

'J' Series

Gas, Oil and Dual Fired Steam Boiler

Output 96 - 960 kg/h F & A 100°C

- Fully packaged fuel fired steam boilers.
- Eight models:
96 - 960 kg/h (60 - 600kW)
(F & A 100°C)
- Standard operating pressure 10.34bar.
Higher on request.
- Thermal efficiencies greater than:
80% gross c.v. 89% net c.v. - Gas
82% gross c.v. 91% net c. v. - Oil
- Fully matched gas and oil burner.
Burner available for LPG or propane
- Low NOx gas burner
- CE marked, to PED, EMC, LVD
& Machinery Directive
Constructed to BS 2790
(PD2790) Class 1 as standard.
Other code specifications available
- Five or Ten year warranty
(where appropriate)
on pressure vessel
- Custom skid mounted boilers
and accessories



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Prefabricated skid mounted and packaged boiler plant

The Fulton 'J' Series boiler is the successor to the Series E boiler.

The proven features of the Series 'E' have been incorporated into the 'J' Series boiler, with design improvements to increase thermal efficiency with reduced flue gas and casing temperatures.

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- High efficiency, greater than

80% gross c.v.	82% gross c.v.
89% net c.v.	89% net c.v.
natural gas	#2 light oil
 - Full steam output raised in approx. 20 minutes.
 - 5 year warranty on pressure vessels, 10 year warranty (where appropriate).
 - Extended Warranties.
 - Constructed to BS 2790 (PD2790) Class 1 and meets all relevant European and British Standards.
 - Stainless Steel casing option.
 - Supplied to other international construction standards.
 - Fulton fully matched down-firing burner. 40 - 60 Hi-Lo option, gas only.
 - Fulton feed water pump.
 - Full range of specialised controls and ancillary equipment.
 - Compact design, with a minimal footprint.
 - Integral operating and safety controls.
 - BEMS Interface.
 - Assembled, tested and certified prior to shipment.
 - Backed by Fulton Worldwide Service and Spares operation.
 - Price includes commissioning on UK mainland.

Application

The 'J' Series is designed to meet the steam raising requirements for process steam across a wide range of industrial, pharmaceutical, medical, food and drinks industry applications.

Backed by a comprehensive after sales service the 'J' Series affords quality and proven reliability to the steam user.

System Site Requirements

For pre-installation requirements see the relevant Product Support Leaflet, available upon request.

These publications give information on the installation of the boiler, pipework, electrical, flue, ventilation, water quality, safety and operational requirements and procedures.

A comprehensive Operator, Maintenance and Parts Manual is supplied with every boiler.

Skid Mounted and Plant Room Boilers

There are some applications where it is practical to have the boiler(s) and ancillary equipment pre-assembled before installation

e.g.: security establishments, turnkey export projects.

Fulton build both skid mounted and packaged plant rooms to clients specifications, ensuring a complete operational unit is delivered to site, needing minimum on site involvement.

Specialised Control Equipment:

- Automatic TDS Blowdown System.
- High Integrity Self Monitoring Controls,
- Automatic Bottom Blowdown.

Ancillary Equipment:

- Condensate Return Systems FS and HT Range.
- Boiler Blowdown Vessels (to BS 5500 Cat 3) BDV range.
- Sample Water Coolers
- Water Treatment & Chemical Dosage Plant

JFS Range

Available in three models ranging between 160 - 320 kg/h constant, 300 - 680 kg/h peak demand.

For applications such as sterilisers and autoclaves where there is a peak demand for steam over a relatively short period, the Fulton JFS range of fuel fired boilers should be considered.

Literature on request.



Prefabricated Packaged Plant Room containing two 'J' Series boilers complete with ancillary equipment.

Features of the 'J' Series Vertical Steam Boiler

External casing in Rondel Blue Paint, other colours or stainless steel available to special order.

