



**GRAVITY CAST PVT. LTD.**  
GRAVITY GROUP OF COMPANIES

## Material - ASTM A 176 S32803

**Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet and Strip for Pressure Vessels and for General Applications**

**Group - Ferrous Stainless Steel Alloys**

**Sub Group - ASTM A 176 S32803 Chromium and Chromium-Nickel Stainless Steel for Pressure Vessels and for General Applications**

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

**Grade Belongs to the Industry - Steel, Sheet, Plate and Strip**

| Chemical Composition |         |                 | Heat Treatment               |          |
|----------------------|---------|-----------------|------------------------------|----------|
| Carbon               | C %     | 0.015 max.      | Solution Annealing           |          |
| Silicon              | Si %    | 0.550 max.      |                              |          |
| Manganese            | Mn %    | 0.500 max.      |                              |          |
| Phosphorus           | P %     | 0.020 max.      |                              |          |
| Sulphur              | S %     | 0.005 max.      |                              |          |
| Chromium             | Cr %    | 28.000 - 29.000 |                              |          |
| Nickel               | Ni %    | 3.000 - 4.000   |                              |          |
| Molybdenum           | Mo %    | 1.800 - 2.500   |                              |          |
| Nitrogen             | N %     | 0.020 max.      |                              |          |
| Niobium              | Nb %    | 0.150 - 0.500   |                              |          |
| C + N                | C% + N% | 0.030 max.      | <b>Mechanical Properties</b> |          |
| Iron                 | Fe %    | Balance         | Tensile Strength in Mpa      | 600 min. |
| -                    | -       | -               | Yield Strength in Mpa        | 500 min. |
| -                    | -       | -               | Elongation in %              | 16 min.  |
| -                    | -       | -               | Reduction of Area in %       | -        |
| -                    | -       | -               | Hardness in HB               | 241 max. |
| -                    | -       | -               | Impact in Joule              | -        |

| Cross Reference Table |          |         |                               |
|-----------------------|----------|---------|-------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry  |
| A240 UNS S32803       | ASTM     | USA     | Steel, Plate, Sheet and Strip |
| S32803                | UNS      | USA     | Steel                         |
| A959 S32803           | ASTM     | USA     | Steel                         |
| SA-240 UNS S32803     | ASME     | 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](mailto: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.

**ONE STOP SOLUTION FOR METAL PARTS**