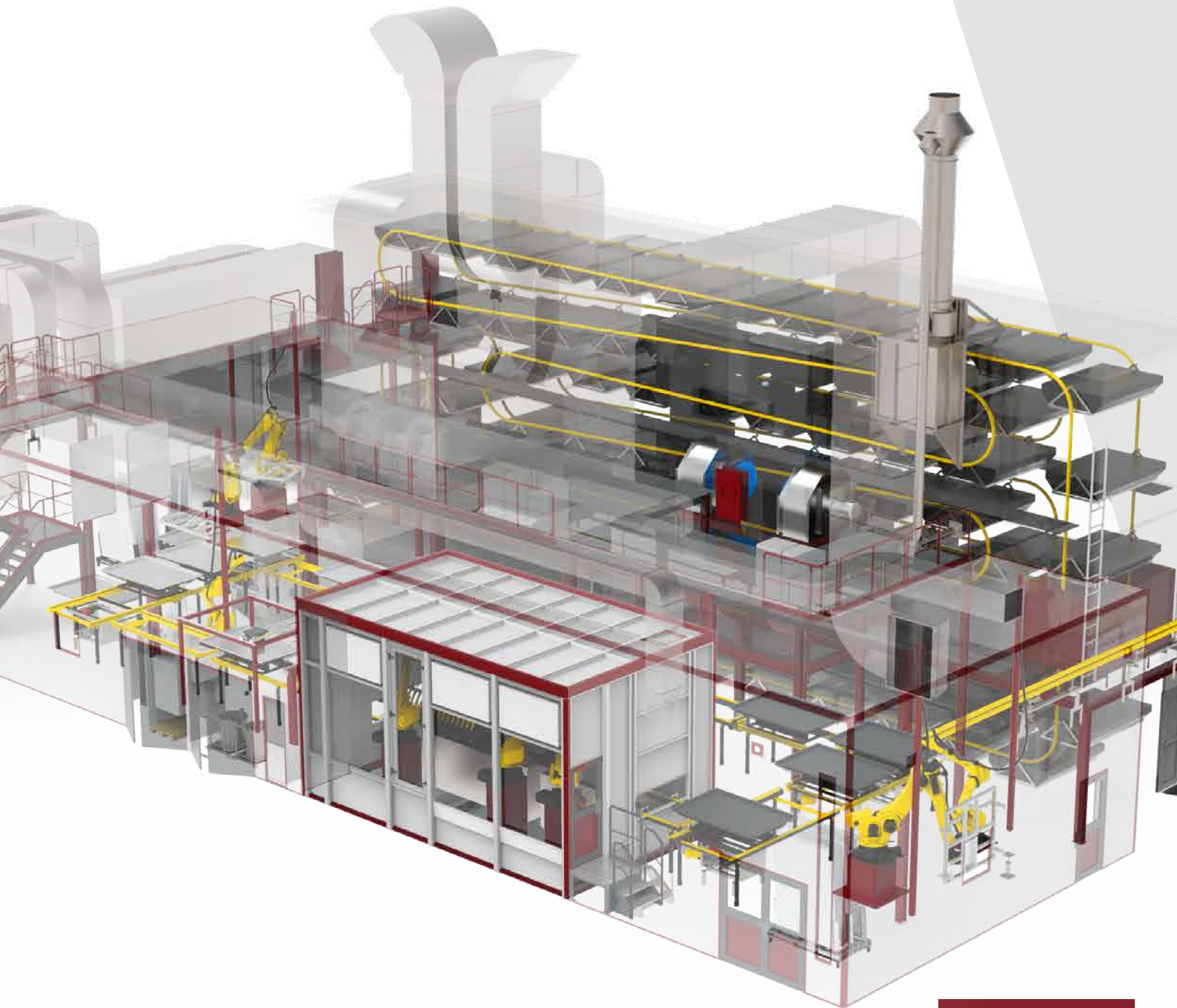


SOLUTIONS





ASIS

Content

Profile

Mission & Vision	5
Why ASIS?	6
Sustainability is Safety	9

Turnkey Coating Systems

Wet Painting Systems	12
Enamelling Systems	14
Powder Coating Systems	16

Application Technology

Rob-Flame	20
Paint-Sup	22
Simple-2K	22
Special-Paint-Sup	23
Paint Application	24
Clean-Gun	26
Clean-Bell	27

Quality Control Systems

Surface-Detect.	30
----------------------	----

Surface Treatment

Automatic Finish	34
Automatic Sanding	36

Automation

Automatic gluing of cardboards	40
Gripper construction	41
Automatic Workpiece Pickup	42

Analysis & Planning

Analysis & Planning	46
---------------------------	----

Contact

Branches	48
Order & Service	49



Mission & Vision

CONNECTING TECHNOLOGY AND PEOPLE

We believe in perfect cooperation between man and machine and in sustainable value created in harmony with economy and ecology. This is what we stand for with our claim "Connecting Technology and People".

ASIS solves challenging tasks in automated plant engineering worldwide. The result for our customers are perfect coatings with highest economic efficiency. As an internationally positioned company, we export from four locations in Germany and a subsidiary near Shanghai to over 30 countries worldwide.

We overlook technical progress across industries and manufacturers and apply it targeted and with high added value in our solutions. Our competence in control technology and the use of digital intelligence gives us the decisive lead over our competitors. Our employees with their corporate values - the ASIS DNA - are the foundation of our actions.

Why ASIS?

Anyone can build a plant, but the decisive differences for a really good plant are in the control technology and the planning service. These are precisely our core competencies.

Anchored in our genes

Control technology has been the calling card of ASIS since the company was founded in 1998. This expertise has helped a small two-man business that started in a residential house grow into a thriving company with several branches in Germany and a subsidiary in China.

This has enabled us to make a name for ourselves with both global corporations and medium-sized companies. Control engineering is deeply rooted in our DNA and is executed in a highly professional manner on every project. We aim to improve, simplify and develop the surface engineering process, but always in a targeted manner, with sensible pragmatism and without overengineering.

WHAT IS UNIQUE ABOUT ASIS CONTROL TECHNOLOGY?

For us, intelligent control technology means understanding your individual needs, representing them in a consistent and open overall system in order to strengthen your competitiveness in the future through optimal system expandability and digital intelligence.

CUSTOMIZED TO YOUR NEEDS

At ASIS, you do not have to buy ready-made solutions off the shelf, but receive a package that is ideally tailored to your needs. Control technology is developed completely in-house, without the purchase of external services. This results in productive concepts that are perfectly integrated into the overall system of the plant instead of isolated solutions.

OPEN TO NEW THINGS

Our systems have an open control standard and are therefore not a black box for you. Updates and expansions can be easily imported internally via ASIS or by external partners. Thanks to the uniform and consistent software, all parameters are combined in a clear visualization of the current status of the entire plant.

EXPERTISE AND CAPACITY

Our specialists are able to develop turnkey solutions even for extensive and demanding tasks - from planning to commissioning.

INDUSTRY 4.0 READY

Your plant data is valuable, use it. Our digital solutions provide you with valuable insights into performance, sources of loss or maintenance (predictive maintenance) - simply and everywhere via smartphone or laptop.



WHAT IS UNIQUE ABOUT THE ASIS PLANNING SERVICE?

For us, intelligent planning services mean knowing you and your environment in detail. With an overview of the entire value chain of surface technology and the use of state-of-the-art planning technology, we can develop customized solutions for you that create long-term, economical and sustainable value.

WE KNOW YOU

For more than 30 years, we have been intensively involved with sophisticated solutions in automated plant engineering. We know your requirements and your environment and know exactly what is important to you: perfect surfaces with maximum economic efficiency. This industry experience from practical experience is part of our unique planning service.

PLANNING COMPETENCE IN HOUSE

We have the experts in the industry in-house. For you, this means: You receive holistic planning concepts as early as the tendering phase and benefit from our comprehensive and manufacturer-independent expertise in the areas of pretreatment, coating, quality assurance, and all adjacent processes. Reasonable monitoring concepts for Industry 4.0 applications are realized in advance through good planning.

STATE-OF-THE-ART PLANNING TOOLS

We operate our own competence center for simulation. Classic robot simulations, offline programming, material flow simulations, digital commissioning or the use of state-of-the-art 3D scanning technology show the range of possibilities. You know how well your plant will work before you even break ground and can optimize performance and functionality.

OWN PRODUCTS

Over the years, many ideas have been created, but also discarded. The best ones can be found in our products. As part of our technology offensive, we have set up our own R&D development department, which develops solutions for tasks for which there were none before. In this way, we supply the market with innovations such as the first electric random orbital sander for robotic use or the first fully automated finishing process in automotive finishing.



Genuine Parts

ASIS products are built for the toughest 24/7 use. With all industrially used products, the extreme continuous stress in production leads to wear. We therefore recommend always replacing defective or worn parts with genuine ASIS parts. They are optimally matched to your application, deliver the highest quality and maximum safety.

Not sure which parts you need?

Contact us, our service team will be happy to advise you (page 49).



Sustainability is Safety

Progress is an integral part of our lives. For the perfect surface we push the technical development, it is a constant companion of our daily work.

We are absolutely sure that a solution will only be a success if it is intelligent. This means that it is perfectly suited to its goals, works extremely economically for the customer and is also designed to be future-proof for the coming challenges of digitalization. It delivers first-class quality in operation and meets our sustainability benchmarks:

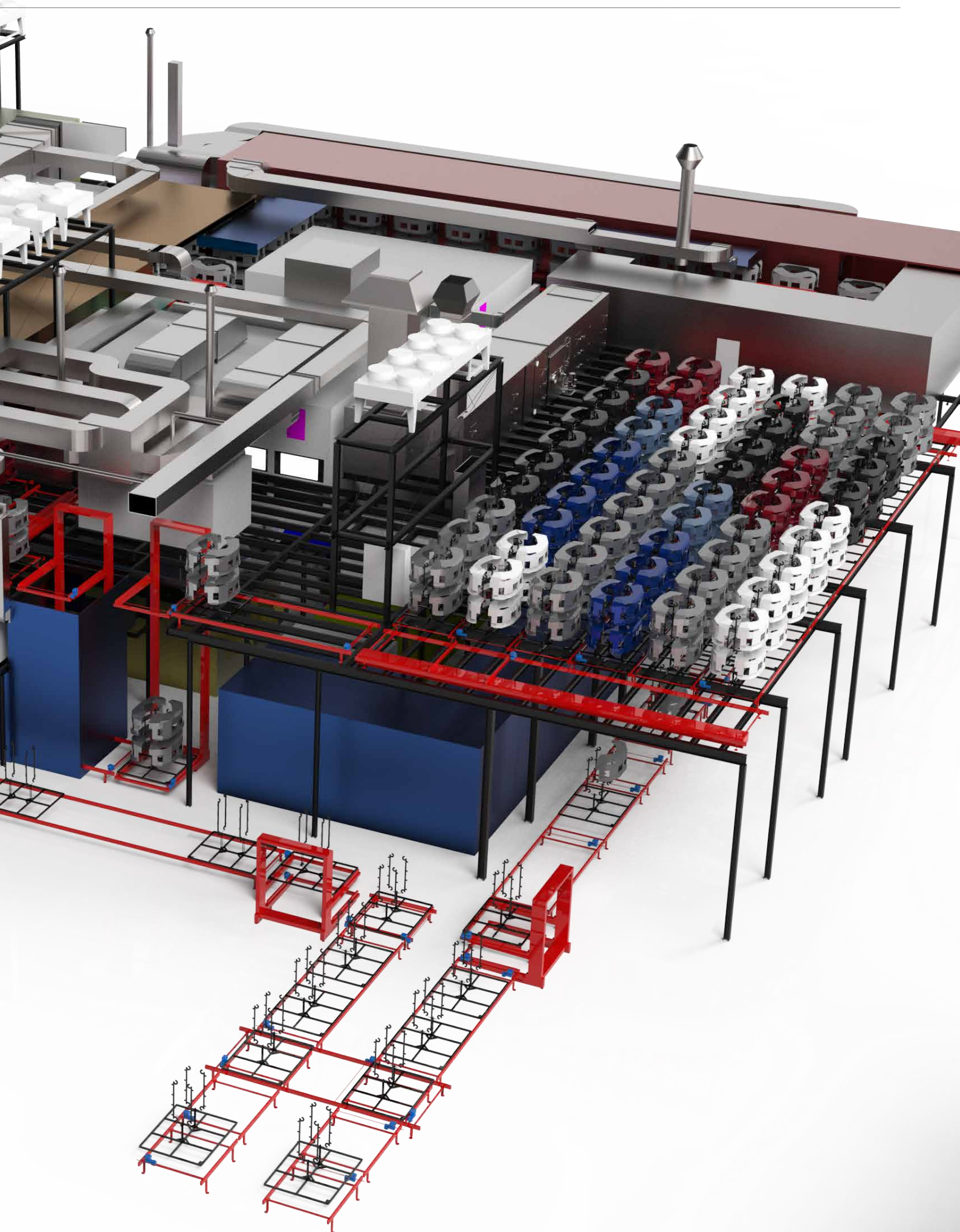
For each ASIS product the design made sure that wear parts can be replaced in a maintenance-friendly way. We are also structurally organized with our spare parts sales that all ASIS customers can be supplied with the required genuine parts in the shortest time possible.

