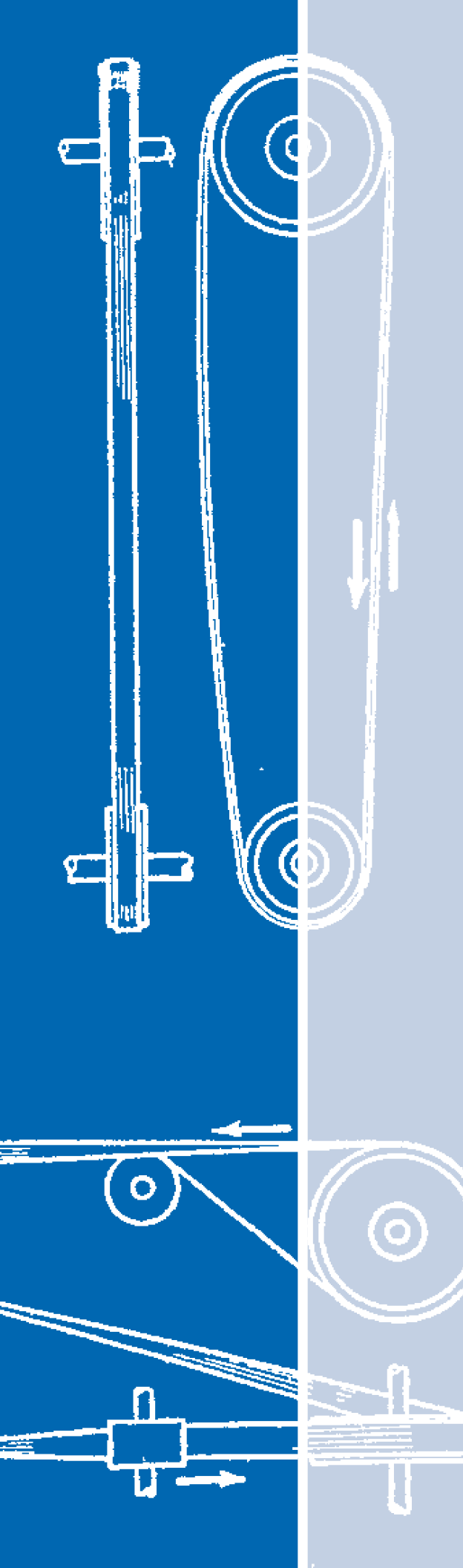


BESTORQ[®]
POWER TRANSMISSION PRODUCTS

Product Information

November 2011



only the best quality

Our main business is manufacturing V-Belts and Timing Belts. Our factory processes use the latest in global belt manufacturing technology and generate an output of over 800,000 belts per day, making us one of the largest manufacturers of Power Transmission Belts in the world. We are ISO9001 certified and all factory production takes place in a clean atmosphere with extremely high quality and delivery standards. We are selective about our machinery and technology to continually provide you with the best belt quality and durability possible.

Following great success in Asia, Europe, Africa, Australia and South America, our USA operations now offer the complete line of Bestorq belts. In order to meet your requirements as quickly as possible, we maintain a large domestic inventory of stock belts that are ready to ship. At Bestorq, we constantly conduct dynamic testing in our factory labs as well as in our USA labs to make sure we attain the highest levels of performance. We meet and exceed all RMA standards and surpass the belt quality and durability of the best USA manufacturers.

Our USA operations have a basis of over 50 years of belt manufacturing and development experience. We have the technical and operational knowledge to provide you with the products you need for the best possible power transmission performance. We have extensive stock belts and can also custom design solutions to meet your needs. Our knowledge paired with premium materials and world-class manufacturing processes creates a winning combination to help you succeed.

