

Garden Tool Rack

Tools Required To Make this Design:

Punching: Practical Punch/Shear (or Master Punch/Shear or XL5+ Power Bender fitted with 3mm Punch Block & Pins)
 Cutting: Practical Punch/Shear (or Master Punch/Shear or XL5+ Power Bender)
 Riveting: Practical RBR
 Bending: Practical RBR
 Twister: Practical Twister, Master Twister, XL Twister

We recommend that before starting you wipe all steel bars down so that they are free of grease, scale or dirt. After cutting any component, we also recommend that you trim the corners for a neater finish, if preferred, unless these instructions tell you otherwise. Use a fine tip marker pen, pencil or scribe for marking hole, bend, scroll, roll points on the bars.

Component 1 Frame (x2) 15mm x 3mm x 914mm

Take 2 lengths of 15mm x 3mm x 914mm and mark out bend positions B1, B2, B3 and hole positions H1 to H6 as shown on component 1 on the design sheet overleaf.
 Punch all hole positions and then bend all bend positions using template 1 on design overleaf as reference.

Component 2 Front Bumper (x2) 15mm x 3mm x 700mm

Cut 2 bars each 700mm long out of 15mm x 3mm material. Using the design sheet overleaf for component 2 mark out hole positions H7-H10 and rolling points R1 & R2. Start by punching all holes and then set up your RBR to roll a curve between R1 & R2 to the curvature shown in template 2.
 Note: If you roll too much of a curve, reverse the material into the rollers to straighten component out in order to start again.

Component 3 Central Curve (x2) 15mm x 3mm x 490mm

Cut 2 bars each 490mm long out of 15mm x 3mm material. Using the design sheet overleaf for component 3, mark out hole positions H11 and H12, bend points B4 and B5 and rolling points R3 and R4. Start by punching all marked holes. Next roll a curve between R3 and R4 using template 3 to obtain the correct curvature. Finally bend 90 degree angles at B4 and B5 using template 1 to set the angle. The completed component should match template 3.

Component 4 Rings (x32) 15mm x 3mm x 214mm

Using the offcuts from component 2 plus other the remaining bars cut 30 pieces each 214mm long.
 Roll each piece into a complete circle using template 4 to create 32 identical rings. Note ensure the circles remain flat against the base of the tool during rolling. Also if you have flats on the end of each ring you can manipulate the ends of each ring in the RBR tool to give a slight bend.

Component 5 Uprights (x6) 15mm x 3mm x 550mm

Cut 6 bars each 550mm long out of 15mm x 3mm material and using component 5 on the design sheet overleaf mark out hole positions H13, H14 and twisting points T1 and T2. Start by punching all holes.

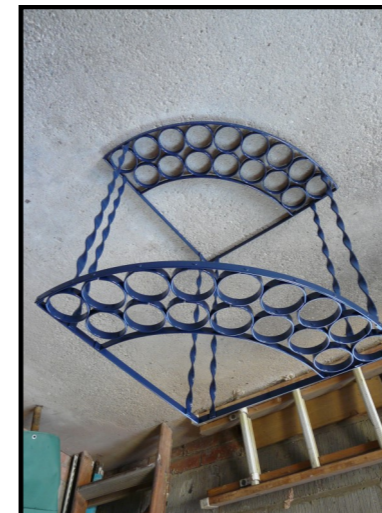
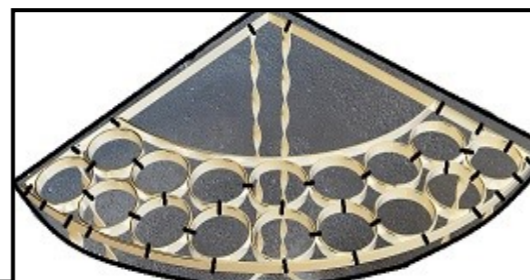
Then place each length into your Twister and twist between T1 and T2 remembering to count 6 complete rotations for each bar to ensure all six uprights are identical.

Assembly

Before starting, instead of riveting the tool rack you could always nut/bolt to check everything fits then replace the rivets one by one.
 Start by joining components 1 (frame) and 2 (front bumper) together by riveting hole positions H1 and H6 to H7 to H10. Next place all the rings into the frame as seen in the image. Start by laying out 9 rings in the inner of component 2 (front bumper) then 7 rings on the inside of these. Mark all rivet points as shown in the image below. Once all rivet marks are done, take one ring out at a time and punch at all marks. Next rivet all the rings together starting with the rings to be attached to component 2 (front bumper) and component 1 (frame) then rivet the inner rings.

Next place component 3 (central curve) into position close to the rings and mark out suitable riveting positions for this. Punch where marked and then rivet together at both ends using 3mm x 8mm rivets. Repeat this process to assemble the other identical top/bottom section.
 Finally taking your uprights assemble to both top and bottom of your tool rack (as in image) using 3mm x 8mm rivets.

Now your tool rack is complete you can finish your project with the paint of your choice and have an organised tool rack for you garage/shed



The garden tool rack offers the opportunity to create something unique yet ultimately usable and practical. Weather for the garden shed or the corner of your garage this clever and innovative design means that a whole host of tools, garden accessories and general maintenance equipment can be neatly stored away yet is instantly accessible for those times when you really need them.



