Rigid Enclosures

Canvas Designers, Inc.
EZ2CY, Inc.

Mike Erickson, MFC

Canvas Designers, Inc.

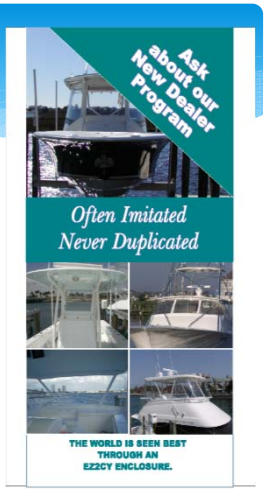
Mike Erickson and
Pam Erickson

Top Rigid Enclosure Brands

EZ2CY
Costa Clear
Rainier
4U2SEA
C-Clear enclosures
Seacrylic enclosures

Constantly expanding brands and products

EZ2CY® Enclosures

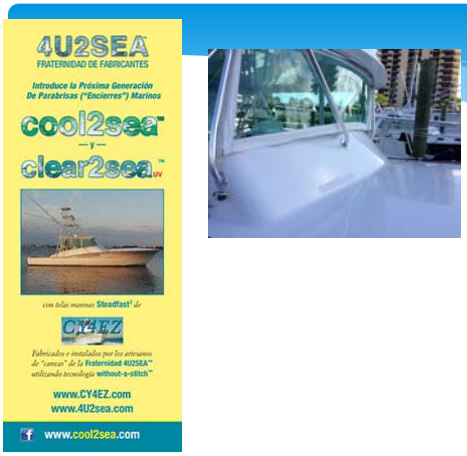


EZ2CY Enclosures

Acrylic

COSTA CLEAR®
Elite Series Enclosures

Acrylic



4U2SEA

Acrylic

Rainier Enclosures

3M

DURAPLEX

LEXAN RESIN

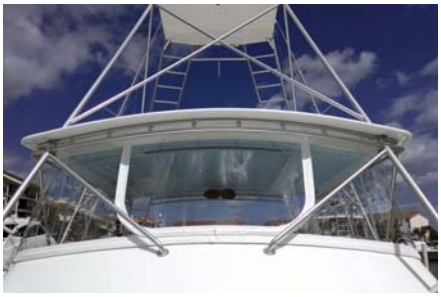
FERRARI

GORE Tenara SEWING THREAD

Lexan MR-10 sheet is mar- and graffiti-resistant. It combines the impact strength of LEXAN polycarbonate with a proprietary abrasion and UV-resistant MARGARD® II surface. It is warranted against yellowing, breakage, coating failure and loss of light transmission and offers improved resistance to weathering and forced entry protection.

Acrylic and Lexan

C-Worthy CUSTOM YACHT CANVAS



C-Clear Enclosures

P&R Canvas, L.L.C.

SeaCrylic™
Yacht Windows

Acrylic

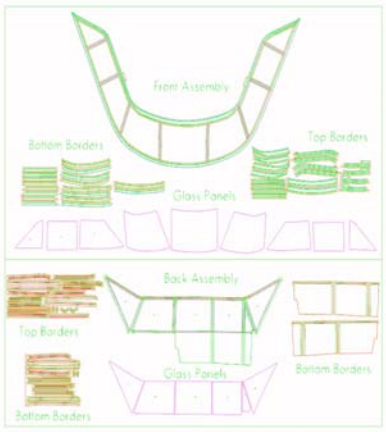
Canvas Designers

What is the key to OUR success with Rigid Enclosures?

Technology
High Standards
High Quality
Branding
Location
Processes
Repeatability

Various components make up a rigid enclosure

- Tracks
- Fabric Borders
- Clear Plastics
- Zippers
- Trims, keder, Velcro
- Hardware
- Glues, threads, and tapes



. Pattern using traditional methods or digital methods
  - Canvex and tapes
  - Paper and pencils
  - Triangulation
  - Proliner
  - Laser

. Process Patterns

. Cut fabric components

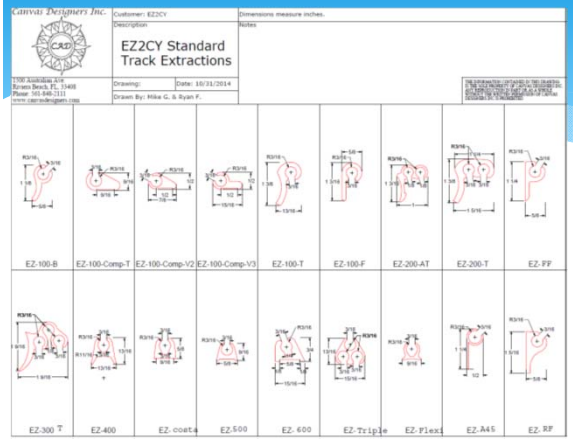
. Cut Glass inserts

. Sew and assemble Fabric Components

. Glue or bond or sew completed components to Glass

. Add zippers and tracks

Tracking is part of design



STAINLESS TRACK ENDs

- Fits to the end of Coasta Track to prevent keda pulling out under load..
- Approximately 2 inches long.

Today selection of Tracks

Single internal screw Track is most popular track

Single Track mounted to Windshield

Notice how the track is heated to form the curves on this windshield

Track to Track installation

Notice how this track is mounted to the top and sides and the enclosure panel is formed to fit snug against the fiberglass

EZ-100 T Track

Great for top mounted track on a top perimeter pipe (the enclosure hides the screws)

PVC Plastic Pipe Cutter

PVC Pipe cutter found in Home Improvement stores. Cuts PVC Track very easily

Track to Track Enclosure

Triple Track in use

Here the side panel is slid open

Triple Track Being Used

Notice that the track is one long piece the door panel is inserted into the outside grove and the 2 side panels are in the inside grove. Allowing the door to slide open or the side panels to slide open.

Side view of Double Track

Inside of this track is concaved to fit onto the aft rail of the boat. You drill and screw it to the Stainless Rail. Also you can mount this track to the ceiling so that the enclosure hangs down.

Track to Track Enclosure

Tiara Yachts with Double Track at top and single Track on the bottom so door slides open

Double Track mounted to Rail

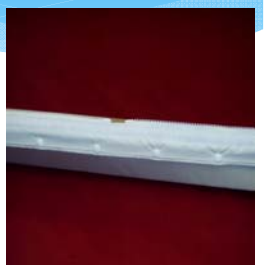
View along the aft with Double track mounted to rail making it possible to remove aft upper panel and leave the lower panel in place

Tiara Yachts Built in Track

Tiara Has built their windshields with a track built into the windshield as one piece

No track using Hardware





* If you want a zipper secured to windshield without track. You can make a snap in place flap with weather striping and zipper sewed to it.

View of separate Track with zipper attached

Front panel unzips from windshield and flips up to zip to the hard top

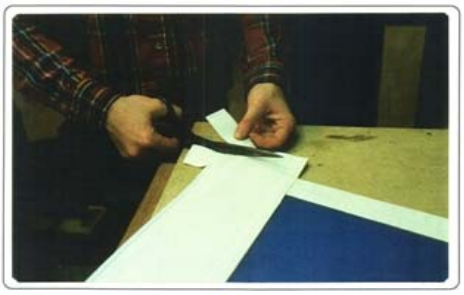
Fabrics for enclosure borders

* Traditional Coated Vinyl
* Coated vinyl hybrids
* Laminated vinyl
* Acrylic Fabrics
* Polyester Fabrics
* Miscellaneous Industrial Fabrics

Coated vinyl fabric EZ2CY/Strataglass Enclosure

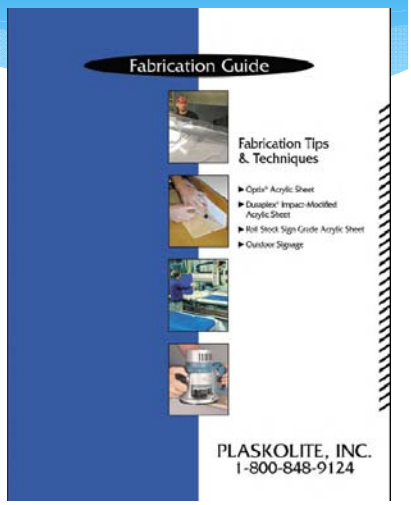
Acrylic bordered EZ2CY Enclosure for a Sea Ray

Border Fabrication



Clear Plastics

- Polycarbonates
- Acrylics
- Impact modified acrylics
- High bred Plastics



Plastic Sheet Manufacturers

- Cyro
  - **ACRYLITE® Resist**
  - **ACRYLITE® UV filtering**
  - **ACRYLITE® Heatstop**
- GE
  - **Lexan™ MR10 Sheet with Margard™ II Coating**
- **Bayer Chemical**
  - **Makrolon**
- Plaskolite
  - Impact modified Acrylics
    - Optix

makrolon

Plastic sheet distributors

* E-T Plastics
* Plastic Supply
* Laird Plastics
* Piedmont Plastics
* Total Plastics
* Emco Plastics
* Interstate Plastics
* Other Industry specific distributors

Branding

EZ2CY ™	Plaskolite impact modified acrylic
SeaCrylic ™	Plaskolite impact modified acrylic
cool2sea™ Acrylic	Cyro heat filtering impact modified acrylic
clear2sea$_{uv}$™ Acrylic	Cyro UV filtering impact modified acrylic
clear2sea™	Cyro impact modified acrylic
Rainier ™ Polycarbonate	MR-10 polycarbonate
Ranier ™ Acrylic Cyro and	Plaskolite impact modified acrylics
C-Clear ™ Polycarbonate	Makrolon and MR-10 polycarbonates
Costa Clear ™	Plaskolite impact modified acrylic

Cutting plastics

CARE

SAFETY CONCERNS

Acrylic sheet is a combustible thermoplastic. It will ignite and burn if placed in open flame or in contact with any other source of ignition. When storing or working with acrylic sheet, please be aware of the thermoplastic properties and consider fire precautions.

