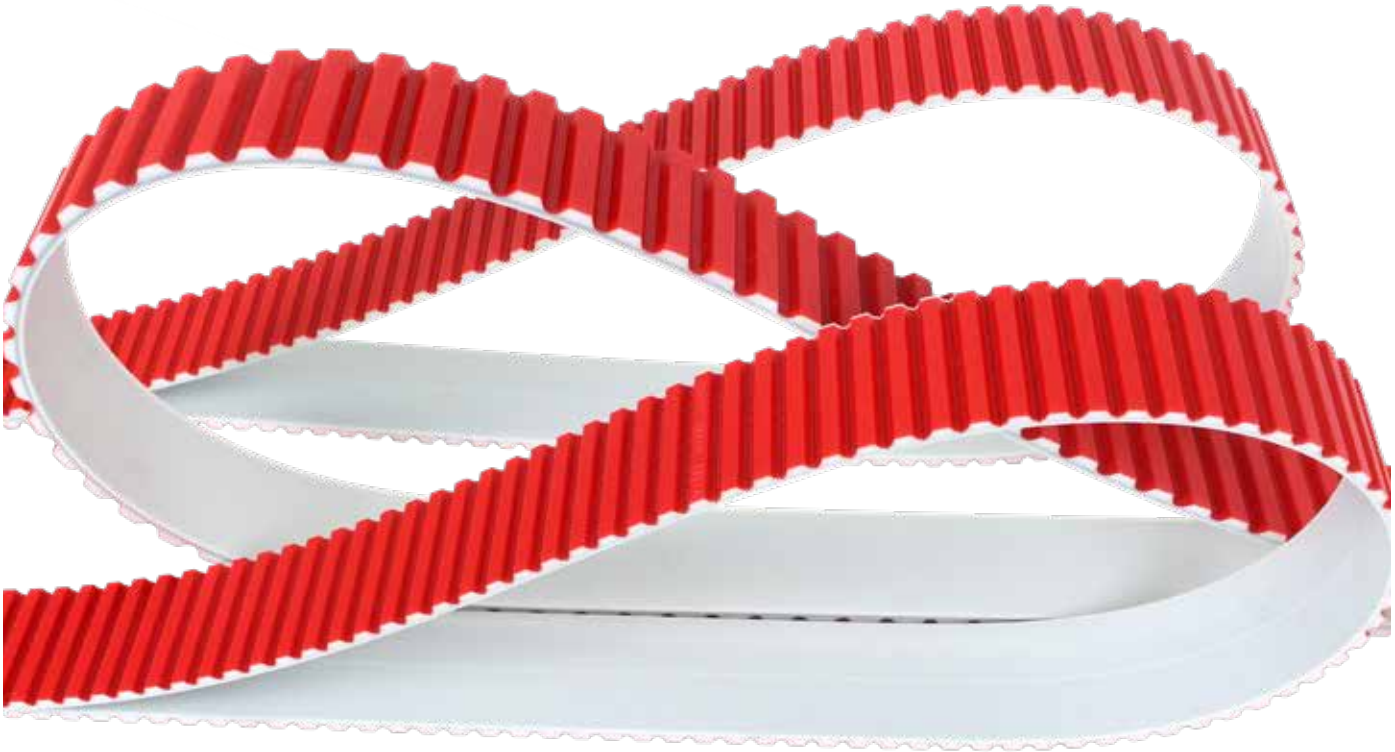
BRECOflex CO., L.L.C.

High Precision Drive Components

The World Leader In Polyurethane Timing Belts

move-series®

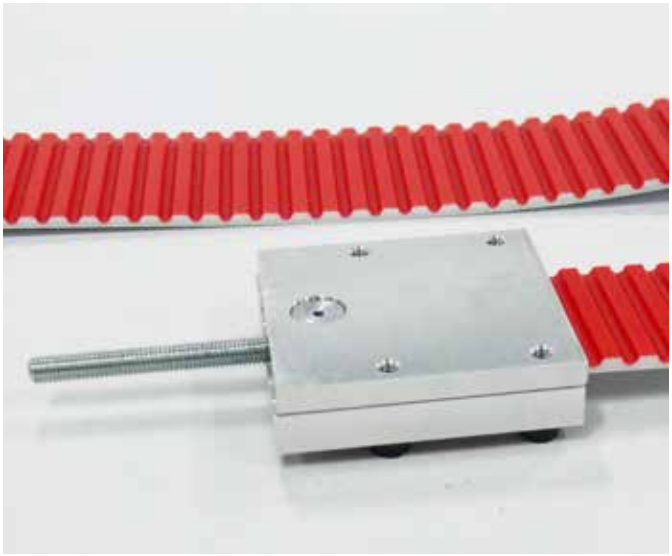
The New Generation of Timing Belts



move-series®

The New Generation of Timing Belts

The AT-series timing belt pitch, developed by BRECO in 1980 has long been the world standard pitch for linear drives and power transmission. In 2016 our engineers refined the AT-series to create a new generation of timing belt - ***move***-series. Through 3D Motion FEA we were able to optimize the tooth geometry to identify and reduce areas of stress. The change is enough to significantly increase belt performance while still meshing perfectly with standard AT-series pulleys. Plus, the steel cord tension members are custom engineered for added strength and stiffness. This allows for up to 75% more tensile strength and up to 30% more power, making AT ***move***-series the next generation of timing belt for linear drive and power transmission applications.



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 power capacity, belt drives can be more compact and powerful.

