Bronze Stock List

DURA-BAR®
METAL SERVICES

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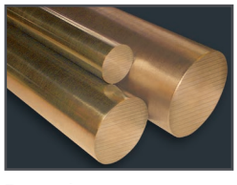
METAL SERVICES

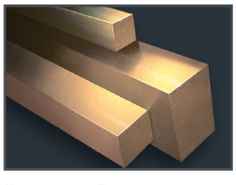
Dura-Bar Metal Services is proud to distribute the highest quality bronze and Dura-Bar® product in the market. We offer a wide selection of copper based products with an emphasis on bronze alloys.

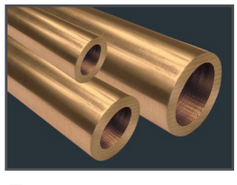
We offer bronze barstock in rounds, tubes, squares/rectangles and custom shapes.

We have years of experience supplying material quickly and accurately to help your business operate more efficiently. With facilities in Woodstock, IL; York, PA; and Salisbury, NC we are ready to help with your material needs.

Dura-Bar Shapes and Sizes


Rounds


Squares/Rectangles


Tubes


Custom Shapes


Cut-To-Size

dura-barms.com 888-387-2227

Bronze is the combination of copper, long valued for its ability to be formed and strengthened by cold-working; and the addition of other alloys to enhance strength and hardness. Bronze is a natural bearing material with many alloy and size options. By stocking the most popular combinations, we usually have what you need in stock. We focus on the following alloy families:

- **Tin Bronze** - Various elements are added, including lead, for ease of machining. These alloys are found in many applications. The most popular is **C93200**, also known as SAE 660 or "Bearing Bronze." Additional alloys in this family include: **C90300, C92200, and C93700**.
- **Aluminum Bronze** - Aluminum is added for its strength and rigidity. These alloys produce a tougher wear bronze. The most common grade is **C95400**. We also offer **C95500**, **C95900**, **C95510**, and **C63000**.
- **Manganese Bronze** - Manganese is added to increase the hardness of the product and provide superior strength. The most common cast grade in this family is **C86300** Manganese Bronze; which is a tough, corrosion resistant alloy used in high-load and low-speed applications.

Ultimately, your product selection depends on the application. In this catalog you will find helpful information provided as a reference. If you need any additional information, please call one of our sales representatives or visit us at dura-barms.com.

