



Bespoke Composite Panels

STRONG. LIGHTWEIGHT. DURABLE.



BCP, established in 1988, has built up a worldwide reputation for working with customers on the design and manufacture of composite sandwich panels and vacuum tables to exceed their expectations and solve their engineering challenges.

Our bespoke panels are created by placing aluminium honeycomb core in between two skins. These composite panels deliver rigidity with minimal increase in weight, and can be manufactured in flat or curved formats.

BCP's lightweight but incredibly strong aluminium honeycomb panels and structures have unlimited applications and have been used in a wide variety of products including: rail and marine interiors and furniture, display structures, printing vacuum tables and flight simulation decks for pilot training.

Our high level of engineering expertise, combined with a dedication to quality, allows us to exceed the demands of different clients and industries.

BCP works with our clients from concept, to product design and manufacture and builds partnerships for long term cooperation.

BCP's high-quality aluminium honeycomb panels and structures help our customers to save on cost, weight and materials. Our panels are suitable for a wide range of industry applications including:



INDUSTRIAL

- Flight simulators
- Elevators
- Internal structures
- Cleanrooms
- Spray booths
- Platform lifts
- Mezzanine flooring
- Air conditioning
- Building structures
- Building cladding



VACUUM TABLES

- Printing
- Inkjet
- Knife cutting
- Custom made tables



RAIL

- UAT modules
- Luggage racks
- Baby changing tables
- Doors
- Ceiling & floor panels
- Cabin dividers
- Table tops
- Galleys
- Aisle carts & meal containers
- Ramps
- Tail lifts



MARINE

- Galleys
- Ceiling & floor panels
- Furniture
- Structural bulkheads
- Hatches
- Decking



