

STRENGTH TECH, INC.  
P.O. BOX 1381  
STILLWATER OK 74076  
(800) 443-6543

## UPHOLSTERY INSTRUCTIONS LIST

### Preparations

- A. Find a suitable work area with a work bench or large flat top table in an area that is well lighted, ventilated, and temperature controlled. It will be easier to clean up later if you are not on a carpeted floor. Some gyms put down a large heavy tarp over a carpeted area and work there.
- B. Assemble the tools listed in the UPHOLSTERY TOOLS LIST.
- C. Bring your new vinyl and foam. If the foam has been rolled up, unroll it so it will straighten back out. Cover it from the light. (It will yellow upon long term exposure to light.) The foam can easily be covered with a tarp.
- D. Find yourself a helper. Two people are sometimes needed for stretching and stapling simultaneously. Large jobs (many pieces of equipment) can seem overpowering to one person. With two people one can be doing a lot of the upholstery work while the other is retrieving the pieces to be reupholstered, ripping the old stuff off, preparing them to be reupholstered, and reinstalling the finished pieces.
- E. Read the instructions below completely through before beginning.

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### Instructions

- 1. Remove upholstered board from equipment. Repaint the equipment if desired.
- 2. Strip off vinyl and foam.
- 3. Evaluate condition of board.
  - A. Replace if necessary
  - B. Drill any required holes, install T-nuts if desired
  - C. If edges of board are rough, sand them. Round corners with a hand file.
- 4.. Paint black if desired. Those using equipment outdoors (prisons) may wish to paint it with Thompson's Water Sealant before or instead of painting.
- 5. Cut a strip of vinyl about 3 inches wide (you might use some of the old vinyl you removed earlier) and as long as the perimeter of the board. It can be in a few pieces that add up to the perimeter of the board.
  - A. Staple this strip around the edge of the board. Install the staples with their midsection parallel to the edge of the board (this helps hold the vinyl better.)
  - B. Install it to overlap both faces (top and bottom) about 1 inch.
  - C. This will provide additional protection to the top vinyl against the board edges and corners.

6. Cut foam to fit the board with an electric carving knife. When cutting large sheets of foam hang it over the edge of the table and get some assistants to support it so you can cut it near the edge of the table (if the foam "droops" over the edge of the table your cut will not be vertical), or you can use two 2x4's about 3 feet long. Lay them up in the middle of your table about 6 inches apart with the gap between them running under the marked area to be cut. Now cut the foam with the electric knife.
7. Secure foam to board with spray on surface adhesive. Some units need bolts through board before foam is glued down.
8. Cut vinyl to proper size to wrap around foam and board.
  - A. If you are cutting bench press tops see the VINYL LAYOUT page.
  - B. Vinyl is cut with a carpet knife or scissors. Use extreme caution when using a carpet knife. They are dangerous. Put some cardboard on your table to protect its surface. Then carefully cut the vinyl by pulling the knife along the edge of a long straight ruler.
  - C. With foam on board, the vinyl wraps over the foam and overlaps the back of the board 2 to 3 inches on each side.
9. Vinyl is installed on the equipment with the smooth, dimpled side up. The side that appears weaved goes against the foam.
  - A. Usually the vinyl is laid on the table upside down (the smooth dimpled surface) is placed against the work table). The board with the foam glued to it is placed on top of the vinyl with the foam against the weaved side of the vinyl. This allows you to wrap the vinyl around the foam and board and begin stapling it on the back of the board. Typically the boards are rectangular. They have two long sides and two short sides. Begin working on one long side, stapling the vinyl to the back of the board allowing a 2 to 3 inch overlap of the vinyl. Begin at one end and staple the vinyl all the way down this long side. Then stretch the vinyl to the other long side and staple it. Begin at one end and stretch and staple it all the way down this long edge. If you make an error the staples can be removed by edging them up with a screw driver and pulling them with needle nose pliers.
  - B. Many pieces (bench presses) have a fairly narrow width. On these pieces the short ends have their corners tucked like a Christmas package. You bring the long end around the corner and staple it to the end of the short side of the board. Then fold the overhang down over it and staple it.
  - C. Some pieces have long rounded shapes. Imagine this is a part of a circle (many will be). Determine where the center of this circle would be. Put a mark on the back of the board at this center. As you bring the vinyl over the board try to stretch it toward this center and staple it down. You will need to cut the material occasionally after it comes over the board or it will "bunch up." This is done by making a cut along the direction you are stretching the material. It allow you to put this stretched batch a little bit on top of the last stretched batch.
  - D. Always try to keep the vinyl stretched for a snug fit.
10. Reinstall upholstered board on equipment.
11. Store unused foam in a dark area, wrap it up to keep the light out, or cover it with a tarp. Long term exposure to light will turn it yellow.
12. Clean up the area, thank your assistants, and admire your good work.

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## UPHOLSTERY TOOLS LIST

If you will gather the following items before you begin, your task will go much smoother.

