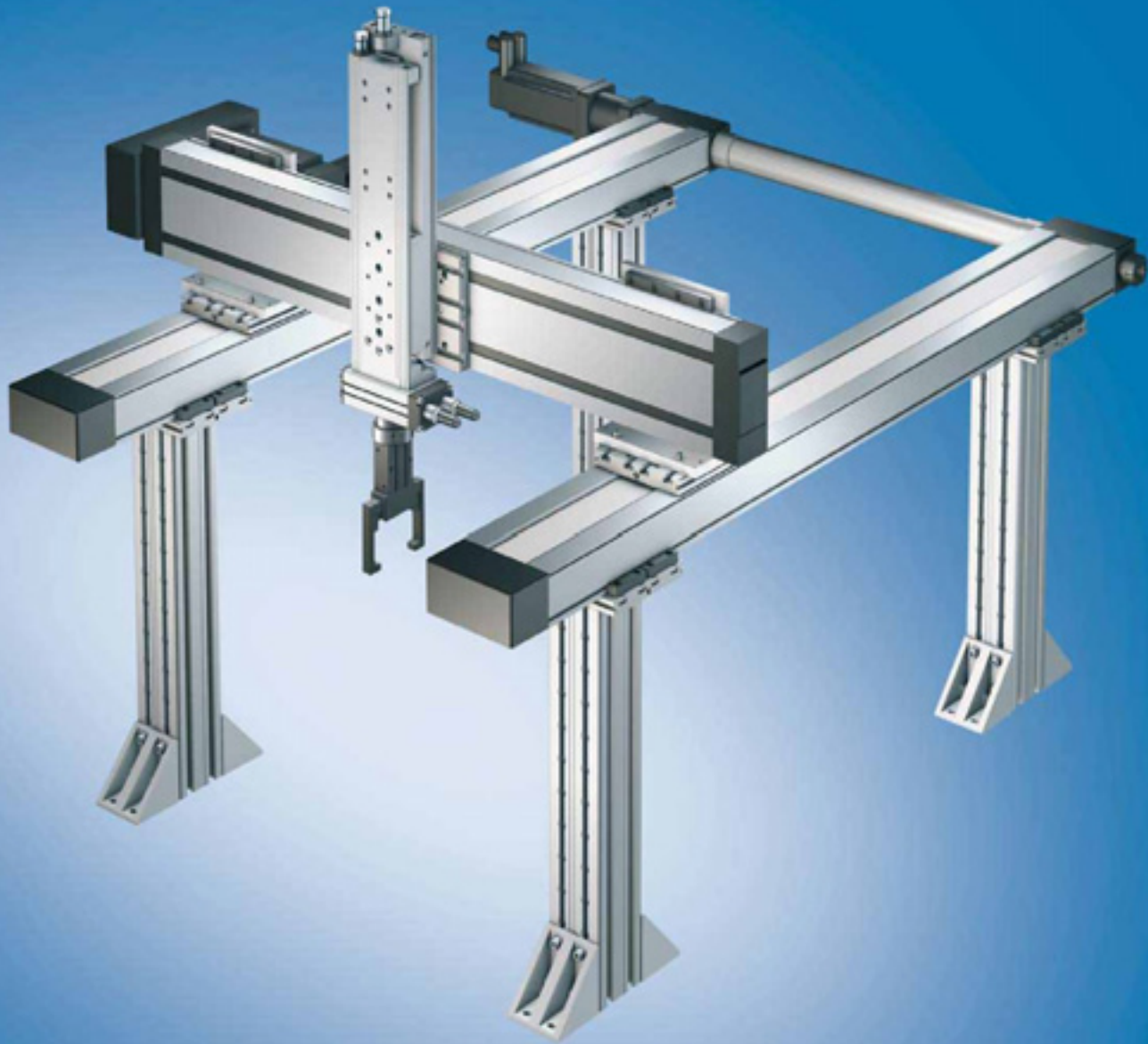


The Easiest Way to Build a Custom Handling System

camoLINE – the Cartesian Motion building system



Rationalizing design and assembly

The new camoLINE Cartesian Motion building system has everything you need to build your own custom handling systems: electric and pneumatic axes, connection

technology, and aluminum structural framing. Ball screw drives for high positioning accuracy, and toothed belt drives for exceptionally fast travel speeds. All perfectly

matched to ensure easy combination and reliable functioning. Choose between servo or stepping motors, side drives with timing belts or planetary gears – whatever best suits your requirements.

