



Marine Projects Guide

Complete Project Support

Start to Finish



BRIGHT EDGE
OFF

Introduction

To support your boat improvement purchase, TACO has created this instructional guide with suggestions for installation and project ideas.

Included in this guide are tips and techniques for projects to improve these components of your boat:

- Rub Rail Projects
- Rail & Top Projects
- Hatch, Door & Window Projects
- Projects Using Marine Lumber
- Outrigger and Fishing Equipment
- Plus many Care & Maintenance Tips!

Introducing **HANDY HANK**



Handy Hank is your “go to” guy for any questions, comments or concerns you may have regarding TACO products, projects and technical support. Let Handy Hank be your guide and help you with your boat improvement project!

Look for Handy Hank’s tips throughout this booklet. That’s where you will find important time-saving tips that will make your project easier! Contact Handy Hank at 800-653-8567 Monday-Friday, 8am-5pm or send an email to handyhank@tacomarine.com

RUB RAIL SELECTION GUIDE

Often overlooked are the aesthetic and styling functions rub rail provides for your boat, in addition to protecting it from docks, pilings and other boats. With TACO rub rail, you can easily restore your boat with the original rub rail your boat manufacturer installed or another style to give your boat that extra finished look, along with proper protection. Look for TACO’s original factory rub rail replacement guide at your favorite marine retail store today or request one on our web site @tacomarine.com. Here is how to get started:



Rub Rail Selection Tips

RUB RAIL SELECTION TIPS

You can replace your rub rail with a factory replacement style or a completely different look. Regardless of the material originally installed by the builder of your boat, feel free to choose the material and style you desire.

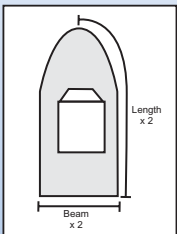


- Rub rail is easier to install if you remember to choose a rub rail that is at least the same height as the original
- Flexible vinyl rub rail is the easiest to bend and provides a cushioning effect against normal bumps from pilings and docks
- Rigid vinyl and aluminum rub rail with flexible vinyl insert perform well, last longer and are easy to install straight
- Rigid vinyl rub rail with stainless steel overlap provides the best protection and the longest useful life
- TACO rub rail and color samples are available upon request
- To determine the best rub rail for your boat please refer to the “TACO Original Factory Rub Rail Replacement Guide” or visit tacomarine.com to find your rub rail in just four clicks.



RUB RAIL INSTALLATION GUIDE BEFORE YOU BEGIN

- Ensure the length of the rub rail is sufficient for your boat. It is always best to buy an extra 10' for trial and error.
- Make sure to purchase all the materials needed (rub rail, insert, fasteners, end caps, splice caps, etc...) to complete the job
- Carefully read all the instructions before beginning and/or watch the TACO Rub Rail Installation Video



MEASURING YOUR BOAT

1. Measure the length and width of your boat
2. Add them together and multiply by two
3. The total will give you the minimum length of rub rail required for your boat in feet

Rub Rail Installation Tips

TOOLS & SUPPLIES NEEDED

- TACO rub rail, insert
- Measuring tape
- Safety goggles
- Two cordless drills (one for a screwdriver bit and one for a drill bit)
- Putty knife or scraper
- Caulking gun with silicone sealant or a tube of 3M 5200
- Metal file
- Heat gun (for rigid vinyl rub rail and flexible inserts)
- Garden shears (for cutting flexible vinyl rub rail and inserts) or hacksaw/power saw & cutoff wheel (for cutting stainless steel overlaps)
- Miter box (for metal and rigid vinyl rub rail)
- Rubber mallet
- TACO Rub Rail Installation Video

REMOVAL OF OLD RUB RAIL & HULL PREPARATION

1. Remove the end caps
2. Remove the insert and the stiffening strip if there is one
3. Remove the screws or rivets that attach the rub rail to the hull. If the rub rail is fastened with pop rivets, drill out the rivet head and push the shaft in to prevent rattling
4. Remove the rub rail
5. Use a putty knife to scrape off any old sealant, being careful not to scratch the gelcoat (it is unnecessary to remove *all* the old sealant, just the excess)
6. Fill all holes with sealant/3M 5200 (you will be drilling new holes for the new rub rail)
7. Let the sealant cure according to the manufacturers' suggestions



Step 1



Step 2



Step 3



Step 4



Step 5



Step 6

Rub Rail Installation Tips

INSTALLING FLEXIBLE VINYL RUB RAIL

The most popular rub rails are available in a complete kit. They come in 50', 70' and 100' kits which include the rub rail, insert and truss head or oval head screws and end caps.



INSTALLATION STEPS

1. Place masking tape above or below where the rub rail is to go. Mark where the new holes are going to be located. Be sure to avoid the old filled holes. Space the holes a maximum of 6" apart. Note: this should be the first step in all rub rail installations.
2. Mark the midpoint of the rub rail with a piece of tape and soak the flexible rub rail in a tub of hot water (maximum 120 degrees F°) or place it on the grass or pavement in the sun (avoid sliding or dragging the rub rail on the pavement, as it will scratch). Either process should take at least 20 minutes to properly heat the rub rail.



HANDY HANKS' TIPS:

To ensure a straight and consistent installation when installing flexible vinyl rub rail, it is best to stretch the rub rail during the installation process. Two people make this job much easier!

With flexible vinyl rub rail, the opening for the insert and fasteners may be narrower than the screw head. During installation, have something handy that can spread the opening until the screw head has passed the front opening.

Use caution- the drill chuck can damage the rub rail if it touches during drilling of the holes.

Rub Rail Installation Tips

3. While it is warm, lay out the rub rail (following the gunwale of the boat) with the mark at the bow
4. Drill 2 holes through the rub rail about 2" apart on one side of the bow and install the truss-head screws. Use silicone on the threads to create a water tight seal.
5. With the two fasteners installed at the bow, go to the stern and stretch the rub rail by pulling it from the bow, towards the stern. Drill and install two screws at the stern position (this must be done while the rub rail remains warm and pliable).
6. Quickly do the same stretching and fastening procedure on the opposite side
7. Stretch the rub rail along the transom and install a screw 1" back from the center line Trim off the excess. Repeat the process on the other side (use a heatgun to bend on tight corners).
8. Go back to the bow and begin drilling the holes according to the marks you made on the masking tape. Put silicone on the threads and install the screws.
9. Repeat the process until the entire rub rail has been installed
10. To install the insert and end caps, see the following sections in this brochure



Step 4



Step 5



Step 8

HANDY HANKS' TIP: Be careful not to over-tighten the screws or the rub rail will pucker (wrinkle)

INSTALLING INSERTS

There are three types of inserts. As indicated below, the first two must be heated in order to be installed. Install inserts beginning either at an end cap or at the transom.

