SUPERIOR BOILER

PARTNERS IN PROBLEM SOLVING

Superior Boiler helps you
outwit your challenges

UNPLANNED DOWNTIME

EMISSIONS CONSTRAINTS

BUDGET SHACKLES

SPACE LIMITATIONS

WHY SUPERIOR BOILER?

ENGINEERED AND BUILT TO ORDER

Customized packages to meet your requirements.

- ✓ Fluctuating load demands
- ✓ Emissions compliance
- ✓ Energy efficiency
- ✓ Fuel flexibility
- ✓ Redundancy
- ✓ Footprint challenges

SUPERIOR QUALITY

We are an ISO 9001:2015 Certified company, meaning customers know they're getting a quality product.

ANAB ACCREDITED MANAGEMENT SYSTEMS CERTIFICATION BODY

ASR American Systems Registrar

BOILERS BUILT TO LAST

- ✓ Thicker, longer-lasting boiler shells
- ✓ Thicker, standard-spaced tubesheets
- ✓ Thicker, corrosion-protective boiler tubes

ASME

BURNER FLEXIBILITY

Superior boilers are burner neutral and work with any brand, making them easier and more cost-effective to maintain.

NON-PROPRIETARY PARTS

We use non-proprietary parts, so maintenance and repairs can be completed by the qualified boiler contractor of your choice. We carry a large selection of boiler equipment parts inventory.

GLOBAL NETWORK OF PROBLEM SOLVERS

More than 50 well-respected companies represent territories across the U.S. and around the world. Many of these companies are full line watertube/firetube representatives.

ABMA

SUPERIOR BOILER

OUR PRODUCT LINE

FIRETUBE

WATERTUBE

DEAERATOR

VERTICAL

WASTE HEAT RECOVERY

CONDENSING

SKID PACKAGES

HIGH TEMP FLUID GENERATORS

FIREBOX

ECONOMIZERS

FIRETUBE
MULTI-PASS DRYBACK

DAKOTA
- ✓ 2-pass dryback design
- ✓ Compact footprint with X-ID® tubes
- ✓ Design pressures* from 15 - 300 psig steam & 30 - 160 psig hot water
- ✓ Sizes from 100 - 2,500 HP
- ✓ Capable of burning fuels such as natural gas, propane, hydrogen, & #2 oil
- ✓ Generous furnace volume for low heat releases & ultra low NOx compliance

APACHE
- ✓ 2-pass dryback design with turbulators
- ✓ Design pressures* from 15 - 300 psig steam & 30 - 160 psig hot water
- ✓ Sizes from 10 - 2,500 HP
- ✓ Capable of burning fuels such as natural gas, propane, hydrogen, & #2 oil
- ✓ Rugged, simple design

AZTEC
- ✓ 2-pass dryback design with turbulators
- ✓ Design pressures* from 15 - 300 psig steam & 30 - 160 psig hot water
- ✓ Sizes from 30 - 1,000 HP
- ✓ Capable of burning fuels such as natural gas, propane, hydrogen, & #2 oil
- ✓ Generous furnace volume for low heat releases & ultra low NOx compliance

SENECA
- ✓ 3-pass dryback design
- ✓ Design pressures* from 30 - 160 psig hot water
- ✓ Sizes from 30 - 300 HP
- ✓ Capable of burning fuels such as syngas, digester gas, hydrogen, bio-diesel, natural gas, #2 oil, & heavy-oil

MOHAWK
- ✓ 3-pass dryback design
- ✓ Design pressures* from 15 - 300 psig steam & 30 - 160 psig hot water
- ✓ Sizes from 30 - 1,000 HP
- ✓ Capable of burning fuels such as syngas, digester gas, hydrogen, bio-diesel, natural gas, #2 oil, & heavy-oil
- ✓ Generous furnace volume for low heat releases & ultra low NOx compliance

*Higher design pressures available in certain models. Contact Superior Boiler for more information.

