

**Capacity Range:**  
1,000 Btu/Hr to 160,000 Btu/Hr



## Selas Duradiant® Open Firing Radiant Cup Burners

*Offer controlled radiant heat to improve product quality and enhance productivity. Available in a range of sizes, cup contours and housings, and mount in any position.*

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### How It Works

#### **Superior Heat Uniformity**

Selas Duradiant burners are cup-shaped, ceramic, precision combustion tools which radiate heat to work pieces intimately, without flame impingement.

Fast, controlled heating of a wide variety of materials is accomplished

by the use of radiant heat. And controlled heating results in improved product quality and fewer rejects. Without flame impingement, they can be placed close to work pieces to heat them directly and uniformly, allowing for more compact structures.

### Applications:

- Annealing Furnaces
- Sintering Furnaces
- Rotary Forge Furnaces
- Tundish Preheaters
- Nonferrous Melting Furnaces
- Ceramic Kilns



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

# Operating Principles

Air/gas mixture enters the burner tube and flows to the burner tip. After the mixture passes through the tip's threaded refractory orifices, it is distributed radially and burns within the refractory cup in a petal-shaped formation. The interior contour of the cup has been formed so that its surface is always washed by hot combustion products, regardless of operating rates.

Because the refractory cup surface is heated by high velocity combustion products at their highest temperature, it becomes incandescent. Combustion is always completed within the cup.

Radiant heat from Duradiant burners can be directed accurately and travels more rapidly than convected heat from hot gases.

Features	Benefits
High intensity heat without impingement	Improved quality of work
Modular, can be placed close together	More compact, efficient structures
Wide burner throttling ranges	Fine-tuned heat to the workpiece
Heats objects more rapidly	More cost efficient production
Radiant heat allows more flexibility	Proportioned heat where it's needed



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