



Start with Quality

World Market Leader
for Impregnation Lines

vits.com

Member of  Deurotech® Group

Welcome to Vits!

Custom-made solutions for impregnating and coating as well as for contact-free drying and cross-cutting are among our core competences since the company was founded in 1928.

VITS is the world market leader for impregnation lines and specialist for surface technology with a wide range of products:



Partnering for Efficiency

03



VITS is a member of the Deurotech Group – a partnership of experts in the wood-based panel and paper industry as well as environmental technologies.

Together with our sister companies we offer coordinated process technology in surface converting from a single source – with VITS as the project lead. This includes the development, production, sales and service of customised solutions in the field of impregnation and coating.

IFA Technology

Automated weighing, mixing, dosing and conveying of liquids and solids - leading in the preparation and production of resin

Wessel-Umwelttechnik

Turnkey plants for biological and chemical exhaust air purification and energy recovery systems

Airprotech

Turnkey plants for the purification of polluted exhaust gas by thermal oxidation, catalytic oxidation and rotor-concentration

Eisenmann Environmental Technology

Turnkey plants for thermal exhaust air purification, water treatment and waste disposal with material recycling

Oschatz Power

Specialist for thermal treatment technologies, energy recovery and waste utilisation in industrial plants

Milestones



The company VITS was founded in 1928 and has a long history as a medium-sized, owner-operated manufacturer of machinery and processing lines.





From day one, pioneering work was carried out and through inventive talent, numerous patents were developed. Custom-made solutions for impregnating, coating, contact-free drying and cross-cutting are among our core competences. **With more than 1.000 plants in the market**, this longstanding company has made its name as the specialist for surface coating and a world market leader in the wood-based panel industry.

Flexibility, customer focus and decades of continuous high quality form the solid base for progress and the innovative strength of VITS. Our customers have confidence in us, not only seeing us as a supplier, but also as a partner. A partner, with whom, working successfully together, brings competitive advantage. Since the acquisition by the Family Deuring in 2002, VITS has been putting ever more focus on cross-industry activities with an emphasis on growth and further development in different industries.

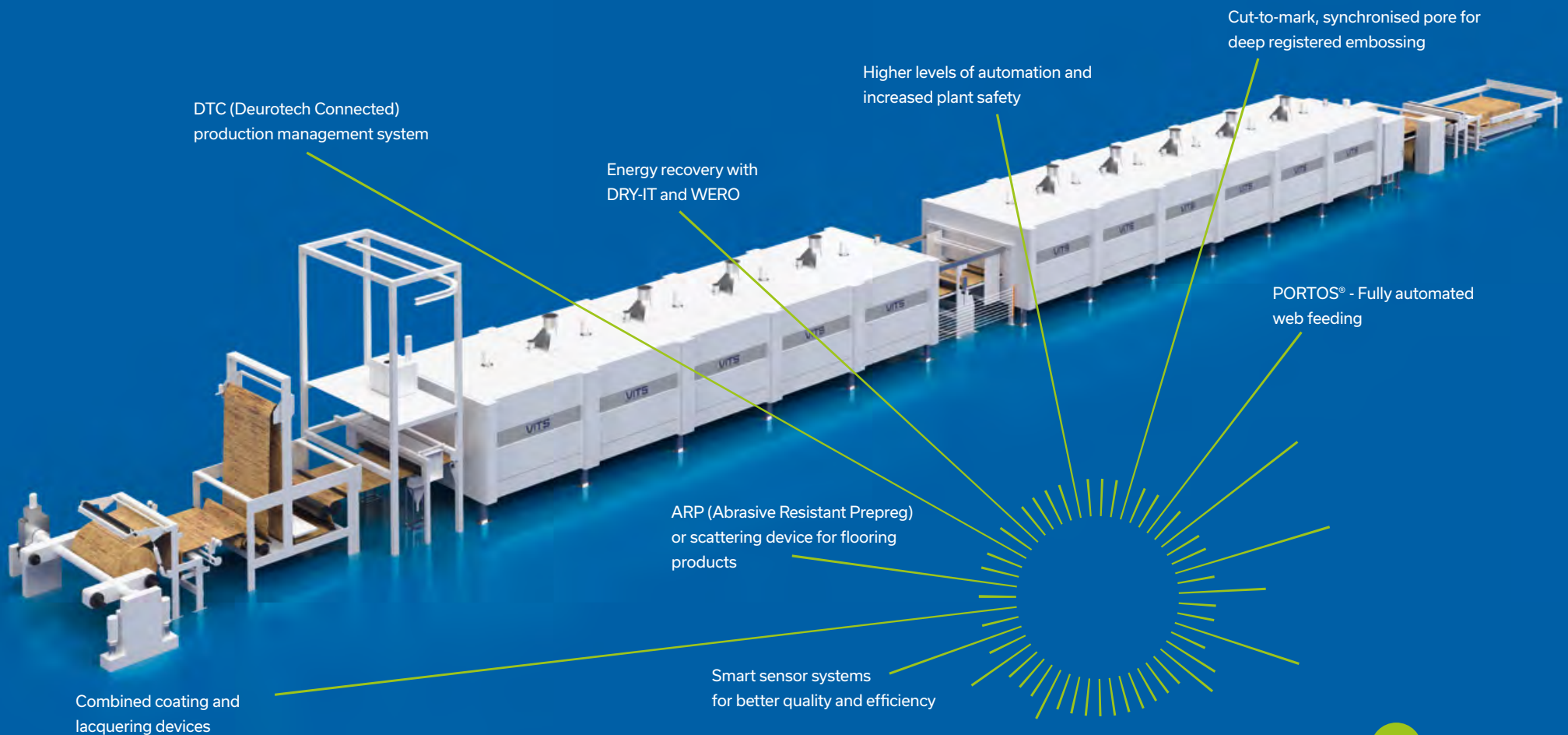
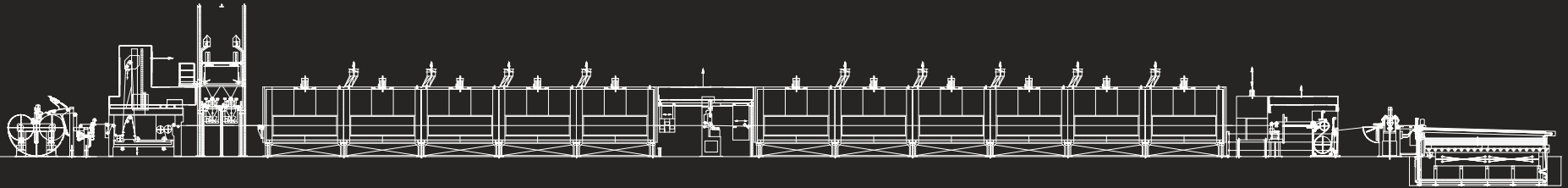
As a system provider with a wide range of products, today VITS is primarily responsible for the project management and the turnkey projects of the parent company Deurotech Group. Let us convince you of our expertise and our capabilities. We are looking forward to working together with you!

