

MARINE

FABRICATOR

JAN/FEB 2010

Time Standards Manual 2010

The cutting edge
Techniques for crafting
polycarbonate enclosures

Quality estimating
Improve your bottom line

31 new products



IFAI publication

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ON DECK

Change makes sense

The beginning of a new year is a time to make changes—usually improvements—from the previous year. If you're a regular reader of *Marine Fabricator*, you probably noticed some changes to this issue—an obvious change on the cover, and subtle changes on the inside to improve the magazine's appearance, navigation and organization.

Just as marine fabrication technology changes to keep up with trends, designs and the needs of customers, so do magazine designs, although less frequently and with much less fanfare.

A trade magazine should provide readers with relevant and useful information they can use to run and improve their businesses. So, while the look of *Marine Fabricator* has changed, the information it provides has not, although we did add a new section to help you in the shop.

We have even created a new and improved *Marine Fabricator* website (www.marinefabricatormag.com) to provide accessible, timely and accurate information about marine fabrication news and techniques.

Expanded capabilities allow you to search two years of *Marine Fabricator* magazine to locate the



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articles and information you need, stay informed with up-to-date industry news between issues, read articles not found in the magazine, source products and services for your business, link to advertisers to get what you need when you need it, and be inspired by photos of the latest projects.

Considering the uncertainty of the economy, it is my feeling that trade publications and their websites take on an even more important role as companies like yours work to produce quality products, maintain a customer base and find revenue for lost business.

In order to keep making positive changes, we'd like to hear from you. Tell us what type of stories you'd like to see that would be helpful to your business or that would teach a new technique. Tell us about the hot products you're using in your shop or that your customers are requesting. Let us know how your company is doing.

We're making changes that make sense for the magazine. We're hopeful they help make a lot more than cents for your business.

Chris

ON THE WEB

Your source dedicated to the art of marine craftsmanship is now live online at www.marinefabricatormag.com.



The new website has been updated to provide accessible, timely and accurate information about marine fabrication to fully meet the needs of its readers.

Expanded search capabilities allow you to:

- » Search two years of *Marine Fabricator* magazine to locate the articles and information you need
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- » Read articles not found in the magazine
- » Source products and services for your business
- » Link to advertisers to get what you need right now
- » Be inspired by photos of the latest projects

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marine FABRICATOR

Marine Fabricator educates custom canvas professionals in the art and technique of marine fabric craftsmanship.

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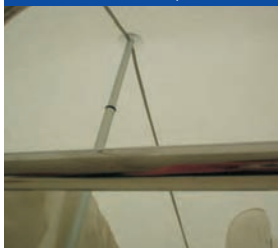
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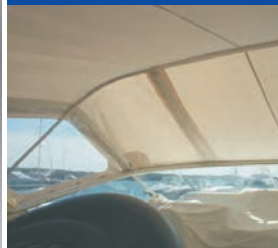
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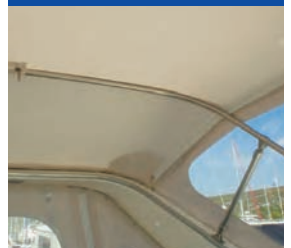
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IN THE NEWS



85 million saltwater fishing trips taken

Saltwater anglers took 85 million fishing trips in 2008, a number that's down from 2007, when 93 million fishing trips were taken. Anglers caught an estimated 464 million fish last year, down from 475 million in 2007. This data was collected by the National Oceanic and Atmospheric Administration.

Boat sales down but up slightly from July

New boat sales were down 36.5 percent and total dealership sales were down 25.5 percent at the end of August 2009. The average dealer reported year-to-date new boat sales of \$2,732,903 and average total dealership sales of \$5,704,576 for the first eight months of 2009. Those numbers are compared to \$4,304,229 and \$7,656,982, respectively. Spending for North American boat dealers is down about 19 percent from 2008.

However, a positive sales trend was seen from July to August, in spite of sales being down in comparison to last year. All segments were either slightly up or flat, except for personal watercraft sales, from July.

Boat registration down

Recreational boat registration is down 1.4 percent. In 2007, 13 million boats were registered by the United States Coast Guard, but in 2008, that number decreased to 12.8 million boats. It was also estimated that there were 270,000 model year 2008 registered powerboats last year, and 400,000 other powerboats were retired from the recreational boating numbers.

Marine distributors predict sales optimism

Marine distributors predict their sales to be up in 2010, according to a survey by the National Marine Distributors Association. Sales volumes of marine accessories were reported down by 76 percent of the respondents in 2009, while 14 percent said sales were up and 10 percent said sales stayed the same. When asked to predict sales

expectations for 2010, 52 percent said they expected their numbers to be up, five percent thought they would be down, and 43 percent predicted their sales would be the same. Regarding inventory, 24 percent thought they would increase their inventory, 24 percent predicted a smaller inventory and 52 percent thought their inventory would remain the same.

New fuel legislation

A new legislation called the "Mid-Level Ethanol Blends Act of 2009" makes sure that new fuels introduced into the marketplace are compatible with boat engines. Because the Clean Air Act prohibits mid-level ethanol blends, the ethanol industry is seeking a waiver to sell E15 as a general purpose fuel. The bill requires an advisory board to study the compatibility of fuels with certain engines before a waiver can be granted.

MAATS and IBEX combine forces

The Marine Aftermarket Accessories Trade Show (MAATS) will combine with the International Boatbuilders' Exhibition and Conference (IBEX) in fall 2010, to make the industry's largest trade event. This new collaboration will increase efficiency for exhibitors and attendees, and the fall timeline makes it better for introducing new products to dealers. The 2010 combined MAATS and IBEX show will include its Dealer Development Days, a stimulus program that allows new boat models to premier.

Use cell phones on the ocean

KVH Industries and On-Waves have installed seven secure "earth stations" around the globe to bring cell phone service to those at sea.



In the past, cell phones typically have lost reception 15 miles offshore because of land-based cell tower ranges. A person can now purchase a dedicated SIM card and use

their own cell phone to make and receive phone calls worldwide.

KVH's broadband network and satellite communications system are combined with ON-Waves' maritime cell phone service to make this technology available to anyone on the ocean.

DIY memory foam kits from Keller Marine

Memory foam topper kits are now available to dealers from marine distributor Keller Marine & RV. The conversion kits, which include mildew-resistant memory foam, template paper and cutting tools, can be added to existing boat mattresses. The memory foam topper kits are manufactured by Hickory Springs Manufacturing Company.



New Orleans Boat Show postponed until 2011

Due to lack of attendance, the New Orleans Boat and Sportshow has been postponed until next year. The National Marine Manufacturers Association said that the postponement will allow time to address dealer demands as the boating industry pulls out of the recession.

The New Orleans Boat and Sportshow will take place Jan. 5-9, 2011, at the Ernest N. Morial Convention Center.

Ameritex faces foreclosure

Marine supplier Ameritex, which recently went bankrupt and was sold to Taylor Made Group, is now facing foreclosure on its manufacturing facility. The Missouri-based First

Bank is suing Ameritex because it defaulted on \$6.8 million in mortgages. First Bank filed the suit only a week after Taylor Made Group bought Ameritex; Taylor Made is being named a defendant.

Marina regulation targets metals in water

A proposed coastal marina permit regulation being developed by the State Water Resources Control Board mandates periodic analysis of water and bottom sediment for coastal marinas with more than 10 slips. The permit regulation is primarily designed to target copper in marine sediment.

Under the proposed regulation, all unidentified objects that float into a marina must be reported and tested at the cost of marina operators and owners.



IAA announces 2009 IAA winners

The Industrial Fabrics Association International announced winners of its 2009 International Achievement Awards. In the Marine category:

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Canvas Experts Inc.
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OUTSTANDING ACHIEVEMENT AWARD
Custom Covers LLC
Salt Lake City, Utah

OUTSTANDING ACHIEVEMENT AWARD
Peter M. May Ltd.
Ashburton, New Zealand

MARINE POWERBOAT TOPS

AWARD OF EXCELLENCE
Bennett Custom Canvas Inc.
Etobicoke, Ontario, Canada

OUTSTANDING ACHIEVEMENT AWARD
Mikes Marine Custom Canvas
Virginia Beach, Va.

OUTSTANDING ACHIEVEMENT AWARD
JSI
St. Petersburg, Fla.

MARINE UPHOLSTERY

AWARD OF EXCELLENCE
Cape Canvas & Rigging
West Yarmouth, Mass.

AWARD OF EXCELLENCE
JSI
St. Petersburg, Fla.

OUTSTANDING ACHIEVEMENT AWARD
Enewhere Custom Canvas
Brooklyn, N.Y.

OUTSTANDING ACHIEVEMENT AWARD
Lake Gaston Awning
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MARINE SAILBOATS

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Red Bank, N.J.

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Custom Canvas of Charleston
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IN THE NEWS

Irwin Jacobs resigns role at Genmar

Irwin Jacobs has resigned his role as CEO of Genmar Holdings Inc., which will allow him to bid on its assets without conflict of interest. Jacobs expects to be the high bidder on Genmar, which is now up for sale. He began acquiring the boat businesses that led to the formation of Genmar 30 years ago.

First marine floor plan loan issued

The Small Business Association (SBA) has issued the first marine loan under its Dealer Floor Plan pilot program. Tennessee-based Cleveland Boat Center finalized its loan with SBA lender Citizens National Bank of Athens, Tenn.

More than 20 businesses have been approved for SBA Dealer Floor Plan loans. Marine businesses in Michigan and New Jersey have loans that are pending. The program offers government guaranteed loans to finance investors for eligible boat, auto and RV dealerships. The program ends on Sept. 30, with the possibility of the program being extended.

Garmin revenue increases in marine

Even though navigation device maker Garmin's overall revenue was down in the third quarter, its marine segment posted revenue growth of three percent. Its outdoor and fitness segment also increased, while its auto and aviation segments decreased.

Garmin also recently formed a new OEM relationship with Regal Boats, which will place Garmin electronics as standard features in more than two dozen 2010 Regal models.

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Boat Trader iPhone app

Classified marine marketplace Boat Trader launched an iPhone app that allows users to browse through more than 100,000 new and used boats, yachts, sailboats and personal watercraft. Users can search boats according to type, condition, price range and model year in a specific zip code or location. Users can also save searches and favorite vehicles viewed. Multiple boat and dealer locations can be viewed with the app, and users can get driving directions. Each listing includes a description that includes boat length, engine hours and multiple photos. Listings can be saved or sent to a friend.

The Boat Trader app can be downloaded by searching "Boat Trader."

Brunswick and Furrion offer power products

Marine distributor Brunswick marine Parts & Accessories has teamed up with Furrion LLC to present a new line of shore power products. Products include cordsets, cables, adapters, plugs and inlets, all of which feature power consumer technology, voltage indicators and anti-interference filters. Products are backed by a five-year warranty.



Indirect lending good news for boat dealers


According to a survey by Wolters Kluwer Financial Services, indirect lending will play a big role in overall growth of U.S. banks and credit unions. More than half of the compliance officers and consumer lending officers who responded to the survey felt that indirect lending will be critical to the overall growth of their organization during the next two years. Credit unions were more likely to express that attitude than banks.

As lenders look to do more business in the indirect lending space, they identify risks associated with doing business with third parties, like marine, auto and RV dealers, to avoid vehicle loans that would hurt a lender in the future. Lenders' top concerns when working with dealerships include incomplete loan documentation, lower quality applicants and dealers' compliance knowledge.

Jet Dock injunction against Versa Dock

Jet Dock Systems Inc., which produces drive-on docking systems for boats and personal watercraft, has been awarded summary judgment and an injunction against Versa Dock in a patent infringement case.

In 2003, Versa Dock began the manufacture and sale of a drive-on docking system, and Jet Dock brought suit for damages and injunction. Jet Dock received a patent for its product in 1996. Individual float units and flexible connections allow boats to drive up onto the docking area.

Damages will be determined for this case after June 2010. 

INDUSTRY EVENTS

JAN. 10-12

MFA National Convention

Orlando, Fla.
www.marinecanvas.com

JAN. 20-24

New York Boat Show

New York, N.Y.
www.nyboatshow.com

JAN. 20-24

Minneapolis Boat Show

Minneapolis, Minn.
www.minneapolisboatshow.com

JAN. 21-24

Baltimore Boat Show

Baltimore, Md.
www.baltimoreboatshow.com

JAN. 28-31

Strictly Sail Chicago

Chicago, Ill.
www.strictlysailchicago.com

FEB. 3-7

Atlantic City Boat Show

Atlantic City, N.J.
www.acboatshow.com

FEB. 10-14

St. Louis Boat & Sportshow

St. Louis, Mo.
www.stlouisboatshow.com

FEB. 11-15

Miami Intl. Boat Show

Miami, Fla.
www.miamiboatshow.com

FEB. 11-15

Strictly Sail Miami

Miami, Fla.
www.strictlysailmiami.com

MARCH 24-28

Northwest Sportshow

Minneapolis, Minn.
www.northwestsportshow.com



The Cutting Edge

**Tools and
techniques for
cutting and sewing
polycarbonate
for semi-rigid
enclosures.**

by Chris Sharp, MFC



Semi-rigid enclosures have become a growing market over the past 10 years.

