ANDY WEYENBERG

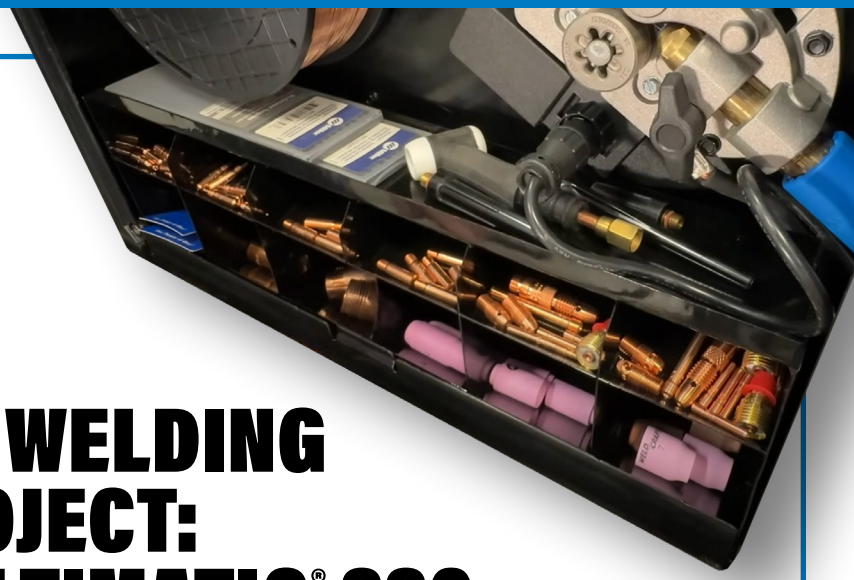
Andy Weyenberg began welding at his father's business a few years before joining the Army. After going to school for Electro-Mechanical, he started working for Miller Electric Mfg. LLC as a technical service rep and training instructor. Andy has built and raced stock cars since he was a teenager — and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

SKILL LEVEL: Beginner
TIME COMMITMENT: 3 hours

TOOLS AND MATERIALS

- Miller® Multimatic® 220 AC/DC multiprocess welder
- 20 ga. mild steel 24" x 48"
- Bending or seaming pliers
- Electric hand shear
- Aviation or tin snips
- Hammer and dead blow
- Vise
- C-clamps
- Rulers for marking
- Magnetic squares

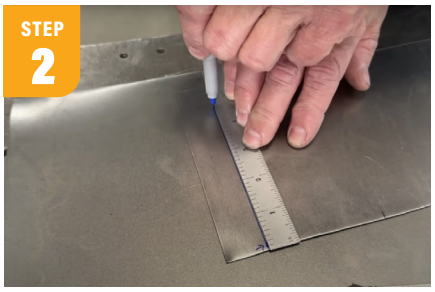
WARNING: READ AND FOLLOW ALL LABELS AND THE OWNER'S MANUAL.



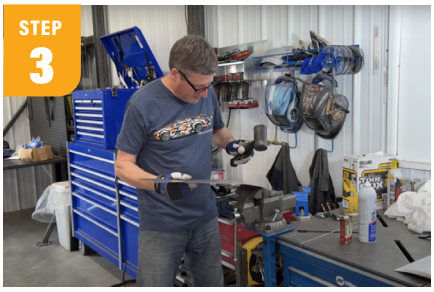
DIY WELDING PROJECT: MULTIMATIC® 220 ORGANIZER

STEP BY STEP

Using an electric shear, cut your 20-gauge mild steel to 5 3/8 inches by 24 inches. Straighten with a dead blow hammer if needed.



Measure 3 inches, 17 inches and 3 inches from the edges, then cut off the remaining 1-inch piece. This will form the back and two sides. Straighten cut edges with a dead blow hammer if needed.



Bend the two 3-inch sides to 90 degrees using a vise and a dead blow hammer.

Remove the extra MVP plug and mount from inside the machine.

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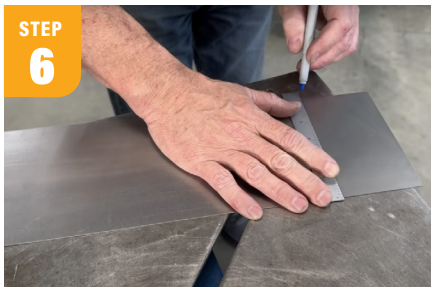
STEP 5

Test fit the bent piece to ensure it clears everything.

STEP 6



For 12 trays and a top shelf, you need 5 dividers measuring 3 1/16 inches by 4 7/8 inches.