This keeps production lines running and our products can do what they are best at: **creating long term value.**

*We see sustainability not as an empty phrase for a green image,
but as a benchmark of our engineering skills that offers our customers safety.*

Hans-Jürgen Multhammer, CEO

COATING SYSTEMS



Wet Painting Systems

Perfectly planned painting systems from a single source

ASIS offers solutions that are optimally tailored to the customer's needs and implements the elaborated detailed, niche and complete solutions as individual systems, complete solutions or also as retro fit.

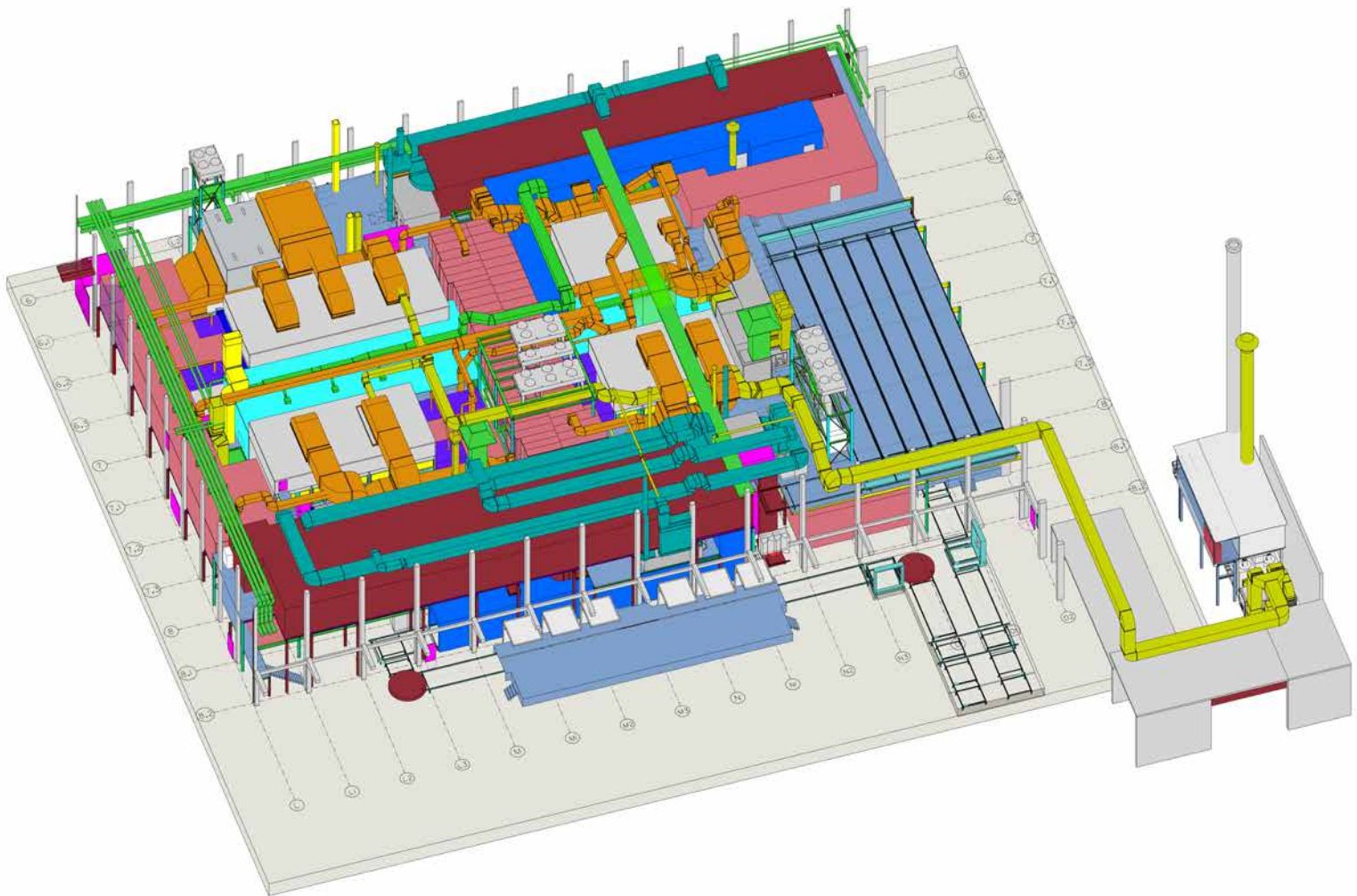
From the idea to the professional commissioning by our employees, we are at your side as a competent partner. Typical tasks are the automatic coating of plastic and metal parts for various industries.

For highest demands:

- Automotive Manufacturer (OEM)
- Automotive supplier (TIER)
- Mechanical engineering
- Agricultural machinery manufacturer
- Wood and furniture industry
- Two-wheeler manufacturer
- General industry
- Railroad

Advantages:

- Reaching high quality, economical, sustainable & effective results
- Implementation of individual application technology for clients use
- Paint supply systems for Highrunner, Mediumrunner or even Lowrunner
- Reproduceable application results



PRETREATMENT

- Flame treatment system Rob-Flame
- CO₂ cleaning
- Spray pre-treatment
- Blow-off zones



APPLICATION

- Bell atomizers
- Gun atomizers



ROBOTICS

- Intelligent robot technology
- Incl. control technology & programming
- Application robots
- Carrying robots



DRYING

- Convection dryers
- Adhesive water dryers



PROCESS ENGINEERING

- Cooling zones
- Humidification zones
- Flash-off zones
- Cleanroom technology

CONVEYOR TECHNOLOGY

- Floor conveyor technology
- Electric overhead conveyors
- Storage and retrieval units
- Skid conveyors
- Power & free systems
- Circular conveyors



Enamelling Systems

Perfectly planned powder or wet enamel coating plants from a single source

ASIS has expanded its range of services and can build on the comprehensive and long-standing know-how of our experts in this field in the area of enameling.

We cover the entire plant spectrum in this area with the latest and most efficient technology:

- Wet enamel
- Powder enamel
- ETE process

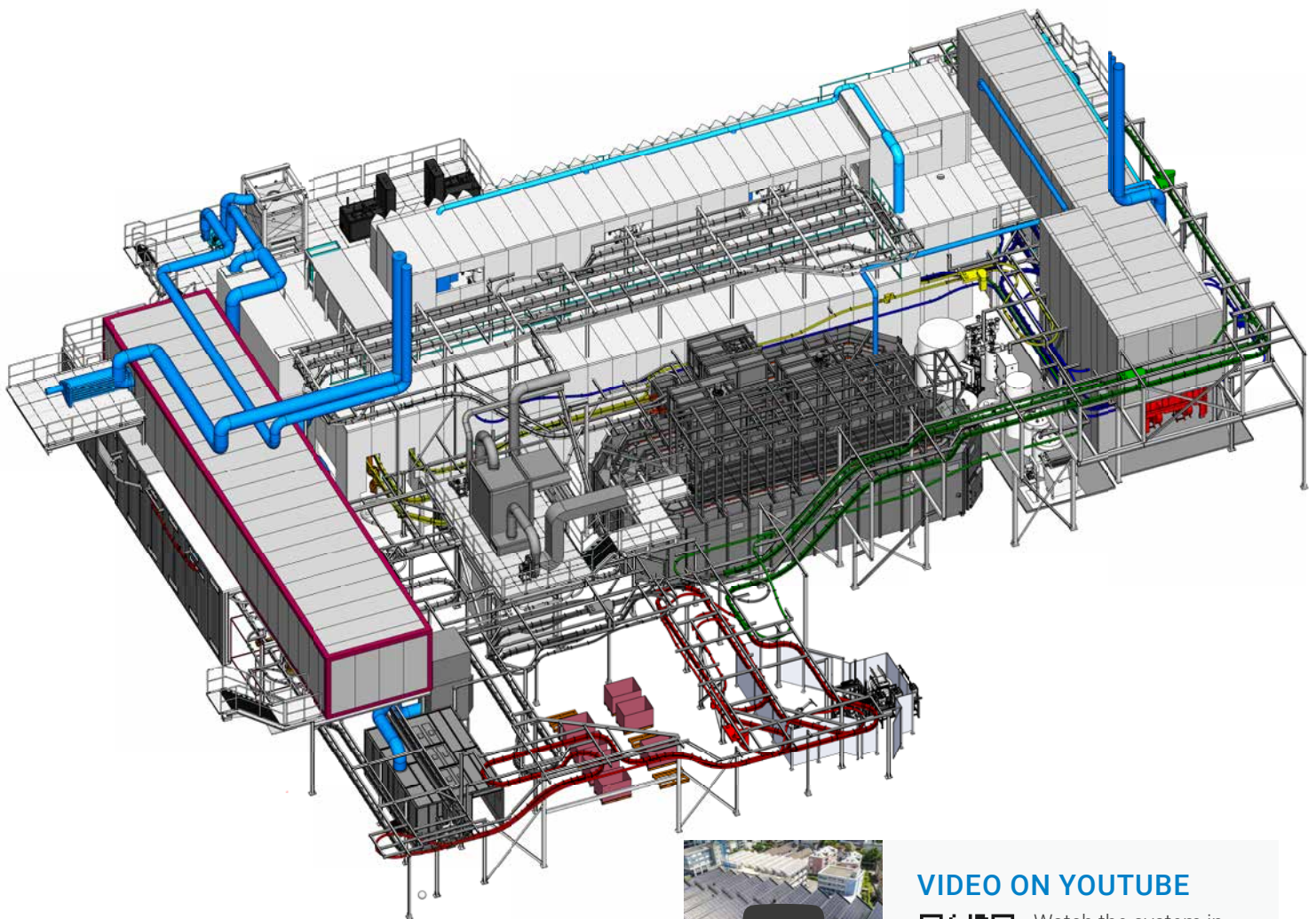
Advantages:

- quality, economical, sustainable & efficient
- Individual application technology can be planned and executed
- Ecological friendly coating, solvent free
- Fulfills the highest quality standards
- High durability, abrasion resistant & anti corrosive

Since sustainability in plant engineering is also becoming more and more of a focus for us, enamel is a material with many excellent properties that is completely recyclable and thus also has a secure place in the market in the future.

For highest demands:

- Attractive optics
- Chemical & corrosion resistant
- Extremely robust & highly heatable
- Food safe
- Very environmentally friendly (without solvents)



VIDEO ON YOUTUBE



Watch the system in action!

<https://www.youtube.com/watch?v=bGe4szGSelw>



PRETREATMENT

- Spray pre-treatment
- Adhesive water drying
- CO₂ Cleaning

APPLICATION

- Powder coating with 6-axis industrial robot
- Powder application with anti-kink device
- Powder supply



OVEN & PROCESS ENGINEERING

- Curing ovens
- Cooling zones
- Air-conditioning housings
- Flash-off zones

ROBOTICS

- Intelligent robot technology
- Incl. control technology & programming
- Application robots
- Carrying robots



Powder Coating Systems

Perfectly planned powder coating systems from one hand

We are your competent partner for high-quality powder coating systems. Our powder coating systems are characterized by a high degree of automation and very good energy and material consumption figures. As an expert in automation technology for surface technology, we can provide you with a fully automated system on request. We also find a solution for work steps that were not previously automated.

