4-PASS VERTICAL BOILER
Compact Tubeless Design

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

SKID MOUNTED
MODULAR PACKAGED

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

HURST PERFORMANCE SERIES BOILERS
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
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.
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

CUT AWAY VIEW
- Over 100% more steam space than any vertical design on the market. More capacity to handle swing loads, quick recovery with quick response.
- The larger steam-release surface is calmer, reducing carry over of unevaporated water producing much drier steam.
- The only submerged water cooled furnace crown in the industry.
- Heat is forced down, with the flame 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.
- Cast Refractory Floor. Fire does not pass under the bottom mud ring, eliminating the blistering that occurs with other designs.
- Skid mounted for easy handling.

FOUR PASS EFFICIENCY
ALL STEEL CONSTRUCTION

"Eye High" Burner... No ladder or stooping required when firing or inspecting the unit. UL Approved

Gases exit via twin ports in lower section of furnace to travel along four individual serpentine fin passages encasing the outer furnace shell. This maze is configured to extract every BTU of spent energy possible before exhausting to the stack outlet.

The waterside openings are located in the most effective positions. The lower handholds offer far better access for both cleaning and inspections.
<table>
<thead>
<tr>
<th>BOILER SPECIFICATIONS</th>
<th>6</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>25</th>
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<tr>
<td>BOILER HORSEPOWER</td>
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<td>STEAM OUTPUT FROM &amp; @</td>
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<td>207</td>
<td>345</td>
<td>518</td>
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<td>502</td>
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<td>1339</td>
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<td>kcal/HR KJ/HR</td>
<td>51</td>
<td>84</td>
<td>127</td>
<td>169</td>
<td>211</td>
<td>253</td>
<td>337</td>
<td>422</td>
<td>506</td>
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<td>628</td>
<td>837</td>
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<tr>
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<td>BOILER &amp; PRESSURE VESSEL</td>
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<thead>
<tr>
<th>Skid Packaged Options</th>
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<tr>
<td>Feedwater System</td>
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<tr>
<td>Blow Down Flash Separator</td>
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<tr>
<td>Water Softener</td>
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<td>Chemical Mix Systems</td>
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</table>

| 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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