

# SAATlaqua

Precision Fabrics &  
Components for  
Water Filtration

—SAATI



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Engage with SAATI





Perfecting the  
Art of Precision  
Woven Mesh



## Company Information

### Over Eighty Years of Innovative Action

SAATI is a multinational group with corporate headquarters that have been situated in northern Italy since 1935.

Today we are a leader in the development, manufacturing and commercialization of advanced technical textiles & chemicals.

SAATI's passion and creativity are the foundation for an unsurpassed tradition of continuous innovation in the filtration markets.

This endless pursuit is what drives SAATI's dedicated customer-centric R&D to functionalize products beyond simple filtration.

SAATI's wide range of synthetic textiles and fabricated parts in Polyamide, Polyester, Polypropylene, PEEK and PPS are the ideal engineered solution for demanding healthcare applications.

Through specialized medical processing and rigorous inspection, SAATI ensures consistent lot quality across tolerances, uniformity, strength, stability, and cleanliness for applications from 7 to 3,000  $\mu\text{m}$ .

### Perfecting the Art of Precision Woven Fabrics with Innovation Driven R&D and Strict Quality Controls

At SAATI, we have a real attitude for innovation and are committed to a continuous research of processes and materials that make tangible improvements in production and service. SAATI acts in the market with this attitude, offering sieving and filter fabrics and components that answer to the most demanding needs in filtration application.

Every phase of production is carefully monitored, employing frequent in-house testing and rigorous inspection to ensure consistent quality. All SAATI products are manufactured in accordance with UNI ISO 9001 standards.





# Customer Focus

## Customer Driven Innovation

Thanks to our direct presence in many countries, it is easy for customers to reach us, wherever they are located, and our response is always prompt. Our staff has a high level of technical expertise and dedication, and are always aiming to find the best solution for the customer's requirements.

SAATI sales representatives and engineers understand customers' applications, and work closely with staff in the production and R&D departments to offer a customized solution in a form that best meets their needs.

The quality of SAATI's products is backed by the dedication and expertise of SAATI's customer service. Thanks to offices, warehouses, storage and fabrication facilities throughout the world, SAATI provides strong local support, expert responses to customer inquiries, strong engineering capability, technical support and fast delivery around the world.







# For Water Applications



Waste Water Treatment



Irrigation



Domestic Water Filtration



Beverage



Aquaculture

## The Industry Standard for Water Treatment Applications

SAATI is environmentally conscientious, especially regarding water, one of the most precious resources on Earth. Manufactured with FDA Approved Polymers, the SAATIaqua range of products is designed to suit every water filtration need.

Thanks to our deep understanding of technical fabrics and filtration, we have the capability to supply products and solutions which can contribute to making water more suitable for the desired end use. In particular, our components play a primary role in the purification of water, in solid/liquid separation, and in all processes where it is necessary to remove contaminants which are present in water and aquaculture.







# SAATIaqua

For Water Applications



## Waste Water Treatment

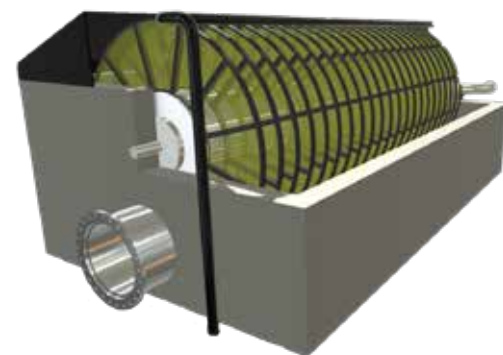
Water is one of our planet's most precious resources and safeguarding it also means optimising its use and making sure it returns into circulation clean and reusable for the most diverse purposes, once eliminated from the various industrial processes.

SAATI helps industrial water treatment equipment manufacturers to find the right woven mesh according to their specific needs.

SAATIaqua precise monofilament fabrics are the perfect choice for drum filters, disc filters and other waste water treatment equipment.

For these applications, SAATI has developed a wide range of woven polyester meshes characterized by following properties:

- Excellent tensile strength
- Moisture resistance
- Corrosion resistance
- Good dimensional stability
- Precise, uniform mesh openings and wide open area that provide exceptionally accurate filtration and low pressure drop
- Long service time



Disc Filter



Drum Filter

## Domestic Water Filtration

Water used in the home comes from water channels and containing suspended solids such as sands, rust and other small particles. These particles can damage equipment, taps and home appliances.

