

Material: DIN G X 7 CrNiMoCuNb 18-18

Standard Specification for Stainless Steels Castings

Group: Ferrous Stainless Steel Alloys

Sub Group: DIN G X 7 CrNiMoCuNb 18-18 Stainless Steels Castings

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

Grade Belongs to the Industry: Casting

| Chemical Composition | | | Heat Treatment | |
|----------------------|------|-----------------|-------------------------|---------------|
| Carbon | C % | 0.080 max. | Solution Annealing | |
| Silicon | Si % | 1.500 max. | | |
| Manganese | Mn % | 2.000 max. | | |
| Phosphorus | P % | 0.045 max. | | |
| Sulphur | S % | 0.030 max. | | |
| Chromium | Cr % | 16.500 - 18.500 | | |
| Nickel | Ni % | 19.000 - 21.000 | | |
| Molybdenum | Mo % | 2.000 - 2.500 | | |
| Copper | Cu % | 1.800 - 2.400 | | |
| Niobium | Nb % | > 8 x %C | | |
| Iron | Fe % | Balance | Mechanical Properties | |
| - | - | - | | |
| - | - | - | | |
| - | - | - | | |
| - | - | - | | |
| - | - | - | | |
| - | - | - | | |
| | | | | |
| | | | Tensile Strength in Mpa | 441.3 - 637.4 |
| | | | Yield Strength in Mpa | 176.5 min. |
| | | | Elongation in % | 15 min. |
| | | | Reduction of Area in % | - |
| | | | Hardness in HB | 130-180 |
| | | | Impact in Joule | - |

| Cross Reference Table | | | |
|--------------------------|----------|---------|------------------------------|
| Material | Standard | Country | Grade Belong to the Industry |
| 1.4585 | DIN | Germany | Casting |
| J94651 | UNS | USA | Casting |
| Ao X 10 CrNiMoCuNb 18-18 | MSZ | Hungary | Casting |
| SA-351 CN3MN | ASME | USA | Casting |
| A351 CN3MN | ASTM | USA | Casting |
| A743 CN3MN | ASTM | USA | Casting |
| A744 CN3MN | ASTM | USA | Casting |

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