STORAGE

PLASKOLITE acrylic sheet is best stored horizontally, on the supplied flat bulk skids, in a well ventilated, consistent temperature area. Avoid storing acrylic sheet where extreme temperature variations occur, and areas above 100°F. Extreme temperature fluctuations can reform flat sheet as it can expand or contract.

A-frames or special racks can be used to store sheet vertically. Construct the racks allowing the acrylic to lean approximately 10°.

HANDLING

PLASKOLITE acrylic sheet is covered with a polyethylene film or paper masking for protection during storage and fabrication. Avoid sliding sheets across work surface debris. Chips and dirt can penetrate the masking, scratching the sheet.

MASKING REMOVAL

When removing the film and/or paper masking from the acrylic, it's best to start at a corner and peel away from the sheet. If removal is difficult, combine 50% rubbing alcohol with water in a squirt bottle, begin spraying at the edges as you pull away from the sheet.

CLEANING

Clean PLASKOLITE acrylic sheet with a mild soap solution, or a commercially available plastic cleaner, such as PLASKOLITE PLASTIC CLEANER, and a lint free cloth. To remove grease, oil, or tar deposits, use hexane or kerosene, followed by a soap solution. Avoid cleaners containing ammonia or alcohol.

NEUTRALIZING STATIC ELECTRICITY

PLASKOLITE acrylic sheet can be neutralized with an anti-static cleaner such as PLASKOLITE PLASTIC CLEANER, or ionizing air guns, and bars.

CUTTING/MACHINING

SCRIBING & BREAKING

For PLASKOLITE acrylic sheet up to 1/4" thick, score repeatedly along a straight edge with a plastic cutting tool, or Fletcher Terry Knife. Score to penetrate 1/3 through the sheet. Align the score with the edge of the table and apply gentle pressure to break the sheet along the score line (See Fig. 2).

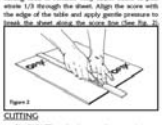


Figure 2

CUTTING

PLASKOLITE acrylic sheet can be cut with a variety of equipment. The selection of blades is critical with regards to the quality of the edge finish.

Table, and Panel saws are the best options for high volume straight cuts. Material can be stacked to cut several sheets at one time. When cutting, the saw blade should protrude through the sheet approximately 1/4" (See Fig. 3). Saw blades, specifically designed for cutting acrylic sheet, are commercially available.

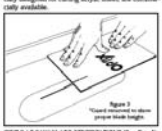


Figure 3
*Guard removed to show proper blade height.

CIRCULAR SAW BLADE SPECIFICATIONS (See Fig. 4)

Rake angle 0 -10°
Clearance angle 10-15°
Blade teeth 80 per 10" blade

Blade Diameter	RPM
6"	6800
8"	5000
10"	4000
12"	3000
14"	2800
16"	2400

Tooth design (See Fig. 5)

Band, scroll, and sabre saws are best for cutting intricate shapes and curves. Again, blade selection and proper feed rate is important to minimize melting or chipping. These saws are excellent for creating templates for vacuum or hand routing, and trimming off-excess scrap material.

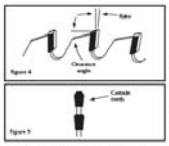


Figure 4

Figure 5

Routers are one of the most versatile pieces of equipment available to trim PLASKOLITE acrylic sheet. Bit selection is important, and tools specifically designed to rout acrylic are commercially available. Use a downward spiral router bit to prevent masking from fraying. Routers produce a high quality machined edge, ready for finishing, provided the following formulas are followed:

Chip Load = Feed Rate/(RPM X # cutting edges)
Feed Rate = RPM X # cutting edges X chip load
Speed (RPM) = Feed Rate/(# cutting edges X chip load)

Hand routers are best used for low volume work. With a bearing-mounted, flush trim bit, the router can trim around a clamped template.

Pin, table and vacuum routers (hand routers mounted under a table) are more convenient to rout around intricately shaped templates (See Fig. 6).

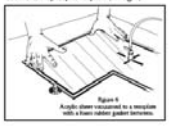


Figure 6
Acrylic sheet vacuumed to a template with a foam rubber gasket between.

Circle routers can cut round parts by securing the acrylic sheet to a turntable, then rotating the sheet around the stationary router.

Computer Numerically Controlled (CNC) routers are used for high volume, intricate, precise acrylic parts. The part is designed on a CAD/CAM system and geometry is programmed directly into the CNC machine. Many of the variables; feed rate, RPM, bit diameter, depth of cut are adjustable for optimum cutting performance.

CNC laser cutters are used to cut virtually any shape part from PLASKOLITE acrylic sheet. This form of cutting produces a clean, polished edge without saw chips. It is well suited for cutting small intricate parts that are difficult to hold down with other cutting processes. Paper masked, or sheet with 3 mil laser cuttable film perform best for this operation.

MACHINING

Many methods are used to produce a desirable edge finish.

Shapers and table routers can machine square, beveled, bull nose, ogee, and other decorative edges (See Fig. 7).

Figure 7
Table routing a beveled edge.

Jointers are used to square and prepare edges for cementing or hand finishing. Multiple sheets can be stacked to increase efficiency (See Fig. 8).

Figure 8

Edge finishing machines with diamond cutting wheels, produce an edge with a polished look, excellent for cementing.

Cutting plastics

CARE
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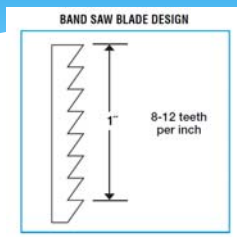
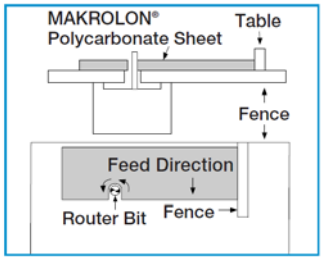
Cutting Tips





- Sawing
- Router cutting
- Laser cutting
- Shearing

- Flame polishing of edges
- Sanding edges

Manually Cutting plastics Drag Blade tool

Removing 7/8” protective film

Drag Blade Cutting Plastics

IMPORTANT NOTE: When cutting it is very important not to chip or make a cut into the panel that will be used. If a section is only 38" you will still need to make the cut clear cross the 4' sheet of acrylic. Chips or cuts on the edge of a panel can eventually find there way to crack the whole panel. The chip or cut can easily be cut off and that piece used for a smaller panel

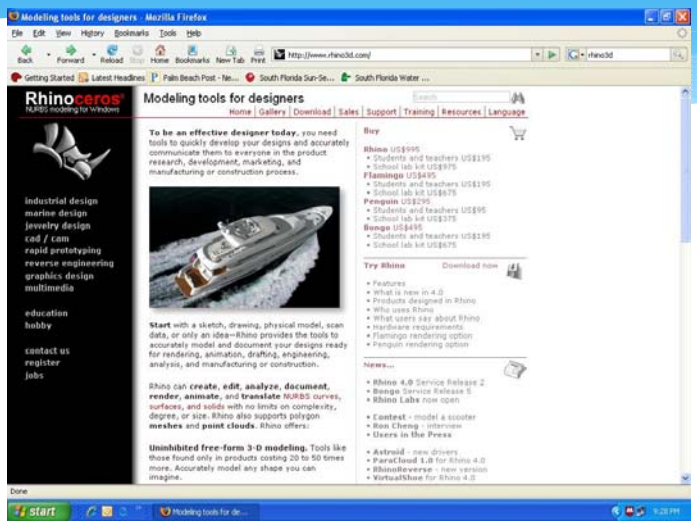
Draw Glass

Old Carlson Plotter cutter

Prodim Plotter

Aeronaut Plotter Cutter

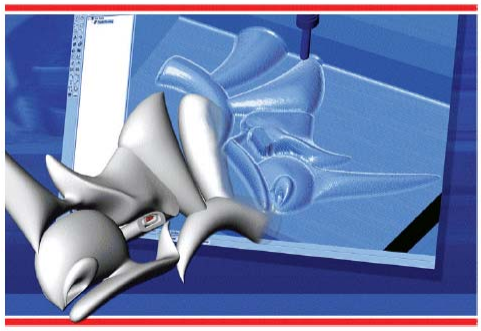
Rhino Cad Software



Cutting Plastics

RhinoCAM® 2.0

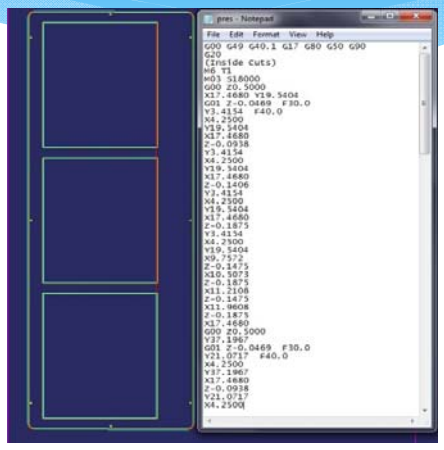
Cutting edge manufacturing technology in Rhino ©



MecSoft Corporation

G-Code

- Is an array of numbers that can be considered to be the coordinates of a graph and they control the speed and movement of the cutting tool. This way the computer controls the cutting and shaping of the material.
- Picture on right shows the G-Code that was written in order to cut an Electronics Panel from 3/16" aluminum
- Much like the canvas world G-Code has come a long way with the help of new technology.



CNC

Vacuum Purge Valves

- Means Computer Numerical Control. That means a computer converts the design produced by Computer Aided Design software (**CAD**), into numbers or (**G-Code**).
- The pictures to the right shows one of our current CNCs along with its various components.