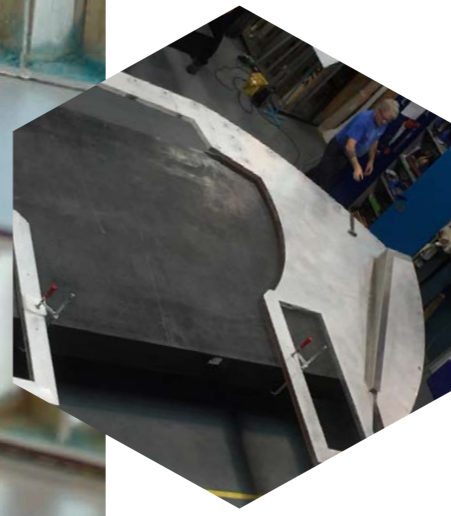
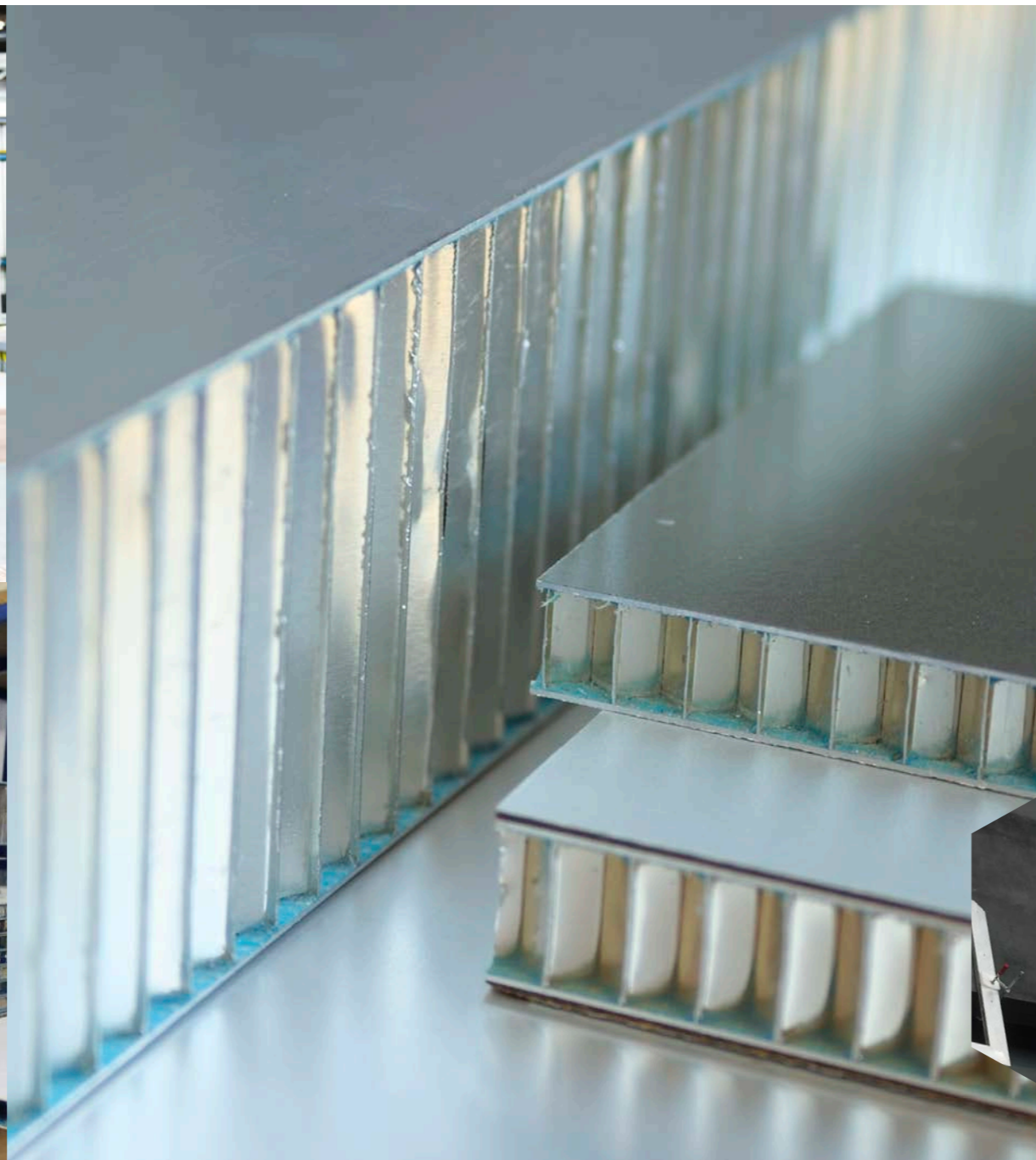
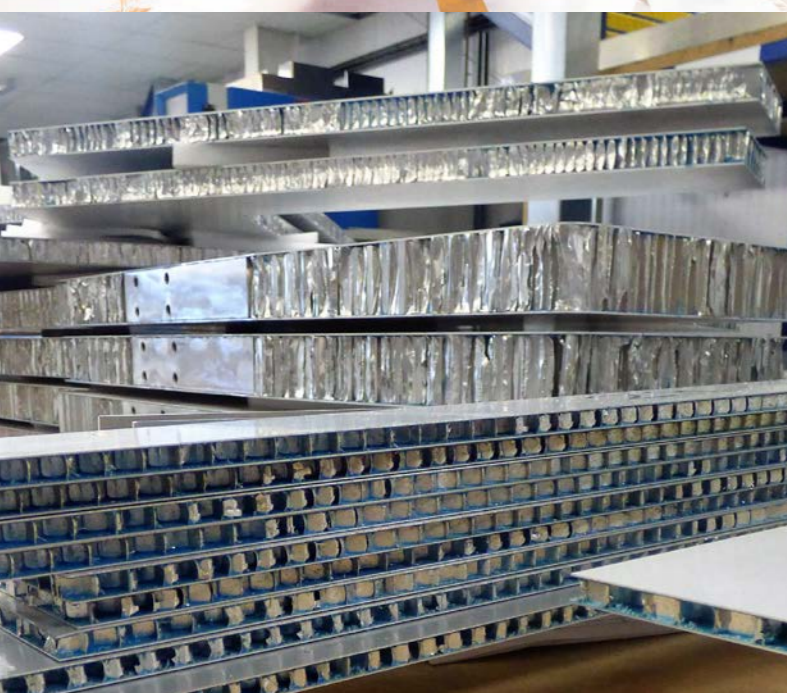
ARCHITECTURAL

- Furniture
- Decorative panels
- Partitioning
- Ceiling & floor panels
- Graphics signage
- Exhibition stands
- Point of purchase displays
- Façade or curtain wall cladding
- Interior/exterior cladding panels



TAILORED SOLUTIONS

- Piano lids
- Wallpaper display panels
- Museum display cases
- Shop fittings
- Storage systems
- Travelling crates
- Decorative tables
- Bespoke furniture
- Art & sculptures
- Commercial vehicle interiors
- Racing cars
- Defence vehicles
- Electric vehicle battery housing & cooling plates



INDUSTRIAL

BCP engineer aluminium honeycomb composites to manufacture an array of lightweight, strong products for industrial purposes, only limited by imagination.

