# **FIELD-ERECTED BOILERS**

### **Zeeco Firing Systems**



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

#### **Comprehensive Engineering Studies**

- Environmental Compliance
- Efficiency Audits
- Fuel Conversions
- · Unit Up-Rate
- · Equipment Upgrades
- · Capacity Increase

#### **Tangential & Wall Burners**

- Ultra-Low and Low NOx
- Retrofitting
- · High Efficiency
- Opportunity Fuels
- · Firing System Optimization
- Stoker Aux. Gas / Oil Burners
- · Opportunity Fuels
  - » Landfill Gas, Waste Gas, Coke Oven Gas, Blast Furnace Gas

#### **Warm-Up Burners**

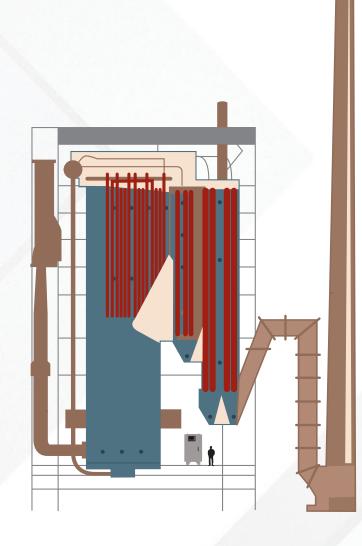
• Gaseous / Liquid Fuels

#### **Liquid Fuel Atomizers**

- · Heavy, Blended, Light Oils
- Waste Oils

#### **Pilots / Ignitors**

- · HE Direct Spark
- · Specialty Fuels
- NFPA Class 1, 2, 3; Gas & Oil



#### **Technical & Installation Services**

- Start-Up
- Preventative Maintenance
- Operator Training
- Full Turnkey Services
- · Service & Repair

#### Safety / Control Systems

- Combustion Control
- · Burner Management
- · Draft & Feedwater Control

#### Flame Scanners

- UV
- · Flexible Fiber-Optic
- Visible Light
- IF, IR Flicker Frequency

# Primary / Secondary Air Systems Flue Gas Flow Modeling

- Increase Efficiency, Turndown
- OFA Optimization
- Combustion Air Systems / FGR
- Stack Modeling
- · Optimize Fuel / Air Mixing
- · Reduce System Pressure Drop
- Lower O<sub>2</sub>, CO, NOx, Carbon Footprint
- Eliminate Vibration

#### Fuel / Air System Upgrades

Cost-Effective Solutions

# ZEECO POWER CAPABILITIES



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# **PRODUCTS FOR STEAM & PROCESS**

#### **Burners**

- GLSF Free-Jet Ultra-Low NOx Burners
- GB Low NOx Dual Fuel Burner
- Register and Venturi Style Retrofit Burners
- Fluid Bed Start-Up Burners & Gas Lances
- Over Bed / Over Stoker Start Burners & Support Burners
- · DB-LN Duct Burners

#### **Utility & Industrial Burner Systems**

- Forced Draft Fans
- Windbox
- Fuel Trains
- · Burner Management System (BMS)
- Combustion Control Systems
- · Over-Fire Air Systems
- Flue Gas Recirculation (FGR)
- · Scanner Systems

#### **Pilots / Ignitors**

- Flexible Ignition / Warm-Up Guns for T-Fired Units
- Class 1 Gas / Oil Pilots & Warm-Up Guns
- Class 2 Gas / Oil Burner Support Pilots
- Class 3 Gas / Oil Pilots with HE capability
- Class 3 Special HE Only (Rigid & Flexible)

#### **Optimization Kits**

- Z-Jet Low NOx Kits (Gaseous & Liquid Fuels)
- Ultra-Low Steam Usage Atomizers & Tips

#### Safety / Control Systems

- Solid State
- · Programmable PLC
- Single Point, Parallel Point
- · Fully Metered Cross Limited Control
- O2 Trim, VFD Fan Draft Control

#### **Flexible Fuel Capability**

- Natural Gas
- No. 6 Fuel Oil
- · No. 2 Fuel Oil
- · Blended Oils
- Refinery Gases
- · Waste Oils
- · Opportunity Fuels
- · Low Btu Gases
- · Blast Furnace Gases
- · Coke Oven Gases
- Landfill Gases
- High-Viscosity Fuels

# GO ZEECO®

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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Learn more at zeeco.com



Certification applies to Zeeco Headquarters.

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# **SERVICES**

#### **On-Site Technical**

- Start-Up
- Installation Supervision
- Preventative Maintenance
- Service Contracts
- · Operator Training
- Aftermarket Parts

#### Flow Modeling Center

- · Physical & CFD Modeling
- Combustion Air Systems
- Flue Gas Recirculation Systems
- Over-Fire Air Systems
- Exit Gas / Stack Modeling
- Selective Catalytic Reduction

#### **Engineering Studies**

- · Environmental Compliance
- Efficiency Audits
- Fuel Conversions
- Capacity Increase
- Carbon Footprint Reduction

#### Turnkey

- · Coordinating Supply
- Equipment Modification
- Demolition / Installation
- Start-Up
- Operator Training
- Site Management