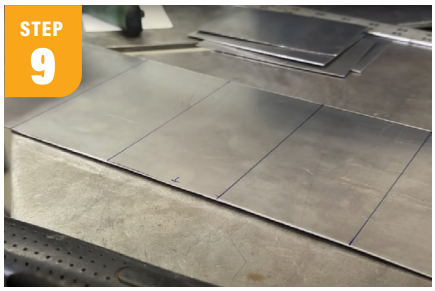
STEP 7

Use an electric or straight-line shear to cut out the dividers.

STEP 8

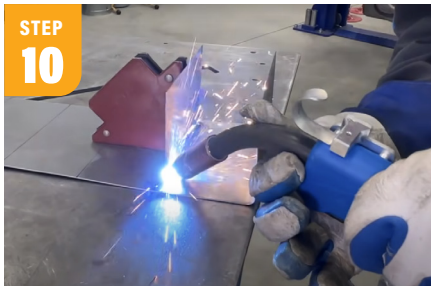
Smooth the cut edges if needed.

STEP 9



Measure the back side length between the two sides. Divide by 6 to get the spacing for your dividers. Mark the locations.

STEP 10

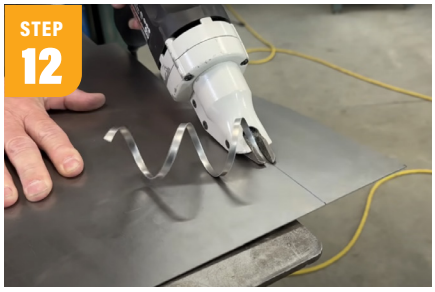


Secure dividers with a magnetic square and tack weld them in place.

STEP 11

Decide on the layout of your shelves. Options include a flat top, angled middle and bottom shelf.

STEP 12



Cut the top shelf to 16 15/16 inches by 3 1/8 inches.

STEP 13

Trim the two long side corners for radius clearance.

STEP 14

Clamp to a table and hammer/form a ½-inch, 90-degree bend.

STEP 15

Trim the top corners of the dividers at a 45-degree angle, flush with the top tray.

STEP 16

Spot tack the top tray to the back side and dividers.

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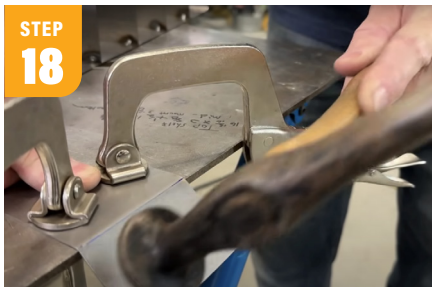
STEP 17

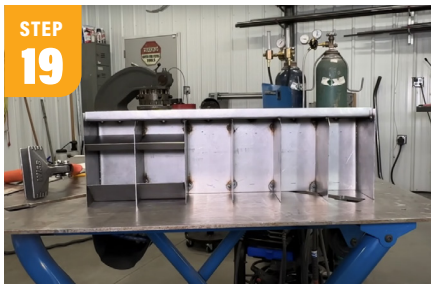
Verify the spacing measurements between the dividers.

STEP 18



Cut and bend the trays. Middle trays: 2 13/16 inches by 3 3/8 inches with a 5/8-inch, 60-degree bend. Bottom trays: 2 13/16 inches by 3 5/8 inches with a 1 3/4-inch, 60-degree bend.

STEP 19

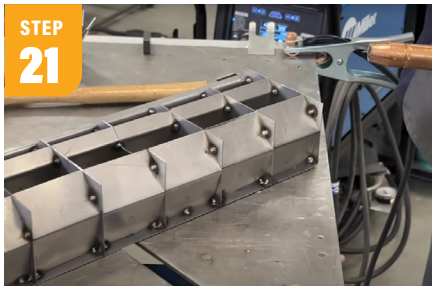


Determine the vertical spacing for the trays. Middle tray: 1 1/4 inches from the top edge of the dividers to the top of the 60-degree lip. Bottom tray: 1 3/8 inches from the bottom edge of the dividers.

STEP 20

Before welding trays, make a clearance cut on the middle divider to clear the door latch. Use a paper template for accuracy.

STEP 21



Spot tack the trays in place, starting with the middle tray, then the bottom one. Adjust the Multimatic® 220 to 18-gauge and fine-tune the wire speed to 185.

STEP 22

Paint your organizer black to match the interior of your Multimatic® 220 or a color of your choice.

STEP 23

Load the organizer with all your consumables.