



BANDO

Power transmission belts selector

we transmit power across space

REVISED 9



Since Bando's inception in 1906, we have pursued aggressive development policies in the power transmission belts and systems fields. Our highly capable staff develops power transmission belts as well as power transmission systems to meet the unique requirements of various types of equipment and engines. Their work contributes greatly to the emerging miniaturization technology responsible for making machines precise, smaller, lighter and more efficient.

Global Network



In 1969, BANDO established overseas liaison offices in America and Europe. In the 1980's we began strengthening our globalization efforts in Asia. Now, in 21st century, we have grown into a company with more than 10 sales and/or manufacturing facilities around the world. The collaboration of these companies forms the foundation of our global network meeting the wider needs of automobile manufactures and office automation appliance manufactures in response to their overseas expansion.

More importantly appliance, we will not only focus its efforts on establishing overseas facilities, but also on training employees who can actively participate in these overseas activities, training local associates and contributing to communities abroad.

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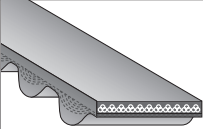
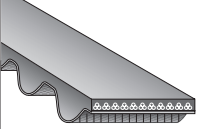
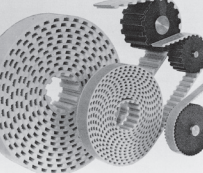
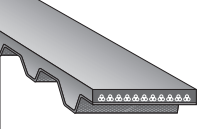
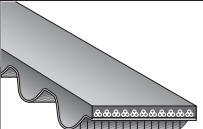
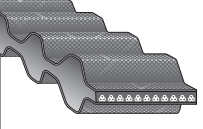
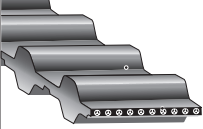
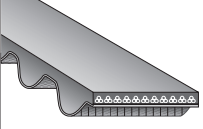
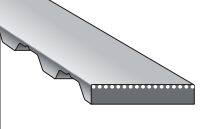
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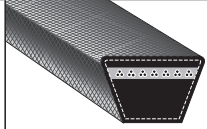
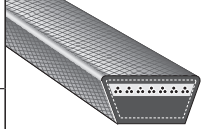
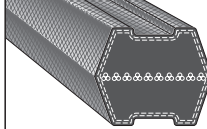
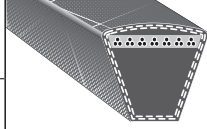
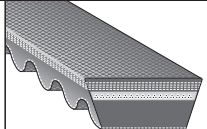
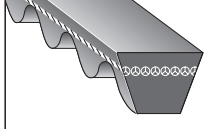
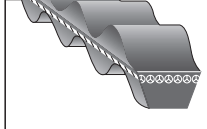
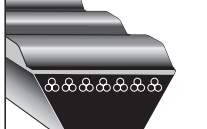
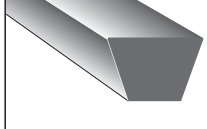
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BANDO Power Transmission Belts Table

《SYNCHRONOUS BELTS》

Description	Material	Belt Profile	Page
King Power Synchronous Belts (KPS II)	P		10
High Performance STS Belts (HP-STS)	R		11
Long Synchronous / STS Belts	R		12
Bancollan Long Synchronous / STS Belts	P		13
Synchronous Belts	R		14~15
Super Torque Synchronous Belts	R		16~17
Double Sided Synchronous / STS Belts	R		18
Bancollan Double Sided Synchronous / STS Belts	P		19
HTS Belts	R		20
Bancollan Synchronous / STS Belts	P		21~23

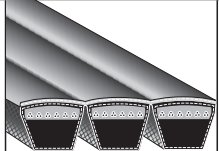
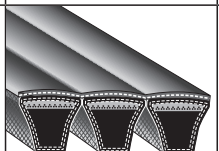
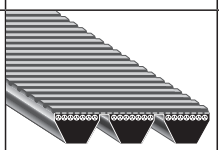
《V BELTS》

Description	Material	Belt Profile	Page
Fractional H.P. V Belts (FHP) AND MULTIPLE V BELTS	R		24~25
AGRICULTURAL V BELTS RED S II	R		26
AGRICULTURAL V BELTS W800	R		27
Double V Belts	R		28
Power Ace	R		29~30
Narrow V Belts SP-type	R		31
Variable Speed Belts	R		32
Bancollan V Belts (VC Type)	P		33
Bancollan V Belts (DC Type)	P		33
Banflex	P		34
Bancord V Belts	P		41

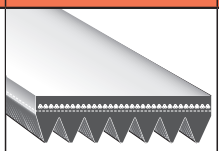
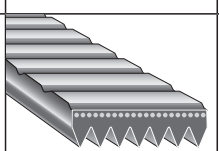
※Material: R=Rubber, P=Polyurethane

BANDO Power Transmission Belts Table


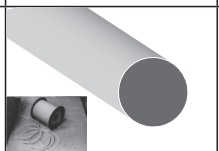
《BANDED BELTS》

Description	Material	Belt Profile	Page
Power Scrum (V Belt Type)	R		36-37
Power Scrum (Power Ace Type)	R		36-37
Banflex Scrum	P		35



《V RBBED BELTS》

Description	Material	Belt Profile	Page
Poly Banrope	R		38
Bancollan Poly Banrope	P		39


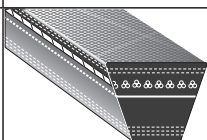
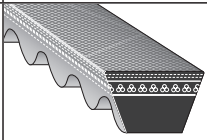
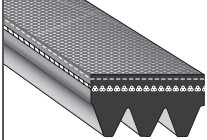
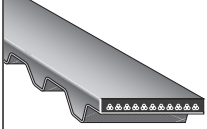
《ROUND BELTS》

Description	Material	Belt Profile	Page
Bancollan Round Belts (Seamless Type)	P		40
Bancord Round Belts (Openend Type)	P		41

《FALT BELTS》

Description	Material	Belt Profile	Page
Bancollan Cordless Flat Belts (Seamless type)	P		41
PS Belts	R / P		42-43

《ATUOMAOTIVE POWER TRANSMISSION BELTS》

Description	Material	Belt Profile	Page
(Wrapped Type)	R		44-45
RAF (Laminated Type)	R		44-45
RPF (Cogged Type)	R		44-45
Rib Ace	R		44-45
OHC Synchronous / STS Belts	R		44-45

Selection Table for Bando Power Transmission Belts

Find the Belt type you need in the first column. Then, reading across the page, find the belt that matches your Kilowatt, speed, elongation and/or center-to-center requirements.

TYPE OF BELT		Maximum Kilowatt (KW)				Maximum Speed (m/sec)			Maximum elongation ※1 (%)	Maximum Recommended center distance (mm)		
		UNDER 0.75	0.75~7.5	7.5~75	OVER 75	UNDER 20	20~30	OVER 30		UNDER 500	500~2000	OVER 2000
Rubber belts												
Fractional H.P.		[3L]	[4L]	[5L]		[3L] 15	[4L 5L] 30		1.5~2.0			
V Belts	Multiple		[A]	[B] [C]	[D] [E]		[A~E] 30		1.5~2.0			[A~E]
	Red-s II		[SA]	[SB] [SC]			30		1.5~2.0			
	Double-V		[AA]	[BB] [CC]			30		1.5~2.0		[AA]	[BB] [CC]
Narrow V Belts				[3V]	[5V] [8V]			40	Under 1.0		[3V]	[5V, 8V]
Power Scrum (Banded Belts)	Narrow V type			[3V]	[5V] [8V]			40	Under 1.0		[3V]	[5V, 8V]
	Multiple V type		[A]	[B] [C]	[E]		[A~E] 30		1.5~2.0			[A~E]
Variable Speed Belts			[VA~VE]				30		1.0~1.5		[VA, VB]	[VC, VD, VE]
RIB-ACE			[PK]					[PK] 50	1.0~1.5			
V Ribbed Belts		[J]	[L]	[M]			[J, L, M] 30		1.5~2.0			
Synchronous Belts		[MXL] [XL]	[L]	[H] [XH]	[XXH]			50	Under 0.15			
STS			[S4.5M] [S5M]	[S8M]	[S14M]			60	Under 0.15			
Long Synchronous Belt (LSB-R)						10			Under 0.15			
Polyurethane Belts												
King Power Synchronous Belt (KPS)				[S8M]	[S14M]		30		Under 0.1			
Polyurethane V-Belts	FHP (2L)	[2L]				[2L]			1.5~2.0			
	Cogged V Belts (VC)	[J]				[J] 10			1.5~2.0			
	Double cogged V Belts (DC)	[J]							0.5~2.0			
	Cordless (Bancolan V Belts)								0.5~1.0			
	Open Ended (Bandcord V Belts)	[M]	[A][B]						2.0~3.0			
Banflex		[3M]	[5M]	[7M]	[11M]			60	Under 0.8			
Banded Banflex			[5MS]	[7MS]	[11MS]			60	Under 0.8			
Polyurethane Flat Belts	Cordless								1.5~2.0			
Polyurethane V Ribbed Belts		[H]	[J]				25		2.0~2.5			
Polyurethane Round Belts	Endless	2φ~5φ				10			0.5~1.0			
	Open End (Bancord)	1.5φ~15φ				10			3.0~5.0			
Polyurethane Synchronous Belts		[XL][T5] [TN15]	[L] [T10]			20			Under 0.25			
Polyurethane Long Synchronous Belt (LSB-u)						10			Under 0.25			

※1 As listed above, the numerical value shows permissible range of Elongation

1. COLOR CODE

- Recommended design area.
- Marginal design area - contact your local Bando distributor for further engineering information.
- Do not design in this area.

- 2. Numbers shown are maximums under normal operating conditions.
- 3. Letters in [] show belt type.

BELT CHARACTERISTS

TYPE OF BELT		Speed ratio		Minimum pulley diameter (mm)			Special applications				
		Under 1:5	1:5~1:10	Under 50	50~100	100~200	OVER 200	Shock load	Horizontal drive	Backside Idler	Drive using backside of belt
Rubber belts											
V Belts	Fractional H.P.				[3L][4L]	[5L]					
	Multiple				[A]67	[B]118 [C]180	[D]300 [E]450				
Red-e II					[SA]60 [SB]80	[SC]100					
Double-V						[AA]100 [BB]180	[CC]260				
Narrow V Belts			1:10		[3V]67	[5V]150	[8V]300				
Power Scrum (Banded Belts)	Narrow V type		1:10		[3V]67	[5V]150	[8V]300				
	Multiple V type				[A]67	[B]118 [C]180	[D]300 [E]450				
Variable Speed Belts				[VA]45	[VB]60 [VC]70 [VD]80						
RIB-ACE				20	50						
V Ribbed Belts				20	75	175					
Synchronous Belts			1:10	[MXL] 12teeth [XL][L] 10teeth	[H] 14teeth	[XH] 22teeth [XXH] 22teeth					
STS			1:10	[S8M] 18teeth [S4.5M] 12teeth [S5M] 12teeth	[S14M] 28teeth						
Long Synchronous Belts (LSB-R)			1:10	[MXL] [XL][L] [S4.5M] [S5M]	[S8M] [H]	[XH] [S14M]	[XXH]				
Polyurethane Belts											
King Power Synchronous Belt (KPS)			1:10	[S8M] 18teeth	[S14M] 22teeth						
Polyurethane V-Belts	FHP (2L)			[2L]							
	Cogged V Belts (VC)			[J]16							
	Double cogged V Belts (DC)			[J]16							
	Cordless (Bancollan V Belts)										
	Open Ended (Bancord V Belts)				[M]80	[A]100 [B]150					
Banflex											
Banded Banflex (BANFLEX Scrum)			1:10	[5MS]26 [7MS]40	[11MS] 63						
Polyurethane Flat Belts	Cordless			(0.6mm)t6 (1.0mm)t10							
Polyurethane V Ribbed Belts				[H]14 [J]24							
Polyurethane Round Belts	Endless			[3mm φ]18 [5mm φ]30							
	Open End (Bancord)			[3mm φ] 23	[10mm φ] 80						
Polyurethane Synchronous Belts			1:10	[TN15] 20teeth [XL][L][T5] 15teeth [T10] 12teeth							
Polyurethane long Synchronous Belts (LSB-u)			1:10	[S2M] [S3M] [XL][L] [T5][T10]	[S8M] [H]	[XH]	[XXH]				

1. COLOR CODE

Recommended design area.

Marginal design area - contact your local Bando distributor for further engineering information.

Do not design in this area.

OPERATING CONDITIONS

Oil Resistance	Acid Resistance	Alkali Resistance	Ozone Resistance	Water Resistance	Flame Resistance	Low Noise	Vibration	BELT TYPE	
Rubber belt									
								Fractional H.P. Multiple, RED-S DOUBLE-V	V Belts
								Narrow V Belts	
								Narrow V type	Power Scrum (Banded Belts)
								Multiple V type	
								Variable Speed Belts	
								V Ribbed Belts	
								RIB-ACE	
								Synchronous Belts, STS	
								Long Synchronous Belt (LSB-R)	
Polyurethane Belts									
								King Power Synchronous Belts (KPS)	
								FHP (2L)	Polyurethane V-Belts
								Cogged V Belts (VC)	
								Double Cogged V Belts (DC)	
								Cordless (Bancollan V Belts)	
								Open Ended (Bancord V Belts)	
								Banflex	
								Banded Banflex	
								Cordless	Polyurethane Flat Belts
								Polyurethane V Ribbed Belts	
								Endless	Polyurethane Round Belts
								Open End (Bancord)	
								Polyurethane Synchronous Belts	
								Polyurethane Long Synchronous Belts (LSB-u)	

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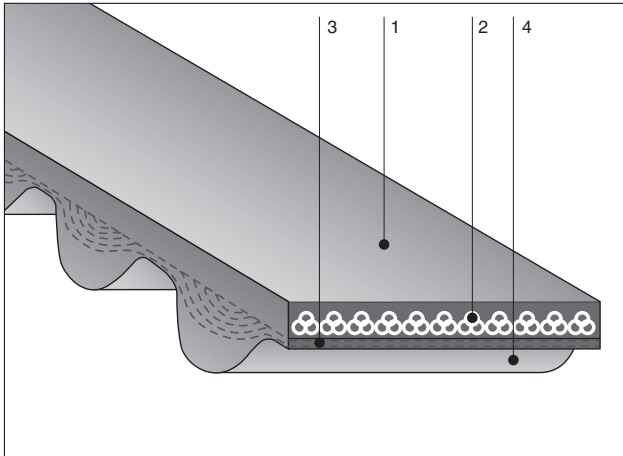
- Belt is perfectly suitable for conditions shown.
- Belt is adequately suitable for conditions shown.
- Belt is marginally suitable for conditions shown, but not recommendable.
- DO NOT apply belt in these environments.

Selection Table for Bando Power Transmission Belts – 2

Find the type of Belt you need in the first column. Then, reading across the page, find the belt that matches your operating conditions.

BELT TYPE		DRIVING CONDITIONS																Electrical conductivity	
		Ambient Temperature Range																	
		-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	100	110		120
		(-40)	(-22)	(-4)	(14)	(32)	(50)	(68)	(86)	(104)	(122)	(140)	(158)	(176)	(194)	(212)	(230)	(248)	(°F)
Rubber Belts																			
V Belts	Fractional H.P.																		less than 6MΩ
	Multiple RED-S DOUBLE-V																		less than 6MΩ
Narrow V Belts																			less than 6MΩ
Power Scrum (Banded Belts)	Narrow V type																		less than 6MΩ
	Multiple V type																		less than 6MΩ
Variable Speed Belts																			less than 6MΩ
V Ribbed Belts																			less than 6MΩ
RIB-ACE																			less than 6MΩ
Synchronous Belts, STS																			less than 6MΩ insulation over 100MΩ
Long Synchronous Belts (LSB-R)																			less than 6MΩ
Polyurethane Belts																			
King Power Synchronous Belts																			10 ⁴ ~10 ⁶ MΩ
Polyurethane V Belts	FHP (2L)																		10 ⁴ ~10 ⁶ MΩ
	Cogged V Belts (VC)																		10 ⁴ ~10 ⁶ MΩ
	Double Cogged V Belts (DC)																		10 ⁴ ~10 ⁶ MΩ
	Cordless (Bancollan V Belts)																		10 ⁴ ~10 ⁶ MΩ
	Open End (Bancord V Belts)																		10 ⁴ ~10 ⁶ MΩ
Banflex																			10 ⁴ ~10 ⁶ MΩ
Banded Banflex																			10 ⁴ ~10 ⁶ MΩ
Polyurethane Flat Belts	Cordless																		10 ⁴ ~10 ⁶ MΩ
Polyurethane V Ribbed Belts																			10 ⁴ ~10 ⁶ MΩ
Polyurethane Round Belts	Endless																		10 ⁴ ~10 ⁶ MΩ
	Open End (Bancord)																		10 ⁴ ~10 ⁶ MΩ
Polyurethane Synchronous Belts																			10 ⁴ ~10 ⁶ MΩ
Polyurethane Long Synchronous Belts (LSB-u)																			10 ⁴ ~10 ⁶ MΩ

BANDO KING POWER Synchronous Belts (KPS II)



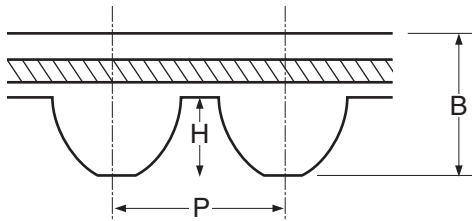
Construction

- 1: Polyurethane backing
- 2: Aramid tensile member
- 3: Polyamid fiber loaded
- 4: Polyurethane teeth

Features + Benefits

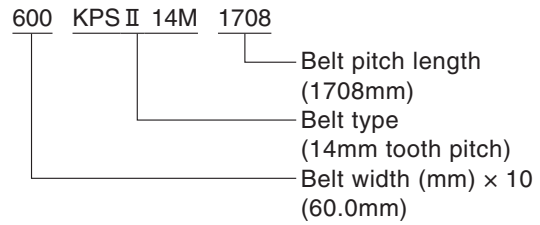
- Exceptional power transmission capability
The KPS Belt can transmit 1.5 to 5 times more power than a standard STS belt drive. This allows the same power transmission capacity to be achieved using smaller pulleys, saving space and money.
- Versatile
Utilize standard STS pulleys for a wide ratio selection.
- Clean
Wear resistant polyurethane construction reduces rubber dust.

Dimensions



Type	P	H	B
KPS II 8M	8.00	2.86	4.80
KPS II 14M	14.00	5.00	8.50

Size mark



KPS II 8M					
Type	nominal pitch length (mm)	number of teeth	Type	nominal pitch length (mm)	Number of teeth
S8M640	640	80	S8M1120	1120	140
680	680	85	1152	1152	144
720	720	90	1200	1200	150
760	760	95	1280	1280	160
800	800	100	1360	1360	170
848	848	106	1440	1440	180
896	896	112	1520	1520	190
944	944	118	1600	1600	200
1000	1000	125	1696	1696	212
1024	1024	128	1792	1792	224
1032	1032	129	1960	1960	245
1056	1056	132			

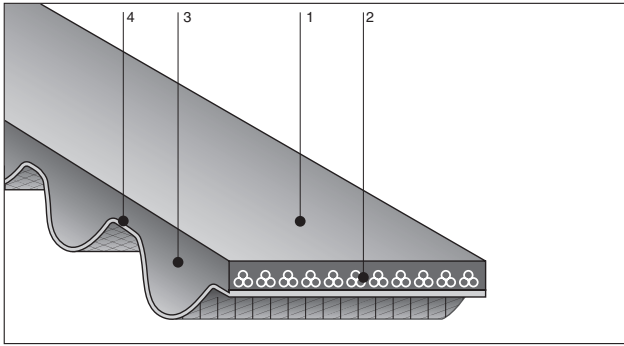
KPS II 14M					
Type	nominal pitch length (mm)	number of teeth	Type	nominal pitch length (mm)	Number of teeth
S14M994	994	71	S14M1568	1568	112
1120	1120	80	1650	1652	118
1190	1190	85	1708	1708	122
1260	1260	90	1890	1890	135
1400	1400	100	1960	1960	140
1470	1470	105	2380	2380	170

Standard Belt width

(width mark: Belt width (mm)×10)

width mark	150	250	400	600	800	1000	1200
Belt width (mm)	15	25	40	60	80	100	120
	KPS II 8M						
	KPS II 14M						

BANDO High-Performance STS Belts (HP-STS)



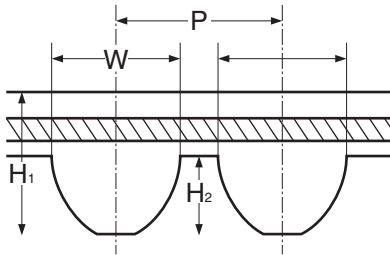
Features

- Exceptionally high power transmission capacity
This "high performance STS belt" achieves power transmission approximately 1.4 to 1.8 times as high as that with conventional STS belts.
- Compact design
The high power transmission can minimize the width of belt, thus making system design as compact as possible.
- Low noise level
The high power transmission can minimize the width of belt, thus accomplishing a low noise operation.

*Conventional standard pulleys are also applicable.

*Standard belt sizes are available for the production of this belt.

Dimensions



Type	P	H1	H2	B
HP-S5M	5.00mm	3.61mm	1.91mm	3.25mm
HP-S8M	8.00mm	5.00mm	3.05mm	5.20mm
HP-S14M	14.00mm	3.70mm	5.30mm	9.10mm

Standard Belt Width

Width Mark	100	150	200	250	400	600	800	1000	1200
Width (mm)	10	15	20	25	40	60	80	100	120
HP-S5M	●	●	●						
HP-S8M		●		●	●	●			
HP-S14M					●	●	●	●	●

Concept

Responding to needs for "Energy saving" and "High power transmission" on industrial machinery in these years, we at BANDO have developed a "High-performance STS belt" capitalizing on our time-proven technology and experience.

Construction & Members

1. 3. Rubber:

Using synthetic rubber having less tooth deformation and a high level of hardness.

2. Tensile member:

Using fiber glass tensile member with considerations given to dimensional stability and flexibility.

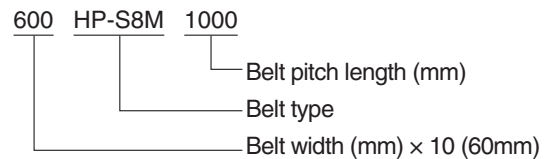
4. Tooth canvas:

The tooth canvas has asperities on the surface and provides a low friction coefficient, accomplishing a low noise level of operation.

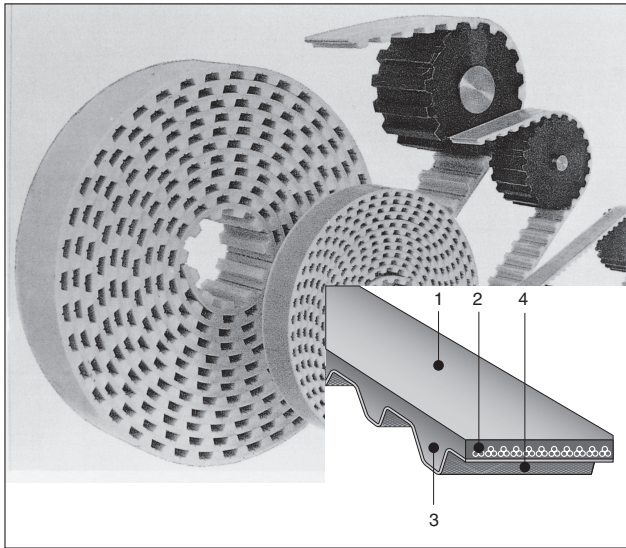
Furthermore, the S14M Type provides two-ply tooth canvas, which enables further reductions in noise levels and improvement in durability.

The HP-S5M Type is only available for clean specification.

Size mark



BANDO Long Synchronous / STS Belts (LSB-R)



Construction

- 1: Chloroprene rubber backing
- 2: Glass Fiber tensile member
- 3: Chloroprene rubber teeth
- 4: Nylon canvas

Features + Benefits

Allow for synchronous power transmission and conveyance over longer spans than those available with traditional molded belts.

Compared to chain drives, these belts are lighter, produce much less noise, and are much cleaner as they need no lubrication. In factory automation applications, these belts are perfectly suited to replace chain, flat power transmission belts, and conveyor belts.