Vacuum Hold Down Controller

Spindle

Z-Axis Driver

Cutting Tool

CNC cutting

Bonding Plastics

CEMENTING/FASTENING

Cementing PLASKOLITE acrylic sheet must begin with well machined parts. A square flush fit, without using excessive force, is required to produce a strong, attractive joint and to minimize the chance of "blushing". Cementing should be performed at room temperature in a well ventilated area. A low humidity environment will prevent cloudy joints. Parts to be bonded should not be flame or buff polished.

TYPES OF CEMENTS

Solvent cements - Water thin solvents that soften the acrylic, diffuses and evaporates, allowing the parts to harden together.

Mixed solvent cements - Solvent cement thickened with an acrylic polymer to slow cure times, and fill small voids.

Polymerizable cements - Methyl methacrylate monomer and a catalyst mixed to produce a cement for strong, long lasting museum quality joints.

Tervis tumblers are joined with this method

ULTRASONIC WELDING

Sonic welding: the use of electrical energy that is converted to mechanical vibration to melt acrylic sheet, can be used to press parts together.

- Structural adhesives
- "Super Glue" adhesives
- PUR adhesives

Bonding dark colored fabric borders applies to this situation also

ADHERING TO OTHER MATERIALS

Care must be taken when attaching PLASKOLITE acrylic sheet to other substrates. Different coefficients of thermal expansion exist between the two pieces to be fastened, placing large stresses on the bond. To overcome the inherent stress along the joint, keep the dimension of the adhesive area as small as possible, and use elastic cements that remain flexible, such as caulks, polysulfides and rubber based adhesives. Pressure sensitive, double-faced tape, depending on the end use, may also be suitable for joining acrylic to other materials.

Heat forming Plastics

FORMING

COLD FORMING

A bend in PLASKOLITE acrylic sheet can be accomplished without applying heat. A minimum radius of 200 times the thickness of the acrylic is required to avoid stress cracking.

LINE BENDING

Line bending is a method of forming a sharp bend in the acrylic sheet. The radius of the bend can be controlled by adjusting the width of the heated area. Routing a V-groove into the acrylic prior to bending will produce a very sharp bend. Heating elements such as nicrome wire, infrared, rods, or wide strips can be used. Heat the area to be bent to a pliable state then place the sheet in a fixture to cool (See Fig. 18 & 19).

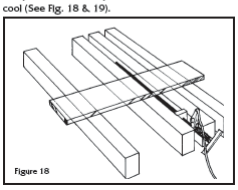


Figure 18

Bending Polycarbonate

THERMOFORMING

PLASKOLITE acrylic sheet is heated to its forming temperature, placed over a mold, creating an air- tight seal. Vacuum is drawn through the mold, pulling the sheet to it. Once the part takes the shape of the mold, it is slowly cooled, then released.

Typical for signage, Figure 20 shows a method for low volume production. The acrylic sheet is heated while on the mold, vacuum applied. Angle iron presses out any webbing or wrinkles on the flange, and prevents any vacuum loss during cooling. Since the sheet is not clamped in this method, allow for shrinkage in the machine direction.

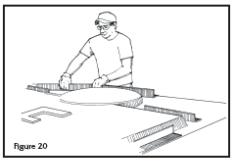


Figure 20

OPTIX THERMOFORMING CONDITIONS
.100" to .375" thickness

PROPERTY	OPTIX & OPTIX SG
Optimal forming temp.	320°F
Forming temp. range	270-350°F
Heating time (two sided infrared)	1-10 min.
Cooling time	.5-4 min.
Optimal mold temp.	180°F
Free shrinkage at forming temp.	
Machine direction	1-3%
Transfer Direction	0%

DURAPLEX IMPACT MODIFIED ACRYLIC THERMOFORMING CONDITIONS
.100" to .375" thickness

PROPERTY	DURAPLEX SG-05	DURAPLEX SG-10
Optimal forming temp.	315°F	310°F
Forming temp. range	270-350°F	270-350°F
Heating time (two sided infrared)	1-10 min.	1-10 min.
Cooling time	.5-4 min.	.5-4 min.
Optimal mold temp.	175°F	170°F
Free shrinkage at forming temp.		
Machine direction	1-3%	1-3%
Transfer Direction	0%	0%

Glue Types

* “super glue” family
* Two part Structural adhesives
* Pur systems
* Air caulk guns
* Squeeze bottles
* Hot glue guns
* Various mixers
* Tip otions

Gluing process

Assembly Process




Zippers, Trims, and Hardware

- We only use YKK zippers currently
- All Hook and loop is polyester
- Preferred hardware is Snap Fast for hinge ups

Zipper Details

Zippers sew on inside face
Zippers measure 1 ½" wide
The center of a zipper is not the tooth edge
Side zippers start on track fold
Bottom zippers start on side finish
Side zippers zip towards bottom
Bottom zippers zip towards aft
Male zippers hold a pin, female zipper has slider and box
Male zippers pin right, female zippers pull left
Male zippers hold an 1/8" rope

Zipper sewed to the bottom

Zipper is double stitched to the bottom of the enclosure panel. Notice the beginning 1 1/4 inch is not sewed down. Making it easier to zip panel into place

Pull Cords for the Zipper Sliders

We use all non-locking sliders on enclosures

Track to zipper snap application

This is becoming more popular when you convert a enclosure panel that originally had snaps to windshield.

Velcro applications

Keder tensions

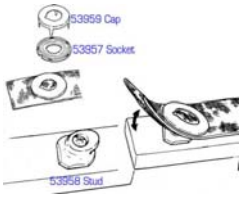
- No take up: edge of bead aligns with finish
- Quarter bead: half of half of bead aligns with finish
- Half bead: the center of bead aligns with finish

Threads

* Life time threads is standard
* Sewing Polycarbonate

SolarFix®

Fasteners and Hardware



Tapes

* Rainier uses bonding tape to adhere plastic to fabric
* We use bonding tapes to adhere tracks to boats

Rainier Bonded Windows are constructed using our patented bonding and construction process that has been used and improved for over 10 years.

Designing Rigid enclosures

Rigid enclosures are different than soft enclosures

* Semi rigid does not roll up they can lift up or slide open
* Semi rigid windows cannot flex around extremely tight radius
* Hard coated polycarbonates have max radius to not fracture protective coatings (causes crazing from UV over time)

Simple Technology makes a great sales and design tool

Simple Technology can "visualize" for your customer

Front Panel off bimini unzipped & Flipped Up

Front panel secures to the top by means of straps & D rings that hook to the Frame

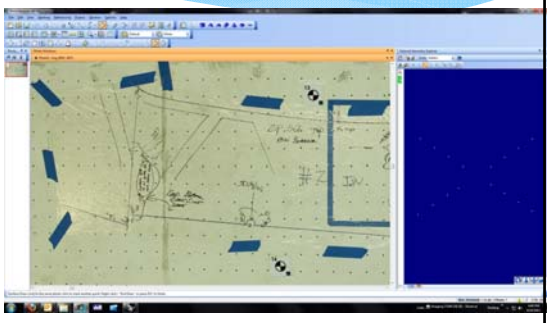
Center Panel secured to Ceiling

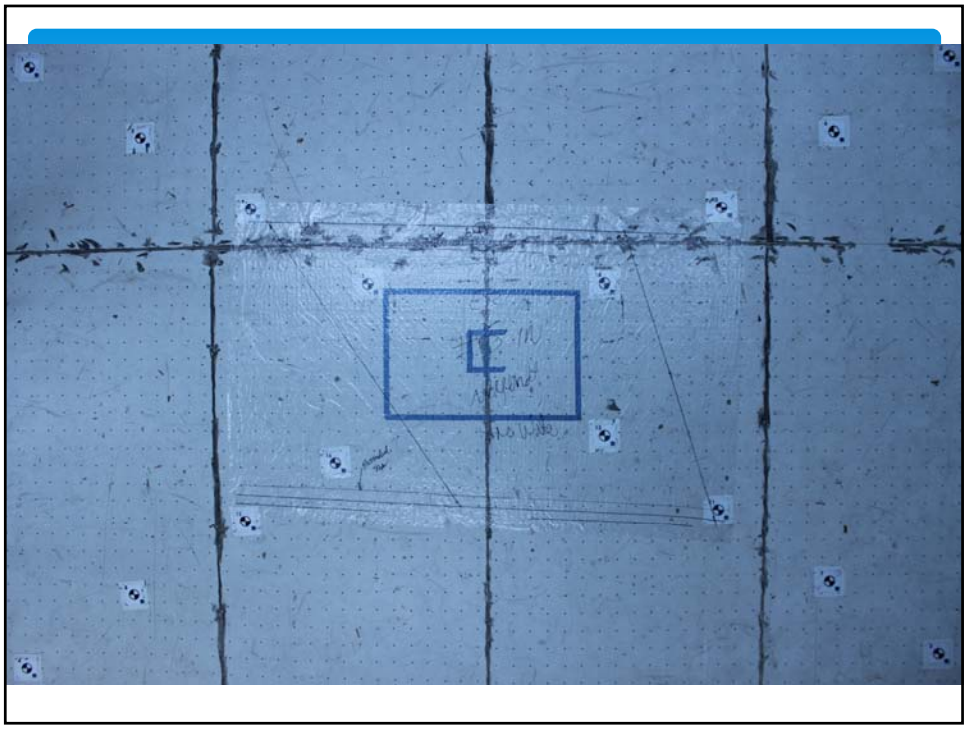
Panel is unzipped at the bottom & zipped to the ceiling and additional track screwed to the ceiling

Where does Technology fit with manufacturing rigid enclosures?

