



"FILAMENT WINDING EXPERTS"

www.amalgacomposites.com



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"FILAMENT WINDING EXPERTS"

ABOUT US

For over 55 years Amalga Composites has been a leader in the design, engineering, and manufacturing of composite products. As one of the largest independent filament winders in the United States, our doctoral level engineers have been providing solutions for our customers' toughest challenges with superior customer service.

Offering ongoing assistance and co-development, from prototyping through production our facility is fully equipped to provide customized, high-volume output for both domestic and international orders.

> Want to learn more about **our capabilities?**

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CAGE CODE: 30786

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ISO 9001:2015 CERTIFIED COMPANY

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02

ABOUT
AMALGA

WE WORK ALONGSIDE OUR CUSTOMERS TO DESIGN
AND MANUFACTURE COMPOSITE SOLUTIONS TO
THEIR MOST CHALLENGING PROBLEMS.



AMALGA

BY THE NUMBERS.

1966

YEAR FOUNDED IN
WEST ALLIS,
WISCONSIN, US

9001:
2015

ISO CERTIFIED

30786

CAGE CODE



+90,000

SQFT. OF
COMPLETE
MANUFACTURING
AND FINISHING
CAPABILITIES



4

WEEK LEAD TIME
OR LESS ON CORE
PRODUCTS



+300

CUSTOMERS



+20

COUNTRIES
WE DO
BUSINESS IN



+20

INDUSTRIES
SERVED

+1200

MANDRELS IN
INVENTORY



+10

WINDING
MACHINES

+10

CURING
OVENS

100%

PRODUCT
LIFECYCLE
SUPPORT



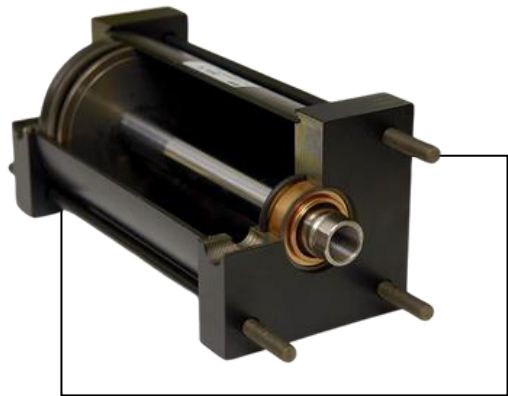
PRODUCTS & MARKETS

STRUCTURAL CYLINDERS
SUPPORTING MULTIPLE COMPANIES
AROUND THE WORLD.



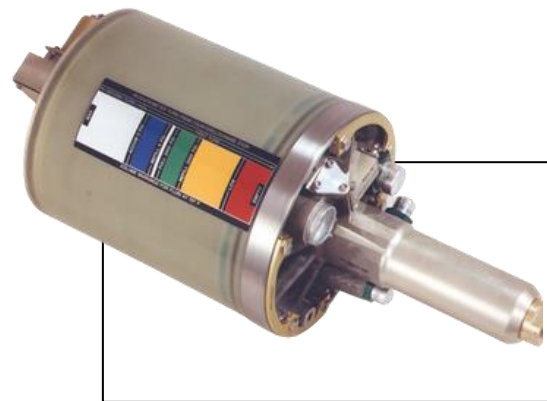
PRODUCTS

WE CAN MAKE PRODUCTS FROM 0.5 INCHES TO 42 IN.
INSIDE DIAMETER (ID) AND UP TO 288 INCHES LONG.



BLACK AMALGON (BA)

LIGHTWEIGHT, CORROSION-RESISTANT
ALTERNATIVE TO STEEL, ALUMINUM OR
BRASS CYLINDERS.



RESERVOIR QUALITY (RQ)

LIGHTWEIGHT, CORROSION-RESISTANT
TUBING DESIGNED FOR PRESSURIZED
SYSTEMS.



CLEAR (CL)

A COST-EFFECTIVE AND LIGHTWEIGHT
ALTERNATIVE TO STEEL TUBING.

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ROLLERS & CORES

LOW WEIGHT, MINIMAL-INERTIA
ROLLERS DESIGNED FOR HIGH CRITICAL
SPEEDS.



COMPRESSION MOLDING

STRONG AND LIGHT-WEIGHT
ALTERNATIVE TO DIE-CAST, STAMPED OR
OTHER FORMED METAL PARTS.



CUSTOM ENGINEERED PRODUCTS

DRIVESHAFTS, UNDERWATER VESSELS,
FOOD GRADE AMALGON, FRAC PLUGS,
AND MORE.





MARKETS

PNEUMATIC & HYDRAULIC APPLICATIONS,
AEROSPACE & DEFENSE, AUTOMOTIVE, MARINE,
OIL & GAS, PAPER & PULP, AND MANY OTHERS.