Bronze Cross Reference Guide

DURA-BAR® METAL SERVICES

SPECIFICATIONS								NOMINAL CHEMICAL COMPOSITIONS								MECHANICAL PROPERTIES									APPLICATIONS
Family	CDA/UNS (SAE)	ASTM	New SAE (Old SAE)	Federal	Military	Other names	AMS	Copper Cu%	Tin Sn%	Lead Pb%	Zinc Zn%	Nickel Ni%	Iron Fe%	Alum. Al%		Tensile		Yield		Elongation		BHN/ Rockwell	Density	Machin-ability*	
																Min. (ksi)	Typ. (ksi)	Min. (ksi)	Typ. (ksi)	Min. (ksi)	Typ. (ksi)				
WROUGHT PRODUCTS																									
Copper-Zinc Brass	C26000	B19, B36, B129, B135	J461, J463	QQ-T-791	C-10375 T-20219	Cartridge Brass 70%	4505-8 4555	70			30						70		52		30	B80	0.308	30	Consumer products, liners, pump cylinders and plumbing accessories
Tin Brass	C46400	B21, B124 B171		QQ-B-639	W-6712	Naval Brass Uninhibited	4611 4612	60	.75		39.2						55		25		50	B55	0.304	30	Fasteners and hardware in corrosion resistant applications, marine and fastener parts
Phosphor Bronze	C51000	B100, B103 B139, B159	J461, J463	QQ-B-750-A QQ-W-321	T-3595 B-13501	Phosphor Bronze 5% Grade A	4510 4625	94.8	5	0.2							70		58		25	B78	0.320	20	Bearing plates, electrical connectors, sleeve bushings, clutch disks and chemical hardware
Leaded Phosphor Bronze	C54400	B103, B139	J461, J463	QQ-B-750-B		Phosphor Bronze, Grade B-2	4520	88	4	4	4						68		57		20	B80	0.321	80	Bearings, bushings, gears, pinions, shafts, valve parts, sleeves and screw machine parts
Aluminum Bronze	C61400	B100, B150 B169, B171	J461, J463	QQ-C-00465 QQ-C-450		Aluminum Bronze D		90.5					2.5	6.5			80		51		35	180	0.287	30	Machine parts, chutes for abrasive grains, mixing troughs, marine and protective sheathing
	C62300	B124, B150 B283	J461, J463		B-16166		4635	87.1					3.1	9.3			95		50		25	174	0.276	50	Valve stems, bushings, gears, worm gears, valve guides, seats, cams and bushings
	C63000	B124, B150 B171, B283	J461, J463	QQ-C-450	B-16166		4640F	80				5	3.5	10			118		75		15	228/B98	0.272	30	Heavy-duty hydraulic bushings, valve balls, bearings, valve seats, cams, gears and pump parts
	C64200	B124, B150 B283	J461, J463	QQ-C-465			4361	90.5						7			90		50		30	166	0.278	60	Fasteners, cams, gears and valve components
Silicon Bronze	C65500	B96, B98 B100, B124	J461, J463		T-8231	High Silicon Bronze A	4615 4665	97									92		55		22	B90	0.308	30	Fasteners, piston rings, bearing plates, wear plates, shafts, chemical and paper equipment
Manganese Bronze	C67300		J461, J463					60.5		2.5	33						75		55		15	153	0.300	70	Gears, cams, wear plates, clutch bearings, spindles, pump parts and connecting rods
CAST PRODUCTS																									
Red Brass	C83600	B62, B271 B505, B584	J461, J462 (SAE-40)	QQ-C-390-B-836 QQ-C-390-B5	B-11553-2 C-15345-1	(ASTM-B145-4A) 85-5-5-5, DIN Rg 5	4855 4855 B	85	5	5	5					36	37	19	17	15	30	60	0.318	84	Low pressure valves, fittings and pumps
Semi-Red Brass	C84400	B271, B505 B584, B763		QQ-C-390-B-844 QQ-C-390-B2	B-11553-11 B-18343	(ASTM-B145-5A)		81	3	7	9					30	34	15	15	16	26	55	0.314	90	Plumbing fittings, faucets, hardware and ornamental castings
Manganese Bronze	C86300	B22, B271 B505, B584	J461, J462 (SAE-430B)	QQ-C-390-B-863 QQ-C-390-C7	C-22229-8 B-16522-1	High Tensile Mn (ASTM-B147-8C)	4862B	62		.2 Max	26		3	6		110	115	62	65	14	15	225+	0.283	8	Screw down nuts, slow-speed heavy load bearings, gears, gibs and cams
	C86500	B271, B505 B584, B763	J461, J462 (SAE-43)	QQ-C-390-B-865 QQ-C-390-C3	C-22229-7 C-15345-4	Low Tensile Mn (ASTM-B147-8A)	4860A	58			39		1	1		70	71	25	28	25	30	130+	0.301	26	Strength applications, propellers for salt and fresh water, machinery parts, substitute for steel and malleable iron
Copper Bismuth	C89835	B505				Lead-Free Bronze		87	6.7		3	1 Max	0.2 Max	.005 Max		30	35	14	18	15	20	65	0.321	70	General utility bearings and bushings; a no-lead replacement for C93200 leaded bronze
Tin Bronze	C90300	B271, B505 B584, B763	J461, J462 (SAE-620)	QQ-C-390-B-903 QQ-C-390-D5	B-11553-5 C-15345-8	Navy "G" (ASTM-B143-1B)		88	8		4					44	45	22	21	18	30	70	0.318	30	Bearings, bushings, pump impellors, piston rings, pump bodies, valves, steam fittings and gears
	C90500	B22, B271 B505, B584	J461, J462 (SAE-62)	QQ-C-390-B-905 QQ-C-390-D6	B-11553-16 B-16541	Navy Metal, DIN Rg 10 (ASTM-B143-1B)	4845D	88	10		2					44	45	25	22	10	25	75	0.315	30	Bearings, bushings, pump impellors, piston rings, pump bodies, valves, steam fittings and gears
	C90700	B30, B427 B505	J461, J462 (SAE-65)	QQ-C-390-B-907				89	11							35	40	18	25	10	20	80	0.317	20	Worm wheels, gears, bearings for heavy loads and relatively low speeds
Leaded Tin Bronze	C92200	B61, B271 B505, B584	J461, J462 (SAE-622)	QQ-C-390-B-922 QQ-C-390-D4	C-15345-12 B-11553-1	Navy Metal (ASTM-B143-2A)		89	6	2	4					38	40	19	20	18	30	65	0.312	42	Medium-pressure hydraulic and steam to 550°F, marine and ornamental castings
High Lead Tin Bronze (Bearing Bronze)	C93200	B66, B271 B505, B584	J461, J462 (SAE-660)	QQ-C-390-B-932 QQ-C-390-E7	C-15345-12 B-11553-12	(ASTM-B-144-3B) 83-7-7-3, DIN Rg 7		83	7	7	3					35	35	20	18	10	20	65	0.322	70	General purpose bushings, washers and non-pressure applications
	C93700	B22, B271 B505, B584	J461, J462 (SAE-64)	QQ-C-390-B-937 QQ-C-390-E10	B-11553-23	(ASTM-B-144-3A) 80-10-10	4827 4872B	80	10	10						35	35	20	18	6	20	60	0.320	80	High-speed, heavy-pressure bushings, acid-resisting to sulphite fluids
Aluminum Bronze	C95400	B148, B271 B505, B763	J461, J462	QQ-C-390-B-954 QQ-C-390-G5	C-15345-13 B-16033-3	(ASTM-B148-9C)	4870B 4872B	85					4	11		85	90	32	36	12	14	170+	0.269	60	Spur and low-speed, heavily loaded worm gears, nuts, pump and landing gear parts
	C95500	B148, B271 B505, B763	J461, J462	QQ-C-390-B-955 QQ-C-390-G3	C-15345-14 B-16033-4	CuAl10Ni (ASTM-B148-9D)	4880	81				4	4	11		95	100	42	44	10	12	195+	0.272	50	Used under extreme conditions such as tank gun recoil mechanisms and landing gear parts
	C95510	B505	J461, J462				4880C	78 Min.				5	2.7	10.3		105		62.5		9		192-248+	0.272	50	Same as C95500, except heat-treated for better performance
	C95800	B148, B271 B505, B763	J461, J462	QQ-C-390-B-958 QQ-C-390-G8	C-15345-28 B-24480			81.3				4.5	4	9		85	95	35	38	18	25	159+	0.276	50	Propeller hub, blades and other parts - including valves in contact with sea water
	C95900	B148, B505 B271						82.5					4.5	13			90		50		0.5	241+	0.260	20	Good abrasion, does not take shock or impact, used in wiping blocks, dies and drill jig bushings
SINTERED PRODUCTS																									
Sintered Bronze	SAE841	B438, Gr 1 Type II	841-Ty I, Comp A		B-5687D Ty I, Grade 1	(B-5687D Ty I, Com A) (C-50709 Ty II, Gr 1)		87.5	9.5				1.0 Max				14		11		1				Bearings in home applications, farm implements, business machines, electrical motors, hardware, machine tools & mechnical power transmission equipment

