

AUTOMATION FOR
PACKAGING
TECHNOLOGY



AUTOMATION SOLUTIONS

FLEXIBLE - EFFICIENT - FUTURE PROOF

We are experts in integrated complete solutions. This provides you the advantage of having only one contact partner for all automation questions. And: we support you on the way to the digital factory 4.0.

In the packaging industry, the product life cycles are increasingly shorter. Machine and system concepts must therefore be simply and flexibly adaptable to various products, packaging volumes and quickly changing fashion trends in packaging design.

At the same time, in-line quality controls, labelling obligations, product trackability, seamless process documentation, as well as high transparency and logistics play an important role in packaging technology.



MODULAR AND FLEXIBLE

SIGMATEK automation systems are modularly constructed, as in a toolkit. The compatibility and scalability are just as guaranteed as their long-term availability.

machine and system concepts. The product spectrum, which meets all requirements from Best Asset Cost to high-end applications, includes: Control and I/O systems, IPCs, HMIs, motion control, Safety, as well as the all-in-one engineering tool LASAL. Real-time Ethernet communication ensures high synchronicity and precision.

With many years of experience in primary and secondary packaging, we support you with the implementation of efficient



COST REDUCTION

Through the modular, consistently structured product range, diverse packaging lines can be individually and scalably equipped. In regard to computing power, complexity and costs, an optimal automation solution is provided as a result.

from low implementation complexity and streamlined solutions.

Due to the consistency of hard and software components, the machine manufacturer can simply adapt packaging systems to the most varying conditions and profit

Compact hardware designs, such as the S-DIAS I/O system, reduce the space requirement in the control cabinet significantly. User-friendly operating concepts, as well as diagnostic tools simplify handling and have a positive effect on the efficiency of the packaging machine.

- CONVEYOR SYSTEMS
- FORMING / SEALING MACHINES
- OPTICAL CONTROL SYSTEMS
- PACKAGING MACHINES
- POSITION / PALLETING SYSTEMS
- ROBOTIC SYSTEMS
- THERMOFORMING / BLISTER MACHINES
- TOP LOADER
- UNWRAPPING MACHINES
- VACUUM / CHAMBER MACHINES
- WEIGHING / LABELING SYSTEMS
- WRAPPING / STRETCHING MACHINES
- CAPPING
- CARTONING
- CHECKING
- CLOSING
- CONVEYING
- CUTTING
- DOSING
- FILLING
- FLOWPACKAGING
- FORMING
- GROUPING
- INSERTING
- LABELING
- PALLETIZING
- PICK & PLACE
- PRINTING
- REPACKAGING
- REWRAPPING
- ROTATING / ALIGNING
- SCANNING
- SEALING
- SEPARATING
- SORTING / SELECTING
- TRACKING / TRACING
- VACUUMING
- WEIGHING
- WRAPPING



COMPLETE SOLUTION

Control and operate, drive technology and Safety – unified in an integrated software environment

FLEXIBLE AND OPEN 4.0

Scalable system toolkit guarantees maximum flexibility, integration in lines via standard interfaces

SAVE TIME AND MONEY

Object-oriented programming (IEC 61131-3) provides the highest modularity and reusability; tested function components and templates accelerate development

