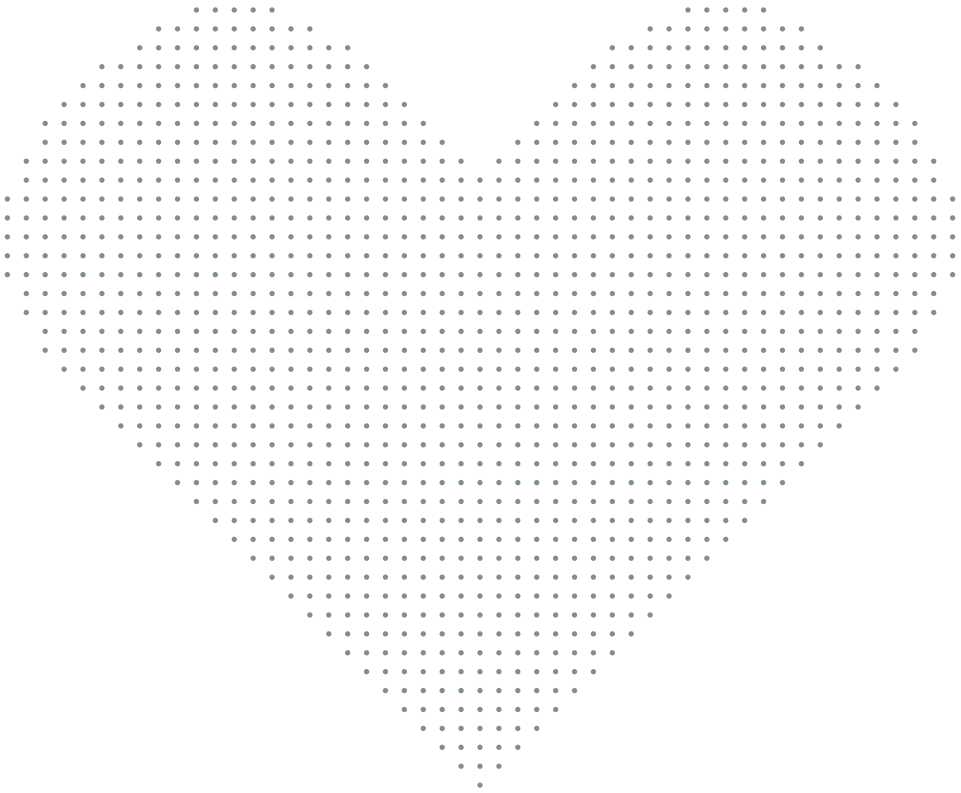
enka || tecnica
the precision engineers



About our passion for perfect holes

Making holes. Not just any way, but with a precision that is second to none. And with an approach to efficiency that is not focused on what is possible, but rather on your special business needs. Superior products, economical processes, trusting and reliable partnerships: that is what Enka Tecnica embodies. After all, our passion is all about the art of making the perfect hole. And we have been experts in that for more than 100 years. Now the only question is:

When can we make you excited about our love of detail?

The modern world shapes its course with spinnerets from Enka Tecnica.

Whether cleaning cloths, wadding nonwovens, cigarette filters, carpeting, sterile disposable clothing, dialysis filters, high-strength fabric, carbon composite materials, automobile tires, insulation, filters, or the clothes of six billion people – it is hard to imagine today's world without synthetic fibres. Synthetic fibres started conquering the world in the first half of the last century and haven't stopped since.

And spinnerets made by Enka Tecnica were there right from the start. Because these high-tech components, with up to tens of thousands of capillary holes, are fundamental elements in the production of fibres. As one of the pioneers in the spinneret field, Enka Tecnica has long known what really matters: perfection, efficiency and experience. Exactly what you can expect from us. And 100 % "Made in Germany".

Enka Tecnica is present
on all global markets

SPINNDÜSENFABRIK GRÖBZIG

1910

Spinndüsenfabrik Gröbzig spinneret factory founded. On 30 June 1909, watchmaker Christian Friedrich Eilfeld registers his patent for the world's first metal spinneret.

