



**KEMATECHNIK
INNOMONTAGE
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KEMATECHNIK INNOMONTAGE BROCHURE

SURFACE CLEANING

SURFACE COATING

BLASTING MEDIA

CONSULTING

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01 __

ABOUT US

About our company

The predecessors of KI-Group – Kematechnik Mérnöiroda Kft. and Innomontage Vállalkozó Kft. – have been key players in the Hungarian surface treatment market since 1990.

We established our Surface Treatment Centre in partnership of the two companies in 1995 making us the sole provider of end-to-end surface treatment technologies. In 2020, the two companies merged and has operated as Kematechnik Innomontage Kft. since then.

KI-Group has become an organisation of companies covering all aspects of the surface treatment sector.

Quality

We have operated in compliance with the MSZ EN ISO 9001 quality management system since 2001.

The ISO standard and our team of highly skilled, select experts with several years of professional experience guarantee first class delivery of the equipment and technological systems in compliance with their requirements.

02 — SURFACE CLEANING



Y-rail hook blaster – CAPRI model

Blasting cabinets, blasting equipment, surface cleaning equipment

Closed system blasting booths and cabinets designed for cleaning small, bulk, small batch and custom workpieces. There are numerous dimensions and configurations available to achieve the highest efficiency and satisfy custom requirements.

Our range of products include tanks, equipment and apparatuses for free jet blasting as well as a broad variety of bristle blasters.

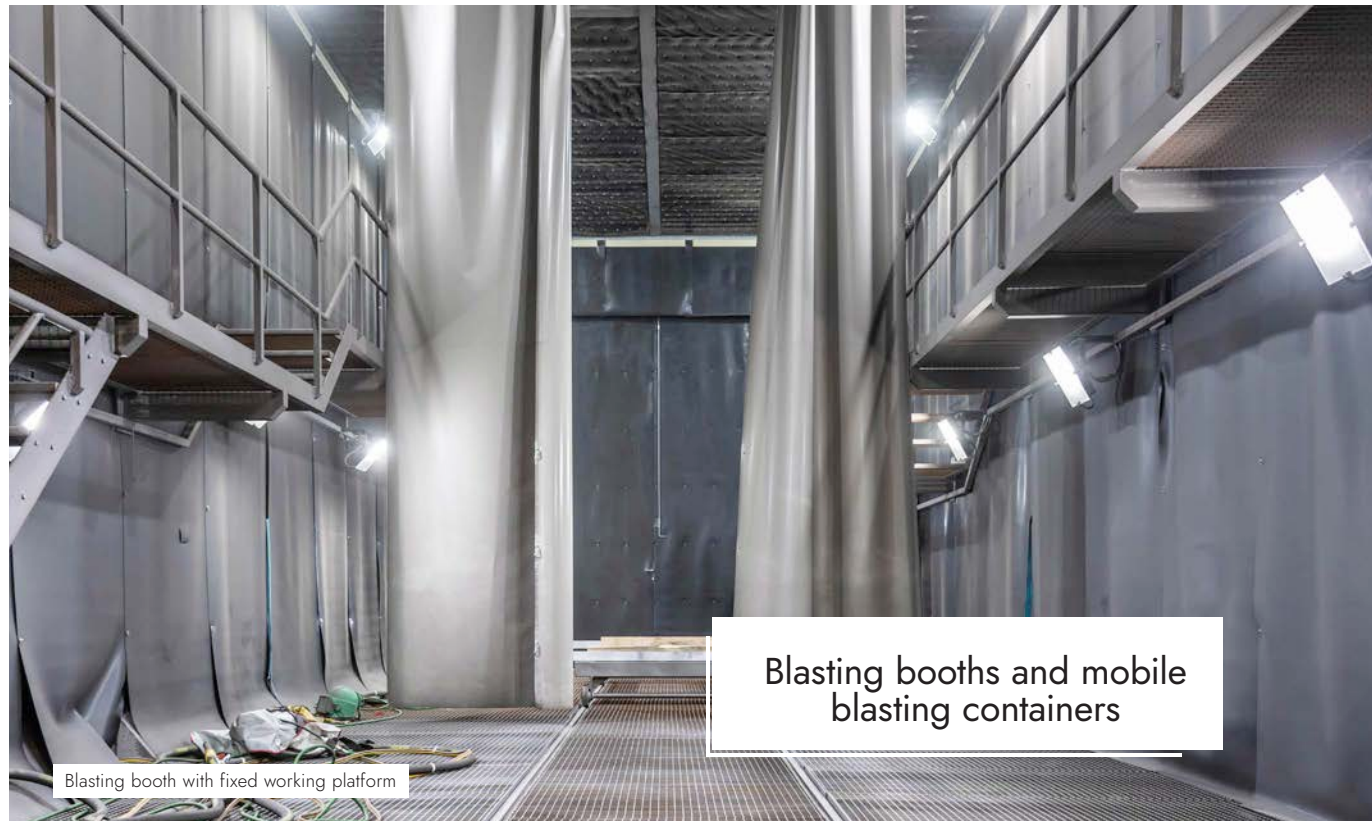


Wheel blast machines

Semi-automatic or fully automated equipment for the high efficiency and consistent quality cleaning of raw materials and large volumes of semi-finished and finished products.

Each equipment is delivered with a dedicated separator and dust collector system.