TIME SAVING

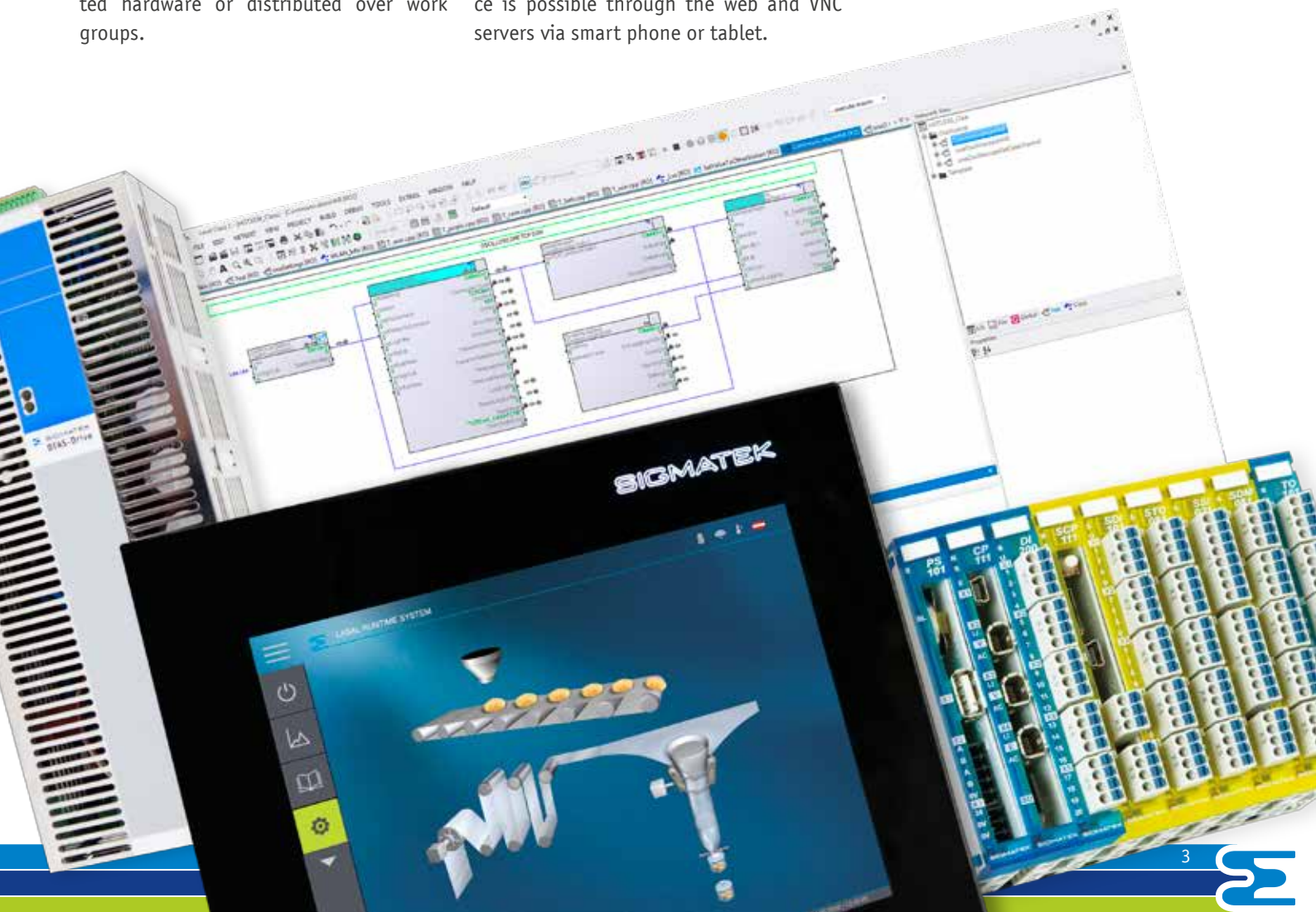


With the software suite LASAL, machine applications are quickly and easily implementable: PLC, motion control, visualization, Safety, diagnostics and service. Object-oriented programming is performed according to the IEC 61131-3 standard.

The project structure is clearly and modularly configured. Machine functions can be modularly combined in a toolkit, stored in libraries, reused, tested without connected hardware or distributed over work groups.

In addition, you can also use industry-specific function blocks such as cam discs, synchronization and interpolating movements of multiple axes.

Open communication interfaces enable a quick integration into higher level control systems and connectivity up to the cloud (OPC UA). Various network topologies provide a high degree of freedom in project development. Efficient remote maintenance is possible through the web and VNC servers via smart phone or tablet.



