# **Material:** ASTM A351 HK40

## Standard Specification for Castings, Austenitic, for Pressure-Containing Parts

**Group:** *Ferrous Stainless Steel Alloys*
**Sub Group:** *ASTM A351 / 351M Castings, Austenitic, for Pressure-Containing Parts*
**Application:** *Intended for Valves, Pumps, General Engineering, Automobile and Other Industries Grade*
**Belongs to the Industry:** *Casting*

| Chemical Composition | | |
|---|---|---|
| Carbon | C % | 0.350 - 0.450 |
| Silicon | Si % | 1.750 max. |
| Manganese | Mn % | 1.500 max. |
| Phosphorus | P % | 0.040 max. |
| Sulphur | S % | 0.040 max. |
| Chromium | Cr % | 23.000 - 27.000 |
| Nickel | Ni % | 19.000 - 22.000 |
| Molybdenum | Mo % | 0.500 max. |
| Iron | Fe % | Balance |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |

| Heat Treatment |
|---|
| Solution Annealing |

| Mechanical Properties | |
|---|---|
| Tensile Strength in Mpa | 425 min. |
| Yield Strength in Mpa | 240 min. |
| Elongation in % | 10 min. |
| Reduction of Area in % | - |
| Hardness in BHN | - |
| Impact in Joule | - |

| Cross Reference Table | | | |
|---|---|---|---|
| **Material** | **Standard** | **Country** | **Grade Belong to the Industry** |
| A-608 Grade HK 40 | ASTM | USA | Casting |
| SA-351 Grade HK 40 | ASME | USA | Casting |
| A-567 Grade HK 40 | ASTM | USA | Casting |
| 310 C 45 | BS | British | Casting |
| 40 CrNiSi 25-20 | MSZ | Hungary | Casting |
| 1.4848 | DIN | Germany | Casting |
| SCH 22 | JIS | Japan | Casting |

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