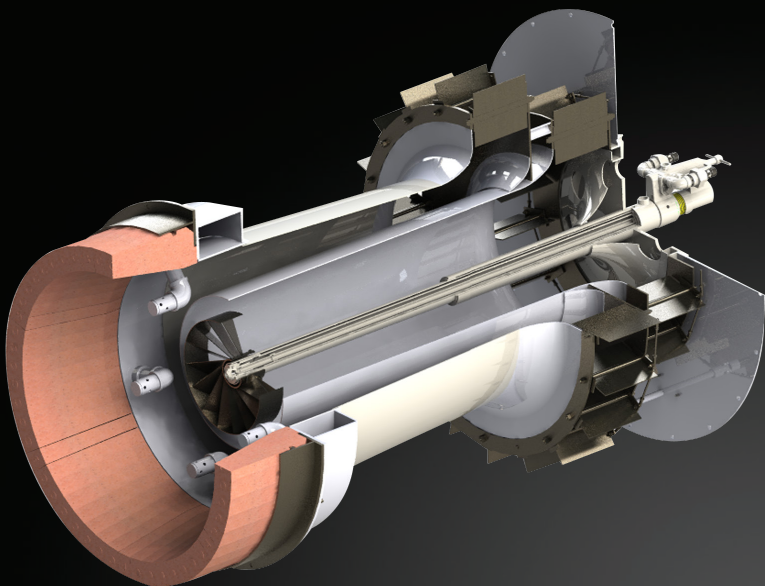


Faber VPSSS burners are high performance low emission multi-fuel venturi profile registers utilizing single stage fuel gas combustion. They offer the end user exceptional value for applications requiring low NO<sub>x</sub>, CO, VOC and particulate emissions with or without flue gas recirculation (FGR).

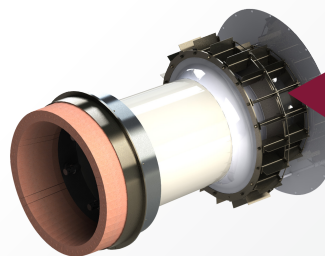
The VPSSS burner is optimized to burn natural gas or #2 oil, but can be configured to burn nearly any liquid or gaseous fuel. One, two or three fuels can be fired either one at a time or simultaneously. Every burner is tailored to meet your project's specific environmental, thermal, fuel and physical constraints. Burner heat input capacities range from 10 – 300 MMBTU/hr.

The VPSSS burner's robust, user-friendly, unique design minimizes start-up, commissioning, ownership and operating costs. For these reasons they have become a favorite of the rental boiler and thermal fluid heater industries.



NO<sub>x</sub> levels listed may not reflect our most recent advancements. Our burner technology is advancing every day. We have an in-house Research & Development Program, where we fire into a full scale boiler and use the most advanced CFD modeling to simulate all aspects of the combustion process.

