



Fire-Box IS Furnace

Charles A. Hones, Inc. 607 Albany Ave. North Amityville, NY 11701 Ph: 631.842.8886 Fax: 631.842.9300

The **Buzzer** engineered Fire-Box™ Industrial Series furnace is a new name for our acclaimed large floor type oven furnace, a Clydesdale workhorse among heat treating ovens. The hand built, time-tested design of the Fire-Box IS furnace has been meeting the needs of the commercial and captive heat treater for almost 100 years. Unlike many contemporary “economy” models, the **Buzzer** Fire-Box IS is built one at a time, using traditional craftsmanship techniques which can only be mastered through years of apprenticeship. On average our Fire-Box IS furnaces will attain 1,600°F in one hour and 2,000°F in 90 minutes.

➤ Constructed of heavy gauge welded steel plate reinforced by a sturdy angle iron frame.

➤ Rated to 2,000°F.

➤ Ruggedly lined with 7 inches of 2,300°F firebrick insulation.

➤ Can be set up to operate on either low pressure natural or propane (LP) gas. Conversion from one fuel to the other requires only a simple orifice change.

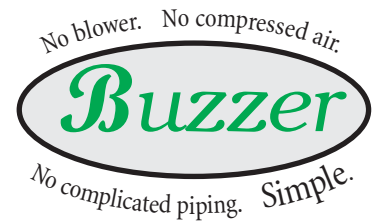


Model	Overall dimensions				Door opening		Working area			Height from floor	Approx. shipping weight	Gas connect	BTU's per hour in 1,000's
	Width	Length	Furnace height	Total height	Width	Height	Width	Length	Stacking Height				
1824	51	47	61	82	18	12	18	24	10	40	2300	1 1/4	180
1830	51	53	61	82	18	12	18	30	10	40	2920	1 1/4	200
1836	51	59	61	82	18	12	18	36	10	40	3160	1 1/4	230
1848	51	71	61	82	18	12	18	48	10	40	3400	1 1/4	300
2424	59	47	64	89	24	14	24	24	12	40	2500	1 1/4	200
2436	59	58 1/2	64	89	24	14	24	36	12	40	2700	1 1/4	300
2448	59	71	64	89	24	14	24	48	12	40	3500	1 1/2	400
2460	59	83 1/2	64	89	24	14	24	60	12	40	3900	1 1/2	500
3048	67	70	64	91	30	18	30	48	16	32	4200	2	600
3060	67	82	64	91	30	18	30	60	16	32	4700	2	750
3072	67	94	64	91	30	18	30	72	16	32	5200	2	850
3084	67	106	64	91	30	18	30	84	16	32	5700	2 1/2	1000

Please note: width includes burners and counterweight. Length includes 7" for shelf. Overall dimensions do not include controls.

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Construction

Each brick is individually measured, cut, positioned, and mortared in a staggered design for optimum strength. The Fire-Box IS furnace features a hand built staggered sprung arch, assembled brick by brick with careful attention to detail and design. Unlike a flat arch, the sprung arch is built directly on top of the furnace, and is an integral part of the furnace design. Additionally, most threshold and vestibule bricks which surround the door opening are made of heavy duty hardbrick to provide the maximum abrasion resistance available.

Hearth Plates

Our Fire-Box IS furnace comes standard with 2-inch thick silicon carbide hearth plates rated for 2,500°F. Silicon carbide hearth plates provide excellent strength at elevated temperatures and superb heat transfer. Fire-Box IS oven furnaces employ our classic semi-muffle gas fired design. All combustion takes place under the silicon carbide hearth plates so that only the hot gases and products of combustion come in contact with the work. With this **Buzzer** engineered design, there is no direct flame impingement upon the work.


The Burners

All Fire-Box IS furnaces are heated with two of our cast iron Venturi register burners per linear foot. Our six inch burner spacing produces uniform heat without the need for a high cost, high maintenance air circulation system. The Venturi register 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.

Applications

The all brick construction is appropriate for industrial heating applications which require high strength, durability, and abrasion resistance to stand up against tongs, shanks, and hooks commonly used by commercial and in-house heat treaters.

 Recommended for heat treating applications up to 2,000°F.

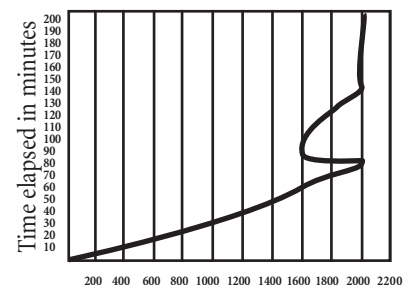
 Hardening low, medium and high carbon steels and low temperature tool steels; annealing; pack carburizing; stress relieving; and forging.

2448IS Fire-Box IS oven furnace with digital temperature control, high limit safety shut-off, and flame safeguard package, complete with roll-out quench tank. Rated for use up to 2,000°F.



Temperature curve

The 1836 IS Fire-Box IS furnace takes one hour to obtain 1,650°F when operating on natural gas at 5" w/c. It reaches 2,000°F in an additional 20 minutes.



Work rate

At 2,000°F, 250 lbs. of class 30 cast iron was introduced. Temperature dropped to 1,600°F. Temperature recovered to 1,850°F in 45 minutes and to 2,000°F in an additional 20 minutes.