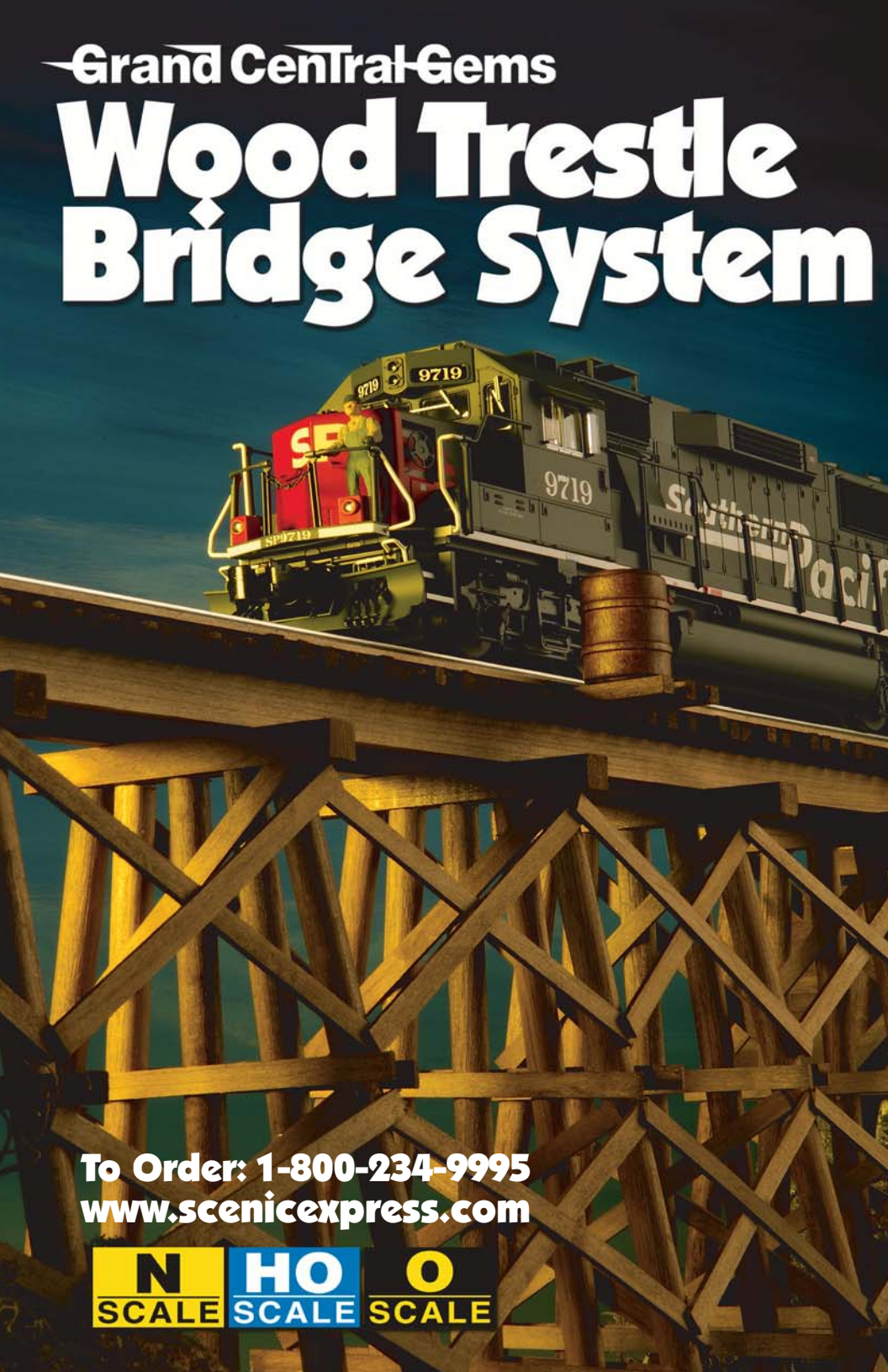
Grand Central Gems
Wood Trestle Bridge System
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N SCALE
HO SCALE
O SCALE

