



HURST

BOILER & WELDING CO., INC.

AVAILABLE WITH LOW NOX

HURST SERIES 100

3-PASS FIREBOX DESIGN
with Wet Back Firetube Construction

LOW PRESSURE BOILER

Capacities from 7.4 to 650 BHP.
248 to 21759 MBTU/HR.

STEAM

Pressure 15 max PSI.

HOT WATER

Section IV
30-60, 100 PSI.



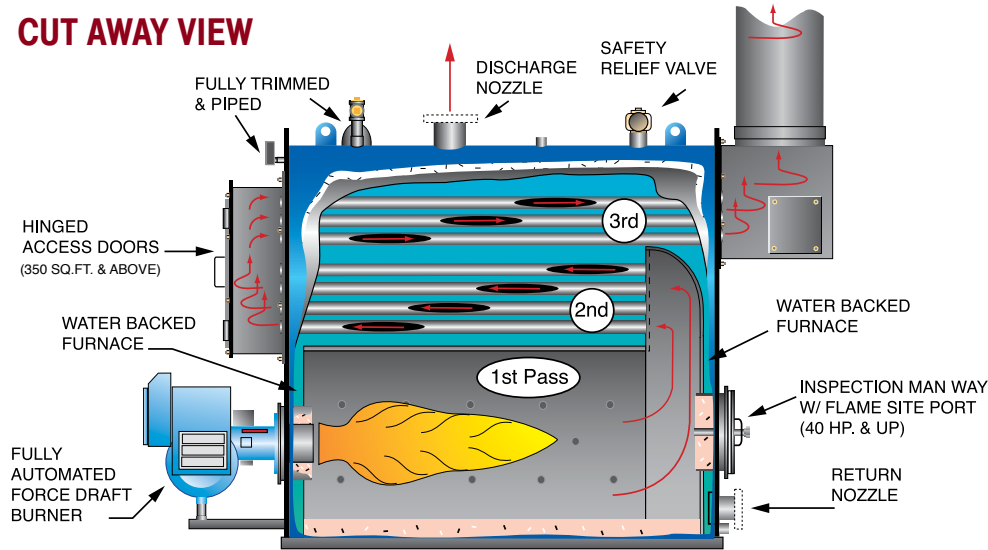
SKID MOUNTED
MODULAR PACKAGED

*"The 100 Series has a large furnace volume
for Ultimate Combustion Efficiency."*

HURST PERFORMANCE SERIES BOILERS

SERIES 100

CUT AWAY VIEW



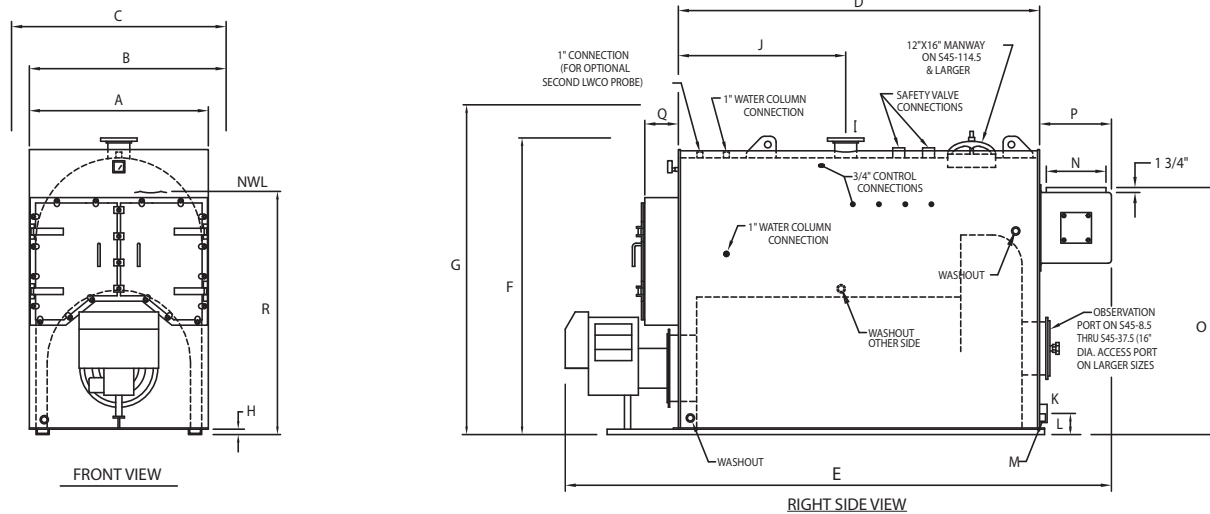
Inspected and registered with the National Board of Boiler & Pressure Vessel Inspectors.



