



## Casting Material: Alloy Steel A217 GR C12A

Grade C12A is covered by ASTM A217 standard; it's a good **Chromium Molybdenum Vanadium steel** for Sand Casting and Investment Casting purpose. UNS code is J84090

**ASTM A217 / A217M - 14 Standard Specification for Steel Castings, Martensitic Stainless and Alloy, for Pressure-Containing Parts, Suitable for High-Temperature Service**

**ASTM A217 Grade C12A Casting Chemical Composition Requirements and Mechanical Property:**

Carbon: 0.08-0.12  
Manganese: 0.30-0.60  
Silicon: 0.20-0.50  
Sulfur: 0.010 max  
Phosphorus: 0.030 max  
Nickel: 0.40 max  
Chromium: 8.00-9.50  
Molybdenum: 0.85-1.05  
Columbium: 0.06-0.10  
Nitrogen: 0.030-0.070  
Aluminum: 0.040 max  
Vanadium: 0.18-0.25

Tensile Strength: 85ksi-110ksi (585-760Mpa)

Yield Strength: 60ksi (415Mpa) min

Elongation in 2in. or 50mm: 18.0% min

Reduction of Area: 45% min

**ASTM A217 Grade C12A Casting Heat treatment process:**

Generally all castings need to be tempered at 1250°F [675°C] min

[www.castingquality.com](http://www.castingquality.com)

**ASTM A217 Grade C12A casting Application:**

Pump casing, Pump impeller.  
Valve Body, Valve Bonnet, Valve Disc.  
Machinery Spare Part.  
Automobile Industry.



**Manufacture Process in Casting Quality: Sand Casting, Precision Lost Wax Investment Casting.**



## **SERVICE IN QINGDAO CASTING QUALITY INDUSTRIAL**

- I SAND CASTING
- I INVESTMENT CASTING
- I SHELL CASTING
- I PERMANENT MOLD CASTING
- I CNC MACHINING

As a professional casting manufacture, Qingdao Casting Quality Industrial pay much attention to the quality and technology, our products are much more casting and forging parts. We are mainly do Sand Casting, Investment Casting (Lost Wax Casting or Precision Casting) and Die Casting .Today, its products are marketed globally through many countries.

### **Our Services**

Casting Quality focus on Metal Parts industry, we provide professional service in Metal Casting field.

1. Sand Casting
2. Investment Casting
3. Shell Casting
4. CNC Machining
5. CAD Design
6. Tools/Mold Design

Many buyers from all over the world purchase products from China. But do you know the quality of products in China? Maybe you only pay the surface and price, but the inner quality is lost.

### **Housing Casting Design in Solidworks**

What makes Casting Quality the best?

### **Innovation**

Our engineers are more than just designers....they're pioneers. Our team use CAD/CAM to do the simulation of casting parts .Through the advanced technology, we can know the weight and structure. We also visited so many factories to know their difference and improve our products every year.

### **Quality**

We're obsessed with quality. Casting Quality constantly strives to exceed our customers' expectations in durability and performance. In fact, we will control the whole process from the original material to the finished parts , include the technology .Uniquely-designed Quality Control System focuses on ensuring four product goals: 1) Eligible Chemistry , 2) Hardness 3) Property and 4) Affordable Pricing. The result is the best casting products value in the industry.

### **Service**

We're in Qingdao,China, It has convenient transportation of road and sea. Courteous service is part of who we are, and we do it better than anyone in the industry. With Casting Quality you can expect friendly, knowledgeable, and prompt customer service.

### **Fulfillment**

Shipping orders complete and on-time is of paramount importance to our customers. We will count the delivery date and result before accept your order. Casting Quality consistently ranks as one of the best in speed of delivery and fill rates.