

## Alloy K-500

Alloy K500 is a nickel-copper alloy with corrosion resistance similar to alloy 400 but with higher strength and hardness. Alloy K500 has excellent dimensional stability and low magnetic permeability. It also has excellent cryogenic properties. Used in similar applications to Alloy 400 but where increased strength is required.

Alloy K500 can be strengthened by both cold working and precipitation hardening. The majority of our material is stocked in the solution annealed and precipitation hardened condition for immediate despatch. Alloy K500 supplied by Maher Ltd complies with the hardness requirements of NACE specification MR-01-75 oilfield applications.

## National Specifications

ASTM	UNS	SAE AMS	British Standard	Werkstoff
B865	N05500	4676	3076 NA 18	2.4375

Material may also be released to Customer Specifications, subject to enquiry.

## Technical Data

Nominal Composition by Percent

	C	Mn	Si	S	ni	Cu	Ti	Al	Fe	-
Min	-	-	-	-	63.0	27.0	0.35	2.3	-	%
Max	0.25	1.5	0.5	0.01	-	33.0	0.85	3.2	2.0	%

Typical Mechanical Properties

Condition	Size Over	Up to and Including	0.2% PS Min	Tensile Strength, Min	Elongation On 5D
(a) Hot Worked & Precipitation Treated	mm	mm	Mpa)	Mpa)	%
	- 110	110 300	690 550	970 830	15 15
(b) Hot Worked, Solution Annealed & Precipitation Treated	- 25 110	25 110 300	620 585 500	900 900 830	20 20 15