FIRETUBE
MULTI-PASS WETBACK

WICHITA

- ✓ 2-pass wetback design
- ✓ All X-ID® tubes for high efficiency & compact footprint
- ✓ Design pressures* from 15 - 300 psig steam & 30 - 160 psig hot water
- ✓ Sizes from 200 - 2,500 HP
- ✓ Capable of burning fuels such as natural gas, propane, hydrogen, & #2 oil
- ✓ Generous furnace volume for low heat releases & ultra low NOx compliance

SEMINOLE

- ✓ 3-pass wetback design
- ✓ Design pressures* from 15 - 300 psig steam & 30 - 160 psig hot water
- ✓ Sizes from 50 - 2,000 HP
- ✓ Capable of burning fuels such as syngas, digester gas, hydrogen, bio-diesel, natural gas, #2 oil, & heavy-oil

SUPER SEMINOLE

- ✓ 3-pass wetback design
- ✓ Highest efficiency model with X-ID® tubes
- ✓ Design pressures* from 15 - 300 psig steam & 30 - 160 psig hot water
- ✓ Sizes from 50 - 2,000 HP
- ✓ Capable of burning fuels such as natural gas, propane, hydrogen, & #2 oil
- ✓ Generous furnace volume for low heat releases & ultra low NOx compliance

MOHICAN

- ✓ 4-pass wetback design
- ✓ Highest efficiency model with all smooth tubes
- ✓ Design pressures* from 15 - 300 psig steam & 30 - 160 psig hot water
- ✓ Sizes from 50 - 1,500 HP
- ✓ Capable of burning fuels such as syngas, digester gas, hydrogen, bio-diesel, & heavy-oil
- ✓ Generous furnace volume for low heat releases & ultra low NOx compliance

*Higher design pressures available in certain models. Contact Superior Boiler for more information.

SUPERIOR BOILER

FIRETUBE

CHEYENNE

✓ High-efficiency hot water condensing boiler
✓ Design pressure of 125 psig standard, 160 psig optional
✓ 4.0 - 12.0 million BTU/HR
✓ Choice of UL listed burner packages
✓ Proven efficiency
✓ NOx emissions of 30 PPM or less available at all firing rates
✓ Ultra Low NOx option (<9 ppm)
✓ Dual fuel capabilities with natural gas/oil

WASTE HEAT

✓ Engineered for specific job conditions
✓ Available in single-pass, 2-pass, 3-pass and dual chamber configurations
✓ Supplemental & fresh air firing capabilities
✓ Designed to meet the specific requirements of each application

OSAGE
FIREBOX

✓ 3-pass firebox design
✓ Design pressures* from 15 psig steam and 30 psig hot water
✓ Sizes from 15 - 450 HP
✓ Large furnace and rear turnaround volume for complete combustion
✓ Capable of burning fuels such as syngas, digester gas, hydrogen, bio-diesel, & heavy-oil

ARROWHEAD
MODIFIED FIREBOX

✓ 3-pass modified firebox design with X-ID® tubes
✓ Design pressures* from 15 psig steam and 30 psig hot water
✓ Sizes from 10 - 100 HP
✓ Capable of burning fuels such as natural gas, propane, hydrogen, & #2 oil
✓ Compact, exceptional value
✓ Available with NOx reduction technology to 9 ppm

*Higher design pressures available in certain models. Contact Superior Boiler for more information.

FIRETUBE

UTE

- ✓ Down-fired vertical firetube boiler
- ✓ Design pressures* from 15 - 200 psig steam & 16 - 160 psig hot water
- ✓ Sizes from 60 - 150 HP
- ✓ Industry-leading furnace volume
- ✓ Dual fuel & non-standard fuel capable
- ✓ Available with low emissions <30ppm technology

TRIAD

- ✓ Design pressures* from 15 - 150 psig steam & 30 - 125 psig hot water
- ✓ Sizes from 7 - 50 HP
- ✓ Very small footprint for tight-fit applications
- ✓ Extremely rugged design
- ✓ Low-NOx pre-certified

SKID PACKAGES

- ✓ Configurations available with vertical, 2-pass, or 3-pass boilers
  - Vertical steam or hot water
  - 2-pass dryback or wetback
  - 3-pass dryback or wetback
- ✓ Very small footprint for tight-fit applications
- ✓ Design pressures up to 300 psig steam & 160 psig hot water
- ✓ Extremely rugged design
- ✓ Packages available with:
  - Single-point electric panel
  - Feedwater system
  - Blowdown separators
  - Feedwater softener
  - Chemical feed system
  - Boiler economizer

*Higher design pressures available in certain models. Contact Superior Boiler for more information.