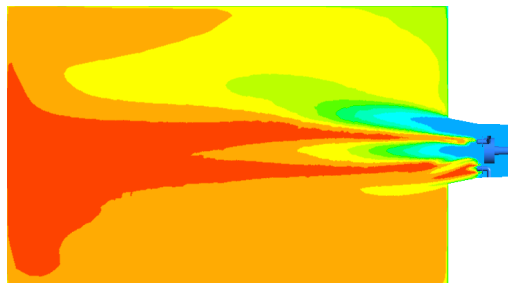
## VPSSS BURNERS



Low emissions & Low excess air operation with or without FGR

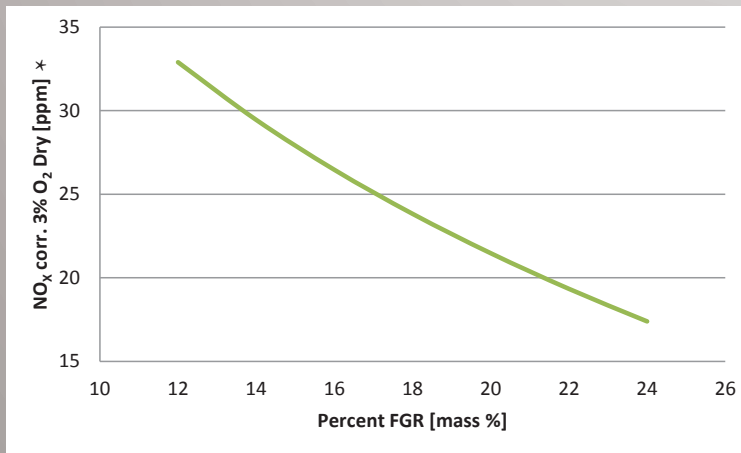
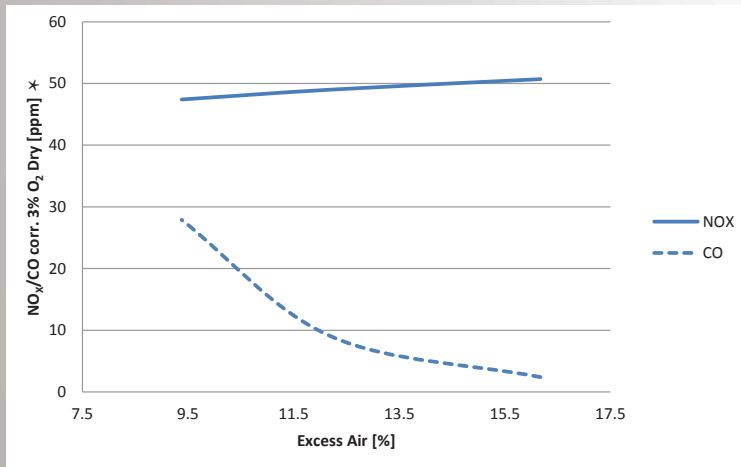
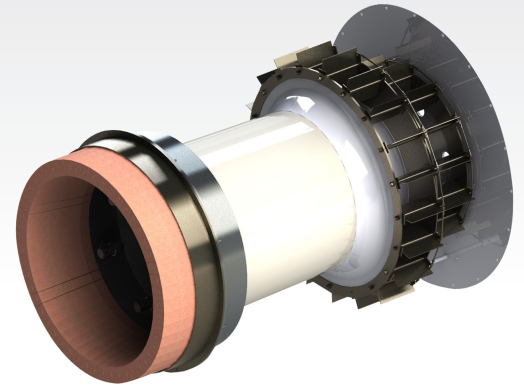
### VPSSS Burner Advantages:

- Guaranteed NO<sub>x</sub>, CO, VOC and particulate emission rates.
- Rugged, dependable and durable proven design.
- Extremely reliable spark ignited gas pilot.
- Unique gas spud design results in extremely quiet and stable operation.
- Unique manually adjustable register turning vanes allow instant online flame shaping when required for flame to furnace fit and fuel change flame quality optimization. These vanes also minimize startup and commissioning time.
- Easily retrofitted to existing windboxes with CFD designed air baffle package.
- Low draft losses reduce fan energy consumption.
- 10:1 turndown on gas / 8:1 turndown on oil reduce burner on/off cycling.
- Combustion air temperature up to 500 °F.
- 4 – 10 PSIG gas supply pressure and 70 – 120 PSIG oil supply pressure.
- Tri-Fuel capable.
- Simultaneous firing capability.
- Responsive customer service team for future engineered upgrades, parts and service.



CFD simulation of VPSSS Burner at 20 ppm NO<sub>x</sub>.

## VPSSS BURNERS



### The low NOx solution without FGR

- NOx emissions as low as 50 ppm, 30 ppm CO and trace amounts of VOC and particulate emissions without FGR on natural gas fuel.
- NOx levels decrease with decreasing % excess air on natural gas fuel.
- Ideal solution for burners located in areas where the ambient temperature can be below 40 °F.

### The lower NOx solution with FGR

- NOx emissions as low as 18 ppm, with low levels of CO, and trace amounts of VOC and particulate emissions with FGR on natural gas fuel.
- Low excess air operation (as low as 2% Oxygen in the flue gas\*) reduces fuel costs.
- NOx levels decrease with increasing %FGR.
- Ideal solution for burners located in areas where the ambient temperature is above 40°F and FGR is readily accessible.

\*Results may vary. Contact factory for details.

Represented by