**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

**Linear Actuator Capabilities:**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Thrust Load Rated (lb)</th>
<th>Linear Velocity Max. (in/sec)</th>
<th>Travel Length(1) Max. (in)</th>
<th>Frame Size (in)</th>
<th>Lead(2) (in)</th>
<th>Ball Screw Diameter (in)</th>
<th>Ball Screw Max. (RPM)</th>
<th>Torque @ Ball Screw Max. (in-lb)</th>
<th>Dynamic Capacity per million revs (lbf)</th>
<th>Dynamic Capacity per million inches (lb)</th>
<th>Motor Gearhead Frame Supported Max. (in)</th>
<th>Unit Weight &quot;U&quot; Motor Mount (lb)</th>
<th>Unit Weight &quot;L&quot; Motor Mount (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT204-06</td>
<td>400</td>
<td>16</td>
<td>6</td>
<td>2.25</td>
<td>0.50</td>
<td>0.50</td>
<td>1,920</td>
<td>35</td>
<td>1,070</td>
<td>850</td>
<td>3.5</td>
<td>9.0</td>
<td>7.0</td>
</tr>
<tr>
<td>VT204-12</td>
<td>400</td>
<td>16</td>
<td>12</td>
<td>2.25</td>
<td>0.50</td>
<td>0.50</td>
<td>1,920</td>
<td>35</td>
<td>1,070</td>
<td>850</td>
<td>3.5</td>
<td>12.0</td>
<td>10.0</td>
</tr>
<tr>
<td>VT204-18</td>
<td>400</td>
<td>16</td>
<td>18</td>
<td>2.25</td>
<td>0.50</td>
<td>0.50</td>
<td>1,920</td>
<td>35</td>
<td>1,070</td>
<td>850</td>
<td>3.5</td>
<td>15.0</td>
<td>13.0</td>
</tr>
<tr>
<td>VT204-24</td>
<td>400</td>
<td>16</td>
<td>24</td>
<td>2.25</td>
<td>0.50</td>
<td>0.50</td>
<td>1,920</td>
<td>35</td>
<td>1,070</td>
<td>850</td>
<td>3.5</td>
<td>18.0</td>
<td>16.0</td>
</tr>
<tr>
<td>VT209-06</td>
<td>900</td>
<td>9</td>
<td>6</td>
<td>2.25</td>
<td>0.20</td>
<td>0.63</td>
<td>2,700</td>
<td>32</td>
<td>1,070</td>
<td>850</td>
<td>3.5</td>
<td>9.0</td>
<td>7.0</td>
</tr>
<tr>
<td>VT209-12</td>
<td>900</td>
<td>9</td>
<td>12</td>
<td>2.25</td>
<td>0.20</td>
<td>0.63</td>
<td>2,700</td>
<td>32</td>
<td>1,070</td>
<td>850</td>
<td>3.5</td>
<td>12.0</td>
<td>10.0</td>
</tr>
<tr>
<td>VT209-18</td>
<td>900</td>
<td>9</td>
<td>18</td>
<td>2.25</td>
<td>0.20</td>
<td>0.63</td>
<td>2,700</td>
<td>32</td>
<td>1,070</td>
<td>850</td>
<td>3.5</td>
<td>15.0</td>
<td>13.0</td>
</tr>
<tr>
<td>VT209-24</td>
<td>900</td>
<td>9</td>
<td>24</td>
<td>2.25</td>
<td>0.20</td>
<td>0.63</td>
<td>2,700</td>
<td>32</td>
<td>1,070</td>
<td>850</td>
<td>3.5</td>
<td>18.0</td>
<td>16.0</td>
</tr>
<tr>
<td>VT305-06</td>
<td>500</td>
<td>40</td>
<td>6</td>
<td>3.25</td>
<td>1.00</td>
<td>1.00</td>
<td>2,400</td>
<td>88</td>
<td>2,300</td>
<td>4,200</td>
<td>4.5</td>
<td>24.0</td>
<td>19.8</td>
