

SMART MACHINE AUTOMATION



AT HOME IN MANY INDUSTRIES



ROBOTICS AND HANDLING SYSTEMS



PLASTICS TECHNOLOGY



PACKAGING AND FOOD INDUSTRY



PRINTING AND PAPER



METAL PROCESSING



TEXTILES



ENERGY

MACHINE AUTOMATION 4.0

IN THE UNITED KINGDOM

When it comes to sophisticated solutions in the automation of industrial machines and equipment, SIGMATEK is the right partner. Founded in 1988 and based in the Salzburg region of Austria, today we are one of the leading drivers of innovation in machine automation and present in many countries worldwide.

Our core competency lies in fast automation processes, in which the combination of performant control with dynamic drive axes and strong visualization is required. Since the automation components – in-

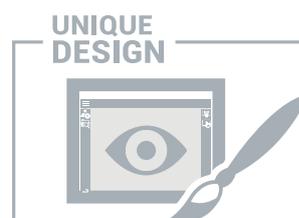
cluding software tools and operating system – are developed and produced in-house, high quality and long-term availability are guaranteed.



Reduced system costs and fast time-to-market



Increased performance through an integrated approach – for complex applications as well



The most modern technology, a convincing design and customer-specific solutions

Partnership with Added Value

SIGMATEK has over 500 employees worldwide and is as always, 100 percent privately owned. A flat organizational structure and short decision-making processes are characteristics of our company. Our customers appreciate that as a mid-sized company, we react quickly and flexibly to market demands and implement sophisticated solutions at the same time.

Always Close to the Customer

Our automation solutions grow with your needs and are always on the pulse of the times. In addition, our team has deep industry know-how in the most varying sectors. We live customer service. Thanks to our strong network of sales partners, we can meet country-specific requirements and at the same time, are always close to our customers.



SIGMATEK AUTOMATION UK

WHO WE ARE

Founded in 2011, SIGMATEK Automation UK, a wholly owned subsidiary of SIGMATEK GmbH & Co KG, serves the UK market. Headquartered on the Nottingham Science and Technology Park, we provide a complete customer service from the initial automation concept to product supply, customer training and full after sales and engineering support.

With our many years of experience our customers place a high value on our team's unique expertise in the development of machine automation applications.

The heart of our philosophy is to work in close partnership with our customers to develop innovative solutions that exceed both their own, and their customers', expectations. As this is the tradition of the SIGMATEK company it is carried on in full strength.

Our primary objective is complete customer satisfaction. We strive to be much more than "just another supplier" by working closely with our customers to understand not only their technical requirements today, but also their future engineering demands and ongoing support needs over

the complete machine life-cycle.

Our local experience in many different automation sectors is leveraged by our customers. But we are not alone!

As SIGMATEK is a family company we are able to collaborate with our colleagues from across the world to offer unique and innovative solutions to the entire range of automation applications. From advanced motion control to high speed machine applications to best in class automation solutions, we have it covered.

Our complete automation product portfolio covers virtually any automation application, and our unique ability to develop customer specific solutions leaves no task unsolvable. All of this is what makes us SIGMATEK.



"Our customer interaction does not end with the selection of products, it just begins. From development support through team engineering, prototype implementation and start-up assistance to full customer support throughout the complete machine life-cycle, our long-term commitment is what sets us apart."

Russ Kemp,
Managing Director, SIGMATEK Automation UK.

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**BEST
BUDGET**



COMPACT, EFFICIENT & CUSTOMER-FOCUS

REDUCE TOTAL COSTS AT THE SOURCE

We are continuously working on new technologies and products. Thereby, we always keep the customers benefit in view. Scalable hard and software, short development times and deep applications know-how support you in the rapid implementation of your individual machine concepts.

“Optimize Time-to-Market

Machine builders profit from the integrated package solution – which consists of the control, visualization, motion and Safety. SIGMATEK accompanies you from finding a solution, through conception and creating the application, up to the initial start-up. This integrated approach

makes it possible to sustainably reduce the engineering costs of new machines and achieve a short time-to-market. The ultra-compact and space-saving hardware, the simple object-oriented engineering and the SIGMATEK applications know-how all come from one source.

With the thin S-DIAS I/O modules, you can save ample space in the control cabinet.



**HENK KIELA
PROBOTICS (NL)**

„We have the ability to adapt the AGV “PackMan 200” to the floor conditions. If the surface is rough, the drive technology in the all-in-one engineering tool LASAL can be set so that it is perfectly tuned to the tires – that is functionality.“



Even in the confined interior of the AGV PackMan 200, there is space for the vibration-proof S-DIAS system with motion control and Safety, as well as two AKM low-voltage DC servo motors.

