



# 55-HT Furnace

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

Designed to meet the needs of tool room heat treaters and high temperature precision casters at a competitive price, the versatile 55HT furnace comes in both 14" long and 28" long models rated to 2,000°F. Average time to reach 2,000°F is 60 minutes for model 55HT and 90 minutes for model 55-B-HT.

☛ Constructed of welded steel plate reinforced by a sturdy angle iron frame.

☛ Rated to 2,000°F

☛ Two courses of insulation: 4½ inches of 2,300°F fire-brick backed up by 2 inches of 1,200°F block insulation. Two layer construction provides the efficiency desired by modern manufacturers and still delivers old-fashioned brick walls to stand up to demanding production schedules and tool room environments.

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



## Construction

The 55HT furnace comes standard with our **Buzzer** engineered flat style arch, constructed of 4½ inches of 2,300°F firebrick backed up with 2½ inches of 1,600°F castable block insulation. This extra-insulated arch, reinforced with heat resistant stainless steel threaded rods, provides a sturdy, well-insulated industrial design. Our design takes the beneficial insulating value of block insulation and places it on the arch and side walls where it helps reduce heat loss and increase furnace efficiency. 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 55HT furnace comes standard with 8" x 14" ceramic hearth plates. Ceramic hearth plates provide excellent heat transfer, stand up well to thermal shock, and are rated for 2,400°F. The 55HT furnace employs our classic semi-muffle gas fired design. All combustion takes place under the ceramic 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.

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				
55HT	25	27	64	64	8	10	8	14	8	44	705	3/4	75
55BHT	25	47.5	64	64	8	10	8	28	8	44	1,050	3/4	150

Please note: all work shelves are 3" deep by width of door opening. Overall dimensions do not include controls. If space is limited, we can supply a lever handle or counterbalanced overhead door. Counterweight adds 5½" to width. \*Total height does not include optional overhead lift mechanism. Type of door should be specified when order is placed.

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## The Burner

All 55HT furnaces are heated with our simple 55 cast iron burner. The 55 burner is 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 **Buzzer** 55HT furnace can be used for applications up to 2,000°F. The all brick side walls are appropriate for industrial applications which require high strength, durability, and abrasion resistance to stand up against tongs, shanks, and hooks commonly used in both heat treating and investment casting.

Common heat treating applications include hardening low, medium and high carbon steels and tool steels; annealing; pack carburizing; stress relieving; forging; and pack hardening.

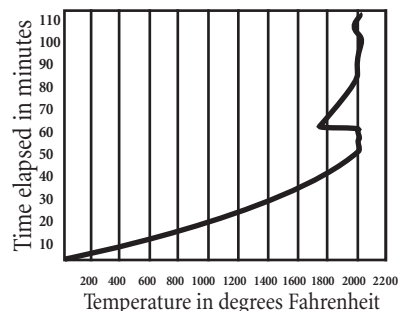
Special applications include investment casting (platinum or dental), pre-heating, and ceramic/glass work.

55HT with swing-out door, complete with digital controls and flame safety package. Rated for use up to 2,000°F.



## Temperature curve

Model 55-HT takes 45 minutes to obtain 2,000°F when operating on natural gas at 5" w/c.



## Work rate

After obtaining 2,000°F, furnace was allowed to soak for 15 minutes. 40 lbs. of 1040 carbon steel was then introduced at 2,000°F. Temperature dropped to 1,753°F. Temperature recovered to 2,000°F in 23 minutes.