




**Innovative solutions and
pioneering technology**

Roth
Composite Machinery

- > High-performance engineering
- > Practice-oriented consulting
- > Comprehensive service



-  Filament Winding & Prepreg
-  Pleating & Coating
-  Brushes & Brooms

Trust our know-how and experience

Futureproof thanks to high-performance, reliable and durable machines



■ The high quality of Roth Composite Machinery – a product of many elements

With the merger of the two special machinery manufacturers EHA and SCHLESINGER, the newly created company Roth Composite Machinery GmbH receives a strong and high-performance foundation: Roth Composite Machinery strengthens its existing corporate philosophy through broader technological positioning and a larger staff of experts – open to innovation and doing good things even better. At Roth Composite Machinery, this motto means developing the best manufacturing methods to supply high-performance, reliable machines for the manufacturing tasks required by our many satisfied customers. In doing so, we help to develop and maintain their leading status against their competitors on a long-term basis.



Filament Winding & Prepreg

As an internationally active machinery system supplier in the Filament Winding & Prepreg business field, Roth Composite Machinery supplies customized solutions for the redesign and optimization of manufacturing processes. Our highly productive machine technology with patented functions will speed up your manufacturing to the level of the highest material efficiency.

With over 50 years of experience and more than 500 machines in use worldwide, Roth Composite Machinery is a global technology leader. The most renowned higher education institutions, leading manufacturers from the aviation and aero-space, wind energy, and electronic technology industries, and especially the most successful high-volume manufacturers of pressure vessels, all profit from our reliable systems.

Pleating & Coating

In the business field Pleating & Coating, Roth Composite Machinery combines the previous activities of SCHLESINGER in pleating machines with those of EHA in coating and impregnating units and/or lines. Our common foundation is supplying machines individually customized for your processes to manufacture and refine web-shaped materials.

Drawing on the industry expertise of our employees, which sometimes amounts to well over 25 years, we develop your units to create optimal product quality in robust and high-performance machine construction. Thanks to our distributor network, active worldwide, we offer a rapid, top class service.

Brushes & Brooms

The Brushes & Brooms business field of Roth Composite Machinery has its roots in SCHLESINGER Maschinenbau GmbH. With almost 100 years of experience in the development, engineering and production of manufacturing machines for the brush industry, we are your specialists for the planning, production and assembly of special machines and prototypes for the brush and broom industry worldwide. From our headquarters in Germany, we offer you an all-inclusive service from planning via production to assembly.

The Brushes & Brooms business field of Roth Composite Machinery uniquely combines the strengths of innovation, craftsmanship, precision and tradition.

6 Reasons, to win you over



■ From simple to complex – innovation as a concept

Innovative customized solutions paired with state-of-the-art technology and great flexibility are the hallmarks of our machine concepts. Roth Composite Machinery has been demonstrating these qualities for many decades. Customers can safely put their trust in the experienced and partnership-based support which is naturally simple, rapid and available worldwide.

"Inventions, patents and continual improvements are our recipe for success and increase the benefits for our customers."

■ Innovation

Open to new ideas and doing good things even better – at Roth Composite Machinery, this motto applies to the development of the best manufacturing methods to give our customers high-performance, reliable and durable machines for their manufacturing tasks, thereby ensuring them viability in the future.

■ Consulting

From the initial idea to delivery and ongoing operations, customers of Roth Composite Machinery can rely on experienced partnership-based support – simple, rapid and worldwide. Our fundamental emphasis on partnership is the reason why customers place their profound trust in Roth Composite Machinery.

■ Technology

Innovative customized solutions and the highest degree of flexibility are hallmarks of the machine concepts of Roth Composite Machinery, paired with state-of-the-art technology. But: it's not the technology that determines the product, but the product that determines the technology.

■ Quality

Every machine from Roth Composite Machinery is tested and adapted until the result complies with the requirements of the customer – not only up to 99 percent, but completely. To ensure this, Roth Composite Machinery uses the best tools and the state-of-the-art technology. Experienced application technicians optimize the technology with perseverance and a love of detail.

