World-class machines

Totally Integrated Automation for machine building – with a strong partner
Faster, better, more efficient – welcome to world-class

With Siemens Totally Integrated Automation your machines will set new benchmarks.

How are you performing with time-to-market, machine performance, and machine availability? The bar in the market is high and requirements will continue to grow.

Set the benchmarks in the construction of world-class machines – with standardized data management, parallel product creation phases and virtual start-up. Remain flexible and precisely tailor your software and automation solution to meet your specific requirements.

Speed up installation and commissioning. Ensure efficient, reliable, and energy-saving operation worldwide through dependable, high-performance components and simple diagnostics and maintenance.

As a strong partner, we support you throughout your entire global value-added chain, backed up by comprehensive service that is available to you and your machine worldwide.

Discover more about TIA
With Totally Integrated Automation for machine building ...

... and with Siemens PLM software you can design machines more quickly, simply and economically.

... you can plan, design and automate your machines more efficiently.

... your machines are ready for operation on site at the customer more quickly

... your machines perform better – and are extremely reliable.

... You gain a highly reliable partner who provides comprehensive support – Siemens.

- High cycle rate, high throughput
- Reproducible, defined quality and accuracy
- Low cost and effort for engineering
- Straightforward machine integration in lines and plants
- Fast, easy commissioning
- Simple, modern machine operation
- Energy-efficient operation
- Low downtimes
- Easy conversion
- Good serviceability
World-class machines ... 

... optimized from the initial idea to the actual machine

Standardized data management, parallelization of product development phases, as well as digital simulation and virtual commissioning cut the time from the initial idea to the actual machine. The logical consequence is faster time-to-market for your machine.

With our PLM software you can design and model your machine in a team and use the relevant data in the TIA Portal. That shortens your development process. Once components and functional units have been created, they can be re-used which saves time. This is ideal for engineering, commissioning and service too.

You can carry out virtual commissioning of your machine. This minimizes risks in advance and increases your software quality. You profit from innovative, intuitive and scalable operating concepts in software and hardware, that can be programmed and configured centrally via the TIA Portal.

Further information at:
› siemens.com/industry-software
› siemens.com/tiaportal
... more efficient automation and design

The optimal design, planning and automation of machines requires a high degree of engineering skill. With Totally Integrated Automation you save time, work and “brainpower”. You will avoid mistakes, because you are supported by optimized software tools in every phase.

The TIA Selection Tool simplifies the choice of equipment for control system, HMI and peripherals. The performance class of the drives can be sized by means of the Sizer. Both tools are also used for documenting the configuration and for ordering.

You can save time by transferring data directly into the TIA Portal where configuration and programming can be carried out simply and with standard programming languages and object libraries. Equipment of the automation components is scalable. Top quality know-how protection with firewall, as well as copying and access protection, round out the picture.

Further information at:

› siemens.com/tia-selection-tool
› siemens.com/sizer
Assembly, wiring and commissioning of your machines involve considerable cost and effort. We can help you save both time and costs with innovative connection technology and optimized software tools – with systematic minimizing of error sources.

You can wire up many components without the need for tools using the extremely user-friendly push-in connection system. In addition, the ergonomic direction of connection or the prewiring position facilitates cable routing, while marking of the connections at the front helps ensure the correct cable-to-port connections.

You can check the wiring conveniently with the PC tool PRONETA, and download the software onto your machine quickly with our SIMATIC Automation Tool. Both are available free of charge. Alternatively, you can load the program simply per memory card.

Further information at:
› siemens.com/proneta
› siemens.com/simatic-automation-tool
How do you ensure that your machines operate at peak performance, with maximum availability, in order to boost your competitiveness, and that maintenance is quick and simple?

With Totally Integrated Automation, you manufacture machines that use efficient and powerful technologies. This includes the fastest control system in the world, high-efficiency frequency converters and motors up to IE4, as well as software tools for energy monitoring.

At the same time, the life span of your machines is increased. For example this is accomplished through maintenance-free PC technology and state-of-the-art HMI displays that can be used at all times even in harsh environments. Thanks to continuous system diagnostics, faults can be cleared quickly and peripheral modules exchanged with the system running. What’s more, for changing HMIs you only need a memory card instead of a programming device.

Further information at:

› siemens.com/simatic-energy-management
› siemens.com/simatic-hmi
... in a team with a strong partner

Your machines are world-class, but requirements and technologies are changing. To ensure that your machines stay world-class we offer you comprehensive support worldwide.

With Siemens you can count on a reliable partner with many years of experience in automation technology. Siemens has in-depth industry expertise and knowledge of applications for machines, systems and processes. Our industry expertise and applications center as well as our 24/7 hotline are there to support you – from the concept phase, through project planning to commissioning.

In addition, you have a direct partner from our staff of over 150 OEM experts. When it comes to procuring components and spare parts, we ensure that everything is available in time. If you want to deliver your machines to customers in third-party countries, we will also handle the export formalities for you free of charge.

Further information at:

› siemens.com/industry-service
References

- Reis Robotics about TIA
- Pfleiderer
- VW Blue motion
- KUPER
- HOMAG
- SKLOSTROJ
Discover more:
siemens.com/oem-solutions

Find out everything about TIA for machine building:

- Advantages for the individual steps in your value chain
- Services for world-class machines in diverse industries as well as for different processes and plant types

Discover TIA for machine building.

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