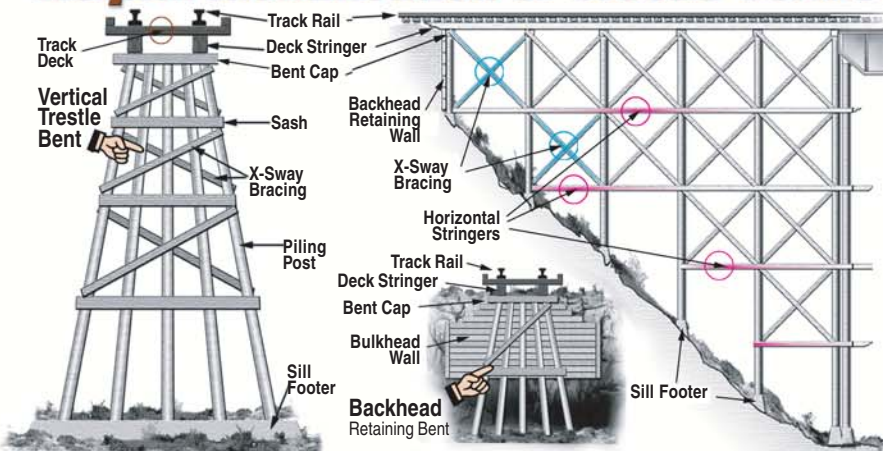
Timber Trestles

For many years the timber trestle was the symbolic king of American railroad construction. Trestles like these were by far the cheapest and fastest way to cross a valley or other obstacles. In the early days of railroad construction, most trestle designs were proprietary of the specific railroads. As we have discovered through our own research most of the basic engineering elements however remain universal. Our designs closely resemble actual trestles found throughout North America. Many western railroads continued using timber construction well into the 1920's. Today wooden trestles are found on many narrow-gauge tourist lines. Those that have not been maintained, naturally have decayed and fallen into disrepair.

Trestles were first built of local, untreated timbers which gave a useful life of about seven years. This period of time gave the railroad the opportunity to earn the necessary revenues for a more permanent type trestle. Later, trestles were replaced with creosol treated timbers which increased the life expectancy fourfold. Although high trestles could be at times a bit shaky, they were very safe despite a spidery look. Collapse of timber trestles were quite rare as compared to wooden truss and early steel bridges. Decay and fire were the main concern where timber trestles were employed. Flash flooding, rock slides and snow avalanches were also natural nemesis of many railroads. With current railroad weight capacities, many trestles can no longer be used on normal mainlines.

Timbers trestles are loved by modelers who continue to use them because of the visual impact and the ease of the many ready-assembled components. Our trestles are impressive for their complexity, yet surprisingly simple to build. We hope you have fun and unleash some of your 'artistic license' and design something really cool!

Helpful Identification of Trestle Terms



Wood Trestle Bridge System

Tips & How To Techniques

Photos, Tips and Ideas compliments Stanley Trzoniec... **Thanks Stan!**

Build the high trestle bridge of your dreams with minimal effort. These ready-to-use natural wood components are fully assembled, stained and preweathered consisting of decks, backheads, trestle bents and stringers.

STUFF YOU'LL NEED

✔**MATERIALS:**

A Master Plan, Trestle Bridge Components, Wood for Framing Support & Carpenter's Wood Glue

✔**TOOLS:**

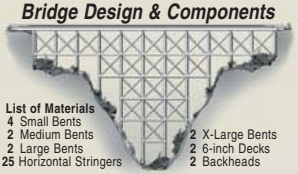
3" C-Clamps, Small 90° Framing Square, Solid Copper Electrical Wire & Clothes Pins

The first step in preparing your bridge is to have a design so that you will know exactly which parts of the bridge system to order and how many of each piece you will need. The following instructions and diagrams will aid in helping you through this process.

Once your wood bridge system arrives, lay out, group together and get acquainted with all the different pieces.

You can now start assembling the actual bridge system! We have found that it is actually easier to build the bridge system first. Once your wood bridge truss system is complete, you can then finish and build-up the scenery around your bridge.

Bridge Design & Components



Layout your materials. Check your design. Make sure you have all the components before beginning assembly.

Let's start building! Stan Trzoniec gave us this idea, and it may sound a little awkward; but yes, we are going to start building upside down. Begin with the deck(s). Be certain the surface you are working on is smooth, clean and flat. Lay out your decks so they are face down. If you are working with multiple decks butt them together end-to-end. At this point, no fastening is required.