AEROSPACE
& DEFENSE



INDUSTRIALS
AND
MANUFACTURING



FLUID POWER
AND FLUID
EXCHANGE



AUTOMOTIVE



TELECOM



HEALTHCARE
& RESEARCH



PAPER &
PULP

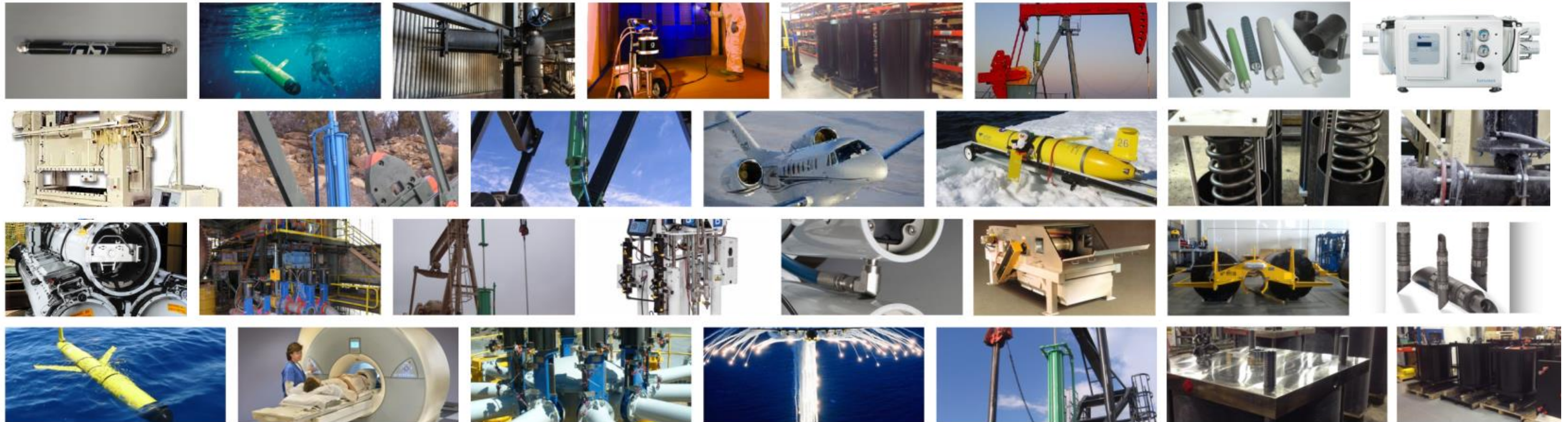


OIL
& GAS



END-USE APPLICATIONS

OUR PRODUCTS CAN BE (AND ARE) USED IN MULTIPLE HIGH-PERFORMANCE INDUSTRIES.



ADVANTAGES OF COMPOSITES

LIGHTWEIGHT, LONG-LASTING,
CORROSION-RESISTANT ALTERNATIVE
TO METALS.



END-USE APPLICATIONS

OUR PRODUCTS CAN BE (AND ARE) USED IN MULTIPLE HIGH-PERFORMANCE INDUSTRIES.

ADDITIONAL BENEFITS INCLUDE:

- FLEXIBILITY OF DESIGN.
- HIGH PERFORMANCE AT ELEVATED TEMPERATURES.
- HIGH FLEXULAR MODULUS TO CARRY DEMANDING LOADS.
- CHEMICAL RESISTANCE.

STRONG & LIGHT WEIGHT

UP TO 75% LIGHTER THAN METALS AND STRENGTHS SIMILAR TO THEM.



CORROSION-RESISTANT

GIVEN THE FABRIC AND RESIN MIX, COMPOSITES ARE RESISTANT TO CORROSION.



LONG-LASTING

COMPOSITE MATERIALS YIELD OR PLASTICALLY DEFORM.





PLANNING FOR OPTIMAL PRODUCT COST

AMALGA HAS THE UNIQUE PROPOSITION IN THE INDUSTRY TO BRING COSTS DOWN WITH APPROPRIATE S&OP PROCESSES.

01 UNDERSTAND PRODUCT REQUIREMENTS

Imperative for our team to understand your product's operating conditions:

- Temperature,
- Pressure,
- Additional forces,
- Exposure to specific elements.

Geometry constraints:

- Inside diameter,
- Wall thickness,
- Surface finish,
- Length.

02 OPTIMIZE MANUFACTURING STEPS

We can choose the manufacturing process to make your product quickly and efficiently based on:

- Quantities,
- Raw material,
- Machining requirements,
- Lead times.

Defined value streams to optimize production throughput based on fiber and resin mixes.

03 MAXIMIZE MATERIAL USAGE & MACHINE UPTIME

When manufacturing, always consider:

- Most mandrels are 10ft / ~3mts long and unit price goes down by reducing the amount of material scraped.
- Machine setup costs goes down with higher volumes.

04 UNDERSTAND FORECAST OR PRODUCT DEMAND

Lowering your inventory levels by understanding your demand forecast on a quarterly or yearly basis.



BLACK AMALGON (BA)

OUR FLAGSHIP PRODUCT FOR APPLICATIONS
REQUIRING SURFACE FINISH DOWN TO 4RA.



BLACK AMALGON (BA)

YOUR CHOICE FOR LONG-LASTING, LIGHT-WEIGHT PNEUMATIC APPLICATIONS.


BA tubing is fabricated from fiberglass epoxy material incorporating a vinyl ester liner, making it the better choice for pneumatic applications:

- Up to 75% weight reduction - BA is 1/4 of the weight of steel or brass and 3/4 the weight of aluminum.
- Superior corrosion resistance - resistant to adverse environments resulting in significant reduction in lifecycle costs.
- Reduced maintenance costs - ongoing tests conducted on non-lubricated cylinders resulted in cycles of greater a million strokes without requiring a seal replacement.
- Eliminate honing costs - BA can achieve 4Ra micro-inch surface finish, having a smoother surface than honed steel.
- Shape stability and Impact Resistance - BA does not dent given the material impact strength of 40 Izod ft.-lbs.
- Excellent Thermal Stability - proven performance up to 275F and temperatures below -300F.
- Non-Magnetic Material - allows magnetic sensors to control piston movement directly through the wall thickness.



Standard	Wall Thick. (in)
S	0.125
A	0.1875
B	0.250
C	0.375
D	0.500

*WE CAN MANUFACTURE TO YOUR PRODUCT'S UNIQUE WALL THICKNESS.



RESERVOIR QUALITY (RQ) & CLEAR (CL)

LIGHTWEIGHT, CORROSION-RESISTANT
TUBING DESIGN FOR PRESSURIZED SYSTEMS.

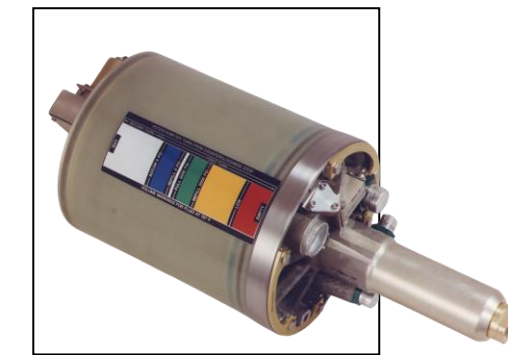




RESERVOIR QUALITY (RQ) AND CLEAR (CL) "AT-A-GLANCE" FLUID LEVEL INDICATION .

- Clear tubing (CL) is the most cost-effective and lightweight alternative to steel tubing.
- Translucent reservoir quality (RQ) is designed for pressurized air-oil system reservoirs of 150 psi or higher. It provides the ease of "at-a-glance" fluid level indication from any angle.
 - Eliminate costly sight glass - RQ is translucent, eliminating the need for an expensive and fragile sight glass.
 - Up to 75% weight reduction - RQ is 1/4 of the weight of steel or brass and 3/4 the weight of aluminum.
 - Superior corrosion resistance - resistant to adverse environments resulting in significant reduction in lifecycle costs.
 - Ten (10) times as strong - RQ tubing offers at least 10 times the tensile strength of conventional thermoplastics such as polycarbonate, polystyrene and acrylic.
 - Shatter Resistant - BA does not dent given the material impact strength of 40 Izod ft.-lbs.

