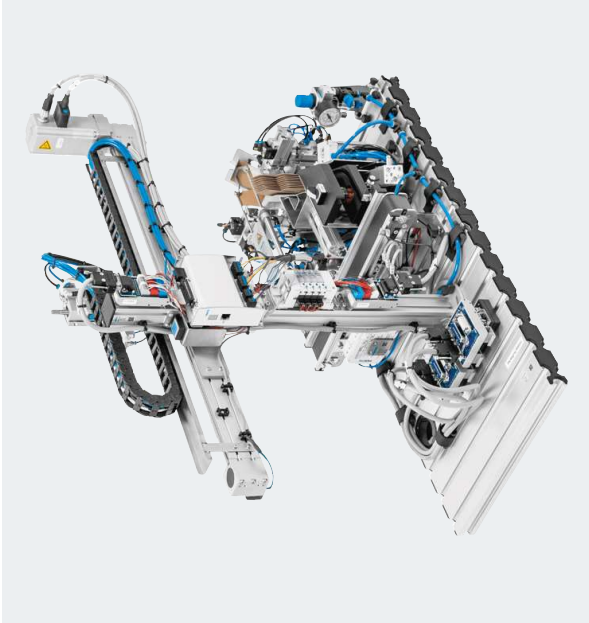


Packaging station

Complex mechanical handling processes

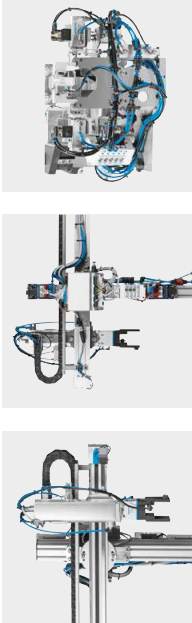


The MPS Packaging station D deals with the pneumatic control of a complex packaging process, and the control of stepper motors by motor controllers. The station also provides an introduction to the use of digital sensors.

The station packs workpieces in an automated process. A conveyor carries the workpiece into the collecting position of the Two-Axis Handling module. The Packaging module takes a carton out, unfolds the carton, and prepares the carton for loading. The Two-Axis Handling module conveys the workpiece into the carton; this operation is carried out by a stepper motor in the X-axis and a precision-controlled cylinder in the Z-axis. The carton is closed and passed on to the Conveyor module. The Conveyor module transports the packed workpiece to the end position.

A stepper motor with controller moves the linear axis to particular positions with high positioning accuracy.

Pneumatic end position sensors detect the cylinder position and control the packaging mechanism.



Training content

- Familiarity with the various functions of the MPS Packaging station D
- Understanding of common packaging processes
- Acquisition of basic PLC programming skills
- Introduction to pneumatic control systems
- Introduction to the functioning and use of sensors and actuators
- Control of stepper motors with a motor controller
- Conveyor belt control
- Adjustment of complex mechanical or pneumatic modules

Benefits

- The modularity of the Festo Didactic training systems makes it possible to use the MPS Packaging station D for a variety of different projects.
- The station can be used individually or together with other stations at various points in a system or process.
- With the aid of this station, the students develop basic knowledge of common packaging processes and of control of a stepper motor using a motor controller.

Technical data

- Operating pressure: 600 kPa (6 bar)
- Power supply: 24 V Dc, 4.5 A
- Square/round workpiece dimensions: max. 40 mm
- 15 digital input signals
- 14 digital output signals
- Dimensions (W x D x H): 350 x 700 x approx. 900 mm

Packaging station, mounted	8062644
Additional equipment, also order:	
MPS trolley 700 x 350	8033590
Control console, SysLink	195764
EduTrainer Universal AX Rack with SIMATIC S7-1512C1 PM	8095754
3x I/O data cable with SysLink connectors IEEE 488	34031
Recommended accessories:	
Simulation box, digital	170643
I/O data cable with SysLink connectors (IEEE 488), crossover	167106
PA workpiece set	554301

The most important components at a glance:

1x Aluminum profile plate, 700 x 350 mm, with cable guide	170395
1x Conveyor module, 350 x 40 mm, DC motor	802692
1x Two-axis handling module with a stepper motor	806257
1x Packaging module	804305
1x Start-up valve with filter control valve	540691
1x Cable holder with hook-and-loop fastener (pack of 10)	803400
1x C interface	8025738
1x Quick-fit clamping adapter	806327
Box size 1 (50 piece) (L x W x H): 48 x 42 x 50	804300
Box size 2 (50 piece) (L x W x H): 48 x 42 x 60	804301



Packaging station with additional equipment

Recommended training media
Courseware
Complete overview → page 270
For example:

- eLearning course**
 - Sensoren zur Objekterkennung
 - PLC Programming
 - GRAFEC

- eTheory course**
 - CIROS – First steps

- elab course**
 - CIROS – Basics of 3D Simulation

Workbook

- Basic level PLC programming



- Advanced level PLC programming

Evaluation

- Basics of PLC Programming



- User Guides**
 - Basics of GRAFEC Programming
 - CIROS – Installation Instructions