

**GALATEK<sup>®</sup>**

## COMPANY PROFILE

### ESTABLISHMENT of the company and its development

The company was set up in 1990 as GALATEK TECHNIK v.o.s., an unlimited liability company. Since its establishment, the firm has provided services related to the technologies and equipment necessary for surface treatment work as well as those required for safeguarding the environment. Initially only offering a consultation and engineering services, we eventually decided to branch out as a response to clients' requirements and business results. Our projects became much more far reaching and covered manufacturing, installation as well as maintenance and servicing. An important milestone in the history of the company was the year 2012, when a research and development workplace was built up and the company focused more on the deliveries in the field of automatic painting lines.

### RANGE of product

Galatek focuses on producing of machines and equipment according to European quality standards and supplying of complete plants, painting facilities and production lines for surface treatment. It includes mainly:

- paint booths and lines for applying liquid coatings and plastic powder coating
- equipment for preliminary surface treatment
- drying and curing ovens
- machinery for transport and handling
- application systems
- special single-purpose machines
- complete system of management and visualization of the technological process



## PAINTING PROCESS AUTOMATISATION

### ORIGINAL technical solutions

Automatic painting lines represent single-purpose or multi-purpose painting devices for final surface treatment. They are always designed individually, according to the treated product and technological process.

### AUTOMATED processes

The automatic painting machines feature high degree of automation of the entire technological process. The individual processes are ensured by handling devices or robots, facilitating very fast and precise control of the technological procedure.

### GUARANTEED technological parameters

The high degree of automation guarantees the required technological parameters, as well as their repeatability. The automatic painting machines use state-of-the-art control systems, with the possibility to monitor the operational states in real time as well as to archive the operational parameters.



## CONTINUOUS LINES

### PRODUCTIVE systems

Continuous painting lines are integrated systems of machinery capable of high production, which administer a final treatment to surfaces in either liquid coating or plastic powder form. The process can be manual or fully automated. Every line is customised to the client's needs in relation to capacity required, the technological process and the end quality of the coating.

### PROGRESSIVE technological procedures

Continuous painting lines are made up of various constituent technological systems. Examples of these are spraying machines for grease removal and phosphatising; devices for electrophoretic painting; booths for applying liquid coatings or plastic powder, which also contain application kits; drying, curing or hardening ovens and cooling tunnels. The surfaces of components treated in the lines are conveyed via various transport methods.



### COMPLEX solution of every line

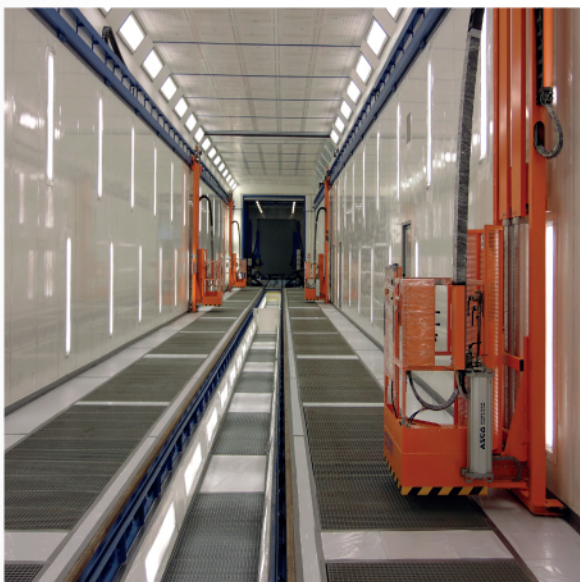
A number of completion systems accompany the delivery of each painting line. Their main purpose is to ensure that high quality levels are achieved by the technological process, and that legislative requirements are observed. These systems include water treatment plants, air handling systems including any necessary moisturizing or cooling of the inlet air, systems for catching or disposing of organic solvents from the exhaust air, stations for producing demineralised water, plants for preparing chemicals and paints, and complex systems for regulation and control of technological parameters of the device. The final design of the line is dependent upon the capacity required, the optimised technological process, the demanded quality and compliance with the legislative requirements.



## PAINT BOOTHS

### HIGH-QUALITY surface treatment of large and complete products

Paint booths for application of coating materials serve for surface treatment of large-sized parts and complete products. The skeleton of the booth is made of panels from various materials, with lighting and a sliding, folding, wing or a louvered door. An exhaust air ventilation system with dry or wet filtering of solid excess paint elements from the exhaust air, and an air supply system with fine filtration of the inlet air, are supplied as standard in a quality corresponding to the final finish requirements. Furthermore, all necessary wiring, an appropriate control and regulation system, and (where applicable) the visualisation of the technological process are delivered with the booth.



