

THE BOILER HOUSE SOLUTION EQUIPMENT

Fire-tube boilers

BWD Series

1 to 10 t/h,
682 to 6 793 kW



The BWD is a 3-pass semi-wet back fire tube boiler exclusively designed by BABCOCK WANSON.

Sturdiness and long life associated with its design

The flue gas reversal chamber, located co-axially with the furnace tube, ensures optimum distribution of the mechanical stresses which contributes to the long life of the boiler shell, notably for significant start/stop cycles.

Easy accessibility of the tubes provides better and lower maintenance cost

The outer section of the transfer chamber which is cooled by the water, is equipped with a double compartment. This particular BABCOCK WANSON design improves the heat transfer and allows direct access to the first tube nests. This eliminates the frequent problem of fragility affecting the tie rods on conventional wet back boilers.

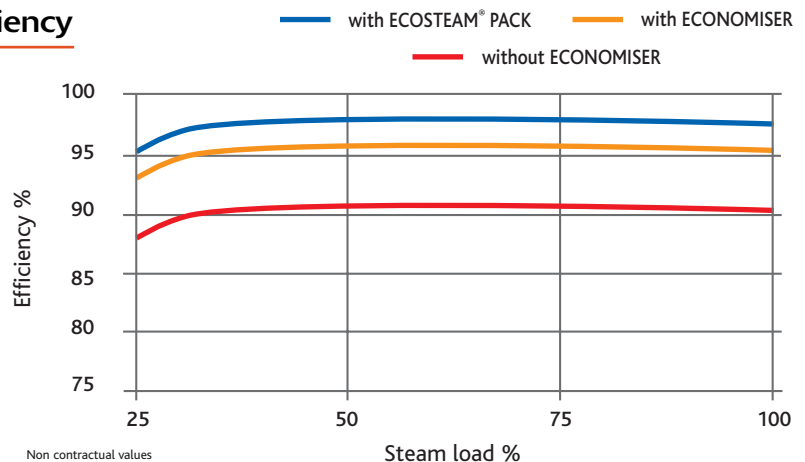
Compactness and flexibility

The centred fire-box and the optimised distribution of the second and third pass convection tubes enables best possible use of site space. BABCOCK WANSON burners provide a wide operating range, with turn down ratios of up to 8:1 when firing on gas.

High efficiency, 95% with optional economiser

The optimised matching of the BWD boiler shell and the Babcock Wanson burner enables an efficiency of 95% with economiser. A constant efficiency is obtained from 30 to 100% load over the whole modulation range thanks to stable combustion due to the geometry of the burner head.

Efficiency

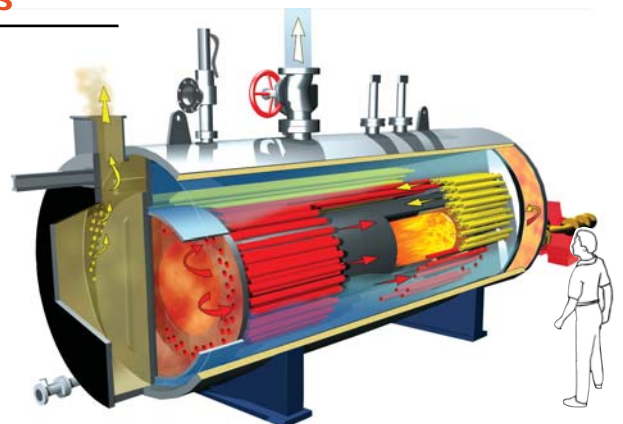


Steam quality

The steam separator located inside the boiler shell, under the steam outlet, and the rapid burner response time, ensure that the dryness guarantee is 99.5%.

Operating modes

Equipment options include control and instrumentation for either fully manned, supervised or fully unattended operation.

