



Semi-Automated Robotic Welding Jig

Description

Robotic welding jig to produce an automotive product, fabricated from twenty separate assemblies, individually clamped and positioned by the jig to within 0.5 mm. Clamping was achieved using 31 clamps of which 22 were pneumatic for automatic clamping and release. The jig was then mounted to a 360 deg, two tonne indexer. Two ABB robots were utilised for the welding operation itself.



Robot Accessing Underside

Specification Summary

- 20 component assembly
- 2.25 m x 2 m x 0.5 m fully welded dimensions
- Joint clamping accuracy +/- 0.5 mm
- 31 clamping and location positions
- 22 pneumatic cylinders
- Retractable pneumatic pin component locations

Disciplines Used

- Mechanical & pneumatic design



Twin System, Rail Mounted