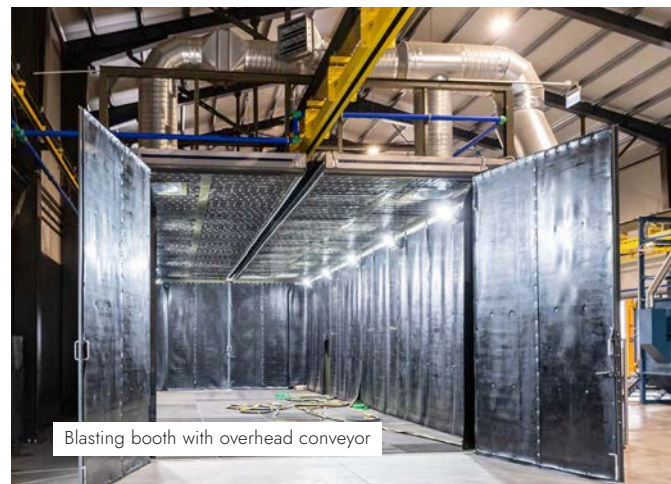


Blasting booths and mobile blasting containers

Blasting booth with fixed working platform



Dust collector and abrasive recovery unit



Blasting booth with overhead conveyor



Blasting container

Fully closed system, manual free jet blasting technology for cleaning diverse steel structures or even road or railway vehicles.

Available for installation with various blasting media collection systems (manual or automated floors) and mobile container versions.

The dust collector and separator units are essential accessories of the equipment.

Abrasive and polishing machines

Equipment for deburring, surface homogenisation, polishing and chamfering large volumes of bulk workpieces of various dimensions.

Vibration, centrifugal, drag and abrasive flow finishing processes are specifically efficient in the automotive, tool, jewellery and instrument industry, and for treating laser cut parts and medical implants.



Vibrofinishing machine - SOFTSIEVER model



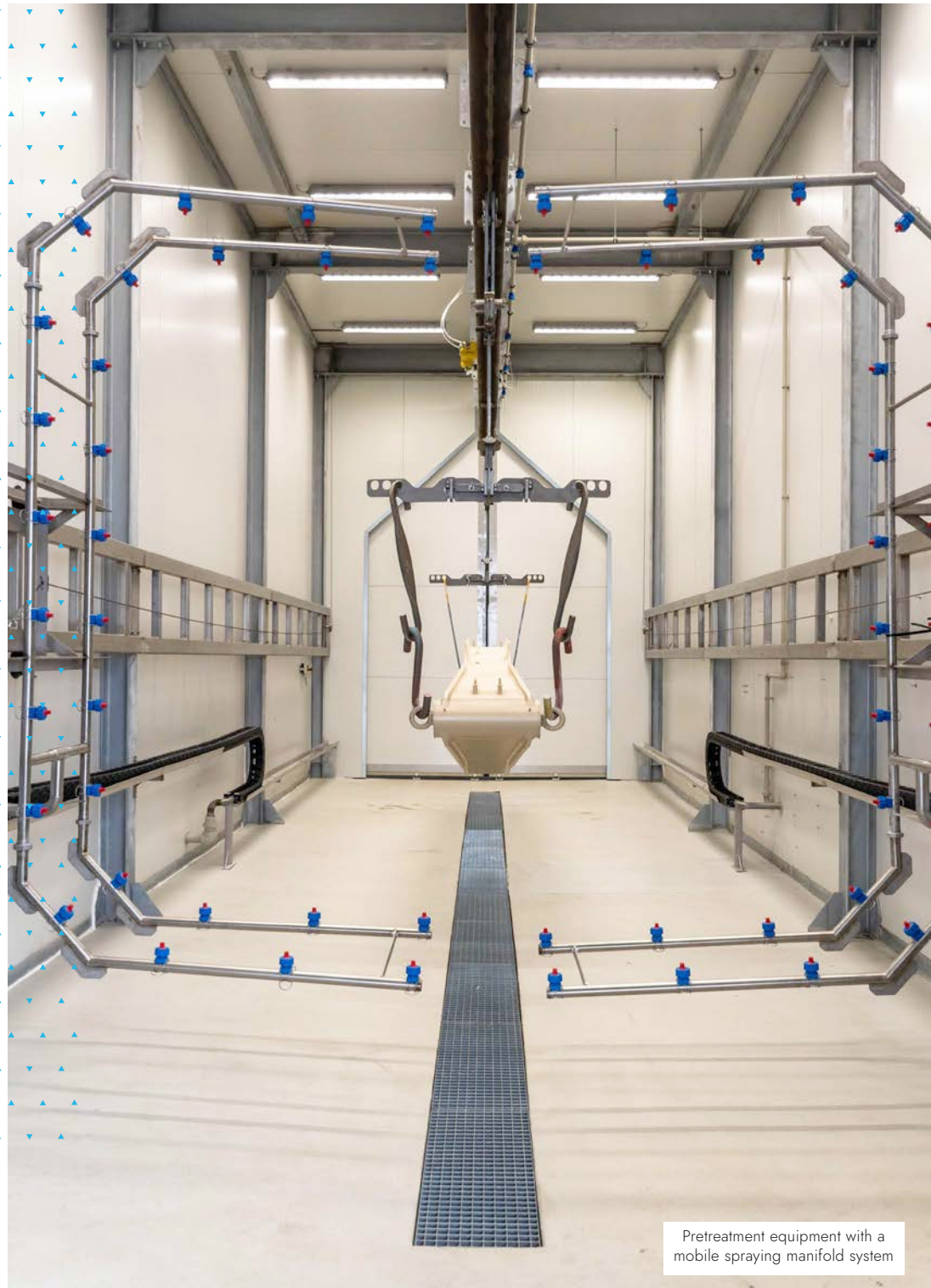
Vibrofinishing machine - ORBITAL model

Chemical pretreatment and washing booths

Manual pretreatment (also known as washing) booths allow for flexible, water saving cleaning of workpieces using high pressure manual units. In this case, the chemical process means a monophasic chemical cleaning and rinsing.

For high capacity requirements, spraying manifold or immersion tank pretreatment units ensure the cleaning of the surfaces to be coated. These units are suitable for multi-stage chemical processes (up to 6 stages), which is critical where strict requirements are set for surface cleanliness.

The spraying pretreatment equipment may be delivered with installed fixed nozzles or with a mobile spraying manifold system.