■ Production

Roth Composite Machinery's leading position in the market means that it is constantly striving towards excellent performance, consistent high quality and a strategic vision in the development of forward-looking technology. Solid engineering and a high degree of reliability ensure the stability and long-term viability of the machines and the success of both Roth Composite Machinery and its customers.

■ Know-how

Thorough, comprehensive training and a continual knowledge transfer from generation to generation represent a vital investment in our future. This dedication contributes to the considerable know-how of our highly qualified employees and ensures that they identify with the individual products of Roth Composite Machinery.



Roth Composite Machinery – Filament Winding & Prepreg

World market leader thanks to decades of experience and a high level of customer satisfaction



■ Innovative solutions, customized for the application on the basis of the highest degree of know-how

Our design engineers, who are acknowledged to be leaders in the industry and skilled in dimensioning, design and detailing, develop exactly the machines you require for your manufacturing task. Our engineering service also includes complex installations with the highest degree of automation which we relish extending even beyond current levels of technology. Experienced assembly and application technicians will rapidly bring your machines and facilities into operation, supporting you from the start-up phase to successful series operation.

Your direct contact person from our service team is more available to you than we could possibly promise.

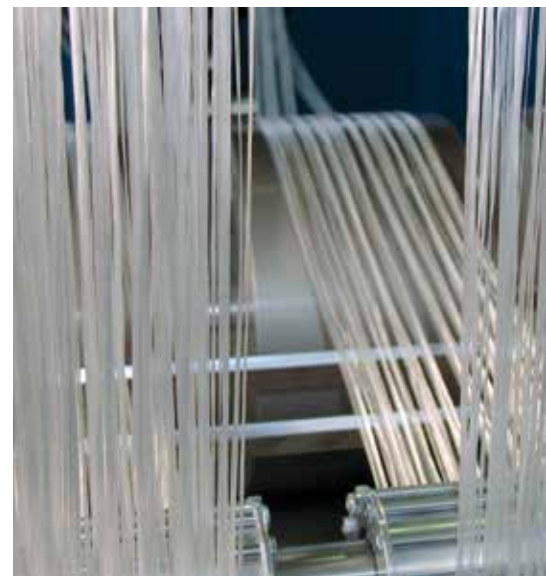


■ Professional process technology with efficient solutions at the highest technical level

Over 50 years ago, Bolenz & Schäfer (BSD) began to develop machines for filament winding. In the late 1990s this product segment was continued by EHA within the Roth Group, and today this technology forms the core area of our business field Filament Winding & Prepreg.

Our reputation as global technology leader is founded in our constant engineering developments and continually expanding automation of functions. The trust of those customers who shape the market in all business fields and a total of more than 500 machines in the market make us an outstanding world market leader.





■ Prepreg machine design with history – for the semi-finished products of the future

For more than 25 years Roth Composite Machinery (formerly Bolenz & Schäfer and EHA) has been supplying manufacturing installations for fiber composite semi-finished products – Prepreg. Thanks to rigorous continued development, we have a comprehensive portfolio of realizable machine variants available that fulfils all customer requirements for process management and materials to be worked. As well as the classic duromeric prepreg matrix materials, Roth Composite Machinery installations can also process high-performance thermoplastics at high temperatures of approx. 400°C. Thanks to their module structure, there is great flexibility in the choice of materials and process-specific components.



Prepreg Installations

- > Matrix can be applied as a hot-melt or solvent system
- > coating systems can be selected as needed, e. g. (chambered) doctor blade, scraper, RRC...
- > Matrix supply by using all common mechanisms (bathes, rollers, spreading boxes...)
- > High-temperature plants for high-performance thermoplastics, such as PEEK

The Filament Winding product range

- > Filament Winding Machines in the most varied designs
- > Peripheral equipment for the upstream and downstream processes for fiber-winding, e. g. ovens, extractors, handling systems
- > Filament Winding production cells
- > Complete production lines, turn-key projects integrated into empty production halls



Roth Composite Machinery – Pleating & Coating

Customized high-tech solutions and outstanding customer service



■ Made-to-measure solutions for your manufacturing processes



With the merger of EHA and SCHLESINGER to become Roth Composite Machinery the Pleating & Coating business field unites those elements that synergistically belong together. For your specific tasks in the processing and finishing of web-shaped materials, we have a skilled team of designers and application-experienced technicians who would be delighted to take on the challenge of preparing your ideal manufacturing resources.