- Traditional patterns get digitized
- Digitizers get 3D patterns
- Digitized or 3D patterns get developed into component patterns through Cad software
- Clear materials get cut by CNC or by Plotting and Cutting
- Fabric components get cut by Plotter cutters
- Assembly sheets help efficiency
- Repeatability provides future revenue stream

Digitizing Traditional Patterning





PHOTOMODELER DIGITIZING KIT

- Quickly digitize 2D & 3D patterns
- Stores patterns in JPEG
- Stores patterns in PMR after digitizing
- Export multiple CAD file types (.3dm, .dxf, .3ds, .wrl, .obj, .txt)
- Take photos of stored physical patterns and get rid of clutter

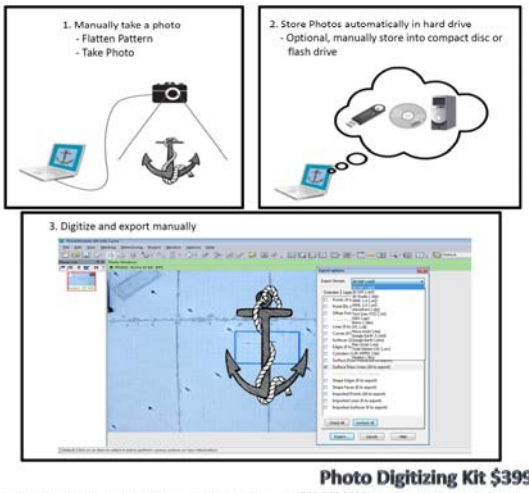
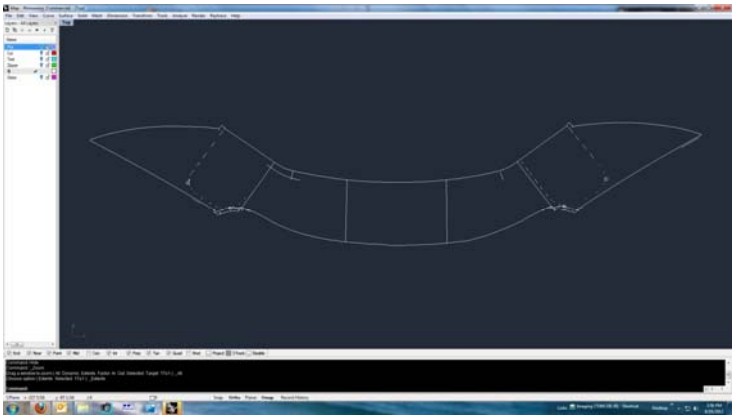


Photo Digitizing Kit $3995

For Further Information Please Contact Canvas Designers Inc. Telephone (***561-848-2111***) Website ***www.canvasdesigners.com***

Digitized "Old School" Pattern



3D Patterning

[3D Disto Laser Templator]

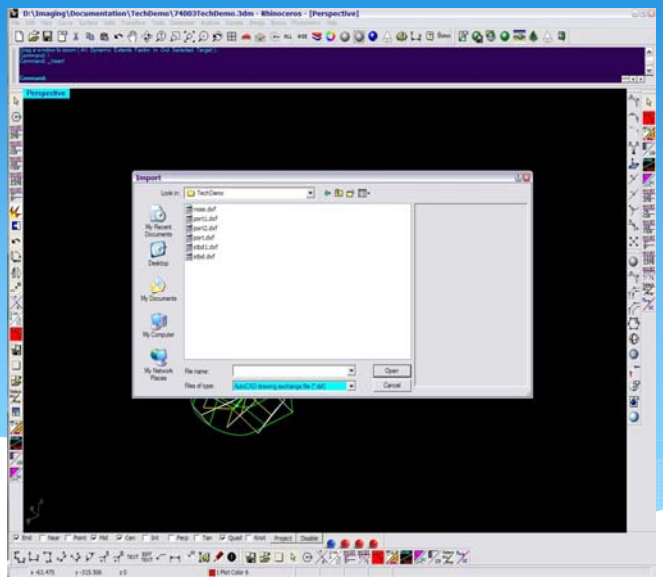
Occipital Structure Sensor

Proliner 8 with IPT (Used to measure around corners)

PRODIM

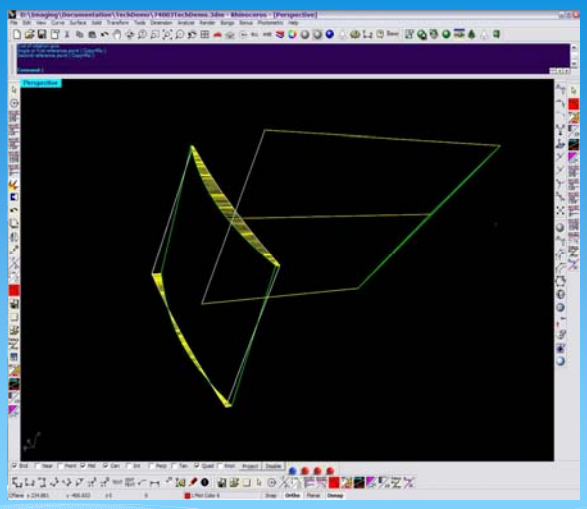
DXF: Insert files into CAD

Open the default CAD drawing and egin importing dxf files from the project directory. DXF, or Digital xchange Files, are format files the Proliner uses to store the original easurements and are the most ommon currency among CAD

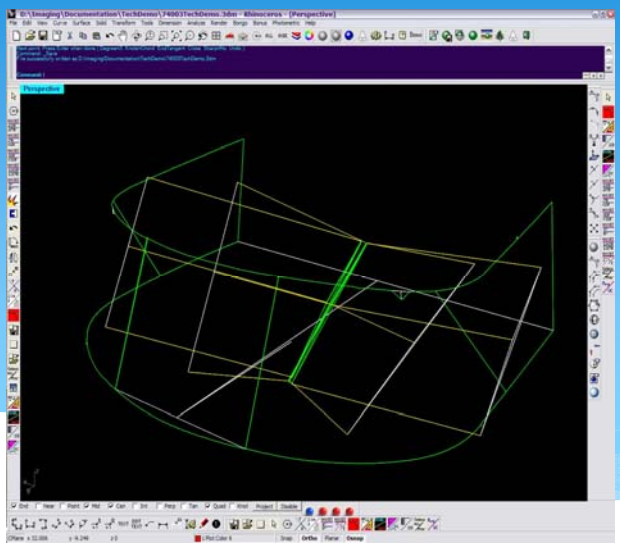


Combine files in CAD environment

Manipulate the files with reference points. Multiple files on a single location benefit construction with many custom requirements.

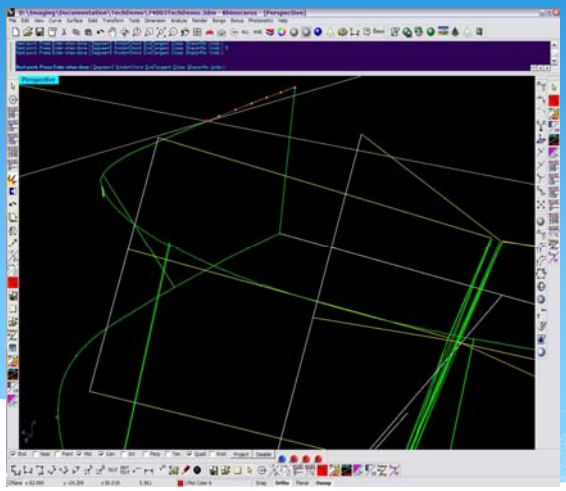


Full Wireframe Assembly of DXF files in CAD

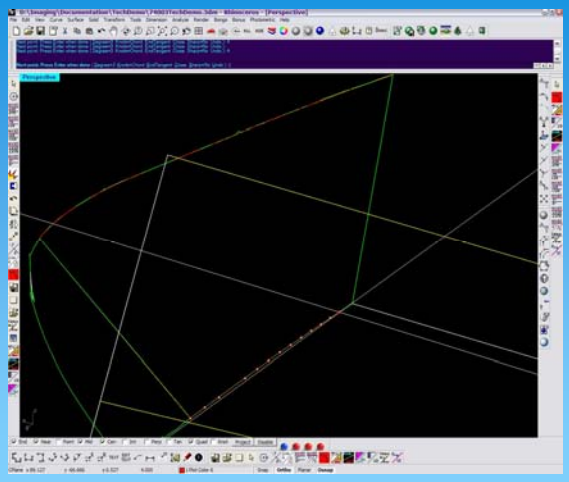


Trace top border panel contour

Begin drawing part contours. Trace and clean up measurements to uniform appearance. Here we trace the contour to the end of each panel at the top.

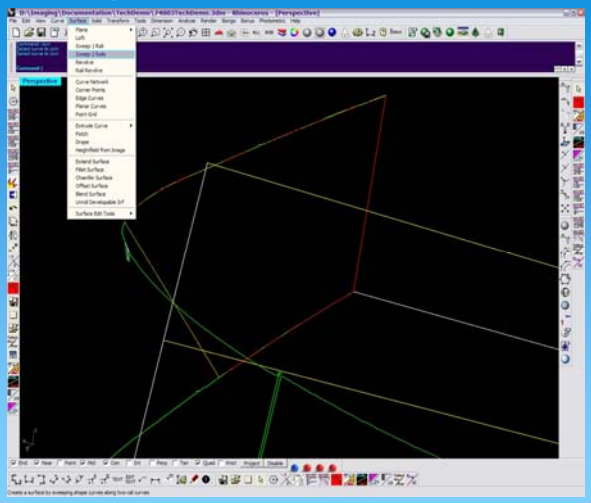


Trace bottom panel contour

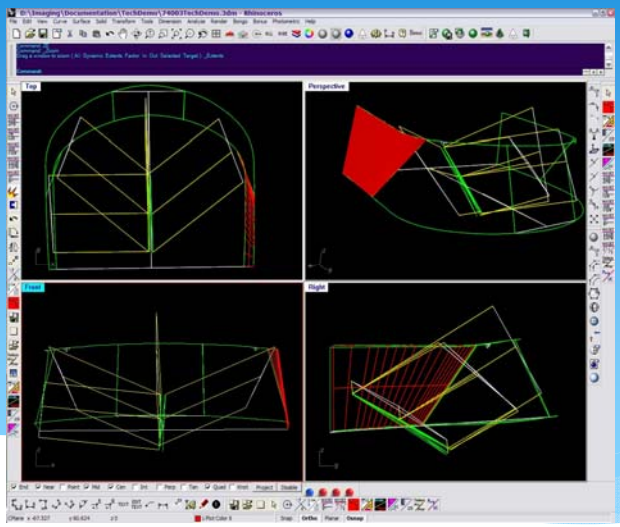


Sweep 2 contours with a surface

Here is where the CAD environment takes off. We use a surface command to follow the two contours we just made on top and bottom.

