | 2896  | 3150  |
| (I) Opening Required for Installation         | IN | 26   | 26   | 26   | 28   | 30   | 39   | 39   | 46   | 55    | 55    |
| With Water Column Removed                     | MM | 660  | 660  | 660  | 711  | 762  | 991  | 991  | 1168 | 1397  | 1397  |
| Front of Boiler                               | IN | 36   | 36   | 36   | 36   | 36   | 36   | 36   | 36   | 36    | 36    |
|   | MM | 915  | 915  | 915  | 915  | 915  | 915  | 915  | 915  | 915   | 915   |
| Sides & Rear of Boiler                        | IN | 24   | 24   | 24   | 24   | 24   | 24   | 24   | 24   | 24    | 24    |
|   | MM | 610  | 610  | 610  | 610  | 610  | 610  | 610  | 610  | 610   | 610   |
| <b>Weights</b>                                |    |      |      |      |      |      |      |      |      |       |       |
| Approx. Shipping Weight                       | LB | 1500 | 1780 | 2050 | 2000 | 2400 | 3750 | 3690 | 5450 | 7860  | 8260  |
|   | KG | 680  | 807  | 929  | 910  | 1088 | 1700 | 1673 | 2472 | 3565  | 3747  |

\* This dimension is 6" less for oil-fired units 6-50 HP and 12" less for oil-fired units 60 HP. ✱ Add 6" for low emissions burner removal.

# AND SPECIFICATIONS

| Classic Models FB-A                             |                         | 4       | 6   | 9.5  | 10   | 15   | 20       | 25       | 30       | 50      | 60      |      |
|---|-------------------------|---------|-----|------|------|------|----------|----------|----------|---------|---------|------|
| <b>Unit Size:</b>                               | HP                      | 4       | 6   | 9.5  | 10   | 15   | 20       | 25       | 30       | 50      | 60      |      |
| Ratings* (Sea level to 3000 ft.)                |                         |         |     |      |      |      |          |          |          |         |         |      |
| <b>Output</b>                                   | 1,000 BTUHR             | 134     | 201 | 319  | 335  | 503  | 670      | 837      | 1,005    | 1,674   | 2009    |      |
|   | 1,000 KCAL/HR           | 34      | 51  | 81   | 85   | 127  | 169      | 211      | 254      | 422     | 507     |      |
| <b>Steam Output</b>                             | LB/HR                   | 138     | 207 | 328  | 345  | 518  | 690      | 863      | 1,035    | 1,725   | 2,070   |      |
|   | KG/HR                   | 63      | 94  | 149  | 157  | 235  | 313      | 392      | 470      | 785     | 939     |      |
| Approximate Fuel Consumption at Rated Capacity+ |                         |         |     |      |      |      |          |          |          |         |         |      |
| <b>Light Oil</b>                                | GPH                     | N/A     | N/A | 2.9  | 3.0  | 4.5  | 6.0      | N/A      | 9        | 15.0    | 18.0    |      |
|   | LPH                     | N/A     | N/A | 11.0 | 11.4 | 17.0 | 22.7     | N/A      | 34.1     | 56.8    | 68.1    |      |
| <b>Propane Gas</b>                              | FT3/HR                  | 67      | 97  | 154  | 161  | 242  | 323      | 419      | 484      | 837     | 1005    |      |
|   | M3/HR                   | 1.9     | 2.7 | 4.4  | 4.6  | 6.9  | 9.1      | 11.9     | 13.7     | 23.7    | 28.5    |      |
| <b>Natural Gas</b>                              | FT3/HR                  | 168     | 242 | 384  | 404  | 606  | 807      | 1046     | 1211     | 2093    | 2511    |      |
|   | M3/HR                   | 4.8     | 6.9 | 10.9 | 11.4 | 17.2 | 22.9     | 29.6     | 34.3     | 59.3    | 71.1    |      |
| <b>Nat. Gas Boiler Connection Size</b>          | IN                      | 1       | 1   | 1    | 1    | 1    | 1.25     | 1.25     | 1.5      | 1.5**   | 2       |      |
|   | MM                      | 25      | 25  | 25   | 25   |      |          |          |          |         |         |      |
| <b>Burner Motor HP</b>                          | Gas 3450 RPM/60 CY      | .33     | .33 | .33  | .33  | .33  | .33 gas  | .75      | .75 gas  | 1.5 gas | 1.5 gas |      |
|   | Oil                     |         |     | .33  | .33  | .33  | .75      | N/A      | .75      | 2       | 2       |      |
| Electric Power Requirements (in Amps)           |                         |         |     |      |      |      |          |          |          |         |         |      |
| <b>Gas</b>                                      | 120V, 60 CY, 1 Phase    | 7.2     | 7.2 | 7.2  | 7.2  | 7.2  | 7.2 gas  | 13.8 gas | 13.8     | 20      | 20      |      |
|   | Oil                     | 7.2     | 7.2 | 7.2  | 7.2  | 7.2  | 13.8 oil | 13.8 oil | 13.8 oil | 24 oil  | 24 oil  |      |
| <b>Gas</b>                                      | 240V, 50/60 CY, 1 Phase | 3.6     | 3.6 | 3.6  | 3.6  | 3.6  | 3.6 gas  | 6.9 gas  | 6.9      | 10 gas  | 10 gas  |      |
|   | Oil                     | 3.6     | 3.6 | 7.2  | 7.2  | 7.2  | 6.9      | 6.9      | 6.9      | 12      | 12      |      |
| <b>Gas</b>                                      | 208V, 50/60 CY, 3 Phase | 2.4     | 2.4 | 2.4  | 2.4  | 2.4  | 2.4 gas  | 3.7 gas  | 3.7      | 6.9 gas | 6.9 gas |      |
|   | Oil                     | 2.4     | 2.4 | 2.4  | 2.4  | 2.4  | 3.5      | 3.7      | 3.7      | 7.8     | 7.8     |      |
| <b>Gas</b>                                      | 240V, 50/60 CY, 3 Phase | 2.2     | 2.2 | 2.2  | 2.2  | 2.2  | 2.2 gas  | 3.2 gas  | 3.2      | 6.0 gas | 6.0 gas |      |
|   | Oil                     | 2.2     | 2.2 | 2.2  | 2.2  | 2.2  | 3.2      | 3.2      | 3.2      | 6.8     | 6.8     |      |
| <b>Gas</b>                                      | 480V, 50/60 CY, 3 Phase | 1.1     | 1.1 | 1.1  | 1.1  | 1.1  | 1.1 gas  | 1.6 gas  | 1.6      | 3.0 gas | 3.0 gas |      |
|   | Oil                     | 1.1     |     | 1.1  | 1.1  | 1.1  | 1.6      | 1.6      | 1.6      | 3.4     | 3.4     |      |
| Water Content                                   |                         |         |     |      |      |      |          |          |          |         |         |      |
|   |                         | GALLONS | 14  | 16   | 16   | 24   | 39       | 77       | 82       | 170     | 245     | 270  |
|   |                         | LITERS  | 53  | 61   | 61   | 91   | 148      | 291      | 310      | 644     | 927     | 1022 |

