# BREBUflex CO., L.L.C. <br> Hinh Preaisinn Drivefomnnnents 

## AT3 Pitch Timing Belt

High power, high speed capabilities for sma ll-sc ale systems


BREC Oflex CO. LL.C. introduces a complete product offering for high power, high speed, and small scale lineardrives and power transmission applications.

Advantages include:

- Higher tensile and tooth shear strength than the MXL and T2.5 pitches.
- Smoother engagement and less polygonal effect than the $T 5$ and AT5 pitches due to higher flexibility and an increased number of teeth in mesh.
- Less standard backlash than a ny other pitch.
- High belt stiffness and optional zero backlash pulleys allow for high precision and positioning accuracy.
- Bifilarcord arrangement for optimum tracking and unsurpassed belt life outperforms competitor's spiral-slit linear drive belts.

Tooth Shear Strength
Peripheral Force [N] @ 500 RPM vs. Drive Pulley Dia meter [mm]


Conclusions(graph):

- AT3 tooth shear strength is higher compared to AT5 when utilizing pulleys smaller than 35 mm . (inc reased number of teeth in mesh)
- AT3 tooth shear strength is more than four times higher than MXL and T2.5.

Belts are a vaila ble in:
Open Ended - M:

- Open ended is offered in standard widths of $6,8,10,12,16,20$ and 25 mm wide.
- Ideal for small scale and/or high speed lineardrive applications

Welded - V:

- Cost effec tive solution ideal for small scale conveying.
(continued on the next page)


## AT3 Pitch Timing Belt

Truly End less - BFX:

- AT3 is a vailable in truly endless lengths from 150 mm to 1710 mm , with in-between lengths a vailable from 720 mm to 1710 mm .
- BFX is offered in sta nda rd widths of $6,8,10,12,16,20,25,32,50,75$ a nd 100 mm .
- Ideal for small scale high speed power transmission a pplications.

| Standard Truly End less Lengths - BFX |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pitch/Length <br> Version | Number of <br> Teeth | Pitch/Length <br> Version | Number of <br> Teeth | Pitch/Length <br> Version | Number of <br> Teeth |  |
| AT3/150 SFX | 50 | AT3/501 SFX | 167 | AT3/1017 BFX | 339 |  |
| AT3/201 SFX | 67 | AT3/549 SFX | 183 | AT3/1116 BFX | 372 |  |
| AT3/252 SFX | 84 | AT3/600 SFX | 200 | AT3/1215 BFX | 405 |  |
| AT3/267 SFX | 89 | AT3/639 SFX | 213 | AT3/1314 BFX | 438 |  |
| AT3/270 SFX | 90 | AT3/720 BFX | 240 | AT3/1413 BFX | 471 |  |
| AT3/300 SFX | 100 | AT3/816 SFX | 272 | AT3/1512 BFX | 504 |  |
| AT3/351 SFX | 117 | AT3/819 BFX | 273 | AT3/1611 BFX | 537 |  |
| AT3/399 SFX | 133 | AT3/900 SFX | 300 | AT3/1710 BFX | 570 |  |
| AT3/417 SFX | 139 | AT3/918 BFX | 306 |  |  |  |
| AT3/450 SFX | 150 | AT3/1011 SFX | 337 |  |  |  |

Available Options

- Nylon tooth facing (PAZ) is a vailable in M, V a nd BFX (BFX belts $>720 \mathrm{~mm}$ long).
- Sta inless steel tension cords a re a va ila ble.

Pulleys and Clamps:

- Reduced a nd zero backlash pulleys are available for bidirectional a pplications.
- Stock pulleys are a vailable for $6,10,16 \mathrm{~mm}$ belt widths a nd clamp plates for 10,20 , a nd 25 mm .
- Custom pulleys and clampsare offered as per customer specific ations.

See our online calculation program for belt la yout a nd power transmission or linear drive sizing at www.brec oflex.com.

Maximum Allowable Tensile Strength

| Belt Width | mm | 6 | 10 | 16 | 25 | 50 | 100 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Truly Endless - BFX <br> (Steel cord) | N | 190 | 440 | 645 | 1100 | 2200 | 4400 |
| Truly Endless-BFX <br> (Sta inless Cord) | N | 152 | 352 | 516 | 880 | 1760 | 3520 |
| Open Ended - M <br> (Steel cord) | N | 240 | 400 | 640 | 1000 | - | - |
| Open Ended - M <br> (Stainlesscord) | N | 192 | 320 | 512 | 800 | - | - |

Flexibility, minimum number of pulley teeth, minimum id ler dia meter

|  |  | Steel Cord | Stainless Cord |
| :---: | :---: | :---: | :---: |
| No back bending | minimum number of teeth | 15 | 20 |
|  | minimum diameter $[\mathrm{mm}]$ | 20 | 30 |
| Back bending | minimum number of teeth | 20 | 30 |
|  | minimum diameter $[\mathrm{mm}]$ | 20 | 40 |

