

# GMT Carbonics 30

GMT Composites

Advanced composite engineering and manufacturing  
for marine and industrial applications

Product Bulletin #30

## Carbon fiber hardtops are safer, better

The traditional cockpit cover is made of fabric stretched on stainless or aluminum tubes. It often gives way in storms, needs replacement every 2-3 years, and leaks at vents and sail-sights. So a new product developed with Miles Poor of MRP Refits in Annapolis and the BVI is exciting.

GMT hardtops withstand 70-knot winds and can be custom-fitted for any sail or power boat. Carbon allows 2" stainless corner supports instead of a cage of tubing. The Microlon front panel is UV-stable, scratch-resistant, and won't cloud up. Front and side panel tracks are recessed in grooves, protecting and reinforcing the joint.

Tops can include sail-sighting and ventilation hatches, internal wiring for LEDs, nav gear and entertainment systems, and top-mounted solar panels. For more info, see [www.mrprefits.com](http://www.mrprefits.com).

Miles says, "We came to GMT because they meet client specs, build well and deliver on time."



*This graceful coastal cruiser/racer will be launched in June. More information on the design is at [www.swyachtdesign.com](http://www.swyachtdesign.com).*

## Spirit of Tradition racing yacht gets GMT sprit of distinction

An exciting new 68-footer from Stephens Waring Yacht Design is nearing completion at Brooklin Boat Yard (ME). The owner's brief called for a graceful coastal cruising yacht capable of going offshore – a boat that could compete and finish first in Spirit of Tradition racing.

Bob Stephens says, "This was one of our most interesting com-

missions. It distills the essence of tradition. The client was very generous in urging us to bring some of our more edgy concepts to life."

The 68's profile has a plumb stem with GMT bowsprit. Traditional yachts used their bowsprits for one or more staysails, but this fast cruiser will deploy an asymmetric spinnaker, Code Zero, and

a big light drifter, generating large vertical and horizontal loads requiring a bobstay and whisker stays if traditional construction was used. GMT designed a carbon fiber solution needing no stays and accommodating the anchor and its launching system. GMT's sprit is extremely lightweight, adhering to the designer's and builder's rigorous weight specs.



*Moody 54 with 10x10 hatches.*



*Vagabundo sails forth with GMT masts.*

## Happy customers tell their tale

Richard Kipp sent us the following story: "After a complete refitting of our yacht *Vagabundo* in 2009, my wife Amber and I sailed her to San Diego in six days, and a month later we sailed her to Mexico.

"In San Diego we were inundated with sailors and owners admiring GMT's beautiful masts and fabulous faux bois paint job! Observers argued the masts couldn't be carbon fiber until I pointed out the internal halyards.

"In addition, performance is greatly improved on all points of sail. Amber and I are so pleased with the boat that we entered our first race here at Puerto Vallarta.

"Of all the work done on *Vagabundo*, the masts made the most dramatic change in performance. We plan to enter six more races over the next three months and expect to win them all. Outstanding work! Sincere thanks and appreciation."

## Top magazines pick best boats

Sail Magazine and Cruising World review new designs each year and select the boats they feel are best in the market.

In 'Best Boats 2011' Sail picked the Southerly 57RS as the best 'Flagship' monohull. The boat judges reviewed had a GMT carbon mast and PowerFurl boom.

Cruising World chose the Hylas 56 (see page 3) as Best Premium Cruiser Over 55' in their 2011 'Boat of the Year' competition.



*Southerly 57RS: Best Flagship Yacht, 2011.*



*130 feet of semi-custom excellence, topped off by GMT. For more info, visit [www.westportyachts.com](http://www.westportyachts.com).*

## Carbon pole tops Westport 130

Westport Yachts, one of North America's most successful yacht builders, has placed its first order at GMT: the Westport 40m Luxury Motoryacht Series will be topped off by our carbon fiber lighting and antenna pole. The Westport 40m is a 130' tri-deck,

5-stateroom luxury yacht, series-built for cost-effectiveness yet customizable for each buyer.

Westport uses composites because they result in: 1. lighter vessel weight and faster, more efficient performance; 2. superior strength and impact resist-

ance; 3. better sound and vibration attenuation; 4. better thermal insulation, which reduces air conditioning demands; 5. no rust and corrosion, lowering maintenance time and cost; and finally, 6. greater longevity and resale value.

## GMT busy with high tech projects off the water

Non-marine segments of GMT's business are busy with multiple orders for our wafer pallets (we are one of the very few builders in this exacting field) and for effector arms used in precision robotic manufacturing.

Northrop Grumman ordered additional 'camera tubes' for military deployment. Thanks to some smart GMT design work, we also found ways to save tax money – recycling components instead of buying full systems.