Seamless

- Having no joints, they are as capable of transmission and conveyance as standard timing belts are.
- Belts can be manufactured in a length having the number of teeth that you specify.
- Belts can be manufactured to special specifications (reverse side logo, white color, etc.).

Endless

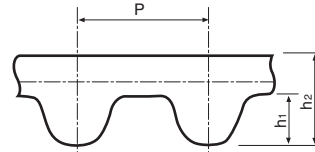
- On-site endless processing is available.
- Increasing the number of joints allows synchronous conveyance or synchronous transmission over any span length.

Open-end

- Capable of accurate reciprocating motion in indexing applications.

Dimensions

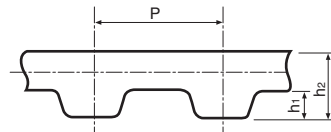
Long STS Belts



Unit: mm () Dimension in seamless

Type	P	h ₁	h ₂
S2M	2.0	0.76	1.31
S3M	3.0	1.14	2.10
S4.5M	4.5	1.71	2.70
S5M	5.0	1.91	3.6
S8M	8.0	3.05	5.30(6.05)
S14M	14.0	5.30	(11.30)

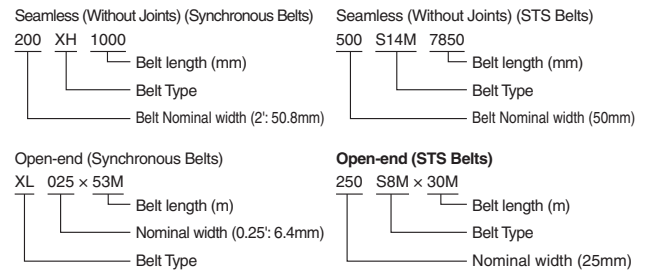
Long Synchronous Belts



Unit: mm () Dimension in seamless

Type	P	h ₁	h ₂
MXL	2.032	0.51	1.10
XL	5.080	1.25	2.25
L	9.525	1.90	3.50
H	12.700	2.30	5.30(5.30)
XH	22.225	6.30	(12.30)
XXH	31.75	9.60	(16.10)

Size mark

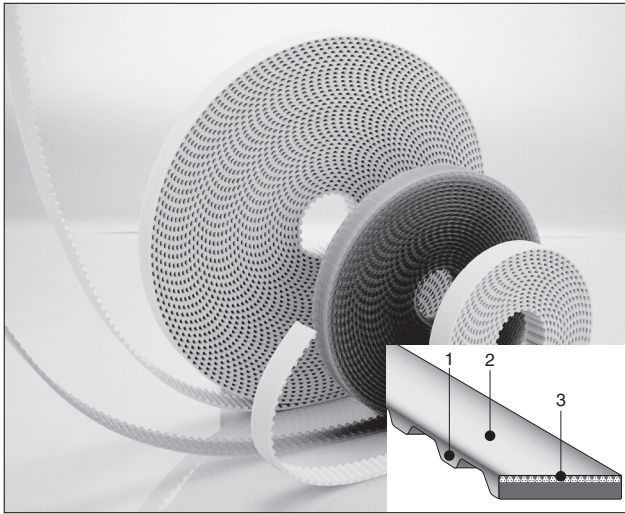


Standard Sizes

Seamless (Without Joints)		
Type	Standard Nominal width	Range of available belt
H	100,200,400,600,800,1000(inch x 100)	4.7~30m
XH		
XXH		
S8M	250,500,1000,1500,2000,3000 (mm x 10)	
S14M		

Unit: m

Open-end	
Nominal width	Nominal width
019 025 031 037 050 075 100 150 200 300	50 60 70 80 100 140 150 200 250 300 400 500 600
Width (mm) 4.8 6.4 7.9 9.5 12.7 19.1 25.4 38.1 50.8 76.2	Width (mm) 5 6 7 8 10 14 15 20 25 30 40 50 60
MXL 42 31 25 41 30	S2M 40 35 30 50
XL 53 43 35 26 33	S3M 50 40
L 49 32 47	S4.5M 45
H 42 31 40 28 17	S5M 40 40 40 30 24
	S8M 40 50 40 30 53 38 29 24



Construction

- 1: Polyurethane teeth
- 2: Polyurethane backing
- 3: Tensile member

Features + Benefits

The polyurethane construction of these long span belts make them ideally suited for synchronous transmission and conveyance in food processing machinery and other applications requiring a clean, dust-free drive.

Endless

- long-span belts capable of synchronous transmission and synchronous conveyance.

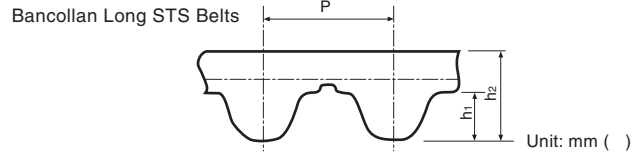
Open-end

- Capable of accurate reciprocating motion in indexing applications.

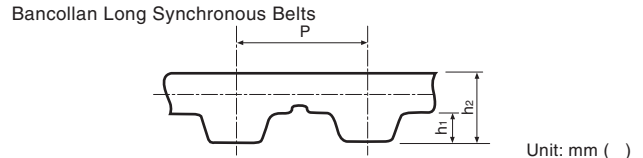
Standard Sizes

Endless (With Joints)					Openend			
Type	Standard Nominal width	Maximum Width in mm (Nominal width)	Maximum length (m)	Minimum length (m)	Type	Standard Nominal width	Maximum Width in mm (Nominal width)	Max length (m)
S5M	100,150,200,250,300,400,500	50(500)	50	0.5	S2M	50,100,150,200,250,300,350,400	40(400)	60
S8M	150,200,250,300,400,500,750,1000	100(1000)	30	1.0 2.0	S3M	60,120,180,240,300,360,420,480	48(480)	60
XL	025,031,037,050,075,100,150,200	50.8(200)	50	0.5	S5M	100,150,200,250,300,400,500	50(500)	50
L	050,075,100,150,200,075,100,150,200,300,400	50.8(200)	50	0.5	S8M	150,200,250,300,400,500,750,1000	100(1000)	30
H	075,100,150,200,300,400	101.6(400)	50	0.5 2.0	XL	025,031,037,050,075,100,150,200	50.8(200)	50
T5	7,10,15,20,25,30,40,50	50	50	0.5	L	050,075,100,150,200	50.8(200)	50
T10	15,20,25,30,40,50,75,100	100	50	0.5 2.0	H	075,100,150,200,300,400	101.6(400)	50
					T5	7,10,15,20,25,30,40,50	50	50
					T10	15,20,25,30,40,75,100	100	50

Dimensions

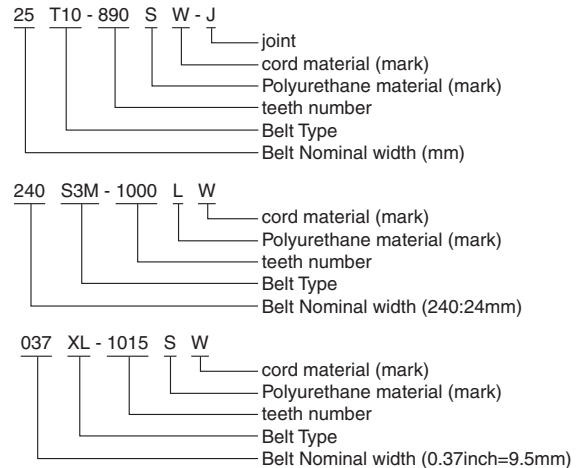


Type	P	h ₁	h ₂
S2M	2.00	0.76	1.40
S3M	3.00	1.14	2.00
S3M	5.00	1.81	3.81
S8M	8.00	2.85	5.00



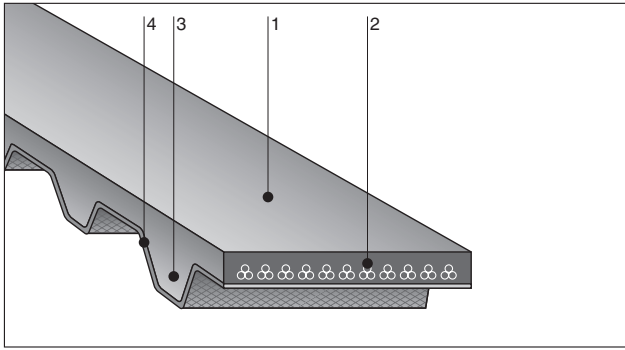
Type	P	h ₁	h ₂
XL	5.080	1.25	2.25
L	9.525	1.90	3.50
H	12.700	2.30	4.30
T5	5.00	1.20	2.20
T10	10.00	2.50	4.50

Size mark



- Polyurethane material mark
- S... (standard translucent)
- W... (standard milky-white)
- L... (low friction milky-white)
- M... (moisture and heat resistant milky-white)
- cord mark
- W... (steel cord)
- K... (aramid cord)

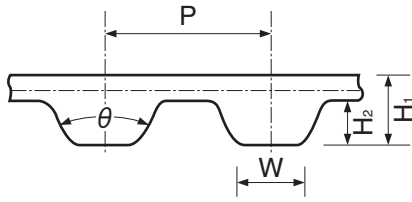
BANDO SYNCHRONOUS BELTS



Construction

- 1: Chloroprene rubber backing.
- 2: Glass Fiber tensile member.
- 3: Chloroprene rubber tooth.
- 4: Nylon canvas

Dimensions



Type		P	W	H ₁	H ₂	θ
MXL	Mini Synchro	2.032mm (0.080")	(0.76) 0.030	(1.1) 0.043	(0.51) 0.020	40°
XL	Extra Light	5.08mm (0.200")	(1.35) 0.054	(2.25) 0.09	(1.25) 0.050	50°
L	Light	9.525mm (0.375")	(3.2) 0.128	(3.5) 0.14	(1.9) 0.075	40°
H	Heavy	12.7mm (0.500")	(4.4) 0.175	(4.3) 0.17	(2.3) 0.090	40°
XH	Extra Heavy	22.225mm (0.875")	(8.0) 0.313	(11.3) 0.44	(6.3) 0.250	40°
XXH	Double Extra Heavy	31.75mm (1.250")	(12.2) 0.477	(15.8) 0.62	(9.6) 0.375	40°

Standard Belt Width

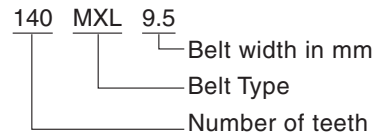
Nominal Width	BELT WIDTH													
			025	031	037	050	075	100	150	200	300	400	500	600
	inch	1/8	3/16	1/4	5/16	3/8	1/2	3/4	1	1-1/2	2	3	4	5
mm	3.2	4.8	6.4	7.9	9.5	12.7	19.0	25.4	38.1	50.8	76.2	101.6	127.0	152.4
MXL	●	●	●		●	●								
XL			●	●	●	●	●							
L						●	●	●	●	●				
H							●	●	●	●	●			
XH									●	●	●	●	●	●
XXH										●	●	●	●	●

Features

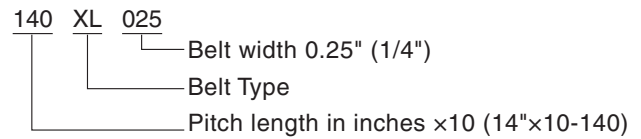
- Non-slip
Accurate tooth dimensions and minimal elongation virtually eliminate slippage and speed variation.
- No maintenance
No lubrication is required.
- No high initial tension, thus keeping the bearing load very low.
- Space saving
Utilizes small pulleys and short center distances.

Size mark

(MXL)



(XL, L, H, XH, XXH)



BANDO SYNCHRONOUS BELTS

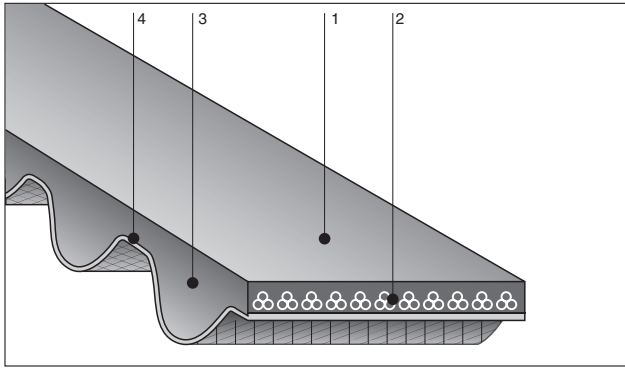
Standard Sizes

BELT TYPE	PITCH	BELT NUMBER
MXL※ (Rubber)	2.032mm (0.080")	44, 45, 48, 50, 52, 53, 54, 55, 56, 57, 59, 60, 61, 62, 63, 64, 65, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 108, 109, 110, 112, 114, 115, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 134, 135, 137, 138, 140, 142, 144, 145, 146, 148, 150, 151, 155, 158, 159, 160, 162, 163, 164, 165, 169, 170, 175, 177, 180, 184, 188, 190, 192, 195, 196, 200, 204, 205, 208, 210, 212, 215, 220, 221, 222, 224, 225, 226, 228, 230, 232, 234, 236, 239, 240, 245, 248, 249, 250, 251, 255, 256, 260, 262, 265, 268, 271, 273, 275, 280, 281, 285, 288, 290, 295, 297, 300, 305, 308, 310, 312, 315, 318, 320, 323, 326, 328, 330, 332, 334, 336, 337, 347, 350, 354, 355, 358, 359, 360, 364, 365, 371, 372, 380, 388, 397, 400, 402, 405, 410, 413, 425, 431, 434, 435, 440, 448, 453, 464, 468, 473, 475, 480, 487, 493, 498, 500, 516, 522, 524, 525, 535, 550, 591, 612, 665
XL (Rubber)	5.08 (0.200")	50, 60, 64, 68, 70, 72, 74, 76, 78, 80, 84, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 188, 190, 194, 196, 198, 200, 202, 206, 208, 210, 212, 214, 216, 220, 222, 224, 228, 230, 234, 240, 244, 248, 250, 260, 262, 266, 270, 276, 280, 282, 290, 300, 310, 314, 320, 322, 330, 340, 344, 348, 352, 356, 360, 364, 370, 372, 376, 384, 386, 388, 390, 396, 400, 408, 424, 430, 450, 456, 460, 470, 490, 496, 510, 540, 564, 592, 608, 630, 638, 686, 828, 860, 888, 900, 908, 914, 926, 1014, 1020

BELT TYPE	PITCH	BELT NUMBER
L (Rubber)	9.525mm (0.375")	98, 109, 124, 135, 150, 165, 169, 172, 187, 203, 210, 218, 225, 240, 248, 255, 263, 270, 277, 285, 300, 304, 315, 320, 322, 334, 337, 345, 360, 367, 375, 382, 390, 394, 420, 427, 436, 439, 446, 450, 465, 480, 510, 514, 525, 540, 548, 581, 600, 605, 619, 630, 640, 653, 660, 697, 728, 731, 767, 780, 788, 806, 855, 863, 881, 915, 919, 938, 1294
H (Rubber)	12.700mm (0.5")	185, 225, 230, 240, 245, 270, 280, 300, 310, 315, 320, 330, 340, 350, 360, 370, 375, 390, 400, 410, 420, 430, 450, 465, 480, 490, 510, 530, 540, 560, 565, 570, 580, 600, 605, 630, 640, 650, 660, 680, 700, 730, 750, 760, 770, 800, 810, 820, 840, 850, 860, 880, 900, 950, 985, 1000, 1020, 1050, 1100, 1130, 1140, 1250, 1325, 1350, 1400, 1680, 1700
XH (Rubber)	22.225mm (0.875")	507, 560, 630, 700, 735, 770, 840, 875, 927, 980, 1120, 1260, 1400, 1540, 1750
XXH (Rubber)	31.750mm (1.250")	700, 800, 900, 1000, 1200, 1400, 1600, 1800, 1915

※ For MXL (only) belt number equals number of teeth. All others refer to pitch length in inches.

BANDO SUPER TORQUE SYNCHRONOUS (STS) BELTS



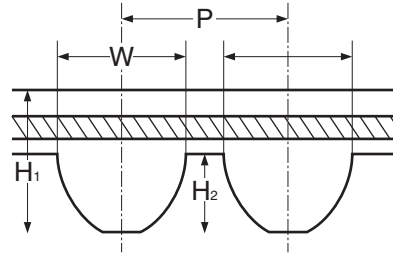
Features

- **High torque capacity drive**
Unique tooth profile enables the belt to transmit higher power.
- **Lower noise level**
Smoother tooth engagement and direct contact of tooth top with the pulley grooves' enables the belt to run quietly even at high speeds.
- **Long service life**
As the belt tooth meshes with the pulley grooves, the cord lay forms an almost true circle. This minimizes the cantilever effect on the cords, resulting in reduced bending fatigue and longer service life.
- **No maintenance**
No lubrication or retension required.
- **Space saving**
Due to Higher Power Transmission Capacity, the belt width and the pulley width can be designed narrower. This means machine space can be reduced and the machine can be designed more compactly.

Construction

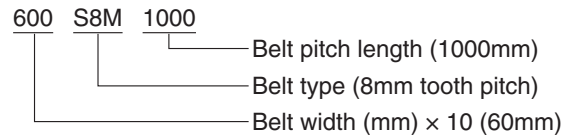
- 1: Chloroprene rubber backing
- 2: Glass Fiber tensile member
- 3: Chloroprene rubber tooth
- 4: Nylon canvas

Dimensions



Type	P	h ₁	h ₂	W
S1.5M	1.5mm	0.57mm	1.12mm	0.98mm
S2M	2.0mm (0.078")	1.31mm (0.052")	0.76mm (0.029")	1.3mm (0.051")
S3M	3.0mm (0.118")	2.1mm (0.083")	1.14mm (0.044")	1.95mm (0.076")
S4.5M	4.5mm (0.177")	2.70mm (0.106")	1.71mm (0.067")	2.93mm (0.115")
S5M	5.0mm (0.197")	3.61mm (0.142")	1.91mm (0.075")	3.25mm (0.128")
S8M	8.0mm (0.315")	5.3mm (0.212")	3.05mm (0.120")	5.20mm (0.205")
S14M	14.0mm (0.551")	10.2mm (0.402")	5.30mm (0.209")	9.10mm (0.358")

Size mark



Standard Belt Width

Width Mark	40	60	100	150	200	250	400	600	800	1000	1200
Width (mm)	4	6	10	15	20	25	40	60	80	100	120
S1.5M	●	●	●								
S2M	●	●	●	●	●						
S3M		●	●	●							
S4.5M		●	●	●							
S5M			●	●	●	●					
S8M				●		●	●	●			
S14M							●	●	●	●	●

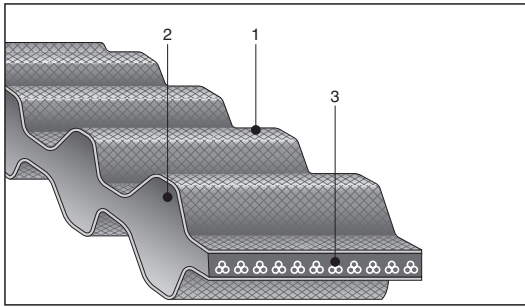
BANDO SUPER TORQUE SYNCHRONOUS (STS) BELTS

Standard Belt Length

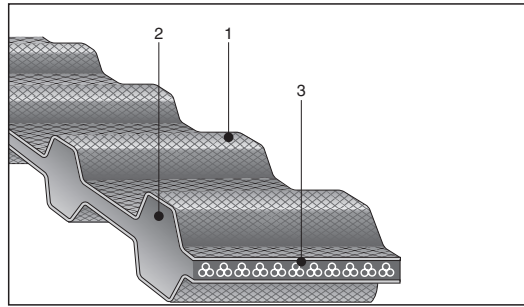
BELT TYPE	BELT PITCH (mm)	BELT NUMBER (PITCH LENGTH mm)
S1.5M (Rubber)	1.5	92, 93, 95, 98, 99, 101, 102, 108, 119, 134, 150, 158, 161, 164, 165, 168, 174, 180, 185, 186, 204, 206, 210, 224, 225, 236, 240, 255, 261, 263, 273, 281, 288, 290, 303, 305, 315, 335, 390, 441, 444, 480, 1116
S2M (Rubber)	2.0	86, 88, 90, 92, 94, 98, 100, 102, 104, 106, 108, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 138, 140, 142, 144, 148, 150, 152, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 190, 192, 194, 198, 200, 202, 204, 210, 212, 214, 216, 218, 220, 222, 224, 226, 230, 232, 234, 236, 238, 240, 242, 244, 248, 250, 254, 256, 258, 260, 262, 264, 266, 272, 274, 278, 280, 282, 284, 286, 288, 290, 292, 296, 300, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 338, 340, 342, 344, 350, 360, 364, 370, 372, 374, 376, 380, 386, 390, 396, 400, 406, 408, 416, 420, 426, 428, 438, 448, 452, 454, 460, 468, 474, 486, 490, 494, 500, 520, 530, 532, 540, 550, 558, 560, 572, 580, 594, 596, 600, 604, 606, 620, 630, 632, 650, 652, 656, 668, 676, 692, 700, 710, 742, 752, 754, 766, 796, 800, 810, 826, 898, 900, 940, 946, 950, 984, 1000, 1032, 1036, 1066, 1074, 1100, 1110, 1136, 1154, 1166, 1224, 1228
S3M (Rubber)	3.0	123, 129, 144, 150, 156, 159, 162, 168, 171, 174, 177, 180, 183, 186, 189, 192, 195, 198, 201, 204, 207, 210, 213, 219, 222, 225, 228, 234, 237, 240, 243, 246, 249, 252, 255, 258, 264, 267, 270, 273, 276, 279, 282, 285, 288, 291, 297, 300, 303, 309, 312, 315, 318, 324, 327, 330, 333, 336, 339, 342, 351, 354, 360, 363, 366, 369, 372, 375, 378, 384, 387, 390, 396, 399, 402, 405, 408, 417, 420, 423, 426, 432, 438, 444, 447, 453, 459, 468, 471, 474, 480, 486, 489, 492, 498, 501, 507, 513, 516, 519, 522, 525, 534, 537, 540, 549, 552, 555, 564, 573, 579, 588, 597, 600, 609, 621, 633, 648, 657, 660, 666, 681, 690, 699, 726, 735, 741, 750, 768, 771, 789, 804, 810, 825, 852, 882, 885, 888, 900, 918, 927, 936, 990, 1119, 1134, 1146, 1188, 1299, 1419, 1530
S4.5M (Rubber)	4.5	162, 180, 198, 225, 239, 252, 279, 284, 315, 324, 351, 383, 396, 450, 491, 504, 518, 558, 563, 612, 630, 711, 729, 801, 1031, 2111
S5M (Rubber)	5.0	225, 230, 255, 275, 295, 300, 320, 325, 350, 375, 380, 390, 400, 410, 420, 425, 435, 440, 445, 450, 475, 490, 500, 520, 525, 550, 560, 565, 570, 575, 600, 625, 635, 645, 650, 665, 670, 675, 695, 700, 710, 725, 740, 750, 765, 770, 775, 800, 810, 830, 850, 860, 870, 900, 920, 940, 950, 965, 975, 1000, 1025, 1050, 1125, 1135, 1145, 1195, 1225, 1250, 1260, 1270, 1295, 1350, 1420, 1595, 1715, 1800, 2000
S8M (Rubber)	8.0	352, 384, 408, 424, 456, 480, 520, 528, 560, 584, 600, 632, 640, 656, 672, 680, 712, 720, 728, 760, 800, 824, 840, 848, 880, 888, 896, 920, 944, 960, 976, 984, 1000, 1032, 1040, 1056, 1096, 1120, 1136, 1152, 1160, 1184, 1192, 1200, 1216, 1224, 1240, 1248, 1272, 1280, 1296, 1312, 1344, 1352, 1384, 1392, 1400, 1424, 1440, 1480, 1520, 1552, 1600, 1728, 1760, 1776, 1800, 1808, 1880, 1952, 2000, 2120, 2160, 2240, 2304, 2400, 2496, 2560, 2600, 2800, 2880, 2944, 3200, 3600, 3720, 3904, 4400
S14M (Rubber)	14.0	1008, 1120, 1190, 1246, 1400, 1540, 1610, 1652, 1778, 1806, 1890, 1904, 1960, 2002, 2100, 2240, 2310, 2380, 2450, 2506, 2590, 2660, 2800, 3150, 3248, 3500, 3556, 3850, 4004, 4060, 4326, 4508, 5012

