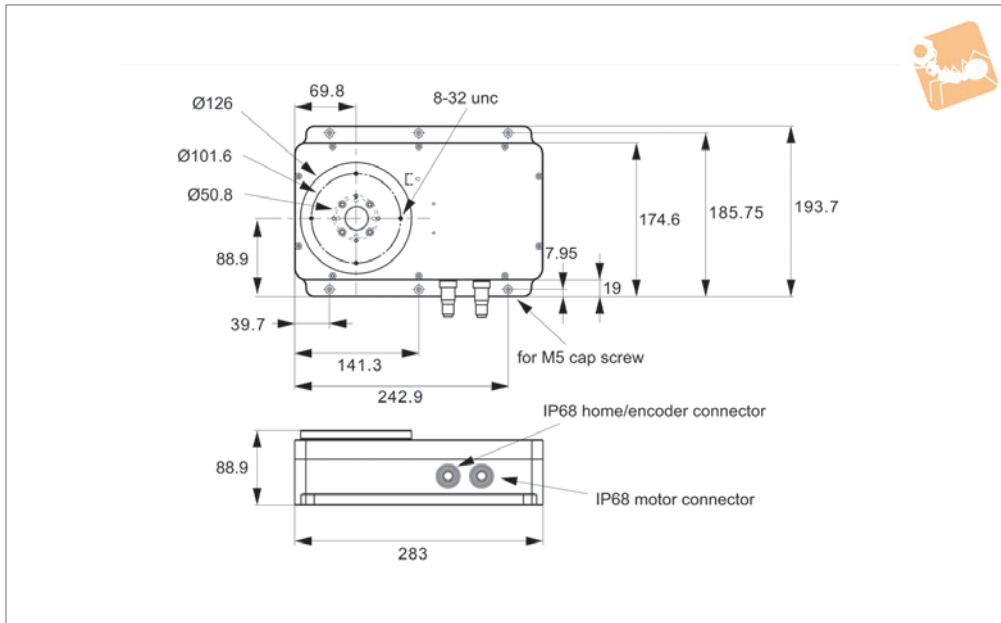
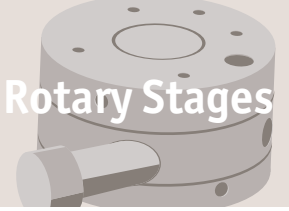




# Motorised Rotary Stage Ø125

high precision, submersible

## Rotary Stages



### L3560

ROTARY STAGES

#### Material

Aluminium alloy body (light, stiff and stable), black anodised.  
Supplied with optical home switch.  
Weight 5,0 Kg.

#### Technical Notes

The design utilises a single preloaded crossed roller bearing system for the table movement. This eliminates the use of dual bearing configuration, thus improving axial runout and wobble.  
The stages are offered with different gear ratio options. A proprietary preload system ensures zero backlash in the gear train.

The travel is 360° continuous.  
Easy to use plug and play system when used with a motion controller.  
Servo motor stages are only compatible with servo motion controllers. These allow for greater speeds but are more expensive.

#### Tips

This rotary table is completely sealed from the outside environment. Perfect for applications such as semi-conductor wafer cutting. It is also suitable for outdoor applications where dust and moisture protection is required.  
Requires external home switch (if

required).  
Motor options:  
**Stepper** - Nema 23, high torque, brushless. 0.95 Amp/phase, 5.0 Ohm/phase, 3.1 mH/phase, 1.8°/step. Optionally with a 1000 line rotary encoder.  
**Servo** - Nema 23 with a 1000 line rotary encoder.  
RS422/485 communications. Input voltage +24VDC. Drawings show stepper motor configuration. See special pages for further motor options.

Order No.	Motor	Speed °/s max.	Horizontal load kg max.	Vertical load kg max.	Weight kg
L3560.125-STA	Stepper	25°	36.36	36.36	5.0
L3560.125-SVA	Servo & enc.	180°	36.36	36.36	5.0
L3560.125-STB	Stepper	50°	36.36	36.36	5.0
L3560.125-STC	Stepper & enc.	25°	36.36	36.36	5.0
L3560.125-STD	Stepper & enc.	50°	36.36	36.36	5.0
L3560.125-SVB	Servo & enc.	360°	36.36	36.36	5.0

Order No.	Output torque Nm max.	Uni-directional repeatability ± arc-secs	Bi-directional repeatability ±a	Accuracy ± arc-secs	Gear ratio	Resolution ± arc-secs
L3560.125-STA	10.2	5"	45"	70"	72:1	0,36"
L3560.125-SVA	10.2	5"	45"	70"	72:1	4,50"
L3560.125-STB	10.2	5"	45"	70"	36:1	0,72"
L3560.125-STC	10.2	5"	45"	70"	72:1	0,36"
L3560.125-STD	10.2	5"	45"	70"	36:1	0,72"
L3560.125-SVB	10.2	5"	45"	70"	36:1	9,00"



### 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

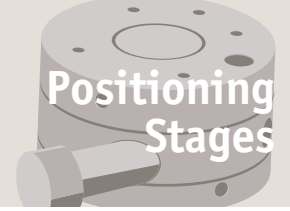
Imperfections in the operations of the encoder (if present).



