
ZEECO
• Burners
• Flares
• Incinerators
• Combustion Systems

At Zeeco, our mission is to design, manufacture and service combustion systems to the highest quality standards and offer them at the most competitive prices.

GENERAL CORPORATE OVERVIEW

Since its inception in the early 1980's, Zeeco has been committed to providing quality combustion equipment and services for the petroleum, chemical, petrochemical, pharmaceutical and food processing industries worldwide. To fulfill this commitment, Zeeco built a modern facility on 193 acres just outside of Tulsa, Oklahoma. This complex is the home for Zeeco corporate headquarters, an ASME code manufacturing facility and a comprehensive combustion research and testing center.

Zeeco management knew that a world-class facility alone would not be enough to earn customer recognition as a leader in combustion technology. They knew that they also needed the talents of knowledgeable and innovative people. By recruiting a team of engineers with years of hands-on experience in the design and operation of complex combustion and pollution control equipment, Zeeco has achieved its goal of not merely matching the performance of equipment already on the market but creating the next generation of burners, flares, incinerators and combustion systems.

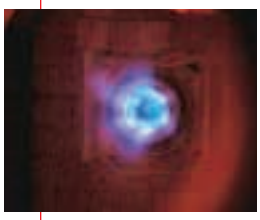
Zeeco feels strongly that its people and its commitment to quality products and services, set it apart from the competition. Zeeco is flexible enough to provide personalized attention to each customer whether the customer requires a small replacement part or a multi-million dollar system. With its sound financial strength, modern facility and creative, knowledgeable staff, Zeeco is your logical choice for combustion equipment both now and in the future.

BURNERS

With thousands of burner installations worldwide, Zeeco burners lead the industry for reliability and durability. Zeeco offers a full line of burners operating over a wide range of applications and fuels. Natural and forced draft burners are available with round, flat, pencil or radiant wall flame shape.

Zeeco burners demonstrate the cutting-edge technology that is the cornerstone of the company's success. The patented Min-Emissions burner (ultra low NOx) has industry proven performance with emission levels well below EPA and local government regulations. Zeeco Min-Emissions burners are small enough to match the mounting requirements of most conventional burner assemblies and are available in flat flame gas only, flat flame combination oil and gas, round flame gas only and round flame gas and oil configurations. Thus, Zeeco's customers can quickly *replace conventional burners*, which produce emissions higher than those acceptable to local government regulations, *with burners that produce the required emissions at affordable prices.*

Zeeco also designs and manufactures duct burners for a wide range of customer needs. These low emission duct burners can be designed for gas, oil or combination gas and oil service.



Additionally, Zeeco offers a wide range of optional equipment including burner ignition systems, flame scanners, flame rods and burner management systems.

In addition to new burner equipment, Zeeco provides quality spare parts and replacements for existing equipment. Replacements are designed to fit Zeeco equipment as well as equipment built by other manufacturers.

FLARES

Having manufactured and installed many of the world's largest and most complex flare systems, Zeeco has consistently shown the ability to satisfy any customer requirement. In addition to standard utility flares,

Zeeco offers a comprehensive selection of smokeless flares for new installations and retrofits including steam-assisted, air-assisted, gas-assisted, high-pressure/low-pressure, staged, sonic, ground and enclosed models.

Zeeco manufactures flares for numerous applications including refineries, petrochemical and gas plants, offshore platforms, pulp and paper mills, landfills and food processing plants.

Zeeco also offers comprehensive engineering services to design, build and erect multi-million dollar flare projects. Zeeco systems include self-supported, guy-supported and derrick-supported flare stacks as well as offshore boom-mounted flares, portable flares and demountable flares.

