# Brief Information of Covered Welding Rods for Cast Iron

Cast iron is one kind of low weldability metal due to its microstructure is not uniformity, high carbon content and bad plasticity so it is easy to engender welding defects of white iron, crack or blowhole and repairing welding castings need higher requirement of welding techniques. There are thermoweld and cold weld for casting repairing welding and for repairing different cast iron workpieces following features of different kind of cast iron welding rod for choosing.

### Carbon steel core cast iron welding rod

ATLANTIC has three carbon steel core cast iron welding rods: CHC100, CHC116 and CHC208. Prices of this category of cast iron welding rod is much lower than the nickel or nickel alloy one but integrative welding performance of carbon steel core cast iron welding rod is not good than the nickel or nickel alloy one and the machinability of this category of cast iron welding rod is not good than the nickel or nickel alloy one also. Please study the literatures of the three to choose carbon steel core cast iron welding rod.

#### Pure nickel core cast iron welding rod

Pure nickel core cast iron welding rod (AWS ENi-CI) is widely used for welding workpieces of thin cast iron and for surfacing machining face. The weldment does not need preheating. Its integrative welding performance is the best one in cast iron welding rods also the crack resistance and machinability. ATLANTIC has tow formulas of ENi-CI, one is CHC308 that welding performance is better and another is CHC308(B) which machinability is better.

#### Nickel-ferro core cast iron welding rod

The weld metal of nickel-ferro core cast iron welding rod (AWS ENiFe-CI) has performance of high tensile strength, good plasticity and good crack resistance. It bond with base metal very well and it is a machineable one. It mainly be used for welding workpieces of grey cast iron or nodular cast iron

## **Nickel-Copper Core Cast Iron Welding Rod**

The weld metal of nickel-Copper Core one (AWS ENiCu-B) has higher contractibility rate and its tensile strength is lower so it is not suitable for repairing castings that with high stiffness. It used for repairing grey castings that good plasticity is required.