

COMPANY ENGINEERING MANUFACTURING PRODUCTS AFTERMARKET CAREERS NEWS CONTACT















Concept to Completion®



### **Excellence in the making**

From the beginning, the goals of Victory Energy Operations, LLC have been to be a single-source solutions provider backed by world-class service. Today, we are a leading boiler supplier offering proven energy solutions through advanced technologies and state-of-the-art manufacturing.

No application is too small or too large. We thrive in an atmosphere of innovative thinking and breakthrough methodology. We carry this attitude forward from "Concept to Completion®" as we work closely with our customers, in-house engineering teams, in-house project management teams, fabrication personnel, manufacturing crews, logistics department and field technicians.

In addition to providing rock-solid solutions that are reliable and compliant with the most stringent technical requirements, we are constantly looking for ways to maximize the efficiencies and value of total integration for our customers and end users.

Quality materials and superior construction is essential to producing heat recovery systems that are, by design, engineered to be the most reliable steam generators in the world. Our approach to modularization is designed to maximize shop assembly while minimizing costly field labor and delivery time.



Three of six HRSG modules designed to ship by rail.



State-of-the-art manufacturing facilities and corporate offices are located just North of Tulsa, Oklahoma.

Victory Energy offers a full range of custom-designed HRSG systems that are designed to deliver proven performance and crucial efficiencies at a cost effective price.

Modular-designed units are completely shop-assembled to maximize transportation efficiencies and minimize field costs by lowering manhours needed for installation.

#### **Typical HRSG Applications:**

- Gas turbine/cogeneration
- Gas and diesel engine exhaust
- Solid fuel combustion recovery systems: wood, coal, MSW - Municipal Solid Waste)
- Process gas from thermal oxidizers, thermal reaction furnaces and incinerators
- Biomass and gasification



VE has ASME and NBIC Certificates of Authority to design, construct and repair pressure vessels.



HRSG modules are designed for ease of lifting



All work is managed by Victory Energy's ITP (Inspection Test Plan) to assure quality control.





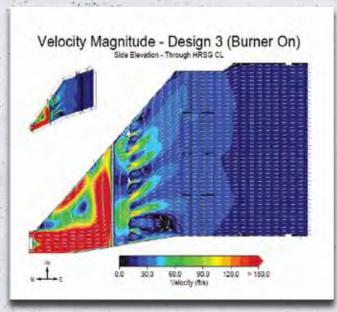
#### **HRSG - Heat Recovery Steam Generators**

Additional benefits you can expect from a HORIZON Series HRSG from Victory Energy:

- Modular assemblies simplify field labor and reduces construction costs.
- Module lifting lugs and temporary steel simplify field transport and handing.
- Fully shop assembled units or large assemblies are available for industrial HRSGs for a variety of exhaust gases
- Single wide, modular design
- Designs are custom engineered to accomodate transportation requirements
- → 1, 2, or 3 pressure levels
- Full range of supplementary equipment

# Advanced analytical tools are used for life cycle evaluation to consider the following factors:

- Proper selection of materials
- Field proven tube-to-header connection
- Each has built in flexibility for ease of thermal expansion
- Flexible piping designs
- Start up and shut down optimization



Results of advanced flow modeling to analyze temperature profiles and flow distribution.

Our commitment to the 212 Principle continues to drive our dedication to customer satisfaction.



At 211 degrees, water is hot. At 212 degrees, it boils. And with boiling water, comes steam. And with steam, we power the progress of change.

The power of one extra degree!



Modular HRSG tube bundle being prepared for internal inspection.



**Proper equipment maximizes efficient and save** delivery.



Fully customized control systems utilizing the latest PLC technology.

## **Combined Cycle Utility HRSG** - Modular Design - Multiple Pressures 1.P. Steam Drum w/ Integral Deaerator 6 L.P. Vent Silencer 14 H.P. Vent Silencer 15 H.P. Steam Drum H.P. Steam Outlet 6 H.P. Evaporator 4 H.P. Superheater 2 Duct Burner Distribution Grid **GAS FLOW** 6 C.O. Catalyst H.P. Evaporator L.P. Superheater Outlet DA. Pre-Heater 12 Observation Port Injection Grid 10 H.P. Economizer S.C.R. L.P. Superheater



HRSG watertube heat recovery boilers are engineered with patented technologies.



Victory Energy specializes in large-scale fabrication of boilers and pressure vessels.



Fully integrated TITAN® water level equipment.

