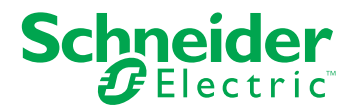


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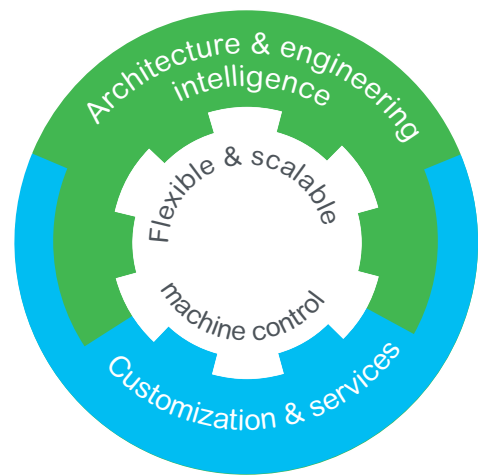
# Build even smarter packaging machines. Easily.

Businesses today are facing a wide range of challenges, including demographic shifts, stringent environmental legislation, and disruptive new technologies. This means the packaging systems of tomorrow must get smarter – more flexible, better connected, more efficient, and safer.

## Meet tomorrow's packaging challenges, today

A global leader in industrial automation, Schneider Electric brings together state-of-the-art packaging technology and specialized services – to answer the critical challenges faced by both machine builders and the consumer goods industry.

Designed for a future where technology connects machines and operations from shop floor to top floor, Schneider solutions help you bring innovation to every level of your business.



## A single solution for packaging challenges

With MachineStruxure™ automation solutions, you can easily design and build smart, future-ready packaging systems to achieve business excellence.

Thanks to intuitive connected technology, simplified design, and faster engineering, MachineStruxure makes it simple to customize your packaging machines for a wide range of applications. From design and development to commissioning and maintenance, you're better able to optimize your packaging systems.

With comprehensive automation solutions, MachineStruxure makes it easier for you to build packaging machines that are:



### MORE FLEXIBLE

Modular and scalable hardware and software as well as a global service network facilitate faster machine design and development.



### BETTER CONNECTED

Native connectivity enables remote management and monitoring of packaging machines and easy vertical integration into manufacturing management systems.



### MORE EFFICIENT

Pre-developed architectures and comprehensive software libraries optimized for packaging-specific applications.



### SAFER

Rich features including enhanced cybersecurity, safety-chain solutions for all levels of machine safety, and the Green Premium™ ecomark\*.

\* The Green Premium ecomark on Schneider Electric products indicates compliance with the strictest environmental regulations, including RoHS.



## Sustainable designs for resource optimization

Our innovative technologies feature built-in capabilities for energy and resource management:

- Robotics to enhance the speed and quality of production while reducing material waste
- Status information, data logging, software oscilloscope, and powerful diagnostic tools to reduce downtime

## Expert support throughout the machine's life cycle

With decades of industrial automation experience, Schneider Electric offers unparalleled expertise to help you deliver packaging machines in less time and at optimized costs. Our worldwide support services and spare-parts centers can adapt our solutions to local needs, providing you with an exceptional customer experience.

# Plan, customize, and build equipment more easily

Building machines to non-standard specifications often requires more time and costs. With MachineStruxure, you can easily build cost-effective smart packaging machines customized for specific needs, applications, and environments – without compromising machine performance.

## Simplify your engineering process with flexible machine design

MachineStruxure meets the requirements of a wide range of packaging systems, from simple to complex functions. Thanks to flexible hardware platforms and a single software suite, our modular and scalable solutions meet the demands of specialized applications:

### Simple packaging machines

Your machines, with or without coordinated servo drives, can be easily automated to increase technical efficiency while minimizing costs.