In order to avoid contaminants entering into domestic equipment, it is necessary to implement a surface filtration through washable net cartridges.

The main purposes of net cartridges is to minimize the possibility of clogging, improve the water's quality and extend the equipment's life.

SAATIaqua fabrics are inserted into the cartridge core, enabling consistent filtration capacity and minimizing pressure drop, due to the uniform openings of its monofilament fiber.

SAATI offers a complete range of precision woven fabrics and filter tubes to suit customers' production needs.



## Irrigation

SAATIaqua fabrics are manufactured to withstand aggressive physical or chemical agents and from all the every elements normally used in the sewage irrigation field.

Choosing the optimal filter media depends on the volume of water, pressure and capacity required by the irrigation system and its pressure and capacity. Other key factors to choose the right filter media are water quality and impurity level present in water.

SAATI is able to offer a wide range of finishing processes and mesh openings according to the fertilizer's type and application.

Some features of SAATIaqua's fabrics are:

- Designed to suspend both organic and inorganic (sands, rubble, seaweed, mucilage or minerals such as iron and manganese) particles in the water
- Low pressure drop
- Easy to wash
- Excellent tensile strength
- Precise selective filtration accurate filtration and low pressure drop





# SAATlaqua

For Water Applications



## Beverages

SAATlaqua monofilament woven fabrics are a great alternative to non-woven materials and they are subjected to the strictest tests daily in order to maintain the highest quality and safety standards.

Our fabrics are ideal in the manufacturing of filter cartridges for pitchers especially for “Pre-Filtration”, in order to keep particles from tap water, and “Final Filtration”, with the purpose to retain the particles mixture.

On request, SAATlaqua fabrics are manufactured in compliance with GMP and are subjected to migration tests according to current regulations.

Thanks to these features that stand out from the common filter media, our products meet the modern requirements of water pitcher systems.



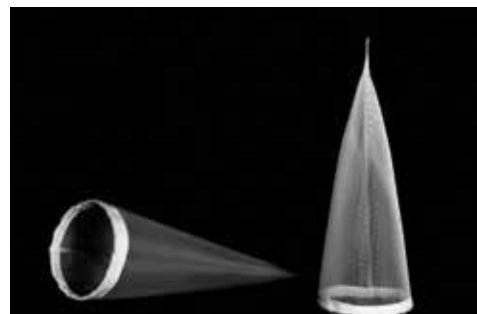
## Aquaculture

Aquaculture is a growing, vibrant and important production sector for high protein and healthy food.

SAATI supplies a wide range of high-tech fabrics, surface treatments and custom-oriented precise fabricated parts for the plankton and larvae screens, laboratory analysis and fish culture equipment.

SAATlaqua Polyester Screen Benefits:

- Excellent resistance to sodium hypochlorite
- Long service life
- Ideal for the construction of sieves, screens and zooplankton nets for the aquaculture industry
- Made from polyester screens that do not lose their elasticity after the sterilization cycle in an autoclave



SAATI has been able to develop a huge number of high quality products and solutions for a host of water applications. However, our research never comes to a standstill. Day after day, it is the catalyst of new solutions, new ideas, new technologies, new increasingly efficient and high-performing applications. Our Marketing and R&D departments work alongside each customer to find the most suitable solutions for each specific need, together, in a process of continual improvement and ongoing mutual innovation.





