

JB-TS6 Intelligent Carbon Silicon Analyzer

Picture



The technology of molten iron thermal analysis is from the phase diagram theory in metallography. It has already been widely used in iron liquid analysis and control before furnace in developed countries. It's an indispensable detection method in advanced casting technology. It plays a very important role in the production of high quality castings. All people who work on casting technology know the carbon equilibrium phase diagram as the basic tool of metal materials research and production. Someone called the cooling curve in the casting thermal analysis as fingerprint of metallurgical quality. The basic principle of rapid prediction and forecast in the casting thermal analysis before furnace is based on the records of cooling curve of molten iron in a particular carbon cup by thermal analysis instruments. The iron carbon equilibrium phase diagram reflects the solidification process of molten iron composition and quantitative relations between the phase change temperature. The state of hot metal solidification phase

Introduction change temperature has a certain relationship with the various properties of casting iron. We forecast the various parameters of metal materials through this kind of relationship and control the production process. The method of iron carbon equilibrium diagram is similar with molten iron cooling curve by thermal analysis technology. The differences between them is that the result of carbon equilibrium diagram is determined under an ideal state. But the cooling curve of thermal analysis technology is determined by the actual production of molten iron. Its composition is relatively complex. The shape of the cooling curve and standard condition have a certain difference. But this kind of difference can represent the actual state of the molten iron. We use the actual cooling curve of iron for quality analysis and control is more close to the production practice. The test result will be more accuracy with higher control precision. It will play a much more important role in the production.

Parameter	Main Unit	Military level industrial motherboard	Working Humidity	<76%
	Display	19 inch TFT true color display	Working Temperature	0~50℃
	Power	AC 220V 50Hz	Power consumption	200W
	Appearance	Desktop	Analysis Time	90 Seconds
Main Function	Measuring	Grade of molten iron, Carbon equivalent, Content range of carbon and silicon, Degree of supercooling, nodularity, Tensile strength etc.		
	Setting	10 calibration curves, 10 kinds of target composition, calibration curves and target materials linkage.		
	Fill in the function	It can calculate the adding quantity compare with the target composition, weight of molten iron and yield base on the test results.		
	Record	According to the time sequence of measurement, it can record 5000 groups of analysis results.		
	Browsing	It can browse trend map and Differential diagram of solidification temperature curve of main parameters.		
	Output	It can output test records to the U disk automatically.		
Analysis Precision	Item	Measuring Range	Measuring Precision	
	Resolution	0.1℃（0-1370℃）	0.1%F.S	
	CE%	2.30%-4.83%	±0.10%	
	C%	2.20%-4.30%	±0.05%	
	Si%	0.20%-3.80%	±0.10%	
	SG%	60%-95%	±10.0%	
	RM	HT100-HT350	Min	