HANDY HANKS' TIP: To avoid insert shrinkage, always screw down each end of flexible insert. The screws will be hidden from view once you install the end caps.

Rub Rail Installation Tips

TUBULAR INSERT (Type 1)

V12-0810, V12-0003, V12-0005

1. Using a heat gun, heat approx. 3' of insert until it compresses with a pinch
2. Flatten the insert between your fingers and insert it into the rub rail until the heated section has been installed
3. Repeat in maximum 3' increments until the entire insert has been installed

V12-0303 INSERT (Type 2)

1. Using a heat gun, heat approx. 2' of insert until it is hot to the touch
2. Insert a few inches of the top leg into the rub rail
3. Using a stiff putty knife, poke the bottom leg into the channel
4. Repeat steps 2 & 3 until the heated section has been installed
5. Heat the next 2' and repeat steps 2 through 4 until the entire insert has been installed

SOFT FLEXIBLE INSERTS (Type 3)

These insert can be installed at room temperature: V12-0317, V12-0334, V12-0338, V12-0342, V12-0347, V12-0426, V12-2207, V12-4018, V12-4144 & V12-5818

After installing inserts V12-0317 & V12-0334 into the rub rail, they need to be set by tapping it with a rubber mallet

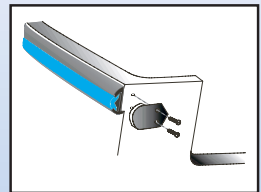
Squeeze the insert between your fingers and insert it into the channel of the rub rail until the entire insert has been installed.

Tapping it with a rubber mallet will help set it.

INSTALLING END CAPS

There are two types of end caps:

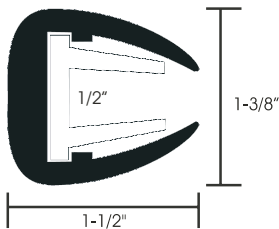
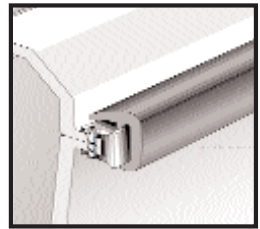
1. In line end caps are installed on the same surface as the rub rail
2. Corner end caps are used when a rub rail ends at the transom. Corner end caps are installed on the transom with the cap extending out the side to cap the rub rail.



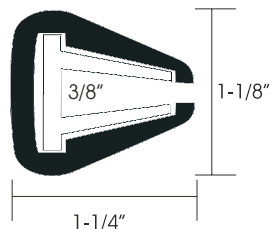
Rub Rail Installation Tips

"SANDWICH" STYLE RUB RAIL INSTALLATION

TACO offers two sizes of rub rail that are usable with a horizontal flange type of hull to deck joint.



V11-0232



V11-3161

1. Cut a 2" piece of rub rail and a 3" piece of insert and put together
2. Place sample on the flange of your boat until it touches the hull
3. While holding a pencil on the end of the insert legs, slide the sample along the flange keeping it against the hull. This will give you a reference line for installing the insert.
4. Find the center of one piece of insert and soften it with a heat gun and bend it to conform to the shape of the bow. If you have a sharp bow; you may make a relief cut in the legs of the insert.
5. Line up the insert with the reference line and drill a pilot hole for the small flathead screw and countersink the insert (The point of the screw must not come out the other side of the flange)
6. Put 3M 5200 on the screw threads and install the screw
7. Repeat steps 5 and 6 until all the insert has been installed
8. Starting at the transom, snap the rub rail over the insert, heating it with a hot air gun to soften it as it goes around corners

Rub Rail Installation Tips

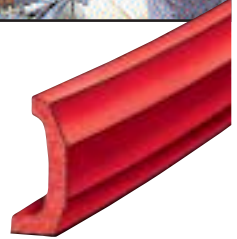
SEMI-RIGID VINYL RUB RAIL INSTALLATION (V11-4135)

This rub rail comes in complete 30' kits which include end caps, screws and is predrilled. The average boat requires two kits. When removing the 6", use a miter box to insure the rub rail you are installing has a straight end.

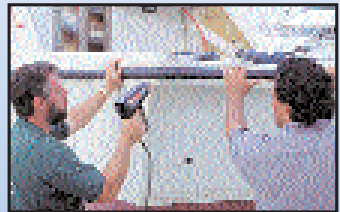


SEMI-RIGID INSTALLATION

To take the curve out of the coiled rub rail, hold the coil in one hand and unroll several feet. Warm it up with a heat gun and straighten it out.



1. Place masking tape above or below where the rub rail is to go and mark where the new holes. Note: When a screw is inserted into the hole and tightened down, the screw head should sit just below the surface.
2. Start in the middle of the transom, or if you are not going around the transom, start at the corner of the transom. Have a helper unroll about 4' of rub rail and take the curve out of it.
3. Starting 12" from the end, drill through the predrilled rub rail holes into the boat, or drill and countersink the rub rail. Coat the screw threads with Silicone or 3M 5200 and install the screw.
4. Continue uncoiling, straightening and drilling or drilling and countersinking. Coat the threads and work in one direction around the boat until you have installed the first coil. Leave the last 12" unfastened. We will finish this in step 9.
5. When you have to bend the rub rail around a corner, move the heat gun back and forth to prevent overheating the rub rail



Rub Rail Installation Tips

6. Straighten out about 4' of the next coil. Overlap the end of the last coil by 1/8" and attach the first screw approximately 12" from the end. Leave these two ends loose for now.
7. Continue installing the rub rail until you come to where you started at the transom or at the corner of the transom leaving the last 12" unfastened. If you are ending the rub rail at the corner of the transom or motor well, you can now install the corner end caps.

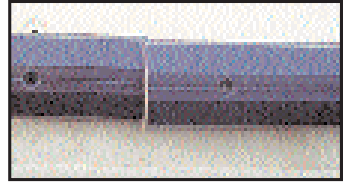


Figure 1



Figure 2

HANDY HANKS' TIP: When making splices, make sure the ends are cut straight and smooth.

