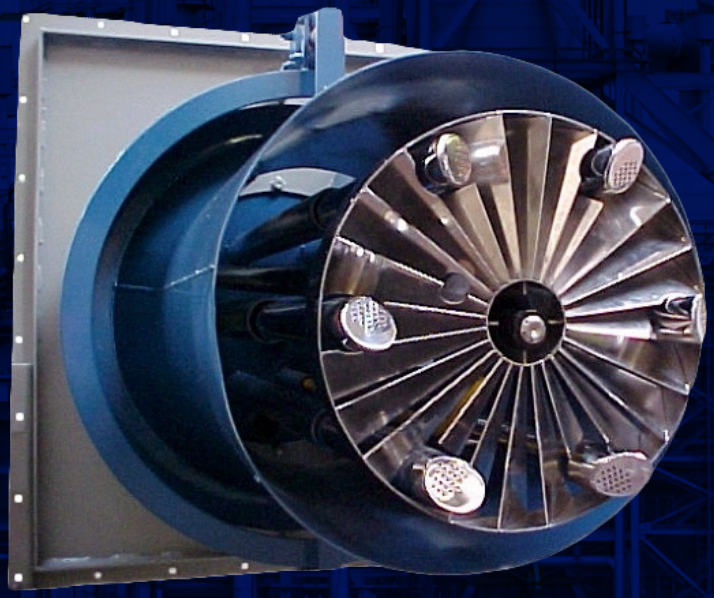
FORNEY

PAF Burners

Forney Parallel Air Flow (PAF) burners are custom engineered for a wide range of heat inputs while providing the flexibility of firing a variety of fuel types.



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PRODUCT OVERVIEW

The Forney Parallel Air Flow (PAF) burner design provides a simple, economical, low maintenance method for burning liquid or gaseous fuels with maximum efficiency at low excess air rates. PAF burner principles are adaptable to virtually any type of steam generator or furnace application.

The PAF burner is composed of three major assemblies depending on fuel capability:

- Air frame assembly
- Air swirler assembly
- Liquid fuel atomizer and/or Gaseous fuel manifold and cane spud assembly.

The air frame consists of a front mounting plate, burner access plate, combustion air tube, sleeve type damper and a multivane type air swirler attached to the center burner guide tube.

The multivane air swirler is designed to produce optimum air/fuel mixing, flame shape and flame stability over a wide turndown range.

Steam, air and mechanical atomization are available for a wide range of liquid fuels. For gaseous fuels, a manifold and “cane” spud type nozzles are used.

Pub #404002-12
Rev 06/2021

FEATURES

- **20-300** mm BTU/Hr Heat Input Range

- **Economical Design**

  Single or dual air zone and spinner

- **Automation**

  Pneumatic burner isolation and oil gun retraction available.

- **Low Pressure Drop**

  Operates with as little as 3.0” w.c. drop across the throat, making it ideal for retrofit applications.

- Meets all industry safety and environmental specifications with FGR.

BENEFITS

- Industry proven design with years or experience in utility and industrial boilers.
- Key component to convert main fuel from coal to gas.
- Ancillary Equipment, such as flame scanners, igniters, valves, control logic, all available from on source.
- Burner of choice for heavy fuel oils, viscous waste fuels and low BTU fuels, custom designs available.

Pub #404002-12
Rev 06/2021

PAF Burners

Typical Specifications	
Throat Diameter:	12 to 45 inches
Heat Input:	20 to 300 million Btu per hour
CO emissions:	Less than 50 PPM corrected to 3 percent oxygen
Excess Air Levels:	5 percent or less while firing gas 10 percent or less while firing oil
Fuels Fired:	Light & heavy oils Natural gas & propane Waste gases such as digester, landfill, blast furnace, and coke oven gas
Oil Atomization:	Steam, air, or mechanical
Gas Nozzles:	Multiple adjustable spud-type
Register:	Multiple concentric annular flow and axial swirl flame stabilization
Flame Detector:	A wide variety UV or IR detectors
Turndown Ratio:	Oil, better than 8 to 1 Gas, better than 10 to 1
Fuel Pressure	Oil, 130 to 300 psig (depending on capacity and turndown) Gas, 15 to 25 psig (depending on capacity and turndown)
Combustion Air Temperature:	Ambient to 700°F