\*Note: All piped connections are <3" are NPT, >3" ANSI 150 flange

+ Consumption based on Light Oil 140,000 BTU/G/ Natural Gas 1010 BTU/ft<sup>3</sup>; Propane 2530 BTU/ft<sup>3</sup>.  
 \* All ratings from 0 PSIG and at 212°F. • \* Consult Factory • \*\* 2"/51mm IRI and CSA • N/A-Not Available  
 Specifications and Dimensions are approximate. We reserve the right to change specifications and/or dimensions without notice. Diagram for guidance purposes only. Comprehensive details of dimensions, connections, etc. for each model are given on product dimension data sheets available from Fulton.

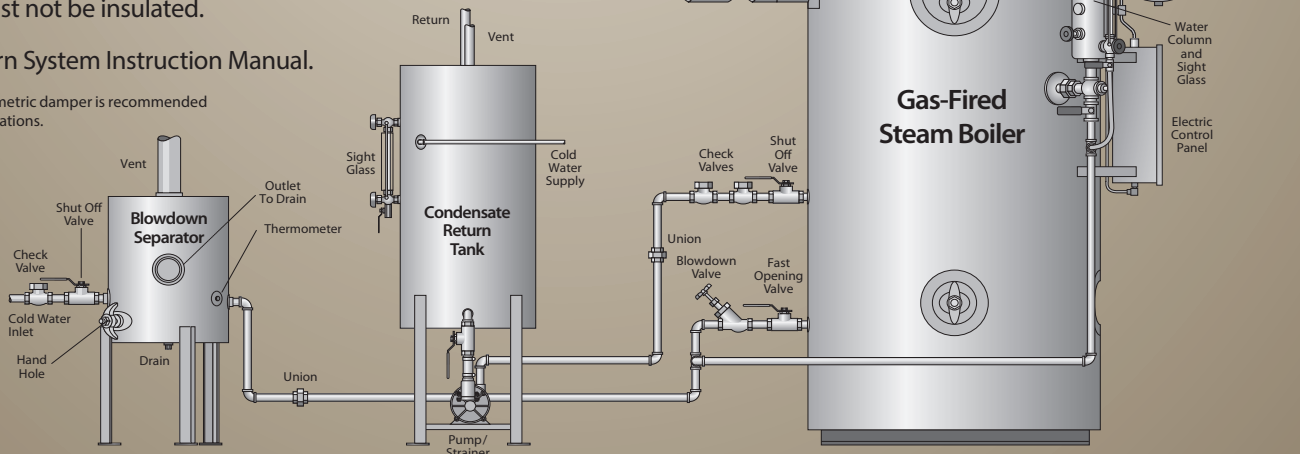
**Note:** High pressure boilers ordered with an extra pressure control for night heating have less than rated output while operating at low pressure.