8. To make splices, pull the two sections towards you until they meet and push in until they snap into place. Drill through the rub rail and install a screw 1" & 6" from each end.

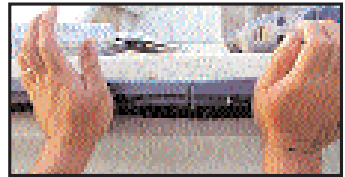


Figure 3

RIGID RUB RAIL INSTALLATION

If you are installing a heavier rub rail like V21-1025, see step 9 on page 10

CAUTION: If your rub rail comes coiled; stand in the center of the coil when cutting the straps so it unwinds away from you without inflicting injury.

1. Place masking tape above or below where the rub rail is to go and mark where the new holes should go.
2. Place the center of the first length at the bow. If there is a screw hole at the center, offset it 4" to one side. Check to see if any of the holes line up with a filled hole, slide the rub rail a couple of inches until all rub rail holes are clear of previous gunwale holes.

Rub Rail Installation Tips

3. Press the rub rail against the hull until you come back to one end. Leave the first two holes undrilled. Drill through the third pre-drilled hole if pre-drilled, otherwise drill through the rub rail 12" from the end using a drill bit smaller than the screw. Coat the screw threads with Silicone or 3M 5200 and install the screw. Repeat this process until you reach the bow.
4. Bend the rub rail around the bow using a heat gun, moving it back and forth to prevent overheating or burning the rub rail
5. Continue installing screws until you get to the other end of the rub rail. Leave the last two holes or 12" undrilled.
6. Start the next length by overlapping the previously installed length by 1/8" and begin attaching it leaving the first two holes undrilled.
See Figure One on page 9
7. Complete installing this length leaving the last two holes undrilled.
8. Continue installing all the lengths until you reach the unfastened end of the first piece you installed at the bow, cutting it so it overlaps that piece by 1/8". Leave the last two holes undrilled.
9. Splices are made by pulling out on the two ends until they touch and pushing in so they snap into place, then install the screws. When installing heavier rub rail (like the V21-1025 or V21-1039) the ends are simply butted together without overlapping.
See Figure Three on page 9
10. To install flexible vinyl inserts see the insert section on pages 5 & 6 brochure.

HANDY HANKS' TIPS: Have one person heat the rail and the other slowly bend it around. Avoid forcing the material due to inadequate heat.

Before installing the rest of the rub rail, put it up in position and check to see if any pre-drilled holes line up with filled holes. You will be able to adjust the hole location by cutting off several inches from the end that butts up to the previously installed piece.

Rub Rail Installation Tips

ALUMINUM RUB RAIL INSTALLATION

Available in 12' and 20' lengths with holes pre-drilled every 6". Some aluminum rub rails incorporate vinyl inserts, while others do not.

INSTALLATION

1. Place masking tape above or below where the rub rail is to go and mark where the new holes should go
2. Place the center of the first length on the bow. If a mounting hole is already there, move it to one side 3".
3. Press the rub rail against the hull until you come back to one end
4. If any of the holes line up with the filled holes, try adjusting the rub rail a few inches one way or the other. Avoid a hole within two inches of either side of the bow.
5. Drill through the pre-drilled holes with a drill bit smaller than the screw
6. Coat the threads with Silicone or 3M 5200 and install the screw
7. Continue this process up to the bend at the bow



HANDY HANKS' TIP: Before bending, if the rub rail takes an insert, install about 6" of insert into the rub rail to keep the channel from collapsing or losing shape during bending.

8. Bend the rub rail around the bow by applying steady pressure with one hand while you lightly tap the rub rail with a rubber mallet where you want it to bend
9. Complete the installation of the rest of the rub rail
10. Butt the next length up against the previously installed length. If a hole lines up with a filled hole, cut a few inches off the end in a miter box. This will change the location of the holes.



Rub Rail Installation Tips

10. Butt the rub rail up against the first length and install this length according to steps 4 & 5
11. Continue this process until you come back to the other end of the length you installed at the bow. Measure the last length carefully so that it fits tightly and install the screws.
12. Install the insert according to the instructions on page 6



STAINLESS STEEL RUB RAIL & OVERLAPS INSTALLATION

Stainless Steel offers the maximum durability, while maintaining a classic style. Stainless Steel rub rail is available in 304 and 316 grade in widths from 3/4" to 2" and in solid back and hollow back. All stainless steel rub rail are pre-drilled and countersunk. Depending on the style, these rub rails can be installed directly on the boat as a rub rail or as an overlap on rigid vinyl rub rail.



INSTALLATION

Follow the same instructions for aluminum with the following exceptions:

1. When bending it around corners, use a rubber mallet to ensure a tight bend. Stainless steel requires a lot more force to bend than aluminum.
2. Cutting the stainless steel rub rail is best done with a cut off wheel. If discoloration appears, polish it out with some rouge and a polishing wheel.
3. When used as an overlap, the mounting holes should be between the mounting screws of the rigid vinyl rub rail. When mounting to rigid vinyl rub rail, use short screws that do not penetrate the hull.

Weather Seal Tips

WEATHER SEAL

Weather Seal is made of a durable sponge rubber compound specifically designed for the harsh marine environment. This material offers excellent resistance to water absorption, sunlight and extreme temperature (between - 20 to +150 deg. F.). For best performance, the maximum compression recommended is 25% of the actual size.



Weather Seal can be used to repair leaky, squeaky hatches as well as for the following applications:

Live Wells • Electronic Boxes • Exterior Doors • Instrument Covers • Storage Compartments • Tool Boxes • Windows • Skylights • Cabinets Campers

And many more possibilities!!

SIZES AVAILABLE

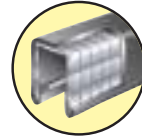
Part #	Color	Height	Width	Length
V30-0109B10-1	Black	3/8"	5/8"	10'
V30-0113B10-1	Black	3/16"	3/8"	10'
V30-0202B10-1	Black	1/2"	1/2"	10'
V30-1333B10-1	Black	1/4"	3/8"	10'
V30-0744B8-2	Black	1/8"	3/4"	8'
V30-0748B8-2	Black	1/4"	3/4"	8'

PREPARATION & INSTALLATION TIPS

- Clean area of all contaminants
- Peel off the release liner carefully. Make sure it does not remove the adhesive with it.
- Avoid stretching during installation
- Recommended application temp. is between 60° F & 100° F
- Press down firmly to assure a strong bond
- To clean, use a mild solution of soap and water with Armor-All,[®] periodically to keep pliable

UNIVERSAL TRIM

TACO's Universal Flex Trim is a flexible PVC with internal aluminum clips that provide a lifetime of secure grip. Trims is available to fit most edge thicknesses. Universal Flex Trim will provide protection from sharp edges and produce a finished look that conforms to almost any shape.