„We are proud to be a well-established and prestigious family business, which is characterised by its technological leadership and success story. Our aim will always be to provide first-class products and services to our customers and to create a positive work environment for our employees.“

Alexander Deuring



Melamine Impregnation Lines



Additional Features



VITS is the world market leader for impregnation lines - with more than 1.000 lines installed all over the globe. With our melamine impregnation equipment, our customers produce durable and decorative surfaces for furniture and laminate flooring - also known as Low Pressure Laminates (LPL) or Thermally Fused Laminates (TFL). In this process, printed decorative, solid coloured, white and overlay papers are - in a one-step or multi-step impregnation and coating process - saturated with urea and melamine resins and dried. For the subsequent pressing operation onto the substrate, our finished impregnated products are then rewound into a roll or sheeted (up to 6 m length) onto a pallet.

After decades of experience and countless innovations, the technology and performance of our impregnation lines is unmatched. Together with our sister companies in the Deurotech Group, we offer a complete solution from one source: optimum melamine impregnation for the highest level of product quality and machine up-time, streamlined for efficiency and sustainability.

VITS | Plant Configuration & Performance Data

One and two-step process (upon request three-step)

Production from roll to pallet / roll to roll / also combined

Speeds of 20 to 120 m/min

Working widths of 1,2 to 3,0 m

Capacities of 20 to 80 million m² per year

Heating of the LAY-ON-AIR®-dryer:
natural gas, thermal oil, steam or electricity

Our Deurotech Partner Companies:

IFA Technology

Reactors for urea and melamine resins

Tank farms for resins and additives

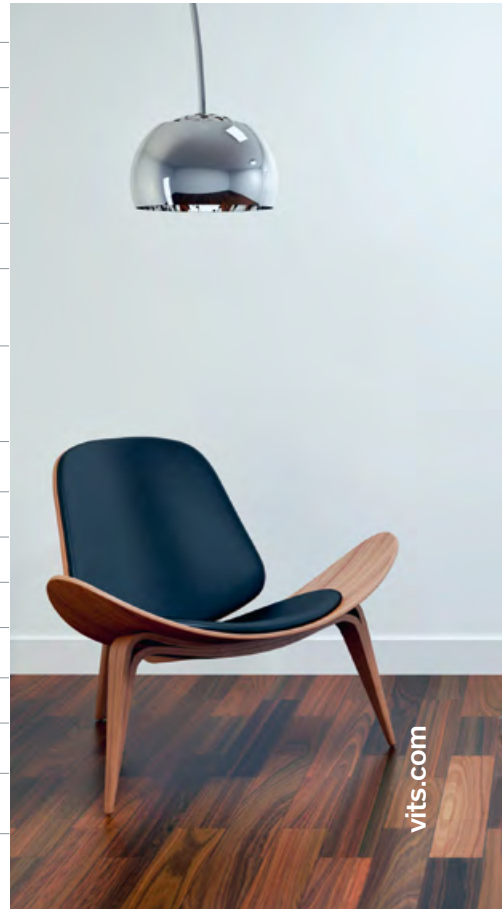
Resin mixing and metering system GRAVIMET

Wessel-Umwelttechnik

Bio scrubbers for reduction of formaldehyde

Airprotech

Thermal air protection technology (RTO and CO)





Our phenol impregnation lines are used to impregnate kraft paper and fabrics for the laminates industry. These lines are typically one-stage and run phenolic resin based products at high speed. In a second step, these impregnated papers are pressed into multi-layer laminates at high pressure to form sheets or boards of High Pressure Laminates (HPL) or Continuous Pressure Laminates (CPL). These products offer a wide spectrum of different applications, e.g. as panels in the building industry or for work surfaces in kitchens and laboratories. For decorative laminate surfaces, melamine impregnated papers are also required, and these are produced on various specialised melamine lines, depending upon the surface technology in use.

