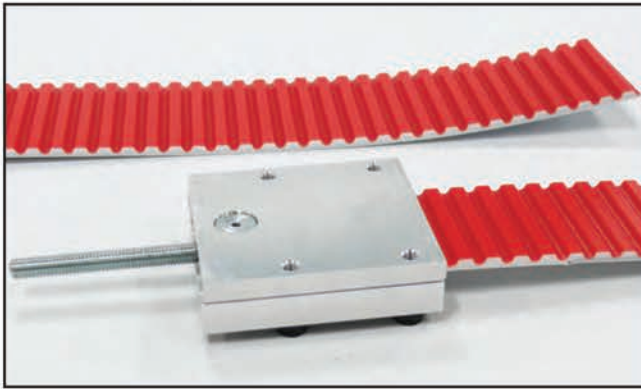


move-series

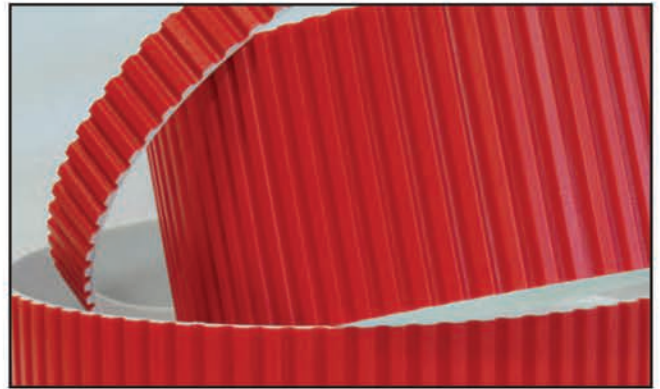
The New Generation of Timing Belts.

Unprecedented Cord Strength
Optimized Tooth Geometry
Low Friction Tooth Facing

Open-ended-M



Truly Endless - BFX



move-series is a superior strength timing belt designed for high-performance drives. It is available as open-ended code M for linear drive applications and truly endless code BFX for power transmission applications.

This new generation of timing belt delivers the power that modern applications require, with custom-engineered steel cord tension members and tooth geometry optimized-through 3D motion FEA. This allows for up to 75% more tensile strength and reduces areas of high stress.

move-series provides a durable solution, with a friction-optimizing laminate coating to minimize wear and increase service life.

move-series affords space and cost savings. With a higher transmittable force, belt drives can be more compact and powerful.

Advantages of **move-series**

- 75% higher stiffness and tensile strength
- 30% higher transmittable force
- permits reducing the belt width by one standard size
- narrower drive reduces drive inertia and noise
- reduced wear and increased service life
- more chain to belt conversions possible
- Significantly increases safety factor when staying with original width

Unprecedented Cord Strength

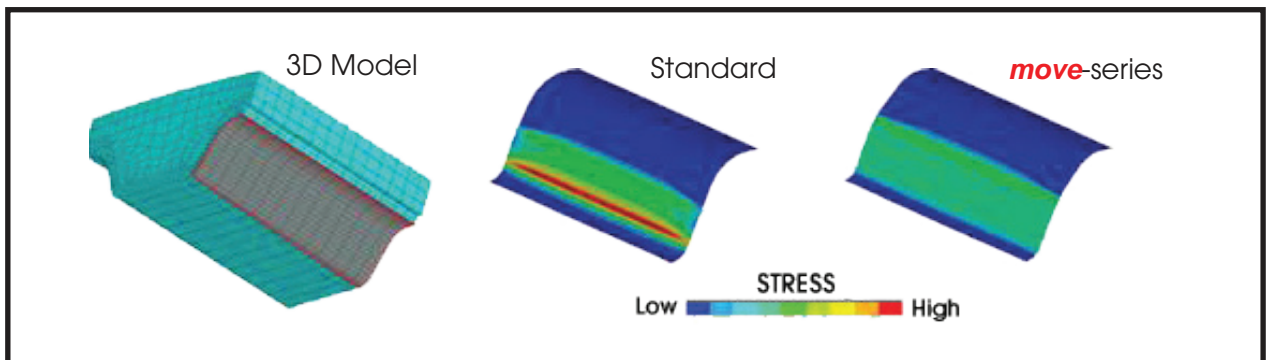
Custom-engineered steel cord tension members deliver up to 75% more tensile strength compared to standard AT10 tension member.