Designed, constructed and stamped in accordance with the requirements of the ASME Boiler Codes.

SPECIFICATIONS			SERIES 100 MODEL NO.			S1-7.4	S1-11	S1-13.4	S1-17.2	S1-21	S1-25	S1-30	S1-40	S1-45	S1-50	S1-60	S1-70	S1-81	S1-92	S1-101
BOILER HORSE POWER				7.4	11	13.4	17.2	21	25	30	40	45	50	60	70	82.2	91.6	101		
STEAM OUTPUT		FROM & @212° F	LBS/HR	255	380	462	593	725	862	1035	1380	1552	1725	2070	2415	2835	3160	3484		
GROSS OUTPUT			MBH	248	368	449	576	703	837	1004	1339	1506	1674	2009	2343	2752	3066	3381		
FIRING RATE, GAS		1,000 BTU	CFH	310	460	561	720	879	1046	1255	1673	1883	2092	2510	2929	3439	3832	4226		
FIRING RATE, #2 OIL		140,000 BTU	GPH	2.2	3.2	4	5.1	6.2	7.4	8.9	12	13.4	15	17.9	20.9	24.6	27	30.2		
FIRING RATE, HEAVY OIL		150,000 BTU	GPH	NA	NA	NA	NA	NA	NA	NA	NA	NA	14	16.7	19.5	22.9	25.6	28.2		
TOTAL HEATING SURFACE		FIRESIDE	SQ.FT.	37	55	67	86	105	125	150	200	225	250	300	350	411	458	505		
RADIANT HEATING SURFACE		FIRESIDE	SQ.FT.	17.4	22.7	23.5	28.7	32.6	34.2	39.3	48	48.6	55	60	77	87	90.5	92		
FURNACE VOLUME			CU.FT.	6.8	7.3	9.2	12.4	14.8	18.7	22.5	27.4	30.7	33	40.6	52	67	68	73		
FURNACE HEAT RELEASE		MBH/CU.FT.		46	63	61	58	60	56	56	61	62	64	62	56.3	51	57	58		
A	WIDTH WITHOUT TRIM			IN	28	30	30	30	30	36	36	42	42	42	42	48	48	54	54	A
B	WIDTH WITH TRIM		APPROX	IN	35	37	37	37	37	43	43	49	49	49	49	55	55	61	61	B
C	WIDTH WITH GAS TRAIN		APPROX	IN	47	49	49	49	49	55	55	61	61	61	61	67	67	73	73	C
D	LENGTH OVER TUBE SHTS.			IN	31	31	37	49	60	57	68	58	65	70	85	73	85	83	89	D
E	OVERALL LENGTH	with/ STD.BURNER	IN	78	78	84	96	107	106	117	113	120	125	140	130	147	148	154	154	E
F	HEIGHT WITHOUT TRIM			IN	55.75	63.63	63.63	63.63	63.63	63	63	75.5	77.5	77.5	77.5	90	90	90	90	F
G	HEIGHT WITH TRIM		APPROX	IN	60	70	70	70	70	70	83	85	85	85	85	97	97	99	99	G
H	BASE HEIGHT			IN	2	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	H
I	SUPPLY SIZE			IN	3	4	4	4	4	4	4	4	6	6	6	6	6	6	6	I
J	SUPPLY LOCATION			IN	13.5	17	18.5	24.5	24.5	25	30	28.5	30.5	30.5	36.5	31.5	36.5	39.5	42.5	J
K	RETURN SIZE			IN	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	K
L	RETURN LOCATION			IN	6	5	5	5	5	6.25	6.25	6.38	6.38	6.38	6.38	6.38	6.38	6.38	6.38	L
M	DRAIN/ BLWD. SIZE			IN	1	1	1	1	1	1	1.25	1.25	1.25	1.25	1.5	1.5	1.5	1.5	1.5	M
N	EXHAUST STACK DIA.		O.DIA.	IN	6	8	8	8	8	10	10	12	12	12	12	14	14	18	18	N
O	STACK HEIGHT			IN	42.38	52.75	52.75	52.75	52.75	50.5	50.5	62	62	62	62	72.5	72.5	74.63	74.63	O
P	REAR SMOKEBOX DEPTH			IN	10	12	12	12	12	14	14	16	16	16	16	18	18	22	22	P
Q	FRONT SMOKEBOX DEPTH			IN	6.75	7.25	7.25	7.25	7.25	8.25	8.25	10.25	10.25	10.25	10.25	11	11	11	11	Q
R	NORMAL WATER LINE		STEAM	IN	40	51	51	51	51	50.5	50.5	61	61	61	61	71	71	71	71	R
WATER VOLUME		STEAM	GAL.	50	82	126	143	156	176	217	257	274	289	355	368	454	479	508		
WATER VOLUME		FLOODED	GAL.	72	102	150	175	195	218	267	312	336	356	436	471	574	608	647		
SHIPPING WEIGHT APPROX.		STD.TRIM	LBS.	1500	1700	1800	2000	2100	3100	3350	4000	4400	5300	5700	7000	8400	9100	9500		
BOILER HORSEPOWER					7.4	11	13.4	17.2	21	25	30	40	45	50	60	70	82.2	91.6	101	