Please Note

- This data is a compilation from many sources and is for reference only
- Actual properties depend on many variables including the production process, specification, size and cross section of the casting
- These figures are NOT GUARANTEED and cannot be used as a basis of acceptance or rejection of the material

Please Note

Ultimately, the material decision is based on all the factors considered by the design engineer. We can provide information and suggest material used in similar applications, but the final decision is yours.

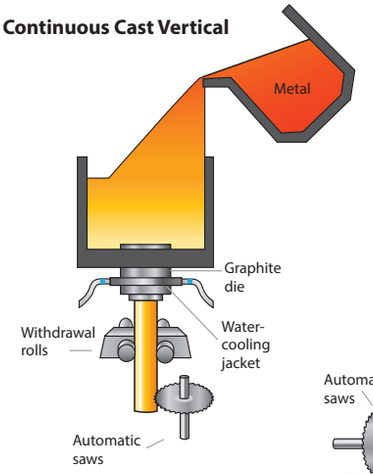
Any specific requirements you have should be specified to us during the quotation process, please call us or visit dura-barms.com for more information.
*Machinability of CDA 360 = 100%

Methods of Manufacture

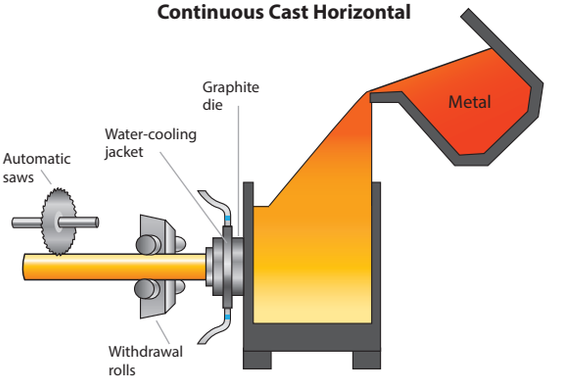
Continuous Cast Alloys

The continuous cast process begins with molten bronze being poured through a carbon graphite die. A cooling jacket surrounds the die allowing the cast tube, bar or shape to chill and solidify. The solid bar exits slowly by rolls or pinch rolls, obtaining a homogeneous micro-structure. With the continuous cast method, a minimum stock allowance can be controlled, reducing the amount of machining necessary to produce a finished part.