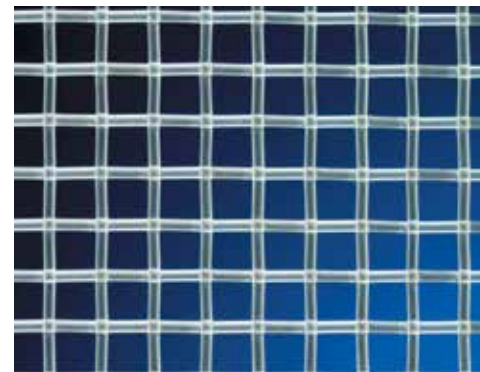


# Manufacturing Capabilities

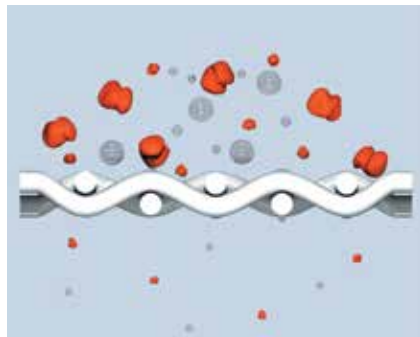
## Fabrics

SAATlaqua includes a wide and complete range of cutting-edge technical fabrics woven with monofilament yarns in different polymers such as polyester (PET) and polyamide (PA6.6).

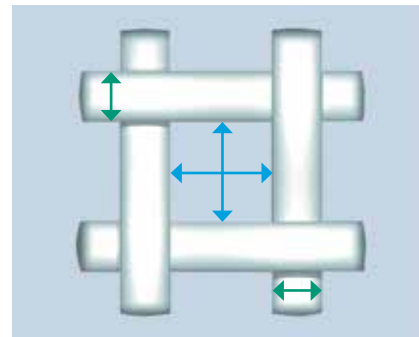
SAATlaqua precision fabrics provide a narrow and consistent aperture size distribution, leading to accurate and predictable filtration. The weave pattern ensures a low pressure drop and consequently an interrupted flow. All SAATlaqua fabrics grant exceptional mechanical performance, and are developed to operate effectively at very high tension levels.



Made from non-shedding monofilament fibers to reduce the risk of particulate contamination. The fibers are woven to exceptionally tight tolerances, ensuring uniform pore sizes, excellent strength, and good dimensional stability.



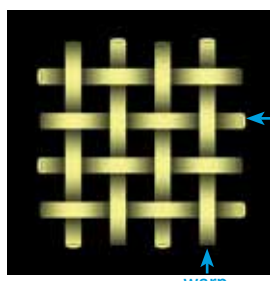
High flow rates with low pressure loss



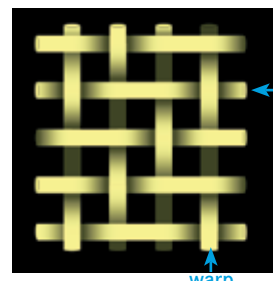
Precise pore size

- Mesh Opening
- Tread Diameter

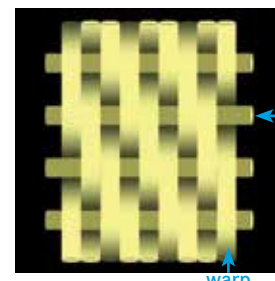
## Fabric design (main examples)



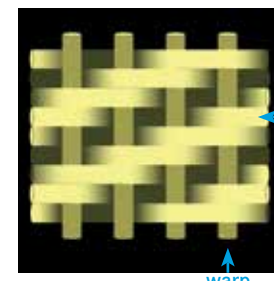
Plain



Twill 2/1



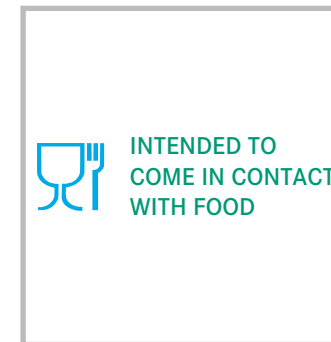
Tressen TW 2/1



Dutch TW 2/2

## Surface Treatments

In addition to the deep weaving expertise, SAATI has unsurpassed experience in surface treatments, and knows how to finish the fabrics in order to enhance their mechanical performances, or to infuse additional functional properties according to customers' request.



**Food Finishing:** Food compliance is SAATI's priority for all the applications of drinking water, this is why SAATlaqua meshes are intended to come in contact with food and are in compliance with the latest legal regulations:

- Compliance of composition: FDA code of Federal Regulation Title 21 part 177, paragraph 177.1500 and 177.1420.
- Compliance of performance: 1935/2004/CE and EU 10/2011 regulations, full traceability, migration test and GMP compliance as per plastic material food contact regulation.







