

FLEXDRIVE-10

Screw Driven Linear Stage

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- Environmentally hardened.
- Long travel 300 to 1200 mm.
- Heavy-duty design with multi-track precision guide system for load capacity up to 75 kg.
- High stiffness, constant support geometry saddle accepts loading from multiple directions.
- High speeds to 900 mm/sec.

the flexdrive-10 series linear positioning tables, configured with a Ball screw drive for high-performance positioning applications where high accuracy, longer travels, and high-load carrying capacities are required.

Screw Driven Stages

The flexdrive™-10 series is an expansion of the product line to a small compact size and the modular design makes it an ideally suited translation module for a larger number of applications requiring precision, reliability and ease of integration. Engineers, system integrators and designer prefer the flexdrive-10 for their superb performance, flexibility to match to the application and assured longevity.

Superior Mechanical Design

The flexdrive-10 series is a very compact precision stage based on a monolithic high strength aluminum alloy with a 93 x 310 mm envelope and travel range from 300 - 1200 mm. The payload capability is rated at 135 kg (300 lbs). The superb positioning performance is supported by square rails with recirculating low noise linear ball bearings and a precision ground ballscrew drive.

Fine Precision Machine

This positioning table is designed as a fine precision machine with selected high-performance components to achieve outstanding positioning performance with extended life expectancy.

High Strength Aluminum

The stage base is fabricated from a specially selected hardened high-strength aluminum alloy slab, precision machined to extremely close tolerances. In addition, the saddle is equipped with a wear resistant hard-coat anodized protective finish.

Guide System

The guide system features advanced technology multi-track linear bearings. The four integrally preloaded bearing carriages establish the proper stiffness and achieve constant support geometry for the saddle. This precise and rigid motion platform produces exceptional results in terms of accuracy and motion trajectory, even with high payload.

FLEXDRIVE-10 Specifications

	FD-8-SP
Travel	300 – 1200 mm
Drive System	BSM 60
Maximum Acceleration	Payload Dependent
Recommended Payload Limit	135 kg
Maximum Thrust	500 N
Maximum Speed	400 mm/s

	FD-1012	FD-1018	FD-1025	FD-1036	FD-1048
Travel Length	300 mm	450 mm	600 mm	900 mm	1200 mm
Ball screw Diameter	20 mm				
Ball screw Lead	5 mm				
Optional	10 mm				
Trajectory Control					
Accuracy					
Rotary Encoder	± 20 µm	± 25 µm	± 30 µm	± 40 µm	± 50 µm
Linear Encoder	± 10 µm	± 15 µm	± 20 µm	± 20 µm	± 30 µm
Straightness/Flatness	± 2.0 µm	± 3.0 µm	± 3.5 µm	± 4.0 µm	± 5.0 µm
Yaw/Pitch/Roll	20 arc-sec	30 arc-sec	40 arc-sec	50 arc-sec	60 arc-sec
2 Axis System					
Orthogonality					
Standard Grade	10 arc-sec	10 arc-sec	15 arc-sec	20 arc-sec	20arc-sec
High Precision	5 arc-sec				

- Accuracy Described on Full System Travel
- Straightness/Flatness Described per 100 mm travel
- All trajectory data based on axis uniformly supported over full length on precision mounting surface with vibration isolation.
- Payload capacities are recommended values to achieve maximum lifetime in the worst-case scenario featuring maximum dynamic operation and off-center loading.
- Force, acceleration and speed performance are based on operations with NUTEC ELECTRONIC controls.