VITS provides suitable solutions for these products, too. Our impregnation lines allow processing of water-soluble and solvent-based phenolic resins with varying degrees of solid contents - even the successful uniform impregnation of recycled papers is possible. For the subsequent pressing operation of a laminate, the finished impregnated products are then rewound into a roll or sheeted (up to 6 m length) onto a pallet. As experts for HPL and CPL we provide the latest technology, which meets the highest standards.

Thanks to close collaboration with our partner companies in the Deurotech Group, we can offer a comprehensive solution from one source, ensuring highest quality and availability for an optimum phenol impregnation process at maximum speed, efficiency, and sustainability.



VITS | Plant Configuration & Performance Data

One-step process (upon request multi-step)

Production from roll to pallet / roll to roll / also combined

Speeds of 50 to 300 m/min

Working widths of 1,2 to 3,0 m

Capacities up to 200 million m² per year

Heating of the LAY-ON-AIR®-dryer:
natural gas, thermal oil, steam or electricity

Our Deurotech Partner Companies:

IFA Technology

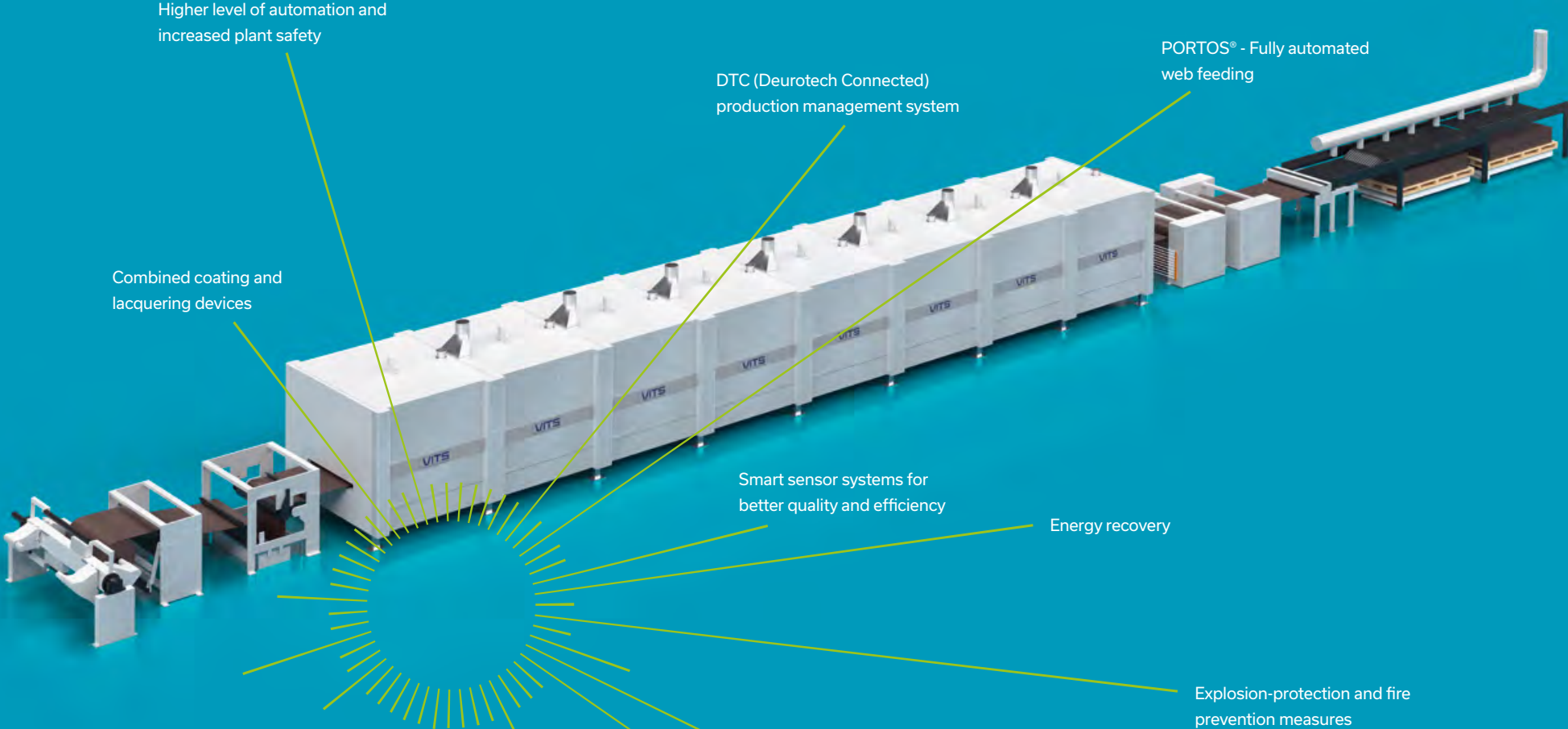
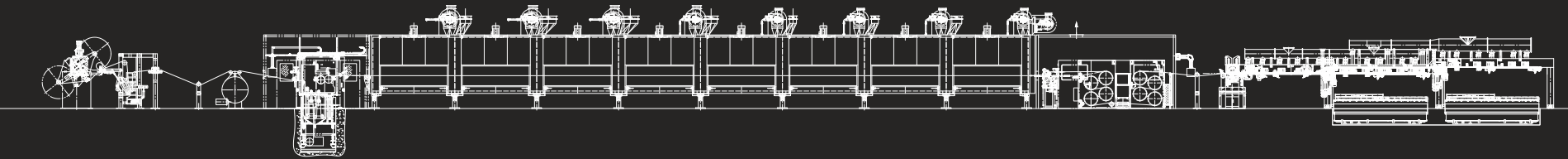
Reactors for phenolic resins

