HURST

BOILER & WELDING CO., INC.

AVAILABLE WITH LOW NOX

HURST SERIES 4VT

4-PASS VERTICAL BOILER
Compact Tubeless Design

HIGH PRESSURE BOILER

Capacities from 6 to 100 BHP.
201 to 3450 MBTU/HR.

STEAM
Pressures to 15-250 PSI.

HOT WATER
Section IV
30-160 PSI.

SKID MOUNTED
MODULAR PACKAGED

"Heat transfers evenly ... eliminating the metal stress due to uneven heat transfer common in other designs."

HURST PERFORMANCE SERIES BOILERS

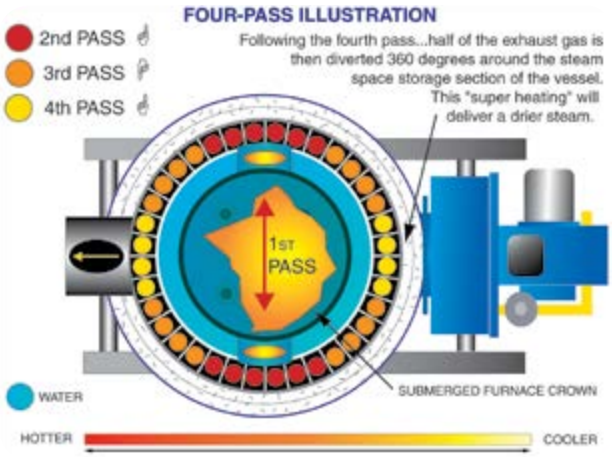


Illustration Shows the Progression of Four Gas Paths Around the Circumference of the Boiler Shell.

First-Pass in furnace pipe.

Second-Pass follows path through fins along outside of shell.

Third-Pass follows path through fins along outside of shell.

Fourth-Pass follows path through fins along outside of shell, then merges together to exit exhaust stack.

MORE STEAM STORAGE

- Capacity to handle swing and spike loads – quick recovery quick response.
- The larger steam-release surface is calmer, reducing carry over of unevaporated water.
- The resulting drier steam also reduces system scaling.
- In addition, dry steam helps to eliminate unnecessary extra condensate. Energy and fuel are saved. Longer life results.

DURABILITY

- Fire does not pass under the bottom mud ring, eliminating the blistering that occurs with other designs.
- Cooler furnace gases are located at the bottom of the vessel where scale is most likely to occur. Baking of scale is alleviated.

EASIER SERVICE

- Fireside fin access in top and bottom.
- Access opening above feed water inlet for easy cleaning.
- Thoughtfully engineered with the owner in mind.
- No heavy doors or covers to complicate service procedures.

SIMPLE INSTALLATION

- Unit is skid mounted for easy handling.
- Factory wired with wiring schematic included in the manual.
- Efficient and space saving layout.

FOUR-PASS DESIGN

- The gases leaving the furnace are split four ways and travel through four individual serpentine fin passages to the stack outlet.
- Each quarter of the heat travels its own four-pass path (see illustration).
- Heat transfers evenly to the fins and boiler shell, eliminating the metal stress due to uneven heat transfer common in other designs.

AVAILABLE ACCESSORIES

- The 4VT is available in a complete package with an optional compact skid-mounted feedwater system for a finished wired and piped, ready to-fire.
- Blowdown separators are also available.

INSPECTION ACCESS

- The waterside openings are located in the most effective positions. The lower handholes offer far better access for both cleanout and inspection.
- These more functional locations avoid the obstructing handhole "tunnels" used by our competitors.
- The top opening offers a strategic view of the furnace crown sheet.

OPTIONS AND ALTERNATIVES

- We specialize in customizing your boiler. The 4VT can be equipped to suit a wide variety of installations and specifications. We will help direct you to the most cost effective models and features.

LOW NOX

Pre Certified

Hurst Pre Certified 4VT LOW NOx boilers can achieve less than 30 PPM NOx at 3% O2 without the need for induced flue gas recirculation.

4VT LN Series

Shown with
PowerFlame Burner

Pre Certified Under SCAQMD RULE 1146.2

TURBULENT FLAME

- Heat is forced down, with the fire whirling and spinning against its natural flow. This pattern enhances recirculation, mixing and heat transfer, driving more energy into the water for greater fuel-to-steam efficiency.

RELIABILITY

- The furnace crown is water cooled, eliminating refractory breakdown inherent in units of inferior design.
- No fire tubes, water coils or “in the fire” mud rings to burnout.