RESERVOIR QUALITY (RQ)



CLEAR (CL)



ROLLERS & CORES

LOW WEIGHT, LONG-LASTING, MINIMAL-INERTIA
ROLLERS DESIGNED FOR HIGH CRITICAL SPEEDS.



ROLLERS & CORES

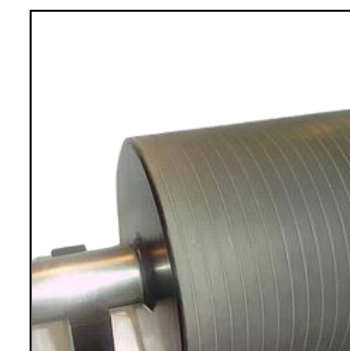
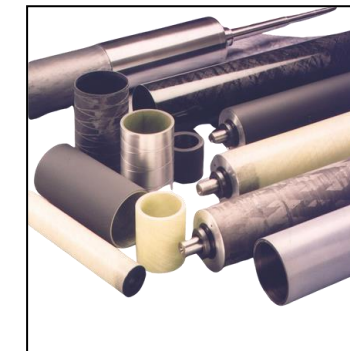
CUSTOM DESIGNED TO WITHSTAND HIGH CRITICAL SPEEDS FOR LONG LIFECYCLES.

APPLICATIONS

- Printing Press Rollers
- Process Rollers
- Idler Rollers
- Blown Film Lines
- Laminating Lines
- Paper and Film Machines
- Many other applications

FEATURES

- Filament Wound Construction
- Carbon fiber and/or fiberglass materials
- From 1 inch to 42 inches inside diameters
- Up to 30 feet long
- Customer Roll Ends
- Dynamic Balancing
- Walls as thin as 0.060 in.
- Custom finishes & coatings





COMPRESSION MOLDING

OFFERING A STRONG, LIGHT-WEIGHT ALTERNATIVE
TO DIE-CAST, STAMPED OR OTHER METAL PARTS.



COMPRESSION MOLDING

TO SUPPORT YOUR CUSTOM-DESIGNED, HIGH-VOLUME REQUIREMENTS.

APPLICATIONS

- Medical
- Electrical
- Mechanical
- Transportation
- Dishware
- Sanitaryware
- Sporting Goods

FEATURES

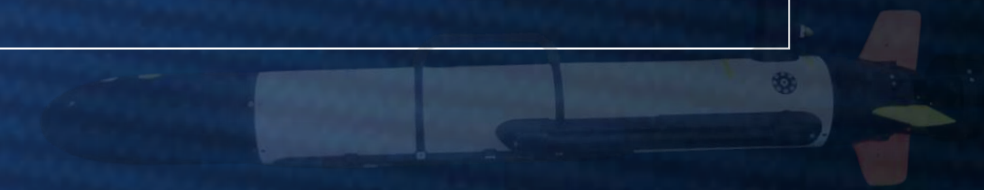
- Corrosion resistance
- Chemical resistance
- Heat resistance
- Fire retardance
- Weight reduction
- Weatherability
- Colorfastness
- Strength Microwave transparency





CUSTOM SOLUTIONS

DRIVESHAFTS, UNDERWATER VESSELS, FOOD
GRADE AMALGON, FRAC PLUGS, & MORE.



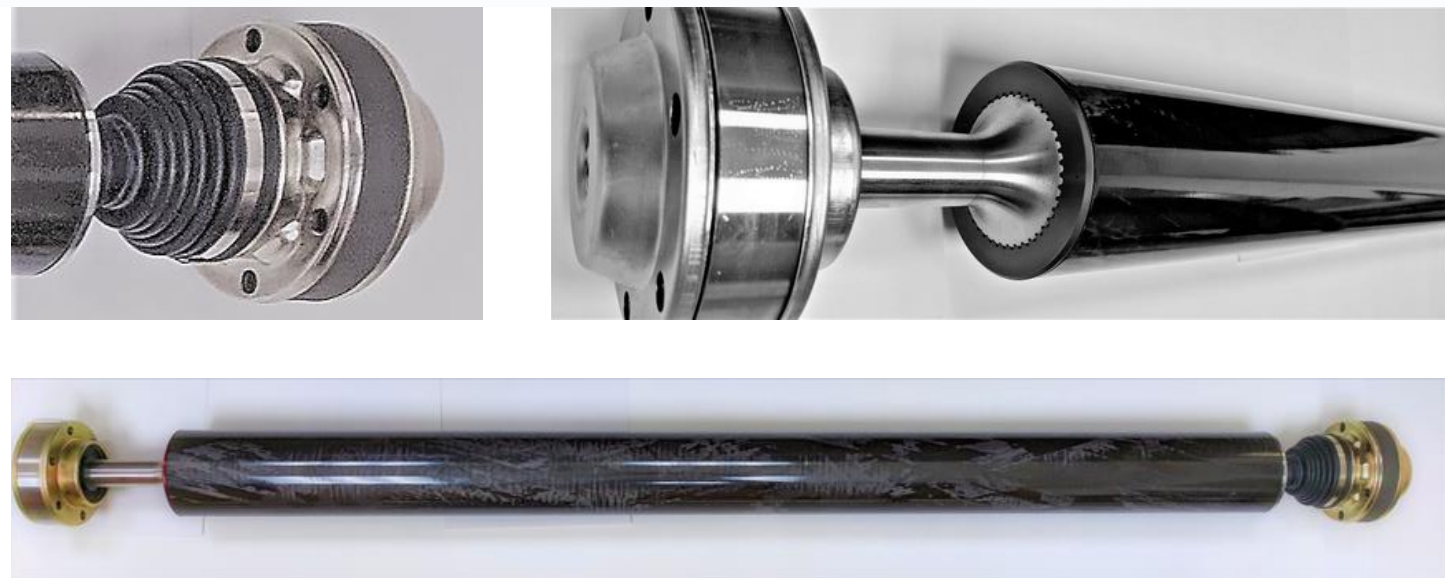


CUSTOM ENGINEERED SOLUTIONS

LEVERAGING OUR EXPERTISE TO BE LEADERS IN SPECIFIC INDUSTRIES.

