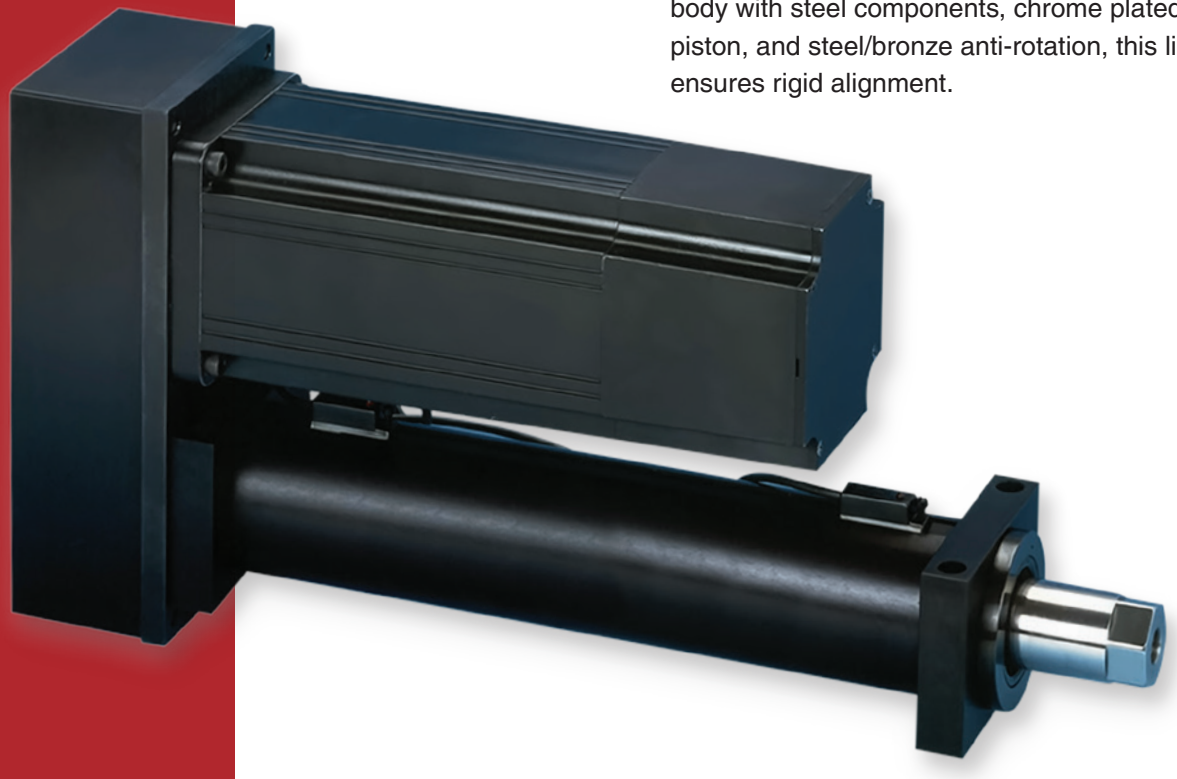
Tac VT™ Actuator

COST EFFECTIVE, HIGH QUALITY, HIGH SPEED, HIGH FORCE

The Tac VT ball screw linear actuator series was developed to meet higher thrust load requirements at faster velocities with high quality and rugged durability. Using an aluminum body with steel components, chrome plated heavy wall steel piston, and steel/bronze anti-rotation, this linear actuator ensures rigid alignment.