Linear Motion Systems

- CKR
- CKK



Pneumatic Components

- Mini Slides



- Rotary Compact Modules



- Grippers



Motors

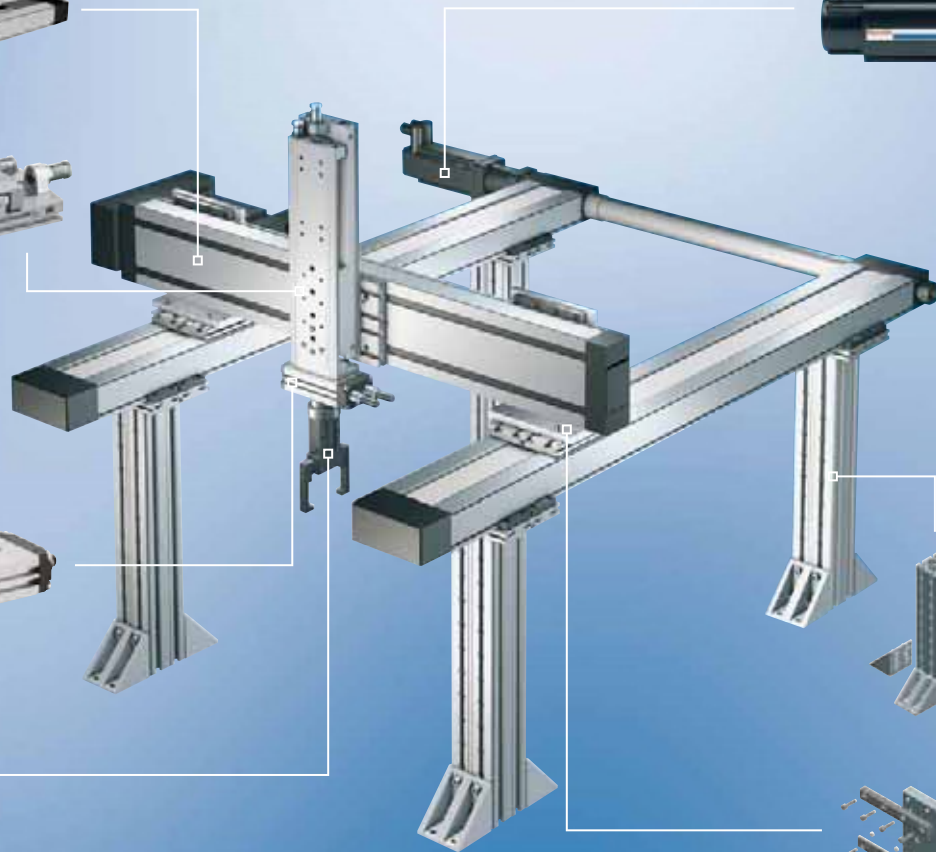
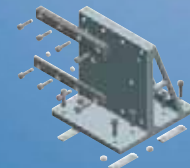
- Servo Motors
- Stepping Motors



Aluminum Profiles



Connection Kits





Intelligent, easy-to-install connection technology with specially designed centering rings ensures positive-locking connections and a perfect fit without the need for any complex adapter plates.

Gripping, lifting, rotating, positioning and placing – these are the main functions that handling systems have to perform. But these applications typically require a tailor-made solution, and designers have difficulty finding a complete system to fit the bill. Rexroth can help – with camoLINE. This Cartesian Motion building system, with its universal connectivity features, provides solutions for

the most common handling tasks. It allows you to construct pick & place systems or linear gantries rapidly, easily and cost-efficiently – a sure way to increase your productivity.

Precisely matched components for a perfect system

With a choice of pneumatic, toothed belt or ball screw drive units, you'll always be able to select exactly the right drive-type for your system. And in addition, our extensive line of components – Compact Modules, Mini Slides, Grippers and Rotary Compact Modules – also meet a wide variety of needs. Standardized interfaces provide a multitude of combination options and ensure that you achieve the best possible design for your specific application.



Linear motion systems CKR and CKK

The CKR Compact Module with toothed belt drive offers high travel speeds, while the CKK version has a ball screw drive for enhanced positioning accuracy. The two modules have identical installation dimensions and offer the following benefits:

- Positive-locking with centering rings for highly accurate assembly
- Identical connection dimensions in each size
- High load capacities and high rigidity due to two integrated Ball Rail Systems
- Simple motor attachment due to locating feature and tapped mounting hole at drive end



Rotary Compact Modules RCM

The powerful Rotary Compact Modules feature accurate and high-load rotary flange bearings. Additional advantages:

- High torque within a compact envelope
- Elastic/hydraulic end position cushioning
- Intelligent design allowing easy replacement of shock absorbers
- Integrated intermediate position as an option
- Integrated air feed-through as an option
- Integrated sensor slots (on both sides)



Aluminum Structural Profiles

Special centering rings ensure positive-locking connections and permanent accuracy of the basic structure. All components in the camoLINE building system are fully compatible with the Rexroth modular profile system.



