

**Grade: Alloy 945 (UNS N09945, API 6A CRA 1st Edition Addendum 3)**

**Type: Corrosion resistant high strength alloy normally supplied in the solution annealed and precipitation aged condition**

Nominal Composition	
Element	Weight %
Carbon	0.005 – 0.04
Silicon	0.5 max
Manganese	1.0 max
Phosphorus	0.02 max
Sulphur	0.01 max
Molybdenum	3.0 – 4.0
Chromium	19.5 – 23.0
Nickel	46.5 – 48.0
Copper	1.5 – 3.0
Niobium	2.8 – 3.5
Titanium	0.5 – 2.5
Aluminium	0.01 – 0.7
Iron	Balance

## Mechanical Properties: 945, solution annealed and aged condition

Property	Values
Ultimate Tensile Strength	150 min Ksi (1034Mpa)
0.2 % Yield Strength	125 min Ksi (862Mpa)
Elongation	18 % min
Reduction of Area	≤10" 25% min / >10" 20%
CVN @ -60°C * see notes	< 3" 68J ave / 61J single / 0.38mm lats (L) ≥3" - 10" 54J ave / 47J single / 0.38mm lats (T) >10" 41J ave / 37J single / 0.38mm lats (T)
Hardness	NACE (42HRC max)



## Notes

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L = Longitudinal direction, T = Transverse direction