Tank farm for resins and additives

Resin mixing and metering system GRAVIMET

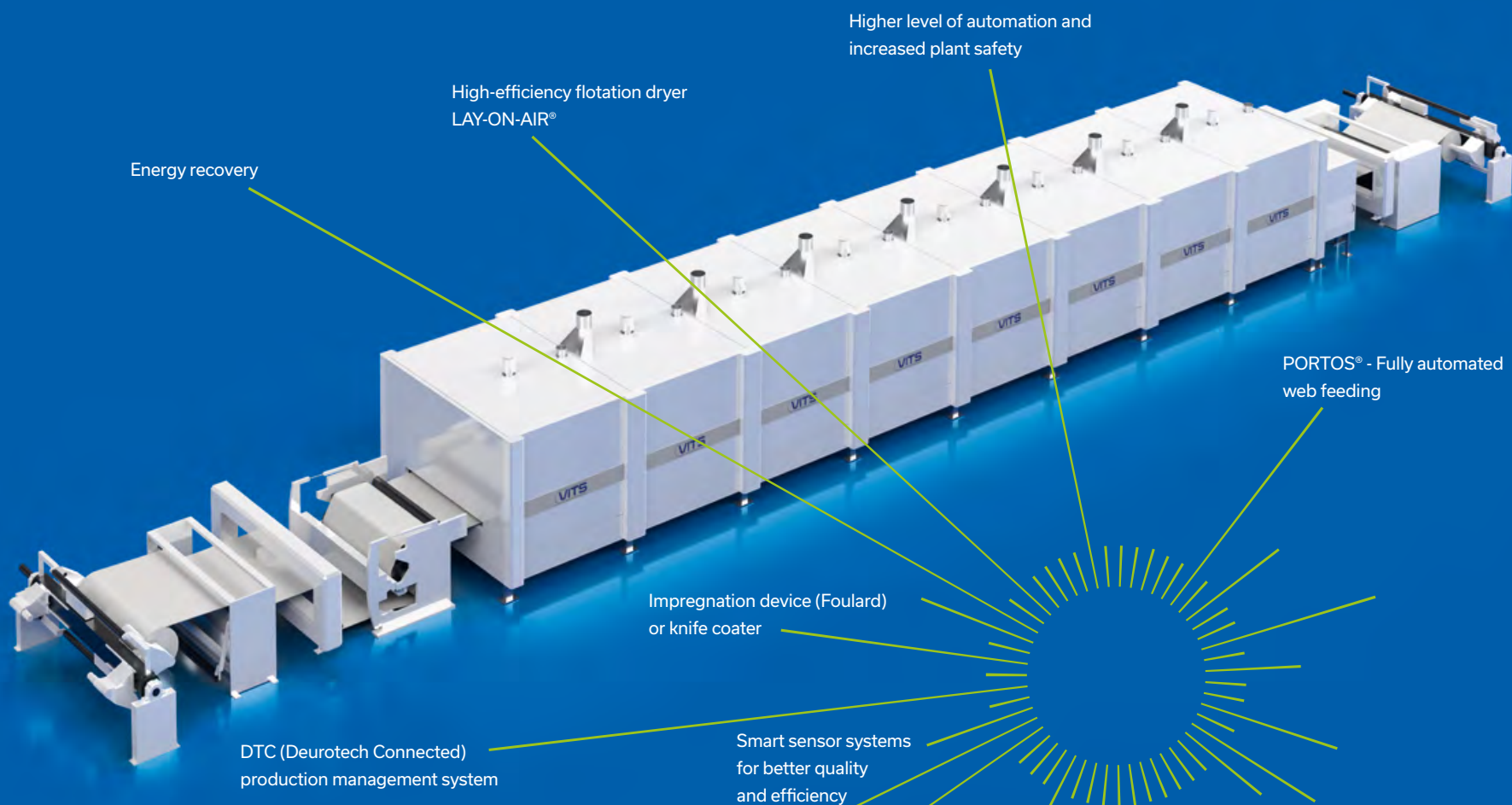
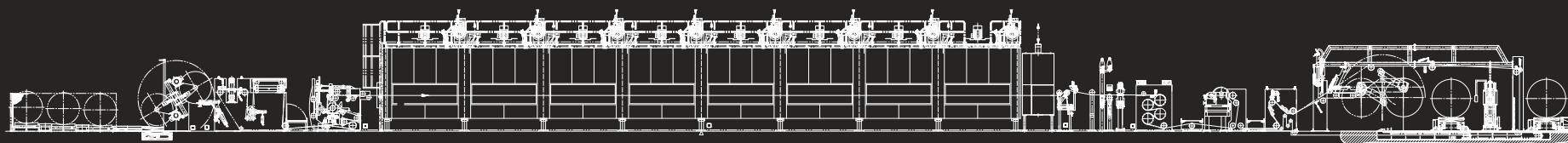
Airprotech

