UNLEASH THE POWER OF STEAM. UNLOCK MORE OIL.

ONCE THROUGH STEAM GENERATOR FOR ENHANCED OIL RECOVERY

A BABCOCK POWER INC. SUBSIDIARY

Struthers Wells® Once-Through Steam Generators (OTSG) are used for thermal Enhanced Oil Recovery (EOR). Simple design, can be skid-mounted, and available in a wide variety of sizes and pressures.

Struthers Wells™ is the original designer of the Once Through Steam Generators for application in thermal Enhanced Oil Recovery, which has been the standard for the industry for decades.

Used throughout the world to enhance oil recovery in heavy crude reservoirs and oil sand deposits, OTSGs inject steam into target areas that often impose demanding and stringent operating conditions. The Struthers Wells™' OTSGs are supported by our extensive field experience, advanced technology, and laboratory driven engineering data. The OTSGs are easy to maintain and continue to operate reliably, primarily unattended, or with minimum supervision.

Features of the OTSG include:

- Handles feedwater containing up to 8000 ppm of total dissolved solids
- Responds to rapid and significant changes in load demand as dictated by the injection well while maintaining steam quality
- Operates through a wide range of steam pressures at a high thermal efficiency rate

In order to meet high production demands and operating requirements of any heavy oil field recovery project, Struthers Wells™ offers both standard and custom designed steam generators from 25 to 300+ MMBtu/hr. Trailer-mounted systems that range in size from 5 to 40 MMBtu/hr are fully self-contained and can easily be moved from one field to another. Advanced technology that improves operational reliability, coupled with custom, cost-effective designs, enables us to provide today's plant operations with the most sophisticated products in the industry.

FEATURE	BENEFIT
Deliver 80–90% Steam quality, providing wet steam with high latent heat content for more energy-efficient heat transfer than superheated steam—ideal for thermal enhanced oil recovery.	Wet steam delivers more usable heat energy per kilogram than dry or superheated steam—making it ideal for efficiently heating and mobilizing viscous underground fluids
Integrated Feedwater Preheater minimizes the risk of corrosion by elevating feedwater temperature above acid gas dew points.	Improved Efficiency
Individually controlled passes ensure uniform steam distribution across the system for consistent thermal performance.	Minimizes risk of tube overheating and associated failures, ensuring stable operation with reduced need for troubleshooting or intervention
Online steam quality monitoring enables real-time tracking of process variables and equipment health through advanced instrumentation and automated control systems	Enables early detection of fouling, scaling, and abnormal conditions to ensure steam purity, enhance operational safety, and support compliance with emissions regulations
Compact footprint with modular skid-mounted design for flexible installation and efficient use of space.	Smaller and lighter than equivalent-capacity drum-type boilers, enabling easier transport, installation, and site integration

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Engineered Performance. Proven Results.

With **over 1,200 OTSGs delivered since 1960**, we lead the way in steam generation for Enhanced Oil Recovery. Whether fixed or mobile, gas- or oil-fired, our OTSGs deliver reliable, high-efficiency steam to drive your production forward—even under tough conditions.

Why Choose TEi Struthers Wells OTSG?

- **Reliable Steam, Always**
  Stable, consistent steam supply with minimal fluctuation—ideal for continuous oil production.
- **Rapid Response**
  Fast start-up and quick ramp-up to match fluctuating well demands.
- **High Thermal Efficiency**
  Optimized combustion and tube design for fuel savings and reduced emissions.
- **Water Quality Tolerant**
  Designed to handle water with high dissolved solids—less pretreatment, more uptime.
- **Compact & Modular**
  Small footprint and skid-mounted options make installation fast and flexible.
- **Safety Built In**
  Meets OSHA, IEC, and NFPA standards with advanced interlocks and emergency shutdown systems.

Tailored to Your Operation

Fuel Options:

- **Gas-Fired OTSG**—Natural gas or waste gas
- **Oil-Fired OTSG**—Fuel oil or waste liquids

Deployment Types:

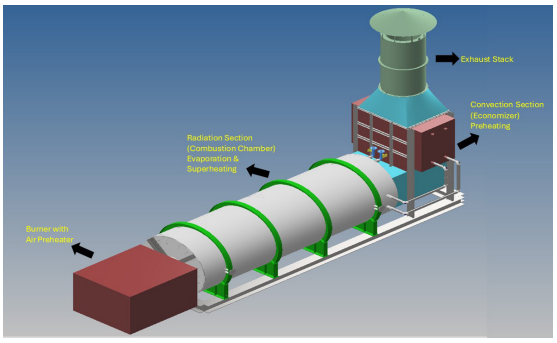
- **Fixed OTSG**—Permanently installed at high-demand fields
- **Mobile OTSG**—Skid-mounted units for remote or pilot well sites

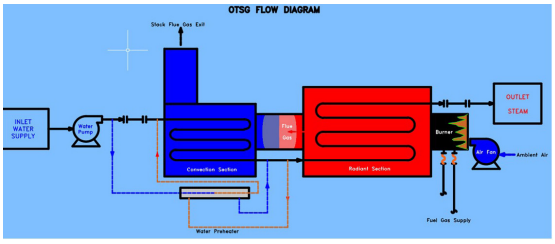
Smart Design. Global Reach.

- **In-House Engineering**—Fully customized, performance-optimized solutions
- **Global Sourcing**—Reliable fabrication and materials from trusted partners
- **Exotic Material Expertise**—Built tough for harsh environments
- **Full Lifecycle Support**—Spare parts, field service, and long-term maintenance plans

Built for Petroleum & Oil Sands Producers

Serving oilfield operators around the world—including heavy oil and tar sands operations—our OTSGs are designed to work where you do. Whether you're expanding production or launching a new pilot, we deliver steam tailored to your operation, you can count on.





APPROXIMATE DIMENSIONS & WEIGHTS					
UNIT SIZE	BTU/HR	LENGTH	WIDTH	HEIGHT	WEIGHTS (LBS)
EOR-25	25,000,000	53' 10"	9'	13' 6"	80,000
EOR-50	50,000,000	67' 6"	11'	15' 8"	140,000
EOR-100	100,000,000	81' 2"	15' 7"	27' 6"	240,000
EOR-150	150,000,000	91' 4"	18' 2"	29' 10"	420,000
EOR-200	200,000,000	107'	24' 2"	31'	500,000
EOR-250	250,000,000	112' 6"	25'	28' 6"	610,000
EOR-275	275,000,000	120'	25'	30'	680,000

Table shows approximate weights and dimensions of Enhanced Oil Recovery (EOR) units with 1500 psig capabilities. To obtain weights of EOR units with 2500 psig capabilities, multiply weights given by 1.2

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