

LADLE FURNACE (LF1)

Product Description

Ladle Furnace (LF1) Ladle furnace with Tagliaferri regulation, installed in 1985, nominal power 30 MVA with 400 mm electrode holder arms , supplied with storage system and ferro-alloys preparation and a fume purification plant.

TECHNICAL FEATURES

Installation year 1985

revamping year 1998

Supplier Tagliaferri

Transformer's power 30 MVA

Primary Transformer Power Supply 10 kV

Secondary Transformer Power Supply 168 – 477 V

Electrodes Diameter 400 mm

Electrodes Circle Diameter 680 mm

Temperature increase 4 °C/min

Ferro-alloys addition system Automatic

N° of silos available 14

Available volume per silo 3 m³

COMPONENTS

Transformer. No. 1. Building year 1979 TECNOMASIO BROWN-BOVERI Threephase internal transformer S/N 59260/A type TUWORKX 57-40 power 30MVA 50 Hz star primary, 13 KV variable triangle secondary 170 – 470 V, type cooling OFWF, water flow 2×375 liters/minute

Regulation. No. 1. Tagliaferri – TERS Electro-hydraulic device which keeps the balance among the three electrodes in the liquid steel bath in the ladle. The regulations is based on keeping the arc impedance constant acting on tension and current

Ferro-alloys. No. 1. Automatic material transport system made of: n° 1 flat belt, n°1 distributor car for loading 12 storage silos each of 2 cubic metres, n° 2 weigher hoppers, n°2 flat belts, n°1 hopper with valve. The system is used to dose, weigh and load into the Ladle Furnace.

Wire Feeder System. No. 2. Two-track injector machine with one 21 KW direct current engine, converter power supply 400 V 50 Hz. Cord wire diameter 9 – 16 mm, speed 5 – 250 m/min, network supply pressure 6 bar.