The nature of the alloy materials used in BCP's panels means that they can be sourced for both internal and external applications including flight simulators, cleanrooms, platform lifts, elevators and building structures. BCP panels offer excellent corrosion resistance compared to other traditional products.

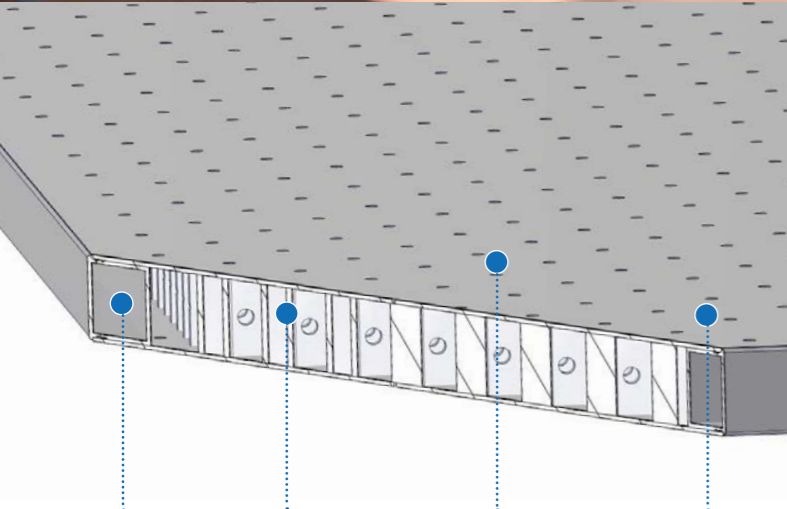
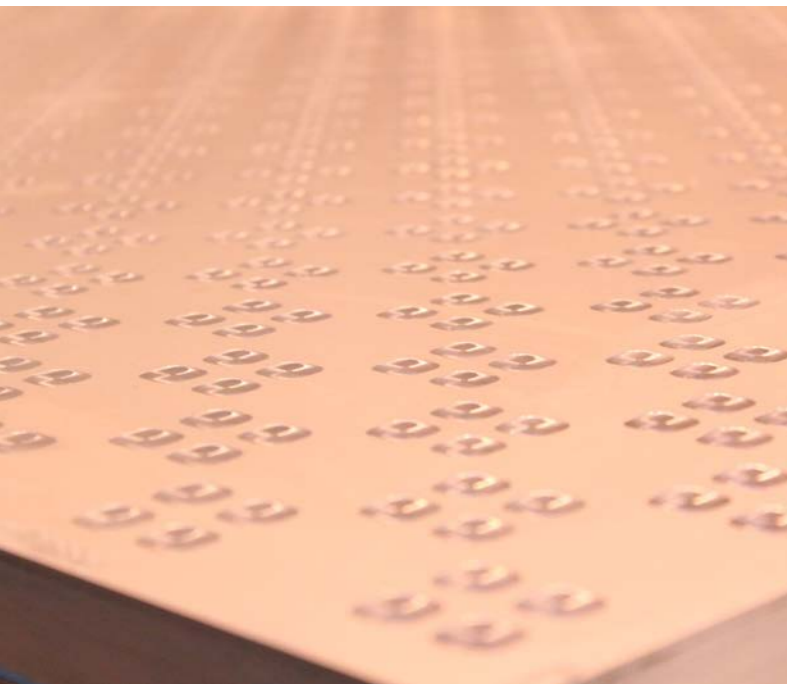
The manufacturing process allows many fixtures and fittings to be installed within the aluminium composite panels.

Our standard size panels are 2500mm x 1250mm and 3000mm x 1500mm with thicknesses starting at 5mm. Other dimensions and thicknesses are available.

A wide variety of surfaces and finishes can also be applied to the panels.