Thermal air protection technology (RTO and CO)



Additional Features

Coating Lines for Non-Woven Glass



Additional Features



For the glass fibre and non-woven industry, VITS can benefit from decades of experience. Here, VITS offers coating and drying systems with numerous application possibilities. VITS supplies not only the upstream TAD-belt dryer for the initial non-woven production, but also all the downstream processes, such as coating, impregnating and final drying of the glass non-woven mat. In these coating lines, the glass non-woven web is continuously coated with a mineral slurry and dried. The result is a converted glass product with additional properties. The one-sided coated non-woven web can, for example, be used as an alternative to paper-covered gypsum plasterboards or other carrier materials, in order to essentially increase fire and moisture resistance. The non-woven raw product is unwound in a non-stop process and coated by a knife coater. The critical uniform drying and curing of the coating is carried out in our LAY-ON-AIR®-flotation dryer. Afterwards the coated side of the substrate can be printed and the finished web rewound.

Together with our sister companies in the Deurotech Group, we provide a comprehensive solution from one source: from the complete raw material storage, the mixing and preparation of the coating to any required exhaust air cleaning. This ensures the highest quality and availability for an optimum coating process at maximum output, efficiency and sustainability.

VITS | Plant Configuration & Performance Data

Coating in one-step execution

Production from roll to roll

TAD-belt dryer/conveyor dryer

Speeds of up to 250 m/min

Working widths of 1,2 to 5,2 m

Heating of the LAY-ON-AIR®-dryer:
natural gas, thermal oil, steam or electricity

Our Deurotech Partner Companies:

IFA Technology

Tank farm for coating materials and additives

Resin mixing and metering system GRAVIMET

Wessel-Umwelttechnik

Bio scrubbers for reduction of formaldehyde

Airprotech

Thermal air protection technology (RTO and CO)





VITS lacquering lines are highly versatile and present a broad spectrum of possible lacquering processes and final products, which can be lacquered or coated. Among them are finish foils, masking tape, cardboard packaging and fabrics. Using our lacquering lines for high-grade finish foil products (e.g. wall panels and high gloss furniture), substrates are evenly and precisely coated with lacquer at speeds of 300 m/min and then uniformly dried and hardened according to exact specifications. Lacquer systems can be water-based, acid-curing or radiation-curing on plain coloured or printed decorative papers with widths of up to 3 m.

Impregnation and lacquering lines for masking tape impregnate the paper with latex resins at speeds of up to 300 m/min and dry it subsequently. In a second step, a release agent is applied to the bottom side of the paper and will be dried afterwards. These lines require an extremely precise tension control in all parts of the process - depending on the product. The lacquering process can be one-step, two-step, or multi-step, as demanded by the products and final customer. Possible application systems available for these are, amongst other, the classic wire doctor roller (Meyerbar) as well as floating doctor blade systems for high production speeds, but also flexible multi-roll application system. VITS lacquering systems can also be integrated into our melamine lines, offering the possibility of a combined production (impregnation and lacquering). Using such systems, standard melamine foils can be enhanced with additional features such as high gloss, matt finish or anti-fingerprint coatings.



VITS | Plant Configuration & Performance Data

Multi-step execution

Production from roll to roll

Speeds of up to 300 m/min

Working widths of 1,2 to 3,0 m

Heating of the LAY-ON-AIR®-dryer:
natural gas, thermal oil, steam or electricity

Our Deurotech Partner Companies:

IFA Technology

Tank farm for coating materials and additives

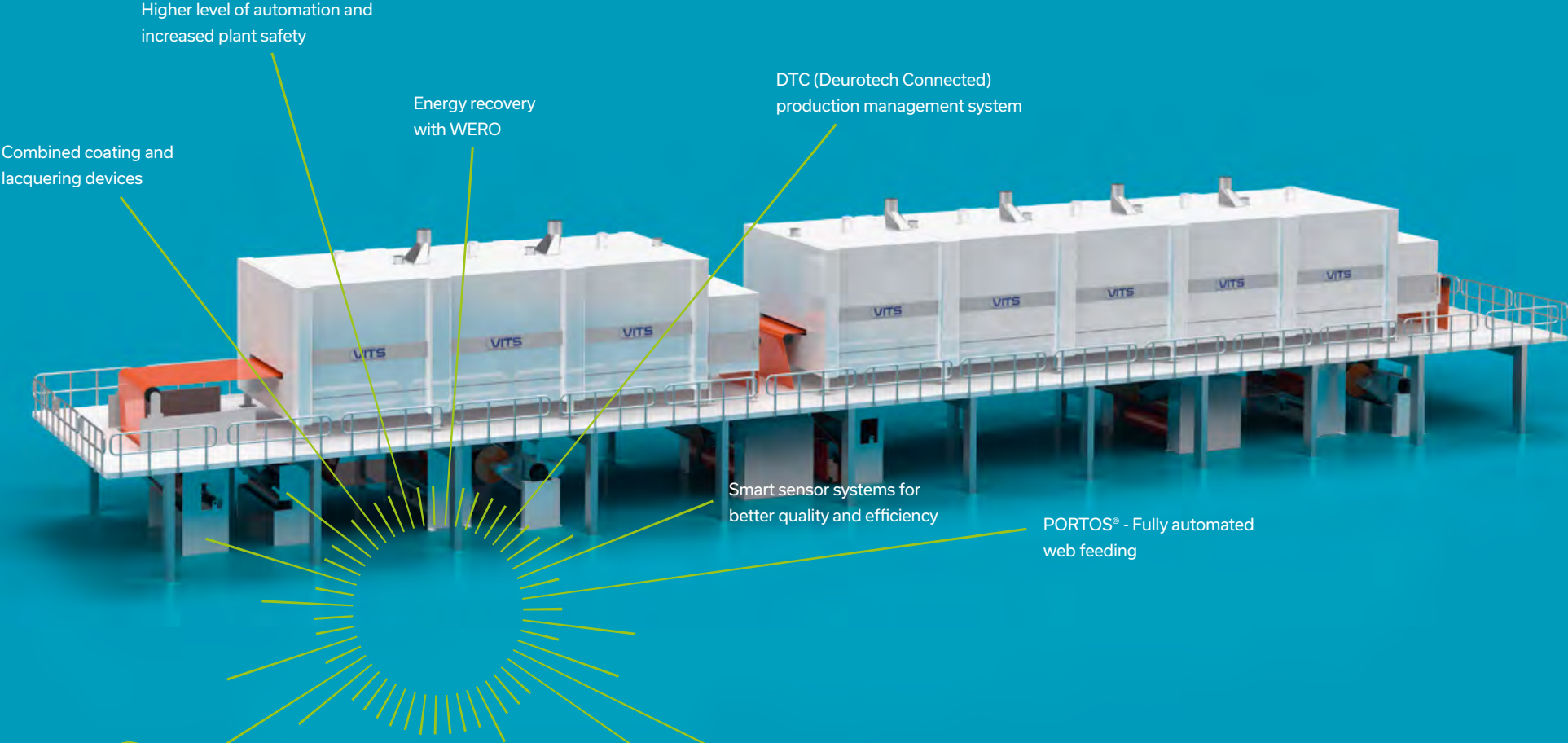
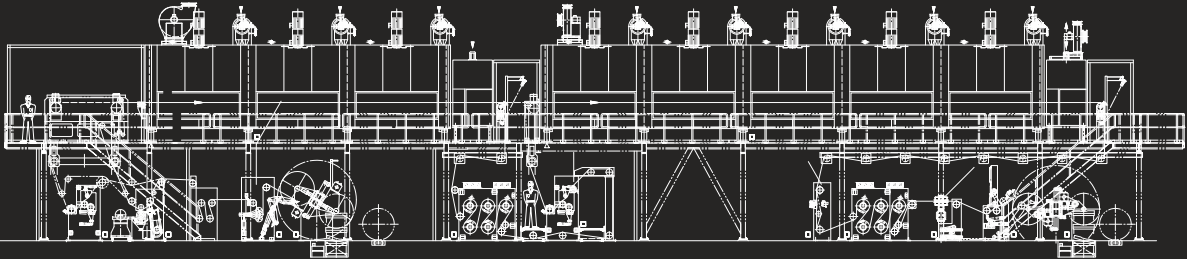
Resin mixing and metering system GRAVIMET

Wessel-Umwelttechnik

Bio scrubbers for reduction of formaldehyde

Airprotech

Thermal air protection technology (RTO and CO)



Higher level of automation and increased plant safety

Energy recovery with WERO

DTC (Deurotech Connected) production management system

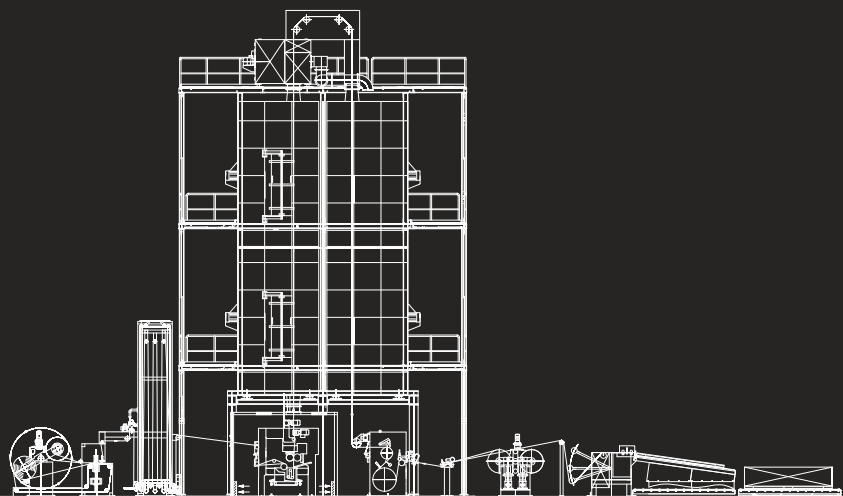
Combined coating and lacquering devices

Smart sensor systems for better quality and efficiency

PORTOS® - Fully automated web feeding

 **Additional Features**

Impregnation Lines for Technical Laminates



DTC (Deurotech Connected)
production management system

Explosion-protection and
prevention measures
and fire protection

Higher level of automation
and increased plant safety



Energy recovery for
the drying process

Bespoke impregnation
devices and coaters

Smart sensor systems
for better quality and
efficiency



Additional Features

In the field of insulation materials and technical laminates for the electrical industry, VITS has decades of experience with the construction of bespoke impregnation plants for the manufacture of composite materials. This includes in particular prepreps and all types of technical laminates which are pressed or laminated together in several layers to achieve a wide range of technical properties. The aim is always the creation of the highest possible homogeneous product, in order to meet the strictest requirements in regard to electrical and thermal conductivity, insulating properties, temperature resistance, chemical resistance as well as corresponding pressure resistance, dimensional stability and anti-friction ability.