Applications for TACO's Flex Trim include:

Hatches • Moulded Seats • Cabinets • Lockers • Baitwells • Storage Areas • Rod Racks • Consoles, etc...

And many more possibilities!!



PRODUCT SELECTION

Part #	Color	Opening	Width	Length
V30-1005B25-1	Black	3/16"	9/16"	25'
V30-1005W25-1	White	3/16"	9/16"	25'
V30-1008B25-1	Black	1/4"	1/2"	25'
V30-1008W25-1	White	1/4"	1/2"	25'
V30-1312B25-1	Black	3/8"	5/8"	25'
V30-1312W25-1	White	3/8"	5/8"	25'
V30-1316B25-1	Black	1/2"	5/8"	25'
V30-1316W25-1	White	1/2"	5/8"	25'

PREPARATION & INSTALLATION TIPS

- Clean the surface of all contaminants
- Push on until it bottoms out
- Cut off excess with shears or razor knife
- If a more secure installation is desired, place a small bead of silicone along the edge to be covered before installation
- Clean with mild soap and water
- Apply Armor-All® periodically to keep pliable

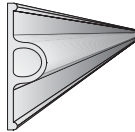
Dock Bumper Tips

DOCK BUMPER

Made of white flexible vinyl containing U.V. protectants

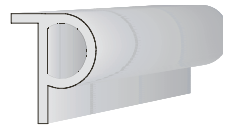
Flat Back

For use on dock edges or pilings
Horizontal or Vertical applications



Angle Back

Great for top edge of docks



Part

Opening

Width

Length

Angle Back

V11-0948WHA6-1

3-3/8"

1-1/2"

6'

V11-0948WHA25-1

3-3/8"

1-1/2"

25'

V11-4142WHA6-1

2-1/2"

1-1/8"

6'

V11-4142WHA25-1

2-1/2"

1-1/8"

25'

Flat Back

V11-0961WHA6-1

2-1/4"

1-7/8"

6'

V11-0961WHA25-1

2-1/4"

1-7/8"

25'

V11-0962WHA6-1

1-3/4"

1-1/2"

6'

V11-0962WHA25-1

1-3/4"

1-1/2"

25'



TOOLS & SUPPLIES NEEDED

TACO Dock Bumper • Goggles • Drill • Stainless steel pan head screws • Garden pruning shears

PREPARATION & INSTALLATION

- Clean the dock surface area so you have a smooth, even surface
- Secure the Dock Bumper to the dock by attaching stainless steel screws every 4-6" apart on both sides of the bulb of the Dock Bumper
- Use pruning shears to cut Dock Bumper to the desired length
- Clean with mild soap and water or boat wash and a synthetic steel wool pad
- Use a marine-grade vinyl cleaner & protector for extended life

Marine Lumber

Marine Lumber is a UV stable marine grade polymer with excellent resistance to sun and saltwater. It is an ideal material for adding accessories or replacing wood, laminates, or plastic products on boats.

BENEFITS

- Marine Lumber will not rot, delaminate, swell or splinter
- Matte texture doesn't need painting, finishing, or maintenance
- Can be easily cut, routed, shaped and drilled using standard woodworking tools
- Marine Lumber will last the lifetime of your boat

PROJECT IDEAS

- Electronics boxes
- Ski Locker lids
- Cup holder
- Shelves
- Chartholders
- Table tops
- Bait boards
- Ladder treads
- Sink covers
- Transom doors
- Trim
- Sliding Door / Track
- Arm rests
- Counter tops
- Backsplash
- Rod Holder racks
- Cabinets
- Hatches and doors
- Instrument panel
- Tool holders
- Console
- Leaning posts
- Bait Wells & covers
- Shower floors

Visit tacomarine.com for downloadable project templates.

TOOLS & SUPPLIES NEEDED

- TACO Marine Lumber Sheets
- Carbide tipped table or Circular Saw with 50-70 teeth
- Jigsaw for curved cuts
- Router Bit with ½" carbide bit with at least 2 flutes
- Drill & Drill bits
- Hole Saw bits
- Countersink bit
- Screwdriver or Screw gun
- Sander with 120 grit sandpaper
- Screws, Nuts & Bolts
- Rubber mallet
- Clamps
- Silicone or 3M 5200
- Wax pencil
- Tape measure
- Goggles



"Hands On -
How To" Video
TACO # X50-0003



This "How To" video reviews the basics of using Marine Lumber, project ideas, tips and tricks for cutting, drilling, bending and installing your completed Project.

TACO Marine Lumber

CHOOSE YOUR PROJECTS

Projects using marine lumber range from replacing damaged wood, laminates and plastics to adding and personalizing accessories (see Project Ideas on page 16)

To Replace Worn or Damaged Wood- Remove the old part. Use the old part as a template by clamping it to the marine lumber.

To Add New Accessories- Choose the accessories you would like to make. Determine where they will be located on the boat and create a pattern if you don't have one, including the location of the attachment holes. You can also visit TACO's web site @ tacomarine.com for downloadable templates of Marine Lumber projects.

PLAN YOUR PROJECT

1. Calculate the size of the Marine Lumber Sheet you will need by laying out your patterns
2. Read the "Create Your Accessory" section of the brochure carefully and if you have any questions about your project, **call Handy Hank at: 800-653-8567 or visit TACO's Web site @ tacomarine.com**

HANDY HANKS' TIP: Draw out the size of the Lumber you are going to use on poster board. Map out multiple projects on the poster board first to ensure that all the components will fit. If not, go to the next available size of Marine Lumber.

3. Choose the tools & hardware you will use for each project including screws, nuts & bolts needed for attachment, screwdrivers, saws, drill bits, countersink or counterbore tools, hole saw blades, etc...
4. Purchase the appropriate size Marine Lumber sheet at your local marine store

IMPORTANT NOTICE

Marine Lumber is not a structural material. The framing or structure it is attached to must be able to withstand any stress or load it may be subject to. It should be supported by a sub surface or a load bearing framework every 15" in both directions. Use wood or TACO's tubing in large spanning applications.

