

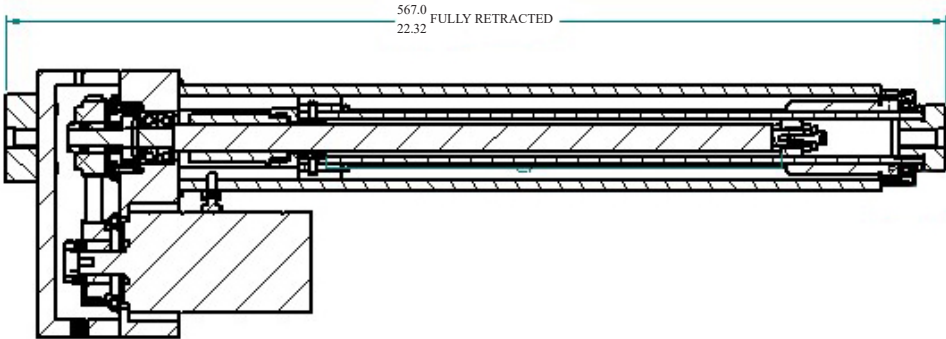


# A1250 Actuator

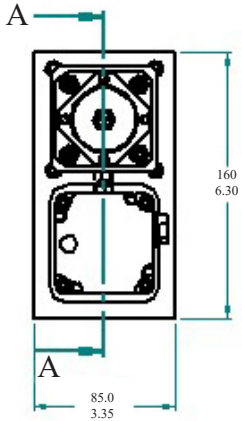
**Mikrolar actuators** are repeatable, accurate, stiff and durable. They are designed for the most challenging industrial applications and environments. Each of our actuators can also be customized to fit your application. Just let us know about any specific stroke, load, speed or footprint requirements. Our actuators can fit virtually any motor or gearbox the customer requires.

A Series:	INCH	METRIC
Stroke	10 in	254 mm
Screw Diameter	0.629 in	16 mm
Screw Lead: 5mm std (2mm & 10mm optional)	0.197 in	5 mm
Max Velocity	15 in/sec	381 mm/sec
Nominal Velocity	10 in/sec	254 mm/sec
Dynamic Load Rating	440 lbs	200 kg
Max Static Load	2110 lbs	957 kg
Weight (w/out motor)	16 lbs	7.3 kg

- Environmental Rating: IP54 (std) - IP65 (optional)
- Optional adjustable limit switches
- Available in various mounts:
  - Front and rear flange
  - Clevis
  - Trunnion



SECTION A-A



**MADE in the USA**

7 Scott Road, Suite 5 Hampton, NH 03842  
 phone: (603) 617-2508 fax: (617) 849-5850



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[sales@mikrolar.com](mailto:sales@mikrolar.com)



# Mikrolar Actuators



## Mikrolar is now offering its proprietary actuators for sale.

In the production of a quality Stewart Platform, actuator accuracy, axial and radial rigidity are essential.

Why use Mikrolar actuators?

- **Stiffness**
- **Accuracy**
- **Repeatability**

### Axial Stiffness:

Most actuators have decent axial stiffness, the ability to resist tension and compression along the length of the rod. (See Fig. 1) Most people equate this with rod diameter and diameter of the screw. But they also need to take into account any backlash from preload on the nut, the drive train and anti-rotation devices. Axial stiffness directly determines accuracy of length, and results in chatter if done poorly.

### Radial Stiffness:

Most actuators **do not have** very good radial stiffness, the ability to resist forces from the side. While this might have only a very small affect on the overall length of the actuator (the delta difference is minor) it can cause huge stiffness issues. Radial stiffness directly determines machine stiffness.

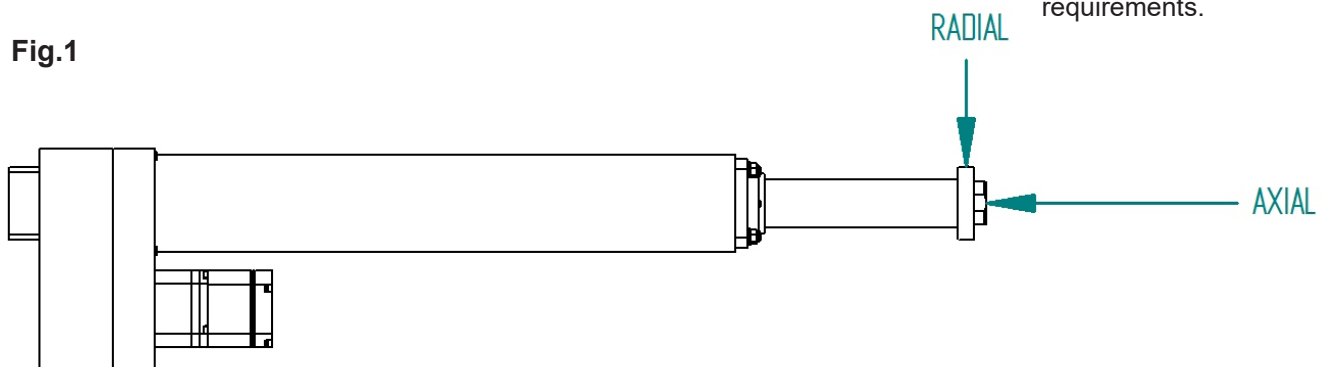
## P2100 Hexapod with Mikrolar actuators.