BANDO DOUBLE SIDED SYNCHRONOUS / STS BELTS

DOUBLE SIDED STS BELTS



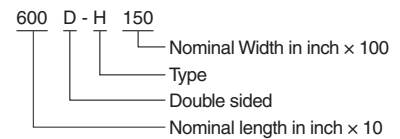
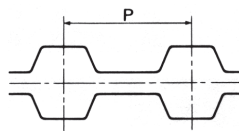
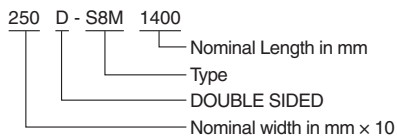
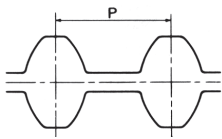
DOUBLE SIDED SYNCHRONOUS BELTS



Construction

1: Nylon Canvas 2: Chloroprene rubber backing 3: Glass fiber tensile member

Dimension and Size mark

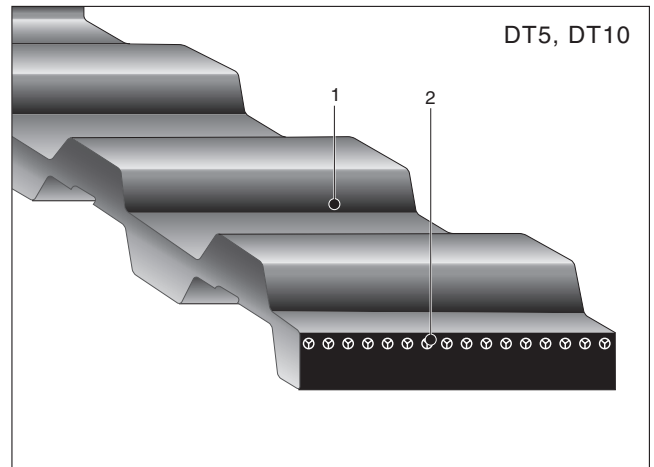
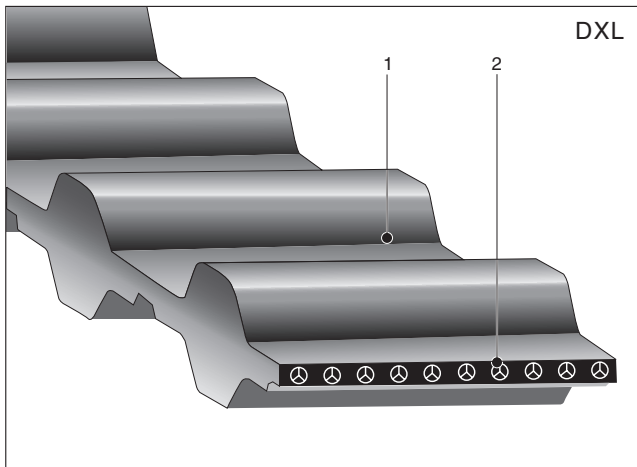


Standard Sizes

Type	P(mm)	Nominal Width	Nominal Length						
DS2M	2	40, 60, 100	300 304 306 308 310 312 314 316 318						
			320 322 324 326 328 330 332 334 336						
			338 340 342 344 350 354 360 364 370						
			372 374 376 380 386 390 396 400 406						
			408 410 416 420 426 428 434 436 438						
			440 448 452 454 456 460 468 474 480						
			486 490 494 500 506 520 524 530 532						
			540 550 558 560 572 580 594 596 600						
			604 606 620 630 632 650 652 654 656						
			660 668 676 692 700 710 726 742 752						
			754 766 796 800 810 826 828 848 864						
			898 900 940 946 950 984 1000 1020 1024						
			1032 1036 1042 1064 1066 1074 1086 1094 1100						
1110 1136 1154									
DS3M	3	60, 100, 150	300 303 306 309 309 312 315 318 324						
			327 330 333 336 339 342 351 354 360						
			363 366 369 372 375 378 384 387 390						
			396 399 402 405 408 417 420 423 426						
			432 438 444 447 453 459 468 471 474						
			480 486 489 492 498 501 507 513 516						
			519 522 525 534 537 540 549 552 555						
			564 573 579 588 597 600 609 621 633						
			636 648 657 660 666 681 690 699 720						
			726 735 741 750 768 771 789 804 810						
			825 852 858 882 885 888 900 909 918						
			927 936 954 990 999 1014 1050 1119 1134						
			1146 1176 1188 1299 1419 1530						
DS5M	5	※	420 425 435 440 445 450 476 490 500						
			520 525 550 560 565 570 575 600 625						
			635 645 650 665 670 675 695 700 710						
			725 740 750 765 770 775 780 800 810						
			830 850 860 870 900 920 940 950 965						
			975 1000 1025 1050 1085 1125 1135 1145 1195						
			1225 1250 1260 1270 1295 1350 1420 1595 1715						
			1800 1860 2000						
			DS4.5M	4.5	60, 100, 150	450, 491, 504, 518, 558, 563, 612, 630, 711, 729, 801, 1031			
			DS8M	8.0	150, 250, 400, 600	480, 520, 528, 560, 584, 600, 632, 640, 656, 672, 680, 712, 720, 728, 760, 800, 824, 840, 848, 880, 888, 896, 920, 944, 960, 976, 984, 1000, 1032, 1040, 1056, 1096, 1120, 1136, 1152, 1160, 1184, 1192, 1200, 1216, 1224, 1240, 1248, 1272, 1280, 1296, 1312, 1344, 1352, 1384, 1392, 1400, 1424, 1440, 1480, 1520, 1552, 1600, 1728, 1760, 1776, 1800, 1808, 1880, 1952, 2000, 2120, 2160, 2240, 2304, 2400, 2496, 2560, 2600, 2800, 2880, 2944, 3200, 3500, 3720, 3904, 4400			
						DS14M	14.0	400, 600, 800, 1000, 1200	1008, 1120, 1190, 1246, 1400, 1540, 1610, 1652, 1778, 1806, 1890, 1904, 2002, 2100, 2240, 2310, 2380, 2450, 2506, 2590, 2660, 2800, 3150, 3248, 3500, 3556, 3850, 4004, 4060, 4326, 4508, 5012

Type	P(mm)	Nominal Width	Nominal Length
DXL	5.080	025, 031, 037, 050, 075,	160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 188, 190, 194, 196, 198, 200, 202, 206, 208, 210, 212, 214, 216, 220, 222, 224, 228, 230, 234, 240, 244, 248, 250, 260, 262, 266, 270, 276, 280, 282, 290, 300, 310, 314, 320, 322, 330, 340, 344, 348, 352, 356, 360, 364, 370, 372, 376, 384, 386, 388, 390, 396, 400, 408, 424, 430, 450, 456, 460, 470, 490, 496, 510, 540, 564, 592, 608, 630,
			DL
DH	12.700	075, 100, 150, 200, 300,	185, 225, 230, 240, 245, 270, 280, 300, 310, 315, 320, 330, 340, 350, 360, 370, 375, 390, 400, 410, 420, 430, 450, 465, 480, 490, 510, 530, 540, 560, 565, 570, 580, 600, 605, 630, 640, 650, 660, 680, 700, 730, 750, 760, 770, 800, 810, 820, 840, 850, 860, 880, 900, 950, 985, 1000, 1020, 1050, 1100, 1130, 1140, 1250, 1325, 1350, 1400, 1680, 1700

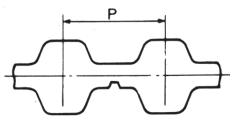
※Please contact us.



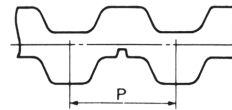
Construction

1: Polyurethane Teeth 2: Steel wire tensile member

Dimensions and Size mark



180 D x L 037 UK
 Material Mark
 Nominal width in inch x 100
 Type
 Nominal length in inch x 10



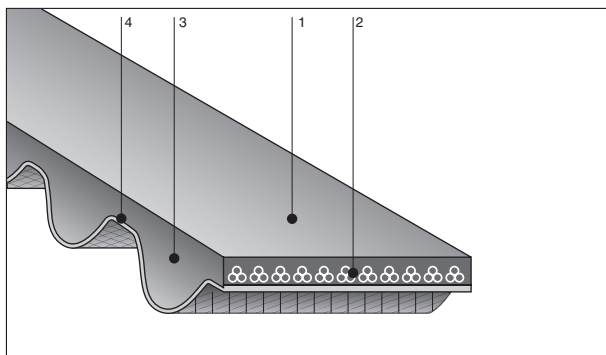
25 D T 10 1800
 Pitch length in mm
 Type
 Nominal Width in mm

Standard Sizes

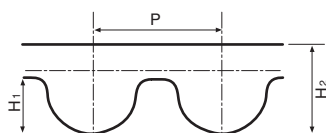
Type	P(mm)	Nominal Width	Nominal Length
DXL	5.080	025, 031, 037, 050, 075	140, 146, 150, 166, 170, 180, 190, 200, 210, 220, 230, 240, 270, 290, 300, 320, 376, 400, 430, 490

Type	P(mm)	Nominal Width	Nominal Length
DT5	5.00	5, 10, 15, 20, 25	300, 410, 460, 480, 515, 550, 590, 620, 650, 700, 750, 800, 815, 860, 900, 940, 1075, 1100
DT10	10.00	15, 20, 25, 30, 50	260, 530, 630, 660, 700, 720, 800, 840, 900, 980, 1100, 1210, 1240, 1250, 1320, 1350, 1420, 1500, 1610, 1800, 1880

BANDO HTS Belts



Dimensions

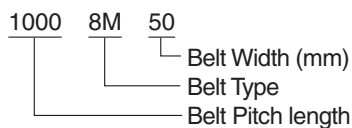


Type	P	H1	H2
8M	8.0mm	5.3mm	3.5mm
14M	14.0mm	10.2mm	6.0mm

Construction

- 1: Chloroprene rubber backing
- 2: Glass fiber tensile member
- 3: Chloroprene rubber tooth
- 4: Nylon canvas

Size mark



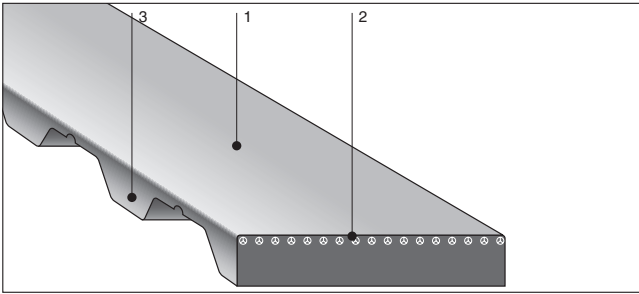
Standard Belt Width

Width(mm)	20	25	30	40	50	55	60	70	85	100	115	130	150	170
8M	●	●	●	●	●	-	●	-	●	-	-	-	-	-
14M	-	-	●	●	-	●	-	●	●	●	●	●	●	●

Standard Sizes

Belt Type	Belt number (Pitch length mm)
8M	384, 424, 480, 560, 600, 624, 640, 656, 680, 720, 760, 800, 840, 856, 880, 896, 920, 960, 1000, 1040, 1056, 1064, 1080, 1120, 1152, 1160, 1184, 1192, 1200, 1224, 1248, 1264, 1280, 1304, 1360, 1392, 1400, 1424, 1440, 1480, 1512, 1520, 1584, 1600, 1680, 1728, 1760, 1800, 1904, 2000, 2056, 2064, 2080, 2104, 2120, 2160, 2180, 2240, 2248, 2272, 2304, 2360, 2400, 2432, 2504, 2584, 2600, 2648, 2660, 2720, 2800, 2904, 2940, 3000, 3048, 3072, 3152, 3200, 3248, 3280, 3352, 3360, 3448, 3552, 3600, 3648, 3752, 3872, 4000, 4120, 4248, 4368, 4400, 4504, 4624, 4752, 4872, 5000
14M	966, 1092, 1190, 1344, 1400, 1456, 1540, 1610, 1680, 1778, 1890, 2002, 2058, 2100, 2114, 2184, 2198, 2240, 2296, 2310, 2366, 2436, 2450, 2506, 2576, 2590, 2646, 2716, 2800, 2898, 2996, 3066, 3150, 3248, 3346, 3360, 3444, 3500, 3556, 3654, 3752, 3850, 3864, 4004, 4116, 4256, 4326, 4368, 4494, 4578, 4620, 4746, 4872, 4956, 4998

BANDO BANCOLLAN SYNCHRONOUS BELTS



Construction

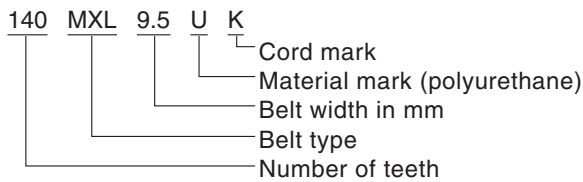
- 1: Polyurethane backing
- 2: Steel cord tensile members (For MXL, Aramid tensile members)
- 3: Polyurethane teeth

Features

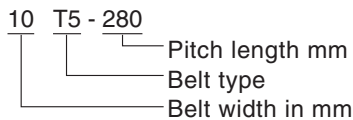
- Non-slip
Accurate tooth dimension and steel cord ensures minimal stretching, no slippage and constant speeds.
- High oil and ozone resistance.
- Special backside surfaces are available.
Bando can mold virtually any special configuration on the belt's backside surface.

Size mark

(MXL)



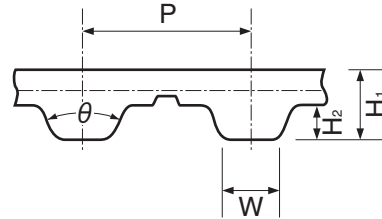
(T2.5, T5, T10)



We recommend Bando Bancollan Synchronous Belts are ideal for the following conditions.

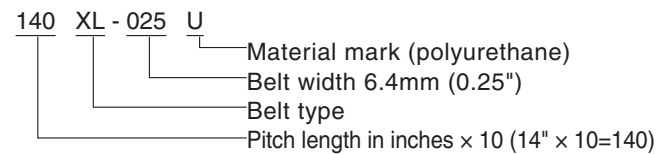
- For improved performance from the belt i.e. as a conveyor or print drive, special shapes or indications can be formed on the backside.
- High oil or ozone resistance.
- High shock load applications.

Dimensions



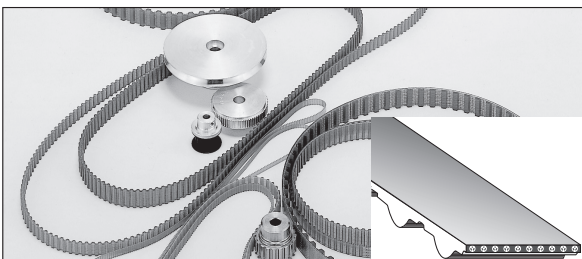
Type	P	W	H ₁	H ₂	θ
MXL	2.032mm (0.080")	0.76mm (0.030")	1.2mm (0.043")	0.51mm (0.020")	40°
XL	5.08mm (0.200")	1.35mm (0.053")	2.25mm (0.089")	1.25mm (0.049")	40°
L	9.525mm (0.375")	3.2mm (0.126")	3.5mm (0.138")	1.9mm (0.075")	40°
T2.5	2.5mm (0.098")	1.0mm (0.039")	1.3mm (0.051")	0.7mm (0.028")	40°
T5	5.0mm (0.197")	1.80mm (0.071")	2.2mm (0.087")	1.2mm (0.047")	40°
T10	10.0mm (0.394")	3.5mm (0.138")	4.5mm (0.177")	2.5mm (0.098")	40°

(XL, L)

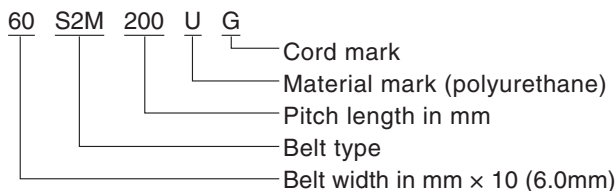


For XL type, Aramid cord (K) is available.

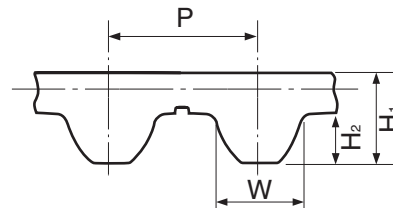
BANDO BANCOLLAN STS BELTS



Size mark



Dimensions



Type	P	W	H ₁	H ₂	Cord Mark
S2M	2.0mm	1.3mm	1.4mm	0.76mm	G K
S3M	3.0mm	1.95mm	2.0mm	1.14mm	G K

※Cord mark
G...Glass cord
K...Aramid cord

Standard Sizes

BELT TYPE	P(mm)	NOMINAL WIDTH	BELT NUMBER (PITCH LENGTH mm)
S2M (Polyurethane)	2.0	40、60、100	76、78、80、86、90、92、100、102、106、110、112、114、116、120、122、126、128、138、140、142、144、148、158、160、164、166、168、170、172、176、180、184、186、190、200、206、214、216、218、220、224、230、234、236、238、240、250、256、258、260、264、266、280、290、296、300、314、316、320、334、340、354、360、370、380、396、400、436、440、448、454、460、474、480、488、494、500、504、520、544、548、560、580、600、620、630、654、710、754、790、800、806、828、*900、976、*1000、*2250 ※Aramid Cordonly
S3M (Polyurethane)	3.0	60、100、150	120、144、150、159、162、171、174、177、186、192、195、201、204、210、213、219、222、225、234、237、240、246、252、255、264、267、270、276、285、300、312、318、327、339、342、354、360、378、384、390、396、402、405、417、420、432、447、453、459、486、501、504、507、513、516、519、537、564、588、600、609、633、660、666、681、699、750、765、774、789、804、810、885、900、936、951、1005、1050、1146、1260、1383、1596、1800、2100
BELT TYPE	P(mm)	NOMINAL WIDTH	BELT NUMBER (NO OF TEETH)
T2.5 (Polyurethane)	2.500	3、5、7、10、13	120、145、160、177.5、200、230、245、265、285、305、317.5、330、380、420、480、492.5、500、600、620、650、780、915、950
T5 (Polyurethane)	5.000	5、10、15、20、25	165、185、200、215、220、225、245、250、255、260、270、275、280、295、300、305、325、330、340、350、355、365、375、390、400、410、420、425、450、455、465、475、480、500、510、525、545、550、560、575、600、610、620、630、640、650、660、675、690、695、700、720、750、780、800、815、840、850、900、940、990、1000、1075、1100、1140、1215、1380、1440
T10 (Polyurethane)	10.000	15、20、25、30、50	260、370、400、410、440、450、500、530、560、610、630、660、690、700、720、750、780、810、840、880、890、900、920、960、970、980、1000、1010、1080、1110、1140、1150、1210、1240、1250、1300、1320、1350、1390、1400、1420、1440、1450、1460、1500、1560、1610、1750、1780、1880、1960、2250
MXL (Polyurethane)	2.032	3.2、4.8、6.4、9.5、12.7	30、35、37、40、41、42、45、48、50、52、53、54、55、56、57、60、63、65、67、68、70、71、72、73、75、76、79、80、81、82、83、85、87、88、90、91、94、95、97、98、100、102、103、106、110、112、114、115、118、120、123、125、126、128、130、132、134、136、140、144、150、155、157、160、165、170、175、180、184、190、194、195、200、205、210、212、215、220、225、230、236、240、250、255、260、265、270、280、295、300、305、310、330、336、340、347、350、360、438、453、468、579、660
BELT TYPE	P(mm)	NOMINAL WIDTH	BELT NUMBER (PITCH LENGTH INCHES×10)
XL (Polyurethane)	5.080	025、031、037、050、075	60、70、80、84、90、96、100、110、114、120、130、140、150、154、156、160、166、168、170、176、180、190、198、200、202、210、212、220、230、236、240、250、254、260、270、290、300、320、330、376、396、414、430、460、478、480、490、512、564、630、670、686、730
L (Polyurethane)	9.525	050、075、100、150、200	124、150、165、187、210、225、240、255、270、285、300、322、345、360、367、390、420、450、480、510、540、600

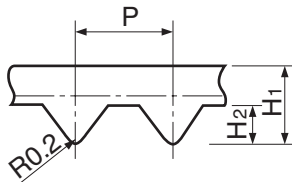
BANDO BANCOLLAN SYNCHRONOUS BELTS IN-TYPE

Bancollan Synchronous belts TN type is a highly precise, extra light-duty belt with a unique profile.

Features + Benefits

- Complete synchronized transmission
- Light drive system
- Calm and smooth drive

Dimensions



Type	P	H ₁	H ₂
TN15	1.5	1.3	0.7
TN10	1.0	0.85	0.44

unit: mm

Size mark

180 TN15 - 5.0 K

CORD MARK
Nominal width
Belt type
Number of teeth

※CORD MARK

K=Aramid
W=Steel wire
T=Polyester

(As for TN10, polyester cord is only available)

Standard Width

TN15

Nominal Width	Width (mm)
3.0	3.0
5.0	5.0
7.0	7.0
10.0	10.0
13.0	13.0

TN10

Nominal Width	Width (mm)
1.0	1.0
2.0	2.0
3.0	3.0

Standard Sizes

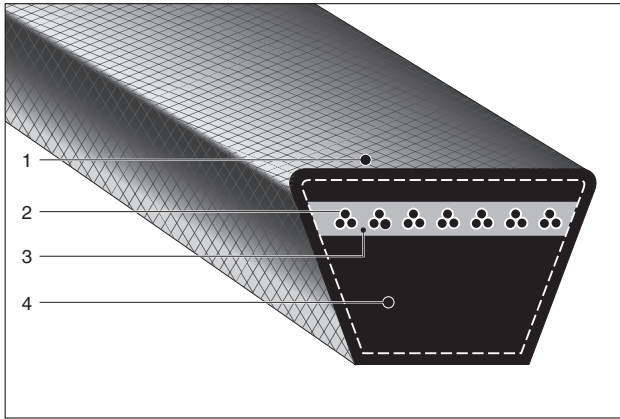
TN15 Type

BELT NUMBER	Pitch length (mm)	number of teeth	BELT NUMBER	Pitch length (mm)	number of teeth
43TN15	64.5	43	270TN15	405.0	270
50TN15	75.0	50	271TN15	406.5	271
60TN15	90.0	60	290TN15	435.0	290
63TN15	94.5	63	298TN15	447.0	298
79TN15	118.5	79	300TN15	450.0	300
82TN15	123.0	82	310TN15	465.0	310
100TN15	150.0	100	320TN15	480.0	320
110TN15	165.0	110	330TN15	495.0	330
114TN15	171.0	114	334TN15	501.0	334
120TN15	180.0	120	339TN15	508.5	339
130TN15	195.0	130	340TN15	510.0	340
131TN15	196.5	131	350TN15	525.0	350
140TN15	210.0	140	360TN15	540.0	360
150TN15	225.0	150	370TN15	555.0	370
160TN15	240.0	160	380TN15	570.0	380
170TN15	255.0	170	390TN15	585.0	390
180TN15	270.0	180	400TN15	600.0	400
186TN15	279.0	186	421TN15	631.5	421
190TN15	285.0	190	441TN15	661.5	441
192TN15	288.0	192	460TN15	690.0	460
196TN15	294.0	196	480TN15	720.0	480
200TN15	300.0	200	481TN15	721.5	481
220TN15	330.0	220	828TN15	1242.0	828
230TN15	345.0	230			
240TN15	360.0	240			
250TN15	375.0	250			
260TN15	390.0	260			

TN10 Type

BELT NUMBER	Pitch length (mm)	number of teeth
50TN10	50.0	50
60TN10	60.0	60
80TN10	80.0	80
81TN10	81.0	81
90TN10	90.0	90
98TN10	98.0	98
100TN10	100.0	100
107TN10	107.0	107
110TN10	110.0	110
120TN10	120.0	120
130TN10	130.0	130
140TN10	140.0	140
150TN10	150.0	150
160TN10	160.0	160
170TN10	170.0	170
200TN10	200.0	200
250TN10	250.0	250
287TN10	287.0	287
310TN10	310.0	310

BANDO FRACTIONAL H.P. V-BELTS (FHP) AND MULTIPLE V BELTS



Construction

- 1: Rubber impregnated canvas
- 2: Polyester tensile members
- 3: Chloroprene insulation rubber
- 4: Chloroprene compression rubber

Features

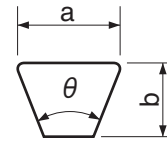
FHP V-BELTS

Bando FHP V-Belts are built for maximum tension control, drive uniformity and long life, with minimum heat build-up and stretching on low horsepower electric motors and gasoline engines. They are designed for high speed and short center distance.