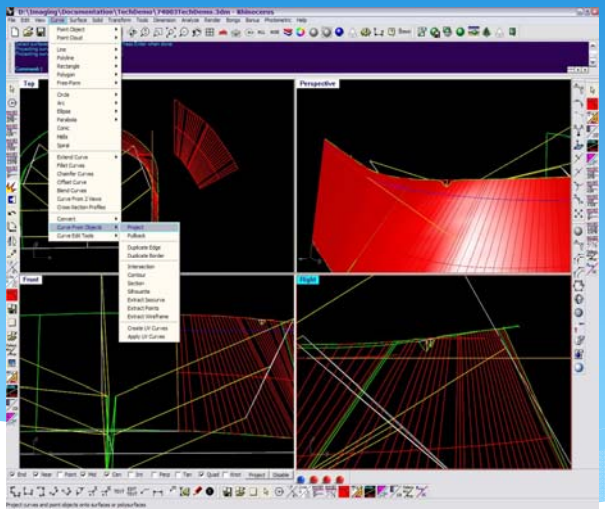


First surface created



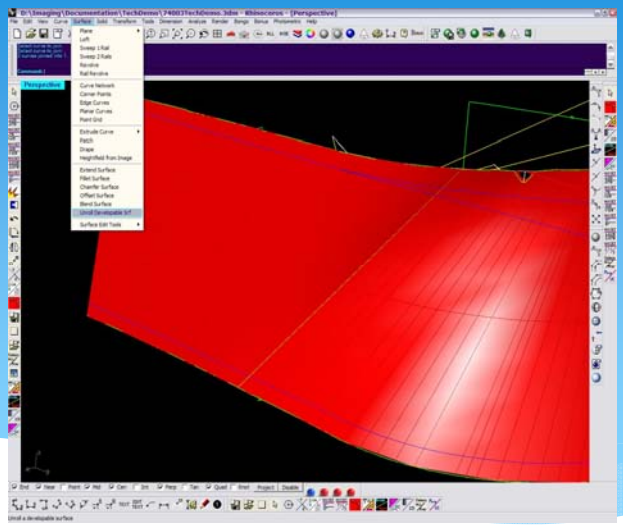
Project orthographic (straight) lines onto the curved surface

Now we want to set our borders and determine our glass structure.
We want a nice straight field of vision. We begin by drawing orthographic lines from the edges of the surface contours. Then we "Project" this line across the surface.



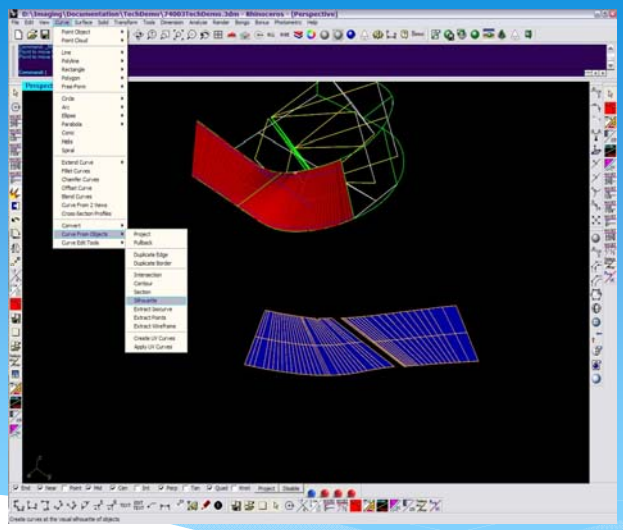
Unroll surfaces with projected contours

Once we have these borders projected to the surface, we want to unroll this contoured surface to reveal what the 2D pattern will be in its final assembly.



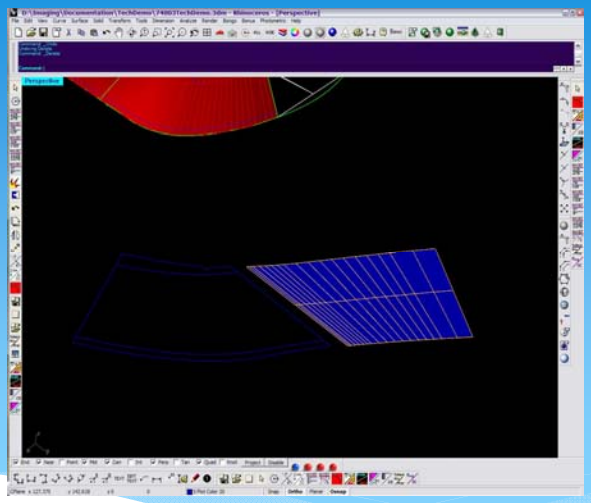
Silhouette of unrolled surfaces

Now that we have our surface and our border lines in a 2D pattern, the next step is to turn it into basic line drawings for pattern making. We do this by taking a "Silhouette" of the unrolled surface.



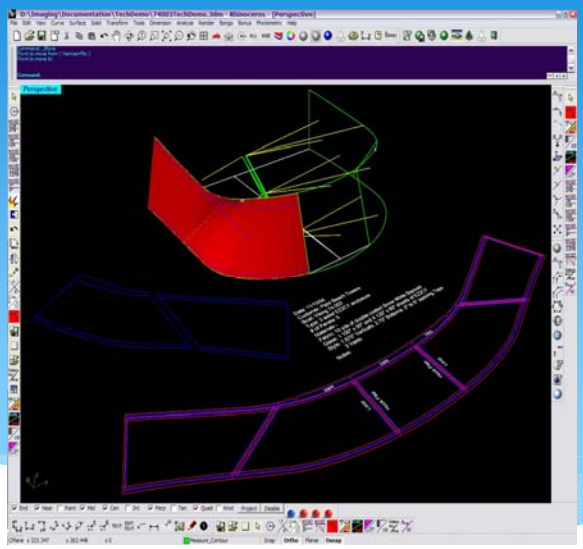
Remove the unrolled surfaces

Now we just delete the unrolled surface. Here you can clearly see the top and bottom borders with the projected contours representing the visible glass lines.

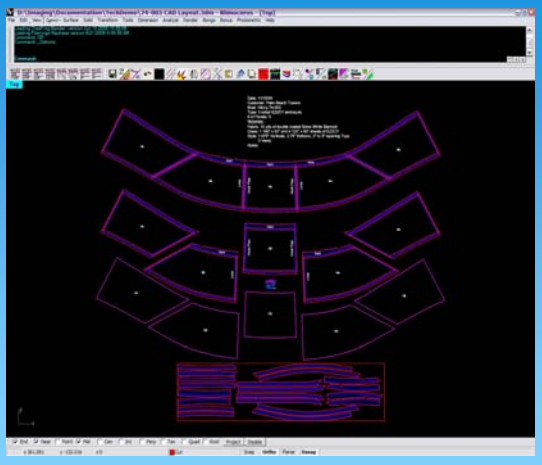


Final assembly

Using our EZ2CY standards we can now generate the verticals for zippers. Each component type has its own standard for stitch and cut lines to result in our finished product. These standards not only help in processing, they insure the strength, quality, and durability of the enclosure.

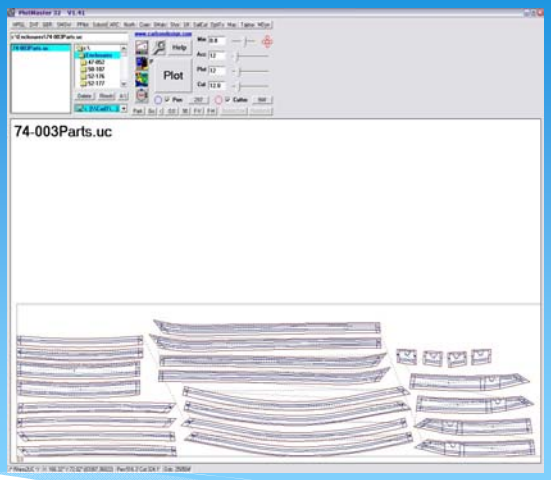


Nest parts and glass



Export to plotter/cutter

After laying out the fabric onto our plotting table and turning the vacuums, and converting the nested CAD file into a .uc plot file readable by the plotter/cutter software, we need only to hit the plot button.