Ideal for a Variety of Applications Including:

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

Key Features:

- Developed for higher thrust load requirements and faster velocities
- Compact actuator with thrust up to 2,000 lbf
- Velocity up to 40 in/sec, stroke up to 24 inches
- Sealed chamber design with purge provisions to meet IP54

SPECIFICATION CHART FOR THE TAC VT ACTUATOR

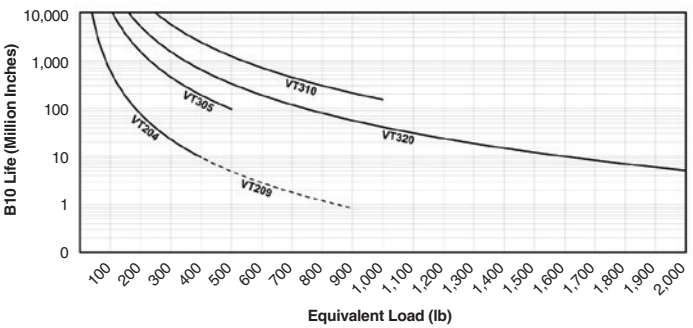
Model Number	Thrust Load Rated	Linear Velocity Max.[1]	Travel Length Max.[2]	Frame Size	Lead	Ball Screw Diameter	Ball Screw Max.[1]	Torque @ Ball Screw Max.	Dynamic Capacity Per Million Revs	Dynamic Capacity Per Million Inches	Motor Gearhead Frame Supported Max.[2]
	lbf	in/s	in	in	in	in	RPM	in-lb	lbf	lbf	in
VT204	400	16	24	2.25	0.50	0.50	1,920	35	1,070	850	3.5
VT209	900	9	24	2.25	0.20	0.63	2,700	32	1,410	825	3.5
VT305	500	40	24	3.25	1.00	1.00	2,400	88	2,300	2,300	4.5
VT310	1,000	20	24	3.25	0.50	1.00	2,400	88	5,350	4,250	4.5
VT320	2,000	10	24	3.25	0.25	1.00	2,400	88	5,475	3,450	4.5

Model Number	Inertia 1:1 Zero Stroke[3]	Inertia 1:1 Per Inch of Stroke[3]	Inertia 2:1 Zero Stroke[3]	Inertia 2:1 Per Inch of Stroke[3]	Inertia Inline Zero Stroke[3]	Inertia Inline Per Inch of Stroke[3]	Unit Weight "U" Motor Mount[4]	Unit Weight "L" Motor Mount[4]	Weight Per Inch of Stroke[4]
	lb-in^2	lb-in^2	lb-in^2	lb-in^2	lb-in^2	lb-in^2	lb	lb	lb
VT204	1.61	0.0023	0.17	0.0006	0.16	0.0023	6.0	4.0	0.50
VT209	1.61	0.0031	0.17	0.0008	0.15	0.0031	6.0	4.0	0.50
VT305	4.34	0.0281	2.30	0.0070	0.37	0.0281	20	15.0	0.73
VT310	4.27	0.0234	2.28	0.0059	0.31	0.0234	20	15.0	0.73
VT320	4.25	0.0200	2.27	0.0050	0.28	0.0200	20	15.0	0.73

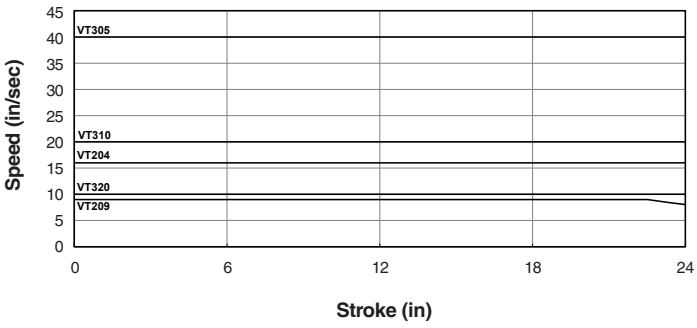
[1] Maximum velocity and maximum screw speed may not be achieveable at maximum stroke.
[2] Larger Motor or Gearhead Frames and longer stroke lengths are available upon request.
[3] All inertia values are at the input shaft and are representative of typical pulleys, bushings, couplers, etc. Actual values may vary due to motor selection.
[4] Weight values are for reference only and vary depending on configuration.
"U" Parallel offset configuration
"L" Inline configuration

