

## Material: ASTM A487 1(A)

### Standard Specification for Steel Castings Suitable for Pressure Service

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** ASTM A487 / AA87M Steel Castings Suitable for Pressure Service

**Application:** Intended for Valve, Pump, General Engineering, Automotive and Other Industries Grade

**Belongs to the Industry:** Casting

| Chemical Composition |          |               | Heat Treatment                                    |           |
|----------------------|----------|---------------|---|-----------|
| Carbon               | C %      | 0.300 max.    | Annealing or Normalising or Hardening + Tempering |           |
| Silicon              | Si %     | 0.800 max.    |   |           |
| Manganese            | Mn %     | 1.000 max.    |   |           |
| Phosphorus           | P %      | 0.035 max.    |   |           |
| Sulphur              | S %      | 0.035 max.    |   |           |
| Chromium             | Cr %     | 0.350 max.    |   |           |
| Nickel               | Ni %     | 0.500 max.    |   |           |
| Mo + W               | MO % + W | 0.250 max.    |   |           |
| Copper               | Cu %     | 0.500 max.    |   |           |
| Vanadium             | V %      | 0.040 - 0.120 |   |           |
| other                | Ot %     | 1.000 max.    | Mechanical Properties                             |           |
| Iron                 | Fe %     | Balance       | Tensile Strength in Mpa                           | 585 - 760 |
| -                    | -        | -             | Yield Strength in Mpa                             | 380 min.  |
| -                    | -        | -             | Elongation in %                                   | 22 min.   |
| -                    | -        | -             | Reduction of Area in %                            | 40 min.   |
| -                    | -        | -             | Hardness in BHN                                   | -         |
| -                    | -        | -             | Impact in Joule                                   | -         |

| Cross Reference Table |          |                |                                   |
|-----------------------|----------|----------------|-----------------------------------|
| Material              | Standard | Country        | Grade Belong to the Industry      |
| J13002                | UNS      | USA            | Casting                           |
| SA 216 WCB            | ASME     | USA            | Casting                           |
| A757 A1Q              | ASTM     | USA            | Casting                           |
| J03002                | UNS      | USA            | Casting                           |
| 1.0619                | DIN      | Germany        | Casting                           |
| 1.0619                | EN       | European Union | Casting                           |
| A660 WCB              | ASTM     | USA            | Fusion Welding Bendig and Forming |

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