

Electrical Tripod EXPT

3D High Speed Pick & Place

FESTO TRIPOD



High Speed Handling Solution

Product

Fast pick and place to move low masses within the working space, together with optimized motor-controller-combination and precise motion control.

Features

- 4 sizes(45, 70, 95, 120)
- Simple and stiff design
- Low moved dead weight:
 - high dynamical performance
- Standard components:
 - simple and fast maintenance/repairing
- Compact design, 50% saved space compared with standard

Benefits

- Cycle times 2-3 times faster than with cartesian Pick &Place systems
- Simple and well arranged design allows easy setup and operation
- Single supplier for all components of the solution

Optimized Movement

- Point-To-Point (PtP)
- Linear & circular interpolation
- Overlapping of positions (reduced cycle times)
- Constant path velocity

Applications

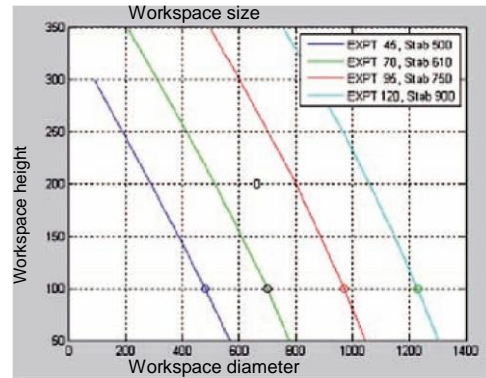
- Pick&Place of small pieces
- Glueing
- Labeling
- Pallet application
- Sorting
- Grouping
- Transferring
- Separating

Technical Data

Performance	
Max. acceleration	100 m/s ²
Max. velocity	4.5 m/s
Repeatability*	+/-0.1 mm
Absolute accuracy*	0.5 mm
Path accuracy (at max 0,3 m/s)	1 mm
Payload at max. acc. und velocity	1 kg
Max. Payload	5 kg
Environment	
Temperature range	-10°C...50°C
Protection class	IP40
Path control	
Number of axes	3 to 6 axes-roboticcontrol(with CMXR)
Motor/Drive package	
Motor	3x Servo motor type EMMS-100-S
Drive	3x 5A servo controller CMMP-AS
Mechanics	
EXPT 45 und 70	3x DGE-25-ZR roller guided axis
EXPT 95 und 120	3x EGC-80-ZR linear guided axis

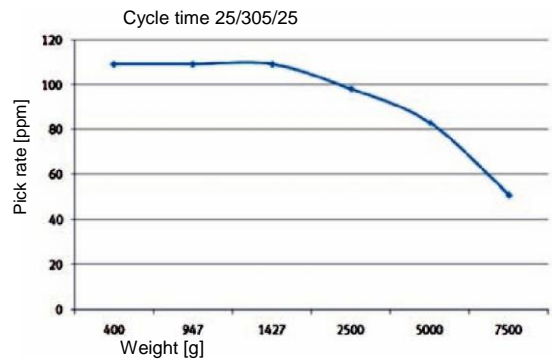
* depends on size and load

Workspace

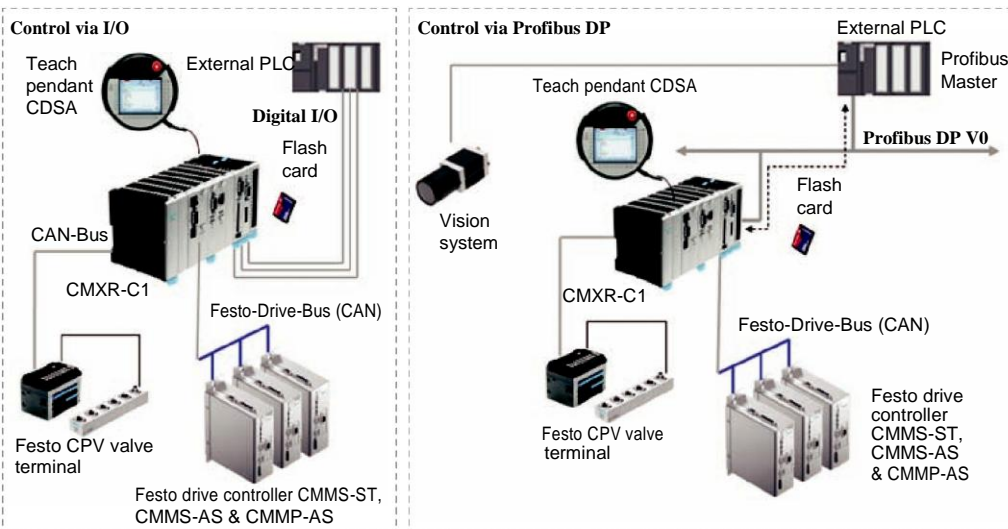


Each displayed point can be reached by the end effector.

Typical Cycle Time (12" cycle)



Control System Architecture

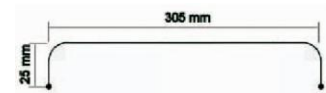


Conditions:

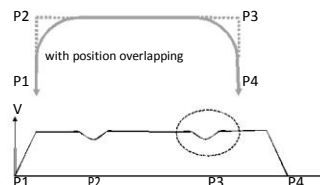
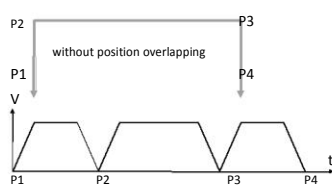
h=25 mm, l= 305 mm

plus gripping time and

miscellaneous non-productive times



Optimized Movements



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