

Project Case Study: Aerotron warehouse, Crawley, UK

Given the choice between AlphaJoint and Permaban Signature[®], Aerotron chose Signature to protect their new warehouse floor.

Aerotron is one of Europe's leading suppliers to the aviation industry, providing component supply and refurbishment services for numerous types of civil and military aircraft.

Aerotron's new warehouse at Crawley, near Gatwick airport, was an extension to their existing facilities (as depicted below right), adding more than 3500m² to their warehousing capacity, including full-height storage and a mezzanine area.

A choice of armoured joints

Main contractor Sunninghill Construction sub-contracted the concrete floor to industrial flooring specialists Steyson Granolithic.

In February 2012 Keith Branscombe of Steyson Granolithic had visited the UK Concrete Show in Coventry and seen our new Signature armoured joint on display for the first time. The product scooped the Most Innovative New Product award at the show.

Impressed by what he had seen, Keith Branscombe approached us in September 2012 to supply either AlphaJoint (our traditional-style armoured joint), or Signature for the project – the client would have the choice. On presenting both options to Aerotron, the client chose Signature.

Value-added flexibility

Although AlphaJoint has been the trusted name in joint armouring for many years, Signature is distinctly different in both its appearance and approach to joint protection.

When a materials handling vehicle crosses a joint with parallel steel top strips (such as AlphaJoint) at 90°, the wheels momentarily drop between the two straight edges, causing an impact on the joint and the vehicle. That impact can result in premature wear to the vehicle, and potentially also damage to the joint area. Signature's half-hexagon shape creates a 'disruptive face' (see right) and therefore wheels cannot drop between the two sides – the wheel is always in contact with the concrete. This allows the vehicle to pass smoothly over, regardless of the angle of approach, without causing any impact or damage. Thus maintenance bills are significantly reduced for the lifetime of the building. Also, valuable components can be protected from the effects of jolting over joints while being transported around the warehouse.

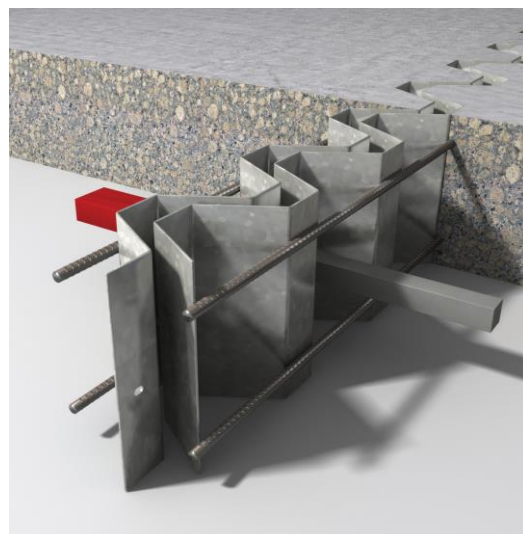
Installing Signature also means the warehouse layout need never be dictated by the position of the floor joints, as vehicles can move smoothly around the entire area, in any direction.

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Project Key Facts

Project type	Warehouse
Location	Crawley, UK
Products	Permaban Signature (100m, depth 200mm) Signature circular 4-way (1 No) StripJoint 4010 galvanised (12m, for doorways)

Client	Aerotron
Engineer	R A Juchau & Assoc
Main contractor	Sunninghill Construction
Flooring contractor	Steyson Granolithic



Technical support throughout the pour

As Signature is a relatively new product, Steyson Granolithic had not installed it before. Naturally, all parties were keen to ensure the installation went well; so our technical engineer provided support throughout, attending on site during the pour.

The floor was constructed with a large-area floor pour. Signature was installed first, using pins; then steel fabric was laid, before pumping the concrete into position. The floor was levelled by hand to achieve a flatness tolerance of FM3.

Because Signature also acts as leave-in-place formwork, concrete could be pumped on both sides of the joint simultaneously, saving time on site.

Successful installation

The floor was completed in September 2012. The client, main contractor and specialist flooring contractor were all very happy with the installation. Several follow-up visits were made by our technical engineer in the three months following, to check the product in situ; and it continued to perform well, exactly as planned.



This new warehouse is a long-term investment for the company, so it was important to consider all the lifetime benefits and costs during the construction process. We're confident Signature was the right choice, and are very pleased with the results.

Neil Westley, Operations Director, Aerotron

