Multi-Carrier-System

Maximum flexibility in plant and mechanical engineering

siemens.com/mcs
Identify market requirements.
Making industrial production flexible.

Like the demands of its customers, industrial production is also changing. Customers increasingly call for constantly new and custom-manufactured products. And they want them tailor-made under the same conditions as mass-series products. If industry wants to meet customer wishes, it must cut costs and delivery lead times even further.

Modern production – modern plants
These customer demands are a major challenge for today’s production systems. Plants must be able to flexibly, simply and quickly modify and retrofit while also minimizing costs. This succeeds best when implemented early in the planning and engineering phase, which significantly accelerates time to market.

Growing requirements – innovative solutions
To keep pace with market-dictated demands, machine builders and plant engineers require a needs-based solutions:
• for easily modifying and retrofitting plants and systems
• that provides maximum versatility and customization
• offers implementable options that save time and cost.

The multi-carrier system is designed precisely to meet these market requirements. It offers needs-oriented scalable engineering tools as well as modular hardware components. And it also includes our comprehensive expertise, which is incorporated in the design of your customized solution.

“We want a plant that can be tooled very quickly, deliver multiple variants, and map these flow quantities in such large production numbers that we’re able to compete on the mass market.”

(Dr. Martin Strampfer, head of operations at Dr. Kurt Wolff GmbH & Co. KG)
Maintain competitiveness.
With a modular and versatile system.

Hardware for optimum performance
Whether for electrical or mechanical components: This practical modular system offers a multitude of possibilities thanks to scalable motion control systems such as SIMOTION and SINAMICS plus a variety of motors, carriers and guides.

Software scalable for a perfect fit
Precisely customized to any given application, the scalable software tools always offer precisely the right solution for every need, from simple standard and advanced applications to complex, high-end applications.

Discover the wealth of possibilities for your manufacturing processes – whether you need ready-to-run software solutions or software generated for maximum versatility with high-precision simulation.
Simply choose what you want.

Select what you need from the modular system.

To fit your needs, you can flexibly select the mechanical and electrical components from the modular system – and in precisely the quantity that you require. You can choose a practical complete package or individual elements, with various scalable drives and controls.

The advantage of flexibility: The multi-carrier system can be easily combined with systems from well-known conveyor-belt manufacturers.

<table>
<thead>
<tr>
<th>ADDED VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Comprehensive, end-to-end configuration possibilities</td>
</tr>
<tr>
<td>• Individually selectable modules</td>
</tr>
<tr>
<td>• Convenient complete packages</td>
</tr>
<tr>
<td>• Scalable control and drive systems</td>
</tr>
<tr>
<td>• Maximum flexibility</td>
</tr>
<tr>
<td>• Easy to integrate</td>
</tr>
</tbody>
</table>

Depending on requirements, the scope of supply can range from a single module to a complete, pre-assembled multi-carrier system solution.

Guide systems and customized carriers for almost any application

Optimized segmentation of transport sections with diverse motor variants, optionally adaptable with the DRIVE-CLiQ encoder system

Customized individual product fixtures

Scalable motion control systems to meet any requirements
Design flexibly.

With modular, application-specific solutions.

Complete, pre-configured units offer quick and practical solutions for basic applications. In these ready-to-run applications, basic system functions can be simply parameterized with no need for programming. Technology extension is an integral feature of such solutions.

In standard applications, MCS Creator ensures valuable time savings, enabling graphical configuration of transport sections and subsequent automatic generation of the immediately runnable project. This substantially reduces system commissioning times.

Engineering with maximum freedom is crucial for high-end applications. The Mechatronics Concept Designer revolutionizes machinery development by means of physics-based simulation functionalities. It enables parallel collaboration between mechanical, electrical and automation systems.

It offers utmost precision, for example, in conjunction with handling systems – in the exact synchronicity and for use of all motion control functionalities of SIMOTION and SIMATIC S7-1500T.

Sample visualization of an “oval runner,” which can be installed in either a vertical and horizontal position.
OPTIMUM AUTOMATION OF PRODUCTION MACHINERY AND ASSEMBLY-LINE PRODUCTION
Accelerate engineering.

With scalable software solutions.

Simple, time-saving solutions that shorten times to market and increase productivity: You benefit right from the planning phase from precisely the right scalable software.

Enjoy the advantages of efficient, end-to-end engineering. The MCS Creator and TIA Portal together are an unbeatable team:

Graphically configure and generate your motor distribution sections quickly and conveniently using MCS Creator. Engineering is then performed via the proven TIA Portal engineering framework, where a user-friendly library is at your disposal.

You benefit from the perfect interplay of complete scalability, planability and controls available to you at anytime.

The Multi-Carrier-System also offers an optimal, highly versatile solution for your application:

- Timed supply feed of products, continuous intake or product feed; the distance between carriers can be individually adjusted
- Fast, precise transport of products on carriers or workpieces within production lines
- Free, mutually independent movement and positioning
Subject to changes and errors. The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens’ products and solutions only form one element of such a concept.

For more information about industrial security, please visit siemens.com/industrialsecurity