# Fabrication

## High-Quality, Cost-Effective Custom Fabrication

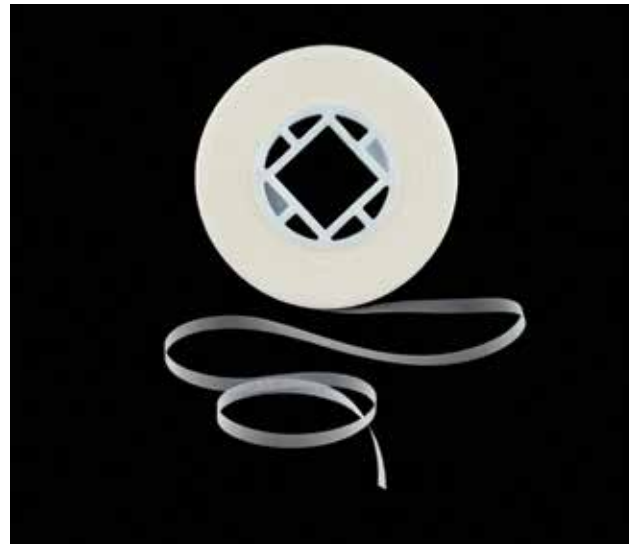
SAATlaqua fabrics can be provided in a wide variety of finished or partly finished products. Specially designed processing equipment can create quality custom-fabricated parts in the most cost-effective way. SAATlaqua fabrics can be cut into ribbons, pleated, or formed into tubes, or made into any required shape. When SAATI engineers design a part for custom fabrication, their primary consideration is to produce a high-quality precision product that will remain consistent from order to order, year after year.





# SAATlaqua

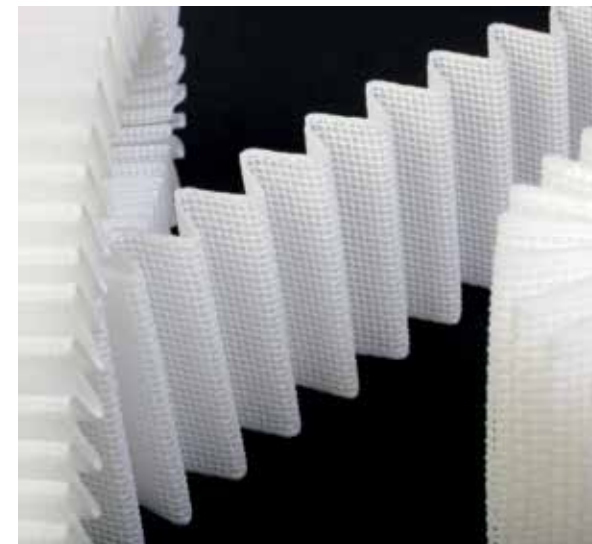
Fabrication Capabilities



## Ribbons

SAATI fabrics can be heat slit economically, or ultrasonic slit for the closest tolerances and highest quality as needed.

Production Technology involved: Heat, Ultrasonics.



## Pleated Components

Mono or multi-layer pleated components such as pack, ribbon, and cartridges can be manufactured for all applications requiring high filtration capacity in a narrow space.

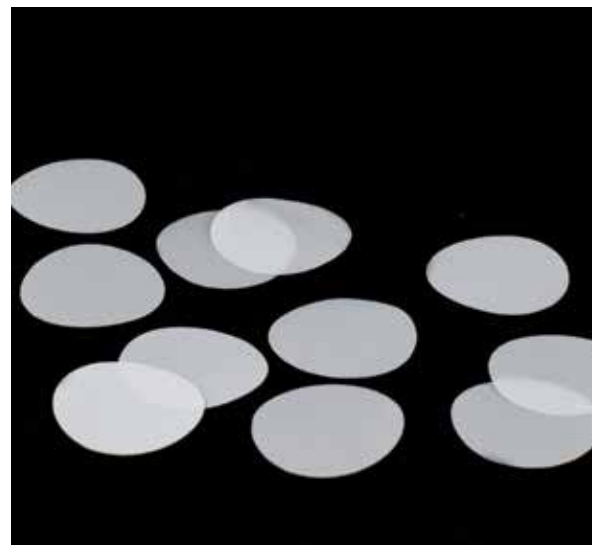
Production technology involved: Heat, Ultrasonics.