Feed Water Inlet with Check Valve

Steam Outlet with Isolating Valve

Fully Matched Fulton Burner Options

Preset Safety Valve

Increased Steam Space

Top Cleaning Access to Flueways

Heavy Gauge Steel Pressure Vessel

Swirling Flame for High Efficiency Combustion and Low NOx

Twin Reflex Gauges

Purpose Built Control and Instrument Panel, contains Safety and Operating Controls

Water Jacket

Improved Finned Secondary Heat Transfer Surface

Access into Pressure Vessel for Inspection and Maintenance

Generous Proportion Combustion Chamber with Large Primary Heating Surface

Refractory Insulation, Low Casing Loss

Access to Flame Reversal Area for Cleaning

Construction

The relatively simple design, complemented by robust construction and top quality materials make the 'J' Series boiler able to tolerate load fluctuations and arduous working conditions. There are many thousands of **Fulton** boilers still operational worldwide after 25 years' working life.

A top mounted **Fulton** burner, down fires into a vertical chamber which is contained within the pressure vessel. The 'spinning' flame reverses at the base of the chamber and passes through the secondary heating space between the pressure vessel and the external insulating jacket.

Vertical fins are welded to the pressure vessel to increase the heat exchange in the secondary flue gas passage.

The boiler is fitted with a heavy gauge, insulated, mild steel casing (optionally stainless steel) with high quality blue gloss paint finish.

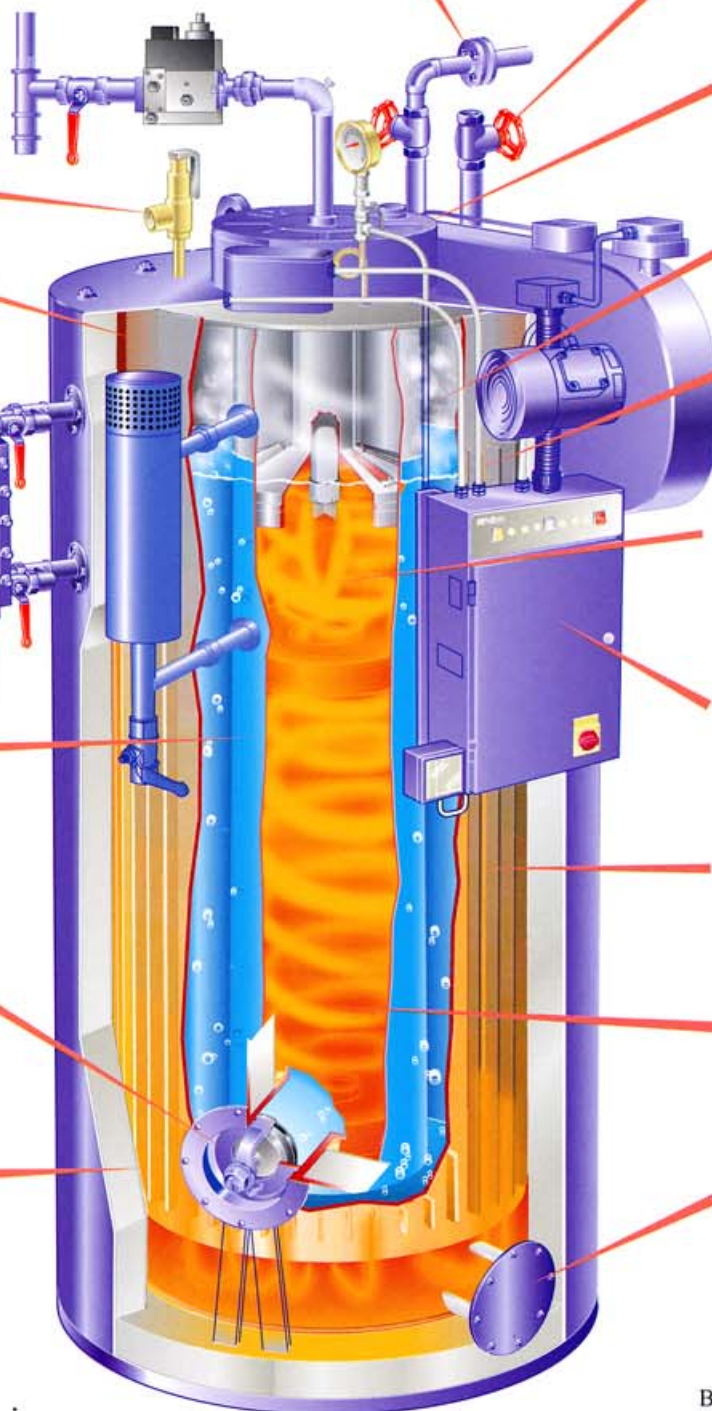
Fulton is able to build boilers to meet special requirements and applications for the UK or export markets.

