



### **Delivering Excellence**

# Invaluable Reliable You're in good company

# The world's leading Speed Sensors Systems

#### **Power of Pedigree**

Auxitrol Weston has led the Speed and Torque Sensors market for more than forty years. With more of our products on more of the world's leading gas turbines and gearboxes than any of our competitors, we bring a wealth of well tested experience which has the potential to make us invaluable to those who crave engineering excellence.

#### **Trust the Experts**

When you do business with Auxitrol Weston, you are not merely accessing guaranteed quality and performance, you are tapping into an unrivalled resource of more than one hundred **Sensor Experts** who are **passionate about technological and engineering advancement.** And, more importantly, about working with you to find inspirational solutions to your engineering challenges!

#### Reliability

While our Speed and Torque Sensors are designed and manufactured to operate at temperatures ranging from -60°C up to 500°C at the tip and over 820°C body temperature, we have already developed products capable of exceeding these levels in response to the demands of next generation technologies.

And, despite operating environments becoming more extreme and product lifecycle demands being stretched, we consistently achieve extraordinarily high reliability figures. Currently our measured pedigree exceeds the handbook calculations with an in-service Mean Time to Failure (MTTF) record in excess of 40 million hours based on our impressive fleet hours.

Auxitrol Weston are increasingly being asked to respond to OEM Service Bulletins, to find alternative solutions to failed competitor components, further underpinning our expertise in the field of Speed.

#### **Products designed for purpose**

Product types	Application	Advantages
Transformer Speed Sensors A wide range of patented product types and sizes are available, with variations and bespoke solutions in constant development	Limited space and/or high temperature Low pressure / High pressure turbine speed	High multiple channel voltage output Excellent multi channel winding interaction isolation Large air gap settings Robust
Moulded Speed Sensors	Mounted in hot oil, deep inside the engine	Extremely high reliability Over time, savings on maintenance and cost Light weight (35gms)
Non-intrusive Sensor and Safety Critical Software	Outer engine casing with "look through" capability	Non –intrusive. Continuous indication of shaft speed; tip timing; tip clearance; and blade damage
Torque Sensors and Torque Electronic Comparators	LRU or non LRU  Measurement of torque from engine to gearbox	Probes repeatable to + /025%

#### **Future Proofed**

Our research and testing rigor underpins our **authority** in all matters relating to sensors. It's what keeps us ahead, so that we can be emphatic about the quality of our work, its progressiveness and the contribution it will make towards upholding our Customers' reputations, as well as our own, now and in the future!

To achieve this we have **two custom built test cells**, each weighing nearly 6 tons, where we can simulate the dynamic working conditions of our sensors "on engine", rotating phonic wheels to **speeds of up to 50,000 RPM** in a safe working environment.

This exceptional Speed Test Facility is also routinely used by leading OEM's to qualify their own calculations or to establish unknown performance characteristics, particularly in the development of new products.

#### **Test Cell Attributes**

- Noise is minimised by acoustic panels lining the interior of the room-sized enclosures
- Sensor air gaps can be remotely adjusted during test runs using stepper motors attached to a multi axis probe mounting fixture
- Cell walls contain 6mm armour steel plate designed to withstand the projectile impact of 80 tons per square inch
- Operating area is further protected with an increase of armour to 15mm thickness
- Temperature elevations of up to 500°C and down to – 78°C using C02
- Exhaust fans maintain the oxygen level inside the cells to facilitate immediate entry on rig shut down
- Constant CCTV surveillance provides a visual record of events as they occur and a useful addition to qualification test reports

## Take confidence from the company we keep

You would expect us to think highly about our products and services but don't just take our word for it. Take a look at the company you could be keeping.

Among others, Auxitrol Weston Speed and Torque Sensors are currently employed on power units by the following manufacturers -

Rolls Royce; Pratt & Whitney; General Electric; Hamilton; Sundstrand; Honeywell; IAE Snecma; Bell Helicopters; Goodrich; AEC; and Ratier-Figeac

#### Approvals / Accreditations

AS9100:2009 BS EN ISO 9001:2000 EASA Part 21 Subpart G EASA Part 145 FAR-145 ISO 9001 & AS/EN 9100 ISO 9001:2000 ISO 9001:2008 Nadcap TCAC

NOT LISTED