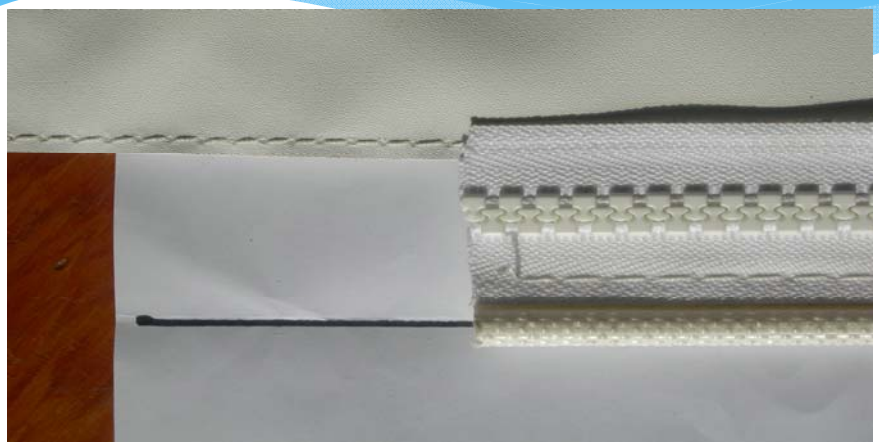


Cut out and draw parts and matches

Developing Standards

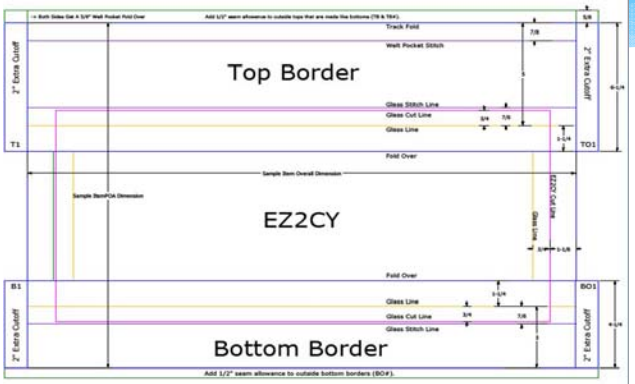
* Tensioning
* Off sets
* Upper Borders
* Lower borders
* Vertical Borders
* Options (vents, EZ vents, extended welts etc.)
* Hardware

Black line is the edge of the bottom track from your pattern when sewing the bottom Keder with the zipper attached place the bead half way into the track line this will tension your enclosure panel, making for a tight fit when you zip it to the track at the bottom



Standards

Border Sizes



Extended Welt

Canvas Designers Inc.

1506 Australian Ave.
Riviera Beach, FL. 33404
Phone: 561-848-2131
www.canvasdesigners.com

Rev: 4/11/08

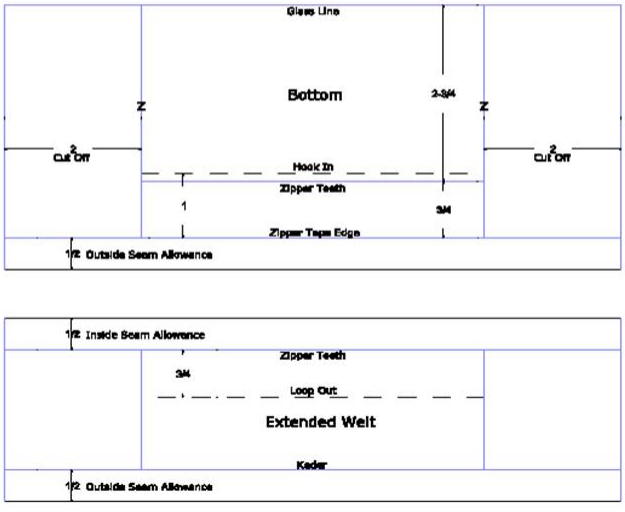
Description

Exposed Extended Welt

Drawn By: Greg

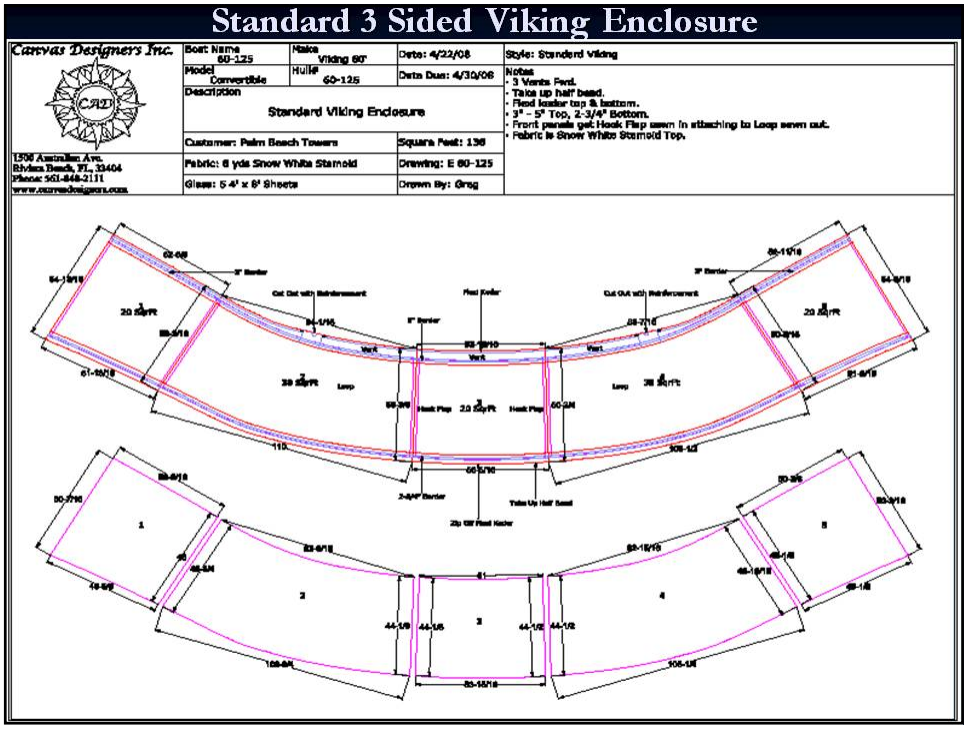
Drawing: E 2

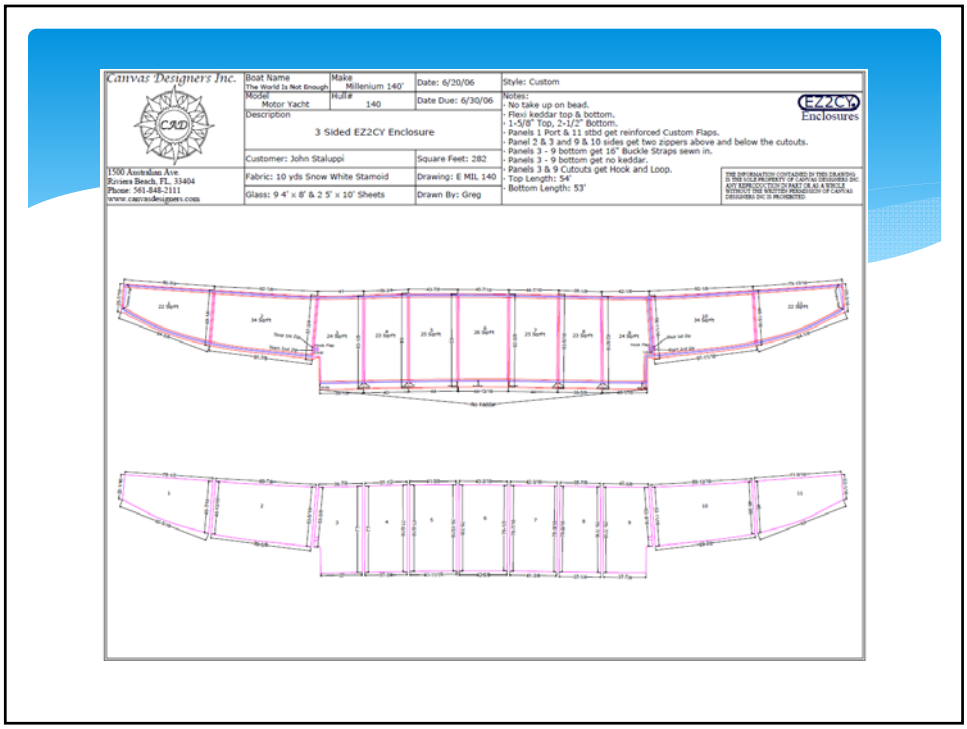
Notes
- Bottom zips to Extended Welt.
- Bottom overlaps the Extended Welt by 1/8" to cover the Loop.
- Standard Extended Welt gets a bottom that covers the extension.



Other Standards

* Phone booth enclosures get double sliders
* The bottom zippers of angled sides start on glass cut line
* when you have track on a vertical the offset standards are the same as a bottom track
* The minimum distance between a cutout and the glass cut line is ½”





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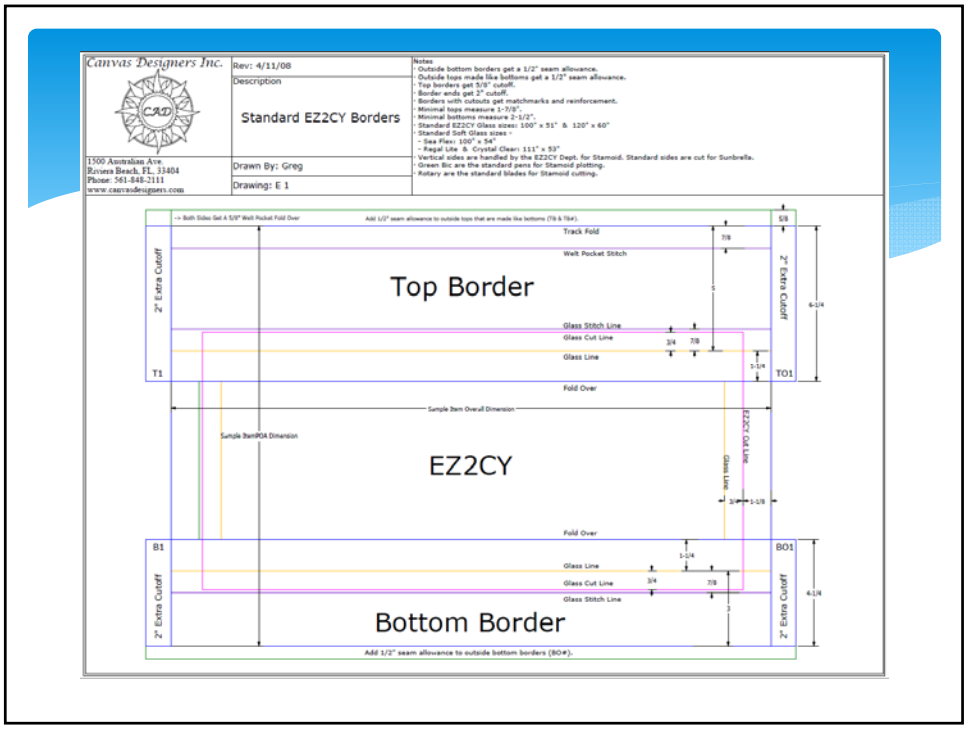
Riviera Beach, FL. 33404
Phone: 561-848-2111
www.canvasdesigners.com