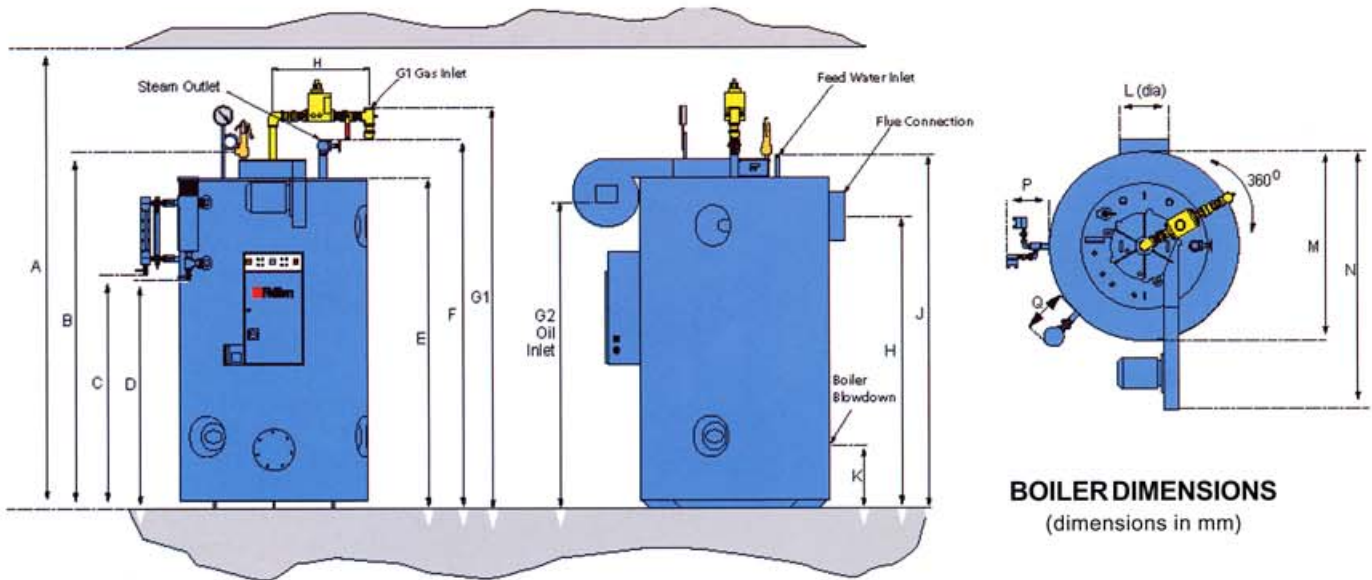
The burner, ancillary equipment and controls are all assembled at the Bristol factory, each boiler is individually constructed to fully meet the specification ordered.

The boiler control panel incorporating the electrical, safety and operating controls is pre-wired and fully tested. Feed water pump supplied.

Every completed boiler is subjected to tests prior to despatch from the factory and is issued with a test certificate.

The boiler is easy to service and maintain with good access for cleaning and inspection of internal surfaces.