Photo: Thorsten Sienky/Kollmorgen Europe GmbH

ULTRA-COMPACT HARDWARE

Saves space in the control cabinet and reduces hardware costs

ALL-IN-ONE ENGINEERING

Object-oriented programming;
One tool for all tasks

SHORT TIME-TO-MARKET

Comprehensive applications know-how; ready-to-use application templates

COMPACT HARDWARE FOR MAXIMUM ECONOMY

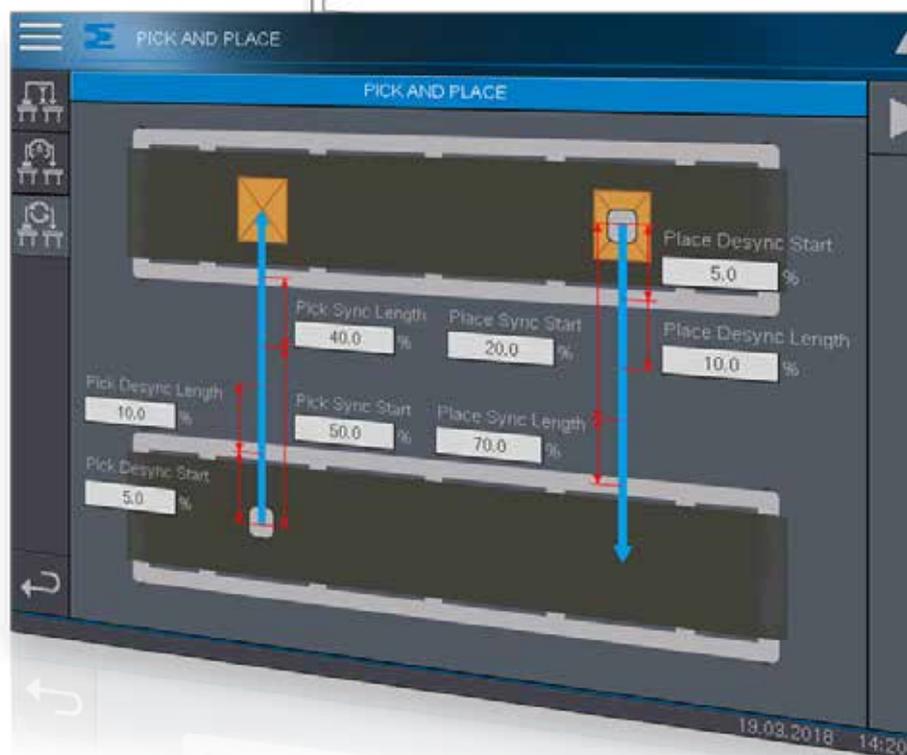
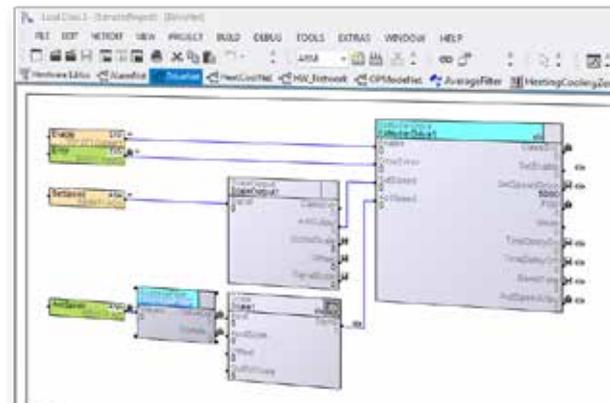
Versatile, robust and smart – the ultra-compact hardware from SIGMATEK. The S-DIAS control and I/O system convinces with the highest packaging density, high performance, as well as mechanical stability and all within a module width of only 12.5 mm. Up to 20 channels are packed into one S-DIAS module. For you, this miniaturization means more function in a small space. Machine builders can there-

fore significantly reduce control cabinet volume and therewith, the associated costs. CPUs, digital and analog I/Os, motion, Safety and special function modules are combined and configured as needed. This provides freedom in designing your machines concept. S-DIAS enables user-friendly programming with the object-oriented engineering tool LASAL.

Simply implement the complex: The object-oriented engineering tool LASAL unifies all automation tasks in one software environment.

REDUCE DEVELOPMENT COSTS

The engineering tool LASAL bundles all automation tasks in one modern object-oriented design environment: From the control programming to the visualization, drives and Safety technology up to service functions such as remote maintenance and diagnostics. With proven templates and Add-Ons, you are quickly ready to start. Following the toolkit principle, they are modularly integrated into your application. The quality of the software increases, as once tested, objects can always be reused in different customer projects. Machine builders significantly reduce their development costs and achieve a short time-to-market.



