

# Tac LS™ Actuator

## LONG STROKE, HIGH SPEED, HIGH FORCE

The Tac LS ball screw linear actuator series was developed for long stroke applications. This high quality, durable linear actuator is constructed using rugged aluminum alloy cylinders and chrome plated heavy wall steel pistons. Its small size, as well as the ease of adapting it to any standard unit mounting style, makes the Tac LS electric linear actuators a good fit in most linear motion industrial applications.



### *Ideal for a Variety of Applications Including:*

- Damper Valve Control
- Motion Simulators
- Conveying / Diverting
- Material Handling
- Pneumatic Replacement
- And More

### **Key Features:**

- Developed for long stroke applications
- Small size easily adapts to any standard unit mounting style
- Long stroke actuator with thrust up to 2,000 lbf
- Velocity up to 40 in/sec, stroke from 24 to 60 inches

# SPECIFICATION CHART FOR THE TAC LS ACTUATOR

Model Number	Thrust Load Rated	Linear Velocity Max. <sup>1</sup>	Travel Length Max. <sup>2</sup>	Frame Size	Lead	Ball Screw Diameter	Ball Screw Max. <sup>1</sup>	Torque @ Ball Screw Max.	Dynamic Capacity Per Million Revs	Dynamic Capacity Per Million Inches	Motor Gearhead Frame Supported Max. <sup>2</sup>
	lb <sup>r</sup>	in/s	in	in	in	in	RPM	in-lb	lb <sup>r</sup>	lb <sup>r</sup>	in
LS204	400	16	36	2.25	0.500	0.50	1,920	35	1,070	850	3.5
LS209	900	8	36	2.25	0.200	0.63	2,400	32	1,410	825	3.5
LS305	500	40	60	3.25	1.000	1.00	2,400	88	2,300	2,300	4.5
LS310	1,000	20	60	3.25	0.500	1.00	2,400	88	5,350	4,250	4.5
LS320	2,000	10	60	3.25	0.250	1.00	2,400	88	5,475	3,450	4.5

Model Number	Inertia 1:1 Zero Stroke <sup>3</sup>	Inertia 1:1 Per Inch of Stroke <sup>3</sup>	Inertia 2:1 Zero Stroke <sup>3</sup>	Inertia 2:1 Per Inch of Stroke <sup>3</sup>	Inertia Inline Zero Stroke <sup>3</sup>	Inertia Inline Per Inch of Stroke <sup>3</sup>	Unit Weight "U" Motor Mount <sup>4</sup>	Unit Weight "L" Motor Mount <sup>4</sup>	Weight Per Inch of Stroke <sup>4</sup>
	lb-in <sup>2</sup>	lb-in <sup>2</sup>	lb-in <sup>2</sup>	lb-in <sup>2</sup>	lb-in <sup>2</sup>	lb-in <sup>2</sup>	lb	lb	lb
LS204	1.61	0.0023	0.17	0.0006	0.16	0.0023	3.0	2.0	0.50
LS209	1.61	0.0031	0.17	0.0008	0.15	0.0031	3.0	2.0	0.50
LS305	4.37	0.0535	2.30	0.0134	0.41	0.0535	10	7.0	0.83
LS310	4.28	0.0298	2.28	0.0074	0.32	0.0298	10	7.0	0.83
LS320	4.25	0.0216	2.27	0.0054	0.29	0.0216	10	7.0	0.83

<sup>1</sup> Maximum velocity and maximum screw speed may not be achievable at maximum stroke.

<sup>2</sup> Larger Motor or Gearhead Frames and longer stroke lengths are available upon request.

<sup>3</sup> All inertia values are at the input shaft and are representative of typical pulleys, bushings, couplers, etc. Actual values may vary due to motor selection.

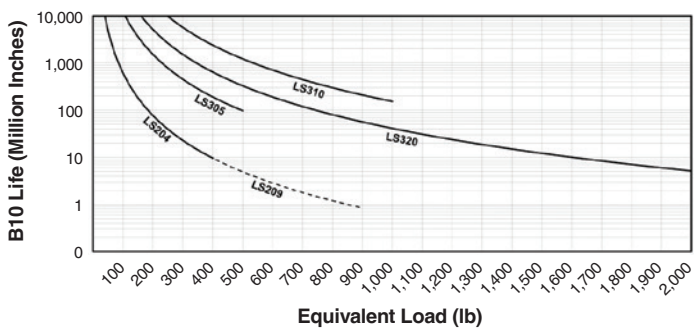
<sup>4</sup> Weight values are for reference only and vary depending on configuration.

