



Aluminum Crucible Furnace

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

Designed to meet the industrial melting needs of aluminum and zinc foundries, the aluminum crucible furnace offers the clean melting benefits of Starbond™ carbon bonded crucible with the advantages of our *Buzzer* Venturi air mixer to provide a highly reliable, efficient and easy to use melting furnace. The heavy duty cast iron and steel construction, combined with a thoroughly insulated body, provides both the efficiency and the old fashioned ruggedness our customers have come to expect of a *Buzzer* engineered furnace.



Constructed of a firebrick insulated heavy gauge rolled steel jacket, reinforced by steel threaded rods and extra thick cast iron top and bottom ring segments.

Rated for continuous duty to 1650°F.

Both furnace cover and lid are made of industrial refractory. The removable lid allows quick access to the crucible for ladling or adding flux or ingots. The heavy-duty refractory cover is also easily removed to pull out the entire crucible for large single pours.

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.

Insulation

Insulated with 4 1/2 inches of 2,300°F firebrick. Each insulating firebrick is individually measured, cut, positioned, and mortared in a staggered circular design for optimum strength and function. The largest unit - ACR 300, which holds 300 lbs. of aluminum - is insulated with an additional 2 inches of 1,200°F block insulation.

The crucible

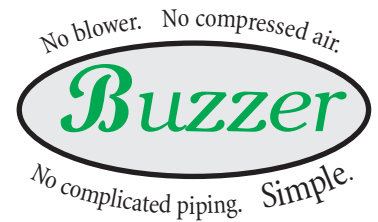
All aluminum crucible furnaces come standard with thick-walled silicon carbide carbon bonded crucibles. Furnaces include a sturdy base block made of the same material which is custom grooved to fit a temperature-sensing thermocouple. Carbon bonded crucibles provide the best service life and cleanest melt and are recommended for all zinc and aluminum alloys.

Model	Furnace height	Furnace diameter	Crucible height	Crucible top diameter	Zinc working capacity in pounds	Aluminum working capacity in pounds	Approx. shipping weight	Gas connect	BTU's per hour in 1,000's
ACR 20	33 ¹ / ₂	16	10 ¹ / ₈	7 ¹³ / ₁₆	50	20	300	1/2	78
ACR 60	37	25 ³ / ₄	15	10 ⁵ / ₈	150	60	850	1	159
ACR 125	43	30	18	13 ¹ / ₁₆	275	125	990	1 ¹ / ₄	288
ACR 300	50	39	22 ³ / ₄	16	600	300	1900	2 ¹ / ₂	600

Please note: Overall dimensions do not include controls.

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The burners

The **Buzzer** aluminum crucible furnace is heated with our simple Venturi angle nozzle burners. Our solid cast iron burner construction is designed to provide maximum service life. Even our nozzles and flanges are made of pure cast iron to hold their own against high radiant heat and intense combustion chamber temperatures, as well as demanding production schedules. Each aluminum crucible furnace is heated with three tangentially positioned angle nozzle burners to limit direct flame impingement and hot spots on the crucible. In addition, a softer "Bunsen blue" flame is less likely to cause localized overheating or "thermal shocking" of the crucible. **Buzzer** angle nozzle burners allow you to regulate the air shutter setting to achieve the optimum flame setting. The register plate also allows secondary air to come in and around the main burner nozzles, helping to keep them cool and extend their productivity.

Back flue

All aluminum crucible furnaces come with a cast iron back flue to remove spent gas and products of combustion. This back flue construction brings the products of combustion and spent gases to a single outlet, increasing operator comfort and preventing products of combustion from passing over the open face of the crucible, reducing oxidation of the metal.

Applications

Recommended for production melting of aluminum, zinc, and their alloys.

 Commonly used for die-casting, solid mold casting, sand casting, precision casting, and other speciality casting processes.

 Popular in both industrial and educational casting rooms for its simple, solid design.



ACR 125 crucible melting furnace with flame safeguard, solenoid valves and gauges, temperature control not pictured. Rated for use up to 1,650°F