DATA CURVES FOR THE TAC VT ACTUATOR

Dynamic Capacity: Life Vs. Load



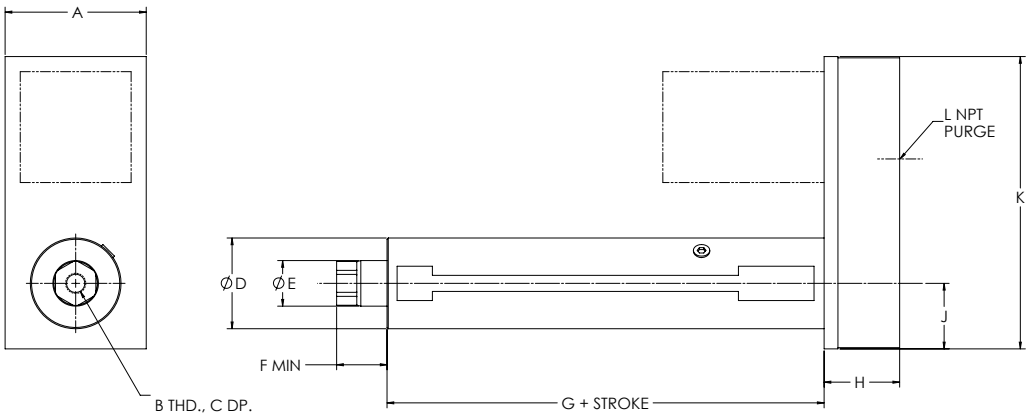
Dynamic Capacity: Speed Vs. Stroke



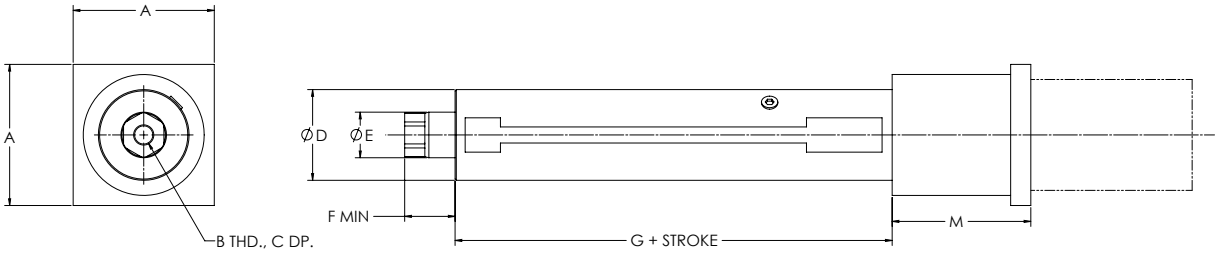
DIMENSIONED DRAWINGS FOR THE TAC VT ACTUATOR

Dimensions in inches

U-Parallel Offset Motor Configuration

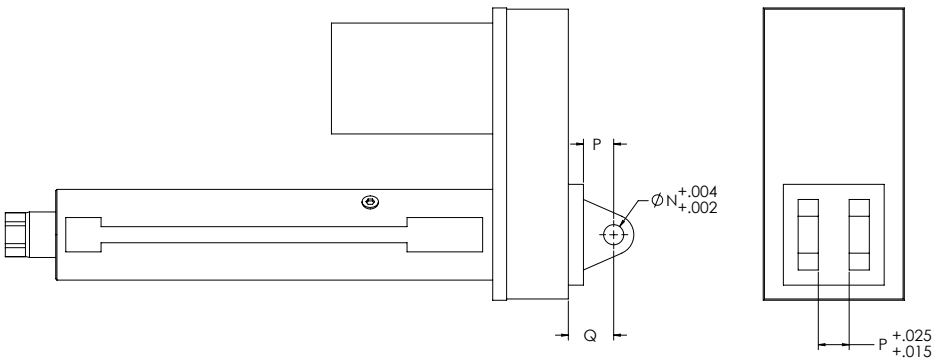


L-Inline Motor Configuration



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

Rear Clevis



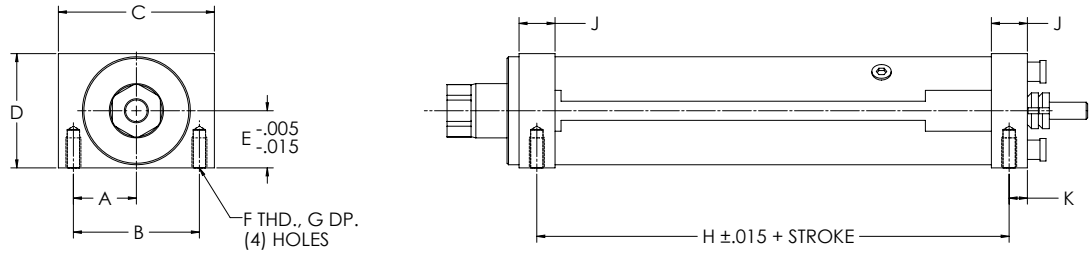
VT U-Parallel Offset, L-Inline and Rear Clevis Dimensions

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	1.50	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