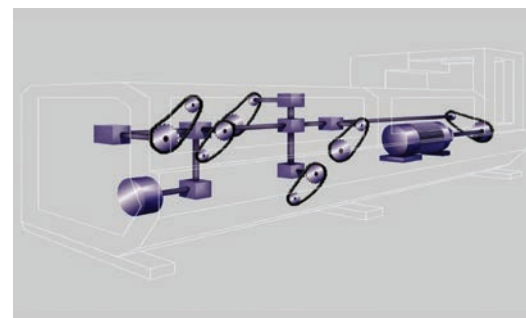
### Complex packaging machines

Synchronized servo axes often form the basis of complex machines. Our servo concepts support a wide range of drive solutions, from two to over 100 servo axes.

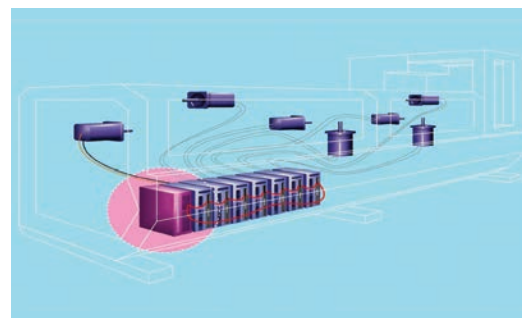
### Complex packaging machines and robots

Robot cells, either embedded in a machine or serving as a standalone, facilitate the design of highly flexible machines. Our wide offer of Cartesian, Delta 2, and Delta 3 robots can be easily integrated into the control and diagnostic systems of your packaging machines.

