

FLAMECO

PRODUCT CATALOG





Flameco Industries has been a recognized leader in the natural draft burner industry for over 40 years.

Our reputation has been built on manufacturing reliable, sustainable, and high-quality products that deliver innovative solutions throughout the oil and gas processing industry.



NATURAL DRAFT BURNERS

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Natural draft burners utilize the buoyancy of hot combustion gases to induce airflow without mechanical assistance. By relying on fundamental principles of thermal convection, pressure differential, and combustion dynamics, these systems draw air naturally through the burner and exhaust flue.

Well-suited for applications with lower BTU demands, natural draft burners offer the key advantages of cost-effectiveness, little-to-no external power requirements, and demand minimal maintenance. This product is ideal for installations where simplicity, energy independence, and long-term reliability are priorities.

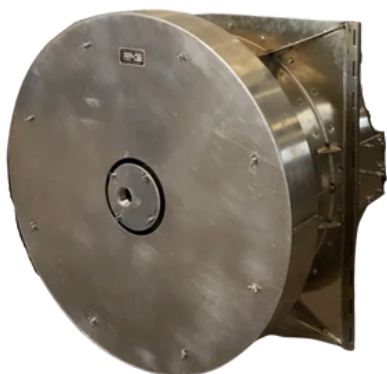


O-TYPE

Recommended BTU Range: 50K - 2.5MM BTU/hr

Recommended for Firetube Sizes: 4" - 24"

Recommended Use: Ideal for applications with lower BTU requirements.

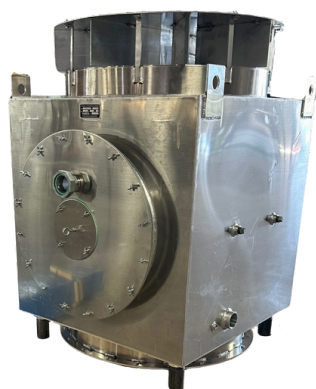


HINGE-TYPE

Recommended BTU Range: 50K - 2.5MM BTU/hr

Recommended for Firetube Sizes: 12" - 30"

Recommended Use: This model eliminates the need for manual flame cell removal from the housing, enhancing both safety and technician accessibility during maintenance or inspection.



BOX-TYPE

Recommended BTU Range: 2MM - 10MM BTU/hr

Recommended for Firetube Sizes: 14" - 36"

Recommended Use: Recommended for complex clearance requirements while delivering high BTU/hr requirements.

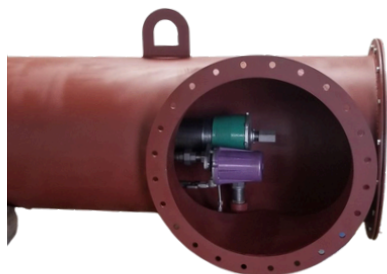


MULTI-FIRETUBE BOX

Recommended BTU Range: 2.5MM - 15MM BTU/hr

Recommended for Firetube Sizes: 14" - 36"

Recommended Use: Recommended for multi-firetube units with complex clearance requirements. One of the most reliable and robust heat delivery products we offer.

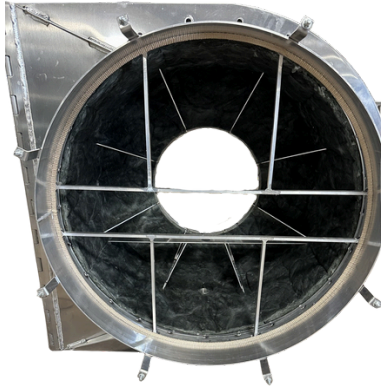


T-TYPE SIDEMOUNT

Recommended BTU Range: 50K - 2MM BTU/hr

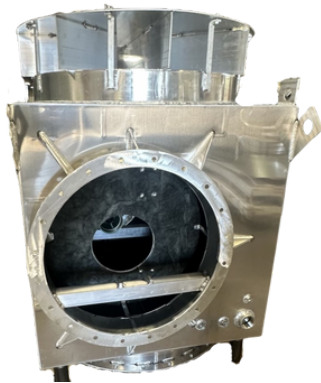
Recommended for Firetube Sizes: 4" - 30"

Recommended Use: Ideal for enabling ease of access in an environment with complex clearance restrictions.



