

A Member of Brückner Group



STRETCHING
THE LIMITS





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Brückner Maschinenbau.

Your partner in the plastics film industry for over half a century.

For more than half a century we have been striving for excellence. We keep our sights set firmly on our mission: to provide the latest technology and the highest quality and services “made in Germany” for our customers worldwide.

We aim thereby to contribute to their success in their various industries and to build up a long-term relationship with customers and partners alike.

Within the family-owned Brückner Group our decisions are based on sustainability, continuity, reliability and respect for the environment.

In line with our claim “Stretching the Limits”, we look forward to providing added value for our customers by understanding their needs and the challenges facing them throughout the value chain of the plastics film industry.



Brückner Maschinenbau.

Our key values.

We offer technologies and services that support our customers to meet the challenges of today and tomorrow. The continued development of both our technology and the relationship with our partners is based on:

Competence

Through our expertise and long-term personal experience our entire team contributes to the continuous improvement of our products and services and thus to our customers' overall success.

Quality

We achieve our aims of providing the highest possible quality through excellence in our daily work and the determination to improve our processes continually.

Service

Our customers expect individual, efficient and personal service on time.

We pursue this goal through our sister company Brückner Servtec. Excellence in service enables us to strengthen the long-term relationship with our customers.

Global activities

Our customers operate internationally on the worldwide stage, and so do we. We meet this challenge by thinking and acting globally.

The Brückner spirit

Our company is characterized by its team spirit across all ranks and departments. We take responsibility in order to make things happen in a constantly changing environment.

UNPLUGGED 2

BY THE GLASS



SERVE EXTRA COLD



BOUNTY



What kind of challenges do you face in your packaging film markets?

Our solutions will help you to meet them.

At Brückner Maschinenbau, we provide technologies and services which add value to your production – value you can actually measure on the bottom line.

If you are in the **packaging film business**, your market demands cost-competitive products to be delivered in small lots and just-in-time. Economy of scale is important and so we offer the widest lines with the highest output and the lowest production costs, while still remaining flexible in order to permit the production of a variety of films.

Our innovations and experience enable us to supply equipment and service that will serve your needs better in all kinds of

markets – whether you are in the cost-competitive commodity business with film width up to 10.4 m net and production speeds above 500 m/min, or in the technologically advanced speciality markets.

Top film quality and environmentally friendly production are guaranteed. Regardless of whether you are aiming for commodities or multi-layer barrier films, shrink labels or biodegradable films – our technology puts you at the forefront.



How can your company meet the demand for technical films?

By choosing the advanced machine design which Brückner can supply.

If you are focusing on **industrial film markets**, take a look at our cutting-edge innovations for solar back sheets, flexible solar panels, insulation films or special capacitor base films. Market demands, such as low shrink, high stiffness, good transparency and isotropic film behaviour are decisive factors influencing our line design and layouts.

The **optical film markets** are served either by our unique simultaneous LISIM® technology for high-end films or our advanced sequential technology to achieve the high quality required for all kinds of displays in mobile phones, notebooks, TVs and other electronic devices. Numerous key players in this industry have already chosen our advanced solutions.

Our recently introduced **battery separation film (BSF)** product serves the growing lithium-ion battery markets with our newly developed EVAPORE® semi-dry process. Besides high-quality films this process offers impressive low production costs and high yield. These are key factors in improving battery quality and life/battery costs in order to support growth in the 3C and EV industries as well as in energy-storage systems.







How can you benefit from our experience?

We provide simply the best equipment available.

When investing in new machinery or services, you expect a reliable and innovative partner who will supply the very best equipment available. We have been at the forefront of engineering progress for decades.

Our customers produce top quality film of all types using PP, PET, PA, PET-G, PE, PLA, PVC, PVA, COC, TAC and many other polymers.

Brückner Maschinenbau offers various manufacturing methods for different types of films with a wide thickness range: mono-axial, biaxial sequential and biaxial simultaneous orientation.



Our lines guarantee:

- Improved line performance
- Enhanced efficiency and productivity
- Highest flexibility
- Reduced energy consumption
- Minimized operating costs





What advantages can you expect with Brückner as your partner?

First class engineering with highest reliability in planning and commissioning.

Brückner stands for high-quality standards at every stage of the project. From the very first market and feasibility study to the installation and start-up of your new line, you can rely on:

- Project management with mandatory, reliable time schedules and team coordination
- Plant engineering based on our vast experience and the latest industry standards
- German workmanship with excellent quality assurance
- Profound process expertise based on more than 700 successful projects worldwide
- Tailor-made training programmes and services to ensure optimum asset utilization

Our contracts include mandatory product guarantees: you can rely on our strict adherence as well as on the absolute confidentiality of our entire team regarding the specific engineering of your tailor-made line.

STRETCHING REACHING THE LIMITS OF PERF PERFECTION



SECTION



But what about the financial aspects?

On time and on budget secures an early return on your investment.