MULTIPLE V-BELTS

For multiple drive, high speed and high torque drives on light or heavy industrial or automotive machinery. Bando Multiple V-Belts have exceptional length stability and drive uniformity. Rigorous testing has shown these Premium Quality Belts to have twice the service life and significantly greater transmission capacity than most other multiple V Belts.

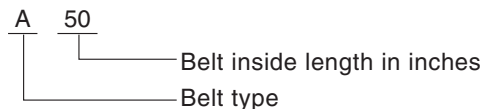
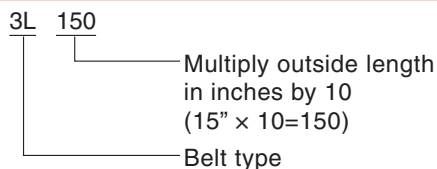
Dimensions



		Top width a	Thickness b	Angle θ
FHP	3L	10.0mm (0.38")	5.5mm (0.22")	40°
	4L	13.0mm (0.50")	8.0mm (0.31")	40°
	5L	17.0mm (0.66")	9.0mm (0.38")	40°
Multiple	A	12.7mm (0.50")	8.0mm (0.31")	40°
	B	16.7mm (0.66")	10.7mm (0.41")	40°
	C	22.2mm (0.88")	13.5mm (0.53")	40°
	D	32.0mm (1.25")	20.0mm (0.75")	40°
	E	40.0mm (1.50")	25.5mm (0.91")	40°

BANDO FRACTIONAL H.P.V-BELTS (FHP) AND MULTIPLE V BELTS

Size mark

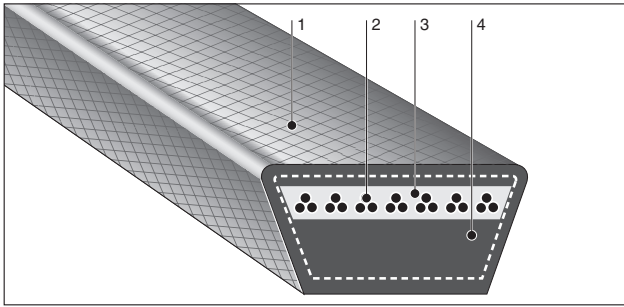


Standard Sizes

※These sizes are in conformity to RMA.

Type	Size code
3L	150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620
4L	170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000
5L	230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000
A	20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 105, 110, 112, 120, 128, 136, 144, 158, 173, 180
B	25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 100, 101, 103, 105, 108, 111, 112, 120, 124, 128, 133, 136, 144, 158, 162, 173, 180, 195, 210, 225, 240, 255, 270, 285, 300, 315
C	51, 60, 68, 75, 81, 85, 90, 96, 105, 109, 112, 115, 120, 128, 136, 144, 150, 158, 162, 173, 180, 195, 210, 225, 240, 255, 270, 285, 300, 315, 330, 345, 360, 390, 420, 450, 480
D	120, 128, 144, 158, 162, 173, 180, 195, 210, 225, 240, 255, 270, 285, 300, 315, 330, 345, 360, 390, 420, 450, 480, 540, 600
E	180, 195, 210, 240, 270, 300, 330, 360, 390, 420, 480, 540, 600

BANDO AGRICULTURAL V BELTS RED S II



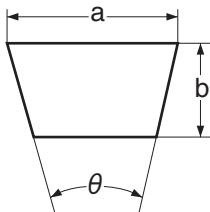
Construction

- 1: Rubber impregnated canvas
- 2: Polyester tensile members
- 3: Chloroprene insulation rubber
- 4: Chloroprene compression rubber

Features + Benefits

- Designed specifically for reverse-bend drive by positioning tensile members closer to the neutral axis and by making the belt thickness a little thinner than that of Conventional Multiple V-Belts A, B, & C Sections.
- Particularly suitable to agricultural machinery such as combine harvester and garden tiller where belts are often driven with backside idler.

Dimensions



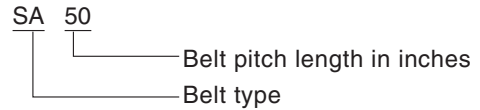
Type	Top width a	Thickness b	Angle θ
SA	12.7mm (0.5")	7.0mm (0.27")	40°
SB	16.7mm (0.67")	9.0mm (0.35")	40°
SC	22.2mm (0.87")	11.0mm (0.43")	40°

Service Life Comparison

Specific Driving Conditions	Red-S	Multiple V-Belt
reverse-bend drive	450	100
oil contamination	380	100
ambient temperature 70°C Degrees	450	100

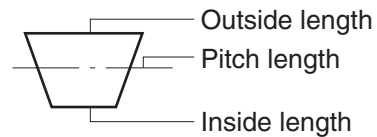
Numerical values shown above represent indexes with taking the multiple V belts as 100

Size mark

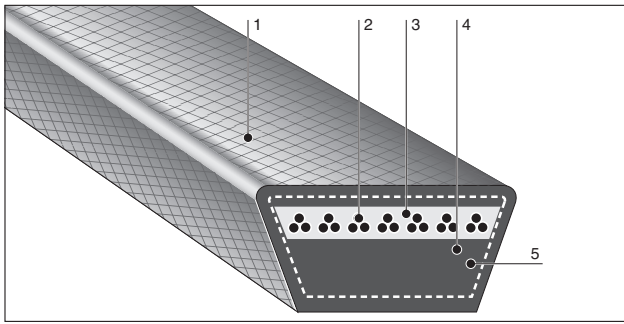


Standard Sizes

Belt type	a×b (mm)	Belt pitch length in inches
SA	12.7×7.0	20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 102 105 108 110 112 115 118 120 122 125 128 130 135 140 145 150 155 160 165 170 180 200 205 210 220 225 230 235 240 250
SB	16.7×9.0	22 25 26 27 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 102 105 108 110 112 115 118 120 122 125 128 130 132 135 138 140 145 150 155 160 165 170 180 190 200 210
SC	22.2×11.0	35 39 40 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 62 63 64 65 66 67 68 69 70 72 73 74 75 76 77 78 79 80 81 82 85 86 87 88 89 90 94 95 96 99 100 102 105 108 110 112 115 118 120 122 125 128 130 134 137 139 140 145 150 167 175



BANDO AGRICULTURAL V BELTS W800



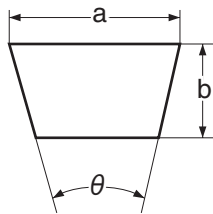
Construction

- 1: Rubber impregnated canvas
- 2: Aramid tensile members
- 3: Chloroprene insularion rubber
- 4: Fiber loaded chloroprence rubber
- 5: Chloroprene compression rubber

Features + Benefits

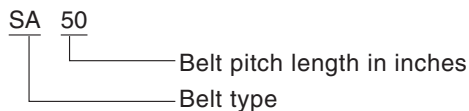
The Series W800 has heat and flex resistance superior to any other V belts, which makes it a top-end V belt for the agricultural machinery use enabling high-load power transmission. You can be assured to use this V belt under harsh environments.

Dimensions



Type	Top width a	Thickness b	Angle θ
SA	12.7mm (0.5")	7.0mm (0.27")	40°
SB	16.7mm (0.67")	9.0mm (0.35")	40°
SC	22.2mm (0.87")	11.0mm (0.43")	40°

Size mark



Making full use of the capabilities of agricultural machinery

As the agricultural machinery increasingly enhances its performance and functions, the quality required for V belts used in the agricultural machinery is going upscale.

On fine quality market, there are cases where the agricultural machinery should use more than the RED-S II in order to deliver the thorough functions. Now, we at BANDO launch the Series W800 of the highest quality among V belts (Series W) for the agricultural machinery use on the fine quality market.

Features Comparison

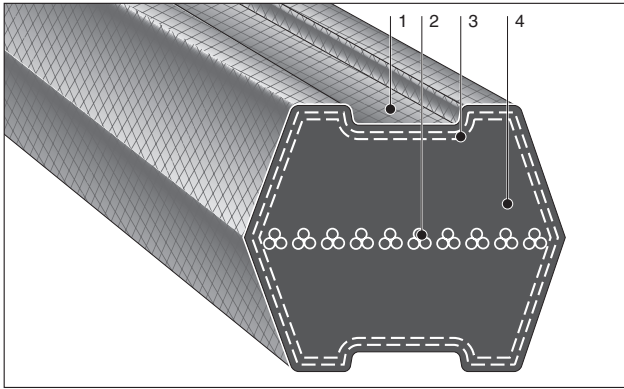
	Standard V belt	RED-S II	W800
Power transmission capability	100	150	300
Service life against reverse bending	100	450	1800
Service life against shock	100	150	450

※Numerical values shown above represent indexes when taking the standard V belt as 100.

Standard Sizes

Belt type	a x b (mm)	Belt pitch length in inches
SA	12.7 x 7.0	27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100
SB	16.7 x 9.0	27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,102,105,108,110,112,115,118,120,122,125,128,130,132,135,138,140,145,150,155,160,165,170,180,190,200
SC	22.7 x 11.0	(40),(43),(44),(45),(46),(47),48,(49),50,51,52,53,54,55,56,57,58,59,60,62,63,64,65,66,67,68,69,70,72,73,74,75,76,77,78,79,80,81,82,85,86,87,88,89,90,94,95,96,99,100,102,105,108,110,112,115,118,120,122,125,128,130,132,135,138,140,142,145,148,150,155,160,165,170,180,190,200

BANDO DOUBLE (HEXAGONAL) V-BELTS



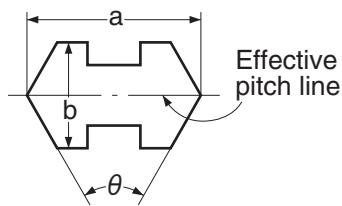
Construction

- 1: Rubber impregnated special woven canvas
- 2: Polyester tensile members
- 3: Chloroprene insulation rubber
- 4: Chloroprene compression rubber

Features + Benefits

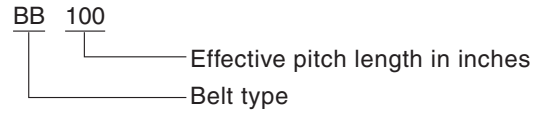
- Designed for reverse-bend serpentine drives by covering the belt with special woven fabric.
- New Cross Section for maintaining proper belt position in pulley groove even in the case of extreme reverse-bend drives.
- Due to greater flexibility created by the special woven fabric as well as to the New Cross Section, service life has increased by about 40% over that of traditional double V-Belts.

Dimensions

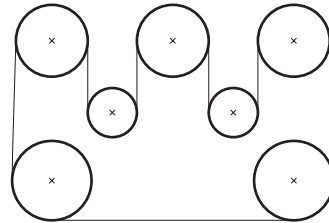


Type	a (mm)	b (mm)	θ
AA	12.5	10.3	40°
BB	16.5	13.5	
CC	22.0	18.0	

Size mark



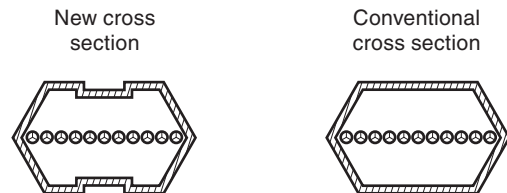
Typical reverse-bend serpentine drive



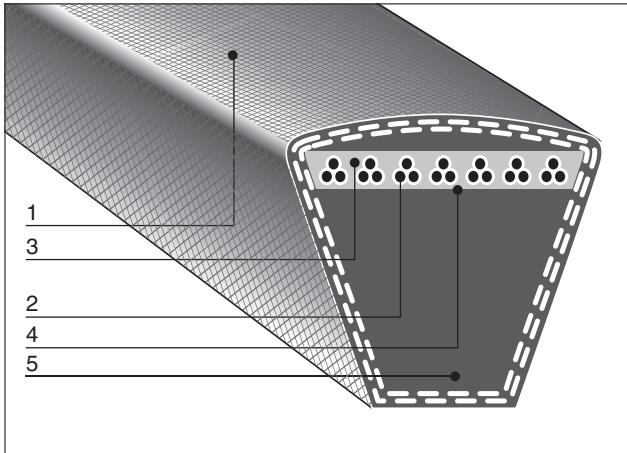
Standard Sizes

Type	Size number (Effective pitch length in inches)
AA	50 53 56 60 63 67 71 75 80 85 90 95 100 106 112 118 125 132 140
BB	60 63 67 71 75 80 85 90 95 100 106 112 118 125 132 140 150 160 170 180 190 200 212 224 236 250
CC	132 140 150 160 170 180 190 200 212 224 236 250 265 280 300

※These sizes are in conformity to JIS



BANDO POWER ACE



Construction

- 1: Rubber impregnated canvas
- 2: Polyester tensile members
- 3: Chloroprene insulation rubber
- 4: Special lateral reinforcing cord
- 5: Chloroprene compression rubber

Features

- High horsepower rating
Requires about 1/3 of the space needed by traditional Multiple V Belt drive.
- Long life
- High heat and oil resistance
- Length stability. A matched set of Bando Power Ace for multiple belt drives retains superior uniformity under tension. A Bando matched set remains perfectly matched even after long periods of storage.
- Power Ace raised crookedness nature by making texture of canvas into 120 degrees instead of 90 degrees of conventional V-belt.

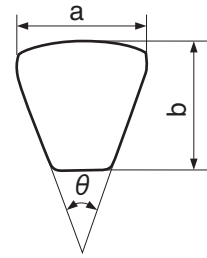
Power Ace
Outer Jacket.



Conventional V-belt
Outer Jacket.

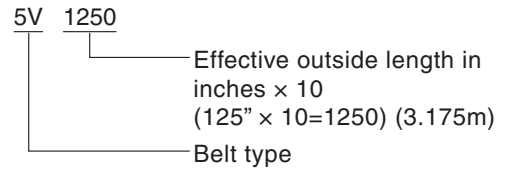


Dimensions



Type	Top width a	Thickness b	Angle θ
3V	9.5mm (0.38")	8.0mm (0.32")	40°
5V	16.0mm (0.62")	13.5mm (0.54")	40°
8V	25.5mm (1.0")	23.0mm (0.88")	40°

Size mark



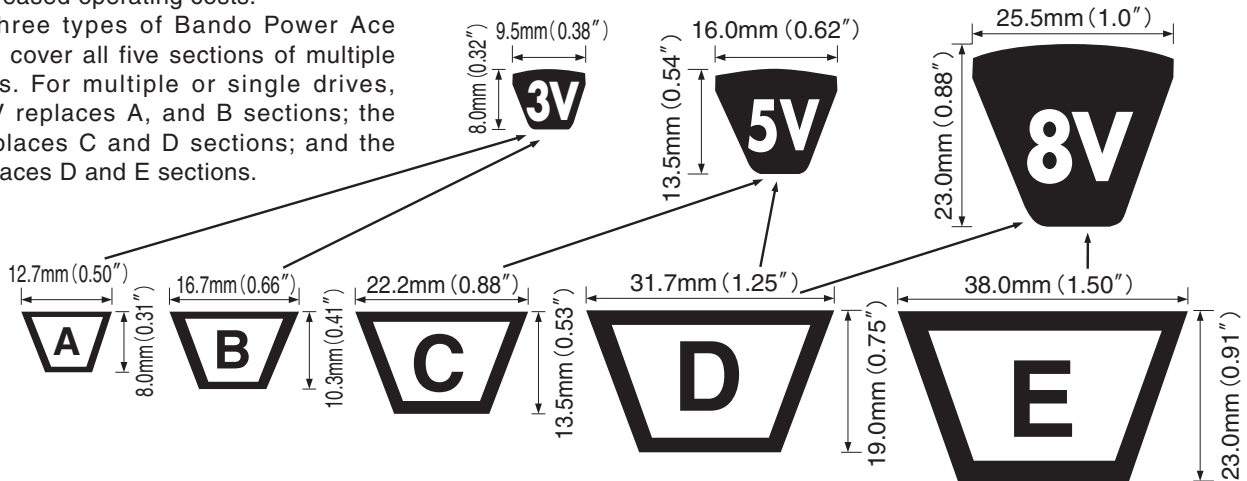
Pulley

Use RMA Engineering Standards recommended pulley groove dimensions, IP-22 (Specifications for Drives Using Narrow Multiple V-BELTS).

BANDO POWER ACE

The superior power transmission capacity of the Bando narrow Power Ace® V-belts allows for drive designs with smaller components reducing machine space and cost. The higher efficiency of the Power Ace® V-belts will also result in decreased operating costs.

Just three types of Bando Power Ace ideally cover all five sections of multiple V-belts. For multiple or single drives, the 3V replaces A, and B sections; the 5V replaces C and D sections; and the 8V replaces D and E sections.

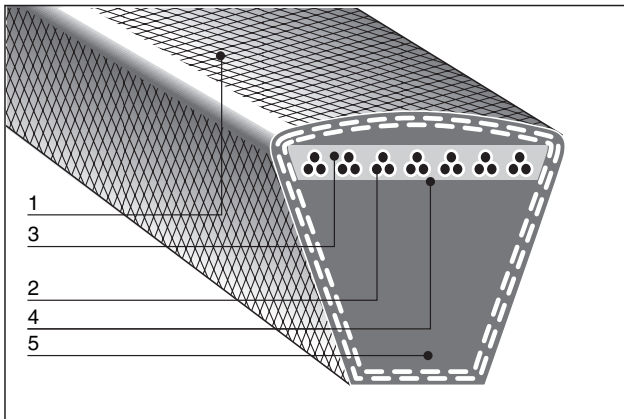


Standard Sizes

※These sizes are in conformity to RMA.

Belt number	Effective outside length		Belt number	Effective outside length		Belt number	Effective outside length	
	mm	inch		mm	inch		mm	inch
3V 250	635	25.0	3V 475	1207	47.5	3V 900	2286	90.0
3V 265	673	26.5	3V 500	1270	50.0	3V 950	2413	95.0
3V 280	711	28.0	3V 530	1346	53.0	3V1000	2540	100.0
3V 300	762	30.0	3V 560	1422	56.0	3V1060	2692	106.0
3V 315	800	31.5	3V 600	1524	60.0	3V1120	2845	112.0
3V 335	851	33.5	3V 630	1600	63.0	3V1180	2997	118.0
3V 355	902	35.5	3V 670	1702	67.0	3V1250	3175	125.0
3V 375	953	37.5	3V 710	1803	71.0	3V1320	3353	132.0
3V 400	1016	40.0	3V 750	1905	75.0	3V1400	3556	140.0
3V 425	1080	42.5	3V 800	2032	80.0			
3V 450	1143	45.0	3V 850	2159	85.0			
5V 500	1270	50.0	5V1000	2540	100.0	5V2000	5080	200.0
5V 530	1346	53.0	5V1060	2692	106.0	5V2120	5385	212.0
5V 560	1422	56.0	5V1120	2845	112.0	5V2240	5690	224.0
5V 600	1524	60.0	5V1180	2997	118.0	5V2360	5994	236.0
5V 630	1600	63.0	5V1250	3175	125.0	5V2500	6350	250.0
5V 670	1702	67.0	5V1320	3353	132.0	5V2650	6731	265.0
5V 710	1803	71.0	5V1400	3556	140.0	5V2800	7112	280.0
5V 750	1905	75.0	5V1500	3810	150.0	5V2800	7620	300.0
5V 800	2032	80.0	5V1600	4064	160.0	5V3000	8001	315.0
5V 850	2159	85.0	5V1700	4318	170.0	5V3150	8509	335.0
5V 900	2286	90.0	5V1800	4572	180.0	5V3550	9017	355.0
5V 950	2413	95.0	5V1900	4826	190.0			
8V1000	2540	100.0	8V1800	4572	180.0	8V3150	8001	315.0
8V1060	2692	106.0	8V1900	4826	190.0	8V3350	8509	335.0
8V1120	2845	112.0	8V2000	5080	200.0	8V3550	9017	355.0
8V1180	2997	118.0	8V2120	5385	212.0	8V3750	9525	375.0
8V1250	3175	125.0	8V2240	5690	224.0	8V4000	10160	400.0
8V1320	3353	132.0	8V2360	5994	236.0	8V4250	10795	425.0
8V1400	3556	140.0	8V2500	6350	250.0	8V4500	11430	450.0
8V1500	3810	150.0	8V2650	6731	265.0	8V4750	12065	475.0
8V1600	4064	160.0	8V2800	7112	280.0	8V5000	12700	500.0
8V1700	4318	170.0	8V3000	7620	300.0	8V5600	14224	560.0

BANDO NARROW V BELTS SP-TYPE



Construction

- 1: Rubber impregnated canvas
- 2: Polyester tensile members
- 3: Chloroprene insulation rubber
- 4: Special lateral reinforcing cord
- 5: Chloroprene compression rubber

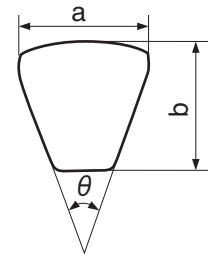
Features

- High horsepower rating
Requires about 1/3 of the space needed by traditional Multiple V Belt drive.
- Long life
- High heat and oil resistance
- Length stability. A matched set of Bando Narrow V-Belts for multiple belt drives retains superior uniformity under tension. A Bando matched set remains perfectly matched even after long periods of storage.
- Compared with Conventional V-belt. Bando Narrow V Belts are thick and realized high load.

Standard Sizes

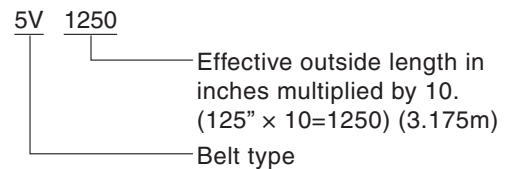
Belt number	Effective inside length mm	Belt number	Effective inside length mm	Belt number	Effective inside length mm
SPZ	630	SPA	707	SPB	1260
SPZ	670	SPA	732	SPB	1340
SPZ	710	SPA	800	SPB	1410
SPZ	760	SPA	850	SPB	1510
SPZ	800	SPA	900	SPB	1590
SPZ	850	SPA	950	SPB	1690
SPZ	900	SPA	957	SPB	1800
SPZ	950	SPA	982	SPB	1900
SPZ	1010	SPA	1000	SPB	2020
SPZ	1080	SPA	1060	SPB	2150
SPZ	1140	SPA	1120	SPB	2280
SPZ	1200	SPA	1180	SPB	2410
SPZ	1270	SPA	1250		
SPZ	1340	SPA	1320		
SPZ	1420	SPA	1400		
SPZ	1520	SPA	1500		
SPZ	1600	SPA	1600		
SPZ	1700	SPA	1700		
SPZ	1800	SPA	1800		
SPZ	1900				
SPZ	2030				

Dimensions



Type	Top width a	Thickness b	Angle θ
SPZ	9.5	8.0mm	40°
SPA	12.5mm	10.0mm	40°
SPB	16.0mm	13.5mm	40°
SPC	20.0mm	18.0mm	40°

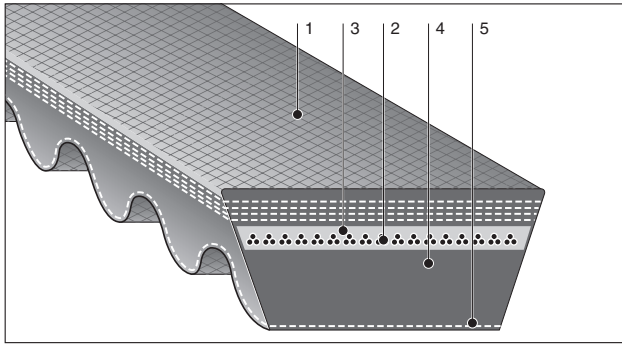
Size mark



Pulley

Use RMA Engineering Standards recommended pulley groove dimensions, IP-22 (Specifications for Drives Using Narrow Multiple V-BELTS).

BANDO VARIABLE SPEED BELTS



Construction

- 1: Rubber impregnated canvas
- 2: Polyester tensile members
- 3: Chloroprene insulation rubber
- 4: Chloroprene compression rubber
- 5: Rubber impregnated canvas

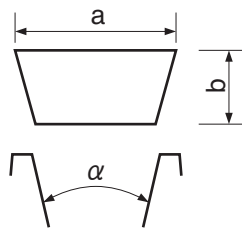
Features + Benefits

- Flexibility
Cog pattern gives greater flexibility resulting in efficient heat dissipation.
- High power transmission capacity
Strong tensile members and transverse modulus provide high horsepower rating.
- High heat and oil resistance.
- Wide range of speed ratios.