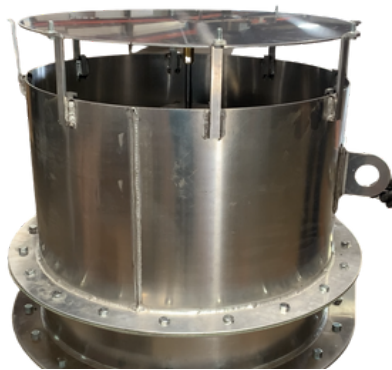
REDUCED NOISE

Adds insulated lining along the inside of the burner housing. This design targets noise reduction while operational.



LOW NOISE

Adds a fully insulated housing and insulated baffle plate, targeting maximum noise reduction while maintaining efficiency.



AIR CONTROL SYSTEM

This design targets controlling primary airflow draft, optimizing draft through air supply, retaining heat in the firetube, and reducing the number of startup cycles.



ELEVATED AIR SUPPLY

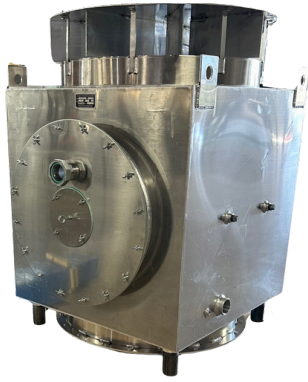
This design elevates and shields the primary air intake, protecting against environmental conditions and atmospheric debris.



Current supported natural draft burner designs.

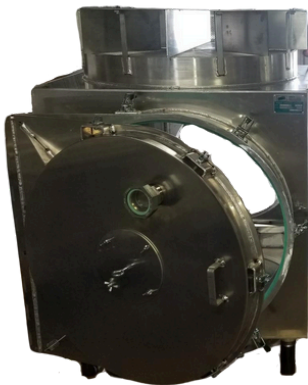
Design	O-Type	Hinge Type	Box Type	T-Type
STANDARD	✓	✓	✓	✓
REDUCED NOISE	✓	✓	✓	
LOW NOISE		✓	✓	
AIR CONTROL		✓	✓	
AIR CONTROL LOW NOISE		✓	✓	
AIR CONTROL REDUCED NOISE		✓	✓	
ELEVATED AIR SUPPLY		✓	✓	
ELEVATED AIR SUPPLY REDUCED NOISE		✓	✓	
ELEVATED AIR SUPPLY LOW NOISE		✓	✓	
ELEVATED AIR SUPPLY AIR CONTROL		✓	✓	
ELEVATED AIR SUPPLY AIR CONTROL REDUCED NOISE		✓	✓	
ELEVATED AIR SUPPLY AIR CONTROL LOW NOISE		✓	✓	

NATURAL DRAFT BURNERS



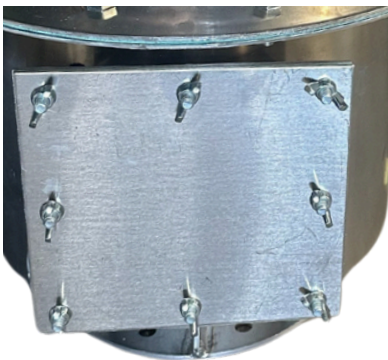
MANWAY COVER

A manway cover is attached with fasteners and provides easy access to internals through fastener attachments.



QUICK-CLAMP MANWAY

Ideal for field service environments, this tool-free feature replaces conventional fasteners with clamps, allowing rapid entry into housings.



6" X 6" ACCESS PANEL

Enables easy access to piping, pilots, and main burners.



IGNITION MODULE BRACKET

This bracket provides a reliable mount for burner management systems.



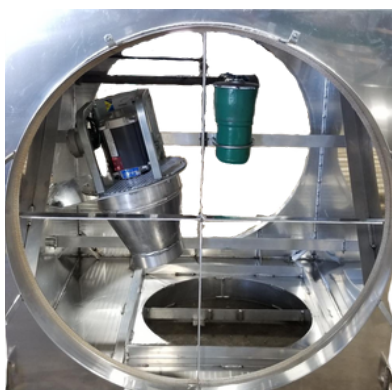
QUICK-CLAMPS

Rather than traditional fasteners, clamps allow quick serviceability without requiring tools to open the housing.



UV SIGHT TUBES

UV Sight tubes provide automatic flame monitoring for the main burner.



PURGE FANS

Purge fans force air through the firetube and out of the stack, clearing any residual gases.



TRANSFORMER BRACKETS

Transformer Brackets (XFMR) are made to mount inside the housing.



Enhancement options are defined by features that impact the manufacturing production process of Natural Draft Burners.