| AT10- <i>move</i> Belt Specifications | | | | | | | |
|---------------------------------------|----------------------------------|----------------|--|-------------------|-------------------|-------------------|-------------------|
| | | Belt width | 25 | 32 | 50 | 75 | 100 |
| M open-ended | AT10- <i>move</i> Tension Member | F_{zul} [N] | 7395 | 9135 | 14790 | 22185 | 29580 |
| | Specific Elasticity | C_{spec} [N] | $1.85 \cdot 10^6$ | $2.28 \cdot 10^6$ | $3.70 \cdot 10^6$ | $5.55 \cdot 10^6$ | $7.40 \cdot 10^6$ |
| | Belt Weight | [kg/m/cm] | 0.070 kg per meter of belt length per cm of belt width | | | | |
| BFX truly endless | AT10- <i>move</i> Tension Member | F_{zul} [N] | 6750 | 8625 | 13470 | 20200 | 26940 |
| | Belt Weight | [kg/m/cm] | 0.069 kg per meter of belt length per cm of belt width | | | | |

Optimized Tooth Geometry

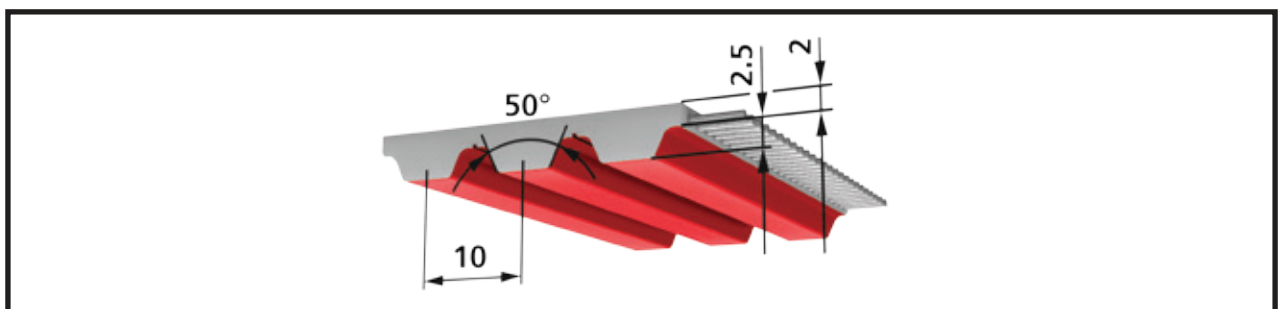
A belt drive is often limited by the tooth shear strength. To reduce this limitation, the current tooth geometry was analyzed through 3D motion FEA (Finite Element Analysis). With this information, an optimized tooth geometry was designed to reduce areas of high stress. This results in allowable belt loads that are 30% greater than other AT10 designs. This optimal tooth geometry works with industry standard AT10 pulleys and outperforms when paired with high precision BRECOflex pulleys.

NOTE: BRECOflex CO., L.L.C. highly recommends the use of hard anodized aluminum pulleys for the longest service life.





