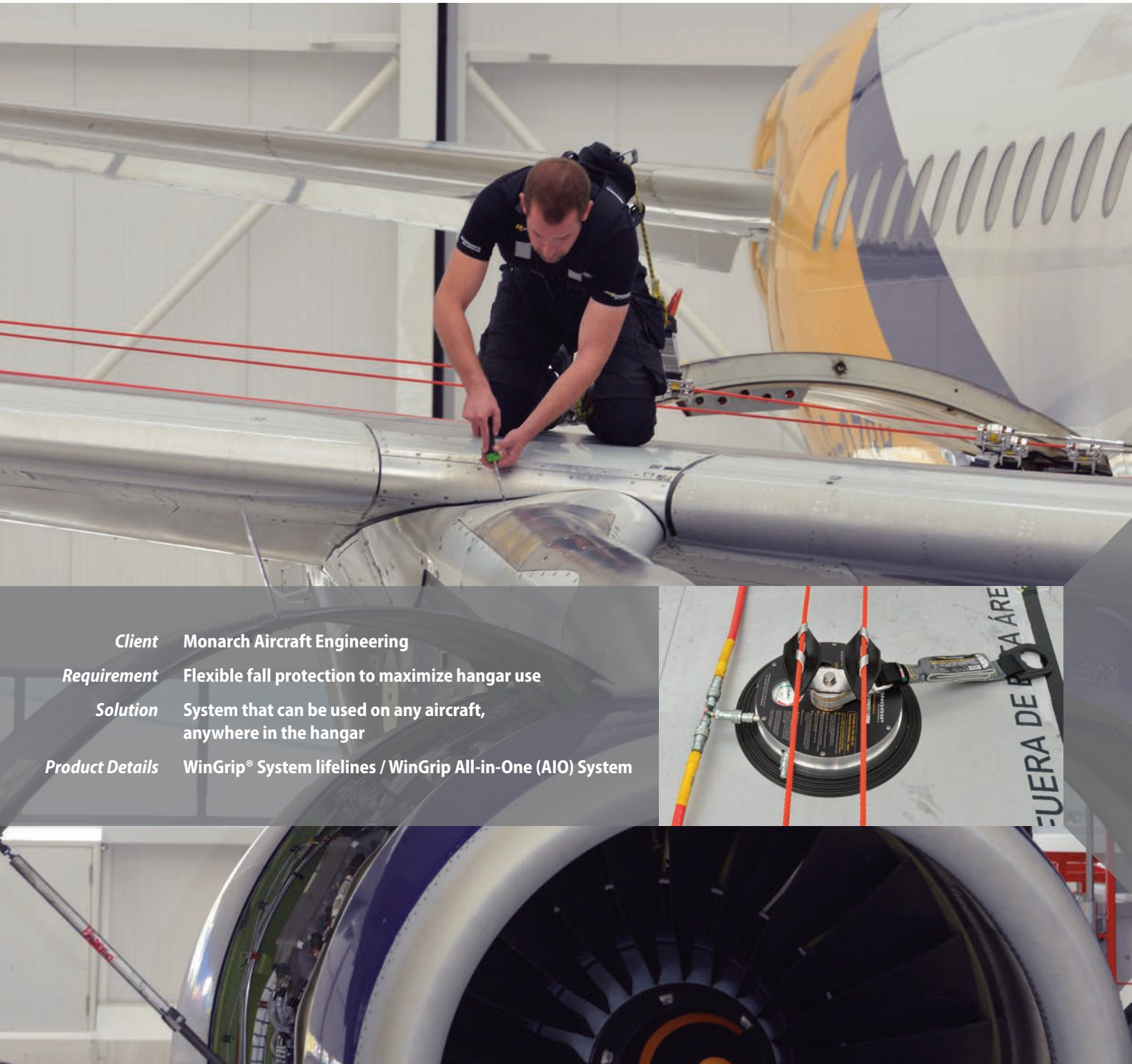


Case Study

Monarch Aircraft Engineering



Client Monarch Aircraft Engineering

Requirement Flexible fall protection to maximize hangar use

Solution System that can be used on any aircraft,
anywhere in the hangar

Product Details WinGrip® System lifelines / WinGrip All-in-One (AIO) System



*Because every life has a **purpose...***



Background

Monarch Aircraft Engineering (MAEL) is part of the Monarch Group, the UK's leading independent travel group, with core activities concerning scheduled airline operations, tour operations and aircraft engineering.

MAEL provides services including base maintenance, line maintenance, engineering, fleet technical support, component and full material support, and technical training.

As the UK's No.1 MRO (maintenance, repair and overhaul services company), MAEL operates hangars in Birmingham, Manchester and Luton and also offers line maintenance globally. The company has a growing third-party customer base and accounts for approximately 10% of the Monarch Group's gross turnover.

The Requirement

MAEL maintains its own fleet of aircraft, as well as those of other airlines and the UK military. As business growth continued, in 2013 MAEL opened a new maintenance hangar in Birmingham. This vast building is large enough to accommodate 2 Boeing 787 aircraft or up to seven smaller aircraft of varying sizes. Naturally, the safety of MAEL's staff is top priority; the company intends to be at the forefront of health and safety within the aircraft industry. With that in mind, MAEL demanded the best fall protection system available for their new hangar—and one that could make the most of the flexible design.