"U" Parallel offset configuration

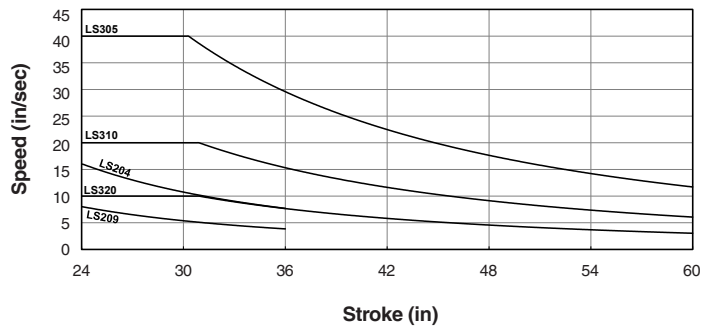
"L" Inline configuration

## DATA CURVES FOR THE TAC LS ACTUATOR

**Dynamic Capacity: Life Vs. Load**



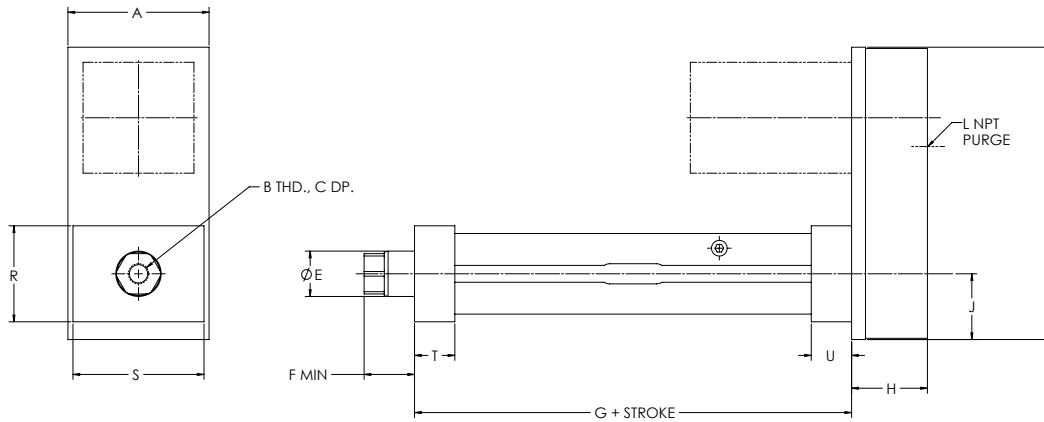
**Dynamic Capacity: Speed Vs. Stroke**



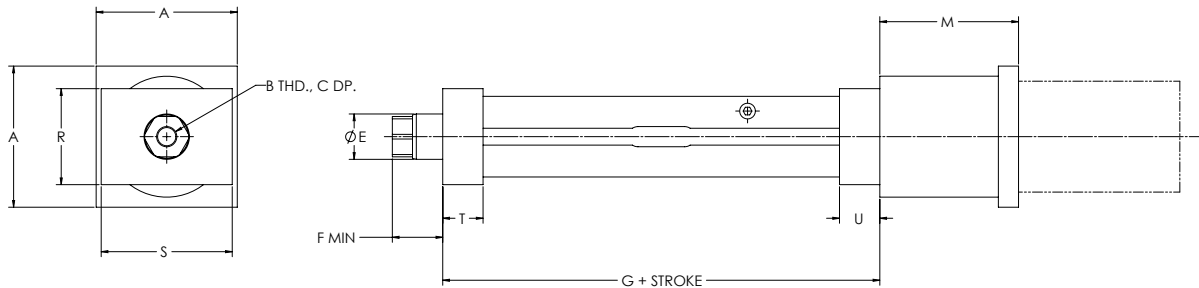
# DIMENSIONED DRAWINGS FOR THE TAG LS ACTUATOR

Dimensions in inches

## U-Parallel Offset Motor Configuration

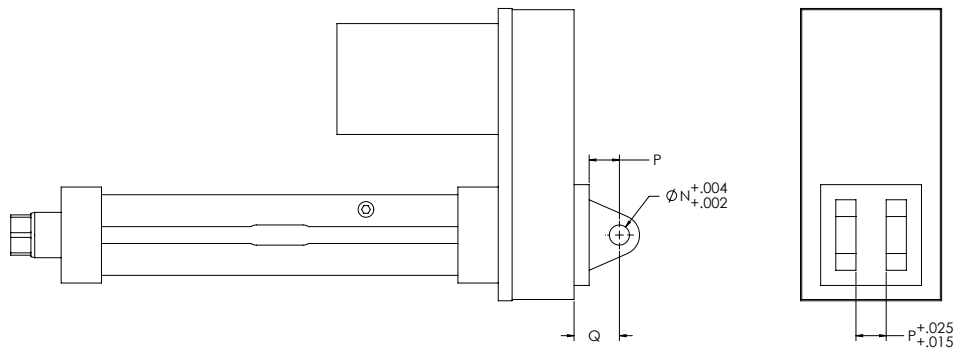


## L-Inline Motor Configuration



"M" length may vary depending on motor or gearbox.

## Rear Clevis



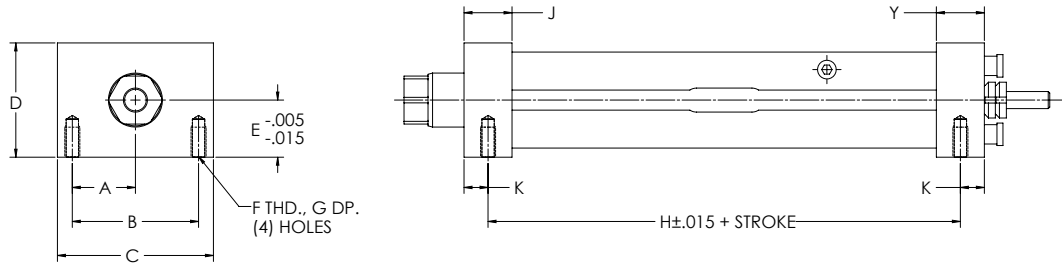
## LS U-Parallel Offset, L-Inline and Rear Clevis Dimensions

Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U
LS204	3.50	1/2-20	0.63	2.25	1.13	1.25	7.84	1.88	1.63	7.25	1/8	3.44	0.50	0.75	1.13	2.38	3.25	1.00	1.00
LS209	3.50	1/2-20	0.63	2.25	1.13	1.25	7.84	1.88	1.63	7.25	1/8	3.44	0.50	0.75	1.13	2.38	3.25	1.00	1.00
LS305	4.50	3/4-16	0.88	3.25	1.75	1.50	10.16	2.47	2.38	9.63	1/8	3.97	0.75	1.25	1.88	3.38	4.50	1.25	1.38
LS310	4.50	3/4-16	0.88	3.25	1.75	1.50	10.16	2.47	2.38	9.63	1/8	3.97	0.75	1.25	1.88	3.38	4.50	1.25	1.38
LS320	4.50	3/4-16	0.88	3.25	1.75	1.50	10.16	2.47	2.38	9.63	1/8	3.97	0.75	1.25	1.88	3.38	4.50	1.25	1.38