DRIVESHAFTS

- Automotive OEM
- Light & Heavy Truck
- Powersports
- Agriculture
- Industrial Drivelines
- Marine
- Aftermarket Automotive



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AUTONOMOUS UNDERWATER VEHICLES (AUV)

- Research
- Defense / Military
- Oil & Gas
- Surveillance
- Surveying



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CUSTOM ENGINEERED SOLUTIONS

LEVERAGING OUR EXPERTISE TO BE LEADERS IN SPECIFIC INDUSTRIES.

FOOD GRADE AMALGON (FGA)

- The cost-effective alternative to stainless steel. FGA complies with FDA requirements, and it is manufactured for direct food contact in accordance with Code of Regulations Publication CFR 21, paragraphs 173.300 and 177.2450.



FRAC PLUGS

- We have the skills, experience, and equipment necessary to support your high-volume needs.



MANY OTHERS

- Pressure Vessels
- Desalination
- Fluid Exchange
- Metal Separation
- Launch Tubes
- Comm. Towers and many more...



FILAMENT WINDING

THE IDEAL PROCESS TO MANUFACTURE
STRUCTURAL COMPOSITE TUBES.



FILAMENT WINDING PROCESS

THE IDEAL PROCESS TO MANUFACTURE STRUCTURAL COMPOSITE CYLINDERS.

- A batch process that is used to produce continuous fiber reinforced composite structures.
- The process is ideally suited to cylindrical shaped, hollow structures.
- The fiber is placed in the direction of principle stress to maximize material efficiency.
- The right mix of fiber and resin is designed to optimize for the customer's end-product requirements.
- Automated machinery assures consistency in manufacturing.
 - At Amalga, we are the experts in filament winding:
 - Over 1,200 mandrels
 - More than 30 proprietary resin mixes.
 - Partnerships with world renowned suppliers to continue to innovate our processes.

Winding Machine



Winding Process



As-Wound Tube



Mandrels

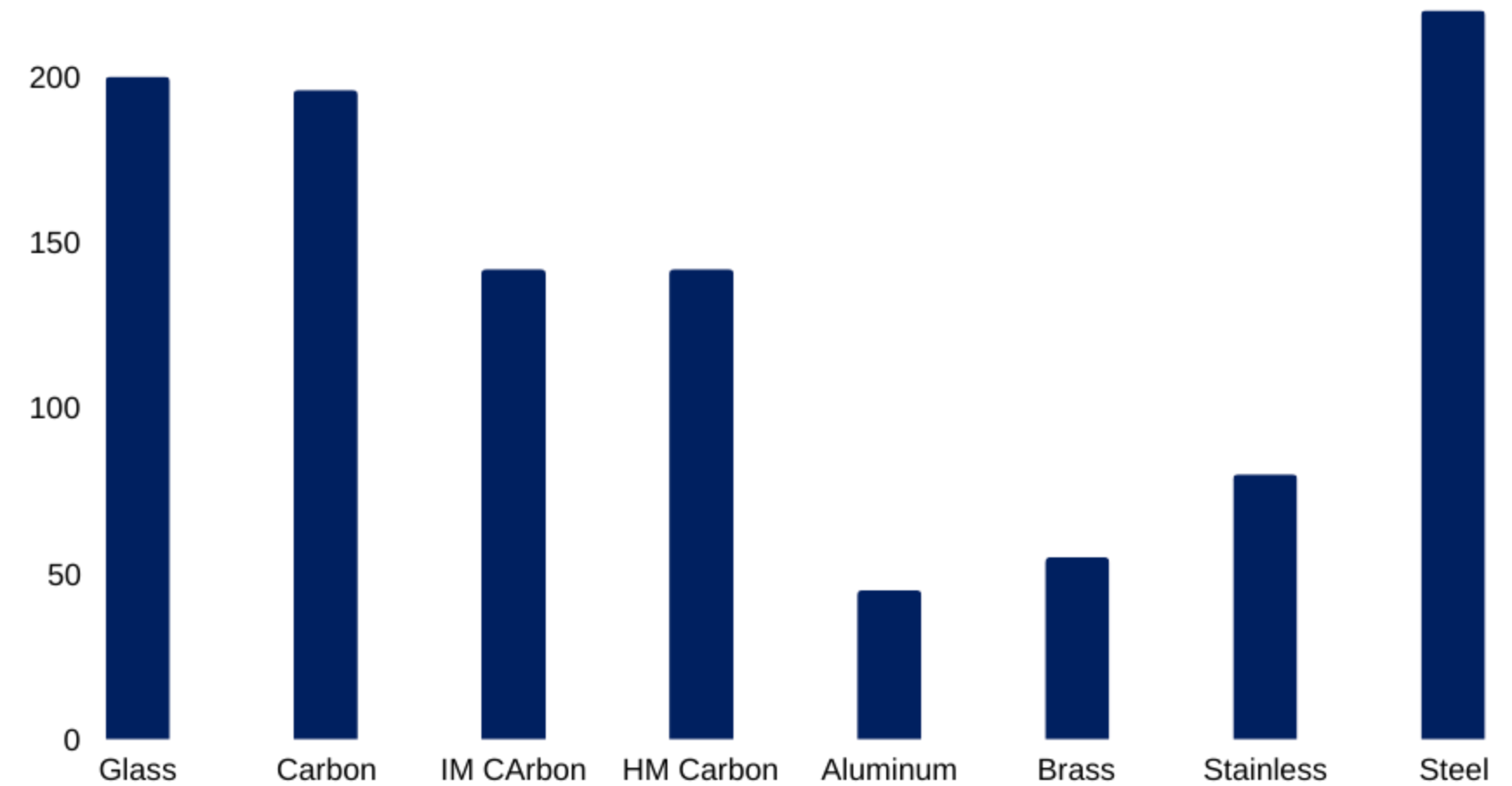




ULTIMATE TENSILE STRENGTH

USING WIND ANGLES TO MEET YOUR PRODUCT'S STRENGTH AND PERFORMANCE REQUIREMENTS.

