

TIM Aerospace, MRO Facility

Freeplan® Jointless Ground Bearing Floor Slabs

📍 Dubai South, Dubai, UAE - **Aircraft Maintenance Hangars**



● Project Overview

Twintec delivered a high-performance Freeplan® jointless concrete floor slab for the TIM Aerospace MRO facility in Dubai South. Designed to support demanding aircraft wheel loads and tripod jacking forces, the solution combined durability, flatness performance and reduced maintenance requirements. Working alongside RAQ Contracting, Twintec completed approximately 18,000 m² under an accelerated construction programme.

● Project Data

SURFACE AREA

18,000m²

SLAB DEPTH

260mm

FIBRE TYPE

AFT®+09/60H

COMPLETION

June 2025

Client

TIM Aerospace

CONSULTANT ENGINEER

Model Engineering

CONTRACTOR

RAQ Contracting

● The Challenge

Aircraft hangar slabs are subjected to extreme point loads from aircraft wheels and tripod jacking systems during maintenance operations. The project required a durable flooring solution capable of maintaining FM2 flatness tolerances while minimising joints and long-term maintenance requirements. Construction also needed to progress within a compressed programme and challenging open-hangar conditions, where large door openings exposed fresh concrete to environmental factors that could impact finishing quality and overall slab performance.

● The Solution

Twintec designed and constructed approximately 18,000 m² of Freeplan® jointless ground-bearing slab using AFT®+09/60 steel fibres.

The value-engineered solution incorporated a uniform 260 mm slab thickness, large jointless panels up to 35 m × 35 m and reduced joint frequency to improve long-term durability.

Flood pour construction methods, laser screed technology and onsite fibre integration equipment ensured consistent quality, efficient installation and high-performance load capacity while maintaining the required flatness and finish standards throughout the project.

The Outcome

Twintec delivered a durable, high-performance aircraft hangar floor that combined structural performance, construction efficiency and reduced maintenance requirements. The completed slab achieved excellent finish quality across large floor areas and has already become a reference project within the region, demonstrating the benefits of value-engineered jointless flooring solutions for aviation facilities.

Key Facts

- Reduced slab thickness through value engineering
- Faster construction with large jointless pours
- Reduced long-term maintenance from fewer joints
- High durability under extreme aircraft loading
- High-quality surface finish across large floor areas

Client Testimonial

"This project demonstrates how effective value engineering and jointless slab design can deliver both performance and faster construction, when all project stakeholders work together. Despite the demanding load conditions and accelerated schedule, the quality of the finished floor is something Twintec can be very proud of." **Ahmad Al Rababah, Operations Manager, RAQ-Ops**

The Twintec Difference



30 Years of Expertise

Delivering trusted flooring solutions worldwide.



Proven High-Performance

Materials engineered for durability and efficiency.



Global Expertise, Locally Applied

Bringing international knowledge to your project.



Sustainable Solutions

Reducing environmental impact while supporting your ESG goals.



Scalable & Flexible Solutions

Tailored for contractors and end-users.



Have a Project? Talk to
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