Stan starts his assembly Up-Side-Down! Measure spacing between bents and glue. Use a 90° framing square to check accuracy.

Begin arranging the backheads (one on each end) and the trestle bents. It is important the trestle bents be spaced evenly apart. Arrange bents on deck so that the underside of the deck (facing up) is attached to the top deck support of the bent (upside down). The vertical supports of the bents are pointing up. On average, these are the suggested distances between each bent: N-Scale 1½" apart, HO-Scale 2½" apart and place the O-Scale bents 4½" apart. You may want to mark with a pencil on the deck the placement of each bent before gluing.

Using carpenter's wood glue, fasten the backheads and bents to the deck stringer on the underside of the deck. At this point, use a small framing square to insure that each bent is perpendicular and at a 90 degree vertical. Let dry thoroughly overnight.

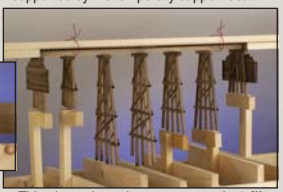
Attaching bridge trestles to track level. You need to make a temporary support beam. Using a straight furring strip (approximately 8" longer than the deck - *4" on each end*) and several small pieces of cooper electrical wire, temporarily attach the assembled bridge. This will bring the bridge up to the same height as the trackbed. You will remove the furring strip once the '**sill**' supports are installed.

The bridge is literally 'hanging' at this stage, supported by the temporary support beam.

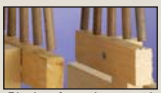
Another great idea! Wire a temporary support beam accross track level to bring the bridge to the proper height. Now begin building the '**sill footer**' supports.

Wooden '**sill footer**' support blocks are built up to the trestle bent vertical posts. Place a small dab of glue on the bottom of each vertical post and glue to the wooden support block. Shims may be placed under the vertical posts of the bent for leveling.

We are often asked about curved trestles. We only have 90° curved deck components in O-Scale at this time. For the more emboldened N & HO modeler, you can miter the decks with a fine-tooth saw to achieve the necessary facetted arc. *A little knowledge of geometry might be helpful!*



This photo shows how to support the '**sill footers**'. Use C-clamps to temporarily position the supports and allow adjustments. Glue and use drywall screws for permanence.

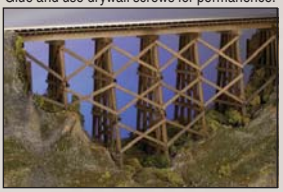


Blocks of wood are used as '**sills**' to support bents.

Terrain Contours: You'll need to create the mountain ravine contour at the base of your bridge. There are several methods by which to achieve this result. Two such methods, "plaster over wire screen" and "cardboard strip method", are two methods thoroughly explained and illustrated in **Dave Frary's** 3rd Edition of **"How To Build Realistic Model Railroad Scenery"** (**KB12216** *Page #27*).

