



Configuration Work Sheet

Tube Heat 1.0

Customer

P.O. : _____

Name: _____

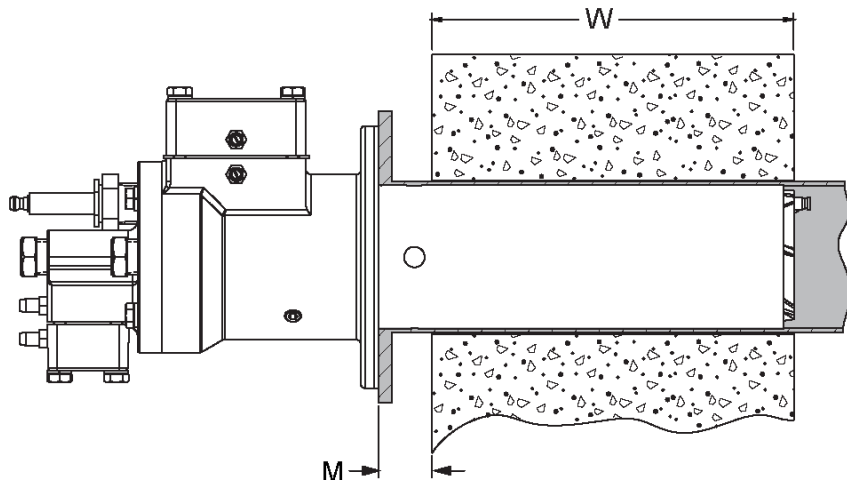
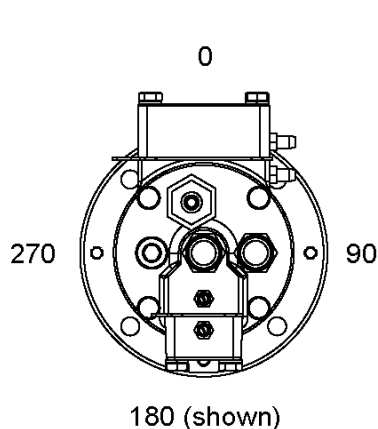
Signature: _____ Date: _____

Algas-SDI

S.O./Quote: _____

Rep Name: _____

Rep Signature: _____ Date: _____

Engineering
Signature: _____ Date: _____1. Burner Model: ☐010 ☐015 ☐020 ☐030 ☐035 ☐040 ☐050 ☐060 ☐0752. Recuperation: ☐Used ☐Not Applicable3. Combustion Air: ☐Ambient ☐Pre-Heated: _____°F (°C)

4. Blower Specification: _____(scfh) _____(In w.c.)

5. Fuel: ☐Natural Gas ☐Propane6. Flame Supervision: ☐No Flame Safety ☐1/2" UV Scanner Adapter
☐3/4" UV Scanner Adapter ☐Flame Rod7. Piping Connection: ☐NPT ☐BSP8. Gas Inlet: ☐0 ☐90 ☐180 ☐270

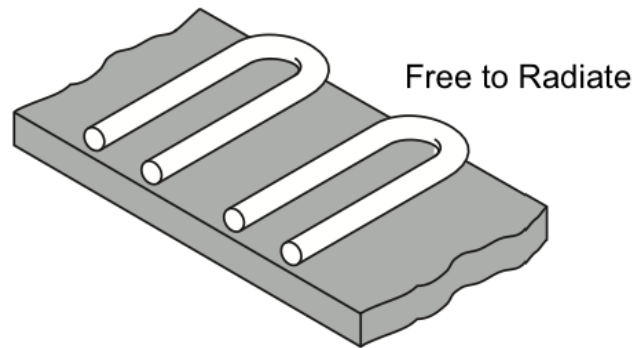
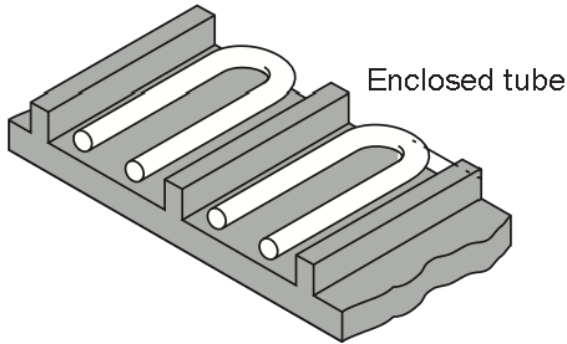
9. Furnace Temperature: _____°F (°C)