- Filament wound composites exhibit superior strength than most of other substitutes.
- They do not yield or plastically deform the way that metal does, so fatigue failures are not a design concern.
- Filament wound composites offer the advantage of customizing strength by varying both the type of fiber and the angle of the reinforcement.
- Design engineers must understand the requirements of the application to properly design the filament wound structure.



Effect of Wind Angle on Strength (Ksi) – approx.

	0°	15°	30°	45°	75°	90°
Carbon	250	255	80	35	10	<10
Glass	165	200	100	35	10	<10



ENGINEERING CAPABILITIES

WE WILL PARTNER WITH YOU TO DESIGN AND MANUFACTURE YOUR PRODUCTS.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	AWBY-1350-350	Aluminum Round Yoke, 1350 O Joint, 3.50" ID Inlet	1
2	SHR-1350	SHAP-1350	8
3	ATN-1350-4.75"IC	Aluminum Flange, 1350 O Joint, 4.75" Ball Cocks	2
4	ASH-1350	Aluminum Slip Yoke (Strut), 3.50" ID Inlet	1
5	ATN-1350	Aluminum Male Slip Yoke, 1350 O Joint	1
6	BKE-350	5009-494	1
7	BEG/600A		1
8	225-50314	22.5mm ID O-Ring O-ring	2
9	UBN-1350	1350 O Joint Assembly	2
	UBH-1350		1
	1350 Cap		4

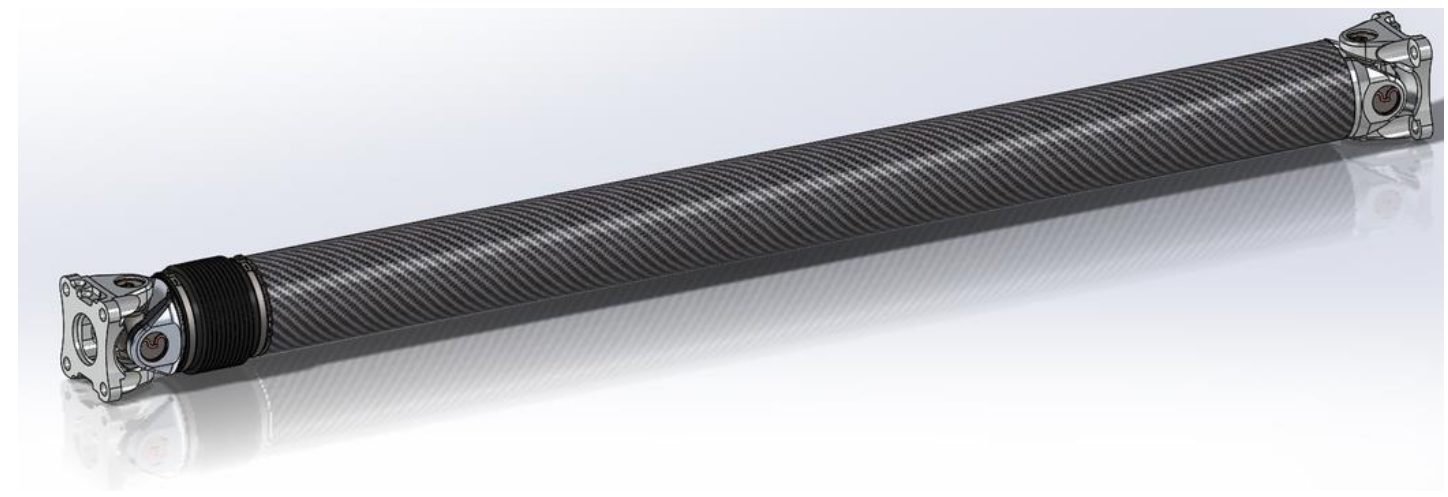
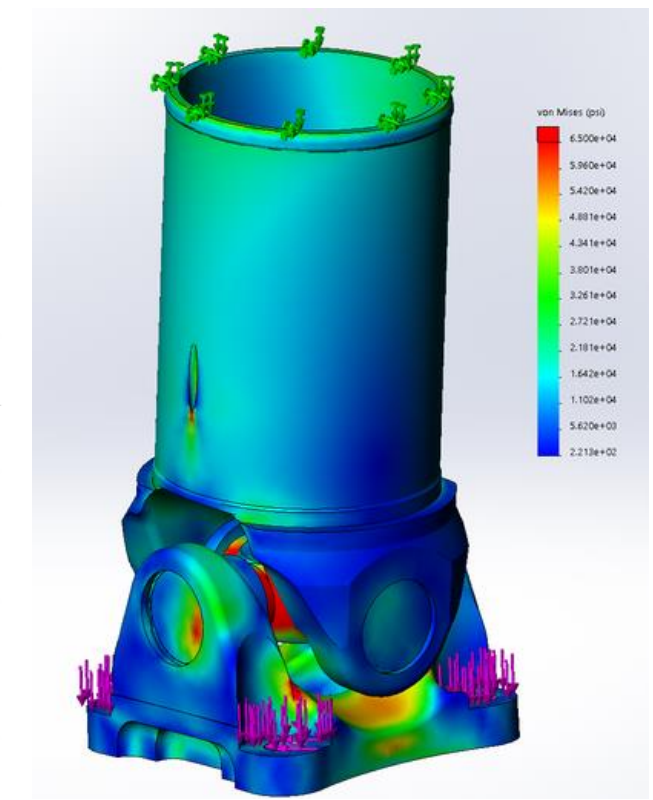
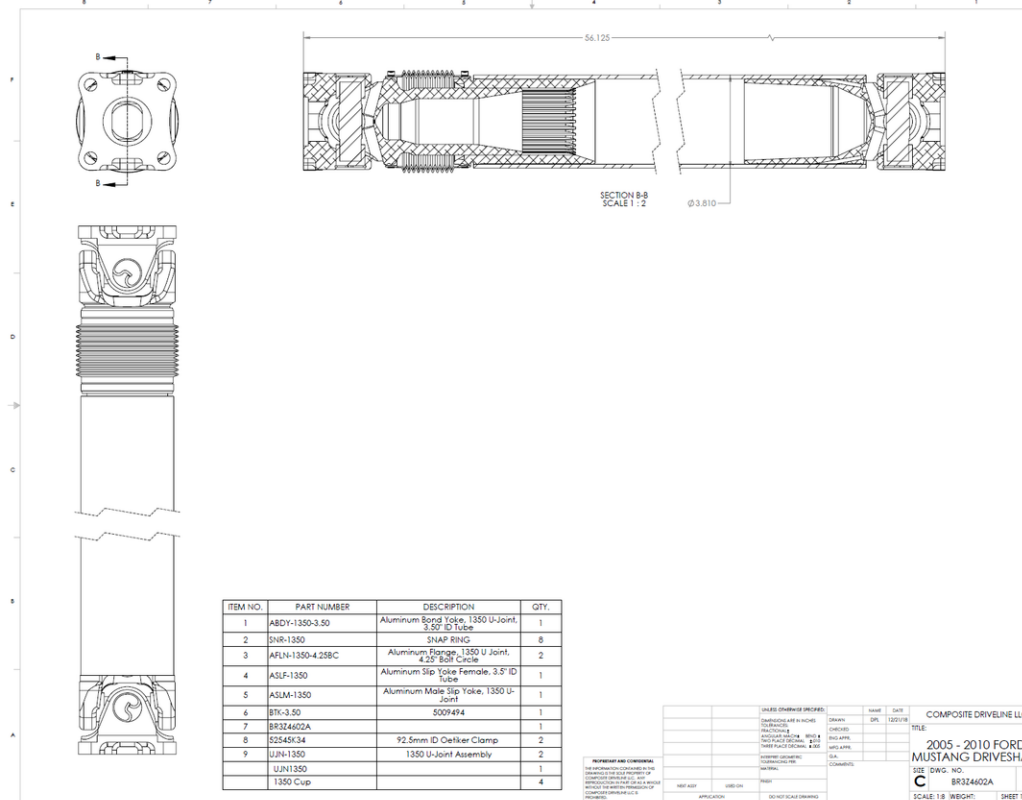




