

# Eclipse Single-Ended Radiant Tube Burners

Worksheet Edition 7.16

Version 5

Customer P.O. \_\_\_\_\_  
 Customer \_\_\_\_\_  
 Customer Signature \_\_\_\_\_  
 Date \_\_\_\_\_

Eclipse S.O. / Quote \_\_\_\_\_  
 Eclipse Rep \_\_\_\_\_  
 Eclipse Rep Signature \_\_\_\_\_  
 Date \_\_\_\_\_

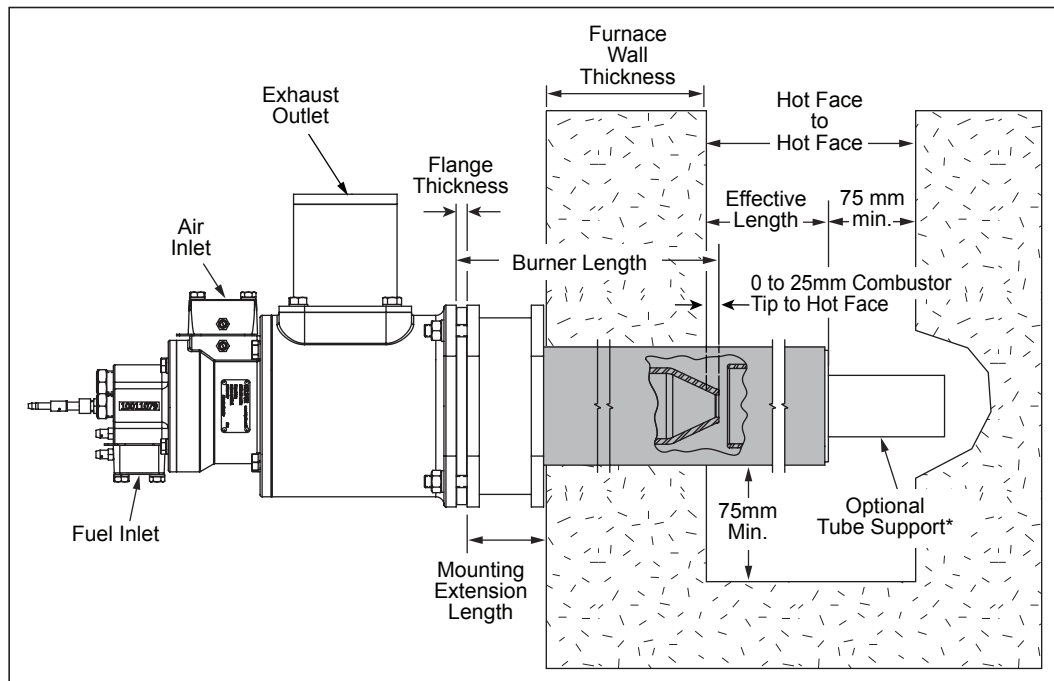


Figure 1.

## NOTICE

- Quote # and Revision Level must be provided
- For more information or recommendations see Design Guide 325 or Datasheet 325

1. Hot Face to Hot Face Dimension \_\_\_\_\_ (mm)  
 Less Effective Length \_\_\_\_\_ (mm)  
 = Tube to Wall Gap (75 mm min.) \_\_\_\_\_ (mm)

2. Burner Length \_\_\_\_\_ (mm)  
 (see corresponding Datasheet 325 for dimensions)  
 Less Furnace Wall Thickness \_\_\_\_\_ (mm)  
 Less Flange Thickness \_\_\_\_\_ (mm)  
 = Mounting Extension Length \_\_\_\_\_ (mm)  
 (Mounting extensions are available from 50mm to 250mm in 25mm increments)

3. Chamber Temperature \_\_\_\_\_ °F  
 (contact Eclipse for chamber temperatures above 1750°F)

4. Gas Inlet

- 0     90     180     270

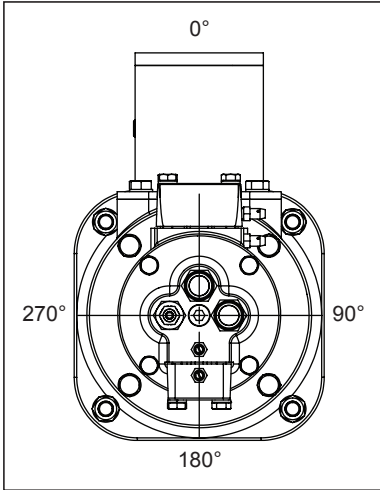
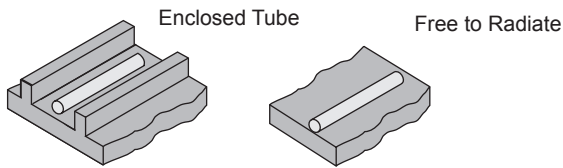


Figure 2.

5. Tube Type

- Enclosed     Free



6. Tube Options

- Ceramic Outer Tube  
      Vertical  
      Horizontal  
 Metallic Outer Tube  
      Vertical  
      Horizontal  
 Optional Tube Support  
 (for horizontal metallic only)

7. Flux (refer to Figure 3) \_\_\_\_\_ Btu/h per in<sup>2</sup>

8. Model

- 450     600     800

9. Surface Area = OD (inches) x 3.142 x

$$\frac{\text{Effective Length (mm)}}{25.4} = \text{_____ in}^2$$

10. Operating Input \_\_\_\_\_ Btu/h (HHV)

11. Net Tube Output = (Flux) x (Surface Area)  
 = \_\_\_\_\_ Btu/h (HHV)

12. Maximum Input (gross) =  $\frac{\text{Net Tube Output}}{0.7 \text{ (efficiency estimate)*}}$   
 = \_\_\_\_\_ Btu/h

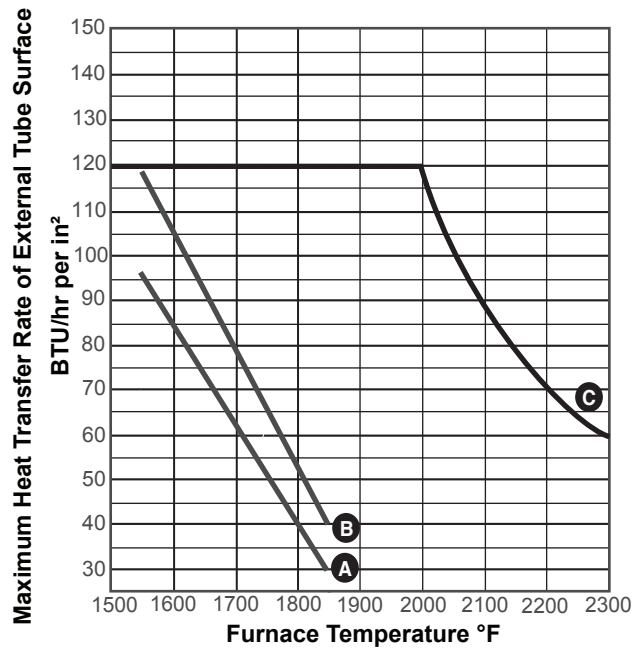
13. Fuel Type

- Natural Gas     Other (contact Eclipse)

14. Flame Safety

- None     UV Scanner (Natural Gas Only)

\*See Datasheet 325 for actual efficiency



- A** Metallic outer tube, enclosed on three sides.
- B** Metallic outer tube, free to radiate.
- C** Ceramic outer tube

Figure 3. Recommended Flux