	Smallest Pulley Diameter Range	RPM Range	Belt Deflection Setting				
			uncogged belts		cogged belts		
			used belt	new belt	used belt	new belt	
4L, A, AX	2.0 - 2.9	1000 - 2500	1.8	2.6	2.0	3.0	
		2501 - 4000	1.4	2.0	1.6	2.4	
	3.0 - 3.6	1000 - 2500	3.6	5.4	4.0	6.0	
		2501 - 4000	2.8	4.1	3.3	4.9	
	3.8 - 4.8	1000 - 2500	4.4	6.6	4.9	7.3	
		2501 - 4000	3.7	5.7	4.3	6.4	
	5.0 - 7.0	1000 - 2500	5.3	7.8	5.7	9.2	
		2501 - 4000	4.6	6.8	5.1	7.6	
5L, B, BX	3.4 - 4.2	860 - 2500			4.8	7.2	
		2501 - 4000			4.1	6.2	
	4.4 - 5.6	860 - 2500	5.2	7.9	7.1	10.5	
		2501 - 4000	4.5	6.6	7.1	9.1	
	5.8 - 8.6	860 - 2500	6.2	9.4	8.4	12.4	
		2501 - 4000	6.0	6.8	7.3	10.7	
C, CX	7.0 - 9.0	500 - 1740	11.3	17.0	14.7	21.9	
		1741 - 3000	9.4	13.6	11.9	17.5	
	9.5 - 16.0	500 - 1740	14.0	20.8	15.8	23.5	
		1741 - 3000	12.5	18.3	14.5	21.6	
D	12.0 - 16.0	200 - 850	24.7	37.1			
		851 - 1500	21.1	31.4			
	18.0 - 20.0	200 - 850	30.4	45.2			
		851 - 1500	25.6	38.0			
3V, 3VX	2.2 - 2.4	1000 - 2500			3.3	4.9	
		2501 - 4000			2.9	4.3	
	2.65 - 3.65	1000 - 2500	3.7	5.1	4.2	6.2	
		2501 - 4000	3.0	4.5	3.8	5.6	
	4.12 - 6.90	1000 - 2500	4.9	7.3	5.3	7.8	
		2501 - 4000	4.3	6.6	4.8	7.3	
	5V, 5VX	4.4 - 6.7	500 - 1749			10	15.2
			1750 - 3000			8.9	13.2
3001 - 4000					5.6	8.5	
7.1 - 10.9		500 - 1740	12.6	18.9	14.8	22.1	
		1741 - 3000	11.2	16.5	13.7	20.1	
11.8 - 16.0		500 - 1740	15.5	23.4	17.1	25.5	
	1741 - 3000	14.5	21.8	16.8	25		
8V	12.5 - 17.0	200 - 850	33	49.5			
		851 - 2100	27	39.9			
	18.0 - 22.4	200 - 850	39.5	59			
		851 - 2100	35.1	52.8			
3VK	2.65 - 3.65	750 - 2500	5.6	8.3			
		2501 - 4000	4.5	6.8			
	4.12 - 6.90	1000 - 2500	7.4	11.0			
		2501 - 4000	6.5	9.7			
5VK	7.1 - 10.9	200 - 500	21.0	31.5			
		500 - 1250	18.0	27.0			
		1251 - 1900	16.8	25.2			
		1901 - 3000	16.0	24.0			
	11.8 - 16.0	200 - 740	26.6	39.9			
		741 - 1250	23.3	34.9			
8VK	12.5 - 20.0	1251 - 2250	21.8	32.6			
		200 - 550	44.8	67.2			
		551 - 800	39.0	58.5			
		851 - 1150	35.6	53.4			
	21.2 - 22.4	1151 - 2100	33.6	50.4			
		200-550	66.0	99.0			
		551-850	62.0	93.0			
		851 - 2100	57.5	86.3			

optimize your belt drive efficiency

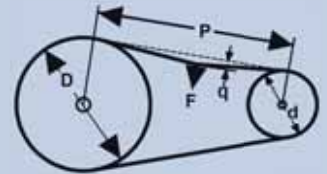
To get the most from your belt drive, it is important that you pay proper attention to your V-Belt tensioning and pulley size.

Proper V-Belt Tensioning

All belts do not feel the same when properly tensioned. There are two main groups of belts that feel quite different based on the materials and tension cables used in their manufacturing processes. The first group of belts feel spongy or springy when properly tensioned, while the second group of belts feel very rigid and stiff but still aren't properly tensioned. Bestorq and other major high quality manufacturers are in this second group of belts. Rigid belts stretch very little over their life and need to "feel" tighter than spongy belts which will actually stretch far more during their life. When properly tensioned, rigid belts will feel 1.5 to 1.8 times tighter than spongy belts. Although they feel tighter, rigid belts will not place any more load on bearings than spongy belts. The objective is to have the lowest tension to carry the load and yet high enough tension so there is never belt slip. Due to these different belt groups, one should not use "feel" to judge the correct tension of a belt. To more accurately tension V-Belt drives use the Force-Deflection Method shown below.