CREATE YOUR ACCESSORY

1. Clamp your old part to the marine lumber, or tape your pattern to it with scotch tape and make an outline using a **WAX PENCIL**
2. Cut the outlines of the wax pencil using a table or circular saw for straight cuts, a jigsaw for curved cuts and a drill with hole saw blades for large holes.

HANDY HANKS' TIPS: Never use lead pencil, ink pen, magic marker, etc. on the unprotected surface of Marine Lumber. These items will permanently stain the marine lumber.

Cut holes and notches in the components first before cutting them out of the MarineLumber sheet. All cutting tools should be carbide tipped if possible. Circular blades should have 50-70 teeth and run at approximately 1200 rpm.

When drilling, Marine Lumber gets hot. Stop frequently to let it cool down.

3. Finish all edges using a router with a 1/2" carbide bit with at least 2 flutes or an orbital sander with 120 grit sandpaper
4. If you are bending the marine lumber to create a corner, you can place it on top of a piece of plywood so that the bend line is just past the edge. Heat it with a heat gun across the bend line allowing the part extended over the edge to bend downward. If you are bending it in place, secure with clamps and apply heat with a heat gun. Start at the clamped end, gradually apply pressure and work in one direction.

HANDY HANKS' TIP: If you want to create sharp corners, you can make a V shaped notch on the inside of the bend line with a router before bending.

5. Drill the attachment holes in the marine lumber using a drill bit slightly larger than the mounting screws or bolts to allow for expansion and contraction of the marine lumber. For best results, use a sharp, high-speed drill bit. Countersink the holes with a countersink bit to allow the screw heads to be flush with the surface of the marine lumber. If you are going to counterbore the holes, it should be no deeper than 1/3 of the thickness of the marine lumber.

TACO Marine Lumber

INSTALLING YOUR ACCESSORY

1. Hold your accessory in position and drill through the mounting holes into the surface you are mounting it to. Make sure the drill bit is smaller than the mounting screws or bolts so the threads will grip, unless you are through-bolting.
2. Install your accessory using fasteners. Coat the threads with a silicone sealant or 3M 5200 before installing them to create a watertight seal.

HANDY HANKS' TIP: Most sealants and adhesives will not adhere to Marine Lumber. 3M makes one that will work. It is called Scotch-Weld DP-8005. If you are bolting marine lumber to another surface and need to make a water-tight seal, you can use 3M 5200 or one of TACO's weather seals. Both will act as sealants only, not adhesives.

CARE AND MAINTENANCE

- Clean Marine Lumber with a mild solution of liquid soap or boat wash and water and a synthetic/nylon "scrub" brush
- Remove stains with Citrus Cleaner, Mineral Spirits, or Alcohol
- Avoid contact with chemicals such as Teak Oil, which can cause permanent stains
- Lead pencil, Ink pen, or Permanent Markers will stain Marine Lumber
- Furniture polish or products such as Armor-All[®] can add an attractive luster to the finish

Marine Lumber Lite

Lumber Lite is a cellular marine grade utility sheet designed to withstand harsh marine environments. 40% lighter than Marine Lumber, Lite is an ideal product to replace wood. Can be used as upholstery backing.

P11-5012BLK27-1	1/2"	12" X 27"	Black
P11-5024BLK27-1	1/2"	24" X 27"	Black
P11-5024BLK54-1	1/2"	24" X 54"	Black

Top Hardware Selection

TOP HARDWARE SELECTION FOR CANVAS TOPS (BIMINI TOPS)

Your Complete Replacement
Hardware Source for 7/8" and 1" Tubing

PRODUCT SELECTION



1



Eye Ends

2



Jaw Slides

3



Eye Straps

4



Deck Hinges

5



Side Mounts

6



Sliding Deck Hinge

7



Slide Track End Caps

8

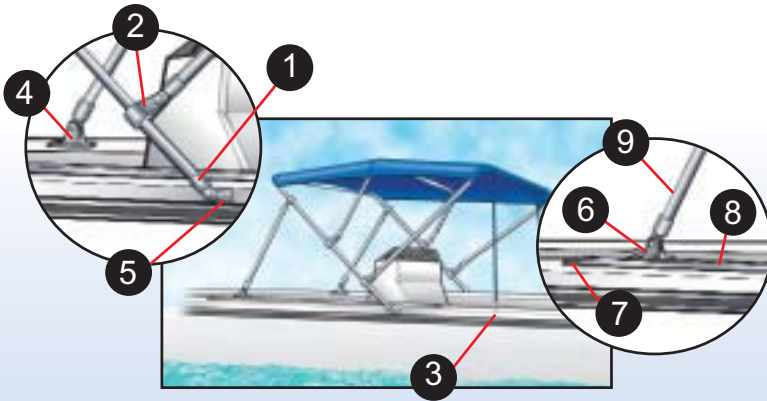


Slide Track

9



Tubing



HANDY HANKS' TIPS: Aluminum tubing with Chrome Zamak or Nylon fittings are used for fresh water applications only.

Always use Chrome Zamak fittings with Aluminum Tubing only. Stainless steel tubing with stainless steel fittings can be used for both fresh water and salt water applications. Stainless steel fittings used with aluminum tubing will cause corrosion. You should never use this combination.

0.049" wall stainless steel tube is generally used for non-structural applications, while 0.065" wall is generally used for heavier loads and bending. Save the old fittings & tube until you've completed your project. You may need to refer back to them.