Customer satisfaction is the prime goal for any project. Ultimately, this requires a smooth start-up and high-quality saleable film on the winder from the very outset. Over the years, Brückner has gained an excellent reputation for achieving precisely that. A long line of reliable and fast start-ups prove our unique success rate in the industry.

Our track record of successful project execution on time and on budget allows our customers to achieve an early return on their investments.

Benefits

- Smooth production start in time
- Quality films at high speeds and outputs
- Fast ROI
- Numerous references

Stay updated by visiting our Brückner website www.brueckner.com.

Film producers frequently confirm their satisfaction in testimonials describing their experiences with the Brückner Maschinenbau team.



Do you need help with planning your project?

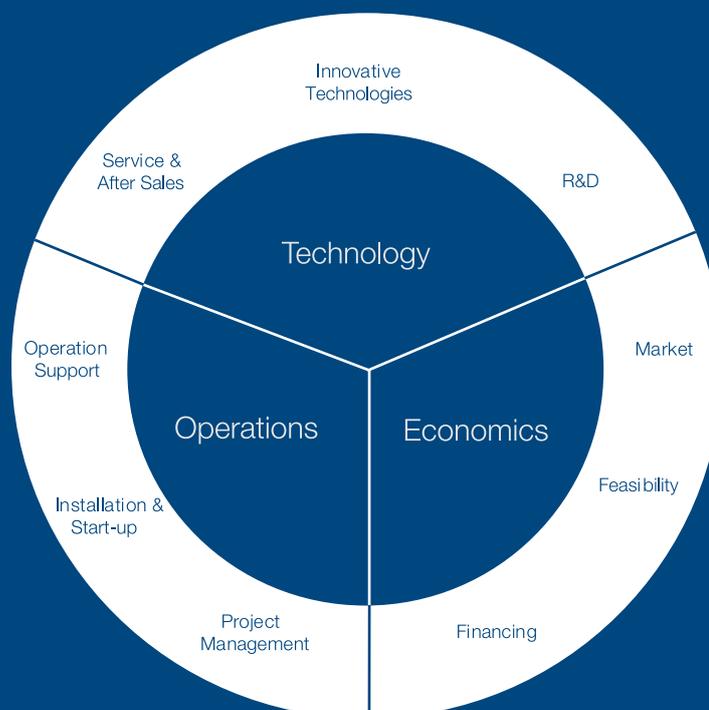
Brückner offers support right from the start.



Right from the start of your project we offer you valuable information to support your decision-making process. Take advantage of our vast project and industrial expertise, including:

- Joint market analysis
- Feasibility studies and business plans tailored for the industry
- Building layout consulting to optimize your material flow and logistics
- Project engineering including an equipment and utilities section
- Film development and sample production for pre-marketing in our technology centre

Our comprehensive expertise for your success



Just one example for our expertise:

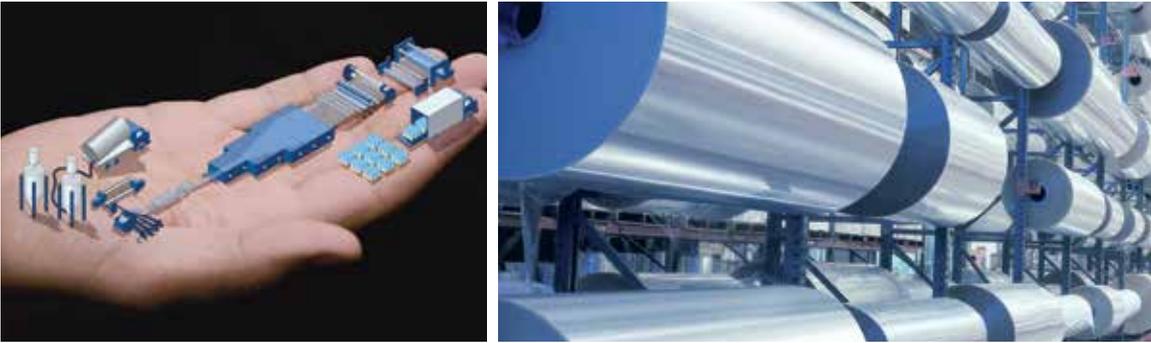
Sound financing solutions

We also provide support in finding the right financing solution for your project.

Whether based on short-term credit facilities, buyer's loan, leasing or alternative financing structures via supranational banks – you will benefit from our profound knowledge of global financial markets,

our excellent contacts with over 30 international financial institutions and our close relationship to major export credit agencies, such as Euler Hermes. If your project is located within the European Union, you may use our wide network of partners to identify investment grants and incentives.





From pellets to pallets?

We can supply the right package for your project.