Enhancement	O-Type	Hinge Type	Box Type	T-Type
6" x 6" Access		✓		
Lifting Lugs	✓	✓	✓	✓
Manway			✓	✓
Purge Fan			✓	
Quick-Clamps		✓	✓	
UV Sight Tube			✓	
Welded Flange Nuts	✓	✓	✓	✓
XFMR (Transformer Bracket)	✓	✓	✓	✓
Ignition Module Bracket	✓	✓	✓	✓



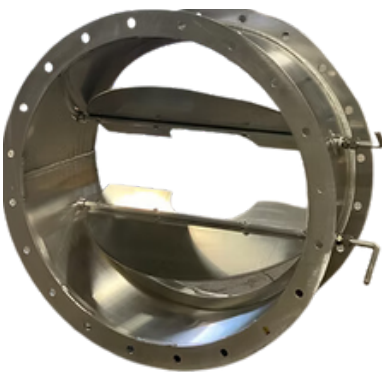
EXTENSION NIPPLE

A custom threaded pipe to extend the nozzle/flame into the firetube to the proper and safe depth.



EXTENSION SPOOL

A mounting spool that is used to extend the housing past an obstruction. Recommended when the stack overhang exceeds the standard or when retrofitting a unit.



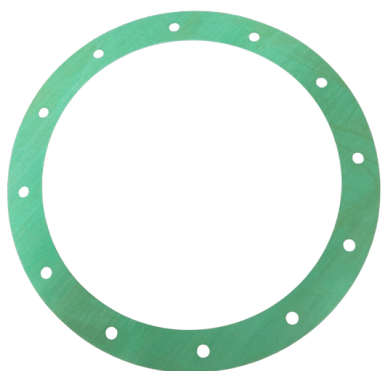
MANUAL SECONDARY AIR CONTROL SPOOL

Controls secondary airflow going into the firetube. This product is aimed at retaining heat in the firetube and reducing cycle times.



PLATE FLANGE

Mounting flange adapter that connects the burner flange to the unique customer requirements.



GASKET

Recommended for all flange connections. The gasket provides a seamless seal aimed at preventing air or liquid from entering or exiting the flange connection.



Add-ons are defined as optional products that can be manufactured separately from the Natural Draft Burner.

Add-On	O-Type	Hinge Type	Box Type	T-Type
Companion Flange	✓	✓	✓	✓
Extension Nipples	✓	✓	✓	✓
Extension Spool	✓	✓	✓	✓
Gasket	✓	✓	✓	✓
Manual Secondary Air Control Spool	✓	✓	✓	✓



COMPOUND INJECTOR ASSEMBLES

With two stages of air and gas mixture, this is the most efficient burner assembly we offer.

1" - 6"



SINGLE STAGE ASSEMBLIES

One stage of the air and gas mixture provides a reliable and efficient flame.

1" - 5"



HO MIXERS

Provides high temperatures, ensuring efficient heating with a short flame. An air shutter and H.O. rod allow for easy adjustments.

3/4" - 5"



NS MIXERS

Equipped with an adjusting pin that allows the user to adjust the air and gas ratio.

3/4" - 5"



BELL NOZZLE

Provides a precise flame for short fire tubes. This nozzle is the most versatile for all heaters.

1/2" - 6"



FERROFIX NOZZLE

Designed to ensure reliable heating in environments with balanced or negative pressure.

3/4" - 6"



ROSEBUD NOZZLE

Provides high temperatures, ensuring efficient heating with a short flame.

1" - 4"



STICKTITE NOZZLE

Manufactured with a flame retention feature, this is ideal for a stable flame at distances of 8' to 10' or greater.

3/4" - 4"



STANDARD VENTURI

The Flameco venturi precisely mixes air and gas based on pressure to ensure a stable flame for main burner ignition.



FANTAIL VENTURI

The Fantail venturi is shaped to draw air in through the bottom and produce a dispersed flame pattern. It was originally developed for vertical heater treaters but is compatible with any firetube larger than 16 inches in diameter.



AIR VENTURI

The air venturi offers an additional inlet for a secondary air supply.



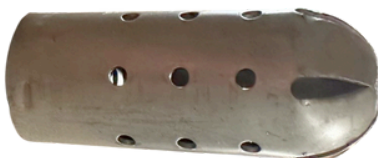
STANDARD NOZZLE

This design is valued for its compatibility with a wide range of heaters and applications, reliable BMS integration, and strong flame stability across climates. This model is constructed with a carbon steel blast tip.



STAINLESS NOZZLE

The stainless pilot nozzle is valued for its compatibility with a wide range of heaters and applications, reliable BMS integration, and strong flame stability across climates. This model is constructed with a stainless-steel blast tip.



RHSB NOZZLE

Constructed from stainless steel, this nozzle is designed to withstand high temperatures and wind exposure.

