ELECTRIC RESISTANCE LADLE

VERY LOW TEMPERATURE LOSS IN TRANSIT

AVAILABLE FOR USE WITH FORKLIFT TRUCK OR WITH BEWEL AND TILT MECHANISM FOR OVERHEAD CRANE

FURNACE DESCRIPTION

A highly insulated and efficient unit for the transfer of molten aluminium from bulk melting furnaces. For applications where the metal must be kept hot in the ladle while metal treatment is taking place. Suitable for molten metal feed and overnight holding of molten metal.

The Electric Ladle can replace the furnaces at the diecasting stations for applications where two furnaces per station are required—one for casting and one for treating. Only one ladle needs to be positioned at the casting station at any one time.

PERFORMANCE DATA

	EL150	EL200	EL250	EL300	EL500	EL600	EL700
Maximum Power Consumption	21 kW	21 kW	21 kW	21 kW	36 kW	36 kW	36 kW
Nominal Aluminium Capacity	150 kg	200 kg	250 kg	300 kg	500 kg	600 kg	700 kg
Holding at 700° (cover closed)	5 kW	5.25 kW	7.5 kW	5.25 kW	7.5 kW	8.0 kW	8.5 kW

Above data based on optimum foundry conditions. For normal foundry operations a performance of 90% of these ratings is typical.

For additional information on Morgan MMS' products & services or to find a location nearest to you, please visit: www.morganmms.com

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KEY FEATURES

BENEFITS

- **MINIMISES OXIDE FORMATION**
  Using a Morgan Electric Resistance Ladle to transfer metal from a primary melting unit to a holding furnace at the diecasting station avoids the need to superheat the metal first. This minimises oxide formation and the corresponding metal inclusions. It also reduces melting losses and energy consumption.
- **SYNCHRONISES PRODUCTION PROCESSES**
  The Electric Ladle is an efficient, reliable holding vessel that holds buffer liquid metal to avoid production delays involved with lack of synchronisation of the melting and diecasting processes.
- **FACILITATES METAL TREATMENT**
  The Electric Ladle allows for efficient metal treatment or filtration to be incorporated into the transfer process.
- **READY TO USE**
  The Electric Ladle comes supplied with the appropriate crucible and stand, factory fitted.

ADDITIONAL FEATURES

- An electrically heated transfer ladle.
- Manufactured to CE specification, robust, easy and safe to operate. Audible alarms for safe operation meeting all European standards.
- Temperature correction capability.
- Can be used as reservoir for molten metal or as a holding furnace in an emergency.
- Incorporates a pre-formed crucible for fast lining replacement.
- High thermal efficiency, low energy consumption, low case temperature, typically 60°C.
- Allows rapid alloy changes.
- Connected power load 20 – 36 kW depending on size.
- Simple operation with bayonet type connections.
- Compact design suitable for manoeuvre by fork lift or crane bewel.
- Available in capacity range: 150 – 700 kg.

ELECTRICAL

A control cabinet is provided for fixing to a wall or stanchion adjacent to the heating station. Included in the control cabinet is a residual current circuit breaker with 30mA sensitivity conforming with BSS 4293 to provide earth leakage protection to the highest available safety standards. Metal temperature and chamber temperature control instruments are fitted. The six modular heaters are monitored by current transformers and indicated by ultra bright L.E.Ds.

Trailing leads, for electricity and pyrometry, are provided with plugs which are fitted into sockets on the rear of the ladle. A cable retraction device is supplied to draw the plugs away from the ladle on disconnection, to avoid possible damage by forklift trucks.

Safety interlocks are provided to sound an alarm should an attempt be made to move the ladle without removing the plugs and to signal the presence of metal in the heater chamber, should liner failure occur. Conforms to Euronorm standards, EN746/1 and is CSA approved.

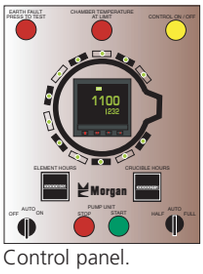
CONSTRUCTION

The Morgan Electric Ladle can be supplied either with slots for use with a fork lift truck or with a bewel and geared tilting mechanism for use with an overhead crane. For maximum mobility, the ladle can be supplied with both transporting mechanisms.

The semi-embedded heater panels are positioned between the refractory ladle liner and the insulation backing which is contained in a steel shell. The ladle is fitted with a swing-aside refractory lined cover to facilitate filling, cleaning and minimise heat loss.

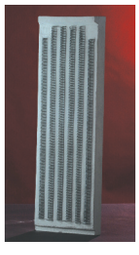
OPTIONS AVAILABLE

Spilt metal detection, low metal temperature alarm, in-range indicating beacons, thyristor power control, metal temperature overshoot control and kilowatt hour meter



Control panel.

**shown with optional mimic display*

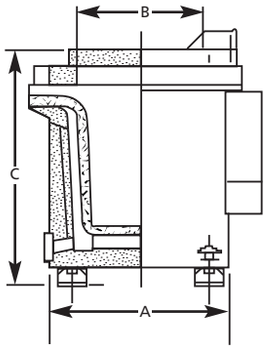


Electric resistance radiant panel.

SPECIFICATIONS

		EL150	EL200	EL250	EL300	EL500	EL600	EL700
LADLE DIMENSIONS (mm)	A	1020	1020	1020	1020	1260	1350	1380
	B	450	450	450	450	600	750	750
	C	770	980	1060	1100	1260	1250	1340
LINER		LX761E	LX760E	LX757E	TPX412E	TPX587E	TPX1600E	TPX1800E
SHIPPING (approx.)* **NETT WEIGHT**	kg	750	800	850	1000	1500	1600	1700
GROSS WEIGHT	kg	900	1000	1050	1250	1750	1850	1950
VOLUME	m^3	2.6	2.7	3.0	3.4	3.6	4.1	5.2

*Excludes crane bewel.



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