

# AIR BURNERS, LLC

## Technical Instructions

### Assembly and Use of Ember Screen with S-Series Fireboxes

*Air Burners Air Curtain Incinerators:  
"The environmentally friendly alternative to Open Burning"*



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# Technical Instructions

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## ***Assembly and Use of Ember Screen for S-Series Fireboxes***

### **1.0 General**

The ember screen is constructed of high quality, heavy-duty stainless steel flexible mesh. It is designed to be fitted to the S-Series Firebox such that it may be used to cover the top of the Firebox to reduce the escape of embers. Generally, the screen is fitted at the end of shift as the machine is being shut down and will be left un-attended, but it can and should be used at any time if the risk of ember escape is increased or becomes dangerous— such as periods of high wind.

It is not possible to continue to load and operate the Firebox with the ember screen in place, but the fan may be continued to operate in order to burn down the material in the Firebox.

For transport logistics the ember screen is not fitted to the Firebox before shipping. These instructions detail the method of fitting the ember screen and it's use.



Ember Screen installed and hanging from support brackets

### **2.0 Parts List**

- 1) Screen Assembly x 1
- 2) Support Brackets x 2
- 3) Travel Brackets x 2
- 4) Hardware kit
  - 1/2" x 3" Bolts x 12
  - 1/2" nuts x 12
  - 1/2" washers x 24

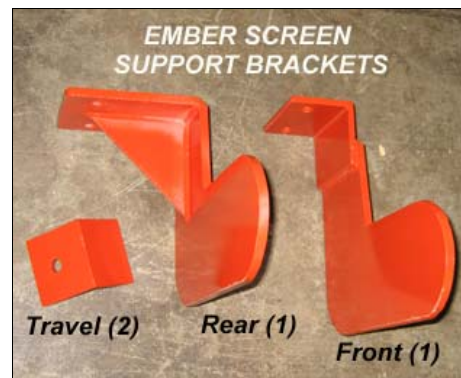


Photo 1

### 3.0 Assembly Procedure

**SAFETY NOTE:** You will require lifting gear capable of lifting, supporting and positioning the screen which weighs approx 2,000 lbs. Properly rated nylon straps are recommended as chain may damage the screen.

**SAFETY NOTE:** You will also require suitable wrenches and a means of attaching the travel brackets in place by welding or drilling holes and bolting

**1** – Fit screen support brackets using the bolts provided, NOTE that the brackets are not identical – make sure that the bracket with the longer base is fitted to the rear (door end) of the Firebox (Photo 2).

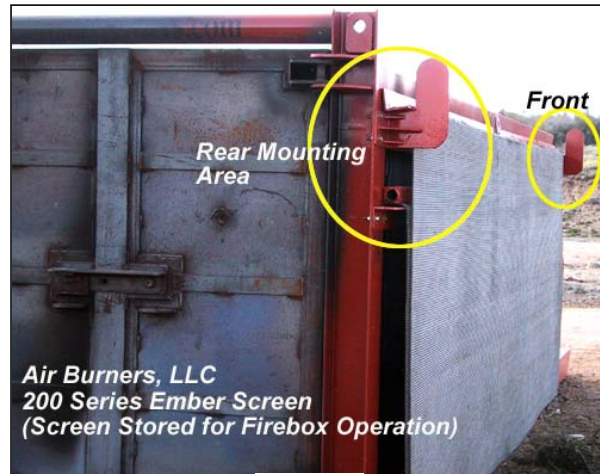


Photo 2

**2** – Unpack and unroll the ember screen assembly on the ground, on the manifold side of the Firebox.

**3** – Lift the ember screen assembly by the lift eye on the loose end and carefully lift over the top of the Firebox until the 4 mounting brackets on the ember screen fixed end line up with the mounting holes in the Firebox uprights. This may be easier if lifted from the side of the Firebox opposite the manifold.

**SAFETY NOTE** – make sure the longest screen support bracket (rear bracket) is fitted to the door end or rear of the Firebox (See Photo 3).



Photo 3



Photo 4

- 4** – Fit the ember screen mounting brackets to the Screen Mounting Holes on the uprights (See Photo 3) using the bolts provided.
- 5** – Lower the ember screen loose end over the side of the Firebox opposite the manifold such that the ember screen fits over the top of the Firebox (Photo 4).



Photo 5

- 6** – Pull down on the loose end of the ember screen until the screen fits snug over the top of the Firebox.

**7 – OPTIONAL TRANSPORT BRACKETS:**

FOR OVER THE ROAD TRANSPORT OF FIREBOX WITH EMBERSCREEN MOUNTED: Weld or drill & bolt the 2 travel brackets (Photo 6) approx 1-1/2” below the level of the loose end of the ember screen on the outer uprights of the Firebox and make sure the holes in the loose end of the ember screen and the travel brackets are aligned. The 1-1/2” spacing allows for the ember screen to be pulled tight using the bolts provided.



Photo 6

## 4.0 Use of the Ember Screen

**SAFETY NOTE 1** – There is intense heat over the top of the Firebox, make sure that the lifting gear will not be damaged by the heat. Use chains or cables, do not use straps, slings or rope.

**SAFETY NOTE 2** – When working around the Firebox be aware that the surfaces may be very hot and that there may be sparks or burning embers. Wear appropriate safety equipment such as fireproof clothing, gloves, safety glasses, a hardhat and safety boots.

**SAFETY NOTE 3** – At no time should personnel climb or stand on the Firebox.

**1** – The ember screen is deployed by lifting the loose end by the (center) lifting eye, and draping it over the top of the firebox. This may be easier, if approached from the side of the Firebox opposite the manifold and reaching over with the lifting gear, such as the excavator.

**2** – The weight of the loose end of the ember screen should be sufficient to hold the ember screen snug over the top of the Firebox, make sure the ember screen is evenly draped over the top of the Firebox such that there are no folds or gaps, the tensioning bolts may be fitted to pull the ember screen down if required. See photo below.

**3** – To store the ember screen in standby mode, lift the ember screen by the lifting eye on the loose end and lower the loose end into the screen support brackets. The ember screen should hang in a neat loop on the outside of the manifold side of the Firebox.



## 5.0 Transporting the Firebox with the Ember Screen Installed

The Firebox may be transported short distances (up to about 50 miles) with the ember screen installed. Before transporting, deploy the ember screen as detailed above and make sure that the tensioning bolts are fitted and secure the loose end of the ember screen to the travel brackets.

There is a risk with longer distances that the ember screen will rub on the corners of the Firebox leading to wear and reduced strength or ultimate failure of the screen. Therefore, for transportation over 50 miles it is recommended that the ember screen assembly be removed from the Firebox and transported separately.

Removal of the ember screen assembly is the reverse of the assembly instructions.

