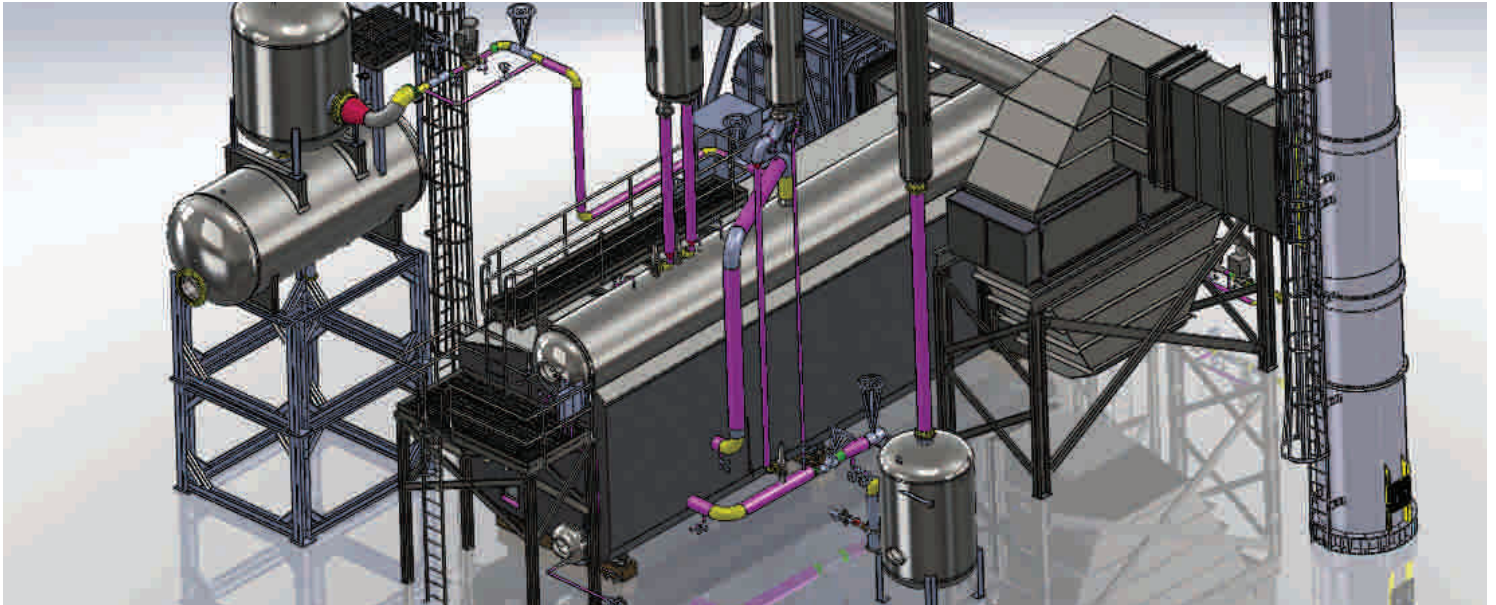


# FIRED PACKAGED WATERTUBE BOILERS



**RENTECH Boiler Systems provides a full range of fired watertube boiler systems to meet the most demanding project requirements.**

## DESIGN FEATURES

- Available for steam capacities up to 500,000 lbs/hr, 1800 PSIG and 1000 F
- 100% membrane wall fabrication provides a fully water-cooled furnace with zero gas by pass and inherently lower emissions
- No use of refractory walls or refractory seals
- Custom-engineered design for each application
- Conservative steam drum sizing, which also employs chevron vane separation technology that minimizes moisture carryover
- Completely drainable convective superheater either single-or dual-stage operates at lower gas side temperatures, which extends superheater life
- Standard packaged boiler selections available for smaller capacity units
- External unheated downcomers provided when operating conditions dictate
- Serrated tube seats provide optimal tube to drum attachment

## MEMBRANE CONSTRUCTION

- Waterwall technology used in all designs, including front and rear wall
- Reduces operating costs by requiring less maintenance to repair or replace damaged refractory
- Enables faster start up and cool down

## ENGINEERED SOLUTIONS



**Each system can be custom engineered to handle:**

- *Rapid steam load swing*
- *Quick startup for immediate steam demand*
- *Optimum emission performance*
- *Reduced utility loads*
- *Limited available space*
- *Unique fuel requirements*



## THE RENTECH BOILER SYSTEMS HEADERED MEMBRANE FRONT AND REAR WALLS ELIMINATE THE PROBLEMS ASSOCIATED WITH OTHER DESIGNS



### HEADERED WATERWALL DESIGN

RENTECH BOILER SYSTEMS, INC. headered membrane front and rear walls eliminate the problems associated with other designs, some of which still employ refractory on the front and rear walls or the use of water-cooled rear furnace walls with refractory seals.

- No use of refractory walls and seals
- Allows for quicker startups and shutdowns
- Extended life due to a cooler furnace environment
- Lower maintenance cost
- Lower CO emissions and optimized furnace design for ultra-low NOx applications

### "D" TYPE WATERTUBE BOILERS

- Heavy Industrial applications burning gas, oil, refinery gas, hydrogen and off-gas fuels
- Furnaces can be custom designed to fit site-specific requirements or for applications requiring integration of low emissions burner and SCR technologies
- Single piece design, partial field erection or total field erection if the conditions dictate the need
- Standard packaged boiler selections available for smaller capacity units

### "A" AND "O" TYPE WATERTUBE BOILERS

- Flexible designs to accommodate your plant requirements
- Convection banks designed for tight control of gas velocities
- Custom designed for various fuel compositions, firing methods and allowable emissions
- Symmetric design for ease of shipment

### SINGLE PASS "O" TYPE WATERTUBE BOILERS

- For lower pressure gas fired applications
- Low gas side pressure drop/low fan horsepower
- Large furnace cross section
- Symmetrical design for ease of shipment



### BUILT INTO EVERY RENTECH PACKAGED BOILER

- RENTECH supplies integrated boiler systems engineered to customer specifications
- RENTECH's ability to provide 3D dwgs
- All projects go through STAAD structural modeling analysis
- A piping analysis is done on all RENTECH furnished piping
- Optional flow modeling can be provided

### MARKET LEADER IN FIRED PACKAGED BOILERS

*Our packaged boiler design has been specified time and again for critical industrial processes, turbine warm-up and auxiliary boiler applications because of its rugged design and proven reliability. Our 100% membrane wall construction eliminates the need for refractory and enables quick start-up to achieve full steam capacity of the boiler in a fraction of the time that it takes with older designs. In addition to significantly reducing maintenance and operating costs, a water-cooled membrane wall furnace offers further benefits in reducing emissions.*



FIRED BOILERS ■ HRSGs ■ WASTEHEAT BOILERS ■ SCR AND CO SYSTEMS

BOILERS FOR PEOPLE WHO KNOW AND CARE

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