# **DATS Case Study**

# **Oil-filled Dampers**

# End of Line Noise Testing

- Speeded up testing
- Reduced product returns
- Provided feedback for production improvements
- Worked with existing production process

A manufacturer of oil filled dampers in Ohio and Illinois, USA required a system to automate the testing of their products. During production, dampers are supposed to have an internal cavity filled with oil. In some instances, the cavity does not get filled and the damper does not meet the quality requirements. Sending dampers that do not comply with quality standards to customers is very expensive.

#### The Solution

The system used standard Prosig hardware and software including Prosig DATS-dcu control unit to interface with the production line.

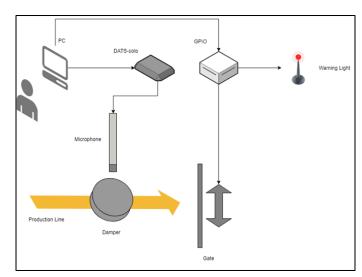
Towards the end of the production line information is etched onto the dampers. This noise of this process is significantly different for full dampers versus half or empty dampers. The Prosig system thus identifies full dampers from partially full dampers based on the sound signature. The system then activated relays and sent messages based on the test results.

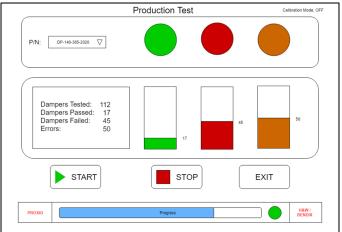
## Conclusion

The Prosig system is able to identify good and bad parts using only noise from the existing production process and thus identify faulty product before it reaches a customer. The customer was able to improve quality and reduce costs.









## **About Prosig**

Prosig is a UK company specialising in the testing and monitoring of complex machinery, vehicles and structures within the advanced engineering, automotive, aerospace, and industrial sectors. The company offers a wide range of system capabilities, experience and innovation, with a particular focus on advanced vibration and acoustic monitoring and analysis techniques. Prosig is part of Condition Monitoring Group Ltd, an international group, with headquarters in the UK and subsidiaries in three USA, Germany and Italy.

#### **Prosig Ltd**

Link House, High St Fareham, Hampshire PO16 7BQ, UK

**UK:** +44 (0) 1329 239925

sales@prosig.com

**USA:** +1 847-228-0985 prosigusa@prosig.com

www.prosig.com