

Coffee table 48"x 24"



1 - Tools and Material list

Tools for wood:

Table saw
miter saw / jig saw
Jointer
Planer
Sander
Biscuit joiner
Drill or driver
3/8" drill clamps
Chalk
Leveling tool
Dust mask and safety glasses
Paint brush

Tools for metal:

Gloves
Welding machine and protection
Grinder
Cut off wheel
Allen Wrench 1/4"
Chop Saw (for metal)
Screw gun/drill
Metal driving bit
Paint brush

Materials and cut list:

table top:

2" boards cut to 6" x 48", quantity: 4

table stand:

Bolts 1/4"x2"xØ15, quantity: 2
Bolts 1/4"x1-1/4"xØ15, quantity: 6
Bolts 1/4"x5/8"xØ15, quantity: 25
hat chanel profiles 2 1/4" x 3/4", quantity: 8
square rubber base: 2" x 2" x 3/8", quantity: 4
degreaser
1 1/2" x 1 1/2" tube cut to 17", quantity: 4
1 1/2" x 3/4" tube cut to 18 1/4", quantity: 4
1 1/4" x 3/4" tube cut to 16", quantity: 2
3/4" x 3/4" tube cut to 37", quantity: 2
1 1/2" x 3/4" tube cut to 20", quantity: 2

table base:

3/4" board cut to 7 3/4" x 44", quantity: 1
3/4" metal tubes cut to 45 1/2", quantity: 2
metal sheet B, 1 1/2" x 3", quantity: 6

wood finish:

Sandpaper
Polyurethane

2- Preparing the lumber

if you use scraps of wood:

Choose a bit bigger sizes to have the right dimensions after milling and preparing the lumber.

Mill the lumber:

if the boards are warped, do this for step for each piece apart: keep a downward pressure to flatten both faces using a jig saw over a jointer.

Mill the boards at 2" thick

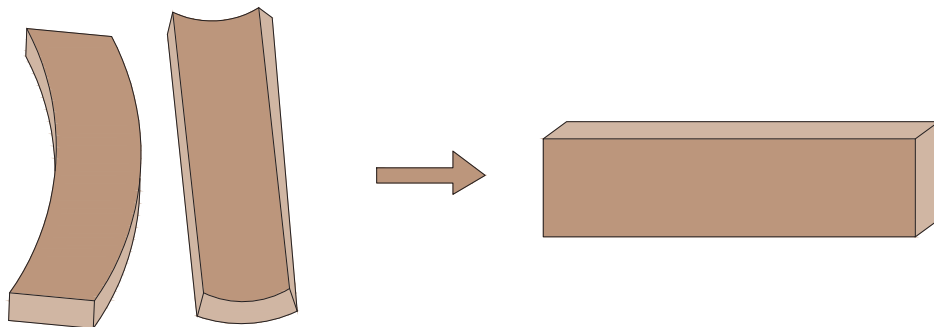
Rip to width, joint the edges straight and square using a table saw and cut to their final width of 6".

Place the boards on a flat surface and arrange for length trimming.

Any crook in the board should face down.

Square the ends and cut parts to length.