Flight simulator structure



Bonded aluminium alloy edge member frame

Aluminium honeycomb structure, single or doubled drilled

Print area can be supplied drilled to your specification

Outer skins - aluminium alloy or stainless steel



VACUUM TABLES

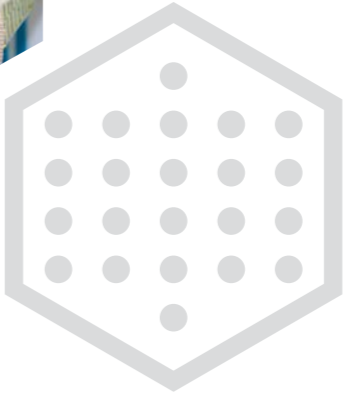
BCP custom manufactures vacuum tables which are suitable for all types of screen printing machines and ideal for use in the photographic and cutting industry.

Constructed from aluminium core materials and bonded with extreme accuracy, BCP panels are rigid, lightweight and durable. A range of print surfaces are available including stainless steel, anodised aluminium (silver or coloured) and mill finish aluminium. Vacuum tables are ideal for keeping objects in place during the machining process.

The finish of all materials is carefully profiled and polished and designs can be tailored to suit the customer's individual requirements. Fabrication services are also offered to include block bars, inserts, slots and cut-outs.

Tables are manufactured up to a size of 4.8m x 2.3m in one pressing, however, multiple table configurations enable modular units to be delivered to any size or specification. Standard flatness tolerances are 0.25mm per square metre, however, closer tolerances are available and all tables are manufactured to customers' designs.

BCP is also able to refurbish existing bases dependent on condition.





RAIL

BCP manufactures lightweight structural panels for the rail industry and is experienced in working in partnership with prime contractors on prestigious contracts.

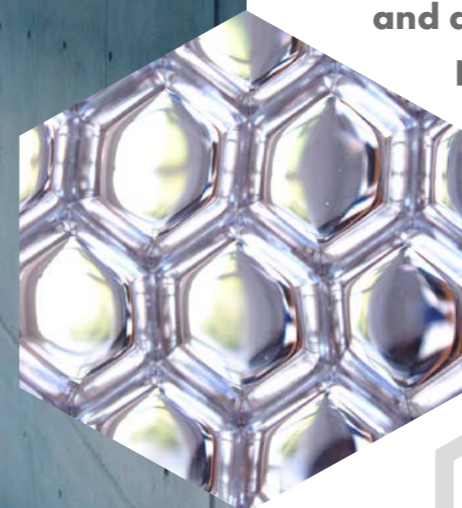
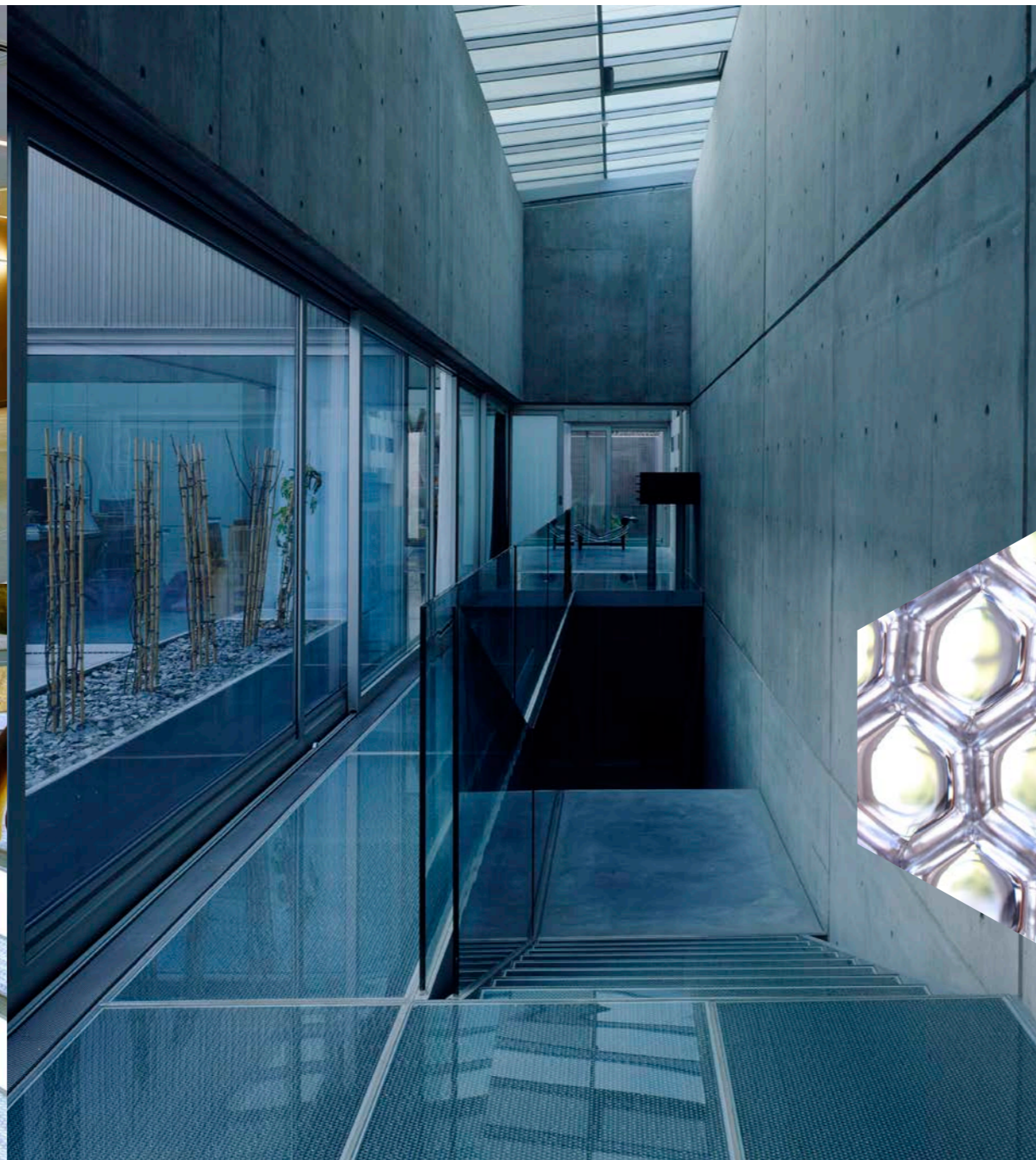
The team have extensive knowledge and experience in manufacturing to the various railway standards.

