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ALLOY 625 – UNS N06625

APPLICABLE SPECIFICATIONS

ASTM B446 (BAR) ASTM B564 (FORGINGS) NACE MR-0175/ISO 15156

A Nickel-Chromium-Molybdenum based super alloy with high strength, outstanding corrosion resistance and wide temperature range application. Ideal for sea water applications with excellent resistance to pitting and crevice corrosion, high corrosion fatigue strength and good resistance to chloride-ion stress corrosion cracking.

CHEMICAL ANALYSIS RANGE (WT%)

| | | | | | |
|----|---------------|-----------|-------------|----|-----------|
| Ni | 58.00 Min | C | 0.10 Max | Mn | 0.50 Max |
| Cr | 20.00 – 23.00 | Al | 0.40 Max | P | 0.015 Max |
| Fe | 5.0 Max | Ti | 0.40 Max | S | 0.015 Max |
| Mo | 8.00 – 10.00 | Nb(Cb)+TA | 3.15 – 4.15 | | |
| Co | 1.00 Max | Si | 0.50 Max | | |

HEAT TREATMENT

SQA bar stock is in the Annealed condition. Material may be supplied Solution Annealed (or aged from either of these states) upon request.

TYPICAL MECHANICAL PROPERTIES IN SOLUTION ANNEALED & AGED CONDITION

| | Section size up to & including 4" | Section above 4" |
|----------------------------|-----------------------------------|------------------|
| 0.2% Yield Strength | 60000 PSI Min | 50000 PSI Min |
| Tensile Strength | 120000 PSI Min | 110000 PSI Min |
| Elongation | 18% Min | 18% Min |
| Reduction of Area | 35% Min | 35% Min |
| Hardness | 35HRC Max | 35HRC Max |
| Charpy V Notch @ -60 Deg C | 27/19 Joules | 27/19 Joules |

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