Force-Deflection Method

1. Measure the span length P.
2. At center of the span length apply a force F (using a belt tension gauge) perpendicular to the belt span, large enough to deflect the belt 1/64" for each 1" of belt span, q. So, for a 32" span, the deflection amount would be 32/64" or 1/2".
3. The force F to apply is shown, per belt, in the table to the left. NOTE: The force shown in the table is per rib. So, for a 5-rib belt, you will need to multiply the force shown in the table by five to apply to all five ribs at once.



Minimum Pulley Diameters

The successful operation of a belt drive is highly dependent on the diameter of the pulleys involved. The Rubber Manufacturers Association (RMA) has published minimum recommended pulley diameters for each belt profile. Using pulleys smaller than these recommended diameters will result in a dramatic increase in belt tension and will substantially decrease the overall belt life.

Minimum Recommended Pulley Diameters

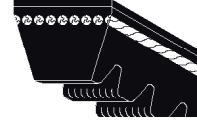
Belt Type	Pitch Diameter	Outside Diameter
4L*	2.30	2.50
A	3.00	3.25
AX	2.20	2.45
B	5.40	5.75
BX	4.00	4.35
3V	2.65	2.65
3VX	2.20	2.20
5V	7.10	7.10
5VX	4.40	4.40

*4L at this diameter has HP rating below 1/2 HP

Single V-Belts

Classical

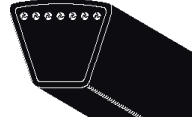
Cross Section	In Stock Lengths	Special Order
A, B, C, D	14" to 540"	14" to 600"
AX, BX, CX	15" to 195"	15" to 195"
AK, BK, CK	---	14" to 600"
AL, BL	---	15" to 195"



Classical belts constructed from pre-stretched polyester cord. "X" designates molded cogged construction (AX, BX, CX). "K" designates Thunder Classical V-Belts, heavy-duty belts constructed from aramid tensile cord (AK, BK, CK). "L" designates Breeze Classical V-Belts, belts designed for quiet running (AL, BL). For belt part number, use Inside Circumference (IC). To calculate IC, measure Outside Circumference (OC) and subtract the following: A- subtract 2"; B- subtract 3"; C- subtract 4"; D- subtract 5". For part number on belt over 210" measure OC and subtract the following: B- subtract 1.5", C- subtract 2", D- subtract 2.5". Example: A30= 1/2" wide; 30" IC (32" OC)

Wedge

Cross Section	In Stock Lengths	Special Order
3V, 5V, 8V	25" to 560"	16" to 600"
3VX, 5VX	21" to 200"	16" to 200"
3VK, 5VK, 8VK	---	20" to 600"



Wedge belts constructed from pre-stretched polyester cord (3V, 5V, 8V). "X" designates molded cogged construction (3VX, 5VX). "K" designates Thunder Wedge V-Belts, heavy-duty belts constructed from aramid tensile cord (3VK, 5VK, 8VK). For part number, use OC measurement to the tenth of an inch. Example: 3V425= 3/8" wide; 42.5" OC

Metric

Cross Section	In Stock Lengths	Special Order
SPZ, SPA, SPB, SPC	14" to 540"	14" to 600"
SPZX, SPAX, SPBX, SPCX	20" to 195"	17" to 195"



Metric belts constructed from pre-stretched polyester cord (SPZ, SPA, SPB, SPC). "X" designates molded cogged construction (SPZX, SPAX, SPBX, SPCX). For belt part number, use OC and subtract the following values: SPZ- subtract 13mm, SPA- subtract 18mm, SPB- subtract 22mm, SPC- subtract 30mm. Example: SPA1600= 13mm wide; 1618mm OC

FHP

Cross Section	In Stock Lengths	Special Order
3L, 4L, 5L	14" to 100"	14" to 100"



Fractional Horsepower (FHP) belts constructed from pre-stretched polyester cord (3L, 4L, 5L). For belt part number, use OC measurement to the tenth of an inch. Example: 4L400= 1/2" wide; 40.0" OC

Special

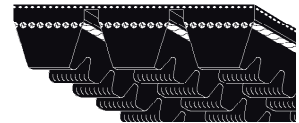
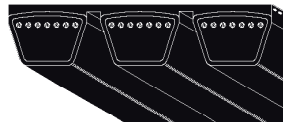
Special Design Cut Edge Constructions: Used for Ag, Lawn & Garden, Appliance and other tough applications. Available in virtually any cross section such as 3L, 4L, 5L, A, HA, SPA, B, HB, SPB, C, HC, SPC, 3V, 5V, 3LX, 4LX, 5LX, AX, HAX, SPAX, BX, HBX, SPBX, CX, HCX, SPCX, 3VX, 5VX or special dimensions. In lengths 20" to 200".