Profit from our versatility and experience in many different end product business fields. The leading manufacturers worldwide place their trust in our machine solutions for their industries: filter paper converting/filter production, floor covering/laminates, packaging business field, furniture industry, finishing of paper and fabrics, coated abrasives as well as the metal tape business field (coil finishing).



■ The more complex your task is – the more individual our solution

Your specific quality requirements for the products created with our machines determine our development/constructional approach and the technological approach developed specifically for you. We look forward to accepting your challenges for manufacturing materials in the field of pleating, coating and impregnating processes. Challenge us!





The machine program in the Pleating & Coating business field

- > Knife pleating machines, controlled mechanically or by servo motor
- > Minipleat systems
- > Rotary pleating machines
- > High-efficiency flotation dryers
- > Winders
- > Coating and impregnating units
- > Laminating stations
- > Web material accumulators
- > Devices for trimming, slitting and cross-cutting
- > Special solutions and complete production lines

■ Pleating technology

Benefit from our wide-ranging product program whose core elements comprise mechanically and servo-motor-controlled knife-pleating machines as well as rotary pleating machines.

■ Coating & Converting

Coating, impregnating, drying, printing, laminating, winding, cutting...Wherever your manufacturing task requires individual solutions, concepts and designs, we are in our element.

We love the challenge of optimizing your manufacturing process with our machine concepts.



Roth Composite Machinery – Brushes & Brooms

Individual proficiencies in individual and local manufacturing



■ Specialist skills for the highest requirements and versatile applications

For almost 100 years, Roth Composite Machinery has been supplying production machines for the brush industry from its Brushes & Brooms (formerly SCHLESINGER) business field. There is hardly a country in the world that doesn't have any of our machines from Burgwald.



Roth Composite Machinery's machines are successful wherever high performance, low maintenance and a high level of versatility are demanded – and this has been the case for many years. Every machine represents a tribute to our specialist competence, optimal product quality and worldwide experience. Roth Composite Machinery is one of those companies that combines innovative engineering work, high-performance and robust machines together with top class service.

■ From initial idea to the finished machine

There are many good reasons for our success. One of the most important is the individual customized solution that always focuses on the requirement profile of the respective customer, according to Roth Composite Machinery's motto, which has been valid for many decades: "The customer doesn't just receive any machine; the customer receives his machine."

This is why communication with customers takes top priority. Springing from this dialogue, we develop machines which are advanced, high-performance, durable, versatile, and therefore easy to use and to maintain.





■ Quality and love of detail

Every machine from Roth Composite Machinery represents a tribute to our specialist competence, optimal product quality and worldwide experience. Our dedication to the highest quality is not an end in itself; it is the foundation of success for our activities.

But how do we create this quality? It springs from a variety of characteristics such as outstanding workmanship, a love of detail and sustained reliability. At Roth Composite Machinery, the technical quality requirements regarding product safety and quality checks go far beyond the standard requirements and norms.

■ Pioneering spirit and visionary entrepreneurship for the products of tomorrow

As an innovative partner of the international brush industry, Roth Composite Machinery has been developing creative concepts for both individual customized solutions and entire manufacturing processes.

In-house developed innovations include the RoAn technology that increases machine performance by 25 percent as well as carousel machines and special machines for technical brushes.

There are always three determining factors: the requirements of the market, durability plus lightness, and ease of use.



