

Furnace System Upgrades

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Furnace transformer secondary Delta closure assembly, air cooled design



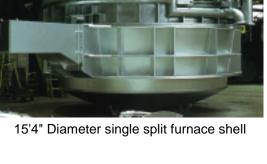
Winch Motor Drives - An alternative to a servo valve type electrode mast positioner or as a retro-fit "upgrade" on older equipment.



Tubular construction water cooled roof.



Water cooled electric arc furnace secondary components

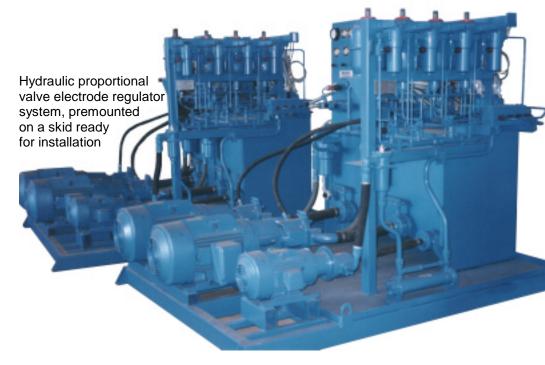




Custom built, electric arc furnace operator's control console



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