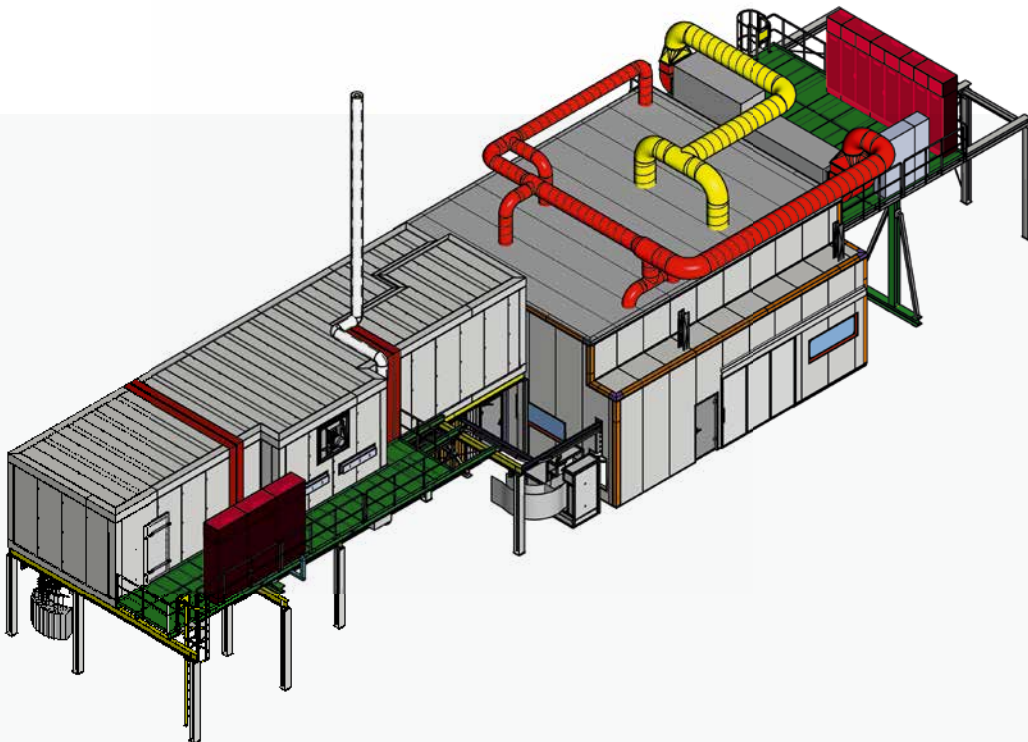
Using the latest planning tools, we make concrete predictions about the performance of your system and identify potential bottle necks. Benefit from our many years of expertise in automation and coating. With ASIS you have a reliable partner for the future.

For highest demands:

- Automotive supplier (TIER)
- Mechanical engineering
- Agricultural machinery manufacturer
- Wood and furniture industry
- Two-wheeler manufacturer
- General industry
- Railroad
- Medicine technology

Advantages:

- High degree of automation, even beyond the standard solution
- State-of-the-art robotics
- Intelligent and open control technology without a black box at the highest level
- Smart systems with surface analytics
- Predictive maintenance





PRETREATMENT

- Spray pre-treatment
- CO₂ Cleaning
- Ionizing blow-off station
- Adhesive water drying

APPLICATION

- Powder coating with 2-axis lifting stands
- Powder coating with 6-axis industrial robot
- Powder application with anti-kink device
- Powder supply/powder recycling



OVEN & PROCESS ENGINEERING

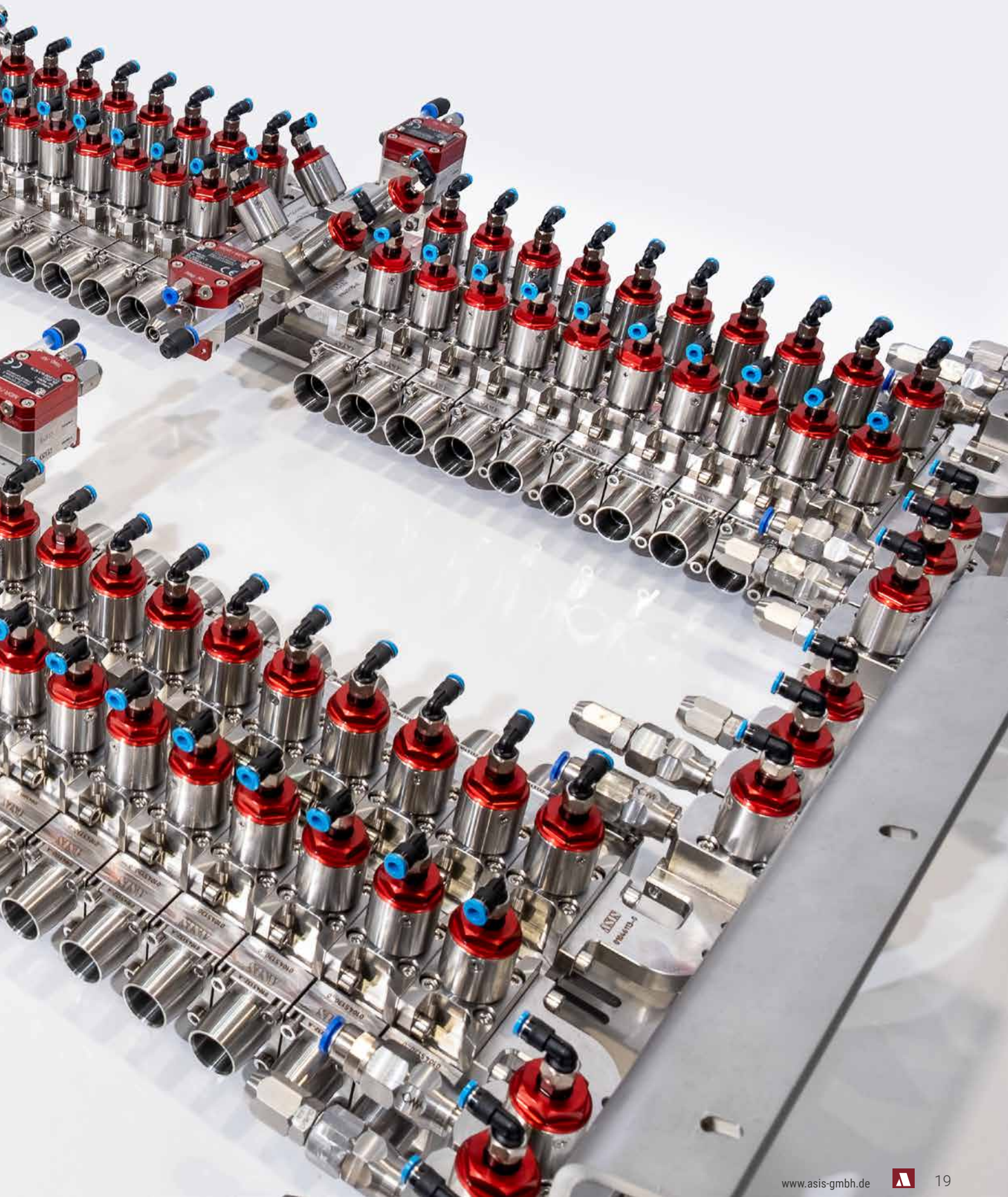
- Powder furnace with A-lock
- Angling zone with electrically heated radiant panels
- Cooling zones
- Air-conditioning housings
- Air handling with air conditioning

ROBOTICS

- Intelligent robot technology
- Incl. control technology & programming
- Application robots
- Carrying robots



APP LICA TION



Rob-Flame

Economical flame treatment technology

Our flame treatment system Rob-Flame consists of a control unit that regulates the gas-air mixture and the burner itself.

It is divided into two parts, the mechanical part, with all pipes, valves, pressure switches and mass flow controllers and the electrical part, consisting of the control unit, visualization, automatic burner control and all electrical wiring.

To achieve optimum paint adhesion on polyolefin plastic components, such as bumpers in the automotive sector, a high surface tension must be generated.

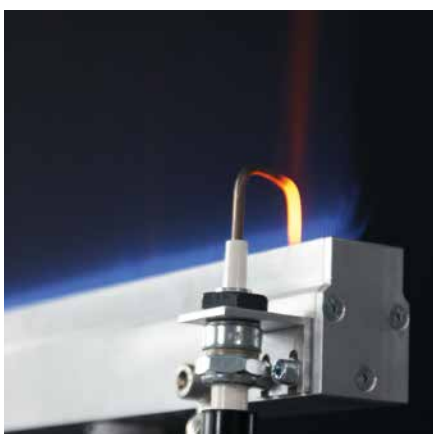
In addition, a clean, reproducible surface is ensured.



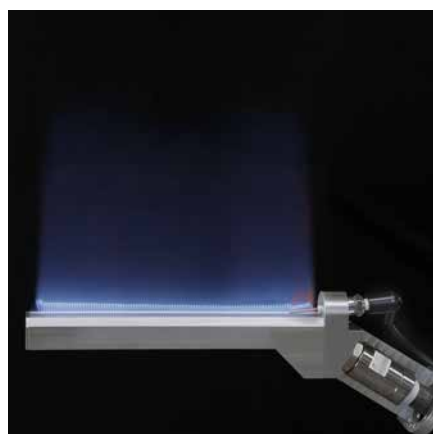
Flaming of plastic parts

Advantages:

- Precise electronic control of air and gas quantities
- Flexible burner design according to customer requirements
- Optimum paint adhesion on polyfin and polyolefin plastic components
- Reproducibility of the application result
- Improved product quality and durability
- Process monitoring in terms of quality management
- Leakage monitoring of the air/gas mixture hose
- Profibus, Profinet or E/A interface
- Integration into higher-level system
- Fully automated



Stationary flame treatment



Flaming with flexible robot arm

TYPES OF FLAMING

- Flexibly controlled via the industrial robot
- Stationary, with movable parts to be flamed



Paint-Sup

Paint supply for highrunner

The paint supply of the plant with primer, basecoat or decorative paint in large containers up to 1000 l is implemented with the Paint-Sup system.

The scalable system is thereby 100% customized. The system is highly available and of the usual high ASIS quality.

Paint-Sup corresponds to the latest level of digitization. Seamless process monitoring and detailed analysis of the data are building blocks according to Industry 4.0 standard.

Advantages:

- Customized design of the systems for different media
- High availability of the systems
- Process monitoring and data analysis using intelligent system control
- Use of container tanks up to 1000 l



Highrunner paint supply

Simple-2K

Paint supply

Advantages:

- Simple integration into a higher-level control system or as a stand-alone system
- Suitable for robots and manual painting
- Number of paint and hardener connections can be expanded modularly, even at a later stage
- Simple operation via integrated touch panel



s2k | Simple-2K

Special-Paint-Sup

Paint supply for special colors and small quantities

Smaller production batches and frequent color changes are among the greatest challenges facing modern paint shops today.

With the ASIS Special-Paint-Sup system, we create the possibility for our customers to perform color changes quickly and in a highly automated way.

The system is optimized for short color change times and reduces our customers' operating costs through lower color loss and the use of less rinsing medium.



Special color supply in high voltage version

Advantages:

- Increase economic efficiency through process optimization & cost reduction
- Material recovery through pigging technology
- Lower paint and rinse agent consumption during color change
- Easy integration into existing lines
- High availability through monitoring of system-relevant process data
- Suitable for continuous operation due to ring line concept

SPECIAL-PAINT-SUP PERFORMANCE

- Container on trolley can be comfortably docked to the system
- Agitator is located on the standard clamping ring cover
- Docking with drip-free quick couplings
- Final cleaning of the containers in automatic washing plant
- Medium to upper performance range



SPECIAL-PAINT-SUP COMPACT

- Hobocks are manually placed on lifting platform
- System moves containers upwards to agitator and supply lines
- Optimal system for small quantities
- Lower to medium capacity range

Paint Application

Clever components from own engineering

Over the years, ASIS has built up its own range of application technology especially for the requirements of automated surface technology.

This program has already been used in many ASIS systems and also in the coating systems of other manufacturers.

Compared to other offers available on the market, the new ASIS products can be used to solve different application tasks in a flexible and maintenance-friendly way.

RDR PRESSURE REGULATOR FOR CIRCULAR PIPELINE

- Modular pressure regulator for circular pipeline with pre-pressure function
- Manual/spring operated (4, 10, 16 bar input pressure) or pneumatic 1/3
- Ceramic or plastic seal
- Ball Ø 6 mm or Ø 8 mm
- Material input side or bottom



RKR RUNBACK REGULATOR

- Modular runback regulator with back pressure function
- Manual/spring operated (10, 16 bar input pressure) or pneumatic 1/3
- Ceramic seal
- Ball Ø 10 mm
- Material output side or bottom



MPR MATERIAL PRESSURE REGULATOR

- Selectable between two different seal sets (ceramic, plastic seal)
- Configurable connection kits: Direct attachment to ASIS color change technology, G 1/8", G 1/4", blind plate for material feed with end line to the MPR
- Distribution bars for several MDRs in series



COLOR CHANGE / ACCESSORIES

- Modular color changer
- Distributor blocks
- Flushable diaphragm seal with pressure gauge



PAINT FITTINGS

- Piggable paint fittings
- Angle fittings
- Straight fittings
- Connectors
- Bulkhead fittings
- Plug screws and reduction
- Double nipples



VALVES, DOSING TECHNOLOGY

- Needle valves
- Non-return valves
- Flush valve Clear-Jet
- Micro-Dispenser



Clean-Gun

Cleaning for gun atomizers

Soiling of the atomizer and especially of the air caps are problems that all paint shops are confronted with and which can be avoided by our Clean-Gun.