Boat Name: The World Is Not Enough	Make: Millenium 140'	Date: 6/20/06	Style: Custom
Model: Motor Yacht	Hull#: 140	Date Due: 6/30/06	
Description: 3 Sided EZ2CY Enclosure			
Customer: John Staluppi		Square Feet: 282	
Fabric: 10 yds Snow White Stamoid		Drawing: E MIL 140	
Glass: 9 4' x 8' & 2 5' x 10' Sheets		Drawn By: Greg	

Notes:
- No take up on bead.
- Flexi keddar top & bottom.
- 1-5/8" Top, 2-1/2" Bottom.
- Panels 1 Port & 11 stbd get reinforced Custom Flaps.
- Panel 2 & 3 and 9 & 10 sides get two zippers above and below the cutouts.
- Panels 3 - 9 bottom get 16" Buckle Straps sewn in.
- Panels 3 - 9 bottom get no keddar.
- Panels 3 & 9 Cutouts get Hook and Loop.
- Top Length: 54'
- Bottom Length: 53'

EZ2CY Enclosures



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Phone: 561-848-2111
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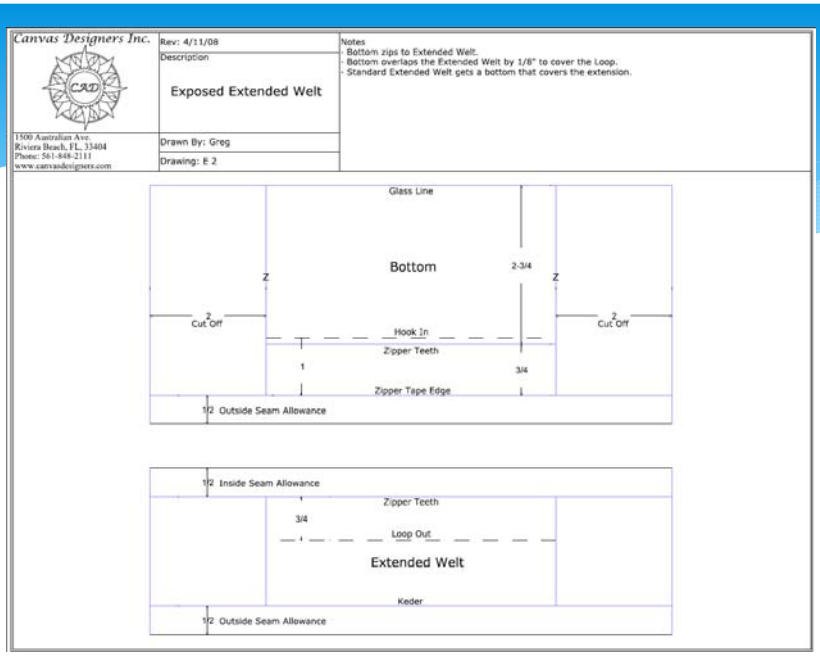
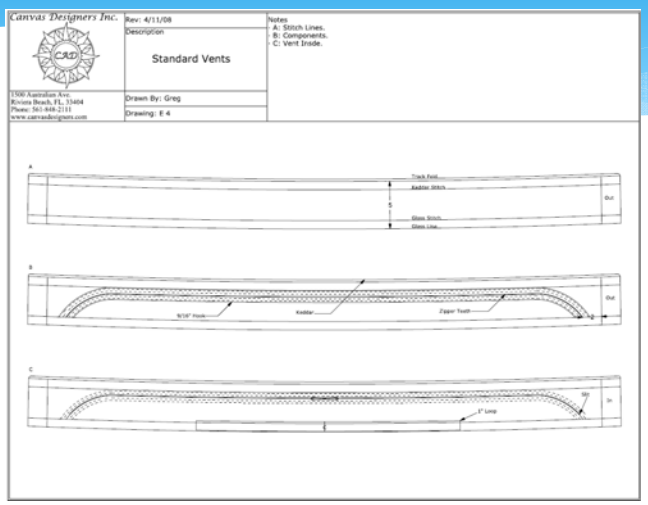
Rev: 4/11/08	
Description: Standard EZ2CY Borders	
Drawn By: Greg	
Drawing: E 1	

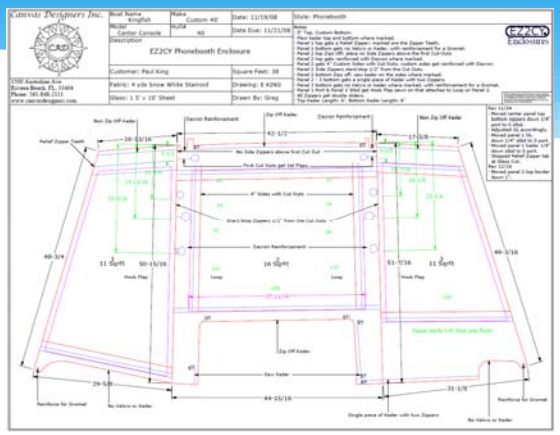
Notes
- Outside bottom borders get a 1/2" seam allowance.
- Outside tops made like bottoms get a 1/2" seam allowance.
- Top borders get 5/8" cutoff.
- Border ends get 2" cutoff.
- Borders with cutouts get matchmarks and reinforcement.
- Minimal tops measure 1-7/8".
- Minimal bottoms measure 2-1/2".
- Standard EZ2CY Glass sizes: 100" x 51" & 120" x 60"
- Standard Soft Glass sizes -
  - Sea Flex: 100" x 54"
  - Regal Lite & Crystal Clear: 111" x 93"
- Vertical sides are handled by the EZ2CY Dept. for Stamoid. Standard sides are cut for Sunbrella.
- Green Bic are the standard pens for Stamoid plotting.
- Rotary are the standard blades for Stamoid cutting.



Border vents offer nice air flow solution

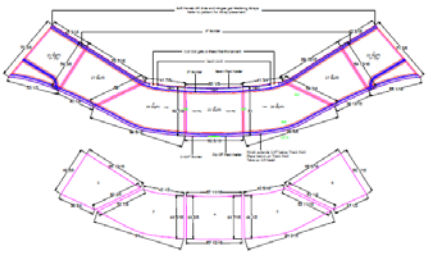


Complex cutouts even have standards



½” clearance from opening to glass cut

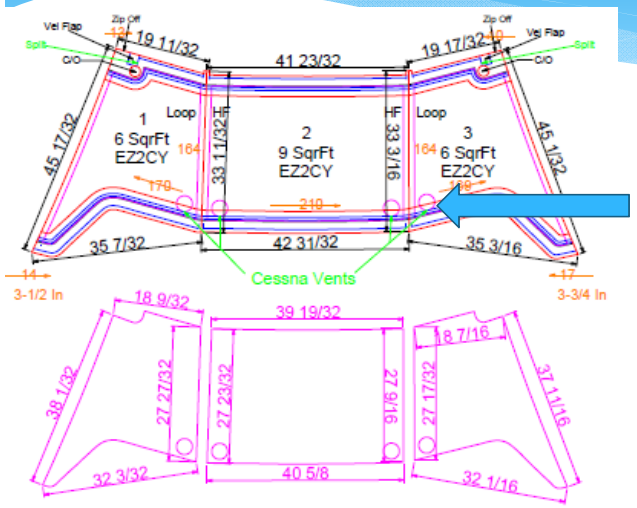
Border Vents in 54 Viking



EZ Vent Options

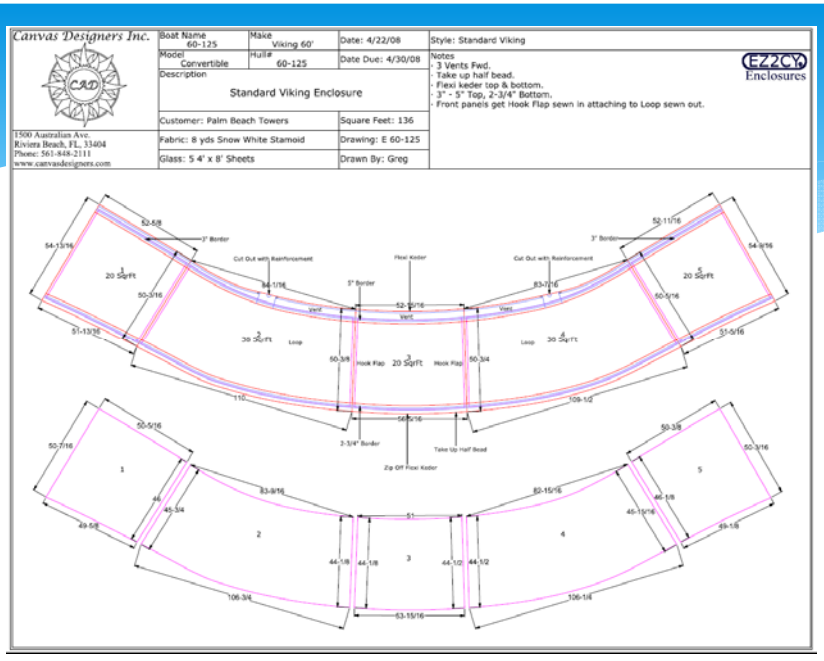
Comes from the Aviation business
Easy to install
Provides directional air flow
Extremely water repellant
Blends because its Clear