Low Friction Tooth Facing

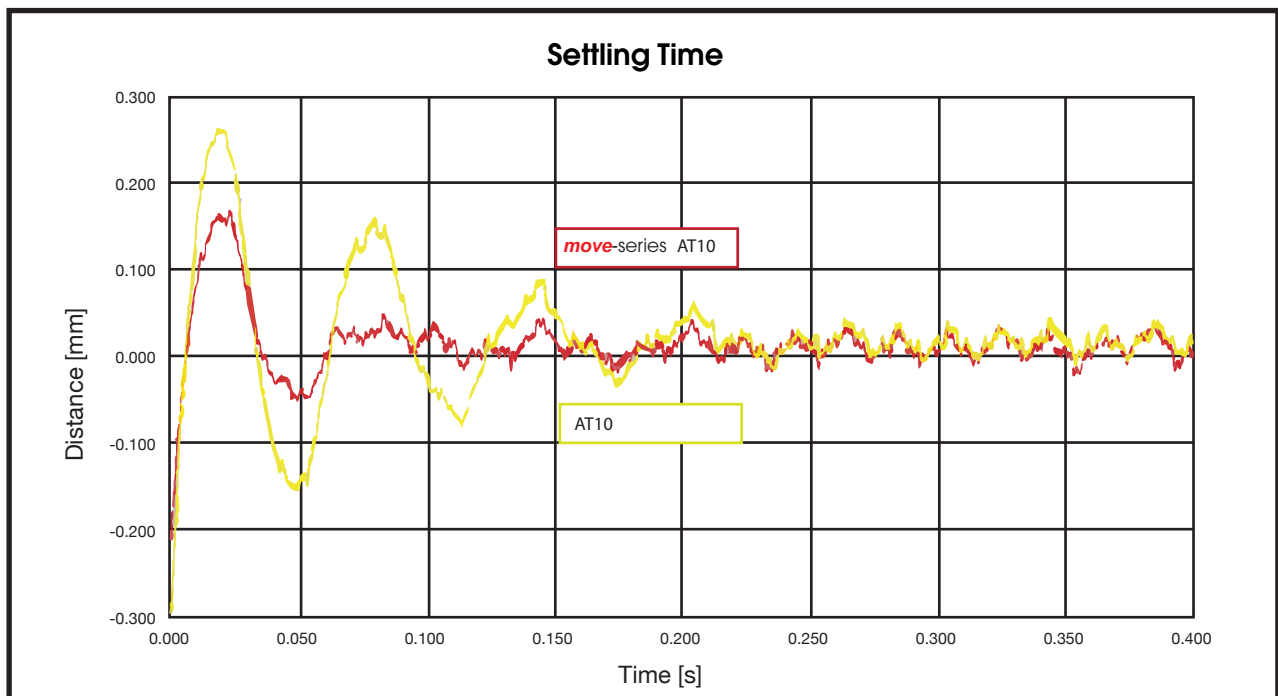
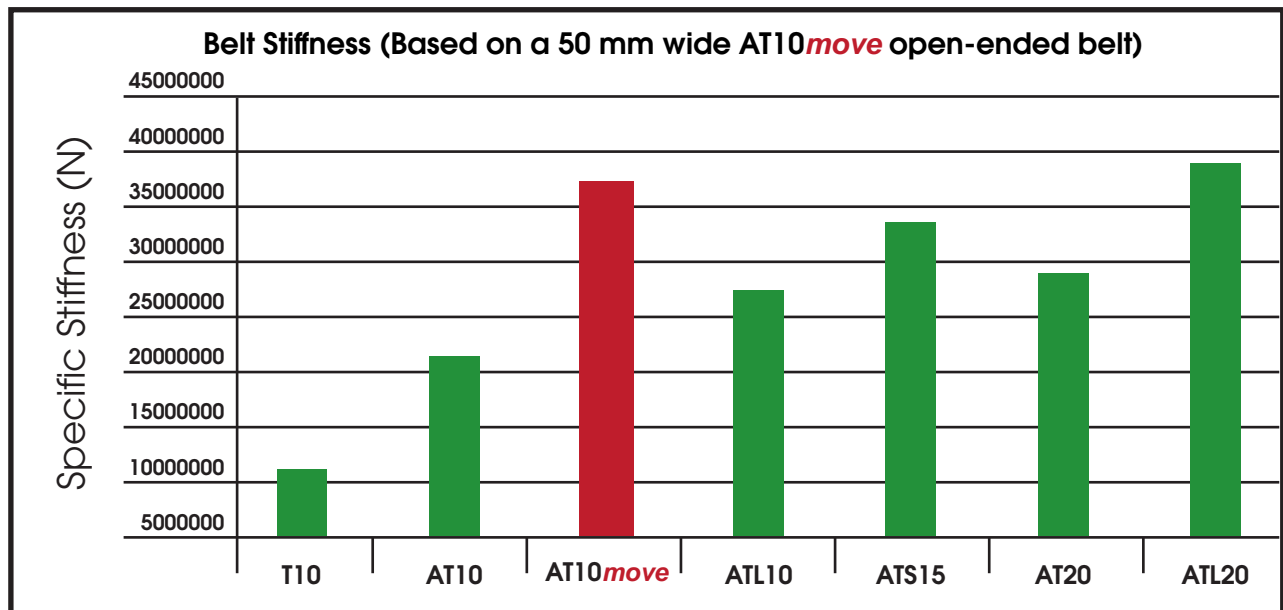
Another unique property of the *move* timing belts is a special laminate coating that is used to further reduce friction between belt and pulley. This minimizes wear and ensures quiet tooth engagement, and smooth running.



