



Precision News

Airbearing Gantry LLP 782350-600



Airbearing gantry LLP 782350-600 with ball screw z-axis

The air bearing linear axis and gantry systems from Steinmeyer-FMD offer the latest developments in state of the art technology. In order to meet a broad application portfolio, the basic design is characterized by ultra high precision and outstanding dynamic performance. The motor concept is based on a wear- and noiseless drive, also at very high speeds. According to the application the XYZ design can be complemented with A- and B-axes and adapted to the required load, speed and accuracy. Air bearing gantries are used for example in:

- Laser precision machining
- Inspection systems
- Dispensing system
- „Pick-and-place“ machines
- Gene chip production equipment

All FMD multi-axis systems are considered as “custom solutions” and optimized with regard to the required conditions. They are available for travel lengths up to 1500 x 1500 mm. Besides production proven functionality we attach great importance to industrial design and ease of use, which is also shown in the integrated cabling concept.



TECHNICAL DATA

Description	LLP 782350-600
Travel	600 mm x 600 mm
Motor	Ironless, electrodynamic linear motor
Velocity ⁽¹⁾ for XY	1000 mm/s
Max. acceleration ⁽¹⁾	10 m/s ²
Accuracy ⁽²⁾	10 µm
Repeatability	±1 µm
Rel. deviation from straightness	< 20 µm
Rel. deviation from flatness	< 10 µm
Payload z-axis	2 kg ⁽³⁾
Measuring System	Incremental linear encoder
Resolution	50 nm
Material	Stage: anodized aluminium Covering: coated sheet steel

- (1) Based on the theoretical power of the motors. Depending on the application this parameter may differ.
 (2) Measured at the middle of travel for a single axis
 (3) Others on request

The motion-controller concept depends on the customers' requirements.