Special Design Wrapped Constructions: Available in A, B, C, 3V, 5V, 3L, 4L, 5L cross sections, in lengths 15" to 580". Aramid Cord, Glass Cord, Polyester Cord; outer wrap fabric in normal and low coefficient of friction; special wraps in Blue, White or Black colors.

Banded V-Belts

Classical

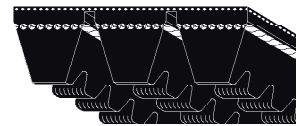
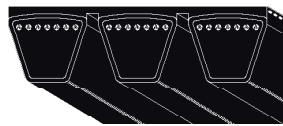
Cross Section	In Stock Lengths	Special Order
B, C, D	47" to 540"	47" to 600"
A, AX, BX, CX	---	30" to 195"
AK, BK, CK	---	47" to 600"



Classical V-Belts bound together with a fabric tie band. For belt part number, indicate the number of ribs and Classical V-Belt part number. Example: 4/C225= 4 rib C225

Wedge

Cross Section	In Stock Lengths	Special Order
3V, 5V, 8V	53" to 500"	47" to 600"
3VX, 5VX	30" to 200"	25" to 200"
3VK, 5VK, 8VK	53" to 500"	50" to 600"



Wedge V-Belts bound together with a fabric tie band. 3VK available up to 24 ribs wide, 5VK available up to 29 ribs wide, 8VK available up to 12 ribs wide. For belt part number, indicate number of ribs and Wedge V-Belt part number. Example: 4/8V3150= 4 rib 8V3150

Metric

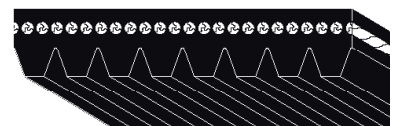
Cross Section	In Stock Lengths	Special Order
SPA, SPB, SPC	---	50" to 393"



Metric V-Belts bound together with a fabric tie band. For belt part number, indicate the number of ribs and Metric V-Belt part number. Example: 4/SPB2500= 4 rib SPB2500

V-Ribbed

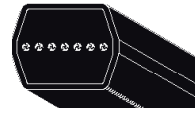
Cross Section	In Stock Lengths	Special Order
EJ	---	13" to 98"
J	13" to 95"	11" to 98"
L, M	---	30" to 236"



EJ belts are constructed from an elastic tensile cord while J, L and M belts are constructed from pre-stretched polyester cord. Three parts make up a V-Ribbed Belt part number: OC measurement to the tenth of an inch, belt cross section letter, and number of ribs. Example: 360J6= 36.0" OC; J-section; 6 ribs wide

Double Sided V-Belts

Cross Section	In Stock Lengths	Special Order
AA, BB, CC	51" to 300"	51" to 300"
AAK, BBK, CCK	---	51" to 300"



Double Sided V-Belts, known as hexagonal belts, are constructed from pre-stretched polyester cord (AA, BB, CC). For belt part number, use OC and subtract the following: AA- subtract 3.3"; BB- subtract 4.7"; CC- subtract 6.2". Example: AA55= 1/2" wide; 58.3" OC

Timing Belts & Special Order Only

HTD-Type

Cross Section	In Stock Lengths	Special Order
2M	---	76mm to 750mm
3M	60mm to 1950mm	60mm to 3390mm
5M	180mm to 3430mm	180mm to 7000mm
8M	400mm to 3600mm	184mm to 6880mm
14M	966mm to 6860mm	938mm to 6860mm
20M	---	2000mm to 6560mm



Bestorq timing belts are a good fit in all three major metric round tooth pulley profiles found in North America; RPP, HTD, and PGGT2. Our belts are created to fit in any of the three pulley profiles with clearance to enter and exit the different pulley profile shapes.

