

HEAT
RECOVERY
STEAM
GENERATORS



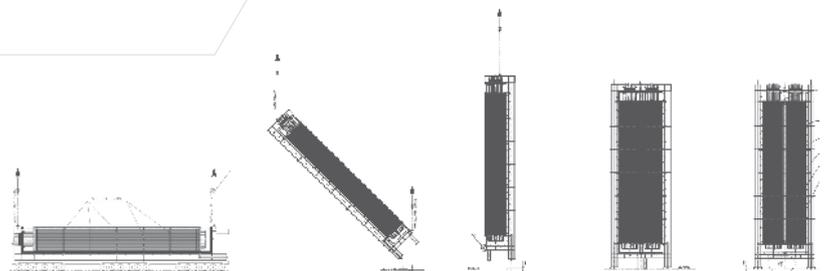
Proven Reliable Performance

In an ever-changing energy and regulatory environment, Customers need to address key challenges in **flexibility** of operations, with proven **performance** and **reliability**

AC Boilers is an OEM with a large number of Heat Recovery Steam Generators **worldwide**, installed downstream of large Gas Turbines of various Models and Sizes, firing a variety of fuels

AC Boilers can deliver a reliable, integrated design supported by strong **in-house** engineering, procurement, fabrication, logistical and project management **capabilities**

Operational, Warranty, Maintenance and Diagnostics needs, and Spare Parts requirements, are available and provided by our worldwide operations offices



Cost Effectiveness =

RELIABILITY

Proven Designs, High Quality “State-of-the-Art” Manufacturing, In-depth Erection & Commissioning Expertise

FLEXIBILITY

Proven & **Enhanced** solutions to meet the demands for fast start-ups, changing demand loads

HIGH PERFORMANCE

Purpose built, highly efficient design **optimized** for the most demanding steam pressures and temperature requirements of modern Combined Cycles

FAST DELIVERY

Flexible combination of engineering, procurement, manufacturing and transportation solutions allow for easy constructability through **modularization**

= AC BOILERS

Design & Manufacturing Capabilities

AC Boilers addresses the most pressing topics of a Client's Combined Cycle, delivering **high-performing HRSG's** downstream of **Gas Turbines up to the maximum ratings**

Constant proprietary-design improvement, continuous feedback from existing units and extensive Utility Boiler Design & Manufacturing experience make AC Boilers choose the **best option** for the job at hand

AC Boilers experience and design capabilities enable it to "break" new ground and develop comprehensive solutions, like with the first commercial Benson Once-Through in 2005, or the two-stage supplementary firing approach in 2004

Pressure parts **manufacturing** capabilities include Own Shop fabrication in manufacturing facilities in Italy and Romania. Global **operational** and **procurement** offices are found in Italy, USA, Egypt and China



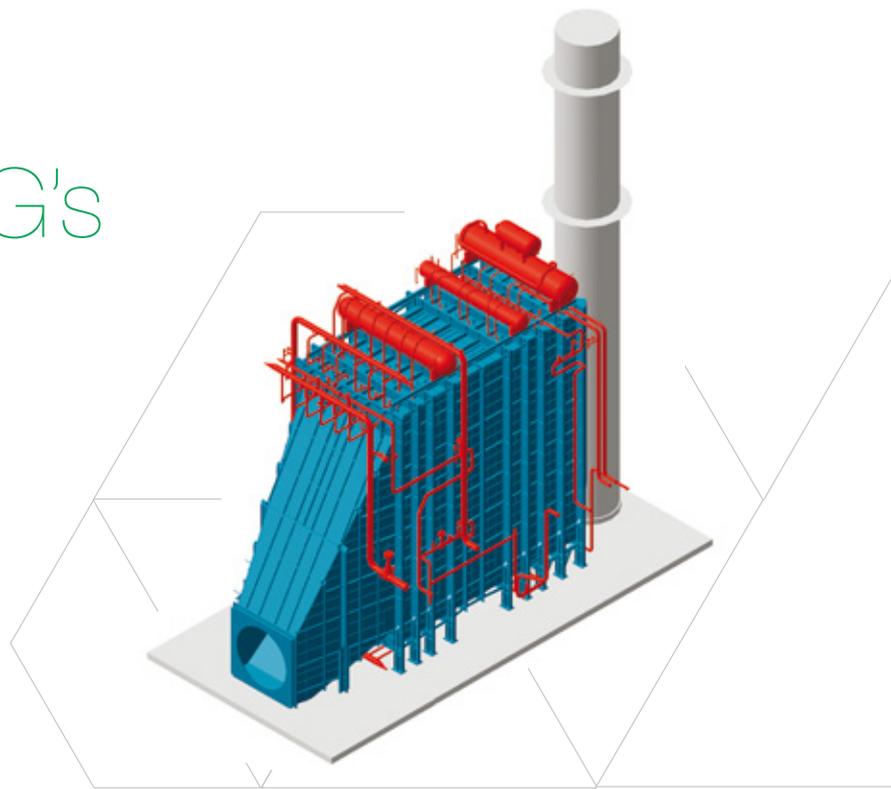
Steam and Heat Recovery Needs?

Call AC Boilers for answers



Horizontal Gas Flow HRSG's

AC Boilers has extensive **experience** and **capabilities** in Horizontal HRSG design and manufacturing.



