



## Apollo-Ray® Infrared Metal-Fiber Burners

*AR Series burners are infrared metal-fiber burners with high radiance and all-metal construction and premix design. The Apollo-Ray is available in two sizes.*

### How It Works

The Apollo-Ray (AR) burner is a surface combustion, gas-fired infrared burner. The premixed air and gas passes through the burner body and out through the porous emitter surface. Combustion takes place in a thin layer just above the outer surface.

The emitter is a sintered metal fiber alloy construction. Its many micro pores effectively disperse and entrain the air/gas mixture. Once

ignited, robust infrared radiance is dispersed over the emitter's entire surface. This produces fuel savings of 20%+ over knit metal fiber burners.

The emitter is flexible by nature but backed by a rigid support. This allows it to resist damage during routine maintenance or by thermal shock after repeated firings. When firing face down on a conveyORIZED product, the emitter remains flat and does not sag.

### Applications:

- Industrial and food grade applications



**Diverse Combustion Technologies. One Reliable Source.**

## Operating Principles

The all stainless steel construction of the Apollo Ray burner body provides excellent heat and chemical resistance. The emitter, reinforcing base plate and baffle plate are welded to the body. These attributes make the Apollo-Ray burner an ideal choice for both industrial and food grade applications. Because it is a flat-faced burner, it can be placed close to the product. Its turndown ratio is 2.5 to 1, without flashback into the burner.

Ignition and flame propagation are reliable when using Selas Series 2000 pilot bracket assemblies, even with burners that are 30'+ long. The burners can be attached to the manifold with standard (1-1/2") or long (2-3/8") union connectors. In a retrofit situation, longer connectors will move the burners closer to the conveyor belt for increased line speed or higher product output.

The Apollo-Ray burner comes in two sizes, 8"x6" (46.25 sq. in.) and 12"x5" (60.33 sq. in.) Input capacities are 22,000 btu/hr and 30,000 btu/hr respectively. The radiant output of the burner is approximately 65% IR and 35% convective heat. The emitter temperature reaches 1700°F (927°C) at high fire. The burner is designed to operate best at 19.3% oxygen in the air/gas feed.

All Apollo-Ray burners are quick heating and quick cooling to prevent burning of product and waste of gas if there is a line stoppage. Labor and lost productivity costs are also minimized with short heat up and cool down periods. The burner sections can be mounted parallel (horizontal) or perpendicular (vertical) to the manifold. This allows the optimal combination of heat flux and length for different applications and line speeds.

Features	Benefits
Fast, even radiance over emitter's entire surface	Fuel savings of 20%+ vs. knit metal fiber burners
Corrosion resistant all stainless steel burner body	Excellent heat and chemical resistance
Low profile, standard or high profile configurations	Allows wide process & installation flexibility
Quick heating and cooling	Reduces fuel costs and prevents burning product
Sintered metal fiber alloy emitter	Resists thermal shock damage from repeated firings



11012 Aurora Hudson Rd • Streetsboro, OH 44241  
**1-800-523-6500 • sales@selas.com**  
**www.selas.com**