



## Great Expectations

What can you expect at futurebuild?

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Prospects healthy despite ressie slump  
Highland fling for Zaha Hadid  
Ireland's megga 21 st century town  
Century Chief stands down  
Fusion in the frame  
Full metal package from MPS

## Safe smart solutions from J&P

J&P Building Systems manufacture and supply into the construction industry a range of products that are both innovative and cost effective. The use of products such as; the Pfeifer column shoe, the Jordahl fabricated channel system and the H Bau balcony connector is helping many companies realize their objectives in creating buildings using “Modern Methods of Construction.”

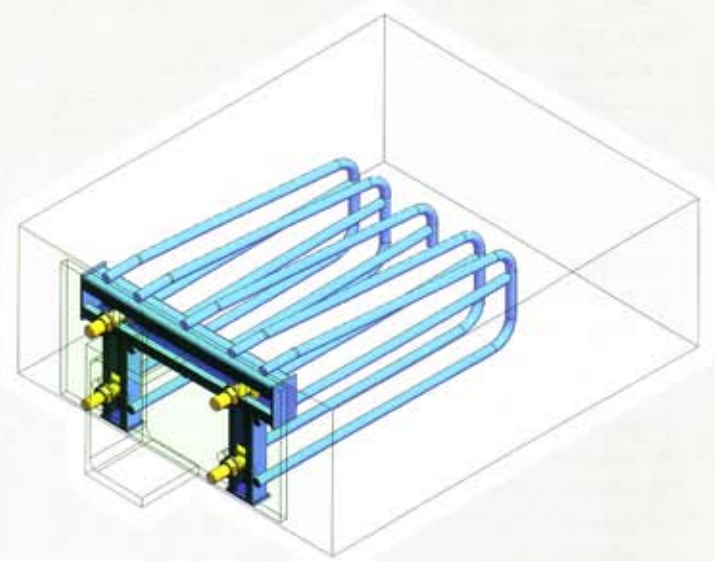
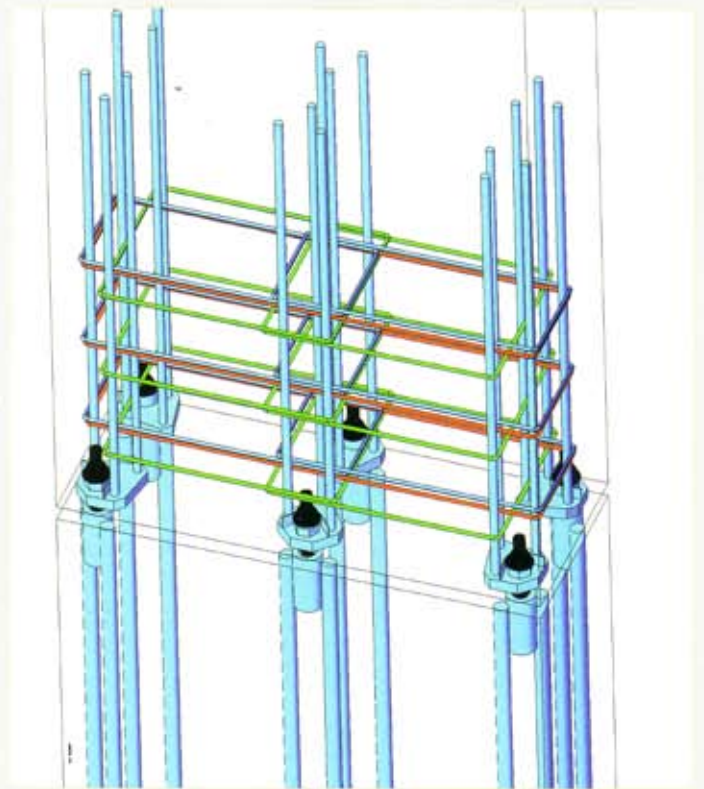
### PFEIFER

Pfeifer are over 425 years old and were the original producer of sisal rope within Germany. Over the following centuries the range of products manufactured has been extended to include wire rope, transportation and lifting anchors, continuity bars and column, wall & slab connections. The desire to extend the range of products has been driven by their large internal R&D department as they have absorbed and reflected the ever changing face of modern construction.