1930s

Worldwide success of the metal spinneret. Word about the first metal spinneret spreads quickly throughout the world.

1945-1990

Leading position in Eastern Europe. The Spinndüsenfabrik Gröbzig spinneret factory becomes one of the leading manufacturers of spinnerets in Eastern Europe – and maintains its position for decades, until the time of the German reunification.

VEREINIGTE GLANZSTOFF-FABRIKEN, LATER RENAMED ENKA/AKZO NOBEL

1899

Vereinigte Glanzstoff-Fabriken, later renamed Enka/Akzo Nobel, is founded. On the basis of the patent to manufacture cellulosic filament yarn, registered in 1897, the Vereinigte Glanzstoff-Fabriken factories were founded in 1899 in Wuppertal, Germany. Several years later, the name is changed to Enka.

GLANZSTOFF

1945-1998

From a department to an independent company. The factory in Heinsberg-Oberbruch evolves into a leading production site for synthetic fibres in Europe. To meet the steadily growing requirements for high-end spinnerets, the in-house spinneret unit gradually develops into an extremely efficient and technically advanced department – and the nucleus of the Enka Tecnica company, established in 1998.

Enka tecnica

ENGELHARD INDUSTRIES, LATER RENAMED WETZEL GMBH

1927

The American company started production of metal spinnerets for the first time in 1927.

2003
Company acquired by Enka Tecnica. The long-standing company is acquired by Enka Tecnica in 2003.

2009
Enka Tecnica becomes independent. After many decades, Enka Tecnica once again becomes an owner-managed company as a result of a management buyout.

ENKA TECNICA

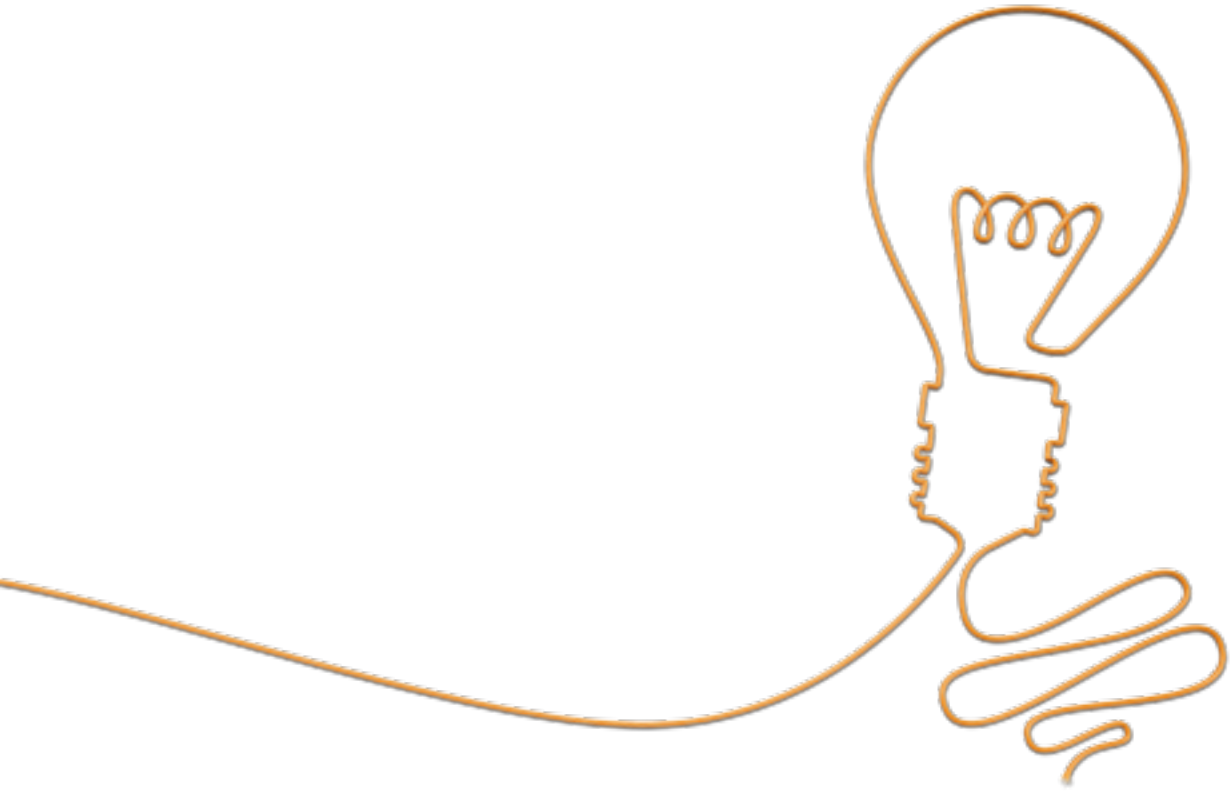
1998
Enka Tecnica is founded.
The present-day company, Enka Tecnica, is established in 1998 in the German city of Heinsberg (near Aachen) as an independent company under the umbrella of the Enka group.

