



Steam boilers since 1929

“Our history and know-how to answer to every new and challenging need of the Customer”



STEAM BOILERS
PB EU series



97/23/EC DIRECTIVE
“Pressure Equipment Directive”



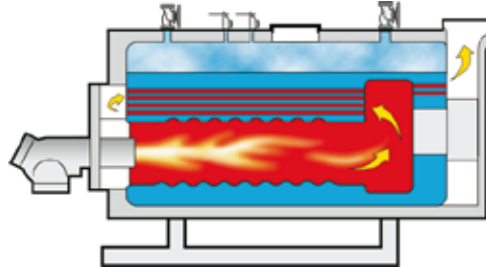
Quality System certified
in compliance with UNI EN ISO 9001:2000 Standards
Certif. n. 110883 by Lloyd's Register Quality Assurance Italy s.r.l.

FIRETUBE STEAM BOILERS (SHELL BOILERS) PB_EU SERIES

Our firetube boilers, for steam production, designed, manufactured and tested according to the European Directive 97/23/EC, have been designed both for "heavy-duty" uses and energy saving through the use of the most up-dated technological solutions as well as the most advanced manufacturing systems.

Main features:

Three pass



Wet back

Big content and strong circulation of water



Firetube with big diameter (Fox corrugated as a standard for boilers with ratings higher or equal to 10 t/h of steam, on request for lower ratings)

Tube plates with rounded edges



Expanded pipes

Maximum accessibility and maintainability



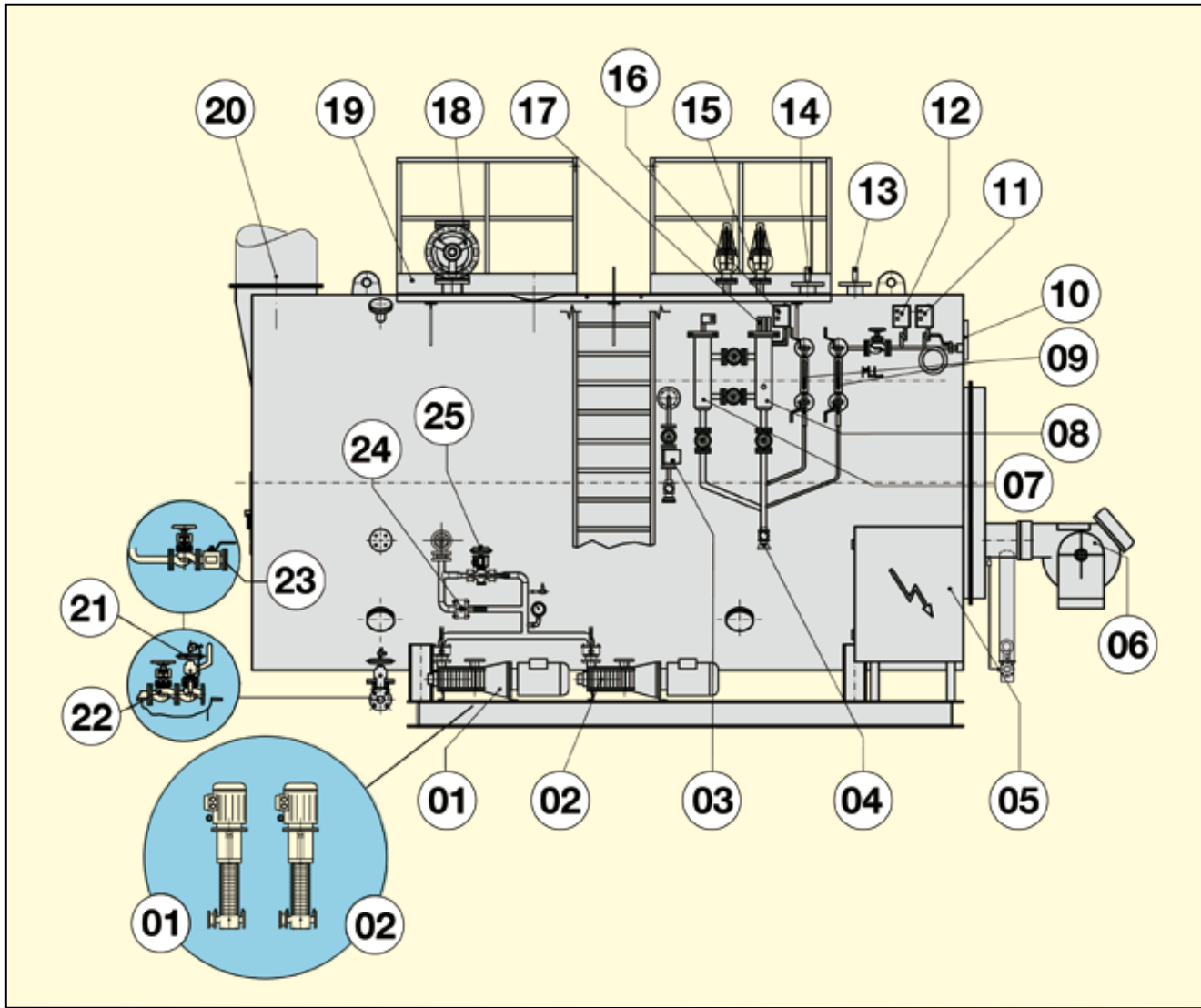
State of the Art technology of control and safety devices for easy and trouble-free boiler room management (including multichannel control device and PLC)