*Pilot nozzles with stabilizing fins can also have a capillary tube.



FINS

The Finned nozzle is an add-on to the standard Flameco pilot design. It includes three stabilizing fins and a metal plate covering the top of the nozzle, which serves as a grounding surface to enhance signal detection. This nozzle is meant to operate exclusively at low pressures.



CAPILLARY TUBE

This add-on focuses on supporting thermocouples and burner management systems.



ALUMINUM AIR CANISTER

Offers additional air for pilots with restricted air access or in locations that experience high winds.



FUEL GAS SAFETY VALVE

Fuel gas safety valves are mechanical burner management systems with buoyant properties used to shut off gas flow when necessary. These are designed for use in fuel gas scrubbers across varying gas production units.

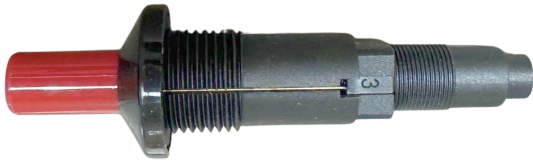
Sour Service - This device is ideal when working with hydrogen sulfide (H₂S). Rated for 250 PSI.



FLOAT VARIATION

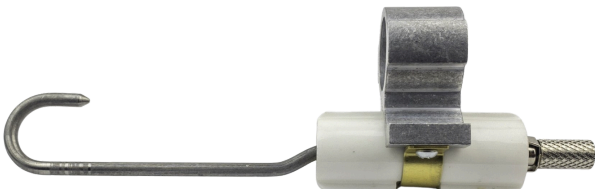
Floats are buoyant stainless steel canisters that rise as the liquid level rises. When the liquid reaches a predetermined level, the float lifts the plug or valve element, effectively stopping the gas flow to the burner.

- 2" x 6"
- 2" x 10"
- 2" x 12"
- Custom Sizes Available Upon Request



PZ IGNITOR

A piezo ignitor operates by harnessing the piezoelectric effect. When a button or lever is pressed, a hammer-like mechanism strikes, resulting in the generation of the spark.



STANDARD IGNITOR ROD

Provides the initial spark necessary to start a unit.



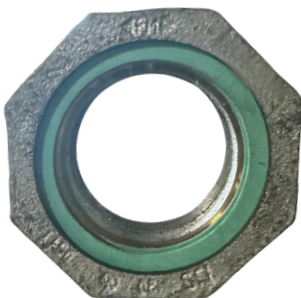
BIG LOOP IGNITOR ROD

Provides the initial spark necessary to start a unit. This model is compatible with RHSB nozzles.



STRAIGHT FLAME IGNITOR ROD

Straight rod ignitors can be used as flame rods or ignitor rods. Comes with a 45° variation.



SIGHT GLASS

A sight glass enables visual inspection of the burner flame without opening the housing or interrupting operation, ensuring flame stability and safety during runtime.



SPARK ARRESTOR

Manages the flow of combustion gases from gas-fired burners. Designed to prevent backdraft and equipped with a spark cell for added safety.

SPARK ARRESTED DRAFT DIVERTER

Directs the flow of combustion gases from gas-fired burners. Used to prevent backdraft and equipped with a spark cell for added safety.



ROTATING WIND GUARD

This product features a self-rotating wind guard that automatically aligns with wind direction to shield the flame and maintain stable operation. This line offers a Standard and Low Profile (image) design option.



EQUALIZED STACK HEAD

Drafts occur within the stack when wind speeds are below 60mph or during rainfall. This balances ambient air with flue gases, providing stability and preventing issues such as backdrafts. Offered in aluminum, carbon, or stainless steel.

STATIONARY WIND GUARD

Used to prevent high winds from creating backdraft and can block debris such as dirt, sand, and snow from entering the system.

Available as a slip-fit or a flanged option.



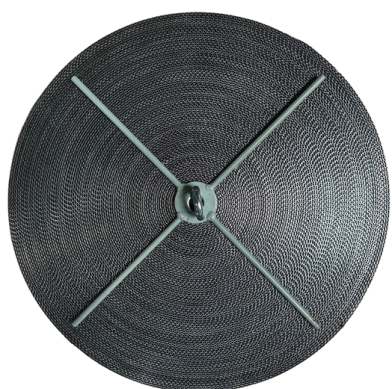
STACK DAMPER

Ease-of-access base for any stack that serves as an air, draft and velocity controller for stack exhaust. Offered in carbon and stainless steel.