Mini Slides MSC

The Mini Slides with two drive cylinders offer multiple possibilities for attachment to other handling components and are available in a series of standardized stroke lengths.

Further advantages:

- Maximum thrust combined with minimum construction size
- Smooth movement
- Intelligent stroke limitation concept
- Air supply can be connected to any of 3 sides
- Elastic/hydraulic end position cushioning
- Integrated sensor slots (on both sides)



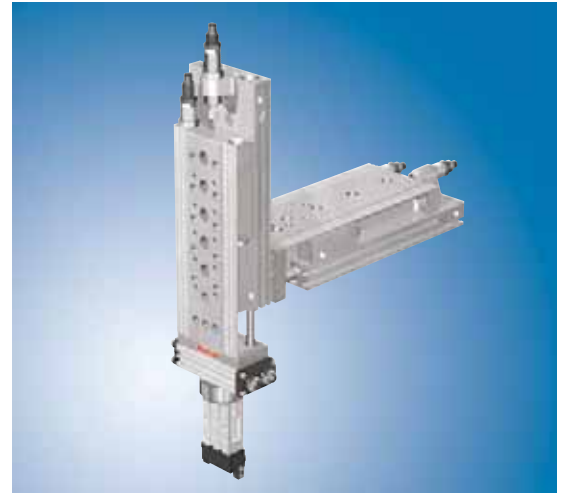
Grippers GSP

The pneumatic parallel, angular and radial grippers come in narrow size increments to cover a broad range of needs. They offer the following advantages:

- Robustness and long life
- High gripping force combined with compact design
- High precision and repeatability
- Standardized mounting interfaces
- Multiple options for sensor attachment

camoLINE – a complete building system for customized applications

If you're looking for a precision handling system for pick & place applications, or a high-performance economical linear gantry, camoLINE is the answer! The camoLINE building system offers you endless possibilities. Whether you want electric, pneumatic, or a combination of both, Rexroth supplies the right drive-type for any application.



1. Pick & Place – Point-to-point precision

For applications with the following requirements:

- Fast cycle times
- Low workpiece weights
- Rigid, stable supporting axis with excellent guidance

Drive type examples:

- X(Y)-axis: pneumatic
- Z-axis: pneumatic
- Rotary module, gripper: pneumatic



	Axes		
	X(Y)	Z	Ω
Max. stroke [mm] / [°]	200	200	180
Number of intermediate positions	2	2	1
Repeatability [mm] / [°]	0.02	0.02	0.05
Workpiece weight [kg]	Max. 17 kg 1.9 kg with gripper		



2. Linear gantry – Continuous precision

Design:

- Gantry or multi-axis Cartesian systems
- Single, two, three or more axes may be combined to form customized configurations.

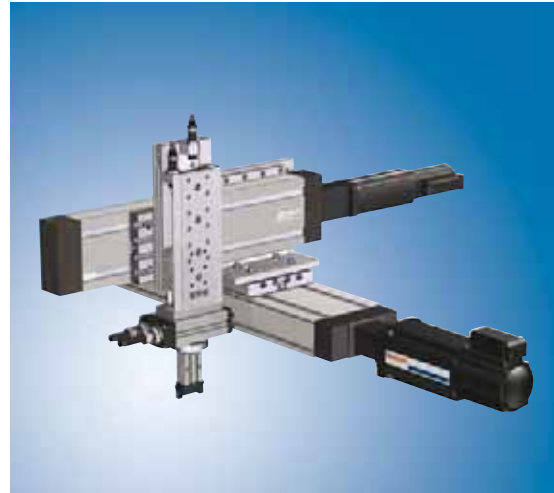
For applications with the following requirements:

- Long strokes
- Combinations of different modules
- With an electric drive unit, movement to any number of intermediate positions.

Drive type examples:

- X(Y)-axis: electric
- Z-axis: electric

	Axes	
	X(Y)	Z
Max. stroke [mm] / [°]	1720	1520
Number of intermediate positions	Any	Any
Repeatability [mm] / [°]	0.02	0.02
Workpiece weight [kg]	Max. 36 kg	



3. XYZ gantry – High performance at all levels

Design:

- Gantry or multi-axis Cartesian systems
- Alternative: freely customizable axis configurations

For applications with the following requirements:

- Moving to positions in three-dimensional spaces
- Fixed Z-strokes with precision pneumatic mini slides
- Variable strokes in the Z-axis with electric drive units

Drive type examples:

- X-axis: electric
- Y-axis: electric
- Z-axis: pneumatic

	Axes			
	X	Y	Z	(ω)
Max. stroke [mm] / [°]	1720	1720	200	180
Number of intermediate positions	Any	Any	2	1
Repeatability [mm] / [°]	0.05	0.05	0.02	0.05
Workpiece weight [kg]	Max. 52 kg 1.9 kg with gripper			

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