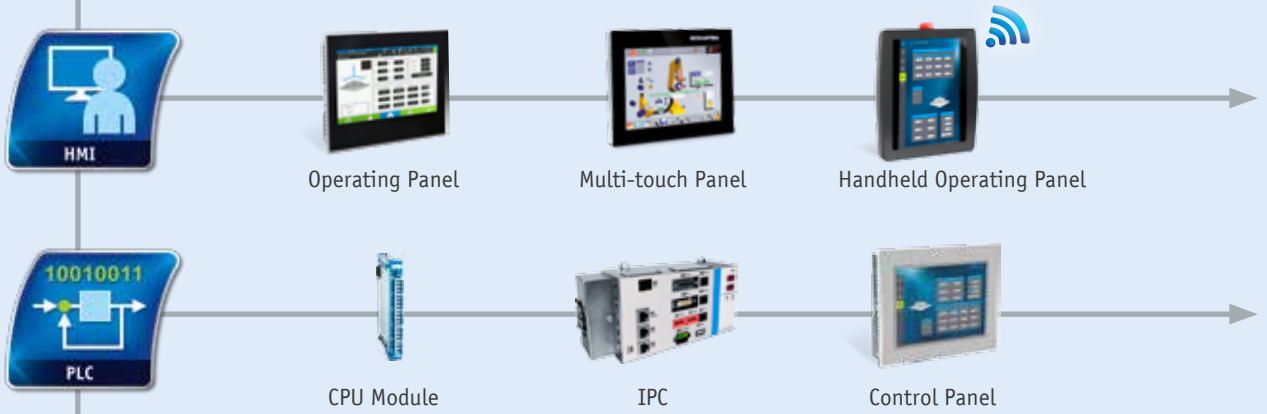
MODULAR SYSTEM TOOLKIT

FOR SIMPLE MACHINES & COMPLEX SYSTEMS

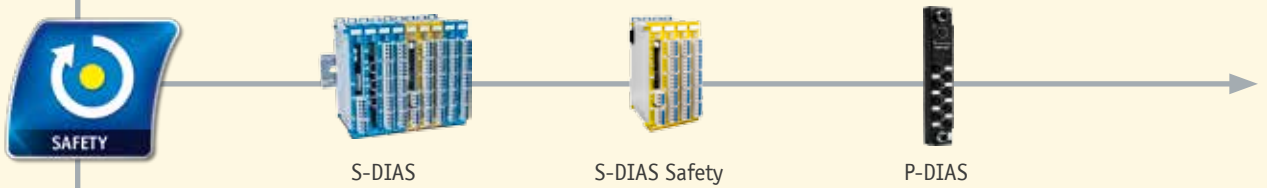
ENGINEERING



CONTROL, IPC, HMI



I/O SYSTEM
INTEGRATED SAFETY



MOTION



With the all-in-one software suite LASAL, machine applications are quickly and easily implementable.

- One tool for all phases of the development process
- Programming in accordance with IEC 61131-3
- High modularity and reusability
- Predefined function components
- Numerous debugging and service tools

- LASAL CLASS: object-oriented programming with graphic representation
- LASAL SCREEN and LASAL VISU Designer: visualization comfortably applied
- LASAL MOTION: for regulation and control tasks in drive technology
- LASAL SAFETY: Safety programming/configuration
- LASAL SERVICE: diagnostics and remote maintenance via Internet

ENGINEERING

Broad spectrum of products for control, as well as operating and monitoring tasks with high-performance processor technology from EDGE2 to Intel® Celeron™.

- High computing performance with low power consumption
- Numerous standard interfaces
- FDA-conforming stainless steel panels with IP65 protection for simple cleaning and disinfection
- Slim, compact design
- Customer-specific developments

- Single/multi CPU solutions: for flexible control concepts
- Super-compact CPU modules for the DIN rail
- IPC: for high-performance control and visualization tasks
- Control panel: control, visualization and operation in one module – economic solution for simple applications
- Operating panels with single or multi-touch: for efficient operating and visualization concepts (from 3.5 – 23,8 inches)
- Handheld operating panel: for mobile use (with cable or wireless)

CONTROL, IPC, HMI

The modular I/O systems are available in two component series. These enable space-saving installation into the control cabinet and on machines.