FLAME CELL

A flame cell's primary function is to stop flame propagation. Engineered for thermal resistance, pressure surges, and high-flow conditions, they ensure safe process air and gas handling across industrial chemical and energy applications. We offer a 2" and 4" thickness in Aluminum, 304 SS, and 316 SS.



SPARK CELL

Spark cells are 1" thick barriers of corrugated metal, typically made from aluminum or stainless steel. They are used to prevent cinders from escaping, thereby creating a safer environment, producing cleaner emissions, and helping meeting Coast Guard regulations.



ANTI-FLASHBACK FLARE TIP

Engineered for safe, efficient combustion across varying flow rates, this flare tip features integrated anti-flashback protection to prevent flame reversal into the flare system. Suitable for both elevated and ground flare applications, it delivers stable, reliable performance while meeting EPA air quality standards.



THREADED VENT ARRESTOR

Designed for end-of-line vertical venting, this arrestor enables unrestricted airflow while providing flame protection for storage tanks and atmospheric vent lines. Ideal for low-pressure systems, it prevents flame ingress without impeding normal venting operations.



THREADED IN-LINE ARRESTOR

In-line flame arrestors are primarily utilized for end-of-line applications where the system operating pressure is close to atmospheric levels, and the likelihood of a flame stabilizing on the flame arrestor element for an extended duration is minimal.

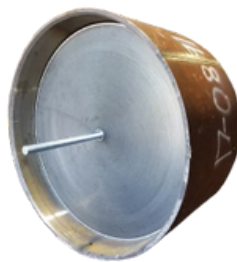
ENGINEERING & CUSTOM MANUFACTURING EXCELLENCE

Our expertise enables us to take complex customer requirements and turn them into high-quality products. With a focus on precision, efficiency, and short lead times, we've established a reputation for delivering exactly what our customers need, when they need it. From initial design to final production, our engineers work closely with customers to ensure that every specification is met, no matter how intricate. While we're rooted in the oil and gas processing sector, our capabilities extend far beyond. We have successfully delivered products across a wide range of industries, always tailored to the customer's specific requirements. With a flexible approach to manufacturing, we're equipped to handle both large-scale production runs and specialized custom orders.

CUSTOM PROJECT CAPABILITIES SHOWCASE*



Sulphur Ventilation Component



72" Flame Cell Element



Fuel Train Enclosure



QUALITY & COMPLIANCE

At Flameco, we offer engineering service and support when needed—but when our customers own the design, or have a project with fully defined requirements, we build precisely to spec with disciplined execution. Every product is engineered and fabricated to meet our customers' specific technical and regulatory requirements, particularly those in the EPC, refining, and industrial process sectors.

We work closely with our clients to understand their expectations, then deliver components that are tested, inspected, and documented according to project-specific standards. Our assemblies are manufactured to support efficient operations, regulatory compliance, and long-term performance.

Flameco products are built by certified welders and follow ISO-aligned quality practices and procedures. Where required, we provide full material traceability, inspection reports, and QA documentation. Our operations meet or exceed applicable OSHA and EPA regulations. We actively gather real-world performance feedback from customers across a wide range of applications and global operating environments.

We take pride in delivering fit-for-purpose components that meet stringent technical expectations—without overengineering or unnecessary complexity. That's the Flameco commitment: reliable builds, on spec, and on time.

WHY CHOOSE FLAMECO?

- **Precision and Quality:** Our commitment to quality is unwavering. Every product is crafted to meet the highest standards, ensuring durability and performance.
- **Expert Consultation:** Our team of experts is dedicated to helping you make the right choices, troubleshoot issues, and keep your operations running smoothly.
- **Short Lead Times:** We understand the importance of time in your business. That's why we prioritize efficiency in every aspect of our production process.
- **Custom Solutions:** No two challenges are the same, which is why we tailor our solutions to meet your specific needs, whether they're in oil and gas or beyond.

CONSULTING SERVICES FOR SEAMLESS OPERATIONS

Beyond manufacturing, we offer expert consulting services designed to help you select the right products, start them up efficiently, and ensure they continue to perform optimally. Our seasoned professionals are here to guide you through every stage of the process, from product selection to troubleshooting and ongoing maintenance. With a deep understanding of your industry and the challenges you face, we provide actionable insights that drive results.



GET IN TOUCH



OUR MISSION

Our mission is to provide high-quality products and services to our customers while maintaining a safe and fulfilling environment for our employees. We strive to continuously improve our processes and leverage technologies to meet the ever-changing needs of our multi-industry customer base. We are dedicated to continuous improvement, fostering partnerships, and driving positive impact in all that we do.

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