Top Hardware Selection

TUBE SIZE AND LENGTH SELECTION



Aluminum Drawn Tube

Bright Anodized, Alloy 6063, Temper 832

Part #	Outside Diameter	Wall Thickness	Available Lengths
A23-3458BLY6-1	3/4"	.058	6'
A23-3458BLY20-1	3/4"	.058	20'
A23-7858BLY6-1	7/8"	.058	6'
A23-7858BLY12-1	7/8"	.058	12'
A23-7858BLY20-1	7/8"	.058	20'

Stainless Steel Tube

Type 304 Polished

Part #	Outside Diameter	Wall Thickness	Available Lengths
S14-7849P6-1	7/8"	.049	6'
S14-7849P12-1	7/8"	.049	12'
S14-7849P20-1	7/8"	.049	20'
S14-7865P20-1	7/8"	.065	20'
S14-1049P6-1	1"	.049	6'
S14-1049P12-1	1"	.049	12'
S14-1049P20-1	1"	.049	20'
S14-1065P20-1	1"	.065	20'
S14-1465P24	1-1/4"	.065	24'
S14-1265P20	1-1/2"	.065	20'
S14-2065P20	2"	.065	20'

Other sizes and lengths available

TOOLS & SUPPLIES NEEDED

- Screwdriver or Reversible drill
- Goggles
- Allen wrench
- Spray lubricant
- Hacksaw
(for cutting aluminum tube)
- Band Saw with S.S. blade or cut-off wheel (for cutting S.S.)
- Metal file
- TACO replacement tube sections (pre-cut & pre-bent)
- Silicone sealant or 3M 5200
- Replacement fittings
- Stainless steel screws
- Loc-Tite

Top Hardware Selection

PREPARATION

Follow these steps for repairing a Bimini Top:

- Remove your Bimini Top from your boat
- Remove the damaged fittings & tube sections using a screwdriver or drill, allen wrench & spray lubricant
- Measure the fittings & tube you removed and refer to the product selection portion on page 20 to help determine which part is best for your replacement
- Clean the gelcoat and fill all holes with silicone sealant or 3M 5200
- Measure the old tubing. Cut the lengths of tubing you need, removing any burrs with a metal file.
- If you are replacing stainless steel tube with a bend in it, we recommend you take the old piece and the new tubing to a local Marine Bimini Top Professional, Electrician or Plumber. They have the bending equipment to make the right bend for you.

INSTALLATION

- Secure any fittings to be attached to the deck using stainless steel screws and a screwdriver or drill
- Attach all slide-on fittings onto the tube and secure the set screws provided. You may need to refer back to the set screw punctures on the old tube to determine where the new fittings should be located, especially if the tube is new.
- Attach all remaining end fittings and secure them with the set screws provided
- Re-install your canvas top

CARE AND MAINTENANCE

- Wash with soap & water and avoid chemicals, especially bleach
- Apply a polish coating regularly for added protection and beauty
- Never use course abrasives like sandpaper or steel wool
- Remove stain spots as soon as possible with a brass, silver or chrome cleaner



HANDY HANKS' TIPS:
Stainless Steel Tubing requires special cutting blades. Your local Marine Bimini Top Professional usually has appropriate cutting tools if they are unavailable to you.

Apply silicone sealant or 3M 5200 to the screw threads when you're securing fittings to the deck of the boat. This will help seal the holes. Apply Loc-Tite to all set screws before tightening to prevent them from loosening in rough waters.

Polish your tube & fittings before you install them for added protection! Water can collect between the tube and fittings and hold in moisture, salt & other residue.

Bends must be made with fittings in place.

Rail Hardware Selection

RAIL HARDWARE INSTALLATION For Handrails, Bow Rails and Stern Rails

Your Complete Replacement Hardware
Source for 7/8" and 1" Tubing

PRODUCT SELECTION



1



Bases

2



Tees

3



Elbows & Bow Forms

4



Handrail Fittings

5

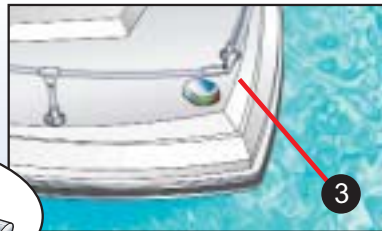
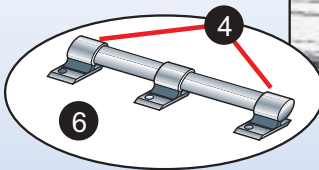
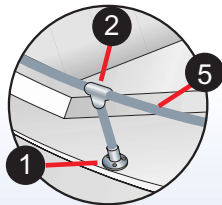


Tubing

6



Handrails



HANDY HANKS' TIPS:

Aluminum tubing with Chrome Zamak or Nylon fittings are used for fresh water applications only.

Stainless steel tubing with stainless steel fittings can be used for both fresh water and salt water applications.

Stainless steel fittings used with aluminum tubing will cause corrosion. You should never use this combination.

Rail Hardware Selection

TUBE SIZE AND LENGTHS AVAILABLE

Aluminum Drawn Tube

Bright Anodized, Alloy 6063, Temper 8



Part #	Outside Diameter	Wall Thickness	Available Lengths
A23-7858BLY6-1	7/8"	.058	6'
A23-7858BLY12-1	7/8"	.058	12'
A23-7858BLY20-1	7/8"	.058	20'

Stainless Steel Tube

Type 304 Polished

Part #	Outside Diameter	Wall Thickness	Available Lengths
S14-7849P6-1	7/8"	.049	6'
S14-7849P12-1	7/8"	.049	12'
S14-7849P20-1	7/8"	.049	20'
S14-7865P20-1	7/8"	.065	20'
S14-1049P6-1	1"	.049	6'
S14-1049P12-1	1"	.049	12'
S14-1049P20-1	1"	.049	20'
S14-1065P20-1	1"	.065	20'

0.065" wall thickness is recommended when bending tubing.

TOOLS & SUPPLIES NEEDED

- Screwdriver or Reversible drill
- Goggles
- Allen wrench
- Spray lubricant
- Hacksaw
(for cutting aluminum tube)
- Band Saw with S.S. blade or
- Cut-off wheel (for cutting S.S.)
- Metal file
- TACO replacement tube sections
(pre-cut & pre-bent)
- Silicone sealant or 3M 5200
- Replacement fittings
- Stainless steel screws
- Loc-Tite

PREPARATION

- Remove the damaged fittings & tube sections using a screwdriver or drill, allen wrench and spray lubricant

Rail Hardware

- Measure the fittings & tube you removed and refer to the product Selection portion on pages 23 & 24 to help you determine which part is best for your replacement
- Prepare the surface of the boat by cleaning the gelcoat thoroughly and filling all holes with silicone sealant or 3M 5200
- Measure the length of the tube sections to be replaced and cut the tube to the appropriate lengths. File the edges smooth with a metal file.
- If you're replacing a bend in your tube, it is recommended you take your broken tube along with the new tube and fittings to a local Marine Bimini Top Professional, Electrician or Plumber. They have the bending equipment to ensure the right bend for you. Bends must be made with the fittings in place.