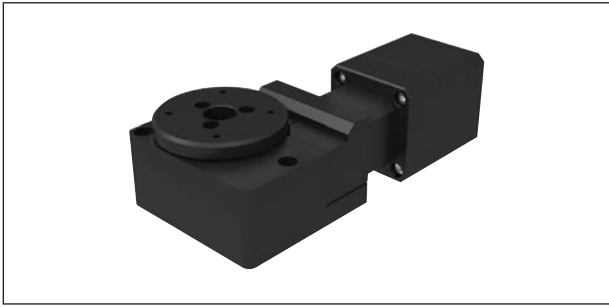
# Rotary Stages

High precision overview

# Positioning Stages

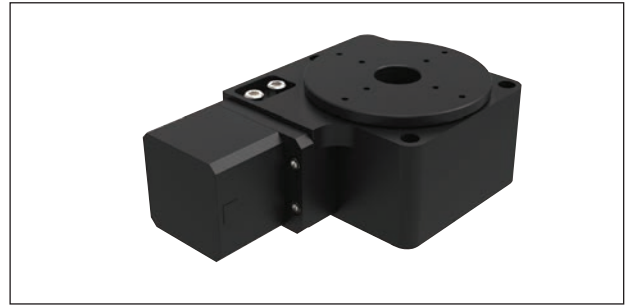


ROTARY STAGES



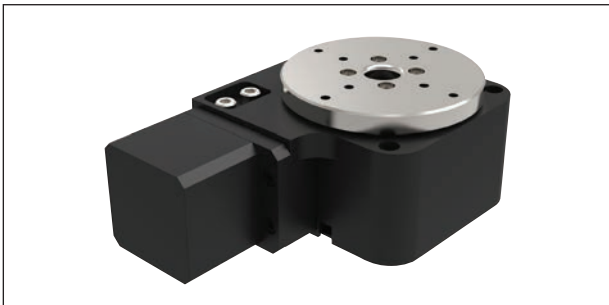
**L3550 Ø50 Rotary stage**

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



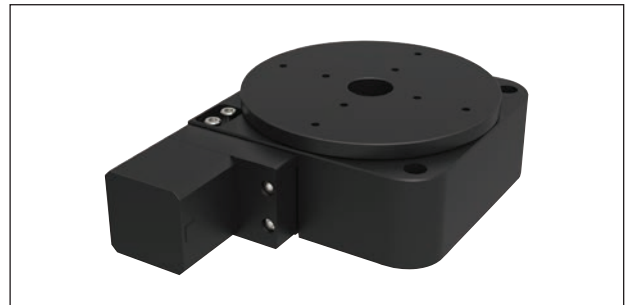
**L3552 Ø75 Rotary stage**

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



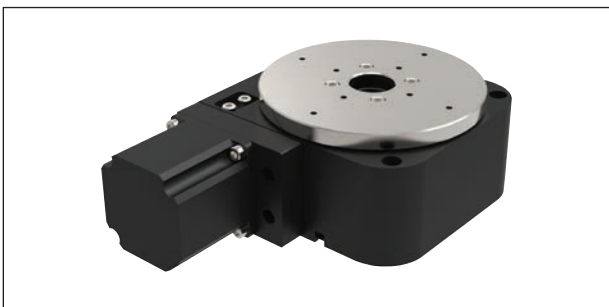
**L3554 Ø75 Rotary stage, heavy duty**

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



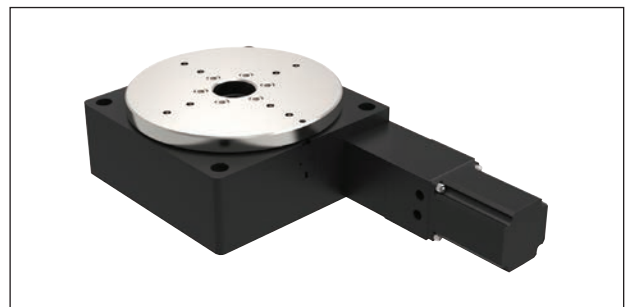
**L3556 Ø125 Rotary stage, medium duty**

- 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.



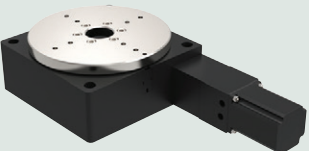
**L3662 Ø200 Rotary stage**

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

ov-rotary-stages-high-precision-overview-rmh - Updated - 03-03-2023



Positioning Stages from Automation Components

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