(1) Standard Sizes

Standard belt profiles are shown in Fig.1 and sizes are listed in Fig.2

Dimensions



Size mark

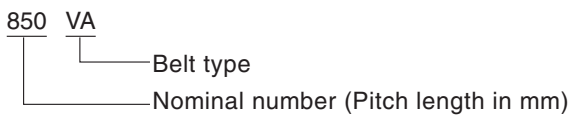


Fig.1 Standard Profiles

Type	VA	VB	VC	VD	VE
Thickness (b mm)	8.5	10	11.5	13.5	16
Top width (a mm)	25	31	41	52	66
Pulley Groove Angle (α°)	30~34				

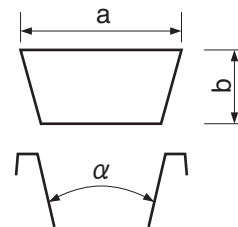
Fig.2 Standard Sizes

Nominal No.	VA	VB	VC	VD	VE	Nominal No.	VA	VB	VC	VD	VE
560	○					1000	○	○	○	○	
600	○					1030			○	○	
615	○					1060	○	○	○	○	
630	○	○				1090			○	○	○
650	○	○				1120	○	○	○	○	○
670	○	○				1150			○	○	○
690	○	○				1180	○	○	○	○	○
710	○	○	○			1220			○	○	○
730	○	○	○			1250		○	○	○	○
750	○	○	○			1280			○	○	○
775	○	○	○			1320			○	○	○
800	○	○	○	○		1360			○	○	○
825	○	○	○	○		1400			○	○	○
850	○	○	○	○	○	1450			○	○	○
875		○	○	○		1500			○	○	○
900	○	○	○	○		1550			○	○	○
925		○	○	○		1600			○	○	○
950	○	○	○	○		1700				○	○
975		○	○	○		1800				○	○

(2) Semi-Standard Sizes

Semi-standard profiles are available within the range of top width and pulley groove angles shown in Fig.3. Belt lengths are as per Fig.2

Dimensions



Size mark

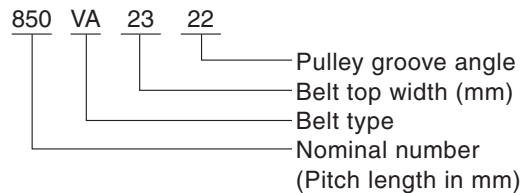
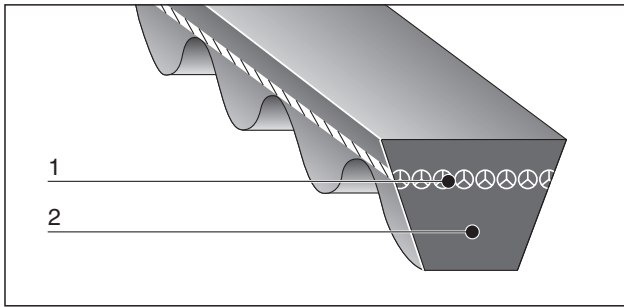


Fig.3 Semi-Standard Profiles

Type	VA	VB	VC	VD	VE
Thickness (b mm)	8.5	10	11.5	13.5	16
Top width (a mm)	16~32	20~38	24~45	30~54	37~67
Pulley Groove Angle α	22~38				

BANDO BANCOLLAN V BELTS

V COGGED BELTS (VC)



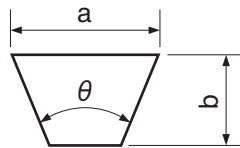
Construction

- 1: Polyester tensile members
- 2: Polyurethane compression section.

Features

- Space saving: Pulleys as small as 0.6" OD can be used.
- Clean operation: No "black rubber dust" problem.
- High oil resistance.

Dimensions

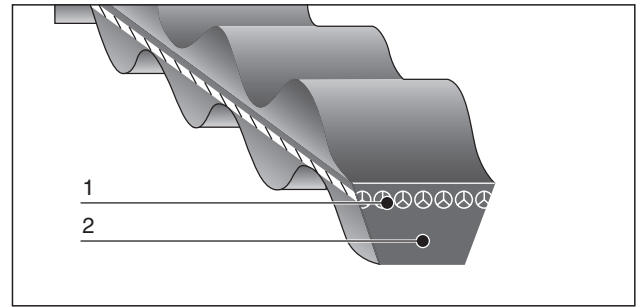


	Type	Top width a	Thickness b	Angle θ
VC	2L	6.5mm (0.25")	4.0mm (0.16")	40°
	6	6.0mm (0.24")	4.0mm (0.16")	40°
DC	6	6.0mm (0.24")	4.0mm (0.16")	40°

Standard Sizes

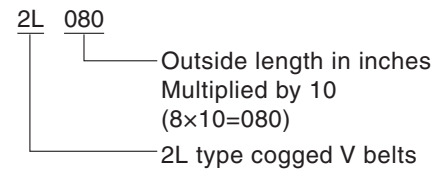
Type	Belt number	Outside length		Belt number	Outside length		Belt number	Outside length		Belt number	Outside length		
		mm	inch		mm	inch		mm	inch		mm	inch	
VC 2L	2L 080	203.2	8.0	2L 130	330.2	13.0	2L 180	457.2	18.0	2L 260	660.4	26.0	
	2L 090	228.6	9.0	2L 140	355.6	14.0	2L 190	482.6	19.0	2L 280	711.2	28.0	
	2L 100	254.0	10.0	2L 150	381.0	15.0	2L 200	508.0	20.0	2L 300	762.0	30.0	
	2L 110	279.4	11.0	2L 160	406.4	16.0	2L 220	558.8	22.0	2L 340	863.6	34.0	
	2L 120	304.8	12.0	2L 170	431.8	17.0	2L 240	609.6	24.0				
VC 6	VC6X207	207.0	8.1	VC6X349	349.0	13.7	VC6X450	450.0	17.7	VC6X613	613.0	24.1	
	VC6X220	220.0	8.7	VC6X350	350.0	13.8	VC6X460	460.0	18.1	VC6X628	628.0	24.7	
	VC6X232	232.0	9.1	VC6X360	360.0	14.2	VC6X466	466.0	18.3	VC6X650	650.0	25.6	
	VC6X250	250.0	9.8	VC6X370	370.0	14.6	VC6X470	470.0	18.5	VC6X663	663.0	26.1	
	VC6X260	260.0	10.2	VC6X380	380.0	14.96	VC6X480	480.0	18.9	VC6X700	700.0	27.6	
	VC6X261	261.0	10.3	VC6X381	381.0	15.0	VC6X485	485.0	19.1	VC6X713	713.0	28.1	
	VC6X280	280.0	11.0	VC6X390	390.0	15.4	VC6X490	490.0	19.3	VC6X730	730.0	28.7	
	VC6X289	289.0	11.4	VC6X400	400.0	15.7	VC6X500	500.0	19.7	VC6X750	750.0	29.5	
	VC6X297	297.0	11.7	VC6X407	407.0	16.0	VC6X511	511.0	20.1	VC6X760	760.0	29.9	
	VC6X300	300.0	11.8	VC6X410	410.0	16.1	VC6X520	520.0	20.5	VC6X764	764.0	31.1	
	VC6X315	315.0	12.4	VC6X414	414.0	16.3	VC6X530	530.0	20.9	VC6X800	800.0	31.5	
	VC6X320	320.0	12.6	VC6X420	420.0	16.5	VC6X540	540.0	21.3	VC6X821	821.0	32.3	
	VC6X330	330.0	13.0	VC6X430	430.0	16.9	VC6X550	550.0	21.7	VC6X850	850.0	33.5	
	VC6X340	340.0	13.4	VC6X432	432.0	17.0	VC6X561	561.0	22.1	VC6X866	866.0	34.1	
	VC6X343	343.0	13.5	VC6X440	440.0	17.3	VC6X587	587.0	23.1				
	VC6X345	345.0	13.6	VC6X444	444.0	17.5	VC6X600	600.0	23.6				
	DC 6	DC6X200	200.0	7.9	DC6X277	277.0	10.9	DC6X330	330.0	13.0	VC6X380	380.0	15.0
		DC6X210	210.0	8.3	DC6X280	280.0	11.0	DC6X340	340.0	13.4	VC6X390	390.0	15.4
DC6X230		230.0	9.1	DC6X290	290.0	11.4	DC6X345	345.0	13.6	VC6X400	400.0	15.7	
DC6X240		240.0	9.4	DC6X300	300.0	11.8	DC6X350	350.0	13.8	VC6X450	450.0	17.7	
DC6X250		250.0	9.8	DC6X310	310.0	12.2	DC6X360	360.0	14.2	VC6X500	500.0	19.7	
DC6X260		260.0	10.2	DC6X315	315.0	12.4	DC6X365	365.0	14.4	VC6X540	540.0	21.3	
DC6X270		270.0	10.6	DC6X320	320.0	12.6	DC6X370	370.0	14.6				

DOUBLE COGGED V BELTS (DC)

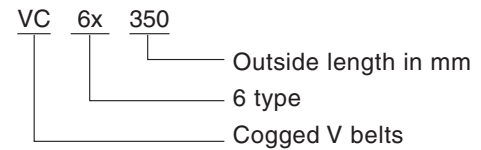


Size mark

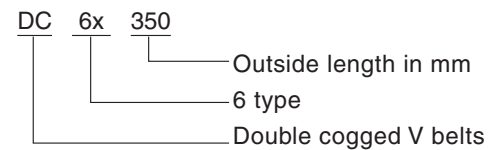
(VC 2L types)



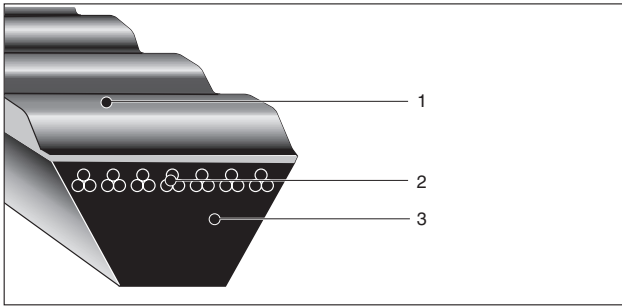
(VC-6 type)



(DC-6 type)



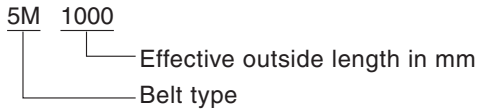
BANDO BANFLEX



Construction

- 1: Polyurethane
- 2: Polyester tensile members
- 3: Polyurethane compression section.

Size mark



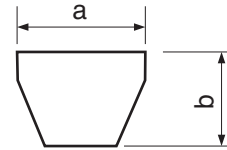
Standard Sizes

Effective outside length		Type				Effective outside length		Type				Effective outside length		Type			
mm	inch	3M	5M	7M	11M	mm	inch	3M	5M	7M	11M	mm	inch	3M	5M	7M	11M
180	7.1	○				437	17.2	○	○			1030	40.6		○	○	○
185	7.3	○				450	17.7	○	○			1060	41.7		○	○	○
190	7.5	○				462	18.2	○	○			1090	42.9		○	○	○
195	7.7	○				475	18.7	○	○			1120	44.1		○	○	○
200	7.9	○				487	19.2	○	○			1150	45.3		○	○	○
206	8.1	○				500	19.7	○	○	○		1180	46.5		○	○	○
212	8.3	○				515	20.3	○	○	○		1220	48.0		○	○	○
218	8.6	○				518	20.4		○			1250	49.2		○	○	○
224	8.8	○				530	20.9	○	○	○		1280	50.4		○	○	○
230	9.1	○				545	21.5	○	○	○		1320	52.0		○	○	○
236	9.3	○				560	22.0	○	○	○		1360	53.5		○	○	○
243	9.6	○				580	22.8	○	○	○		1400	55.1		○	○	○
250	9.8	○				600	23.6	○	○	○		1450	57.1		○	○	○
258	10.2	○				615	24.2	○	○	○		1500	59.1		○	○	○
265	10.4	○				630	24.8	○	○	○		1550	61.0			○	○
272	10.7	○				650	25.6	○	○	○		1600	63.0			○	○
280	11.0	○	○			670	26.4	○	○	○		1650	65.0			○	○
290	11.4	○	○			690	27.2	○	○	○		1700	66.9			○	○
300	11.8	○	○			710	28.0	○	○	○	○	1750	68.9			○	○
307	12.1	○	○			730	28.7	○	○	○	○	1800	70.9			○	○
315	12.4	○	○			750	29.5	○	○	○	○	1850	72.8		○	○	○
325	12.8	○	○			775	30.5		○	○	○	1900	74.8			○	○
335	13.2	○	○			800	31.5		○	○	○	1950	76.8			○	○
345	13.6	○	○			825	32.5		○	○	○	2000	78.7			○	○
355	14.0	○	○			850	33.5		○	○	○	2060	81.1			○	○
365	14.4	○	○			875	34.4		○	○	○	2120	83.5			○	○
375	14.8	○	○			900	35.4		○	○	○	2180	85.8			○	○
387	15.2	○	○			925	36.4		○	○	○	2240	88.2			○	○
400	15.7	○	○			950	37.4		○	○	○	2300	90.6			○	○
412	16.2	○	○			975	38.4		○	○	○						
425	16.7	○	○			1000	39.4		○	○	○						

Features + Benefits

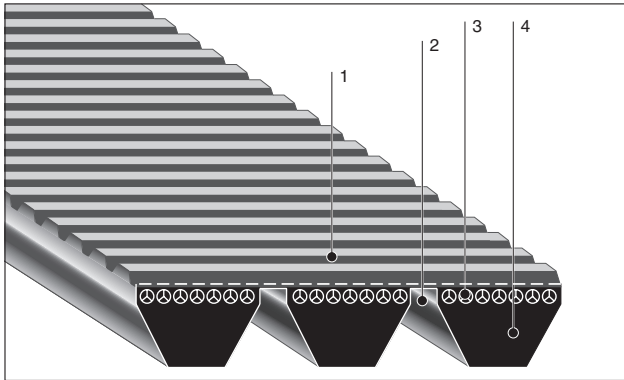
- Space saving
High horsepower rating and small pulley requirements permit compact designs.
- Smooth running
Belt runs very smoothly because of ground side wall.
- High speed drive
Because they are very light weight, Banflex belts can be driven at high speeds without excessive vibration or wear.

Dimensions



Type	Top width a	Thickness b
3M	3.0mm (0.12")	2.1mm (0.08")
5M	5.0mm (0.20")	3.3mm (0.12")
7M	7.0mm (0.28")	5.3mm (0.20")
11M	11.0mm (0.43")	6.9mm (0.28")

BANDO BANFLEX SCRUM



Construction

- 1: Polyurethane
- 2: Tie band
- 3: Polyester tensile members
- 4: Polyurethane compression section

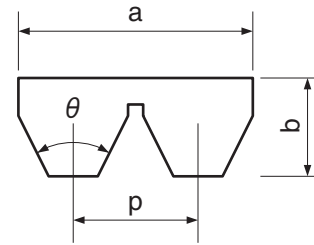
Features + Benefits

- Smooth high speed drive up to 12,000 feet/min.
- Low vibration without spin or jump off.
- Space saving
Small pulleys and high speed ratios make it possible to design compact and lightweight machines.
- Ideal for horizontal drive.
- High oil and ozone resistance.

Standard Sizes

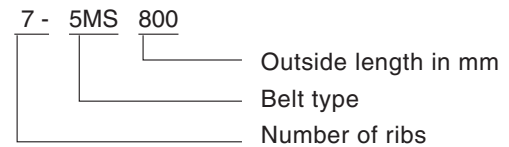
Outside length		Type			Outside length		Type			Outside length		Type		
mm	inch	5MS	7MS	11MS	mm	inch	5MS	7MS	11MS	mm	inch	5MS	7MS	11MS
280	11.0	○			580	22.8	○	○		1180	46.5	○	○	○
290	11.4	○			600	23.6	○	○		1220	48.0	○	○	○
300	11.8	○			615	24.2	○	○		1250	49.2	○	○	○
307	12.1	○			630	24.8	○	○		1280	50.4	○	○	○
315	12.4	○			650	25.6	○	○		1320	52.0	○	○	○
325	12.8	○			670	26.4	○	○		1360	53.5	○	○	○
335	13.2	○			690	27.2	○	○		1400	55.1	○	○	○
345	13.6	○			710	28.0	○	○	○	1450	57.1	○	○	○
355	14.0	○			730	28.7	○	○	○	1500	59.1	○	○	○
365	14.4	○			750	29.5	○	○	○	1550	61.0		○	○
375	14.8	○			775	30.5	○	○	○	1600	63.0		○	○
387	15.2	○			800	31.5	○	○	○	1650	65.0		○	○
400	15.7	○			825	32.5	○	○	○	1700	66.9		○	○
412	16.2	○			850	33.5	○	○	○	1750	68.9		○	○
425	16.7	○			875	34.4	○	○	○	1800	70.9		○	○
437	17.2	○			900	35.4	○	○	○	1850	72.8	○		○
450	17.7	○			925	36.4	○	○	○	1900	74.8		○	○
462	18.2	○			950	37.4	○	○	○	1950	76.8		○	○
475	18.7	○			975	38.4	○	○	○	2000	78.7		○	○
487	19.2	○			1000	39.4	○	○	○	2060	81.1		○	○
500	19.7	○	○		1030	40.6	○	○	○	2120	83.5		○	○
515	20.3	○	○		1060	41.7	○	○	○	2180	85.8		○	○
530	20.9	○			1090	42.9	○	○	○	2240	88.2		○	○
545	21.5	○	○		1120	44.1	○	○	○	2300	90.6		○	○
560	22.0	○	○		1150	45.3	○	○	○					

Dimensions



Type		Top width a		Thickness b		Pitch P
		mm	inch	mm	inch	
5MS	2 ribs	9.8	0.39	3.3	0.13	5.3mm (0.21")
	3 ribs	15.1	0.59			
7MS	2 ribs	15.6	0.61	5.3	0.21	8.5mm (0.33")
	3 ribs	24.1	0.95			
11MS	2 ribs	24.4	0.96	7.0	0.28	13.2mm (0.52")
	3 ribs	37.6	1.48			

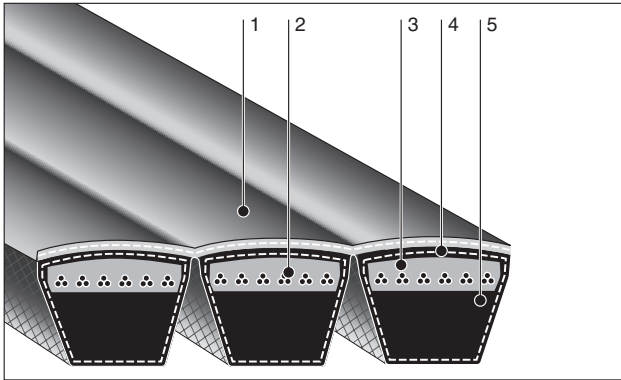
Size mark



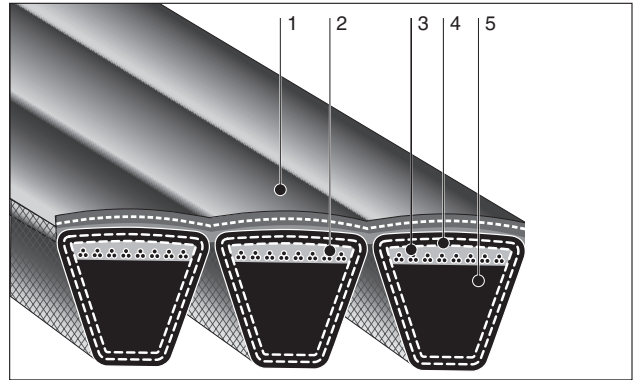
※More than 4 ribs, we combine 2 or 3 ribs belts as following.

Number of ribs	Standard combination	Number of ribs	Standard combination
4	2+2	8	3+2+3
5	2+3	9	3+3+3
6	3+3	10	2+3+3+2
7	2+3+2	12	3+3+3+3

BANDO POWER SCRUM



Multiple V Belt type



Power Ace type

Construction

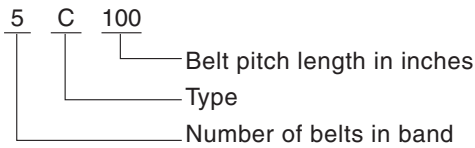
- 1: Tie-band
- 2: Polyester tensile members
- 3: Chloroprene insulation rubber
- 4: Rubber impregnated canvas
- 5: Chloroprene compression rubber.

Features + Benefits

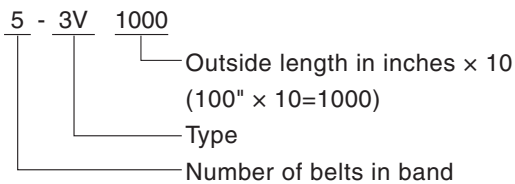
- Permanent matched set.
- No lateral whip, spin or turn over.
- Deep pulley grooves are not required even on horizontal drives.
- Heat and oil resistant.

Size mark

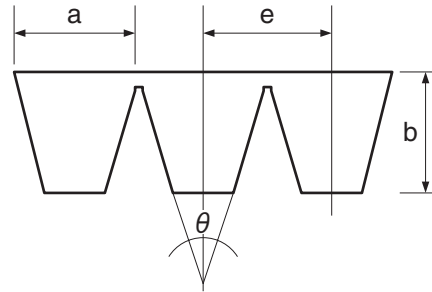
(Multiple V type)



(Power Ace type)



Dimensions



Type	Top width of one belt a	Thickness b	Angle θ	Pitch between two belts e
A	13.0mm (0.5")	13.0mm (0.5")	40°	13.0mm (0.5")
B	17.0mm (0.66")	13.0mm (0.5")	40°	13.0mm (0.5")
C	13.0mm (0.5")	13.0mm (0.5")	40°	13.0mm (0.5")
D	13.0mm (0.5")	13.0mm (0.5")	40°	13.0mm (0.5")
3V	13.0mm (0.5")	13.0mm (0.5")	40°	13.0mm (0.5")
5V	13.0mm (0.5")	13.0mm (0.5")	40°	13.0mm (0.5")
8V	13.0mm (0.5")	13.0mm (0.5")	40°	13.0mm (0.5")

※More than 6 ribs, we combine 2, 3, 4 or 5 ribs belts as following.

Number of ribs	Standard combination	Number of ribs	Standard combination
-	-	11	4+3+4
2	2	12	4+4+4
3	3	13	4+5+4
4	4	14	5+4+5
5	5	15	5+5+5
6	3+3	16	4+4+4+4
7	3+4	17	4+4+5+4
8	4+4	18	5+4+4+5
9	4+5	19	5+4+5+5
10	5+5	20	5+5+5+5

Standard Sizes

Power Ace

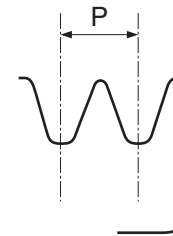
※These sizes are in conformity to JIS.