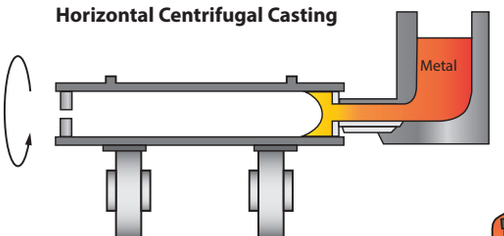
Continuous Cast Vertical

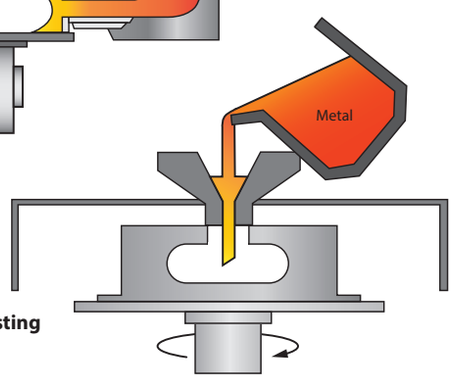


Continuous Cast Horizontal



Horizontal Centrifugal Casting





Vertical Centrifugal Casting

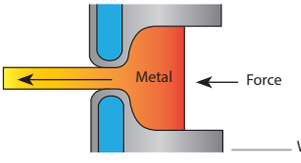
Centrifugally Cast Alloys

In this process, centrifugal force holds the molten metal against the mold wall until it solidifies. Carefully weighted charges ensure that just enough metal solidifies in the mold to yield the desired wall thickness for the casting. Centrifugal force causes impurities to concentrate at the casting's inner surface. This is then machined away, leaving only clean metal in the finished product. Alloys cast in this method can withstand substantial hydraulic pressure without leaking.

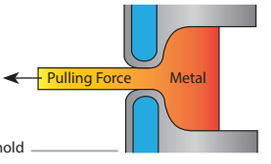
Wrought Alloys

Wrought alloys are first cast and then physically worked to obtain their shape by extrusion, forging, cold drawing, or hot rolling. Due to the reduction in area of the material, wrought alloys are unique for their increased strength and hardness as compared to their cast equivalents.

Hot Extrusion

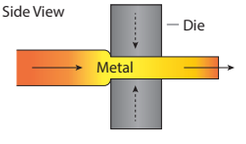


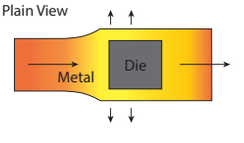
Cold Drawn Process



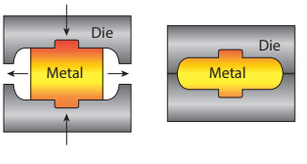
Water-cooled mold

Forging - Open Die Process

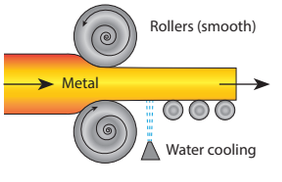




Forging - Closed Die Process



Hot Roll Process



DURA-BAR® METAL SERVICES

Tubes

ALLOY: C93200

Nominal Size I.D.	x	O.D.	Weight/ Inch (Lbs)
1/2	x	1	0.224
		1 1/8	0.291
		1 1/4	0.383
		1 3/8	0.458
		1 1/2	0.561
		1 3/4	0.766
		2	1.019
5/8	x	1	0.187
		1 1/8	0.262
		1 1/4	0.346
		1 3/8	0.439
		1 1/2	0.533
		1 3/4	0.738
		2	0.981
3/4	x	1	0.140
		1 1/8	0.215
		1 1/4	0.308
		1 3/8	0.393
		1 1/2	0.495
		1 5/8	0.579
		1 3/4	0.701
		2	0.944
		2 1/4	1.215
		2 1/2	1.523
7/8	x	1 1/8	0.168
		1 1/4	0.262
		1 3/8	0.336
		1 1/2	0.449
		1 5/8	0.551
		1 3/4	0.645
		1 7/8	0.776
		2	0.897
		2 1/4	1.168
1	x	1 1/4	0.187
		1 3/8	0.290
		1 1/2	0.393
		1 5/8	0.495
		1 3/4	0.607
		1 7/8	0.720

Nominal Size I.D.	x	O.D.	Weight/ Inch (Lbs)
1	x	2	0.850
		2 1/4	1.112
		2 3/8	1.262
		2 1/2	1.421
		2 3/4	1.757
		3	2.131
		3 1/4	2.523
		3 1/2	2.963
		4	4.000
1 1/8	x	1 3/8	0.206
		1 1/2	0.308
		1 5/8	0.411
		1 3/4	0.533
		2	0.785
		2 1/8	0.907
		2 1/4	1.056
		2 1/2	1.336
		2 7/8	1.841
1 1/4	x	1 1/2	0.234
		1 5/8	0.336
		1 3/4	0.467
		1 7/8	0.589
		2	0.710
		2 1/8	0.841
		2 1/4	0.981
		2 1/2	1.290
		2 3/4	1.626
		3	2.000
		3 1/4	2.411
		3 1/2	2.832
		4	3.869
1 3/8	x	1 5/8	0.271
		1 3/4	0.364
		1 7/8	0.486
		2	0.636
		2 1/8	0.766
		2 1/4	0.907
		2 3/8	1.065

