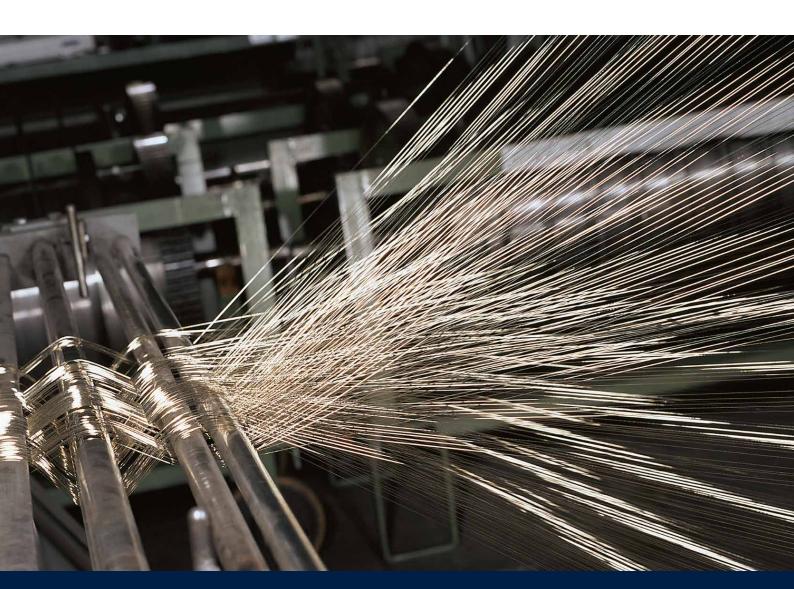


# HAVER & BOECKER AS A COOPERATION PARTNER. GOOD REASONS FOR CHOOSING THIS SUPPLIER.



## HAVER & BOECKER - WEAVING IDEAS. INNOVATIVE WOVEN WIRE CLOTH SOLUTIONS FROM ONE SOURCE.

In conjunction with in-house project coordination, the external development and procurement of tailor-made components and component solutions is becoming more and more complex.

In addition to quantitative criteria such as price and terms and conditions, qualitative criteria are becoming increasingly important in choosing a supplier in particular where reliable and efficient series production is concerned.

Engineers today are much more dependent on the innovative strength as well as the broad range of expertise and manufacturing potential of their suppliers and development partners when it comes to demanding development projects and providing high-quality individual components.

As a cooperation partner for its customers, Haver & Boecker is much more than just a supplier. And there are good reasons for this.

### Stable, flexible partner with tradition and vision

Since its founding more than 130 years ago, Haver & Boecker has remained an independent, mediumsized family-owned company and is still under the management of the fifth generation.

The expertise of the qualified employees at the company's headquarters in Oelde, Germany and numerous subsidiaries worldwide is characterised above all by their experience in the production, further processing and development of woven wire cloth.

The wide range of different products and customers provides the stable basis for rapid and solution-oriented responses to individual customer requirements.

### Innovation and technological market leadership

The experts at Haver & Boecker always take a proactive approach to their customers' ideas and requirements, and are eager to explore new technical avenues in the process. All challenges have always been seen as an opportunity for ultimately developing optimal solutions for its customers. This innovative strength, combined with the continuous



further development of our own machinery and production equipment as well as internal processes, result in the highest product quality down to the last detail.

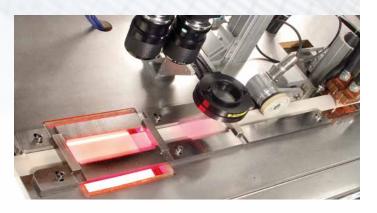
### **Excellent references**

Industry leaders and well-known industrial sectors rely on the technical expertise and high quality of Haver & Boecker's wire mesh products. Whether in aeronautics, aerospace, the automotive industry, electrical engineering, medical technology, chemistry, filtration and water treatment, mechanical engineering or plastics processing - Haver & Boecker's custom-made solutions are the basis for efficient production processes, reliable operation, top product quality and distinctive design everywhere.

### Certified and patented quality

"Made in Germany" is the hallmark of consistently high quality wire mesh products. From the incoming wire to the finished product, Haver & Boecker maintains this high quality by carrying out differentiated quality assurance inspections as confirmed by numerous individual certificates from independent testing institutes as well as the quality management system, which has been certified in accordance with DIN EN ISO 9001: 2015.

Continual and cross-process quality assurance is also ensured by processes developed in-house and in our own factory laboratory.



By going beyond the normal standards, it is also possible to successfully meet new challenges that offer the potential for patentable product and process innovations.

### Effective cooperation and fair prices

By partially transferring the responsibility to Haver & Boecker as developer and supplier of complete solutions it is possible for engineers to individually focus on their own bigger picture.

Specialised teams comprised of designated contact persons at Haver & Boecker maintain personal contact on equal footing and offer individual and competent project support. Haver & Boecker's customers benefit from individually prepared and made-to-order quotations.

In combination with the Wire Weaving Division's bundled service portfolio, the joint development of requirementsand budget-based solutions makes it easier for the customer to process projects and orders with ideal results. Within the framework of the cooperation, Haver & Boecker also improves its customers' production efficiency and thereby achieves economically sustainable results by continually optimising and further developing its manufacturing processes.

