

## Material: ASTM B 462 N06045

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

**Group:** Non-Ferrous Nickel Alloys

**Sub Group:** ASTM B 462 N06045 Forged or Rolled Alloy Pipe Flanges, Forged Fittings, and Valves and Parts for Corrosive High-Temperature Service

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

**Grade Belongs to the Industry:** Pipe and Valve

| Chemical Composition |      |                 | Heat Treatment                       |          |
|----------------------|------|-----------------|--------------------------------------|----------|
| Carbon               | C %  | 0.050 - 0.120   | As-Cast or Annealing or Age Hardning |          |
| Silicon              | Si % | 2.500 - 3.000   |                                      |          |
| Manganese            | Mn % | 1.000 max.      |                                      |          |
| Copper               | Cu % | 0.300 max.      |                                      |          |
| Sulphur              | S %  | 0.010 max.      |                                      |          |
| Chromium             | Cr % | 26.000 - 29.000 |                                      |          |
| Cerium               | Ce % | 0.030 - 0.090   |                                      |          |
| Iron                 | Fe % | 21.000 - 25.000 |                                      |          |
| Phosphorus           | P %  | 0.020 max.      |                                      |          |
| Nickel               | Ni % | 45.000 min.     |                                      |          |
| -                    | -    | -               | Mechanical Properties                |          |
| -                    | -    | -               | Tensile Strength in Mpa              | 620 min. |
| -                    | -    | -               | Yield Strength in Mpa                | 241 min. |
| -                    | -    | -               | Elongation in %                      | 35 min.  |
| -                    | -    | -               | Reduction of Area in %               | -        |
| -                    | -    | -               | Hardness in BHN                      | -        |
| -                    | -    | -               | Impact in Joule                      | -        |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| B 163 N06025          | ASTM     | USA     | Tube                         |
| B 166 N06025          | ASTM     | USA     | Rod, Bar and Wire            |
| B 167 N06025          | ASTM     | USA     | Pipe and Tube                |
| B 168 N06025          | ASTM     | USA     | Plate, Sheet and Strip       |
| B 564 N06025          | ASTM     | USA     | Forging                      |
| B 516 N06025          | ASTM     | USA     | Tube                         |
| B 517 N06025          | ASTM     | USA     | Pipe                         |

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