

#### **Patio Direct**

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# **HELP for Straps**

## Strapping Techniques

### **Double Wrap**



Double Wrapping is the preferred technique for vinyl strapping - it provides the greatest strength to a potential failure point - the termination of the strap - by wrapping the strap over this termination point. The double wrap technique can be used on either

Patio Direct's 2" or 1-1/2" width vinyl strap - and can be used for horizontal strapping (across the frame) or "criss-cross" strapping. Use Patio Direct's #30-514 (barbed shank) or #30-512 (solid shank) rivets for double wrap strapping. Both the #30-514 and #30-512 plastic rivets fit a 7/32" drilled hole.



Patio Direct #30-514 Rivet



Patio Direct #30-512 Rivet

Step 1: Measure & Cut for strap length - measure the frame-to-frame distance and add about 6" for double wrap cut length. Drill or punch a 7/32" hole in each end of the strap about 3/8" from the cut ends. If would prefer that Patio Direct cut your straps to length, we cut the straps with a die that makes a rounded edge on the 1-1/2" width strap and a "tongue" on the 2" width strap - and the 7/32" hole is punched.

Step 2: Heat water to boiling (straps need to be heated to about  $200^{\circ}F$  so that they can be s—t—r—e—t—c—h—e—d for installation). Insert a rivet in each end of the straps. Immerse the straps in the boiling water. As you begin strapping, remove a strap from the boiling water with tongs

(CAUTION: you may also want to wear gloves to install straps - as the water and the straps are very hot and could cause burns).

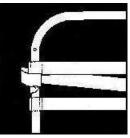
Step 3: Quickly insert a rivet on one strap end into a 7/32" hole in the furniture frame - quickly begin wrapping around the outside of the frame. Keep tension on the strap by pulling as you wrap.

Step 4: Quickly continue wrapping (with a pulling tension on the strap) - wrapping back over the rivet (the "termination point) and again toward the outside of the frame.

Step 5: Now, quickly pull the strap across the front of the frame and s-t-r-e-t-c-h the strap toward the frame on the other side.

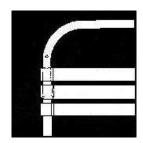
Step 6: Quickly continue s-t-r-e-t-c-h-i-n-g the strap well beyond the termination point (about 8" - 9" beyond) and at least a strap width above or below the termination point. (If there are existing straps above or below - simply s-t-r-e-t-c-h the newly installed strap over an existing strap).

Step 7: Quickly wrap the strap around the frame one complete wrap - and then a partial wrap **in a spiral** down to the termination point and quickly insert the other rivet into the 7/32" hole.



Step 8: the termination point.

Quickly bring the spiral loop back over itself at



You need to work very quickly - as the straps cool quickly and lose their elasticity. If you are too hesitant - or wrap the wrong way - or the strap will not s-t-r-e-t-c-h enough for the installation, remove the strap and repeat the process beginning with Step 2 (put the strap back into the boiling water).

## Single Wrap

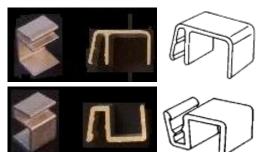


Single Wrapping is a simpler method of strapping. There are a number of manufacturers that originally installed straps with this method. The technique is very similar to double-wrap - with the exception that the measured length is

about 5" than the measured length for double wrap and the holes are typically  $\frac{1}{4}$ " (8/32") holes (the straps still must be heated to 200°F for installation). For this application, use Patio Direct's #30-515 for most applications.

### **Clip Methods**

Some furniture manufacturers, such as Medallion, Woodard, Meadowcraft, Modulus or some Trade Winds strap furniture uses an aluminum clip that is crimped onto each end of the strap. The most common frame width is 5/8" square - which uses Patio Direct's #30-800 "E-Clip".  $\frac{1}{2}$ " Square frames use Patio Direct's #30-801 "S-Clip".



Patio Direct's 30-800 Aluminum "E-Clip"

Patio Direct's 30-801 Aluminum "S-Clip"

Clips from the old straps can often be re-used if you are "very careful".

To install clips onto your straps -- crimp the clip onto the end of the vinyl strap with a mallet and an anvil.

With the clips installed on each end of the strap, heat the strap as in a double wrap technique - then you clip the heated strap on one side of the frame - then s-t-r-e-t-c-h the strap the other frame and clip it in place. Once straps are in place - you can adjust the spacing between the straps by tapping a clip on the frame with a piece of wood and a mallet.

If the frame members are "hollow" (extruded aluminum) - rather than "solid" aluminum frame members - you can often "retrofit" from the clip method by drilling 7/32" holes into the frame and using a double wrap configuration.