1993
Following the acquisition by Wetzel, the company develops groundbreaking manufacturing processes that deploy laser technology.

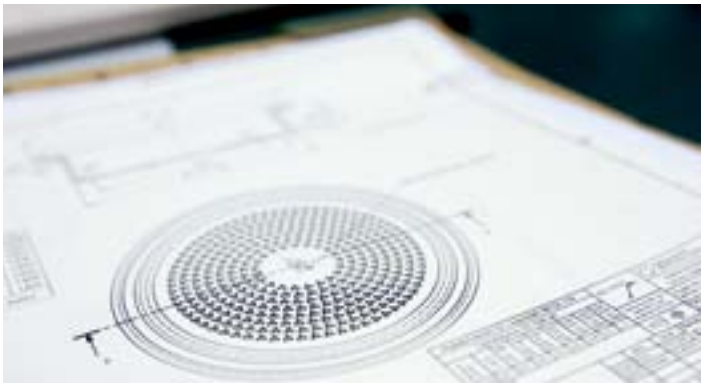
Most ordinary companies can look back on one history.
We are backed by three of them.

Today, Enka Tecnica is one of the world's leading specialty providers of spinnerets and precision components. And certainly not by chance – our company is backed by the bundled know-how of three industry pioneers: Spinndüsenfabrik Gröbzig, Vereinigte Glanzstoff-Fabriken (later Enka/Akzo Nobel) and the American-Swiss company Engelhard Industries (later re-named Wetzel GmbH). Over the years, buyouts and sales have merged the paths of the three long-established companies. And have united more than 100 years of experience and expertise to create a sustainable company with excellent prospects for the future. Medium-sized, independent and owner-managed.

It starts with your idea and ends with the perfect fibre. And a whole lot of precision work in between.



Is your company a mechanical engineering firm or manufacturer of fibres and yarns? One who sets the highest standards for your products? Are you looking for new solutions? And do you need a partner who can support you in implementing your ideas? Then Enka Tecnica is just the right company for you. As a classic contract manufacturer with vast experience in all of the customary production processes, we know exactly how to transform your ideas into customised, tailor-made fibres and yarns. We put a high priority on uncompromising quality – from selecting the materials and drilling the holes, to the surface treatment, and all the way through to economic processes and ongoing quality inspections. That is the only way to achieve what really matters in the end: absolute precision.



If you stand for precision, you have to take a meticulous look at everything.
And that includes consulting.

Our experience has shown that the perfect spinneret isn't just one with totally precise drill holes, but one that also ultimately makes your production operations more cost-efficient. Many factors play a role in this. During the specification phase, we identify the specific aspects that apply to your individual project. What material and finish are best suited for the task? What are the requirements regarding the surface texture? What is the ideal hole type and pattern?

