

Maximize the reliability
and performance of your
assembly lines.

Handling systems

Compact, robust and highly dynamic electrical and pneumatic systems ensure repeatable, fast and precise part handling.

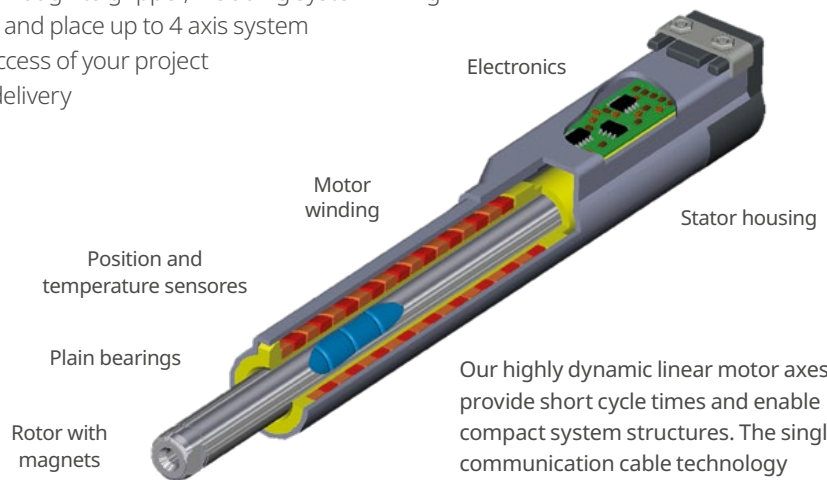


From modules to complete handling systems

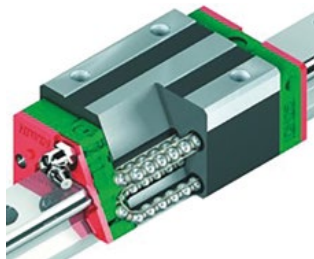
Implementing the right part handling system is essential to optimize the manufacturing process and improve overall equipment effectiveness. Linear axes, rotary axes and grippers with electrical or pneumatic drives available from Emerson form the basis for more than 20 standardized handling systems. Our products are characterized by their robustness, long service lives and consistently high quality, which when combined contribute to very reliable, precise, high performance handling systems.

Advantages of our handling systems

- High dynamics due to axes that have been optimally coordinated with one another
- Freely configurable systems
- Precise positioning due to the robust construction
- Complete installation, from console through to gripper, including system wiring
- The same control system – from pick and place up to 4 axis system
- Cycle time guarantee ensures the success of your project
- Parametrization and tested prior to delivery



Our highly dynamic linear motor axes provide short cycle times and enable compact system structures. The single communication cable technology supports the control of the drive as well as sensors for position monitoring.



High-quality, double-row linear guides with ball chains guarantee extremely smooth running, precision, long service life and therefore virtually maintenance-free operation, even for very short cycle times.



Pneumatic and electrical linear axes, rotary axes and grippers complement our product range. We offer a scalable scope of delivery ranging from individual components to complete systems, including parameterized controllers and motors.



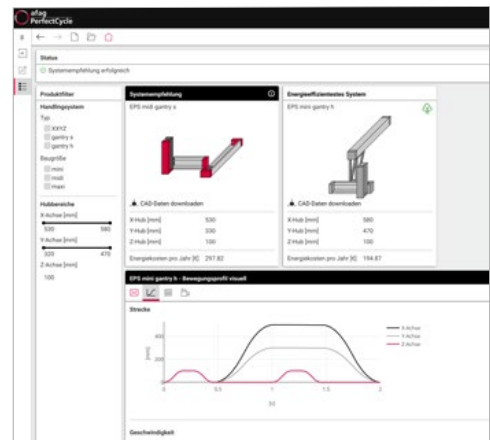
Freely programmable electrically driven axes expand the range of applications of the handling systems. It is not just movements with low weights and short strokes that are possible, but also longer movements with greater force. For linear motors, we recommend our own motors and controllers due to the high dynamics involved.