## Continuous Tube / MultiLayer Products

Two layers of filter media (identical or different) are simultaneously slit with heated blades to form a continuous double-seamed tube. Ultrasonic-welded tubular ribbons, although similar in construction to heat slit items, can be produced in a wide range of sizes, including very small ones. Two or more narrow layers can be attached using ultrasonic slitting. A fine filtration media can be supported or protected with a coarser one.

Production Technology involved: Heat, Ultrasonics.



## Shapes

Die-cut or laser cut parts can be produced in almost any shape or size. One or more layers of fabrics can be ultrasonic cut or sealed into virtually any shape using a PC controlled plotter, assuring a faithful reproduction of design.

Production Technology involved: Die-Cut, Ultrasonics, Laser.

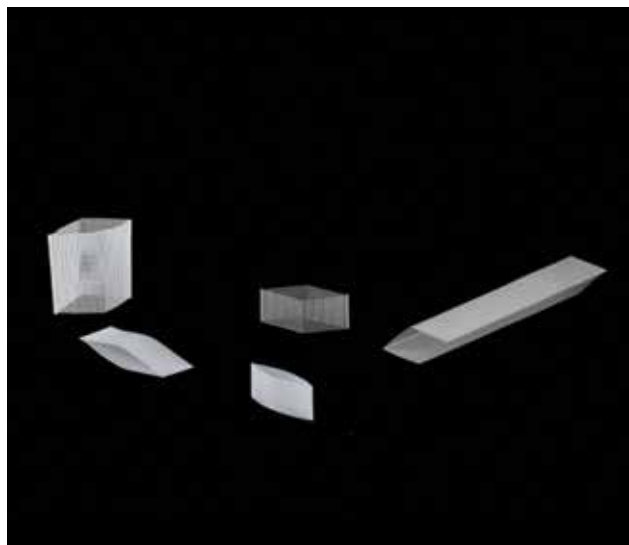






# SAATIaqua

Fabrication Capabilities

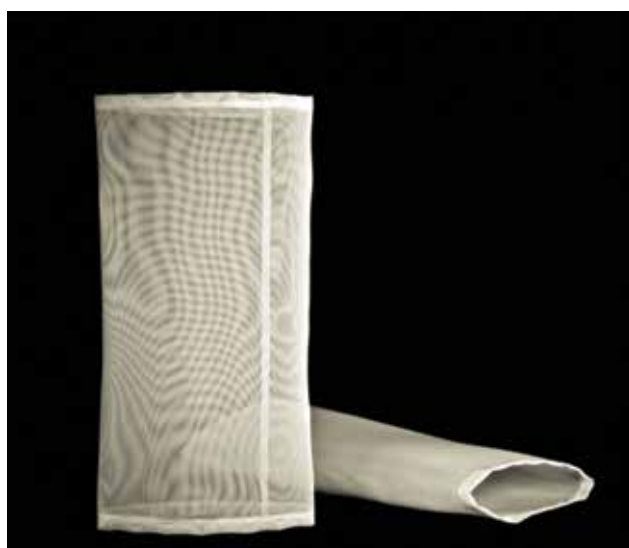


## Tubes - Rectangles

For all applications requiring molded cylindrical filters, SAATI offers fabric tubes and rectangles with two open ends, die-cut or laser cut to length.