- 75% higher stiffness and tensile strength
- 30% higher tooth shear strength
- 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

Optimized Tooth Geometry

A belt drive is often limited by the tooth shear strength. To reduce this limitation, BRECO*flex* analyzed the tooth geometry of standard AT-Series timing belts using 3D motion FEA (Finite Elements Analysis). The results yielded an optimized tooth geometry that reduces areas of high stress and makes the allowable belt load 30% greater than other AT-series belts. This optimal tooth geometry works with standard pulleys and will outperform 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.

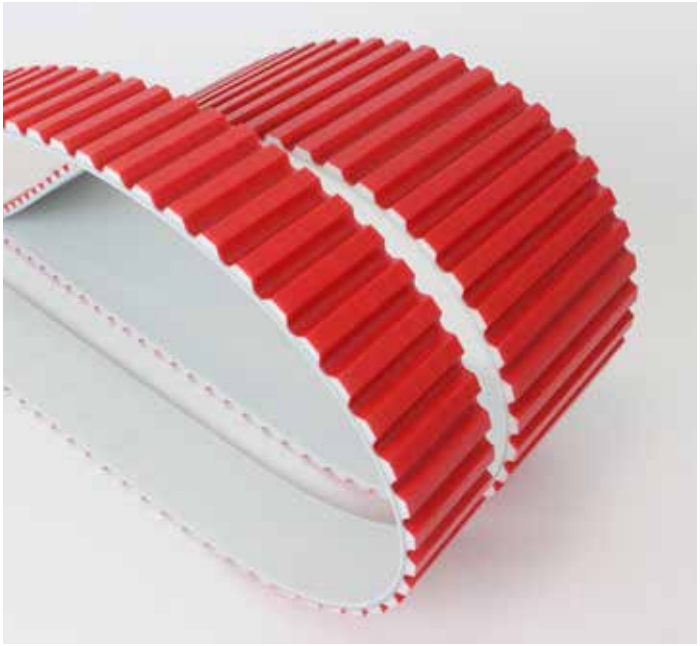
move-series®
Advantages

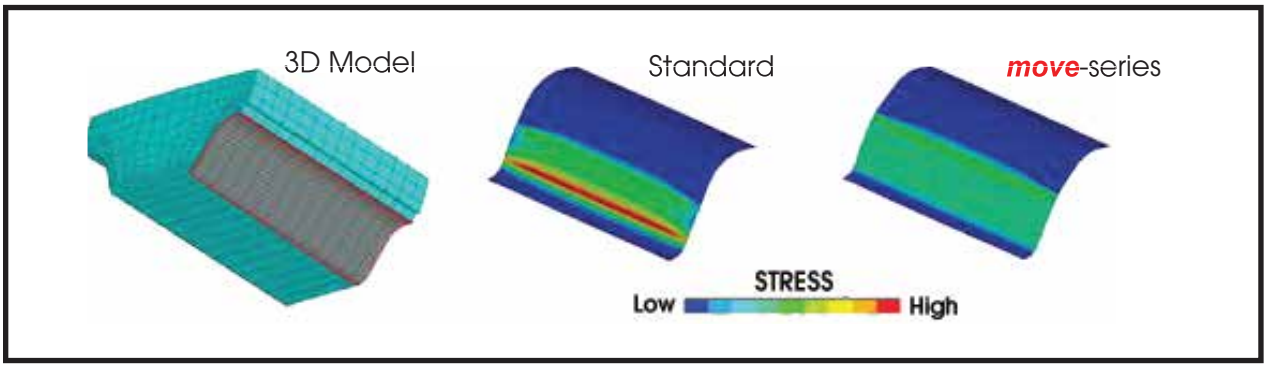
Unprecedented Cord Strength & Stiffness

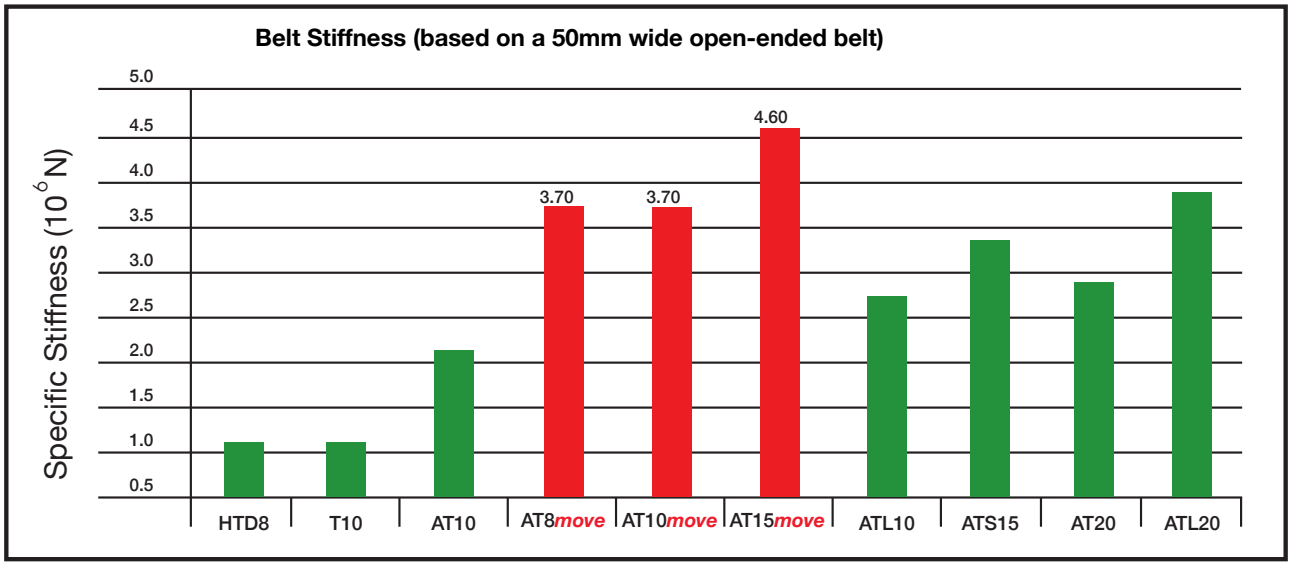
Custom-engineered steel cord tension members deliver up to 75% more tensile strength compared to standard AT-series tension members.

