PRECAST CONCRETE INNOVATION —

### **BUILD WITH BISON**



CELEBRATING

100

- YEARS
BUILDING BRITAIN
EST. 1919



# PEOPLE PASSION PRODUCTS

We're not a 'one size fits all' precast concrete business, we understand that the markets we work in are varied and that our customers' projects have their own specific requirements.

Our experience and technical expertise enable us to develop solutions for a wide portfolio of markets - from commercial, industrial, stadia and leisure to residential, car parks and infrastructure.



As the world changes, so too does our thinking. It adapts to new challenges, brings new ideas and helps define a new and exciting future. At Bison Precast we understand the world you work in, and so are able to develop the innovative, technically advanced solutions you need to deliver your projects.

We've been a part of the building industry for nearly 100 years, developing high quality precast concrete flooring, walls and structural precast components. These aren't just products, these are products manufactured with insight. Hollowcore floor units supplied with our automatically and mechanically inserted lifting hooks, for example, allow for faster, safer and more accurate installation. Whilst our Jetfloor system presents the platform for a range of 'U' values and enhanced Psi values to help housebuilders exceed regulations with a superior strength, high-performance insulated ground floor solution.

Our strongest assets, however, besides our products, are our people. From our inventive research and development teams working tirelessly to develop the next innovation, to the manufacturing, technical support, sales and delivery teams who get it to you whatever the challenge, you can be confident to Build with Bison.

### **OUR PEOPLE. OUR PASSION. OUR PRODUCTS.**





4 About Us About Us

### FLOORING PRODUCTS

Bison Precast has the product range, capacity, experience and expertise to work with you to design and engineer tailor-made flooring solutions to fit your scheme, timescale and budget.

### **HOLLOWCORE**

Excellent sound-reducing qualities, durability and inherent fire resistance make our Hollowcore the solution of choice for apartments, care homes, hospitals and commercial projects.



### **HOLLOWCORE COMPOSITE**

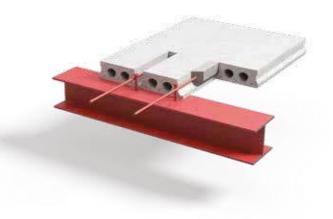
Our Precast Hollowcore Composite combines Hollowcore slab with a composite structural concrete topping. This makes the unit incredibly strong and resilient and suitable where enhanced structural performance and lateral load distribution are required, such as in industrial buildings, multi-storey buildings and car parks.



### **COMPOSITE STEEL BEAM**

Where Hollowcore flooring units bear onto structural steelwork, significant economies can be achieved by designing the steel beam to act compositely with the precast units.

This enables the possibility of a reduction in section sizes and weights of the steel frame and the overall supporting structure. Shear studs are welded onto the top flange of the steel beams and reinforced in-situ concrete enables the precast and the steelwork to act in unison.



### **SOLID SLAB**

Our solid slab units provide effective, flexible solutions in a wide variety of sectors.



### **SOLID COMPOSITE**

Solid composite floors combine prestressed units with a composite structural topping, providing enhanced structural performance.



### **BEAM AND BLOCK**

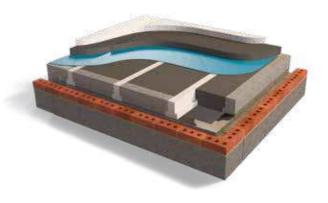
Quick and easy to install, a tailored beam and block system from Bison Precast is a cost-effective suspended floor solution.



### **JETFLOOR**

Our Jetfloor system has been the market-leading solution for thermally insulated structural ground floors since its introduction in 1982.

Jetfloor brings together structural and thermal performance in one insulated ground floor solution. It's quick and simple to install and its flexible configuration design provides a future-proofed robust solution for housebuilders, specifiers and homeowners.



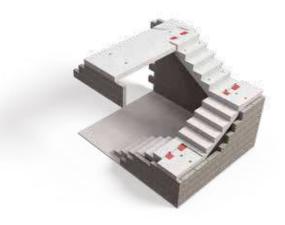
6 Flooring Flooring

## STRUCTURAL PRECAST PRODUCTS

We design and manufacture bespoke precast solutions for a wide variety of projects.