How wide is the diameter? How can we ensure that the spinnerets seamlessly integrate into and fit accurately with your existing equipment? And what exactly is technically feasible?

These are questions we will be glad to answer for you. Competent, compact, to the point. Just what you would expect from the term "precision engineers".

We don't leave the path of polymers to chance. We use ingenuity and the high art of engineering instead.

Whether dry spinning or wet spinning – 100 years after Christian Friedrich Eilfeld invented the metal spinneret, the functional principle still remains the same. What has changed, however, are the requirements for spinnerets. Precisely in the area of shape and surface structure. For example, spinnerets often have up to 10,000 micro-sized drill holes with widely varying dimensions and cross-sectional profiles. To meet these requirements, Enka Tecnica not only relies on the experience of its highly qualified staff, but has been using cutting-edge measuring equipment and state-of-the-art 3D technologies for many years now. This includes the in-house development of computer-aided production equipment and facilities as well. And always with one goal in mind: to supply you with the perfect spinneret for your process.

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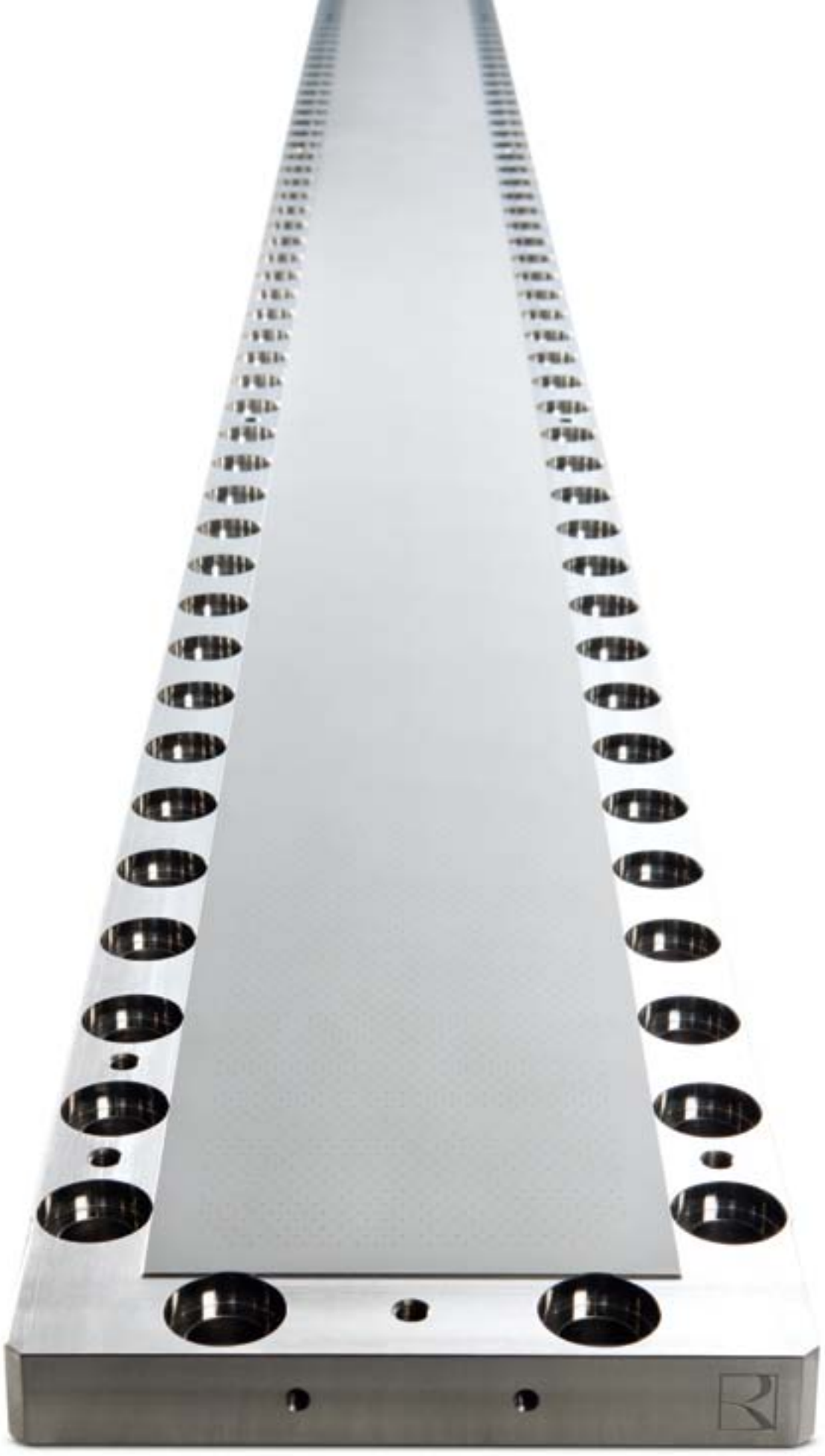
Manufacturing spinnerets is one thing. Perfecting them is a different story: ours. This does not only concern new developments. There is also a solution for Enka Tecnica spinnerets that need to be replaced for the first time after many years of service. Because we have the expert know-how and technical equipment to supply you with an identical model even years after the initial delivery. As a 1:1 copy – and a new Enka Tecnica original.