In this process, the atomizers are cleaned mechanically by means of oscillating brushes moistened with cleaning medium. Due to the oscillating movement of the cleaning brushes, an optimal cleaning result is obtained.

The necessary use of flushing medium is dimensions less than with comparable brushless systems.

Clean-Gun is available as single or dual version and can be adapted to various atomizers and manufacturers.

Special features are the blow-off device and the ATEX approval, which allow the use in hazardous areas.



Cleaning of pneumatic atomizers

Advantages:

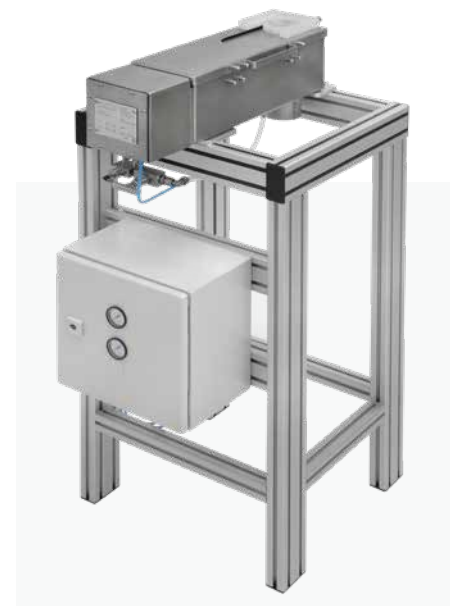
- Fast cleaning
- Exceptionally low rinsing media consumption
- VOC compliant
- Lower compressed air consumption
- Closed tank
- No secondary contamination
- Low maintenance
- Cleaning is done by oscillating brush movement
- Single and dual version
- Blow-off device for drying the cleaned air cap



Clean-Gun



Special model: Clean-Gun dual version



Clean-Gun with pneumatic box

Clean-Bell

Cleaning for bell atomizers

With ASIS Clean-Bell we offer a fully automatic solution for cleaning dirty rotary atomizers.

In every paint shop, the problem is well known that a small part of the overspray always lands on the atomizer.

Here, without consistent cleaning, a high level of contamination is formed, which affects the result of the surfaces to be painted.

Our bell cleaning device ASIS Clean-Bell is designed for the automatic cleaning of rotary atomizers.

For this purpose, the atomizer is positioned in the center of the device and then automatically rinsed by means of a cleaning nozzle and subsequently dried.

Here, emphasis was placed on keeping the consumption of the cleaning medium as low as possible. Our Clean-Bell can be adapted to various atomizers and manufacturers according to customer requirements.

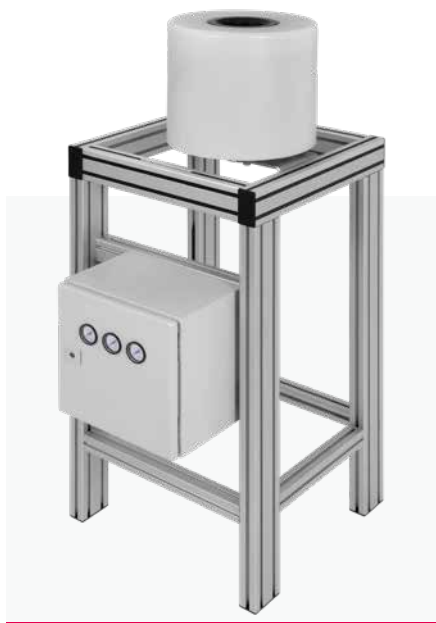
Optionally, a pneumatic control box is included in the scope of delivery. The device is suitable for use in potentially explosive atmospheres and is marked accordingly.

Advantages:

- Fast and automatic cleaning of the bell, steering air ring and bell plate
- Connection to a dump system possible
- Especially low flushing medium consumption
- Closed tank
- No secondary contamination
- Low maintenance
- Adaptation to various bell manufacturers possible (Sames, ABB, etc.)
- Control box optional



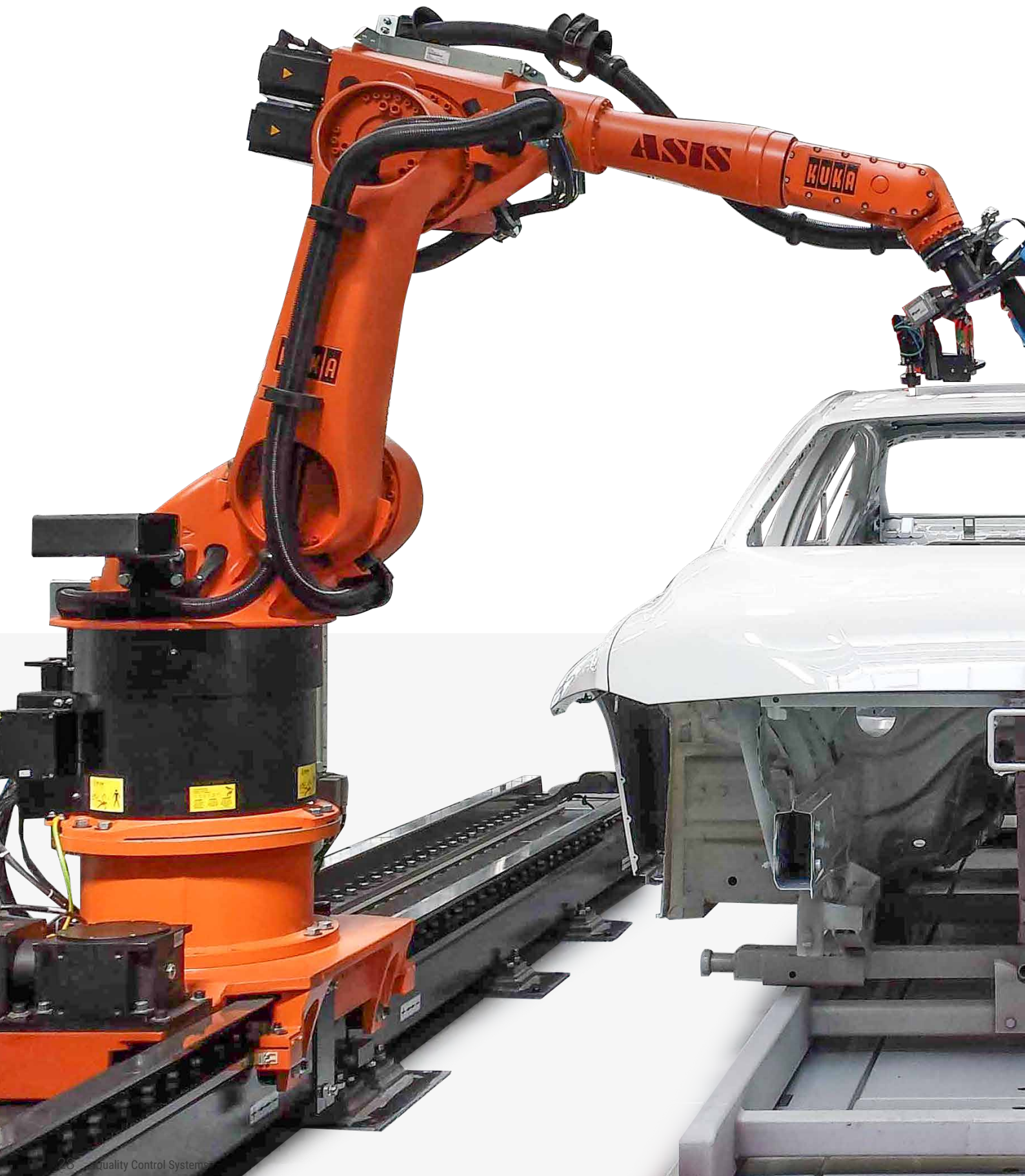
Cleaning of high rotation atomizers



Clean-Bell with pneumatic box



Clean-Bell



QUALITY CONTROL



Surface-Detect

Measuring systems for surfaces

Our system makes it much easier to achieve the optimal color match, as well as the desired surface finish and quality. With which we can ensure the optimal as well as the best possible painting result.

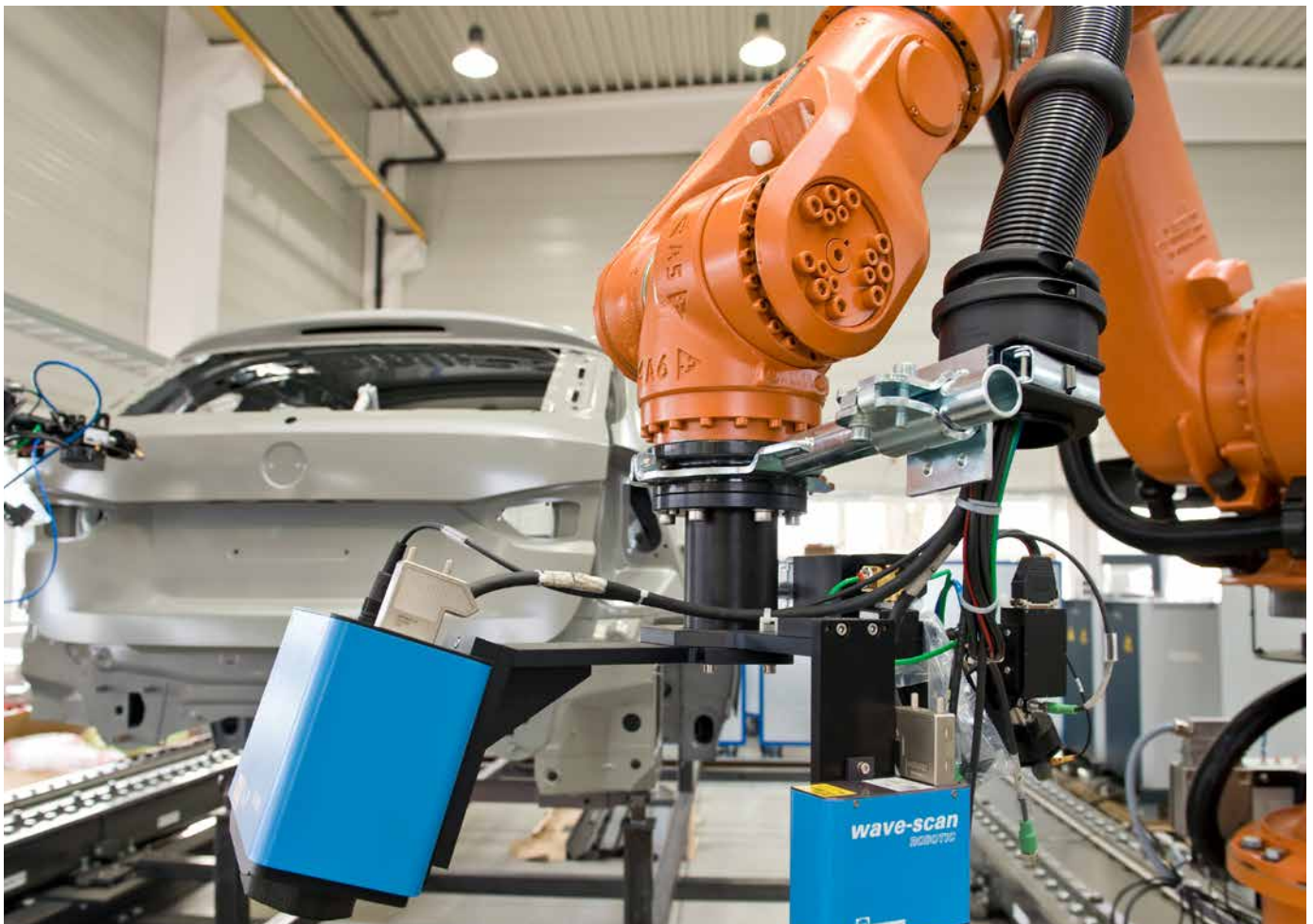
Through this system, we are able to significantly increase the number of tested parts or even car bodies.