Pretreatment equipment with a mobile spraying manifold system



Tunnel-type pretreatment equipment with multi-stage chemical process



Tunnel-type pretreatment equipment with one-stage chemical process



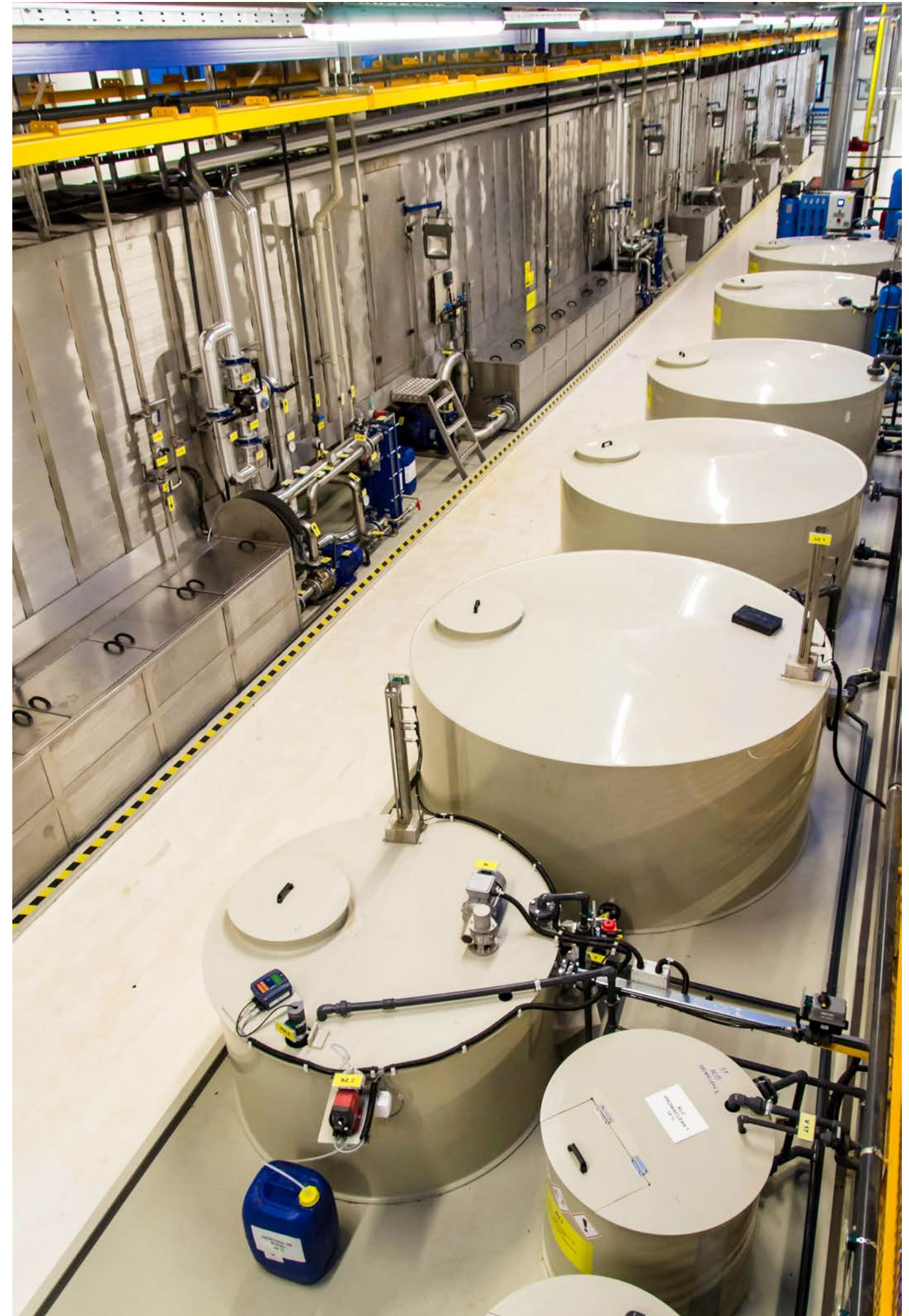
Manual pretreatment process

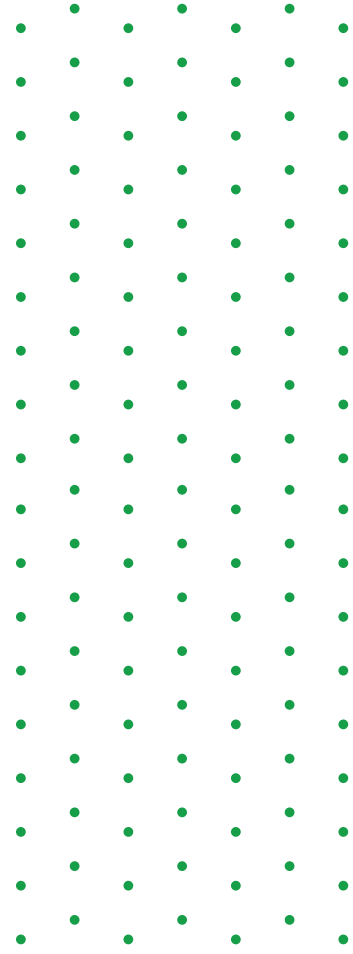
Waste water treatment equipment

Waste water generated during chemical pretreatment go through semi-automatic or fully automated waste water treatment equipment. Although their operation is cyclical due to the surface treatment process, but they can also be configured for continuous operation.

Treatment makes the cleaned waste water suitable for discharge into the municipal sewage system in compliance with the effective public sewage threshold values.

Vacuum evaporation technology as a supplement means more water saving and environmentally friendly treatment of waste water. In this case the water reclaimed from the vacuum evaporator goes through additional filtering and recycled to the process, significantly reducing the waster demand of the system and environmental load.





03
**SURFACE
TREATMENT**



Powder coating units and systems



Powder coating is a good coating, and solvent-free, consequently environmentally friendly technology to be applied to varying sized or small batches of workpieces in manual cabinets. Its beneficial properties, however, make it increasingly used in mass production and high performance industrial coating solutions.

