

Bespoke HIPOT Continuity Testing Trolley for High Volume Testing of Specialist Car Parts

FINESSE
CONTROL SYSTEMS

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Founding year:
2000

Employees:
18

Solution
Partner

Automation
Drives

SIEMENS

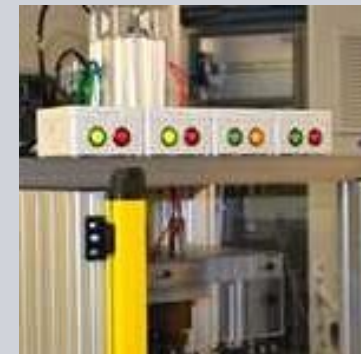
Solution Partner: Finesse Control Systems Ltd
Customer: Interplex PMP Limited Arbroath, Scotland GB
Industry: Machine Building

Requirements of the customer:

- PLC Control of Motor/Drive, Pneumatics, safety and testing systems
- Turn Table with precision control using a S110 Drive with Servo Motor
- Interface to 3rd Party HIPOT testing units and detection of Pass/Fail
- Light Curtain should stop Turn Table if broken to protect operator
- 2-Hand button press to initiate process starting
- Availability to test multiple sets of components at the same time

Short description of the solution:

Finesse was asked to design a system with electrical and pneumatic controls for a HIPOT Continuity Tester consisting of a turntable controlled by a Siemens S110 Drive and Servo Motor, suction arms for pick-up and ejection of components and the HIPOT Testers themselves. Due to the human interaction with the system, a 2-Handed button process start and safety system with light curtain was required.



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Implementation by the Solution Partner:

- A compact S7-1200 PLC with expanded I/O was utilised allowing easy setup of communication with the drive
- A Pneumatics system was used to lower the tester probe to the components and raise when test complete
- Failed components were ejected using a vacuum
- Product testing was carried out at Finesse premises allowing full proving of the system before delivery

Benefits for the customer:

- Increase in Productivity during the testing process
- Fast detection and automated separation of faulty components using suction arms
- Precision positioning of components to tester probes
- Integrated safety to protect operators