ENGINEERING CAPABILITIES

WE WILL PARTNER WITH YOU TO DESIGN AND MANUFACTURE YOUR PRODUCTS.

- Our engineers have years of experience designing and manufacturing composites across for multiple industries.
- We can support you along your design process with:
 - Structural Analysis
 - Laminate Analysis
 - Solid Modeling
 - Finite Element Analysis
 - Critical Speed/Natural Frequency Analysis
 - Buckling Stress Analysis
 - Joining Analysis
 - Material Selection



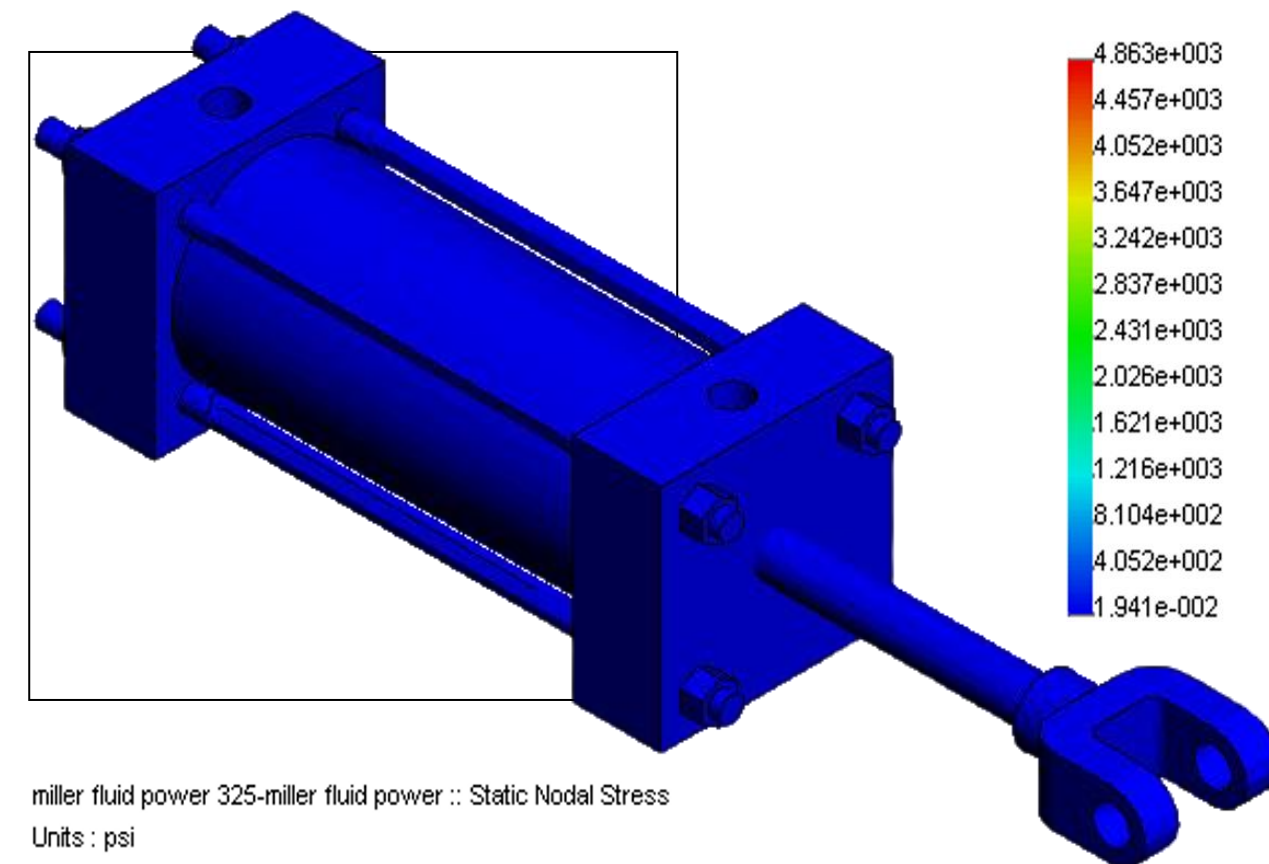


FINITE ELEMENT ANALYSIS

PNEUMATIC CYLINDER MODEL USING BLACK AMALGON CYLINDER TUBING.

- Tube material BA0400A
- 10 inch cylinder length
- 150 psi operating pressure
- 2,400 pound rod load
- Tie rod design
- Maximum tube stress 2,270 psi
- Ultimate material strength 27,000 psi

Analysis of a 4" ID Cylinder





BLACK AMALGON PRODUCT GUIDE

BLACK AMALGON PRODUCT GUIDE
1.00" TO 4.00" BORE SIZE.

