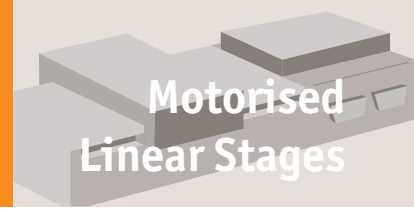


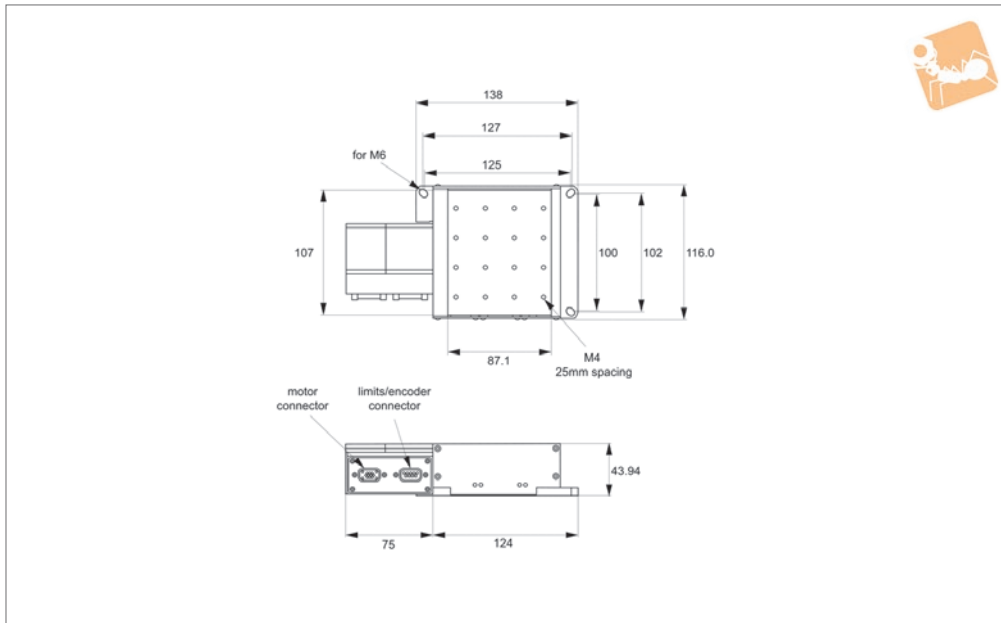


Motorised Vertical Lift Stages

high precision



Motorised Linear Stages



L3592

MOTORISED LINEAR STAGES

Material

Black anodised aluminium body (6061). Hardened linear guideways, stainless steel Acme lead screw (with internally lubricated anti-backlash nut).

Technical Notes

Easy plug and play system. Integrated limit switches are provided as standard. Controllable from PC or PLC when used in conjunction with a motion controller. Controllers come with their own software but many pre-existing software packages

(such as Labview) can be used.

Applications - research, semi-conductors, fibre optics, automation etc.

Tips

Motor options:

Stepper - Nema 17, high torque, brushless. 0.95 Amp/phase, 5.0 Ohm/phase, 3.1 mH/phase, 1.8°/step. Option with 1000 line encoder.

Intelligent stepper - Nema 17 with a fully programmable motion controller inbuilt (ie no need for an external motion

controller). Two +5 to +24VDC I/O lines. One 10 bit analogue input selectable 0 to +10VDC, 0 to +5VDC. RS422/485 communications. Input voltage +24VDC. Option with 512 line encoder. Limit switches are wired normally closed. Drawings show stepper motor configuration. See special pages for further motor options.

Important Notes

Motor resolution 0.03µ, encoder resolution 0.4µ.