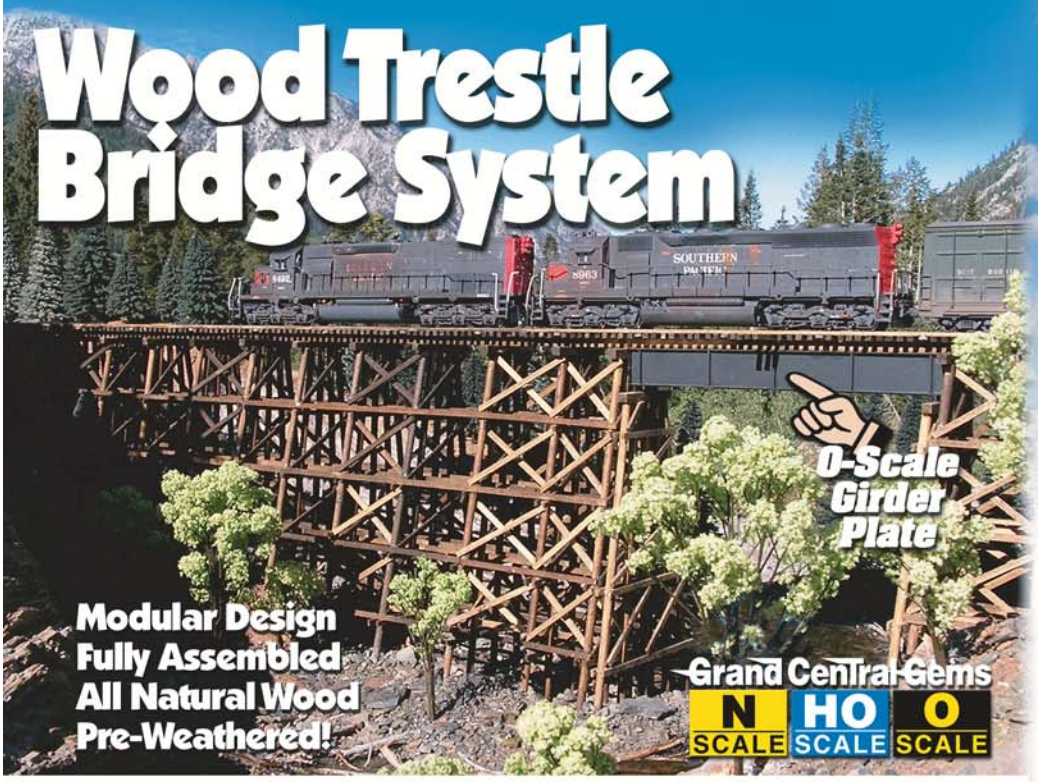
Stan uses the 'time-proven method of cardboard strip lattice to make his terrain contours.

Lastly, time to attach the stringers. Apply a small dab of carpenters glue to the outer vertical post of each trestle bent. Making sure to level, gently position the stringer horizontally across the bents. A clothes pin may assist in holding the stringer in place until the glue sets. As an optional alternative, Stan cut his horizontal stringers to create "X-Sway" bracing instead of the horizontal bracing. Either method will work equally as well to make an incredibly strong bridge.