Model	Standard Bore (in)	Bore Tolerance (in)	Outside Dia. (in)	Operating Pressure (psi) *		Model	Standard Bore (in)	Bore Tolerance (in)	Outside Dia. (in)	Operating Pressure (psi) *	
				Tie Rod	Non-Tie Rod					Tie Rod	Non-Tie Rod
BA0100S	1.000	-0/+0.003	1.250-1.253	2440	1220	BA0250S	2.250	-0/+0.008	2.750-2.760	970	490
BA0112S	1.125	-0/+0.003	1.375-1.378	2170	1080	BA0275S	2.275	-0/+0.008	3.000-3.010	890	440
BA0125S	1.250	-0/+0.006	1.500-1.506	1950	980	BA0300S	3.000	-0/+0.008	3.250-3.260	810	410
BA0150S	1.500	-0/+0.006	1.750-1.754	1620	810	BA0325S	3.250	-0/+0.008	3.500-3.510	750	380
BA0175S	1.750	-0/+0.006	2.000-2.004	1390	700	BA0350S	3.500	-0/+0.008	3.750-3.760	700	350
BA0200S	2.000	-0/+0.006	2.250-2.254	1200	610	BA0375S	3.750	-0/+0.008	4.000-4.010	650	330
BA0225S	2.250	-0/+0.008	2.500-2.506	1000	543	BA0400S	4.000	-0/+0.010	4.250-4.260	610	300

*OPERATING PRESSURES ASSUME A 4:1 SAFETY FACTOR



BLACK AMALGON PRODUCT GUIDE

BLACK AMALGON PRODUCT GUIDE
5.00" TO 16.00" BORE SIZE.

Model	Standard Bore (in)	Bore Tolerance (in)	Outside Dia. (in)	Operating Pressure (psi)*		Model	Standard Bore (in)	Bore Tolerance (in)	Outside Dia. (in)	Operating Pressure (psi)*	
				Tie Rod	Non-Tie Rod					Tie Rod	Non-Tie Rod
BA0500S	5.000	-0/+0.010	5.250-5.260	490	240	BA1200A	12.000	-0/+0.020	12.370-12.410	280	160
BA0575S	5.750	-0/+0.010	6.000-6.012	420	210	BA1200B	12.000	-0/+0.020	12.490-12.530	360	220
BA0600S	6.000	-0/+0.010	6.250-6.262	410	200	BA1400A	14.000	-0/+0.020	14.370-14.410	240	140
BA0700S	7.000	-0/+0.012	7.250-7.262	350	170	BA1400B	14.000	-0/+0.020	14.490-14.530	310	190
BA0800S	8.000	-0/+0.015	8.250-8.262	300	150	BA1600B	16.000	-0/+0.025	16.490-16.550	270	170
BA1000A	10.000	-0/+0.020	10.370-10.410	330	190	BA1600C	16.000	-0/+0.025	16.620-16.690	320	210
BA1000B	10.000	-0/+0.020	10.490-10.530	430	260						

*OPERATING PRESSURES ASSUME A 4:1 SAFETY FACTOR



BLACK AMALGON PRODUCT GUIDE

BLACK AMALGON PRODUCT GUIDE
18.00" TO 30.00" BORE SIZE.

Model	Standard Bore (in)	Bore Tolerance (in)	Outside Dia. (in)	Operating Pressure (psi)*		Model	Standard Bore (in)	Bore Tolerance (in)	Outside Dia. (in)	Operating Pressure (psi)*	
				Tie Rod	Non-Tie Rod					Tie Rod	Non-Tie Rod
BA1800B	18.000	-0/+0.025	18.490-18.550	240	150	BA2400C	24.000	-0/+0.025	24.620-24.700	190	140
BA1800C	18.000	-0/+0.025	18.620-18.690	290	190	BA2400D	24.000	-0/+0.025	25.000-25.080	240	160
BA2000B	20.000	-0/+0.025	20.490-20.560	220	130	BA2600C	26.000	-0/+0.025	26.620-26.700	170	110
BA2000C	20.000	-0/+0.025	20.620-20.700	260	180	BA2600D	26.000	-0/+0.025	27.000-27.080	230	150
BA2200C	22.000	-0/+0.025	22.620-22.700	200	130	BA2800D	28.000	-0/+0.025	29.000-29.080	210	140
BA2200D	22.000	-0/+0.025	23.000-23.080	250	170	BA3000D	30.000	-0/+0.025	31.000-31.080	270	190

*OPERATING PRESSURES ASSUME A 4:1 SAFETY FACTOR



MATERIAL & CHEMICAL PROPERTIES

OUR ENGINEERING TEAM CAN HELP YOU DESIGN A PRODUCT WITH CUSTOM REQUIREMENTS.

Mechanical Property		Chemical Environment	Inner Surface, (°F)	Outer Surface, (°F)
Longitudinal Flexural Modulus	1,300,000 psi	Ammonium Chloride, 25%	200	150
Longitudinal Tensile Modulus	1,800,000 psi	Beer	90	140
Circumferential Flexural Modulus	3,600,000 psi	Carbon Dioxide, Wet	150	150
Longitudinal Tensile Strength	16,000 psi	Chlorinated Water, 1000 ppm	175	150
Circumferential Tensile Strength	40,000 psi	Diesel Fuel, 100%	170	150
Longitudinal Compressive Strength	27,000 psi	Hydrochloric Acid, 10%	175	125
Circumferential Compressive Strength	37,000 psi	Isopropyl Alcohol, 100%	80	75
Shear Modulus	1,800,000 psi	Jet Fuel, 100%	120	150
Shear Strength	8,000 psi	Kerosene	150	150
Longitudinal CTE	8.8 x 10 ⁻⁶ in/in/°F	Methanol, 10%	140	100
Circumferential CTE	4.6 x 10 ⁻⁶ in/in/°F	Mineral Oil	200	200
Poisson's Ratio, ν_{xy}	0.35	Naphtha, 100%	125	100
Density	0.072 lbs./in ³	Phosphoric Acid, 10%	200	125



MACHINING RECOMMENDATIONS

FROM AS-WOUND CYLINDERS TO GROUND, PAINTED, AND MACHINED SOLUTIONS.