GMT was also asked to rush an order for an improved camera tube. Normal lead time is 12-14 weeks, but we were able to drop that to six weeks so that a dozen new prototypes could be field tested more quickly.



## Harvard has eyes on the sky

The Harvard Smithsonian Center for Astrophysics requested carbon fiber telescope tubes with a tolerance of 0.005". Accurate observation requires telescope stability under wide variations in temperature and humidity. GMT and car-

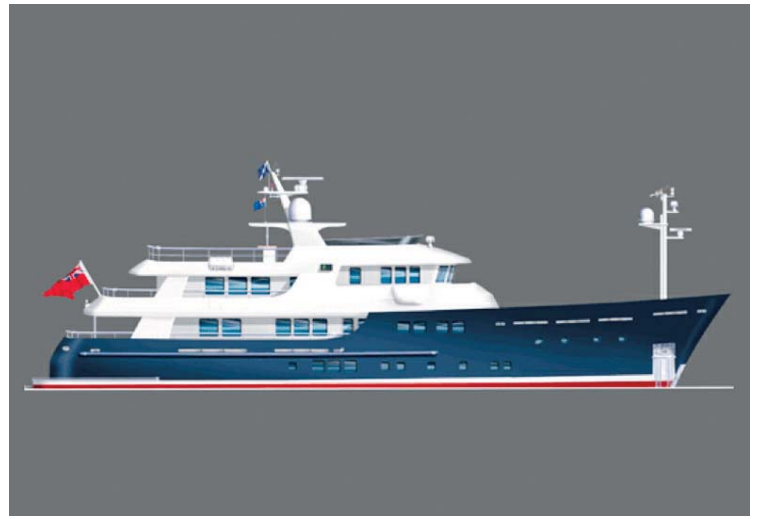
bon fiber can meet this challenge. GMT previously built frames for the Smithsonian Astrophysical Observatory's mountaintop telescopes in Hawaii, and the success of those units helped us secure this latest order.



## Hylas 70 gets GMT furling mast

The newest Hylas 70, *Archangel*, has a GMT 95' carbon fiber mast with an innovative in-mast furling system, saving almost 700 lbs compared to aluminum. Proud owner Fran Schwenk says it may herald more GMT furling masts because,

"There's less sail to roll up in the mast than into a boom, so it's easier to operate. And hydraulic is so much better than electric. There's no comparison for reliability and simplicity; it has my 100% endorsement and it's definitely worth it!"



**Left:** Leverage before dismasting in 2010 Stamford-Vineyard Race. **Right:** Spars in the shop.

Sparkman and Stephens 40-Meter ice-classed expedition yacht, topped off by GMT.

## Spars in our shop

GMT's current work includes spars for a grand prix flyer, an unlimited ocean racer, a Tartan 34 whose mast was damaged in a boatyard accident, and a cruiser in refit.

The grand prix mast goes to *Leverage*, a Shock 40, replacing a spar which went overboard in last fall's Vineyard Race. Owner Arthur Buhr said, "My boat was doing about 23 knots and I liked our chances for the podium. Took a puff, sped up, maybe hit 26 and lost the stick. I hope conditions next time will be less extreme!"

The unlimited boat is a Pogo 40, the semi-stock answer for Open 40 ocean racing. GMT is upgrading a French carbon spar

to add a cathedral rig for the top panel, so her skipper can set a masthead spinnaker in the upcoming trans-Atlantic race.

The cruiser in refit is a 55'-6" McCurdy & Rhodes aluminum center-cockpit ketch, built by Paul Luke in 1975. The original mizzen and 10-year-old mainmast had badly corroded. Jim Fox of Indalo Rigging (Maine) recommended carbon. The new rig removes over 600 lbs of weight aloft, so *Paquet's* performance has improved tremendously. To narrow the cost gap between new spars and refurbishing, much of the hardware from the old spars is being reused.

## MY gets carbon masts

Newcastle Shipyards of Palm City (FL) has been commissioned to build this Sparkman and Stephens designed 40-Meter (129') ice-classed expedition yacht for a very experienced owner. She is being built as green, efficient and eco-friendly as possible.

To cap off their impressive build, Newcastle has chosen GMT to produce two masts plus a large

ladder required to support and provide access to all of the antennas and receivers which such a wide-ranging vessel requires. Using carbon fiber to keep the weight down high above the waterline also eliminates some of the ballast that is normally required for stability in a yacht of this magnitude, thus improving voyaging efficiency.