Order No.	Travel	Accuracy ±	Uni-directional repeatability ±	Load kg max.	Speed mm/s max.	Lead screw pitch	Motor type	Weight kg
L3592.015-STB	15	10µ	1µ	7.0	5	1.5875	Stepper & enc.	1.1
L3592.015-IMA	15	10µ	1µ	7.0	5	1.5875	Int. stepper & enc.	1.1
L3592.015-IMB	15	10µ	1µ	7.0	5	1.5875	Int. stepper	1.1
L3592.015-STA	15	10µ	1µ	7.0	5	1.5875	Stepper	1.1



Factors affecting stage selection

- Size and weight of load (including any moment loads)
- Accuracy (positioning, repeatability and resolution)
- Speed of rotation required
- Means of control

Parameters	High precision
Table diameters (mm)	50-200
Maximum loads (Kg) Horizontal Vertical	125 125
Maximum speed °/sec Stepper motor Servo motor	25-50 180-360
Accuracy (arc-secs) Positioning Repeatability Resolution	70" 5" <0,7"
Control options	Stepper, servo or intelligent motor Motion controllers available

*Dependent on stage selected

Factors affecting stage performance

Run-out

The displacement of a measure sensor placed on the surface of the rotary table.

Applied loads

These cause small deformations in the stage bearings and are dependent on the stiffness of the stage, the bearings and the stability and flatness of the mounting surface.

Hysteresis errors

The difference between the control and instructed position.

Backlash errors

Errors caused by the reversal of the direction of travel affected by clearance in the drive chain.

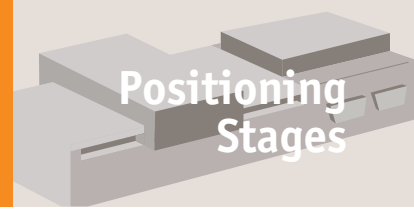
Encoder errors

Imperfections in the operations of the encoder (if present).

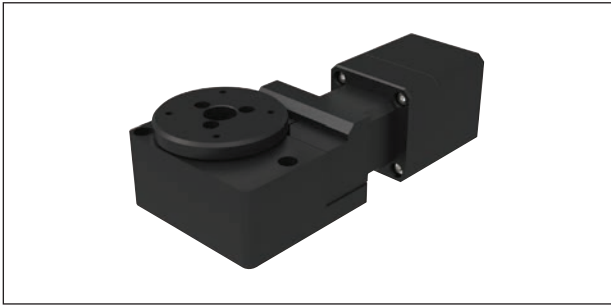


Rotary Stages

High precision overview

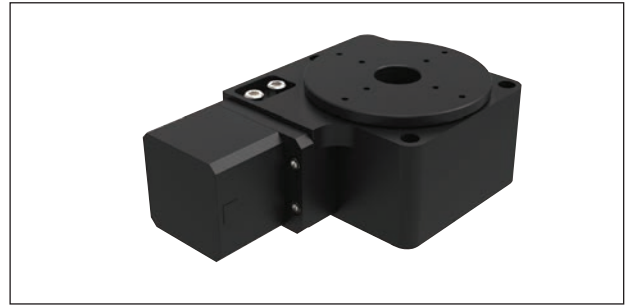


MOTORISED LINEAR STAGES



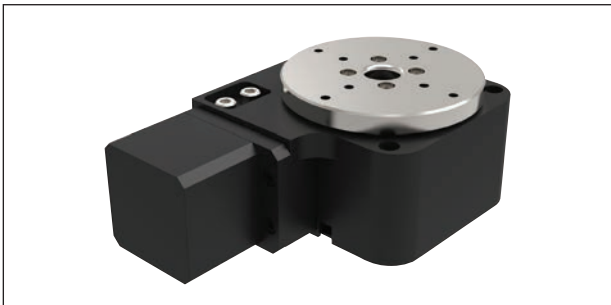
L3550 Ø50 Rotary stage

- Motorised.
- Accurate to 70 arc-secs, repeatedly to 3 arc/sec.
- Loads up to 4.5kg.