## Boiler, Condensate Tank, and Blow-Down Separator

Condensate return tank should be vented and have a capacity sufficient to satisfy boiler consumption and maintain proper return tank temperature. Vent pipe should not be down-sized (may cause pressure build up in the condensate tank). Return pipes must not be insulated.

See Return System Instruction Manual.

Optional barometric damper is recommended for most installations.



# HORIZONTAL FEEDWATER/CONDENSATE RETURN SYSTEMS

## FEATURES

Fulton condensate return systems are completely assembled with tank, stand, high pressure pump, motor, strainer, float valve, shut-off valve, gauge glass assembly, with overflow and drain openings.

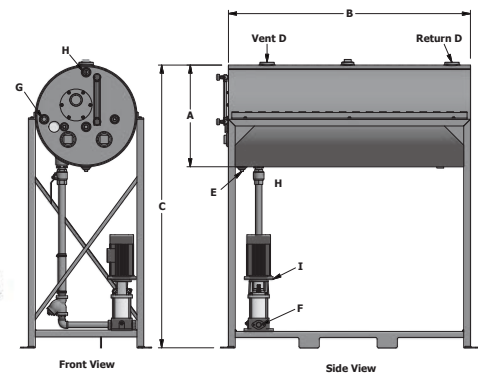
- Heavy gauge properly sized tanks built for quick installation and removal or replacement
- Heavy duty feed water pump
- Rigid welded support frame



*Horizontal Condensate Return Systems Designed For Boilers From 22 HP to 200 HP*

Optional preheat kits are available.

Standard pump is good for 212°F maximum water temperature. Pumps for higher temperature water are available upon request.



## SPECIFICATIONS & DIMENSIONS

|                       | Model HT    | 30    | 60    | 100    | 200     |
|-----------------------|-------------|-------|-------|--------|---------|
| For Boiler Size       | HP          | 22-30 | 51-60 | 81-100 | 151-200 |
| Full Capacity         | GALLONS     | 46    | 94    | 147    | 220     |
|                       | LITERS      | 174   | 356   | 556    | 833     |
| Weight                | LBS         | 195   | 465   | 650    | 1190    |
|                       | KGS         | 89    | 211   | 295    | 540     |
| <b>DIMENSIONS</b>     |             |       |       |        |         |
| (A) Tank Diameter     | IN          | 18    | 24    | 30     | 30      |
|                       | MM          | 457   | 610   | 762    | 762     |
| (B) Tank Length       | IN          | 42    | 48    | 48     | 72      |
|                       | MM          | 1067  | 1219  | 1219   | 1829    |
| (C) Overall Height    | IN          | 45    | 52    | 80     | 80      |
| Floor-Top Of Tank     | MM          | 1143  | 1321  | 2032   | 2032    |
| <b>CONNECTIONS</b>    |             |       |       |        |         |
| (D) Vent/Return       | IN          | 1.25  | 2     | 3      | 3       |
|                       | MM          | 32    | 51    | 76     | 76      |
| (E) Drain             | IN          | .50   | 1     | 1      | 1       |
|                       | MM          | 13    | 25    | 25     | 25      |
| (F) Pump Outlet       | IN          | 1     | 1     | 1      | 1.25    |
|                       | MM          | 25    | 25    | 25     | 32      |
| (G) Cold Water Inlet  | IN          | .50   | .75   | .75    | 1       |
|                       | MM          | 13    | 19    | 19     | 25      |
| (H)* Overflow Opening | IN          | 1     | 1     | 1      | 1       |
|                       | MM          | 25    | 25    | 25     | 25      |
| (I) Pump HP           | 1 Ph. Motor | 2     | ※     | 3      | 7.5     |
| (High Pres Blr)       | 3 Ph. Motor | 2     | 5     | 3      | 7.5     |
| (I) Pump HP           | 1 Ph. Motor | .33   | 1     | .5     | 1       |
| (Low Pres Blr)        | 3 Ph. Motor | .33   | 1     | .5     | 1       |

\* Overflow opening must be piped to drain. ※ Consult Factory

Consult Factory for larger sized tanks.