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 AT-series. When combined with our zero-backlash drive pulleys no belt comes close to the precision of ***move*** timing belts.

Another unique property of the ***move*** timing belt 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.



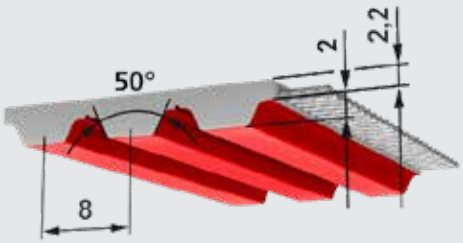




AT8 Pitch Truly Endless "BFX"

The AT8*move* is the next generation alternative to HTD 8M belts. It holds several advantages over other 8 mm pitch timing belts with the strength of the AT tooth profile, laminate coating to minimize wear, and optimized tooth geometry for extended life. Also, special steel tension members provide increased stiffness and accuracy, which is especially important in linear drive applications. If you are currently using an HTD 8M timing belt or are looking for a powerful belt in a smaller pitch, you would benefit from the AT8move as it is a compact, durable choice.

Truly Endless "BFX"



Specifications

Widths (mm)	16	25	32	50	75	100
Note:	Standard belt widths are shown. For in-between widths, please contact customer service at 732-460-9500.					
Max Length	Additional lengths up to 13,000. In-between lengths available starting at a minimum length of 1408mm.					
move Tension Member	High-carbon zinc-plated steel					
Belt Color	White / Red					

AT8*move* Belt "BFX" Specifications

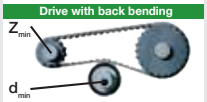
Construction	Tension member	Parameter	Belt Width (mm) 16	25	32	50	75	100
Truly Endless "BFX"	AT8*move* steel	Allowable Force F_{Tzul}[N]	4,312	6,750	8,625	13,470	20,200	26,940
		Belt Mass [kg/m]	0.106	0.167	0.212	0.339	0.508	0.678

move-series® Flexibility
(minimum tooth count/minimum diameter)

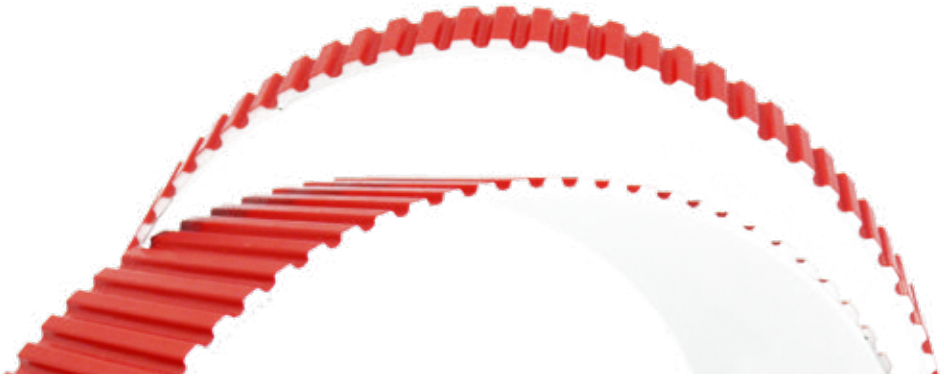
Drive w/o back bending

Tension Member	AT8*move* Tension Member
Construction	BFX
Z_{min} (# of teeth)	25
d_{min} (mm)(Ø)	60

Drive with back bending



Tension Member	AT8*move* Tension Member
Construction	BFX
Z_{min} (# of teeth)	32
d_{min} (mm)(Ø)	120



AT8 Pitch Truly Endless "BFX"

AT8move "BFX" Specific Tooth Shear Strength

RPM n [min]	FORCE F_{SPEC} [N/cm]	TORQUE M_{SPEC} [Ncm/cm]	POWER P_{SPEC} [W/cm]	RPM n [min]	FORCE F_{SPEC} [N/cm]	TORQUE M_{SPEC} [Ncm/cm]	POWER P_{SPEC} [W/cm]
0	90.56	14.41	0	2000	49.68	7.91	16.55
20	89.20	14.20	0.29	2200	48.08	7.64	17.61
40	88.00	14.00	0.58	2400	46.56	7.40	18.60
60	86.88	13.80	0.86	2600	45.12	7.18	19.53
80	85.76	13.64	1.14	2800	43.76	6.97	20.42
100	84.64	13.48	1.41	3000	42.48	6.77	21.27
200	80.08	12.75	2.67	3200	41.36	6.59	22.07
300	76.48	12.17	3.81	3400	40.32	6.40	22.82
400	73.28	11.68	4.89	3600	39.28	6.24	23.54
500	70.72	11.24	5.88	3800	38.32	6.08	24.23
600	68.40	10.88	6.83	4000	37.36	5.93	24.88
700	66.16	10.53	7.72	4500	35.12	5.59	26.36
800	64.32	10.24	8.57	5000	33.12	5.28	27.72
900	62.56	9.95	9.38	5500	31.44	5.00	28.82
1000	60.96	9.71	10.16	6000	29.84	4.74	29.81
1100	59.52	9.47	10.91	6500	28.32	4.49	30.67
1200	58.16	9.25	11.63	7000	26.88	4.27	31.41
1300	56.88	9.05	12.32	7500	25.60	4.06	32.03
1400	55.68	8.85	12.98	8000	24.32	3.88	32.52
1500	54.56	8.67	13.63	8500	23.20	3.69	32.89
1600	53.44	8.51	14.25	9000	22.08	3.52	33.14
1700	52.48	8.35	14.85	9500	21.12	3.35	33.38
1800	51.52	8.19	15.45	10000	20.08	3.20	33.51
1900	50.48	8.04	16.01				

