

# VECTAC VT™

## Versatile Thrust Ball Screw Linear Actuators



- Force from 400 to 2,000 Lbf
- Velocity to 40 in/sec
- Sealed from Contamination
- Adjustable Limit Switch Positions
- Accepts Any Motor
- Piston with Rugged Anti-Rotation

### VECTAC VT™ Linear Actuator Capabilities:

Model Number	Thrust Load Rated (lbf)	Linear Velocity Max. (in/sec)	Travel Length <sup>(1)</sup> Max. (in)	Frame Size (in)	Lead <sup>(2)</sup> (in)	Ball Screw Diameter (in)	Ball Screw Max. (RPM)	Torque @ Ball Screw Max. (in-lb)	Dynamic Capacity per million revs (lbf)	Dynamic Capacity per million inches (lbf)	Motor Gearhead Frame Supported Max. (in)	Unit Weight "U" Motor Mount (lb)	Unit Weight "L" Motor Mount (lb)
VT204-06	400	16	6	2.25	0.50	0.50	1,920	35	1,070	850	3.5	9.0	7.0
VT204-12	400	16	12	2.25	0.50	0.50	1,920	35	1,070	850	3.5	12.0	10.0
VT204-18	400	16	18	2.25	0.50	0.50	1,920	35	1,070	850	3.5	15.0	13.0
VT204-24	400	16	24	2.25	0.50	0.50	1,920	35	1,070	850	3.5	18.0	16.0
VT209-06	900	9	6	2.25	0.20	0.63	2,700	32	1,070	850	3.5	9.0	7.0
VT209-12	900	9	12	2.25	0.20	0.63	2,700	32	1,070	850	3.5	12.0	10.0
VT209-18	900	9	18	2.25	0.20	0.63	2,700	32	1,070	850	3.5	15.0	13.0
VT209-24	900	9	24	2.25	0.20	0.63	2,700	32	1,070	850	3.5	18.0	16.0
VT305-06	500	40	6	3.25	1.00	1.00	2,400	88	2,300	2,300	4.5	24.0	19.8
VT305-12	500	40	12	3.25	1.00	1.00	2,400	88	2,300	2,300	4.5	28.4	24.2
VT305-18	500	40	18	3.25	1.00	1.00	2,400	88	2,300	2,300	4.5	32.8	28.6
VT305-24	500	40	24	3.25	1.00	1.00	2,400	88	2,300	2,300	4.5	37.2	33.0
VT305-30	500	40	30	3.25	1.00	1.00	2,400	88	2,300	2,300	4.5	41.6	37.4
VT310-06	1,000	20	6	3.25	0.50	1.00	2,400	88	5,350	4,250	4.5	24.0	19.8
VT310-12	1,000	20	12	3.25	0.50	1.00	2,400	88	5,350	4,250	4.5	28.4	24.2
VT310-18	1,000	20	18	3.25	0.50	1.00	2,400	88	5,350	4,250	4.5	32.8	28.6
VT310-24	1,000	20	24	3.25	0.50	1.00	2,400	88	5,350	4,250	4.5	37.2	33.0
VT310-30	1,000	20	30	3.25	0.50	1.00	2,400	88	5,350	4,250	4.5	41.6	37.4
VT320-06	2,000	10	6	3.25	0.25	1.00	2,400	88	5,475	3,450	4.5	24.0	19.8
VT320-12	2,000	10	12	3.25	0.25	1.00	2,400	88	5,475	3,450	4.5	28.4	24.2
VT320-18	2,000	10	18	3.25	0.25	1.00	2,400	88	5,475	3,450	4.5	32.8	28.6
VT320-24	2,000	10	24	3.25	0.25	1.00	2,400	88	5,475	3,450	4.5	37.2	33.0
VT320-30	2,000	10	30	3.25	0.25	1.00	2,400	88	5,475	3,450	4.5	41.6	37.4

(1) Intermediate lengths are available. (2) Lead accuracy is 0.003 in/ft; Backlash is 0.004 in max.