The majority of these enclosures are bonded panels that are fabricated by EZ2CY and Rainier Industries. These enclosures are usually sold to the upper tier of boat owners and are generally out of reach, price wise, for the average customer.

In recent years, a sewable version of polycarbonate glass has grown in popularity and made it possible to offer semi-rigid enclosures to a larger segment of boat owners. Polycarbonate glass is in use everywhere. Eyewear, aircraft windows and bank teller windows are examples. Early versions, made in the early 1990s, were too thin and lacking in UV and abrasion resistance.

In 2005, I was introduced to the second generation of polycarbonate. It is 60 mil thick and has an abrasion-resistant coating on both sides. While 80 mil is too thick to sew, 60 mil can be sewn on your average canvas shop machine.

We use Makrolon AR made by Sheffield Plastics (www.sheffieldplastics.com). Makrolon shares the same clarity as acrylic glass but has 30 times the impact strength and is shatter proof. The AR coating gives the polycarbonate

excellent UV resistance (98-percent blockage) and is resistant to yellowing. Tight radius corners are possible without distortion.

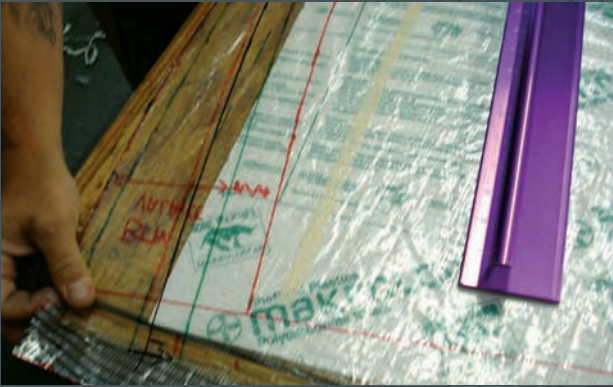
There are a variety of ways to cut this glass. Sheet metal shears, jig saws and razor blades are common cutting tools. After a lot of trial and error, we have perfected our fabrication technique. We found that notching and “breaking” the cut line is the most accurate way to get a straight, smooth line. The tools we use are: OLFA glass notching tool, OLFA razor knife, Fiskar rotary razor knife, heavy-duty shears, cutting guide with non-skid bottom and safety gloves.

Once you learn these techniques, you will be able to increase your profits and your status as a shop on the cutting edge.



Fabricated by Sharp's Custom Canvas Inc., Georgetown, S.C., this enclosure features polycarbonate front windows with Strataglass side panels. The project placed first in the 2007 VACPA photo contest.

LAYOUT



We use Canvex pattern paper for templates. After making a template, lay it down on top of the polycarbonate sheet and transfer the marks. Allow 3/4-inch sewing salvage.

CUTTING



Using the notching tool and guide, lightly etch the cut line. Go back over the line several times, increasing pressure with each pass, until you are halfway through the glass. Line up the cut line with the edge of the table and bend panel down until it snaps. Turn the panel over and, using the razor knife, cut through the paper liner.

TRANSFERRING MARKS



Crease back the paper liner and transfer marks using a china maker. This is your fabric border edge. Use the razor knife to cut back the paper 1/4-inch past the fabric border. Flip the panel over and remove the same amount of paper from the edge. Run the razor at a 45-degree angle along the cut edge to smooth out. Round the corners with shears. This will eliminate sharp edges that could eventually wear through border fabric. Fabricate your panel using seam tape to hold the border in place while sewing. Staples will not work.

✂ SEWING



Normal sewing needles will cause cracks around the hole, which will eventually lead to failure. Diamond point needles allow the needle to puncture the glass without damage. Most sewing supply companies carry these needles. V-92 and V-138 Synthetic thread is preferred because of the long service life of these panels.

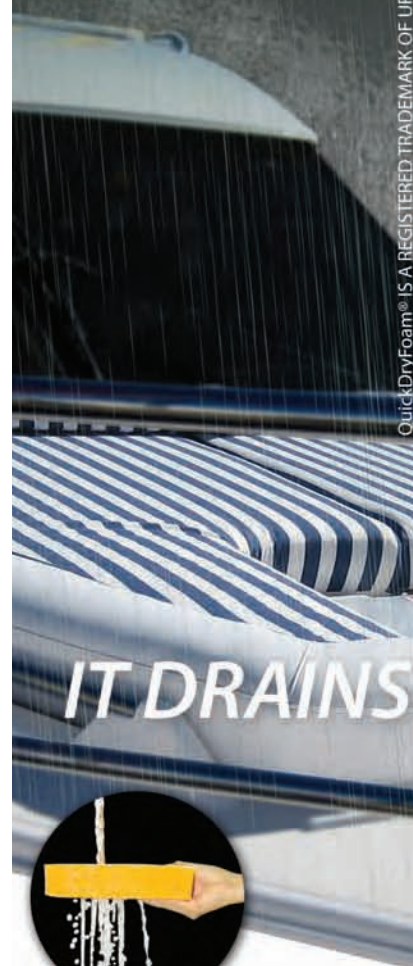
✂ CLEARANCE



When you lay out the panels, be aware of the distance from the needle to the base of the sewing machine. Most shop machines have a 10-inch clearance. A long arm machine is recommended, as they have a 30-inch clearance. For example, if your zipout is too far in, splice pieces using fabric strips and hinge.

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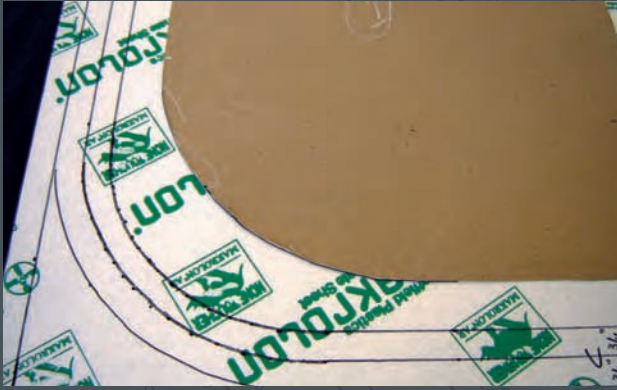


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ZIPOUTS





Using a corner pattern, mark the outside edge of the zipper. Mark center line 3/4-inch in and repeat for inside edge. Using the rotary cutter, etch your entire line on the first pass. Complete the cut using the notching tool—slow and easy. Fold back paper and cut away with razor knife. Tape down 3/4-inch bias binding and sew down either side of center line. Turn panel over and, using 1/4-inch seam tape, tape down and sew outside edge of zipper. Repeat for inside edge. Separate zipper and glass and bind inside edge of zipout.

Use 600-grit sandpaper and gently sand outside edge, as this can't be bound.

Sew in tabs for fasteners that will allow zipout to hinge up.



✂ TROUBLESHOOTING

| GLASS CUTTING Cracks in the glass are caused by: | SEWING |
|---|--|
| Not cutting deep enough before bending | Before sewing the first panel, make up a mock panel using the same materials. As you sew this piece, adjust the tension of the thread to get thread "knot" in center of the glass. If the tension is too tight, the thread will constantly break and the stitching will skip. |
| Sewing through a scratch made by the razor blade; never cut paper away while still on the glass; always fold paper to cut away | Another cause of skipped stitches is a buildup of adhesive and the AR coating. Clean the needle and shuttle hook when changing the bobbin. If using metal bobbins, put a drop of oil under the bobbin. Spray some silicone on top of the bobbin case. This will help reduce friction and skipped stitches. |
| Excessive back tacking | Stitching at full speed will cause too much friction and lead to thread failure. Half machine speed works the best.  |
| Allowing too much motion on high stress points  | |

Chris Sharp, MFC, is owner of Sharp's Custom Canvas Inc. in Georgetown, S.C., and a member of the Marine Fabricators Association.

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SEE US AT THE MARINE FABRICATOR SHOW

The **POWER** of the Estimate



**The quality of your
estimates has an impact
on your bottom line.**

by Shelby Gonzalez

Estimating job costs is one of the cornerstone skills of running a successful marine fabrication business. The more accurately you can estimate the amount of labor and materials a given job will require, the better the job will go, and the more satisfied the customer will be. And satisfied customers lead to repeat business and great word-of-mouth advertising.

What are the basic steps in making an estimate? What tools and changes can improve your estimating procedure, making your business more efficient and profitable? What are the most common problems and mistakes marine fabricators make when estimating the cost of a project, and how can you avoid or fix them?

Experienced marine fabricators from across the country answer these questions and share their expertise, insights and tips for estimates that lead to profitable jobs and satisfied customers.

Phone estimates

Often, initial contact with a customer happens over the phone. When a potential customer calls you, first ask what they are looking for or what problem they want fixed. Get as many details about the project as you can.

"We identify whether they're looking for a cover or an enclosure," says Chris Ritsema, co-owner of The Nautical Needle in Holland, Mich. "If it's an enclosure, we ask how many panels it has. Basically, we're just getting a good description. Then I give an estimate."

About 30-percent of the estimates Ritsema gives are over the phone. "I'm very clear that it's an estimate only, and I can't commit to it unless I can see the boat."

Of course, over the phone is not the best way to come up with a cost estimate. Ideally, once you've had phone contact with a potential



customer and given a rough estimate, he or she will agree to set up a meeting so you can visit the job site and discuss the job in more detail.

At the job site

At the job site, you can take measurements, upsell products and services, answer questions and gather information that will help you come up with an accurate estimate. Take lots of notes.

"I come to the boat with samples and products, like the type of thread we use," Ritsema says. "The first thing I'm going to explain is the materials. It's important that the customer understands that there are different gauges of eisenglass, for example. I like to go into detail, explain how we fabricate a curtain compared to the competition. I try to upsell our products and give options."

When Justin Jones, owner of Custom Covers in Salt Lake City, Utah, visits potential job sites, he snaps photos of problem areas, which he later includes with his estimate.

Parts for this Corvette-styled dashboard were brought to VIP Upholstery & Interior Design in a box. Sometimes when estimating the cost of a complete refit or custom job, Chris Ritsema of The Nautical Needle says, "All you can do is give people a stab in the dark." Photo: VIP Upholstery & Interior Design LLC, St. Peters, Mo.



The estimate itself

“It’s important to come up with a good, honest, fair price,” Jones advises. “You want to make sure you’re charging a fair market rate for your time and materials, and that you’re not leaving money on the table or shorting yourself.”

How do you come up with a good, honest, fair price? When Ritsema gets back to the office after visiting a job site, he sits down and estimates the materials the job will require. “From that point, we go ahead and estimate labor, sewing and fabrication,” he says. “Instead of just bulking it all in with a price at the bottom, we do itemized quotes so the customer can really see what they’re getting. Sometimes I will give a streamlined quote and then include different options at the bottom.”

Katie Bradford, MFC, of Custom Marine Canvas in Noank, Conn., offers a method that can help experienced fabricators refine their labor estimates.

“For frequently produced items, we add up time and materials for several jobs and divide by a unit of measure to come up with a reasonable estimate,” Bradford says. “For example, we get an average price per linear foot of a sailcover, a square foot of a bimini, an average number of hours

per cushion in an interior, a per-panel price for an enclosure.”

An alternate way to standardize the estimating process comes from Chandler Clark, co-owner of Signature CanvasMakers in Hampton, Va.

“Give yourself a baseline to work from on core products,” he advises, “such as a three-bow bimini (of a limited width) setup with your fabric options, then set pricing for add-ons. This helps to take the guesswork out of estimating, takes less time and ensures that you maintain price integrity and consistency.”

On your itemized estimate, remember to include details about products.

“I think it’s important to give the customer a detailed estimate so he knows what he’s getting,” Ritsema says. “If I’m giving a lifetime warranty on our thread, that should be on the estimate.”

Common mistakes and how to avoid them

The mistake: Too low an estimate. “I think what angers people more than anything is if you give them an estimate and secure the job, and at the end you give them a price that’s \$300 or \$400 higher than you quoted,” Ritsema says.

Tools and resources

Several fabricators recommend the MFA Time Standards Manual as a useful reference point when estimating the time a project will take.

When it comes to software that will help you track jobs and generate professional-looking estimates, work orders and invoices, you have many options, ranging from Quickbooks and other general accounting programs to a specialized program like Mshop Software, which is made for marine repair shops.

Signature CanvasMakers uses Quickbooks. “We added our standardized pricing options into the program so that quoting is as easy as selecting the items to build the estimate,” Chandler Clark says.

The specific program that will be best for your business depends on your specific needs, tech savviness and budget.



In this redone master suite in a 37-foot Sea Ray, high-quality textiles enhance the reupholstered upper and lower valances and new custom comforter, pillows and pillow shams. If a major selling point is the quality of your materials and products, make sure to include details about what makes them exceptional in your itemized estimate. Photo: VIP Upholstery & Interior Design LLC, St. Peters, Mo.

The fix. With a recession still breathing down our collective necks and everyone keeping a wary eye on their wallets, it may be tempting to be optimistic about how long a given project will take. The lower the price, the more attractive for the customer. But underestimating the cost of a project will only hurt you in the long run.

At the end of the project, you'll either have to rush to stay within your estimated time (risking lower-quality results), eat the difference between your estimated and actual labor costs, or charge the customer significantly more than you quoted.