BCP can design and manufacture products for rolling stock. Using cost-effective manufacturing techniques, the company manufactures laminate panels to provide lightweight, strong and highly durable products including housing atlas style galley carts and meal containers.

BCP also offer a range of interior solutions including flooring and doors, cabin dividers and table tops for both new and refurbishment projects.

Alongside flat panels, BCP also manufactures curved wall panels for Universally Accessible Toilets (UAT) on trains. Unusually, the curves in each panel have different radiuses and face in opposite directions.





ARCHITECTURAL

BCP manufacture and supply high quality decorative composite panels to architects and interior designers for commercial and domestic projects.

Our creative surface solutions are based on the concept of how light has the ability to transform space and create different appearances and contrasts.

By placing aluminium honeycomb core between toughened glass or polycarbonate skins, BCP offers customers a bespoke range of visually stunning products that have been used in flagship retail stores, showrooms, museums, art galleries, restaurants and even a Hollywood film set!

Our highly skilled craftsmen have created timeless bespoke panels for use throughout domestic, public and commercial building applications including sliding doors, internal hinged doors, flooring, ceiling tiles, bespoke furniture and partitions.

Prestigious conference centres, exclusive retail complexes, state-of-the-art commercial spaces, boutique hotels and modern homes have all required us to create exciting focal points for them utilising a range of our production techniques.





MARINE

BCP's impact resistant aluminium composite panels provide uncompromising strength while reducing the weight of structures.

The high strength-to-weight ratio of the panels make them the ideal material to specify for marine applications, including the construction of partitions, interiors, furniture, ceilings, flooring, hulls and bulkheads.

BCP's curved panels allow for more fittings or marine equipment to be incorporated within a boat. They can also be used as floor panelling, as they are strong and lightweight and able to be cut to bespoke dimensions.

BCP work in collaboration with our marine customers to deliver exceptional results.

The aluminium honeycomb core used in BCP panels is certified to the Wheelmark standard, an internationally recognised certification that shows a product complies with the requirements of the International Convention for the Safety of Life at Sea.

Products with the qualification are suitable for use on board any European or American marine vessel.





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TAILORED SOLUTIONS

Due to the bespoke and unique nature of our products, the possibilities for the application of our aluminium composite sandwich panels are truly endless.

BCP deliver tailored solutions to cater for all your product needs, whether that be shop fittings, display cases or piano lids!

We are well placed to handle both simple and complex specifications and are always happy to discuss new and exciting ideas.

We also have a growing portfolio of electric vehicle clients and provide bonding, supporting and cooling plates for electric batteries.