Reasons for automated measuring:

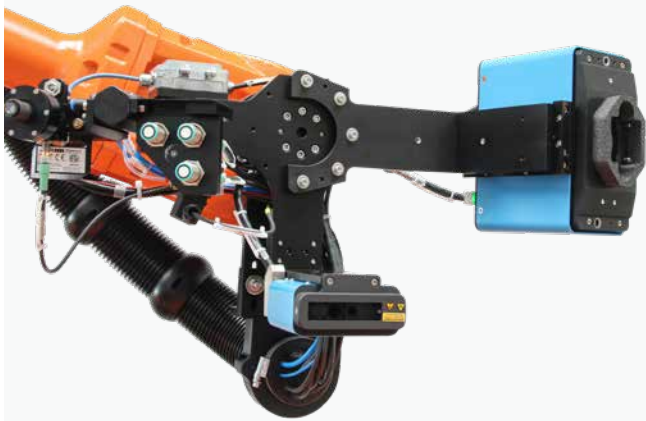
- Attachment parts have many and large area interfaces with the car bodies
- Uniform appearance of color and texture
- Off-line painting of add-on parts requires maximum cooperation between the supplier and the OEM
- Manual measurement leads to high labor costs and inaccuracies
- Reproducibility of measurements
- Higher quality of products
- High process reliability in the delivery of attachments

Advantages:

- High quality of measurement data due to reproducibility of measurements compared to manual process
- Equipped with systems for coating thickness, color tone and structure measurement
- Automated data storage of the different measurement systems
- Providing data for statistics and process optimization



End-of-line measurement for vehicle bodies

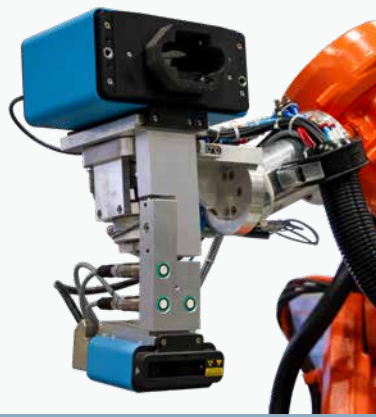


TRIPLE SENSOR HEAD

- Measurement of color tone, structure and coating thickness
- Ideal for end-of-line measurement of entire vehicles
- Industries: OEM automotive

DUAL SENSOR HEAD

- Measurement of color tone and structure
- Ideal for end-of-line measurement of plastic add-on parts
- Industries: TIER automotive



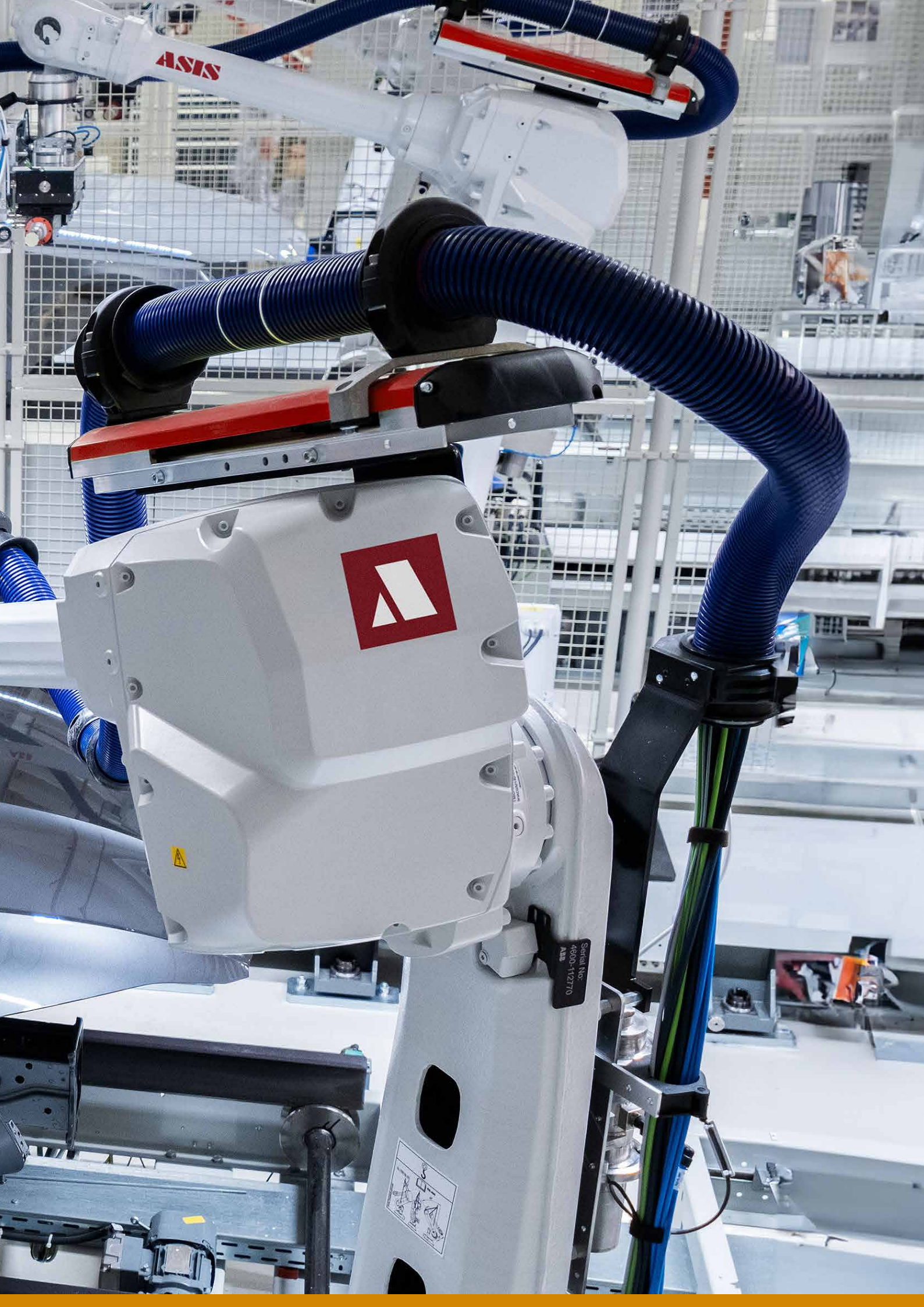
MEASURING TABLE

- Measurement of color tone, structure, coating thickness, cloudiness and haze
- Ideal for end-of-line measurement of color plates
- Color plate magazine with automatic feeder
- Industries: laboratory sector





SURF ACET REAT MENT



Automatic Finish

High precision and fully automatic reworking process system in the paint finish

After painting (clear coat, top coat, base coat, CDC), visible defects in the paint are caused by dust inclusions, for example.

Until now, these had to be removed by hand. Problems and difficulties occur during this step of the process, though:

The processing result can vary depending on the employee's daily form. The sanding dust and the ergonomics during work are also a burden for the employee.

With the automatic finish, ASIS offers a fully automated solution for this work step.

The system is already successfully in use at several OEMs. On a fully equipped automatic finishing cell in the ASIS technical center in Landshut, interested visitors can see it live and test the automated processing on their own workpieces.

The target industries are the automotive sector and its suppliers; further applications in the electrical or mechanical engineering are also possible.

Advantages:

- High precision & fully automatic reworking process system in the paint finish
- Applied in top coat and in cathodic dipping coating (CDC)
- Repeatability of process results
- Automatic allocation of application parameters and reworking processes depending on the type of defect
- Automated path planning of application programs



WHITEPAPER AUTOMATIC FINISH

Download now for free!
www.asis-gmbh.de/whitepapers



VIDEO ON YOUTUBE

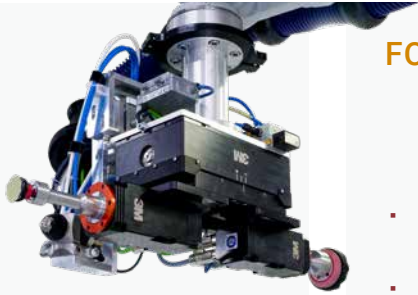


Watch the system in action!

https://www.youtube.com/watch?v=SFunhQ_zNzQ

APPLICATION

- Compact design enables to be dual mounted
- Provides high accuracy
- Active force control with gravity compensation
- Operates at any angle
- Electric servo motor



FORCE-CHECK

- Checking the contact pressure on the applicator
- Ensuring the correct function of the active contact flange
- Consistent and error-free configuration



DISC-X-CHANGE

- Fully automatic or manual change of the sanding disc
- Monitoring of the pick-up and tear-off process
- Quick change between different sanding discs
- Exchangeable magazines
- Filling of the magazines during operation possible
- Compact design, low maintenance



PAD-X-CHANGE

- Fully automatic or manual change of the polishing pad
- Monitoring of the pick-up and tear-off process
- Quick change between different polishing pads
- Exchangeable magazines
- Filling of the magazines during operation possible
- Compact design, low maintenance



POLISH-SUP 3

- Air-free system
- Fast and comfortable cartridge change
- No expansion or deformation of the cartridge
- Exact information about capacity and car bodies to be processed



POLISH-PUMP

- Perfect filling of the cartridges without air pockets
- Clean working
- Energy-saving thanks to trolley
- Fast filling of up to 8 cartridges in one operation

Automatic Sanding

Perfectly uniform surface structure in record time

Sanding, polishing surfaces or deburring edges are labor- and cost-intensive work steps in almost all areas of industry. Employees are also exposed to high levels of stress. Be it through the grinding dust in the air, the working posture that is unergonomic for joints and muscles, or the vibration of the tool. ASIS offers the first fully automatic grinding system with abrasive change worldwide.

In addition to the automotive industry, general industry, mechanical engineering, manufacturers of rail vehicles and white goods, the sanitary and furniture industry or the energy sector also benefit from automatic surface treatment.

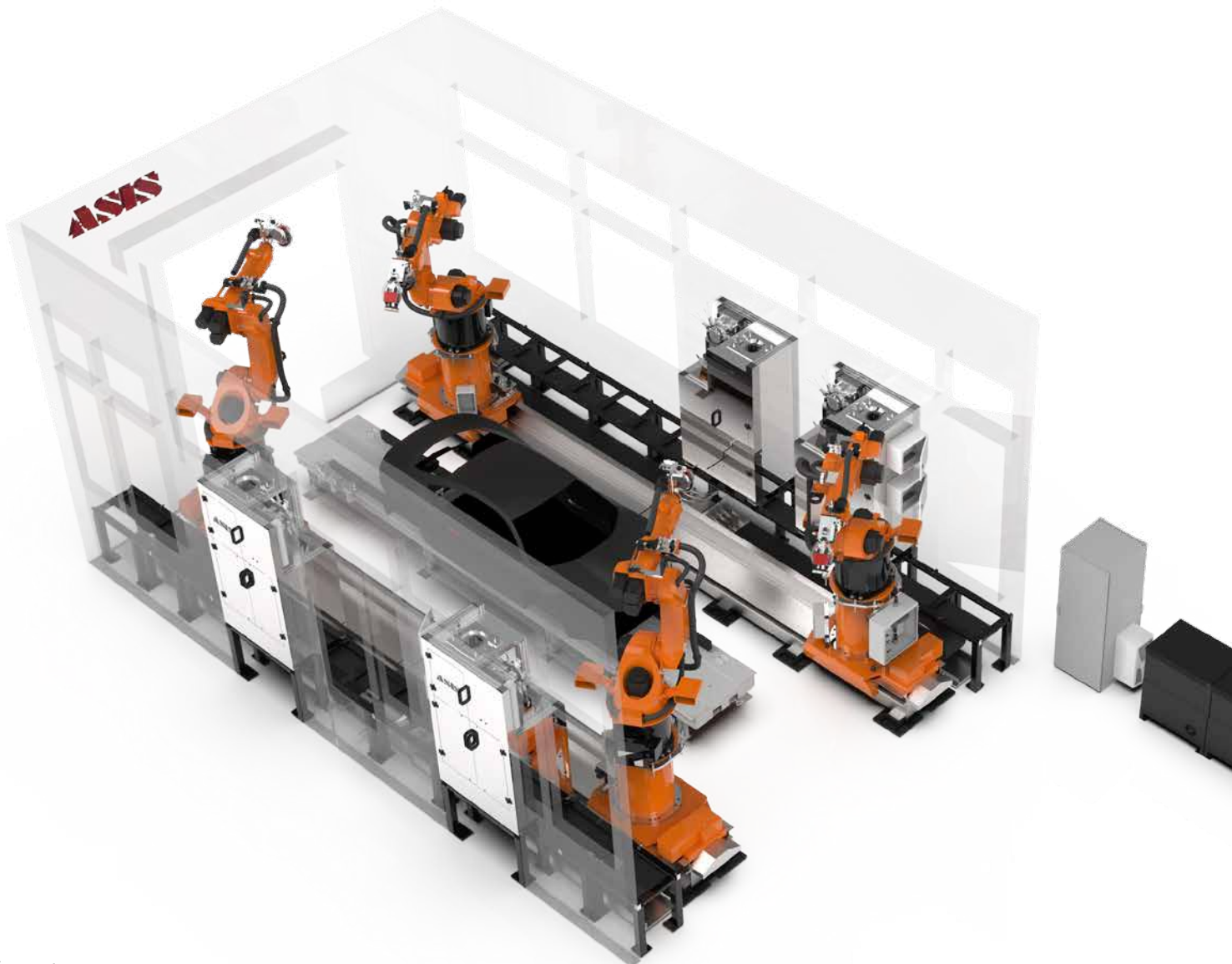
It is not so much the size of the company that is decisive, but much more the task: Wherever either many identical workpieces or large surfaces are processed, automated surface treatment comes into its own.