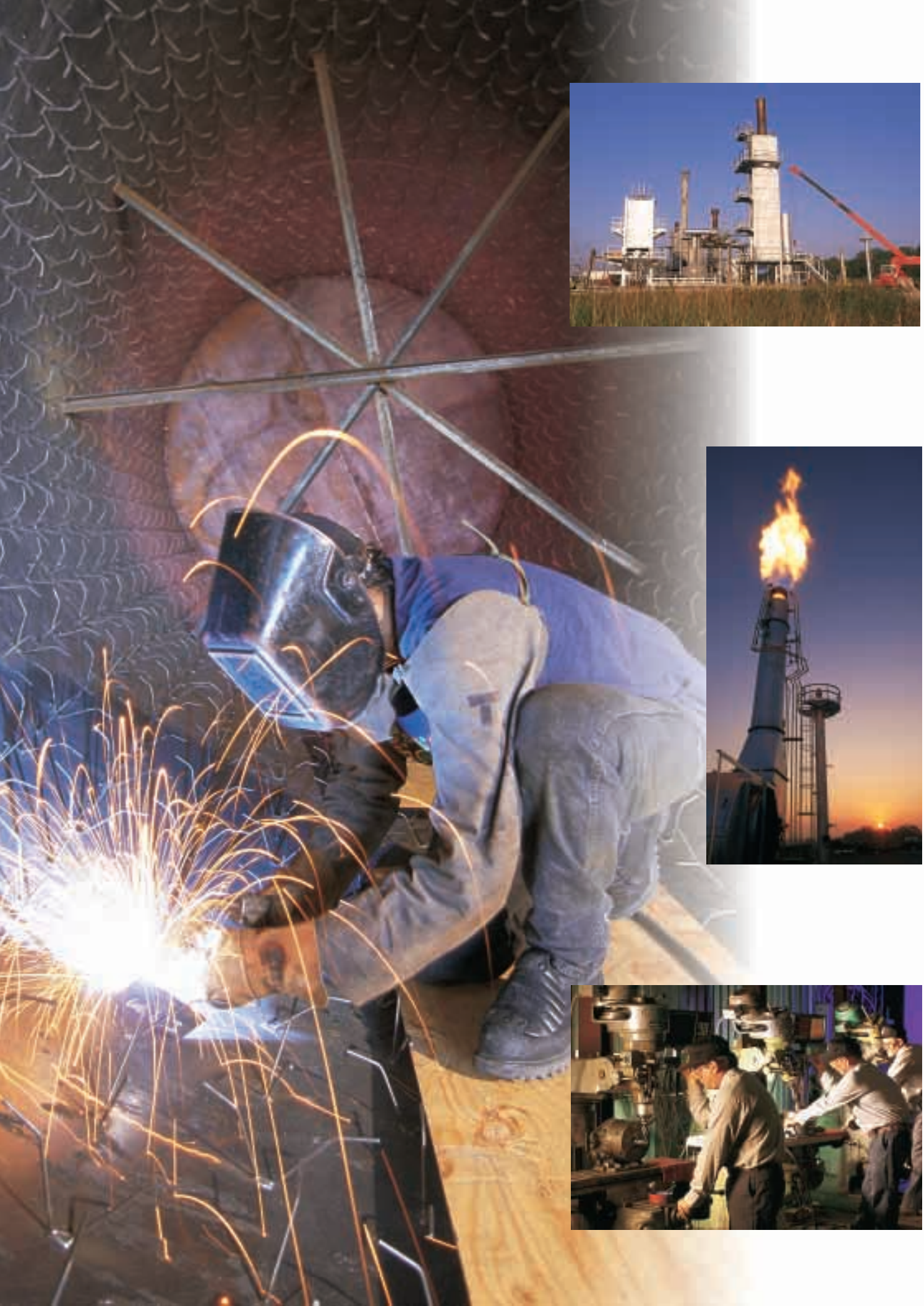
Zeeco also has the ability to develop specialty flares for custom applications. For example, Zeeco accepted an industry challenge to develop a crude oil flare which could substantially reduce pollution by decreasing the level of smoke and hydrocarbon fallout produced during offshore well testing. The result was the introduction of the ZLF Flare, rated more than 99.99% efficient by independent industry testing firms.

Auxiliary flare system equipment available from Zeeco includes purge reduction devices, liquid seals, knock-out drums and the most reliable pilot ignition systems. Zeeco also refurbishes existing flares and provides spare parts for their flare equipment and that of other flare manufacturers.