1. Bespoke tables for Paul Smith's flagship store located in Coal Drops Yard, London.
2. Aluminium honeycomb tread plate completes a reconfigurable floor used for robots in manufacturing at the University of Sheffield Advanced Manufacturing Research Centre.
3. Mounting boards used by Zenzie Tinker Conservation to store and display a set of embroideries.

ENGINEERING CAPABILITIES



As part of the Encocam Group – a global engineering and manufacturing company with over 30 years of experience spanning across a large range of industries globally – BCP is able to draw on the expertise and capabilities within the group to offer a broad range of solutions.

The honeycomb in BCP's panels is manufactured by our sister company, Corex Honeycomb, the only UK manufacturer of aluminium honeycomb.

Our multi-disciplined team takes pride in its problem-solving ability and in working closely with large and small customers alike. Their technical knowledge and expertise makes them perfectly adaptable to help solve your engineering challenges.

Naturally, to support the high quality of product that you would expect from such an experienced company, we make full use of the latest CAD/CAM software (Computer Aided Design – Computer Aided Manufacturing) and CNC machinery (Computer Numerical Control).

Our project management ability offers our clients a complete, single-source product development service. If you are working on a confidential project, we would be happy to explore the possibilities under the terms of a mutual NDA, allowing us to freely share our knowledge and design ideas to ensure the best outcome.



BCP EXPRESS

Our standard aluminium honeycomb panels are available 'off the shelf' in 5 different thicknesses from our online shop, with no minimum order value or manufacturing delay. Panels are 600mm x 600mm and suitable for a wide range of applications.

We also stock aluminium composite panels for lightweight construction. These lightweight and rigid panels are comprised of two ultra-thin 0.21 mm aluminium surface layers sandwiched around a polyethylene core. .

Visit BCP Express:
www.bespokecompositepanels.com/shop/



FINISHES



BCP panels are manufactured with a high mill finish as standard, but can also be supplied in tread pattern, polished or coloured. A wide variety of surfaces can be applied including wood, stone and stainless steel.

Panels can also be completed with high-pressure laminate (HPL) in brand colours or impregnated silver iodide for an anti-bacterial surface.

We have the ability to print graphics directly onto the aluminium skin's surface, with a Direct Print finish. Panels can either be completely covered or left transparent in areas allowing the aluminium to remain visible and producing a striking effect. The Direct Print surface finish can be used to form a feature wall, or as a printed partition.

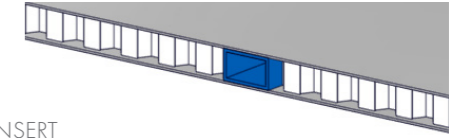


INSERTS, EDGING, FOLDING & JOINING METHODS

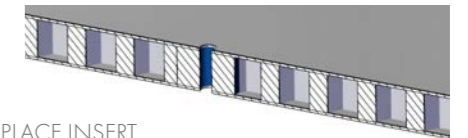
BCP's aluminium composite panels can be fitted with a wide range of inserts, edging and joining methods which can be incorporated during the manufacturing stage or added afterwards.

RANGE OF INSERTS FOR ATTACHMENTS

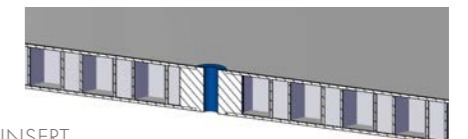
BCP is able to design a range of inserts to carry heavy loads. These inserts can be attached to our panels using a variety of methods.



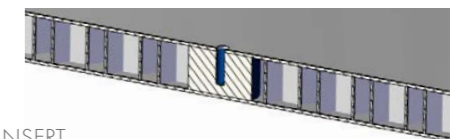
BOXED INSERT



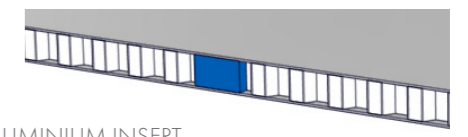
CAST IN PLACE INSERT



PINNED INSERT



POTTED INSERT



SOLID ALUMINIUM INSERT



WOOD INSERT

EDGING METHODS

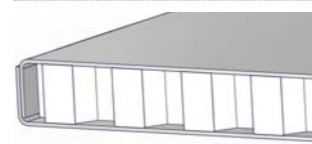
Core panel thicknesses vary and can be tailored to match customer requirements.