The Pfeifer PSF Column Shoe is such a product. Designed to form a positive mechanical connection between precast columns or precast column/in situ concrete it allows for an accelerated and safe build program. It consists of three components, foundation anchor, connecting bolt and column shoe manufactured in high grade mild steel. Each project is unique so J&P, based on design loads supplied by the structural engineer, will select the correct size of shoe from the Pfeifer range. Once final checks have been completed by the engineer and a confirmation issued that all criteria have been satisfied, detailed assembly drawings are produced by J&P.

The foundation anchors, the first link in the chain, are cast into the concrete directly below the column using a template which mirrors the position of the shoes in the base of the precast column and the next set of foundation anchors located at the top of the same column. The columns which can be single, double or triple height can be poured simultaneously or prior to the concrete deck, on or off site, and then erected quickly and efficiently with a minimum time lag, using the connecting bolt. Along with reducing the build program and crane time required there are significant safety benefits by negating the necessity for any working at height therefore easing some of the more onerous requirements of Health and Safety. Once the mechanical connection is made the column is stable and requires no propping. The base of the column must then be grouted before the next structural element is attached.

A similar philosophy can also be applied to the construction of precast wall elements using Pfeifer PWS wall shoes with the ends of the walls being connected using the Pfeifer VS system. The VS range of products consists of galvanized recess casings in short or long lengths which house flexible overlapping wire rope loops. The loops in the ends of adjoining walls are married up, connected with a vertical stitching bar and high strength non shrink infill grout resulting in a homogeneous joint.



## JORDAHL

Jordahl Channel the original system at over 100 years old is rolled in an extensive number of profiles in both mild and stainless steel. It is available in 3m or 6m lengths, in standard short lengths or as specially manufactured units. Jordahl also invest heavily in R&D, recent developments include a hot rolled toothed channel system capable of carrying large slip loads, development work on the performance of cast in anchors in concrete structure under fire conditions and shear stud design.

The greatest movement within the industry has been in the use of channel as a fixing method for curtain walling, architectural precast, safety rails and steel balconies replacing post drilled fixings. Construction companies are moving rapidly to off site construction, with some companies aiming for 60% of their buildings to be manufactured off site. This results in a reduction of brick and block walls laid by hand, instead we have modular cladding panels brought to site complete, lifted into position and simply bolted down, channels providing the fixing method. They are the ideal solution as they can be cast in accurately; providing a clean flexible solution.