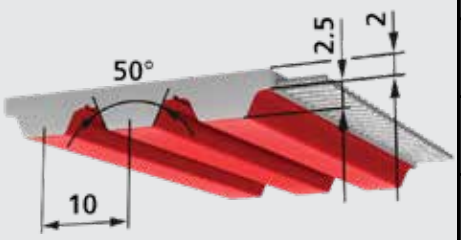
Note: For BFX standard belt lengths and availability please contact customer service at 732-460-9500

Ordering Example: move-series® Timing Belt

[WIDTH]	[PITCH]	/	[LENGTH]	[CONSTRUCTION]
25	AT8 MOV	/	2500	BFX

AT10 Pitch Open-Ended "M"

Open-Ended "M"



Specifications

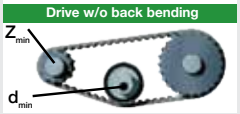
Widths (mm)	25	32	50	75	100
Lengths	Any lengths available - Stock Rolls 50 Meters				
Standard Material	TPUST1				
move Tension Member	High-carbon zinc-plated steel				
Belt Color	White / Red				

AT10move Belt "M" Specifications

Construction	Tension member	Parameter	Belt Width (mm) 25	32	50	75	100
Open-Ended "M"	AT10move Steel	Allowable Force F_{zul}[N]	7,395	9,135	14,790	22,185	29,580
		Spec. Stiffness C_{spec}[N]	1.85 E6	2.28 E6	3.70 E6	5.55 E6	7.40 E6
		Belt Mass [kg/m]	0.175	0.221	0.351	0.526	0.701

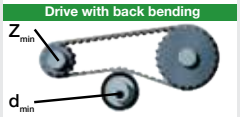
move-series® Flexibility
(minimum tooth count/minimum diameter)

Drive w/o back bending

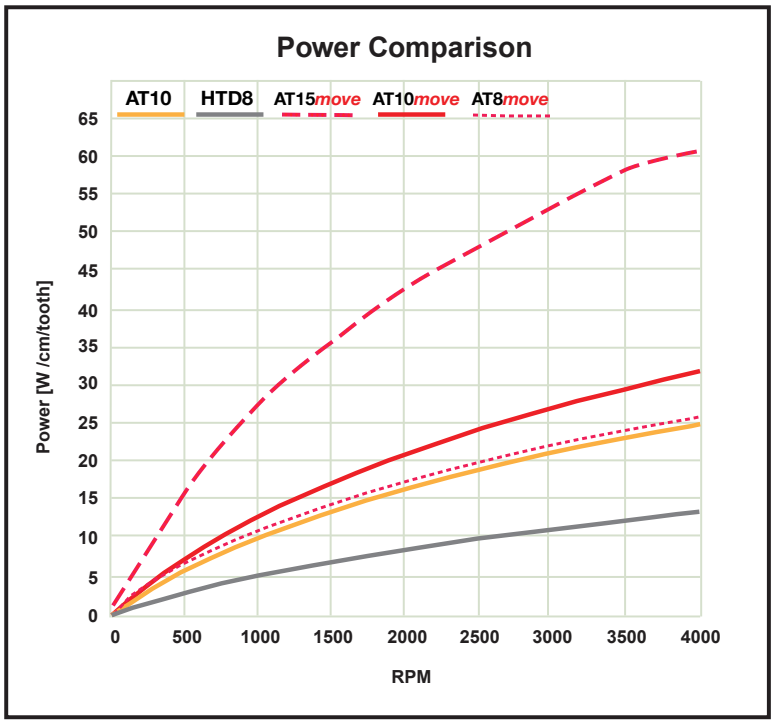


Tension Member	AT10move Tension Member
Construction	M/BFX
Z_{min} (# of teeth)	18
d_{min} (mm) (Ø)	60

