Steel Rail Press Instructions

1. Steel Dies

Press jigs require the fabrication of a male and female tool die. Use 1.5"x 0.25" stock steel to make both. Cut one piece to 3"(male, can be shorter if needed to accommodate smaller vises) and the other to 2.75"(female, this piece fits into the bottom of the press jigs). For the female die, measure 1.25" from the left side. This will be the center line of the V-shaped channel. Use a hacksaw or file to create a 0.2125" wide and 0.14" deep channel. Use a file or grinding wheel to create a point on the male die.





2. Front Press Jig

A. Ends

Place the female die into the front end jig. Place Front rail into jig as shown. Insert male die into jig and using a bearing press or vise, bend rail ends to 90°. Turn rail around and repeat.









B. Middle

Place the female die into the front middle jig. Place Front rail into jig with bent ends down. Insert male die into jig and using a bearing press or vise, bend rail middle to 90°. Turn rail around and repeat.









3. Rear Press Jig

A. Ends

Place female die into rear end jig. Place rear rail into jig as shown. Insert male die into jig and using a bearing press or vise, bend rail ends to 90°. Turn rail around and repeat.





B. Middle

Assemble jig bottom and place rail in jig with bent ends down. Using the printed male die, press the rear rail into the female die with a vise or bearing press until middle bends are 90°. (prototype shown in photo)





4. Completion

Once rails are bent, check angles and symmetry. Eliminate any burrs or sharp edges

using fine grit sand paper. Verify fit in the frame and slide. Check that the pin holes line up. Follow assembly procedure to complete build.