Assemblies designed, approved by Notified Body and manufactured, in accordance with the 97/23/EC Directive, for operation without supervision for 24 and 72 hours



Possibility on request to install an air preheater or an economizer, to guarantee the maximum energy saving

Standard configuration

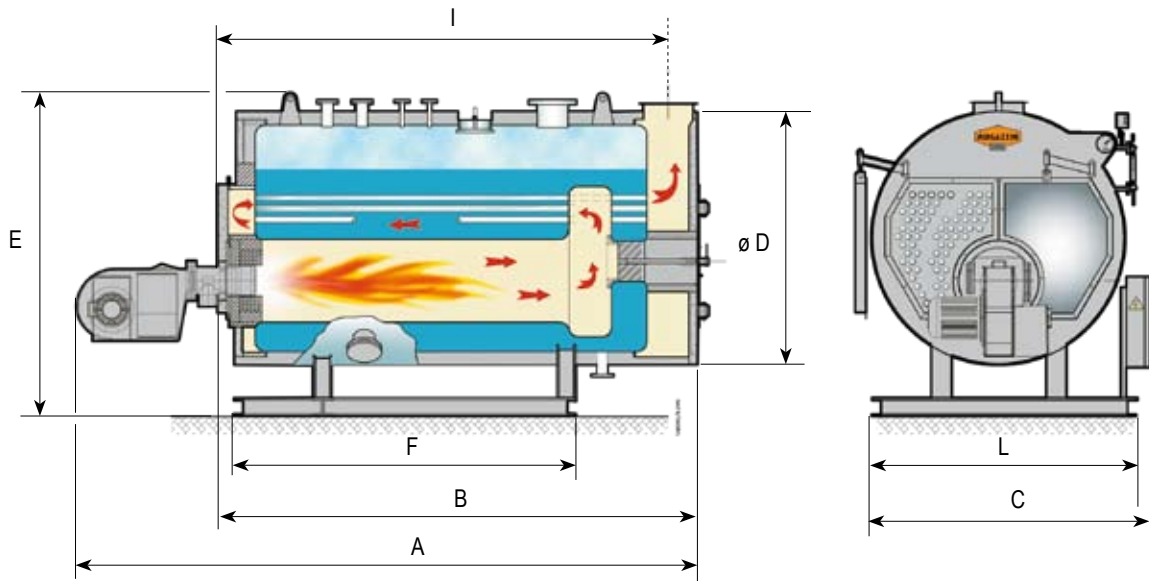


ITEM	DESCRIPTION	OPTIONAL
01	Feed water motor driven pump	
02	Second feed water motor driven pump	X
03	TDS control system	X
04	Sight glass of probes external chamber and levels	
05	Boiler control panel	
06	Burner	
07	External chamber of the probe of the level modulating regulation valve (included in the supply of item 25)	X
08	External chamber containing the probes of level on-off system	
09	Sight levels	
10	Steam pressure gauge	
11	Second flame pressure switch or modulating pressure trasducer	
12	Operation pressure switch	
13	CE marked low level safety probe (97/23/EC)	
14	CE marked low level safety probe (97/23/EC)	
15	Steam safety valves	
16	Safety pressure switch	
17	Boiler high level probe	X
18	Main steam valve	
19	Gangway	
20	Boiler smokes outlet	
21	Pneumatic automatic bottom blow down system (alternative to item 23)	X
22	Boiler blowdown on-off valve	
23	Ball valve for boiler fast blowdown	
24	By-pass valve to water modulating valve (included in the supply of item 25)	X
25	Water level modulating regulation valve	X

Connections and pipelines

Models	Steam output	Steam outlet 12 bar Item 18	Safety valves 12 bar Item 15		Feed water pump suction 12 bar Item 01-02	Boiler drain Item 21-22-23		Chimney diameter Item 20
			Inlet DN	Outlet DN		Drain valve - DN	Levels tank - DN	