</tr>
<tr>
<td>VT305-12</td>
<td>500</td>
<td>40</td>
<td>12</td>
<td>3.25</td>
<td>1.00</td>
<td>1.00</td>
<td>2,400</td>
<td>88</td>
<td>2,300</td>
<td>4,200</td>
<td>4.5</td>
<td>28.4</td>
<td>24.2</td>
</tr>
<tr>
<td>VT305-18</td>
<td>500</td>
<td>40</td>
<td>18</td>
<td>3.25</td>
<td>1.00</td>
<td>1.00</td>
<td>2,400</td>
<td>88</td>
<td>2,300</td>
<td>4,200</td>
<td>4.5</td>
<td>32.8</td>
<td>28.6</td>
</tr>
<tr>
<td>VT305-24</td>
<td>500</td>
<td>40</td>
<td>24</td>
<td>3.25</td>
<td>1.00</td>
<td>1.00</td>
<td>2,400</td>
<td>88</td>
<td>2,300</td>
<td>4,200</td>
<td>4.5</td>
<td>37.2</td>
<td>33.0</td>
</tr>
<tr>
<td>VT310-06</td>
<td>1,000</td>
<td>20</td>
<td>6</td>
<td>3.25</td>
<td>0.50</td>
<td>1.00</td>
<td>2,400</td>
<td>88</td>
<td>5,350</td>
<td>4,250</td>
<td>4.5</td>
<td>41.6</td>
<td>37.4</td>
</tr>
<tr>
<td>VT310-12</td>
<td>1,000</td>
<td>20</td>
<td>12</td>
<td>3.25</td>
<td>0.50</td>
<td>1.00</td>
<td>2,400</td>
<td>88</td>
<td>5,350</td>
<td>4,250</td>
<td>4.5</td>
<td>46.1</td>
<td>41.6</td>
</tr>
<tr>
<td>VT310-18</td>
<td>1,000</td>
<td>20</td>
<td>18</td>
<td>3.25</td>
<td>0.50</td>
<td>1.00</td>
<td>2,400</td>
<td>88</td>
<td>5,350</td>
<td>4,250</td>
<td>4.5</td>
<td>51.5</td>
<td>46.1</td>
</tr>
<tr>
<td>VT310-24</td>
<td>1,000</td>
<td>20</td>
<td>24</td>
<td>3.25</td>
<td>0.50</td>
<td>1.00</td>
<td>2,400</td>
<td>88</td>
<td>5,350</td>
<td>4,250</td>
<td>4.5</td>
<td>57.0</td>
<td>51.5</td>
</tr>
<tr>
<td>VT320-06</td>
<td>2,000</td>
<td>10</td>
<td>6</td>
<td>3.25</td>
<td>0.25</td>
<td>1.00</td>
<td>2,400</td>
<td>88</td>
<td>5,475</td>
<td>3,450</td>
<td>4.5</td>
<td>41.6</td>
<td>37.4</td>
</tr>
<tr>
<td>VT320-12</td>
<td>2,000</td>
<td>10</td>
<td>12</td>
<td>3.25</td>
<td>0.25</td>
<td>1.00</td>
<td>2,400</td>
<td>88</td>
<td>5,475</td>
<td>3,450</td>
<td>4.5</td>
<td>46.1</td>
<td>41.6</td>
</tr>
<tr>
<td>VT320-18</td>
<td>2,000</td>
<td>10</td>
<td>18</td>
<td>3.25</td>
<td>0.25</td>
<td>1.00</td>
<td>2,400</td>
<td>88</td>
<td>5,475</td>
<td>3,450</td>
<td>4.5</td>
<td>51.5</td>
<td>46.1</td>
</tr>
<tr>
<td>VT320-24</td>
<td>2,000</td>
<td>10</td>
<td>24</td>
<td>3.25</td>
<td>0.25</td>
<td>1.00</td>
<td>2,400</td>
<td>88</td>
<td>5,475</td>
<td>3,450</td>
<td>4.5</td>
<td>57.0</td>
<td>51.5</td>
</tr>
<tr>
<td>VT320-30</td>
<td>2,000</td>
<td>10</td>
<td>30</td>
<td>3.25</td>
<td>0.25</td>
<td>1.00</td>
<td>2,400</td>
<td>88</td>
<td>5,475</td>
<td>3,450</td>
<td>4.5</td>
<td>62.4</td>
<td>57.0</td>
</tr>
</tbody>
</table>