Drive with back bending

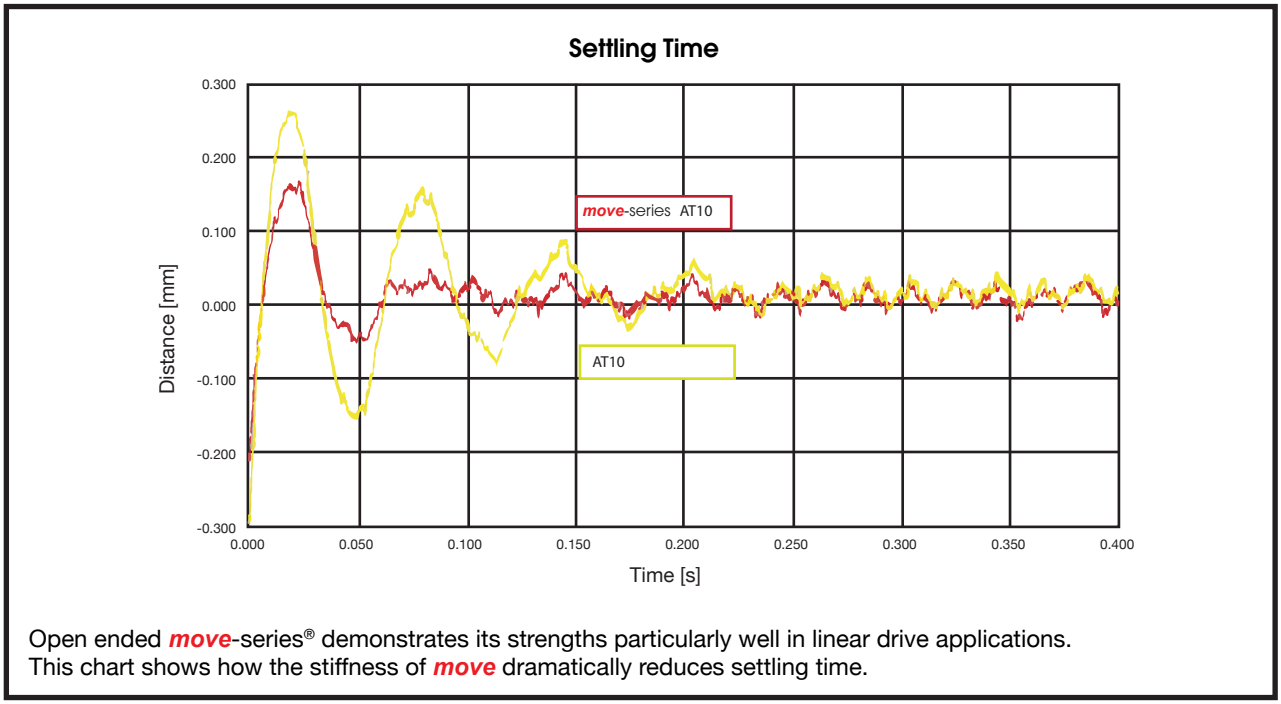


Tension Member	AT10move Tension Member
Construction	M/BFX
Z_{min} (# of teeth)	25
d_{min} (mm) (Ø)	120



AT10 Pitch Open-Ended "M"

AT10*move* "M" Specific Tooth Shear Strength							
RPM n [min]	FORCE F_{SPEC} [N/cm]	RPM n [min]	FORCE F_{SPEC} [N/cm]	RPM n [min]	FORCE F_{SPEC} [N/cm]	RPM n [min]	FORCE F_{SPEC} [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	108.6	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		



Open ended ***move***-series® demonstrates its strengths particularly well in linear drive applications. This chart shows how the stiffness of ***move*** dramatically reduces settling time.

Ordering Example: ***move***-series® Timing Belt

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

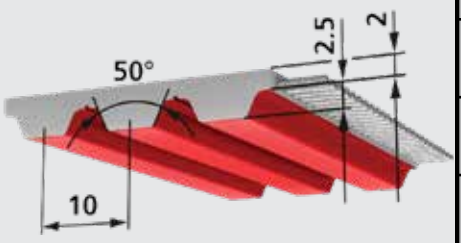
50 AT10 MOV / 3750 M

AT10 Pitch Truly Endless "BFX"

AT10*move* is a next generation timing belt with enhanced performance properties. It is available as open-ended code M for linear drive application and truly endless BFX for power transmission applications.

Choose AT10*move* as a stiffer, more compact and longer lasting alternative to standard AT10, ATS15 and AT20 belts. Customers that switch from standard AT10 to *move*-series® see a significant increase in wear resistance, tensile strength, transmittable force and service life.

Truly Endless "BFX"



Specifications

Widths (mm)	25	32	50	75	100
Lengths	Standard lengths listed below. Additional lengths available up to 30,500mm. In between lengths available starting at a minimum of 1,400mm.				
Standard Material	TPUST1				
move Tension Member	High-carbon zinc-plated steel				
Belt Color	White / Red				

Standard Lengths

AT10*move* Pitch/Length Version	Number of Teeth
AT10 MOV / 720 BFX	72
AT10 MOV / 730 BFX	73
AT10 MOV / 780 BFX	78
AT10 MOV / 840 BFX	84
AT10 MOV / 920 BFX	92
AT10 MOV / 980 BFX	98
AT10 MOV / 1080 BFX	108
AT10 MOV / 1120 BFX	112
AT10 MOV / 1150 BFX	115
AT10 MOV / 1240 BFX	124
AT10 MOV / 1280 BFX	128
AT10 MOV / 1400 BFX	140
AT10 MOV / 1500 BFX	150
AT10 MOV / 1600 BFX	160

AT10*move* Pitch/Length Version	Number of Teeth
AT10 MOV / 1700 BFX	170
AT10 MOV / 1800 BFX	180
AT10 MOV / 1900 BFX	190
AT10 MOV / 2000 BFX	200
AT10 MOV / 2120 BFX	212
AT10 MOV / 2240 BFX	224
AT10 MOV / 2360 BFX	236
AT10 MOV / 2500 BFX	250
AT10 MOV / 2650 BFX	265
AT10 MOV / 2800 BFX	280
AT10 MOV / 3000 BFX	300
AT10 MOV / 3150 BFX	315
AT10 MOV / 3350 BFX	335
AT10 MOV / 3550 BFX	355

AT10*move* Pitch/Length Version	Number of Teeth
AT10 MOV / 3750 BFX	375
AT10 MOV / 4000 BFX	400
AT10 MOV / 4250 BFX	425
AT10 MOV / 4500 BFX	450
AT10 MOV / 4750 BFX	475
AT10 MOV / 5000 BFX	500
AT10 MOV / 5300 BFX	530
AT10 MOV / 5600 BFX	560
AT10 MOV / 6000 BFX	600
AT10 MOV / 6300 BFX	630
AT10 MOV / 6700 BFX	670
AT10 MOV / 7100 BFX	710
AT10 MOV / 7500 BFX	750
AT10 MOV / 8000 BFX	800
AT10 MOV / 9000 BFX	900