The machine program for the brush industry

- > Universal machines
- > High-efficiency machinery
- > Cutting units
- > Special designs according to the customer's requirements
- > Devices and assembly systems for the brush industry

Roth Composite Machinery GmbH – a reliable partner worldwide



■ Customer reliability is our benchmark

Deciding on a machine from Roth Composite Machinery means deciding on the best quality. And if, despite everything, a problem does occur, you can rely on Roth Composite Machinery's worldwide service, wherever you are located.

A powerful network of representatives and contact persons worldwide ensures that downtimes are kept to a minimum.

The technicians of Roth Composite Machinery will travel far and wide for this, whether it means Australia or Alaska.

■ Partnership, knowledge and trust

Trust needs to be earned – time and again. This is also true for Roth Composite Machinery. Our focus on partnership, our comprehensive industry knowledge and our experience gained over decades in solving ambitious tasks form the basis for the trust our customers place in Roth Composite Machinery.

The know-how of the machine construction experts from Roth Composite Machinery means: being able to listen, thinking analytically and thereby developing customer-specific one-stop solutions using new technology. This creates not only trust but satisfaction too.

Roth Composite Machinery – Advantages at a glance

- > High level of flexibility
- > Mature and innovative technology
- > Identification with own product
- > Customized individual solutions
- > Solid engineering and high degree of reliability
- > Stable and durable machines
- > Rapid and non-bureaucratic service
- > Intensive, specialist and individual consulting



Roth Industries, a healthy family-owned enterprise primed for the future



■ Roth Industries – at home worldwide

With different companies and more than 1,200 employees worldwide, Roth Industries counts as one of the most innovative corporations with positions as market leader in the business fields Building Solutions and Industrial Solutions.

With 23 manufacturing and distribution companies, we are active all over the world and the world market leader in our core segments. Our core competencies span the entire corporation and lie in the energy, water and plastics business fields.

■ Roth – one brand, many strengths

With our core competencies in the business fields of energy, water and plastics we have enormous high-performance capacity which strengthens our global market position and primes us for the future.

We offer top economical and technological performance as well as innovative and environmentally sustainable solutions for buildings and industry. Our know-how in process engineering and manufacturing engineering and our efforts to offer our customers innovative solutions and to develop existing products further; these further represent our investment in the future and ensure the success of our customers.

■ Roth – a strong brand thanks to reliability and trust

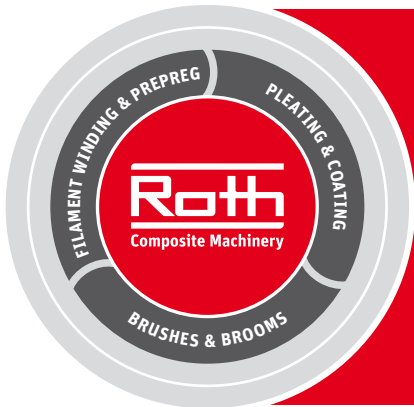
The name of our family company, Roth, and the Roth brand have been a byword for reliability and trust, focus on customers and partnership, quality and service, skill and innovative leadership as well as sustainable corporate development for many years. We take on responsibility for our business partners as well as for the environment and for society.



■ Training at Roth

The companies of the Roth Group offer qualified training in administrative, technical and commercial professions as well as many perspectives for newcomers and also people changing careers. We are continually developing our in-depth modern training concept, led and supervised by our experienced trainers.

We are a partner company of Studium Plus, the dual college study system with the plus of job experience. The dual study courses from Studium Plus offer a perfect combination of theory and practical experience. During their “practical time”, the students accompany and realize actual specialist company projects at Roth Industries and receive an optimal, targeted entry into their professional lives.



Roth Composite Machinery

Business fields

- > Filament Winding & Prepreg
- > Pleating & Coating
- > Brushes & Brooms

Specialist competence

- > Mature and innovative engineering
- > Individual solutions
- > Stable, process-robust installation engineering
- > Durable, easy to maintain machines

Consulting and service skills

- > Reliable contact persons
- > Experience and application know-how
- > Worldwide service
- > High availability of replacement parts

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