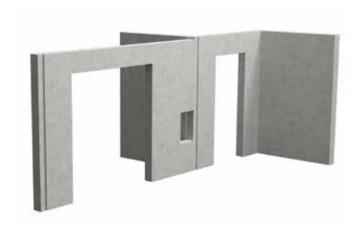
### **STAIRS AND LANDINGS**

Bison Precast has a wide range of adjustable high-quality, precision steel moulds for its stairs, landings and balcony units, capable of meeting the requirements of the most demanding projects.



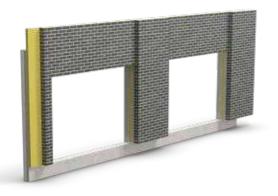
### **CROSSWALL FRAMES**

Our precast crosswall frame solution comprises structural panels forming internal and external walls along with floor slabs. The crosswall system is ideally suited to multi-storey repetitive cellular structures such as hotels, custodial, education, student accommodation, private and public housing, and provides significant time and cost savings compared with traditionally built structures.



### **BRICK FACED SANDWICH PANELS**

Our precast insulated sandwich panel system is constructed off site and can feature Forterra's wide range of high-quality facing bricks. The panels consist of an outer leaf of precast concrete with a brick facing, an insulating central layer and a structural concrete inner leaf. The ability to factory-fit various brick finishes, insulation and windows during the manufacture process will provide significant benefits to quality and the construction programme. This system combined with our crosswall frame solution is ideally suited to multi-storey structures and is an extremely cost-effective alternative to traditional building methods.



### **STADIA COMPONENTS**

We have a long and unrivalled track record of providing high-quality stadia in the UK, including football, rugby, tennis, cricket, horseracing and cycling arenas.



### **COLUMNS AND BEAMS**

Our columns and beams provide flexible structural solutions that can be applied to a wide variety of projects that require an increased open floor area, typically multi-storey car parks, offices, retail outlets, hospitals and schools.



8 Structural Precast

## INFRASTRUCTURE PRODUCTS

Bison Precast provides a comprehensive design, manufacturing and delivery service for bespoke precast components for infrastructure projects.

### **BOX CULVERTS**

Bison Precast is one of the largest producers of box culverts in the UK. Providing long-term durability and with a 120-year design life, our flexible range of box culverts can be designed to your specific requirements.



### **OMNIA BRIDGE DECK**

Our highly efficient, cost-effective omnia bridge deck solution has been recognised by the Department of Transport through our involvement with the model specification for precast concrete bridge decking. The system is available in five standard lattice sizes, which facilitate deck depths of up to 300mm, enabling spans up to 3.8m.



### **RETAINING WALLS**

Available from stock in seven different heights, our range of standard retaining walls is designed to be loaded from either side and can retain material level with the top of the unit. Using holding-down bolts, the walls resist overturning movements. Bespoke units offering variation in height, width, loading and accommodation of weep-holes or pipe openings can be provided.



### **BESPOKE**

In addition to our core product ranges, Bison Precast can provide a comprehensive design, manufacturing and installation service to meet the requirements of both building and civil engineering clients for bespoke precast concrete products.

Our dedicated in-house engineering team is committed to providing you with value engineering input to ensure the most efficient and cost-effective solution

Recent bespoke components include:

- Ground beams
- Flood defence walls
- Parapet units
- Railway platform units



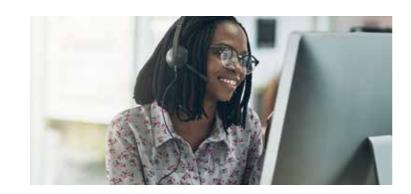
10 Infrastructure

## SUPPORT FOR YOUR PROJECTS

Our precast concrete products and services have been developed to help you complete a successful project within a demanding modern environment – providing support from start to finish.

### **SALES AND ESTIMATING**

We provide guidance at every stage of a project from concept to completion. By working with you from the earliest design stages, we can help specify the most appropriate Bison Precast products and solutions. This can help you to achieve cost savings and reduce construction times.



### **INSTALLATION**

The knowledge and expertise of our regionally based Contracts Team translates into practical, hands-on support for you at a local level, helping you to implement your project in the safest and most efficient way.



### **DESIGN AND TECHNICAL**

Our design and technical support teams will work with you to help solve problems to overcome the challenges you face. We will provide our valued engineering input throughout the process to ensure you have the most efficient and cost-effective solution.



### **PROJECT MANAGEMENT**

Our experienced Project Management team will provide you and your project with practical and professional support. We have the skills and expertise needed to plan, organise, secure and manage resources to bring about the successful completion of your project.



