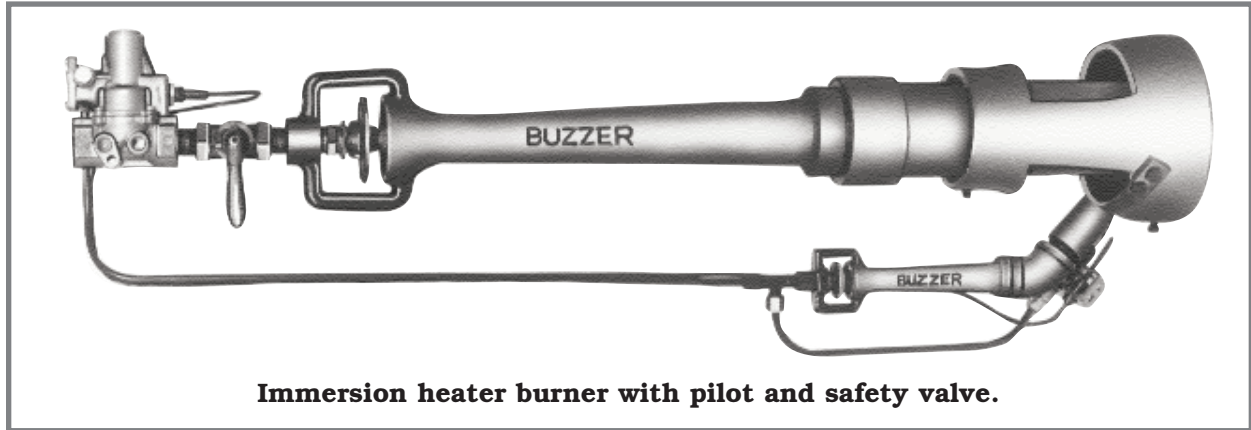
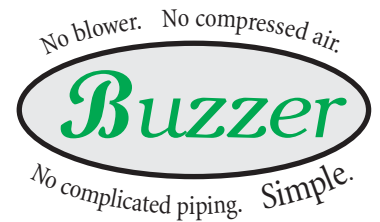


Immersion Heater Burner



Immersion heater burner with pilot and safety valve.

The classic method of applying heat to a liquid by firing a gas burner into a submerged coil was pioneered by **Buzzer** engineers, as well as other manufacturers, almost 70 years ago. The immersion burner concept was first developed as a means of converting early steam-heated tanks to gas heat back in the early 1930's. Today, the immersion burner method of applying heat to a liquid can deliver efficiencies that approach 80% when combined with modern lightweight and highly insulating refractories, microprocessor-based digital controls, and proper coil length and design.

The **Buzzer** immersion heater burner provides a strong and efficient torch type flame using low pressure natural or propane gas. It provides quick intense heat with a wide range of flexibility. By firing into the submerged flue coil, the available heat is concentrated and rapidly transferred into the liquid, minimizing heat loss. The all cast iron construction provides a husky burner suitable for machine shop, tool room, and other industrial environments.

Features

All **Buzzer** immersion burners come equipped with the **Buzzer** Venturi air mixer, made in the USA of class 30 grey cast iron. Engineered for efficiency, our Venturi mixes combustion air at atmospheric pressure for the quickest and hottest flame without a blower. The **Buzzer** Venturi inspirates maximum primary air to require less secondary air in the combustion chamber, operates without flashback, provides excellent turn-down, and delivers a superior "Bunsen blue" flame.

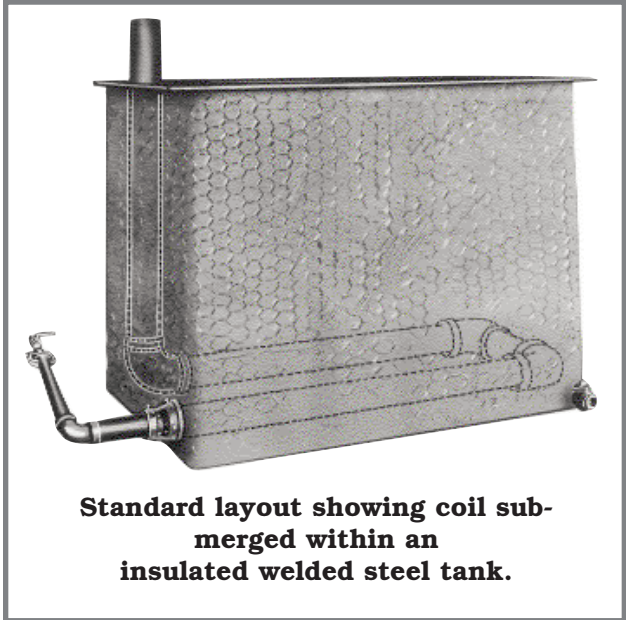
Immersion heater burners also include a cast iron adapter which secures the burners to the proper sized coil. The cast iron adapter is designed to allow both secondary and make-up air to come freely around the nozzle, helping to keep the nozzle cool and extending its productivity. The open and simple design of our cast iron adapter secures tightly to the coil and to the nozzle. This unique Venturi style burner is both rugged and simple and can be fitted with flame safety, spark ignition, and temperature controls which are readily available for your convenience.



Immersion Heater Burner

Applications

The **Buzzer** immersion heater burner is primarily used for heating liquids, including water, oils, detergents, chemicals, and other solutions. It is commonly used for evaporators, asphalt heating, degreasing tanks, quench tanks, black oxide tanks, plating tanks, dip tanks, boilers, and spray washers. It is also used in limited commercial and air heating applications for heating green houses, storage areas, and specialty ovens. Immersion heater burners are also used in food preparation with stainless steel coils for boiling seafood, poultry, bagels, vegetables, and meat prior to smoking.