Panels can be edged with:

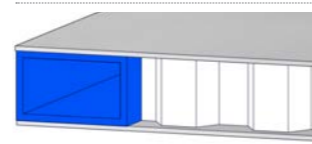
- MDF
- Red grandis
- Aluminium extrusion
- Solid bar

SOLID EDGING: different distances into the panel. They can be a metal bar or wood.

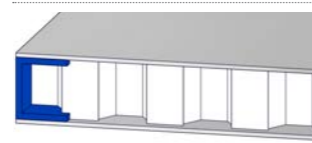
TRAY IN TRAY



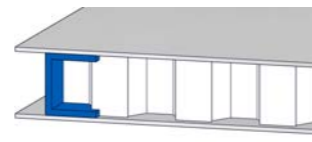
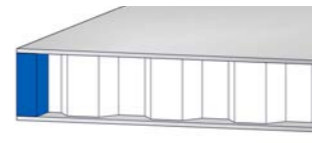
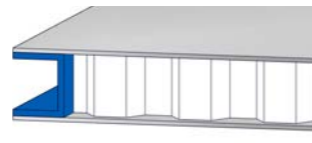
BOX SECTION



C SECTION



SOLID EDGING



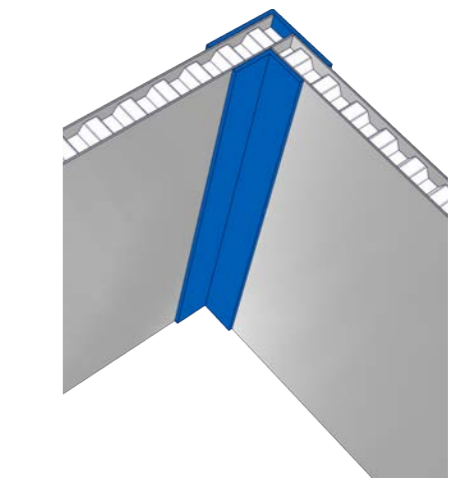
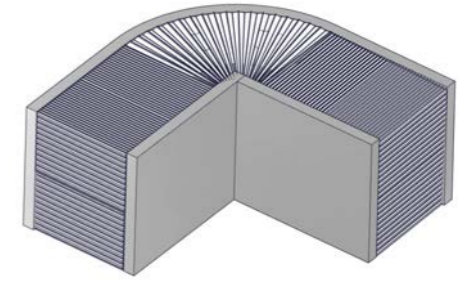
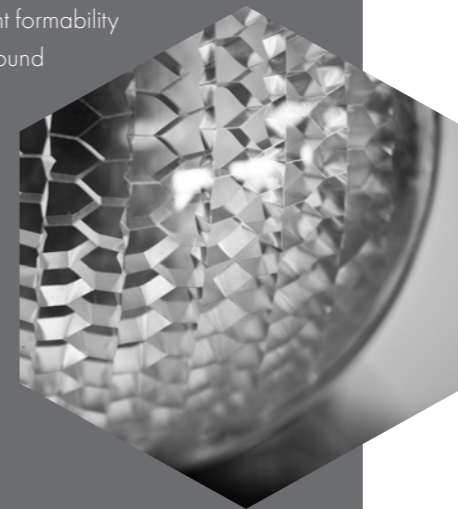
JOINING AND FOLDING METHODS

