



# ROSE METAL INDUSTRIES, LLC.

A TRADITION OF EXCELLENCE

## Case Study: Upper Axle Seat

After experiencing difficulties with production quality from multiple suppliers, we were selected as the single source contract manufacturer for a new and improved design even though our industry leader customer had significant in-house robotic welding resources available. Working closely with their design team to understand critical characteristics, we implemented high volume production techniques that included progressive die stamped and precision formed components, multiple stage weld fixtures to hold tight tolerances, and dual arm robotic MIG welding to control weld distortion. This allowed us to produce an economic, precision weldment without post machining or the corrective operations which prior suppliers found necessary.



**Product Description** – Axle Seat assembly used in single and tandem Class-8 Semi trailer suspensions.

**Market** – Commercial and Military Truck Trailer

**Materials** – High Strength Low-Alloy (HSLA) steels – grade 50 & 80, in 1/8", 1/4", and 3/8" coil stock.

**Processes** – Progressive Die Stamping, Press Forming, Dual Arm Robotic MIG Welding

**Overall Size** – 9.6" x 9.7" x 10"

**Total Weld Length** – 96"

**Tightest Tolerances** – +/- .005" and perpendicularly to .020", without machining

**Assembly Weight** – 17 lbs

**Quantities** – Production lot sizes of 200 pc to 12,000 pcs.

**Inspection** – Dimensional using Faro Arm CMM and part specific Go/NoGo Gauges, Welds to AWS D1.1 and numerous customer specs, AWS Certified inspection – Fillet gauge and visual ND, initial and periodic Macro-Etch.

**Please have us quote on your next requirements!**

ROBOTIC WELDING, FABRICATING & FORGING SPECIALISTS



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