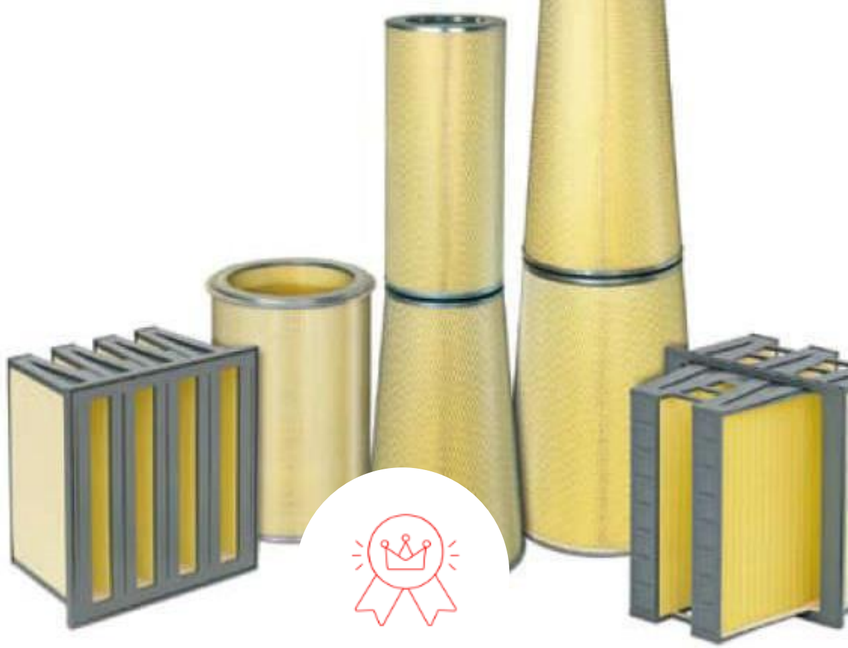
NAFIGATE® park

We develop and manufacture nanofibers

Company Description: what we offer you

NAFIGATE Park is specialized in manufacturing and developing of nanofibrous materials that are utilized mainly in the air-filtration applications including HVAC, gas turbines air intake, industrial dust collection, face mask, window screens as well as other applications. We can slit master rolls, laminate and coat with top quality nanofibers on the latest generation of electrospinning equipment. Our team brings together specialists with many years of experience in the field of research and development of nanofibers. In own R&D department we focus on the development of nanofibrous materials that can help improve the quality of human life or serve to protect the environment.

Our Products



N-composite Roll (Anti-Covid media)

Nanofibrous composite media optimized for PPE class FFP2 and FFP3 according EN149 and for protective medical masks classed II, IIR according to EN14683.

The main benefits include:

- Ultra-high efficiency –SARS-CoV 2 virus (80-140 nm)
- Highest comfort: double breathability as required
- Performance stability: no reduction in filtration efficiency due to spontaneous discharge
- Possible to be washed and disinfected

Nanocleaner

Protective nanofibrous filter intended for filtration of harmful substances from the outside air in windows or doors. This product that takes full advantage of nanofiber's unique properties – especially the ability to create barriers that prevent penetration of even the smallest of objects such as smog, allergens, bacteria, viruses, dust particles, and only clean air gets inside the room.

