

# CARBON MONOXIDE (CO) BOILER THERMAL OXIDIZER



BURNERS | FLARES | THERMAL OXIDIZERS | VAPOR CONTROL | RENTALS | AFTERMARKET



## **There are no carbon copies.**

As a worldwide leader in thermal oxidizer solutions, Zeeco is the company to trust for your CO Boiler application. Our engineers have decades of experience in designing these systems for petroleum refineries around the globe. We are a supplier of CO Boilers for the world's major Fluidized Catalytic Cracking Unit (FCCU) process licensors.

CO Boilers are thermal oxidizers with integral waste heat recovery systems that are used to oxidize carbon monoxide-rich waste gases typically generated by Fluidized Catalytic Cracking Units (FCCU) in petroleum refineries. They are traditionally referred to as "Boilers" due to the large quantity of steam generated by integral waste heat recovery systems.

Zeeco's experienced engineering group goes the extra mile with each and every ZEECO® CO Boiler. We use advanced Computational Fluid Dynamic (CFD) modeling to simulate your unique process conditions against actual equipment design. Rather than relying on past experience and traditional design rules, this allows us to predict what cannot otherwise be seen or anticipated.

As the first Combustion Research and Test Facility in the world to become ISO 9001-2000 certified, our staff continues to stay ahead of rapidly changing emission requirements. With 15 full-scale combustion test furnaces, Zeeco is capable of testing a wide variety of combustion systems under simulated field conditions. A multi-stream incineration system allows us to test the most complex situations in a controlled environment.

## **The Zeeco difference.**

Our only business is the combustion business. By concentrating on what we do best, Zeeco has grown into a worldwide leader in combustion solutions. We are a privately held company whose ownership stays highly involved in daily operations, with upper management comprised of the world's leading combustion experts.

When you call Zeeco, we answer. When you make a request, you receive a quick response. Our sales, engineering, and purchasing groups work hand-in-hand to deliver highly competitive quotes and heroic turnaround times. We stand ready and willing to travel anywhere in the world to discuss upcoming projects firsthand and to ensure every existing project runs seamlessly.

## Typical Performance

- Residence time = 1.0 seconds
- Operating temperature = 1850°F (1010°C)
- Waste Destruction Efficiency (DRE) > 99.99%

## Typical Applications

- Petroleum Refineries: Fluidized Catalytic Cracking Units (FCCU)

## Design Features

- Custom engineered thermal oxidizer design guarantees optimal emissions performance.
- Proven internal waste gas injection system ensures flame stability and proper ignition of carbon monoxide waste stream.
- System-based approach provides dependable process control and reliability for the complete incineration and waste heat boiler package.
- Refractory system design provides protection against catalyst particulate abrasion and high operating temperature.



Carbon Monoxide Boilers



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When you call Zeeco, we answer. When you make a request, you get a quick, efficient response. We are lean and efficient, able to make decisions quickly, without bureaucracy and red tape. Our sales, engineering, and purchasing groups work hand-in-hand to deliver highly competitive quotes and heroic turnaround times. We stand ready and willing to travel anywhere in the world to discuss upcoming projects firsthand, and to ensure that every existing project runs seamlessly.

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Certifications apply to Zeeco Headquarters.



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Choose to work with our dedicated, flexible, and innovative team, and you won't be disappointed. Call or email us today to request a quote or to learn more about our proprietary combustion systems.

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