BOILER DIMENSIONS
(dimensions in mm)

Model	6J	8J	10J	15J	20J	30J	40J	50J	60J
A**	2300	2300	2300	2400	2600	2800	3100	3100	3100
B	1840	1840	1840	1930	2060	2240	2490	2490	2490
C	1060	1060	1060	1155	1285	1465	1710	1710	1710
D	1025	1025	1025	1115	1245	1385	1670	1670	1670
E	1670	1670	1670	1760	1890	2070	2320	2320	2320
F	1845	1845	1845	1950	2100	2310	2680	2680	2680
G1 Gas	2045	2045	2045	2165	2330	2510	2820	2820	2820
G2 Oil	1550	1550	1550	1640	1735	1915	2150	2150	2150
H	1390	1390	1390	1565	1670	1820	2075	2075	2075
J	1810	1810	1810	1900	2030	2210	2460	2460	2460
K	380	380	380	380	390	390	395	395	395
L	152	152	152	203	255	305	305	305	305
M	715	715	715	765	985	1175	1390	1390	1390
N	1025	1025	1025	1060	1400	1595	1850	1850	1850
P	265	265	265	265	265	265	265	265	265
Q	270	270	270	270	270	270	265	265	265

After Sales Service

In the UK, **Fulton** engineers give a nation wide after sales service. All new boilers (UK mainland only) are commissioned by Fulton as an integral part of the purchase price.

The commissioning Engineer will also instruct the on site operators in the operation and maintenance of the boiler.

	6J	8J	10J	15J	20J	30J	40J	50J	60J
Output kg/h (F & A 100°C)	96	128	160	240	320	480	640	800	960
†Std. working pressure. (bar).	10.34	10.34	10.34	10.34	10.34	10.34	10.34	10.34	10.34
Firing Rates									
*Gas (m ³ /h)	7.0	9.3	11.6	17.4	23.2	34.8	46.4	58.1	69.6
Oil (l/h) (light oil)	7.1	9.4	11.8	17.6	23.6	35.2	47.1	58.9	70.4
LPG/Propane (m ³ /h)	2.9	3.9	4.8	7.2	9.6	14.4	19.2	24.1	28.9
Electrical Requirements									
FLC (400V, 3ph, 50Hz) amps	4.7	4.7	4.7	4.7	4.9	4.9	6.9	6.9	8.6
FLC (230V, 1ph, 50Hz) amps	12.7	12.7	12.7	12.7	14.9	-	-	-	-
Water Content (litres)	90	90	90	200	290	640	1020	1020	1020
Weight dry (approx. kg)	810	810	810	1190	1420	2030	3150	3150	3150
Weight full (approx. kg)	900	900	900	1390	1710	2670	4170	4170	4170
Connection Sizes (DN) (F=female, M=male) (all threads BSP)									
Steam Outlet	25F	25F	25F	32F	32F	40F	50F	50F	50F
Feed Water	15M	15M	15M	15M	15M	15M	15M	15M	15M
Safety Valve (discharge)	32F	32F	32F	32F	32F	32F	32F	32F	32F
Blowdown (Boiler)	20F	20F	20F	25F	25F	25F	25F	25F	25F
Blowdown (Water column)	20F	20F	20F	20F	20F	20F	20F	20F	20F
Blowdown (Sight Glass)	8F	8F	8F	8F	8F	8F	8F	8F	8F
Gas Inlet	20F	20F	20F	32F	32F	32F	50F	50F	50F

Fulton After Sales Department provides service contracts covering all aspects of after sales service and inspection.

Boilers supplied overseas, are supported by Approved Distributors. UK based Engineers are available to travel worldwide for commissioning and application work.

Spare parts kits available for one year and two years.

Note: †Boilers at higher pressures, available to special order. *Natural Gas - Group H
**Recommended height for Service and Maintenance. Contact FBW (GB) Ltd. for bespoke designs to solve height restriction problems

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