# VERTICAL FEEDWATER/CONDENSATE RETURN SYSTEMS

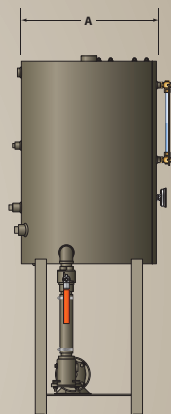
## FEATURES

Both the horizontal and the vertical condensate return systems are available in heavy gauge “long lasting” steel only. Vertical tanks have all the same assembly components that the horizontal tanks do.

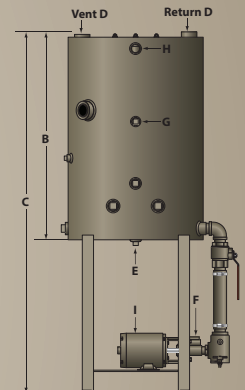
- Increased pump life under normal operation because of higher head pressure
- Vertical return systems can be ordered separately or skid-mounted and piped to your boiler
- Easily serviced from the top
- Complete float assembly can be removed without draining tank

\* Note for < 80°F Applications

*Vertical Condensate Return Systems Designed For Compact Space Saving Applications For Boilers From 1 HP up to 100 HP*



Front View



Left Side View

## SPECIFICATIONS & DIMENSIONS

| Model VT              |                   | 30          |       |       | 60      |       | 100      |        |
|-----------------------|-------------------|-------------|-------|-------|---------|-------|----------|--------|
| For Boiler Size       | HP                | 1 - 30      |       |       | 31 - 60 |       | 61 - 100 |        |
| Full Capacity         | GALLONS           | 46          |       |       | 94      |       | 147      |        |
|                       | LITERS            | 174         |       |       | 356     |       | 556      |        |
| Weight                | LBS               | 195         |       |       | 465     |       | 650      |        |
|                       | KGS               | 89          |       |       | 211     |       | 295      |        |
| <b>DIMENSIONS</b>     |                   |             |       |       |         |       |          |        |
| (A) Tank Diameter     | IN                | 18          |       |       | 24      |       | 30       |        |
|                       | MM                | 457         |       |       | 610     |       | 762      |        |
| (B) Tank Height       | IN                | 42          |       |       | 48      |       | 48       |        |
|                       | MM                | 1067        |       |       | 1219    |       | 1219     |        |
| (C) Overall Height    | IN                | 63          |       |       | 71      |       | 71       |        |
|                       | Floor-Top Of Tank | MM          | 1600  |       |         | 1803  |          | 1803   |
| <b>CONNECTIONS</b>    |                   |             |       |       |         |       |          |        |
| (D) Vent/Return       | IN                | 1.25        |       |       | 2       |       | 2        |        |
|                       | MM                | 32          |       |       | 51      |       | 51       |        |
| (E) Drain             | IN                | .50         |       |       | 1       |       | 1        |        |
|                       | MM                | 13          |       |       | 25      |       | 25       |        |
| (F) Pump Outlet       | IN                | 1           |       |       | 1       |       | 1        |        |
|                       | MM                | 25          |       |       | 25      |       | 25       |        |
| (G) Cold Water Inlet  | IN                | .50         |       |       | .75     |       | .75      |        |
|                       | MM                | 13          |       |       | 19      |       | 19       |        |
| (H)* Overflow Opening | IN                | 1           |       |       | 1       |       | 1        |        |
|                       | MM                | 25          |       |       | 25      |       | 25       |        |
| Boiler HP             |                   | 1-12.5      | 13-21 | 22-30 | 31-50   | 51-60 | 61-80    | 81-100 |
| (I) Pump HP           | 1 Ph. Motor       | .5          | .75   | 2     | 2       | 5     | 5        | 5      |
|                       | (High Pres Blr)   | 3 Ph. Motor | .5    | .75   | 2       | 2     | 5        | 5      |
| (I) Pump HP           | 1 Ph. Motor       | .25         | .33   | .33   | .5      | 1     | 1        | 1      |
|                       | (Low Pres Blr)    | 3 Ph. Motor | .25   | .33   | .33     | .5    | 1        | 1      |

\* Overflow opening must be piped to drain.

