

Advanced Manufacturing Facility Expansion

United Kingdom • Manufacturing

Project Overview

Twintec delivered approximately 52,900m² of engineered concrete flooring as part of a major expansion to a high-specification manufacturing facility.

The project comprised extensive ground floor slabs across new production, logistics and ancillary areas, together with composite metal deck slabs to upper levels.

With demanding operational requirements and a complex construction programme, the project called for a fully engineered flooring solution capable of delivering exceptional flatness, durability and long-term performance.



Project Data

SECTOR

Advanced Manufacturing

MAIN CONTRACTOR

TSL Projects Ltd

SLAB AREA

52,879m²

SLAB DEPTH

**220mm Ground Floor /
150mm Upper Floors**

COMPLETION DATE

March 2026

CASTING DURATION

42 Days

The Challenge

The project demanded exceptionally high floor quality to support specialist resin flooring systems and Automated Guided Vehicle (AGV) operations throughout the facility.

Achieving stringent flatness tolerances on composite metal deck slabs was complicated by structural steel pre-cambers, restricted access and the need to coordinate works within a complex construction environment.

Twintec worked closely with the project team to coordinate construction sequencing, overcome programme constraints and consistently achieve the required floor performance.

The Solution

Twintec designed and installed its ULTIMATE flooring solution across the ground floor, incorporating steel fibre reinforcement to create large jointless panels that minimise maintenance and maximise operational flexibility.

Composite metal deck slabs were engineered with enhanced reinforcement to control cracking beneath resin finishes, while bespoke joint details were developed to accommodate changes in floor level.

Continuous collaboration with the contractor and consultant, supported by 3D flatness surveys, ensured the demanding performance requirements were achieved.

● The Outcome

The project delivered a high-performance concrete flooring solution tailored to the demanding requirements of a modern manufacturing environment.

Despite challenging construction conditions, the completed slabs achieved the specified flatness requirements while providing a durable and adaptable platform capable of supporting future operational changes, automated material movements and long-term facility performance.

Key Facts

- Fully engineered ULTIMATE flooring solution
- Approximately 52,900m² of concrete flooring delivered
- Ground floor and composite metal deck slab construction
- 25kg/m³ AFT® + 0.75/60 HE steel fibre reinforcement
- Large joint-free floor construction for reduced maintenance
- Engineered to support resin flooring systems
- Designed for Automated Guided Vehicle (AGV) operations
- 3D flatness verification throughout construction
- Bespoke joint detailing for complex floor interfaces

● 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
Our Twintec Experts Today!

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