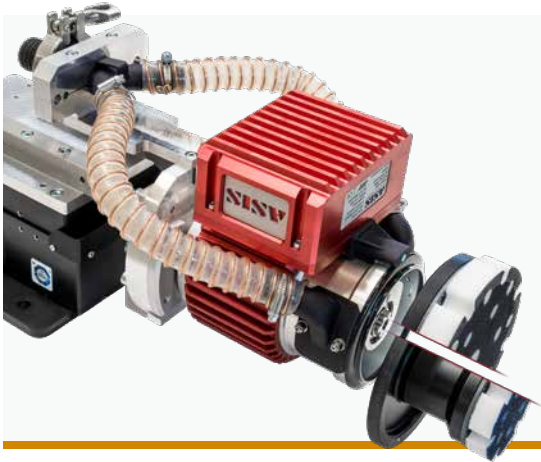
The advantages over conventional surface grinding machines lie in the flexibility provided by the use of industrial robots. Ready-assembled components, three-dimensional shapes or different contact pressures, for example on edges and surfaces, are no problem, nor are different grit sizes in just one operation. Once programmed and ready. Changes can be easily entered on the graphic visualization even without programming knowledge.

Compared to humans, the robot has three times the contact pressure. As a result, the mold can be moved more quickly and production is faster overall. In addition, the robot does not work according to the shape of the day and is always 100% repeatable.

Advantages:

- Maximum efficiency and safety for people and the environment
- Individually planned application technology for customer-oriented applications
- High quality through product surface improvement
- Reproducible process
- Fully automatic change of the abrasive



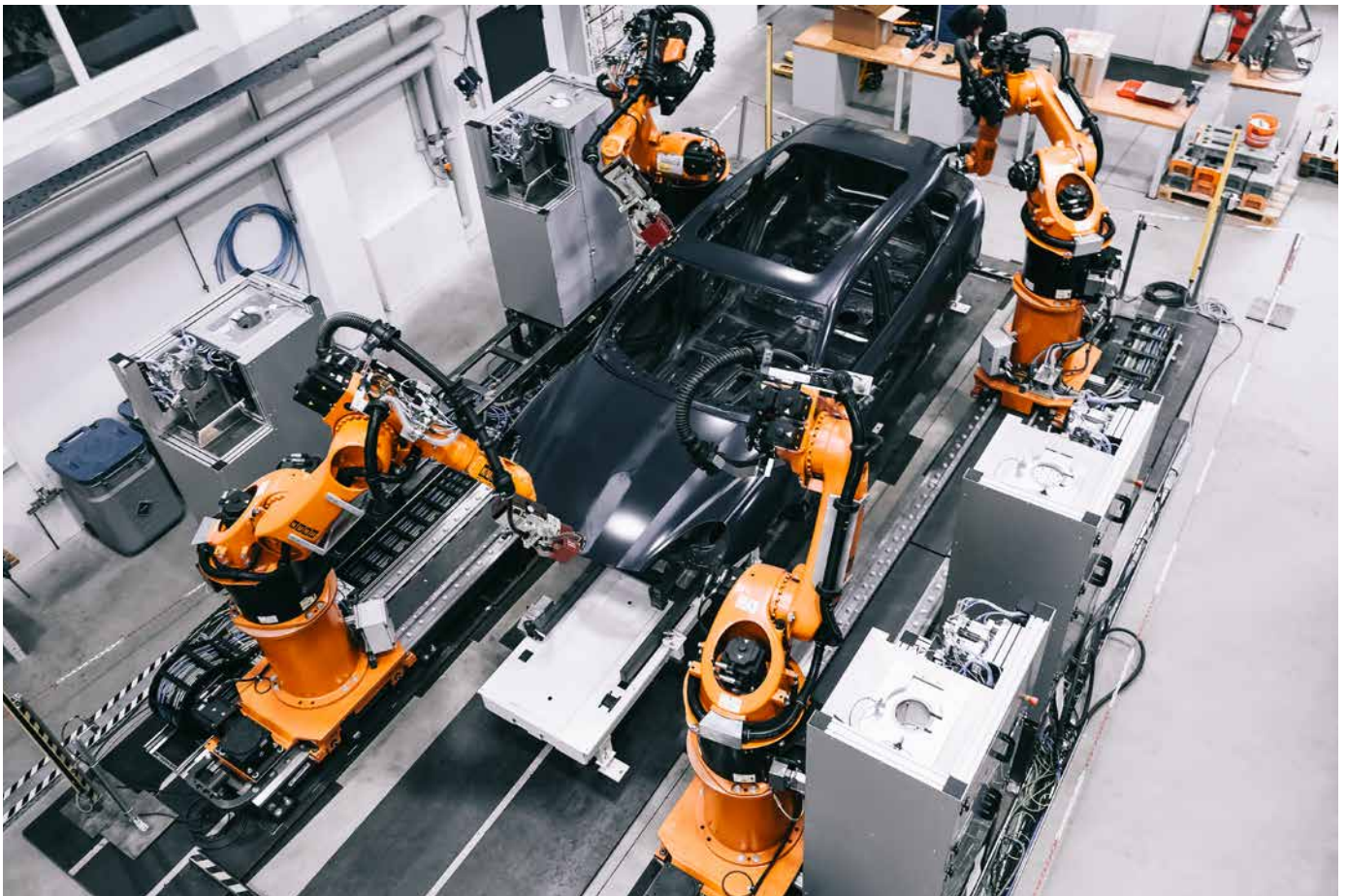


ROB-E-UNIT

- Electric random orbital sander for use on industrial robot
- Speed control ensures consistent sanding quality
- Modular design by pluggable control electronic
- Integrated fieldbus interface and extraction
- Flexible use for different abrasive sizes

X-CHANGE

- Safe and fast automated exchange of the abrasive
- Modular design, use of several magazines possible
- Use of different abrasive sizes possible
- No disruption of production during magazine change
- New abrasive can be picked up in less than 15 seconds



Automatic sanding system for filler sanding of vehicle bodies in the pre-assembly stage



AUTOMATION



Automatic gluing of cardboards

Fully automatic gluing in the headliner

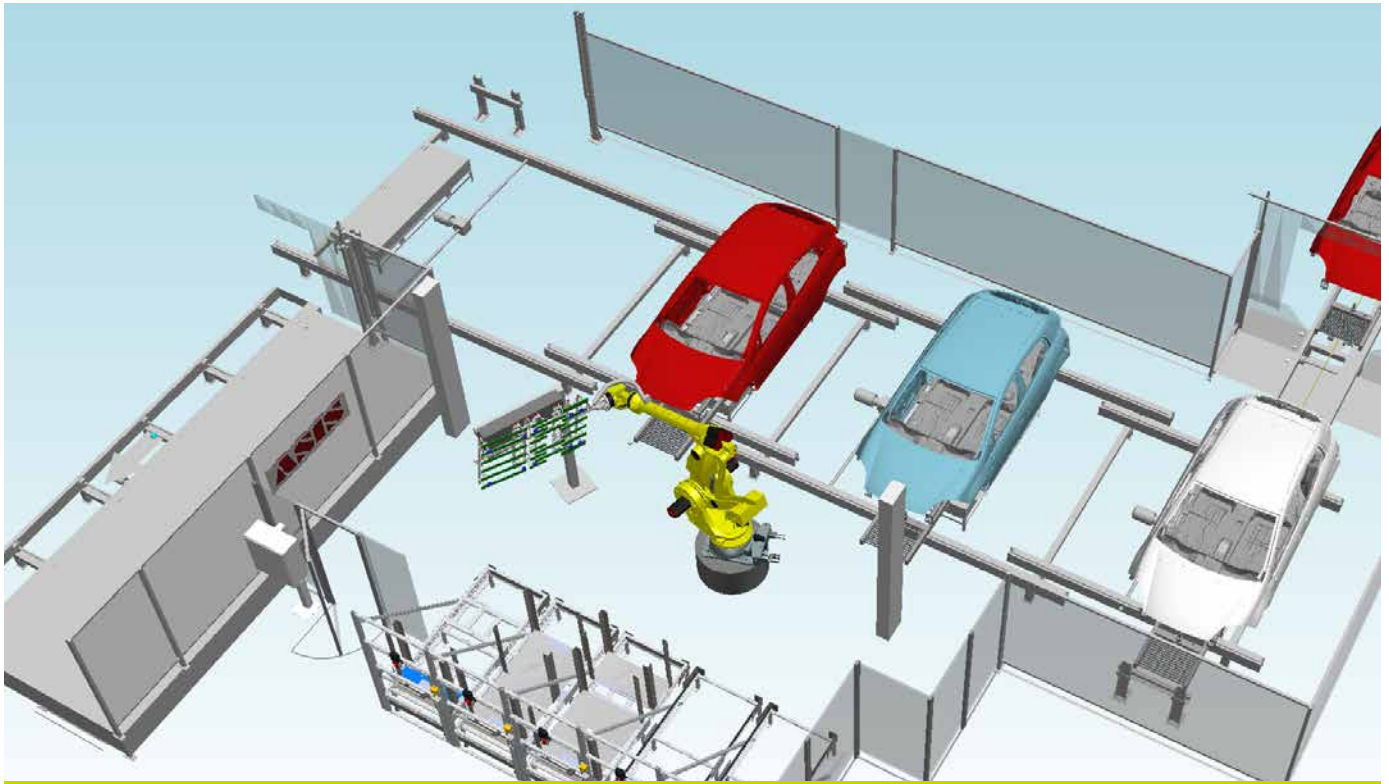
In automotive vehicle production, cardboard is inserted into the headliner. The task for ASIS was to develop a fully automated system that securely picks up the cardboard, applies adhesive and glues it precisely to the car body. Several vehicle models pass through the system, each of which is to be processed accordingly.

The cardboard is removed from fixtures by a universal suction gripper and guided along a nozzle block. The nozzle block is equipped with variably adjustable adhesive nozzles that can be individually controlled to apply adhesive beads to the cardboard. The cardboard is then pressed onto the headliner in a single operation and bonded to it.

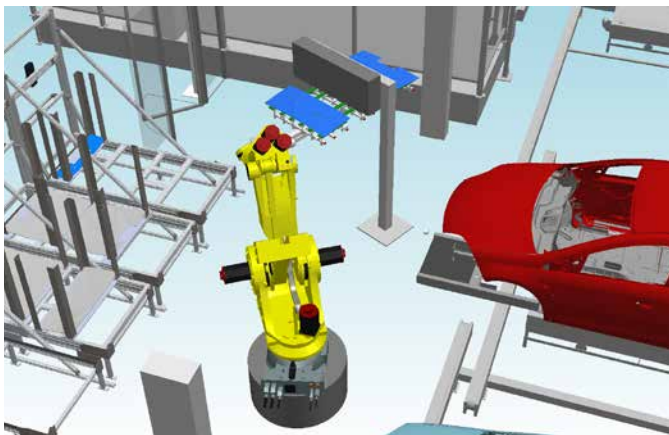
The process is fully automated. The cardboard is glued in precisely. A rework station was provided for the final inspection.

