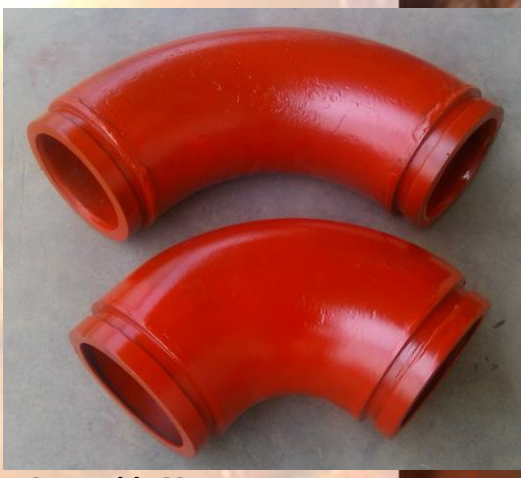
Manganese Steel ASTM A128 GR C

ASMT A128 Grade C is Manganese steel for abrasive casting application. Some website define it as “UNS J91309” but we cannot find this number in standard.

Casting Methods in Casting Quality Industrial



- Sand Casting
- Investment Casting (Lost Wax Casting, Precision Casting)
- Shell Casting

Equivalent alloy steel with ASTM A128 GR C:

GB/T 5680 Grade ZGMn13-4
JIS 5131 Grade SCMnH11
ISO 13521 Grade GX120MnCr13-2

Reference Casting Standards:
ASTM A128 / A128M - 93(2017) Standard Specification for Steel Castings, Austenitic Manganese

ASMT A128 Grade C Casting Chemical Composition Requirements and Mechanical Property:
Carbon: 1.05-1.35
Manganese: 11.5-14.0
Chromium: 1.5-2.5
Silicon: 1.00 max
Phosphorus: 0.070 max
No Mechanical Property required in ASTM A128 standard.

ASTM A128 Grade C Heat treatment Requirement:
Grade C shall be suitably heat treated to achieve toughness and ductility. This heat treatment shall consist of uniformly heating the castings to a temperature applicable for grade of steel produced, at least 1800°F [1000°C], and holding until the temperature is uniform throughout and quenching in an applicable medium, normally water.
For further machining, anneal is recommended at the temperature from 900 to 1100°F [500 to 600°C].

ASTM A128 Grade C Casting Application:
the material is mainly used as wear-resistant steel castings, such as impact curtain, crushing chamber, crushers, blow bars, impact plates, side liners. www.castingquality.com

ASTM A128 Grade C WELDABILITY

Manganese steel do not have good welding performance. No preheat required and control the temperature in 300 °C to avoid brittle, welded after quenching.

Manganese steel Machinability:

Bad. Must be operated with high quality ceramic cutting tools