### Reliability and adherence to schedules

The goal-oriented teamwork of our employees responsible from Sales, Technology, Production and Logistics makes Haver & Boecker a competent and reliable business partner.



The complex and time-consuming processes involved in the manufacture of woven wire cloth require careful planning, coordinated scheduling and optimised production procedures. Tasks that Haver & Boecker assumes with proactive commitment and great care. With its worldwide production and distribution network, Haver & Boecker ensures reliable deliverability and adherence to delivery dates at all times and everywhere.

At our headquarters in Oelde, Germany alone, Haver & Boecker maintains amongst others a stock of more than 3,600 different types of mesh on a total storage area of over 6,000 m<sup>2</sup>, which enables us to effectively avoid bottlenecks and handle short-term order peaks reliably, rapidly and flexibly.

### Assuredly sustainable

The values and visions of Haver & Boecker as a family-owned company include foresighted and cross-generational thinking and actions - in the interest of the environment, the customer and employees.

The legal requirements and agreed goals in the areas

of occupational safety, environmental protection and sustainability are consistently pursued.

Straightforward sustainable business practices and careful use of energy and resources start with the procurement of materials. As well as quality, particular attention is paid here to stability and durability.

### Integrity and mutual respect

Integrity and mutual respect are central aspects of our corporate philosophy, and as intrinsic values, they are the practiced basis of Haver & Boecker's culture.

With a focus on human interaction, communication is always honest, authentic and trustworthy, even in conflict situations, and always with the aim of finding a mutually beneficial solution.

### Practiced social responsibility

Continuity in corporate management and succession, acting on the basis of intrinsic values, constant further development of one's own knowledge and a practised social responsibility are the cornerstones of the corporate culture at Haver & Boecker.

The mutual pursuit of solid, self-financed growth based on a sustainable strengthening of revenue ensures the independence of the company for the benefit of all.

We value highly in particular the experience, the ability and the loyalty of our employees many of whom have been employed by Haver & Boecker for generations and in whom we continually and successfully invest.

Every year since 1905, about 40 young people have completed their technical or commercial training at Haver & Boecker with above-average results.

### MODERN WIRE WEAVING DIVISION. TECHNICAL PRECISION AND CRAFTSMANSHIP.

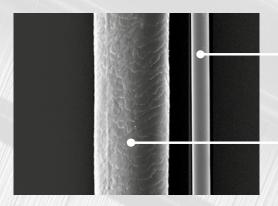
Industrial wire weaving is both a complex and time-consuming manufacturing process that requires meticulous planning and optimal production planning. The in-depth knowledge of Haver & Boecker's employees of the production processes not only guarantees high-quality products, but also enables the development of special meshes individually designed to meet the requirements of specific applications.

It is not unusual for the work of setting up and threading a production batch (warping) to take several weeks. An example: in order to create the preconditions for the flawless production of high-quality stainless steel filter cloth with a standard width of 1.22 metres based on a wire thickness of 30 microns (~ 0.030 mm), more than 40,000 warp wires running lengthwise in the direction of the weave must be drawn from their supply coils to the warp beam of the loom. Crucial during this process is that the wires are aligned absolutely parallel and the wire tension is even.

The semi-automatic process of drawing-in the more than 40,000 fine wires individually through the openings of the heddles and those of the reed begins after setting the "warp". Even today, this process cannot be completed entirely without human intervention. Drawing-in the wires, which are barely visible to the naked eye, may take up to 14 days, even in two-shift operation.

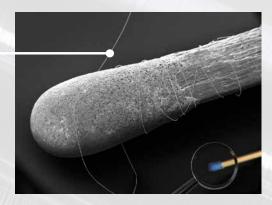
In the interests of the customer, an economical warp length for wire cloth production must additionally be determined as early as the order and production scheduling in order to guarantee an optimal cost-benefit ratio. In the above example, more than 15.5 million weft wires per kilometre of warp length are involved in a weaving process lasting several weeks before a production batch of this kind is completely woven.

This enormously complex and time-consuming manufacturing process demands not only a good eye and a steady hand, but above all the utmost concentration and care from Haver & Boecker's wire weavers.



Stainless Steel Wire

Human Hair Ø 70 µm Diameter



### ABOUT HAVER & BOECKER.

Haver & Boecker began producing wire cloth in Hohenlimburg, Germany in 1887. Today, the company is a worldwide leading manufacturer of woven wire cloth for industry, engineering and architecture and design.

Haver & Boecker has been a pioneer in the technology of wire weaving for more than 130 years. The company develops and processes woven wire cloth into filters and fabricated components fulfilling the highest standards.

Whether it's aerospace and aviation, automotive, electrical engineering, medicine, chemicals, water filtration, mechanical engineering or plastics processing – customized solutions from Haver & Boecker offer the basis for efficient production processes, reliable function, optimum quality and distinctive design.

The preconditions for this are created based on the wide range of previously tried and tested products and the competence to develop new solutions for special applications.

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