Advantage of the production of prepreps on a VITS-impregnation line is the even impregnation or coating of the carrier material, e.g. glass fabric, carbon fibre, paper, mica paper or cotton fabric with specific solvent-containing epoxy, polyester or phenolic resin mixtures. Furthermore, we provide a sophisticated and flexible drying technology, which - in combination with our exhaust air cleaning systems - requires less additional energy input for the solvent evaporation and the following curing process. Our dryers are available in both vertical and horizontal designs as well as in indirect radiation or direct LAY-ON-AIR® convection versions. Having these different designs allows us to find the most suitable solution for any requirement.

VITS | Plant Configuration & Performance Data

Impregnation line with vertical convection or radiation drying

Horizontal impregnation and coating line

Production from roll to pallet / roll to roll / also combined

Speeds of up to 50 m/min

Working widths of 0,9 to 1,5 m

Heating of the LAY-ON-AIR®-dryer:
natural gas, thermal oil, steam or electricity

Our Deurotech Partner Companies:

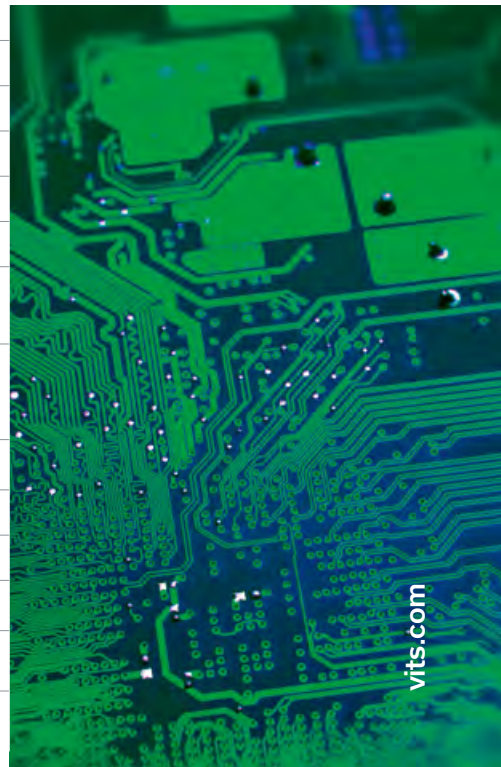
IFA Technology

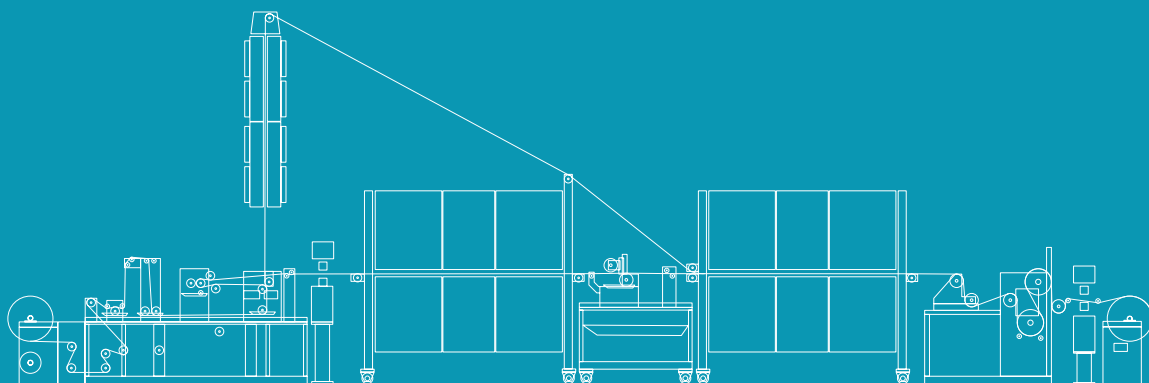
Tank farm for coating materials, solvents and additives

Resin mixing and metering system with viscosity control

Airprotech

Thermal exhaust air cleaning (RTO)





VITS has an inhouse technical centre, equipped with a laboratory impregnation line, on which customers can test new products with their own resins and/or raw materials and execute technological adaptations of existing production processes. Furthermore, a hot press gives the possibility to test the results directly after production, if LPL/HPL or CPL products are to be made. Decors with overlay can also be pressed directly onto board using embossed plates. In the laboratory, important parameters, such as resin flow, abrasion resistance, final weight and moisture content (also inline) can be tested.

For thermal drying, we use our high-efficient LAY-ON-AIR®-dryer or a heat-radiation vertical dryer. Both technologies are extremely versatile and can be used for all surface applications. Radiation drying (UV/IR) can also be carried out upon request. With our flexible setup in the technical centre, most of the relevant coating processes can be reproduced on our pilot plant. Unconventional, customer-specific machine configurations are co-ordinated in close consultation with our customers. Please do not hesitate to address the subject of ‚small batch series‘ or ‚pilot series‘ when contacting us. Upon request we can also design your own laboratory plant, on which you can simulate your production processes and test new products.