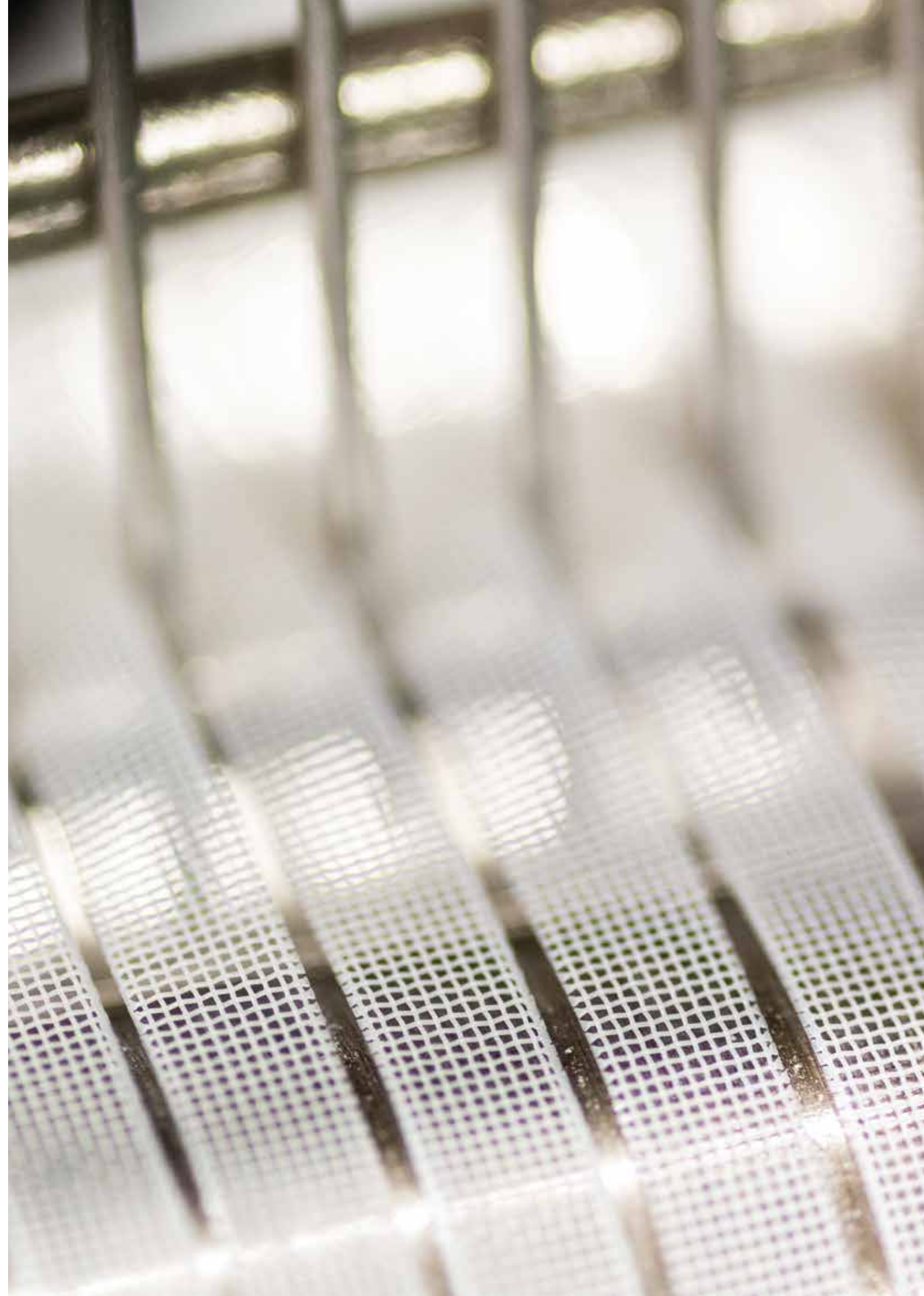
Many applications can accept the quality of a cold cut tube in view of its economic advantages. If a component must have one end sealed and one end open, SAATI is able to combine technologies in the same process and supply tubes with one end die-cut or laser cut and the other end ultrasonic sealed. Ultrasonic technology is also applied for the fabrication of rectangular filters.

Production Technology Involved: Die-Cut, Heat and Ultrasonic.



## Sewing

SAATI supplies a wide range of sewn products (bags, sleeves and belts) and many solutions for edging, joining and reinforcement.







# Sustainable Future

## We Work To Improve Everyday Life

We understand the importance of operating a sustainable business. First of all, in terms of the products we manufacture. At SAATI, we develop and make available technological products that feature in people's everyday routines, all over the world, helping to make their lives healthier, safer, or simply easier.



## Life Is Precious. We Work To Protect It

All of our products, from fabrics, through components to chemicals, recognize that life is precious. At SAATI, we manufacture technologies for life: filter fabrics for blood transfusion sets; aramid fabrics in bullet proof jackets; functional fabrics and chemicals to manufacture solar cells, mobile phones and tablets that improve our lives.



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## **Connect with SAATI**