1. A carpet knife with spare blades.
2. Heavy duty scissors to cut unusual shapes of vinyl.
3. An electric carving knife to use in cutting the foam, you may also need a recharger for your knife.
4. A chalk line to mark the foam where you will be cutting it.
5. A 5 foot steel or wooden ruler.
6. An 8 foot measuring tape.
7. A large carpenters square will make it easier to mark foam and vinyl.
8. A magic marker to mark the foam and vinyl.
9. Needle nose pliers to pull staples.
10. A sharp screwdriver may be needed to pull up or pry out some staples.
11. A hammer can be used to beat down staples that won't come out.
12. Small wrenches and socket wrenches to remove and reinstall the pieces you are recovering.
13. A heavy duty staple gun and staples, we have found that an air gun works best. We normally use wide crown staples with 5/16" legs.
14. Cardboard to cover the top of table while cutting vinyl.
15. Spray on adhesive to stick foam to wood.
16. Black spray paint, to cover exposed wood on incline benches, and other wood you want to paint.
17. Coarse sandpaper and a sanding block will aid in smoothing board edges.
18. A hand file for smoothing the edges of the boards.
19. T-nuts if desired. They are installed on top of the plywood (under the foam). Their 4 prongs stick deep in the plywood to prevent turning. This allows the bolts to be installed from underneath instead of sticking down through the boards.
20. Plywood 1/2, or 3/4" thick to make new boards if needed.
21. If you do need to cut new boards, a small crosscut saw will be helpful.
22. Two 2x4's three feet long for supporting foam while cutting it.
23. 4 foot x 6 foot tarp for covering the foam from light while storing it.
24. A first-aid kit and/or band aids.
25. Extension cords if needed.
26. Large trash can.
27. A portable radio makes the work seem to go faster.
28. A broom for cleaning up the work area.

# **STRENGTH TECH, INC.**

## **61 inch Roll Vinyl Layout Tips**

This page explains how to determine the dimensions of vinyl needed to cover bench press tops (or other pieces) and how to "lay them out" on our vinyl. Bench top foam slabs are typically 12 x 48 inches and our rolls are 61 inches wide. Basically you split about two running yards of vinyl lengthwise into thirds to create three bench press tops. This is why we often estimate it takes about 2/3 of a running yard of vinyl to cover a bench press. The sketch on the next page illustrates how we lay them out on the vinyl.

Most facilities use our 1-1/4 inch thick foam for bench press tops. The bench boards are typically 1/2" to 1" thick. To allow adequate room for stapling, you need about an inch and a half overlap of vinyl around the back of the board on both sides. This requires a piece of vinyl that is about 20" by 56". The calculations for a 3/4 inch thick board are shown below:

### **Vinyl width calculation:**

Looking at the bench from the side, you need enough vinyl to cover the 1-1/4 " foam + 3/4" board = 2 inches per side.

The top requires the enough vinyl to cover the width of the foam (12 inches) and the bottom of the bench requires about one and a half inch overlap on both sides to staple.

Total vinyl width = (2 inches per side x 2 sides) + 12 inches across the top + (1-1/2 inch overlap each bottom side x 2 sides)

Total vinyl width = 4 inches + 12 inches + 3 inches = 19 inches

We typically round this up an inch as the vinyl does not perfectly bend around the corners, plus the extra length makes it easier to "get hold of" when stretching it on.

### **Vinyl length calculation**

Total vinyl length = (2 inches per end x 2 ends) + 48 inches across the top + (1-1/2 inch overlap each bottom end x 2 ends)

Total vinyl length = 4 inches + 48 inches + 3 inches = 55 inches

We typically round this up an inch for reasons mentioned earlier.

Rounding the length and width dimensions up an inch, moves them from 19" x 55 " to 20" by 56". This size (and most other bench press tops) can be laid out on our 50 inch wide rolls as seen in the sketch. Your exact size may vary, but the process will be similar.

