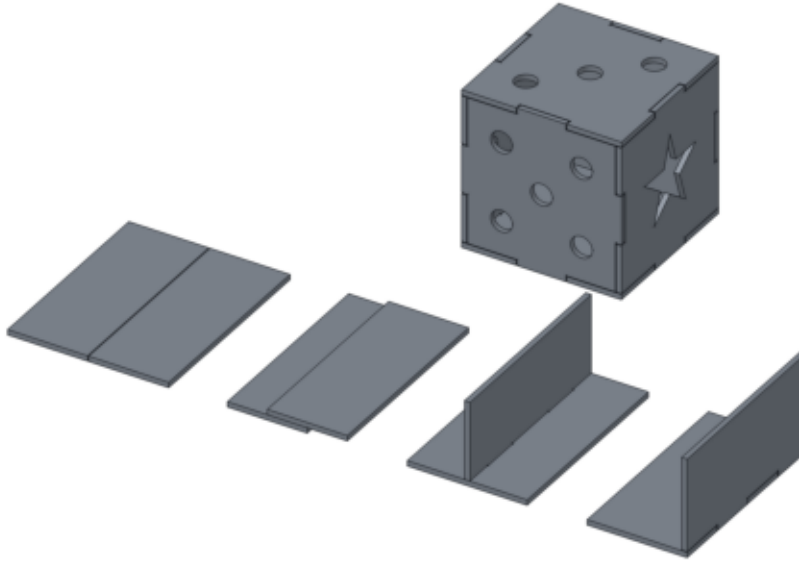
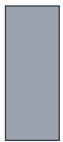


Weld Starter Kit with Lone Star Die



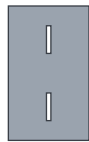
Learn the four basic welds, then build something worth keeping. Fourteen laser-cut 10 ga steel parts make a butt, lap, T and outside corner joint, plus a 4-inch steel die with a Lone Star for the one. Every joint lines itself up, so you can focus on the bead.

What's in the box



Practice plate x4

Part WS4-01



T-joint base x1

Part WS4-02



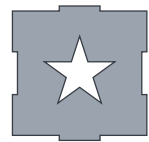
T-joint stem x1

Part WS4-03



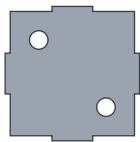
Corner plate x2

Part WS4-04



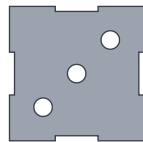
Die face 1 x1

Part WS4-11



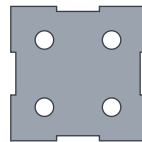
Die face 2 x1

Part WS4-12



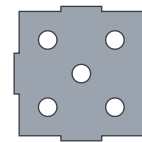
Die face 3 x1

Part WS4-13



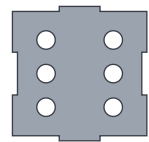
Die face 4 x1

Part WS4-14



Die face 5 x1

Part WS4-15



Die face 6 x1

Part WS4-16

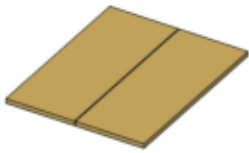
What you'll need

- MIG or flux-core welder (a 120 V machine is plenty for 10 ga)
- Angle grinder with a flap disc and wire wheel
- Two small clamps and pliers for hot parts
- Small square
- Welding helmet, gloves, long sleeves and safety glasses

Weld Starter Kit with Lone Star Die

1

Butt joint



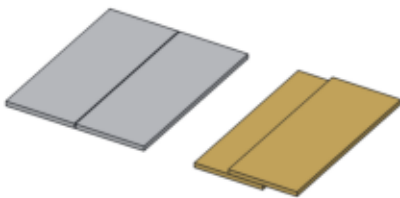
Lay two practice plates flat with their long edges together and a gap about as thick as two business cards (1/32 in). Tack both ends, then run one bead down the seam. Flip it over: an even line on the back means you got full penetration.

TIP

Set your machine from the chart inside its door for 10 ga (0.135 in) steel, then adjust.

2

Lap joint



Lay one plate over another with a 1 in overlap and clamp them. Run a fillet weld along the edge of the top plate, aiming slightly toward the bottom plate so the bead ties into both.

TIP

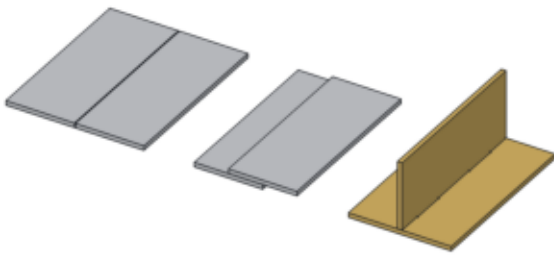
Too much heat burns away the top plate's edge; speed up or turn the voltage down.