EXTRA PERFORMANCE



INCREASE PERFORMANCE HIGHSPEED, PRECISION, SAFETY

Even faster, more precise – and safer: Performance requirements increase continuously. With the SIGMATEK system solution, your machine has the deciding extra performance – that secures your market advantage.

With intelligent factories in view, SIGMATEK focuses on scalable multi-CPU solutions. For the machine builder, this brings the advantage of a CPU that can be expanded as desired. With the modular S-DIAS control system, including Safety, the concept can be easily implemented. The drive technology concept is also space-saving: Servo drive and stepper mo-

tor module in S-DIAS DIN rail format, the modular DIAS-Drive 100 or the multi-axis compact drives of the 300 and 1000 series. With the use of real-time Ethernet, bus cycle times under 100 μ s are possible. Machine builders achieve more throughput and precision while maintaining consistently high product quality.

Achieve highly dynamic, precise motion sequences with the perfectly tuned motion control system from SIGMATEK.



JÖRG RONCOLETTA RONTECH (CH)

„We increased the throughput to 800 cycles per minute. SIGMATEK provides high machine expertise and customer proximity.“



The friction feeder “Motion Feeder”: Flat products such as package slips for medication are separated, counted and fed into the packaging, position-synchronized and controllable up to 240 m/min.



CONTROL & SAFETY FOR DEMANDING JOBS

Modular multi-CPU solution makes your application future-proof; Integrated Safety

MOTION & ROBOTICS DYNAMICALLY IMPLEMENTED

Ultra-compact drives with high speed and precision; Ready-to-use motion Add-Ons

SMART FACTORY / AGVS

Open system solution with OPC UA server and client function; Wireless Safety for mobile applications



MOTION CONTROL QUICKLY READY TO START

The software tool LASAL MOTION provides a large number of pre-defined and tested application templates. Even with complex multi-axis applications, machine builders reach their goal quickly and without programming. The selection of Add-Ons includes profiles for positioning, cam discs, contouring control with transformations for robot kinematics, interpolations

and the coordination of up to 9 axes within a space.

The engineering is simplified through efficient tools such as a real-time data analyzer, real-time trend recording, CAM Designer and Motion Diagnostic View, for example. Initial start-up and diagnostic times are thereby markedly reduced.

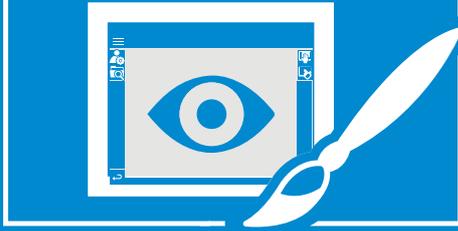
AUTOMATION 4.0

The use of OPC UA ensures openness in all directions. The cloud-based Remote Access Platform provides secure remote access over VPN. Engineers perform software updates, debugging and maintenance as if they were directly on-site. Wireless Safety provides security and unrestricted freedom of motion for mobile applications.



Automation 4.0 in motion: The modern and highly compact SIGMATEK system solutions are ideal for automated guided vehicles in Smart Factories.

UNIQUE DESIGN



UNIQUE IN DESIGN AND FUNCTION

CONVINCING FROM THE HUMAN MACHINE INTERFACE TO THE

The selection of modern HMI offers great variety. While developing the SIGMATEK panels, the focus is placed on a compact design and comfortable operating features. With the LASAL HMI tools, your visualization is quickly ready to go.

Whether operating, control or mobile panels - the HMIs convince with high-resolution color touch screens in classic 4:3 and modern 16:9 widescreen format. Machine builders profit from the thin, fanless design ranging from 3.5 to 23.8 inches in portrait or landscape format. Thanks to

an integrated EDGE2 Technology processor, demanding visualization and operating concepts can be realized. With LASAL SCREEN and the web-based VISUDesigner, developing applications is comfortable and creates an intuitive and attractive user interface for the machine operator.

Mobile visualization with Safety functions – the wireless HGW 1033 panels.



INNOVATIVE WITH WLAN AND SAFETY

The mobile panels from SIGMATEK enable direct on-site access. The wireless HMIs of the HGW 1033 series with a 10.1-inch multi-touch screen in particular, set new standards in operating freedom and make operating and monitoring more future-oriented and comfortable than ever. Machine builders use the ergonomically designed panel optionally with integrated Safety functions. The Safety-relevant data are securely transmitted according to the Black Channel Principle via integrated WLAN.

