



**P.I. CASTINGS LTD**

**Davenport Lane, Altrincham, Cheshire  
WA14 5DS, England**

Telephone +44(0) 161 925 5160

Email: sales@pi-castings.co.uk

Website: www.pi-castings.co.uk

**COPPER BASED ALLOYS**

† Where indicated thus, 0.2% Proof Stress values are for information only.

British Standard Specification BS 1400	CHEMICAL COMPOSITION % (Max. unless stated otherwise)									MECHANICAL PROPERTIES			CHARACTERISTICS & TYPICAL APPLICATIONS
	Cu	Sn	Zn	Pb	Ni	Fe	Al	Mn	OTHERS	U.T.S.	P.S.	Elong	
										N/mm2 Minimum	N/mm2 Minimum	% min	
Leaded Gunmetal LG2 85/5/5/5	BAL	4.0 / 6.0	4.0 / 6.0	4.0 / 6.0	2.0	-	-	-	-	200	100†	13	Moderate strength and good corrosion resistance to sea water, Pump bodies, cocks, bearings and gears with low loads and adequate lubrication.
Phosphor Bronze PB 1 PB 2	BAL	10.0 min.	0.05	0.25	0.10	0.10	0.01	-	P 0.50 min.	220	130†	3	Resistant to sea water, dilute acids and boiler feed water. Good bearing alloy for high loads with good lubrication.
	BAL	11.0 / 13.0	0.30	0.50	0.50	0.15	0.01	-	P 0.15 min.	220	130†	5	
Aluminium bronze AB2	BAL	-	0.50	-	4.0/5.5	4.0/5.5	8.8 / 10.0	1.5	-	640	250	13	Tough, high strength material, resistant to corrosion from sea water and acids. Difficult alloy to cast due to dross and narrow freezing range.
Brass SCB3	63.0/70.0	1.5	BAL	1.0 / 3.0	1.0	0.75	-	-	-	-	-	-	General purpose engineering material with good machinability. Not suited to sea water or boiler feed water applications.
High Tensile Brass HTB1	55 min	1.0	BAL	0.50	1.0	0.7/2.0	0.5 / 2.5	3.0	-	470	170†	18	Strong alloy, resistant to sea water corrosion. Used for ships propellers.