Product Information Sheet

ISSUE A

ALLOY 953

A. W. Fraser Alloy 953 is an aluminium bronze conforming to the requirements of UNS C95300.

Alloy 953 is a medium strength aluminium bronze having a low iron content, thus being less likely to damage shafts. This alloy has good ductility and machinability and good general corrosion resistance, making it suitable for pump and valve components. Under certain conditions, notably in crevices and under stagnant non aerated conditions, this alloy may suffer dealuminification.

Alloy 953 is suitable for light-medium duty gears and nuts where loading is negligible.

The composition of A. W. Fraser alloy 953 is strictly controlled as are the casting conditions. Alloy 953 products are manufactured using the latest centrifugal casting technology.

ALLOY 953 - ALUMINIUM BRONZE SUMMARY OF PROPERTIES

Chemical Composition - percent

Element			Nominal
Aluminium	Al	9.0 - 11.0	10.0
Iron	Fe	0.8 - 1.5	1.0
Nickel	Ni		0.4
Manganese	Mn		0.1
Copper	Cu	Balance	88.0

Total Impurities (including Nickel) 1.0 maximum

Mechanical Properties [Typical]	Centrifugal Cast
Yeild Strength	170 MPa (24,500 psi)
Ultimate Tensile Strength	450 MPa (65,000 psi)
Elongation	20%
Typical Hardness	140 BHN
Compressive Strength 0.1% Permanent Set	141 MPa (20,500 psi)
Specific Gravity	7.53
Machinability Rating (Free Machining Brass=100)	55
Max. Operating Temperature	260^{O}C (500^{O}F)
Stress Relieving Temperature	316^{O}C (600^{O}F)
Time at Temperature	1 hour per 25mm of section thickness

Comparative Specifications

AS1565 C95300; ASTM B505, B271 - C95300; SAE J461