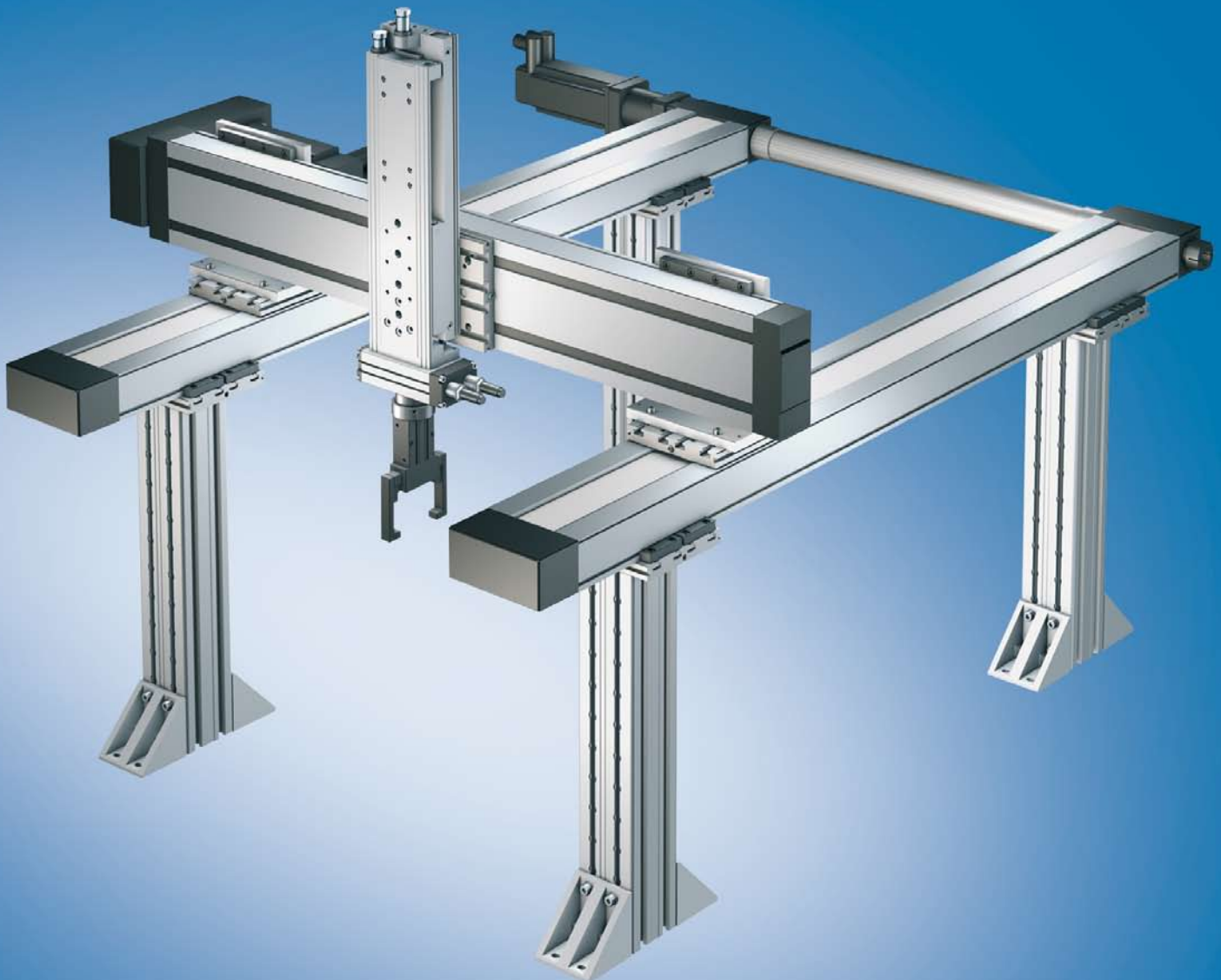


# The Easiest Way to Build a Custom Handling System

camoLINE – the Cartesian Motion building system



# Rationalizing design and assembly

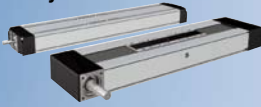
The new camoLINE Cartesian Motion building system has everything you need to build your own custom handling systems: electric and pneumatic axes, connection technology, and strut profiles. Ball

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. You can choose

between servo or stepping motors, side drive timing belts or planetary gears – whatever best suits your requirements.

