

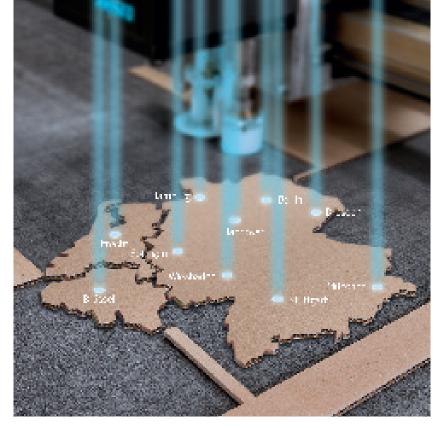


## As a medium-sized family business, we are one of the leading packaging specialists in Europe.

Brangs + Heinrich is more than a group of companies. The names of the company's two founders represent a well-known brand that is trusted by customers all over the world. It stands for industrial packaging of the highest quality that guarantees the safe transportation, warehousing and usage of any kind of products. Today Brangs + Heinrich is one of the leading packaging specialists – as an independent family business already in its 4th generation.

Our company headquarters in Solingen is distinguished by our modern product management and represented by our subsidiaries on every relevant market across the world. We think and act globally while taking the utmost responsibility for the sustainable conservation of the environment and for the respectful interaction with our customers, partners and employees. Precisely because we are a packaging provider, we see it as our duty to use renewable and recyclable raw materials. We also take care to keep our transportation routes as short as possible.

To protect products and secure cargo - the most important functions of packaging - we use customised solutions that go well beyond paper, cardboard or plastic film. We see ourselves as a partner with complete systems, offering customers comprehensive solutions for every step: from CAD design and processing of paper or film through to systematic warehousing, professional logistics and even consulting for optimised product usage. We are continuously integrating new innovative technologies and materials into our portfolio of packaging, machines and services. Our customers profit from our specialist's wealth of experience, which we continue to develop through individual and professional training. That is how we create new perspectives for the global transport of goods. Thinking ahead is our standard - and has been for 140 years.





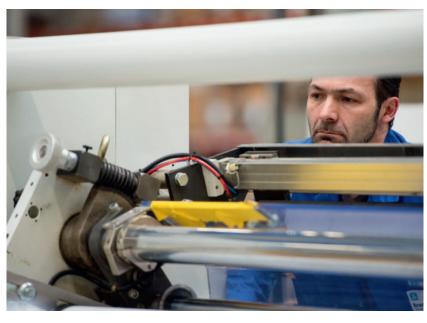


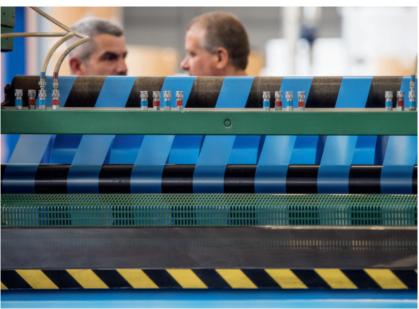
## As a certified packaging specialist, we process paper, card, cardboard, film and other materials made to order.

To create packaging according to each customer's individual needs, we make use of our highly sophisticated machinery spread over 12,000 square metres of production and warehouse space. We cut paper, card, cardboard and film to size and deliver it in rolls or formats to any specification. Supplying paper for specific requirements and converting are both part of our standard services. We provide our services for any lot size, whether large or small.

We work quickly because we have developed every work process and material flow for maximum efficiency. Everything is documented in our quality management system according to DIN EN ISO 9001, which applies to all product groups. Starting many years ago, we began receiving regular quality controls by an independent institute. This pioneering role reflects our approach, ensuring that we will continue to be one the leading specialists in the field in future.