Advantages:

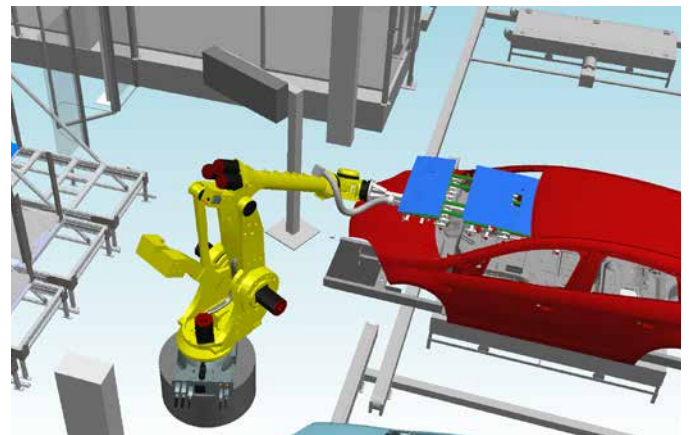
- Preliminary investigation in the simulation
- Layout planning of the entire system
- Gripper design
- Complete control and safety technology



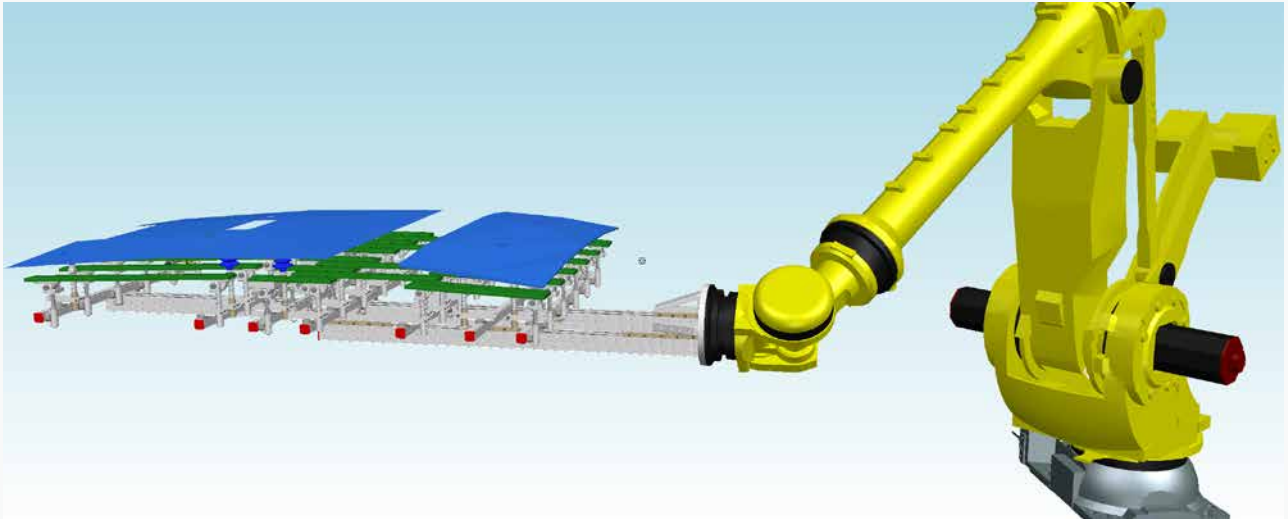
Layout planning



Application on the nozzle holder



Gluing into the vehicle headliner



Gripper construction

for automatic gluing of cardboards

Task:

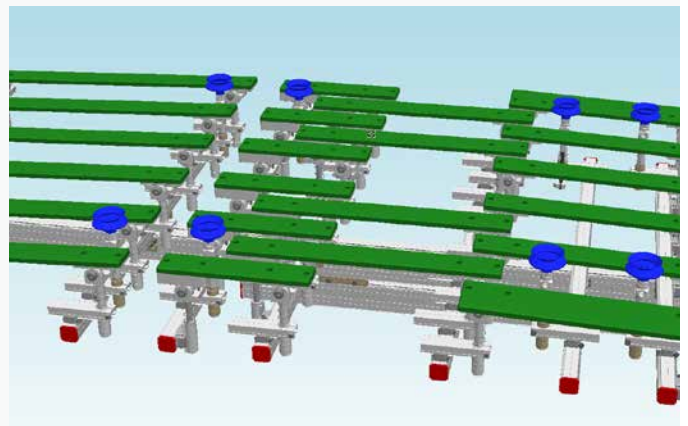
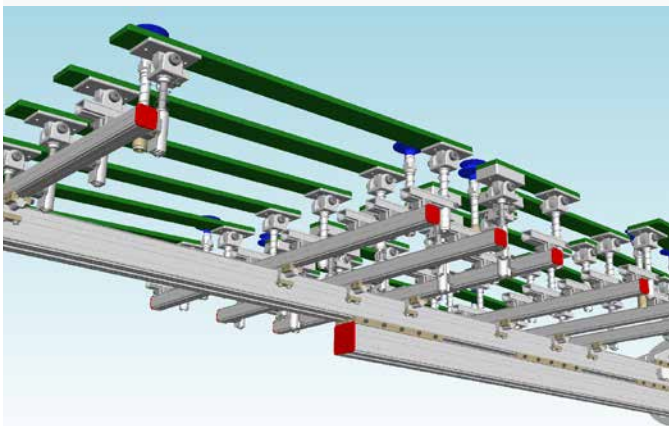
- The gripper must be compatible for multiple board types.
- Multi-part components must be picked up simultaneously
- Uniform pressing of the cardboard on the three-dimensional headliner

Benefit:

- Flexibility even with changing workpieces in the future
- Fully automated process
- Process reliable and repeatable

Realization:

- Universal gripper design for various components
- Safe pick-up of the components via flexible suction cups
- Uniform pressing of the workpieces against the three-dimensional vehicle headliner with flexibly mounted pressure bars.



Automatic Workpiece Pickup

Setting hangers and clips on ovens

In the industrial production of ovens, the cooking chambers are coated with a robust enamel coating. For smooth assembly of the ovens, it is important that certain areas of the workpieces are not enameled. For this purpose, fully automatic clips are applied to the relevant areas to prevent enamelling at certain points.

The cooking chambers, which are also produced fully automatically, are transferred via conveyor belts. The clips are delivered as bulk material, automatically sorted out, and supplied individually. Depending on the type of cooking chamber, a gripper positions the clips precisely at the later screwing points.

The cooking chambers are fed to the overhead conveyor system via hangers. These are supplied via a magazine and placed fully automatically. A robot then lifts the fully loaded cooking chamber from the floor conveyor into the overhead conveyor. The cycle time of the entire system is less than one minute.

The system relieves the work personnel and takes over a monotonous and tiring activity. Filling the system twice per shift is sufficient for the precise and repeatable system.

Advantages:

- 100% customer specific requirements
- Fully integrated into the overall plant
- Preliminary study in the simulation
- Large pre-assembly





SETTING CLIPS

- Separation of the bulk material
- Precise positioning of the clips at later screwing points

SETTING HANGERS

- Supply of the hangers via a magazine
- Fully automatic loading of the workpieces



HANGING IN CONVEYOR SYSTEM

- Handover to the overhead conveyor system



VIDEO ON YOUTUBE

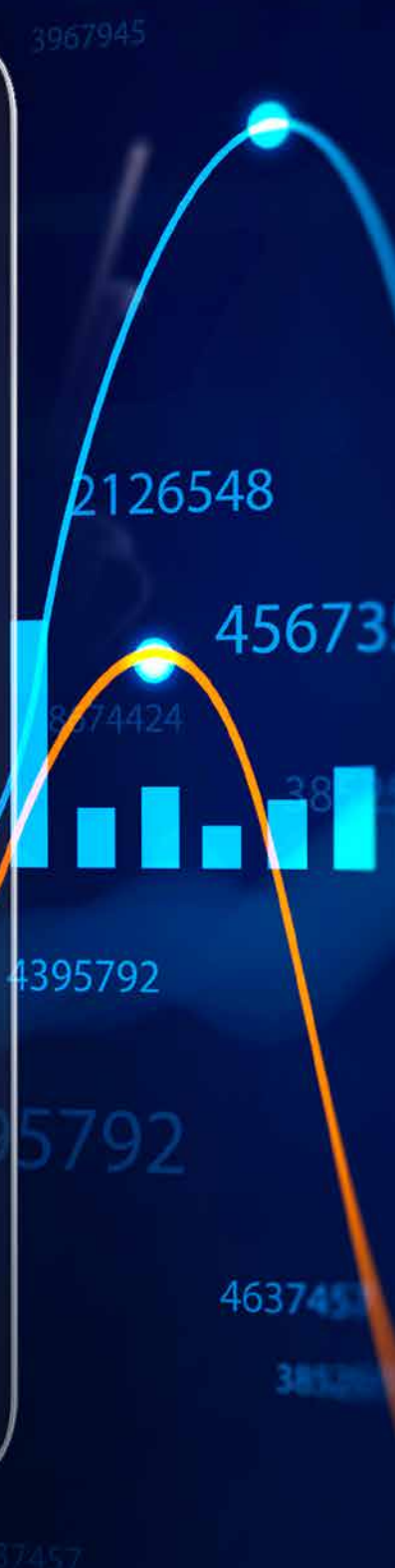


Watch the system in action!

<https://www.youtube.com/watch?v=P2BHIwKexCQ>

ANALYSIS & PLANNING





Analysis & Planning

Consolidation of simulation results as an integral part of plant design

ASIS connects technology and practice. Painting and simulation experts work together at ASIS and share ideas in direct communication. This is how simulations are created that show a precise image of reality.

With the claim of holistic plant planning, we also offer our experience as a service, for example in the field of robot simulation.

No matter if new planning or conversion - we combine many decades of application experience and state-of-the-art simulation technology.

The digital possibilities of holistic plant planning are fully used at ASIS.

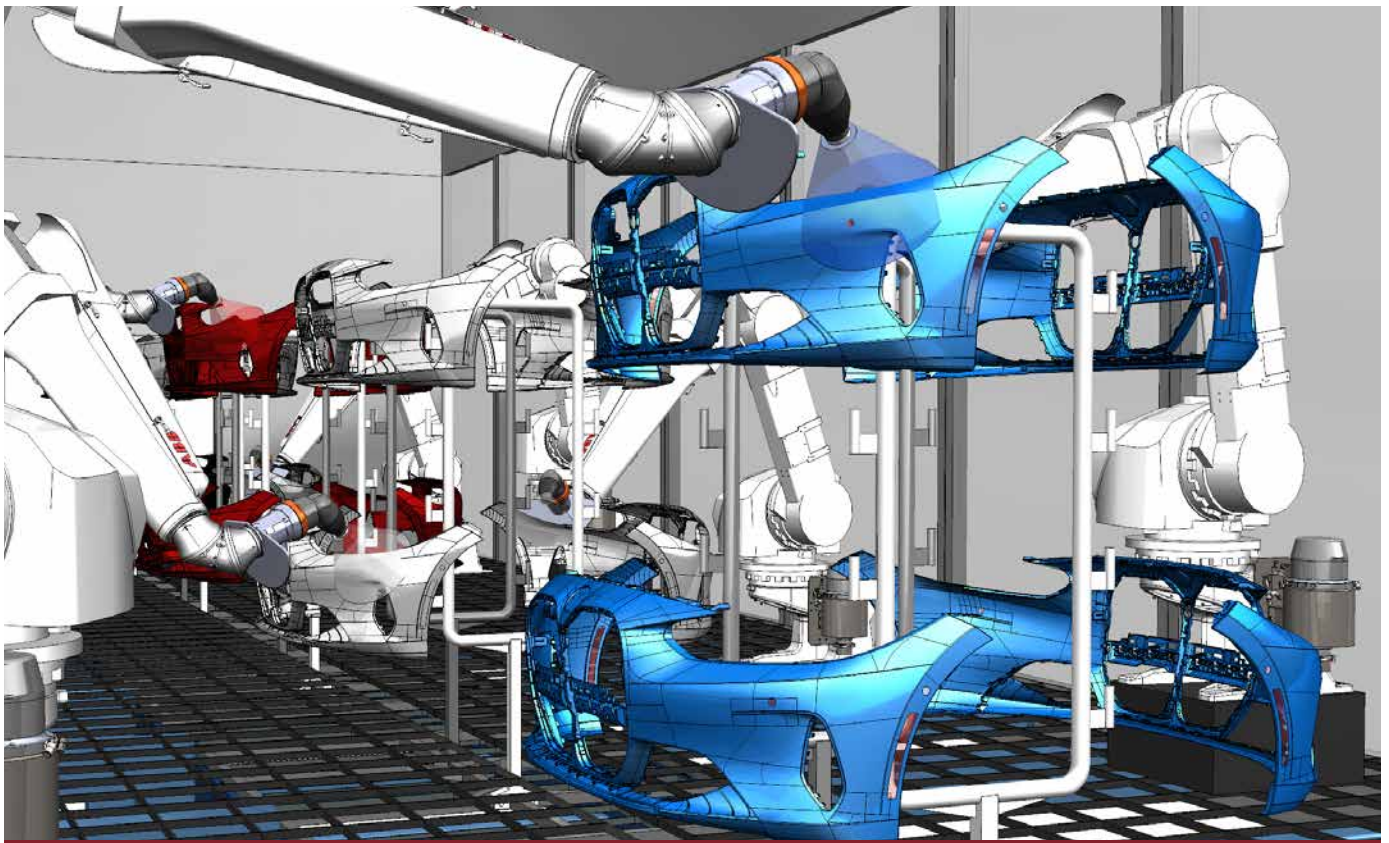
In such considerations, it has already been proven that by taking into account all the different processing times of the components, the number of stations and thus the overall size of a plant can be significantly reduced.