Coating in high performance industrial solutions is ensured by robots or manipulator arms in multiple axes moving along the outline of workpieces.

These equipment come with cyclone and cartridge filters, and filter cards ensuring fast colour swaps. We configure and deliver our powder coating systems with the spray gun, powder reclaiming and supply systems models of the manufacturers specified by our customers.

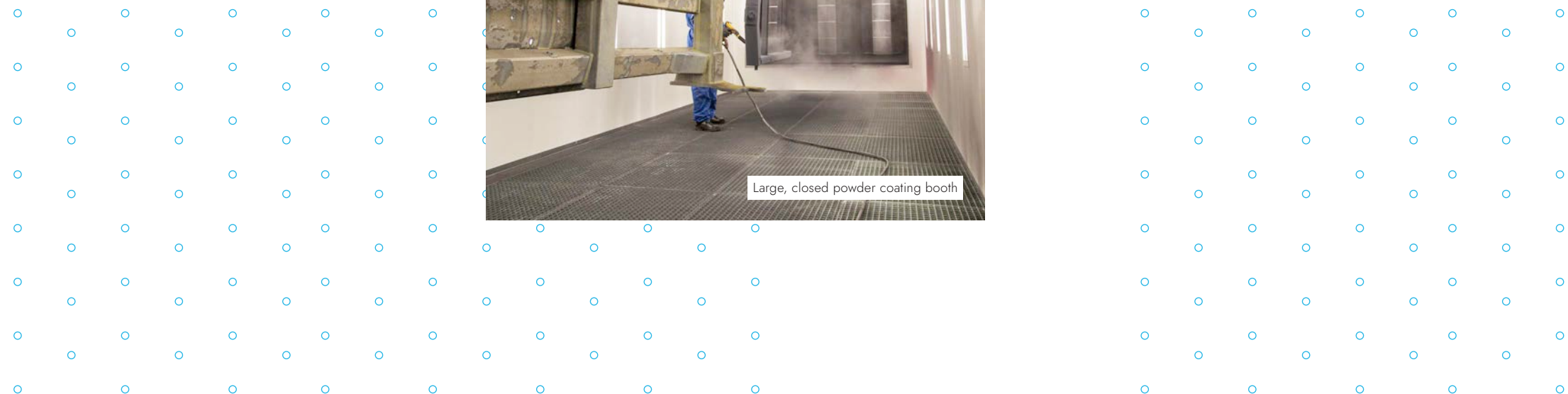


Coating booths, extraction walls, trestle paintshops

This equipment is designed to remove solvents and hazardous substances from the workspace atmosphere during wet coating.

We design, dimension and manufacture the equipment and the filtration system in view of the size of workpieces to be coated and the technology applied. The module can be configured with extraction walls to be installed as part of the system to create so-called trestle paintshops for coating large workpieces.

An electric control system and tempered air supply are essential for compliant and safe operation.



Desiccants, dryers, curing ovens

We pursue optimum utilisation of space and energy saving solutions during the design of water dryers after pretreatment and paint dryers that facilitate the solidification of the coat of paint.

The most extensively used convection, i.e. air circulation dryers are versatile and offer flexible application. They can be electrically, gas or oil heated, or the combination of these.

Infrared dryers operating at various wave-lengths are relatively simple to implement, however, they are efficient only when used with coplanar or approximately coplanar workpieces.

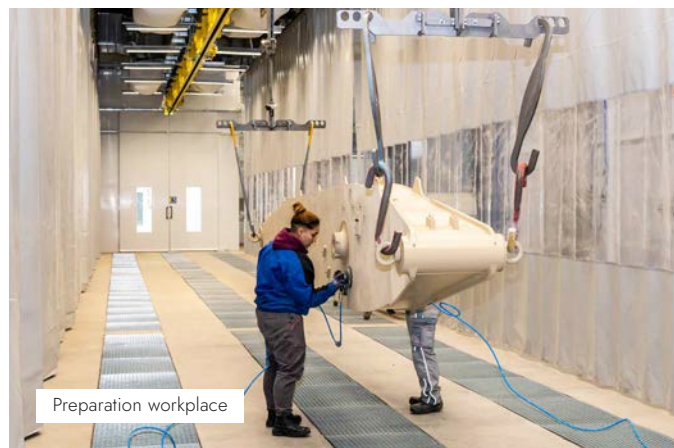




Spray booth with lifts



Spray booth with rear extraction wall



Preparation workplace



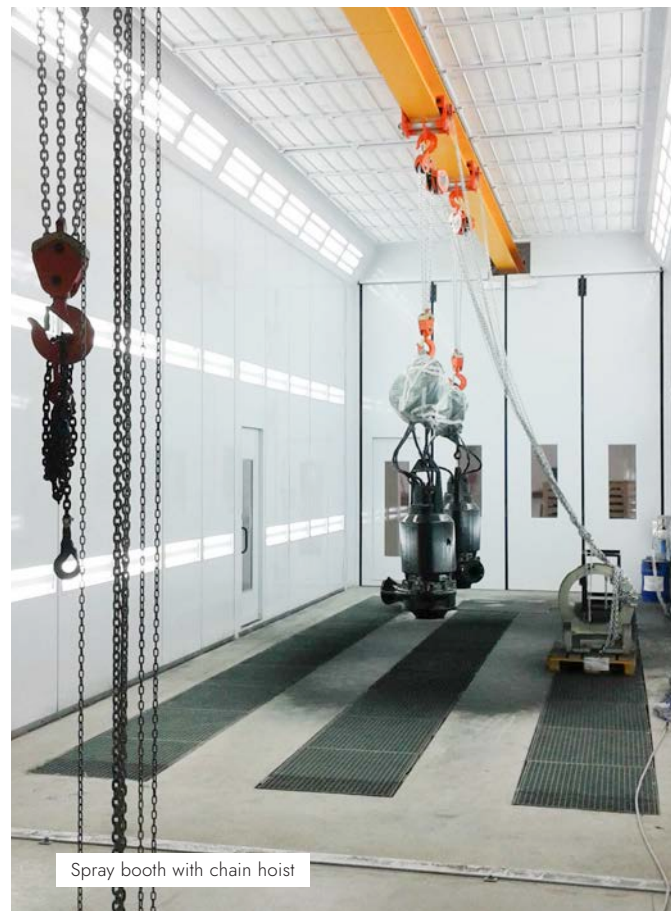
Spray booth with crane

Preparation workplaces, painting-drying booths

Preparation workplaces, stations and booths extract solvents and dust released during preparation for painting (luting, polishing, masking).

