BRECOflex CO., L.L.C.

High Precision Drive Components

Engineering Bulletin Doc 115

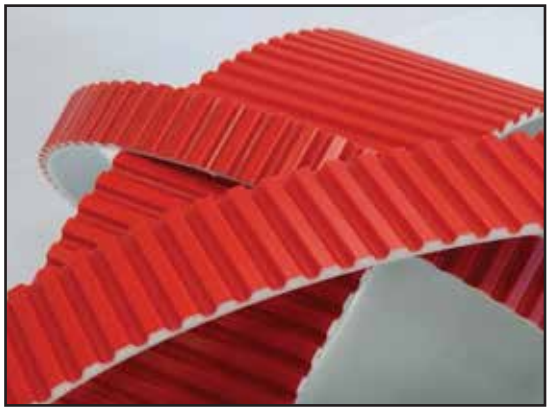
move-series

The New Generation of Timing Belts.

Unprecedented Cord Strength

Optimized Tooth Geometry

Low Friction Tooth Facing



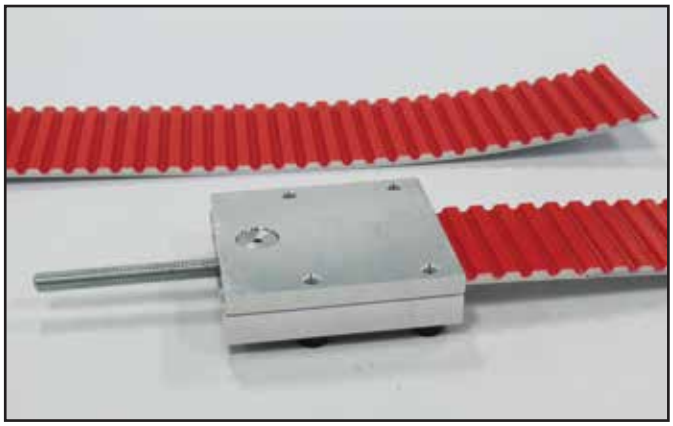
***move*-series** is a superior strength timing belt designed for high-performance drives. It is available as open-ended code M for linear drive applications and truly endless code BFX for power transmission applications.

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 to75% more tensile strength and reduces areas of high stress.

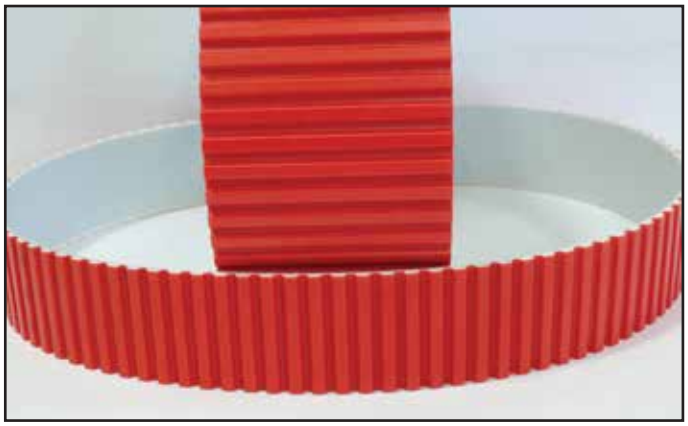
***move*-series** provides a durable solution, with a friction-optimizing laminate coating to minimize wear and increase service life.