Unprecedented Stiffness

Belt stiffness is the most important parameter in linear drives and is often the limit of drive accuracy. High **move** stiffness provides reduced settling times over the standard AT10. When combined with our zero-backlash drive pulleys no belt comes close to the precision of **move** timing belts.

| move AT10 Flexibility (minimum tooth count/minimum diameter) | | | |
|--|-------------------|----------------|-----|
| Z_{min} d_{min}  | No back bending | Z_{min} | 18 |
| | | d_{min} [mm] | 60 |
| Z_{min} d_{min}  | With back bending | Z_{min} | 25 |
| | | d_{min} [mm] | 120 |



Truly Endless “BFX” Specifications

| Standard Lengths (mm) | | | | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|------|------|------|------|
| 720 | 980 | 1240 | 1600 | 1900 | 2240 | 2650 | 3150 | 3750 | 4500 | 5300 | 6300 | 7500 |
| 780 | 1080 | 1400 | 1700 | 2000 | 2360 | 2800 | 3350 | 4000 | 4750 | 5600 | 6700 | 8000 |
| 840 | 1150 | 1500 | 1800 | 2120 | 2500 | 3000 | 3550 | 4250 | 5000 | 6000 | 7100 | 9000 |
| In-between lengths available from 1400 to 30500m | | | | | | | | | | | | |