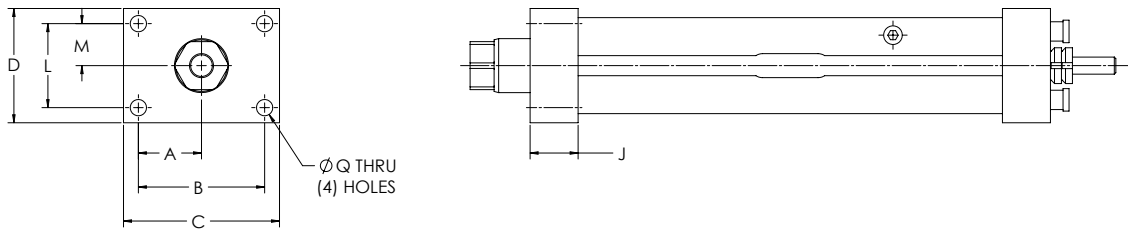
# DIMENSIONED DRAWINGS FOR THE TAG LS ACTUATOR

Dimensions in inches

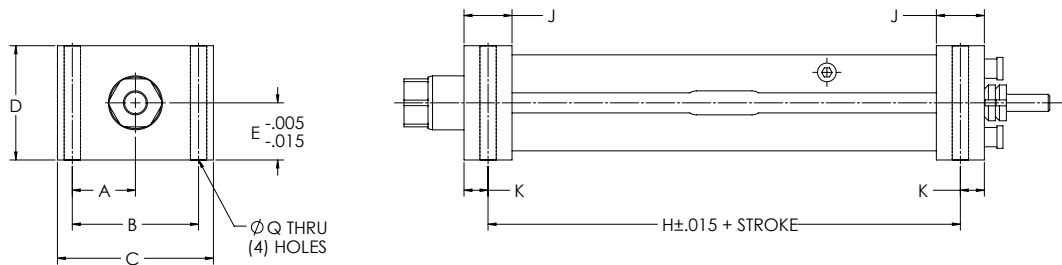
## Bottom Mount Dimensions



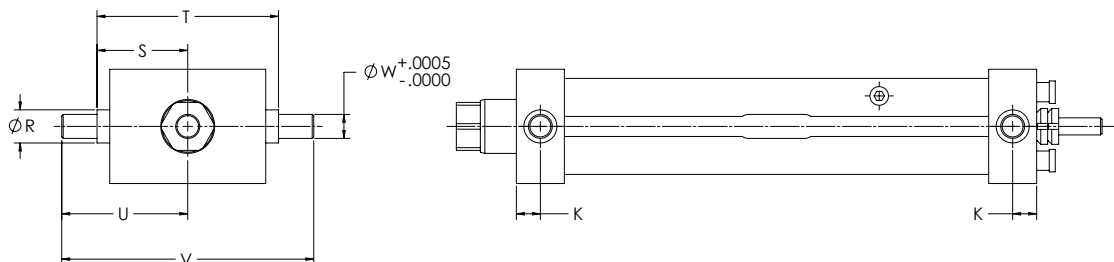
## Front Flange Dimensions



## Foot Mount Dimensions



## Trunnion Mount Dimensions



## LS Unit Mounting Dimensions

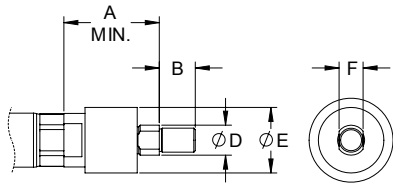
Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y
LS2	1.31	2.63	3.25	2.38	1.19	5/16-18	0.63	6.84	1.00	0.50	1.75	0.88	2.25	0.25	0.34	0.69	1.89	3.78	2.63	5.25	0.50	4.22	1.00
LS3	1.88	3.75	4.50	3.38	1.69	3/8-16	0.75	9.16	1.25	0.50	2.63	1.31	3.25	0.25	0.41	0.94	2.52	5.03	3.50	7.00	0.75	6.28	1.38

