

Handling systems More than Motion.

From the module to the handling system

Linear axes, rotary axes and grippers with electrical or pneumatic drives form the basis for more than 20 of our standardized handling systems. Robustness, long service lives and consistently high quality characterize our products.

Advantages of our handling systems>>>

- > High dynamics due to axes that have been optimally coordinated with one another
- > Freely configurable systems through the Partserver access via our homepage
- > Precise positioning due to the robust construction
- Complete installation, from the console through to the gripper, with system wiring
- > The same control system from P & P up to 4 axis system
- > Cycle time guarantee ensures the success of your project
- > Parametrisation and test run before delivery

Motor winding

Position and temperature sensores



Our highly dynamic linear motor axes provide short cycle times as well as a compact system structure. The single-cable technology includes the control of the drive as well as position monitoring via hall sensors.

Stator housing

Electronics



High-quality, double-row linear guides with ball chains guarantee extremely smooth running, precision, a 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 pure components to complete systems, including parameterized controllers and motors from popular providers. Freely programmable **electrically driven axes** expand the application range of the handling systems. Not just movements with low weights and short strokes are possible, but also more forceful, longer movements.



For linear motors, we recommend our own motors and controllers due to the high dynamics.



Optimally design your handling system

When using our **Afag PerfectCycle** online tool, you only have to enter your user data, such as distance, payload and cycles per minute, to receive potential solutions right away. Afag PerfectCycle is the quickest way to find reliable handling system designs!



Advantages when designing with Afag PerfectCycle>>>

- > Autarkic online designs around the clock
- Cycle time calculation in just a few steps
- Only provide user data such as distance, payload and cycle time to receive a proposed system right away
- Parallel evaluation of different handling systems which can then be compared and selected
- > Simulation of complex process cycles
- > Direct queries regarding the suggested systems straight from the tool



Learn more about the Afag PerfectCycle here perfectcycle.afag.com>>>



Designing with our CAD configurator>>>

After selecting a suitable handling system from our Afag PerfectCycle online tool, you can then access our CAD configurator directly and download the required 3D model for your design.

You can also create more 3D models of our handling systems through afag.com and directly integrate them 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











$\ensuremath{\text{EPS}}$ 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		











EPS mini XZ Compact for longer strokes				
Stroke Z	Stroke X			
*	bis 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
*	bis 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
*	bis 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







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	_	_	_	_	_

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EPS gantry XXYZ Dynamic for large areas and higher loads

Stroke Z	Stroke Y
*	bis 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



Control technology – simple systems completely configured

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

This saves time and money 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



Control via bus systems.

- All common bus systems: Profinet, Ethernet IP, EtherCAT, Sercos over EtherCAT, ...
- Components and example programs for the common PLC (S7, Beckhoff, B&R, ...) for quick commissioning of the systems
- Point to Point or track control by position streaming
- Back-up and download of all parameters possible via the PLC

Block diagram



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)



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