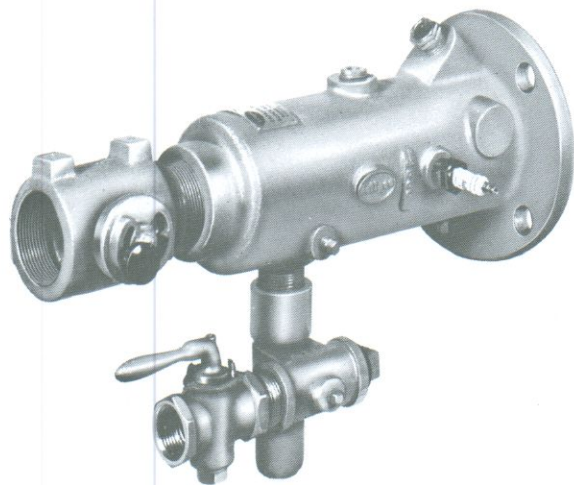


ECLIPSE THERMAL BLAST AIR HEATERS

SERIES "TBH"



COMPLETE HEATER

Eclipse Thermal Blast Air Heaters are high temperature, high pressure, air heaters designed to produce 50 to 400 scfm of heated air with a temperature rise of 300° to 1600° F. at pressures up to 50 psi. They are suitable for a wide range of industrial heating and drying applications. These include: mold and core box heating, water dry-off, paper and fabric drying, plastic treating, food processing, air curtains, and aggregate drying.

OPERATION

Air piping upstream and downstream of the Thermal Blast Heater should be sized according to required air flow through the heater. See page 2 for recommended piping and transitions for various air flows. For normal operation, air is supplied to the burner at a constant pressure and volume, and gas flow only is controlled.

ADVANTAGES

- • • Nozzle-mixing design
- • • Single valve control

- • • Exceptional flame stability
- • • Broad range of discharge pressures
- • • Broad range of discharge temperatures
- • • Easy installation

IGNITION

Eclipse "TBH" heaters are furnished with an ignition plug which will light the burner anywhere within its operating range. The spark plug may be used in either of two openings provided on the heater (see Dimensions and Specifications, page 2).

FLAME MONITORING

Flame monitoring may be provided by using either a flame electrode or an ultra-violet scanner monitoring the flame. A tapped opening is provided on the heater for installing either flame rod or scanner (see Dimensions and Specifications, page 2).

DESIGN FEATURES

Eclipse "TBH" heaters have separate air and gas inlets and mixing takes place internally. No complex proportionating equipment is required. "TBH" heaters are designed to produce high discharge pressures with relatively low blower pressure. Air flows straight through the burner, minimizing pressure drops. The heater inlet is threaded and outlet is flanged for ease of installation.

ASSEMBLIES

Eclipse "TBH" heaters are available in either basic or complete assemblies. The *Basic Heater* consists of heater with ignition plus and peepsight. The *Complete Heater*, pictured above, includes the basic heater plus air butterfly valve, gas adjusting tee, gas cock, and necessary pipe nipples.

CAUTION: It is dangerous to use any fuel burning equipment unless it is equipped with suitable flame sensing device(s) and automatic fuel shut-off valve(s). Eclipse can supply such equipment or information on alternate sources.

CAPACITIES

BURNER CATALOG NUMBER	SCFM HEATED AIR	MIN. GAS PRESS. IN "W.C. ABOVE DISCHARGE PRESS.	BTU/HR. 1600° F. TEMP. RISE*	BTU/HR. 800° F. TEMP. RISE*	BTU/HR. AT MIN. TEMP. RISE**	MINIMUM TEMP. RISE	MAXIMUM DISCHARGE PRESSURE***						
							IN "W.C. FOR VARIOUS BLOWER PRESSURES						
							8 oz.	12 oz.	16 oz.	20 oz.	24 oz.	32 oz.	48 oz.
84-10TBH	50	4.5	86,500	43,250	16,000	300° F	10	17	24	31	38	52	79
	100	5.5	173,000	86,500	32,000	300° F	8	15	22	29	36	50	77
	150	7.0	259,000	129,000	48,000	300° F	5	12	19	26	33	47	74
	200	9.5	345,000	172,500	64,000	300° F	--	8	15	22	29	43	70
84-14TBH	250	7.5	432,000	216,000	80,000	300° F	--	7	14	21	28	42	69
	300	9.0	518,000	259,000	110,000	340° F	--	3	10	16	23	38	65
	350	7.0	605,000	302,500	137,000	362° F	--	--	8	15	22	36	63
	400	8.5	692,000	396,000	166,000	384° F	--	--	3	10	17	31	58

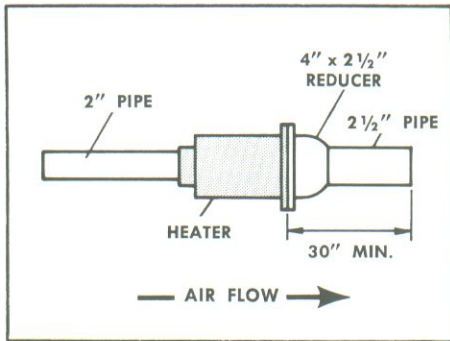
*Inputs do not take into consideration manifold heat loss. Actual inputs will be higher by amount of heat loss.