Optimally design your handling system

Utilizing our PerfectCycle online tool is the quickest way to create an optimal handling system design. Simple to use, the PerfectCycle tool only requires data such as distance, payload and cycles per minute, to provide you with potential solutions immediately.

Advantages of creating designs with PerfectCycle

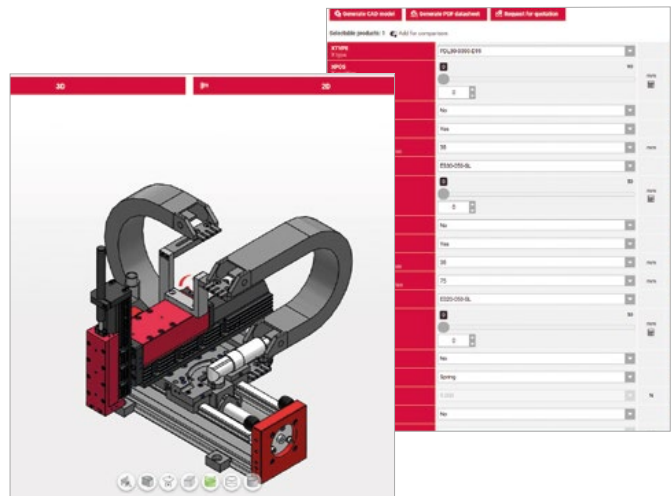
- Online designs available 24/7
- Cycle time calculation available in just a few steps
- Simply provide user data such as distance, payload and cycle time to receive an immediate system proposal
- Evaluate and compare different handling systems before making selection
- Able to simulate complex process cycles
- Direct queries regarding the suggested systems straight from the online tool



Calculate your cycle time here:

Output 3D models from CAD configurator

After creating and selecting a suitable handling system, you can then access our CAD configurator and download a 3D model of your design. It is also possible to create and access additional 3D models of our handling systems through afag.com and integrate them directly into your design to check for interfering contours.



Download CAD data and select and configure standard systems here:

Handling systems – the right system for every application



EPS mini YZ - Compact, only 40 mm wide, quick and flexible

Stroke Z	Stroke Y			
*	50 mm	100 mm	200 mm	300 mm
50 mm	3 kg	3 kg	2 kg	1 kg
100 mm	3 kg	2 kg	1 kg	0.5 kg
200 mm	2 kg	1 kg	-	-
300 mm	1 kg	-	-	-



EPS midi YZ - Compact handling with boom Y to 500 mm

Stroke Z	Stroke Y					
*	50 mm	100 mm	200 mm	300 mm	400 mm	500 mm
50 mm	3 kg	5 kg	5 kg	4 kg	3 kg	2 kg
100 mm	5 kg	5 kg	4 kg	3 kg	2 kg	1 kg
200 mm	5 kg	4 kg	3 kg	2 kg	1 kg	0.5 kg
300 mm	4 kg	3 kg	2 kg	1 kg	0.5 kg	0.5 kg



EPS maxi YZ - Powerful, robust and dynamic

Stroke Z	Stroke Y					
*	50 mm	100 mm	200 mm	300 mm	400 mm	500 mm
50 mm	8 kg	7 kg	6 kg	5 kg	4 kg	3 kg
100 mm	7 kg	6 kg	5 kg	4 kg	3 kg	2 kg
200 mm	6 kg	5 kg	4 kg	3 kg	2 kg	1 kg
300 mm	5 kg	4 kg	3 kg	2 kg	1 kg	0.5 kg
400 mm	4 kg	3 kg	2 kg	1 kg	0.5 kg	-
500 mm	3 kg	2 kg	1 kg	0.5 kg	-	-