### SAFE AND GOOD-QUALITY working environment

General air exhaustion from the work area of the booths or from sections of it, and the subsequent supply of clean filtered air heated to a preset working temperature, is ensured by a block built air-conditioning unit. These contain exhaustion and supply fans with heating blocks for a choice of heating media. Systems for heat recuperation or units for supplying moisturised air are optional accessories. The units ensure the circulation of the heated air in the booth, facilitating paint drying directly in the working area of the booth. The supply and exhaustion fans can be fitted with frequency changer for easy regulation of pressure and reduction of the amount of ventilated air when no surface treatment is being performed.

### ECO-FRIENDLY solution of the entire operation

In order to meet emission limitations in exhaust air permitted by legislation, paint booths contain systems for retrieving or eliminating organic solvents from the exhaust air, the extent of which depends upon the consumption and composition of paint used.



## MANUAL WORK AREAS

### SMALL-BATCH operating sets

Manual workplace comprises a wide range of equipment designed for application of powder plastics or liquid paints on components in small-batch to single-part production. This range includes booths used for applying plastic powder coatings, drying units designed for drying components following grease removal, and for drying and curing surfaces of liquid paints, ovens for hardening plastic powder coatings.



### VARIANT solution

Each manual work area can be set up in different ways. Each manual work area, be it individual standard devices or complex workplace, includes electrical installation with adjustable level of control and regulation of technological parameters, from microprocessor regulation systems to state-of-the-art control systems.

### ECONOMICAL in terms of costs

The wide range of equipment, often of the standard type, facilitates the assembly of complete surface treatment operation according to the individual needs of each customer. The crucial aspects for construction of these operations are, apart from the technological and capacity requirements, the spatial and power demands together with low costs.



## SURFACE PRETREATMENT

### PRETREATMENT is essential for high-quality finish

High-quality coating requires pretreatment of the surface. The parts must be degreased and, in case of higher corrosion requirements, also chemically treated. Preparatory work on surfaces is conducted by water solutions of chemical agents, which are subsequently rinsed away. Each pretreatment technology is designed, together with the degreasing agent supplier, according to specific customer requirements in order to achieve the optimal parameters of the work baths and quality of rinsing while reducing the amount of rinsing water as much as possible.



### AUTOMATED equipment

Fully automated surface pretreatment is ensured by passage-through spraying machines. As a standard, these machines are equipped with degreasing units and several stages of rinsing with pre-rinsing frames, work bath dosing, measurement of rinsing conductivity with automatic monitoring and setting of conductivity values within the defined limits, and regulation of the heated baths temperature. All operating parameters are managed automatically, effectively eliminating the need for permanent operator. The passage-through spraying machines are delivered in stainless-steel or plastic version with complete accessories, i.e. bath heating, inlet water treatment, waste water treatment, and retention, sludge and storage tanks.

### MANUAL WORK areas

Degreasing booths are designed for surface pretreatment of sizeable components or for plants of a lower production capacity where automatic degreasing machine is not economically beneficial. Grease removal, or a combination of degreasing and phosphating, is carried out by manual spraying. A strong cleaning effect is attained by the pressure and temperature of the cleaning bath. The washing fluid is constantly cleaned and recycled.



## CUSTOMER CARE

### COMPLETE services

GALATEK a.s. does not want to be a supplier only, but it would like to remain a business partner of its customers in the course of operation of the equipment supplied as well. For this purpose the company established its Customer Care Department, whose work consists mainly in the following activities:

- assurance of warranty and after-warranty servicing
- solution of small renovations
- sale of consumer materials and spare parts
- regular preventative warranty visual inspections of the equipment supplied
- provision of complementary services (training, consulting, measurement)



### SUPPORT during operation

We try to meet customer requirements for complete support of production operations as well as support of customer staff. This involves especially:

- inspection of operation and diagnostics of errors through remote administration
- support of maintenance and regular care
- establishment of the consignment stock of spare parts
- optimisation of technological processes



## RESEARCH & DEVELOPMENT

### OWN Research and Development

A significant aspect of meeting the specific needs of our customers is the continuous process of research and development of new machines and equipment featuring new progressive technologies, reduction of costs and eliminating the impact on environment. For this purpose, the company has its own Research and Development Centre equipped with progressive pretreatment technologies, application of all kinds of paints using paint robots, and a wide range of application equipment. The Centre also includes devices facilitating drying and hardening of the coats applied, including the hardening by UV lamps. In order to simulate both continuous and intermittent operation, the Centre is equipped with both overhead and floor power-free conveyor with various possibilities of parts rotation. An integral part of the Centre is the laboratory with devices necessary for testing of the basic parameters of the applied surface treatments.



### SERVICES offered by of the R & D Centre

The technological equipment and structure of the R&D Centre offer the following services:

- testing the progressive technologies of pre-treatment
- testing the new coating systems on specific products
- testing various application technologies for all paint kinds using robots for paint coating
- testing the hardening of applied coats by the conventional method or by UV lamps
- time optimisation and practical tests of coating materials application on specific products
- optimisation and practical tests of the overhead chain free conveyor for specific components
- enhancing the qualification of surface treatment experts, training of paint shop operators, including the programming of robots





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