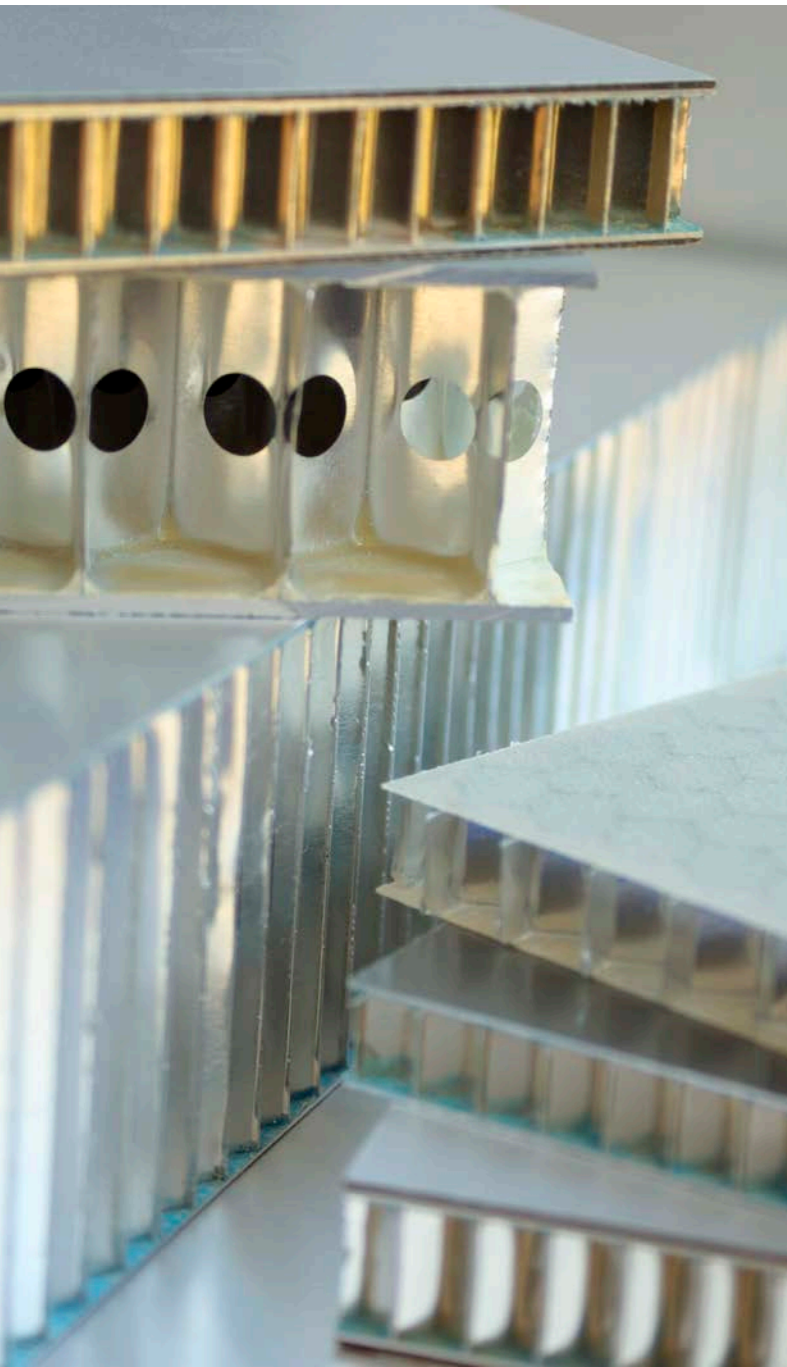
Depending on customer requirements, BCP's aluminium composite panels can be cut and folded to construct tight angles and joined to form more intricately shaped structures. Utilising our in-house machining and finishing facilities, our team of engineers are able to provide complete assemblies as well as technical assistance on more complex structures.

FLEXIBLE ALUMINIUM HONEYCOMB – SUPERFLEX

By adjusting elements of our production process, the cell geometry has been adapted so that the aluminium honeycomb can be formed into 3D shapes. The resulting benefit of this cell configuration is that the flexible honeycomb retains its cell shape and therefore its strength making it ideal for use in curved panels and spherical, cylindrical and organic shapes.

This product has excellent formability and is easier to use on round shaped surfaces. As a sandwich panel, the flexible honeycomb can be used for a wide range of applications, including train interiors, architectural structures, boat hulls, and car and caravan body panels.





CORPORATE RESPONSIBILITY

QUALITY

Achieving and upholding the highest quality standards is of utmost importance to BCP. To consistently achieve excellent quality, we adhere to strict regulations and client requirements to attain total customer satisfaction at every level of our service. In order to give our customers the best possible service, BCP employ a policy of continuous improvement. As such, our Quality Management System is certified to ISO 9001:2015. This has enabled us to be highly competitive in price, quality and innovation across a broad spectrum of engineering requirements.

ENVIRONMENTAL

It is our policy to perform our operations with due regard to their effect on the environment. Consequently, we are committed to meeting and wherever possible, surpassing the applicable environmental regulatory requirements and have been certified to the ISO 14001:2015 standard for Environmental Management Systems. At every possible opportunity we re-use and recycle materials and always endeavour to minimise the use of natural resources and the production of pollution and waste. The nature of the product's components also ensure our composite panels are odour neutral, key to some environments and projects.

HEALTH & SAFETY

It is our duty to provide all our employees with a working environment that is safe at all times. Through frequent training we ensure that our staff are constantly up-to-date with the latest health and safety regulations and all our machinery and equipment complies with the applicable guidelines.



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