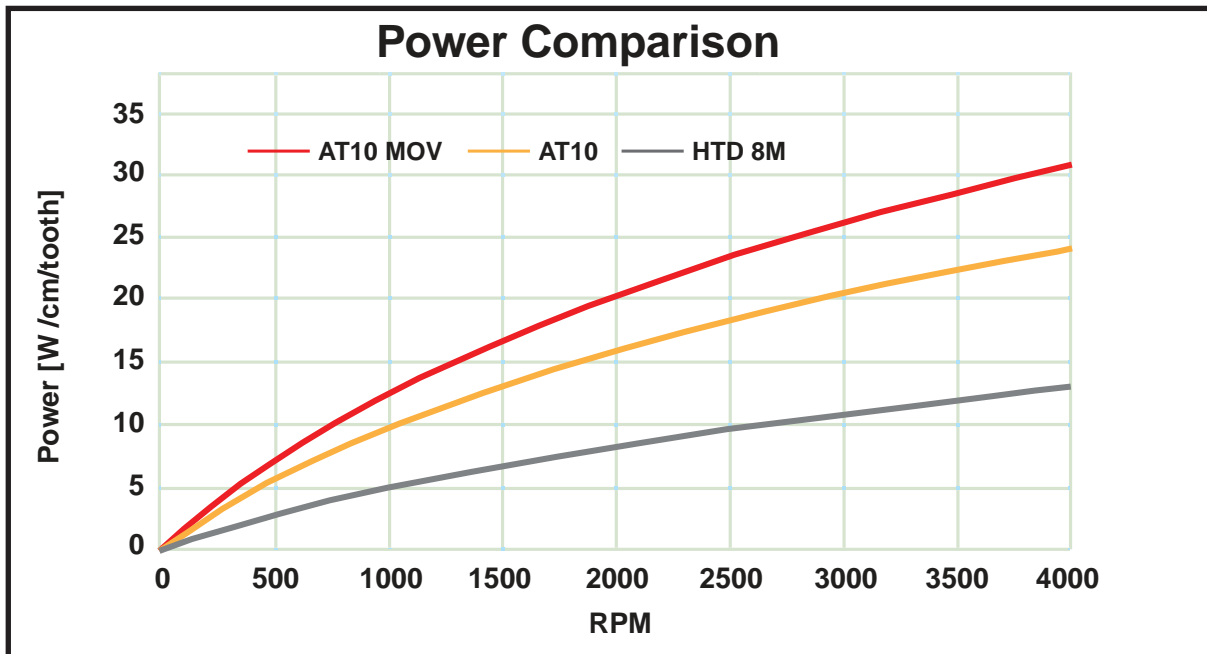
| AT10move - BFX Tooth shear strength (specific belt tooth load bearing) | | | | | | | |
|--|------------------------------|-------------------------------|-----------------------------|----------------------------------|------------------------------|-------------------------------|-----------------------------|
| R.P.M. n [min ⁻¹] | F _{USPEC} [N/cm] | M _{SPEC} [Ncm/cm] | P _{SPEC} [W/cm] | R.P.M. n [min ⁻¹] | F _{USPEC} [N/cm] | M _{SPEC} [Ncm/cm] | P _{SPEC} [W/cm] |
| 0 | 113.2 | 18.02 | 0.000 | 2000 | 62.1 | 9.89 | 20.698 |
| 20 | 111.5 | 17.76 | 0.371 | 2200 | 60.1 | 9.55 | 22.022 |
| 40 | 110.0 | 17.51 | 0.733 | 2400 | 58.2 | 9.26 | 23.254 |
| 60 | 118.6 | 17.26 | 1.086 | 2600 | 56.4 | 8.98 | 24.424 |
| 80 | 107.2 | 17.05 | 1.429 | 2800 | 54.7 | 8.72 | 25.533 |
| 100 | 105.8 | 16.85 | 1.763 | 3000 | 53.1 | 8.47 | 26.596 |
| 200 | 100.1 | 15.94 | 3.342 | 3200 | 51.7 | 8.24 | 27.597 |
| 300 | 95.6 | 15.22 | 4.774 | 3400 | 50.4 | 8.01 | 28.536 |
| 400 | 91.6 | 14.60 | 6.114 | 3600 | 49.1 | 7.81 | 29.429 |
| 500 | 88.4 | 14.06 | 7.361 | 3800 | 47.9 | 7.61 | 30.292 |
| 600 | 85.5 | 13.60 | 8.547 | 4000 | 46.7 | 7.42 | 31.108 |
| 700 | 82.7 | 13.17 | 9.656 | 4500 | 43.9 | 6.99 | 32.956 |
| 800 | 80.4 | 12.80 | 10.718 | 5000 | 41.4 | 6.61 | 34.650 |
| 900 | 78.2 | 12.44 | 11.735 | 5500 | 39.3 | 6.25 | 36.036 |
| 1000 | 76.2 | 12.14 | 12.705 | 6000 | 37.3 | 5.93 | 37.268 |
| 1100 | 74.4 | 11.84 | 13.644 | 6500 | 35.4 | 5.62 | 38.346 |
| 1200 | 72.7 | 11.57 | 14.538 | 7000 | 33.6 | 5.34 | 39.270 |
| 1300 | 71.1 | 11.32 | 15.400 | 7500 | 32.0 | 5.08 | 40.040 |
| 1400 | 69.6 | 11.07 | 16.232 | 8000 | 30.4 | 4.85 | 40.656 |
| 1500 | 68.2 | 10.84 | 17.048 | 8500 | 29.0 | 4.62 | 41.118 |
| 1600 | 66.8 | 10.64 | 17.818 | 9000 | 27.6 | 4.40 | 41.426 |
| 1700 | 65.6 | 10.44 | 18.572 | 9500 | 26.4 | 4.19 | 41.734 |
| 1800 | 64.4 | 10.24 | 19.312 | 10000 | 25.1 | 4.00 | 41.888 |
| 1900 | 63.1 | 10.06 | 20.020 | | | | |

| Ordering Example: |
|---|
| 32 AT10 MOV / 1500 BFX |
| [WIDTH] [PITCH] / [LENGTH] [CONSTRUCTION] |