Design Pack

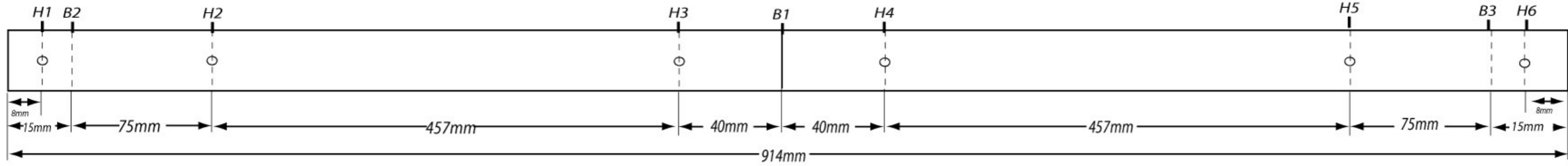
Garden Tool Rack

Difficulty Rating:	
Easy	
Straightforward	✓
More complex	

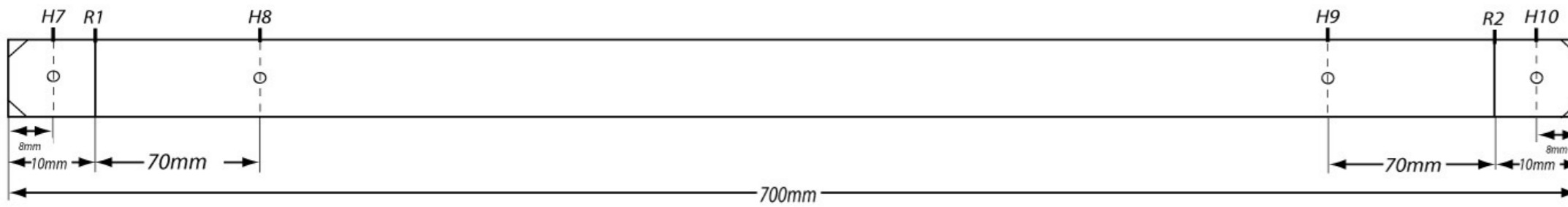
Design Pack: Tool Rack - Design Sheet

Not to Scale:

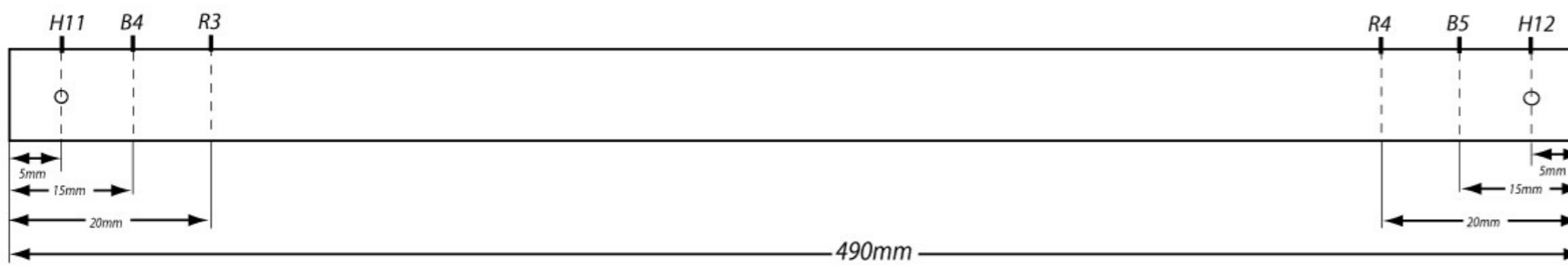
Component 1. (x2)



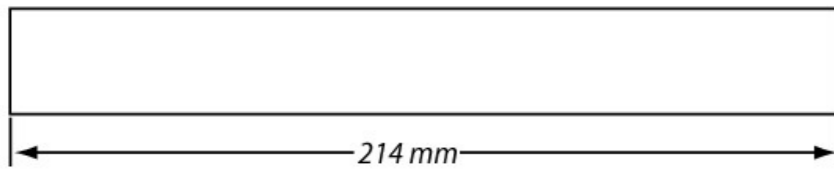
Component 2 (x2)



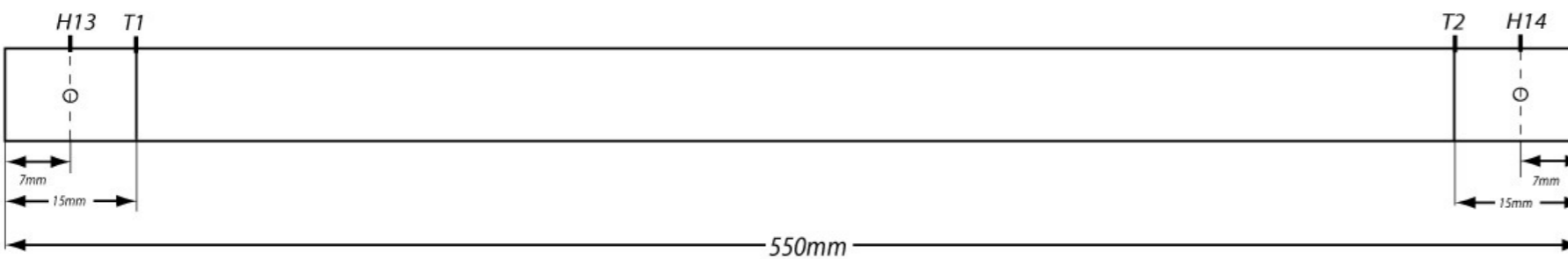
Component 3. (x2)



Component 4. x26



Component 5. (x6)



List of Materials

- 19 Lengths 15mm x 3mm x 3ft [Re-Order Ref: MC037]
- 70 x 10mm x 3mm Rivets [Re-Order Ref: MC052L]
- 70 x 10mm x 3mm Nuts & Bolts [Re-Order Ref: MC060L]

90°

Template 1.

Template 4.

Template 3.

Template 2.

B4

B5

