

HELICAL COIL REBOILER

Astec™ Heatec® Reboilers



ASTEC'S HEAT SOURCE FOR AMINE/GLYCOL REGENERATION

Astec has decades of proven experience providing heating systems for the oil and gas industry. Our expert sales and engineering teams listen to your needs to provide solutions well-suited to your operation. Renowned for quality equipment and world-class service after the sale, Astec strives to be your supplier of choice for heating products.

The Astec helical coil reboiler is a fired heat exchanger that can be used in systems that process natural gas for pipeline distribution. Key features are its vertical configuration and forced circulation.

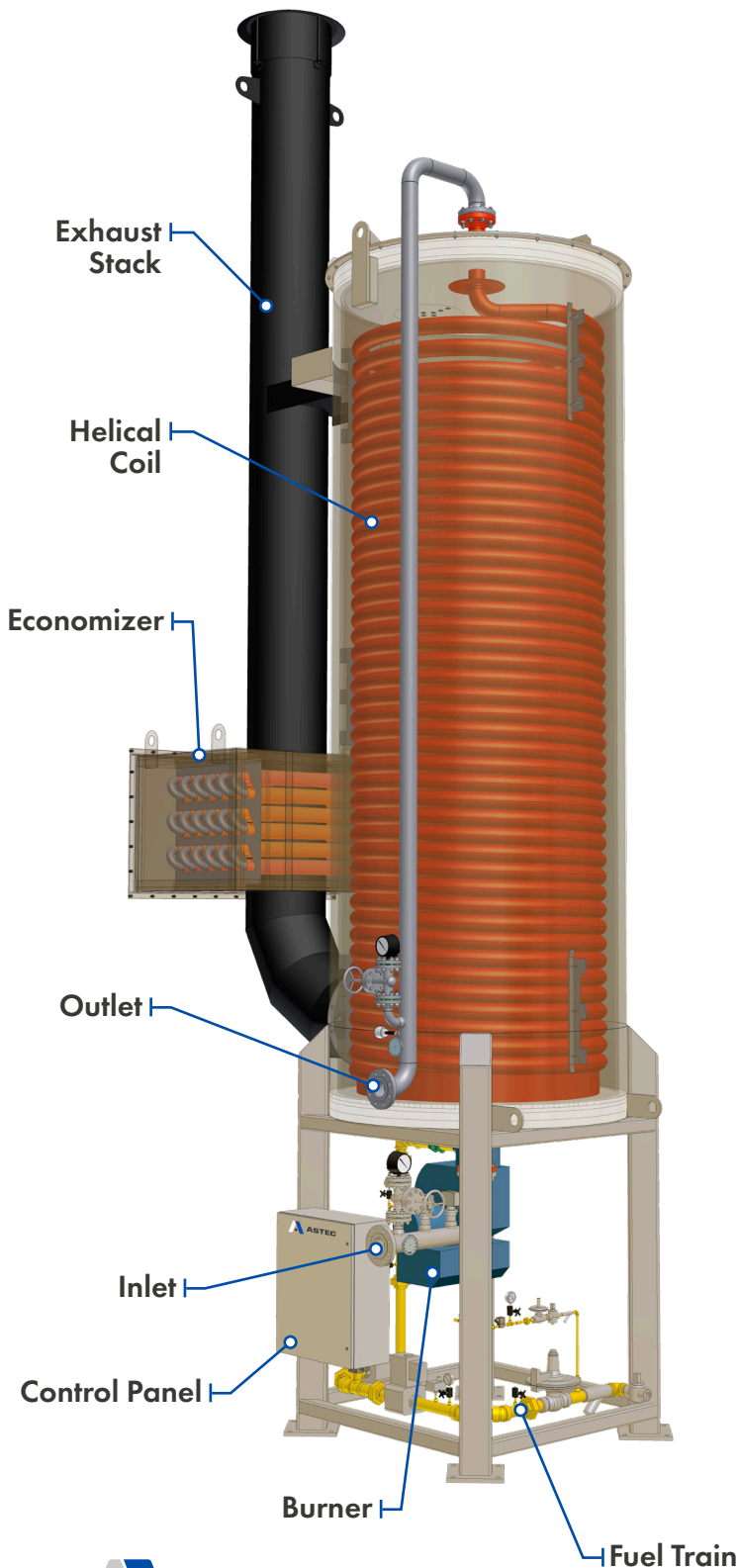
Two of these units may be used in a gas processing system: one to regenerate glycol for reuse by removing water, the other to regenerate amine for reuse by removing hydrogen sulfide (H_2S) and carbon Dioxide (CO_2).



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The unit has one or more helical coils that resemble those in HMO heaters or conventional thermal fluid heaters, also used in gas processing. However, these units should not be confused with each other.

Unlike HMO heaters, the glycol or amine is heated directly as it flows through the coils of the reboiler. The reboiler can be designed with one or more coils, depending on the flow rate needed.

The shell of the unit is insulated to minimize heat loss and increase thermal efficiency.

Our reboilers can be provided in various sizes to meet customer needs.

Astec also offers fire tube reboilers. Here are some considerations for choosing between these two types of reboilers:

Space needed - The vertical configuration of the helical coil reboiler has a significantly smaller footprint than the fire tube reboiler. Consequently it requires much less floor space.

Capacity - Helical coil reboilers usually have greater capacities for their physical size than fire tube reboilers. This is a consideration for shipping and for installation location.

Electrical power - Fire tube reboilers do not require booster pumps for circulation. This reduces electrical power demand on offshore platforms.

Film temperatures - Helical coil reboilers have forced recirculation, which produces lower film temperatures than natural circulation of fire tube reboilers.

Thermal efficiency - A heat exchanger is easily fitted to the exhaust stack of a helical coil reboiler to recover waste heat from the exhaust stack. It can provide a significant reduction in fuel usage.

Emissions - Helical coil reboilers produce lower levels of NO_x because of lower operating temperatures in their combustion chambers, an inherent characteristic of their design.

