

# Powermaster Series WB-A2-4P

## A2 Four pass Wet-Back Steam Boilers



### Boiler Data Sheet

MODEL BHP

Maximum allowable working pressure 250 psig

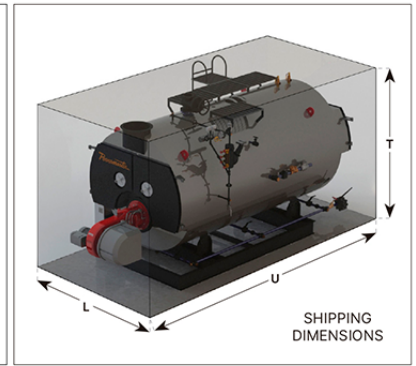
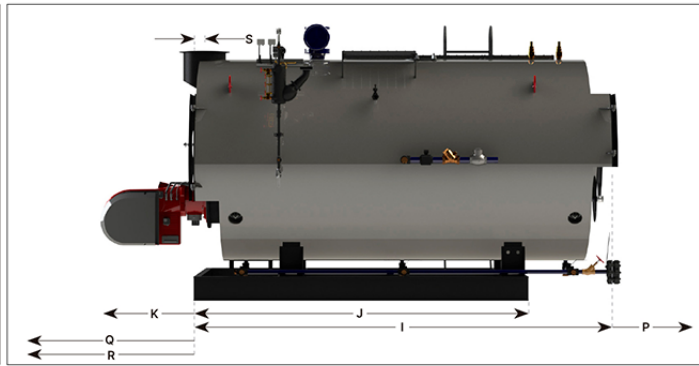
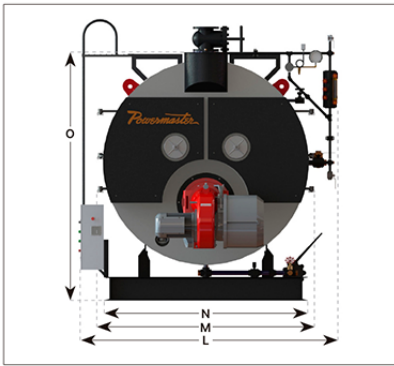
NOMINAL CAPACITIES		80	100	125	150	200	250	300	350	400	500	600	700	800	900	1000
Steam generation from and at 212 °F & 1 atm.	lb/hr	2,760	3,450	4,313	5,175	6,900	8,625	10,350	12,075	13,800	17,250	20,700	24,150	27,600	31,050	34,500
Boiler Output	MBH	2,678	3,348	4,185	5,022	6,695	8,369	10,043	11,717	13,391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

#### FIRING RATE FOR BURNER SELECTION\*

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

Empty Boiler	lb	13,781	15,677	18,334	19,758	26,279	30,060	33,713	37,386	42,490	53,837	62,982	72,574	82,221	98,608	104,805
Flooded Boiler	lb	21,202	24,597	29,178	31,429	41,008	48,100	54,395	61,575	68,354	86,430	100,703	115,952	131,062	153,821	163,724



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

Smoke Stack Diameter	in	12	12	14	14	16	18	20	20	22	24	26	28	30	32	34
Main steam outlet diameter	in	2 1/2	2 1/2	3	3	4	4	4	4	6	6	6	6	6	8	8
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	1	1	1	1	1	1	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4
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

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.

Date: AGO 22, 2022  
 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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