Pub #404002-12
Rev 06/2021

Accessory Equipment

- **Igniters**

  Natural gas fired, No. 2 oil fired, or direct spark ignition
  Class 1 or Class 3 applications
  High Energy ignition (12 joules per spark, 3 sparks per second)

- **Oil Guns**

  Steam atomized, air atomized, and pressure atomized to meet a wide range of needs.

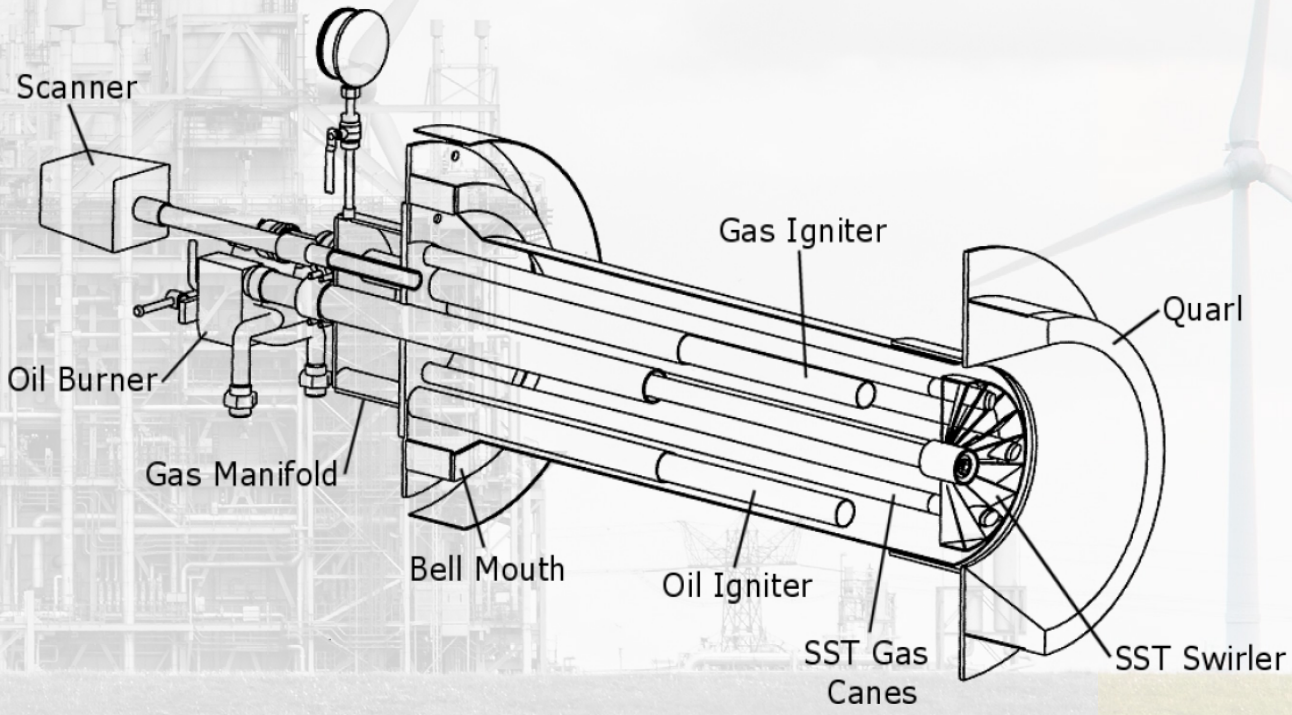
- **Fuel Trains**

  Pneumatic or motorized valves, NEMA 12, NEMA 4, or explosion-proof enclosures.

- **Burner Management Systems**

  Single-point positioning, parallel positioning, or fully metered control strategies.

For more information on burners, igniters and controls, contact Forney or your local Forney representative.



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