VICTORY ENERGY®

WATERTUBE BOILERS

VOYAGER® series

DISCOVERY® series





Concept to Completion®

VICTORY ENERGY®

State-of-the-art manufacturing facilities are located just North of Tulsa, Okla.

Excellence in the making

From the beginning, the goals of Victory Energy 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 are essential to producing industrial-duty boiler systems that are, by design, engineered to be the most reliable boilers in the world. Our approach to modularization is designed to maximize shop assembly while minimizing costly field labor and delivery time.

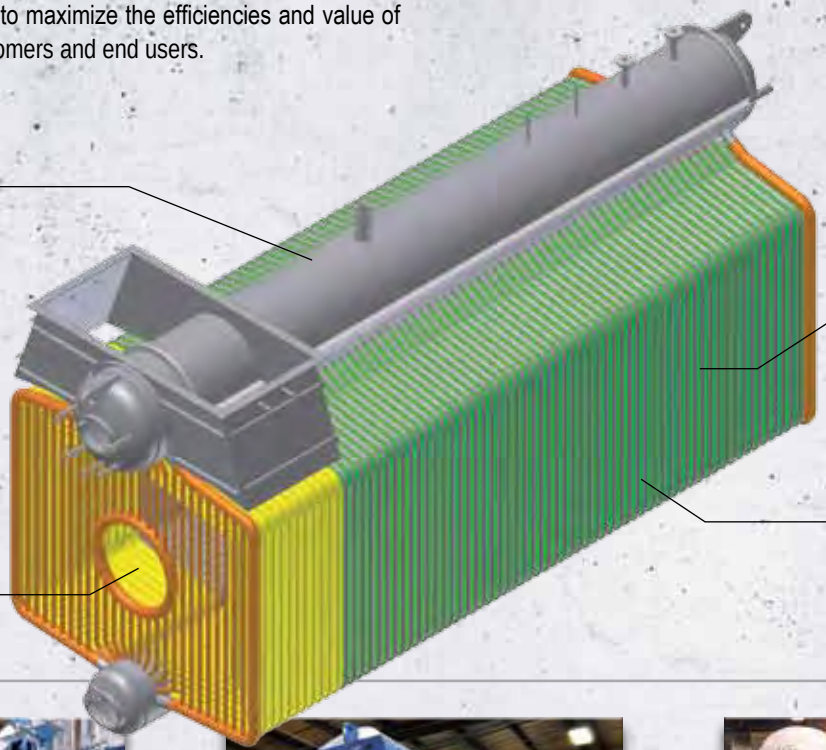
From permanent full-scale installations to temporary mobile systems, Victory Energy offers custom-engineered solutions for all types of applications in all kinds of industries including, Petroleum, Utility/ Power, Textiles/Pulp & Paper, Chemical Processing, Process Waste Heat, Institutional, District Heating, Ethanol, Oil Sands/Enhanced Oil Recovery and Thermal Solar projects.

☑ ***Large drums with proprietary internals and moisture separation provide the highest quality steam.***

☑ ***Total integration ensures efficient interaction of all components.***

☑ ***Easy access is provided through manways at both ends of the drums.***

☑ ***Large, welded water-cooled, gas-tight furnace areas are designed to yield optimum emissions performance, boiler reliability, and longevity with reduced maintenance costs.***



☑ ***Each boiler is custom engineered and modeled with a complete circulation analysis.***

☑ ***High service factors for extreme-duty applications.***

☑ ***Fully welded gas seals are used throughout, eliminating concerns of hot spots.***

☑ ***Fully membrane boiler reduces CO emissions due to bypassing.***

☑ *Boilers are 100% water* ***cooled and refractory free front and rear walls.***

☑ ***Conservatively designed tube layouts, coupled with large drums, provide flexibility for all operational conditions.***

All fired boilers come with low NO_X burners that are state-of-the-art and fuel-efficient.

Superheaters are available with a variety of ***configurations to suit operational requirements of all applications requiring high-temperature steam.***

Excellence is a top priority; over 100 check-points are in place for quality control, tracked and managed by ITP (Inspection Test Plan).

Concept to Completion®

VOYAGER® series

O-style Watertube Boilers

The Victory Energy VOYAGER® O-style Boiler is designed to provide a rapid ramp rate and is easy to ship, install, operate and maintain. These versatile robust boilers have become very popular for applications that are extremely demanding in harsh environments. It's symmetrical configuration is ideally suited for restrictive floor plans, while the gas outlet allows the addition of an enhanced heat recovery system in a vertical configuration to ensure a slim footprint.

Each VOYAGER O-style Boiler is custom engineered with constructability in mind. Steam capacities range from 10,000 PPH up to 500,000 PPH, design pressures from 250 PSIG to 2,000 PSIG with saturated and superheat temperatures up to 1,050 degrees F.

MODEL	MAX CAP	HEIGHT	WIDTH	LENGTH
VS-1	25,000 PPH	13'-7"	8'-9"	14'-0"
VS-2	37,000 PPH	13'7"	9'-8 3/4"	16'-6"
VS-3	55,000 PPH	13'-11 3/4"	10'-5 3/4"	19'-6"
VSM-75	75,000 PPH	14'-0 7/8"	11'-9 3/4"	22'-7"
VS-4	85,000 PPH	14'-7 3/4"	11'-9 1/2"	25'-10"
VS-5	127,000 PPH	15'-1 3/4"	12'-6 1/2"	32'-2"
VS-6	165,000 PPH	16'-1 7/8"	12'-10 1/2"	35'-2"
VS-7	250,000 PPH	17'-4"	12'-11"	42'-6"
VS-8	300,000 PPH	Varies with operational requirements		

Larger sizes are available with barge shipments.

FUELS: NATURAL GAS, BIO GAS, OFF-GASSES OR #2 - #6 OIL

Gas outlets are insulated with 8-lb. high density wool for improved efficiencies and safety.

Drum heads are assembled with ceramic insulation covered with carbon steel.

Over-size entryway doors allow easy access.

DISCOVERY® series

D-style Watertube Boilers

DISCOVERY® D-style boilers are designed with large furnaces; this conservative approach reduces harmful emissions. VEO boilers are engineered for long-term reliability and are well suited for high-pressure superheated steam applications with restrictive heights. Convective style superheaters are desired when fuels are heavily laden with ash and superheat is required.

DISCOVERY D-style boilers are available from 10,000 PPH to over 500,000 PPH. Modular and field-erected sizes are also available. The DISCOVERY boiler can be customized with superheated steam. All superheaters are placed within the boilers convective zone to optimize performance and ensure a long, trouble-free life.

MODEL	MAX CAP	HEIGHT	WIDTH	LENGTH
DT-1	30,000 PPH	12'-10"	11'-1/2"	16'-8 1/2"
DT-2	50,000 PPH	13'-10"	11'-2 1/2"	20'-1/2"
DT-3	100,000 PPH	15'-1"	12'-3"	27'-8 1/2"
DT-4	150,000 PPH	15'-11"	12'-6 1/2"	32'-8 1/2"
DT-5	225,000 PPH	17'-3"	12'-11"	37'-8 1/2"
DT-6	300,000 PPH	*	*	*

Larger sizes are available where additional modularization is an option.

Note: * Subject to design conditions.

FUELS: NATURAL GAS, BIO GAS, OFF-GASSES OR #2 - #6 OIL

All tubes have a minimum tube wall thickness that far exceeds ASME requirements.

Top-of-the-line dampening pipe clamps are designed to reduce vibration.

All units are shrink-wrapped for protection during the transport process.

ABMA American Boiler Manufacturers Association