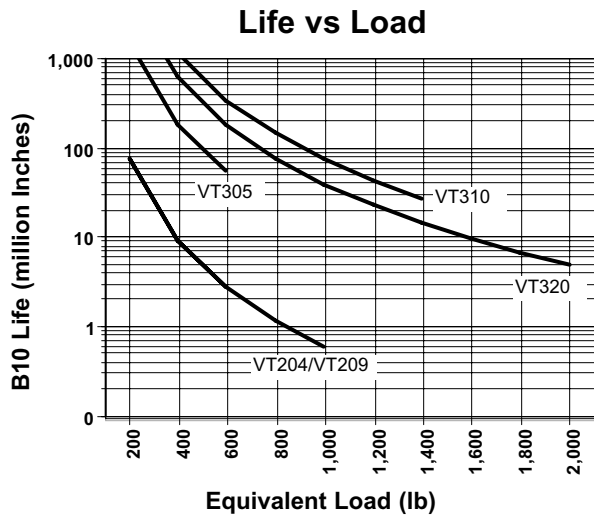


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## Graph: Life Vs. Load



**EQUIVALENT LOAD** is the average force over the working stroke, weighted proportionately to the distance traveled. For constant force loads, the equivalent load is the same as the typical or average load. Where forces vary due to gravity, angle of actuator, acceleration and deceleration, friction, and changing dynamic loads at different positions, it is best to determine the equivalent load in order to most accurately predict the B10 life of the actuator.

$$F = \sqrt[3]{\frac{L_1(F_1)^3 + L_2(F_2)^3 + L_3(F_3)^3 + L_4(F_4)^3 + \dots + L_n(F_n)^3}{L}}$$

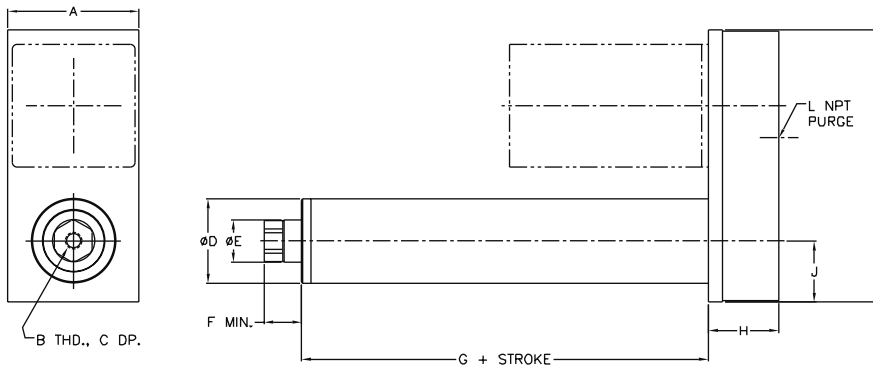
Where:  $F_n$  is the calculated force for segment "n" with travel length of  $L_n$  and total travel  $L$ .

Find the intersection of this value and the appropriate curve. The value on the scale to the left reflects the B10 life of the actuator.

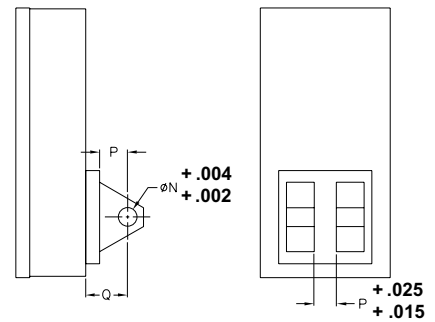
## VECTAC VT™ General Dimensions

### U-Parallel Offset Motor Configuration

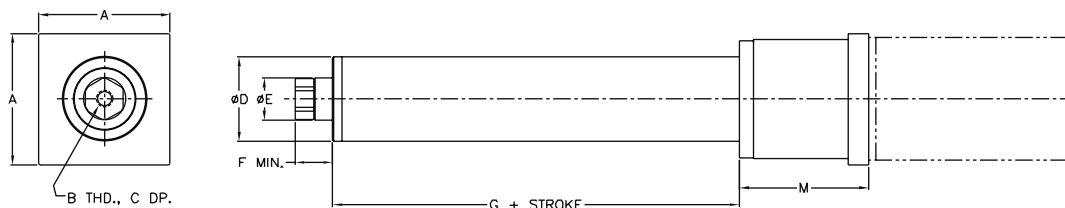
### Rear Clevis Dimensions



Note: DXF or DWG files are available at [www.edriveactuators.com](http://www.edriveactuators.com)