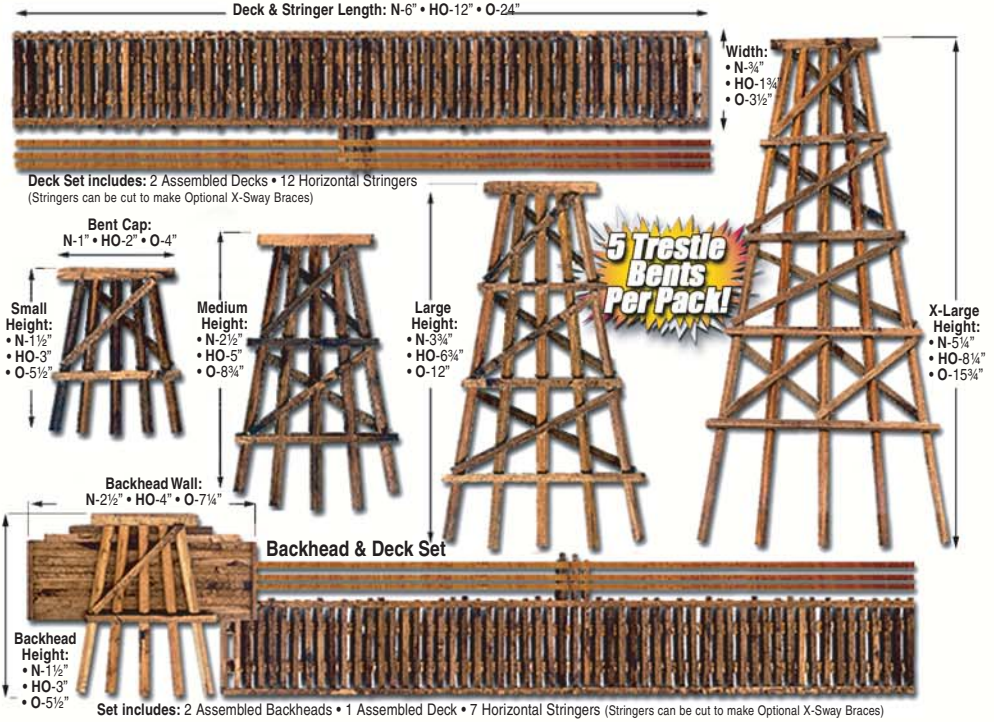


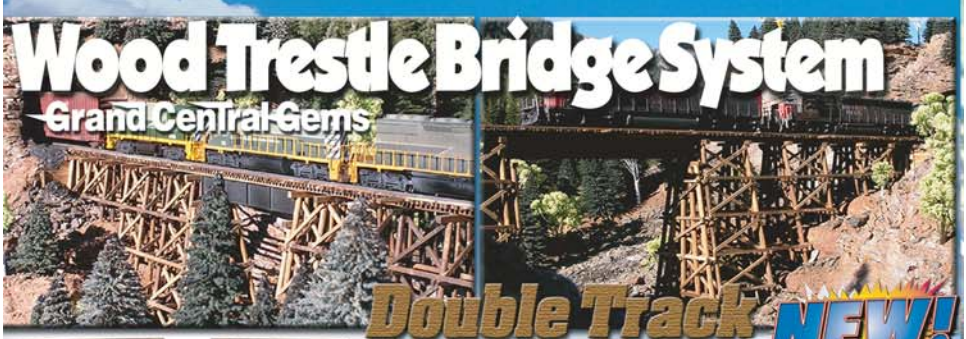
Stan's finished Wood Trestle Bridge project.

Wood Trestle Bridge System



Build the Wood Trestle Bridge of your dreams, just like those you've always seen and wished someday to have! All our modular trestle components come fully assembled, stained and pre-weathered. What could get any easier! Designed and engineered to support today's heavier model trains. Tips and instructions included with each order.





Double Track Trestle Bents

NEW! IMPROVED!

This line just keeps on growing. Finally... by popular demand... a **Double Track Trestle Bent System!** Two standard trestle decks fit parallel with a 2" track center for HO and a 4" center for O-Scale. Same *'ready-made'* and *'pre-weathered'* convenience as the rest of the system. 5 trestle bents come with each set. We recommend only going straight, no curves! Curves are just too difficult to achieve. *(unless you're a civil engineer)* Remember to double-up your order of decks and backheads.

N-Scale Trestle Components

Fully assembled pre-weathered components. Bents are packaged in sets of 5 pieces. Decks & stringers are 6" long.

GC0070	N- Small Trestle Bent Set 5-pcs 1½" tall	**$15.00**
GC0080	N- Medium Trestle Bent Set 5-pcs 2½" tall	**$20.00**
GC0090	N- Large Trestle Bent Set 5-pcs 3¾" tall	**$20.00**
GC0100	N- X-Large Trestle Bent Set 5-pcs 5¼" tall	**$25.00**
GC0110	N- 1-Deck with 2-Backheads 7- 6"Stringers	**$25.00**
GC0120	N- 2-Deck Set & 12- 6" Stringers	**$30.00**
GC0280	N- 6" Preweathered Stringers - 25 pcs.	**$15.00**

N-Scale Trestle Starter Kit

Construct a wooden N-Scale trestle bridge in one complete kit. Makes a 12" long and 5" high bridge. Kit includes these pre-weathered components:

4 Small Bents
2 Medium Bents
2 Large Bents
2 X-Large Bents
2 6-inch Decks
2 Backheads
25 Horizontal Stringers

Order #GC0121 **$70**

Illustrated instructions included.

HO-Scale Trestle Components

Fully assembled pre-weathered components. Bents are packaged in sets of 5 pieces. Decks & stringers are 12" long.

GC0010	HO- Small Trestle Bent Set 5-pcs 3" tall	**$15.00**
GC0020	HO- Medium Trestle Bent Set 5-pcs 5" tall	**$20.00**
GC0030	HO- Large Trestle Bent Set 5-pcs 6¾" tall	**$20.00**
GC0040	HO- X-Large Trestle Bent Set 5-pcs 8¼" tall	**$25.00**
GC0050	HO- 1-Deck & 2-Backheads 7- 12" Stringers	**$25.00**
GC0060	HO- 2-Deck Set & 12- 12" Stringers	**$30.00**
GC0230	HO- 12" Preweathered Stringers - 25 pcs.	**$20.00**
GC0190	HO- **Double Track** Small Bents 5-pcs 3"	**$25.00**
GC0200	HO- **Double Track** Medium Bents 5-pcs 5"	**$30.00**
GC0210	HO- **Double Track** Large Bents 5-pcs 6¾"	**$35.00**

HO-Scale Trestle Starter Kit

Build a wooden HO-Scale trestle bridge in one complete kit. Makes a 24" long and 10" high bridge. Kit includes these pre-weathered components:

4 Small Bents
2 Medium Bents
2 Large Bents
2 X-Large Bents
2 12-inch Decks
2 Backheads
25 Horizontal Stringers

Order #GC0061 **$80**

Illustrated instructions included.