EPS giga YZ - Rapid movement of payloads weighing up to 15 kg

Stroke Z	Stroke Y				
*	100 mm	200 mm	300 mm	400 mm	500 mm
100 mm	15 kg	15 kg	12.5 kg	10 kg	9 kg
200 mm	15 kg	12.5 kg	10 kg	9 kg	8 kg
300 mm	12.5 kg	10 kg	9 kg	8 kg	7.5 kg
400 mm	10 kg	9 kg	8 kg	7.5 kg	5 kg
500 mm	9 kg	8 kg	7.5 kg	5 kg	3 kg



EPS tera YZ Ideal for precise, powerful press-fitting tasks

Stroke Z	Stroke Y				
*	100 mm	200 mm	300 mm	400 mm	500 mm
100 mm	20 kg	20 kg	15 kg	12.5 kg	10 kg
200 mm	20 kg	15 kg	12.5 kg	10 kg	9 kg
300 mm	15 kg	12.5 kg	10 kg	9 kg	8 kg
400 mm	12.5 kg	10 kg	9 kg	8 kg	5 kg
500 mm	10 kg	9 kg	8 kg	5 kg	3 kg

* Payload table refers to the centric gripping of the load.

Handling systems



EPS mini XZ - Compact for longer strokes

Stroke Z	Stroke X
*	up to 640 mm
50 mm	3 kg
100 mm	2 kg
200 mm	1 kg



EPS midi XZ - Torsion stiffness and dynamic X axle for long strokes

Stroke Z	Stroke X
*	up to 1660 mm
50 mm	3 kg
100 mm	2.5 kg
200 mm	2 kg
300 mm	1.5 kg



EPS maxi XZ - Powerful, dynamic and robust for long strokes

Stroke Z	Stroke X
*	up to 1660 mm
50 mm	8 kg
100 mm	7 kg
200 mm	6 kg
300 mm	5 kg
400 mm	4 kg
500 mm	3 kg



EPS gantry s - Simple, accessible setup, space-saving

Stroke Z	Stroke Y		
*	60-270 mm	290-430 mm	450-640 mm
50 mm	4 kg	3 kg	1.5 kg
100 mm	3 kg	2 kg	1 kg
200 mm	2 kg	1 kg	0.5 kg
300 mm	1 kg	0.5 kg	-

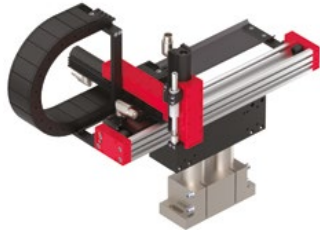


EPS gantry h - Quickly operate large areas due to suspended setup

Stroke Z	Stroke Y	
*	90-630 mm	670-1130 mm
50 mm	5 kg	3 kg
100 mm	4 kg	2 kg
200 mm	3 kg	1 kg

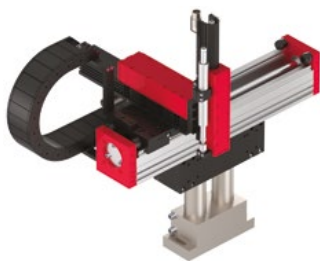
* Payload table refers to the centric gripping of the load.

Handling systems



EPS mini XYZ - Linear, scalable alternative for the robot

Stroke Z	Stroke Y		
*	50 mm	100 mm	200 mm
50 mm	3 kg	2 kg	1 kg
100 mm	2 kg	1 kg	0.5 kg
200 mm	1 kg	0.5 kg	-



EPS midi XYZ - Dynamic, flexible and scalable

Stroke Z	Stroke Y					
*	50 mm	100 mm	200 mm	300 mm	400 mm	500 mm
50 mm	3 kg	3 kg	2 kg	1 kg	0.5 kg	0.5 kg
100 mm	3 kg	2 kg	1 kg	0.5 kg	0.5 kg	-
200 mm	2 kg	1 kg	0.5 kg	-	-	-
300 mm	1 kg	0.5 kg	-	-	-	-