### L-Inline Motor Configuration

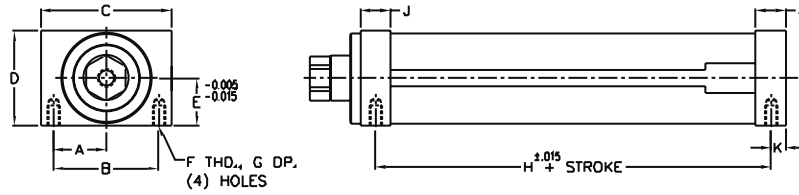


Note: DXF or DWG files are available at [www.edriveactuators.com](http://www.edriveactuators.com)

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

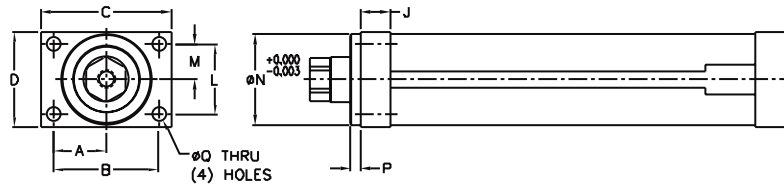
Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
VT204	3.50	1/2-20	0.63	2.25	1.13	1.25	4.84	1.88	1.63	7.25	1/8	3.44	0.50	0.75	1.13
VT209	3.50	1/2-20	0.63	2.25	1.13	1.25	4.84	1.88	1.63	7.25	1/8	3.44	0.50	0.75	1.13
VT305	4.50	3/4-16	0.88	3.25	1.75	1.40	7.03	2.47	2.38	9.63	1/8	3.97	0.75	1.25	1.88
VT310	4.50	3/4-16	0.88	3.25	1.75	1.50	7.03	2.47	2.38	9.63	1/8	3.97	0.75	1.25	1.88
VT320	4.50	3/4-16	0.88	3.25	1.75	1.50	7.03	2.47	2.38	9.63	1/8	3.97	0.75	1.25	1.88

### Bottom Mount Dimensions



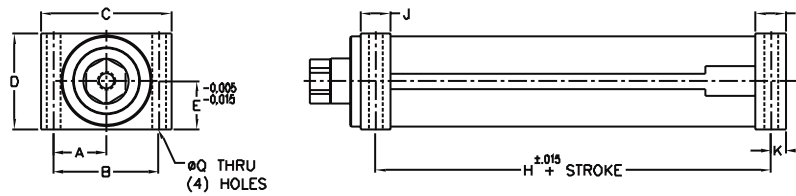
Note: DXF or DWG files are available at [www.edriveactuators.com](http://www.edriveactuators.com)

### Front Flange Dimensions



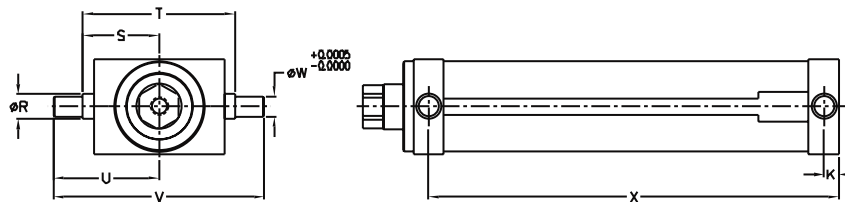
Note: DXF or DWG files are available at [www.edriveactuators.com](http://www.edriveactuators.com)

### Foot Mount Dimensions



Note: DXF or DWG files are available at [www.edriveactuators.com](http://www.edriveactuators.com)

### Trunnion Mount Dimensions



Note: DXF or DWG files are available at [www.edriveactuators.com](http://www.edriveactuators.com)

### 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
VT2	1.31	2.63	3.25	2.38	1.19	5/16-18	0.63	3.84	0.75	0.38	1.75	0.88	2.25	0.25	0.34	0.69	1.89	3.78	2.63	5.25	0.50	4.22
VT3	1.88	3.75	4.50	3.38	1.69	3/8-16	0.75	5.78	1.00	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

