



# ALLOY

## C67300

### Data Sheet

#### Typical Chemistry & Mechanical Properties

Alloy Number	Name	Nominal Chemical Composition	Tensile Strength (KSI)	Yield Strength (KSI)	Elongation %	Rockwell B Hardness	Remarks
UNS C67300	Dynalloy	Cu: 60.5% Pb: 1.12% Si: 1.00% Mn: 2.75% Zn: Rem%	70	90	8%	72	Free cutting bearing bronze

#### Straightness Tolerances

Round	All Sizes	1/4" in any 10' portion
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#### Shapes and Sizes

Round	0.375" to 4.000"
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#### Drawn Length Tolerances

0.375" to 2.000" (Inclusive)	+/-0.500"
2.000" to 3.000" (Inclusive)	+/-0.500"
3.000" to 4.000" (Inclusive)	+/-0.500"

#### Notes:

Standard Lengths: 12', 14', 15' & 16'  
 All other lengths considered non-standard  
 Minimum Length: 9' – 11" (119")

#### Diameter Tolerances

	Round
Up to 1.000" (Inclusive)	+/- 0.0020"
>1.000" to 2.000" (Inclusive)	+/- 0.0030"
>2.000" to 2.500" (Inclusive)	+/- 0.0030"
2.000" to 3.000" (Inclusive)	+/- 0.0005"
>3.000" to 3.500" (Inclusive)	+/- 0.0007"
>3.500" to 4.000" (Inclusive)	+/- 0.0012"



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**Machinability:** Alloy C67300 (Dynalloy) is readily machinable. The alloy has a machinability rating of 70% as compared to Alloy C36000 (Free Cutting Brass). The following tool dimensions & speeds are recommended:

	Speed (sfpm)	Feed (ipr)	Back Rake Angle (degrees)
Lathe Turning Tools:	250~400	0.005~0.030	4~8
Drills (118°):	75~250	0.003~0.020	Full Rake Angle
Milling Cutters:	150~250	0.500~20.000	0~10
Form Tools:		0.001~0.003	5~10
Taps:	50~90		5~8

Synthetic soluble oil is recommended as the cutting fluid. A light paraffin oil with an addition of 5-10% lard oil is recommended for threading & tapping operations. For longer running jobs, carbide tooling is recommended.

**Workability:** This alloy is suitable for light cold working. It has excellent hot working properties.

**Spec. Equal.:** UNS Alloy C67300  
SAE J463, C6730 (Rods, Bars, Shapes & Forgings)

**Applications:** Dynalloy is widely used for bearing applications, bushings, gears, valve guides, shaft & cylinder guides. The alloy has found wide acceptance in speed reducer gears & is an excellent alloy for axial piston pump components.



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REV 200912