



Dynamic!

Shortest possible cycle times by separating motor and profile.

The new member of the DGE family continues in the family tradition

As a cantilever axis, for example, it ensures an economical response with multi-axis systems in the case of handling and assembly systems.

Extremely dynamic

By reducing the working load. Achieved by the motor, gearing and drive head being permanently mounted and only the main profile is moving with the load.

Maximum precision and reliability

High quality toothed belt drive, which also protects the bearing guide integrated in the profile against contamination, means

a positioning capability in a 0.5 mm range.

Extremely compact and installation-friendly

Owing to the new operational principle for the Ω -drive which facilitates a flat, compact drive head – for slim designs. The axis itself is mounted on the drive head for this. The mounting interface for the load is at the end of the profile slide.

Extremely modular and flexible

As another member of the modular handling and assembly system, it is an ideal Z axis for planar surface gantries and facilitates versatile combination with semi-rotary drives and grippers.



Economic dynamic responses,

precise,

compact.

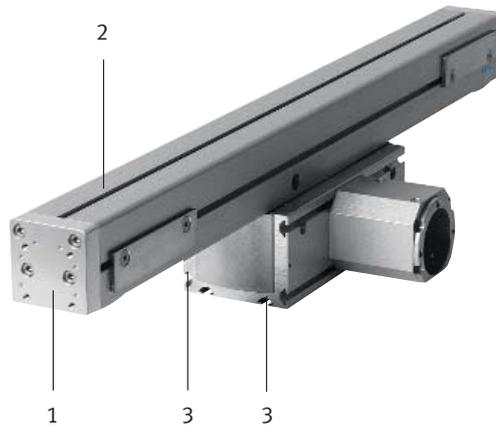
Electrical axes DGEA



Modern drives – Systematically more economical*

The advantages at a glance

- Flat drive head which facilitates high mechanical torques
- Improved dynamic responses compared with the DGE-ZR toothed belt drive in cantilever operation because the motor, gear unit and drive head are permanently mounted so that the working load (profile) is considerably reduced
- Same high-quality guide as for DGE-KF/DGP-KF axes
- Reliable motor controller packages can be utilised
- Mounting options to match the new multi-axis module systems



1 Mounting interface for useful loads: Thread, centring holes and hole patterns are identical to the end caps on the DGE axes. Both caps can be machined as required or removed and replaced by others.

2 Profile: three sides with slots for external mounting – clearance for tubing and electrical cable throughfeed

3 Mounting interface for cantilever applications (to match DGE... slides)



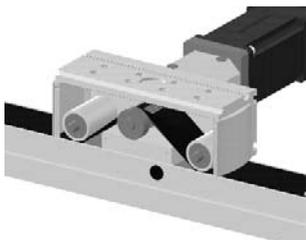
A slim operator - the DGEA with optional bevel gears and flanged servomotor MTR-AC

Technical data

Cantilever axis	Type DGEA-...			
Size	18	25	40	
Guide	recirculating ball bearing guide			
Nominal stroke [mm]	1 ... 800	1 ... 900	1 ... 1000	
Recommended useful load	regardless of position [kg]	5	10	20
	vertical operation [kg]	7	18	27
Drive torque [Nm]	3	5.2	19	
Max. no-load torque (where $v = 0.2 \text{ m/s}$) [Nm]	< 0.4	< 0.4	< 1	
Max. feed force [N]	230	400	1000	
Max. speed [m/s]	3	3	3	
Repeat accuracy [mm]	± 0.05	± 0.05	± 0.05	

Note

Use the project engineering tool PtTool on Festo's CD-ROM. It supports project engineering and calculates the expected positioning time.



The new operational principle Ω -drive

The cantilever axis is driven by a pinion fixed in the slide. It works "omega-like" along a fixed, finite toothed belt. The particularly flat design of the drive head considerably improves the vibration characteristics.

Standardised: The drive variants

Servo motors from the MTR-AC range and stepper motor from the MTR-ST range – both with gearing – are available as a drive for the DGEA, both perfectly coordinated. The motor brake required for vertical boom arm applications is also integrated in drive packages as an option.

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