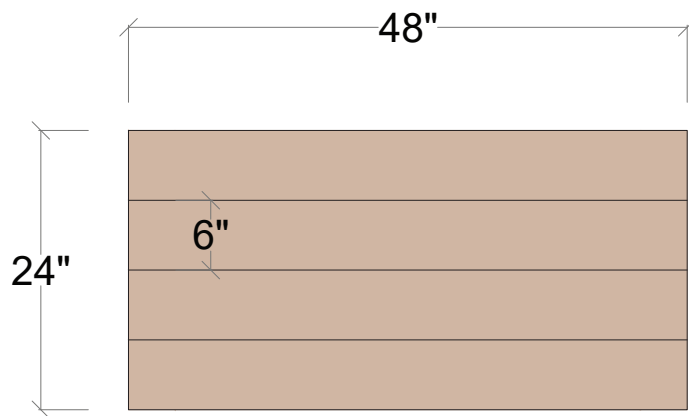
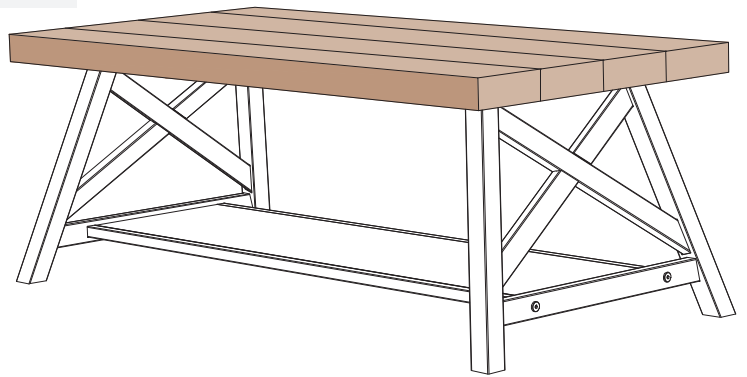
Work from long to short (to avoid cutting a piece too short.)



3 - Table top

Dimensions and quantities of lumber for the top are as below:

2" boards cut to 6" x 48", quantity: 4

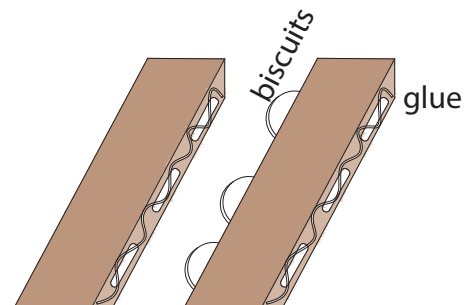


top plan

Use Biscuits for Alignment:

Make a tight mortise joint on each of the 2" sides of the lumber (every 8" apart).