Note: Bestorq will not fit or run in Poly Chain® GT® Pulleys.

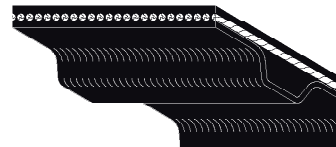
Timing belts are stocked in sleeves and cut to width per order. For belt part number, use OC measurement, pitch and width (mm).

Example: 2000-8M-50= 2000mm long; 8mm pitch; 50mm wide

Poly Chain® GT® are registered trademarks of Gates Corporation

Trapezoidal

Cross Section	In Stock Lengths	Special Order
MXL	3.2" to 60.0"	2.1" to 163.5"
XL	4.4" to 86.0"	4.4" to 212.8"
L	10.9" to 72.0"	6.7" to 199.8"
H	20.0" to 170.0"	14.5" to 272.0"
XH	---	46.3" to 227.5"
XXH	---	62.5" to 200.0"



Timing belts are stocked in sleeves and cut to width per order. For belt part number, use OC measurement to the tenth of an inch, pitch and width.

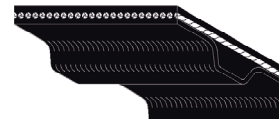
Example: 400-H-100= 40.0" long; H pitch; 1.00" wide

T-Series & AT-Series

All T-Series and AT-Series belts are available by Special Order only. Order T2.5, T5, T10, T20, AT10, AT20 tooth profiles. T-Series available to order in most lengths and widths from 102.5mm long pitch length to 7050mm long pitch length. AT-Series available to order in most lengths from 220mm long pitch length to 4030mm long pitch length. For belt part number, measure width, pitch and length (mm).

T-Series Example: 50-T10-1000= 50mm wide; 10mm pitch; 1000mm long

AT-Series Example: 50-AT10-1000= 50mm wide; 10mm pitch; 1000mm long



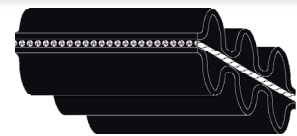
Dual Sided

All Dual Sided timing belts are available by Special Order only. Order MXL, XL, XXL, L, H, XH, XXH, T2.5, T5, T10, T20, AT10, 3M, 5M, 14M, HTD, S8M tooth profiles. Available to order in most lengths and widths from 500mm long pitch length on the small tooth profiles to 6900mm long pitch length on the large tooth profiles. For Dual Sided Timing Belt part number, indicate the timing belt and note a "D" at the beginning of the part number as shown below.

HTD: D2000-8M-50= Dual Sided 2000-8M-50

Trapezoidal: D400-H-100= Dual Sided 400-H-100

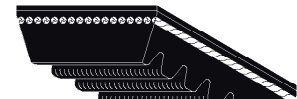
T-Series: D50-T10-1000= Dual Sided 50-T10-1000



Variable Speed

All Variable Speed belts are available by Special Order only. Order in widths up to 4.0" top width; in cut edge lengths from 22" to 118"; in thickness up to 1.0". Four parts make up a Variable Speed part number: top width in sixteenth of an inch, angle of sheave groove, "V" for variable speed, and pitch length to the tenth of an inch.

Example: 1930V400= 19/16" top width; 30 angle of sheave groove; 40.0 pitch length



Auto-motive

All Automotive V-Belts are available by Special Order only. Order cut-edge molded cogged or laminated construction. Available in top widths of .380", .440", or .500" and metric cross sections of AVX10 or AVX13. Order lengths from 20" to 132". For belt part number, use width in 32s of an inch followed by OC measurement to the tenth of an inch.

Example: 15440= 15/32" top width; 44.0" OC



Bestlink

Use Bestlink belts as a temporary replacement or permanent substitute for conventional rubber v-belts. Simply "Twist and Lock" belt tabs into place, no need for special tools. Great alternative for use on machinery that ordinarily would need to be disassembled for a simple v-belt installation; take apart the belt, not the machine. Keep machines up and running at the same horsepower ratings as conventional rubber v-belts. Ideal for emergency repairs and replacements; keep a few link belts on hand instead of a large inventory of multiple sized v-belts. Make any belt length you need, by hand, in seconds. Bestlink belts are manufactured in standard v-belt cross sections to run in industrial standard pulley grooves. Belts come in easy to use cartons in roll lengths of either 25ft or 100ft. Available sizes are: 3L (3/8" top width), A (1/2" top width), B (5/8" top width), C (7/8" top width)



Open End

Open End V-Belts are available in stock in B and C cross sections. Open End Timing Belts and A cross section Open End V-Belts are available by Special Order only. An Open End V-Belt part number consists of AVO, BVO or CVO and the roll length in feet. Open End V-Belt Example: BVO.164ft= B cross section; 164 feet long

Three parts make up an Open End Timing Belt order, "LL" (Long Length), belt part number (tooth profile and width) and roll length.