Customized Nano-Coatings

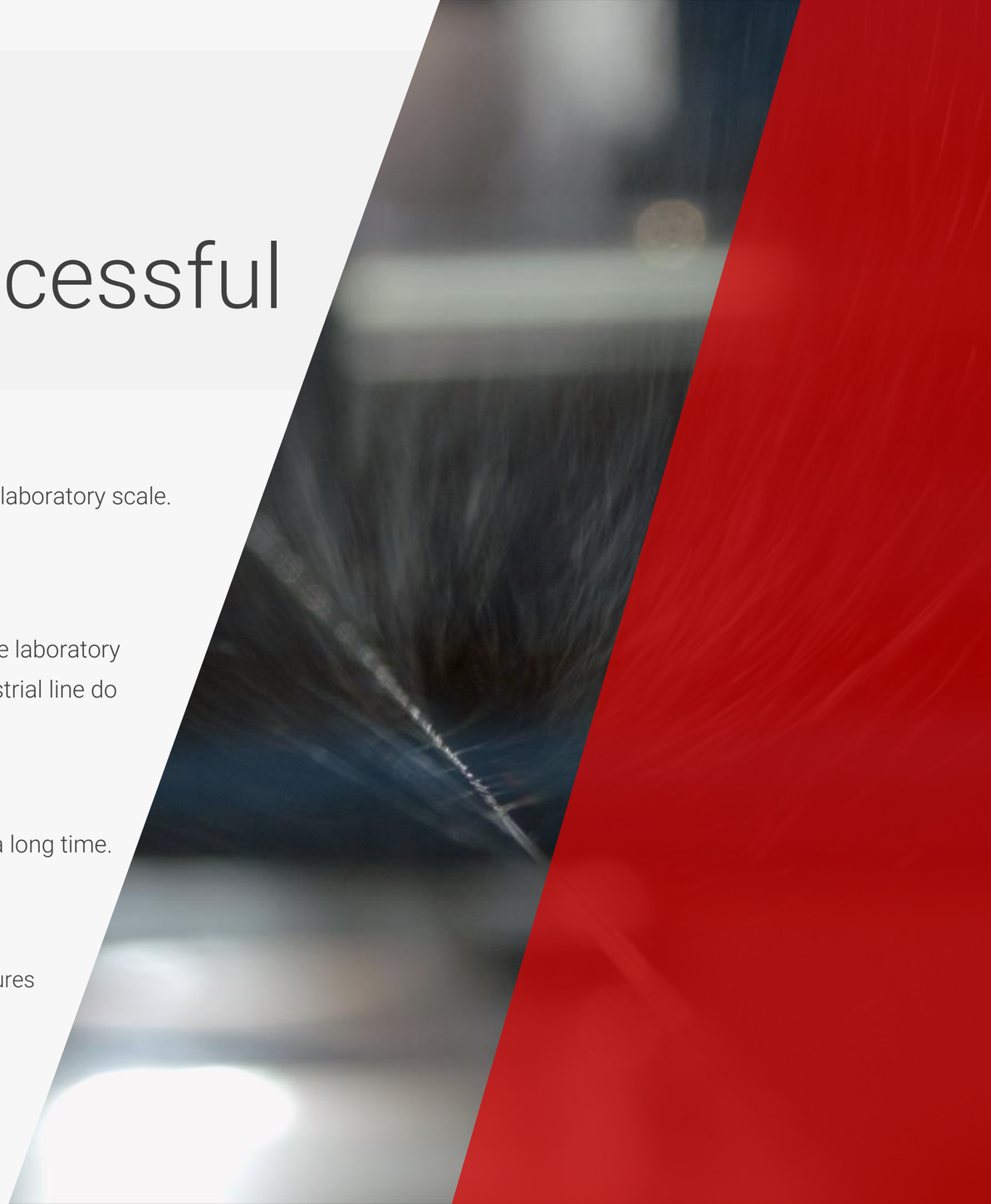
Our extensive know-how, own R&D center and testing capability enable us to develop and produce new nanofiber products for specific customer needs and meet the demands for various filtration applications including, gas turbine, industrial dust collection, HVAC, cabin air, engine intake and other customer specified composites. We are committed to build innovative products and to deliver most competitive prices.

Face Mask NAFIGO

Product from our customer NAFIGO using our nanofiber membranes N-composite Roll Ag+.

A product developed by our customer, NAFIGO, and manufactured in the Czech Republic by people who stood at the forefront of development and production of nanofibrous materials. Mainly Czech materials were used during its production with a small help from foreign suppliers. The face mask includes a nanofiber membrane made by the patented Czech technology Nanospider™, which has long shown a very high filtration efficiency even for such small particles as viruses or bacteria. Moreover, it is suitable for repeated use.

Components that make our technology successful



Nanospider™ Pilot Line

Everything starts with the Pilot Line. Here, samples are being developed and tested on a laboratory scale. Production width 0,5m, 1 spinning electrode