Do you have innovative ideas?
With Enka Tecnica, you can be sure that they will remain yours.

As a contract manufacturer, confidentiality is our second nature. Right from day one. Extending beyond the contractual period and obligations. Whether it concerns materials, hole patterns, capillary shapes, surface finishings or other aspects – we keep everything in confidence. A company policy that our customers have always appreciated. That much we can reveal.

Dr Heiko Zimmermann, Gambro Dialysatoren GmbH

»We have invested many years in developing and designing our high-end micro components. Making it all the more important that we team up with a partner like Enka Tecnica, so we can rest assured that our know-how won't be passed on to others.«



Spunbond spinneret

You can find our spinnerets everywhere.
Wherever precision is essential.

Jet strips

Nonwovens

Are you looking for that special something? Are you looking to boost the performance of your production facility and already have an idea of how to do it? We realise and implement your concepts for you. For example, when it comes to manufacturing a wide range of nonwoven fabrics. In this sector, Enka Tecnica offers a broad spectrum of spinnerets and spinning packs for spunbond and meltblown technologies, including spinnerets, distributor plates, perforated plates, coat hangers and complete spinning beams up to 8 metres in length. Also available: jet strips for hydroentangling. But we supply more than new products. If your spinnerets need to be refurbished or repaired, Enka Tecnica is just the right company.

Wet spinning

Enka Tecnica supplies high-end spinnerets for acetate tow, viscose, aramid and other fibres that are processed using the wet spinning method. The spinnerets are made from a wide variety of stainless steels, precious metal alloys or tantalum. They feature a variety of hole shapes (round or profiled) and hole patterns, and can have far more than 100,000 orifices. Our product assortment also includes mounts and spinning packs for wet spinning procedures. For these products, we use a range of special alloys that guarantee a long service life.