HANDY HANK'S TIP: Polish your tube & fittings before you install them for added corrosion protection. Water can collect between the tube and fittings and hold in moisture, salt & other residue.

INSTALLATION

- Place the bent tube, such as bow rails with fittings attached in position, along with the tubing it attaches to
- Attach all additional slide-on fittings onto the tube and secure with the provided set screws. You may need to refer back to set screw punctures on the old tube to determine where the new fittings should be located, especially if the tube is new.
- Secure any fittings to be attached to the deck using stainless steel screws and a screwdriver or drill

CARE AND MAINTENANCE

- Wash with soap & water and avoid harsh chemicals, especially bleach
- Apply a polish coating regularly for added protection and beauty
- Never use coarse abrasives like sandpaper or steel wool
- Remove stain spots as soon as possible with a brass, silver or chrome cleaner

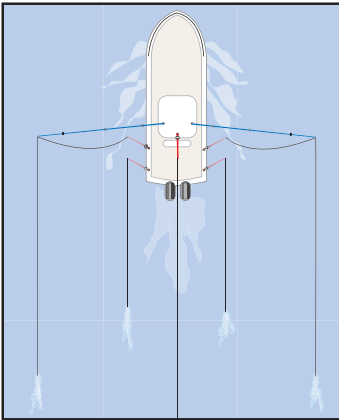
HANDY HANKS' TIPS: Apply silicone sealant or 3M 5200 to the screw threads when you're securing fittings to the deck of the boat. This will help seal the holes. Once all the tubing and fittings have been installed, back out the set screws and apply Loc-Tite to all set screws and re-tighten to prevent them from loosening in rough waters.

How to Use Your TACO Tele-Outriggers

TELE-OUTRIGGER TIPS AND BUYING RECOMMENDATIONS

THE ORIGINAL

TACO Sport Fishing's Tele-Outriggers are the original telescoping outriggers. They are made from the highest quality materials in Miami, Florida, the "Sportfishing Capital of the World," and have the only three year warranty in the industry!



WHAT IS TROLLING?

HOW DO I USE MY OUTRIGGERS?

When trolling with outriggers you can troll with more lines in the water, thus pulling more bait which simulates a school of fish. Outriggers will eliminate tangled lines. Each outrigger can accommodate one or two lines from your rods and reels. The line is used with a release clip that extends to the end of your outrigger. When a fish strikes your bait, the release clip will allow your fishing line to come free of the outrigger so you can reel in the fish.



RECOMMENDED SIZES:

BOAT SIZE	OUTRIGGER SIZE
20' & under	12'
21' to 26'	15'
27' to 34'	18'

How to Use Your TACO Tele-Outriggers

TACO TELESCOPING OUTRIGGER BENEFITS

- Telescope down to less than 6' for storage, going under bridges and reduced stress on your gunnel
- TACO Tele-outriggers have been proven in extreme fishing conditions like rough seas and pulling large and heavy baits.
- Components such as drawn anodized aluminum, durable Delrin bushings, and a stainless steel tension spring are all designed so TACO Tele-Outriggers will meet the rigors of offshore fishing
- Outriggers are featured in black, silver or our unique blue. All three pole colors are complemented with gold rings and tips.



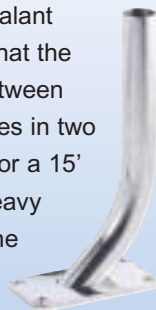
SPECIAL ORDER TELE-OUTRIGGERS

The Delrin® base sleeves on the bottom of the outrigger can be changed to accommodate the following outrigger holders: E-TEC®, Lee's Sidewinder, Wishbone, and flush mount, Perko® & Rupp®. Please indicate which base you are trying to fit when ordering.

WHAT MOUNTING APPLICATION IS RECOMMENDED?

Gunwale Mounts

The Striker gunwale mount is usually positioned toward the bow of the boat at least one foot in front of the last rod holder. To cut the hole use a 1-1/2" or 2" hole saw & cut a 45° angle, then file to get a perfect fit. Use a sealant such as 3M 5200 under the plate for a secure fit. The pad eyes that the bungee hooks to is usually installed about 6" toward the stern between the outrigger holder and the rod holder. The gunwale mount comes in two sizes: 1-1/8" and 1-1/2". The 1-1/8" base is designed to fit a 12' or a 15' outrigger while and the 1-1/2" base are designed for 15' or 18' heavy duty poles. Backing plates are available for the 1-1/8" mounts. The backing plates can only be used on gunwale 3/4" or less in thickness.



Striker base

How to Use Your TACO Tele-Outriggers

T-TOP MOUNTS

If your top does not already have a mounting plate, TACO's new Clamp-On Mounting Plate is an easy addition to add outriggers, antennas, lights and radar. The clamps capture both the plate and the top's pipe. Inserts are included to fit 3/4" and 1" round pipe and oval pipe. The plate comes in standard 30" length and can be cut to length required. TACO's Clamp-On Mounting Plate is available pre-drilled to accept the Grand Slam or the Sport Slam.

New!

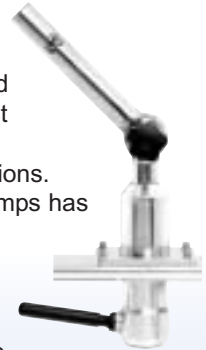


Clamp-On Mounting Plate

The famous Grand Slam and the new Sport Slam are designed for use on a T-top along with the top version of the Striker base. The Grand Slam holds the 15' & 18' 1-1/2" base outriggers. The Sport Slam mount holds the 12' & 15' 1-1/8" base outriggers. The Striker Top Mount holds the 1-1/8" outriggers which include the 12' and 15' outriggers. Mounting on the T-top allows the outriggers to be up and out of the way to avoid passing your rod and reel around the outriggers.

GRAND SLAM TOP MOUNTS

The top of the line outrigger holder is the Grand Slam. This mount works easily while standing at the console by a pull down lever that swings the outriggers into position. The Grand Slam can be mounted through an existing plate that is at least 4-1/2" x 5-1/2". Then drill a 3" center hole and through bolt. Alternatively, if a plate needs to be installed there are two options. TACO's specially designed aluminum plate with mounting clamps has been designed to enable the easiest installation. The second option is TACO's weld on mounting plate. Both plates are pre-drilled for Grand Slam installation. When installing the Grand Slam through the canvas, simply cut an "X" over the 3" hole. Install and bolt down the Grand Slam then trim off the excess canvas.