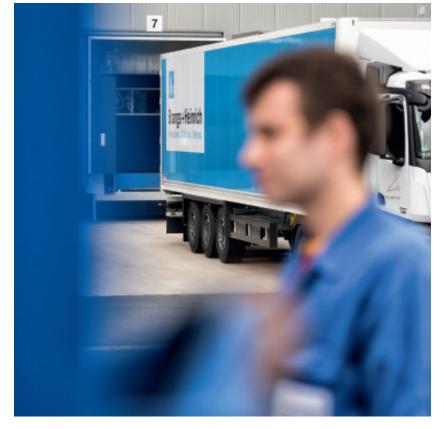
# With our high-bay warehouse, complex logistics concepts and C-articlemanagement, we take care of your packaging needs.

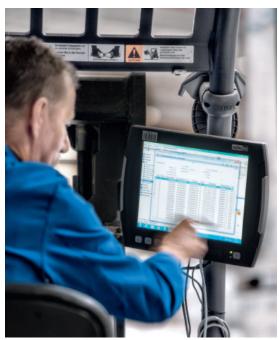
Our stretch film is reaching new heights, as its storage space is located 12 m above the ground. Over 10,000 packaging items have a home in our high-bay warehouse. They are constantly kept in stock so that we can ship them to our customers within 24 hours. Or they can be available on demand for delivery to the specified location just in time, where they'll be ready for further application.

To maintain this level of availability we work with specialised warehousing and logistics concepts. In our central warehouses in Germany and around the world, we have 25,000 square metres of warehouse space to ensure that our entire product range is always in stock and quickly accessible. From our eight logistics bases, we send over 100,000 shipments across Europe every year.

We also keep an eye on what our customers need to package their products on site at their business location. As part of our C article management we prepare the necessary materials and fill the inventory – on demand according to a fixed timetable or based on our independent planning.

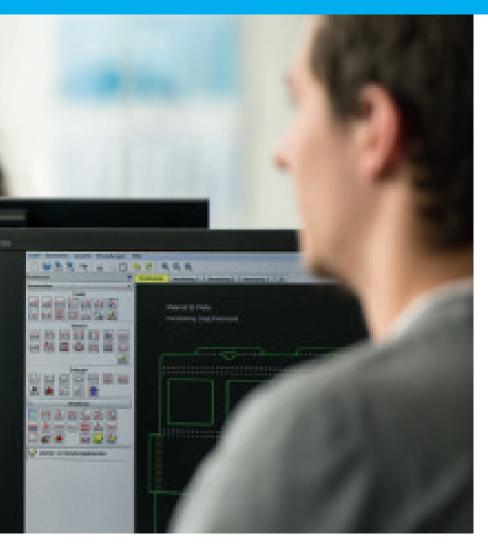
If our customers need multiple packaging materials at regular intervals, we simplify the procurement process through effective contract management. We make long-term agreements, secure the supplies and deliver them just in time – for a guaranteed fixed price.













# Logistics analyses, 3D constructions and comprehensive services are the key elements behind our individual packaging solutions.

From highly sensitive electronic components to oversized wind turbine blades, today's high-tech products require tailor-made packaging solutions for transport to their destinations anywhere in the world. Brangs + Heinrich develops these solutions, while also making a contribution to internationalisation.

Before we work together with our expert partners to create the individual product packaging as a 3D drawing using CAD, we define the exact specifications including the logistical processes. Our goal is always to design the optimal packaging for each specific application.

In order to get a reliable indication of the protective capacity of our packaging, we use a drop test. To check if cargo is secure, we perform a tipping test by simulating the forces generated through driving dynamics.

In addition to packaging materials, we provide a variety of complex packaging systems. To ensure that the entire process goes smoothly, our service includes instruction and training for the users, as well as the assembly of the system and any repairs when necessary.





## With packaging tested in our analytics laboratory, products are sure to arrive safely at their destination anywhere in the world.

You have to get to the bottom of things – this is the approach taken by the chemists and technicians and lab staff in the analytics department at Branopac, our partner. Their state-of-the-art R&D lab is extremely well equipped with gas chromatography and spectrometry equipment, programmable climate simulators and highly sensitive measuring instruments, which are used for product-specific and physical tests, special examinations or simulations.

