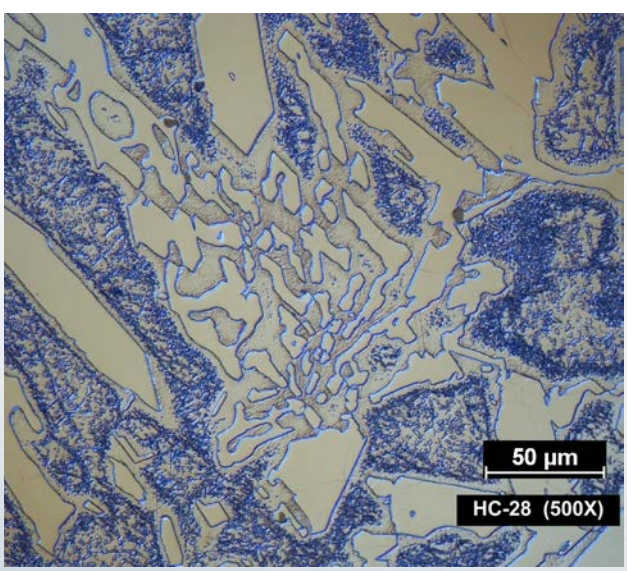
HC28 HIGH CHROME WHITE IRON

Conforms to ASTM A-532 - 75 a Class III, Type A

High Chromium Iron is recommended for applications which involve both corrosion and abrasion. Townley's HC28 alloy is particularly well suited for slurry pump parts and pipe fittings in coal prep operations and coal fired power stations. HC28's abrasion resistance is comparable to chrome-nickel irons (ASTM A-532 Class I, Type B, such as Ni-Hard 4) but excels in corrosion resistance over this class of irons. HC28 owes its abrasion resistant properties to the various chromium iron carbides in the microstructure. Variations in the chromium to carbon ratio will provide fluctuating matrix structures from martensite to austenite. This can be tailored to produce the desired structure for a given section thickness and application.

MICROSTRUCTURE



Mechanical Properties

Density	0.271 lbs/in^3
Brinell Hardness	600 min
Tensile Strength	75 - 110 KSI
Max Bend Stress / Yield Strength	123 KPSI

Chemical Analysis

Carbon	2.0% - 3.3%
Manganese	2% MAX
Silicon	1.5% MAX
Chromium	23.0% - 30.0%
Nickel	2.5% MAX
Phosphorus	0.10% MAX
Sulfur	0.06% MAX
Molybdenum	3.0% MAX
Copper	1.2% MAX
Iron	Balance

Samples of each heat are analyzed prior to pouring to ensure exact chemical composition. Microstructural analyses are performed randomly and each casting is checked for proper hardness at several intervals during production.

TOWNLEY

Engineering & Manufacturing Co., Inc.

Made in the USA