AT10 Pitch Truly Endless "BFX"

AT10move Belt "BFX" Specifications

Construction	Tension member	Parameter	Belt Width (mm) 25	32	50	75	100
Truly Endless "BFX"	AT10move Steel	Allowable Force F_{zul}[N]	6,750	8,625	13,470	20,200	26,940
		Belt Mass [kg/m]	0.173	0.222	0.347	0.520	0.693

AT10move "BFX" Specific Tooth Shear Strength

RPM n [min]	FORCE F_{SPEC} [N/cm]	TORQUE M_{SPEC} [Ncm/cm]	POWER P_{SPEC} [W/cm]	RPM n [min]	FORCE F_{SPEC} [N/cm]	TORQUE M_{SPEC} [Ncm/cm]	POWER 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	108.6	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				

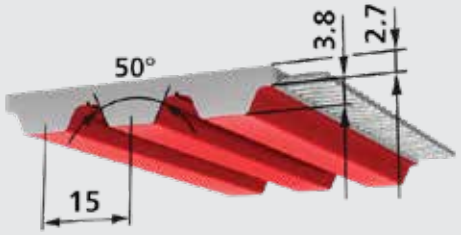
Ordering Example: move-series® Timing Belt

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

50 AT10 MOV / 3750 BFX

AT15 Pitch Open-Ended “M”

Open-Ended ”M”



Specifications

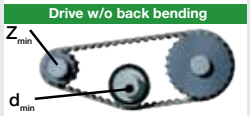
Widths (mm)	25	32	50	75	100	150
Lengths	Any lengths available - Stock Rolls 50 Meters					
Standard Material	TPUST1					
move Tension Member	High-carbon zinc-plated steel					
Belt Color	White / Red					

AT15move Belt “M” Specifications

Construction	Tension member	Parameter	Belt Width (mm) 50	75	100	150
Open-Ended “M”	AT15move Steel	Allowable Force F_{zul} [N]	18,200	27,300	36,400	54,600
		Spec. Stiffness C_{spec} [N]	4.55 E6	6.82 E6	9.10 E6	13.65 E6
		Belt Mass [kg/m]	0.100 kg per meter of belt length per cm of belt width			

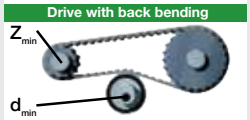
move-series® Flexibility
(minimum tooth count/minimum diameter)

Drive w/o back bending

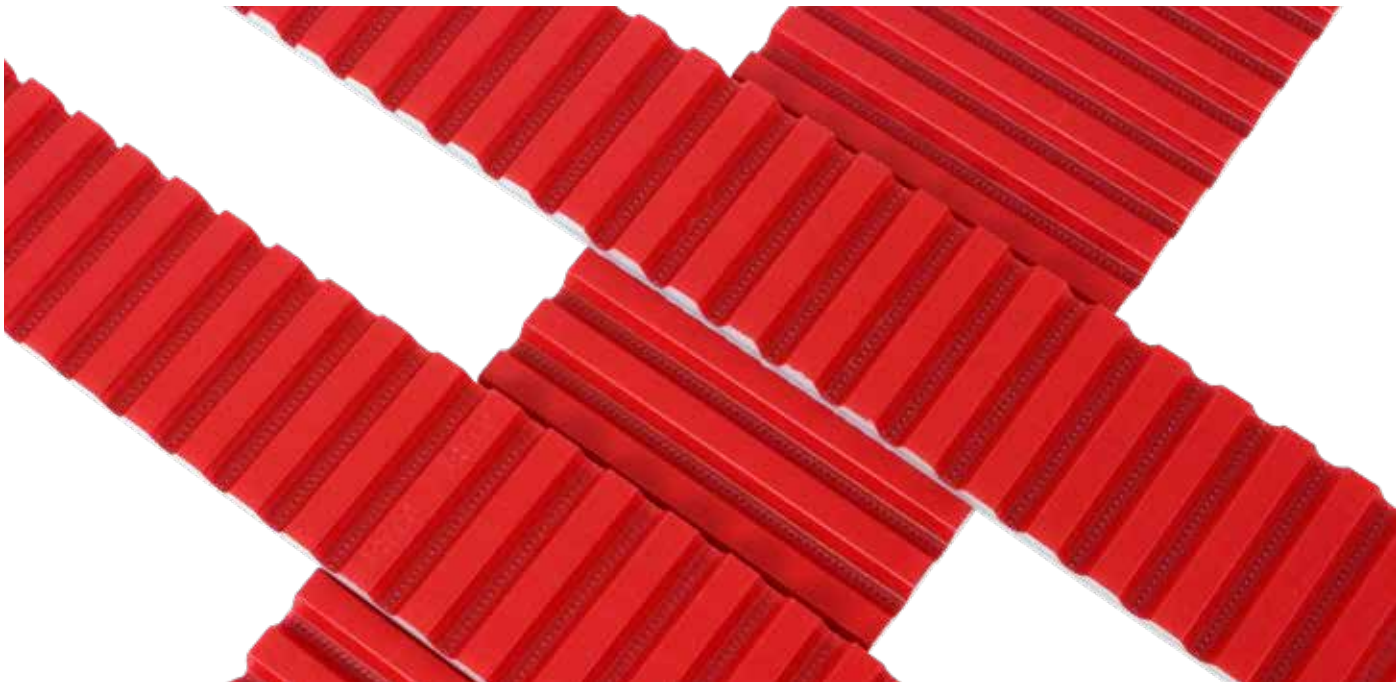


Tension Member Construction	AT15move Tension Member M
Zmin (# of teeth)	20
dmin (mm) (ø)	100