Spread glue on each side of the boards, use clamping pressure and secure the lumber. Scrape glue excess then wait a few hours until dry.



FINISH:

Use a fine grit sandpaper to sand the wood.

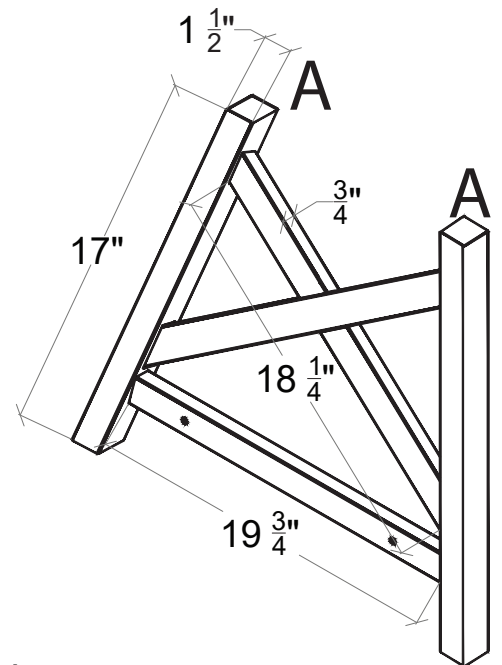
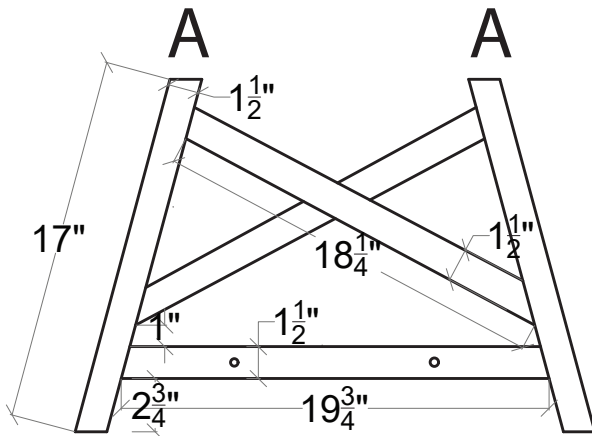
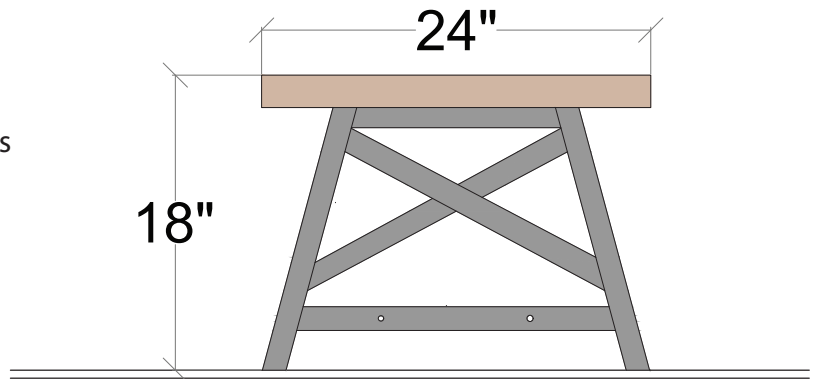
Apply polyurethane (or linseed oil for indoor furnitures, or a finish of your choice) to the entire piece. Apply 3 coats with 20 minutes in between, in light and even coats, always brushing with the grain.

