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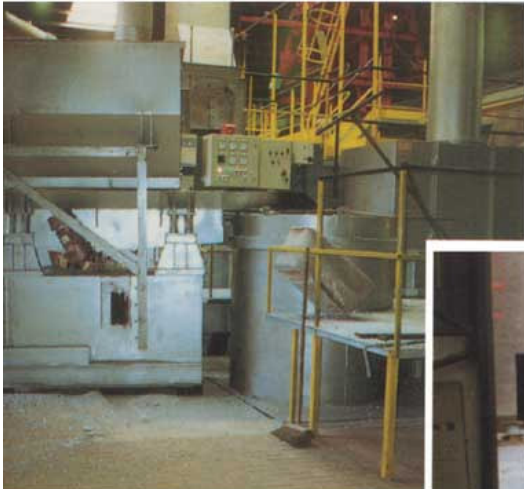
▲ In-feed to melting crucible



▲ Transfer pipe
TT 800 - 15 / 100



Vitrating charge
machine
CV 2000



▲ Melting crucible CF 1500



◀ VORTEX created by
the PEM 800 pump



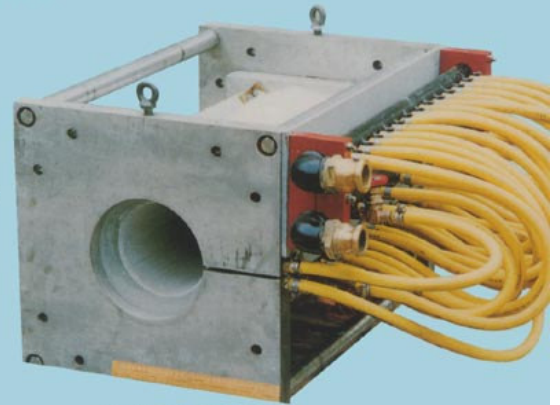
TECHNICAL INFORMATION SHEET PEM 800/92

ELECTROMAGNETIC METAL CIRCULATION PUMP

PATENTED SYSTEM

TYPICAL OPERATING PARAMETERS

- Power
 - Mains frequency
 - 70KVA power supply
- Size
 - Overall length nominally 750 mm (30")
 - Bore size nominally 100 mm (4")
- Pumping rate
 - Variable and reversible with rates up to 2 metres (80") per second of aluminium
- Cooling
 - Closed circuit water system

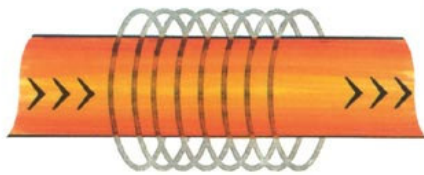


RELIABILITY

Ideally suited to continuous long term operation requiring only planned periodic inspection of the pump and ancillary equipment.

No moving parts and low refractory wear rate result in very low maintenance costs.

Since the metal is moved by magnetic forces, the pump has
▼ no moving parts to wear



ELECTROMAGNETIC PUMPS

CEA Technology electromagnetic pumps are a significant step forward in metal pumping technology with the following benefits :

- No moving parts
- Very low wear rates
- Low energy consumption
- Proven reliability
- Small overall size
- Simple installation
- Easily retrofitted

CASE HISTORY

Electromagnetic pump were installed early in 1992 at Trent Alloys, a leading UK aluminium alloy producer based in Derbyshire, England.

The installation of electromagnetic pumps resulted from the Compagny's need to develop alternative melting technologies for environmental and fuel efficiency reasons.

The facility was designed principally for melting machining swarf but equally capable of melting shredded, UBC, chips, bales and solids.

The electromagnetic pumping system has proved ideal for elemental additions, with significant improvements in the homogeneity of the chemical composition and improved temperature uniformity of the metal bath.



▲ Mains power transformer



▲ Cooling block

*Video of this installation
is available on request*