Our technical centre is undergoing continuous change, in order to answer the varied requirements and requests of our customers now and in the future:

Web width	500 mm
Speed	1 - 30 m/min
Flotation dryer LAY-ON-AIR®	235 °C (2 sections), ATEX
Vertical dryer	235 °C (2 sections), ATEX
Web tensions	up to 900 N/m
Unwinder and rewinder (3", 6")	800 mm

Service

We are close to our customers – this characterises us

We manufacture quality

Only in very few industries you will find such old, well-proven and fully functional plants and machines as in our engineered wood industry. A spare parts enquiry for a VITS impregnation line made in 1965 is not rare.

We understand

that the satisfaction of our customers is of crucial importance, not only during the sales phase, but also long past the commissioning. Our experienced team of service technicians is available 24/7, in order to ensure that your plant is up and running - also with using remote maintenance. A worldwide service network makes for short distances and our spare parts management has huge warehouse capacities - even for lines older than 30 years. Prefabricated components enable short times of delivery and quick reactions. Our team brings the relevant components together - you start the plant.

We provide

custom-made modifications, maintenance, and inspection as well as repairs and upgrades, in order to maximise the life cycle and the productive efficiency of your plant. We work closely together with our customers, in order to understand their specific requirements and to fulfil them. Furthermore, we offer training courses in the field, at the customer's site or training at VITS using our laboratory treater, in order to ensure that our customers are in a position to operate their impregnation lines securely, safely and efficiently.

We are proud

of our long term customer relations and of being able to provide first-class service with experienced personnel. Because of this, we continuously work on the improvement of our services. We are sure we can find the right solution for every problem. Our aim is to achieve the best possible results and gain the highest level of customer satisfaction.



Environmental Protection and Sustainability

Environmental
protection,
sustainability and
health & safety are in
our DNA!

A modern VITS impregnation line runs emission-free, resource-efficient and safe while at the same time producing the best product quality with the highest output.

In order to achieve this, the Deurotech Group has implemented the production management system DTC (Deurotech Connected). This allows all the main areas of the production line to communicate with each other giving a transparent and perfect integration of the process in line with established best practices.

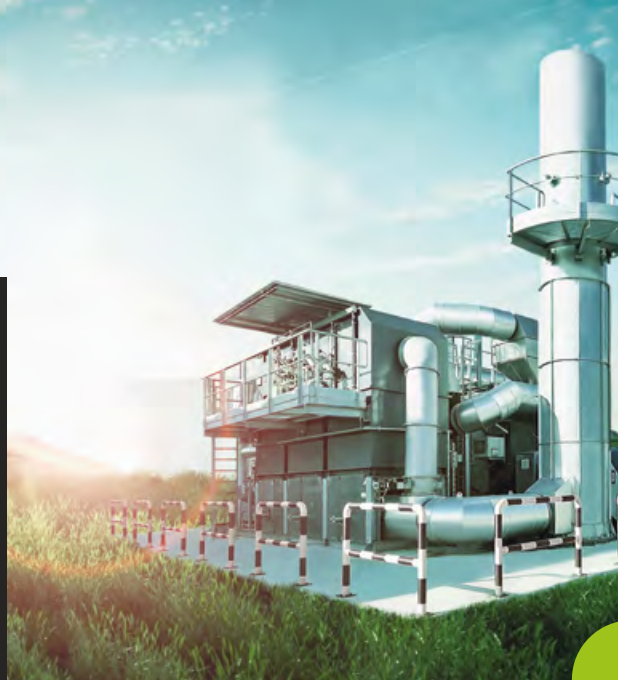
We clearly focus on our own innovative ideas, technology and high efficiency for a reduction in primary energy consumption in the process and with this a reduction in whole carbon footprint of the product. Our impregnation lines can also be completely electrified, enabling an easier change to more sustainable generated energy sources in the future, such as green power or hydrogen power. Our electrically heated LAY-ON-AIR® E-dryer has especially been developed for this. Furthermore, the energy input required for the production is reduced to an absolute minimum by the additional use of our heat recovery systems as well as of the DRY-IT moisture measurement technology.

On the subject of health & safety, our lines have been brought to a new level of safety by our fully automatic web feeding system PORTOS®. Here, our engineers have found a solution to the ongoing safety issue.

In our production lines, resin batches are only prepared for planned consumption, and the actual consumption is exactly measured with the online recording system. Inevitable waste resin and cleaning waste after stopping production is collected, neutralised and recycled back into the process - waste resin is hereby greatly reduced.

For us, emission-free impregnation is not only in theory, it is daily practice. Together with our sister companies of the environmental division of the Deurotech Group we design the best solution for the treatment of exhaust air and wastewater and optimally integrate these into our impregnation process. As well as the product-related process emissions, the process decarbonisation is in the focus. In combination with modern and proven energy recovery systems, our bio scrubbers reduce VOC and formaldehyde emissions of melamine impregnation to an absolute minimum - without the need for the input of additional primary energy - and cleans the circulating wash water biologically.

Together with the Deurotech Group, we give our esteemed customers the promise to wholly support them to achieve their sustainability goals in the wood-based panel industry and all other industries.



Airprotech

Turnkey plants for the purification of polluted exhaust gas by thermal oxidation, catalytic oxidation and rotor-concentration

IFA Technology

Automated weighing, mixing, dosing and conveying of liquids and solids - leading in the preparation and production of resin

Wessel-Umwelttechnik

Turnkey plants for biological and chemical exhaust air purification and energy recovery systems



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