Nominal Size I.D.	x	O.D.	Weight/ Inch (Lbs)
1 3/8	x	2 1/2	1.206
		2 5/8	1.383
		3	1.879
1 1/2	x	1 3/4	0.280
		1 7/8	0.393
		2	0.551
		2 1/8	0.673
		2 1/4	0.822
		2 3/8	0.981
		2 1/2	1.131
		2 3/4	1.458
		3	1.841
		3 1/4	2.252
		3 1/2	2.664
		3 3/4	3.150
		4	3.710
		4 1/2	4.776
1 5/8	x	2	0.430
		2 1/8	0.579
		2 1/4	0.729
		2 3/8	0.879
		2 1/2	1.028
		2 5/8	1.196
		2 3/4	1.355
		3	1.748
1 3/4	x	2	0.327
		2 1/8	0.477
		2 1/4	0.626
		2 3/8	0.776
		2 1/2	0.935
		2 5/8	1.084
		2 3/4	1.262
		3	1.645
		3 1/4	2.056
		3 1/2	2.486
		3 3/4	2.879
		4	3.533
		4 1/4	4.019
1 7/8		2 1/4	0.514
		2 3/8	0.673

Nominal Size I.D.	x	O.D.	Weight/ Inch (Lbs)
1 7/8	x	2 1/2	0.822
		2 5/8	0.972
		2 3/4	1.159
		3	1.495
2	x	2 1/4	0.355
		2 3/8	0.551
		2 1/2	0.710
		2 5/8	0.869
		2 3/4	1.037
		2 7/8	1.215
		3	1.430
		3 1/4	1.832
		3 1/2	2.252
		3 3/4	2.738
		4	3.308
		4 1/2	4.364
		5	5.533
		5 1/2	7.009
		6	8.467
2 1/8	x	2 5/8	0.738
		2 3/4	0.879
		2 7/8	1.093
		3	1.299
		3 1/2	2.121
2 1/4	x	2 3/4	0.785
		2 7/8	0.953
		3	1.150
		3 1/8	1.327
		3 1/4	1.570
		3 1/2	2.000
		3 3/4	2.467
		4	3.056
		4 1/4	3.533
2 3/8	x	2 3/4	0.589
		2 7/8	0.813
		3	1.009
		3 1/4	1.355
		3 1/2	1.785
		4	2.841

Standard Length 105"

DURA-BAR® METAL SERVICES

Tubes

ALLOY: C93200

CONTINUED

Nominal Size I.D.	x	O.D.	Weight/ Inch (Lbs)
2 1/2	x	2 3/4	0.439
		3	0.869
		3 1/8	1.065
		3 1/4	1.280
		3 1/2	1.720
		3 3/4	2.187
		4	2.776
		4 1/4	3.318
		4 1/2	3.804
		4 3/4	4.355
		5	5.019
		5 1/2	6.467
		6	7.953
2 5/8	x	3 1/2	1.542
2 3/4	x	3 1/4	0.944
		3 1/2	1.364
		3 3/4	1.850
		4	2.499
		4 1/4	3.000
		4 1/2	3.495
		4 3/4	4.056
		5 3/4	6.981
2 7/8	x	4	2.299
3	x	3 1/2	0.963
		3 3/4	1.495
		4	2.112
		4 1/4	2.664
		4 1/2	3.140
		4 3/4	3.738
		5	4.346
		5 1/2	5.869
		6	7.280
		6 1/2	8.888
		7	10.607
		8	14.402
3 1/4	x	3 3/4	1.037
		4	1.710
		4 1/4	2.271
		4 1/2	2.720

Nominal Size I.D.	x	O.D.	Weight/ Inch (Lbs)
3 1/4	x	4 3/4	3.318
		5	3.925
		5 1/2	5.439
3 1/2	x	4	1.234
		4 1/4	1.804
		4 1/2	2.346
		4 3/4	2.897
		5	3.523
		5 1/4	4.336
		5 1/2	5.065
		6	6.495
		6 1/2	8.093
3 3/4	x	4 1/2	1.916
		4 3/4	2.449
		5	3.065
		5 1/2	4.636
		6	6.056
4	x	4 1/2	1.393
		4 3/4	1.972
		5	2.598
		5 1/4	3.430
		5 1/2	4.121
		6	5.589
		6 1/2	7.178
		7	8.907
		7 1/2	10.748
		8	12.710
		9	17.000
4 1/4	x	4 3/4	1.467
		5	2.084
		5 1/4	2.935
		5 1/2	3.617
		6	5.093
		6 1/2	6.673
4 1/2	x	5	1.542
		5 1/4	2.346
		5 1/2	3.103
		6	4.551

