

# Product Information Sheet

ISSUE A

## ALLOY 907

A. W. Fraser Alloy 907 is a phosphor bronze conforming to the requirements of ASTM B505 - C90700.

Alloy 907 has good machining properties, high strength and good corrosion resistance to seawater and brine, making it suitable for pump and valve components.

Alloy 907 is suitable for bearings having medium to high loads and speeds and good resistance to impact loading or pounding. Alloy 907 bearings must have adequate lubrication and good alignment.

Alloy 907 is suitable for heavy duty gears and wormwheels with high working loads and high speeds and adequate lubrication and alignment.

The composition of A. W. Fraser alloy 907 is strictly controlled as are the casting conditions. Alloy 907 products are manufactured using the latest continuous and centrifugal casting technology.

### ALLOY 907 - TIN BRONZE (89-11)

### SUMMARY OF PROPERTIES

#### Chemical Composition - percent

Element		Nominal	
Tin	Sn	10.0 - 12.0	10.5
Lead	Pb	0.50 maximum	
Zinc	Zn	0.50 maximum	
Nickel	Ni	0.50 maximum	
Iron	Fe	0.15 maximum	
Phosphorus	P	0.30 maximum	0.1
Aluminium	Al	0.005 maximum	
Copper	Cu	Balance	

#### Mechanical Properties [Typical]

	(Continuous Cast)	Centrifugal Cast
Yield Strength	170 MPa (24,500 psi)	170 MPa (24,500 psi)
Ultimate Tensile Strength	280 MPa (40,500 psi)	280 MPa (40,500 psi)
Elongation	10%	10%
Typical Hardness	100 - 150 BHN	100 - 150 BHN
Specific Gravity	8.8	
Machinability Rating (Free Machining Brass=100)	30	
Max. Operating Temperature	250°C (482°F)	
Stress Relieving Temperature	260°C (500°F)	
Time at Temperature	1 hour per 25mm of section thickness	

#### Comparative Specifications

BS1400-PB1; AS1565 90710; ASTM B505, B271 - C90700; SAE 65; JIS H5121 - CAC502C (PBC2C)\*; DIN 1705 - G-CuSn10; ISO 1338 - CuSn10P