Open End Timing Belt Examples:

HTD: LL8M.20.100M= 8M; 20mm wide; 100 Meters long

T-Series: LLT10.20.50M= T10; 20mm wide; 50 Meters long

Trapezoidal: LLH.050.300ft= H; 0.50" wide; 300 Feet long

AT-Series: LLAT10.25.50M= AT10; 25mm wide; 50 Meters long

general technical information

Our Single V-Belts and Banded V-Belts are created to give premium belt performance. The belts are constructed of specially engineered, high performance components and are manufactured using the latest belt technology available worldwide. With the exception of our Thunder V-belts®, the helically wound tensile cords on our belts are created of a pre-stretched polyester material specially engineered, twisted, then set by both heat and chemical means. Testing has proven that the tensile decay properties of Bestorq cord are truly world class.

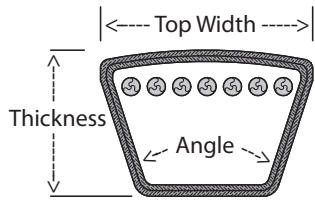
Wrapped Construction Single Belts have an outer fabric wrap treated with an engineered synthetic rubber compound that is extremely resistant to oil and heat; specifically designed for excellent wear resistance and proven through thousands of testing hours. The body rubber compound is a highly engineered synthetic rubber compound; created for cool running, flexibility, crack resistance, and excellent bonding to the outer fabric and tensile cords.

Molded Cogged Single Belts are noted by an "X" in the part number. These raw-edge notched belts allow for higher load ratings than standard wrapped belts. The lower (compression) section of the belt consists of an engineered synthetic fiber-reinforced rubber compound; made to be extremely heat and oil resistant and provide excellent wear resistance, cool running and flexibility. This, again, has been proven through thousands of testing hours. The upper rubber (directly surrounding the tensile member cords) is also fiber reinforced; created for great adhesion to the tensile member cords. The top fabric is a specially woven, synthetic-natural fiber blend. The cogs (notches) are engineered to give the belts superior flexibility on both smaller and larger diameter pulleys.

Thunder V-Belts are noted by a "K" in the part number. These extreme-duty belts exceed RMA standards and are designed for the most severe applications to provide extraordinary strength and horsepower capacity. Applications include heavy load situations such as mining, agriculture, wood processing, oil field equipment, heavy construction, sand/gravel operations and conditions with high pulsating loads. Thunder V-Belts have aramid tensile cords which combine extremely low stretch with exceptional strength and durability; the stretch is less than 1/3 of premium polyester standard cord belts. Thunder V-Belt are created with a premium cover to ensure these belts can operate under the severe conditions where aramid tensile cords are needed. Also, on Thunder banded belts, the specially designed fabric backing ties the belts together to create excellent lateral rigidity to a multi-belt unit.

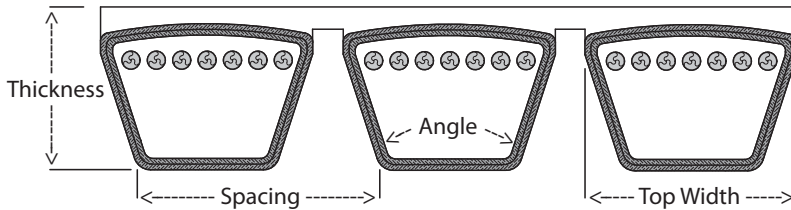
Banded V-Belts give premium belt performance just as their single belt counterparts. These joined or banded belts are recommended for high shock load and pulsating drives where extra stability is beneficial. The belts are bound together with a fabric tie band specifically created to have superb adhesion to each individual belt. The tie bands are made out of especially heavy-duty, directionally woven fabric and then encapsulated in tough rubber casing to give excellent flexibility around the pulleys. Also, the tie bands feature tensile cords running in the transverse direction across the top of the belts to give extreme strength to the finished banded belt.