Albury 27 EZ2CY



EZ Vent Standards

EZ Vent in 27 Albury



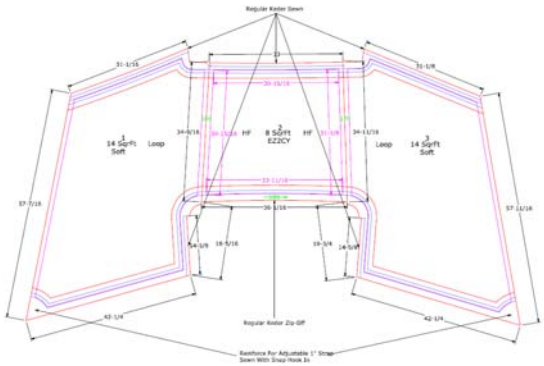
76’ Horizon EZ2CY Enclosure Interior

76’ Horizon EZ2CY Enclosure Perspective

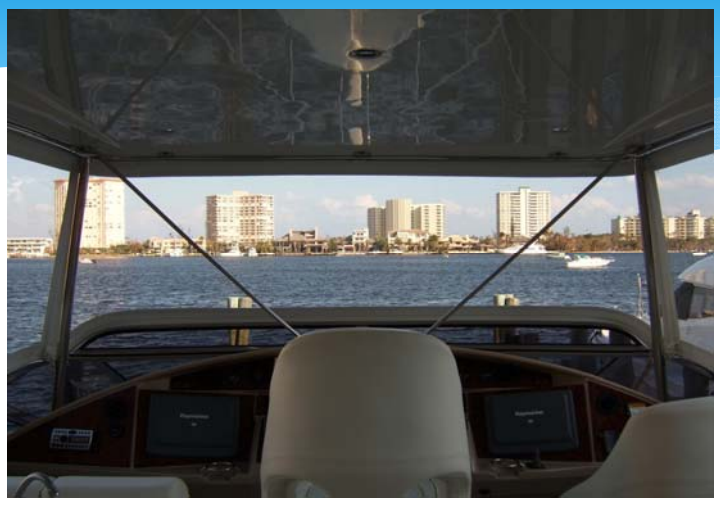
Bahama 41 EZ2CY

Bridge master or other glass Inserts Options

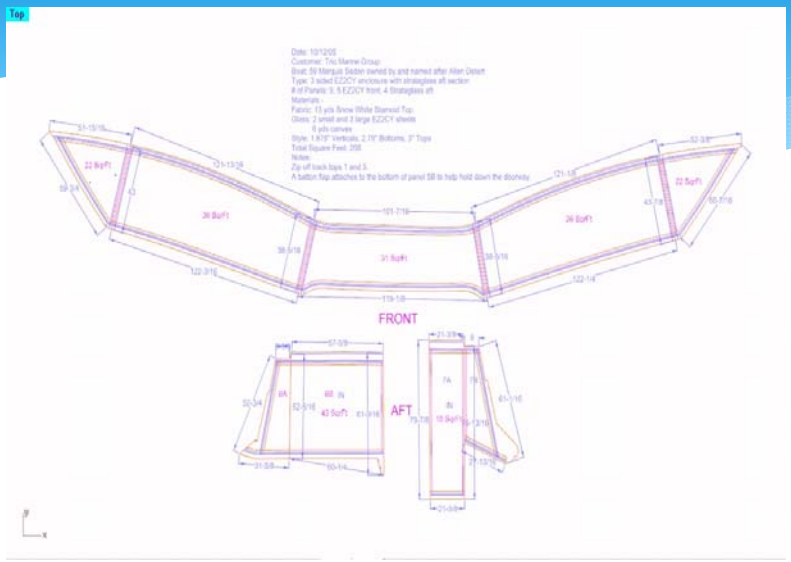
Bahama 41 EZ2CY wrap panel



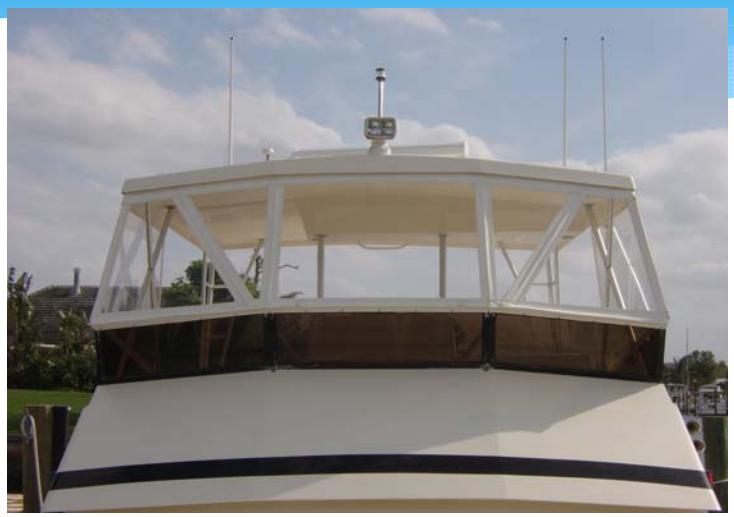
59’ Marquis EZ2CY/Strataglass Enclosure Interior



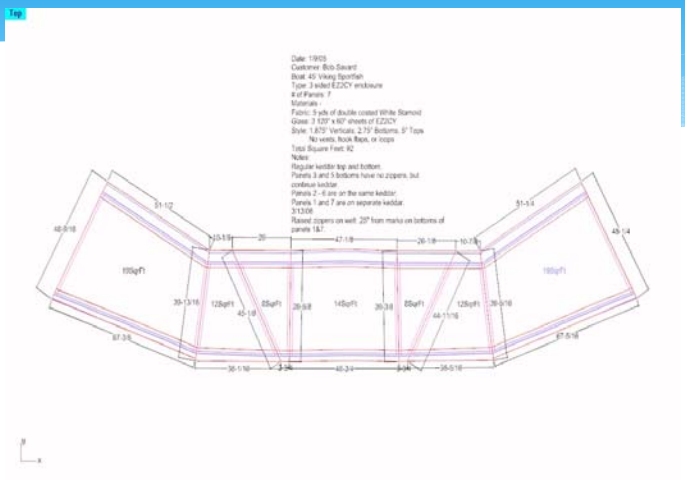
59’ Marquis EZ2CY/Strataglass Enclosure Map



45’ Viking Sportfish EZ2CY Enclosure Front

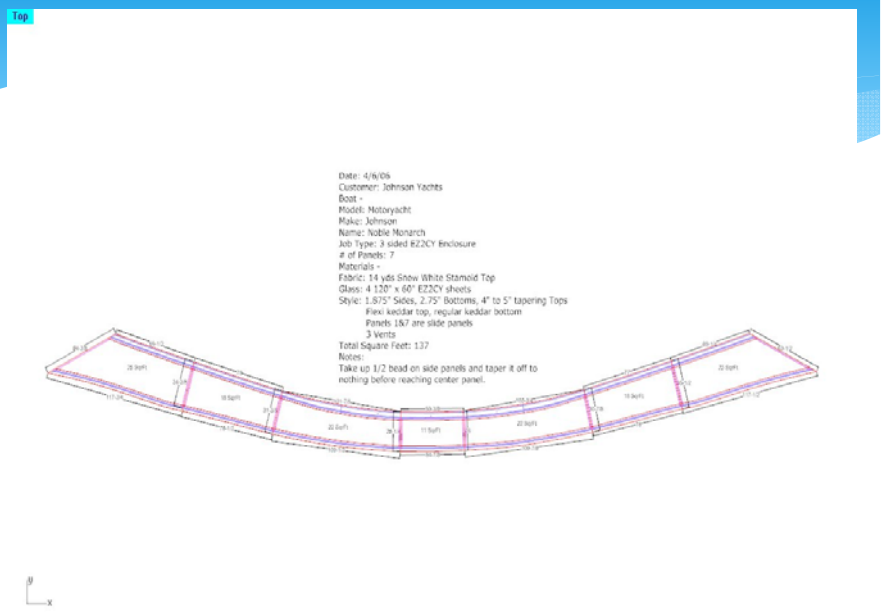


45’ Viking Sportfish EZ2CY Enclosure Map

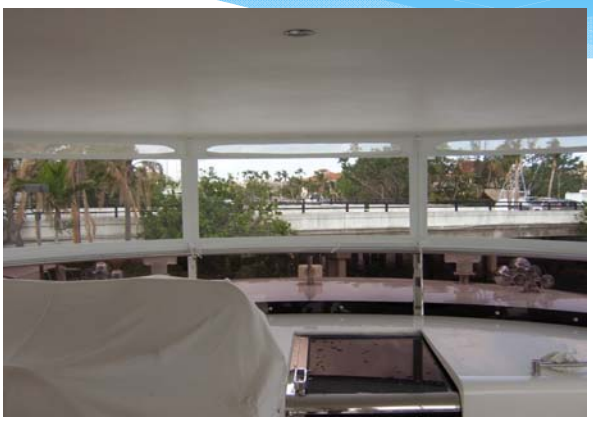


45’ Viking Sportfish EZ2CY Enclosure Aft

Johnson Motor yacht Enclosure Map



Johnson Motor yacht Enclosure Interior



Johnson Motor yacht Enclosure Perspective

Finished Enclosure Inside View

Finished Enclosure Outside View

Good Luck and Happy Sewing

Canvas Designers®

Thank You