Rotary Stages

Selection



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).





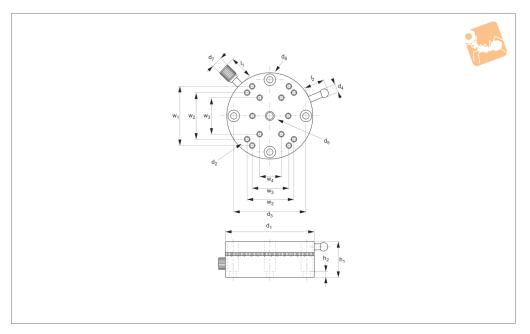
Manual Rotary Stages economy type



TARY STAG



L3330



Material

Aluminium body blackened, steel knob.

Technical Notes

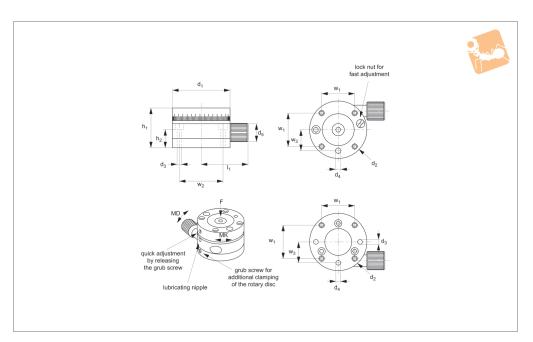
360° adjustment. Runout 50µ.

Order No.	Load N	d_1	Vernier reading min.	h_1	h ₂	d ₂	d ₃	d ₄	Weight kg
	max.								
L3330.040	5.0	40	2°	20	4	M2	25	5.5	0.14
L3330.060	7.0	60	1°	25	4	M4	50	5.5	0.20
Order No.	d_5	d ₆	d ₇	I_1	l ₂	w_1	W_2	w_3	W_4
L3330.040	M6x 8	7.5	6	10.3	10	25	-	15	-
L3330,060	M6x14	7.5	8	15.5	13	40	32	25	15



Manual Rotary Stages







L3339

Material

Stainless steel AISI 303 rotary disc, black anodized aluminium control knob. All other part steel or brass.

Technical Notes

The rotary table can be clamped using a grub screw. it also has a fast adjustment when a grub screw on the side of the disc is released. Rotating range 0° to infinity.

Order No.	d ₁ tol. h7	h_1	h ₂	d_2	d ₃	d ₄ tol. H7	d ₅	I_1	w_1	W ₂	w ₃ ±0.02
L3339.055	55	38	17.5	M5x8	4.3	4x10	17	44	32	42	20
L3339.080	80	45	24.0	M5x8	5.4	4x10	23	59	40	60	30
						12 1 1 1 1 1 1	_		_		

Order No.	Concentricity tolerance	Circular runout tolerance	Knob torque M _d Nm max.	Nm Nm max.	Nm Nm max.	Load F N max.
L3339.055	±0,02	±0,02	1.5	5	10	50
L3339.080	±0,03	±0,03	2.5	5	10	100

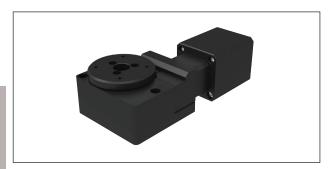




Rotary Stages

High precision overview





L3550 Ø50 Rotary stage

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



L3554 Ø75 Rotary stage, heavy duty

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



L3552 Ø75 Rotary stage

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



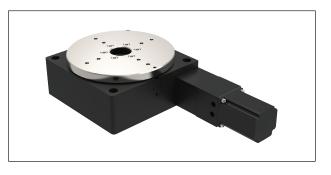
L3556 Ø125 Rotary stage, medium duty

- 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.





Rotary Stages



	Stepper	MDrive	Servo
Part no.			
L3550	√	√	×
L3552	√	√	×
L3554	√	✓	√
L3556	✓	✓	×
L3558	√	√	*
L3562	√	✓	✓

Positioning Stages from Automotion Components

