



## Lead-Free | Low-Lead Alloys

Bronze alloys have been a staple to industry for millennia. A push for the reduction of lead has become increasingly dominant.

In our Lead-Free | Low-Lead products lead is replaced with other elements to offer:

- ✓ Extraordinary Wear-Resistance
- ✓ Exceptional Lubrication Properties
- ✓ Outstanding Strength
- ✓ Excellent Dimensional Stability

Decrease the lead contamination with our Lead-Free | Low-Lead products.

**Less Lead = More Solutions**



### Randall Bearings Inc.

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### Standard Stocked Alloys

C89835 | C90300 | C95400 | C95500 | C95900

### Other Available Alloys

C89325 | C89831 | C89833 | C89844 | C90800 | C90810



## Lead-Free/Low-Lead Alloys Overview

	Copper Alloy UNS No.	Cu%	Pb%	Sn%	Zn%	Fe%	P%	Ni%	Al%	Bi%	As%	Mn%	S%	Sb%	Si%
<b>Bismuth Based</b>															
	C89325	84.00-88.00	0.10	9.00-11.00	1.00	0.15	0.10	1.00 <sup>3</sup>	0.005	2.70-3.70			0.08	0.50	0.005
	C89831	87.00-91.00	0.10	2.70-3.70	2.00-4.00	0.30	0.05	1.00 <sup>3</sup>	0.005	2.70-3.70			0.08	0.25	0.005
	C89833	86.00-91.00	0.09	4.00-6.00	2.00-6.00	0.30	0.05	1.00 <sup>3</sup>	0.005	1.70-2.70			0.08	0.25	0.005
	C89835	85.00-89.00	0.09	6.00-7.50	2.00-4.00	0.20	0.10	1.00 <sup>3</sup>	0.005	1.70-2.70			0.08	0.35	0.005
	C89844	83.00-86.00	0.20	3.00-5.00	7.00-10.00	0.30	0.05	1.00 <sup>3</sup>	0.005	2.00-4.00			0.08	0.25	0.005
<b>High Tin</b>															
	C90300	86.00-89.00 <sup>1</sup>	0.30	7.50-9.00	3.00-5.00	0.20	0.05 <sup>2</sup>	1.00 <sup>3</sup>	0.005				0.05	0.20	0.005
	C90800	85.00-90.00 <sup>1</sup>	0.25	11.00-13.00	0.25	0.15	0.30 <sup>2</sup>	0.50 <sup>3</sup>	0.005				0.05	0.20	0.005
	C90810	Rem. <sup>1</sup>	0.25	11.00-13.00	0.30	0.15	0.15-0.80 <sup>2</sup>	0.50 <sup>3</sup>	0.005				0.05	0.20	0.005
<b>Aluminum Bronze</b>															
	C95400	83.00 min				3.00-5.00		1.50 <sup>3</sup>		10.00-11.50		0.50			
	C95500	78.00 min				3.00-5.00		3.00-5.50 <sup>3</sup>		10.00-11.50		3.50			
	C95900	Rem.				3.00-5.00		0.50 <sup>3</sup>		12.00-13.50		1.50			

<sup>1</sup>In determining Cu min., Cu may be calculated as Cu + Ni. <sup>2</sup>For continuous castings, P shall be 1.5%, max. <sup>3</sup>Ni value includes Co.

Note: Unless otherwise noted, single values represent maximums.

Lead-Free Alloy Low-Lead Alloy Standard-Stocked Alloy Other Available Alloy



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