Before our customers launch a time-consuming and costly shipment, we can test any factors involved, such as transportation, time or climate, by simulating them in the laboratory. For this reason, the climate chamber sometimes creates a tropical zone. Based on these findings, corrosion protection requirements can be checked and defined. Results are documented thoroughly to ensure peace of mind for all concerned.













# Optimising usage, reduction of process costs and sustainability are the key components of our packaging consulting service.

When people want to optimise packaging, their first thought is usually the cost of the packaging materials. Yet this accounts for only 30 % of the total costs, while the remaining 70 % can be chalked up to the process costs. So the first thing that our expert packaging consultants do is to analyse the customer's current packaging solution.

The current materials used and the technical and logistical processes, as well as personnel assignment and administrative tasks are put under the microscope. The results are further supported by laboratory tests. On the basis of this extensive data, we develop our tailor-made packaging concept.

When selecting materials, our goal is clear: sustainability. Our focus is on alternative, environmentally friendly packaging materials and their recyclability. Businesses can save up to 20 % on materials through the training and seminars offered by our packaging consultants – while maintaining or even improving quality.

Once the ideal packaging has been selected, we also make prototypes available to the customer upon request.



















## Cut to size and ready for a diverse range of applications.

A good protective function, particularly for the product surface, is an essential requirement for paper, card or cardboard. Our high-quality materials are used in a wide range of applications including the metal processing industry, manufacturing, the food industry and automotive coating businesses.

To meet the requirements for specific applications, paper, card and cardboard from Brangs + Heinrich are equipped with special characteristics, such as anti-slip or moisture-proof, paint-resistant or suitable for foodstuffs. Our portfolio also includes specialised paper for technical applications. We cut and convert the traditional packaging materials according to our customers' exact specifications. We hold individual consulting first, to assess the customer's needs.

To ensure that the necessary packaging is always delivered just in time, at the customer's request we can keep the supplies ready in our logistics centre for delivery on demand.

### Profi Packline®

- > Kraft paper
- > Wrapping paper
- > Coated paper
- > Creped paper
- > Technical paper
- > Anti-slip paper
- > Grey board
- > Masking paper
- > Baking paper









## From standard boxes to shipping containers.

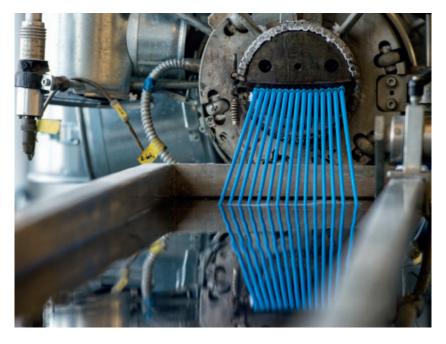
Corrugated cardboard packaging is highly versatile and suitable for diverse applications. Brangs + Heinrich has the product portfolio to match all of them. Our range starts with standard packaging and extends to original solutions developed for individual needs. For example, we offer custom-made corrugated cardboard packaging as automatic-bottom boxes for the mail-order industry or as shipping containers for sea transportation of industrially manufactured goods.

What unites all of our products is their reliable quality. We select the appropriate form of packaging based on consultation with our customers. At the customer's request, we can also provide expert support with optimising the packaging processes.

Profi Packline®

- > Folding boxes
- > Die-cut packaging
- > Corrugated cardboard sheets
- > Pallet boxes
- > Fanfold corrugated
- > Book packaging
- > Packaging for hazardous materials
- > Multifunctional shipping boxes









## Protection from environmental effects for valuable metal surfaces.

With our large assortment of packaging for export and protection against corrosion, we help our customers in the metal processing industry to protect their valuable products from environmental impact. The proven VCI method provides the ultimate security. This method uses volatile anti-corrosion compounds (Volatile Corrosion Inhibitor, VCI), which are vaporised from the carrier material until a protective atmosphere has been built up inside the packaging.