The design of closed technology painting-drying booths facilitates compliance with safety requirements, painting and drying can be attended in easily controllable conditions in excellent quality. The parameters are programmable, engineering units are easy to regulate and can be operated to save energy.

Heated, clean air enters via the whole surface of the booth ceiling and is extracted either through a floor filter system or the rear/side extraction wall.



Spray booth with chain hoist



Felületkezelő sor



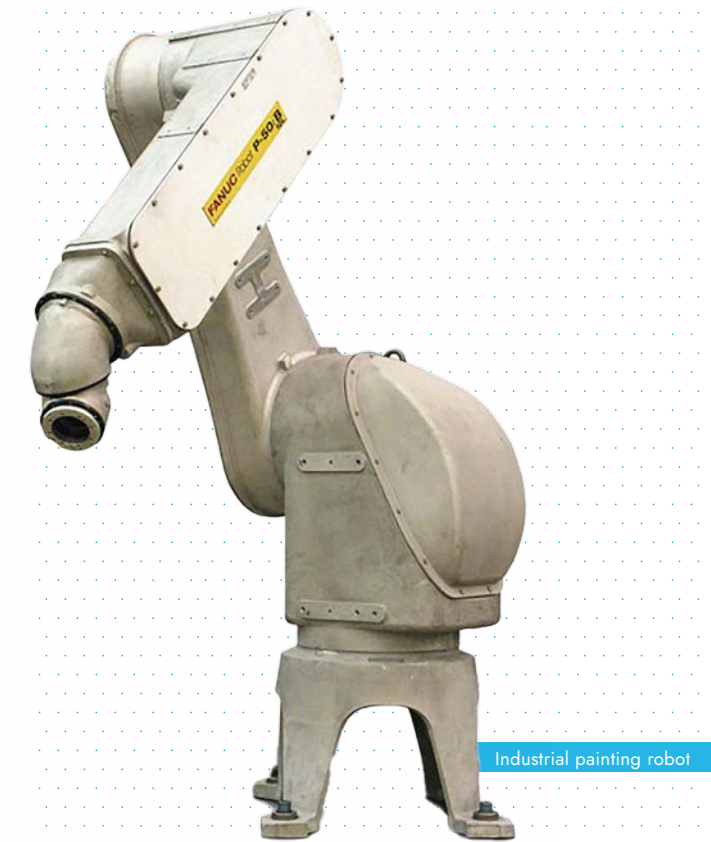
Gépi anyagmozgató rendszer

Automated surface treatment lines

Overhead or floor conveyors move workpieces in intermittent or continuous operation through multiple process equipment from load to unload to ensure cost-effective and productive surface treatment.

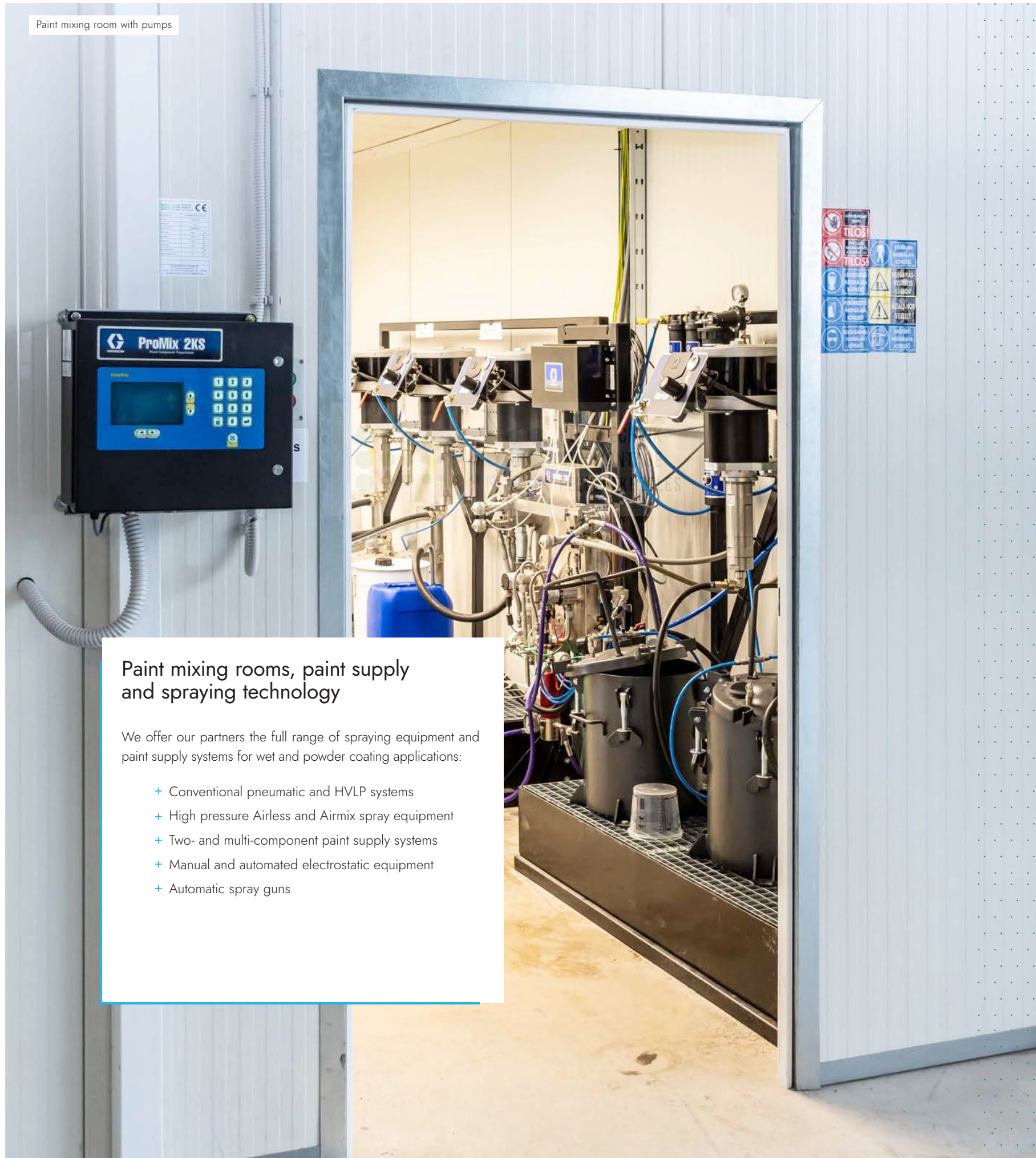
Users can configure all settings, parametrise the system and monitor the whole process on both the central control unit and at the distributed workstations (also via remote access).