**Temperature rise does not take into consideration manifold heat loss. Actual rise will be somewhat less.

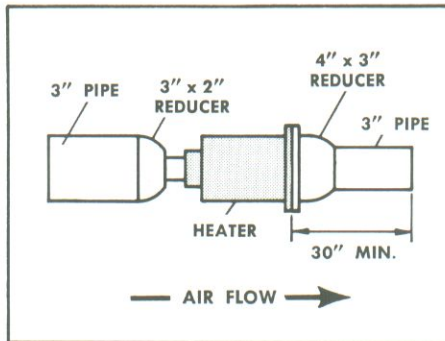
*** Delivery pressure based on 10' of pipe between blower and burner. Loss in extra pipe length must be subtracted from delivery pressure. Loss through bell reducer has been considered in above table.



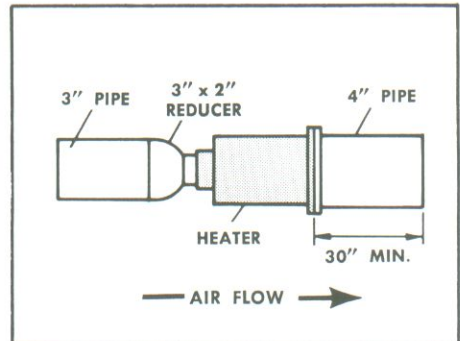
PREFERRED PIPING & TRANSITIONS



50 - 130 SCFM HEATED AIR

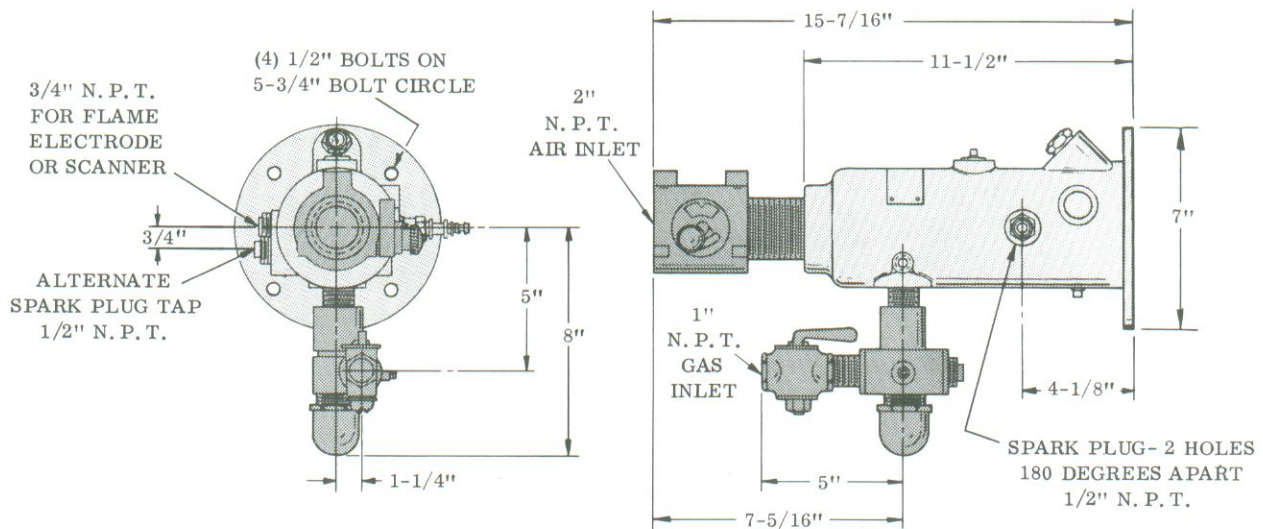




131 - 300 SCFM HEATED AIR



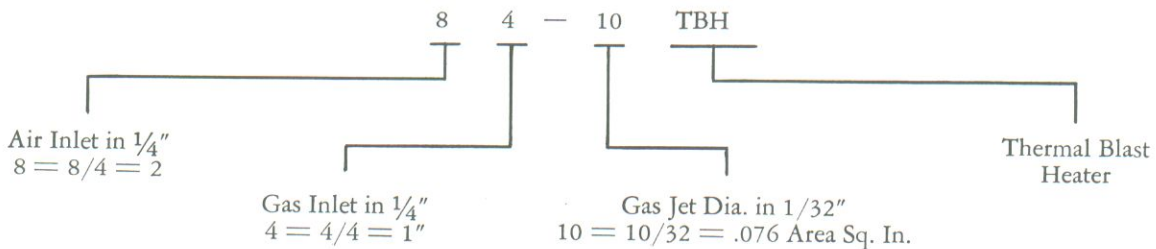
301 - 400 SCFM HEATED AIR

DIMENSIONS & SPECIFICATIONS



NOTE:  Illustrates "Basic Heater."
 Illustrates additional components included with "Complete Heater."

CATALOG NUMBER EXAMPLE





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