

Front Furnace Iron Quality Monitor



1. Product Introduction

KD-TS600 front-furnace molten iron quality management instrument uses original imported components, with higher measurement accuracy and a more stable new generation of front-furnace molten iron quality management instrument. Built-in casting function database, suitable for the control of pre-furnace elements for cast iron and ductile iron production. The rapid thermal analysis technology

before the furnace is used to take the solidification temperature curve of the cast iron structure formation process as the measured object. The computer analyzes the solidification temperature curve to obtain the characteristic points of the curve under different components. The properties of molten iron such as carbon equivalent (CE%), carbon content (C%), silicon content (Si%), spheroidization rate (SG%), tensile strength (RM) were quickly measured according to the characteristic points of the curve. The detection time is about 1 minute and 30 seconds. Then the molten iron component is adjusted according to the automatically calculated amount of carbon increasers, ferrosilicon, and scrap steel. After obtaining the appropriate molten iron component, it is poured. This greatly improves the yield rate, reduces the time of molten iron in the furnace, and alleviates the workload of the furnace workers. It effectively improves work efficiency and reduces inspection costs and time.

2. Main performance

1) Instrument specifications

Original imported temperature transmitter, military-grade motherboard, 21-inch LED true color display

Power supply: AC 220V 50Hz 100W Chassis size: 570×400×1350mm

2) Measurement function

Iron grade, carbon equivalent, carbon content, silicon content, supercooling degree, spheroidization rate, tensile strength, etc.

Setting of target material and setting of molten iron weight

Automatically calculate the output of carbon enhancers, ferrosilicon, and scrap steel

Automatically draw the change curves of carbon, silicon, carbon equivalent, initial crystal temperature, eutectic temperature, and supercooling degree

Saving and reproduction of data

3) Setting function: 10 inspection lines, 10 target components, inspection lines and target materials can be set.

4) Complementary function: calculate the supplementary amount based on the measurement results based on the target components, molten iron weight, and yield rate

5) Recording function: 10,000 measurement results can be recorded in the order of measurement time, and the process can be reproduced

6) Browse function: You can browse the trend distribution map of the main measurement parameters for data analysis

7) Output function: The measurement records can be transferred to other computers via USB flash drive for review

3. Main technical parameters

Measurement name	Measurement range	Measurement accuracy
Temp	0 - 1370℃	F.S±0.01%
CE%	2.20%—5.00%	±0.05%
C%	2.00%—4.80%	±0.05%
Si%	0.20%—5.50%	±0.10%
SG%	62%—95%	±10.0%
RM	HT100—HT350	Minimum value

4. Complete set: 1. One iron quality management instrument in front of the furnace 2. One set of sample holders 3. 100 sample cups