Explosion-proof painting robots have become increasingly widespread in industrial applications whose greatest advantages are permanently reliable and high quality, and increased productivity. Due to self-learning processes setup is easy, programming is simple, and flexibility is virtually unlimited.



Industrial painting robot

Paint mixing room with pumps



Paint mixing rooms, paint supply and spraying technology

We offer our partners the full range of spraying equipment and paint supply systems for wet and powder coating applications:

- + Conventional pneumatic and HVLP systems
- + High pressure Airless and Airmix spray equipment
- + Two- and multi-component paint supply systems
- + Manual and automated electrostatic equipment
- + Automatic spray guns



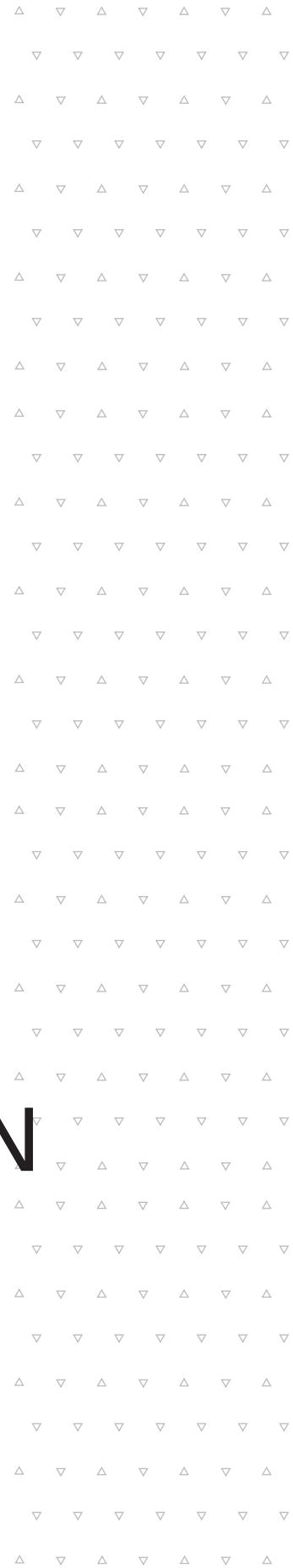
Air assist spray gun



Compressed air spray guns



Graco "Merkur" Airless pump



04

AUTOMATION



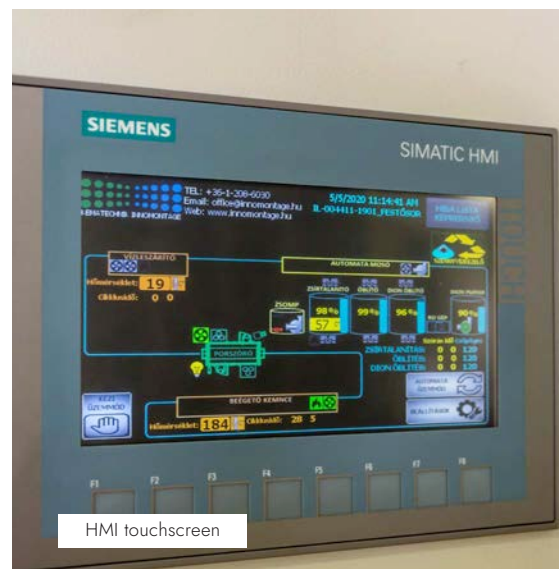
Electric control, automation, PLC programming

We supply our surface treatment equipment and custom special purpose machines with power transmission and control cabinets, and electro-pneumatic controls using state-of-the-art SIEMENS and Weidmüller components.

By default we integrate SIEMENS PLC and HMI in the cabinets, and are ready to install OMRON products upon request. Integrated design and simulation are carried out in TIA Portal.