*GMT's "mahogany" faux bois pole will be the new 18-foot bowsprit for a 130-foot vessel which is currently undergoing a complete refit into a 1920's style "grand manner" motor yacht. GMT is also building her two masts – one of which will have a two-person elevator crow's nest, also in matching mahogany.*



## GMT rigs 2011 Boat of the Year

Cruising World's 2011 Boat of the Year, the Hylas 56, was introduced at the Annapolis Show to great acclaim. Hylas attracts experienced owners who spend above-average time cruising, and three quickly placed orders. Two chose full GMT PowerFurl systems, able to reef without centering the boom or heading close to the wind. The furling motor is inside the mandrel to avoid holes in the mast and the unsightly exposed drum found in other boom furlers. The third preferred the familiarity of in-mast reefing/furling and chose a GMT carbon furling mast.



## Tartan owner sends plaudits

David Bohl, whose classic Tartan 34 was supercharged with a GMT rig, sent us these kind words:

"If I haven't said it already, you are just fabulous to work with. I doubt you ever need a reference, particularly from a guy trying to make a silk purse out of a sow's ear, but your service and responsiveness have been nothing short of fabulous."

David's spars were finished in a polyurethane that perfectly matches aluminum in order to maintain the original-build look. He describes the finished result as "a work of art"!



Murmur, a Buzzards Bay 15, by Artisan Boatworks. See [www.ArtisanBoatworks.com](http://www.ArtisanBoatworks.com).



Whisper under construction.



A work of art, ready for the sea.

## Classic mast: Heart of carbon

Artisan Boatworks (Rockport, ME) builds, restores and maintains wooden boats, especially those designed by the “Wizard of Bristol,” Nathaniel G. Herreshoff.

A customer from Newport, RI, commissioned Artisan to build *Murmur* (shown sailing above), a

Buzzards Bay 15. While this gem was in winter storage at Artisan, she was seen by a visitor who liked her so much he decided to order a sistership: *Whisper*.

*Whisper's* owner was determined to preserve the classic appearance, diameter and taper of the original mast, but wanted to eliminate running backstays. Because he sails aggressively, he required a stronger solution. A carbon mast would have been the obvious answer, except that he wanted to avoid a painted finish.

So Artisan will wrap a tapered GMT carbon tube with eight staves of 1/4-inch sitka spruce, bonded with epoxy and given 10-12 coats of varnish. This spar has twice the strength and stiffness of a traditional wood spar yet all the aesthetic pleasure of wood.

Artisan's President, Alec Brainerd, says, “This mast will age and look entirely appropriate and authentic during *Whisper's* long sailing life.”



Lightweight high-strength masts, booms, poles, struts, and composite structures for marine and industrial applications.

### GMT Composites

48 Ballou Boulevard  
Bristol, RI 02809 USA  
telephone: 401 253.8802  
fax: 401 253.9395

info@gmtcomposites.com  
www.gmtcomposites.com

## GMT spinnaker poles are done just right

When foredeck crews handle one of GMT's spinnaker poles, they never want to handle poles built any other way. It's not just that they are lighter, although carbon fiber poles are the lightest in the fleet; our tube for a J/44 pole, for example, weighs only 13 lbs!

GMT's customers spec their poles their way. We deal with all of the major fitting suppliers, so getting the right hardware is easy. And we can save money by moving fittings from your existing pole to a new GMT carbon pole.

GMT makes poles in raw carbon for ultimate weight reduction, or fully faired and painted to match your boat, or in clear-coat to show you've got carbon, or faux bois to look like wood.

For larger yachts we offer on-mast storage: using a long track on the front of the mast, the pole's inboard end can be raised



until the outer end clips to the mast near deck level, keeping the pole from cluttering your deck when not in use. The simplicity of this system allows one person to set the pole even on a very large yacht.

GMT poles in-build are headed to Spain, Florida, California and the Caribbean for boats from 30' to 70', and we're about to build one for a 98-footer!

## Never a bum steer with GMT

Over the last couple of months a rush of orders poured in to GMT for rudders – new, replacement, and repairs – in a wide range of sizes, shapes and types, some racing, some cruising.

Repair and replacement examples range from one rudder that suffered in a confrontation with some beautiful Maine granite to an old foam-filled, waterlogged fiberglass rudder.

GMT has been building carbon fiber rudders for over 25

years to fit boats as tiny as 6.5M (22 feet) or as large as 45M (149 feet), for everyday cruisers to winners of the Americas Cup and Round-the-World races.

We build rudders where both the blade and stock are carbon for weight savings of up to 80% – hundreds of pounds lighter. We can also put a new carbon blade on your existing post to provide a simpler and less costly upgrade. Remember, lighter equals faster and more fun.



Worn out – time for replacement!



New carbon rudder assembly.