NOTE: CONNECTIONS UP TO 4" SIZE ARE NPT. THREAD, CONN'TNS. 6" & ABOVE ARE 150# ANSI FLANGE.
NOTE: 458 SQ.FT. AND LARGER HAS 12" X 16" MANWAY



	S1-125	S1-150	S1-165	S1-180	S1-200	S1-232	S1-265	S1-332	S1-400	S1-500	S1-620	S1-650
	125	150	165	180	200	232	265	332	400	500	620	650
	4312	5175	5693	6210	6900	8004	9142	11454	13800	17250	21390	22425
	4184	5021	5523	6026	6695	7766	8871	11114	13390	16737	20754	21759
	5231	6277	6904	7532	8369	9708	11089	13892	16738	20922	25943	27198
	37.4	44.8	49.3	53.8	59.8	69.3	79.2	99.2	119.6	149.4	185.3	194.3
	34.9	41.8	46	50.2	55.8	64.7	73.9	92.6	111.6	139.5	173	181.3
	625	750	830	900	1000	1160	1325	1660	2000	2500	3075	3250
	112	121	132	140	150	166	179	207	233	280	327	342
	92	116	132	142	155	188.7	210	261	329	407	502	535
	57	54	53	53	54	52	53	53	51	52	52	51
A	54	66.75	66.75	66.75	66.75	72	72	72	84	84	84	84
B	61	74	74	74	74	79	79	79	91	91	91	91
C	73	86	86	86	86	93	93	93	105	105	105	105
D	109	103	113	121	133	109	121	151	136.5	169.5	209.5	223.5
E	174	175	185	193	205	183	195	226	230	263	308	322
F	90	102	102	102	102	132.88	132.88	132.88	149.25	149.25	149.25	149.25
G	99	113	113	113	113	144.38	144.38	144.38	156	156	156	156
H	1.63	1.63	1.63	1.63	1.63	8	8	8	8	8	8	8
I	6	8	8	8	8	8	8	10	10	10	12	12
J	50.5	36.5	48.5	42.5	57.5	39.5	39.5	42.5	50.75	65.25	82.75	92.75
K	4	6	6	6	6	6	6	8	8	8	10	10
L	6.38	8	8	8	8	15.75	15.75	15.75	15.75	15.75	16.75	16.75
M	2	2	2	2	2	2	2	2	2	2	2	2
N	18	20	20	20	20	22	22	22	28	28	28	28
O	74.63	85.75	85.75	85.75	85.75	112.38	112.38	112.38	123.88	123.88	123.88	123.88
P	22	24	24	24	24	26	26	26	32	32	32	32
Q	11	13.25	13.25	13.25	13.25	15.25	15.25	15.25	18	18	18	18
R	71	80.25	80.25	80.25	80.25	107.5	107.5	107.5	122	122	122	122
	624	603	858	913	1005	1160	1195	1557	1801	2267	2765	2955
	794	856	1136	1211	1333	1485	1595	2056	2400	3013	3690	3942
	10200	12000	13500	14750	16000	19000	21000	24000	29000	38000	45000	49000
	125	150	165	180	200	232	265	332	400	500	620	650