Type	Belt number	Outside length		Belt number	Outside length		Belt number	Outside length	
		mm	inch		mm	inch		mm	inch
3V	3V 400	1,016	40.0	3V 630	1,600	63.0	3V1000	2,540	100.0
	3V 425	1,080	42.5	3V 670	1,702	67.0	3V1060	2,692	106.0
	3V 450	1,143	45.0	3V 710	1,803	71.0	3V1120	2,845	112.0
	3V 475	1,207	47.5	3V 750	1,905	75.0	3V1180	2,997	118.0
	3V 500	1,270	50.0	3V 800	2,032	80.0	3V1250	3,175	125.0
	3V 530	1,346	53.0	3V 850	2,159	85.0	3V1320	3,353	132.0
	3V 560	1,422	56.0	3V 900	2,286	90.0	3V1400	3,556	140.0
	3V 600	1,525	60.0	3V 950	2,413	95.0			
5V	5V 600	1,524	60.0	5V1120	2,845	112.0	5V2120	5,385	212.0
	5V 630	1,600	63.0	5V1180	2,997	118.0	5V2240	5,690	224.0
	5V 670	1,702	67.0	5V1250	3,175	125.0	5V2360	5,994	236.0
	5V 710	1,803	71.0	5V1320	3,353	132.0	5V2500	6,350	250.0
	5V 750	1,905	75.0	5V1400	3,556	140.0	5V2650	6,731	265.0
	5V 800	2,032	80.0	5V1500	3,810	150.0	5V2800	7,112	280.0
	5V 850	2,159	85.0	5V1600	4,064	160.0	5V3000	7,620	300.0
	5V 900	2,286	90.0	5V1700	4,318	170.0	5V3150	8,001	315.0
	5V 950	2,413	95.0	5V1800	4,572	180.0	5V3350	8,509	335.0
	5V1000	2,540	100.0	5V1900	4,826	190.0	5V3550	9,017	355.0
	5V1060	2,692	106.0	5V2000	5,080	200.0			
	8V	8V1000	2,540	100.0	8V1800	4,572	180.0	8V3150	8,001
8V1060		2,692	106.0	8V1900	4,826	190.0	8V3350	8,509	335.0
8V1120		2,845	112.0	8V2000	5,080	200.0	8V3550	9,017	355.0
8V1180		2,997	118.0	8V2120	5,385	212.0	8V3750	9,525	375.0
8V1250		3,175	125.0	8V2240	5,690	224.0	8V4000	10,160	400.0
8V1320		3,353	132.0	8V2360	5,994	236.0	8V4250	10,795	425.0
8V1400		3,556	140.0	8V2500	6,350	250.0	8V4500	11,430	450.0
8V1500		3,810	150.0	8V2650	6,731	265.0	8V4750	12,065	475.0
8V1600		4,064	160.0	8V2800	7,112	280.0	8V5000	12,700	500.0
8V1700		4,318	170.0	8V3000	7,620	300.0	8V5600	14,224	560.0

V Belt type

Type	Minimum effective pitch length		Maximum effective pitch length	
	mm	inch	mm	inch
A	1,524	60	5,080	200
B	1,524	60	8,890	350
C	2,540	100	8,890	350
D	2,540	100	8,890	350

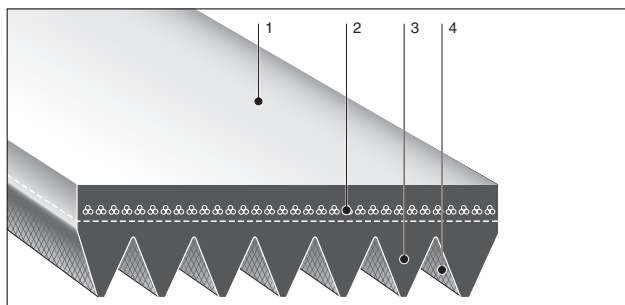
Recommended Pulley Groove Pitch



Type	Pulley pitch P	
	mm	inch
A	15.0	0.59
B	19.0	0.75
C	25.5	1.00
D	37.0	1.46

Type	Pulley pitch P	
	mm	inch
3V	10.3	0.41
5V	17.5	0.69
8V	28.6	1.13

BANDO POLYBANROPE



Construction

- 1: Chloroprene backside rubber
- 2: Polyester tensile members
- 3: Chloroprene compression rubber
- 4: Rubber impregnated canvas (except J Type)

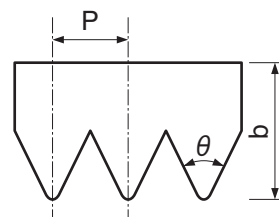
Features + Benefits

- High horsepower rating.
BANDO POLYBANROPE have a 30-50% higher HP rating than multiple V belts.
- Space saving
Pulleys with outside diameters as small as 0.8" can be used. (Type J)
- Lower vibration than flat belts.
Comparable to flat belts.
- Oil and heat resistant.

Standard Sizes

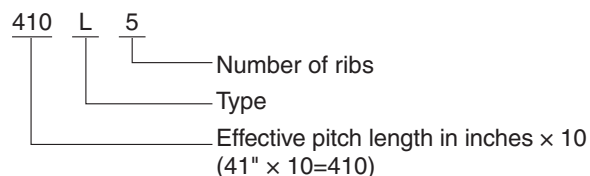
Type	belt number	Effective length		belt number	Effective length		belt number	Effective length		
		mm	inch		mm	inch		mm	inch	
J	108J	274.3	10.8	245J	622.3	24.5	360J	114.4	36.0	
	117J	297.2	11.7	251J	637.5	25.1	370J	939.8	37.0	
	132J	335.3	13.2	260J	660.4	26.0	380J	965.2	38.0	
	140J	355.6	14.0	278J	706.1	27.8	390J	990.0	39.0	
	159J	403.9	15.9	280J	711.2	28.0	400J	1016.0	40.0	
	180J	457.2	18.0	300J	762.0	30.0	430J	1092.2	43.0	
	190J	482.6	19.0	307J	779.8	30.7	450J	1143.0	45.0	
	199J	505.5	19.9	315J	800.1	31.5	460J	1168.4	46.0	
	210J	533.4	21.0	323J	820.4	32.3	470J	1193.8	47.0	
	220J	558.8	22.0	330J	838.2	33.0	474J	1204.0	47.4	
	224J	569.0	22.4	337J	856.0	33.7	490J	1244.6	49.0	
	235J	596.9	23.5	340J	863.6	34.0	520J	1320.8	52.0	
	240J	609.0	24.0	350J	889.0	35.0	530J	1346.2	53.0	
	L	214L	543.6	21.4	410L	1041.4	41.0	730L	1854.2	73.0
		241L	612.1	24.1	415L	1054.1	41.5	750L	1905.0	75.0
		260L	660.4	26.0	417L	1059.2	41.7	780L	1981.2	78.0
277L		703.6	27.7	423L	1074.4	42.3	815L	2070.1	81.5	
290L		736.6	29.0	470L	1193.8	47.0	835L	2120.9	83.5	
327L		830.6	32.7	490L	1244.6	49.0	865L	2197.1	86.5	
337L		856.0	33.7	515L	1308.1	51.5	932L	2367.3	93.2	
344L		873.8	34.4	530L	1346.2	53.0	975L	2476.5	97.5	
347L		881.4	34.7	540L	1371.6	54.0	1016L	2580.6	101.6	
348L		883.9	34.8	570L	1447.8	57.0	1063L	2700.0	106.3	
358L		909.3	35.8	600L	1524.0	60.0	1120L	2844.8	112.0	
362L		919.5	36.2	615L	1562.1	61.5	1200L	3048.0	120.0	
376L		955.0	37.6	650L	1651.0	65.0	1480L	3759.2	148.0	
386L		980.4	38.6	680L	1727.2	68.0				
395L		1003.3	39.5	690L	1752.6	69.0				
M		417M	1059.2	41.7	851M	2161.5	85.1	1310M	3327.4	131.0
	557M	1414.8	55.7	878M	2230.1	87.8	1470M	3733.8	147.0	
	630M	1600.2	63.0	990M	2514.6	99.0	1900M	4826.0	190.0	
	652M	1656.1	65.2	1150M	2921.0	115.0				
	756M	1920.2	75.6	1230M	3124.2	123.0				

Dimensions

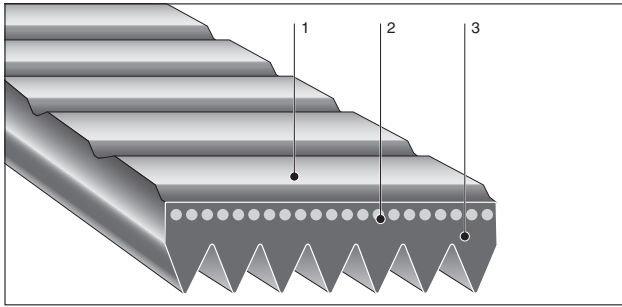


Type	Thickness b		Angle θ	Pitch (p)	
	mm	inch		mm	inch
J	4.0	0.16	40°	2.4	0.092
L	9.0	0.34	40°	4.8	0.185
M	16.5	0.65	40°	9.6	0.370

Size mark



BANDO BANCOLLAN POLYBANROPE



Construction

- 1: Polyurethane
- 2: Polyamid tensile members
- 3: Polyurethane

Features + Benefits

- Suitable to fixed center distance applications. Belt's elasticity allows easy installation on fixed center distance pulleys without tools.
- Withstands high shock load. Polyamid tensile members protect belts from shock load damage, making them well-suited for small machines and other high speed/high shock load applications.
- High speed.
- Space saving. Small pulley requirement permits smaller, more compact designs.

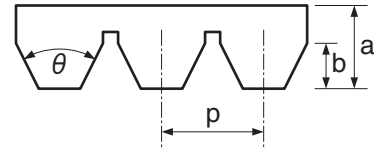
Standard Sizes

Type	Belt number	Pitch length		Belt number	Pitch length		Belt number	Pitch length		
		mm	inch		mm	inch		mm	inch	
H (Polyurethane)	63H			132H	335.3	13.2	200H	508.0	20.0	
	71H			136H	345.4	13.6	214H	543.2	21.4	
	80H	203.2	8.0	140H	355.6	14.0	215H	547.0	21.5	
	85H	215.9	8.5	147H	373.4	14.7	221H	562.0	22.1	
	90H	228.8	9.0	150H	381.0	15.0	230H	584.2	23.0	
	95H	241.3	9.5	160H	406.4	16.0	235H	596.9	23.5	
	100H	254.0	10.0	170H	431.8	17.0	304H	772.2	30.4	
	106H	269.2	10.6	180H	457.2	18.0				
	112H	285.4	11.2	190H	482.6	19.0				
	118H	299.7	11.8							
	125H	317.5	12.5							
	J (Polyurethane)	81J	205.3	8.1	135J	343.8	13.5	236J	599.4	23.6
		82J	209.1	8.2	139J	351.5	13.8	250J	630.8	24.8
85J		215.9	8.5	142J	363.3	14.3	260J	660.4	26.0	
90J		228.6	9.0	145J	368.3	14.5	264J	670.0	26.4	
95J		241.3	9.5	153J	389.3	15.3	280J	711.2	28.0	
97J		247.3	9.7	160J	406.4	16.0	300J	762.0	30.0	
99J		251.3	9.9	171J	431.3	17.0	312J	792.5	31.2	
108J		273.8	10.8	175J	442.3	17.4	318J	807.7	31.8	
116J		293.5	11.6	180J	457.2	18.0	323J	819.3	32.3	
117J		297.0	11.7	189J	480.2	18.9				
122J		309.9	12.2	194J	492.8	19.4				
125J		317.5	12.5	201J	510.5	20.1				
130J		330.0	13.0	234J	594.0	23.4				

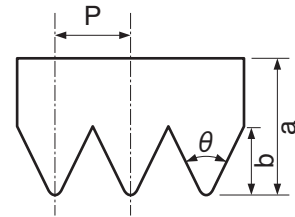
Some sizes are not equal for actual pitch length (inch).

Dimensions

(H type)

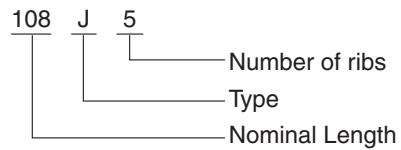


(J type)

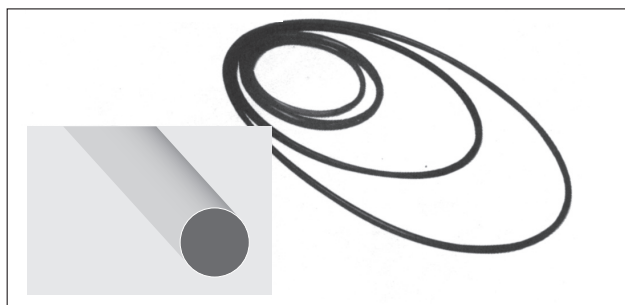


Type	Pitch P	Total thickness a	Rib thickness b	Angle θ
H	1.6mm (0.063")	2.5mm (0.098")	1.0mm (0.039")	40°
J	2.4mm (0.094")	4.0mm (0.157")	2.3mm (0.091")	40°

Size mark



BANDO BANCOLLAN ROUND BELTS (Seamless Type)



Construction

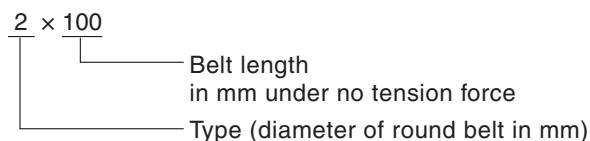
Polyurethane without tensile members

Standard Sizes

Features + Benefits

- Low starting torque
Excellent flexibility, provides smooth slip-free starts even in low temperatures.
- Easy installation
Easy to install by hand.
No retensioning needed.
- Minimal tension decay.
- High oil and ozone resistance

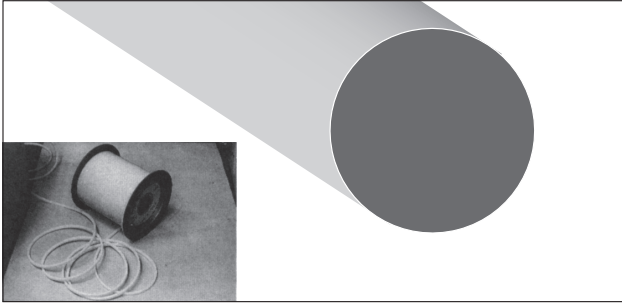
Size mark



Type 2 2mm diameter		Type 3 3mm diameter		Type 4 4mm diameter		Type 5 5mm diameter	
Belt length		Belt length		Belt length		Belt length	
mm	inch	mm	inch	mm	inch	mm	inch
91.0	3.58	115.0	4.53	140.0	5.51	200.0	7.87
100.0	3.94	120.0	4.72	160.0	6.30	210.0	8.27
107.0	4.21	132.0	5.20	170.0	6.69	220.0	8.66
112.0	4.41	138.0	5.43	175.0	6.89	225.0	8.86
120.0	4.72	140.0	5.51	200.0	7.87	230.0	9.06
125.0	4.92	150.0	5.91	213.0	8.39	247.0	9.72
130.0	5.12	153.0	6.02	225.0	8.86	248.0	9.76
134.0	5.28	155.0	6.10	230.0	9.06	250.0	9.84
136.0	5.35	160.0	6.30	235.0	9.25	275.0	10.83
140.0	5.51	165.0	6.50	250.0	9.84	290.0	11.42
145.0	5.71	170.0	6.69	254.0	10.00	300.0	11.81
147.0	5.79	172.0	6.77	258.0	10.16	305.0	12.01
152.0	5.98	180.0	7.09	264.0	10.39	310.0	12.20
160.0	6.30	182.0	7.17	275.0	10.83	330.0	12.99
170.0	6.69	190.0	7.48	284.0	11.18	345.0	13.58
180.0	7.09	200.0	7.87	285.0	11.22	348.0	13.70
183.0	7.20	204.0	8.03	290.0	11.42	363.0	14.29
190.0	7.48	213.0	8.39	300.0	11.81	375.0	14.76
200.0	7.87	223.0	8.78	305.0	12.01	380.0	14.96
213.0	8.39	230.0	9.06	316.0	12.44	384.5	15.18
227.0	8.94	236.0	9.29	323.0	12.72	402.0	15.83
239.0	9.41	240.0	9.45	332.0	13.07	422.0	16.61
244.0	9.61	250.0	9.84	335.0	13.19	440.0	17.32
250.0	9.84	260.0	10.24	346.0	13.62	460.0	18.11
273.0	10.75	275.0	10.83	361.0	14.21	685.0	26.97
290.0	11.42	282.0	11.10	367.0	14.45		
444.0	17.48	285.0	11.22	370.0	14.57		
470.0	18.50	290.0	11.42	374.0	14.72		
		305.0	12.01	377.0	14.84		
		308.0	12.13	385.0	15.16		
		330.0	12.99	390.0	15.35		
		347.0	13.66	415.0	16.34		
		356.0	14.02	474.0	18.66		
		363.0	14.29	500.0	19.69		
		376.0	14.80	540.0	21.26		
		390.0	15.35				
		400.0	15.75				
		430.0	16.93				
		441.0	17.36				
		450.0	17.72				
		645.0	25.39				

BANDO BANCORD (OPEN END TYPE)

BANCORD ROUND BELTS



Construction

Polyurethane without tensile members

Standard Sizes

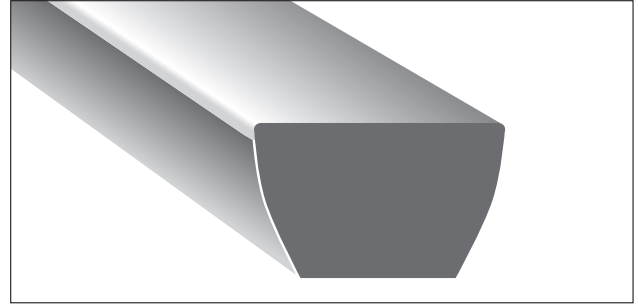
ROUND Belts

Diameter of Belt	mm	1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	12	15
	inch	0.06	0.08	0.10	0.12	0.14	0.16	0.20	0.24	0.28	0.31	0.35	0.39	0.43	0.47	0.60
#480 Standard		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
#489 high modulus		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Length / roll		#480 200m/roll #489 100m/roll						100m/roll								

V Belts

Type	Top width a	Thickness b	Angle θ
M	10.0mm	5.5mm	40°
A	12.7mm	8.0mm	40°
B	16.7mm	10.3mm	40°

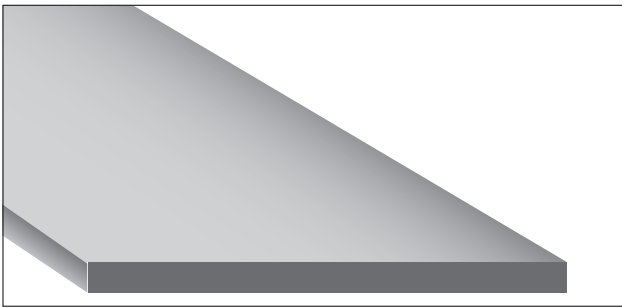
BANCORD V BELTS



Features

Simply cut and heat-splice the belt to the required length.

BANDO BANCOLLAN (CORDLESS) FLAT BELTS



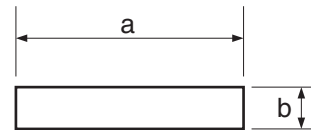
Construction

Polyurethane without tensile members

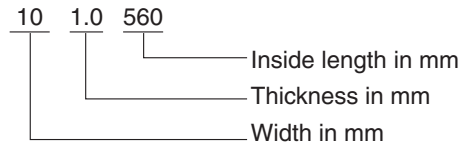
Feature + Benefits

- Smooth constant speed
Thickness tolerance is $\pm 0.0020''$ (0.05mm), so there is virtually no speed variation.
- Space saving
Minimum pulley diameter is 0.2" (5.0mm). This allows high speed ratios.

Dimensions



Size mark



Standard Sizes

a x b (mm)	BELT INSIDE LENGTH (mm)
10 x 1.0	170-950 (Please contact to us for detail size)

The above belt should be installed at 6% stretch.

FLAT BELTS (RUBBER / POLYURETHANE)

BANDO PS Belts

BANDO PS Belts is made of seamless woven fabric. The fabric is coated with various kinds of rubber or polyurethane rubber. This belt is newly developed to meet precision drives such as office automation equipment, computer peripherals and banking machines.

Type *-1	Applicable performance	Construction				Color tone	Available dimensions *-3		
		Number of tensile member(ply)	Material of	Shape of surface *-2			Total thickness	Width	Inside perimeter length
Front surface	Rear surface								
A-1C	Low-torque, high-speed power transmission Weather resistance, cold resistance	1-ply polyester	Chloroprene rubber	Rough surface	Smooth surface	Black	0.22	3~300	100~1900
A-1U	Low-torque, high-speed power transmission Weather resistance, oil resistance, abrasion resistance	1-ply polyester	Polyurethane	Rough surface	Smooth surface	White, green	0.22	3~300	100~1900
A-4U	Low-torque, high-speed power transmission Weather resistance, oil resistance, abrasion resistance	1-ply polyester	Polyurethane	Rough surface	Smooth surface	White, green	0.4	5~300	180~5700
A-10N	Medium-torque, high-speed power transmission Oil resistance, cold resistance	1-ply polyester	Nitrile rubber	Rough surface	Smooth surface	Black	1.0	5~300	300~5700
A-13C	Medium-torque, high-speed power transmission Weather resistance, cold resistance	1-ply polyester	Chloroprene rubber	Rough surface	Smooth surface	Black	1.1	5~300	300~5700
A-P	Medium-torque, high-speed power transmission (No unraveling from edges)	4-ply polyamide	Impregnated chloroprene rubber	Canvas surface	Canvas surface	Black	1.3	*-4 10~350	200~1000 1000~2700
A-W	Medium-torque, high-speed power transmission Quiet operation (No unraveling from edges)	1-ply vinylon	Canvas fabric	Canvas surface	Canvas surface	Canvas natural color	2.0	20~200	800~5700
B-2C	Conveyance of light objects such as sheets of paper, tickets, etc. Weather resistance, cold resistance	1-ply polyester	Chloroprene rubber	Rough surface	Smooth surface	Black	0.8	5~300	250~5700
B-2H	Conveyance of light objects such as sheets of paper, tickets, etc. Weather resistance, anti-staining properties	1-ply polyester	Hypalon rubber	Rough surface	Smooth surface	White	0.8	5~300	250~5700
B-2CE	Conveyance of light objects such as sheets of paper, tickets, etc. Superconductivity (a level of 100Ω)	1-ply polyester	Chloroprene rubber	Canvas surface	Smooth surface	Black	1.1	10~200	250~5700
B-3C	Conveyance of light objects such as sheets of paper, tickets, etc. Low-torque, high-speed power transmission Weather resistance, cold resistance	1-ply polyester	Chloroprene rubber	Rough surface	Smooth surface	Black	0.6	10~300	250~5700
B-6N	Conveyance of light objects such as sheets of paper, tickets, etc. Low-torque, high-speed power transmission Oil resistance, abrasion resistance	1-ply polyester	Nitrile rubber	Rough surface	Smooth surface	Black	1.0	10~300	250~5700
C-8C	Precision power transmission and conveyance of light objects on equipment fixed between axes	1-ply polyester	Chloroprene rubber	Rough surface	Smooth surface	Black	0.7	3~300	160~5700
C-16C	Precision power transmission and conveyance of light objects on equipment fixed between axes	1-ply polyester	Chloroprene rubber	Rough surface	Smooth surface	Black	0.7	3~300	160~5700
Z-H250X	Low-torque power transmission, conveyance of light objects at high ambient temperatures (i.e., 250Åé or less)	1-ply aromatic amide	Silicon rubber	Mirror surface	Mirror surface	Liver	0.9	10~300	460~2000
E-8U	Conveyance of light objects such as banknotes, cards, tickets, etc. on equipment fixed between axes	1-ply polyester	Polyurethane (Millable)	Polished surface	Polished surface	Black	0.65 0.8 1.0	8~200	50~1500
EX-101	Conveyance of light objects such as banknotes, cards, tickets, etc. on equipment fixed between axes	1-ply polyester	Polyurethane (Millable)	Mirror surface (Mold surface)	Polished surface	Black	0.65 0.8 1.0	8~200	50~1250

※-1 Besides types listed above, available types A-1N, A-4C, A-10C, A-13N, B-2N, B-2UF, B-3N, B-6C, C-8N, C-8U, C-16N, C-16U, and others.

※-2 Select proper working surface according to your use conditions. Normally, it is recommended to use the smooth surface as the pulley surface.

Besides the surfaces listed above, rough/polished surface and mirror/mirror (polished on one side) are available. For further information, contact us or your representative.

※-3 Any belt dimensions other than standard ones are available on your request. For any dimensions other than available dimensions listed above, contact us or your representative.

※-4 10 mm to (0.15Belt's inside perimeter length) mm

Features

- 1. **Compact design** Drives are compact because of thin, seamless and flexible belt.
- 2. **Smooth running** Seamless belt can give smooth running with no vibration.
- 3. **Maintenance free** Belt does not stretch because of specially treated tension member.
- 4. **Energy saver** Lightweight and flexible belt minimizes power loss.