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

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

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**

**L-Inline Motor Configuration**

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

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

![Bottom Mount Dimensions Diagram]

Note: DXF or DWG files are available at www.edriveactuators.com

### Front Flange Dimensions

![Front Flange Dimensions Diagram]

Note: DXF or DWG files are available at www.edriveactuators.com

### Foot Mount Dimensions

![Foot Mount Dimensions Diagram]

Note: DXF or DWG files are available at www.edriveactuators.com

### Trunnion Mount Dimensions

![Trunnion Mount Dimensions Diagram]

Note: DXF or DWG files are available at www.edriveactuators.com

### Unit Mounting Dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>P</th>
<th>Q</th>
<th>R</th>
<th>S</th>
<th>T</th>
<th>U</th>
<th>V</th>
<th>W</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT2</td>
<td>1.31</td>
<td>2.63</td>
<td>3.25</td>
<td>2.38</td>
<td>1.19</td>
<td>5/16-18</td>
<td>0.63</td>
<td>3.84</td>
<td>0.75</td>
<td>0.38</td>
<td>1.75</td>
<td>0.88</td>
<td>2.25</td>
<td>0.25</td>
<td>0.34</td>
<td>0.69</td>
<td>1.89</td>
<td>3.78</td>
<td>2.63</td>
<td>5.25</td>
<td>0.50</td>
<td>4.22</td>
</tr>
<tr>
<td>VT3</td>
<td>1.88</td>
<td>3.75</td>
<td>4.50</td>
<td>3.38</td>
<td>1.69</td>
<td>3/8-16</td>
<td>0.75</td>
<td>5.78</td>
<td>1.00</td>
<td>0.50</td>
<td>2.63</td>
<td>1.31</td>
<td>3.25</td>
<td>0.25</td>
<td>0.41</td>
<td>0.94</td>
<td>2.52</td>
<td>5.03</td>
<td>3.50</td>
<td>7.00</td>
<td>0.75</td>
<td>6.28</td>
</tr>
</tbody>
</table>
The products shown in this catalog are intended for industrial use only and should not be used to lift, support or otherwise transport people, unless written authorization is obtained. The information provided in this catalog is believed to be accurate and reliable. However, E•DRIVE assumes no responsibility for its use or for any errors that may appear in this document. This information in this publication is subject to change without notice.

How To Order:

**Base Number**

- **Frame Size (in):** 2, 3
- **Capacity (lb):** x100

**Unit Mounting Option:**

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

**End Effector/Rod End:**

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

**Options**

- Standard Stroke Length (in):
- Gearbelt Reduction:
  - 00- Direct Coupled
  - 10- 1:1
  - 20- 2:1

**Motor Position**

- 1, 2, 3, 4
- 0 = Inline
- U = Parallel Offset

**Special**

- Custom Length (in):
  - 00.00

- N.C. Switch Qty:
  - 0, 1, 2, 3, etc.

- N.O. Switch Qty:
  - 0, 1, 2, 3, etc.

- Switch Type:
  - A - Hall Sourcing PNP
  - B - Hall Sinking NPN
  - C - Reed

For Application Support
Call us Today at 800-878-1157
Fax: 860-953-0496
Tel: 860-953-0588

(1) Zero backlash version also available