UNIQUE VISUALIZATION

Clear and modern display on high-resolution color touch screens

WIRELESS PANELS WITH SAFETY

Free, safe operation and monitoring directly on-site; Optional with Safety

CUSTOMER-SPECIFIC DESIGNS

Individual and efficiency enhancing; Corporate identity

TIONALITY
THE SOFTWARE

HMI: FLEXIBLE IN HARD AND SOFTWARE

Uniqueness is in demand like never before – whether in regard to hardware or software. The ETT widescreen multi-touch panels are therefore modularly constructed. In addition, we also can provide customer-specific HMI configurations (size, protection type, housing, design).

Customized Equipment

Customer-specific adaptation of the hardware is problem-free with the modular ETTs. The ETT widescreen operating panels can be equipped with an optional attachable CPU (EDGE2 Technology processor, x86 processor) or with an HMI-Link unit for remote solutions up to 100 m. All op-

erating panels with a processor support OPC UA communication.

High-performance Visualization

The VISUDesigner HMI tool from the engineering tool LASAL is based on current web standards such as HTML5, CSS3 and JavaScript. This provides the advantage that the visualization is largely independent of the hardware. Thanks to modern design templates and an extensive operating and display element library, attractive visualizations can be quickly created – and HTML5 pros are provided with all options for individualization.

Our widescreen ETTs show flexibility – whether in CPU performance or orientation.

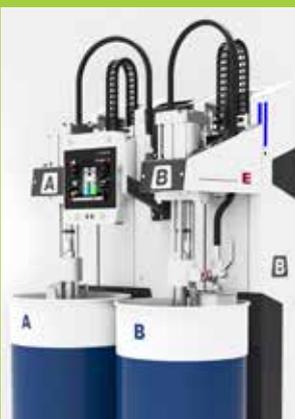


**KURT MITZKA,
ELMET ELASTOMERE (AT)**

„With the SIGMATEK HMI and control solution, we have achieved a design for our dosing systems that is unique on the market and provides our customers with measurable advantages in operation and service.“



The dosing system Top 5000P for LSR dosing and fluid silicon processing does not require a control cabinet thanks to the compactness of the S-DIAS control and I/O system. A unique user experience is provided by the “floating” HMI, which can be intuitively operated and flexibly placed.



INTEGRATED AUTOMATION SYSTEM

MORE FLEXIBILITY AND HIGHER PRODUCTIVITY FOR MECHANICAL ENGINEERING



Control and I/O System

Our control system offers the right CPU for any task: Compact S-DIAS CPU modules for the DIN rail, industrial PCs or control panels – with high-performance single or multi-core processors. Scalability and consistency means that compatibility with the application software is guaranteed. The S-DIAS system impresses with a unique packaging density and is ideal for modular machines with distributed intelligences.

Human-Machine-Interface

In the area of human-machine interfaces, machine builders can choose from a broad product selection: From small operating units with 3.5" displays to high-resolution touch panels with a display up to 23.8" – with different touch screen technologies. In addition to classic visualization, the control panels also perform control tasks. SIGMATEK also implements customer-specific requirements, such as HMIs especially suited for the food and pharmaceutical industry.

Motion Control

The modern motion control system convinces in machine manufacturing: Motors, servo drives, gears and software interact perfectly and are seamlessly integrated into the control system. This results in highly dynamic motion sequences from one source. Engineering is simple, as predefined motion components are provided. Precision, dynamics and efficiency of the machine are increased and the time-to-market reduced.

OUR PRINCIPLES

CONSISTENCY

Fully integrated automation solution

EFFICIENCY

Fast time-to-market for your machines

EXPERTISE

Support from experienced SIGMATEK industry experts

FUTURE-PROOF

Long-term availability of hard and software for the entire machine lifecycle



Safety Integrated

SIGMATEK has Safety fully integrated into the automation solution: Safety controller, Safety I/Os and drives with integrated Safety technology. Programming and project development are simplified. For networking, Ethernet-based data transfer is used, which transports standard as well as Safety data. Separate wiring is therewith eliminated. The modern, freely programmable Safety technology simplifies a modular configuration of your machine and system.



Real-Time Ethernet VARAN

Integrated, hard real-time communication is the key to modern automation systems. The Ethernet technology based VARAN bus system was designed for flexible and modular machine concepts. With cycle times $< 100 \mu\text{s}$, jitter $< 100 \text{ ns}$ and guaranteed data security, your machines are more productive and precise. Also for project development, VARAN provides complete freedom through various network topologies.



Software Engineering

The all-in-one engineering tool LASAL enables fast and efficient realization of machine concepts: Process control, visualization, motion control, Safety, diagnostics and service. Already in 2000, SIGMATEK was the first to introduce object-oriented programming to industrial automation. The reusability of the software modules and predefined function components make a significant contribution to reducing development times and costs.

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