Weld Starter Kit with Lone Star Die

3

T joint

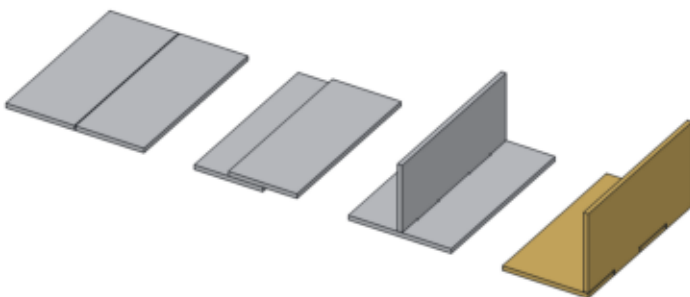
Drop the stem's two tabs into the slots in the base; it stands square on its own. Fillet weld one side, then the other. Look underneath afterward: the tab ends show how deep your weld went.



4

Outside corner

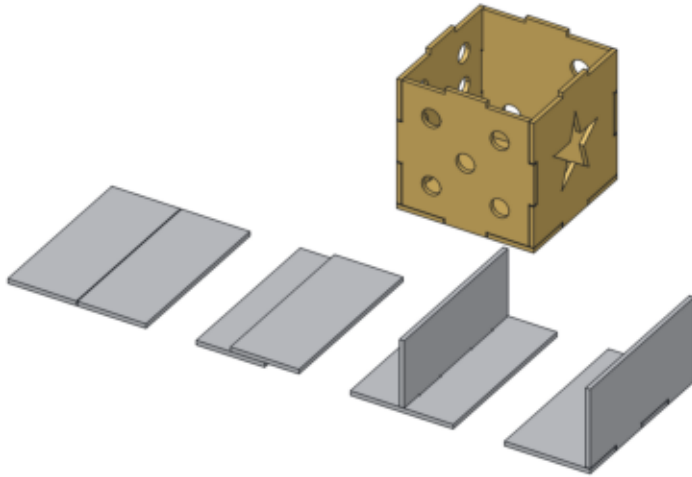
Lay one corner plate flat. Turn the other end for end, stand it on its finger edge and mesh the fingers so the plates hold 90 degrees. Weld along the outside corner and fill the finger joint.



Weld Starter Kit with Lone Star Die

5

Box up the die



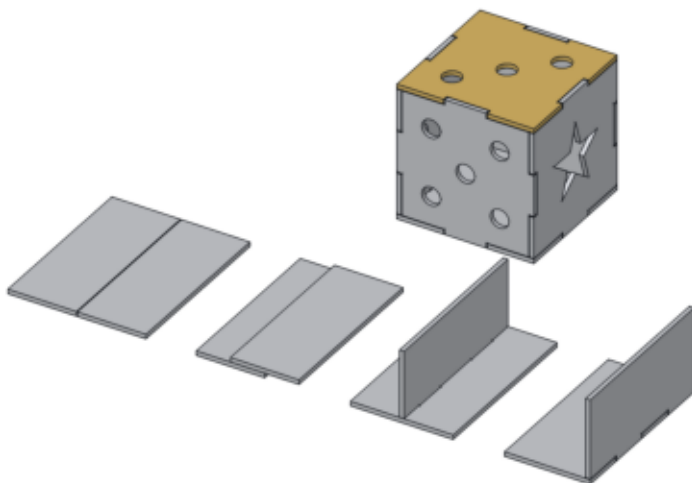
Lay face 4 flat. Push faces 1, 2, 5 and 6 in around it, each one straight in square to its face, so the fingers mesh at every corner. Opposite faces add up to 7: 1 faces 6, and 2 faces 5.

TIP

A rubber band or small clamp around the four sides holds them while you tack.

6

Cap the die and finish it



Drop face 3 on top. Tack every corner, weld out the twelve edges, then grind the edges round with a flap disc so it looks like a cast die. Leave it raw, clear-coat it, or paint it.

TIP

Let it cool or handle it with pliers; a small steel cube holds heat for a long time.

Weld Starter Kit with Lone Star Die

Finishing

- The parts ship bare with a light oil film. Wipe them down with a degreaser before welding.
- Grind the die's edges round and sand the faces for a cast look.
- Clear-coat or paint the die, or let it rust to a patina. Practice pieces can stay raw.

Fire safety

- Weld in a ventilated area cleared of anything that can burn.
- Wear a helmet, gloves and long sleeves; never look at the arc without protection.
- Welded parts stay hot for several minutes. Handle them with pliers or let them cool.
- The finished die is solid steel and weighs over 3 lb. It's a desk piece, not a toy to throw.

This is a kit of raw steel parts. You build the finished product, and the quality of your welds and your judgment about where and how you use it are yours. Weld with proper ventilation and protective gear, and never leave a fire unattended.