

## Material - ASTM B 163 N08825

### Standard Specification for Seamless Nickel and Nickel Alloy Condenser and Heat-Exchanger Tube

Group - Non-Ferrous Nickel Alloys

Sub Group - ASTM B 163 N08825 Seamless Nickel and Nickel Alloy Condenser and Heat-Exchanger Tube

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

Grade Belongs to the Industry - Tube

| Chemical Composition |      |                 | Heat Treatment                       |           |
|----------------------|------|-----------------|--------------------------------------|-----------|
| Carbon               | C %  | 0.050 max.      | As-Cast or Annealing or Age Hardning |           |
| Silicon              | Si % | 0.500 max.      |                                      |           |
| Manganese            | Mn % | 1.000 max.      |                                      |           |
| Copper               | Cu % | 1.500 - 3.000   |                                      |           |
| Sulphur              | S %  | 0.030 max.      |                                      |           |
| Chromium             | Cr % | 19.500 - 23.500 |                                      |           |
| Aluminium            | Al % | 0.200 max.      |                                      |           |
| Titanium             | Ti % | 0.600 - 1.200   |                                      |           |
| Molybdenum           | Mo % | 2.500 - 3.500   | Mechanical Properties                |           |
| Iron                 | Fe % | 22.000 max.     | Tensile Strength in Mpa              | 586 - 793 |
| Nickel               | Ni % | 38.000 - 46.000 | Yield Strength in Mpa                | 241 min.  |
| -                    | -    | -               | Elongation in %                      | 5 min.    |
| -                    | -    | -               | Reduction of Area in %               | -         |
| -                    | -    | -               | Hardness in HRC                      | 25 - 90   |
| -                    | -    | -               | Impact in Joule                      | -         |

| Cross Reference Table |          |         |                              |
|-----------------------|----------|---------|------------------------------|
| Material              | Standard | Country | Grade Belong to the Industry |
| B 423 N08825          | ASTM     | USA     | Pipe and Tube                |
| B 564 N08825          | ASTM     | USA     | Forging                      |
| B 704 N08825          | ASTM     | USA     | Tube                         |
| B 705 N08825          | ASTM     | USA     | Pipe                         |
| SB-163 N08825         | ASME     | USA     | Tube                         |
| -                     | -        | -       | -                            |
| -                     | -        | -       | -                            |

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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