The market for off-site manufacture is expanding rapidly in the UK. Operating nationally from three strategically located production facilities, Bison Precast has built a reputation for producing consistent, high quality products off site in factory-controlled conditions.

Manufacturing off site and supplying on a just-in-time basis has many advantages and can enable you to achieve significantly reduced site programmes.



### **DELIVERY**

A key aspect of any project is logistics management. Operating from our three strategically located manufacturing facilities enables us to decrease transport radials and deliver to site in a relatively short time. Through our long-term relationship with trusted logistics partners, we have the experience and capability to deliver products nationwide to meet the most demanding project programmes.



12 Services Services

## EXPERTISE IN ALL AREAS

IN ALL ARE

### **RESIDENTIAL**

Bison Precast has a sustained and respected reputation within the residential sector, from single occupancy houses through to medium and high-rise apartments.



We fully understand the sectors

within which we work. Whatever

products - which we manufacture

Whatever sector you specialise in,

your scheme, we can tailor our

off site – to align exactly.

we specialise in it too.

### STUDENT ACCOMMODATION

Precast concrete solutions enhanced using our crosswall design, bring together the advantage of a reduced structural zone and lower floor-to-floor heights. This system suits student accommodation construction, enabling quick and accurate solutions where time and cost are key factors.



### **EDUCATION**

We have extensive experience in the education sector, working closely with designers to develop the most cost-effective design solutions to meet the specific demands of this market.



### **STADIA**

With an unrivalled history of providing stadia solutions, Bison Precast is at the core of many of the UK's most recognised and iconic stadia, including Wembley Stadium, Cardiff Millennium Stadium and Twickenham to name but a few.



### INDUSTRIAL AND COMMERCIAL

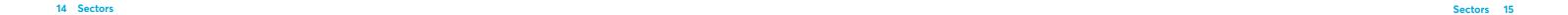
Utilising our market-leading precast components, we have been involved in many of the UK's most high-profile, office, retail and industrial projects.



### **LEISURE**

Bison Precast has a long and proven track record within the leisure market producing a range of products and solutions for hotels, cinemas and leisure centres.

We have provided solutions to many of the hotel chains operating in the UK including Arora, Marriot, Hilton, Ibis, Novotel, ETAP, Premier Inn, Holiday Inn and Dakota.



### **HEALTHCARE**

Given the nature of modern health centres and hospitals, open-plan is the preferred layout. Understanding precisely how to maximise space without compromising strength is of paramount importance. At Bison Precast, we design solutions that incorporate applications that work together, creating the optimum structure in terms of strength and space.



### **INFRASTRUCTURE**

With an increasing focus on providing industrial and urban infrastructure that is delivered more quickly, at a higher quality and a lower cost, we provide innovative products and solutions.



16 Sectors



### **CAR PARKS**

Offering speed of installation, our off-site manufactured precast multi-storey car park structures are designed using a number of structural precast elements, including columns, beams, spandrels, wall panels, Hollowcore flooring and stairs.



### **CUSTODIAL**

Bison Precast has been extensively involved in the manufacture of precast units for many of the UK's custodial rebuilding programme over recent years.

There are significant advantages to off-site manufacture for this sector. Cell doors, windows and grilles can be cast into the precast walls and other components ensuring quality and accuracy.

Undertaking this work in the factory reduces site construction periods and results in fewer on-site trades.

# HOW CAN WEHELP?

Whether you want to discuss your next project or receive information about our products and services, our experienced team is ready to assist you. Simply contact us and we'll get things moving.

01283 817500

concrete@bison.co.uk

bison.co.uk



# WISIT OUR WEBSITE

For up-to-date technical and product information, project case studies, and all the latest news, visit

bison.co.uk

### **CONTACT US**

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### **DOWNLOADS**

You'll find BIM modelling, calculations, drawings, accreditations, certifications, brochures and case studies in our the Download section of our website.



### **PRODUCTS**

Comprehensive information about our flooring, infrastructure and structural precast product ranges are available on our website.



### **GET A QUOTE**

Ready to get started? Our experts will help you find the most cost-effective solutions.





### **Bison Precast**

Tetron Point, William Nadin Way, Swadlincote, Derbyshire DE11 0BB

01283 817500 concrete@bison.co.uk bison.co.uk