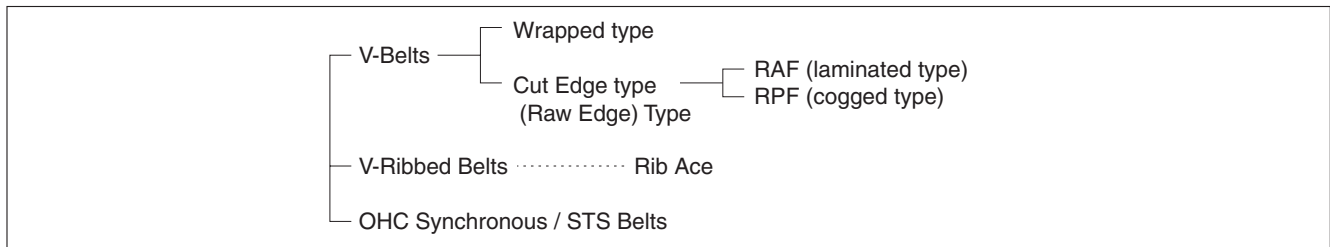
◎:Optimum ○:Suited ×:N/A

Type * -1	Tensile strength N/10 mm width	Axial load at stabilized extension N/10 mm wide	Min. pulley diameter	Weight (approx.) g/10 mm wide x m long	Abrasion resistance	Oil resistance	Electrical conductivity	Flame retardance	Ozone resistance	Major application
A-1C	150	0.5% 30	5	2.5	○	○	◎	◎	◎	• Take-up of tape • Dial driving
A-1U	150	0.5% 30	5	2.3	◎	◎	×	○	◎	• Precision gauge driving • Acoustic equipment
A-4U	400	0.5% 45	10	4	◎	◎	×	○	◎	• Terminal equipment • Communication equipment • Card reader • Magnetic disk • Acoustic equipment
A-10N	1000	0.5% 110	15	11	◎	◎	◎	○	×	• Grinding machine • Textile machinery • Routing machine • Washing machine • Line printer • Automatic lathe
A-13C	1350	0.5% 170	20	12	○	○	◎	◎	◎	• Vacuum cleaner • Grinding machine • Rotary burner • Textile machinery
A-P	1400	1% 130 2% 210 3% 280	50	11	○	○	◎	○	◎	• Printing machine • Automatic control device
A-W	1700	1% 200 2% 490	30	9	×	◎	×	×	◎	• Thread plying machine • Cigarette making machine
B-2C	250	1% 30 2% 50 3% 60	10	9	○	○	◎	◎	◎	• Ticket-issuing machine • Bank terminal machine • Automatic ticket gate • Automatic packaging machine • Money change machine • Cash dispenser
B-2H	250	1% 30 2% 50 3% 60	10	9	○	○	×	◎	◎	• Banknote checker • Office equipment • Automatic checker • Fare box • Ticket vending machine • Printing machine
B-2CE	200	1% 60 2% 80 3% 110	30	12	○	○	◎	◎	◎	• Sorter • Copying machine • Paper conveyance system • Cash dispenser
B-3C	380	1% 70 2% 120 3% 140	10	7	○	○	◎	◎	◎	• Copying machine • Motoring amusement machine • Automatic packaging machine • Microfilm equipment
B-6N	600	1% 180 2% 280 3% 360	25	11	◎	◎	◎	○	×	• Automatic checker • Printing machine • Office equipment • Optical reader
C-8C	80	1% 9 2% 15 3% 20	5	8	○	○	◎	◎	◎	• Floppy disk • Office equipment
C-16C	160	1% 20 2% 30 3% 40	7	8	○	○	◎	◎	◎	• Document feeder • Copying machine • Sorter • Fish detector
Z-H250X	400	1% 120	30	11	×	○	×	○	◎	• Copying machine • Heat sealing machine • Measuring meter • Testing machine • Large-sized facsimile
E-8U	-	5% 10 6% 12 7% 14 8% 16	8	10/total thickness 1.0mm	◎	○	◎	○	◎	• Bank terminal equipment • Cash dispenser • Card reader • Office equipment
EX-101	-	5% 10 6% 12 7% 14 8% 16	8	10	◎	○	◎	○	◎	• Bank terminal equipment • Cash dispenser • Card reader • Office equipment

Nomenclature of belt ※-1 Besides types listed above. available types A-1N, A-4C, A-10C, A-13N, B-2N, B-2UF, B-3N, B-6C, C-8N, C-8U, C-16N, C-16U and others.
 B - 2 C E
 ① ② ③ ④
 ① Series name of belt ... A: Mainly used for high-speed power transmission, B: Mainly used for conveyance of light objects such as sheets of paper, tickets, etc., C: Mainly used for precision power transmission, Z: Mainly used for conveyance at high temperatures, E: Used for conveyance of light objects
 ② Tensile strength of belt ... Series A & B: Indicating 1/100 of tensile strength, Series C & E: Indicating 1/10 of tensile strength
 ③ Material of cover ... C: Chlorprene, N: Nitrile rubber, U: Polyurethane, H: Hypalon rubber
 ④ Additional function ... E: Electrical conductivity of a level of 100Ω, F: Certified by Food Sanitation Law and Official Notice No.20 of Ministry of Health, Labour and Welfare.

※PW: Special textile fabric

BANDO AUTOMOTIVE POWER TRANSMISSION BELTS



Features

	Sidewall wear resistance	Bending stress resistance	Noise level
 Wrapped type	Good	Good	Excellent
 RAF	Excellent	Good	Excellent
 RPF	Excellent	Excellent	Good
 RIB ACE	Excellent	Excellent	Excellent
 OHC SYNCHRONOUS BELTS	Excellent	Excellent	Good
 OHC STS BELTS	Excellent	Excellent	Excellent

Dimensions and available Size Range

Belt type	Bando profile & Size code	Top width	Thickness	Angle	Size range
V-Belts	FM 2000	9.5mm (0.38")	8.0mm (0.32")	40°	508mm-1524mm 20"-60" Outside length
	HA 4000	12.5mm (0.50")	9.5mm (0.38")	40°	800.1mm-1651mm 31.5"-65" Outside length
	A 3000	13.0mm (0.50")	8.0mm (0.32")	40°	508mm-2032mm 20"-80" Inside length
	B 5000	17.0mm (0.66")	11.0mm (0.44")	40°	508mm-2032mm 20"-80" Inside length
	BC 9000	20.0mm (0.80")	11.0mm (0.44")	40°	508mm-2540mm 20"-100" Inside length
	C 7000	22.0mm (0.88")	14.0mm (0.56")	40°	508mm-2540mm 20"-100" Inside length
	CD 8000	25.5mm (1.00")	14.0mm (0.56")	40°	508mm-2540mm 20"-100" Inside length

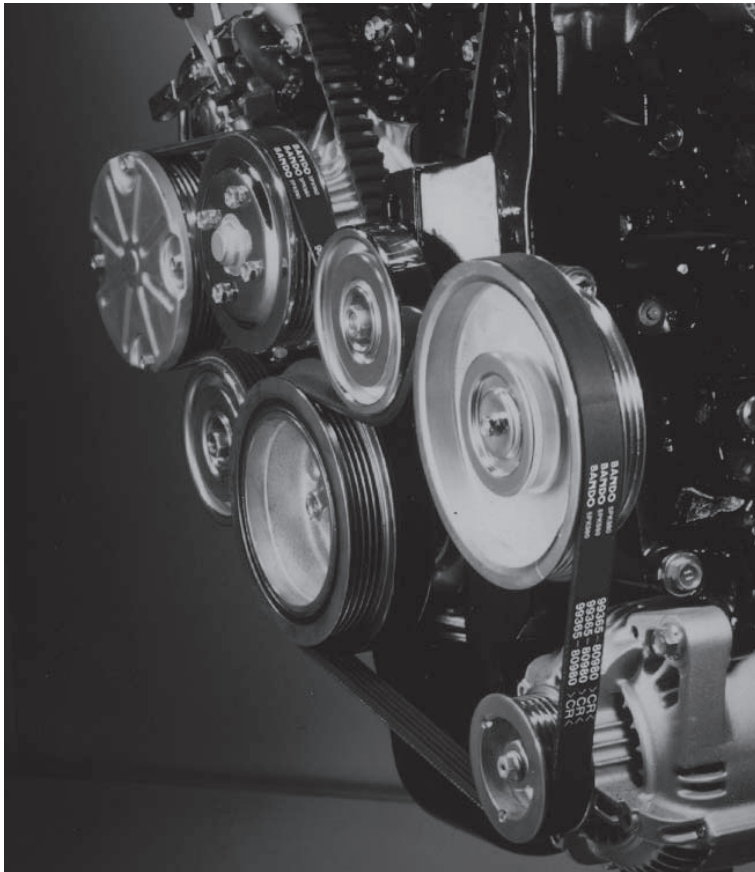
Belt type	Bando profile & Size code	Rib pitch	Thickness	Size range
RIB ACE	PK	3.56mm (0.14")	4.8mm (0.19")	20"-100" (500mm-2540mm)

Belt type	Bando profile & Size code	Tooth pitch	Thickness	Size range
OHC Synchronous Belts	ZA	9.525mm (0.375")	4.10mm (0.16")	Please contact to us
	ZB	9.525mm (0.375")	4.50mm (0.18")	
	ZBS	9.525mm (0.375")	4.89mm (0.19")	
	YH	8.0mm (0.315")	5.2mm (0.21")	
	ZH	9.525mm (0.375")	5.65mm (0.22")	
	YU	8.0mm (0.315")	5.02mm (0.20")	
	RU	9.525mm (0.375")	5.40mm (0.21")	

Belt type	Bando profile & Size code	Tooth pitch	Thickness	Size range
OHC STS Belts	S8M	8.0mm (0.315")	5.2mm (0.21")	Please contact to us

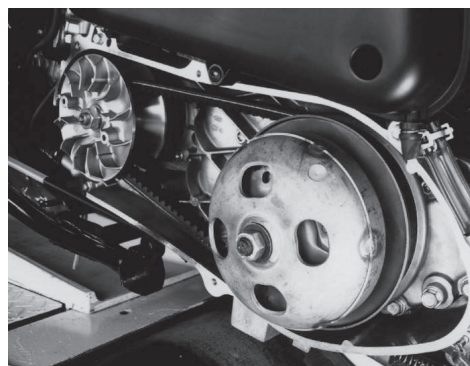
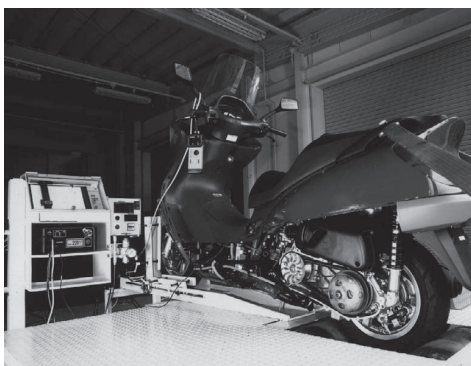
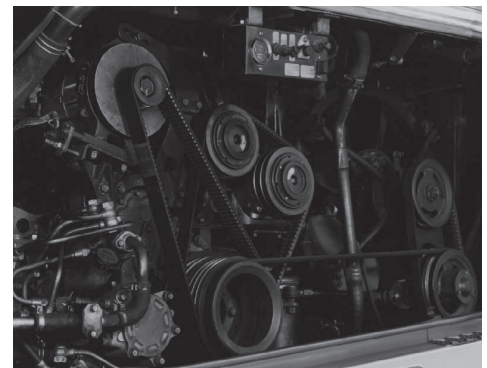
APPLICATION OF BANDO POWER TRANSMISSION BELTS IN DIFFERENT INDUSTRIES.

CARS & MOTORBIKE

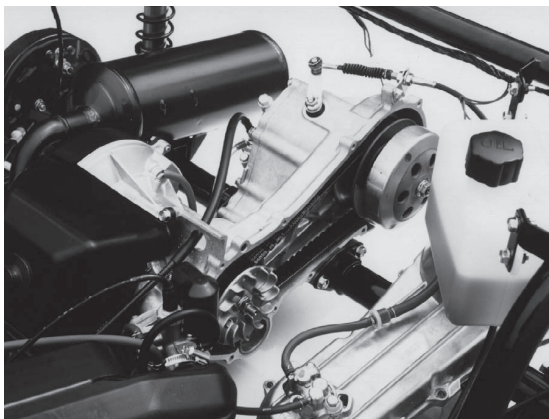


◀ Rib Ace
5PK 980
Automotive belt

▼ Automotive belt
for bus
HDPF
Raw edge

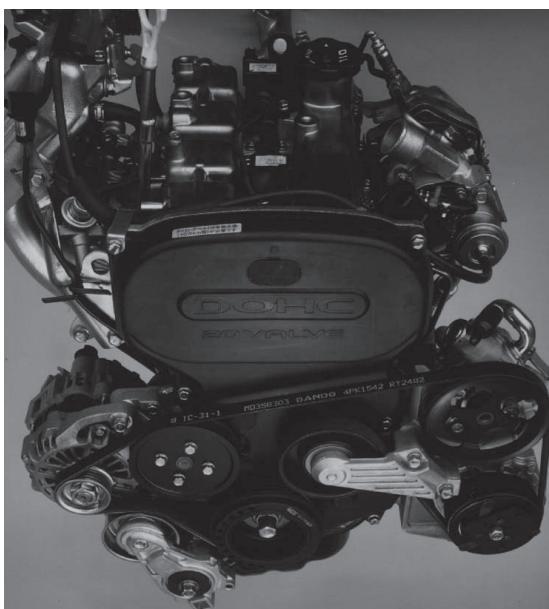
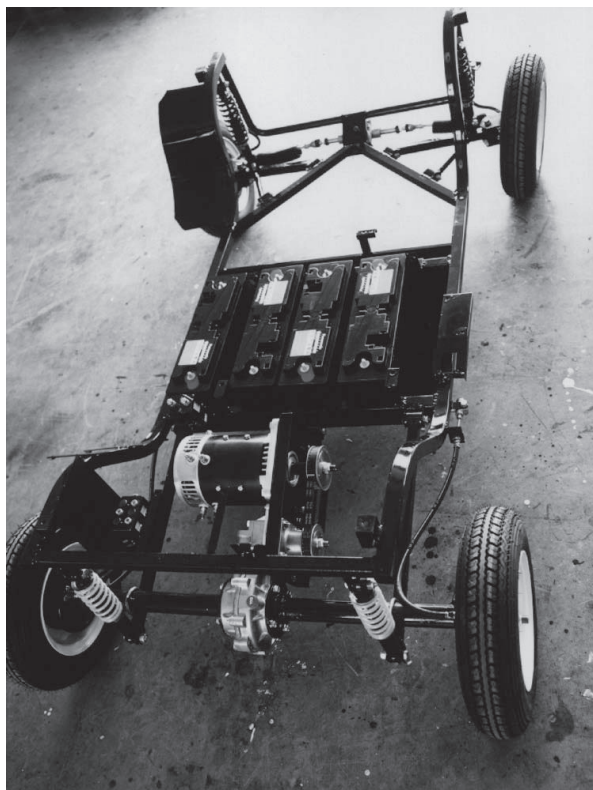
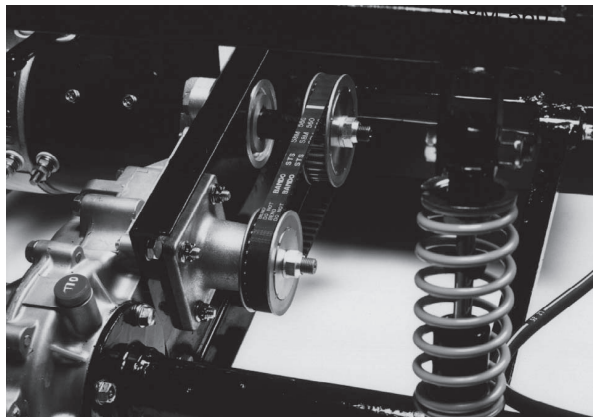


◀ Variable speed belt
for motor bike



◀ for motor bike
Variable speed belt

▼ for
Automotive
STS belt



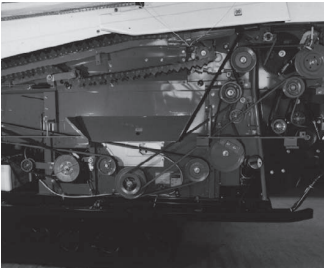
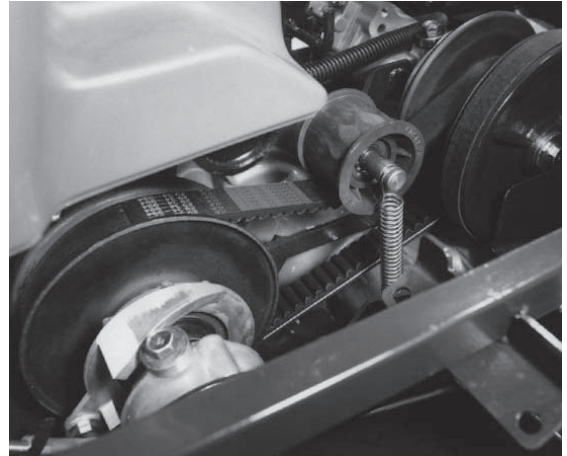
◀ for Automotive
Rib Ace belt
4PK 1542

AGRICULTURAL MACHINERY



◀ Combine
V Belt Red-S II
single drive

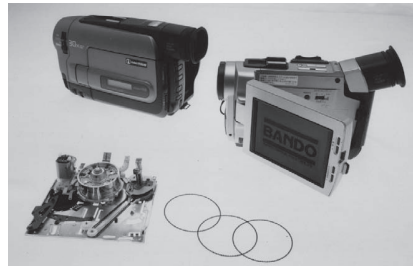
V/S Belt ▶
29.34-994



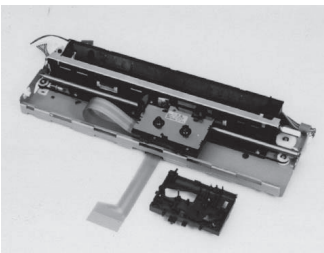
◀ Combine
all drives

HOUSEHOLD APPLIANCES

Video camera ▶
TN 10 x 1pc.



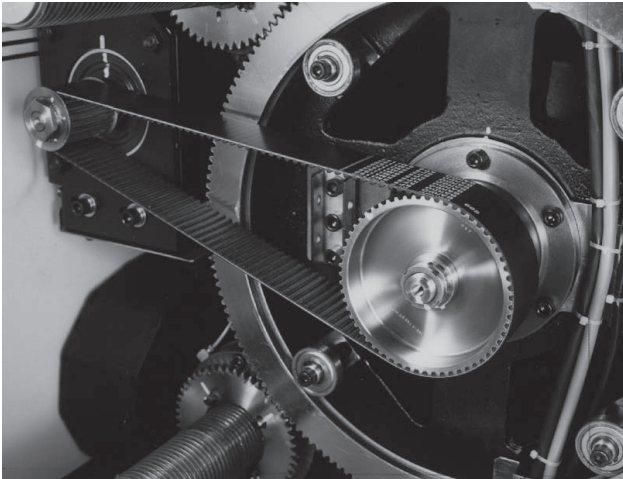
OFFICE EQUIPMENT



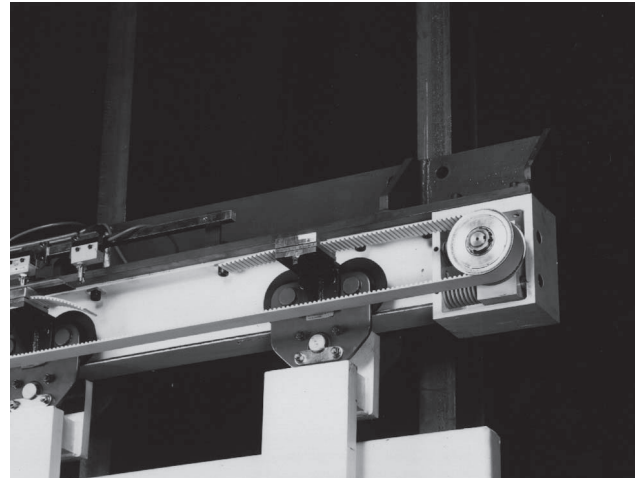
◀ printer

▼ a copying machine
STS 60 S3M537



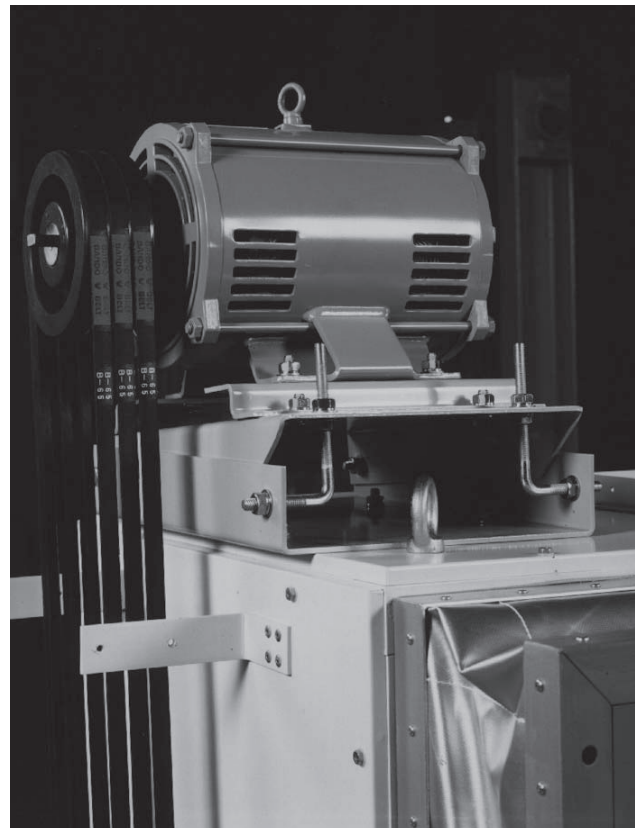
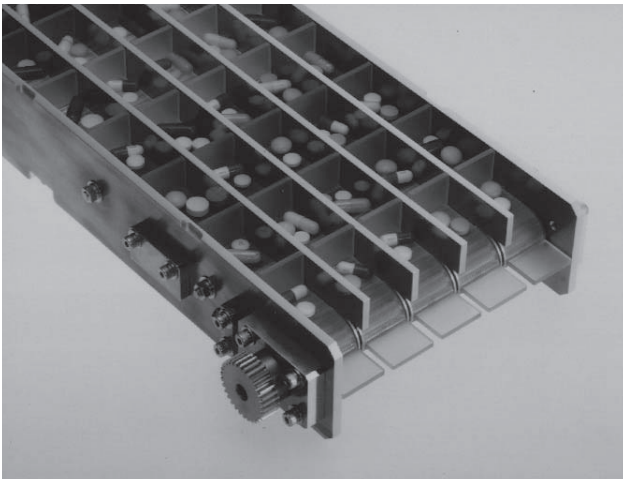