4.1 - Table stand

Dimensions and quantities of metal for the stands are as below:

1 1/2" x 1 1/2" tube cut to 17", quantity: 4

1 1/2" x 3/4" tube cut to 18 1/4", quantity: 4



Cut the metal bars using the dimensions above as a reference.

Cut from the inside of the bars A 1 1/4" x 3/4" square as per detail A.

Make sure to clean off all your cuts with a grinder.

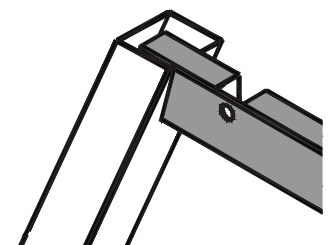
Weld the bars to an X shape using the measurements above as a reference, then weld the X to the bars.

Drill 2 of Ø15 holes onto the horizontal metal tube and weld it onto the stand.

Repeat the same for the second stand.

Clean up and smooth out any slag with a grinder.

Paint the metal with black spray, then use a clear coat to seal it.
You can use an extra fine steel wool to rough up painted finish and give it a nice rustic look.

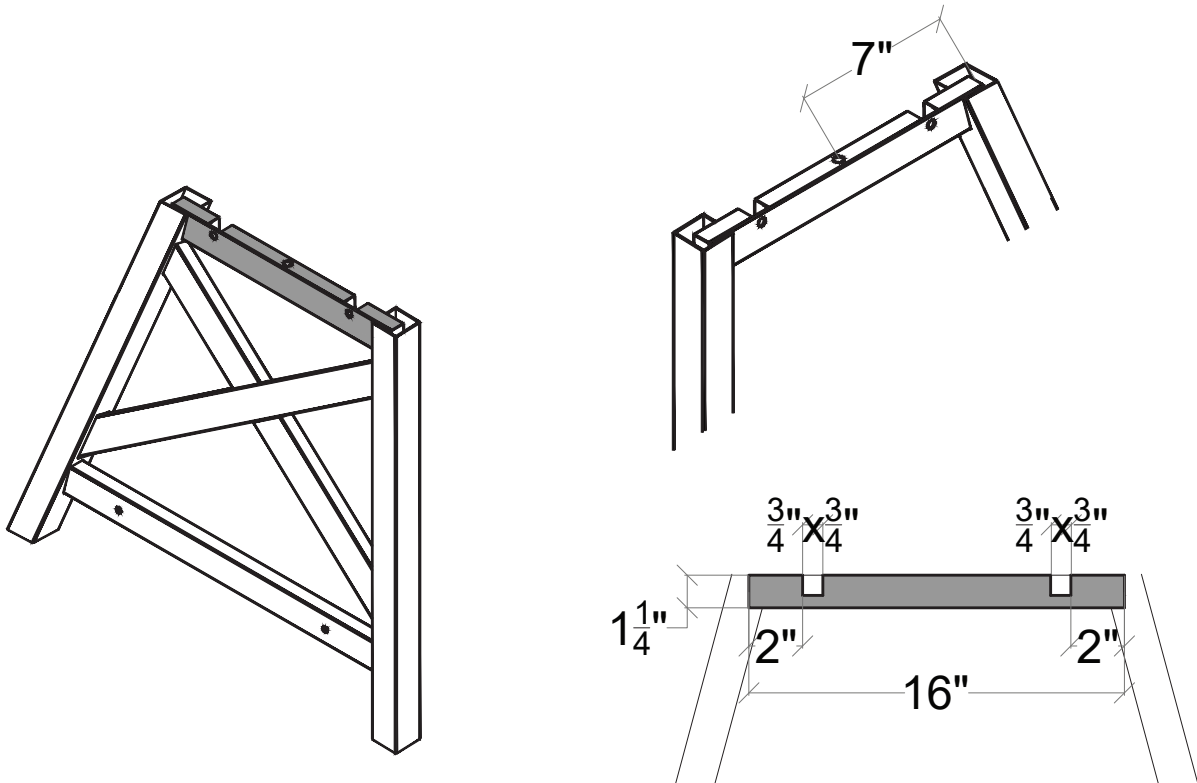


detail A

4.2 - Table stand

Dimensions and quantities of metal for the stands are as below:

1 $1\frac{1}{4}$ " x $\frac{3}{4}$ " tube cut to 16", quantity: 2



Cut the metal bars using the dimensions above as a reference.

Cut from the inside of the bars $\frac{3}{4}$ " x $\frac{3}{4}$ " square as per drawing.

Drill 2 of $\varnothing 15$ holes onto the horizontal metal tube and weld it onto the stand.

Make sure to clean off all your cuts with a grinder.

Repeat the same for the second stand.

Clean up and smooth out any slag with a grinder.