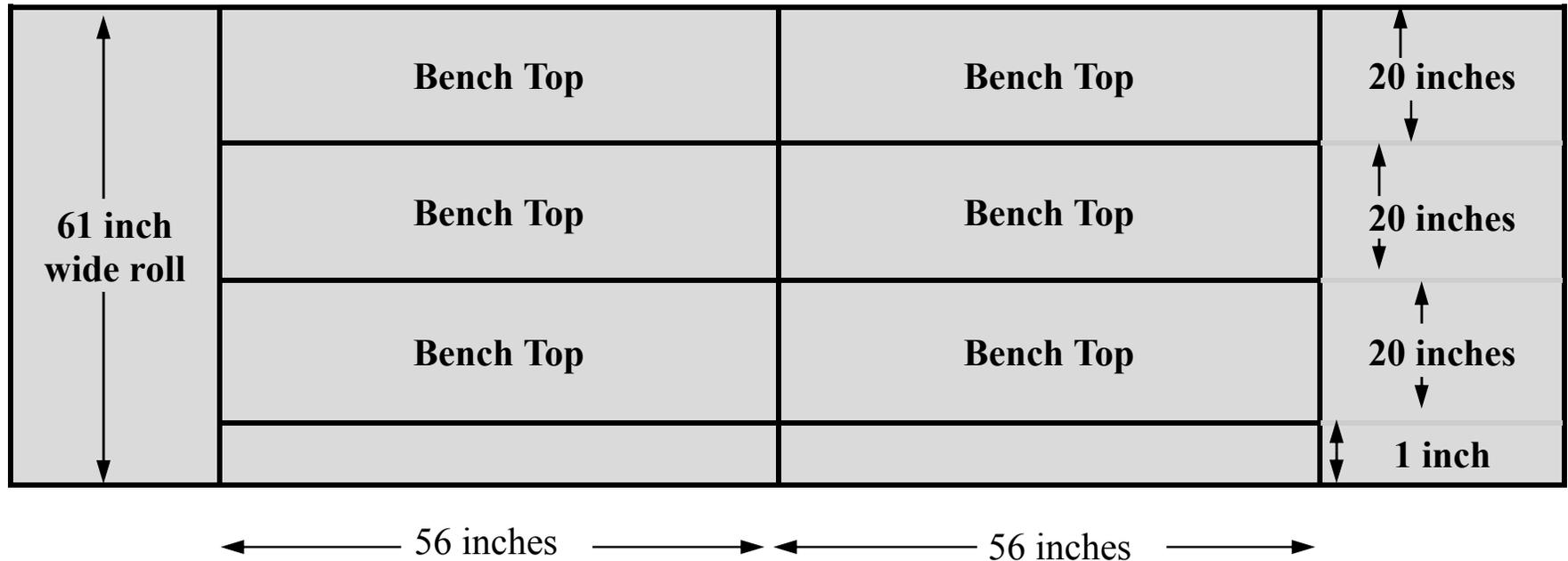
Cut some of the old vinyl into long strips about four inches wide. Wrap a four inch wide strip around edge of the board and staple it all the way around the edge (perimeter) of the board with about an equal amount (about 1.5 inches) overlapping the top and bottom surfaces of the board. These strips reduce wear and fretting of the top layer of vinyl from contact with the rough edges of the boards and increase its service life.

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# **"Bench Press Top"**      **61 inch Rolls** **Vinyl Layout Sketch**      **1-1/4 inch Foam**

If you are cutting vinyl to make bench press tops (covering 3/4 inch thick boards with our 1 1/4" by 12" by 48" foam slabs), here is a good way to lay them out on a 61 inch wide roll of vinyl. Details of the calculations are on the previous page.

If you often recover the same pieces, you might want to write down the exact dimensions you need. Sometimes, you can use the old piece as a pattern. Don't forget to slice some of the old pieces lengthwise and use them to line the edges of the boards for longer life (details on previous page).



# **PROBLEM SOLVING / BULLET PROOF VINYL CLEANING INSTRUCTIONS**

First, we recommend placing the equipment in a relatively dry area. Our vinyl will work fine in an outdoor environment that gets plenty of air and sunshine. Rain is no problem, as long as it does not rain all the time. Facilities very near the ocean or a swimming pool, or in shaded high humidity areas, need to make extra efforts to improve ventilation and wipe the vinyl off more frequently.\*

Second, we recommend that all lifters wear shirts to help reduce the amount of sweat transferred to the vinyl and to improve sanitation. We realize this is not always followed in correctional recreation facilities.

Many facilities use Clorox liquid bleach as a disinfectant. Mix one part Clorox liquid bleach to 10 parts of water. Only mix as much as you will use daily and store it in a dark container. Do not store it overnight. Use it the same day you mix it. Put part of it in a hand spray bottle, shake well, spray it on the vinyl and wipe it off. Note - some lifters may develop a rash from this disinfectant. If so, find an alternative.

For tougher cleaning jobs use a regular bar of bath soap and a bucket of lukewarm water. Use the neutral soap suds to clean the vinyl. Then use lukewarm water to rinse them off, wipe it down, and allow the vinyl to dry before placing the equipment back in service.

In moist environments, we suggest doing the 1:10 ratio Clorox wipe down minimally twice a day. Once during the middle of the day and again at the end of the day. High use facilities will need to be wiped down more often for sanitary purposes. Soap suds cleaning is done on an as needed basis.

**DO NOT USE** harsh cleansers, solvents or detergents.

Following the practices suggested above will extend the useful service life of our vinyl. If we can be of further assistance or if you have any questions, call us at **(800) 443-6543**.

**Strength Tech, Inc.**  
**Gary and Lora Polson**

\* Long term very high humidity combined with certain types foam can lead to separation of the vinyl cover from the nylon web structure. If you have an installation like this, we have some additional products that may help you. Give us a call.