Brückner is more than a machine supplier with process expertise – we also offer flexible turnkey packages tailored to your specific needs. In numerous projects, we have supported our customers with an integrated “ready to go” solution for the entire plant, from resin loading at the silo to shipping the finished goods. Thus our delivery of the complete film production line could be extended by:

- Energy supplies and utilities
- Roll handling, primary and secondary slitter
- Metallizer and downstream converting equipment

- Finished goods handling and packaging
- Building layout suggestions

For decades, we have been accumulating experience in realizing complex industrial projects. Whether you are a start-up enterprise or an experienced film producer, you can benefit from the high productivity resulting from the optimization of plant logistics and low production/life-cycle costs using high quality equipment and utilities. Of course such extended scope could also be integrated into your financing solution.



STRETCH
STRETCHING THE LIMITS
EXPECTATION

ING OF EXPECTATION



How does Brückner stay ahead?

By focusing on innovation and R & D at the unique Brückner Technology Centre and Innovation Test Centre.



Technology Centre

From the outset, Brückner has been running its own pilot line in order to deliver process and technological innovations for our clients. The facility also serves as a meeting point for raw material suppliers, film producers and converters for their own R & D activities, the pre-marketing of their new films or for staff training.

- Sequential or simultaneous stretching modes are easily switchable
- Biaxial or mono-axial orientation process or casting-only process
- Extrusion systems and dies for almost all film types and resins
- Batch type "KARO IV" laboratory stretching equipment
- Coaters for various liquids, inline and offline
- Chemical and film testing laboratories

Innovation Test Centre

Our brand new test centre verifies and validates new equipment developments. All the technical improvements to our production lines are rigorously tested and trials are performed on several testing devices:

High-speed clip and track test stands in production environment, oven test beds, test stands for oil and grease lifetime tests.

Our innovation and R & D network comprises partner companies, institutes and universities worldwide giving access to the latest diploma and dissertation papers, current national and international research projects and highly skilled engineers and scientists.



Get more information about our R & D activities at the Brückner website.



How is Brückner helping to preserve precious resources?

Sustainability in film production has been our priority since the earliest days.

The preservation of nature by using resources responsibly is becoming increasingly important. Since the company's earliest days Brückner has given great thought to these vital issues.

Today we have already achieved more than 30 % reduction in the energy consumption for film production and we are striving to reach a reduction of 50 % compared to 2000 levels. Sustainability also implies the use of renewable raw materials, the reduction of the raw materials used, a decrease in the number of process steps and the avoidance of waste.

Brückner has contributed to this over the years through:

- R & D with bio-plastics, resulting in complete new lines as well as modifying existing lines for e.g. BOPLA film production
- Down-gauging of films while still achieving excellent film performance
- The development of ultra-high barrier films
- Substitution of CO₂ extense materials



And last but not least, we have initiated targeted measures for reducing the environmental impact at our premises. We started by calculating the corporate carbon footprint of our activities, and an energy check was carried out to disclose optimization potentials. In addition to technical improvements we will also implement organizational and employee-related modifications for a long-term reduction of greenhouse gas emissions.



Keeping you ahead.

With Brückner Servtec at your side.

Your new Brückner line is handed over and running smoothly – so it is all yours! From then on, Brückner Servtec, the service company within the Brückner Group, will be your reliable partner for the entire life cycle of your film production line.

In today's competitive environment film manufacturers are under constant pressure to innovate in order to stay ahead of their competition. No matter if you want to increase your line's speed and output, optimize processes, enhance film quality, minimize waste and energy consumption, and reduce operating and maintenance costs. We support you to achieve your goals and enhance the profitability of your production line with our lifecycle, productivity, value and remote services.

If you want, for example, enter new markets with our sophisticated 5- or 7-layers concept, increase your line's reliability and availability with our advanced integrated process control system or if you need immediate expert help for troubleshooting: in any case Brückner Servtec has the experienced specialists and proven technology, to match your production visions.

With additional service centres in North- and South America, India, China, South East Asia and of course in our headquarters in Germany, we provide a strong service network with support capabilities close to your base of operations.

Headquarters

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In addition, Brückner Maschinenbau is represented
by local agencies or coordinators in Argentina, Italy,
Japan and Korea.





Maximilian Schneider
Managing Director/CFO

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Managing Director/CEO

The Brückner Group.

Leading to success.

Technological competence, top quality and comprehensive service when it comes to equipment for the plastics and packaging industry: these are the aims of the Brückner Group. We help our customers to meet their daily challenges. And we are firmly committed to customer satisfaction. The customers know they can rely on us to adhere to contracts, deadlines and commitments.

The base of the Brückner Group lies in its member companies:

Brückner Maschinenbau, Brückner Servtec, Kiefel and PackSys Global. All of them are among the market and technology leaders in their respective fields of business. The Brückner Group is headed by Brückner Group GmbH, the strategic management holding and parent company.

The individual companies can take advantage of the strengths associated with membership of the group, such as a strong worldwide presence. At the same time we also encourage the group members to act independently and to focus on their individual markets.

The Brückner Group has been a family-owned company since it was established in 1960. This governs our corporate approach to this day and can be seen in particular in our long-term strategic orientation – a key success factor for ourselves and our customers.



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