Touchscreen workstation



HMI touchscreen



Electric control cabinets



Ipar 4.0, Mindstorm Platform

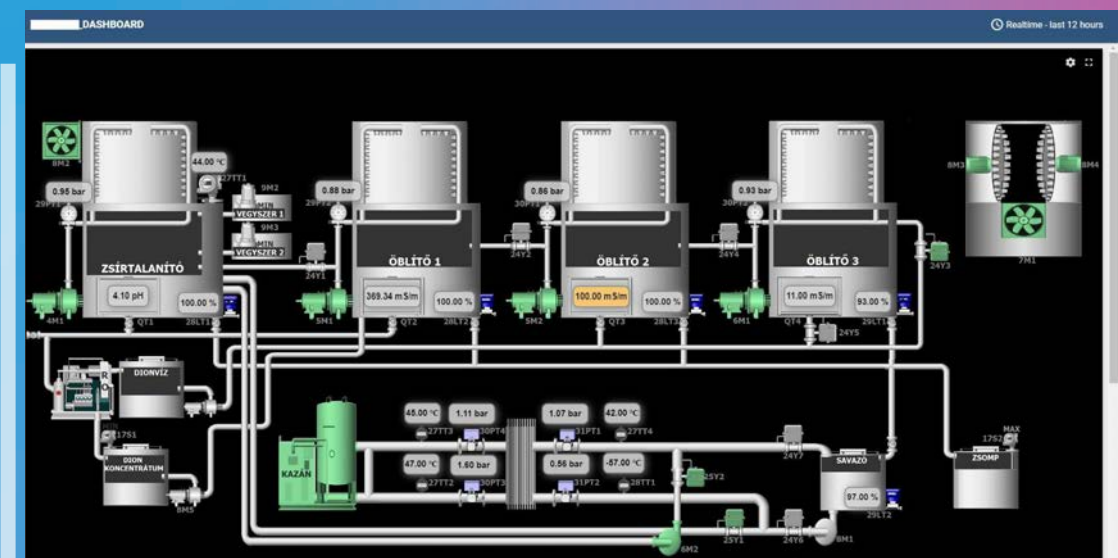
The latest networked devices that communicate with each other have flown into surface treatment processes in recent years.

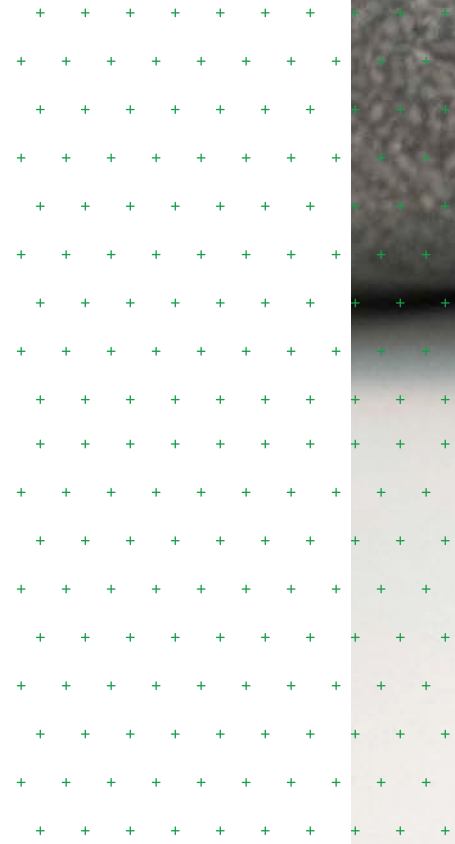
Exploiting this trend, we have developed Mindstorm, an integrated production and management system that can be attached not only to newly installed, but already operating equipment.

The RMS module connected to the PLC controller enables real-time system monitoring and data communication with the ERP system.

Bar code / QR code workpiece identification and RFID workpiece tracking is available upon request.

Mindstorm Cloud boasts the complexity of a cloud-based production management and monitoring system with built-in permission management. The system enables real-time monitoring of the system operating parameters, production reports and analyses.





05

BLASTING MEDIA



Blasting media

We have a large stock of conventional blasting media such as garnet sand, inert corundum, steel shots and grits, stainless steel shots and glass beads.

We also distribute various special materials such as ceramic beads, nutshell, corn cobs and plastic.



Corn cobs granulate



Glass grit



Steel shot



Steel grit



Duroplast



Stainless steel grit



Inert corundum EKF60



Australian garnet sand



Inert corundum EKF10



Glass bead



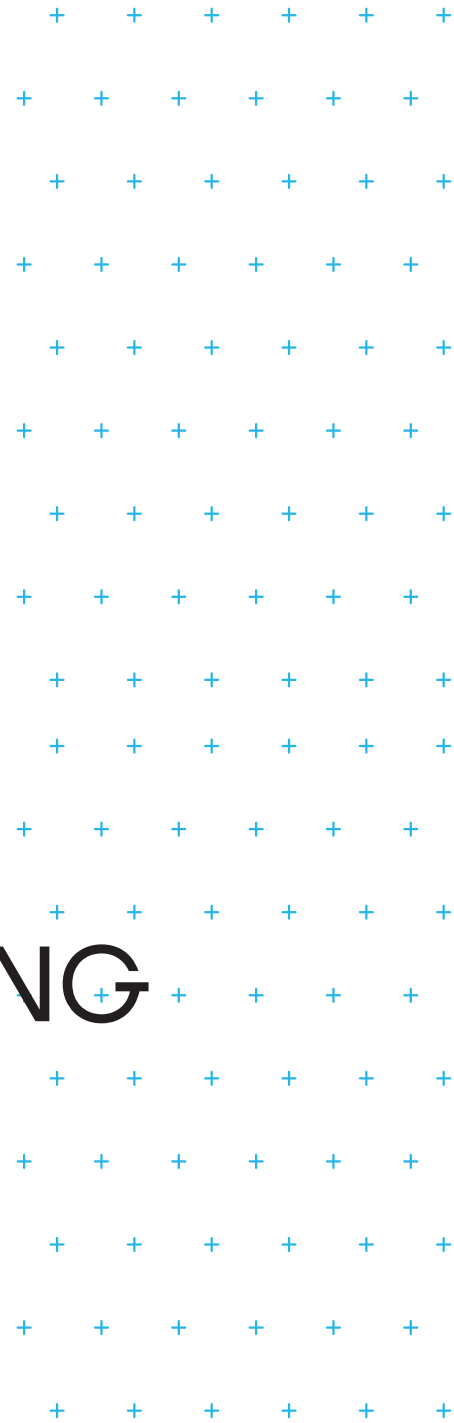
PantaTec

PantaTec ULTIMATE is a blasting media additive developed to clean automatic blasting systems and to improve blasting results.

