



Graphite Electrodes

- Model Type: | RPHP,UHP,SHP
- Features 1: | Stability Chemical
- Features 2: | Good Machinability
- Features 3: | High Electrical Conductivity
- Features 4: | High Thermal Conductivity
- Features 5: | High Temperature Resistance
- Features 6: | Low Thermal Expansion Coefficient

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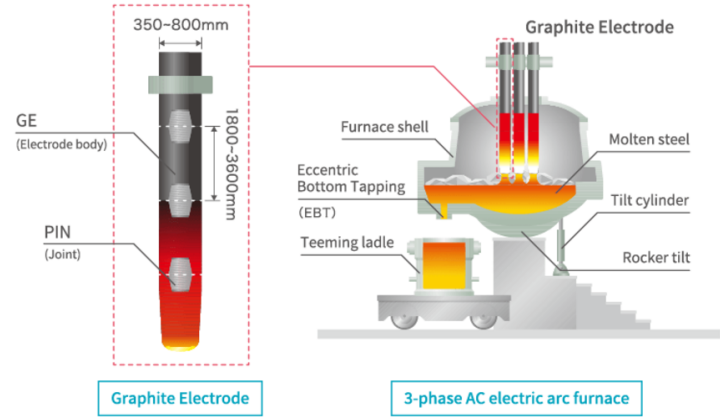
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Introduction

Graphite electrode, also known as artificial graphite electrode, is based on petroleum coke and needle coke as the main raw materials, and coal pitch as the binder.After calcining, grinding, mixing and kneading, extrusion forming, roasting, asphalt impregnation, graphitization, machining and other series.A high temperature resistant graphite conductive material produced by the process.



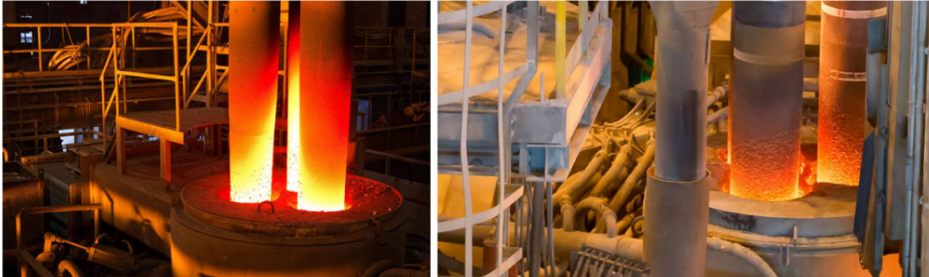
Graphite electrode is made from domestic first-class petroleum coke and high quality needle coke and are widely used in electric arc furnaces for the production of alloy steels, metal, and other nonmetallic materials, etc. The Graphite electrodes include regular power, high power, ultra-high power, and square electrodes. The range of diameters covers from 200mm to 700mm.



Graphite electrode has the advantages of low electrode consumption, fast processing speed, good processing performance, high processing precision, small thermal deformation, light weight, easy surface treatment, high temperature resistance, high processing temperature, electrode bonding and so on.

Application

Graphite electrodes are mainly used in electric arc furnace steelmaking, the working principle of graphite electrodes in steel refining involves generating high temperatures through an electric arc, melting the metal at the furnace' s base, and facilitating critical chemical reactions such as decarburization and alloying to produce high-quality steel.



Technical Characteristics of Graphite Electrode RP, UHP:

	Unit	AC Furnace		DC Furnace	
		350~450mm 14"~18"	500~700mm 20"~28"	550~800mm 22"~32"	
Features		RP	UHP	UHP	UHP
Bulk density	g/cm3	1.58~1.70	1.65~1.76	1.66~1.74	1.68~1.75
Specific resistance	μ Q m	6.0~8.5	4.5~6.5	4.5~6.5	4.2~5.5
Young's modulus	kN/mm2	8~12	11~16	9~14	9~13
	GPa	8~12	11~16	9~14	9~13
	kgf/mm2	800~1,200	1,100~1,650	950~1,400	900~1,300
Bending strength	N/cm2	1,000~1,400	1,200~1,800	1,000~1,500	1,000~1,500
	MPa	10~14	12~18	10~15	10~15
	kgf/cm2	100~140	120~180	100~150	100~150
Thermal expansion coefficient (R.T. to 400° C)	×10-6/°C	0.8~1.5	0.8~1.5	0.5~1.0	0.5~0.9
	×10-6/°F	0.4~0.8	0.4~0.8	0.3~0.6	0.3~0.5
True density	g/cm3	2.20~2.23	2.20~2.23	2.20~2.23	2.20~2.23
Total porosity	%	23~29	20~26	21~26	20~25
Ash content	%	Less than 0.2	Less than 0.2	Less than 0.2	Less than 0.2

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Any Questions? We Have the Answers for You.

If you have any concerns and questions that you are seeking, then feel free to ask me. I'll be happy to help you out.

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