Needless to say, that's not the kind of choice you want to have to make. So resist the urge to low ball your estimates.


The challenge: Upselling. Upselling products and services can significantly increase the value of a project. But it's hard to persuade people to part with more money.

The fix. Identify areas where you can add value and services. Then show the customer why the quality and extra services they will receive are worth the added expense.

"When I get onto a boat, I look at other areas, besides the one the project involves, because we



A high-performance boat was presented to this fabricator as a fiberglass shell with the request to fabricate an interior mimicking a F-440 Ferrari car. When the potential job you're creating an estimate for includes custom elements, remember to factor in design time. Photo: VIP Upholstery & Interior Design LLC, St. Peters, Mo.




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In a time when every penny counts, it's worth your while to review your estimating procedures. The quality of your estimates can have a big impact on your bottom line.

also do upholstery," Ritsema says. "If I notice the upholstery is bad, I can say to the customer, 'We also do upholstery.'"

"If we're dealing with an enclosure, I look at the frame. If the enclosure has a really flimsy frame, I'm going to try to upsell to a better frame."

Upselling doesn't necessarily mean adding to the scope of a project. Quality in craftsmanship or products, like zippers or thread that carry lifetime warranties, can be a big upsell when trying to secure a job or justify a premium price.

"We always sell quality," Jones says. "That's our niche. We're not the cheapest in town, but we can justify the cost because we can show

them physically why we're better or why our products are better and will last longer."

Clark also underscores the importance of added value.

"We've aimed toward the higher-end market with a quality product, a little extra customer service and the addition of added-value that adds little cost in production to us, but provides high 'perceived value' to the customer," he says. "This has served us well in the recent slowdown. We have been able maintain a steady business flow this year without reducing prices, profit margin or quality."

The challenge: Large or new-to-you jobs.

"Since everything we do is custom, the hardest part is determining how long an item will take to build," Bradford says. Other fabricators echo her sentiments.

The fix. "I would say time is the hardest part of estimating, especially if it's something



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you've never done before," Jones says. "Or sometimes you'll get a unique project that's really tough to determine in advance how much time it will take. Our policy with projects like that is to 'underpromise and overdeliver.' I think that goes a long way with finishing the sale and getting the good word of mouth for future customers."

Ritsema finds complete overhauls particularly challenging to estimate. He and several other fabricators recommend the MFA Time Standards Manual as a useful resource.

Refine your estimates, boost your profits

"The economy has affected us greatly," Jones says. "We're doing a lot of different types of estimates, more for repair and replacement of old covers vs. doing a lot of new covers on new boats. The percentage of people who follow through with estimates has also decreased."

In a time when every penny counts, it might be worth your while to review your estimating tools and procedures. The quality of your estimates can have a big impact on your bottom line. 

Shelby Gonzalez is a freelance writer. She welcomes comments and inquiries at shelbygonzalez@gmail.com.





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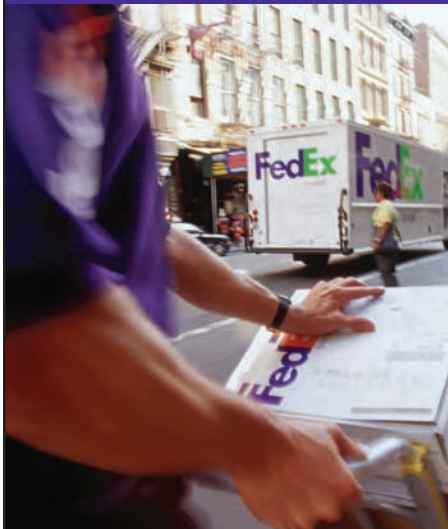
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The 2010 New Product Showcase

Marine Fabricator's compilation of products to help you create profit-producing projects for your customers. Products are organized alphabetically by manufacturer or supplier. Information was submitted by suppliers.

2010 New Product Showcase



1 Bright white, antimicrobial fabric

New Agion fabrics fight odors using silver-based technology, while retaining bright white colors. Previously, white fabrics discolored when treated with antimicrobial silver technologies. The new treatment is applied during the last stage of the finishing process, which prevents discoloration and allows for more efficient processing.

www.agion-tech.com



2 American-made grommets and washers

American-made grommets and washers from DOT Fasteners come in a range of sizes and styles. DOT grommets and washers are manufactured with harsh environments in mind. All grommets and washers fully comply with military specifications and meet requirements for the Berry Amendment.

www.dotfasteners.com

See us at MFA booth 110



3 Side mounts for retrofitting

Split-jaw design of the expanded line of side mounts from Gemini Products results in speedy installations of retrofits. The cast frame fittings offer ample hand room behind grab rail and fabric and are useful in bimini and dodger applications. Each order is shipped with a Phillips head screw and two nylon washers.

www.geminicanvas.com

4 Soft, colorfast vinyl

Riviera Marine Fabric from Herculite provides a soft hand for easy fabrication. The vinyl, made in America, features a topcoat for prolonged fabric life and ease of cleaning. Colorfast, waterproof and mildew-resistant, the fabric is suited for a variety of marine applications and comes with a five-year limited warranty.

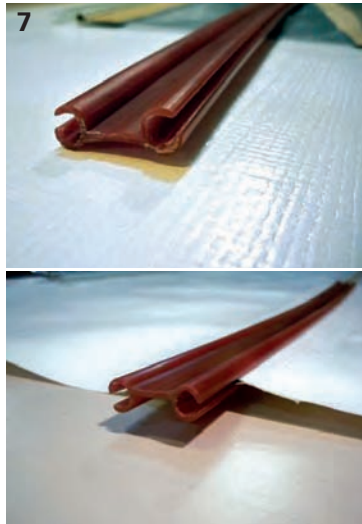
www.herculite.com

See us at MFA booth 107





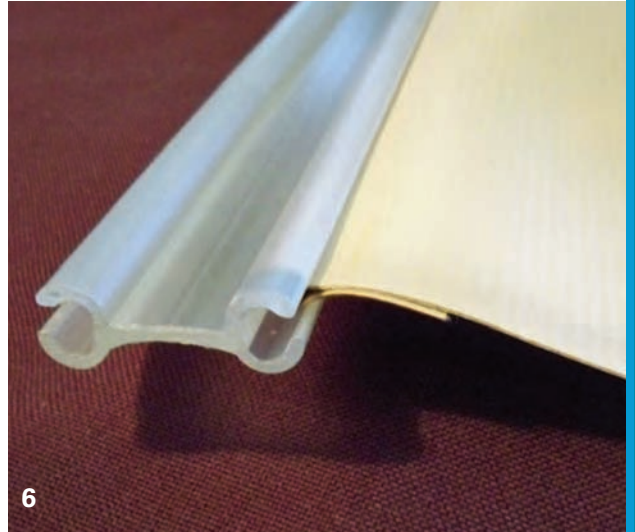
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5 No-crimp tubing connectors

A no-crimp tubing connector from Intermold Corp. eliminates the need to ship long support poles for boat covers. The press-fit connection offered by the connector creates secure, rigid pole extensions. The connector, molded from high-strength nylon, joins sections of 3/4-inch tubing with the use of a hammer.

www.intermoldcorp.com

6 Corrosion-proof keder track

The "C" channel provides a corrosion-proof method of attachment for hemcord and keder-edged fabrics. The PVC plastic track bends within a 15-inch radius and is available in various colors and profiles. Hemcords for panel fabrication are also available.

www.kedercord.com

7 Edged fabric fastener

PVC plastic "C" channel track provides a corrosion-proof method of attachment for hemcord and keder-edged fabrics. The single and double-sided track can be screw-mounted, including on wood and metal. The double-sided track allows two fabric panels to attach to each other. Suitable for interior and exterior light architectural applications, the channel track provides a convenient method of assembling sun and wind shelters, insect screening and signage. The track bends within a 24-inch (61-cm) radius and is available in custom profiles and colors, including clear. Matching hemcord for panel fabrication is available.

www.kedercord.com

8 Fibers with solar protection

Permanent pigment integration in Tencel Sun fiber from Lenzing provides long-term protection from solar radiation. The fiber maintains its effectiveness, which can reach a level of up to 110 SPF, after several washings. The 100-percent biodegradable fiber reduces bacterial growth and controls moisture levels.

www.lenzing.com

9 Water- and stain-repellant protectant

A new water and stain repellent from MarChem CFI utilizes green technology, emitting a five-percent level of VOCs (Volatile Organic Compounds). Aqua-Tite Green contains no petroleum distillates or mineral spirits. The formula protects boat covers, canvas, awnings, tarpaulins and outdoor furnishings.

www.marchemcfi.com

See us at MFA booth 113

2010 New Product Showcase



10



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10 Custom embroidery machines

The Meistergram Embroidery Equipment line from Pantograms Manufacturing Company allows direct embroidery on boat upholstery, custom cabin interiors, marine carpets, marine towels and boating goods. Monogramming and embroidery machines in the line are easy to use and come with a five-year warranty.

www.pantograms.com

11 Right twist UV-resistant thread

Solar Thread PTFE sewing thread brand, distributed by Pennsylvania Thread Co., is expanding. Right twist thread works with double needle machines and new black and white threads meet Berry Amendment standards. The line also includes new pre-wound bobbins. Solar Thread is suitable for marine, upholstery and awning applications.

E-mail pathread@netcarrier.com

See us at MFA booth 103

12 Stylish outdoor fabrics

Designed Fabrics from Phifer Inc. provide a stylish option for outdoor sling furniture. Designed to withstand harsh weather, the woven fabric is easy to clean and resists mildew and fading. The fabric is available in jacquard, dobby, stripe and wicker weave designs in several colors and textures.

www.phifer.com

13 Interior sun control fabric

SheerWeave Style 2000 Series of interior sun control fabrics from Phifer Inc. is now infused with Microban antimicrobial additives that inhibit the growth of stain-causing bacteria, mold and mildew for the life of the shade. SheerWeave Style 2000 Series fabrics are made of vinyl-coated fiberglass yarns, reducing heat and glare while protecting interior furnishings from fading.

www.phifer.com

14 Laser cutting systems

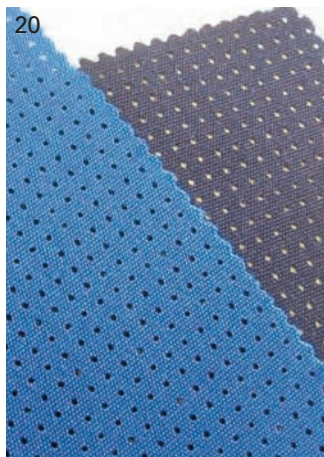
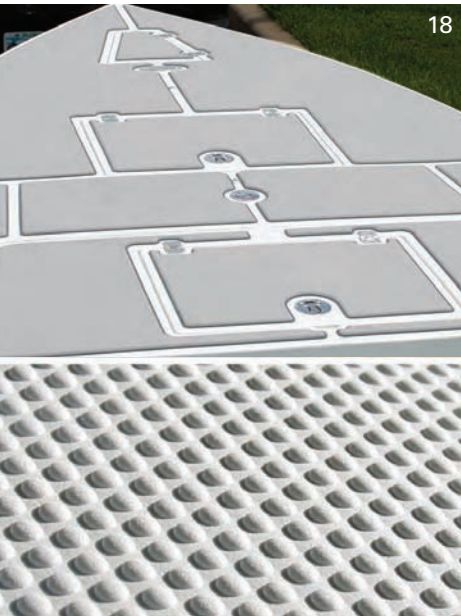
High-speed laser systems from Preco Inc. provide options for cutting and marking products using composites, plastic, wood and industrial fabrics. The Preco Golden Laser Line features the LyraLight and the Inspire. Both machines are designed for a range of applications and can cut materials of varying thicknesses.

www.preco.com

15 Biodegradable packaging material

Biodegradable hybrid cushioning material from Pregis Corp. is composed of several smaller air chambers instead of one large cushion like traditional void-fill pillows. HC Renew, a low-density polyethylene film, is inflatable and requires less storage space than other packing materials. The film is available in various sizes and meets ASTM D5511.

www.pregis.com



16 PTFE thread for outdoor applications

SolarFix PTFE sewing thread, distributed by Quality Thread & Notions Co., is suitable for outdoor applications, including retractable awnings and marine enclosures. Clear thread is available in three sizes; black and white thread is offered in five sizes.

www.qualitythread.com

See us at MFA booth 312

17 Waterproof solution-dyed acrylic

Recwater solution-dyed acrylic from Recasens USA offers the same benefits as Recacril with an added PVC coating. The waterproof material is resistant to shrinking, fading and weather. Available in 13 colors, the fabric comes with a five-year warranty.

www.recasens.com

See us at MFA booth 207

Extra wide, PVC-coated polyester

VIP-FR, a PVC-coated polyester fabric from Sauleda, features a flat finish to prevent pockets and creases from forming. The fabric is waterproof, flame retardant and resistant to mildew and UV rays. The extra-wide material is easy to clean and is available in 26 colors.

www.sauleda.com

18 Non-absorbent closed cell foam

Closed cell EVA foam products from SeaDek provide safety and comfort. The UV-protected non-absorbent foam offers a textured surface and can be installed with an easy peel-and-stick application. SeaDek protects boat surfaces from stains, scratches, chips, and dents, absorbs shock, and maintains traction when wet.