Dry spinning

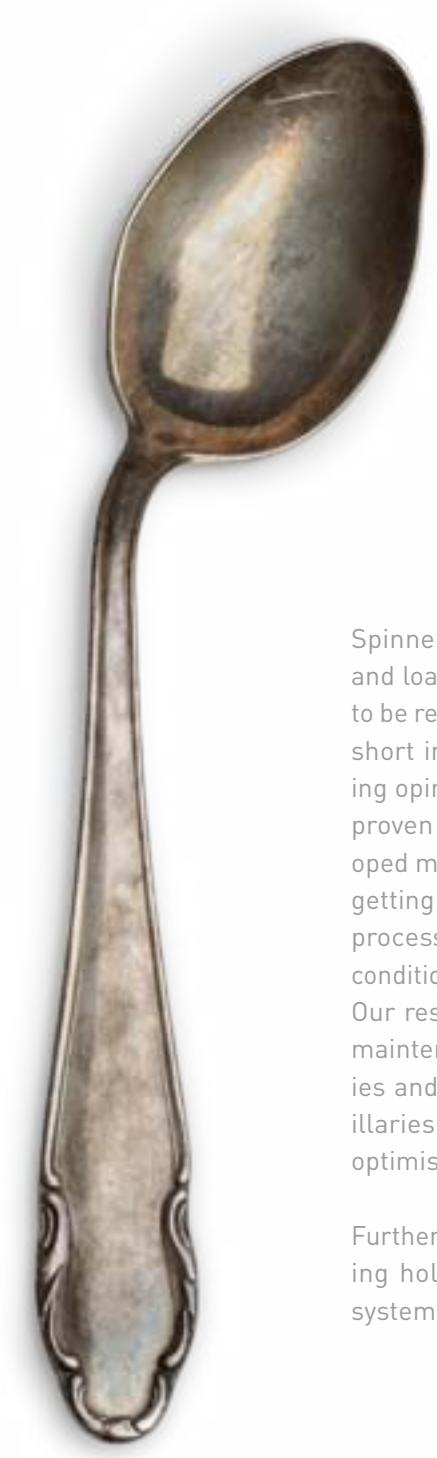
If you need spinnerets and spinning packs for filaments and staple fibres that are processed using the dry spinning method, Enka Tecnica offers customised solutions in this sector as well. Whether mono, bico, trico or microfilaments (such as sea-island, split type or sheath-core fibres), whether round or profiled capillaries – there's no limit to your ideas. Depending on the task at hand, we use various types of stainless steels with different hardness levels. A number of high-quality finishings and coatings can be applied to prolong the service life.

Micro components

Filtering liquids with the aid of hollow fibres and membranes has become indispensable in both the health care sector and in public drinking water systems. In this area, Enka Tecnica manufactures ultra-high precision hollow spinnerets and spinning packs in a wide variety of designs. Whether bico or trico – Enka Tecnica has long-standing expertise. The product spectrum includes calibration nozzles, sonic nozzles, tactile probes, glue nozzles, custom-made precision parts with micro structures as well as special tools for micromachining.

Our commitment:
100% heart & soul.
Our goal: 0% error rate.

Transforming old into new.
Our restoration service for your spinnerets.



Spinnerets are exposed to extreme forces and loads. So it's no surprise that they have to be replaced on a regular basis at relatively short intervals. At least that is the prevailing opinion – and one that Enka Tecnica has proven wrong. Our engineers have developed methods for revamping spinnerets and getting them right back into the production process – at extremely attractive financial conditions and without sacrificing any quality. Our restoration service includes preventive maintenance and refurbishment of capillaries and surfaces, repairing damage to capillaries and nozzle surfaces, modifying and optimising nozzles, and more.

Furthermore, we can drill new or close existing holes and refurbish entire meltblown systems.

Are you uncertain whether your existing spinnerets can be refurbished? Get in touch with us. We will come to your company to determine the current status and work together with you to develop refurbishment options.

And what if you have extremely long nozzle plates? No problem at all. With our state-of-the-art machinery and the latest inspection methods and technologies using our own specially developed optical devices, we can transform old into new in this area too.

Dr Bernd Kunze, Reifenhäuser REICOFIL GmbH & Co. KG

»For many years now, Enka Tecnica has been far more than just a reliable supplier. The company's production expertise meets our high standards and offers our customers real added value.«

And when will you benefit from our precision work?

Enka Tecnica GmbH

Hallesche Strasse 49
06388 Gröbzig, Germany
Phone +49 34976 280

Gladbacher Strasse 31
52525 Heinsberg, Germany
Phone +49 2452 98896313

sales@enkatecnica.com
www.enkatecnica.com

enka || tecnica
the precision engineers