In this way, you avoid the risk of oversizing and obtain an optimized system, perfectly matched to your needs.

By the way, the programs of the robots are already provided offline.

Advantages:

- Unique combination of painting and simulation experts
- Holistic plant planning
Independent consulting
- Reachability studies
- Complete simulations with exact cycle time
- Coating concepts in line tracking or stop & go
- Layout planning
- Robot exchange
- Control system exchange
- Outflow rate calculation



VIDEO ON YOUTUBE



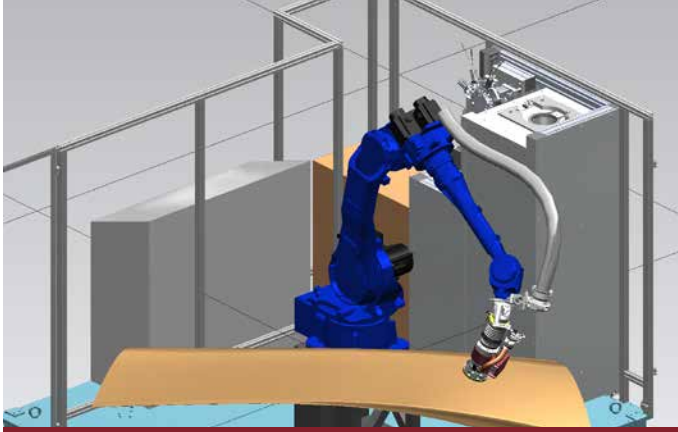
Watch a complete simulation!
<https://www.youtube.com/watch?v=UIBtRGThEfo>



VIDEO ON YOUTUBE



Watch a top coat simulation!
<https://www.youtube.com/watch?v=hkclWUuD928>

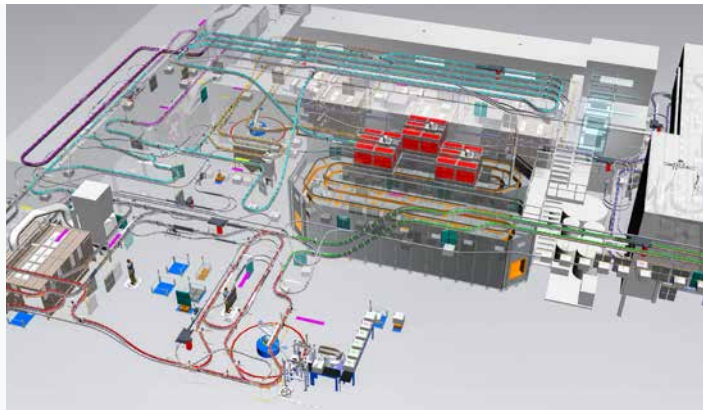


ROBOT SIMULATION

- Reachability studies for concept testing
- Offline robot programming
- Virtual commissioning
- Process acceleration through digital twins

COMPLETE SIMULATIONS

- Combination of robot simulations and a material flow simulation
- Simulation of interlinked processes
- Ensure exact cycle times
- Avoid overdimensioning



3D-SCANNING

- Surveying tasks of all kind
- As a service or for internal planning
- Capture all data in one appointment
- Generates editable 3D volume data
- Powerful software for customers (walk-through)
- Ideal for documentation of existing plants
- Acceleration of commissioning

SOFTWARE

Surface-Analytics

- Process data analysis
- Derive concrete actions
- Predictive Maintenance

CC-Edit

- Optimization of color change sequences



Surface-Analytics

Branches

ASIS GmbH - Headquarters Landshut

Kiem-Pauli-Str. 3
84036 Landshut
Germany

phone: +49 871 27676-0
e-mail: mail@asis-gmbh.de



ASIS GmbH - Branch Oldenburg

An der Fuchsbäke 5
26131 Oldenburg
Germany

phone: +49 441 9507897-0
e-mail: mail@asis-gmbh.de



ASIS GmbH - Branch Altdorf near Böblingen

Schönbuchstraße 45
71155 Altdorf
Germany

phone: +49 871 27676-0
e-mail: mail@asis-gmbh.de



ASIS GmbH - Branch Lüneburg

Friedrich-Penseler-Straße 34b
21337 Lüneburg
Germany

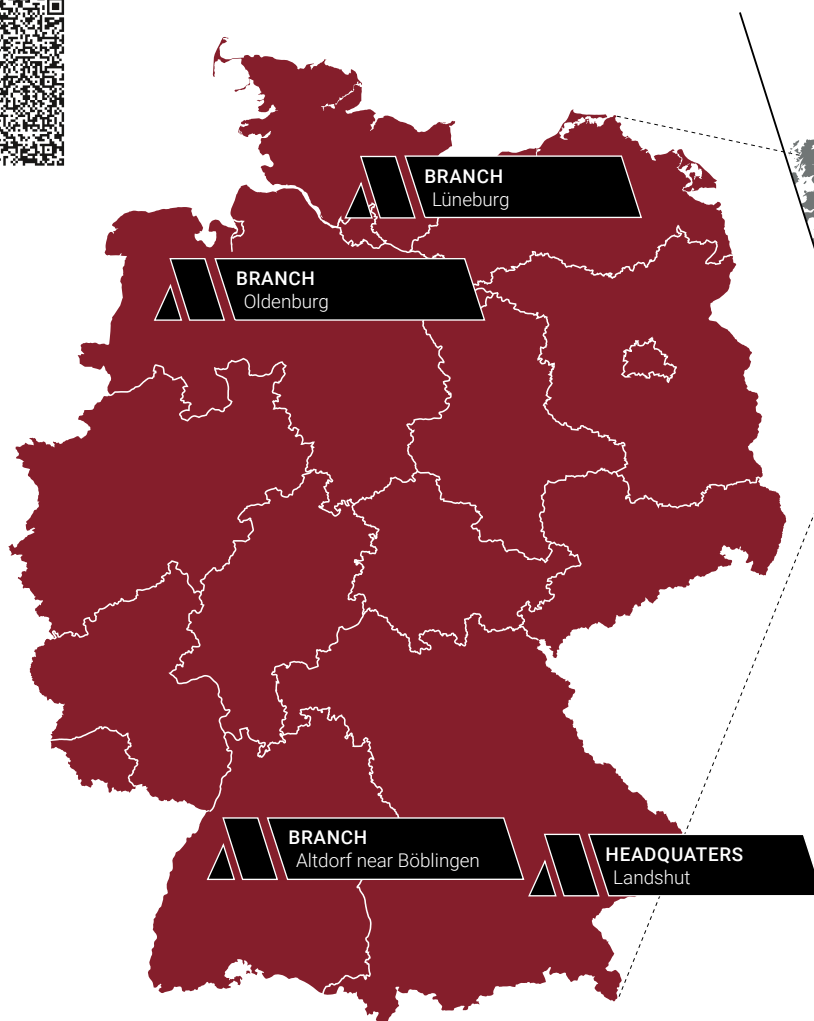
phone: +49 871 27676-0
e-mail: mail@asis-gmbh.de



ASIS (Wuxi) Automation Technology Co., Ltd

Building 1, HuanShenZhiGu Science
Innovation Park, No.8, GaoXiang Road,
DongGang Town, XiShan District,
WuXi City, P.C.: 214000

phone: +86 189 2128 5565
e-mail: mail@asis-gmbh.de



Order & Service

ASIS Spare Parts Sales

Kiem-Pauli-Str. 3
84036 Landshut
Germany

phone: +49 871 27676-241
e-mail: order@asis-gmbh.de



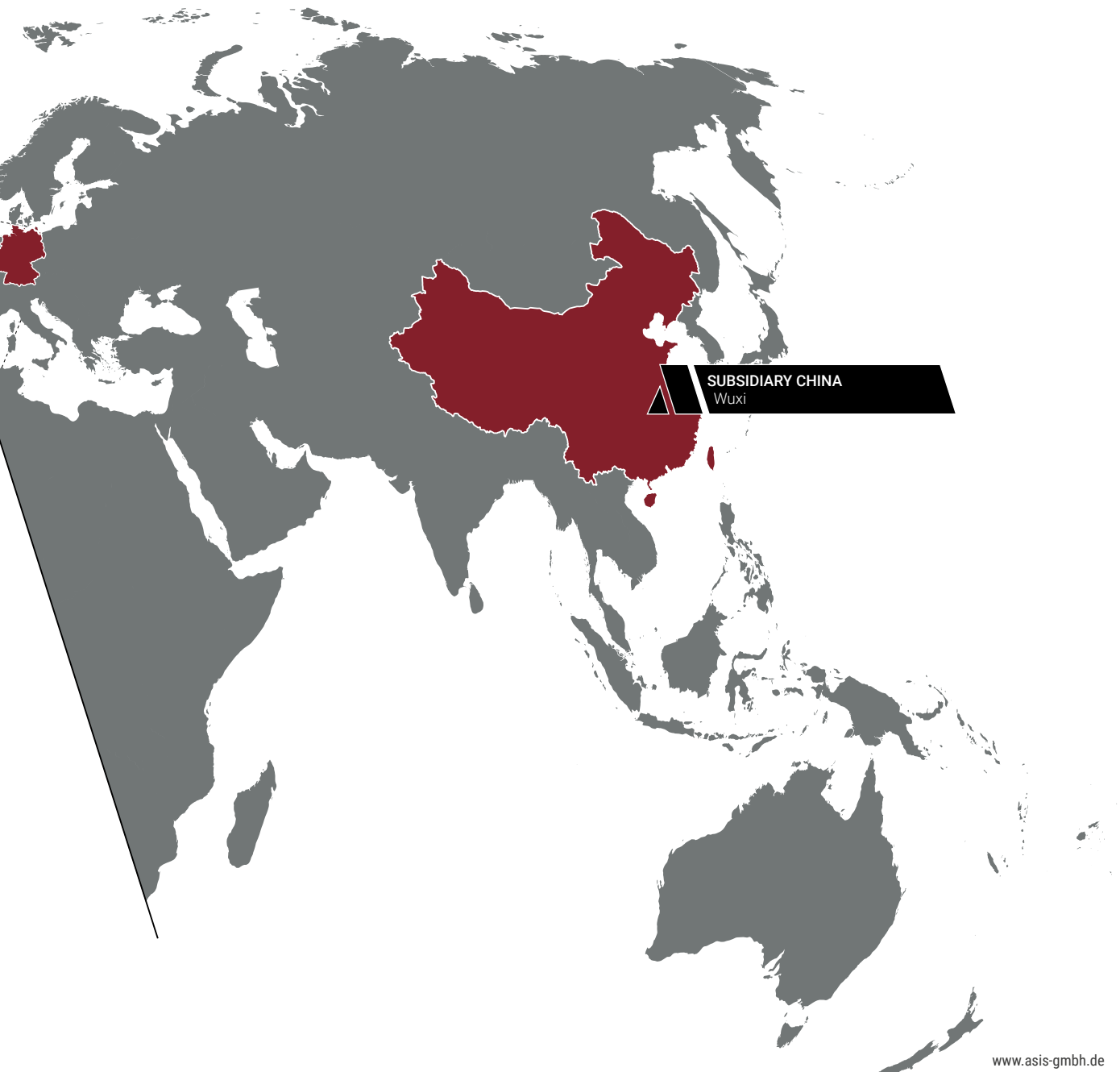
ASIS Service

Kiem-Pauli-Str. 3
84036 Landshut
Germany

phone: +49 871 27676-80
e-mail: service@asis-gmbh.de



order@asis-gmbh.de





CONNECTING TECHNOLOGY AND PEOPLE

ASIS GmbH
Kiem-Pauli-Str. 3
84036 Landshut
Germany
phone: +49 871 27676-0
e-mail: mail@asis-gmbh.de

www.asis-gmbh.de