Grand Slam

When installing the Grand Slam through a hard top frame, TACO backing plates should be used for extra support. TACO does not suggest mounting to a hard top that is hollow. When mounting through a core or foam filled top, spacers should be used in the bolt holes to prevent compression of the top when bolting. The maximum thickness allowable for the hard top is 2-7/8". Special configurations of the Grand Slam for unusual mounting, including a bent handle are available. Call Handy Hank for details.

HANDY HANKS' TIP: The center of the 3" hole should be at least 7-1/2" from the tubing of the canvas top frame, or any other object that may come in contact with the handle. Wedge plates are also available in 7 degree and 11 degree for tops that have an arch.

For convenience purposes, a template is available online @ tacomarine.com to assist in the installation process.

How to Use Your TACO Tele-Outriggers

SPORT SLAM TOP MOUNTS

The new affordable Sport Slam is easy to install and use. A simple pull of the button swings the outrigger into fishing positions and also features a lay down arm for bridges and storage. The new Sport Slam can be mounted through an existing plate or hard top that is 1/4" thick or more and is 4-1/2" in width and 5-1/2" in length. The Sport Slam only requires drilling the 4 bolt holes and uses 5/16" bolt, nut and washer.



New!

Sport Slam

STRIKER BASES

The Striker Base operates from the top and features a 90° swept back arm for cruising and optimum fishing positions. For mounting the Striker bases it is recommended to use a 1-1/2" hole saw and drill a hole at a 45° angle. After making sure the base is level and straight, mark your bolt holes.

New!

WHAT IS A CENTER RIGGER?

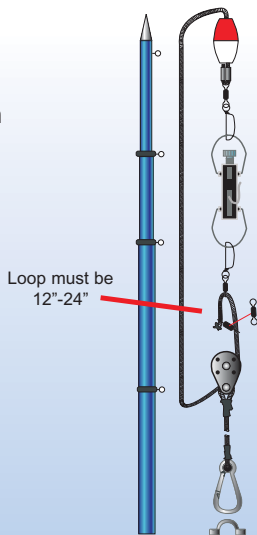


Clamp-On
Center Rigger

A center rigger will allow an extra line off the center of your boat that is high and will put the bait far out off the back of your boat. TACO's Clamp-On Center Rigger clamps to 1" round pipe. An anti-rotation pin is placed in the pipe by drilling with a 1/4" drill bit, then the pin captures the clamp to provide stability. The Center Rigger will accept 1-1/8" ID poles both 8' and 12'.

HOW DO I RIG MY OUTRIGGERS?

TACO RIGGING KITS contain a detailed instruction sheet and a diagram like the one on the right, with all the hardware needed to rig two outriggers.



How to Use Your Outriggers

CLAMP ON ROD HOLDERS

TACO'S NEW STAINLESS STEEL ROD HOLDER

Clamps on 7/8" and 1" tube. This is ideal for bow rails and grab rails. This rod holder also clamps to 3/4" and 1" pipe on T-tops, leaning posts, arches and rocket launchers. This unique rod holder has adjustable positions 360°, which allows for custom positioning.



TACO'S CUDA CLAMPS

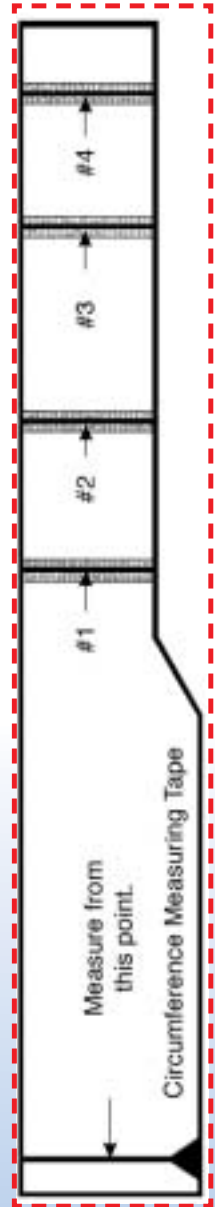
Clamp-on rod holders are an easy addition to any boat. TACO Cuda Clamp Rod Holders are available in vertical and horizontal and silver and gold.

BEFORE YOU BEGIN

- Photocopy and cut out this measuring tape to determine which size you need

CUDA CLAMP SIZES & USES

- #1- is most common for smaller pipe such as fly bridge rails and leaning post rails
- #2- is most common for T-Tops as rocket launchers
- #3- is most common on arches & polling platforms
- #4- is most common on tower legs & some larger polling platforms



Aluminum Care Tips

WHAT YOU SHOULD KNOW

Preventative Maintenance For Your Boat

ANODIZED ALUMINUM

The aluminum on your boat has been anodized. This creates a very hard protective seal on the surface of the aluminum to protect it as much as possible from pitting. When the anodized coating is broken and raw aluminum is exposed, corrosion will take place. Damage from chemicals, knives, gaffs, or other abrasive impacts can break the anodized coating.



AVOIDABLE CORROSIVES

- Strong acidic solutions found in cleaners, paint remover, degreasers, etc...
- Concentrated alkaline based solutions. Many concentrated soaps fall into this category.
- Chlorine, sulfurs, solvents, and ammonia based products

UNAVOIDABLE CORROSIVES

- Saltwater (comes with the territory)
- Airborne pollution, particles from local sources: vehicles, incinerators, paper mills, chemical plants, power plants, etc... Harsh chemicals from work performed at local shipyards and dry docks. Be aware of local sources that can expose your new boat to corrosive chemicals.

HOW TO PROPERLY CLEAN

Always use a mild, non abrasive soap and lots of fresh water. Thoroughly wash the aluminum with a soft towel or sponge utilizing lots of soap and water to remove all dried salt crystals and other contaminants. Rinse completely with direct water pressure. The important point is to clean and rinse it well!

SAFE CLEANERS:

Mild Dishwashing Liquid

Specialty Marine Cleaners:

Sea Safe Boat Wash

Boatwash Concentrate

Super Suds

HARMFUL CLEANERS:

Bleach (Clorox, etc.)

Mild Abrasive Cleaners (Ajax, Comet, Soft Scrub, Rubbing Compounds, etc.)

Strong Cleaners (409, Engine Degreasers, etc.)



There are many different products available to protect aluminum. Here are a few: Aluma Guard, Boesheid T-9, Premier Polish, and Corrosion Block