Drive with back bending

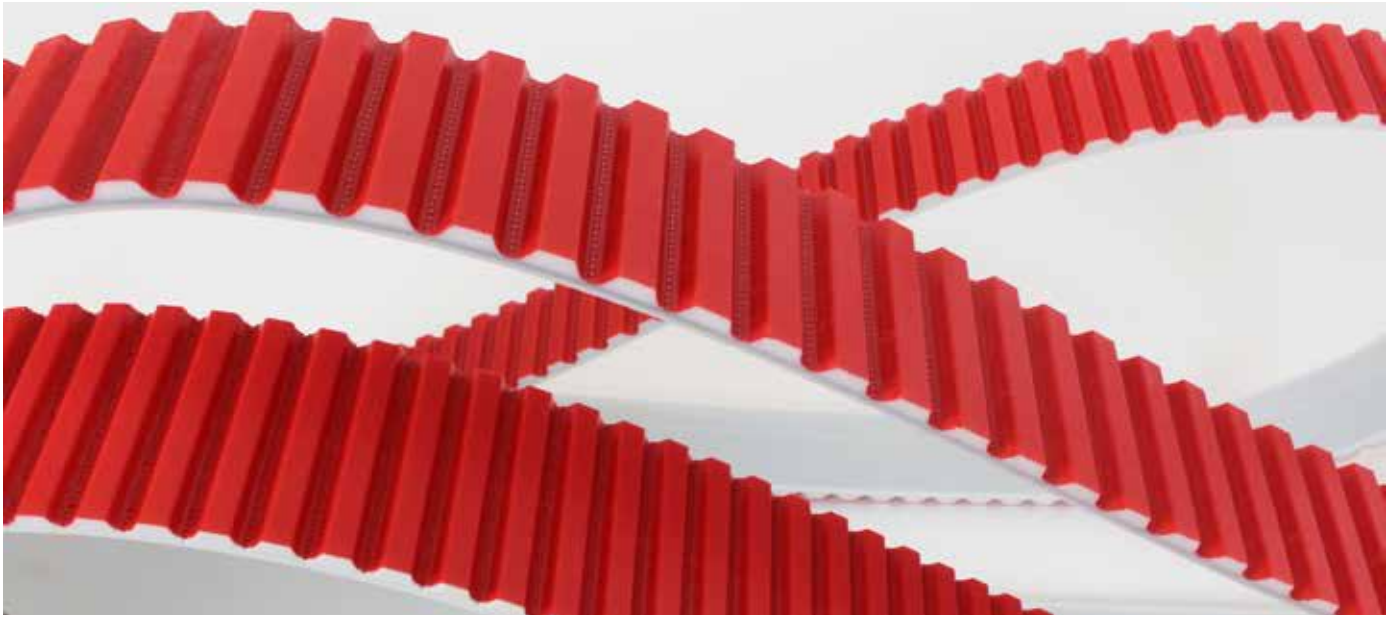


Tension Member Construction	AT15move Tension Member M
Zmin (# of teeth)	25
dmin (mm) (ø)	120



AT15 Pitch Open-Ended "M"

AT15move - M Specific Tooth Shear Strength							
RPM n [min]	FORCE F_{SPEC} [N/cm]	RPM n [min]	FORCE F_{SPEC} [N/cm]	RPM n [min]	FORCE F_{SPEC} [N/cm]	RPM n [min]	FORCE F_{SPEC} [N/cm]
0	168.0	800	114.6	2000	85.3	5000	52.5
20	165.2	900	111.1	2200	82.0	5500	49.0
40	162.7	1000	107.9	2400	79.0	6000	45.8
60	160.3	1100	105.0	2600	76.2	6500	42.8
80	157.9	1200	102.2	2800	73.6		
100	155.8	1300	99.7	3000	71.1		
200	146.5	1400	97.3	3200	68.8		
300	139.0	1500	95.0	3400	66.6		
400	132.8	1600	92.9	3600	64.6		
500	127.4	1700	90.8	3800	62.6		
600	122.6	1800	88.9	4000	60.7		
700	118.4	1900	87.1	4500	56.4		



Ordering Example: move-series® Timing Belt

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

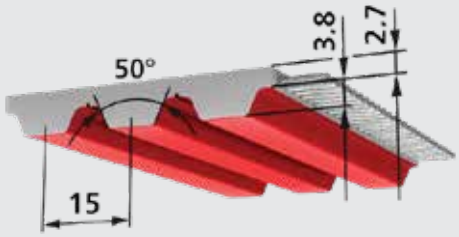
50 AT15 MOV / 3750 M

AT15 Pitch Truly Endless "BFX"

The AT15*move* is the strongest polyurethane timing belt you can buy. It is specifically designed for heavy-duty high-performance drives and traction drives with a particularly high stiffness requirement. It is also made for linear drive applications where short settling times and high positioning accuracy are a necessity.

The specially developed steel cord tension members increase belt stiffness and tear-resistance, making transmission of stronger forces possible. Therefore, you can select a narrower timing belt making a more compact drive design possible.