“EYE HIGH” BURNER

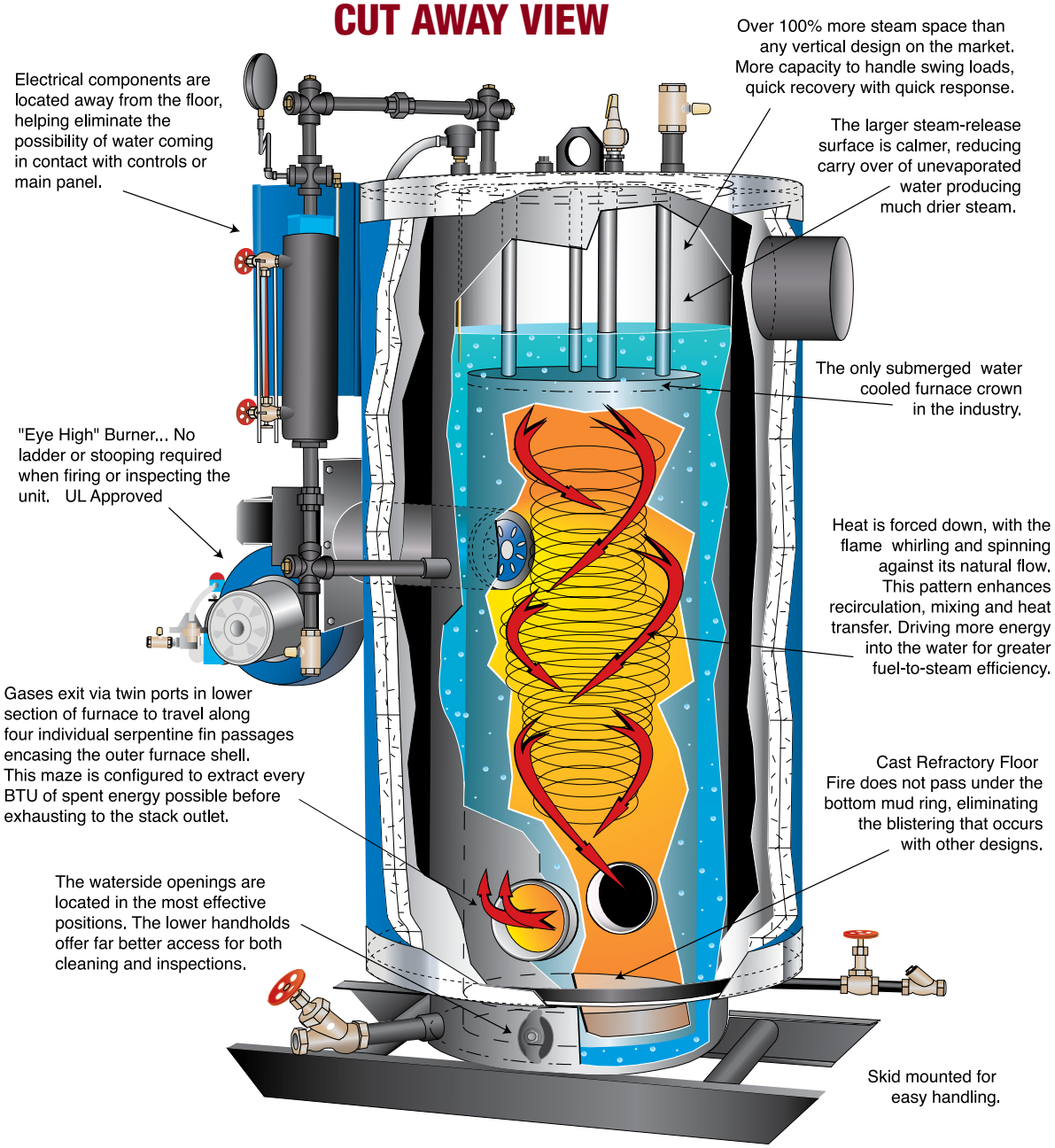
- No step ladder is needed to service.
- No bending over or sitting on the floor.
- The air intake is located in the center of the unit so dust is not pulled from the floor.

SAFETY

- Electrical components are located away from the floor, helping eliminate the possibility of water coming in contact with electricity.
- Boiler built to ASME Section 1, High Pressure Boiler Code.
- CSD-1 approved.
- Burner/Boiler UL Packaged

FOUR PASS EFFICIENCY
ALL STEEL CONSTRUCTION

CUT AWAY VIEW

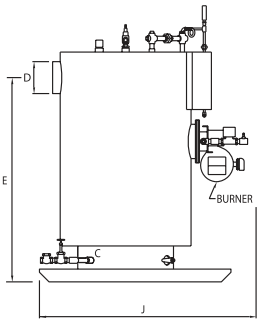


HURST

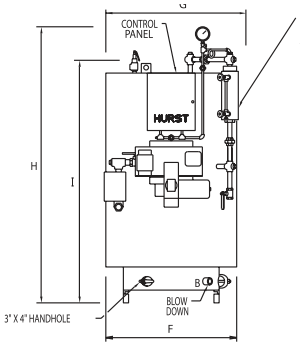
HURST PERFORMANCE SERIES BOILERS

Skid Packaged Options

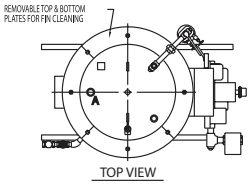
- Feedwater System
- Water Softener
- Blow Down Flash Separator
- Chemical Mix Systems