# BLOW-DOWN TANKS

## FEATURES

Constructed with the finest quality materials, all compact Fulton Blow-Down Tanks meet or exceed ASME Code and include special features to insure safe boiler blow-down. Fulton Blow-Down Tanks also operate with minimum maintenance.

- Baffle plate absorbs steam flash and pressure
- Steam is expelled safely through vent
- Water and sludge pass through drain to sewer
- 3" x 4" handhole for cleaning and inspection
- Welded to ASME Pressure Vessel Code
- Fast, easy hook-up to boiler

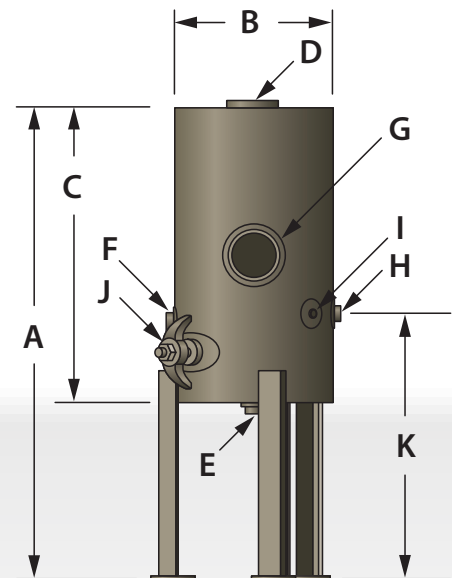
Optional cooling kits available.

### *Fulton's full line of heat transfer products includes:*

- Fuel-fired vertical tubeless steam and hot water boilers
- Electric steam and hot water boilers
- Condensing and non-condensing commercial heating boilers
- Fuel-fired and electric thermal fluid heaters
- Customized sequencing and complete system control solutions

## SPECIFICATIONS/DIMENSIONS/CONNECTIONS

|                      | Model F | 30       | 75       | 150      |
|----------------------|---------|----------|----------|----------|
| For Boiler Size      | HP      | 1 - 30   | 31 - 75  | 80 - 150 |
| Max. Boiler Pressure | PSI     | 150      | 150      | 150      |
| Capacity             | GALLONS | 22       | 40.8     | 70.5     |
|                      | LITERS  | 83       | 154      | 267      |
| Weight               | LBS     | 200      | 295      | 450      |
|                      | KGS     | 91       | 134      | 204      |
| <b>DIMENSIONS</b>    |         |          |          |          |
| (A) Height           | IN      | 34       | 44       | 50       |
|                      | MM      | 864      | 1118     | 1270     |
| (B) Diameter         | IN      | 18       | 20       | 24       |
|                      | MM      | 457      | 508      | 610      |
| (C) Tank Height      | IN      | 20       | 30       | 36       |
|                      | MM      | 508      | 762      | 914      |
| (D) Vent             | IN      | 3        | 4        | 4        |
|                      | MM      | 76       | 102      | 102      |
| (E) Drain            | IN      | 1.5      | 1.5      | 1.5      |
|                      | MM      | 38       | 38       | 38       |
| (F) Water Supply     | IN      | .5       | .75      | .75      |
|                      | MM      | 13       | 19       | 19       |
| (G) Outlet           | IN      | 3        | 3        | 3        |
|                      | MM      | 76       | 76       | 76       |
| (H) Inlet            | IN      | 1.25     | 2        | 2        |
|                      | MM      | 32       | 51       | 51       |
| (I) Thermometer      | IN      | .50      | .50      | .50      |
|                      | MM      | 13       | 13       | 13       |
| (J) Handhole         | IN      | 3 x 4    | 3 x 4    | 3 x 4    |
|                      | MM      | 76 x 102 | 76 x 102 | 76 x 102 |
| (K) Inlet Height     | IN      | 26       | 31       | 34       |
|                      | MM      | 660      | 787      | 864      |



 **Fulton**<sup>®</sup> The heat transfer innovators.

**Fulton Boiler Works, Inc.**  
3981 Port Street, Pulaski, NY 13142  
Call: (315) 298-5121 • Fax: (315) 298-6390



[www.fulton.com](http://www.fulton.com)

FBA-12-BRO\_2018-0802