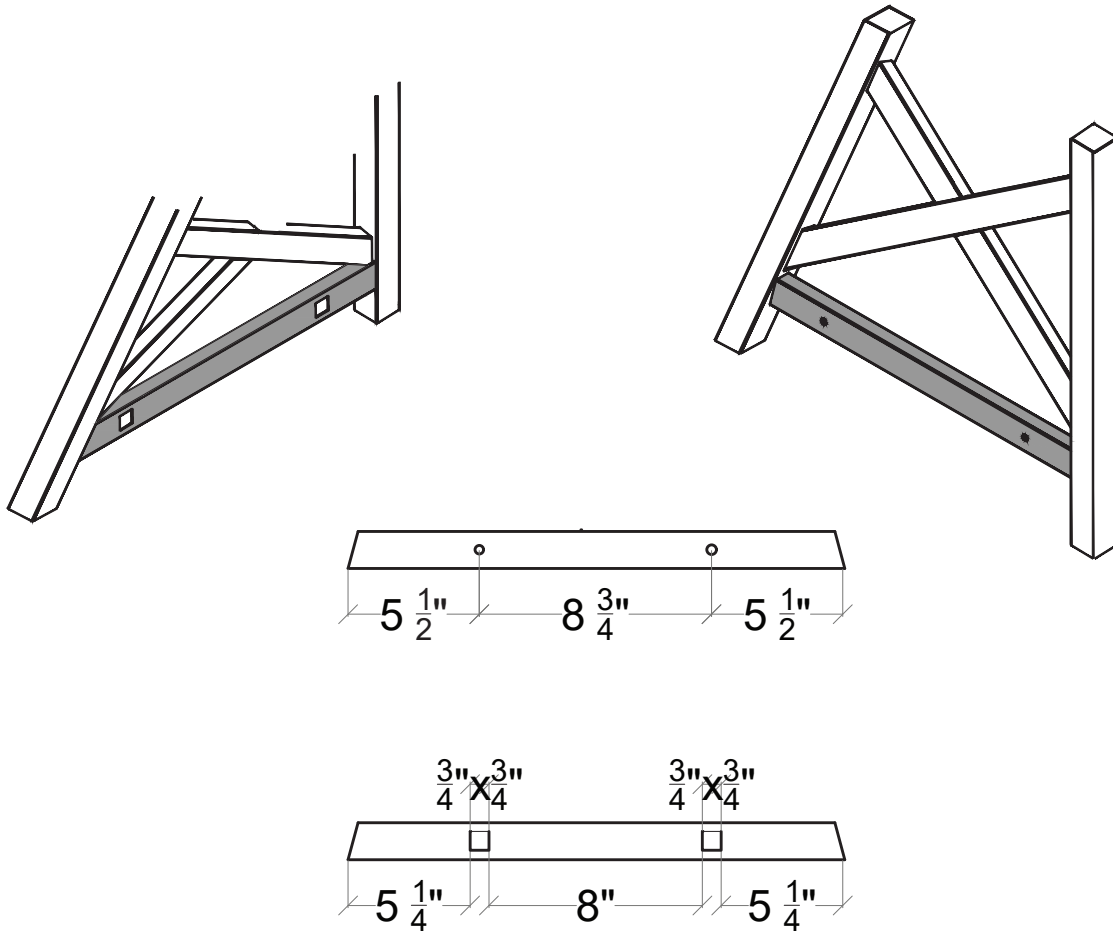
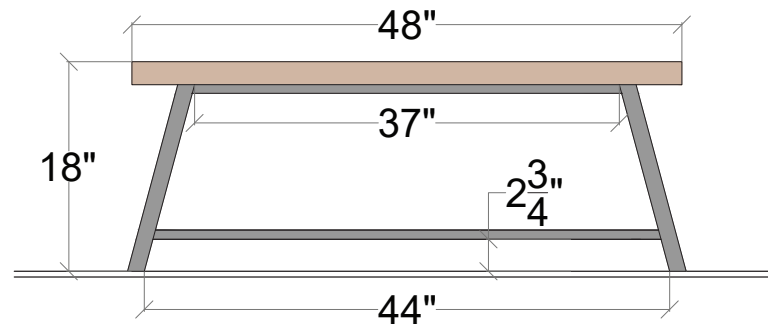
Paint the metal with black spray, then use a clear coat to seal it.

You can use an extra fine steel wool to rough up painted finish and give it a nice rustic look.

4.3 - Table stand

Dimensions and quantities of metal for the stands are as below:

1 1/2" x 3/4" tube cut to 20", quantity: 2
hat metal profile 2 1/4" x 3/4", quantity: 4
Bolts 1/4"x5/8"xØ15, quantity: 12



Cut the metal bars using the dimensions above as a reference.

Drill 2 of Ø15 holes onto the horizontal metal tubes.

Cut 2 of 3/4" x 3/4" holes onto the horizontal metal tubes.

Weld the tube onto the stand.

Clean up and smooth out any slag with a grinder.

Paint the metal with black spray, then use a clear coat to seal it.

You can use an extra fine steel wool to rough up painted finish and give it a nice rustic look.

