# Exact. Safe. Reliable.

Aircraft maintenance and painting platforms





It goes without saying that aircraft earn money when they are in the air rather than on the ground.

Airlines are increasingly being forced to keep their maintenance and overhaul periods to a minimum in order to achieve maximum performance and enhance profitability while improving service.

As a partner who has served the aircraft industry for many years, we have extensive expertise in the planning and manufacture of crane solutions that are precisely matched to process requirements for the safe and reliable maintenance of aircraft.



Today, ever more sophisticated maintenance and painting facilities are required to accommodate the various types and sizes of aircraft. Different floor level platform designs for each type of aircraft take up large areas of floor space around the aircraft being serviced.

In modern maintenance and painting hangars, a combination of telescopic work platforms and suspension cranes provides the optimum solution to utilising space more effectively. In the aviation industry, crane installations of this kind are increasingly being used for major repair, service and painting work.



A teleplatform system consists of suspension cranes, teleplatforms and service trolleys which are mainly used for lifting and handling jet engines.

By connecting individual suspension cranes via latching devices, one or several trolleys can travel from one crane bridge to the next. In this way, the operating radius of a platform or service trolley can be extended to cover the entire width of the hangar. Since individual cranes can also be suspended from several runway tracks, overhead space can be fully utilised and a uniform distribution of forces on the building can be ensured.

A telescopic mast, which can be extended downwards, is equipped with a lightweight maintenance platform that can be rotated through 370°. Using a control panel, the operator can move the maintenance platform into the desired position right down to the last millimetre.

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### **Examples of maintenance and painting hangar layouts**





An overhead work platform can be equipped with compressed air, water and a power supply to meet specific requirements. Damage to the aircraft can be prevented thanks to an integrated anti-collision device, enabling an optimum working position to be achieved at all times.

For safety reasons, the control system can be disabled if the platform door is opened. If the load capacity is exceeded, an integrated overload protection device ensures that the entire installation is automatically switched off.

Sections of the platform railing can be removed to carry out work very close to the aircraft. In these cases, specially designed safety harnesses are provided for personnel. In the event of an emergency, the necessary equipment is available for personnel to leave the platform safely.

DEMAG



## **Standby for safety and cost benefits**

Experience has shown that the masts of teleplatform systems are subjected to external horizontal forces in various applications. The mast developed by Demag Cranes & Components is specially designed to dissipate these forces, however. Featuring high structural rigidity and a low deadweight, important conditions are met for guaranteeing a safe and stable work platform.

We meet the requirements for a wide range of tasks – for routine inspections, jet engine inspections and moving aircraft parts to maintenance areas as well as for the painting of complete aircraft.

With years of experience and know-how in delivering various solutions, we are a competent partner for manufacturing, maintenance and painting applications in the aviation industry.

Making the right choice of supplier the first time round who fully understands your requirements is essential for significant cost saving opportunities. Explore these opportunities further – with Demag Cranes & Components.

## **Teleplatforms for MRO** and painting





The removal of engines from an aircraft is one of the main tasks to be performed. Using special load lifting attachments, the engines can be removed without any risk of damage.

For aircraft maintenance operations, we supply crane installations which can be used to provide a flexible response to meet changing requirements – from single-girder suspension crane to intralogistic crane systems.

For these maintenance applications, too, suspension cranes are the first choice, since they bridge the maintenance sections of a hangar with spans measuring 90 metres and more – also with multiple suspensions. And because these cranes can be interlocked with each other, the maintenance hoists can transfer from one part of the building to another.

Suspension cranes provide for optimum space utilisation by freeing up valuable floor space, since crane runway columns are no longer required.







#### **CRANE WITH 5 SUSPENSION POINTS AND WALKWAY**

- 10 t load capacity
- 14.5 15 14.5 14.5 m span
- 60 m total span incl. girder overhangs
  - Single or double-girder design
  - Bridging large building spans
  - Low crane headroom dimensions
  - Low crane deadweight results in lower loads acting on the roof

#### **CRANES WITH 5 SUSPENSION POINTS**

- 15 t load capacity
- 18.23 18.23 18.23 16.53 m span
  - 73 m total span incl. girder overhangs

### **Aviation industry client list** (selection only)

#### AIRCRAFT MRO

Air Algerie, Algeria Air Base Ramstein, Germany Air Berlin, Germany Air France, France Air New Zealand, New Zealand Alitalia, Italy Al Udeid Air Base, Qatar Ameco, China American Airlines, USA ANA, Japan Ansett, Australia Arab Airlines, Syria Attitech, Italy Aveos, Canada British Airways, UK China Eastern Airlines, China Condor Cargo Technik, Germany

Egypt Air, Egypt Eva Airways, Taiwan Finnair, Finland Garuda Air, Indonesia Gamco, Abu Dhabi Haeco, Hong Kong Hainan Airline, China Iberia, Spain Korean Air, Korea Kuwait Airways, Kuwait Lufthansa, Germany MAS, Malaysia MASGMR, India Meridiana SpA, Italy New Doha Int. Airport, Qatar Olympic Airways, Greece PIA, Pakistan

#### AIRCRAFT PRODUCTION AND COMPONENT MANUFACTURING

Airbus, Germany Airbus, UK Airbus Mobile, USA Airbus, France Airbus (CASA), Spain Airbus Tianjin, China Alenia, Italy American Eurocopter, USA Aviastar, Russia BAE Systems, UK Boeing, USA Boeing Helicopters, USA Bombardier, Canada COMAC, China

Cessna, USA Chendu Aircraft, China Daewoo, Korea Denel Aviation, South Africa Dornier, Germany EADS, Germany EADS, Spain Embraer, Brazil Fokker, Germany GKN Aerospace, UK Hawker De Havilland, Australia Ilyushin, Russia INTA, Spain Irkut, Russia

Philippine Airlines, Philippines Royal Air Maroc, Morocco Royal Flight, Oman Royal Jordanian Airlines, Jordan Sabena, Belgium SAESL, Singapore SAS, Denmark SATS, Singapore Saudia Air, Saudi Arabia Shanghai Airlines, China Shannon Aerospace, Ireland Singapore Airlines, Singapore STA, Singapore Sultanate of Brunei, Brunei Thai Airways, Thailand Turkish Airlines, Turkey Qantas, Australia

ITP Aero, Spain Lockheed Martin, USA Macel Dassault, France Matra BAe Dynamics, UK NASA, USA Rolls Royce, UK Samsung Aerospace, Korea ShangXi Aircraft Manufact., China Shenyang Aircraft, China Spirit, UK Tension Institute (for COMAC), China Xian Aircraft Manufacturing, China Zeppelin, Germany

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