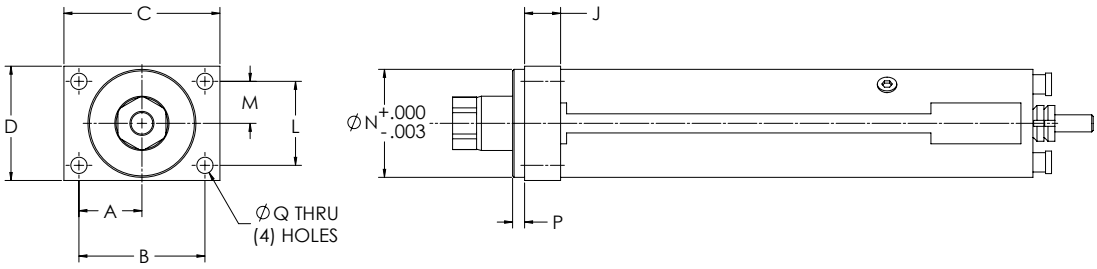
DIMENSIONED DRAWINGS FOR THE TAC VT ACTUATOR

Dimensions in inches

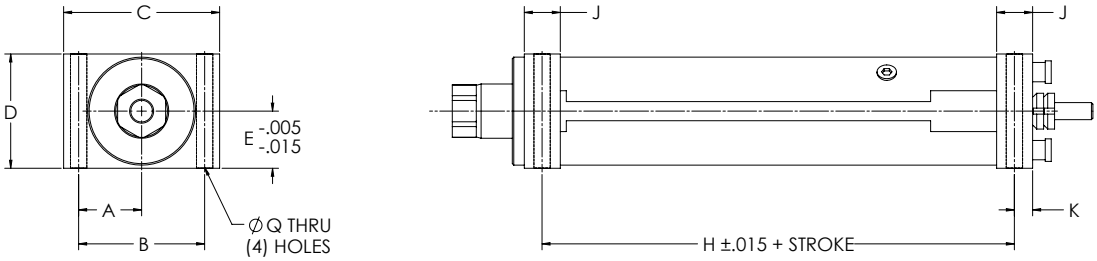
Bottom Mount Dimensions



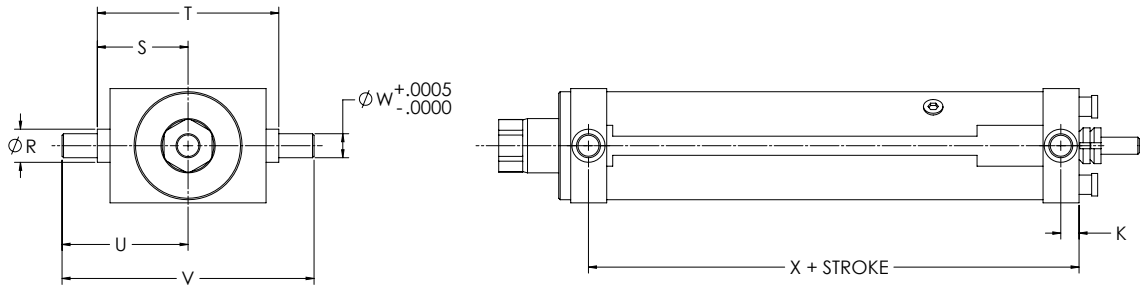
Front Flange Dimensions



Foot Mount Dimensions



Trunnion Mount Dimensions



VT Unit Mounting Dimensions

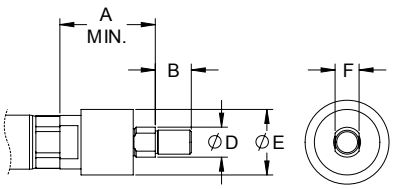
Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X
VT2	1.31	2.63	3.25	2.38	1.19	5/16-18	0.63	3.84	0.75	0.38	1.75	0.88	2.25	0.25	0.34	0.69	1.89	3.78	2.63	5.25	0.50	4.22
VT3	1.88	3.75	4.50	3.38	1.69	3/8-16	0.75	5.78	1.00	0.50	2.63	1.31	3.25	0.25	0.41	0.94	2.52	5.03	3.50	7.00	0.75	6.28

DIMENSIONED DRAWINGS FOR THE TAC VT ACTUATOR

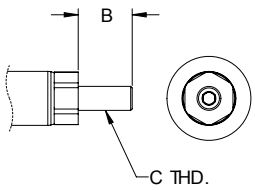
Dimensions in inches

Rod End Options

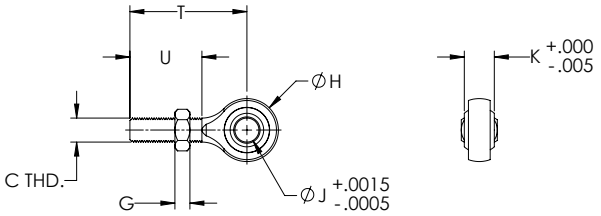
Self-Aligning Coupler



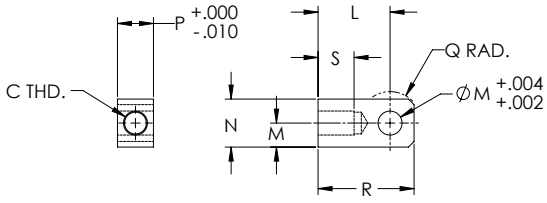
Male Thread



Spherical Rod Eye



Female Eye



VT Rod End Dimensions

Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U
VT2	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
VT3	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 VT ACTUATOR

Ordering Information

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Base No. (Capacity)

VT204 (400 lbf)
VT209 (900 lbf)
VT305 (500 lbf)
VT310 (1,000 lbf)
VT320 (2,000 lbf)

Std. Stroke Length

06: 6 in.
12: 12 in.
18: 18 in.
24: 24 in.

Unit Mounting Option

MB: Bottom Mount
FF: Front Flange
MF: Foot Mount
TF: Front Trunnion
TR: Rear Trunnion
CR: Rear Clevis

Rod End Option

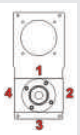
E: Female Eye
F: Female Thread
A: Self-Aligning Coupler
M: Male Thread
S: Spherical Rod Eye

Configuration

L: In-Line
U: Parallel Offset

Motor Position

1, 2, 3, 4
0 = In-Line



Gearbelt Reduction

00: In-Line/Direct Coupled
10: 1:1
20: 2:1

Switch Type

A: Hall Sourcing PNP
B: Hall Sinking NPN
C: Reed
X: No Switches

N.C. Switch Qty

0, 1, 2, 3, etc.

N.O. Switch Qty

0, 1, 2, 3, etc.

For custom stroke lengths, contact EDrive.