



ROSE METAL INDUSTRIES, LLC.

A TRADITION OF EXCELLENCE

Case Study: MK93 Carriage

This “Carriage” weldment is one of several assemblies we make for the MK93 mod-2 machine gun mount used by U.S. Armed Forces and NATO Countries. It’s the pivoting joint that allows a .50 Caliber Machine Gun or MK19 40mm Grenade Launcher to be rotated when mounted on HMMWV’s, Helicopters, and Naval vessels.

Made to strict military standards, parts are laser cut, formed, and pre-machined prior to robotic welding. The weldment is stress relieved before final machining in order to meet tight GD&T requirements. After dimensionally validating 62 locations, the weldment is finally sent out for magnetic particle inspection, then Phosphate and CARC coating.



Product Description – Carriage Assembly, MK93 Mod 2
Machine Gun Mount.

Market – Military

Materials – ASTM 4130 steel, Plate thicknesses of .125”, .188” & .250” and Bar diameter of 2.750”

Processes – Single Arm Robotic MIG Welding, using Farris wheel positioner

Overall Size – 6.64” x 7.94” x 9.33”

Total Weld Length – 52.8”

Tightest Tolerances – +.001”/- .000” for machined hole diameters with .010 True position

Assembly Weight – 6.80 lbs

Quantities – Production lot sizes of 800 pc to 1,000 pcs

Inspection – Welds to AWS D1.1 and Military specifications – Multiple check fixtures, AWS Certified Visual ND and Macro-Etch weld inspection; Dimensional – CMM

Please have us quote on your next requirements!

ROBOTIC WELDING, FABRICATING & FORGING SPECIALISTS

REGISTERED TO ISO 9001: 2000