Nanospider™ Industrial Line

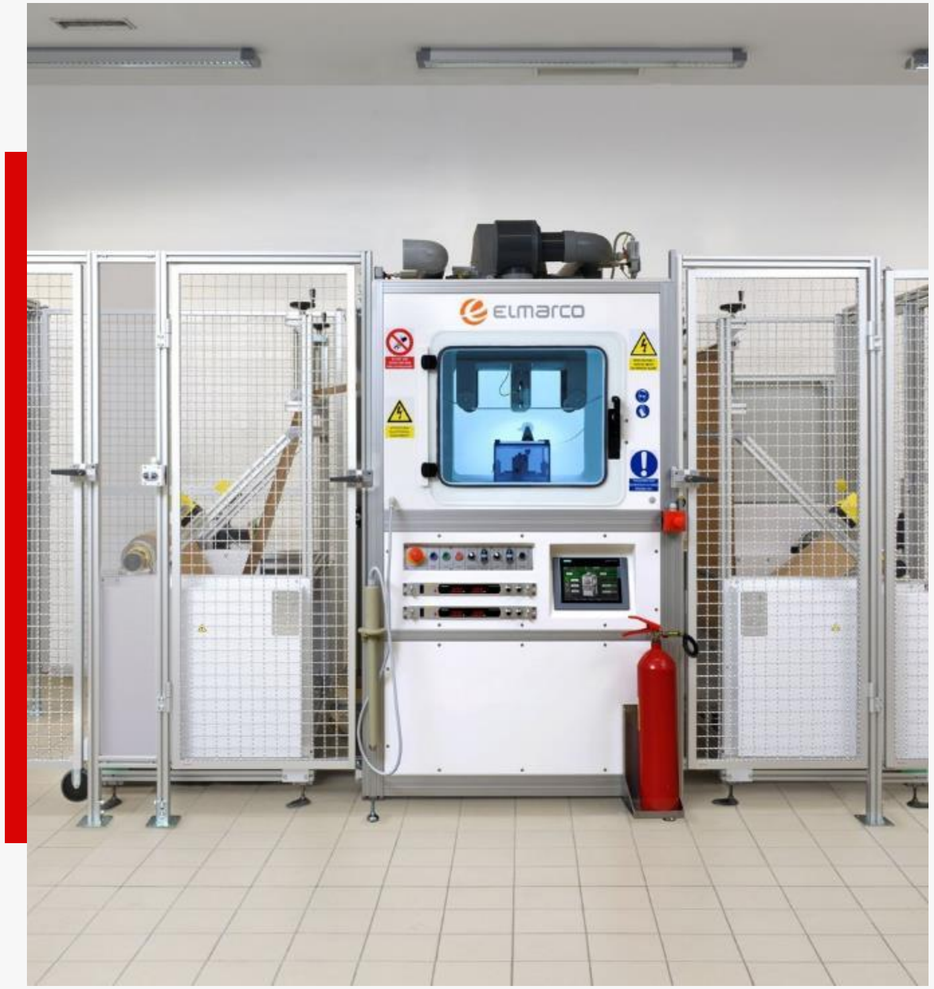
Once the requested product parameters are reached at the lab scale, the results from the laboratory work are easily up-scalable to industrial scale manufacturing. Both, the lab and the industrial line do use the newest Nanospider™ technology platform.

Lamination Line

Once production is complete, the nanofibers are laminated to retain their properties for a long time.

Quality control

Quality control and monitoring is provided through an on-line tester which continuously measures the air permeability and/or thickness as well as off-line on Palas Test rig, SEM and Porometer.



Nanospider™ Pilot Line

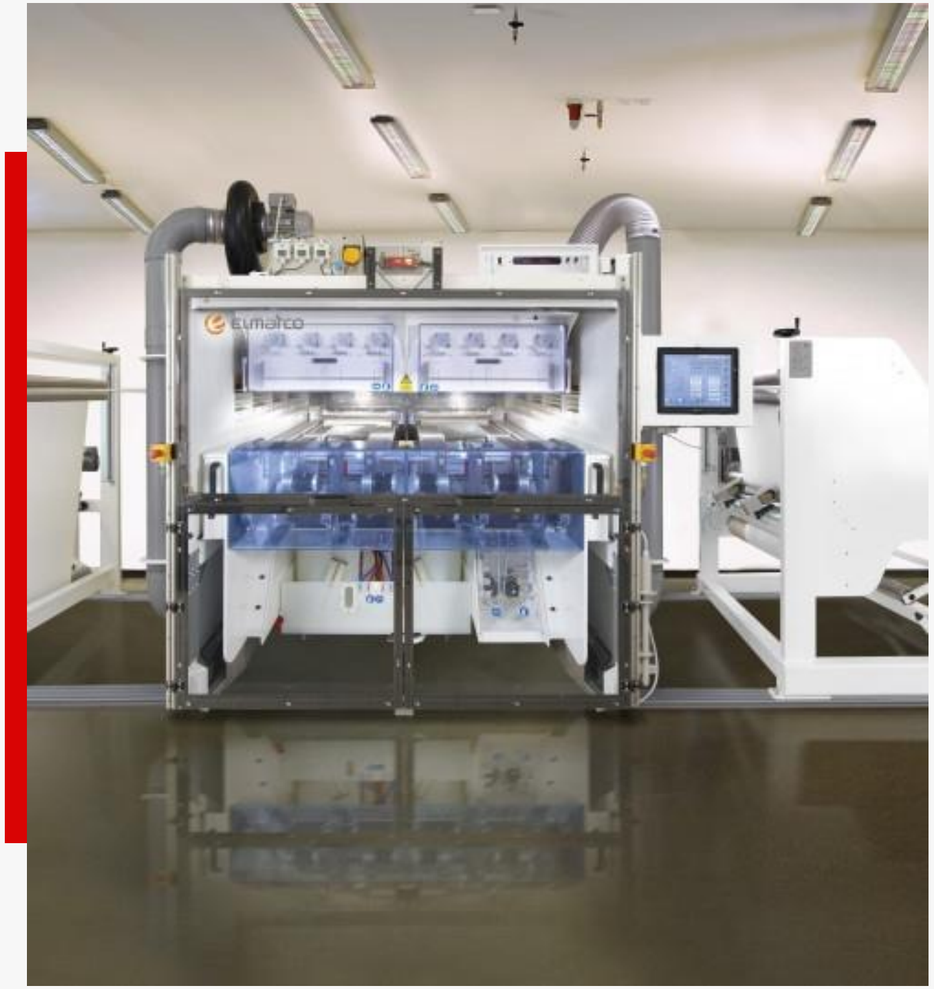
Laboratory equipment for the production of nanofiber structures provides a robust platform for creating a uniform nanofiber membrane in the development of new types of materials.