PB EU	Kg/h	DN			DN			mm
20	2.000	65	32	50	32	40	25	400
30	3.000	80	32	50	32	40	25	450
40	4.000	100	40	65	40	40	25	500
50	5.000	100	40	65	40	40	25	550
60	6.000	125	40	65	40	40	25	550
80	8.000	125	40	65	40	40	25	600
100	10.000	150	50	80	65	40	25	750
120	12.000	150	50	80	65	40	25	750
150	16.000	150	65	100	65	40	25	800
200	20.000	200	65	100	65	40	25	850
250	25.000	2x150	80	120	80	50	25	1.000

Overall dimensions



Model	Steam rating (1)	Heat capacity	Capacity at the firetube	A	B	C	Ø D	E	F	I	L	Empty weight
PB EU	Kg/h	kW	kW	mm	mm	mm	mm	mm	mm	mm	mm	Kg
20	2.000	1.395	1.550	4.230	3.555	2.300	2.000	2.560	2.370	3.270	2.000	7.800
30	3.000	2.093	2.325	5.120	4.365	2.385	2.100	2.730	3.100	4.115	2.260	10.600
40	4.000	2.790	3.100	5.260	4.425	2.610	2.300	2.935	3.100	4.140	2.400	13.200
50	5.000	3.488	3.875	5.850	5.005	2.640	2.400	3.015	3.700	4.835	2.400	14.600
60	6.000	4.185	4.650	6.650	5.805	2.640	2.400	3.015	4.500	5.635	2.400	16.500
80	8.000	5.580	6.200	6.450	5.405	3.035	2.770	3.355	4.100	5.230	2.770	26.000
100	10.000	6.975	7.750	7.150	6.105	3.035	2.770	3.355	4.800	6.005	2.770	27.500
120	12.000	8.370	9.300	7.580	6.365	3.110	2.870	3.425	5.100	5.260	2.870	30.000
150	16.000	11.160	12.400	8.620	7.385	3.560	3.070	3.660	6.000	7.310	2.990	41.500
200	20.000	13.920	15.467	9.100	7.785	4.000	3.450	4.010	6.270	7.715	3.450	46.000
250	25.000	17.437	19.375	10.300	8.740	4.300	4.600	4.160	6.620	8.715	3.700	55.000

(1) Rated pressure 12 bar

According to the continuous search for improvements, MINGAZZINI S.R.L. could vary details included in this sheet without any advance notice



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