Open-Ended “M” Specifications

| AT10 ^{move} - M | | | | | | | |
|----------------------------------|------------------------------|----------------------------------|------------------------------|----------------------------------|------------------------------|----------------------------------|------------------------------|
| R.P.M. n [min ⁻¹] | F _{USPEC} [N/cm] | R.P.M. n [min ⁻¹] | F _{USPEC} [N/cm] | R.P.M. n [min ⁻¹] | F _{USPEC} [N/cm] | R.P.M. n [min ⁻¹] | F _{USPEC} [N/cm] |
| 0 | 113.2 | 800 | 80.4 | 2000 | 62.1 | 5000 | 41.4 |
| 20 | 111.5 | 900 | 78.2 | 2200 | 60.1 | 5500 | 39.3 |
| 40 | 110.0 | 1000 | 76.2 | 2400 | 58.2 | 6000 | 37.3 |
| 60 | 118.6 | 1100 | 74.4 | 2600 | 56.4 | 6500 | 35.4 |
| 80 | 107.2 | 1200 | 72.7 | 2800 | 54.7 | 7000 | 33.6 |
| 100 | 105.8 | 1300 | 71.1 | 3000 | 53.1 | 7500 | 32.0 |
| 200 | 100.1 | 1400 | 69.6 | 3200 | 51.7 | 8000 | 30.4 |
| 300 | 95.6 | 1500 | 68.2 | 3400 | 50.4 | 8500 | 29.0 |
| 400 | 91.6 | 1600 | 66.8 | 3600 | 49.1 | 9000 | 27.6 |
| 500 | 88.4 | 1700 | 65.6 | 3800 | 47.9 | 9500 | 26.4 |
| 600 | 85.5 | 1800 | 64.4 | 4000 | 46.7 | 10000 | 25.1 |
| 700 | 82.7 | 1900 | 63.1 | 4500 | 43.9 | | |

The *move*-series delivers results!



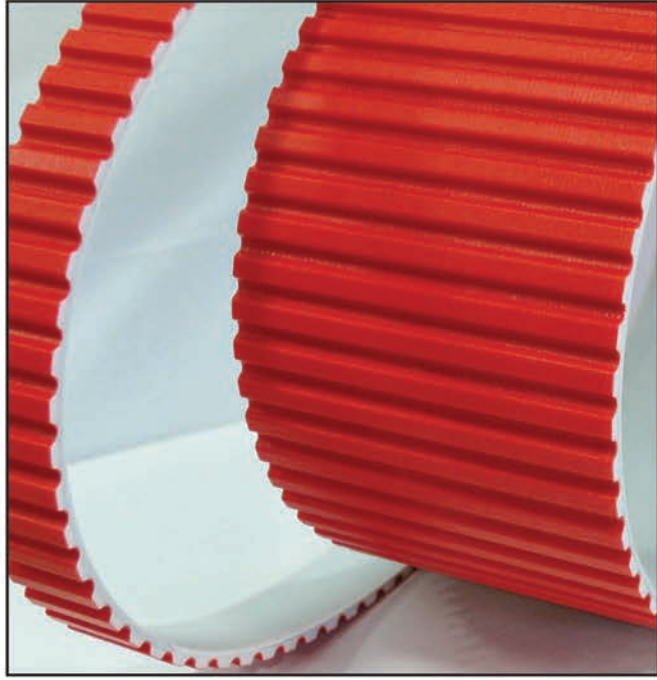
Ordering Example:

32 AT10 MOV / 1500 M

[WIDTH] [PITCH] / [LENGTH] [CONSTRUCTION]

Online Drive Sizing Calculator

Find out today how the BRECOflex CO., L.L.C. **move**-series brings the future of high performance timing belts to your drive application. To view the online drive sizing calculator go to www.brecoflex.com/engineering-support/calculations-program/.



Join the **move**-ment! For FREE engineering support call (732)460-9500, prompt #6 or email eng@brecoflex.com.

For orders and price quotes contact customer service at (732)460-9500, prompt #4 or email cs@brecoflex.com.

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