

## Melt and hold right at the diecasting machine with Ajax's advanced JET-FLOW LAD-L-MELT induction furnaces

The new improved Lad-L-Melt with a Jet-Flow channel inductor is a twin hearth induction furnace which permits the diecaster to melt and hold right at the diecasting machine. The big improvement is the addition of the Jet-Flow inductor with flow control. Flow control deters oxide buildup in the channel, all but eliminating troublesome rodding, and provides more uniform melting and temperature control.

Lad-L-Melt fits almost anywhere and is adaptable to most mechanical ladling devices. Production is not tied to central melting - you can melt pig, die generated scrap and flashing right on the spot, assuring an adequate supply of metal at all times. It is self-sufficient, easily maintained; and, when equipped with Ajax's low-cost automatic gas injection system,

Lad-L-Melt acts as a degasser, further improving metal quality.

Put a Lad-L-Melt to work in your shop. Get all the benefits of efficient channel induction melting without the old rodding and clogging headaches. For full details, write Ajax Magnethermic Corporation, 1745 Overland Ave., N.E., Warren, Ohio 44482; Phone: 216-372-8511; Telex: 98-2482.



Ajax Magnethermic Corp., Warren, Ohio 44482  
Ajax Magnethermic (U.K.) Ltd., Oxted, Surrey, England  
Japan Ajax Magnethermic Co., Ltd., Tokyo, Japan  
Ajax Magnethermic Canada, Ltd.  
Ajax Equipamentos Magnet rmicos Limitada, Rio de Janeiro, Brazil



## **LAD-L-MELT DOUBLE-HEARTH FURNACE FOR HAND LADLING**

### **DESCRIPTION:**

The Ajax Magnethermic Lad-L-Melt double-hearth melter-holder induction furnace was developed for those diecasters desiring a one operation source of molten metal for hand ladling aluminum or zinc diecastings.

The Lad-L-Melt is a self-contained double-hearth twin channel induction furnace for melting and holding aluminum or zinc. The melting hearth is separated from the holding hearth by a refractory arched wall. A standard Ajax twin channel inductor is used to power the furnace and is strategically placed to provide enough energy for melting and holding.

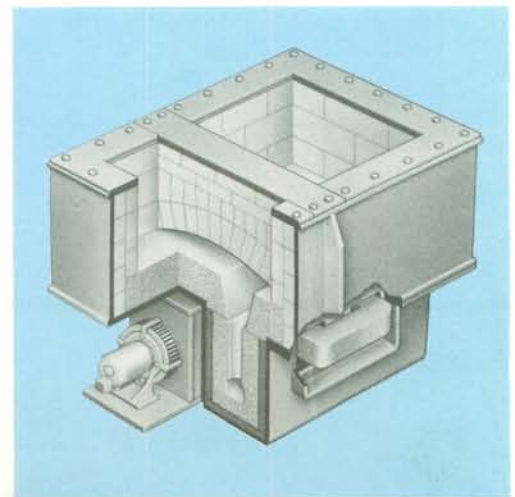
All electrical controls are factory assembled and tested and come in a self-contained cubicle. It is equipped with automatic temperature controls and capacitors for power factor compensation.

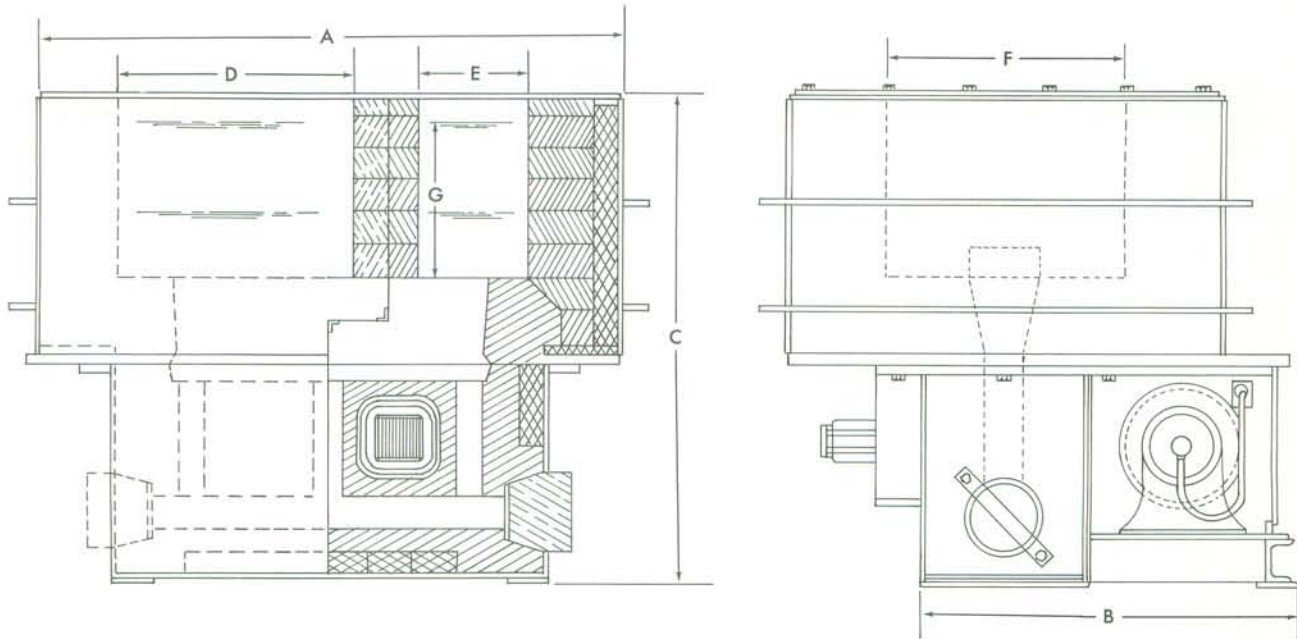
The rear or melting hearth is charged, keeping dross in an isolated area away from the ladling hearth. Only the cleanest metal reaches the mold. Temperature fluctuation is minimized at charging because the ladle hearth is not immediately affected.