ALL DIMENSIONS ARE IN INCHES
CERTIFIED DRAWING AVAILABLE UPON REQUEST.
DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.

BOILER DESIGN: Three-Pass "FireBox" design with stress relieving "Wet Back" Firetube construction. Pressure designs for steam are
 ■ 7.4-650 HP } 15 psi. max.
 Built to *Section-IV ASME Code*.
 Hot Water pressures models are from
 ■ 7.4-332 HP } 100 psi. max.
 ■ 400- 650 HP } 60 psi. max.
 Built to *Section-IV ASME Code*. Hot water temperature not to exceed 250°F at or near the outlet of boiler.

STEAM MODEL TRIM: Safety relief valve, operating pressure control, high limit pressure control with manual reset, steam pressure gauge with syphon, combination pump control and low water cut-off with gauge glass assembly and drain valve, auxiliary low water cut-off with manual reset.

HOT WATER MODEL TRIM: Safety relief valve, operating temperature control, high limit temperature control with manual reset, combination pressure & temperature gauge, low water cut-off control with manual reset.

BURNER: Matched UL listed "forced draft" power burners with factory pre-piped, wired and tested fuel configurations for natural gas, propane (LP) gas, No. 2 (diesel) oil, or combination of both gas/oil.

HURST PERFORMANCE SERIES BOILERS

SERIES 100

- Efficient 3-Pass Design
- Flexibility – Gas, Oil, Heavy Oil, and Combination Gas/Oil
- ASME Code Constructed & Stamped for 15 PSI Steam / 30-100 PSI Water
- Registered with the National Board of Boiler Inspectors
- Competitively Priced, Easily Maintained, Designed for Efficiency
- Large Furnace Volume for Ultimate Combustion Efficiency
- Unified Refractory Base Floor
- Steel Skids and Lifting Eyes
- Low Heat Release - 5 sq.ft./hp.
- Factory Insulated - 2" Mineral Wool
- Factory Jacketed & Painted
- Easy Access to Fireside Surfaces
- Ample Waterside Clean-Out Openings
- Fully Automatic Operation
- U.L. Listed, Forced Draft Burners
- Wet Back Construction
- U.L. Listed Controls & Trim
- Factory Test Fired
- Front & Rear Flame Observation Ports



All units are factory packaged with operating controls, relief valves, burner and fuel train. Installation is made simple in that only service connections are needed to place in operation. Flexible burner systems are available for firing natural gas, LP gas, #2 oil, heavy oil, or combinations. High density 2" mineral wool insulation assures lower radiant heat loss. In addition to meeting the requirements of U.L., burner systems are optionally available to meet the requirements of FM, IRI, MILITARY and others.

Standard Steam Trim

- Operating & high limit pressure control
- Modulating pressure control (when appl.)
- Water column with gauge glass, combination low water cut-off & pump control
- Probe Aux, L.W.C.O. w/ manual reset steam pressure gauge, syphon & test cock
- Water column drain valve
- Safety relief valve(s) per ASME Code

Standard Water Trim

- Operating & high limit temperature control
- Modulating temperature control (when appl.)
- Probe type low water cut-off control w/ manual reset
- Combination pressure & temperature gauge
- Hot water return baffle for shock resistance
- Safety relief valve(s) per ASME Code

HBC-09508
08/2014



hurstboiler.com

HURST BOILER
& Welding Co., Inc.

100 Boilermaker Lane • Coolidge, GA 31738-0530
Tel: (229) 346-3545 • Fax: (229) 346-3874
email: info@hurstboiler.com