INCINERATORS

The effective disposal of hazardous and non-hazardous wastes has been a worldwide concern for many years. Properly designed incineration systems have proven to be the most effective method for the disposal of a wide variety of wastes. Zeeco offers a complete line of liquid and fume incinerators to safely and efficiently dispose of waste streams such as tail gas, acid gas, chlorinated hydrocarbons, waste liquids and waste gases. Industry experts consider Zeeco to be one of the foremost suppliers of CO Incinerator/Boiler Systems in the world. Because of the high temperatures associated with incineration, many Zeeco incineration systems reduce operating costs by incorporating waste heat recovery equipment.

Zeeco also utilizes proven air pollution control devices to remove particulate matter and inorganic acids from the flue gas. Depending on the components of the flue gas, one or more devices can be incorporated into the system design. Bag houses, venturi scrubbers and ionizing wet scrubbers are designed to control particulate. Absorbers and scrubbers clean the acid gases present in the flue gases. Quench systems, conditioning towers and heat exchangers are used to lower the temperature of the flue gas.



VAPOR COMBUSTORS

In the early 1980's, a major gasoline marketer approached Zeeco to develop a product that would economically control hydrocarbon vapor emissions at truck-loading/tank terminals. Zeeco answered the request by introducing Hydrocarbon Vapor Combustors. These systems resembled enclosed flares but contained additional safety features. Typical systems consist of a combustor stack and a packaged, pre-wired skid assembly complete with anti-flashback burner, combustion air blower, liquid seal, detonation or flame arrestor and programmable logic controller (PLC) based control system. These non-temperature controlled units were designed to meet vapor emission limits set by federal and local environmental governing authorities. In areas where emission regulations are more stringent, Zeeco offers temperature controlled units which maintain minimum combustion chamber temperatures to achieve higher destruction efficiencies.

Existing non-temperature controlled units can also be retrofitted to become temperature controlled units in order to comply with more stringent emissions requirements.

Zeeco's proprietary anti-flashback burner element was designed for longer operating life and can be easily adapted to units supplied by other manufacturers.

In addition to standard vapor combustors, Zeeco also provides Marine Terminal Combustors, Marine Vapor Blower Packages, and Vapor Safety Collection Skids. These units are designed to comply with all U.S. Coast Guard Specifications.

COMBUSTION RESEARCH & TESTING

Zeeco has built its reputation by solving some of the most difficult combustion and pollution control problems in the industry. To aid in this endeavor, Zeeco maintains one of the largest and most versatile combustion research and testing facilities in the industry. Utilizing this facility, Zeeco can simulate virtually any operating condition, design equipment to meet the exacting needs of each client and prove product performance prior to shipment to the field. The result is a superior product and customer satisfaction.

For all tests, Zeeco matches the lower heating value and specific gravity of fuel used by each specific customer. Liquid fuels available include #2 oil, #6 heavy oil and Naphtha. In addition, exotic fuels or special fuel blends may also be shipped to Zeeco for testing purposes.

Zeeco's research and testing capabilities are not just limited to burner testing. Zeeco is equipped to conduct demonstrations on a full range of flare equipment including air-assisted, steam-assisted, enclosed and ground flares. A multi-stream incinerator system is also in place for testing complex incineration systems.

For testing applications where large visible flames or other operating conditions might be objectionable, Zeeco utilizes its remote testing facility. This private site is located northeast of Tulsa and is equipped with water and high volume fuel storage capacity. Fuels, compressors and associated hardware are available to accommodate virtually any testing requirement.

ENGINEERED COMBUSTION SYSTEMS

In addition to traditional burners, flares and incinerators, Zeeco also designs and manufactures a variety of engineered systems which include: direct-fired air heaters for applications such as catalytic cracking furnace start-up, calciner air heaters for preheating systems; acid gas burners, inline reheat burners, high temperature reaction furnaces and associated equipment which are found in sulfur-recovery plants; and burner management systems to maximize burner operating efficiency. These systems can be manufactured to the necessary insurance requirements and are complete with pre-piped and wired fuel skid assemblies. Process control systems that provide automatic operation of flare, incinerator and vapor combustion systems are also available. Many of these engineered systems utilize the latest technology in programmable logic controllers (PLC) allowing for direct communication with the plant's distributed central system (DCS).

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