SIDE VIEW



FRONT VIEW



TOP VIEW

BOILER SPECIFICATIONS

	BOILER HORSEPOWER			6	10	15	20	25	30	40	50	60	70	80	100	
	STEAM OUTPUT	FROM & @ 212° F	LBS/HR KG/HR	207 94	345 156	518 235	690 313	863 391	1035 469	1380 626	1725 782	2070 939	2415 1095	2760 1252	3450 1565	
	GROSS OUTPUT	MBH	BTU X 1000 KCAL X 1000	201 51	335 84	502 127	670 169	837 211	1004 253	1339 337	1674 422	2009 506	2343 590	2678 675	3348 844	
	INPUT REQUIRED		BTU X 1000 KCAL X 1000	251 63.3	418 105	628 158	837 211	1046 264	1255 316	1674 422	2092 527	2511 633	2929 738	3348 844	4184 1054	
	FIRING RATE NAT. GAS	1000 BTU/ FT	FT^3/HR M^3/HR	251 7.1	418 11.8	628 17.8	837 23.7	1046 29.6	1255 35.5	1674 47.4	2092 59.2	2511 71.1	2929 82.9	3348 94.8	4184 118.5	
	FIRING RATE LP GAS	91,500 BTU/GAL	GPH LPH	2.7 10.4	4.6 17.3	6.9 26	9.1 34.6	11.4 43.3	13.7 51.9	18.3 69.2	22.9 86.6	27.4 103.9	32 121.2	36.6 138.5	45.7 173.1	
	FIRING RATE OIL #2	140,000 BTU/GAL	GPH LPH	1.8 6.8	3 11.3	4.5 17	6 22.6	7.5 28.3	9 33.9	12 45.3	14.9 56.6	17.9 67.9	20.9 79.2	23.9 90.5	29.9 113.1	
A	STEAM OUTLET	HIGH PRESS.	IN MM	1 25	1 25	1 25	1 25	1.25 32	1.5 38	2 51	2.5 64	2.5 64	2.5 64	2.5 64	3 76	A
A	STEAM OUTLET	LOW PRESS.	IN MM	2 51	2 51	2 51	3 76	3 76	4 102	4 102	6 152	6 152	6 152	6 152	6 152	A
B	BLOWDOWN	150 PSI.	IN MM	1 25	1 25	1 25	1 25	1 25	1.25 32	1.25 32	1.25 32	1.25 32	1.25 32	1.25 32	1.25 32	B
B	BLOWDOWN	LOW PRESS.	IN MM	1 25	1 25	1 25	1 25	1 25	1.25 32	1.25 32	1.25 32	1.25 32	1.5 38	1.5 38	1.5 38	B
C	FEEDWATER		IN MM	.75 19	.75 19	.75 19	.75 19	.75 19	1 25	1 25	1 25	1 25	1 25	1 25	1.25 32	C
D	STACK DIA.		IN MM	8 203	8 203	8 203	8 203	8 203	10 254	12 305	12 305	12 305	14 356	14 356	14 356	D
E	STACK HEIGHT		IN MM	52 1321	52 1321	58 1473	64 1626	64 1626	63 1600	73 1854	83 2108	83 2108	82 2083	82 2083	82 2083	E
F	WIDTH WITHOUT TRIM		IN MM	35.2 894	35.2 894	35.2 894	35.2 894	35.2 894	43.7 1111	53.5 1359	59 1499	59 1499	68 1727	68 1727	78.2 1986	F
G	WIDTH WITH TRIM		IN MM	42 1067	42 1067	42 1067	42 1067	42 1067	49.5 1257	58.5 1486	63 1600	63 1600	72 1829	72 1829	82 2083	G
H	OVER ALL HEIGHT		IN MM	79 2007	79 2007	85 2159	85 2159	85 2159	85 2159	93 2362	105 2667	105 2667	106 2692	106 2692	106 2692	H
I	HEIGHT WITHOUT TRIM		IN MM	65 1651	65 1651	71 1803	77 1956	77 1956	77 1956	88 2235	98 2489	98 2489	98 2489	98 2489	98 2489	I
J	LENGTH		IN MM	60 1524	60 1524	60 1524	60 1524	60 1524	78 1981	87 2210	115 2921	120 3048	120 3048	120 3048	127 3226	J
	SHIPPING WEIGHT	DRY	LBS KG	1931 876	1931 876	2101 953	2181 989	2181 989	2621 1189	4852 2201	6680 3030	6680 3030	9225 4184	9225 4184	11205 5082	
	WATER CONTENT - WATER SERIES	FLOODED	GALS LITERS	62 235	62 235	68 257	79 299	79 299	113 428	208 787	313 1185	313 1185	440 1665	440 1665	591 2237	
	WATER CONTENT - STEAM SERIES	NWL	GALS LITERS	48 182	48 182	54 204	54 204	54 204	73 267	122 462	158 598	158 598	196 742	196 742	290 1098	
	BOILER HORSEPOWER			6	10	15	20	25	30	40	50	60	70	80	100	

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.

- CONNECTIONS OVER FOUR INCHES ON LOW PRESSURE MODELS ARE #150 FLANGES. ALL OTHER CONNECTIONS ARE NPT.
- DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE. CERTIFIED DRAWING AVAILABLE UPON REQUEST.

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