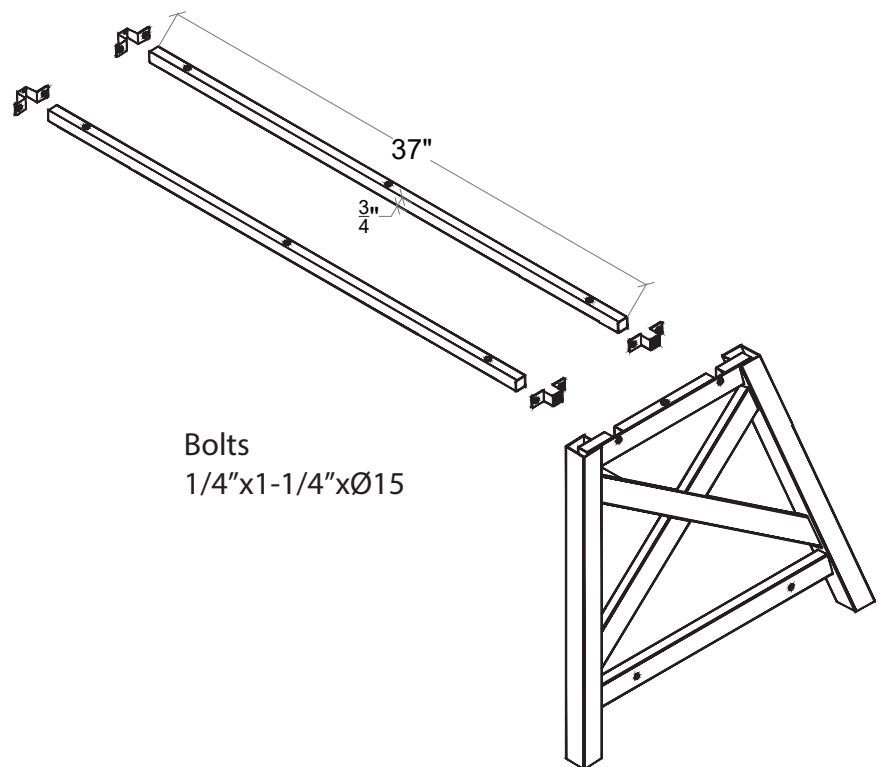
4.4 - Table stand

Dimensions and quantities of metal for the stands are as below:

3/4" x 3/4" tube cut to 37", quantity: 2

hat metal profile 2 1/4" x 3/4", quantity: 4

Bolts 1/4"x5/8"xØ15, quantity: 12



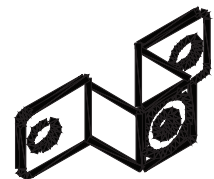
Cut the metal bars using the dimensions above as a reference.

Drill 2 of Ø15 holes onto the horizontal metal tubes.

Clean up and smooth out any slag with a grinder.

Paint the metal with black spray, then use a clear coat to seal it.
You can use an extra fine steel wool to rough up painted finish and give it a nice rustic look.

Assemble the bars to the stand using Bolts 1/4"x2"xØ15 and hat channel profiles with Bolts 1/4"x1-1/4"xØ15.

