

# Eclipse Bayonet Ultra Recuperator

Data sheet Edition 2.06

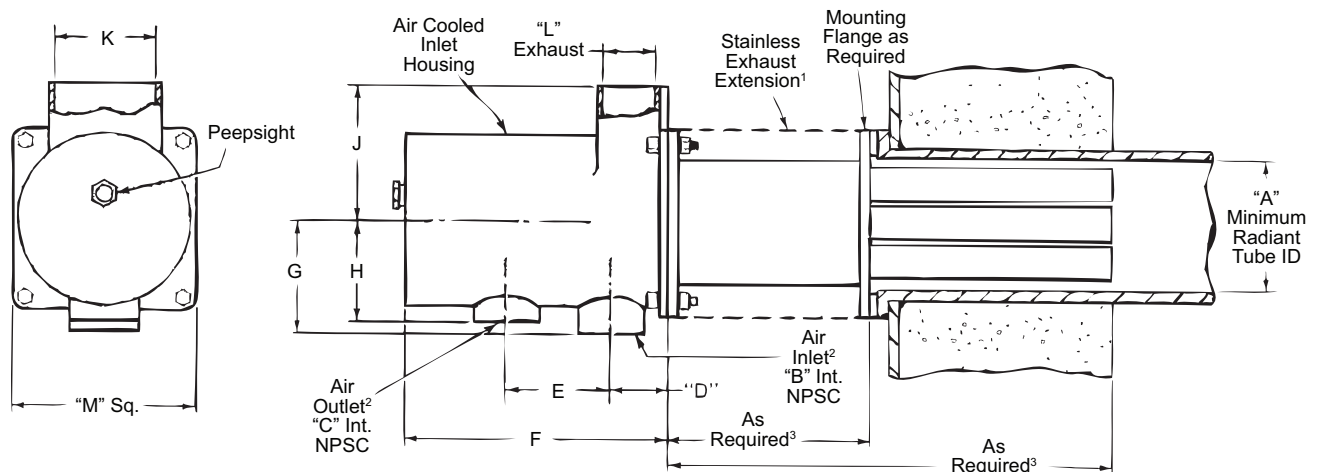


The Eclipse Bayonet-Ultra Recuperator is designed to insert into the exhaust leg of "U", "O", or Trident type radiant tubes. The Bayonet-Ultra can be used with clean exhaust streams up to 2100°F. For higher temperatures, dirty flue products, or systems requiring very low pressure drops, a less efficient single-tube version of the Bayonet recuperator can be supplied.

Bayonet-Ultra Recuperators are available in four sizes. All but the smallest size can be ordered with a choice of two pressure drops. The higher pressure drop model produces hotter combustion air under the same operating conditions.

- Compact housing
- Choice of air pressure drops
- Stainless steel exhaust extension
- Length tailored to suit the application
- Cold drawn NiCr stainless steel tubes
- Central viewing and exhaust sampling port
- Housing internally cooled by incoming combustion air
- Precision tube plate for exact tube alignment and even air flow

## Dimensions



<sup>1</sup>Insulation must be supplied by the customer.

<sup>2</sup>Do not reverse inlet and outlet connections or the recuperator may overheat.

<sup>3</sup>Tube ends must not extend past the inner face of the furnace wall.

Catalog Number	Dimensions											
	A	B	C	D	E	F	G	H	J	K	L	M
3 BU	2-7/8	1-1/2	1-1/2	1-5/8	3-1/2	8-1/2	3-1/4	2-7/8	4	2-1/2	2	5-1/4
4 BU	3-1/2	1-1/2	1-1/2	1-5/8	3-1/2	8-1/2	3-3/4	3-3/8	4-1/2	3-1/2	2	6-1/4
5 BU	4-3/4	2	2	1-7/8	4-3/8	9-1/2	4-1/2	3-3/4	5	4-1/2	2	7-1/4
6 BU	5-1/2	2	2	1-7/8	4-3/8	9-1/2	5	4-3/16	5-1/2	5-1/2	2	8-1/4

### Performance Data Based on 25" Effective Length

**To Find Preheated Air Temperature:** Find burner input on bottom scale. Move up to appropriate radiant tube exhaust temperature curve, then move left to combustion air temperature.

**To Find Air and Exhaust Pressure Drops:** Find burner input on bottom scale. Move up to pressure drop curve, then move right to air and exhaust pressure drops.

**Example:** A radiant tube with a burner input of 100,000 Btu/h and an exhaust temperature of 1750°F will be fitted with a 3 BU recuperator. Using the graph for the 3 BU as described above, preheated combustion air temperature from the recuperator will be approximately 740°F. Air pressure drops will be approximately 3.7 "w.c. and exhaust pressure drop will be approximately 0.72 "w.c.