All belts of a given size are manufactured to run interchangeably in a matched set (i.e. any Bestorq 8V2000 belt will run as a matched set with any other Bestorq 8V2000 belt). Our belts meet or exceed USA RMA published ratings levels and are designed to perform at the identical or higher level than all other major USA Manufacturer's belts of the same type. All 3L, AX, A or 4L, BX, B or 5L, CX, C, D, 3VX, 3V, 5VX, 5V and 8V belts are created to meet RMA standards for length and dimensions. (SPZ, SPZX, SPA, SPAX, SPB, SPBX, SPC, SPCX, 9J, 15J, and 25J belts and banded belts are manufactured to fit ISO standard dimension multi-groove pulleys.)



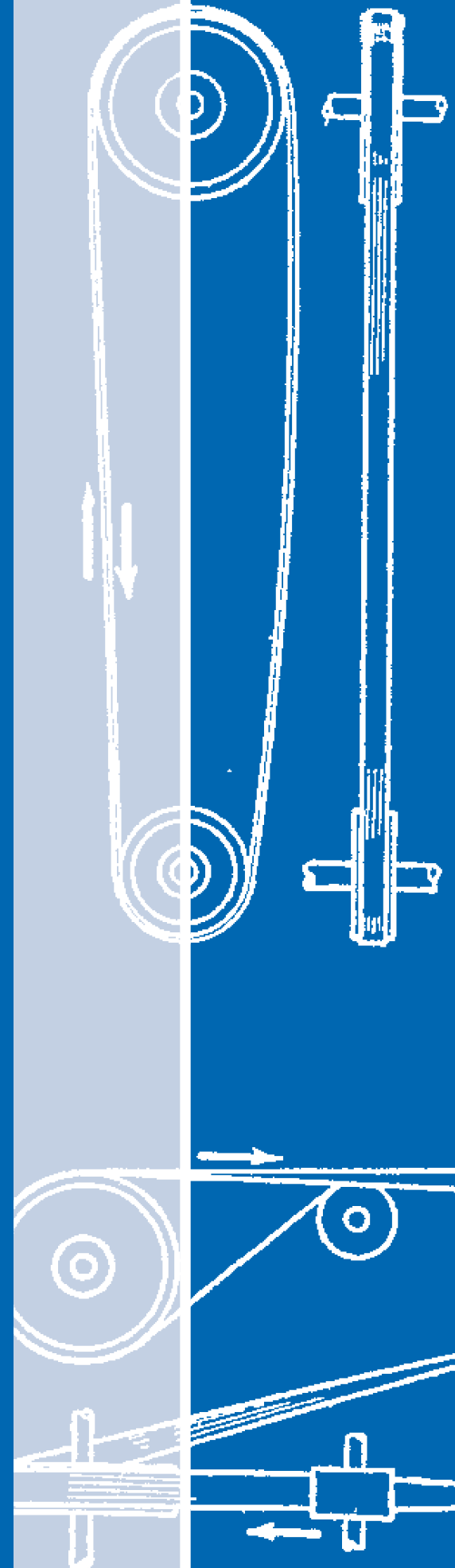
Single V-Belts

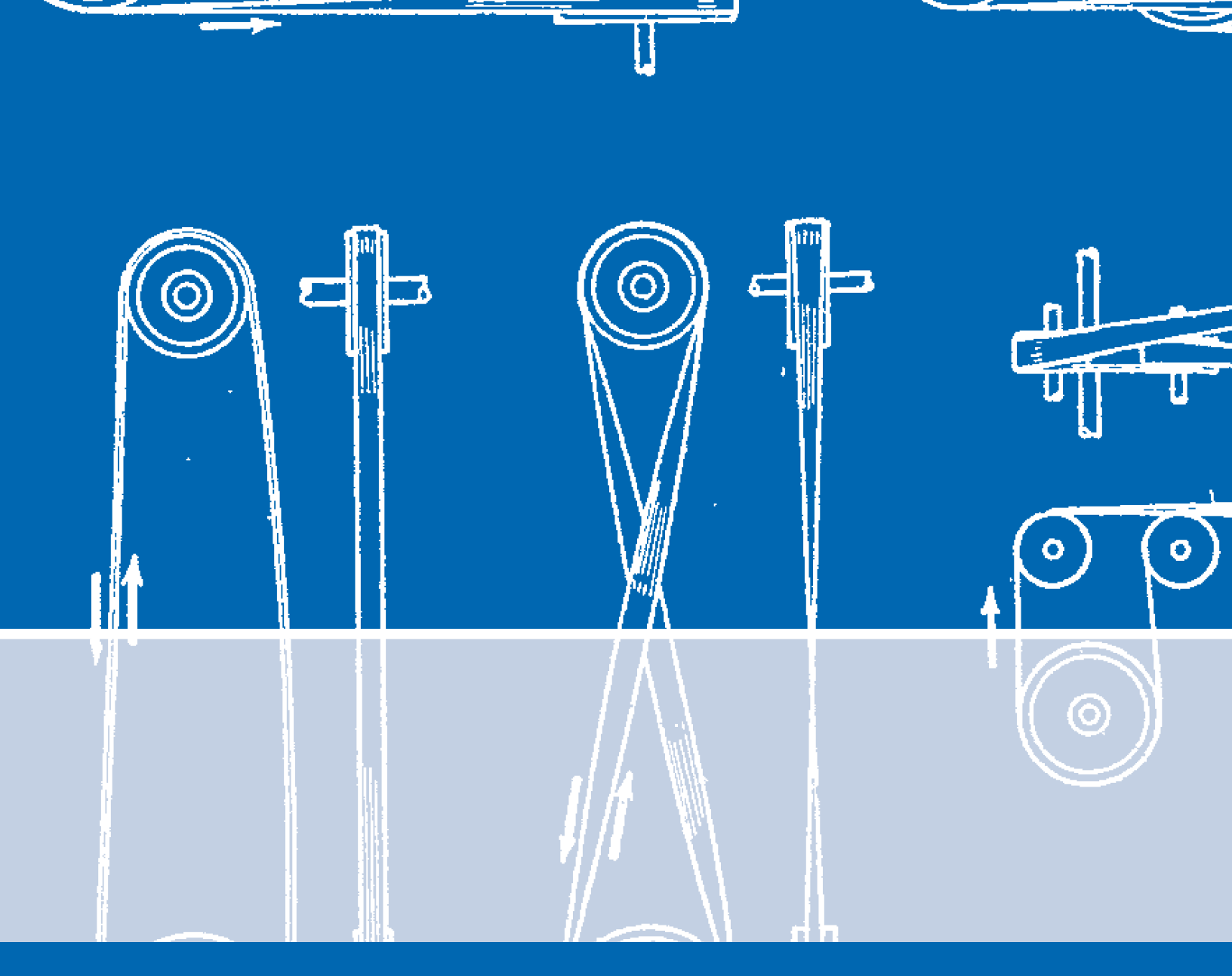
		Top Width	Thickness	Angle