Hangars have traditionally had fixed docking solutions, where the aircraft must be positioned in place under overhead safety rails or lifelines. However, MAEL's new hangar was built to offer far fewer restrictions as to working location.

The MSA Latchways Solution

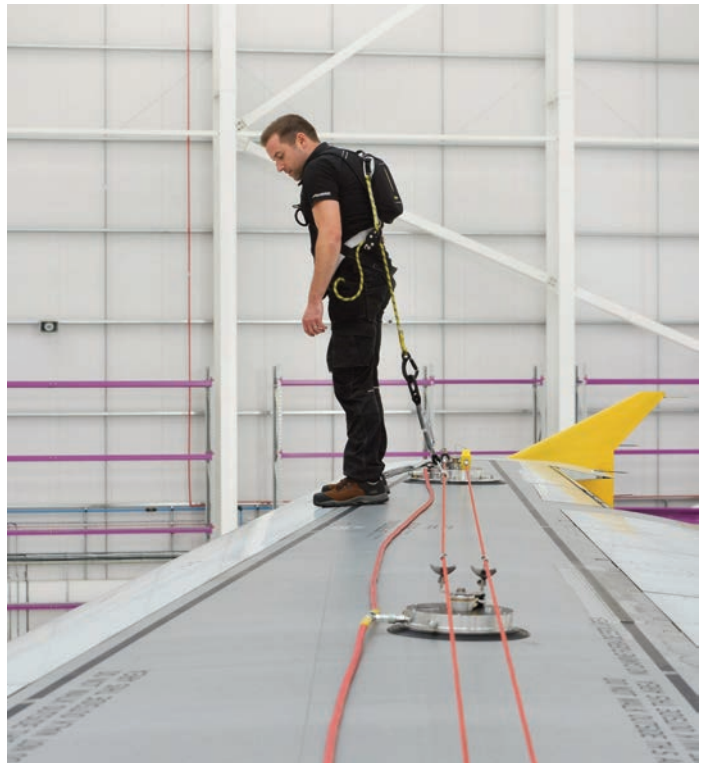
After witnessing the versatility offered by Latchways WinGrip Systems, MAEL purchased them as the fall protection solution for their new hangar. The primary solution used by MAEL includes WinGrip multi-user lifelines that can be used on any size of aircraft, including the Airbus A330.

The WinGrip vacuum anchor is specifically designed for use during aircraft maintenance and manufacturing. Extremely safe and flexible, the system can be used during work on the fuselage, stabilizers and wings. The WinGrip System is quick to install, simple to use and has systems suitable for work both inside the hangar and outside on the apron. This system has become a valuable tool for many aviation companies and is a recommended solution in both Boeing and Airbus Maintenance Manuals.

For MAEL, WinGrip is ideal, as it provides the flexibility to position aircraft anywhere within the hangar, maximizing efficiency in working on any type of aircraft, especially as the WinGrip System can be installed at the same time as other docking processes are carried out. This capability means that multiple maintenance activities can be undertaken simultaneously and turnaround times improved. Every day on the ground for a 787 costs approximately \$131,000 in lost revenue; the WinGrip System is a valuable asset for MAEL's customers.

MSA also provides MAEL with Latchways training for safe and efficient use of the WinGrip System, as well as a complete maintenance package including onsite servicing.

MAEL has been extremely pleased with the WinGrip System in Birmingham, and now employs a WinGrip All-in-One System for line maintenance work on the outside of their Luton hangar.



Benefits to Monarch's Business

- **Provides greater safety**—peace of mind for all workers at heights in MAEL's maintenance hangars
- **Always compliant**—WinGrip is tested to meet all relevant standards and comply with current legislation
- **Increases efficiency**—provides flexibility needed to work at maximum efficiency within the new hangar
- **Simplifies safety requirements**—just one system is needed to provide safety at heights on all aircraft types
- **Saves time and money**—reduces time that aircraft are out of service, minimizing lost revenue for clients

“Not only does it give us a reassuring level of safety, but the WinGrip System frees us up to operate our Birmingham hangar at maximum efficiency. We are able to work on a variety of planes simultaneously, and our turnaround times have also improved. This makes us a greater asset to all our clients, as maintenance and overhaul can be carried out even more cost effectively.”

John Swords, Team Leader – Maintenance Planning and Control

MSA—The Safety Company

Our business is safety. We've been the world's leading manufacturer of high-quality safety products since 1914. MSA products may be simple to use and maintain, but they're also highly-sophisticated devices and protective gear — the result of countless R&D hours, relentless testing and an unwavering commitment to quality that saves lives and protects millions of men and women each and every day. Many of our most popular products integrate multiple combinations of electronics, mechanical systems and advanced materials to help ensure that users around the world remain protected in even the most hazardous of situations.

Our Mission

MSA's mission is to see to it that men and women may work in safety and that they, their families and their communities may live in health throughout the world.

MSA: Because every life has a purpose.

Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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