



# Windscreen Washer Jet Test Workstation

## Description

This workstation was designed to align and validate automotive windscreen washer jet nozzles as part of the main production process. The jets are set by aiming at appropriate target holes machined on a "target board".

Behind each target hole is a loadcell system, to measure each jet's direction and force. The operator manually adjusts each jet angle until the PLC controlled workstation indicates an acceptable alignment and jet force by the use of indicators on a process mimic board.

If this is achieved, a pass mark is made on the component and it is released. If it is not possible to correctly align the jet, for whatever reason, the component is rejected.

## Specification Summary

- Aluminium extrusion framework
- Stainless steel top plate
- 25 N Stainless steel, IP 65 rated loadcells with individual amplifiers
- Siemens PLC control
- Water pressure regulated to 2 bar
- Foot pedal start actuation
- Reject sensor prevents non rejection of failed component

## Disciplines Used

- Mechanical, electrical, pneumatic & hydraulic design
- Stress & vibration FEA
- Project management
- Manufacture & assembly
- Test & commissioning



PLC Control Cabinet



Loadcell Amplifier Cabinet



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