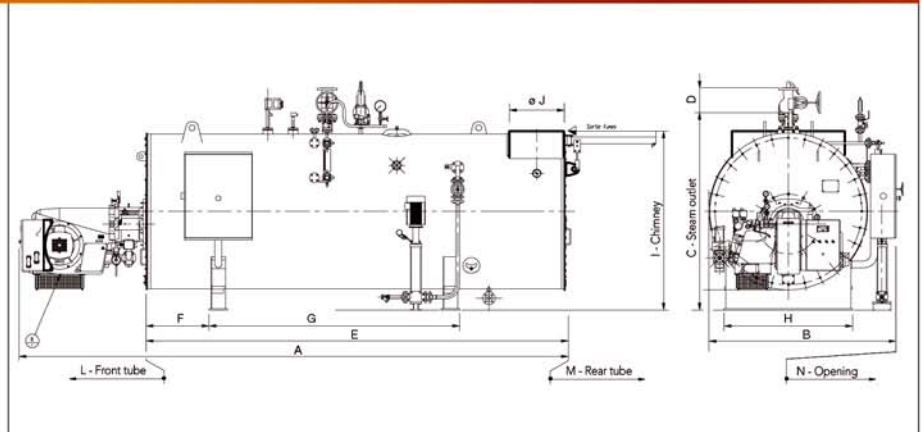


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Energy and the environment

To improve efficiency, reduce fuel consumption and electrical power consumption, and obtain very low NOx releases, BABCOCK WANSON offers the Ecosteam, pack on this boiler range further reducing the operating costs of this already efficient boiler range.



BWD boilers

types		10	15	20	25	30	35	40	50	60	70	80	100
steam output in t/h		1	1,5	2	2,5	3	3,5	4	5	6	7	8	10,4
output in kW		682	1026	1368	1708	2050	2392	2734	3418	4102	4786	5470	6793
dimensions in mm	A	5117	5369	5369	5369	5369	5837	6470	7410	7410	7775	7919	8674
	B	1898	1898	1898	2165	2165	2285	2285	2487	2487	2786	2786	3400
	C	1870	1870	1870	2150	2150	2280	2280	2480	2480	2875	2875	3250
	D	310	310	310	350	350	350	350	400	400	480	480	550
	E	4250	4250	4250	4250	4250	4970	4970	5910	5910	6300	6300	7030
	F	400	400	400	410	410	760	760	470	470	460	460	500
	G	2550	2550	2550	2550	2550	3100	3100	4190	4190	4200	4200	5440
	H	1167	1167	1167	1409	1409	1522	1522	1695	1695	1955	1955	2500
	I	1800	1800	1800	2080	2080	2110	2110	2410	2410	2737	2737	3080
	J	310	310	310	400	400	400	400	450	450	500	500	500x1000
	L	3150	3150	3150	3150	3150	4000	4000	4750	4750	5050	5050	5050
	M	2900	2900	2900	2800	2800	3500	3500	4400	4400	4700	4700	5050
	N	800	800	800	800	800	800	800	800	800	800	800	800
total water volume in litres		2936	2936	2936	4019	4019	5828	5828	8984	8984	13683	13683	21500
weight full in kg		7500	7500	7500	10000	10000	14000	14000	19960	19960	29500	29500	36100

Non contractual values

Quality of the equipment

BABCOCK WANSON is certified to ISO 9001; the boilers have been approved by many international organisations such as LLOYDS REGISTER, APAVE, BUREAU VERITAS, SGS, ASIT, BSI, GOST, ISPESL, ISQ, TUV, UDT...

The CE marking covers both the boiler and the burner, under the responsibility of one single manufacturer in accordance with 97/23-0038.

Notes :

the steam output is given for a feed water at 80 °C **
the dimensions and weights are given for boilers with 10 bar maximum pressure admissible standard working pressure: 10 • 12 • 15 • 18 • 20* • 22* bar

* may vary according to boiler type

** BWD 100 : feed water at 105 ° C



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