**Mechanical machine:**  
Traditional design with limited flexibility

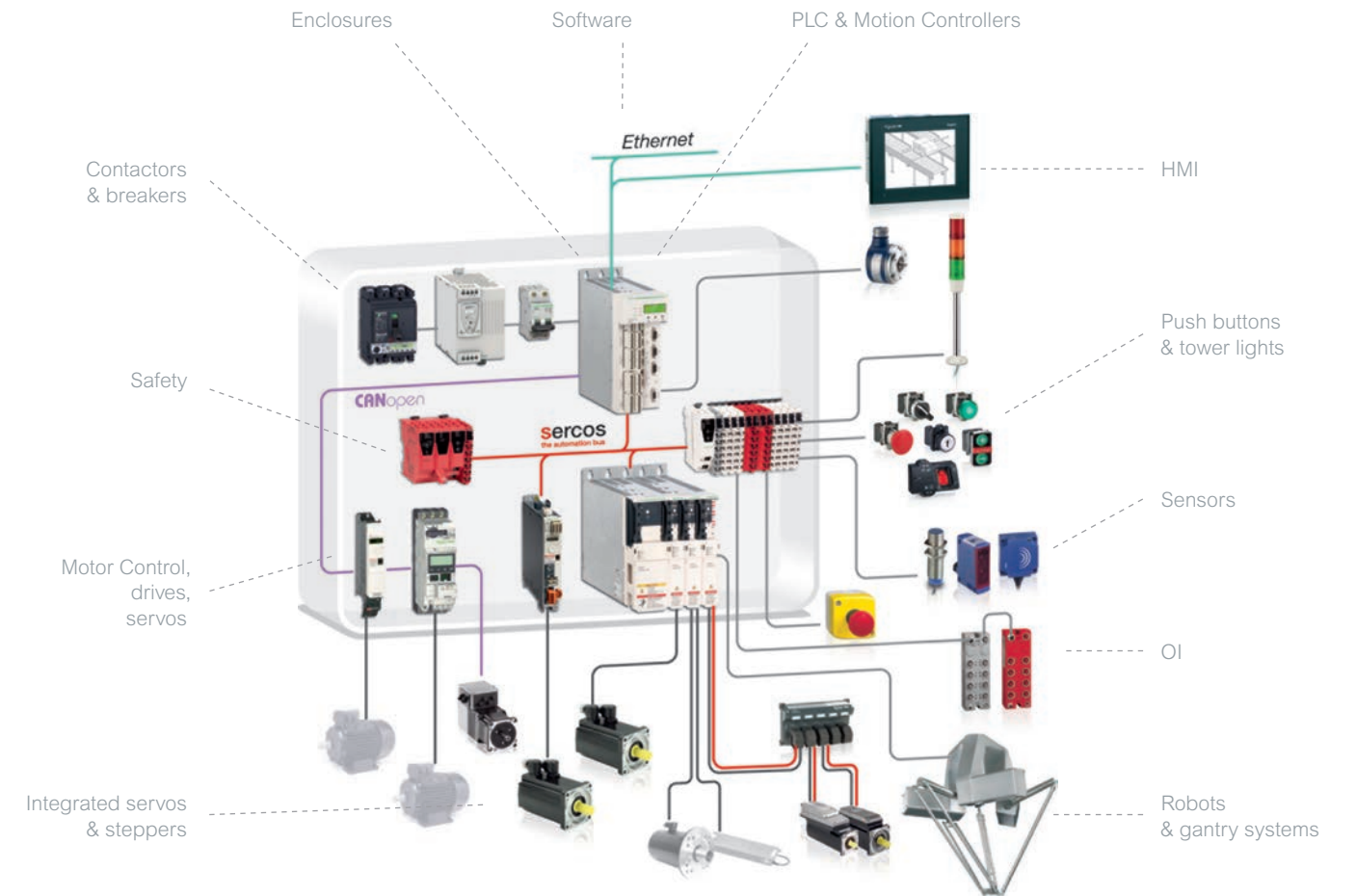


**Mechatronics:**  
The future of machine design



Traditional mechanical designs are not only more time-consuming but also higher risk due to the constant wear and tear of mechanical components. With mechatronic design, you can speed up customization, reduce downtime, and optimize maintenance costs.

Schneider Electric offers a comprehensive portfolio of automation and control solutions



## CASE STUDY

Highlight Industries Inc, USA



**Challenge**  
Expand machine features while reducing costs and build time.



**Solution**  
Using compact and versatile components from Schneider Electric allowed for more scalable, flexible design. Thanks to the smaller size of the Altivar™ variable speed drives, contactors, circuit breakers, and relays, Highlight Industries maximized functionality in less space.



**Results**  
25% savings per panel thanks to lower-cost components and reduced labor costs for build and design.



# Enable smarter performance throughout the entire system

A pioneer in web-based technologies, Schneider Electric offers solutions that are ready for Industry 4.0, the Industrial Internet of Things (IIoT), and cloud computing. Our automation solutions include easy-to-implement tools and software for collecting real-time data to optimize system performance.

## Easier integration for better performance

Through basic communication tools, MachineStruxure architectures can easily integrate into larger manufacturing management systems. By simplifying data exchanges across multivendor systems, platforms, and solutions, MachineStruxure enables a comprehensive approach to monitoring and optimizing machine performance across the plant.

### CASE STUDY Axon Corporation, USA



#### Challenge

Meet the expectations of top consumer-product manufacturers for packaging machines that are easier to operate, more flexible for quicker change-over, and more efficient for ever-faster production speed.



#### Solution

The PacDrive™ LMC201 controller and Lexium™ 52 servo drive optimized the controlling of a wide range of servo-driven production and packaging machines as well as material-handling equipment and robotics. The Magelis™ HMIs with a single software platform simplified integration of the control systems.



Schneider Electric products [...] gave us the opportunity to have the hardware, software, and on-site support we needed rapidly to design a machine that delivers more speed and increased reliability with solutions made specifically for our industry.”

Brad Wegner, General Manager and Vice President of Axon

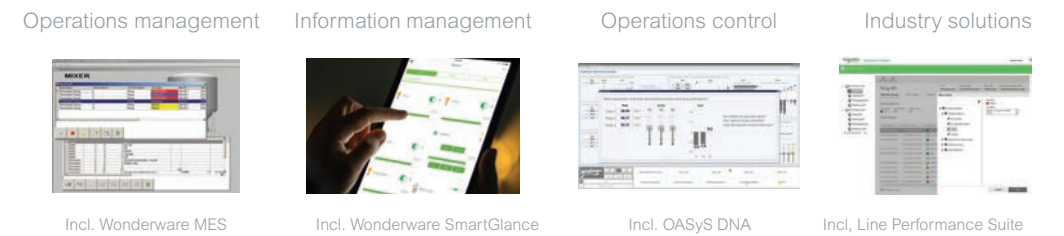
## IIoT-ready for smart manufacturing

Secure cloud and internet connectivity is a key focus of our innovation. Our connected products include:

- Controllers with native connectivity for OPC UA transmission, including encrypted data
- The ConneXium series features integrated firewall to permit multilevel cybersecurity measures

Through web-based monitoring applications, MachineStruxure enables remote control and real-time data analysis, including energy consumption and productivity level. This complete view of system operations allows better resource allocation to boost the packaging system capacity.

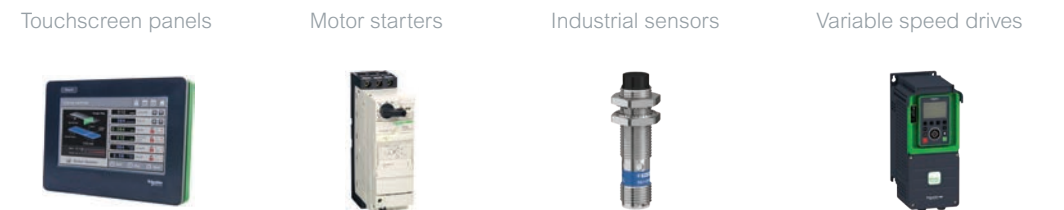
## Apps, analytics, and services



## Edge control



## Connected products



Better connected from shop floor to top floor

## Leadership in collaborative development

Schneider Electric is an active member in organizations dedicated to advancing industrial automation technology, including OMAC Packaging Workgroup and SERCOS. Additionally, Schneider adheres to the Weihenstephan Standard for the vertical integration of data streams.



