

VORTIFLARE® Radial Flame Burners



1-1/2" Series "G" VORTIFLARE® Burner assembly with seal and support, and optional pilot and mounting ring shown on left. On right is 1-1/2" Series "G" VORTIFLARE® Burner assembly with basic refractory block.

- **Gas/oil flexibility in a radial flame pattern**
- **Burn most clean, low pressure gaseous fuels or #2 fuel oil** with only 8-16 psi combustion air pressures
- **Operate on-ratio or with excess air** to meet the specific demands of your combustion process
- **Eliminate flame impingement and reduce hot spotting**
- **Short radial flame pattern** permits larger loadings of your furnace and lehrs
- **Achieve better temperature control without temperature override** with 25:1 turndown on gas or 12:1 turndown on #2 oil
- **Series "G" (gas only) version permits future conversion** to oil firing
- **Mounting flexibility** allows you to install VORTIFLARE® Burners in side wall or roof, through thick or thin soft wall refractory construction



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Principle of Operation

With Series “G” VORTIFLARE® Burners, combustion air enters the burner body and is swirled out into the burner block through the nozzle ports. These ports create the spinning radial flame characteristic of the VORTIFLARE® Burners.

Low pressure gas enters the burner body and exits to the block through machined ports in the nozzle.

Pilot gas and air enter the burner body from a separate pilot mixer assembly (not shown in sketch at right) and passes down a refractory tunnel to intersect the main air and gas path, just in front of the burner nozzle.

With Series “C” VORTIFLARE® Burners, combustion air enters the burner body and is swirled out into the burner block through the nozzle ports.

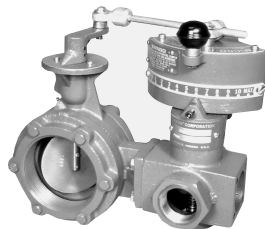
Low pressure gas is introduced to the burner body and exits to the block through the nozzle ports.

Light oil enters through the strainer and oil tube. It passes through the oil nozzle where the stream of liquid oil is atomized directly in front of the gas pilot tunnel by the atomizing air.

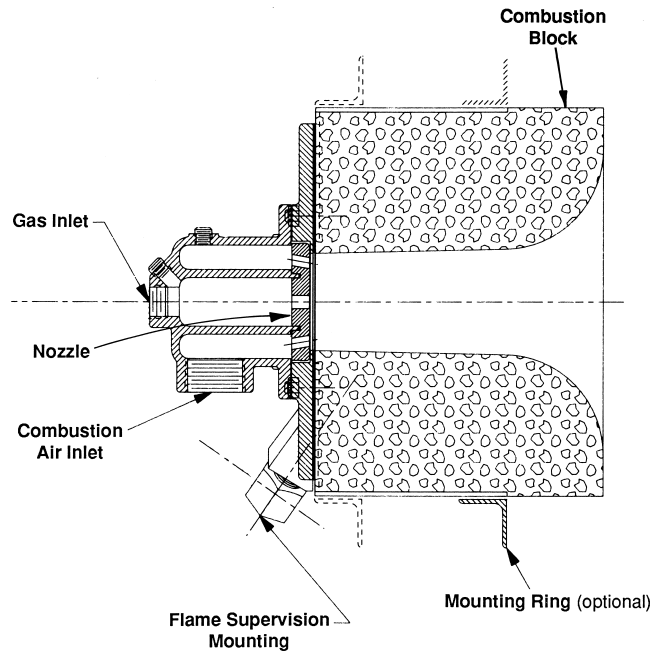
VORTIFLARE® Burners provide a low forward velocity radial spot of hot combustion gases that permit larger loadings within your furnace or lehr, improving both temperature uniformity and economical production results.

When used in conjunction with Maxon’s MICRO-RATIO® Control Valves, a VORTIFLARE® Burner may be adjusted to fire on-ratio throughout the firing range or set to give a choice between “on-ratio” or “excess air” firing. As high as 200% excess air is possible at minimum capacity.

Maxon catalog bulletin 7000 describes MICRO-RATIO® Control Valves which throttle air and gas volumes to the VORTIFLARE® Burner.



Series “G” VORTIFLARE® Burners for gas only firing



Series “C” VORTIFLARE® Burners for gas or oil firing