Gates, risers, sprues and diecasting machine generated scrap, which are easily melted, can be added as it is being generated at the diecasting machine, eliminating scrap handling problems.

### **ADVANTAGES:**

1. **ELECTROMAGNETIC STIRRING.** Gentle stirring of the molten metal assures a well mixed alloy. Allows lowest operating temperatures, leads to improved die life and production of high quality castings.
2. **NO IRON PICK-UP.** Use of non-metallic refractory material eliminates the possibility of contaminating the melt with iron pick-up as in fuel-fired iron pots.
3. **LOW OPERATING COST.** Full power only need be used during the melt-down period; only a small amount of the total power is needed for holding. The furnace is always ready at temperature at the start of a working period.
4. **LOW MAINTENANCE COST.** Average refractory lining life is twelve to eighteen months on most aluminum diecasting operations.
5. **LOW METAL LOSS.** Induction furnaces melting losses are less than 3/4 of 1% (aluminum) as compared to fuel-fired furnaces which run as high as 3 to 4%.
6. **WORKING CONDITIONS.** Radiant heat from the unit is extremely low and provides the lowest possible ambient temperatures. Induction furnace has few moving parts, keeping noise to a minimum.
7. **FLUES NOT REQUIRED.** Since no combustion takes place in the induction furnace, exhaust flues are not needed.
8. **AUTOMATIC TEMPERATURE CONTROL.** Guarantees highest quality of materials produced.
9. **MINIMUM FLOOR SPACE REQUIREMENTS.** Takes less floor space than any other kind of holding furnace. No special foundations necessary.
10. **GAS ABSORPTION.** Gas pick-up kept to a minimum because of exact control and low operating temperature.





**DIMENSIONS**

TYPE FURNACE	A	B	C	D	E	F	G
"DS"	61"	43"	44 <sup>1</sup> / <sub>8</sub> "	22 <sup>1</sup> / <sub>4</sub> "	13"	26"	15 <sup>1</sup> / <sub>2</sub> "
"ES"	59 <sup>1</sup> / <sub>2</sub> "	43 <sup>1</sup> / <sub>4</sub> "	45 <sup>3</sup> / <sub>4</sub> "	22 <sup>1</sup> / <sub>4</sub> "	11 <sup>1</sup> / <sub>2</sub> "	26 <sup>1</sup> / <sub>4</sub> "	15 <sup>1</sup> / <sub>2</sub> "

**SPECIFICATIONS**

MODEL	KW	KVA	FREQ.	PHASE	CAPACITY POUNDS	TYPICAL WORKING BATCH	MELTING RATE LBS. PER HR.	FOUNDATION LOAD IN LBS.	INDUCTOR
DS (Zinc only)	60	67	60	Single	1400	1200	300	6700	Twin Coil Non-Detachable
ES (Aluminum)	72	80	60	Single	1400	950	250	7400	Twin Coil Detachable
	100	111	60	Single	1400	950	450	7400	Twin Coil Detachable
	120	134	60	Single	1400	950	600	7400	Twin Coil Detachable

Printed in U.S.A.

*NOTE: All data shown is subject to change without notice. For specific detailed information, consult factory.*

4/28/70



**AJAX MAGNETHERMIC**  
CORPORATION

GENERAL OFFICES  
1745 Overland Avenue  
Warren, Ohio 44482  
Plants in Ajax, Ontario, Canada;  
Oxted, Surrey, England and  
Tokyo, Japan