## Linear Motion Systems

- CKR
- CKK



## Pneumatic Components

- Mini Slides



- Rotary Compact Modules



- Grippers



## Motors

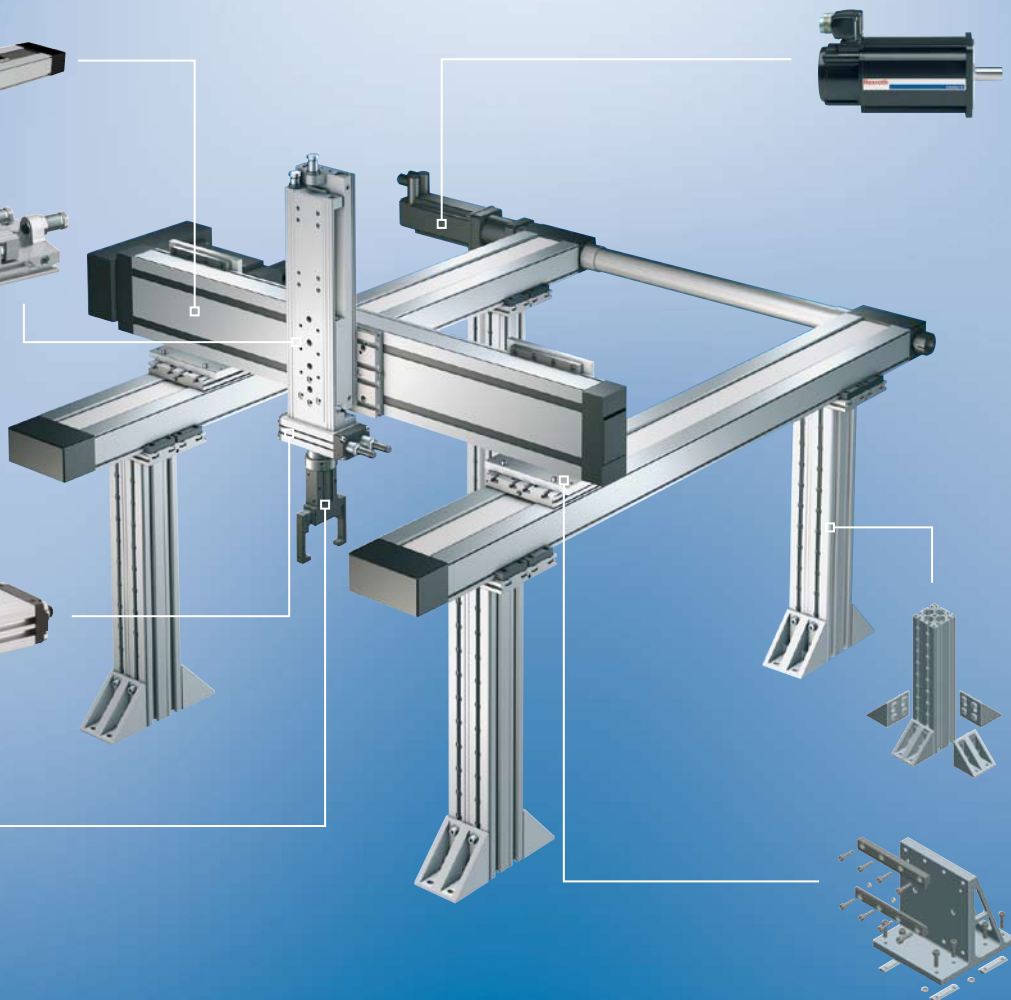
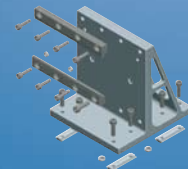
- Servo Motors
- Stepping Motors