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

Open-ended-M

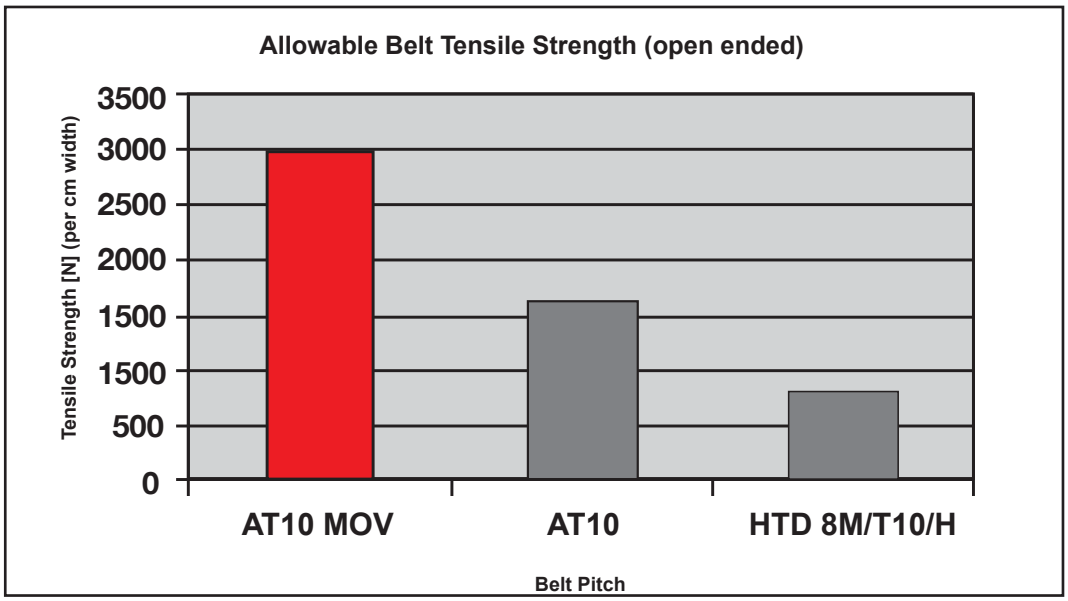


Truly Endless - BFX



Unprecedented Cord Strength

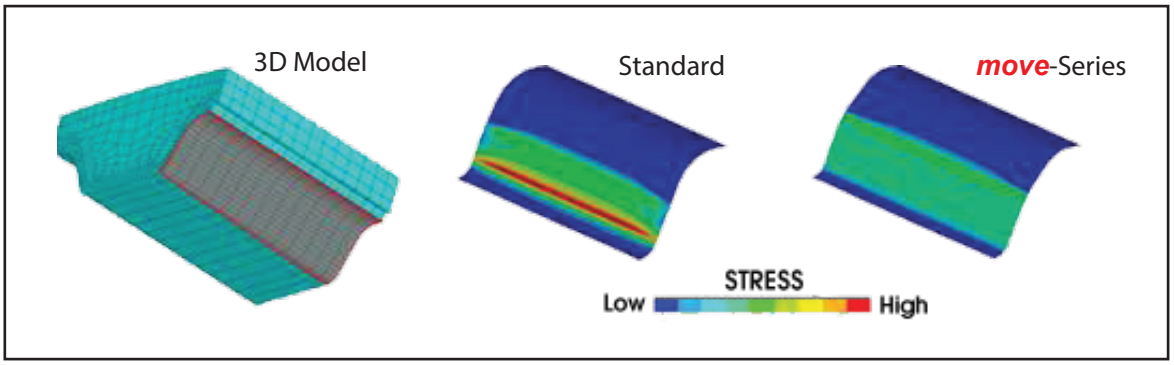
Custom-engineered steel cord tension member delivers up to 75% more tensile strength than a comarable standard AT10 tension member.



AT10-*move* Belt Specifications							
		Belt Width	25	32	50	75	100
M open-ended	AT10-*move* Tension Member	F_{zul} [N]	7395	9135	14790	22185	29580
	Specific Elasticity	C_{spec} [N]	1.85 - 10^8	2.28 - 10^8	3.70 - 10^8	5.55 - 10^8	7.40 - 10^8
	Belt Weight	[kg/m/cm]	0.070 kg per meter of belt length per cm of belt width				
BFX truly endless	AT10-*move* 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				