O-Scale Trestle Components

Fully assembled pre-weathered components. Bents are packaged in sets of 5 pieces. Decks & stringers are 24" long.

GC0130	O- Small Trestle Bent Set 5-pcs 5½" tall	**$15.00**
GC0140	O- Medium Trestle Bent Set 5-pcs 8¾" tall	**$20.00**
GC0150	O- Large Trestle Bent Set 5-pcs 12" tall	**$20.00**
GC0160	O- X-Large Trestle Bent Set 5-pcs 15¾"	**$30.00**
GC0170	O- 1-Deck & 2-Backheads 7- 24" Stringers	**$25.00**
GC0180	O- 2-Deck Set & 12- 24" Stringers	**$30.00**
GC0320	O- 12" Preweathered Stringers - 25 pcs.	**$20.00**
GC0290	O- **Double Track** Small Bents 5-pcs 5½"	**$25.00**
GC0300	O- **Double Track** Medium Bents 5-pcs 9"	**$30.00**
GC0310	O- **Double Track** Large Bents 5-pcs 12"	**$35.00**
RR0010	O- Girder Bridge Plate 1-pc 26½" long	**$20.00**

O-Scale Trestle Starter Kit

Build a wooden O-Scale trestle bridge in one complete kit. Makes a 48" long and 17" high bridge. ***Add an Optional Girder Plate Span for only $20!***
Kit includes these pre-weathered components:

4 Small Bents
2 Medium Bents
2 Large Bents
2 X-Large Bents
2 24-inch Decks
2 Backheads
25 Horizontal Stringers

Order #GC0181 **$90**

Illustrated instructions included.

Girder Bridge Plate

Hot-Riveted O-Scale Girder Plate

NEW this season. Give your O-Scale Trestles an added realistic look. Cast resin girder plate panel. Simply glue against main support stringer under the trestle deck. Measures 26½" x 1¾" (individual panels measure 1" wide) Only ¼" thick. Flexible to 24" radius. Gray primer tone. 45° beveled ends.

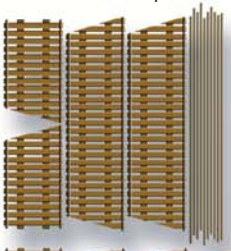
RR0010 O-Scale Girder Bridge Plate **$20.00 ea.**

Five or More Girder Plates ONLY $17.00 ea.

90° Curved Trestle Decks

90° Curved Trestle Decks for 3-Rail 0-42" and 0-72" Radius

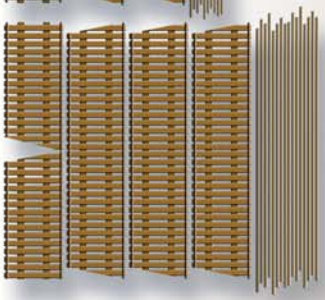
We've done all the calculations. All you need is glue to assemble these simple components together. Sets include a pre-mitered deck and stringers to complete a 90° right angle. *Two sets will complete a full 180° turn when placed end-to-end.*



90° Curved Trestle Deck Set for 0-42"

Set includes pre-mitered deck components to complete a 90° right angle. (example shown above) 9 trestle bents are required for proper structural support (bents sold separately). Designed for GarGraves 42" radius curves and all 3-rail flex-tracks. Includes deck components and 12 stringer braces.

GC0171 90° Curved Trestle Deck Set for O-42" Radius **$60.00**



90° Curved Trestle Deck Set for 0-72" Wide Radius

Set includes pre-mitered deck components to complete a 90° right angle. 20 trestle bents are required for proper structural support at 4½" distance (bents sold separately). Designed for GarGraves 72" wide radius curves and all 3-rail flex-tracks. Includes five deck components and 24 stringer braces.

GC0172 90° Curved Trestle Deck for O-72" ... **$90.00**