

# Material: UNE F.8417

## Standard Specification for Stainless Steel Castings

**Group:** Ferrous Stainless Steel Alloys

**Sub Group:** UNE F.8417 Stainless Steel Castings

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

**Grade Belongs to the Industry:** Casting

| Chemical Composition |      |                 | Heat Treatment                                                                                                                                                                                      |  |
|----------------------|------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Carbon               | C %  | 0.070 max.      | Solution Annealing                                                                                                                                                                                  |  |
| Silicon              | Si % | 1.500 max.      |                                                                                                                                                                                                     |  |
| Manganese            | Mn % | 1.500 max.      |                                                                                                                                                                                                     |  |
| Phosphorus           | P %  | 0.040 max.      |                                                                                                                                                                                                     |  |
| Sulphur              | S %  | 0.040 max.      |                                                                                                                                                                                                     |  |
| Chromium             | Cr % | 19.000 - 22.000 |                                                                                                                                                                                                     |  |
| Nickel               | Ni % | 27.000 - 31.000 |                                                                                                                                                                                                     |  |
| Molybdenum           | Mo % | 2.000 - 3.000   |                                                                                                                                                                                                     |  |
| Copper               | Cu % | 3.000 - 4.000   |                                                                                                                                                                                                     |  |
| Iron                 | Fe % | Balance         |                                                                                                                                                                                                     |  |
| -                    | -    | -               | <b>Mechanical Properties</b><br>Tensile Strength in Mpa 425 min.<br>Yield Strength in Mpa 170 min.<br>Elongation in % 35 min.<br>Reduction of Area in % -<br>Hardness in BHN -<br>Impact in Joule - |  |
| -                    | -    | -               |                                                                                                                                                                                                     |  |
| -                    | -    | -               |                                                                                                                                                                                                     |  |
| -                    | -    | -               |                                                                                                                                                                                                     |  |
| -                    | -    | -               |                                                                                                                                                                                                     |  |
| -                    | -    | -               |                                                                                                                                                                                                     |  |
| -                    | -    | -               |                                                                                                                                                                                                     |  |

| Cross Reference Table |          |         |                                 |
|-----------------------|----------|---------|---------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry    |
| 1.4500 DIN            | DIN      | Germany | Casting                         |
| SCS 23                | JIS      | Japan   | Centrifugal Cast, Steel, Pipes. |
| G X 5 NiCrCuMo 29-21  | UNI      | Italy   | Casting                         |
| SA-351 CN7M           | ASME     | USA     | Casting                         |
| A744 CN7M             | ASTM     | USA     | Casting                         |
| A743 CN7M             | ASTM     | USA     | Casting                         |
| A351 CN7M             | ASTM     | USA     | Casting                         |

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