

3-Tier Bleacher System Tip and Roll Design

NOTE: ALL HARDWARE IS GALVANIZED

PARTS LIST	BL-3TR-7.5DR	BL-3TR-12DR	BL-3TR-15DR	BL-3TR-18DR	BL-3TR-21DR
3-tier stringer	2 ea.	3 ea	3 ea	4 ea	5 ea
FOOT PAD HARDWARE					
Non-marring rubber footpads	8 ea.	12 ea	12 ea	16 ea	20 ea
5/16" x 1 1/4" carriage bolt	8 ea.	12 ea	12 ea	16 ea	20 ea
5/16" flange nut	8 ea.	12 ea	12 ea	16 ea	20 ea
3/8" flat washer	8 ea.	12 ea	12 ea	16 ea	20 ea
BRACING HARDWARE					
60-spacer	n/a	2 ea	n/a	3 ea	4 ea
72-spacer	1 ea.	n/a	2 ea	n/a	n/a
60-10 diagonal	n/a	4 ea	n/a	6 ea	8 ea
72-10 diagonal	1 ea.	n/a	4 ea	n/a	n/a
3/8" x 1 1/4" bolt	7 ea.	11 ea	11 ea	15 ea	19 ea
3/8" flange nut	7 ea.	11 ea	11 ea	15 ea	19 ea
PLANK HARDWARE					
2"x10" plank (anodized finish)	3 ea.	3 ea	3 ea	3 ea	3 ea
2"x10" plank (mill finish)	4 ea.	4 ea	4 ea	4 ea	4 ea
1"x6" plank (mill finish)	2 ea.	2 ea	2 ea	2 ea	2 ea
2"x10" end cap (anodized finish)	6 ea.	6 ea	6 ea	6 ea	6 ea
2"x10" end cap (mill finish)	8 ea.	8 ea	8 ea	8 ea	8 ea
1"x6" end cap (mill finish)	4 ea.	4 ea	4 ea	4 ea	4 ea
retainer clip	32 ea.	48 ea	48 ea	64 ea	80 ea
5/16" x 1 1/4" carriage bolt	32 ea.	48 ea	48 ea	64 ea	80 ea
5/16" flange nut	32 ea.	48 ea	48 ea	64 ea	80 ea
3/16" aluminum pop rivets	36 ea.	36 ea	36 ea	36 ea	36 ea
CASTER HARDWARE					
Non-marring locking caster	2	2	2	2	2
Non-marring non-locking caster	2	4	4	6	8
1/2" flange nut	4	6	6	8	10


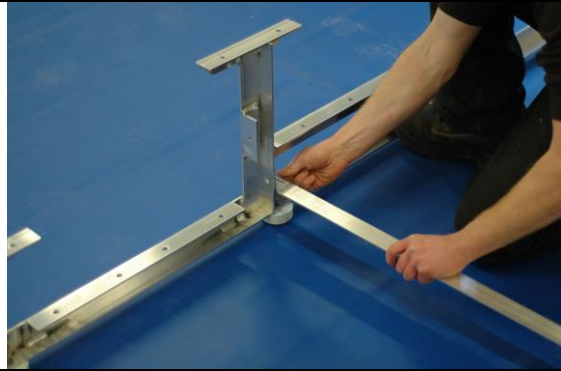
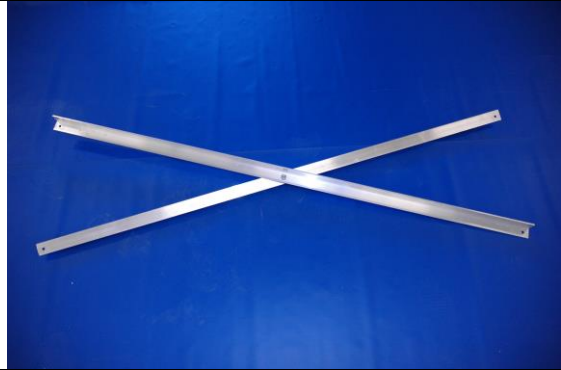