Nominal Size I.D.	x	O.D.	Weight/ Inch (Lbs)
4 1/2	x	6 1/2	6.159
		7	7.860
4 3/4	x	5 1/4	1.822
		5 1/2	2.523
		5 3/4	3.234
		6	3.972
		6 1/2	5.579
5	x	5 1/2	1.925
		5 3/4	2.636
		6	3.393
		6 1/2	5.000
		7	6.710
		7 1/2	8.561
		8	10.505
		9	14.813
		10	20.056
5 1/4	x	7	6.084
5 1/2	x	6	2.103
		6 1/2	3.692
		7	5.421
		7 1/2	7.262
		8	9.224
5 3/4	x	6 3/4	3.832
		7 1/4	5.636
		7 1/2	6.561
		8 1/2	10.654
6	x	6 1/2	2.252
		6 3/4	3.121
		7	3.991
		7 1/4	4.907
		7 1/2	5.832
		8	7.804
		8 1/2	9.916
		9	12.112
		10	17.103
		11	22.421
		12	28.271

Nominal Size I.D.	x	O.D.	Weight/ Inch (Lbs)
6 1/2	x	7 1/4	3.374
		7 1/2	4.299
		8	6.262
		8 1/2	8.374
		9	10.589
		9 1/2	13.093
7	x	7 3/4	3.589
		8	4.598
		8 1/2	6.692
		9	8.916
		9 1/2	11.421
		10	13.897
		11	19.271
		12	25.168
7 1/2	x	8 1/2	4.916
		9	7.112
		9 1/2	9.617
		10	12.019
		10 1/2	14.757
8	x	9	5.308
		9 1/4	6.505
		9 1/2	7.729
		10	10.196
		10 1/2	12.841
		11	15.561
		12	21.421
		13	28.383
8 1/2	x	9 1/2	5.869
		10	8.159
		10 1/2	10.738
		11 1/2	16.748
9	x	10	6.159
		10 1/4	8.589
		10 1/2	8.673
		11	11.327
		11 1/2	14.224
		12	17.290

Standard Length 105"

CONTINUED

Nominal Size I.D.	x	O.D.	Weight/ Inch (Lbs)
9 1/2	x	10 1/2	6.477
		11	9.075
		11 1/2	11.850
		12 1/2	18.355
10	x	11	6.794
		11 1/2	9.533
		12	12.551
		13	19.159
		14	26.019
10 1/2	x	11 1/2	7.065
		12	9.925
		12 1/2	13.364
		13	16.701
11	x	12	7.486
		12 1/2	10.879
		13	13.953
		14	20.841
11 1/2	x	13	11.140
		13 1/2	14.542
		14 1/2	21.570
12	x	13 1/2	11.813
		14	15.131
		15	22.477
12 1/2	x	14	12.093
13	x	14 1/2	12.486
		15	16.542
13 1/2	x	15 1/2	16.907
14	x	15 1/2	13.430
		16	17.692

Nominal Size I.D.	x	O.D.	Weight/ Inch (Lbs)
New Large Diameter 52 1/2" Max Length			
15	x	17	20.952
16	x	17	13.200
		19	30.952
		20	42.296
17	x	19	23.124
		20	34.133
18	x	20	24.190

Standard Length 105"

DURA-BAR® METAL SERVICES

Rounds

ALLOY: C93200

Nominal Diameter	Weight/ Inch (Lbs)
1/2	0.075
5/8	0.112
3/4	0.159
7/8	0.215
1	0.271
1 1/8	0.346
1 1/4	0.421
1 3/8	0.579
1 1/2	0.607
1 5/8	0.701
1 3/4	0.813
1 7/8	0.925
2	1.056
2 1/8	1.187
2 1/4	1.327
2 3/8	1.477
2 1/2	1.636
2 5/8	1.794
2 3/4	1.972
2 7/8	2.150
3	2.346

Nominal Diameter	Weight/ Inch (Lbs)
3 1/4	2.738
3 1/2	3.168
3 3/4	3.636
4	4.178
4 1/4	4.710
4 1/2	5.271
4 3/4	5.841
5	6.439
5 1/4	7.206
5 1/2	7.916
6	9.336
6 1/2	10.907
7	12.636
7 1/2	14.486
8	16.411
9	20.673
10	25.607
11	30.822
12	35.701
13	43.215

Standard Length 105”

We also offer C932 in cut plate, squares and rectangles.
For information, please contact your Dura-Bar Metal Services Account Manager.

