

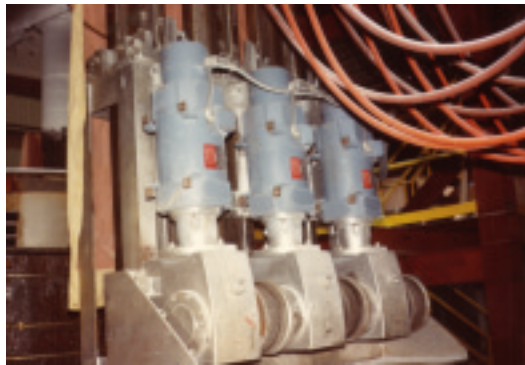


Furnace System Upgrades

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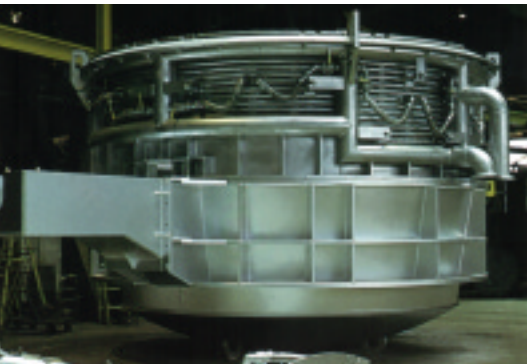
Furnace transformer secondary Delta closure assembly, air cooled design



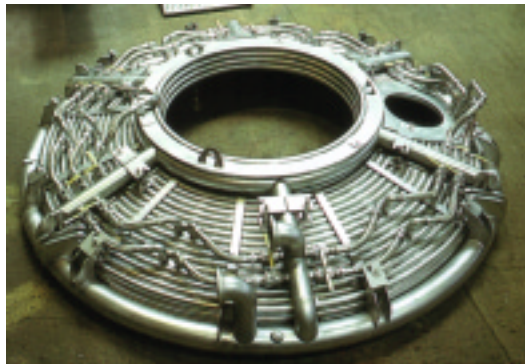
Winch Motor Drives - An alternative to a servo valve type electrode mast positioner or as a retro-fit "upgrade" on older equipment.



Water cooled electric arc furnace secondary components



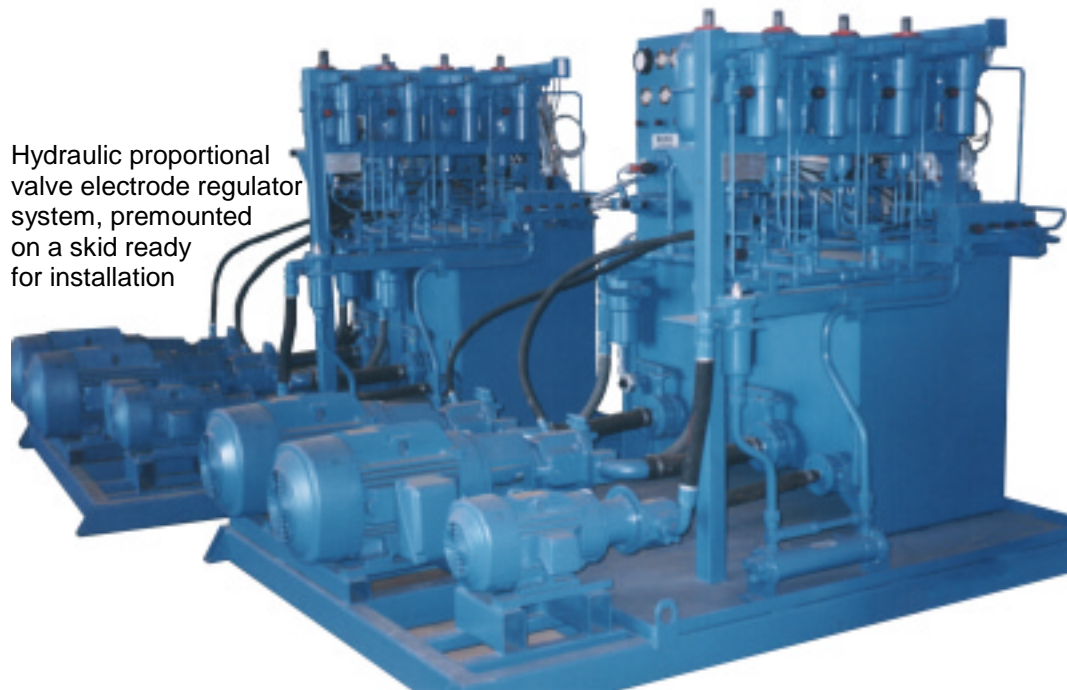
15'4" Diameter single split furnace shell



Tubular construction water cooled roof.



Custom built, electric arc furnace operator's control console



Hydraulic proportional valve electrode regulator system, pre-mounted on a skid ready for installation



Electrode arm assemblies



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20' Inner Diameter EBT Electric Arc Furnace Upgrade – 135 Ton Heats



Shipped by barge in one piece, factory assembled and tested, from Welland to the dock beside our Customer, thereby greatly reducing downtime and expensive field construction.

Use:

- 600,000 Tons/yr carbon and alloy steel long products from melting scrap, primarily for the automotive industry.

History of this furnace:

- 1978 - purchased original furnace from Whiting as a 90 Ton capacity, 19' diameter, spout pour furnace.
- 1988 - furnace was modified by a European competitor of Whiting to a 125 Ton capacity, bottom tap furnace.
- 1999 - the requirement for cleaner steel and higher productivity, coupled with their unhappiness resulting from problems encountered with the furnace structure due to the modifications made by the European competitor, prompted our Customer to ask Whiting Equipment Canada Inc. plus European competitors to make proposals to upgrade the furnace.
- June 2001 - Whiting Equipment Canada Inc. had the best solution; the order to engineer and build the furnace upgrade was awarded to them.

The customer was able to reuse the original:

- Water cooled pipe panel roof
- 24" electrode arms and mast superstructure
- 75,000 KVA transformer and regulation system
- Concrete furnace foundations

Scope of work:

- ProEng software model and design
- New water cooled tube panel side walls
- New furnace shell - 70,000 lbs., 21' W x 28' L x 10' H
- New platform - 180,000 lbs., 28'-6" W x 39' L x 11' H
- New roof lift
- New swing track and bogie truck assembly
- New pivot pin
- New tilt-swing lock assembly
- New eccentric bottom tap mechanism
- New heat shielding
- Tilt cylinder modifications
- New special crane lifting beams to lift the furnace in one piece with our Customer's melt shop crane.
- Supervision of the installation