As part of our extensive system consulting, we define the requirements for corrosion protection and select the appropriate materials. Depending on the specifications, we use paper or chips from the BRANOrost® series or film in the BRANOfol® range to guarantee reliable corrosion protection.

Profi Therm® Profi Packline®

Profi Then® Profi Flex®

- > Aluminium laminated foil
- > Desiccant bags
- > Twin wall sheets
- > Lamella packaging
- > BRANOrost® / Ferrogard® / Multiguard® corrosion protection paper
- > BRANOfol® corrosion protection film
- > BRANOtect® corrosion protection oils
- > Export film







## Improving efficiency in the packaging and logistics process.

Brangs + Heinrich packaging systems are designed to fulfil the requirements for various stages of the packaging and logistics process. Our systems such as FillPak® and Fill-Air® are designed to for void filling and NewAir I.B.® Express serves as cushioning. The converter series PadPak® ensures that products are protected inside the shipping carton.

Manual or machine strapping systems secure loads, bundle products together or keep packaging units together. The 3MTM\_Matic machine provides an easier means of sealing cartons. Our packing table system is an all-rounder that supports logistics, along with our cutting systems. Customers from the most diverse industries make use of our high-performance packaging technology, from online sales of consumer goods to the mechanical engineering or pharmaceutical industry. All of our systems are distinguished by their ease of handling, helping our customers to speed up the packaging process.



- > Paper cushioning
- > Void filling
- > Strapping systems
- > Strapping bands
- > Ranpak® Paper Cushioning systems
- > Sealed-Air Inflatable Packaging systems
- > Case Sealer systems









## Superior strength properties for excellent protection for products, even during transportation.

Whether packaged as single, multipack, trays or pallets, ProfiThen® film protects products and secures cargo during transport. The quality of the film and the ease of use when processing are crucial elements for us. High-quality film is manufactured from specific combinations of raw materials. It is designed for simple and user-friendly handling and processing either manually or by machine.

Diverse types of products are packaged using packaging film and shrink film in the ProfiThen® series – from automotive components or printed matter to textiles. Our high-performance Coex film ProfiThen® Eco Plus is economical as well as extremely ecologically sustainable. Thanks to its excellent strength properties, material reductions of up to 25 % can be realised.

Profi or Then®

- > Bags/ sacks/ covers
- > Flat film/centre-folded film/ tubular film
- > Construction film
- > TL -Film
- > Polyolefin shrink film
- > Gusset shrink tubular film
- > Flat shrink film/ centre-folded film
- > automatic packaging film









## Maximum cargo securing with minimum material consumption.

Stretch film made of linear low-density polyethylene film (LLDPE) is used to secure palette-based loading units. Depending on the pallet turnover, the cargo can be secured manually with hand stretch film or mechanically, on an automatic wrapping machine using machine stretch film. In addition to the versatile ProfiStretch® hand stretch film and the multi-layer, highly elastic ProfiStretch® cast film, the ProfiStretch® blown film series is our customers' preferred choice as a film with particularly high puncture resistance and tear resistance. This film is suitable for securing heavy, high, or sharp-edged product pallets.

Pre-stretched ProfiWrap® high-performance film is developed for making optimal use of film tension and are characterised by their low residual elongation, which is linked to high puncture resistance and tear resistance. Yet this film is only 6 to 8 µm thick. Due to the minimal material consumption, production costs are lower and it is more sustainable for the environment.

The ProStretch Initiative is committed to guaranteeing fair standards for stretch film. As an active member, Brangs + Heinrich is bound to provide verification of the stretch films that we supply by labelling them with the ProStretch guarantee. This creates trust based on legal security. The other basic principles promoted by the initiative are quality, efficiency and sustainability.

- > Pre-stretched hand stretch film
- > Pre-stretched machine stretch film
- > Manual stretch film
- > Machine stretch film
- > Narrow rolls
- > Bundling stretch film
- > Stretch bands
- > Stretch hoods
- > Perforated stretch film

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