

Powermaster Series WB-A2-4P

A2 Four pass Wet-Back Steam Boilers



Boiler Data Sheet

MODEL BHP

Maximum allowable working pressure 200 psig

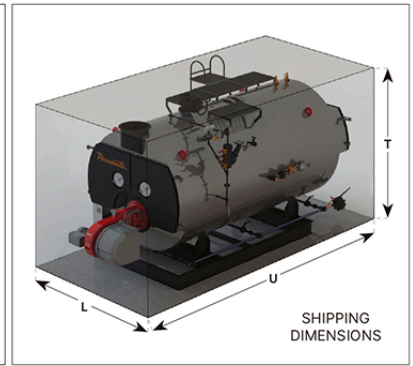
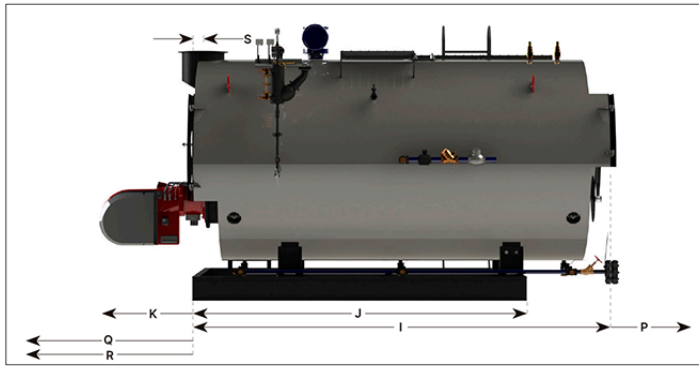
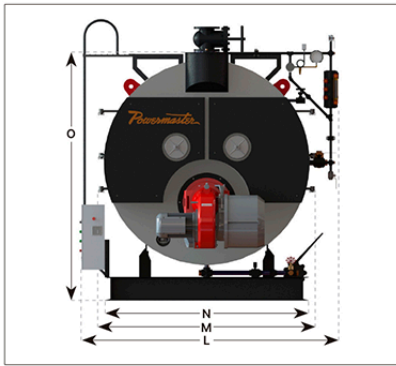
NOMINAL CAPACITIES		80	100	125	150	200	250	300	350	400	500	600	700	800	900	1000
Steam generation from and at 212 °F & 1 atm.	lb/hr	2,760	3,450	4,313	5,175	6,900	8,625	10,350	12,075	13,800	17,250	20,700	24,150	27,600	31,050	34,500
Boiler Output	MBH	2,678	3,348	4,185	5,022	6,695	8,369	10,043	11,717	13,391	16,738	20,086	23,434	26,781	30,129	33,477

FIRING RATE FOR BURNER SELECTION*

		80	100	125	150	200	250	300	350	400	500	600	700	800	900	1000
No. 2 Oil - Diesel (140,000 BTU/gal)	gal/hr	23.9	29.9	37.4	44.8	59.8	74.7	89.7	104.6	119.6	149.4	179.3	209.2	239.1	269.0	298.9
Natural Gas (1,000 BTU/ft3)	ft3/hr	3,348	4,185	5,231	6,277	8,369	10,461	12,554	14,646	16,738	20,923	25,107	29,292	33,476	37,661	41,845
LP Gas (91,500 BTU/gal)	gal/hr	36.6	45.7	57.2	68.6	91.5	114.3	137.2	160.1	182.9	228.7	274.4	320.1	365.9	411.6	457.3
Heavy Oil (150,000 BTU/gal)	gal/hr	22.3	27.9	34.9	41.8	55.8	69.7	83.7	97.6	111.6	139.5	167.4	195.3	223.2	251.1	279.0

WEIGHTS

		80	100	125	150	200	250	300	350	400	500	600	700	800	900	1000
Empty Boiler	lb	13,237	15,044	17,657	19,046	23,834	27,326	30,713	33,894	38,795	49,628	56,857	67,195	74,267	81,862	91,448
Flooded Boiler	lb	20,701	24,017	28,559	30,779	38,638	45,448	51,487	58,204	64,776	82,354	94,845	110,747	123,483	137,482	150,796