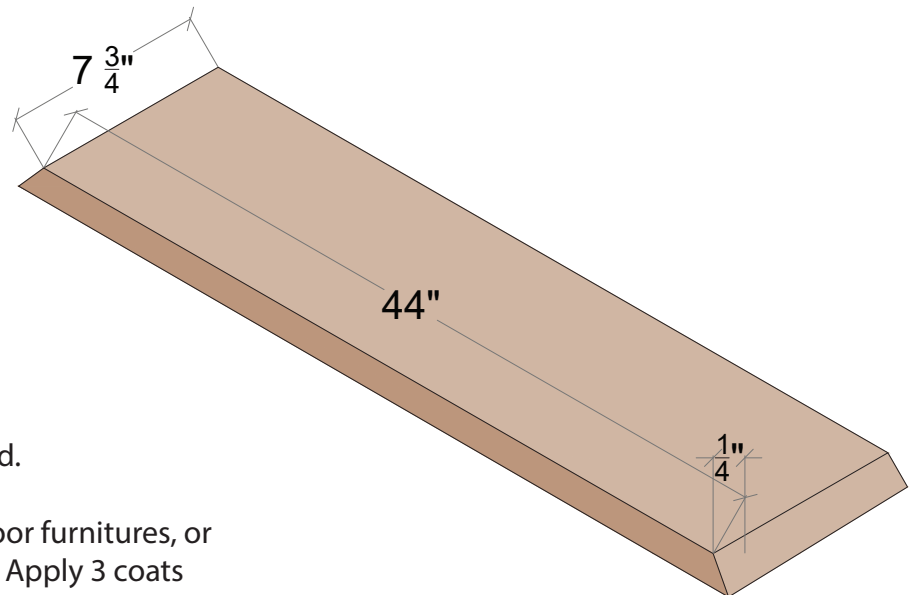
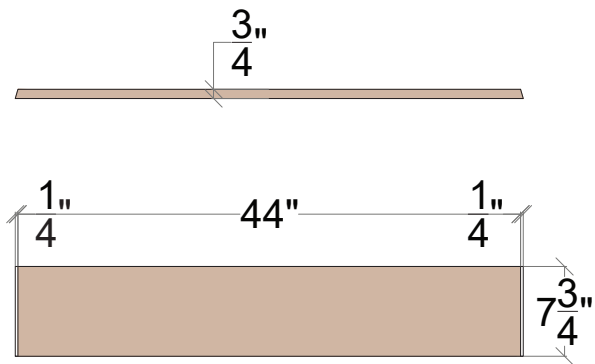
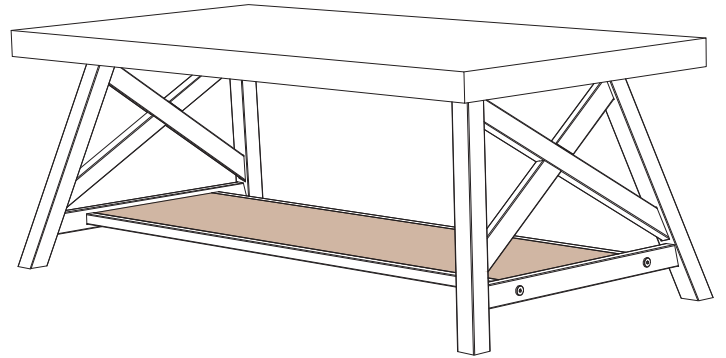


hat channel profile

5.1 - Table base

Dimensions and quantities of lumber for the base are as below:

3/4" lumber cut to 7 3/4" x 44", quantity: 1



FINISH:

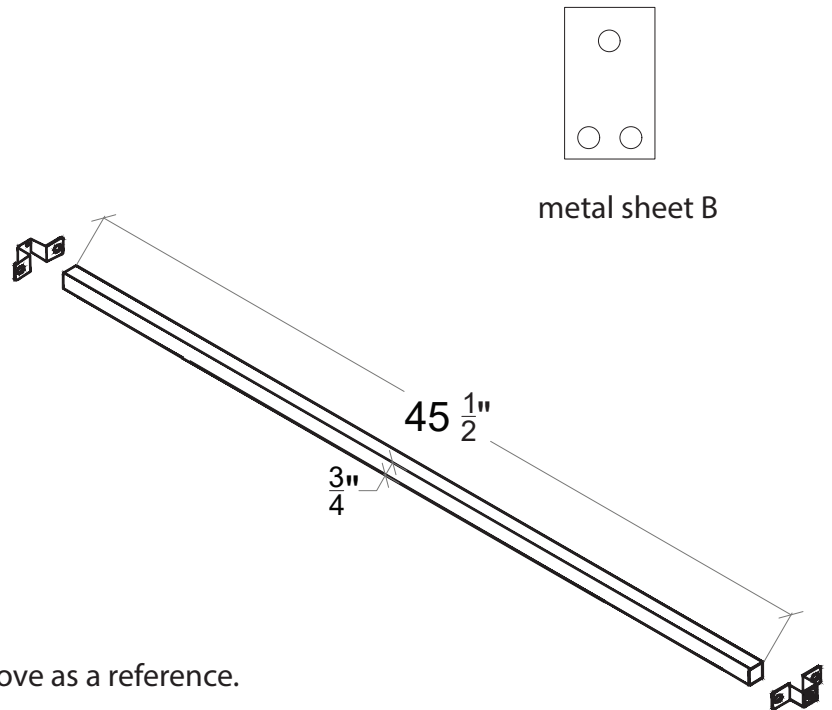
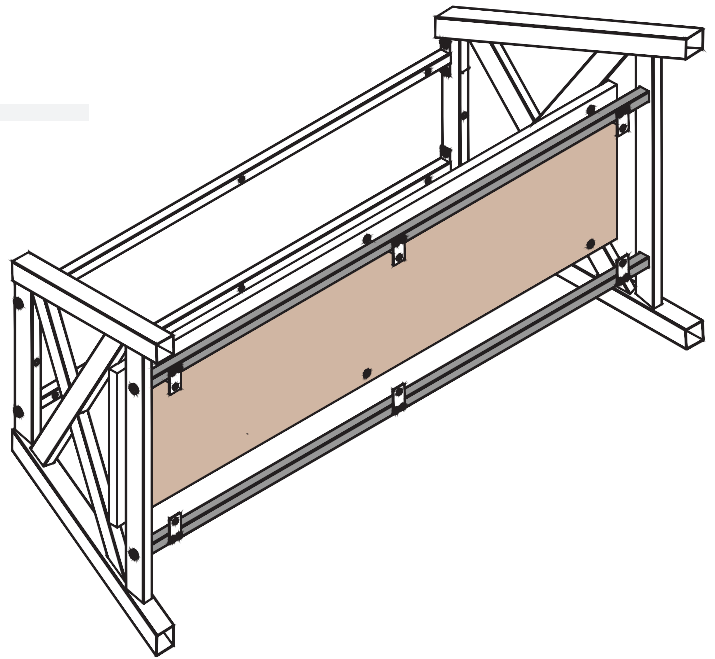
Use a fine grit sandpaper to sand the wood.

Apply polyurethane (or linseed oil for indoor furniture, or a finish of your choice) to the entire piece. Apply 3 coats with 20 minutes in between, in light and even coats, always brushing with the grain.

5.2 - Table base

Dimensions and quantities of metal for the base are as below:

3/4" x 3/4" metal tubes cut to 45 1/2", quantity: 2
metal sheet B, 1 1/2" x 3", quantity: 6
Bolts 1/4"x5/8"xØ15
hat chanel profiles



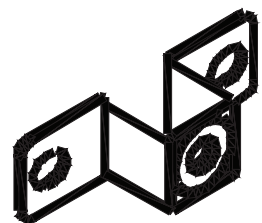
Cut the metal bars using the dimensions above as a reference.

Clean up and smooth out any slag with a grinder.

Paint the metal with black spray, then use a clear coat to seal it. You can use an extra fine steel wool to rough up painted finish and give it a nice rustic look.

Assemble the metal bars to the wood base using metal sheet B.

Assemble the base to the stands using hat chanel profiles and Bolts 1/4"x5/8"xØ15



hat chanel profile

6 - Assembly and levelling

Assemble the stand (including the base) to the top using Bolts 1/4"x1-1/4"xØ15

Level the table legs:

Hold your table on a work surface so the four legs are on the ground.

Check that the surface is flat by using a leveling tool.

If the table is not levelled, glue a thin cork or rubber that is cut to the size at the bottom of the table leg.

Install rubber base at the bottom of the stands.

square rubber base: 1 1/2" x 1 1/2", quantity: 4