EPS maxi XYZ Powerful alternative with variable strokes

Stroke Z	Stroke Y					
*	50 mm	100 mm	200 mm	300 mm	400 mm	500 mm
50 mm	5 kg	4 kg	3 kg	2 kg	1 kg	0.5 kg
100 mm	4 kg	3 kg	2 kg	1 kg	0.5 kg	-
200 mm	3 kg	2 kg	1 kg	0.5 kg	-	-
300 mm	2 kg	1 kg	0.5 kg	-	-	-
400 mm	1 kg	0.5 kg	-	-	-	-
500 mm	0.5 kg	-	-	-	-	-



EPS gantry XXYZ - Dynamic for large areas and higher loads

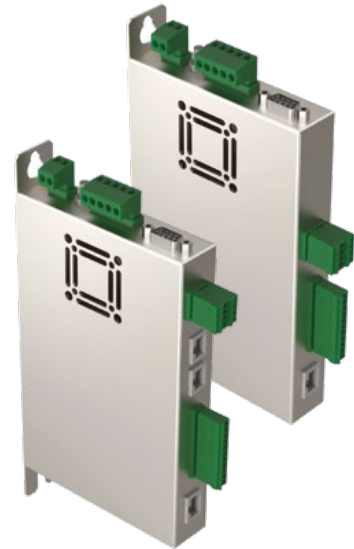
Stroke Z	Stroke Y
*	up to 1660 mm
50 mm	8 kg
100 mm	7 kg
200 mm	5 kg
300 mm	4 kg
400 mm	3 kg
500 mm	2 kg

* Payload table refers to the centric gripping of the load.

Control technology – simple systems completely configured

We offer a wide range of solutions for the control of electric systems, from controllers through to the complete switch cabinet. Prior to delivery, all controllers are configured and parameterized with the system.

This saves time and cost when commissioning the handling system, which allows you to focus on your application.



Smaller than ever!

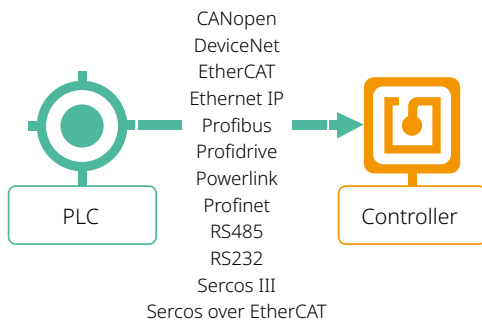
The C11xx and C12xx series

L x W x H:

26.6 x 206 x 106 mm and

25.3 x 216 x 106 mm respectively

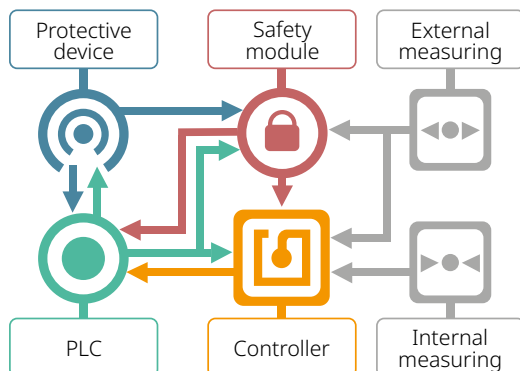
Communications



Control via bus systems.

- All common bus systems: Profinet, Ethernet IP, EtherCAT, Sercos over EtherCAT, ...
- Components and example programs for the most common PLCs for quick commissioning of the systems
- Point-to-point or track control by position streaming
- Back-up and download all parameters via the PLC

Machine safety



Safely reduced speed. Setting up at a safely reduced speed decreases the costs for commissioning. Due to growing system complexity, setting up special purpose machines in assembly technology is becoming increasingly demanding. For setting up handling systems with the safety door open, we offer the function "Safely Limited Speed" (SLS).

- Efficient setup
- Simple troubleshooting
- Safe system optimization
- cat=3 PL=d (EN ISO 13849-1)

Maximize part handling precision, speed and reliability to increase the effectiveness of your production operations.



Standardized electric and pneumatic part handling technology and pick and place systems for every application.

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