WATERTUBE

SHAWNEE
DS-TYPE
- ✓ Capacities: 10,000 - 300,000 lb/hr
- ✓ Design pressure up to 1,200 psig
- ✓ Convective type superheaters up to 900° F
- ✓ Side or top flue gas discharge

DENALI
D-TYPE
- ✓ Capacities: 10,000 - 300,000 lb/hr
- ✓ Design pressure up to 1,200 psig
- ✓ Convective type superheaters up to 900° F
- ✓ Side flue gas discharge

OTTAWA
O-TYPE
- ✓ Capacities: 10,000 - 300,000 lb/hr
- ✓ Design pressure up to 1,200 psig
- ✓ Radiant type superheaters up to 900° F
- ✓ Top flue gas discharge

APPALACHIA
A-TYPE
- ✓ Capacities: 10,000 - 300,000 lb/hr
- ✓ Design pressure up to 1,200 psig
- ✓ Two (2) lower drums
- ✓ Radiant type superheaters up to 900° F
- ✓ Top flue gas discharge
- ✓ Option for open bottom for ash removal

TOMAHAWK
TANDEM STEAM GENERATOR UNIT
- ✓ Capacities: 250,000 - 500,000 lb/hr
- ✓ Design pressure up to 1,200 psig
- ✓ Superheated steam up to 900° F
- ✓ Modular design to solve shipping constraints

MODULAR SYSTEMS
- ✓ Fully modular skidded assembly
- ✓ Includes boiler, controls, dearator, feedwater pumps, & water treatment system
- ✓ Enclosure complete with all interconnecting wiring & piping
- ✓ Can be commissioned in 2 weeks after placement on pad
- ✓ Capacities starting from 10,000 lb/hr
- ✓ Conditioned environment eliminates heat tracing of all this equipment

WATERTUBE

HURON
HRSG

- ✓ Capacities from 1,000 - 200,000 lb/hr
- ✓ Supplemental & fresh air firing capabilities
- ✓ Saturated or superheated steam

KONZA
iHRSG

- ✓ Integrated heat recovery steam generator
- ✓ Capacities up to 1,000 HP
- ✓ Supplemental & fresh air firing capabilities
- ✓ Saturated or superheated steam
- ✓ Low emission fresh air fired with dual fuel capability

LAKOTA
HIGH TEMP HOT WATER

- ✓ High temperature hot water generator
- ✓ Patented membrane style construction
- ✓ Capacities from 20 - 250 MM btu/hr output
- ✓ Capable of burning natural gas, #2 oil, and other various liquid and gaseous fuels
- ✓ Easier maintenance access via tube access from the side and removable side panels
- ✓ Welded tube to header joint

IROQUOIS
FLEXTUBE - MPSM

- ✓ Capacities from 100 - 1,500 HP
- ✓ Applicable for low & high pressure steam applications
- ✓ Convertible configuration from steam to hot water or vice versa
- ✓ ASME Section I & IV
- ✓ Operating efficiency for 83% for low pressure steam, 80% for high pressure steam
- ✓ Optional radiant superheater available

IROQUOIS
FLEXTUBE - MPHW

- ✓ Capacities from 100 - 1,500 HP
- ✓ Available for low & medium temperature applications
- ✓ ASME Section I & IV
- ✓ Operating efficiency of 85% for low & medium temperature applications

BOILER ROOM EQUIPMENT

DEARATOR SYSTEMS

- ✓ Spray scrubber, tray type, & dual tank spray designs
- ✓ ASME Section VIII Div 1 tank
- ✓ Design pressure up to 50 psig
- ✓ Sizes up to 300,000 pph for spray systems and 400,000 pph for tray systems
- ✓ Available with stainless steel surge tank or liner

BLOWDOWN SEPARATOR

- ✓ ASME Section VIII Div 1 tank
- ✓ For low & high pressure boilers
- ✓ Features a stainless steel strike plate
- ✓ Optional after cooler available

FEED WATER TANKS

- ✓ Standard units sized to handle 30 - 1,000 gallons
- ✓ Condensate up to 190°F
- ✓ Equipped with spare tube

ECONOMIZER

- ✓ Sizes from 50 - 2,500 HP for firetube and up to 300,000 lbs/hr for watertube
- ✓ Coiled and rectangular units supplied
- ✓ Two-stage units can boost efficiency into 90% range with suitable cold water heat sink
- ✓ All units feature individually removable finned tube elements
- ✓ Available in carbon steel and stainless steel

*Higher capacities available in certain models. Contact Superior Boiler for more information.