DURA-BAR® METAL SERVICES

Tubes

ALLOY: C95400

Nominal Size I.D.	x	O.D.	Weight/ Inch (Lbs)
3/4	x	1 1/4	0.278
		1 1/2	0.431
		1 3/4	0.611
		2	0.819
7/8	x	1 1/4	0.243
1	x	1 3/8	0.271
		1 1/2	0.347
		1 3/4	0.528
		2	0.736
		2 1/4	0.972
		2 1/2	1.236
		3	1.840
		3 1/2	2.618
		4	3.438
1 1/4	x	1 3/4	0.417
		2	0.625
		2 1/4	0.861
		2 1/2	1.118
		2 3/4	1.396
		3	1.729
		3 1/2	2.514
1 1/2	x	1 7/8	0.382
		2	0.486
		2 1/4	0.772
		2 1/2	0.986
		2 3/4	1.278
		3	1.590
		3 1/2	2.389
		4	3.201
		4 1/2	4.132
1 3/4	x	2 1/8	0.438
		2 1/4	0.556
		2 1/2	0.806
		2 3/4	1.111
		3	1.431
		3 1/4	1.854
		3 1/2	2.257
		3 3/4	2.611
		4	2.965

Nominal Size I.D.	x	O.D.	Weight/ Inch (Lbs)
2	x	2 3/8	0.493
		2 1/2	0.625
		2 3/4	0.910
		3	1.243
		3 1/4	1.681
		3 1/2	2.042
		3 3/4	2.438
		4	2.861
		4 1/2	3.799
		5	4.917
		6	7.507
2 1/4	x	2 5/8	0.549
		2 3/4	0.694
		3	1.007
		3 1/4	1.458
		3 1/2	1.826
		3 3/4	2.243
		4	2.674
2 1/2	x	3	0.771
		3 1/4	1.208
		3 1/2	1.590
		3 3/4	1.986
		4	2.417
		4 1/2	3.333
		5	4.472
		6	7.076
2 3/4	x	3 1/4	0.951
		3 1/2	1.306
		3 3/4	1.729
		4	2.146
		4 1/4	2.590
		4 1/2	3.042
3	x	3 1/2	1.021
		3 3/4	1.431
		4	1.854
		4 1/4	2.299
		4 1/2	2.785
		5	3.924

Nominal Size I.D.	x	O.D.	Weight/ Inch (Lbs)
3	x	5 1/2	5.090
		6	6.549
		7	9.396
3 1/4	x	3 3/4	1.111
		4	1.535
		4 1/2	2.451
		5	3.611
3 1/2	x	4	1.208
		4 1/4	1.653
		4 1/2	2.125
		5	3.264
		5 1/2	4.417
		6	5.882
3 3/4	x	4 3/4	2.313
4	x	4 1/2	1.361
		4 3/4	1.972
		5	2.528
		5 1/2	3.667
		6	5.139
		7	7.993
		8	11.222
4 1/4	x	5	2.104
4 1/2	x	5	1.708
		5 1/4	2.181
		5 1/2	2.819
		6	4.301
		6 1/2	5.639
		7 1/2	8.729
5	x	5 1/2	1.840
		5 3/4	2.660
		6	3.361
		6 1/2	4.722
		7	6.201
		8	9.431
5 1/2	x	6 1/2	3.639
6	x	7	3.986
		8	7.236
		9	10.868

Nominal Size I.D.	x	O.D.	Weight/ Inch (Lbs)
6 1/2	x	7 1/2	4.271
7	x	8	4.556
		9	8.257

Large Diameter Tubes
72 1/2" Max Length

10	x	13	17.834
11	x	15	26.069
12	x	15	21.310

Standard Length 144"

DURA-BAR® METAL SERVICES

Rounds

ALLOY: C95400

Nominal Diameter	Weight/ Inch (Lbs)
1/2	0.069
5/8	0.097
3/4	0.139
7/8	0.188
1	0.243
1 1/4	0.368
1 1/2	0.521
1 5/8	0.611
1 3/4	0.701
2	0.910
2 1/4	1.146
2 1/2	1.396
2 3/4	1.688
3	2.000
3 1/4	2.389
3 1/2	2.771
3 3/4	3.153
4	3.576
4 1/4	4.035
4 1/2	4.500
4 3/4	5.083

Nominal Diameter	Weight/ Inch (Lbs)
5	5.625
5 1/2	6.764
6	8.194
6 1/2	9.556
7	11.049
8	14.333
9	18.007
10*	22.257
11*	26.810
12*	31.781
13*	37.467
14*	43.314
15**	49.589

* Standard Length 105"

** Standard Length 95"

Standard Length 144"

DURA-BAR® METAL SERVICES

Rectangles

ALLOY: C95400

Nominal Size H	x	W	Weight/ Inch (Lbs)
1/4	x	1	0.103
		1 1/2	0.144
		2	0.192
		2 1/2	0.240
		3	0.281
		4	0.377
		5	0.459
		6	0.596
		12	1.130
3/8	x	1	0.137
		1 1/2	0.199
		2	0.260
		2 1/2	0.322
		3	0.384
		3 1/2	0.452
		4	0.507
		5	0.630
		6	0.795
		8	1.041
		12	1.521
1/2	x	1/2	0.089
		1	0.171
		1 1/4	0.212
		1 1/2	0.253
		2	0.329
		2 1/2	0.411
		3	0.486
		3 1/2	0.568
		4	0.644
		5	0.801
		6	0.993
		8	1.315
		10	1.630
		12	1.938