- **As-Wound Solutions**

- For applications that require a smooth ID, but OD surface finish is flexible.

- **Grinding, Milling, and Turning**

- Standard metal working lathes and milling machines
- Carbide or diamond cutting tools (high speed steel for short runs)
- Tight tolerances can be met using grinding techniques (30 to 240 grit)
- Silicone carbide or aluminum oxide grinding wheels recommended

- **Cutting**

- Hand saws, band saws, circular saws
- Carbide or diamond abrasive
 - 36 to 60 grit
 - 8 inch diameter @ 4000 RPM
- Water mist or vacuum to remove chips and keep cutting surfaces cool

- **Chamfering**

- Short production runs can be done with a hand file
- Large runs employ a high-speed air motor
 - 20,000+ RPM
 - Medium flute solid carbide spiral flute burr

- **Drilling**

- Drill point end mills where applicable
- Helical angle bits
 - 10° to 50°
 - Clearance of 9° to 20°
 - Point angle of 60° to 120°
- Carbide and diamond tools will produce smoother holes
- Vary speed with hole diameter and depth
- Supporting back of laminate will prevent chip-out

ADDITIONAL CAPABILITIES

MANUFACTURING, INSPECTION,
AND CLOSE TOLERANCE CAPABILITIES.



ADDITIONAL CAPABILITIES

COMPLETE MANUFACTURING CAPABILITIES, FROM WINDING TO COMPLETE FINISHING OPERATIONS.

Manufacturing

- Winding Capability from ½ to 44-inch diameters and lengths to 30 feet
- Gel Coating
- 13 Winders
- 2 Compression Molding Presses
- 10 Curing Ovens
- +60 Machines for Finishing Operations

Testing

- 11 testing tools
- Handling Equipment
- 5 overhead cranes

Inspection

- In-process and Final inspections

Tolerances

Inside Diameter Size Range (inches)	Tolerance
Greater than 1.00" to 3.25"	Plus 0.005" minus 0.000"
Greater than 3.25" to 6.00"	Plus 0.006" minus 0.000"
Greater than 6.00" to 8.00"	Plus 0.008" minus 0.000"
Greater than 8.00" to 10.00"	Plus 0.010" minus 0.000"
Greater than 10.00" to 14.00"	Plus 0.015" minus 0.000"
Greater than 14.00" to 20.00"	Plus 0.020" minus 0.000"
Greater than 20.00" to 30.00"	Plus 0.025" minus 0.000"

Microinch bore finish: 4 - 15Ra	Circularity: 0.002 inches
Straightness: 0.001 per foot	Cylindricity: 0.002 inches

Outside Diameter Size Range (inches)	Tolerance
Greater than 1.00" to 2.50"	Plus 0.006" minus 0.000"
Greater than 2.50" to 5.25"	Plus 0.010" minus 0.000"
Greater than 5.25" to 8.25"	Plus 0.012" minus 0.000"
Greater than 8.25" to 14.50"	Plus 0.025" minus 0.005"
Greater than 14.50" to 20.50"	Plus 0.030" minus 0.010"
Greater than 20.50" to 32.00"	Plus 0.040" minus 0.010"

Surface finish: 125Ra	Circularity: 0.010 inches
	Cylindricity: 0.010 inches



ADDITIONAL CAPABILITIES

ACCESS OUR SITE FOR COMPLETE INFORMATION
ON OUR CAPABILITIES.

Overview

- [Complete Technical Information](#)
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- [ISO 9001:2015](#)

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CREDENTIALS

SOME OF OUR CUSTOMERS AND WAYS IN
WHICH WE HAVE HELPED THEM.



TESTIMONIALS

WE WORK HARD EVERY DAY TO EARN
AND KEEP THE RESPECT OF OUR CUSTOMERS

““ The Black Amalgon composite barrels manufactured by Amalga have been an integral component of our pneumatic actuators for the past 25 years with proven performance in industry. ””

David Garcia

““ Amalga Composites has been a long-term trusted vendor for Permay. The business has increased and allowed growth for both companies. Amalga has implemented strategies to keep quality while increasing quantity and meeting ever changing material requirements. ””

Mike Johnson

““ The Amalga Composites carbon fiber tubing is the highest quality in strength, durability, engineering and chemical makeup. The engineering and tech support is unmatched in the industry.

Hands down. ””
Kerry Poulos

““ The performance and weight savings of the Amalgon cylinder has become an integral part of our business. When compared with stainless or carbon steel the Amalgon cylinder is approximately ¼ of the weight and covers the majority of the operating temperatures for our products. It is also much easier to handle than traditional materials which reduces maintenance times and stress loads on connected parts. The Black Amalgon manufacturing process ensures a smooth self-lubricating inside surface that prevents pistons from sticking, even after they have remained idle for months, an ongoing tests conducted on non-lubricated cylinders resulted in cycles of greater than a million strokes without requiring seal replacement. ””

Ross Evans



OUR PARTNERS

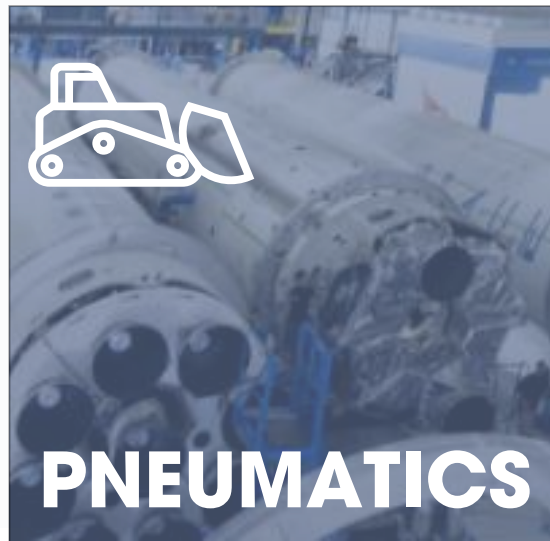
WORKING HAND IN HAND WITH GLOBAL PARTNERS THROUGH THE YEARS.





CASE STUDIES

WE HAVE HELPED CUSTOMERS ACROSS
MULTIPLE INDUSTRIES





“FILAMENT WINDING EXPERTS”

FOR ANY QUESTIONS:

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