



# BWR FIRETUBE STEAM BOILER



**THE COMPLETE BOILER HOUSE SOLUTION  
BWR - STEAM OUTPUTS FROM  
10 000 KG/H TO 30 000 KG/H**

## ENVIRONMENTALLY FRIENDLY

BABCOCK WANSON are at the forefront of boiler and burner design and construction driving down emissions and exceeding the requirements of statutory regulations.

## LOW FUEL CONSUMPTION

- **Perfect Boiler-Burner match**  
The perfect match between the BWR boiler shell and Babcock Wanson burner ensures reliable and efficient operation in standard construction. Efficiencies in excess of 98% (R-Eco) and 105% (Condensing) can be achieved when fitted with a Babcock Wanson matched economiser and heat recovery system.
- **Consistently high efficiency**  
Consistent high thermal efficiency throughout the firing range is a key feature from Babcock Wanson. Digital micro-modulation control with burner head geometry specifically designed to suit the BWR boiler provides very high turndown ratios with accurate control of excess air and lowest practicable operating costs.
- **Low electrical consumption**  
Electrical power consumption is reduced by 30% to 50% by the use of variable speed control.



RELIABLE &  
SAFE DESIGN



ENVIRONMENTALLY  
FRIENDLY



FLEXIBLE  
SOLUTION



FULL RANGE OF  
ANCILLARY EQUIPMENT

## WHY CHOOSE THE BWR BOILER FROM BABCOCK WANSON?

- High efficiency - Low NOx burners
- High burner turndown ratios
- Simple access for ease of maintenance
- Robust design for very long life
- Flue gas Heat Recovery
- Combustion Air Pre-Heaters
- Dual and mixed fuel firing options
- O<sub>2</sub> and CO trim options
- Simple unattended operation
- Complete steam system solutions

# BWR FIRETUBE STEAM BOILER

## REDUCED OPERATING COST

### Robust Construction for long life

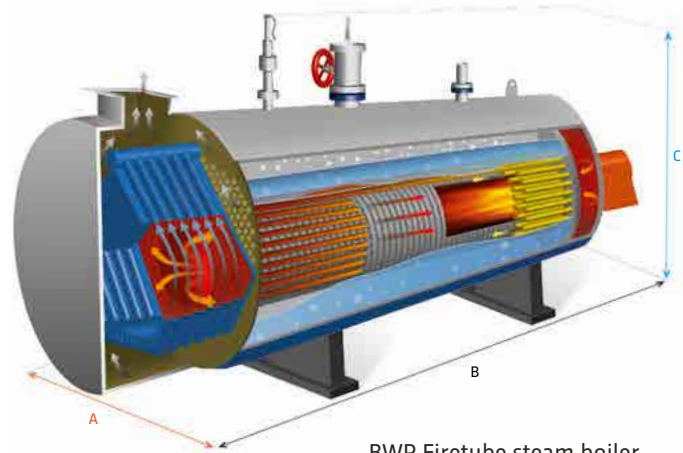
BWR Boilers are three pass design and include a tubular construction flue gas reversal chamber. This proven feature, unique to Babcock Wanson, enhances water circulation thereby eliminating the risks of internal fouling (sludge accumulation in the bottom of the boiler). Furnace tie rods are not required and uniform shell expansion gives the flexibility to meet large steam load changes with minimal operational stress.

### Simplified Maintenance

The flue gas reversal chamber is fully water cooled ensuring high efficiency and minimum maintenance requirements. Ease of access to the chamber simplifies inspection.

### High Steam Quality

High quality dry steam due to generous steam space and integral separator.



BWR Firetube steam boiler

### Operation

Standard equipment options provide fully approved controls for attended, site supervised or fully unattended operation including the Babcock Wanson BW720 Operating System.



BWR	model	100	120	150	170	210	250	270
Steam output <sup>(1)</sup>	Kg/h	10 000	12 000	15 000	17 000	21 000	25 000	27 000 <sup>(3)</sup>
Power output <sup>(1)</sup>	kW	6545	7862	9827	11 136	13 754	16 372	17 685
Width A <sup>(2)</sup>	mm	3820	3020	3175	3525	3800	4200	4500
Length B <sup>(2)</sup>	mm	8630	10 640	10 890	11 300	12 430	13 880	14 130
Height C <sup>(2)</sup>	mm	3890	4050	4287	4330	4530	4900	5100
Weight-fully flooded	Kg	39 550	45 900	49 800	57 600	74 900	80 050	92 150

(1) At 15 barg and with feedwater at 105°C. (2) Overall dimensions include fitted burner and boiler mountings. (3) 30 000 kg/h with an economiser under certain operating conditions.

For lower steam output requirements please see our **BWD** and **NBWB** range of steam boilers.

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Designers and manufacturers of Industrial Boilers, Air Heaters, Thermal Fluid Heaters, Thermal Oxidisers, Water Treatment Plant and associated equipment. Registered Number 573874 London.

Babcock Wanson's policy is one of continuous improvement and the right is reserved to change specifications and dimensions at any time without notice.

