

## Key Features

- Travel Range 500/600 mm x 500 mm
- High Accuracy
- Max. Load 500 N
- Coplanar Axis Movement
- With or Without Bellow Cover
- Ideal for Particle Generating Machining Processes



## XY-Gantry Stage

### Concept and Design

The EZ-0714 gantry stage is designed for positioning tasks with high accuracy requirements, making it particularly versatile in use.

Due to the optional equipment with bellows, the stage is suitable for particle-laden processes as well as for laser machining processes.

The coplanar arrangement of the axes and the gantry design ensure very high repeatability and positioning accuracy. All air bearings are magnetically preloaded. Cable management is designed to minimize mechanical interference.

The iron-core synchronous motors enable an acceleration of up to  $10 \text{ m/s}^2$  and a travel speed of up to 1 m/s.

The machine bed is made of granite.

The XY Stage is available in 2 sizes, with a travel range of 500 x 500 mm or 500 x 600 mm.

Extension by a Z Axis is possible. Other dimensions or extensions of the two-axis system are possible on request.

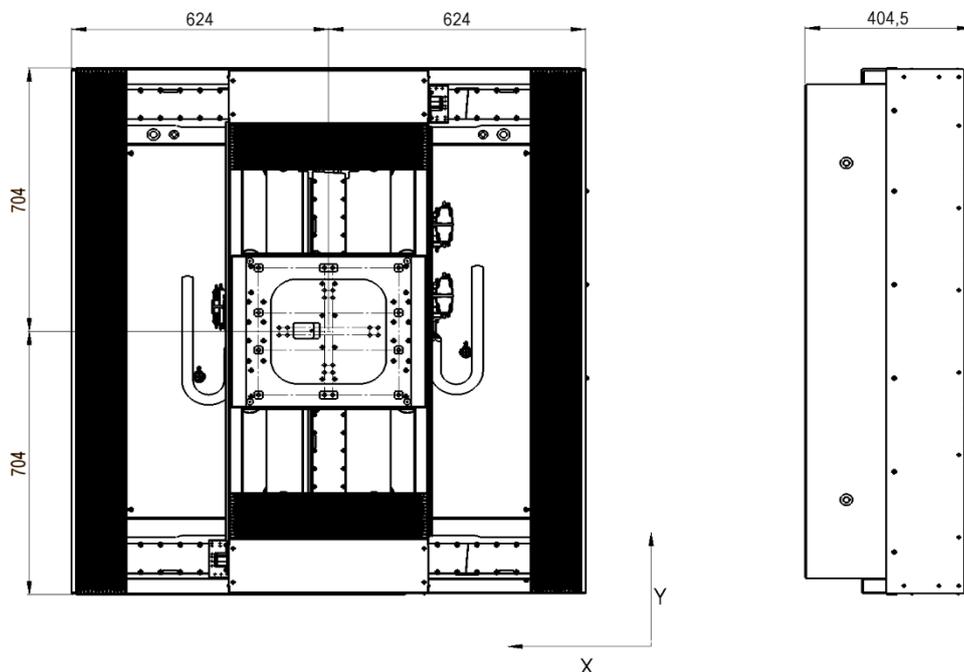
### Applications

Positioning, scanning, exposure, laser engraving, laser processes in general.

### Drive Control

We offer the EZ-0714 stage with the following drive controllers:

- Kollmorgen Servostar AKD / S300 / S700
- ACS Controller with UDMpa Drive
- Triamec TSD130



## Specification

Type	Unit	500 x 500 mm	600 x 500 mm
Stroke	mm	500 x 500	600 x 500
Positioning Accuracy (non-compensated)	µm	± 3	± 3
Repeatability (bidirectional) <sup>1)</sup>	nm	± 50	± 50
Position Stability <sup>1)</sup>	nm	50	50
Vertical/Horizontal Straightness	µm	3	3
Pitch	µrad	15	15
Yaw	µrad	10	10
Max. Speed unloaded	m/s	1	1
Max. Acceleration unloaded	m/s <sup>2</sup>	10	10
Mechanical Data	Unit	500 x 500 mm	600 x 500 mm
Mounting Position		horizontal	horizontal
Dimension LxWxH	mm	1,408 x 1,248 x 405	1,612 x 1,380 x 405
Max. Load in Z	N	500	500
Moving Mass Y	kg	45	45
Moving Mass X + Y	kg	113	113
Total Mass	kg	1,413	1,650
Encoder		EZ-0714-XXX	
Type <sup>2)</sup>		incremental	
Sensor Signal		1Vpp, 20 µm signal period	
Drive		EZ-0714-XXX	
Type		3-phase, synchronous, iron-core	
Max. Voltage ph-ph	V <sub>AC</sub>	400	
Continuous Force X/Y	N	1,280 / 480	
Peak Current X/Y	A <sub>rms</sub>	16 / 12	
Back-EMK ph-ph X/Y	V/m/s	76	
Force Constant	N/A	93	
Interfaces and Environment		EZ-0714-XXX	
Supply Pressure	bar	5	
Air Consumption	Sl/min	18	
MTBF	h	> 20,000	
Limit Switch		PNP	
Clean Room Suitability <sup>3)</sup>		applicable	
Drive Control		EZ-0714-XXX	
Standard		Kollmorgen Servostar AKD / S300 / S700	
High End		ACS Controller with UDMpa Drive / Triamec TSD130	

1) measured with ACS amplifier

2) absolute encoder possible on request

3) without bellows, depending on detail design

Subject to technical modifications and typographical errors.