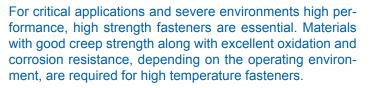
HIGH PERFORMANCE FASTENERS



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NICKEL ALLOY SOLUTIONS



When exposed to elevated temperatures conventional steel fasteners will lose their strength and prolonged heat exposure may cause problems as standard fastener materials have relatively poor creep characteristics. Another challenge is oxidation which can result in failure of the fastener or the oxidation products can make it difficult to disassemble components – an issue in the repair market.

BIBUS METALS stocks a wide range of bar diameters and tolerances to support the fastener industry. Below we review just a few of the key fastener grades. For more information please contact us via info@bibusmetals.com.

ALLOY PROPERTIES

		Composition (%)	Key attributes	Application
Alloy N04400 2.4360	400	65Ni – 32Cu – 1.6Fe – 1.1Mn	High strength and resistance to hydrofluoric and sulphuric acids, alkalis and sea water.	Marine / offshore oil and gas, chemical processing
Alloy N05500 2.4375	K - 5 0 0	65Ni – 30Cu – 2.7Al – 1.0Fe – 0.6Ti	Made age-hardenable by addition of AI and Ti – high strengths can be achieved. Excellent corrosion resistance.	Marine / offshore oil and gas, chemical processing
Alloy N10276 2.4819	C - 2 7 6	57Ni – 16Cr – 5Fe – 16Mo – 4W	Ni-Cr-Mo alloy with the addition of W for en- hanced corrosion resistance in a range of very corrosive environments and excellent localised corrosion resistance.	Marine, chemical processing
Alloy N07080 2.4952	8 0 A	76Ni – 19.5Cr – 3Fe – 1.4Al – 2.4Ti	Ni-Cr alloy with additions of Al and Ti for their strengthening effect. Alloy 80A has good cor- rosion and oxidation resistance and excellent tensile and creep rupture properties for service at temperatures up to ~815 °C	Automotive, aerospace, industrial gas turbines
Alloy N07090 2.4632	90	60Ni – 19.5Cr – 16Co – 10Mo – 1.5Fe – 1.5Al – 2.5Ti	High stress rupture strength, creep resistance and cyclic oxidation resistance for service up to \sim 920 °C	Automotive, aerospace, industrial gas turbines
Alloy N07718 2.4668	718	54Ni – 18Cr – 18Fe – 3Mo – 5Nb – 0.2AI – 1.8Ti	High strength age hardenable alloy which com- bines strength and excellent corrosion resis- tance. The alloy has excellent creep rupture strength at temperatures up to 700 °C.	Automotive, aerospace, industrial gas turbines, oil and gas
Alloy N06002 2.4665	нх	47Ni – 22Cr – 18Fe – 9Mo – 1.5Co	A highly alloyed grade with excellent strength and oxidation resistance up to 1100 °C	Automotive, aerospace, industrial gas turbines, thermal processing