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TOOL REQUIRED	
	Tape measure
	Hammer
	Cordless drill
	9/16" deep socket on ratchet
	9/16" wrench
	3/4" socket on ratchet
	3/4" wrench
	1/2" deep socket on ratchet
	Level
	3/16" metal drill bit
	Pop rivet gun

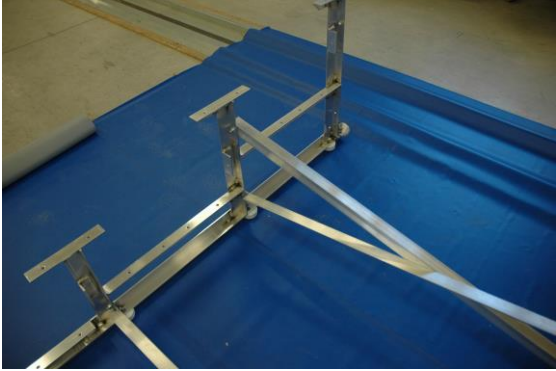
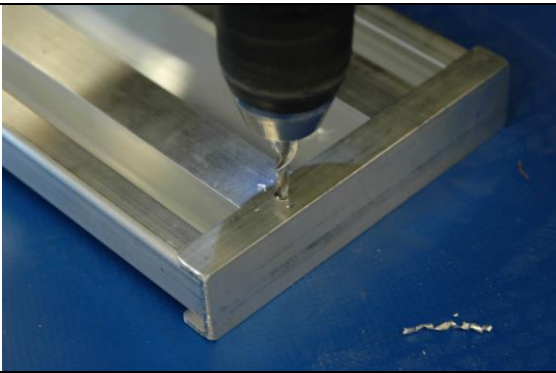
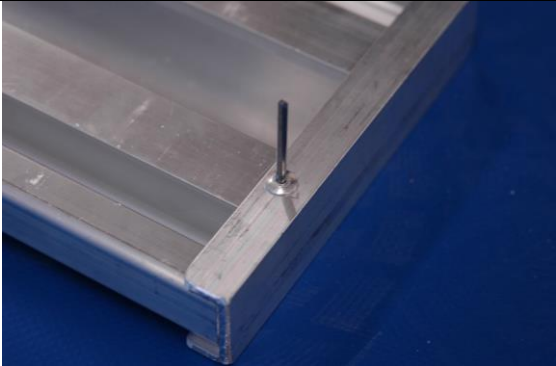
1. Install four **non-marring rubber footpads** to the base of all the **3-tier stringers**.
2. Place one **3/8" flat washer** on one **5/16"x 1 1/4" carriage bolt** and put through the base of the **non-marring rubber footpad**.
3. Place the pad/washer/bolt through the base of the **3-tier stringer** and attach using one **5/16" flange nut**.



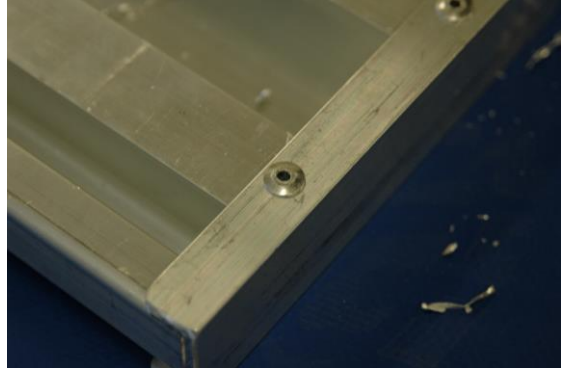


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	<ol style="list-style-type: none"> 1. Space 3-tier stringers out so that they are 5' or 6' on centre depending on model (consult attached drawing for reference). 2. Install the 60 or 72 - spacer brace on 2nd row using a 3/8" x 1 1/4" bolt. <p>NOTE: install with the angle facing down so that the angle does not collect dirt and debris.</p>	
		
