

BLACK AMALGON® (BA)

Pneumatic Cylinder Tubing

The Alternative to Metal

For more than 30 years, Amalga has produced an alternative to metallic, pneumatic cylinder tubing. Constructed of fiber-reinforced thermoset epoxy matrix, Black Amalgon has an inner surface of evenly dispersed, low-friction additives. The result: a lightweight, high-strength, corrosion-resistant composite material that replaces carbon steel, honed and chromed steel, stainless steel, aluminum, or brass cylinder barrels.

75% REDUCTION IN WEIGHT

Black Amalgon reduces material handling and shipping costs. Approximately 1/4 the weight of steel or brass and 3/4 the weight of aluminum, BA is much easier to handle than traditional metal tubing. Assembly times are reduced and stress loads on connected component parts are decreased.

SUPERIOR CORROSION RESILIENCE

Trouble-free performance in chemical, high moisture and other adverse environments including salt and chlorinated water, which results in significant reduction in life cycle costs.

REDUCED MAINTENANCE COSTS

No piston lock-up. BA's manufacturing process ensures a smooth, self-lubricating inside surface that prevents pistons from sticking even after they have remained idle for months. Ongoing tests conducted on non-lubricated cylinders resulted in cycles of greater than a million strokes without requiring seal replacement.

STORAGE CAPACITY

We can stock products to meet your JIT, MRP or KAN BAN requirements.

ELIMINATE HONING COSTS

A surface smoother than honed steel...without the cost of honing. A 5-15 Ra micro-inch surface finish performs just like a honed surface.

SHAPE STABILITY & IMPACT RESISTANCE

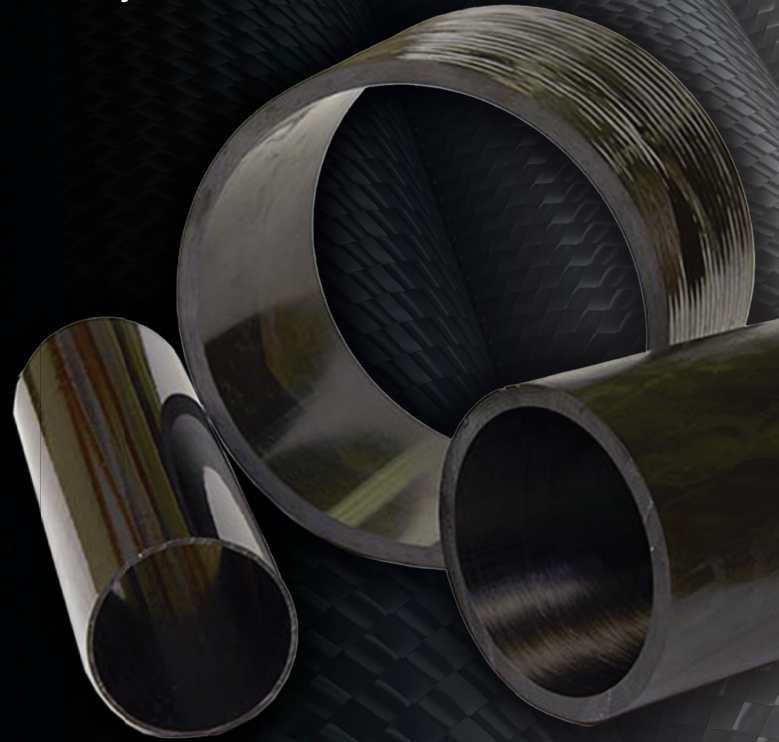
Ship, store and cut BA; it will retain its circular shape. Unlike metals, the product does not dent. Material impact strength is 40 Izod ft.-lbs.

EXCELLENT THERMAL STABILITY

With a very low coefficient of thermal expansion, BA operates efficiently up to 275° F and customers have reported success in using our product at temperatures below -300° F.

NON-MAGNETIC MATERIAL

Permits magnetic sensors to control piston movement directly through the wall thickness.