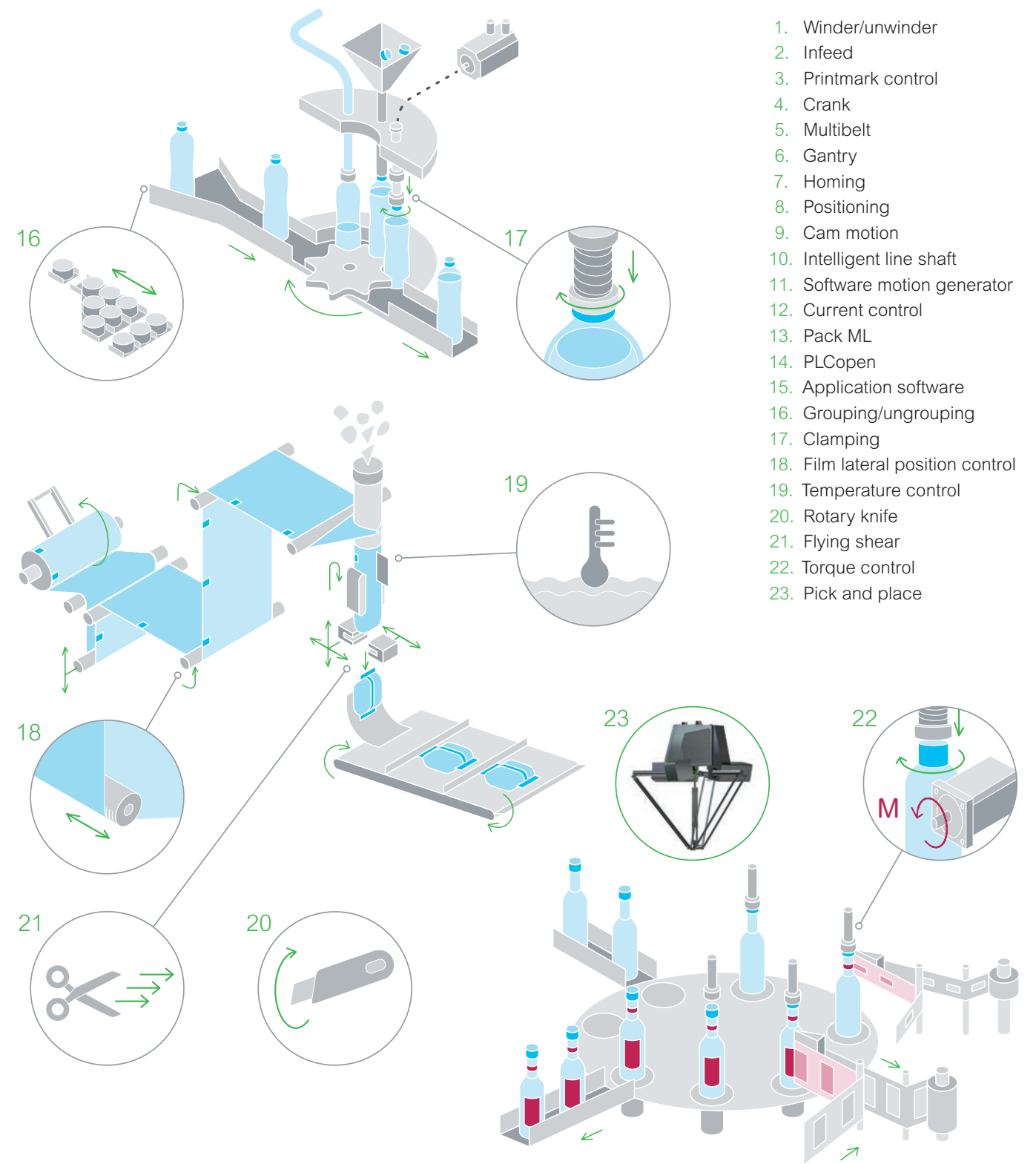
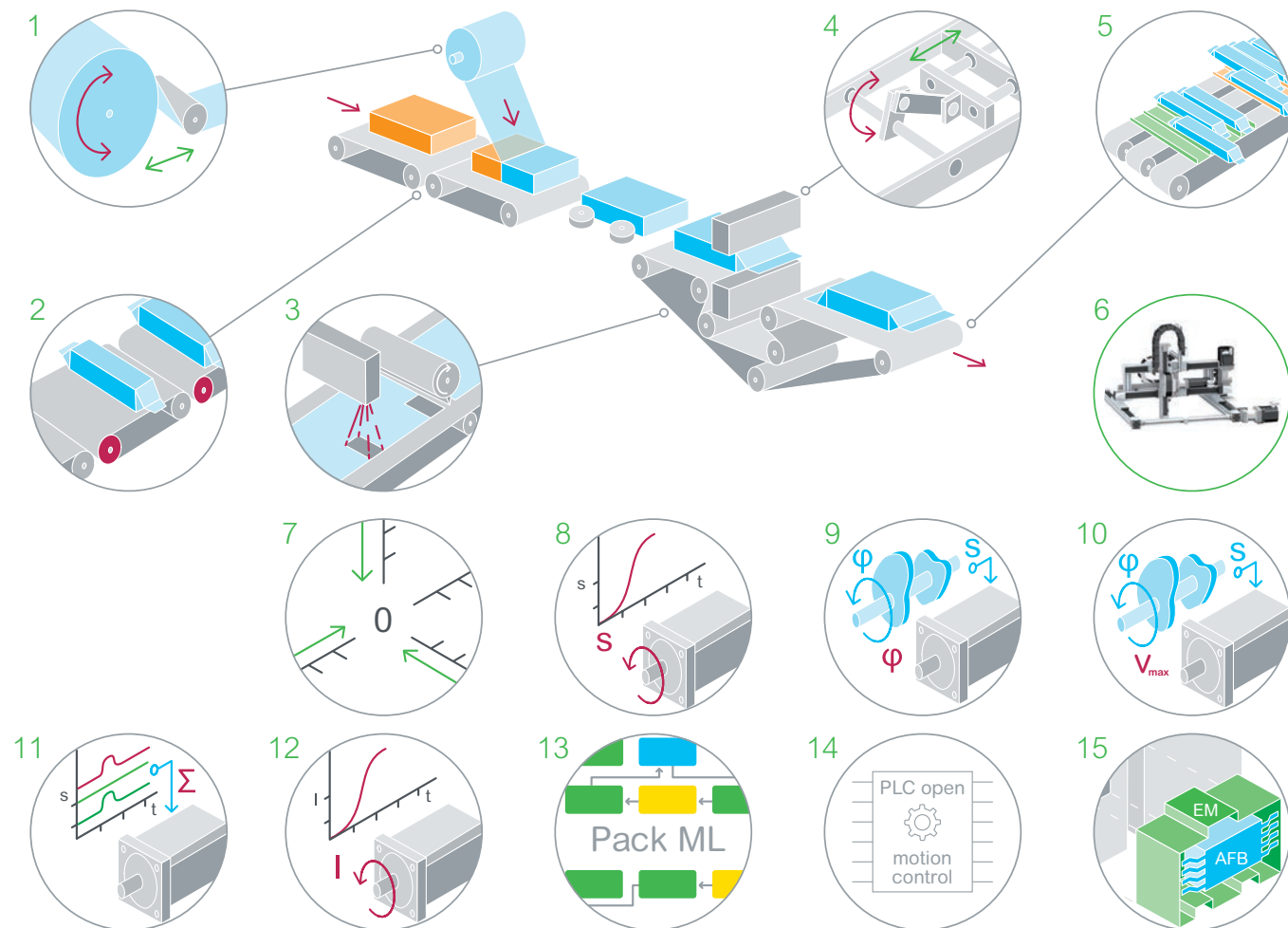
# Experience efficiency in delivering smart machines