www.seadek.com

19 Transparent plastic eyelets

Transparent plastic eyelets from Sinclair Equipment Company are as strong as metal and provide a clear view of the fabric being used. The eyelets are UV-stabilized, eco-friendly and non-corrosive. Sinclair offers an economical pneumatic setting machine for use on a wheel base or a table mount.

www.sineqco.com

20 Expanded Sunbrella offerings

Glen Raven Custom Fabrics has expanded two of its Sunbrella collections. Sunbrella View, a light-filtering collection suitable for privacy screening and window shades, now features Captain Navy and Pacific Blue colorways. Sunbrella Supreme, a double-sided, waterproof fabric that protects boaters from the elements, is available in Black and Cadet Gray.

www.sunbrella.com

See us at MFA booth 301

Full line of marine and awning materials

SurLast All Weather Fabric from Sun Solutions LLC (formerly SurLast LLC) provides stability while remaining water, shrink and stretch resistant. Sun Solutions offers a full line of marine and awning materials. It stocks a variety of fabrics, hardware and accessories, and supplies custom fabrics and accessories.

www.sunsolutionproducts.com

See us at MFA booth 302

21 Easy mounting systems

Two new mounting systems from Tallon Marine make it easy for boaters to bring accessories on board. The RAM-Mount System utilizes a ball and socket system to mount tables and small electronics, while the Scotty mount is suitable for mounting fishing and boating equipment. Both systems can be fitted onto Tallon Receivers. Tallon has also released a new foldable stainless steel swimming and boarding ladder.

www.tallonsystems.com

2010 New Product Showcase



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22 Sewing machine stand for three-pedal system

A new sewing machine stand from Unicraft Corp. is designed for 25-inch and 30-inch bed walking foot sewing machines. The stand features a mechanism for operating sewing machines that require the use of a three-pedal system. The new design improves efficiency and aesthetics while reducing the overall cost of the stand.

www.unicraftcorp.com

Glass protectant kit

The Venco Clear X Glass Polish and Stain Remover Kit from Venco Marine Inc. creates a protective barrier to reduce dirt from adhering to glass surfaces and removes prior surface damage. The two-step treatment system, formerly sold exclusively to the cruise line industry, lasts for several months and does not contain any acid components.

www.vencomarine.com

23 Lightweight micro ratchet

A newly designed micro ratchet from Vico Plastics Inc. is durable and lightweight, making it ideal for outdoor marine use. The Quick-Tie Micro 1/8-inch Ratchet fits 1/8-inch rope, providing a quick and easy way to tie down boat covers.

www.boatvent.com

24 Adjustable vent for marine use

Adjust-a-Vent from Vico Plastics Inc. provides the same benefits as the Boat Vent II with the added ability to raise and lower a boat cover to adjust tension from outside the boat. With hardware made of stainless steel components, the vent is easy to install and works on all types of boat covers.

www.boatvent.com

25 Tropical color scheme

Design-driven color combinations comprise Victor Group's Terrazzo brand fabrics, which are manufactured with solution-dyed fiber technology. Inspired by tropical environments, the collection is suitable for indoor and outdoor furniture and resists stains, mildew and fading. Terrazzo features water and stain repellency and is available in various patterns.

www.victorgroup.com

Fabric with enhanced UV performance

Fresca Tela from Wearbest Sil-tex Mills Ltd. has enhanced UV performance five times that of regular indoor fabric. The 100-percent solution-dyed nylon warp yarns, made with a 100-percent post-consumer polyester fill yarn, can be cleaned with bleach. Bella-Dura boucle and chenille yarns will also be available under the Fresca Tela brand.

www.wearbest.com

26 Extreme edge seals

Xtreme Seal Ultra Seal has a wide, flat profile with turned-down front and rear edges to provide flatter finished edge seals. It's designed for use with Common Sense fasteners. New V-Seal has a smaller "V" design for cutouts and tight corners on radar arches, bow covers and other marine applications.

www.xtremeseal.com

See us at MFA booth 306



A finished bimini enclosure from the inside. Note the clean look with no zippers, the "smile" zippers showing and the "no gap" corners. This is just one way of many to fabricate enclosures that produce quality results.

Fabricating an enclosure

by Mark Hood

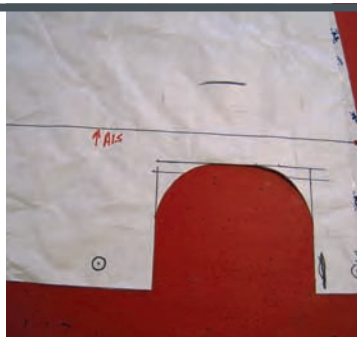
My wife Deb and I have run Hood Canvas for the better part of 30 years. I attribute most of my skills in the early years to the late Ralph Hulsman of the Oakum Bay Canvas Co. in Marblehead, Mass. We spent many hours together exchanging ideas on napkins in area restaurants.

The way we fabricate enclosures for bimini tops is a bit different from conventional techniques. We use the 1½-inch width of the standard YKK #10 zipper as the basis for the overlaps and allowances on all our enclosures. The result is a clean looking enclosure inside and out, with zippers hidden in the overlap. Our panels are finished on the inside exactly the same as the outside with the top zipper facing the outside with the bottom edge 1½-inch down. I know this is different, but it will make sense.

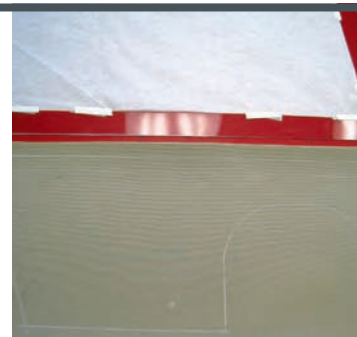
Mark Hood is owner of Hood Canvas in Merrimac, Mass., hoodcanvas.com, mark@hoodcanvas.com.



1 One of our Tyvek patterns off the boat and developed to the point that we can start cutting the Strataglass and Sunbrella we use in 90 percent of our fabrications. Notice that the bottom edge and start and stop points of the top zippers are marked on the pattern, as well as one corner division between two adjacent panels. (I'll explain these down-turned corners in a future article on natural intersections and patterning.) We cut the pattern up 3/4 inch from the bottom edge of each top zipper.



2 The bottom edge of one pattern that I will use as an example in this article. There is a line drawn above the semicircle cut-out that represents fabric below and vinyl glass above. We punch holes in the pattern so that lines can be drawn onto the fabric and the corresponding vinyl glass. On the left is a vertical zipper mark where it will be joined to the back edge of an existing dodger.



3 The cut pieces of vinyl glass and fabric from the pattern (in step 2) staged in relation to each other for joining. We have added a white pencil line 1/2-inch up from the punched hole line drawn on the bottom fabric. We have added a second line 3/4-inch down from this line that serves as a fold line for attaching the fabric to the vinyl glass. We made this bottom fabric piece two-ply in order to sandwich the bottom edge of the glass, producing the same finished look on the backside. The two layers of fabric are stapled in a row just below the punched hole line, to hold them in relation to each other while joining in step 4.



4 Add 3/4-inch double-sided seam tape to the bottom edge of each side of the vinyl glass. Fold the bottom fabric on the 3/4-inch line, remove the backing of the seam tape and slide up onto the glass and stick. The bottom of the vinyl glass panel should line up with the punched hole line on the fabric.



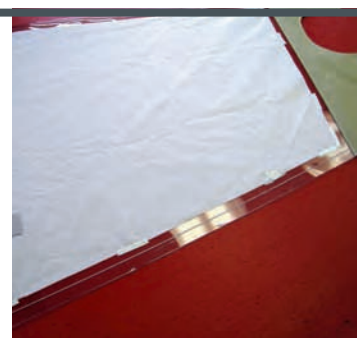
5 Flip the panel over, remove the backing of the double-sided tape, fold and stick the top of the bottom fabric to match the folded edge on the front side.



6 Stitch along the top of the folded fabric where it meets the glass, and staple the bottom three edges so the fabric lies flat. Slide cut squares of fabric between the two layers of fabric before stapling. This adds extra reinforcement in the fastener locations marked on the fabric from the pattern.



7 Stay stitch around the bottom three edges, including the semicircle, and cut off the excess on the line to match the pattern.

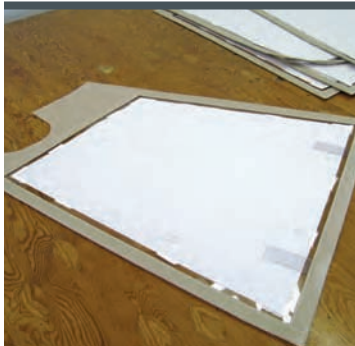


8 We draw lines on the top and two sides 3/4-inch in from the edges with white pencil. We add roll-up tabs to the top edge on both sides and stay stitch in place.

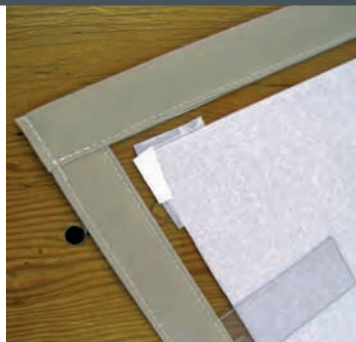
* Before we move on it is necessary to have a specialized binder made up that takes 4 1/2-inch strips of fabric and finishes them to 1 1/2 inches with a stop at 3/4-inch. People I spoke with in the binding industry informed me that I could not make this binder without a dedicated machine and special feeds. I decided to proceed and make up this binder as strictly a bolt-on with single screw to a standard single needle walking foot machine. At the time, I thought I was spending \$300 on a piece of bent tin that probably would not work. It turns out it was the best \$300 investment I ever made that produces high-quality fabrications in record time. With it we can install the tops and sides of a 10-piece bimini enclosure in about an hour. The 1 1/2-inch finished size extends onto the glass 3/4-inch to the white line and 3/4-inch off the edge onto the adjacent panel of fabric. When the two adjacent panels are butted up to each other, the combined overlap is 1 1/2 inches, which is the width of a standard #10 YKK zipper. We now install a vertical enclosure zipper like a sandwich between the two panels. This zipper placement technique accomplishes two purposes: it hides the zipper from view and enables it to move smoothly from both sides.



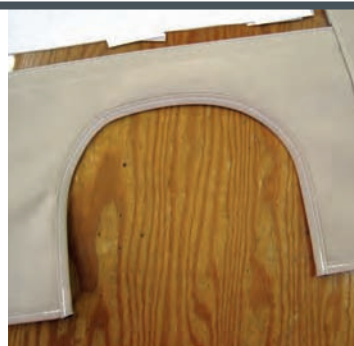
9 Two views of the large binder at work. Note the white 3/4-inch line and the binder finishing to the edge of the line. The finished binder width is 1 1/2 inches, so 3/4 inch of this width is off the edge of the glass on the top and sides of the panel being worked on in these two pictures.



10 The panel with all of its large binding installed.



11 To finish the tops, run a stitch along the top edge of all the panels.



12 To finish the bottoms, bind the bottoms of all panels with 3/4-inch matching acrylic binding.



13 The panel with its zippers installed. The top zipper faces outboard to hide it.



14 A close-up view of the vertical zipper overlap. If you removed the vertical binding, the two edges of the raw glass would butt each other. [mf](#)

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When planning your design, keep in mind that you want the lines of the upholstery to look like they have been well thought out from the beginning, not thrown in as an afterthought.

Starting an upholstery job

by Carol Racine

There are three types of customers. Those that have very specific ideas of what they want done; those that have no idea of what they want, so they look for us to recommend something; and those that just leave their boat at the shop and say “just do something—I know I’ll love it when you are done.” These are the nail biters for me.

While planning the project, you must consider many factors. Take a look at the outside of the boat. Are there any graphics that you can incorporate into the upholstery? Is there a name on the boat that may give you an idea? How is this customer going to use the boat? Chances are that a flame job isn’t going in a fishing boat, and a high-performance boat will require more than plain white cushions. Does the customer indicate that they want “hose and go” upholstery, or will they take the time to wipe down and maintain the upholstery? If the boat has already been reupholstered, you can use the internet to find out what it looked like from the factory.

Take note of the curves and cut outs. If there are sharp corners to pull material around, you will naturally want to use a product with a reasonable amount of stretch. If the boat has a huge sun pad that will take any abuse, use a vinyl that is reasonably scuff proof.

Take time to really look at the lines of upholstery. Where are seams going to go and how will they line up with the next piece? If you intend to top stitch any of the pieces, make sure that the correct pieces are sewn in the correct order. Knowing where you are going to end is just as important as knowing where you are going to start.

When selecting the fabric, consider what kind of design, graphics or colors you intend to use. If possible, I like to stay with the same patterns or textures. The exception to this would be if I intend to make a certain color the point of interest. A few examples are carbon fiber,

exotic and perforated patterns, and metallic finishes. These are fabrics where the general rule of “more is not better” applies. We all want to have a happy customer, and sometimes, as the professionals, we have to rein them in a bit.