DIMENSIONS		80	100	125	150	200	250	300	350	400	500	600	700	800	900	1000
I Boiler Length	ft	10.66	11.75	12.30	12.53	13.78	14.60	15.09	16.08	17.52	18.44	19.55	20.96	21.72	23.03	23.95
J Base Length	ft	8.53	9.42	9.84	10.01	11.02	11.68	12.07	12.86	14.01	16.34	17.42	18.70	19.42	20.77	21.85
K Burner Length (estimated)**	ft	2.26	2.26	2.76	2.76	3.54	3.48	3.38	5.18	5.09	5.02	4.99	5.15	5.09	5.09	5.09
L Total Width	ft	7.32	7.51	7.91	8.10	8.60	9.06	9.48	9.74	9.88	10.60	10.99	11.52	11.91	12.17	12.27
M Limit Width***	ft	6.30	6.50	6.89	7.09	7.58	8.04	8.46	8.73	8.86	9.58	9.97	10.50	10.89	11.15	11.25
N Base Width	ft	5.48	5.68	6.07	6.27	6.76	7.22	7.64	7.91	8.04	8.76	9.15	9.68	10.07	10.33	10.43
O Total Height (to steam outlet)	ft	6.79	6.99	7.55	7.78	8.27	8.76	9.19	9.45	9.74	10.50	10.89	11.42	11.81	12.11	12.43
P Back access clearance for maintenance	ft	2.74	2.84	3.03	3.13	3.38	3.61	3.82	3.95	4.02	4.38	4.58	4.84	5.04	5.17	5.22
Q Front access clearance for maintenance	ft	2.74	2.84	3.03	3.13	3.38	3.61	3.82	3.95	4.02	4.38	4.58	4.84	5.04	5.17	5.22
R Front flux tubes exchange clearance	ft	8.30	9.38	9.81	10.01	11.09	11.68	12.01	12.99	14.11	14.86	15.94	17.03	17.62	18.96	19.88
S Smoke stack center to back of boiler	ft	-0.23	-0.23	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.10	-0.10	-0.10	0.00	0.10
T Shipping height	ft	7.28	7.51	8.04	8.23	8.76	9.22	9.61	9.91	10.20	10.89	11.32	11.81	12.24	12.47	12.83
U Estimated shipping length (includes burner)	ft	13.09	14.17	15.26	15.45	17.49	18.24	18.67	21.39	22.77	23.62	24.70	26.28	26.94	28.28	29.20

CONNECTIONS

		80	100	125	150	200	250	300	350	400	500	600	700	800	900	1000
Smoke Stack Diameter	in	12	12	14	14	16	18	20	20	22	24	26	28	30	32	34
Main steam outlet diameter	in	3	3	4	4	4	6	6	6	6	8	8	8	8	10	10
Boiler feedwater diameter	in	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	2	2	2	2	2	2	2	2.5 ****	2.5 ****	3
Bottom blowdown diameter	in	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2	2	2	2	2	2	2
Level Control blowdown diameter	in	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Surface blowdown diameter	in	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

FOUNDATION BASES

		80	100	125	150	200	250	300	350	400	500	600	700	800	900	1000
Total width of base	ft	6.20	6.40	6.79	6.99	7.48	7.94	8.37	8.63	8.76	9.48	9.88	10.40	10.79	11.06	11.15
Distance between bases	ft	4.23	4.43	4.82	5.02	5.51	5.97	6.40	6.66	6.79	7.51	7.91	8.43	8.83	9.09	8.40
Width of each bases	ft	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	1.38
Length of bases	ft	9.19	10.07	10.50	10.66	11.68	12.34	12.73	13.52	14.67	16.99	18.08	19.36	20.08	21.42	22.51
Height of bases	ft	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66

* The actual firing rate depends on fuel quality, burner selection and adjustment, combustion controls, operating pressure, etc. For an estimated calculation of a specific configuration contact your Powermaster salesman.

** Dimensions varies based on burner selection

*** Width for freight clearance

**** The boiler shell has a 2.5 in coupling. If the boiler is acquired with feed-water piping it will be delivered with a reduction and 2 in valves.

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 Creator: SZ
 Revision: LN

Powermaster Boilers reserves the right to make modifications to this sheet without notice. All dimensions are approximate and indicative only.

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