BASIC DESIGN FEATURES

Steam & water cycle

- Multiple Pressure Levels, with or without Reheat
- Up to the Highest Steam Pressures and Temperatures for Advanced Combined Cycles
- Natural Circulation, Drum Type

Operation

- Heavy Cycling
- Fast Start-Ups
- Operational Flexibility

Construction

- **Flexible Constructability**
Solutions: Harps, Modules or "C-Type" Sections

Arrangement

- Fully Drainable, Spiral-Finned, Efficient Heating Surfaces
- Top Supported
- Cold Casing

CUSTOMISED DESIGN OPTIONS

- **Supplementary Firing**
- **Fresh Air Auxiliary Firing Mode**
- **SCR – CO catalyst**
- **By-pass stack**
- **Boiler House**

HERDECKE

1 x 250 MW GT



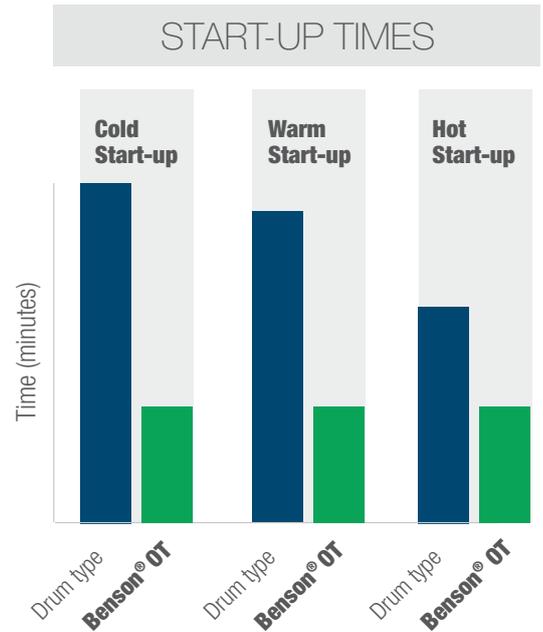
APRILIA

2 x 260 MW GT

Benson® Once-Through HRSG's

AC Boilers Designed and Manufactured the **3 longest commercially-operating Benson Once-Through HRSG's in the world**

Where extreme demand fluctuations are the norm, Benson Once Through HP Evaporators allow for enhanced dynamic characteristics, flexibility and faster start-ups, making them suitable for Advanced Combined Cycle Power Plants operating at the highest steam pressures and temperatures

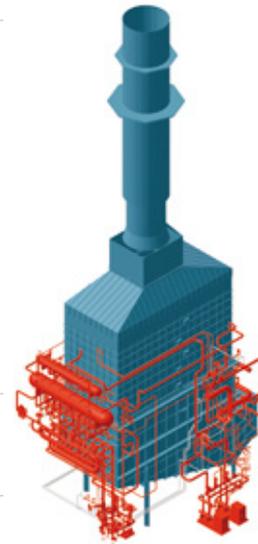


Vertical Gas Flow HRSG's

In Brownfield projects with **space constraints**, or **downstream of Crude-oil-firing GT's**, Vertical HRSG's can be the best option at hand

SPECIFIC FEATURES INCLUDE

- Multiple Pressure Levels, with or without Reheat
- Natural or Assisted Circulation
- Operational Flexibility
- Modular Design for Shop-Assembled tube bundles
- Horizontal tube bundles with Spiral-Finned, Efficient Heating Surfaces
- Top Supported
- Cold or Hot Casing
- Tailored solutions for Utility Boiler Repowering
- Cleanable heating surfaces optimized for operation downstream Crude Oil Firing GT's



TORREVALDALIGA SUD
3 X 250 MW GT

Track Record

AC Boilers and its capabilities are borne out by these success stories



Operational Headquarters

3, Largo Buffoni
Gallarate (ITALY) - 21013
Tel. +39 0331 738111
Fax +39 0331 781589
e-mail: sales@acboilers.com

SUBSIDIARY

AC Boilers Egypt S.A.E.

119, Hadiket El Golf Street, 2nd Floor
Al Mokkatam, Cairo (EGYPT)
Tel. +20 2 2920 6150
Fax +20 2 2920 6149
e-mail info@acboilersegypt.com

REPRESENTATIVE OFFICES

United States

5847, San Felipe Street, Suite 4150
Houston, Texas (USA) - 77057
Tel. +1 713 590 5370
Fax +1 713 589 7221
skype: eai-conference
e-mail: ansaldoboilersusa@energyallied.com



TURANO LODIGIANO & APRILIA Italy

4 x 260 MW GT

HIGH PERFORMANCE

Heavy Cycling

Heavy Cycling capabilities that satisfy Italian Grid Authority requirements

Focus on high efficiency, minimum load stability, operation flexibility and environmental safeguard, even visually speaking with an architect-designed boiler house



HAMM UENTROP & HERDECKE Germany

3 x 250 MW GT

FLEXIBILITY

World's first commercial Benson Once-Through HRSG's

Start-up, shutdown and load change on a moment's notice. With the increasing penetration of unpredictable renewables, Future-Proof Grids require these capabilities



RAS LAFFAN Qatar

3 x 250 MW GT

RELIABILITY

Double Post-Firing

Highly reliable and flexible horizontal HRSG's, with Double Post-Firing and Fresh Air Firing mode. Optimization for different combinations of electricity and water demand, including peak



More info



www.acboilers.com/en