

CONCAST

METAL PRODUCTS CO.

Proven Integrity. Delivering Value.

Hydraulics and Concast

Concast Metal Products Co. manufactures a wide range of **cast copper alloys** specifically engineered for the hydraulics industry. These alloys support the market requirements for hydraulics applications:

- Piston pumps
- Gear pumps
- Thrust plates
- Seal rings
- Piston seals



14315 State Route 113
Wakeman, OH 44889
800.626.7071 phone
sales@concast.com

Standard-Stocked Alloys

C93200

Other Available Alloys

C92900 | C93700 | C93800

www.concast.com

■ Concast is ISO 9001 and AS9100 QMS certified.

Hydraulics-Related Alloys Overview

General Information

Copper Alloy UNS No.	ASTM	Material Description	Applications
C92900	B505	Leaded Nickel-Tin Bronze	gears, pump bodies, worm gears
C93200*	B505	Leaded Tin Bronze	bushings, general-purpose bushings, hydraulic press main lining, hydraulic press stuffing box, pump fixtures, pump impellers, pumps, thrust washers.
C93700	B505	High-Leaded Tin Bronze	applications requiring acid resistance to sulphite fluids, bearing plates, bushings, bushings for high speed/heavy pressure, corrosion-resistant castings, crank shafts, impellers, pumps.
C93800	B505	High-Leaded Tin Bronze	acid resisting applications, bearings, general service bearings for moderate pressure, low-friction/moderate pressure bushings.

*standard-stocked alloy.

Chemical Composition

Copper Alloy UNS No.	Cu%	Pb%	Sn%	Zn%	Fe%	P% ³	Ni% ⁴	Al%	S%	Sb%	Si%
C92900	82.00-86.00 ¹	2.00-3.20	9.00-11.00	0.25	0.20	1.50	2.80-4.00	0.005	0.05	0.25	0.005
C93200	81.00-85.00 ¹	6.00-8.00	6.30-7.50	2.00-4.00	0.20	1.50	1.00	0.005	0.08	0.35	0.005
C93700	78.00-82.00	8.00-11.00	9.00-11.00	0.80	0.70 ²	1.50	0.50	0.005	0.08	0.50	0.005
C93800	75.00-79.00	13.00-16.00	6.30-7.50	0.80	0.15	1.50	1.00	0.005	0.08	0.80	0.005

¹In determining Cu min., Cu may be calculated as Cu + Ni. ²Fe shall be 0.35% max. when used for steel-backed bearings.

³For continuous castings, P shall be 1.5% max. ⁴Ni value includes Co.

Note: Single values represent maximums.

Mechanical Requirements

Copper Alloy UNS No.	Tensile Strength, min		Yield Strength, at .5% Extension Under Load, min		Elongation, in 2 in. or 50 mm min %	Brinell Hardness (500 kg load) typical BHN
	ksi	MPa	ksi	MPa		
C92900	45	310	25	172	8	75
C93200	35	241	20	138	10	65
C93700	35	241	20	138	6	60
C93800	25	172	16	110	5	55



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MORE INFORMATION

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