	<ol style="list-style-type: none"> 1. Place one x-brace (60-22 or 72-22) member back to back with another x-brace member to form the x-brace scissor. 2. Insert a 3/8" x 1 1/4" bolt and 3/8" flange nut in the centre of two pieces of angle to form x-brace. Loosely tighten these bolts so that the x-brace can be maneuvered like a scissor. 	
	<ol style="list-style-type: none"> 3. Use a 3/8" x 1 1/4" bolt and 3/8" flange nut hardware to connect the x-braces to the 3-tier stringers on the 3rd row. 4. Plumb the 4-tier stringers prior to tightening the x-braces using a level in order to ensure the stringers are level and sitting 5' or 6' on centre depending on model. 5. Use ratchet with 9/16" socket and a 	


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	<p>9/16" wrench to tighten all x-braces to the stringer frames.</p> <p>***Model show is 4-tier system***</p>	
	<p>1. Place 2"x10" end cap (anodized finish) on end of 2"x10" plank (anodized finish).</p> <p>NOTE: the anodized aluminum plank will have a dull grey appearance when set beside a mill-finished aluminum plank. The anodized aluminum planks will become the seat planks for the bleacher system. Anodized planks are less likely to oxidize and give off aluminum dust and are therefore designed to act as a seat plank. The end caps fit snugly on the end of the aluminum plank and may need to be tapped on using a hammer and block of wood or a rubber mallet. Place end cap so that the long leg of the channel is on the underside of the seat plank.</p>	
	<p>2. When fit on the plank, drill through the end cap and plank with 3/16"</p>	

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	<p>metal bit in 2 places.</p> <p>3. Secure the channel to the plank with 3/16" aluminum pop rivets x 2 ea.</p> <p>4. Repeat this step on the opposite end of the plank.</p> <p>5. Repeat steps 1-4 for the 2"x10" planks (mill finish).</p>	
	<p>1. Use 5/16" x 1 1/4" bolt and 5/16" flange nuts with retainer clips to secure planks to riser board areas. Use 1/2" deep socket to secure this hardware arrangement.</p> <p>2. Install one riser per row for rows 2-3.</p>	
	<p>1. Use 5/16" x 1 1/4" carriage bolt, 5/16" lock washer and 5/16" nuts with retainer clips to secure planks to seat and footboard areas. Use 1/2" deep socket to secure this hardware arrangement.</p> <p>NOTE: 2"x10" plank (anodized finish) (dull finish) will act as seat boards and 2"x10" plank (mill finish) (shiny finish) will act as footboards.</p>	

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<ol style="list-style-type: none"> 1. Attach a non-marring locking caster to the bottom end of the 3-tier stringer using a 1/2" flange nut on outer most stringers only. 2. Attach a non-marring non-locking caster to all other locations on 3-tier stringer using a 1/2" flange nut. 	
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IMPORTANT

Sport Systems makes every effort to ensure that its assembly instructions and other printed material are kept up to date. However, written specifications are subject to change without notice.

Installation

Unless Sport Systems has agreed expressly to provide installation services, Buyer is responsible for installing & assembling products. Buyer assumes full responsibility for the proper installation & assembly of products.

Instructions and Warnings

Sport Systems shall have no liability whatsoever for injury, damages, losses and expenses arising as a result of a failure to follow instructions from Sport Systems related to the proper installation, use, care and maintenance of products. Buyer should follow all such instructions, including without limitation:

PRODUCTS SHOULD BE INSPECTED PRIOR TO EACH USE FOR DAMAGE AND DETERIORATION AND SHOULD NOT BE USED IF DAMAGED OR DETERIORATED.

PRODUCTS SHOULD NOT BE USED BY PARTICIPANTS WITHOUT PROPER TRAINING AND SUPERVISION.

Building Codes

These Tip & Roll bleachers are designed in accordance with both the NBC 2005 (National Building Code of Canada) and the OBC 2006 (Ontario Building Code). The buyer remains responsible for compliance with any other local or jurisdictional codes. Drawings stamped by a registered professional engineer are not included unless noted in the associated quote or invoice. Please consult with local code officials to determine any additional features which may be desired or required. Official interpretation and application rests solely with local authorities. Sport Systems Canada Inc. and its representatives cannot assume liability for code compliance and presents this information as unofficial guidelines only.