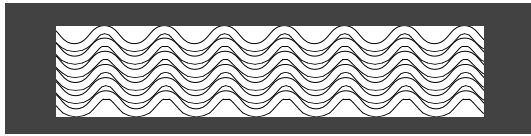
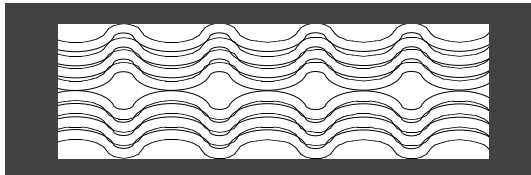


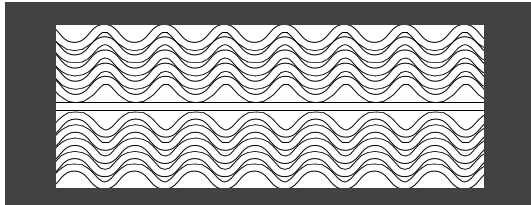
Standard Ribbon
 4 Row 700 BTU's
 6 Row (Shown)
 8 Row
 12 Row 1500 BTU's



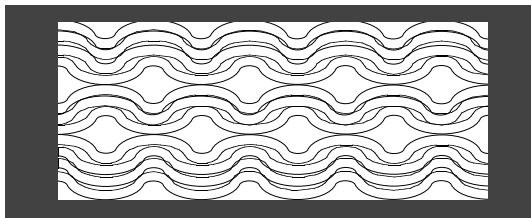
Standard 'A' Ribbon
 4 Row 1000 BTU's
 6 Row (Shown)
 8 Row
 12 Row 2000 BTU's



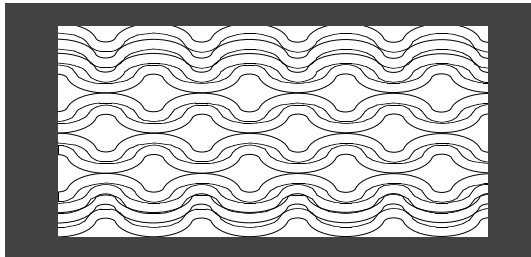
8 Row 1 Port
 3500 BTU's



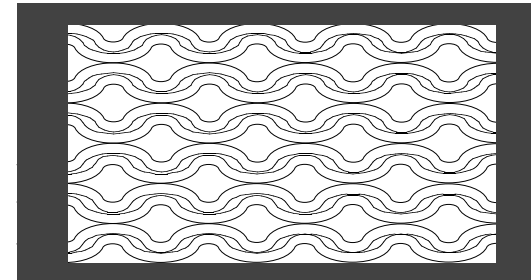
5F5 Ribbon
 4000 BTU's



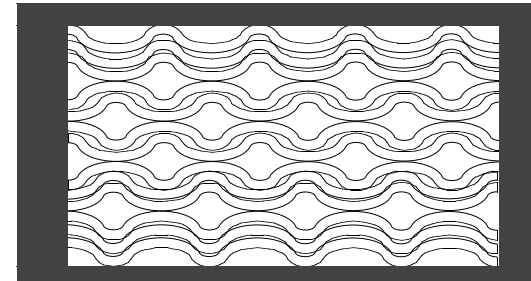
11 Row 2 Port
 4500 BTU's



12 Row 3 Port
 5000 BTU's



12 Row 5 Port
 6500 BTU's



13 Row 4 Port
 5500 BTU's

Ribbon Burners can be configured with a variety of Ribbon and Port Patterns. As the open area of the construction increases, so does the capacity. Various ribbons will give better flames for heating, or flame treating. Gas mixtures may work better with different ribbon constructions. Arrows indicate increasing capacity. Not all ribbons can be used with all pipe sizes or castings. BTU Capacities are nominal amounts for a 1 inch section, each burner has slightly different constructions which may allow this value to go up or down. These values are for a mixture pressure of 0.5" wc.

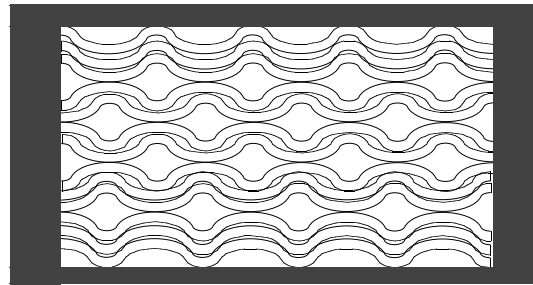
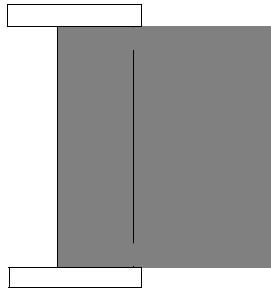
Additional
 High Capacity
 Ribbons

14 Row 3 Port
 13 Row 4 Port
 12 Row 5 Port
 20 Row 5 Port
 24 Row 6 Port
 33 Row 9 Port
 42 Row 9 Port
 50 Row 12 Port

ERB Ensign Ribbon Burners LLC
 101 Secor Lane Pelham Manor NY 10803

Typical Ribbon Constructions

February 1998



Maximum
Treatment
Level

3/8"



Outer Mantle
Burning Plasma
Inner Cones
Non-Combusted Gas

Ports between Ribbons Provide
Main flame. (High velocity)



Ported Ribbon Strips

Gaps between Ribbons Provide
Pilot flame. (Low velocity)



Meshed Ribbon Strips

ERB Ensign Ribbon Burners LLC
101 Secor Lane Pelham Manor NY 10803

Typical Ribbon Flame Development

April 1999