Some graphics can be extremely time consuming, and trying to bid a flame job is certainly a great way to lose money. We have found the best way to charge for this custom work is to bid the job, but charge an additional hourly rate for the time we actually spend on the graphics work. We use a time clock that allows us to punch in and out of a job, but simply noting the time on a piece of paper is just as good.

One of the absolute most important aspects of any upholstery job is the foundation, the foam that will support and show off your work. If the foam is bad, your efforts could be in vain. It's important to get your customer to understand the benefits of new foam. I asked one of my suppliers to write up a spec sheet on foams for my customers to read. Generally speaking, customers have no clue about foam, other than it is too soft or it's too hard or it's decayed where the old vinyl is torn. It is up to us to explain to them what all the numbers and letters mean, and why we recommend one over the other. While price is always a factor, comfort can generally win the argument. One easy way to help customers choose a foam is to make several simple seat cushions using different types of foam. Let your customers sit on them and decide what is comfortable.

Some old foam can be steamed back to its original shape, but be aware that it is a temporary fix. Once the foam has been crushed inside a cushion for a number of years, it becomes weak and will want to return to that crushed shape in a short time.

Before the first staple is removed, take pictures—and lots of them. Take pictures of the upholstery before it is removed from the boat. Take pictures of each piece, front and back. No matter how good you think your memory is, there will be that one piece that just doesn't make sense while you are sewing it together.

Carol Racine is owner of Racine Design in Jacksonville, Fla., boatclinic.net.



TOP: The completed bow on a 2002 Moomba.
BOTTOM: Keep the same theme throughout the entire project. In some cases it isn't always practical due to small areas or cut out areas inside bolsters.

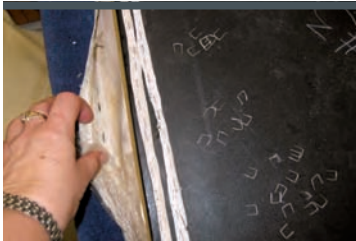
UPHOLSTERY: START TO FINISH



1 The old upholstery removed from the boat and laid out on the shop floor.



2 One of the customer's primary concerns was to get rid of the black vinyl.



3 This boat has been upholstered several times before, as the tattle tale rows of staples show.



4 Once a design has been selected, if the vinyl is still intact, draw it out before you remove the vinyl from the cushion.



5 Make sure that you mark your pattern with enough information. Color, seam allowances, sew foam, and in some cases the direction the patterns have to be placed on the material.



6 The old vinyl has been cut apart and is ready to use as the patterns.



7 The new vinyl has had sew foam applied, and is being put back together.



8 Before and after backrests for the bow.

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Lower costs with HSAs

by William J. Lynott

As a business owner, you're fighting what seems like a losing battle against rising health care costs. While this problem isn't likely to disappear, the Health Savings Account (HSA) legislation, signed into law in 2003, offers you the possibility of making a dramatic reduction in your costs.

In their first year on the market, HSAs attracted thousands of individuals and business owners eager to escape the runaway costs of health insurance. Now, more than five million people are enrolled in HSAs. William Boyles, publisher of an insurance industry newsletter, predicts that 20 million people will be enrolled within five years.

The law made HSAs permanent and available to everyone. Here's how they work:

HSAs come in two parts. First you purchase a low-cost, high-deductible health insurance policy, available through a growing number of providers, including giants like Aetna, UnitedHealth Group and Blue Cross.

In conjunction with the insurance policy, you open a dedicated savings account in which you make tax-deductible deposits to pay for your medical care. Each year, you may deposit up to the amount of the deductible on your insurance policy. You then use the money in the account to pay for your medical care. If or when your expense reaches the amount of your deductible, the insurance policy kicks in.

Consider this example: Shop owner Mark enrolls himself and his family in a plan with a \$5,250 deductible policy. He then deposits 400 tax-deductible

dollars per month in his HSA savings account. That year, his family's out-of-pocket medical expense, paid from funds in his HSA account, comes to \$3,200. Since his total deposits for the year were \$4,800, the balance of \$1,600 rolls over in the account. It compounds tax-free (as long as it is used to pay for qualified medical expenses).

As the money in the account grows, it becomes a resource available to cover the cost of routine or future medical care.

In another example, Tom enrolls in a similar plan with the same deductible. He also deposits \$400 per month in his HSA account. However, one of Tom's children had surgery that raised the family's total medical expense for the year to \$15,500. Once Tom's out-of-pocket reached

the family deductible of \$5,250, the insurance paid the balance of \$10,250. The HSA protected the family against a catastrophic medical expense.

In addition to the tax incentives, HSAs offer complete control over choice of doctors and eliminate the referral requirements of some health plans. The tax advantages, along with control over choice of doctors, makes HSAs appealing to small business owners and the self-employed, as well as the uninsured.

“A business owner can sign up for an HSA for himself and make it available to any employee on a voluntary basis,” says Tom Rogala, an independent health insurance broker with Custom Benefit Solutions, Northville, Mich. “That way, the employee deals directly with the provider. The employer is not involved and makes no contribution.”

The FAQs about Health Savings Accounts

Who is eligible to open an HSA?

Anyone may apply for an HSA and its companion high-deductible health insurance policy, though individuals with serious pre-existing medical conditions may have difficulty finding a provider willing to accept them.

Where can I open an account?

There are scores of insurance companies and brokerage firms offering HSA coverage, including such major providers as Aetna, UnitedHealth Group and Blue Cross.

HSAs can be obtained through thousands of independent health insurance brokers.

Does an HSA pay for the same things that regular insurance pays for?

HSA funds can be used to pay for any qualified medical expense, even if they are not covered by your health insurance. For example, most health insurance does not cover the cost of over-the-counter medicines, but HSAs can. If the money from the HSA is used for qualified medical expenses, the money spent is tax-free.

Do unused funds in a HSA roll over year after year?

Yes, the unused balance in a HSA automatically rolls over year after year. You won't lose your money if you don't spend it within the year.

Where can I get more detailed information about HSAs?


www.hsainsider.com
www.ustreas.gov/offices/public-affairs/hsa/

The employer can sign up for a group plan in which the company pays a portion of the cost for each covered employee. The required employer contribution for group plans varies by state. In Michigan, employers are required to contribute a minimum of 25 percent of the cost of the high deductible insurance policy, which is less than it would cost the employer for any other type of plan.

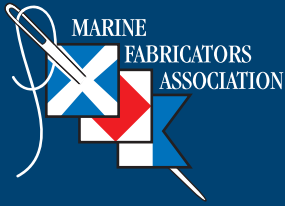
Skeptics of HSAs argue that the high deductible policies will deter some from buying an HSA plan, and others will be reluctant to dip into their HSA savings to pay for medical care with their money.

At a congressional hearing in 2004, Democratic Rep. Pete Stark of Calif. said that he believed that high deductible plans simply shift costs to so-called consumers who pay more out of pocket.

One disadvantage for some prospective enrollees is the reluctance or refusal of some insurance providers to issue policies to people with serious pre-existing medical conditions. Still, there is no denying the rapidly growing popularity of this new approach to health care insurance. Employees like the way HSAs give them more choices and more control over their health care. Small-business owners say they like HSAs because they help to control spiraling health care costs, putting more money on their bottom lines.

As a business owner, you may well benefit from a comparison between an HSA and your present health insurance for you and your employees. 

William J. Lynott is a freelance writer who specializes in business management and personal finance.



MFA NEWS

OUR MISSION

The purpose of the Marine Fabricators Association (MFA) is to provide resources and programs for marine fabricators; to establish standards of excellence for business practices, products and craftsmanship; and to establish and maintain an identity for marine fabricators.

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www.marinecanvas.com

Great Lakes workshop

This year's Great Lakes Workshop took place in Grand Rapids, Mich. After three years in Ohio, the move proved to be a good one as attendance and vendor participation increased. In attendance were 58 fabricators and 17 exhibiting companies. Educational seminars at the workshop included Various Patterning Techniques, Fabricating Heavy Gauge Polycarbonate, Travel Covers and Marine Fittings. The Tools, Tips and Tricks session provided a number of new ideas to fabricators.

In addition to the seminars, attendees toured The Nautical Needle in Holland, Mich. While at the shop, attendees got to see hands-on demonstrations on Patterning an Enclosure for a Bimini and Sewing Enclosure Curtains.

Thanks to the speakers for putting together the great seminars and our exhibitors for supporting the workshop. A very special thanks to Cindy Boersema and Chris Ritsema from The Nautical Needle for putting together an informative workshop and being great hosts.

Scholarship recipients

The Industrial Fabrics Foundation (IFF) announced the recipients of this year's scholarship programs.

Congratulations to Molly Mastrandrea of Custom Marine Canvas as the recipient of the Marine Fabricators Association Membership Scholarship. The scholarship is funded by the MFA and distributed through the IFF.

Congratulations to Brian Johnson of Mike's Marine Custom Canvas as the recipient of the Industrial Fabrics Association International (IFAI) Membership Scholarship. The scholarship is funded and distributed by the IFF.

These scholarship awards provide tuition expenses at an accredited college, university or technical school. Scholarship recipients are selected on the basis of academic achievement, community service, financial need and

interest in a future career in the specialty fabrics industry.

Applications for the next scholarship programs are available now. Deadline for all applications is May 1.

MFA member wins magazine award

"It's All in the Numbers" by Carol Dykes, owner of C-Worthy Corp., Pompano Beach, Fla., received a Gold Award from the Minnesota Magazine & Publications Association for Best How-To Article, Association. The award was presented to the *Marine Fabricator* staff at the Publishing Excellence awards in Minneapolis last November. The story about triangulation appeared in the May/June 2009 issue of *Marine Fabricator*.

Members interested in contributing to magazine articles and a chance to win an award of their own should contact editor Chris Tschida at cptschida@ifai.com.



Xtreme Seal Xtreme Deal winner

Xtreme Seal LLC announced the winner of its Xtreme Deals contest for 2009. The winner is Tiffany Bailey with Captain Duke's Custom Marine Canvas & Upholstery in LaGrange, N.Y. Bailey received complimentary airfare to Orlando, Fla., for the 2010 MFA National Convention. Xtreme Seal thanks all the participants that entered the contest.

Ask the Experts

Q *I've been asked to do a cover for an all-terrain vehicle. I have to use a Lexan window and attach an awning rail to it. I'm concerned about cracking the Lexan. Any suggestions?*

A Lexan is a brand of polycarbonate. It's more rigid than some other window products. We asked members of the Marine Fabricators Association for solutions.

Many fabricators suggested drilling the material. Lexan is strong and unlikely to shatter. The drill bit is important. While there is a special bit for Lexan, you can grind a drill bit, which prevents chipping when the drill exits the panel. Use a new bit as small as possible. Use light pressure and expect the drilling to start slow but end fast. Check with your supplier to see the recommended bit size for the thickness you're using.

Others suggested pre-drilling a small (1/8-inch) pilot hole, then drill with the next-larger size until you get the fastener size.

Several fabricators mentioned using masking tape on Lexan before drilling. Remove the tape as soon as you're done, otherwise it might stick.

General suggestions for drilling into Lexan were to stay away from edges, and to practice your technique on scrap material.

Most fabricators mentioned the type of fastener you use is important. Several stressed to make sure metal fasteners don't touch Lexan. Use a rubber insert or a nylon washer as a cushion. Pop rivets and stainless steel machine screws with acorn nuts were also mentioned. Over-tightening can cause cracking. Use fasteners that go through Lexan, rather than thread into it.

Not all fabricators advocated drilling. One fabricator said she makes pockets or finds other points of attachment, such as suction cups, rather than drill the windshield. Another fabricator mentioned putting a metal "border" on Lexan and attaching fasteners to it.

As for the awning rail, several fabricators suggested pre-drilling the rail before attaching it to Lexan. One fabricator mentioned using tape on the rail to stabilize it during the fastening process, as it puts less stress on Lexan.

Should cracks occur, try drilling a tiny hole at the outer end of each crack to prevent spreading.

Not all fabricators were convinced that Lexan was the best material for this job, not just because of the cracking, but because of UV resistance. If UV is a concern, make sure you're using a coated Lexan. Several mentioned clear vinyl or plexiglass.

One fabricator mentioned an article published by Hot Rod magazine that gives tips for working with Lexan. The project featured is a car window, but some of the techniques would apply to marine work: www.hotrod.com/techarticles/lexan_windows_install/index.html.

Be sure to see this issue's cover story, on page 12, about working with polycarbonate.

Thanks to the MFA members who sent in advice.

Now On Board

The Marine Fabricators Association welcomes new members that joined in July, August, September and October 2009. For complete contact information on new members visit the the MFA website at www.marinecanvas.com.

Affordable Custom Canvas LLC

Muskegon, Mich.
Brian McLellan

American Foam Fiber Supplies Inc.

Azusa, Calif.
Nikita Kiu

Arrow Custom Covers

Costa Mesa, Calif.
Tony Siano

ATB Canvas Designs

Cudjoe Key, Fla.
John Marek

Beyond Canvas Inc.

Point Roberts, Wash.
Ben Lazarus

Boat Bright Custom Canvas

Hilton Head Island, S.C.
William Bennett

Brandt Canvas & Upholstery

Bedford, Ky.
Bruce Brandt

Cap't Dukes Custom Marine Canvas & Uph'l

La Grange, N.Y.
Tiffany Bailey

Complete Canvas Solutions

Wakeman, Ohio
David Skinner

Costa Marine Canvas

Egg Harbor City, N.J.
Donna Costa

CYA Canvas

Helena, Mont.
Vonnice Hummert

Dockside Canvas Inc.