10. Furnace Wall Thickness (W): _____In (mm)

11. Mounting Flange Length (M): _____In (mm)

12. Air Shroud Length (W + M): _____In (mm)

13. Tube Position: ☐ Enclosed ☐ Free to Radiate



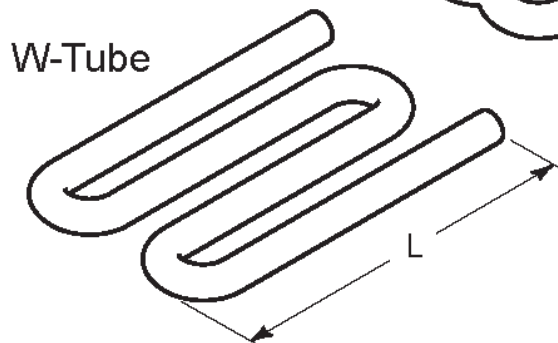
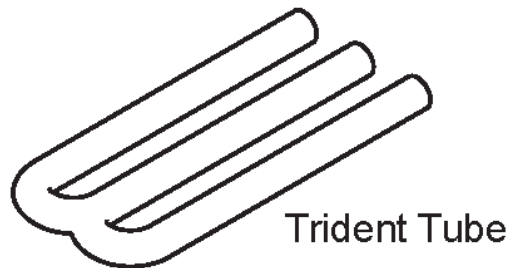
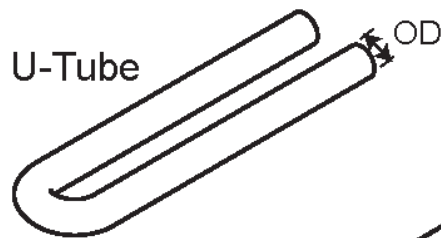
14. Tube Diameter (OD): _____ in (mm)

15. Tube Length (L): _____ in (mm)

16. Number of Tube Legs (n): _____

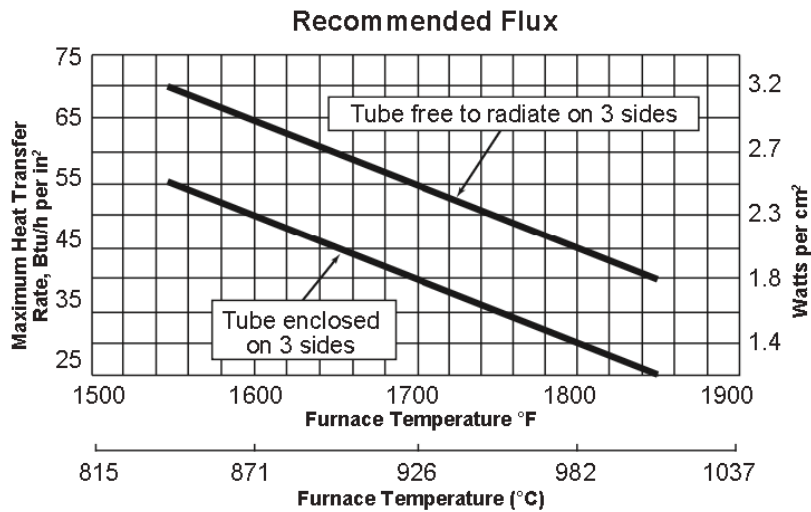
17. Tube Surface Area: _____ in² (mm²)

- *Tube Surface Area* = $OD \times \pi \times n \times L$
- OD = the outside diameter of the tube in inches.
- $\pi = 3.142$
- n = number of tube legs
 - 2 for a U-tube
 - 3 for a trident tube
 - 4 for a W-tube
- L = the total length of each leg in inches



18. Net Tube Output: _____ BTU/hr (kW)

- (Flux) x (Tube Surface Area)



19. Maximum Gross Input: _____ BTU/hr (kW)

- $\frac{\text{Net Tube Output}}{\text{Efficiency}} = \text{Gross Burner Input}$

Estimated Gross Efficiency*		
Furnace Chamber Temperature	Without Recuperator (Ambient Air)	With Recuperator (Preheated Air)
1000°F (538°C)	57%	71%
1300°F (704°C)	51%	68%
1550°F 843°C)	47%	65%
1650°F (899°C)	44%	64%
1750°F (954°C)	41%	63%
1850°F (1010°C)	39%	62%

*Actual efficiency will vary depending on fuel used, recuperator design, burner operating conditions, etc.

Maximum Tube Input	
Tube (inches)	Maximum Input (BTU/hr)
4	300,000
5	600,000
6	900,000
8	1,500,000
10	2,500,000
12	3,500,000

Exceeding these inputs may result in burner pulsation or other operational problems.