GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

# Material - ASME SA-182 Grade F 348H

## Standard Specification for Forged or Rolled Alloy and Stainless Steel Pipe Flanges, Forged Fittings and Valves and Parts for High-Temperature Service

**Group - Ferrous Stainless Steel Alloys**

**Sub Group - ASME SA-182 Grade F 348H Forged or Rolled Alloy and Stainles Steel Pipe Flanges, Forged Fittings and Valves and Parts for Hogh-Temperature Service**

**Application - Intended for Valve, Pump, General Engineering, Automotive and other Industries**

**Grade Belongs to the Industry - Pipe and Forging**

| Chemical Composition | | |
|---|---|---|
| Carbon | C % | 0.040 - 0.100 |
| Manganese | Mn % | 2.000 max. |
| Phosphorus | P % | 0.045 max. |
| Sulphur | S % | 0.030 max. |
| Silicon | Si % | 1.000 max. |
| Nickel | Ni % | 9.000 - 13.000 |
| Chromium | Cr % | 17.000 - 20.000 |
| Niobium | Nb % | 0.008 - 1.100 |
| Cobalt | Co % | 0.200 max. |
| Tantalum | Ta % | 0.100 max. |
| Iron | Fe % | Balance |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |

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

| Mechanical Properties | |
|---|---|
| Tensile Strength in Mpa | 515 min. |
| Yield Strength in Mpa | 205 min. |
| Elongation in % | 30 min. |
| Reduction of Area in % | 50 min. |
| Hardness in BHN | - |
| Impact in Joule | - |

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| Cross Reference Table | | | |
|---|---|---|---|
| **Material** | **Standard** | **Country** | **Grade Belong to the Industry** |
| S34809 | UNS | USA | Steel |
| A 213 TP348H | ASTM | USA | Steel and Tubing |
| A 336 Grade F348H | ASTM | USA | Steel |
| A 813 Grade TP 348H | ASTM | USA | Steel and Pipe |
| A 312 TP348H | ASTM | USA | Steel and Pipe |
| A 943 TP348H | ASTM | USA | Steel and Pipe |
| A 479 348H | ASTM | USA | Steel |

**Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email marketing@gravitycastindia.com**

All information in our data sheets and website is indicative only and is not intended to be a substitute for the full specification from which it is extracted. It is intended to provide typical values to allow comparison between metal alloy option rather than a definitive statement of mechanical performance or suitability for a particular application as these will vary with temperature, product type and product application. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of business.