Harrison Township, Mich.
John Bowen

Dreamcast Marine Canvas Ltd.

Pickering, Ontario, Canada
Roula Amgelis

Dry Dock Canvas

Caledonia, Mich.
Liz Skinner

Hood Marine Canvas

Merrimac, Mass.
Mark Hood

Jim's Canvas Repair

Highlands, N.J.
Jim Tynan

JR Patches

Barneget, N.J.
Joseph Romano

Lowitz Custom Shoppe

Kalispell, Mont.
Dave Lowitz

North Sails

Mississauga, Ontario, Canada
Doug Kerr

Savage Point Canvas & Upholstery

North Hero, Vt.
Whitney Carman

Sew Your Boat

Toledo, Ohio
Jeff Almas

Stonington Custom Canvas LLC

Stonington, Conn.
Paul Stiephaudt

United Industrial Textile Products Inc.

West Springfield, Mass.
Wayne Perry

Upholstery of Tampa Bay

Tampa, Fla.
Albert Sanabria

Vermont Custom Canvas

Milton, Vt.
Robert Carman

Village Canvas

Meredith, N.H.
Bev Lapham 



2010 MFA TIME STANDARDS MANUAL

The Time Standards Manual was developed in 1996 by the Marine Fabricators Association (MFA)—a division of the Industrial Fabrics Association International—to serve as a benchmark shop owners can use to set fabrication times, with which they can generate competitive labor costs. The manual is an ongoing project that will grow and change organically in response to the ever-changing marine industry.

Please be aware that this manual was developed by “experts” in the industry, and that the times stated for each project are averages. Individual times may differ depending on experience and technique. We suggest that each shop log its average project times so that it is able to quote its customers as accurately as possible.



2010 MFA TIME STANDARDS MANUAL

How it works

Your input is crucial

The accuracy of this manual depends on input from industry experts. To suggest changes, modifications or additions for the next the manual, please contact:

Beth Hungiville

Managing Director

Marine Fabricators Association, IFAI

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The manual features exterior categories and upholstery categories. Marine canvas and upholstery is a custom-oriented business, so each product category features a base set of times that changes according to the various sizes of the project.

The manual also indicates re-cover estimates on tops by classifying frames and tops into separate categories. For a complete frame and top, simply add the times for both categories. For a re-cover job, use the times for the top only.

Example Project

PLEASE NOTE: The category timetables do not include any of the options listed at the end of the category. Why? The list of times to cover every possible product combination would quickly fill up a dictionary, and then some. To estimate the total time for a custom product, you must add the time from the product table to the times of each of the options at the bottom of the list. Here's an example:

Product

This bimini top on a sailboat requires a split mount to get around the winches. There are two back-stays going through the top, the customer wants two sailing windows, and the beam is nine feet wide. The customer also wants the top to be 96 inches long from front to back. To clear the winches, you also must put a dog leg in one of the two main bows. Finally, the customer also wants a zip-off cover for winter storage.

Estimate example

As you can see from this example, the options list offers the key to getting accurate total hours for each custom product.

Frame

| | |
|---------------------------------|-------------------|
| 1-inch stainless steel frame; | |
| 4-bow bimini with a 9-foot beam | 3 hours |
| Options: Split mount | 0.75 hours |
| Dog-leg for one bow | 0.5 hours |
| TOTAL FRAME HOURS | 4.25 hours |

Top

| | |
|--------------------------------|--------------------|
| 4-bow bimini top with | |
| 10-foot beam | 7 hours |
| Options: Zipper pockets | 2 hours |
| 2-stay cutout | 3 hours |
| 2 sailing windows | |
| = 2 x 1.50 hours | 3 hours |
| Storage boot | 1.5 hours |
| TOTAL TOP TIME | 16.50 hours |

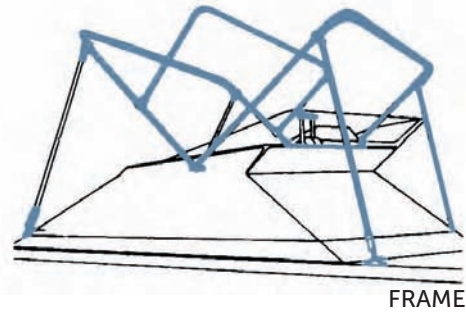
| | |
|-----------------------|--------------------|
| TOTAL JOB TIME | 20.75 hours |
|-----------------------|--------------------|

According to the manual, the average marine fabricator would require 20.75 hours to complete this project. This total includes the time it takes to complete each of the following tasks:

- give the estimate
- design the product
- order the materials
- receive and pay for the materials
- bend the frame
- mount and fit the top
- cut the top out
- sew the top up
- install the top
- bill and collect the money

» FRAME

| 1-INCH STAINLESS FRAME | | *These times include the design, bending, assembly and installation of the frame onto the boat. They do not include any of the options listed below, nor do they include the actual fit of the top. | | |
|---------------------------|-----------|---|-----------|----------|
| Beam (In Feet) | 7' | 9' | 10.5' | 13.5' |
| 1-bow | 1.5 hrs. | 1.5 hrs. | 1.75 hrs. | 2.5 hrs. |
| 2-bow | 2 hrs. | 2.25 hrs. | 2.5 hrs. | 4 hrs. |
| 3-bow | 2.5 hrs. | 2.75 hrs. | 3 hrs. | 5 hrs. |
| 4-bow | 3 hrs. | 3.25 hrs. | 3.5 hrs. | 5 hrs. |
| 5-bow | 3.5 hrs. | 3.75 hrs. | 4 hrs. | 6 hrs. |
| 7/8-INCH FRAME | | | | |
| 1-bow | 1.25 hrs. | | | |
| 2-bow | 2 hrs. | | | |
| 3-bow | 3 hrs. | | | |
| 4-bow | 4.5 hrs. | | | |
| OPTIONS | | | | |
| Rigid supports (one pair) | 1 hr. | | | |
| Through-bolt mounts | 0.75 hr. | | | |
| Severe angle mounts | 2 hrs. | | | |
| Dog-leg bow | 0.5 hr. | | | |
| Split mount | 0.75 hr. | | | |
| Grab rail | 0.5 hr. | | | |



» ATTACHED BIMINI

*An attached bimini is any top supported by framework and attached to either the boat, a radar arch or another top at one end. The times and materials listed here are for a base product with no zipper pockets, enclosure zippers, or any other option listed

below. This does not include convertible tops. These times are for the canvas top only; they do not include manufacturing the frame or installing the frame on the boat.

| Beam (In Feet) | 7' | 9' | 10.5' | 13.5' |
|------------------------------|--------------|-----------|-----------|-----------|
| 1-bow | 4.5 hrs. | 5 hrs. | 5.5 hrs. | 7 hrs. |
| 2-bow | 5.5 hrs. | 6 hrs. | 7 hrs. | 9 hrs. |
| 3-bow | 6 hrs. | 7.5 hrs. | 9 hrs. | 12 hrs. |
| 4-bow | 7.5 hrs. | 9 hrs. | 10.5 hrs. | 13.5 hrs. |
| OPTIONS | | | | |
| Beam (In Feet) | 7' | 9' | 10.5' | 13.5' |
| Zipper removal of attachment | 1 hr. | 1.25 hrs. | 1.5 hrs. | 1.75 hrs. |
| Straps (one pair) | 0.5 hr. | | | |
| For odd-shaped arch: | Add 1.5 hrs. | | | |
| Zipper Pockets | | | | |
| 1-bow | 0.33 hr. | 0.5 hr. | 0.6 hr. | 0.75 hr. |
| 2-bow | 0.49 hr. | 0.6 hr. | 0.75 hr. | 1 hr. |
| 3-bow | 0.6 hr. | 0.75 hr. | 1 hr. | 1.25 hrs. |
| 4-bow | 0.75 hr. | 1 hr. | 1.25 hrs. | 1.5 hrs. |



» BIMINI TOP

*A bimini top is any top supported by framework at both ends. The times and materials listed here are for a base product with no zipper pockets, enclosure zippers, or any other option listed

below. These times are for manufacture of the canvas top only; they do not include manufacturing the frame or installing the frame on the boat.

| Beam Width (In Feet) | 7' | 9' | 10.5' | 13.5' |
|----------------------|--------|-----------|----------|---------|
| 2-bow | 5 hrs. | 5.25 hrs. | 6.5 hrs. | 7 hrs. |
| 3-bow | 6 hrs. | 6.25 hrs. | 7 hrs. | 8 hrs. |
| 4-bow | 7 hrs. | 8 hrs. | 10 hrs. | 13 hrs. |
| 5-bow | 8 hrs. | 9 hrs. | 11 hrs. | 14 hrs. |

OPTIONS

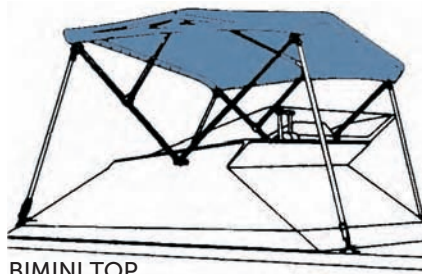
| Beam Width (In Feet) | 7' | 9' | 10.5' | 13.5' |
|----------------------|----|----|-------|-------|
|----------------------|----|----|-------|-------|

Zipper Pockets

| | | | | |
|-------|-----------|-----------|-----------|-----------|
| 2-bow | 1 hr. | 1.25 hrs. | 1.5 hrs. | 1.75 hrs. |
| 3-bow | 1.75 hrs. | 1.5 hrs. | 1.75 hrs. | 2 hrs. |
| 4-bow | 2 hrs. | 2.25 hrs. | 2.5 hrs. | 2.75 hrs. |
| 5-bow | 2.5 hrs. | 2.25 hrs. | 2.5 hrs. | 2.75 hrs. |

MORE OPTIONS

| | |
|---------------------------|----------|
| Straps (one pair) | 0.5 hr. |
| 1 stay cutout | 2 hrs. |
| 2 stay cutouts | 3 hrs. |
| Sailing window with cover | 1.5 hrs. |
| Storage boot | 1.5 hrs. |



BIMINI TOP

» CONNECTORS

*A connector is any fabric product typically fastened at both ends via zippers or hardware that connect between two top products or between a top product and the boat. Length is limited to one

width of fabric. A connector can be between a bimini and an arch or windshield, or between a dodger and a bimini.

| Beam Width (In Feet) | 7' | 9' | 10' | 13.5' |
|----------------------|--------|-----------|----------|--------|
| Canvas connector | 4 hrs. | 4.25 hrs. | 4.5 hrs. | 6 hrs. |
| Clear connector | 5 hrs. | 5.25 hrs. | 5.5 hrs. | 7 hrs. |

» CONVERTIBLE TOP

*A convertible top is any top supported by framework that attaches to a windshield on the front edge. Times and materials listed are for a base product with no zipper pockets, enclosure

zippers, or any options. The times do not include manufacturing or installing the frame; they are for the canvas top only.

| Beam Width (In Feet) | 7' | 9' | 10.5' | 13.5' |
|----------------------|--------|--------|-----------|-----------|
| 2-bow | 7 hrs. | 7 hrs. | 9.5 hrs. | 12.5 hrs. |
| 3-bow | 8 hrs. | 8 hrs. | 10.5 hrs. | 14 hrs. |

OPTIONS

| | |
|--------------------------|---------|
| Zipper walk-through | 2 hrs. |
| Front panel clear insert | 3 hrs. |
| Straps (one pair) | 0.5 hr. |



| Beam Width (In Feet) | 7' | 9' | 10.5' | 13.5' |
|----------------------|----|----|-------|-------|
|----------------------|----|----|-------|-------|

| Zipper Pockets | | | | |
|----------------|-----------|-----------|-----------|-----------|
| 2-bow | 1 hr. | 1.25 hrs. | 1.5 hrs. | 1.75 hrs. |
| 3-bow | 1.75 hrs. | 1.5 hrs. | 1.75 hrs. | 2 hrs. |

BIMINI OPTION

| Beam Width (In Feet) | 7' | 9' | 10.5' | 13.5' |
|----------------------|--------|----------|--------|----------|
| Converts to a bimini | 2 hrs. | 2.5 hrs. | 3 hrs. | 3.5 hrs. |

» STRUCTURED TOP/TEE TOP/BUGGY TOP

*These products consist of laced and banded tops on large welded structures of boats. Figures include the top only and not

the supporting structure, and are for a basic top without cutouts or any other options.