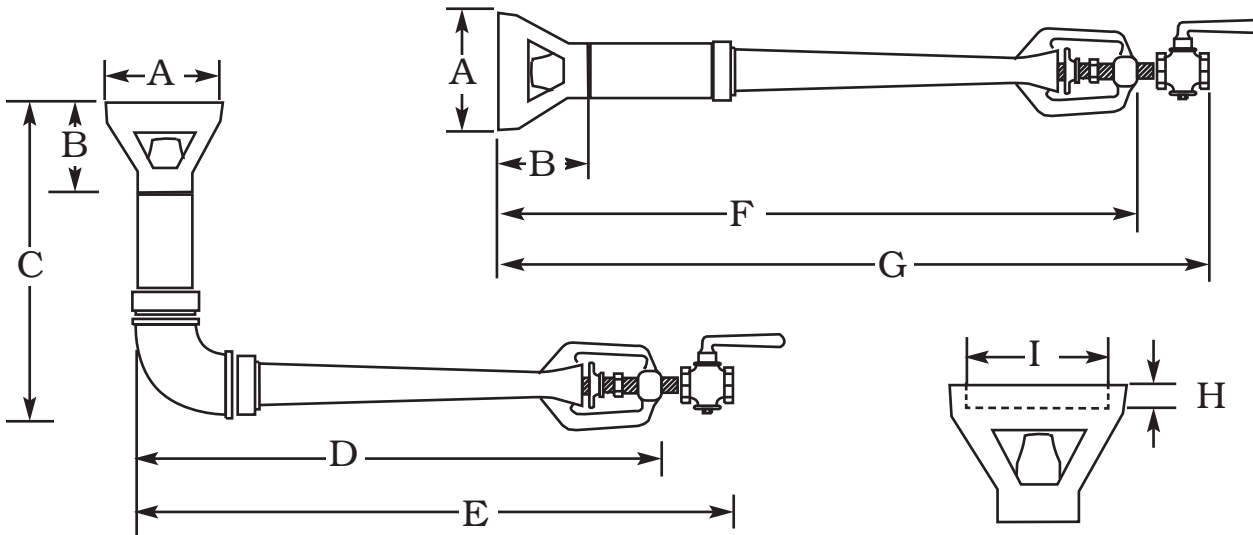
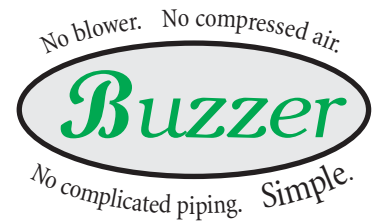


Standard layout showing coil submerged within an insulated welded steel tank.

Model	I.P.S. Coil size	Coil length in feet	Weight in pounds	Gas connection in inches	BTU's per hour in 1,000's
IH-100	2	5 ¹ / ₄	3 ¹ / ₂	1/4	25
IH-125	3	8 ¹ / ₂	6 ³ / ₄	3/8	50
IH-150	3	9	8 ¹ / ₄	3/8	65
IH-200	4	11 ¹ / ₄	18	1/2	100
IH-250	5	13 ³ / ₄	30	1	150
IH-300	6	18 ¹ / ₄	39	1	250
IH-400	8	21 ¹ / ₂	85	1 ¹ / ₂	400

Please note: universal ratings are for straight burners with "N" type nozzle operating on low pressure gas. 90° ells can be supplied but will soften flame. To get a flame identical to that of a straight burner, use "N" type Venturis, or reduce input as follows: IH-100, and IH-125 by 15%; IH-150 by 10%; IH-200 by 5%; remaining burners are unchanged. Adapters for oversize coils are available for a nominal additional charge. Pressure gauges with 2¹/₂" dial available for 0-15" w/c and 0-60" w/c.

Immersion Heater Burner



Immersion burner dimensions

A: Width of cast iron adapter

B: Length of cast iron adapter

C: Length from adapter to Venturi, including elbow

D: Length from cast iron nozzle to end of Venturi in 90° ell layout

E: Length from cast iron nozzle to end of gas cock in 90° ell layout

F: Length from tip of cast iron adapter to end of Venturi in straight layout

G: Length from tip of cast iron adapter to end of gas cock in straight layout

H: Minimum distance coil must protrude from tank to slip into adapter properly

I: Coil size - schedule 40 pipe (I.P.S.)

Burner	A	B	C	D	E	F	G	H	I
IH-100	3	3	8	11	12 ³ / ₄	14 ¹ / ₄	16 ¹ / ₈	9 ⁹ / ₁₆	2
IH-125	4	3 ¹ / ₂	9 ³ / ₈	14	16 ³ / ₈	18 ³ / ₄	21 ¹ / ₄	5 ⁵ / ₈	3
IH-150	4	3 ¹ / ₂	12	15 ¹ / ₄	18	21 ¹ / ₄	23 ³ / ₄	5 ⁵ / ₈	3
IH-200	5 ¹ / ₈	6 ¹ / ₄	15 ¹ / ₄	17	21 ¹ / ₂	27 ¹ / ₄	30	3 ³ / ₄	4
IH-250	6 ⁷ / ₈	7	17 ¹ / ₂	23 ¹ / ₂	26 ³ / ₄	33 ¹ / ₂	36 ¹ / ₂	7 ⁷ / ₈	5
IH-300	7 ³ / ₈	7 ¹ / ₂	21	26	31 ¹ / ₄	39 ¹ / ₄	42 ¹ / ₂	1	6
IH-400	9 ³ / ₄	12 ¹ / ₈	30	36 ¹ / ₂	40 ¹ / ₂	53	57	1 ¹ / ₄	8

Please note: all measurements on this chart are in inches.