- Fast communication (100 Mbits/s), update time for 64 modules with up to 1,280 I/Os is under 60 μs
- Slim and compact design
- Consistent software compatibility
- Flexible topology: local, decentralized or a combination
- Safety fully integrated and TÜV certified (SIL 3, PL e)

- S-DIAS: I/O system with the highest packaging density worldwide
- S-DIAS Safety: fully integrated and as a stand-alone solution
- P-DIAS: I/O-system for the IP67 protected area

I/O SYSTEM
INTEGRATED SAFETY

Drives, motors, gears and software are tuned to one another and fully integrated into the control system. Complex motion control tasks are therefore efficiently solved.

- Highly dynamic, synchronized and reliable servo applications
- Stepper, servo, linear, torque and asynchronous motors can be controlled and combined as desired
- Common feedback systems
- Integrated Safety functions STO, SS1 and SBC (SDD 1000)

- DIAS Drive 100: modular servo drive system, up to 8 servo axes, power range up to 3 kVA per unit
- DIAS Drive 300: compact multi-axis system, up to 3 drives in one device, power range up to 14 kVA
- DIAS Drive 1000: compact drive for 6 servo axes, power range up to 14 kVA
- Motors and gears: for highly dynamic motion tasks and the highest position accuracy

MOTION

AUTOMATION TECHNOLOGY

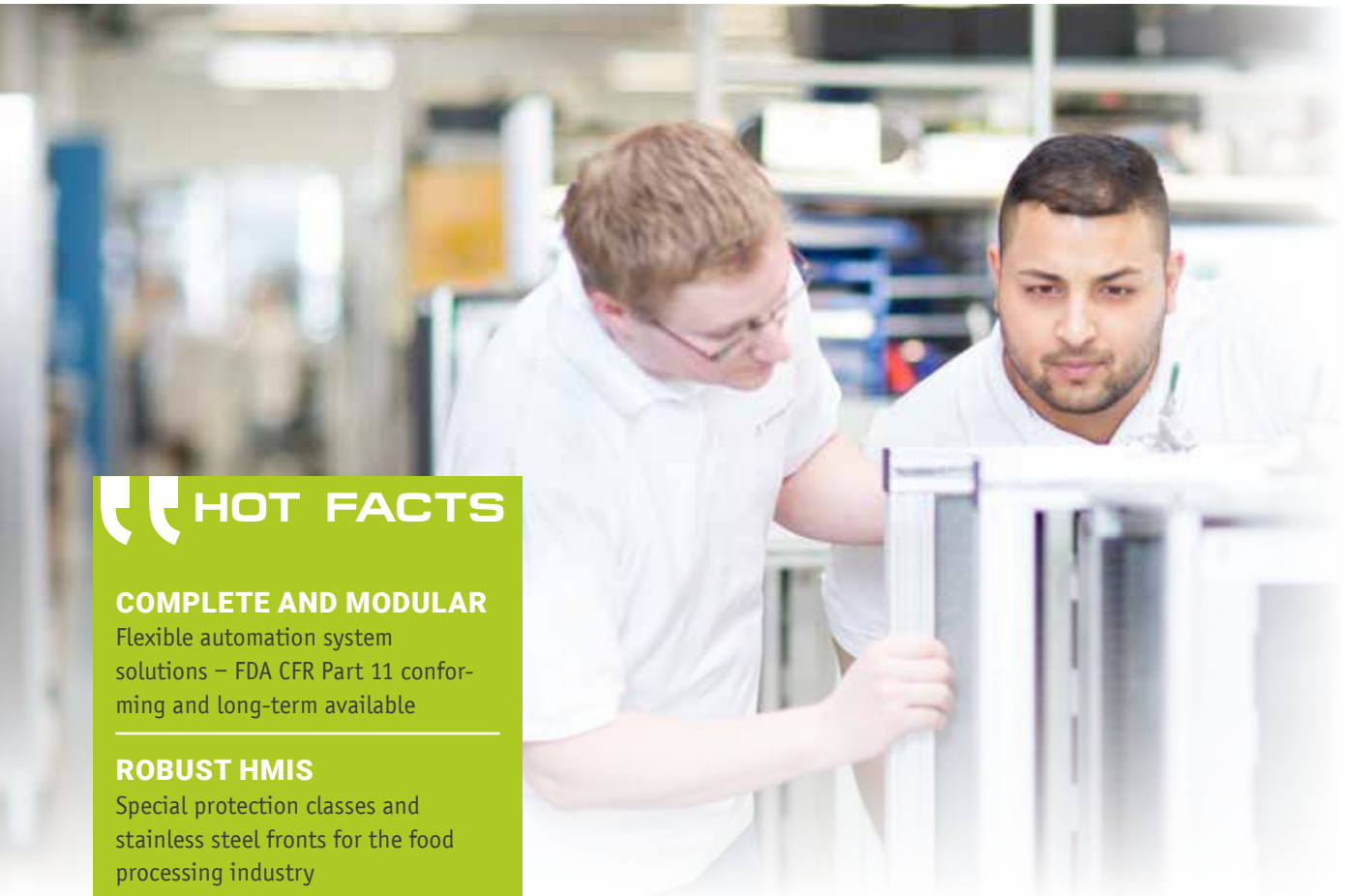
QUICKLY IMPLEMENTED – LONG-TERM AVAILABLE

SIGMATEK is counted among the leading manufacturers of complete automation systems worldwide. In-house research, development and production ensure the Salzburg company a place at the forefront of automation technology. Through this value chain, customers also profit from fast implementation of tech-

nological trends, short reaction times, quick market introductions and cost-optimized complete solutions ready for the Smart Factory 4.0. With a globally operating sales and support network, we can ensure comprehensive customer service.



Predefined function components provide engineering efficiency



HOT FACTS

COMPLETE AND MODULAR