LACE-ON TOP

| Length Of Top (In Feet) | 6' | 9' | 12' | 15' | 18' |
|-------------------------|-----------|-----------|----------|----------|-----------|
| 1 pass/width | 4.5 hrs. | 5 hrs. | 5.5 hrs. | 6.5 hrs. | 8 hrs. |
| 2 passes/widths | 6.75 hrs. | 7.25 hrs. | 8 hrs. | 8.5 hrs. | 9.25 hrs. |

BANDED TOP (fastened via trim, not lacing)

| Length Of Top (In Feet) | 6' | 9' | 12' | 15' | 18' |
|-------------------------|----------|---------|----------|---------|----------|
| 1 pass/width | 6.5 hrs. | 7 hrs. | 7.5 hrs. | 8 hrs. | 8.5 hrs. |
| 2 passes/widths | 10 hrs. | 11 hrs. | 12 hrs. | 13 hrs. | 14 hrs. |
| 3 passes/widths | 12 hrs. | 13 hrs. | 14 hrs. | 15 hrs. | 16 hrs. |

OPTIONS

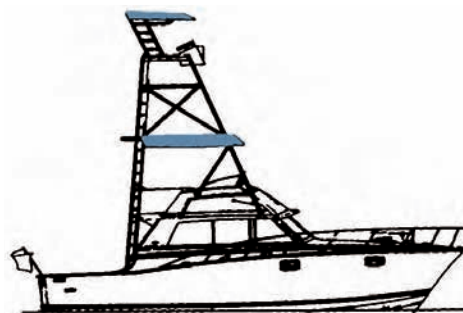
| | |
|---|----------|
| Antenna mount | 0.5 hr. |
| Radar mount on top (not including electrical) | 1.5 hrs. |

Cutout

| | |
|-----------|----------|
| Easy | 0.5 hr. |
| Average | 0.75 hr. |
| Difficult | 1-2 hrs. |

Reinforcing patch

| | |
|------------------------|----------|
| Small | 0.25 hr. |
| Medium | 0.5 hr. |
| Large | 1 hr. |
| Separate fitted panels | 1.5 hrs. |
| U-zipper climb-through | 2 hrs. |



STRUCTURED TOP/TEE TOP/BUGGY TOP

» TRADITIONAL DODGER

* These figures are for the cover of a dodger only. They do not include the frame structure times or any of the options listed

below. The roll-up front center window is standard on all dodgers.

| Beam Width (In Feet) | 4' | 9' | 10.5' | 13.5' |
|----------------------|-----------|-----------|-----------|---------|
| 2-bow | 12.5 hrs. | 14.5 hrs. | 15.5 hrs. | 18 hrs. |
| 3-bow | 15 hrs. | 16 hrs. | 17 hrs. | 19 hrs. |

CALIFORNIA DODGER

| Beam Width (In Feet) | 4' | 9' | 10.5' | 13.5' |
|----------------------|-----------|-----------|-----------|---------|
| 2-bow | 15.5 hrs. | 17.5 hrs. | 18.5 hrs. | 21 hrs. |
| 3-bow | 18 hrs. | 19 hrs. | 20 hrs. | 22 hrs. |

OPTIONS

| | |
|----------------------|----------------|
| Aft grabrail | 1 hr. |
| Side grabrail | 1 hr. |
| Aft zipper flap | 0.5 hr. |
| Rope cutout | 0.25–0.50 hrs. |
| Chafe patch | 0.75–1.5 hrs. |
| Removable front | 1.5 hrs. |
| Porthole window | 0.75 hr. |
| Wing windows | 1 hr. |
| Window covers | |
| Full-forward | 1.5 hrs. |
| Individual | 0.75 hr. |
| Zipper | 1 hr. |
| Center grabrail | 3 hrs. |
| Cellphone pockets | 0.5 hr. |



TRADITIONAL DODGER

» SPRAYHOOD

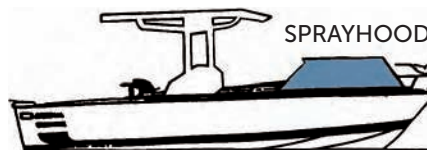
* Although these products usually are found on center-console boats, they recently have grown more common on bowrider-style boats. The labor figures are for the canvas top with a small

roll-up window in the front center, and do not include the frame structure. The basic times are for a standard product and do not include any options.

| Mount Beam (In Feet) | 4' | 6' | 8' | 10' |
|----------------------|--------|---------|---------|-----------|
| 2-bow | 8 hrs. | 9 hrs. | 11 hrs. | 12.5 hrs. |
| 3-bow | 9 hrs. | 10 hrs. | 12 hrs. | 13.5 hrs. |

OPTIONS

| Mount Beam (In Feet) | 4' | 6' | 8' | 10' |
|---------------------------|----------|----------|--------|----------|
| Privacy drop | 3 hrs. | 3.5 hrs. | 4 hrs. | 4.5 hrs. |
| Privacy drop screens | 1 hr. | | | |
| Front screen | 1.5 hrs. | | | |
| 3-piece enclosure zippers | 1 hr. | | | |
| Sprayhood boot | 1.5 hrs. | | | |
| Panoramic window | 1.5 hrs. | | | |



SPRAYHOOD

» AFT COVER

*An aft cover typically attaches to the aft edge of a top and angles down to close in the aft cockpit of the boat. It can be

attached with zippers or hardware to the flap of the forward top. The basic times do not include any of the options listed below.

| Length (In Feet) | 7' | 9' | 12' |
|------------------|--------|--------|-----------|
| 2 passes | 5 hrs. | 6 hrs. | 7.5 hrs. |
| 3 passes | 6 hrs. | 7 hrs. | 8.5 hrs. |
| 4 passes | 7 hrs. | 8 hrs. | 9.5 hrs. |
| 5 passes | 8 hrs. | 9 hrs. | 10.5 hrs. |

OPTIONS

| | |
|--------------------------|----------|
| Window | 1.5 hrs. |
| Window cover | 1 hr. |
| Cutout | |
| Easy | 0.25 hr. |
| Medium | 0.5 hr. |
| Difficult | 1 hr. |
| Zipper-off wings | 2 hrs. |
| Reinforcing patch | |
| Small | 0.25 hr. |
| Medium | 0.5 hr. |
| Large | 1 hr. |

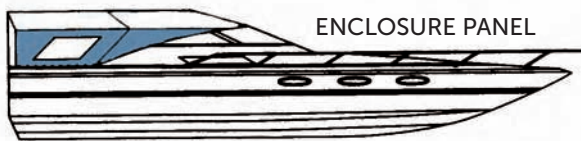


» ENCLOSURE PANEL

*Most enclosures can be classified into two levels of fabrication quality. A typical economy enclosure has binding, and the edges have fabric only on the outside. The deluxe enclosure panel is

covered on the inside and outside with clear vinyl sandwiched between the borders. Times for the enclosure panel do not include any of the options listed below.

| Single Standard Panel (3- to 4-Foot Wide) | | OPTIONS | |
|---|-----------|-------------------|-----------|
| Economy | 2.5 hrs. | U-zipper | |
| Deluxe | 3 hrs. | Standard | 1 hr. |
| Wide Panel (5- to 7-Foot Wide) | | Large | 1.5 hrs. |
| Economy | 2.75 hrs. | Long Panel | |
| Deluxe | 3.5 hrs. | Canvas lower half | 0.5 hr. |
| Side Curtains Standard (27 by 54 Inches) | | Clear lower half | 1.5 hrs. |
| Economy | 1.5 hrs. | Windshield panel | |
| Deluxe | 3 hrs. | Canvas | 1.5 hrs. |
| Large (48 by 84 Inches) | | Clear | 2.75 hrs. |
| Economy | 1.75 hrs. | Cutout | |
| Deluxe | 3.5 hrs. | In Canvas | 0.75 hr. |
| | | In Clear | 1 hr. |
| | | Screen Option | 1 hr. |
| | | Privacy Cover | |
| | | Standard | 0.75 hr. |
| | | Wide | 1 hr. |
| | | Enclosure Cover | 0.75 hr. |



» MOORING AND TRAVEL COVER

* Mooring and travel covers cover the entire boat all the way to the rubrail. A mooring cover, however, usually is fastened with fasteners,

while a travel cover attaches via a drawstring and tie-downs. The basic times do not include any of the options listed below.

| Length (In Feet) | 9' | 15' | 18' | 21' | 24' | 27' | 30' | 30'+ |
|------------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| 2 passes | 6 hrs. | 7 hrs. | 8 hrs. | 9 hrs. | 10 hrs. | 11 hrs. | 12 hrs. | 13 hrs. + |
| 3 passes | 12 hrs. | 13 hrs. | 14 hrs. | 15 hrs. | 16 hrs. | 17 hrs. | 18 hrs. | 19 hrs. + |
| 4 passes | 14 hrs. | 15 hrs. | 16 hrs. | 17 hrs. | 18 hrs. | 19 hrs. | 20 hrs. | 20 hrs. + |

OPTIONS

| Length (In Feet) | 9' |
|--------------------------|----------|
| Reinforcing patch | |
| Small | 0.25 hr. |
| Medium | 0.5 hr. |
| Large | 1 hr. |
| Cutout | |
| Easy | 0.5 hr. |
| Difficult | 1.5 hr. |
| Mooring pole assembly | 0.25 hr. |
| Pulpit and bow rail | 3 hrs. |
| Bow rail only | 2 hrs. |
| Fitted panel | 1.5 hrs. |



MOORING AND TRAVEL COVER

» FLYBRIDGE COVER

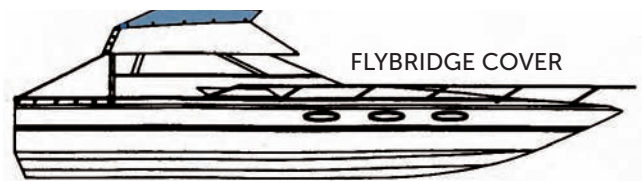
| Length (In Feet) | 6' | 9' | 12' | 15' | 18' |
|------------------|----------|-----------|-----------|-----------|---------|
| 8' width | 5 hrs. | 6.5 hrs. | 8 hrs. | 9 hrs. | 10 hrs. |
| 10' width | 6 hrs. | 7.5 hrs. | 9 hrs. | 10.5 hrs. | 12 hrs. |
| 15' width | 7.5 hrs. | 9 hrs. | 10.5 hrs. | 12 hrs. | 14 hrs. |
| 20' width | 9 hrs. | 10.5 hrs. | 12 hrs. | 14 hrs. | 16 hrs. |

OPTIONS

| Length (In Feet) | 8' | 10' | 12' | 15' | 18' |
|------------------------|--------|-----------|----------|--------|--------|
| Separate fitted panels | 2 hrs. | 2.25 hrs. | 2.5 hrs. | 3 hrs. | 4 hrs. |

MORE OPTIONS

| | |
|--------------------------|---------------|
| Mooring pole assembly | 0.25 hr. |
| Cutout | |
| Easy | 0.5 hr. |
| Medium | 1.25 hrs. |
| Difficult | 1.75–2.5 hrs. |
| Reinforcing patch | |
| Small | 0.25 hr. |
| Medium | 0.5 hr. |
| Large | 1 hr. |



FLYBRIDGE COVER

» STANDARD COCKPIT COVER

*This product is divided into three classifications: standard cockpit covers, over-the-windshield covers and sportfishing

cockpit covers. The time figures are for a basic product without any of the options listed below.

| Length (In Feet) | 6' | 9' | 12' | 15' | 18' |
|------------------|----------|-----------|----------|----------|----------|
| 2 passes | 5 hrs. | 6.75 hrs. | 7.5 hrs. | 8.5 hrs. | 9.5 hrs. |
| 3 passes | 6.5 hrs. | 8 hrs. | 9 hrs. | 10 hrs. | 11 hrs. |

OVER-THE-WINDSHIELD COVER

| Length (In Feet) | 6' | 9' | 12' | 15' | 18' |
|------------------|-----------|-----------|----------|-----------|-----------|
| 2 passes | 6.75 hrs. | 8.75 hrs. | 9.5 hrs. | 10.5 hrs. | 11.5 hrs. |
| 3 passes | 9 hrs. | 10 hrs. | 11 hrs. | 12 hrs. | 13 hrs. |

SPORTFISHING COVER

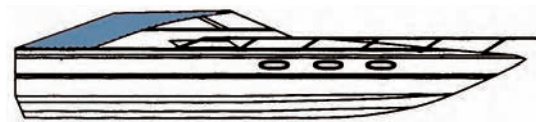
| Length (In Feet) | 6' | 9' | 12' | 15' | 18' |
|------------------|----------|--------|-----------|---------|-----------|
| 2 passes | 6.5 hrs. | 7 hrs. | 7.25 hrs. | 8 hrs. | 8.5 hrs. |
| 3 passes | 7.5 hrs. | 8 hrs. | 8.25 hrs. | 9 hrs. | 9.5 hrs. |
| 4 passes | 8.5 hrs. | 9 hrs. | 9.25 hrs. | 10 hrs. | 10.5 hrs. |

DETACHED WINGS (sportfish only)

| Length (In Feet) | 6' | 9' | 12' | 15' | 18' |
|------------------|----|--------|----------|----------|----------|
| Beam Length | - | 4 hrs. | 4.5 hrs. | 5.5 hrs. | 6.5 hrs. |

OPTIONS

| | |
|--------------------------|----------|
| Cutout | 1 hr. |
| Mooring pole | 0.15 hr. |
| Reinforcing patch | |
| Easy | 0.25 hr. |
| Medium | 0.5 hr. |
| Difficult | 1.5 hr. |
| Reinforcing patch | |
| Small | 0.18 hr. |
| Medium | 0.33 hr. |
| Large | 0.5 hr. |