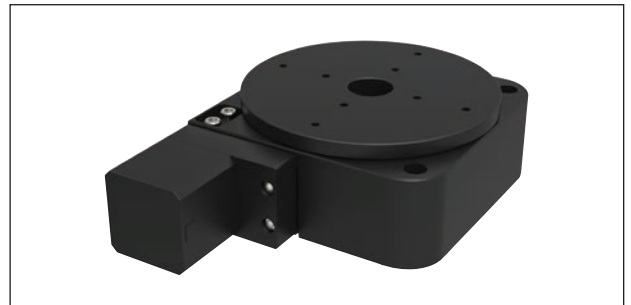
L3552 Ø75 Rotary stage

- Motorised.
- Accurate to 70 arc-secs, repeatedly to 5 arc-secs.
- Loads up to 11kg.



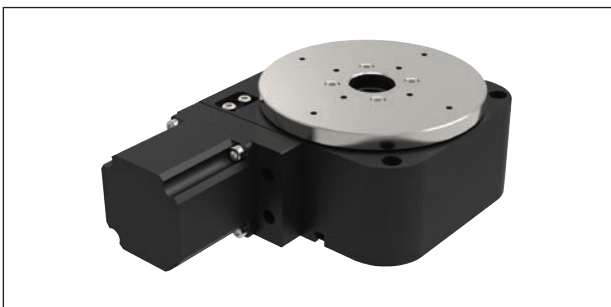
L3554 Ø75 Rotary stage, heavy duty

- Heavy duty.
- Motorised.
- Accurate to 70 arc-secs, repeatedly to 3 arc-secs.
- Loads up to 20kg.



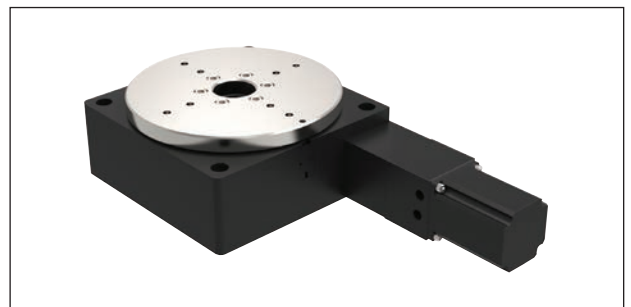
L3556 Ø125 Rotary stage, medium duty

- Motorised.
- Accurate to 70 arc-secs, repeatedly to 5 arc-secs.
- Loads up to 25kg.



L3558 Ø125 Rotary stage, heavy duty

- Heavy duty.
- Motorised.
- Accurate to 70 arc-secs, repeatedly to 3 arc-secs.
- Loads up to 45kg.



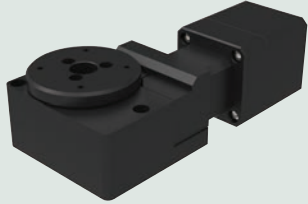


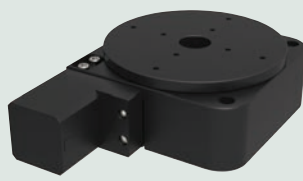
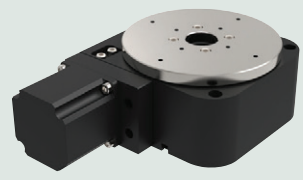
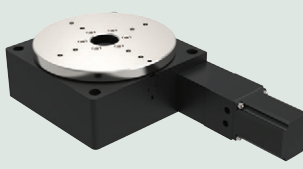
L3662 Ø200 Rotary stage

- Motorised.
- Accurate to 70 arc-secs, repeatedly to 5 arc-secs.
- Loads up to 125kg.

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Positioning Stages from Automation Components

Part no.	Stepper	MDrive	Servo
L3550 	✓	✓	✗
L3552 	✓	✓	✗
L3554 	✓	✓	✓
L3556 	✓	✓	✗
L3558 	✓	✓	✗
L3562 	✓	✓	✓