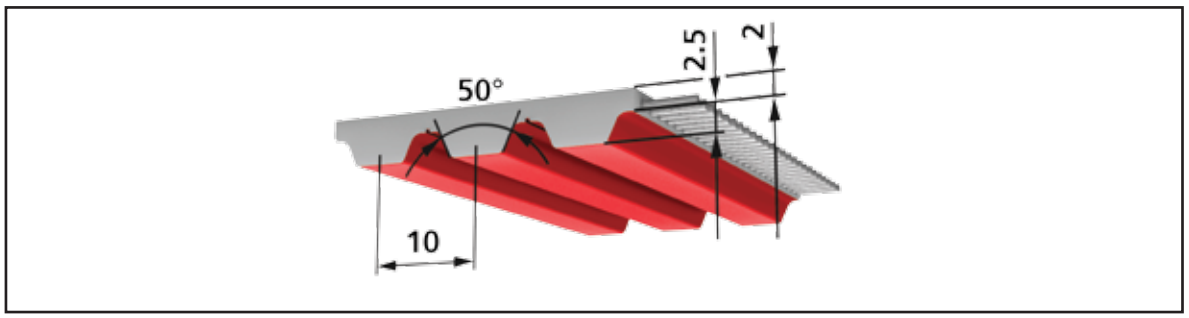
Optimized Tooth Geometry

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

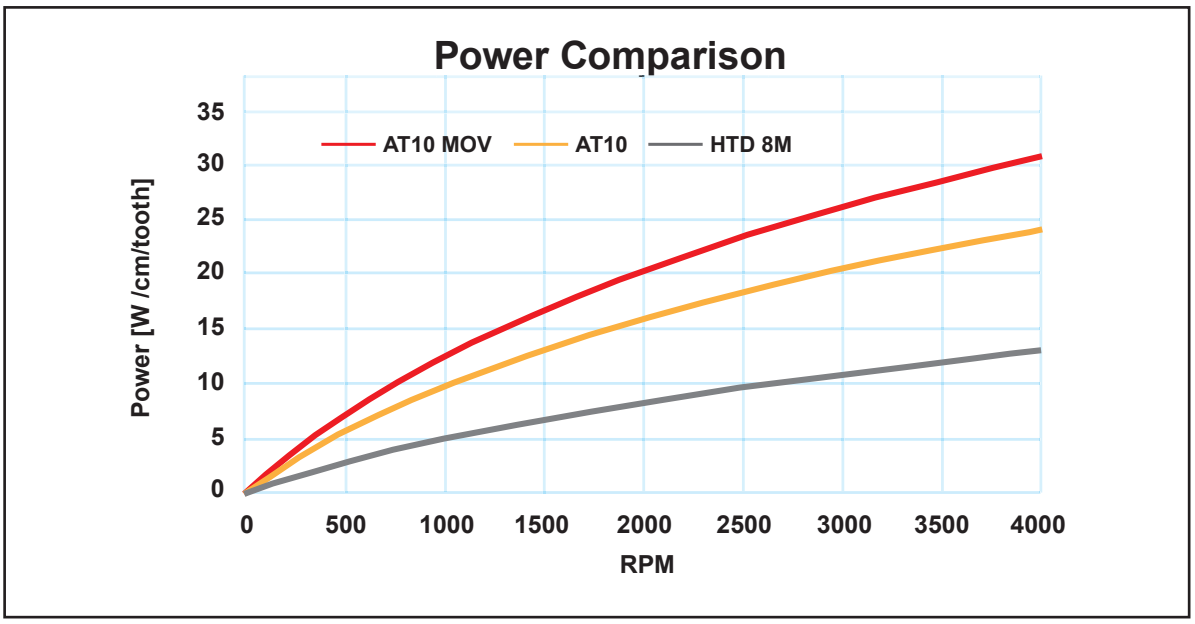


Low Friction Tooth Facing

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.



The *move*-series delivers results!



- 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
- drastically increases safety factor when staying with original width

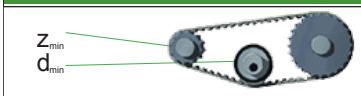
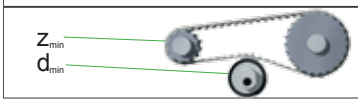
Standard Lengths (mm)							
720	1150	1700	2240	3000	4000	5300	7100
780	1240	1800	2360	3150	4250	5600	7500
840	1400	1900	2500	3350	4500	6000	8000
980	1500	2000	2650	3550	4750	6300	9000
1080	1600	2120	2800	3750	5000	6700	
In-between lengths available from 1400 to 30500mm							

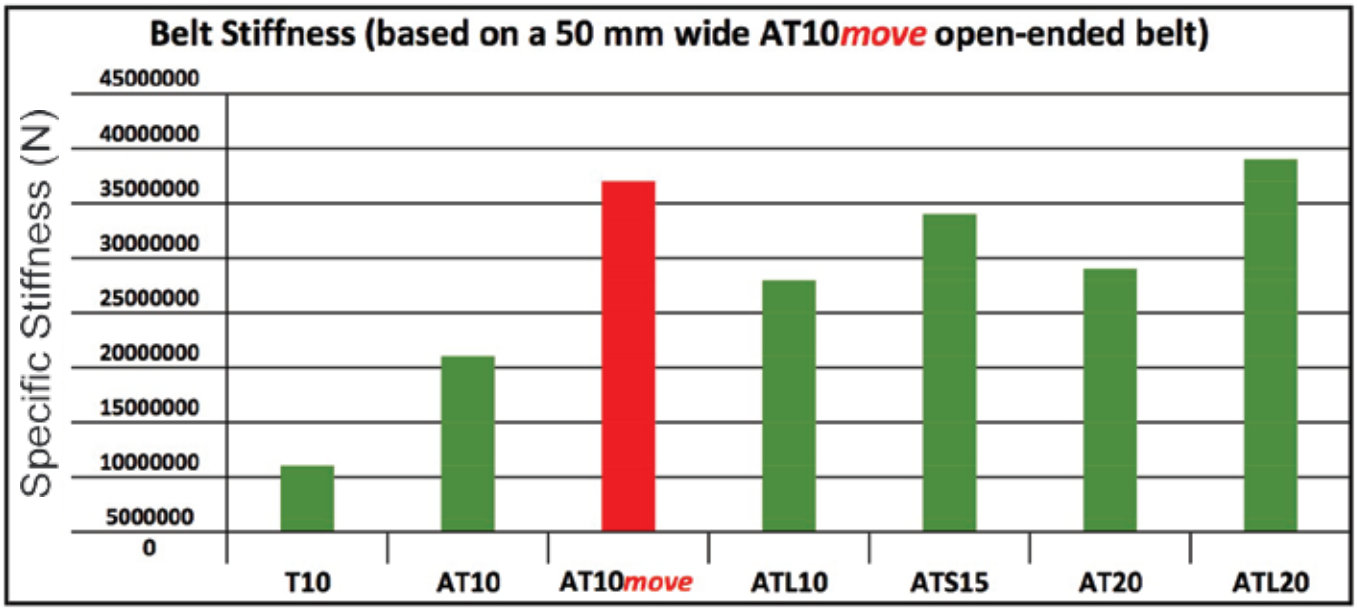
Online Drive Sizing Calculator

Find out today how the BRECO*flex* 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/.

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 pulley no belt comes close to the precision of ***move*** timing belts.

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



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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