MachineStruxure gives you tools and programming capabilities designed to reduce engineering, assembly, and commissioning time. Furthermore, you can count on our technical support, training, and co-engineering services to accelerate project implementation and knowledge transfer.

## Shorten time-to-market with ready-to-use, tested solutions

Schneider Electric's Tested, Validated, and Documented Architectures (TVDA)s are ready-to-use architectures that allow you to design and build packaging control systems faster and more efficiently thanks to:

- Thorough testing of the TVDAs by experts, helping ensure full compatibility of hardware
- Open and flexible solutions to optimize machine control for diverse needs and applications
- Complete user guides with detailed instruction to expedite installation



1. Winder/unwinder
2. Infeed
3. Printmark control
4. Crank
5. Multibelt
6. Gantry
7. Homing
8. Positioning
9. Cam motion
10. Intelligent line shaft
11. Software motion generator
12. Current control
13. Pack ML
14. PLCopen
15. Application software
16. Grouping/ungrouping
17. Clamping
18. Film lateral position control
19. Temperature control
20. Rotary knife
21. Flying shear
22. Torque control
23. Pick and place

## Save engineering effort with a single software environment

SoMachine™ software simplifies machine programming through a single software environment. In addition to the TVDAs, you can leverage the SoMachine application software libraries for a wide range of common automation tasks and machine functionalities. SoMachine functions can be easily configured and customized to your needs.





## SAFER MACHINES

# Enhance the safety and cybersecurity of your machines

MachineStruxure takes machine safety and cybersecurity into account throughout the asset life cycle. A combination of hardware, software, and services lets you optimize machine performance while protecting people, assets, and the environment.

### Holistic, proactive cybersecurity

Loopholes in machine control systems can leave the production line vulnerable to cyber attacks. Schneider Electric can help you adopt the Defense-in-Depth approach that allows proactive and planned measures against cyber-threats. A holistic, step-by-step plan, Defense-in-Depth mitigates risks with:

- Advanced cybersecurity features
- Automation Systems Manager (ASM) for control and monitoring
- A comprehensive suite of cybersecurity services

### The right level of machine safety

MachineStruxure's safety chain solutions are certified for a wide range of safety functions. Modular and scalable, these ready-to-use architectures can be easily adapted to provide the right level of safety for your applications.

### Green Premium ecomark

The Green Premium ecomark is an assurance that our products comply with the strictest environmental regulations to protect health and the environment.



The Preventa XPS MCM modular safety controller