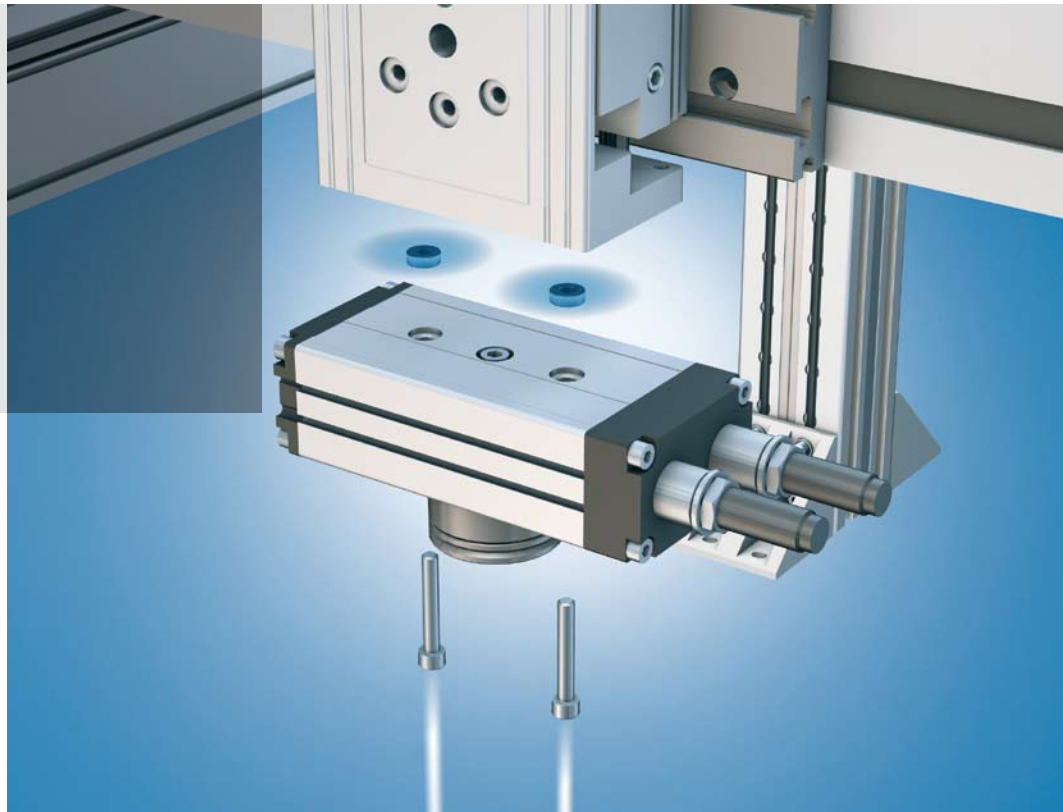
## Strut Profiles



## 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 each application calls for a tailor-made solution, and designers are seldom able to find a complete system that will fit the bill. This is where Rexroth can help – with camoLINE. This Cartesian Motion building system with its flexibly combinable linear motion and

pneumatics components provides solutions for all the most common handling tasks. It allows you to construct pick & place systems or linear and XYZ 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 the components – Compact Modules, Mini Slides, 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 convincing advantages:

- 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. And they offer even more 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)

### Strut Profiles

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



### Mini Slides MSC

The Mini Slides with two drive cylinders offer multiple possibilities for attachment to further 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)



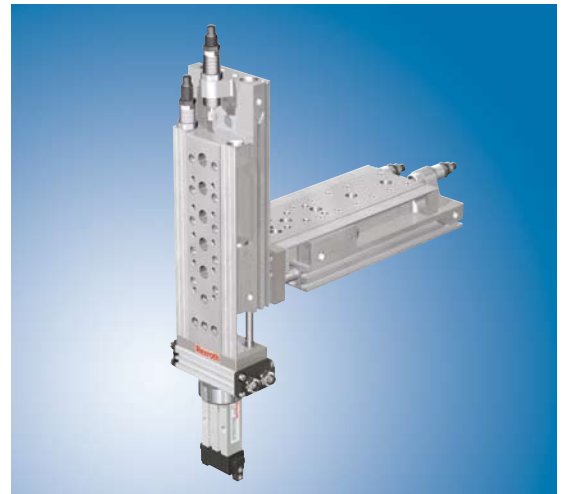
### Grippers GSP

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

You're looking for a precision handling system for pick & place applications, or a high-performance and economical linear or XYZ gantry? With camoLINE, you've found it! Because the camoLINE building system offers you endless possibilities. Whether you want electrics, pneumatics, or both, Rexroth supplies the right drive unit for every application.



## 1. Pick & Place – Spot-on 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	$\omega$
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 – Perfection all along the line

### Design:

- Gantry or boom
- In many applications this can be combined with a vertical axis. Also possible are two horizontal axes or an axis in free space.

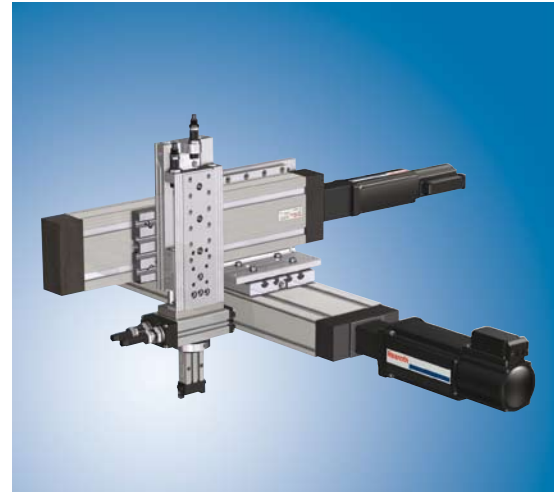
### For applications with the following requirements:

- 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 boom
- Alternative: axes in free space

### 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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