Easily scalable

The Pilot Line uses the same stationary electrode system as found in industrial Nanospider™ Production Lines, therefore the results from the work on the Pilot Line are easily upscalable to the industrial NS electrospinning equipment.

Wide variety of polymers

Elmarco's electrospinning equipment can be configured to work with a wide variety of polymers and to produce a wide range of organic and biodegradable nanofibers.



Nanospider™ Industrial Line

An industrial equipment for nanofiber production is the heard of our facility - the currently most sophisticated spinning unit for industrial production of nanofibers on the market.

Compatibility = main advantage

The advantage of the industrial line lies in shared production platform used in our laboratory equipment. Thus the results of research and development can be easily used in large production volumes.

Resulting material corresponds to customer's requirements

Wide possibilities in setting the parameters allow to set the production line in such way that the final product fulfills the customers requirements.

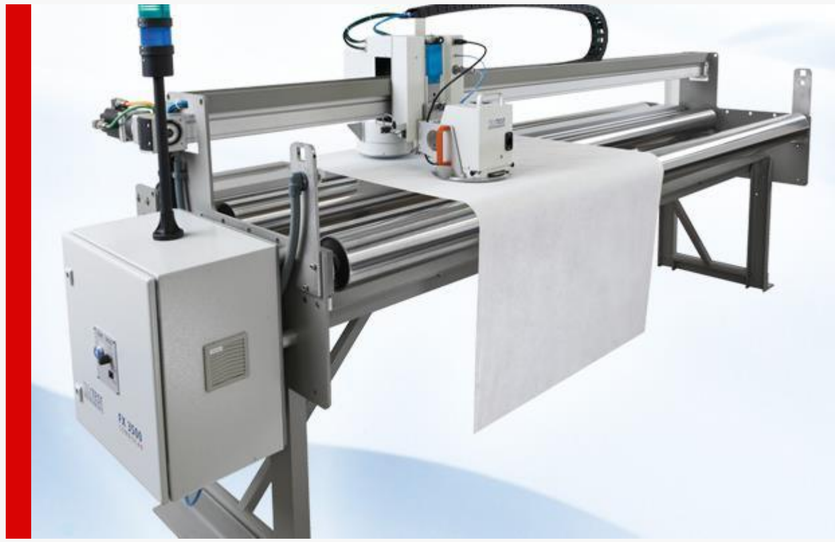
Lamination Line

The line equipped with a system of rewinders and unwinders and a module of dispersion of adhesive materials.

Product improvement

The line is used for thermal bonding of individual material layers in the production of composite materials that contain a nanofiber layer.

Quality control



In order to achieve customer satisfaction and meet requirements, quality control and monitoring is provided through an on-line tester which continuously measures the air permeability and/or thickness as well as off-line on Palas Test rig, SEM and Porometer. Our processes are designed to provide the best in product quality, safety, and reliability.

Test Equipment

- Palas Test rig PMFT 1000 (filtration efficiency, dP)
- TexTest FX 3500 Combiscan (in-line)
- SEM (external)
- Porometer (external)

sales@nafigatepark.cz

www.nafigatepark.cz

We are a group of people who were at the birth of the development and production of nanofiber materials in Liberec. We have more than 15 years of experience in the development and production of nanofiber structures.