

# Powermaster Series WB-A2-4P

## A2 Four pass Wet-Back Steam Boilers



### Boiler Data Sheet

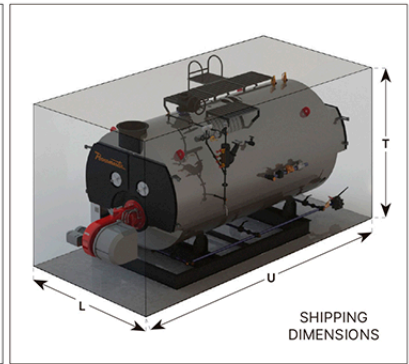
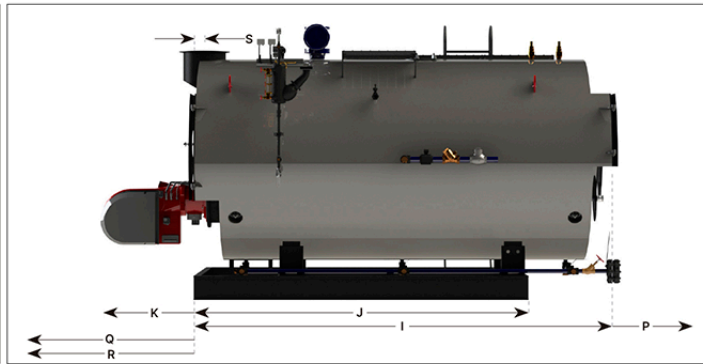
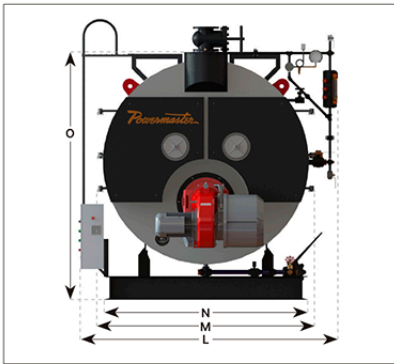
MODEL BHP

Maximum allowable working pressure 15 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	11,195	12,745	15,091	16,341	19,756	22,767	25,706	28,455	31,449	38,581	45,497	52,576	58,193	64,401	68,848	
Flooded Boiler	lb	18,691	21,749	26,026	28,109	34,672	41,013	46,614	52,906	57,706	71,615	83,826	96,670	108,024	120,683	128,893	



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			12	12	14	14	16	18	20	20	22	24	26	28	30	32	34
Smoke Stack Diameter	in		12	12	14	14	16	18	20	20	22	24	26	28	30	32	34
Main steam outlet diameter	in		6	8	8	8	10	10	12	12	12	12	12	12	12	12	12
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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Powermaster Boilers reserves the right to make modifications to this sheet without notice. All dimensions are approximate and indicative only.

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