

## Material - IS 3444 Grade 16

Standard Specification for Corrosion Resistant High Alloy Steel and Nickel Base Castings for General Applications

**Group - Ferrous Stainless Steel Alloys** 

Sub Group - IS 3444 Corrosion Resistant High Alloy Steel and Nickel Base Castings for General Applications Application - Intended for Valve, Pump, General Engineering, Automotive and Other Industries Grade Belongs to the Industry - Casting

| Chemical Composition |      |                 | Heat Treatment                |          |
|----------------------|------|-----------------|-------------------------------|----------|
| Carbon               | C %  | 0.030 max.      |                               |          |
| Silicon              | Si % | 1.500 max.      |                               |          |
| Manganese            | Mn % | 1.500 max.      | Solution Annealing            |          |
| Phosphorus           | P %  | 0.040 max.      |                               |          |
| Sulphur              | S %  | 0.040 max.      |                               |          |
| Chromium             | Cr % | 17.000 - 21.000 |                               |          |
| Molybdenum           | Mo % | 2.000 - 3.000   |                               |          |
| Nickel               | Ni % | 9.000 - 13.000  |                               | •        |
| Iron                 | Fe % | Balance         | Mechanical Properties         |          |
| -                    | -    | -               | Tensile Strength in Mpa       | 480 min. |
| -                    | -    | -               | Yield Strength in Mpa         | 210 min. |
| -                    | -    | -               | Elongation in %               | 27 min.  |
| -                    | -    | -               | Reduction of Area in %        | -        |
| -                    | -    | -               | Hardness in BHN               |          |
| -                    | -    |                 | Impac <mark>t in Joule</mark> | -        |

| Cross Reference Table |          |                                      |  |  |
|-----------------------|----------|--------------------------------------|--|--|
| Material              | Standard | Country Grade Belong to the Industry |  |  |
| A743 CF3M             | ASTM     | USA                                  | Casting                                      |  |
| 316L                  | AISI     | USA                                  | Bar, Wire, Strip, Plate, Sheet and Forging   |  |
| 1.4404                | DIN      | Germany                              | Cold Rolled, Strips, Slit Coils and Sheets   |  |
| 1.4404                | EN       | European Union                       | Rod, Bars, Wire and Forging                  |  |
| 316 S 11              | BS       | British                              | Bright Bars, Hot Rolled and Cold Rolled Coil |  |
| SUS 316L              | JIS      | Japan                                | Hot Rolled Equal Leg Angles                  |  |
| 03CH17N14M3           | GOST     | Russia                               | Pipes, Fittings, Bar, Sheet and Forging      |  |

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

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