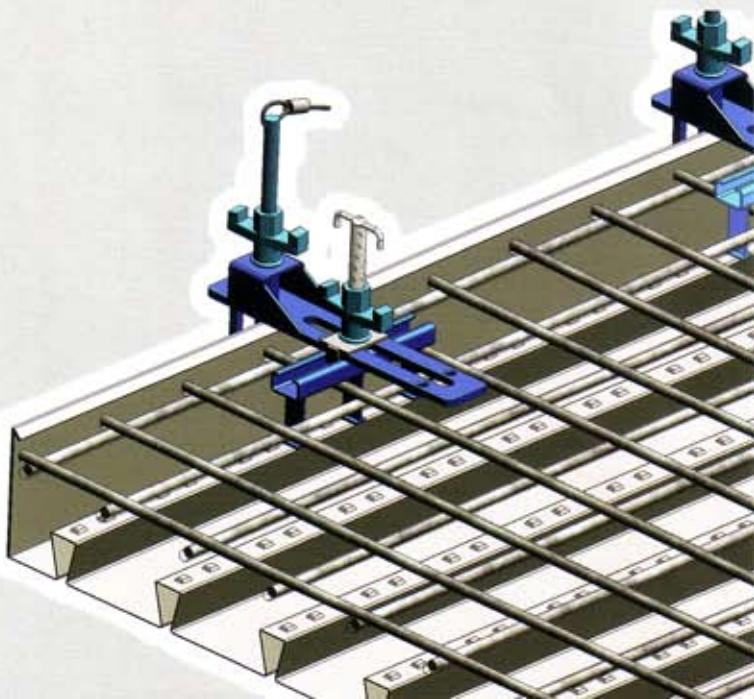
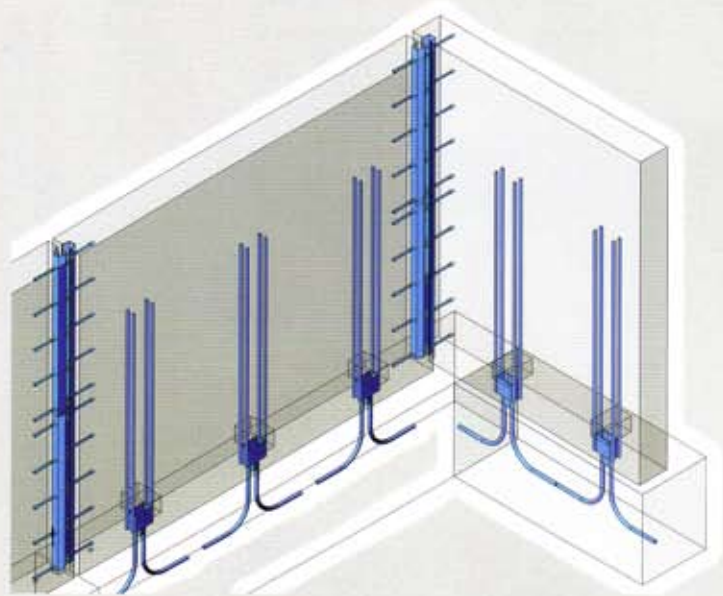
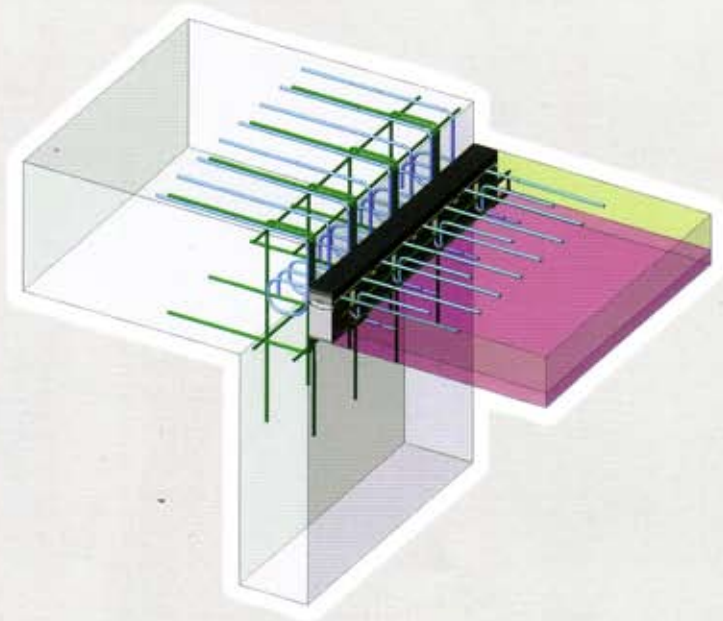
In order to further facilitate ease of use, Jordahl channels can be fabricated as special arrangements being delivered in welded assemblies, of specific lengths with the correct number of anchors, including spacer bars to obtain accurate setting out and having any necessary additional re-bar pre welded as the design requires. By fixing the Jordahl channel onto the top face of the floor slab, the connection is inside the building envelope and Local Authorities more readily accept the use of mild steel HDG as opposed to expensive stainless steel. The recent development of the Whitby Positioning Clamp allows for cost effective standard Jordahl channels to be positioned accurately in the slab top negating the need for the more complicated "Sled" format channel assembly.

## H BAU

Two of the products produced by H Bau are Pentaflex, an innovative system for forming watertight joints in concrete structures and Isopro a structurally designed thermal balcony connector for concrete/concrete interfaces. Pentaflex is manufactured from a thin steel plate which is covered in a bitumous compound that reacts when in the presence of wet concrete forming an impervious water barrier. It can be used in all weather conditions without detriment, is flexible enough to bend or shape, is easy to install in both vertical and horizontal planes and is ideal when used in twin wall or basements constructions.

Isopro is available in an extensive range of sizes and variations allowing insitu or precast balconies and walkways to be attached to a concrete structure whilst maintaining a thermal break. During its years of development the system has been extended so it can be used with hollow core floor slabs, post-tensioned floors as well as the standard flat slab. The range of sizes available mean that most design details be they winter gardens, internal hexagonal balconies, propped balconies, cast stone supporting nibs or parapets can be connected while providing full thermal and structural integrity.