Greases and oils during the process contaminate the surfaces, which the additive separates from the internal components of the equipment and – what is key – from the blasted surfaces.

The additive is mixed with the blasting media by an automatic dosing unit.





06 —
SERVICE,
CONSULTING



Spare parts supply

We supply the wearing and expendable parts required for the continuous operation of the equipment from one of the largest warehouses of Hungary, including parts for wheel blasting machines, shot blasting or spraying equipment, filter blankets, filter cartridges and screw conveyors



Nozzle holder



Air cup



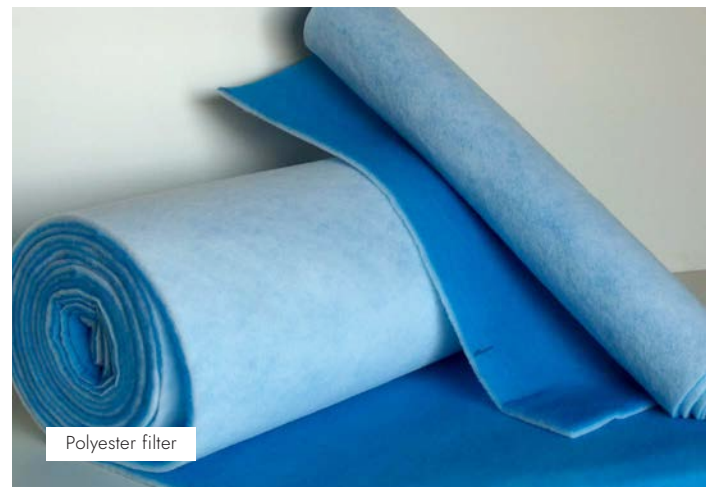
Activated carbon



Pleated air filter



Paper labyrinth filter



Polyester filter

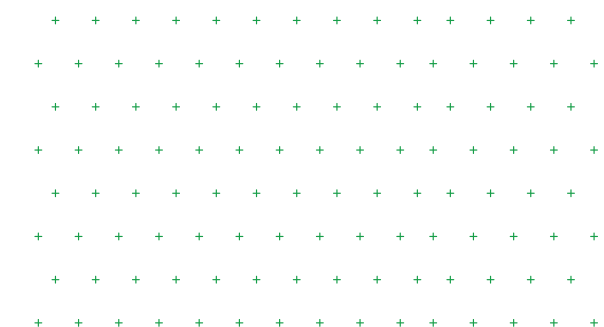


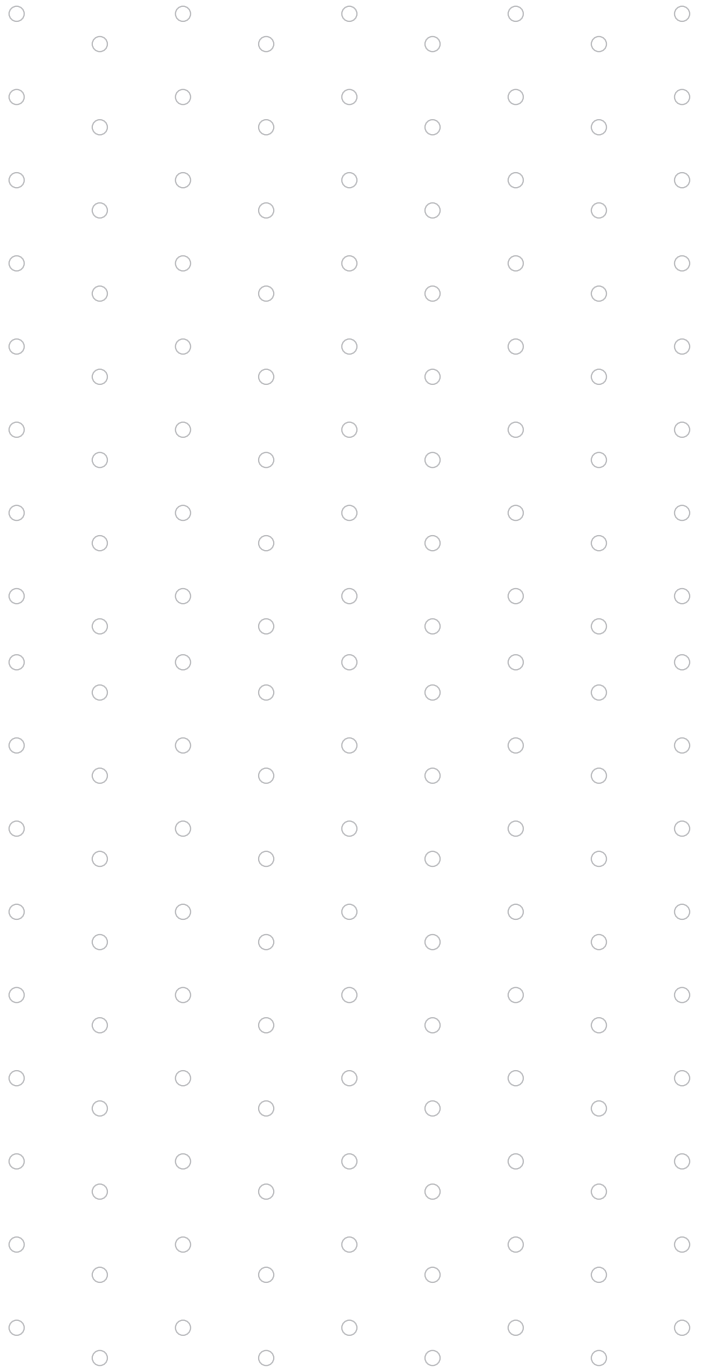
Filter box


Service, consulting


We seek to increase our reputation and recognition by our customer-oriented aftersales approach, therefore, we continue to offer the same expertise and support to our partners to assist them solve any additional questions, problems or failures following commissioning as before contracting.

Our competent service team performs planned and preventive maintenance and repairs fast and professionally both within and beyond the warranty period.





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