**Mikrolar** also designs and produces high precision positioning systems for use in a wide variety of applications. Our robots are based on a hexapod system, offering high load capacity and range of movement while maintaining a high degree of precision and repeatability.

Our systems are designed to be customized to fit a variety of applications. Please contact us to discuss how we can create a robotic system to satisfy your requirements.

Fig.1



MADE in the USA



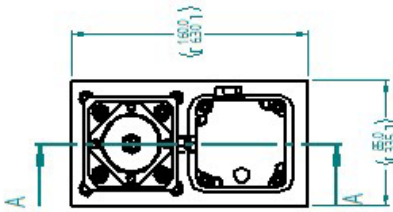
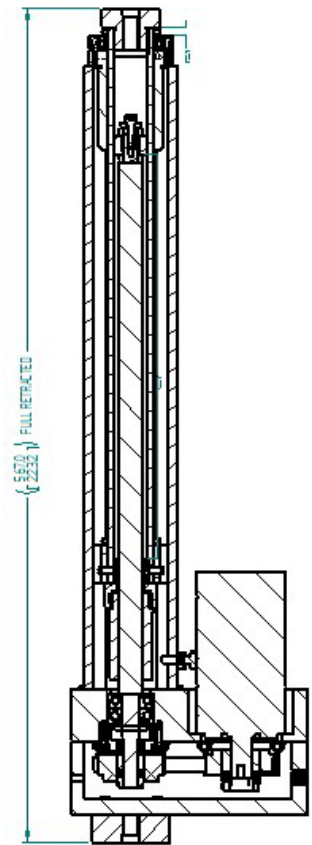
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REV	DESCRIPTION	DATE	APPROVED
A			



SECTION A-A

LEAD SCREW SPECIFICATIONS  
 DIAMETER: 16 mm  
 LEAD: 5 mm  
 NOMINAL RPM: XXXXX  
 MAXIMUM RECOMMENDED RPM: XXXX  
 DYNAMIC LOAD RATING: 440 LB  
 STATIC LOAD RATING: 2110 LB  
 NUT SPRING RATE: 16 X 10.6 LB/IN  
 TORQUE TO RISE: 1 LB: 0.035 LB-IN

STANDARD SERVO MOTOR SPECIFICATIONS  
 TORQUE-CONT: 5.64 LB-IN  
 TORQUE-MAX: 16.91 LB-IN  
 CONT. RPM: 3000  
 MAX. RPM: 6000

ACTUATOR SPECIFICATIONS  
 STROKE: 10 IN  
 FORCE-CONT: X  
 FORCE-MAX: X  
 NOMINAL SPEED: 10 IN/SEC (MOTOR AT 300 RPM)  
 MAXIMUM RECOMMENDED SPEED: X  
 X IN/SEC PER 1000 RPM  
 WEIGHT: X

UNLESS OTHERWISE SPECIFIED	UNLESS OTHERWISE SPECIFIED	DATE	BY
DECIMAL TOLERANCES: XXX ± .005	XXX ± .005		
XXX ± .03	XXX ± .03		
X ± .4	X ± .4		
X ± .8	X ± .8		
ANGLES: 40 MIN	40 MIN		
SURFACE FINISH: 125 RMS	125 RMS		
UNLESS OTHERWISE SPECIFIED		DATE	BY
DESIGNED: XXX	XXX		
CHECKED: XXX	XXX		
ESTIMATED COST: XXXXX	XXX		
TOP VIEW			
UNLESS OTHERWISE SPECIFIED		DATE	BY
ALL DIMENSIONS ARE IN MILLIMETERS	ALL DIMENSIONS ARE IN MILLIMETERS		
REMOVE ALL BURRS AND	REMOVE ALL BURRS AND		
BREAK SHARP EDGES	BREAK SHARP EDGES		
SCALE: _____	SCALE: _____		
TITLE: _____	TITLE: _____		
MIRROLAR INC.			
1 SCOTT ROAD, SUITE 5			
MIRROLAR, A250 10" STROKE ACTUATOR			
MIRROLAR, A125 0-100A - Bracket			
FILE NAME: A250-100A-Bracket			
SHEET NO. _____			
SHEET OF 2			