Truly Endless "BFX"



Specifications

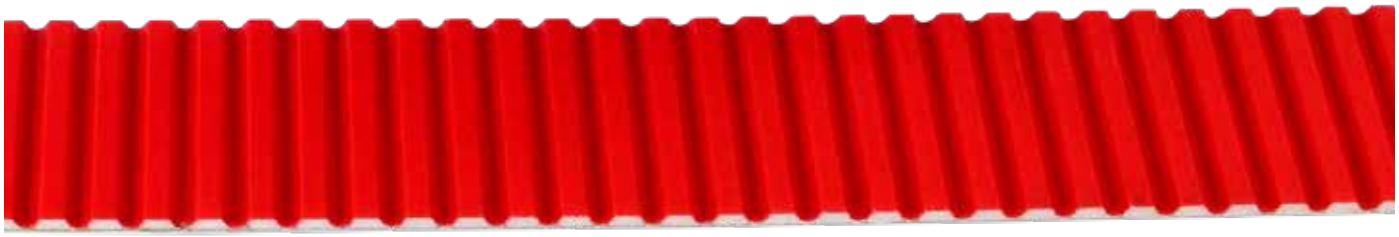
Widths (mm)	25	32	50	75	100
Lengths	Standard lengths listed below. Additional lengths available up to 30,495mm. In between lengths available starting at a minimum of 1,410mm.				
Standard Material	TPUST1				
move Tension Member	Steel				
Belt Color	White / Red				

Standard Lengths

AT15*move* Pitch/Length Version	Number of Teeth
AT15 MOV / 1500 BFX	100
AT15 MOV / 1590 BFX	106
AT15 MOV / 1710 BFX	114
AT15 MOV / 1800 BFX	120
AT15 MOV / 1905 BFX	127
AT15 MOV / 1995 BFX	133
AT15 MOV / 2250 BFX	150
AT15 MOV / 2505 BFX	167
AT15 MOV / 2790 BFX	186

AT15*move* Pitch/Length Version	Number of Teeth
AT15 MOV / 3000 BFX	200
AT15 MOV / 3285 BFX	219
AT15 MOV / 3495 BFX	233
AT15 MOV / 3750 BFX	250
AT15 MOV / 4005 BFX	267
AT15 MOV / 4245 BFX	283
AT15 MOV / 4500 BFX	300
AT15 MOV / 4740 BFX	316
AT15 MOV / 4995 BFX	333

AT15*move* Pitch/Length Version	Number of Teeth
AT15 MOV / 5295 BFX	353
AT15 MOV / 5595 BFX	373
AT15 MOV / 5760 BFX	384
AT15 MOV / 6000 BFX	400
AT15 MOV / 6300 BFX	420
AT15 MOV / 6705 BFX	447
AT15 MOV / 7095 BFX	473
AT15 MOV / 7500 BFX	500



AT15 Pitch Truly Endless "BFX"

AT15move - BFX Specific Tooth Shear Strength

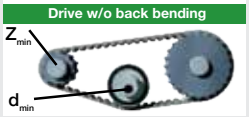
RPM n [min]	FORCE F_{SPEC} [N/cm]	TORQUE M_{SPEC} [Ncm/cm]	POWER P_{SPEC} [W/cm]	RPM n [min]	FORCE F_{SPEC} [N/cm]	TORQUE M_{SPEC} [Ncm/cm]	POWER P_{SPEC} [W/cm]
0	168.0	40.1	0.000	2000	85.3	20.3	42.709
20	165.2	39.4	0.827	2200	82.0	19.6	45.171
40	162.6	38.8	1.627	2400	79.0	18.8	47.458
60	160.2	38.2	2.405	2600	76.2	18.2	49.584
80	157.9	37.7	3.161	2800	73.6	17.5	51.561
100	155.8	37.2	3.898	3000	71.1	16.9	53.399
200	146.5	35.0	7.332	3200	68.8	16.4	55.109
300	139.0	33.2	10.437	3400	66.6	15.9	56.697
400	132.8	31.7	13.288	3600	64.6	15.4	58.171
500	127.4	30.4	15.935	3800	62.6	14.9	59.538
600	122.6	29.3	18.411	4000	60.7	14.5	60.802
700	118.4	28.2	20.739	4500	56.4	13.4	63.547
800	114.6	27.3	22.939	5000	52.5	12.5	65.751
900	111.1	26.5	25.024	5500	49.0	11.7	67.468
1000	107.9	25.7	27.007	6000	45.8	10.9	68.743
1100	105.0	25.0	28.897	6500	42.8	10.2	69.611
1200	102.2	24.4	30.701				
1300	99.7	23.8	32.427				
1400	97.3	23.2	34.080				
1500	95.0	22.7	35.665				
1600	92.9	22.1	37.187				
1700	90.8	21.7	38.649				
1800	88.9	21.2	40.055				
1900	87.1	20.8	41.407				

AT15move Belt "BFX" Specifications

Construction	Tension member	Parameter	Belt Width (mm) 25	32	50	75	100
Truly Endless "BFX"	AT15move Steel	Allowable Force F_{zul}[N]	8,450	11,050	17,550	26,000	35,100
		Belt Mass [kg/m]	0.237	0.303	0.473	0.710	0.946

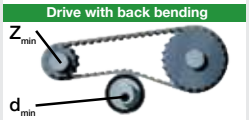
move-series® Flexibility
(minimum tooth count/minimum diameter)

Drive w/o back bending



Tension Member Construction	AT15move Tension Member BFX
Zmin (# of teeth)	20
dmin (mm) (Ø)	100

Drive with back bending



Tension Member Construction	AT15move Tension Member BFX
Zmin (# of teeth)	25
dmin (mm) (Ø)	120

Ordering Example: move-series® Timing Belt

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

50 AT10 MOV / 3750 BFX

ISO 9001 CERTIFIED COMPANY

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High Precision Drive Components

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