

## Material - ASTM B 649 N08926

**Standard Specification for Ni-Fe-Cr-Mo-Cu Low-Carbon Alloy, Ni-Fe-Cr-Mo-Cu-N Low-Carbon Alloys and Cr-Ni-Fe-N Low-Carbon Alloy Bar and Wire**

**Group - Non-Ferrous Nickel Alloys**

**Sub Group - ASTM B 649 N08926 Ni-Fe-Cr-Mo-Cu Low-Carbon Alloy, Ni-Fe-Cr-Mo-Cu-N Low-Carbon Alloys and Cr-Ni-Fe-N Low-Carbon Alloy Bar and Wire**

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

**Grade Belongs to the Industry - Bar and Wire**

| Chemical Composition |      |                 | Heat Treatment                                                                                                                                                                                      |  |
|----------------------|------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Carbon               | C %  | 0.020 max.      | As-Cast or Annealing or Age Hardning                                                                                                                                                                |  |
| Silicon              | Si % | 0.500 max.      |                                                                                                                                                                                                     |  |
| Manganese            | Mn % | 2.000 max.      |                                                                                                                                                                                                     |  |
| Chromium             | Cr % | 19.000 - 21.000 |                                                                                                                                                                                                     |  |
| Sulphur              | S %  | 0.010 max.      |                                                                                                                                                                                                     |  |
| Molybdenum           | Mo % | 6.000 - 7.000   |                                                                                                                                                                                                     |  |
| Phosphorus           | P %  | 0.030 max.      |                                                                                                                                                                                                     |  |
| Copper               | Cu % | 0.500 - 1.500   | <b>Mechanical Properties</b><br>Tensile Strength in Mpa 650 min.<br>Yield Strength in Mpa 295 min.<br>Elongation in % 35 min.<br>Reduction of Area in % -<br>Hardness in BHN -<br>Impact in Joule - |  |
| Nitrogen             | N %  | 0.150 - 0.250   |                                                                                                                                                                                                     |  |
| Nickel               | Ni % | 24.000 - 26.000 |                                                                                                                                                                                                     |  |
| Iron                 | Fe % | Balance         |                                                                                                                                                                                                     |  |
| -                    | -    | -               |                                                                                                                                                                                                     |  |
| -                    | -    | -               |                                                                                                                                                                                                     |  |
| -                    | -    | -               |                                                                                                                                                                                                     |  |
| -                    | -    | -               |                                                                                                                                                                                                     |  |

| Cross Reference Table |          |         |                                          |
|-----------------------|----------|---------|------------------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry             |
| A 182 F1925N          | ASTM     | USA     | Pipe Flanges, Forged Fittings and Valves |
| B 472 N08926          | ASTM     | USA     | Billets and Bars                         |
| B 625 N08926          | ASTM     | USA     | Plate, Sheet and Strip                   |
| B 673 N08926          | ASTM     | USA     | Pipe                                     |
| B 674 N08926          | ASTM     | USA     | Tube                                     |
| B 677 N08926          | ASTM     | USA     | Pipe and Tube                            |
| SB-625 N08926         | ASME     | USA     | Plate, Sheet and Strip                   |

**For any further inquiries, please do not hesitate to contact us. You may visit our website at [AMTECH TECHNOCAST PVT. LTD.](http://AMTECH TECHNOCAST PVT. LTD.), call us at [+91 9879817994](tel:+919879817994), or email us at [manish@amtechtechnocast.com](mailto:manish@amtechtechnocast.com)**

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