Nominal Size H	x	W	Weight/ Inch (Lbs)
5/8	x	1	0.205
		1 1/2	0.301
		2	0.397
		2 1/2	0.493
		3	0.589
		4	0.781
		5	0.973
		6	1.199
		8	1.562
3/4		3/4	0.192
		1	0.247
		1 1/2	0.356
		2	0.466
		2 1/2	0.582
		3	0.692
		3 1/2	0.801
		4	0.918
		5	1.144
		6	1.404
		8	1.836
		12	2.678
1	x	1	0.315
		1 1/4	0.390
		1 1/2	0.459
		1 3/4	0.534
		2	0.610
		2 1/2	0.753
		3	0.897

Nominal Size H	x	W	Weight/ Inch (Lbs)
1	x	3 1/2	1.041
		4	1.192
		5	1.479
		6	1.801
		7	2.068
		8	2.370
		12	3.493
		15	4.925
1 1/4	x	1 1/4	0.473
		1 1/2	0.568
		1 3/4	0.658
		2	0.747
		2 1/2	0.925
		3	1.103
		3 1/2	1.281
		4	1.466
		5	1.808
		10	3.637
1 1/2	x	1 1/2	0.671
		1 3/4	0.774
		2	0.890
		2 1/2	1.103
		3	1.308
		3 1/2	1.527
		4	1.740
		5	2.144
		6	2.651
		12	5.130
		15	6.911

Nominal Size H	x	W	Weight/ Inch (Lbs)
1 3/4	x	2	1.027
		2 1/2	1.274
		3	1.514
		4	2.014
		5	2.507
		10	5.007
2	x	2	1.171
		2 1/2	1.445
		3	1.726
		3 1/2	2.000
		4	2.295
		6	3.459
		12	6.870
		15	8.918
2 1/2	x	2 1/2	1.795
		3	2.137
		4	2.836
		5	3.527
		6	4.240
		12	8.445
		15	11.075
3	x	3	2.541
		4	3.384
		6	5.089
		15	13.123
3 1/2	x	15	15.151
4	x	4	4.466
		15	17.226
6	x	6	9.986

Standard Length 144"

DURA-BAR® METAL SERVICES

Tubes and Rounds

ALLOY: C86300

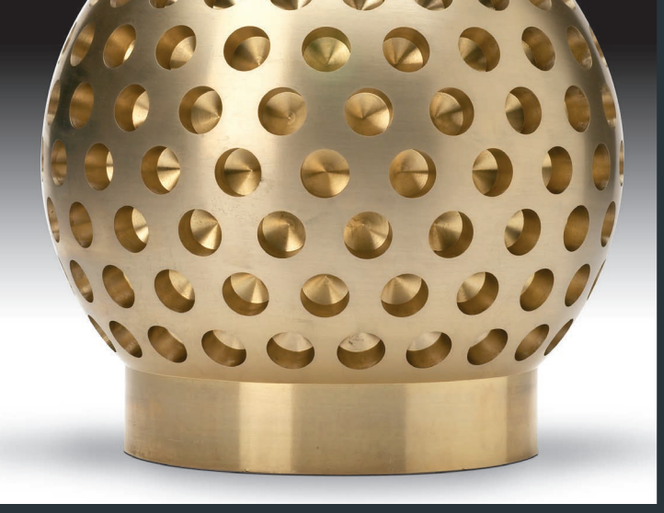
Nominal Size I.D.	x	O.D.	Weight/ Inch (Lbs)
1	x	1 1/2	0.368
		2	0.764
		2 1/2	1.292
		3	1.903
		4	3.556
1 1/2	x	2	0.514
2	x	2 1/4	0.368
		2 1/2	0.667

Standard Length 144"

Nominal Size I.D.	x	O.D.	Weight/ Inch (Lbs)
2	x	2 3/4	0.972
		3	1.299
		3 1/2	2.118
		4	2.965
		5	5.111
		6	7.771
2 1/2	x	3	0.833
		3 1/2	1.667
3	x	3 1/2	1.076
		4	1.951
		5	4.104

Nominal Size I.D.	x	O.D.	Weight/ Inch (Lbs)
3 1/2	x	4 1/4	1.875
		4 3/4	2.868
		5 1/2	4.514
4	x	4 1/2	1.569
		5	2.639
		6	5.326
5	x	6	3.528
		7	6.396

Nominal Diameter	Weight/ Inch (Lbs)
1	0.257
1 1/2	0.542
2	0.944
2 1/2	1.438
3	2.069
3 1/2	2.861
4	3.688
4 1/2	4.792
5	5.806
6	8.569



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