STANDARD COCKPIT COVER

» WINDSHIELD COVER

*The time figures are for a basic cover with none of the options listed below.

| Length (In Feet) | 2' | 4' | 6' | 9' | 12' | 15' |
|------------------|-----------|----------|-----------|-----------|-----------|-----------|
| 1 pass | 1.75 hrs. | 2 hrs. | 2.75 hrs. | 3.5 hrs. | 4.25 hrs. | 4.5 hrs. |
| 2 passes | 3.25 hrs. | 3.5 hrs. | 4 hrs. | 4.75 hrs. | 5.5 hrs. | 5.75 hrs. |

OPTIONS

| Length (In Feet) | 2' | 4' | 6' | 9' | 12' | 15' |
|------------------|----------|----------|---------|----------|----------|-------|
| Curved Window | 0.16 hr. | 0.33 hr. | 0.3 hr. | 0.66 hr. | 0.83 hr. | 1 hr. |

Cutout

| | |
|-----------|----------|
| Easy | 0.25 hr. |
| Medium | 0.5 hr. |
| Difficult | 1 hr. |



WINDSHIELD COVER

CONSOLE COVER

*The standard console cover times shown below do not include any of the options listed. The sizes have been standardized to simplify the product category.

| L x W x H (Feet) | HRS. |
|----------------------------|----------|
| Small - 3' x 3' x 3.5' | 3 hrs. |
| Medium - 5' x 5' x 5' | 4 hrs. |
| Large - 6' x 6' x 6' | 5.5 hrs. |
| Extra large > 6' x 6' x 6' | 7+ hrs. |

OPTIONS

| | |
|----------------|-------|
| Zipper release | 1 hr. |
|----------------|-------|

Cutout

| | |
|-----------|----------|
| Easy | 0.25 hr. |
| Medium | 0.75 hr. |
| Difficult | 1.5 hrs. |

Lined

| | |
|-----------|----------|
| Easy | 0.5 hr. |
| Medium | 0.75 hr. |
| Difficult | 1 hr. |

CHAIR COVER

| | |
|--------------------------------------|-----------|
| Chair cover with drawstring | 2.25 hrs. |
| Chair cover with fitted zipper | 2.75 hrs. |
| Double-wide chair with drawstring | 2.75 hrs. |
| Double-wide chair with fitted zipper | 3.0 hrs. |
| Back-to-back | 3.5 hrs. |
| Fighting chair with footrest | 3.75 hrs. |

OPTIONS

| | |
|-------------------|------------|
| If pattern exists | -0.75 hrs. |
|-------------------|------------|

HATCH COVER

| L" X W" (Inches) | HRS. |
|--------------------|----------|
| Small - 18" X 18" | 0.75 hr. |
| Medium - 24" X 24" | 1 hr. |

OPTIONS

| | |
|---------------|---------|
| Install snaps | 0.5 hr. |
|---------------|---------|

FENDER COVER

| | |
|-------------|-----------|
| Small | 0.75 hr. |
| Medium | 1 hr. |
| Large | 1.25 hrs. |
| Extra large | 1.75 hrs. |

OPTIONS

| | |
|-------------------------|-------|
| Fitted ends with zipper | 1 hr. |
|-------------------------|-------|

MOTOR COVER

| | | |
|--------|------------|----------|
| Small | 1-50 Hp. | 1.5 hrs. |
| Medium | 50-100 Hp. | 2 hrs. |
| Large | 100 Hp. + | 2.5 hrs. |

OPTIONS

| | |
|-------------------|-----------|
| If pattern exists | -0.75 hr. |
| Lined | 0.5 hrs. |

INSTRUMENT COVER

All-canvas

| | |
|--------|----------|
| Small | 0.5 hr. |
| Medium | 0.75 hr. |
| Large | 1 hr. |

Canvas with clear vinyl

| | |
|--------|-----------|
| Small | 0.75 hr. |
| Medium | 1 hr. |
| Large | 1.25 hrs. |

COMPANIONWAY COVER

| | |
|-------------|-----------|
| Small | 1.75 hrs. |
| Medium | 2 hrs. |
| Large | 3 hrs. |
| Extra large | 3.5+ hrs. |

WINCH COVER

| | |
|-------------|-----------|
| Small | 0.75 hr. |
| Medium | 1 hr. |
| Large | 1.25 hrs. |
| Extra large | 1.5+ hrs. |

PEDESTAL COVER

| | |
|-------------|-----------|
| Small | 0.75 hr. |
| Medium | 1 hr. |
| Large | 1.25 hrs. |
| Extra large | 1.5+ hrs. |

MAST BOOT

This is an aesthetic boot only; it is not the actual sealing boot.

| | |
|--------|-----------|
| Small | 1.25 hrs. |
| Medium | 1.5 hrs. |
| Large | 2 hrs. |

JIB BAG

| | |
|-------------|-----------|
| Small | 1.5 hrs. |
| Medium | 2.5 hrs. |
| Large | 3.5 hrs. |
| Extra large | 4.0+ hrs. |

WEATHER CURTAINS

| | |
|------------------|------------------|
| Life-line panels | 0.25 hr. per ft. |
| Lace or snap-on | 0.5 hr. per ft. |
| Pocket and bar | 1 hr. per ft. |

Note: Add time for horizontal curves.

» SAIL COVER

* This sail cover is fastened in the front by a zipper and has fasteners along its lower border. The material may be cut out of a width of fabric (which is flipped over for the other half of the sail cover).

Headboard reinforcing is included in the times. The basic times do not include the options listed below.

| Length (In Feet) | 6' | 9' | 12' | 15' | 18' | 24' | 24+ |
|------------------|--------|----------|--------|-----------|----------|-----------|----------|
| | 4 hrs. | 4.5 hrs. | 5 hrs. | 5.25 hrs. | 5.5 hrs. | 5.75 hrs. | 6–8 hrs. |

OPTIONS

| | | | |
|--------------------|------------|-------------------|----------|
| Cutout | 0.75 hr. | Reinforcing patch | |
| Vang skirt | 1–2.5 hrs. | Small | 0.25 hr. |
| Closed end on boom | 0.5 hr. | Medium | 0.5 hr. |
| Winch boot | 0.75 hr. | Large | 1 hr. |

» CUSHIONS

PLAIN BOXED

| | | | | |
|----------------|--------------|-------------|--------------|---------------|
| 2'x2' Standard | 2'x4' Medium | 2'x6' Large | 4'x6' XLarge | 5'x7' XXLarge |
| 1.5 hrs. | 1.5 hrs. | 2 hrs. | 3 hrs. | 4 hrs. |

KNEE RISE

| | | | | |
|----------------|--------------|-------------|--------------|---------------|
| 2'x2' Standard | 2'x4' Medium | 2'x6' Large | 4'x6' XLarge | 5'x7' XXLarge |
| 2.5 hrs. | 3 hrs. | 3.5 hrs. | 4 hrs. | 5 hrs. |

SEGMENTED TOP

| | | | | |
|----------------|--------------|-------------|--------------|---------------|
| 2'x2' Standard | 2'x4' Medium | 2'x6' Large | 4'x6' XLarge | 5'x7' XXLarge |
| 3.5 hrs. | 4 hrs. | 4.5 hrs. | 5 hrs. | 6 hrs. |

ROLLED FRONT

| | | | | |
|----------------|--------------|-------------|--------------|---------------|
| 2'x2' Standard | 2'x4' Medium | 2'x6' Large | 4'x6' XLarge | 5'x7' XXLarge |
| 2 hrs. | 2.5 hrs. | 3 hrs. | 3.5 hrs. | 4.5 hrs. |

OPTIONS

Add .5- to 1 hour per cushion for welt

Add .25- to .5-hour for piping small to large cushions

Add 25% to labor times for fabrics that require a pattern match

Add patterning time

Add .25-hour for normal-style cutouts

Add .5-hour for each beveled side

Add .5- to 1 hour if cutting new foam

Add extra time for difficult graphics

» V-BERTH CUSHIONS

| | |
|------------------|----------|
| 5 to 7 feet long | 2.5 hrs. |
|------------------|----------|

OPTIONS

Add .5-hour for welting

Add .5-hour for beveled sides

COCKPIT BUMPERS

| | |
|---------------------------------|------------------|
| Recover Existing | .5-hour per foot |
| New (including wood or plastic) | .5-hour per foot |

Note: Add 2.5 hours for each new radius cornerboard.

UPHOLSTERED PANELS

| | |
|------------------|--------------------------|
| Recover Existing | .25-hour per square foot |
| New | .5-hour per square foot |

Note: Add extra time for difficult graphics, installation or shapes.

UPHOLSTERED ENGINE BOX

| | |
|------------------|----------|
| Recover Existing | 4–6 hrs. |
|------------------|----------|

Note: Add extra time for difficult graphics.

SEATING

UPHOLSTERED HELM CHAIR

| | |
|---------|----------|
| Recover | 4 hrs. |
| All New | 5.5 hrs. |

BACK-TO-BACK SEAT

| | |
|---------|------------|
| Recover | 8.25 hrs. |
| All New | 11–13 hrs. |

CORNER LOUNGE

| | |
|---------|---------|
| Recover | 8 hrs. |
| All New | 11 hrs. |

BUCKET-STYLE SEAT

| | |
|---------|----------|
| Recover | 4–5 hrs. |
| All New | 6–7 hrs. |

LOUNGE BENCH SEAT

| | |
|---------|-----------|
| Recover | 7.5 hrs. |
| All New | 10.5 hrs. |

Note: Add extra time for graphics.

Note: "All New" does not include difficult frame-building.

HEADLINER

One hour per linear yard of fabric (minimum: 4 hours).

Note: Add for unusual or difficult preparations and trim.

HULL LINER

One hour per linear yard of fabric (minimum: 4 hours).

Note: Add for unusual or difficult preparations and trim.

CARPET RUNNERS

One hour per linear yard of fabric.

Note: Add time for steps and hatches.

FURNITURE SLIPCOVERS

| | |
|----------------|------------|
| Barrel chair | 4–6 hrs. |
| L-shaped couch | 10–16 hrs. |

FURNITURE REUPHOLSTERY

| | |
|----------------------|------------|
| Barrel chair | 8–12 hrs. |
| Simple barstool seat | 1 hr. |
| Couch | 16–20 hrs. |
| L-shaped couch | 30–40 hrs. |

CORNICES

| | |
|---------|-------------------|
| Recover | .25-hour per foot |
| New | .50-hour per foot |

Note: Add for pattern-matching and difficult shapes.

Note: Add for pleated and chirred faces.

DRAPERIES

| | |
|------------------------------------|----------------------------|
| Flat using tapes | .50-hour per foot of width |
| Pleated top | .75-hour per foot of width |
| Pleated top and bottom | 1 hour per foot of width |
| Angle-pleated panel top | 4 hrs. |
| Angle-pleated panel top and bottom | 6 hrs. |

Note: Add extra time for curved panels, cutouts and accent trims.

BEDDING ACCESORIES

| | Twin | Queen or V-Berth |
|----------------------|------|------------------|
| Throw-style spread | 2.5 | 4 |
| Fitted spread | 3 | 5 |
| Pillow sham | 1.5 | 1.5 |
| Fitted sheets set | 2 | 4 |
| Altered mattress pad | 2 | 2.5 |

Note: Add time for difficult shapes, cutouts and inside corners.

Note: Deduct .75-hour from spread times if panels are already matched and sewn.

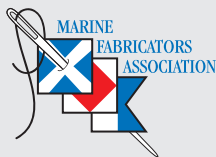
Note: Add extra time for fancy or detailed trimmings.

ADVERTISER INDEX

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♦ Indicates advertiser is a member of IFAI; MFA indicates advertiser is a member of the Marine Fabricators Association, a division of IFAI.



The purpose of the Marine Fabricators Association (MFA) is to provide resources and programs for marine fabricators; to establish standards of excellence for business practices, products and craftsmanship; and to establish and maintain an identity for marine fabricators.



The advertisers in **BOLD** are exhibitors at IFAI Expo Americas 2010. Be sure to visit their booths at the show, which will be held at the Orange County Convention Center in Orlando Florida, October 27–29, 2010. For more information on IFAI Expo Americas 2010, please visit www.ifaexpo.com.



Zippy zipper storage

Use a clear storage tote to hold and dispense zipper chain easily.

from Keith Purves

PROBLEM

Zipper chain, sold in 100-yard lengths, is packaged on a cardboard sleeve that is hard to use and store.

SOLUTION

Store zipper chain, with the cardboard sleeve removed, in a clear storage tote with a hole cut into the lid.

HOW

- › Purchase 18-quart tote for application
- › Drill one-inch hole in the top with a hole saw
- › Put zipper chain, with cardboard sleeve still in place, into the tote
- › Feed zipper from the inside of the coil through the hole in lid
- › Snap the lid on and mark box for contents (#10 coil, #5 tooth)
- › Be careful not to remove the cardboard sleeve before putting the zipper into the tote or you will end up with a 100 yard tangle of zipper that will never fit into the box.
- › Do not try to feed the zipper from the outside of the coil or it will tangle about every six inches.
- › This same process can be used for other goods, such as keder welt and bungee. ■



Keith Purves is owner of Riverside Covers in Ft. Myers, Fla.



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