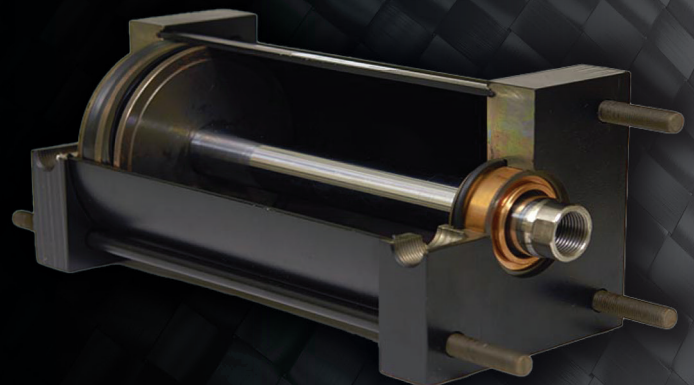


Manufacturing Composites since 1966

AMALGACOMPOSITES.COM

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West Allis, WI ISO9001:2015 Certified





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...the **Better Choice**

Metric Measurement System

Model No. ¹	Standard Bore Size (mm)	Randon Lengths to Meters	Operating kPa Non-Tie Rod Design ²	Operating kPa Tie Rod Design ²	Kilograms Per Meter
MBA32	32	1.52	6614	13298	0.492
MBA40	40	1.52	5305	10680	0.805
MBA50	50	3.05	4203	8544	0.969
MBA63	63	3.05	3376	6752	1.223
MBA72	72	3.05	3128	5822	1.059
MBA80	80	3.05	2618	5305	1.640
MBA100	100	3.05	2136	4272	1.938
MBA125	125	3.05	1723	3445	2.385
MBA125 A	125	3.05	2756	4754	3.578
MBA160	160	3.05	1309	2687	2.982
MBA160 A	160	3.05	2136	3721	4.622
MBA160 B	160	3.05	2963	4685	6.262
MBA200	200	3.05	1034	2136	3.727
MBA200 A	200	3.05	1723	2963	5.665
MBA200 B	200	3.05	2343	3790	7.604

FOOTNOTES:

1. Under 1.000-inch tooling available. Tooling constantly upgraded. Call for availability.
2. Operating pressure calculated with minimum 4:1 safety factor.

More detailed information on strengths and material properties, corrosion resistance and design modifications will be made available upon your request.

Standard Measurement System

Model No. ¹	Standard Bore Size (inches)	Randon Lengths to Feet	Operating PSI Non-Tie Rod Design ²	Operating PSI Tie Rod Design ²	Weight Per Foot in LBS
BA100	1.000	5	1220	2440	0.33
BA112	1.125	5	1080	2170	0.37
BA125	1.250	5	980	1950	0.41
BA150	1.500	5	810	1620	0.50
BA175	1.750	5	700	1390	0.56
BA200	2.000	10	610	1200	0.66
BA225	2.250	10	543	1000	0.75
BA250	2.500	10	490	970	0.83
BA275	2.750	10	440	890	0.91
BA300	3.000	10	410	810	1.00
BA325	3.250	10	380	750	1.10
BA350	3.500	10	350	700	1.20
BA375	3.750	10	330	650	1.30
BA400	4.000	10	300	610	1.30
BA500	5.000	10	240	490	1.70
BA575	5.750	10	210	420	1.90
BA600	6.000	10	200	410	2.00
BA700	7.000	10	170	350	2.30
BA800	8.000	10	150	300	2.70
BA1000 A	10.000	10	190	330	5.00
BA1000 B	10.000	10	260	430	6.70
BA1200 A	12.000	10	160	280	6.00
BA1200 B	12.000	10	220	360	8.00
BA1400 A	14.000	10	140	240	7.00
BA1400 B	14.000	10	190	310	9.30
BA1600 B	16.000	10	170	270	10.70
BA1600 C	16.000	10	210	320	13.40
BA1800 B	18.000	10	150	240	11.50
BA1800 C	18.000	10	190	290	15.00
BA2000 B	20.000	10	130	220	13.50
BA2000 C	20.000	10	170	260	17.00
BA2400 C	24.000	8	140	220	19.10
BA2800 D	28.000	10	120	220	36.00
BA3000 D	30.000	8	100	200	41.40



Are You Looking to Partner with Amalga Composites?

Scan the QR Code to request a complimentary quote.



customerservice@amalgacomposites.com
 CAGE CODE: 30786 ISO9001:2015 Certified

Standard wall thickness: .125 to .500 inches.
 Custom wall thicknesses available.

Black Amalgon is machinable and available up to 42" & 200" in length.