# DIMENSIONED DRAWINGS FOR THE TAG LS ACTUATOR

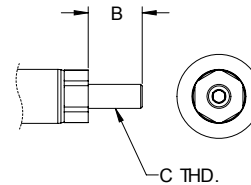
Dimensions in inches

## Rod End Options

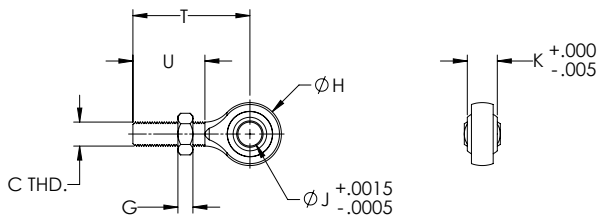
### Self-Aligning Coupler



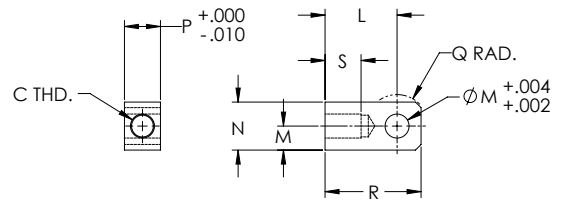
### Male Thread



### Spherical Rod Eye



### Female Eye

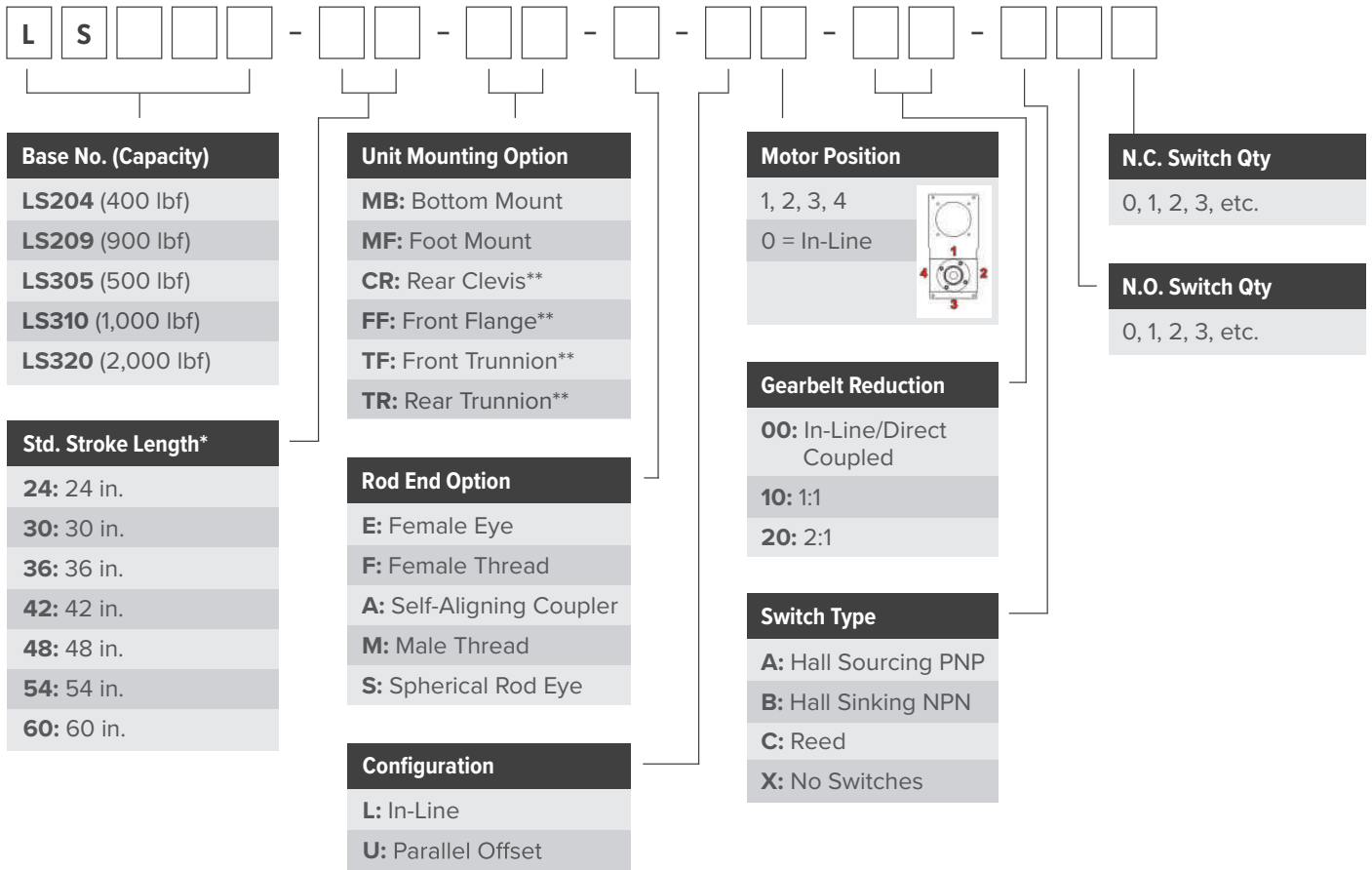


## LS Rod End Dimensions

Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U
LS2	2.00	0.75	1/2-20	0.63	1.37	0.50	0.31	1.31	0.50	0.63	1.50	0.50	1.00	0.75	0.50	2.00	0.75	2.44	1.50
LS3	2.31	1.13	3/4-16	0.97	2.00	0.75	0.42	1.75	0.75	0.88	2.06	0.75	1.50	1.25	0.75	2.81	1.13	2.88	1.75

# ORDERING GUIDE FOR THE TAC LS ACTUATOR

## Ordering Information



For custom stroke lengths, contact EDrive.

\* LS204 – LS209 are available with stroke lengths up to 36 in.

LS305 – LS320 are available with stroke lengths from 30 in. to 60 in.

\*\* Vertical Mounting Only