Flexible automation system solutions – FDA CFR Part 11 conforming and long-term available

ROBUST HMIS

Special protection classes and stainless steel fronts for the food processing industry

SHORT ENGINEERING TIMES

through object-oriented programming: code easily reusable, predefined components, software variants automatically created

SERVICE AND SUPPORT

Large applications team with extensive know-how, worldwide support

SATISFIED CUSTOMERS ARE THE BEST REFERENCE

In SIGMATEK, the packaging industry finds the ideal partner to meet the current and future market challenges successfully. With many years of industry experience and extensive machine and engineering know-how, we are able to give you a deciding market advantage.



- PRINT MARK CONTROLLERS
- ROTATING KNIVES
- UNWINDERS
- GROUPING/SEPARATING
- PICK & PLACE
- CONTOURING CONTROL
- FLYING SAWS

CPS

"The integration of Safety technology with the SIGMATEK complete system was significantly simplified and costs reduced."



With the Casepacker "CP 201", up to 140 bags of frozen vegetables per minute can be space-sparingly packed into boxes – compact control system, 300 I/Os including Safety and 35 drives increase the throughput with the intelligent packaging line.

GREYMAN'S PAKTECH

"The openness of the solution makes it simple to integrate third-party systems and enables maintenance concepts with remote diagnostics via Internet."



Customer specific conveyor and feeder systems: up to 500 units per minute – several highly dynamic motion axes – synchronization of the servo motors in hard real time with the industrial Ethernet VARAN.

RONTECH

"We could significantly reduce the hard and software engineering. SIGMATEK provides high machine expertise and customer proximity."



The friction feeder "Motion Feeder" operates with up to 800 cycles per minute – flat products such as package slips for medication are therewith separated, counted and in a package, also position-synchronized – servo drive controllable up to 240 m/min.

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