



◀ **ANDY WEYENBERG**

Andy Weyenberg began welding at his father's business a few years before joining the Army. After going to school for Electro-Mechanical, he started working for Miller Electric Mfg. LLC as a technical service rep and training instructor. Andy has built and raced stock cars since he was a teenager — and now builds high-performance street vehicles while also managing the Miller motorsports program.

SKILL LEVEL: Beginner
TIME COMMITMENT: 2-3 hours

/ **TOOLS AND MATERIALS**



MillerMatic® 211 MIG welder



Band saw, hack saw, cut-off wheel or other metal cutting tool



Vise



Square or magnetic squares



Drill & 3/16" drill bit



Air or electric angle grinder with 80- or 120-grit discs for deburring



12" x 24" 18-gauge sheet, steel (Qty 1)



1/4" x 48" steel round bar (Qty 3)

Optional Equipment/Tools



Propane or acetylene torch to heat and bend



Miller Blue paint

WARNING: READ AND FOLLOW ALL LABELS AND THE OWNER'S MANUAL.

PPE STORAGE RACK



AS SEEN ON REAL GARAGE

[YouTube.com/RealGarageWithAndy](https://www.youtube.com/RealGarageWithAndy)

The proper PPE helps you safely complete projects in your shop or garage. Keep your PPE organized and handy with this DIY storage rack.

STEP BY STEP



STEP 1

Cut a 4" piece off the 24" long side. You should have a 4" x 24" piece. This will be the back side. Then cut 2" off the large 8" x 24" to make it 8" x 22". This will be the base.



STEP 2

Weld the base to the back side, centered 1" from each side and 1" from the bottom. You should have 3" of the back side on top of the base and 1" below.



STEP 3

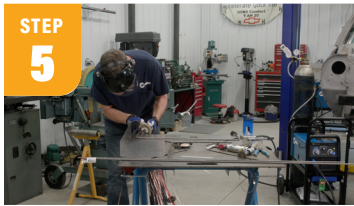
Mark one of the 1/4" round bars at 8" and 31". These will be bend points.



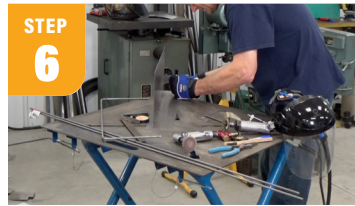
STEP 4

Place 1/4" round stock in vice at the 8" mark, heat with propane torch and bend 90 degrees. Then move the bar to the 31" mark and make a bend again at 90 degrees, parallel to the first bend.

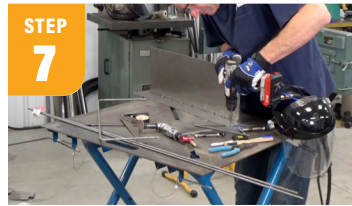
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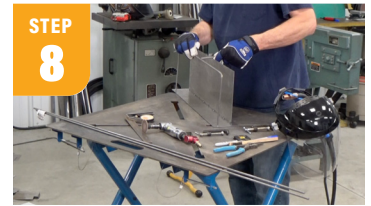
STEP 5
Trim excess of the bar to fit against the back side. Mark and trim the bent 1/4" round bar to fit the base against the back side. Line up the bent bar so the long front edge is in line with the front of the base.



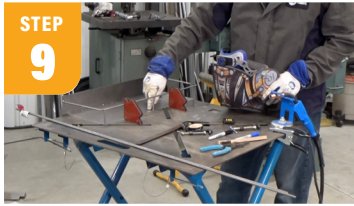
STEP 6
Mark the two side legs where they meet the back side, then mark where the bent bar meets the back piece 3/4" from the top edge.



STEP 7
Drill 3/16" hole at that mark. This will be plug welded to the bar from behind.



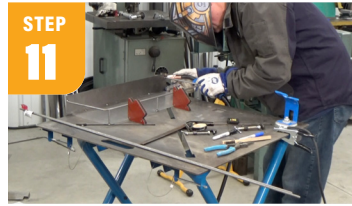
STEP 8
Cut three pieces of the drop-off 1/4" round bar to 2-1/8" long and deburr.



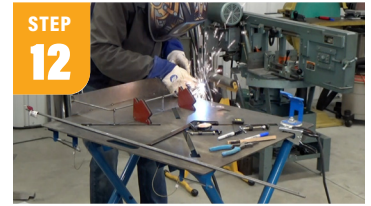
STEP 9
Make a mark at 11" along the front edge of the base and the center of the bar.



STEP 10
Weld support bars. Weld a 2-1/8" support bar at that 11" mark and at each front corner.



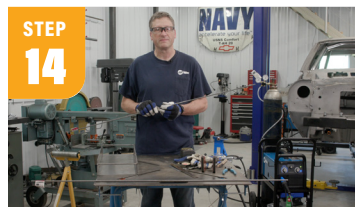
STEP 11
Set bar on front stand-offs, spot weld to the back side from front and plug weld the bar from behind.



STEP 12
Spot weld tops of three supports to main bar.



STEP 13
Take another 1/4" x 48" round bar and cut it in half.



STEP 14
Mark 4" from one end on each of those two 24" bars.



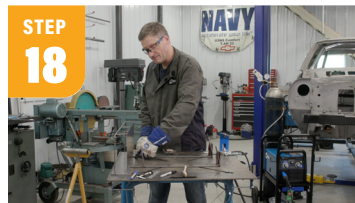
STEP 15
Place in vise at that 4" mark, heat and bend 90 to 100 degrees. This will form the bottom hooks.



STEP 16
To create the top hooks, cut two 4" pieces off another 1/4" round bar and deburr.



STEP 17
Weld one of the 4" pieces to each of the 20" long bars, 3" from the top of the bar at a similar angle as the bottom hook. This will give you four hook locations. Depending on your needs, you may wish to add more hooks or use less.



STEP 18
Tip your shelf on the back side. Make a mark on the underside 1" from the back side at 6-1/2" and 17-1/2".



STEP 19
Weld the long hook bars on each mark with the "hook" up. (If mounting on ribbed steel siding, weld on the rear of the back side of the shelf.)



STEP 20
Paint Miller Blue! Of course, I always go a little overboard ... Before painting, I hole-sawed and flared some holes in my shelf base. It lightened it up and added some ventilation.



STEP 21
Drill two or three holes along the top of the back side and mount to wall.



To get the latest welding project in your inbox,
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millerwelds.com/resources/newsletters

