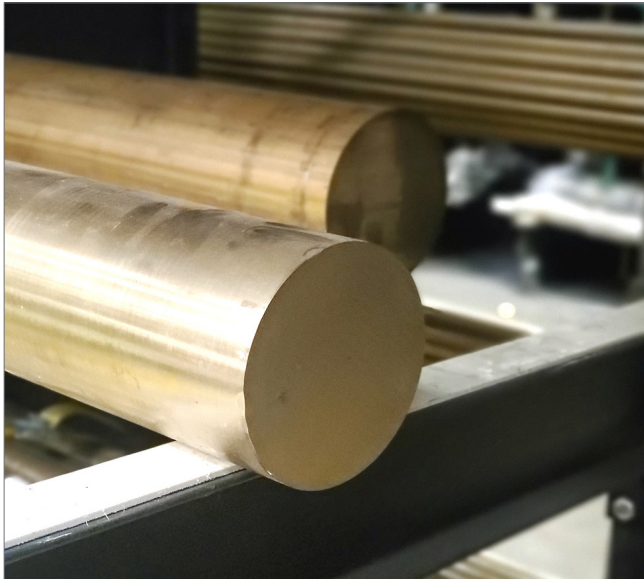




THAMES
STOCKHOLDERS

NES 833 (DEF STAN 02-833)
BRONZE ALLOY

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Product Overview

NES 833 is an alloy similar to CA104 – a nickel aluminium bronze manufactured to the MOD's Naval requirements.

The specification dictates that the nickel content of the alloy must exceed the iron content, which enhances the alloy's overall corrosion resistance. We supply the material ultrasonically tested to DEF STAN 02-279 Part 5 Issue 3 and to NDE02-05 whilst impact values are also taken on all sizes above 15mm in diameter. The overall machinability rating for the alloy is good to fair.

Availability:

- Round bar, hexagonal bar

Applications

- Marine valves, pumps and hardware
- Wear plates, thrust washers and worm gears
- Heavy-duty bearings and bushes
- High-strength fasteners

Key Features

- Excellent corrosion & erosion resistance in marine environments
- Excellent galling, wear and abrasion resistance
- Good overall strength and toughness

* Chemical Composition (weight, %)

	Cu	Al	Ni	Fe	Mn	Zn	Pb	Sn	Si	Mg	Total Impurities
Min.	Rem	8.50	4.50	4.00							
Max.	Rem	10.00	5.50	5.00	0.50	0.40	0.05	0.10	0.10	0.05	0.50

* Properties as per DEF STAN 02-833 Pt.2 Iss. 4

* Mechanical Properties

	6 -15mm	15 - 25mm	25 - 100mm	>100mm
Diameter	6 -15mm	15 - 25mm	25 - 100mm	>100mm
UTS	680 N/mm ²	680 N/mm ²	635 N/mm ²	620 N/mm ²
Proof Strength	325 N/mm ²	325 N/mm ²	295 N/mm ²	245 N/mm ²
Elongation	17%	17%	17%	15%
Impact Strength	--	24J	27J	23J

* Properties as per DEF STAN 02-833 Pt. 2 Iss. 4

Material Specifications: NES 833, DEF STAN 02-833



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