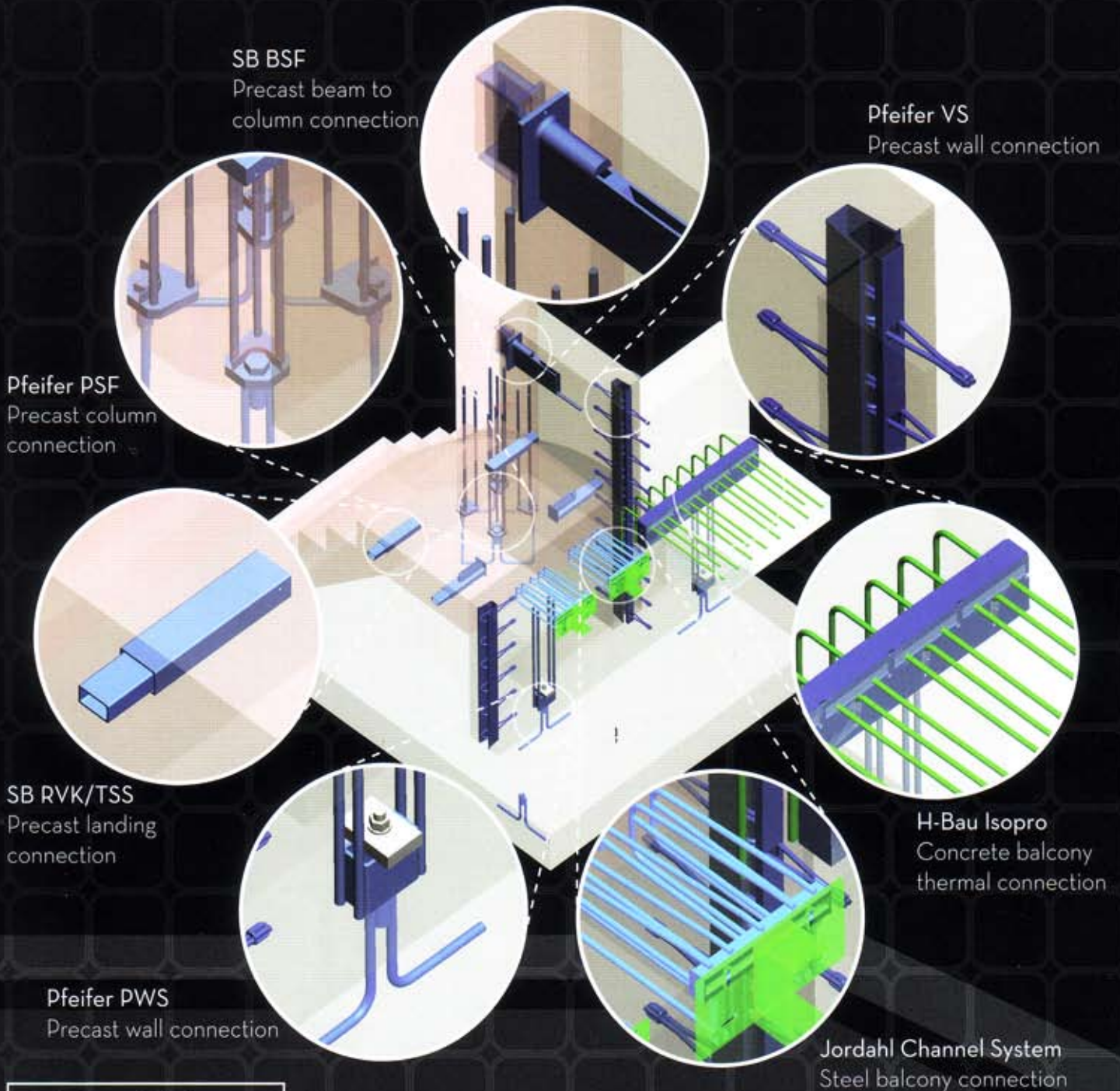
The commitment of our parent companies, Jordahl and Pfeiffer, to the construction industry is demonstrated by their continued contribution on a technical level to the development of the new Euro Codes and ongoing involvement with the standards and academic communities to develop their products in line with the Construction Product Directive (CPD) in the interest of technical harmonization and the removal of barriers to trade.



# Safe Smart Solutions...

In order to optimise the increasing use of concrete in construction, whether it be insitu, precast or a combination of the two, J&P Building Systems are actively participating in the development of new systems. These systems form mechanical structural connections between these elements thus serving to realise the potential of hybrid assemblies. The end result is to the ultimate benefit of the overall build program by creating efficiencies in the utilisation of site plant, a reduction in the reliance on wet trades, plus a considerable contribution towards the improvement in site safety.

At J&P Building Systems we can offer a number of products which, when used within concrete frames or claddings, allow connections to be constructed in an innovative and cost-effective manner. This assists both the client and the contractor or sub-contractor.



Safe Smart Solutions...

**J&P Building Systems Limited**

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