

## Under Feed Stoker

Combustion System

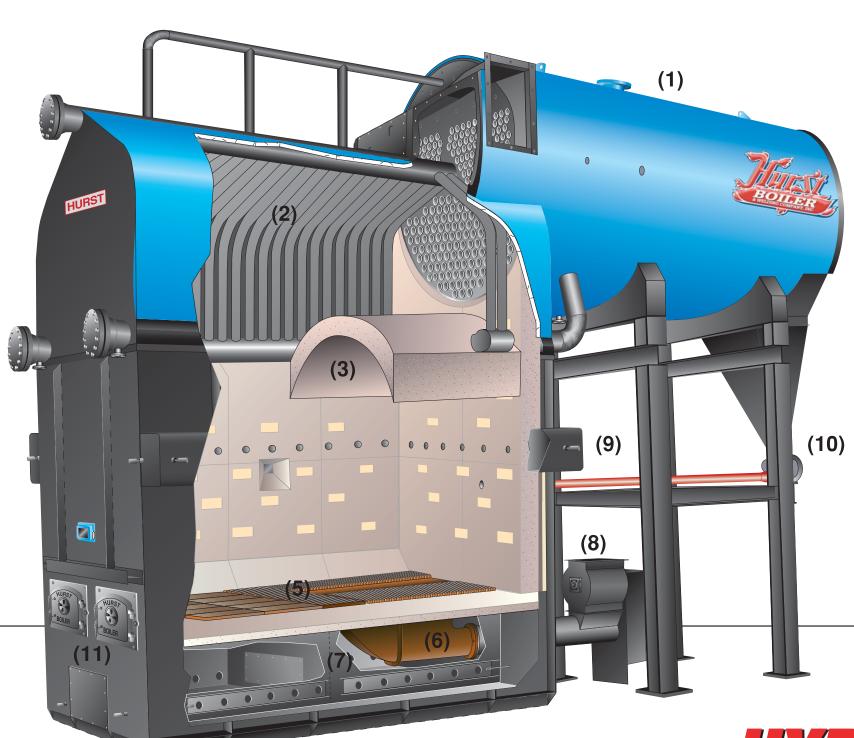


## HURST The Solid Fuel People

- (1) Hybrid Firetube/Watertube Vessel Design
- (2) Watertube Section
- (3) Radiant Arch
- (4) Combustion Chamber
- (5) Cast Grates
- (6) Under Fire Fuel Retort
- (7) Air Control Dampers
- (8) Rotary Air Lock Fuel Feeder/Stoker Screw
- (9) Over Fire Air System
- (10) Ash Reinjection Blower
- (11) Fire Doors

The Hybrid UF design is suitable for applications to produce high pressure steam or hot water in ranges from 3,450 – 60,000 lbs/hr (3.4 mmBTU – 60 mmBTU) output from 100 up to 400 PSI. This system is designed by HBC to combine the best technologies from the "old school" of biomass combustion and the latest advanced combustion control technologies. With hundreds of these systems in operation, HBC's Under Feed Stoker Systems have proven their ability to provide a very low turn-down rate making it particularly suitable for heating applications in lumber dry kilns, veneer log vats, veneer dryers, greenhouses and factories. This combination enables these systems to provide a flexible and reliable operation utilizing a consistent "grade" of biomass waste with moisture contents ranging from 8 – 50%. Ash removal is a manual operation. The boiler vessel is a two pass hybrid design incorporating a water tubed boiler-type water membrane and a two-pass fire tube scotch marine vessel. This vessel's advantages over standard water tube boilers include much larger steam disengagement area providing high quality steam, larger steam storage capability for quicker response to sudden steam demand and much larger thermal storage that provides fast demand response times and safer operation.

HURST BOILER & WELDING CO., INC. P. O. Drawer 530 21971 Highway 319 N. Coolidge, Georgia 31738 Toll Free: 1-877-994-8778 Tel: (229) 346-3545 Fax.(229) 346-3874 Email: info@hurstboiler.com



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