

CZ114 is a high tensile brass that is significantly stronger than the conventional free-machining brasses, equalling the strength of many steels whilst still retaining the benefits of copper alloys. The addition of manganese and tin in the material helps to greatly improve corrosion resistance, whilst sufficient lead is present for the machinability to be good.

The properties of CZ114 enable the following uses...

- Architectural use
- High strength components
- Use in process and chemical industries
- Valves and fittings.

CZ114 is available in bars in the following sizes

**From 1/4" dia – 6" dia**

### **Chemical & Physical properties**

#### **Typical Chemical composition**

<i>Elements</i>	<i>Min %</i>	<i>Max %</i>
<b>Al</b>		1.5
<b>Cu</b>	56.5	58.5
<b>Fe</b>	0.3	1.0
<b>Mn</b>	0.5	2.0
<b>Pb</b>	0.5	1.5
<b>Sn</b>	0.2	0.8
<b>Zn</b>	Remainder	

## Typical Mechanical Properties

**M: As manufactured      H: Cold worked, hard**

Property/unit	Condition	Min
Tensile Strength (N/mm <sup>2</sup> )	M	460
0.2% Proof Stress (n/mm <sup>2</sup> )	M	270
Elongation in 5.65√Cross Sectional Area %	M	12
Tensile Strength (n/mm <sup>2</sup> )	H	520
0.2% Proof Stress (N/mm <sup>2</sup> )	H	290
Elongation in 5.65√Cross Sectional Area %	H	12

### Tolerances

**Round bar: Above 2.5mm – 3mm + 0-0.04mm**  
**Above 3mm – 6mm + 0-0.05mm**  
**Above 6mm – 10mm + 0-0.06mm**  
**Above 10mm – 18mm + 0-0.07mm**  
**Above 18mm – 30mm + 0-0.08mm**  
**Above 30mm – 50mm + 0-0.16mm**  
**Above 50mm – 80mm + 0-0.19mm**

The information above is based on our current knowledge and is given in good faith; however the company will accept no liability in respect of any third party reliance thereon.