Classical & FHP	3L	.38"	.24"	40
	A, AX, AK, AL, 4L	.51"	.34"	40
	B, BX, BK, BL, 5L	.66"	.43"	40
	C, CX, CK	.87"	.57"	40
	D	1.26"	.89"	40
Wedge	3V, 3VX, 3VK	.38"	.32"	40
	5V, 5VX, 5VK	.63"	.53"	40
	8V, 8VK	1.00"	.96"	40
Metric	SPZ, SPZX, XPZ	.38"	.32"	40
	SPA, SPAX, XPA	.51"	.42"	40
	SPB, SPBX, XPB	.66"	.52"	40
	SPC, SPCX, XPC	.87"	.65"	40



Banded V-Belts

		Top Width	Spacing	Thickness	Angle
Classical	A, AK	.50"	.63"	.45"	40
	B, BK	.66"	.75"	.55"	40
	BX	.66"	.75"	.63"	40
	C, CK, CX	.87"	1.00"	.74"	40
	D	1.26"	1.44"	.98"	40
Wedge	3V, 3VK	.38"	.41"	.40"	40
	3VX	.38"	.41"	.41"	40
	5V, 5VK	.62"	.69"	.59"	40
	5VX	.63"	.69"	.61"	40
	8V, 8VK	1.00"	1.13"	1.06"	40
Metric	SPA	.50"	.59"	.50"	40
	SPB	.66"	.75"	.59"	40
	SPC	.87"	1.00"	.78"	40





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