◀ KPS belt
S8M1152
injection molding



automatic door ▶
LSB-U

▼ light conveyance
LSB-U with profile



Ventilator ▶
Multiple V Belts red B-65

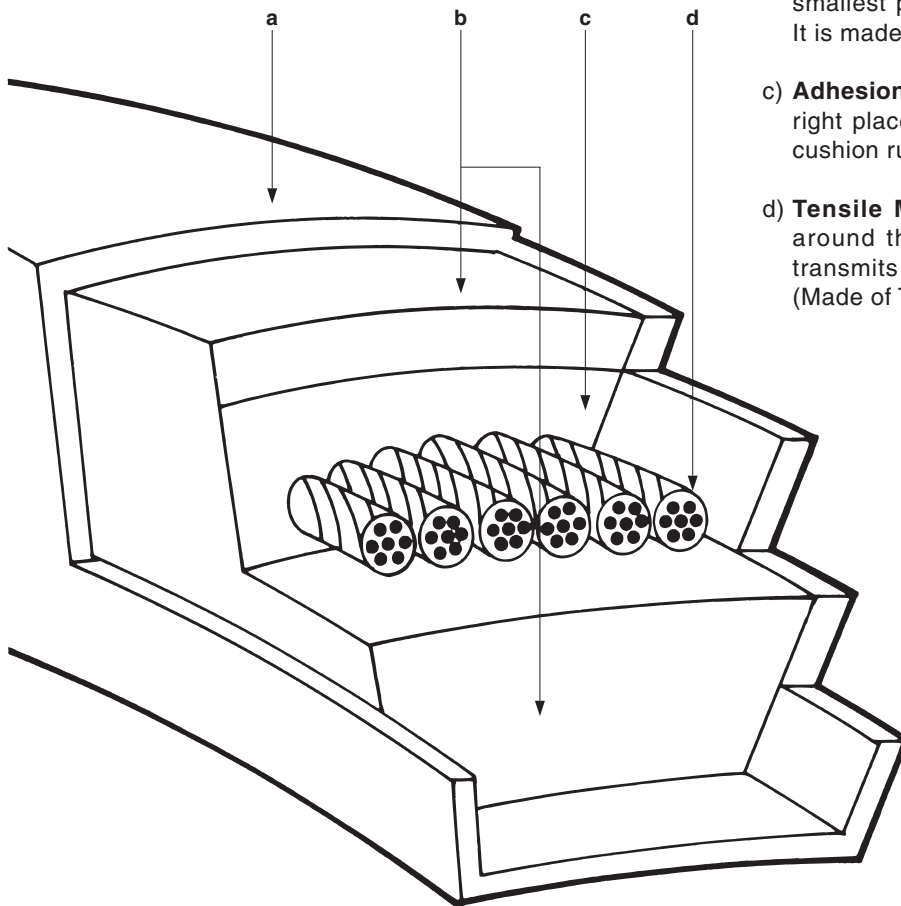
BANDO POWER TRANSMISSION BELT TROUBLESHOOTING MANUAL

OPERATING AND MAINTENANCE

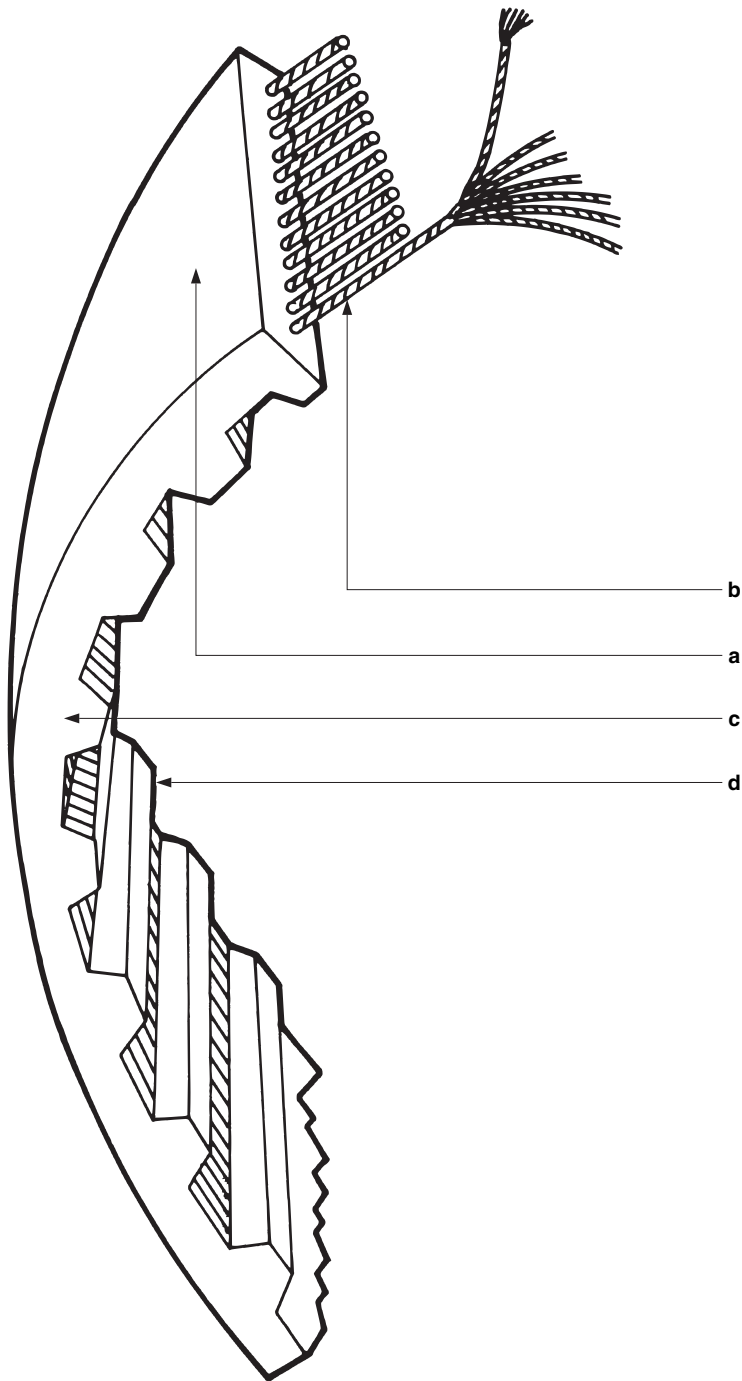
CONSTRUCTION

V-BELT

The accompanying diagrams show the simple construction of a belt. Each belt has four components.



- a) **Cover:** A canvas cover is usually wrapped completely around the belt, sometimes only on the top and bottom. It provides the proper amount of traction and protects the internal components from oil, dust and other foreign materials.
It also increases belt flexibility.
- b) **Cushion Rubber:** The material surrounding the Tensile Member. It absorbs the power from the power (pulley) and helps transmit this power to the driven sheave. Its high elasticity allows smooth bending and flexing over even the smallest pulleys while preventing heat built-up. It is made of synthetic rubber.
- c) **Adhesion Rubber:** Sets the tensile cords in the right place and firmly bonds the cords with the cushion rubber.
- d) **Tensile Member:** Cord like material running around the belt. The 'muscles' of the belt, it transmits power from one sheave to the next, (Made of Tetron R)



SYNCHRONOUS-BELT

Also called a "Timing Belt". It consists of four components:

- a) **Rubber Backing:** A synthetic rubber layer which gives protection to the tensile member. It is tough and flexible and completely bonded to the tensile member. Its excellent wear resistant backing can also be used for light duty transportation.
- b) **Tensile Member:** Made of helically wound glass fiber cord, it is designed to transmit the power. The small diameter cord possesses high tensile strength, low stretch and high resistance to bending fatigue.
- c) **Rubber Teeth:** Special synthetic rubber which has high shear strength and adequate hardness. To ensure that the teeth are compatible with the pulley grooves, they are precision made with a highly accurate pitch. (When the teeth in mesh [TIM] is 6 or more, the teeth shear strength virtually exceeds the belt's tensile strength).
- d) **Nylon Facing:** A thin nylon cover cloth, tough with excellent abrasion resistance, protects the belt teeth from wear caused by pulley contact. This gives long belt service life.

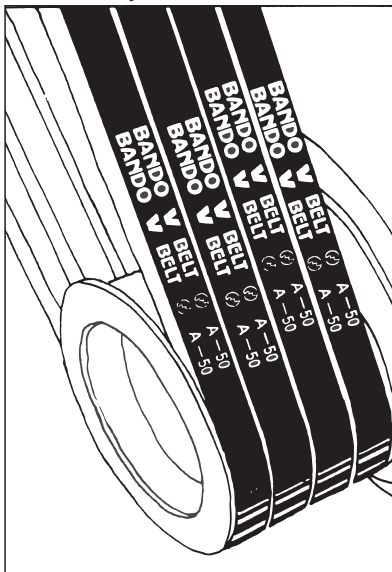
USE THE RIGHT TYPE OF BELT

Normally you will know because the old belts will be labeled. However, if you cannot read the labels, use Bando Belt and pulley Gauges.

USE A MATCHED SET

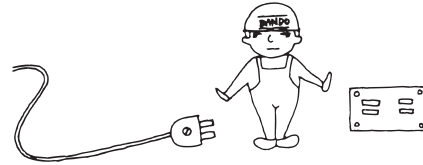
From the same manufacturer, belts from different manufacturers can have different characteristics. Slight differences between belts causes strain and shortens belt service life.

When installing new belts, always replace all the belts. Old belts become worn and stretched from use; if old and new belts are mixed, the new belts will do more work and as a result will fail early.

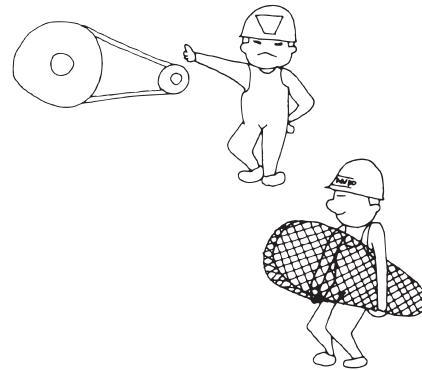


SAFETY

Make sure that all equipment is turned off, even if you are only going to touch it for a moment.

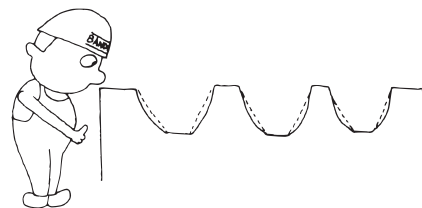


The drive should be fully protected by a guard. This not only ensures safe operation but also protects the drive from debris and keeps the belt running smoothly.



SHEAVES

Should also be checked and worn ones replaced. Any rust should be removed from the sheave surface. It accelerates belt wear. Paint or wax should never be applied to the sheave grooves.

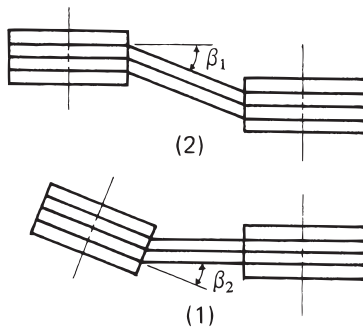


INSTALLATION

SHEAVE MOUNTING AND ALIGNMENT

Unless belts enter and leave sheave in a relatively straight line, wear is accelerated. In Diagram 1 the shafts of the two drives are not parallel. In Diagram 2 although the shafts are parallel the sheaves are incorrectly aligned.

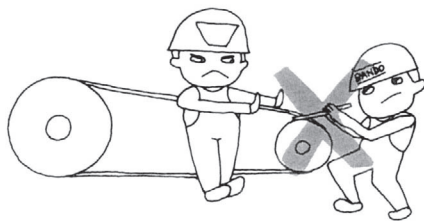
Use a steel straight edge to ensure correct alignment.



BELTS MUST NOT BE PRISED OR ROLLED ONTO THE SHEAVE

This damages the belt internally and greatly shortens belt service life.

Fingers can also be seriously injured if caught in the sheave. Always use the motor side (drive take up).



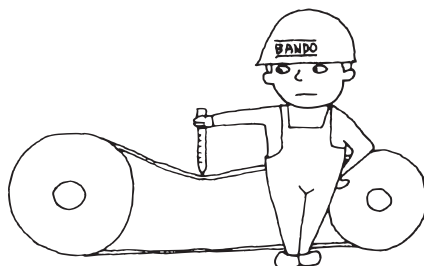
BELTS MUST BE CORRECTLY TENSIONED

The correct tension can be calculated from the slack and the load. Or the Bando tension meter can be used. The Optimum Tension is the lowest tension at which the belts will not slip under full load.

Over-and under-tensioning causes respectively, damage to the shaft bearings and belt slippage.

After installation the drive should be run for 15 minutes to seat the belts before peak load is applied.

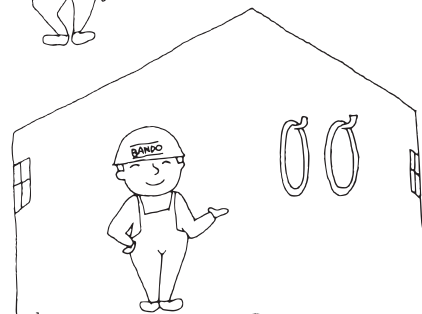
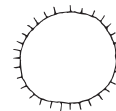
If they slip tighten them, check frequently during first day of operation.



STORAGE

Poor storage causes belt deterioration. To prevent this the following conditions should be observed:

- Belts should be stored in a cool dark place, away from radiators and direct sunlight. Heat will dry out the belts and cause them to become brittle and hard. Optimum conditions, temperature below 85°F (30°C), relative humidity below 70%.
- Belts may be stored either by coiling them on shelves, or hanging them on wide supports or multiple hooks. (Avoid laying them on the floor)
- Ensure that no oil or chemicals come into contact with the belts.



TROUBLESHOOTING

TROUBLE AREA	CAUSE	REMEDY
BELTS STRETCH BEYOND TAKE UP		
Belts stretch unequally.	Misaligned drive.	Realign and re-tension the drive.
	Belts damaged during installation.	Replace with a matched set, properly installed.
Belts stretch about equally.	Insufficient take up allowance.	Check take up allowance in manual.
	Greatly over-or under loaded drive.	Redesign using manuals.
SHORT BELT LIFE		
Relatively rapid failure no visible reason.	Underdesigned drive.	Increase the number of belts, use a wider belt, a high-power transmission belt or redesign using manual.
	Sheave diameter too small.	Redesign using manual.
	Belt runs on to sheave flange, due to misalignment.	Redesign using manual.
	Worn sheave grooves.	Replace sheaves.
	Belt damaged through improper installation.	Replace with matched set properly installed.
	Foreign substance caught between belt and sheave.	Shield the drive.
Sidewalls soft, sticky, and swollen, low adhesion between cover plies.	Oil or grease on belts or sheaves.	Remove source of oil or grease. Clean surfaces.
Sidewalls dry and hard, low adhesion.	High temperatures.	Remove heat source, ventilate drive better.
Belt bottom cracked	Sheave diameter too small.	Redesign using larger sheaves.
	Back side idler-pulley diameter too small.	Replace with an inside idler-pulley, or redesign.
	High temperatures.	Remove heat source, improve ventilation or use a heat resistant belt.
Belt bottom cut	Belt slipping because of insufficient tensioning.	Re-tension.
	Improper storage.	Store belts properly.
	Belt ran off the sheave.	Check tension and alignment.
	Foreign material fell into drive.	Install drive shield.
	Improper installation.	Install new belts properly.
Deterioration of rubber in belt.	Belt dressing.	Never use dressing on V-belts.

TROUBLESHOOTING

TROUBLE AREA	CAUSE	REMEDY
Extreme cover wear, worn corners.	Dust attached to belt.	Clean surfaces and re-tension. Install shield.
	Belt loosely tensioned.	Re-tension.
	Too few belts.	Increase belt quantity.
	Sheave grooves rusted.	Remove rust or replace sheave.
	Sharp corners or burrs on sheaves.	Round corners and remove burrs with a file.
	Sheaves misaligned.	Re-align.
	Angle of sheave groove incorrectly finished or badly worn.	Replace sheave with a new one, with suitable groove angle.
	Outside diameter of right and left side of the sheave differs.	Replace with an accurately machined one.
Spin burns on belt.	Belt slips under starting or stalling load.	Tighten belt until slipping stops.
	Belt too loose.	Adjust belt tension.
	Sheave diameter too small.	Replace sheave or use suitable belt.
	Belt load miscalculated.	Increase number of belts, or use high power transmission capacity belt.
	Water or oil on the belt.	Install belt cover. Completely wipe the belt clean.
Belt irregularly deformed.	Belts were piled up or bent when stored.	Store belts by hanging them or by coiling on shelves.

BELT TURNOVER

	Excessive lateral belt whip.	Use high power transmission capacity belt.
	Foreign material in grooves.	Install belt cover.
	Misaligned sheaves.	Realign.
	Worn sheave grooves (use gauge).	Replace.
	Belt loosely tensioned.	Adjust tension.
	Belt deformed by fluctuating load.	Replace with scrum, flat, or poly-V-belt.
	Belt damaged through improper installation.	Replace with matched set, properly installed.
	If multi-strand driven, belt lengths differ.	Replace belts with a matched set.

BELT VIBRATES

	Incorrectly placed flat idler pulley.	Carefully align idler on flat side as close as possible to drive shaft.
	Distance between shafts in too long.	Install an idler.
	Belt too loose.	Re-tension.
	Belt lengths uneven.	Replace with a new matched set belts.

TROUBLE AREA	CAUSE	REMEDY
BELT MEANDERS BELT NOISE		
	Sheaves are misaligned.	Realign.
	Belt slips because of under tensioning, start up or stopping time too abrupt.	Re-tension. Lengthen start up and deceleration time. Drive slower.
	Too few belts.	Increase belt quantity.
	Belt type unsuitable.	Replace with wrapped V-belt.
IMPROPER DRIVEN SPEED		
	Design error (incorrect ratio between drives).	Use correct sizes.
EXCESSIVE SLIPPING		
	Spin burns on belt.	Re-tension drive until slipping stops.
	Too few belts.	Increase belt quantity.
	Contact angle too small.	Install back side idler pulley on slack side or use synchro belt.
	Water or oil on the belt.	Install belt cover, and clean surfaces.
HOT BEARINGS		
Drive overtensioned.	Worn-grooves, belts bottoming.	Replace sheaves, re-tension drive.
	Improper tensioning.	Re-tension.
Sheaves too small.	Design error.	Redesign using manuals.
Poor bearing condition.	Bearings underdesigned and/or badly maintained.	Observe recommended bearing design and maintenance.
Sheaves too far out	Installation error or obstruction.	Place sheaves as close to bearings as possible, remove any obstructions.
Drive undertensioned.	Belt slipping, causing heat build up.	Re-tension drive.
SYNCHRONOUS-BELT:		
Teeth broken off	Belt skips pulley teeth because its undertensioned.	Re-tension.
	Pulley teeth poorly machined, or badly worn.	Replace pulley with correctly machined one. If dust on teeth surfaces install cover.
	Equipment stopping too quickly.	Increase deceleration time, or use a stronger belt.
	Fewer than specified belt teeth are gripping the pulley teeth.	Install back side idler on stack side of belt, or redesign.

TROUBLESHOOTING

TROUBLE AREA	CAUSE	REMEDY
Belt becomes stiff and cracks generate over the surface of belt.	Ambient temperature is excessively high. (over 90°C)	Decrease the temperature or use heat-resistant belt.
Belt breaks off without leaving any fatigue.	Power transmission capacity of belt is insufficient.	Use a wider belt, increase the diameter of pulley, or trace the belt selection procedure again.
	Belt is unnaturally bent.	Pay much attention to the maintenance or handling of the belt.
	Belt is installed by forcible wrenching.	Install the belt by loosening the pulley slide or the tension pulley.
	Foreign substance is caught in.	Install a belt cover.
	Belt runs on to the flange of pulleys due to the excessive misalignment of pulleys.	Align the pulleys.
One or both edges of belt are worn out or broken off.	Pulleys are misaligned.	Align the pulleys.
	The outside diameter of right and left side pulleys differ.	Replace the pulley with an accurately machined pulley.

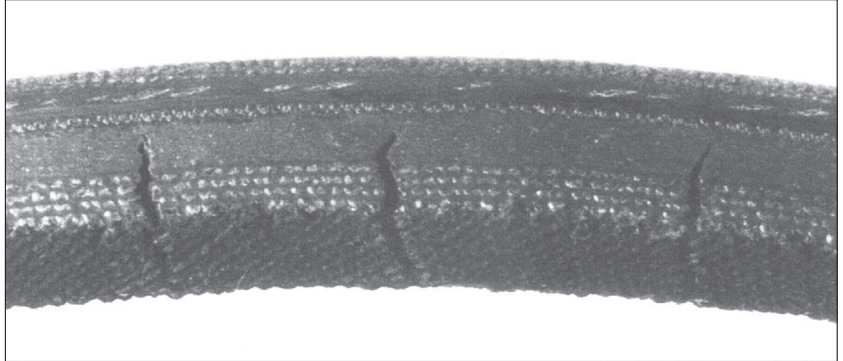
POWER BAND BELT:

Tie band separation belt riding out of sheave groove	Worn sheaves (check with gauge)	Replace with new sheaves.
	Misalignment of sheave.	Realign.
	Lack of tension.	Re-tention.
	Foreign object forced belt out.	Remove any interference.
	Riding outside and above sheave grooves.	Properly maintain drive, and install belt correctly.
All belts separated from tie band.	Drive shield loose and interfering with belt.	Adjust shielding.
	Worn idler sheave.	Replace.
Top of tie band frayed	Obstruction on machine.	Realign drive and remove obstruction.
Tie band top blistered	Foreign material accumulating between belts of power band.	Check shielding on drive.
Bottom of belt cracking.	Belt slipping causing heat build up and gradual hardening of undercord.	Check tension of power band.

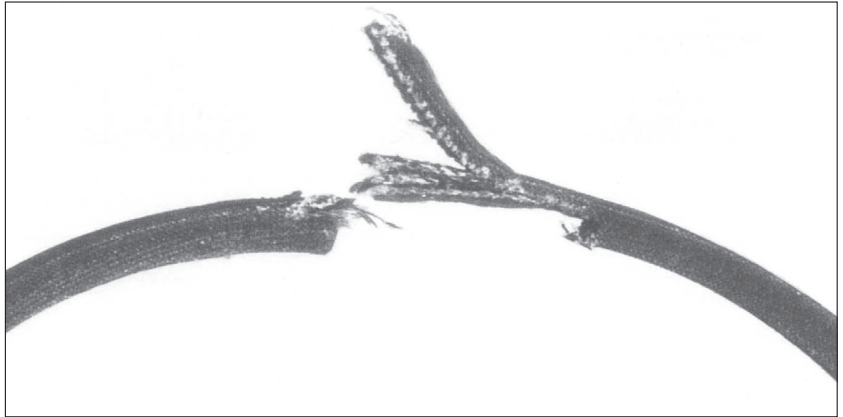
EXAMPLES OF POWER TRANSMISSION BELT TROUBLE

The typical examples of power transmission belt trouble are presented below. These troubles are the result of faulty designing, handling or matching of belts and sheaves.

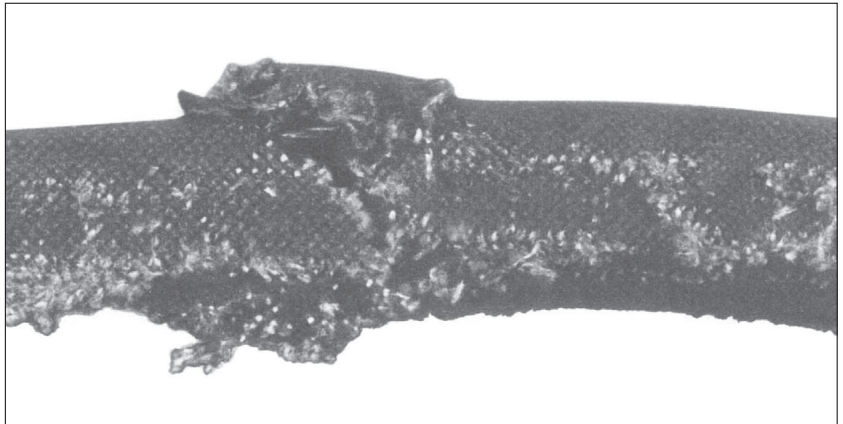
1. Cracks at the bottom of belt



2. Break off of Belt

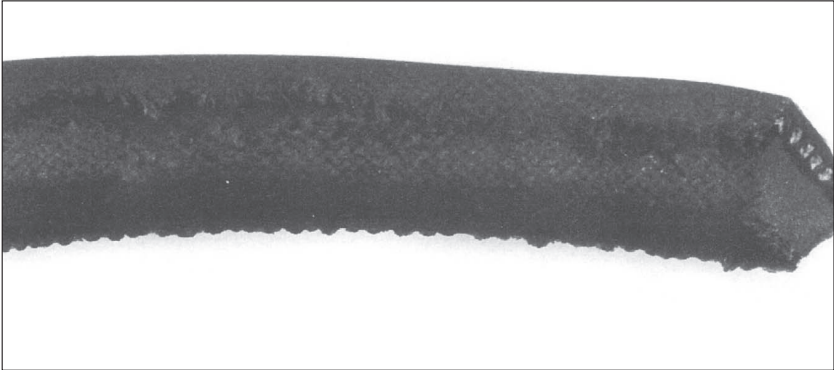


3. Twisting of belt

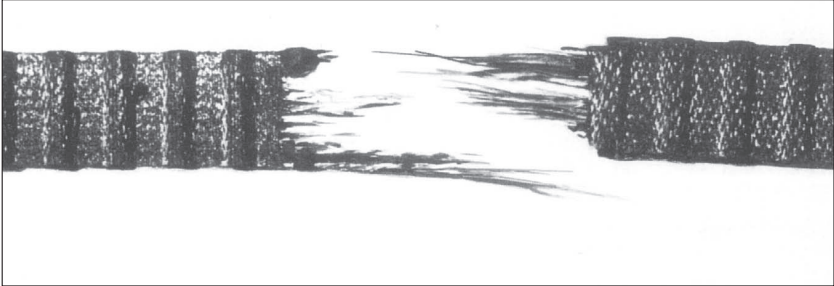


EXAMPLES OF POWER TRANSMISSION BELT TROUBLE

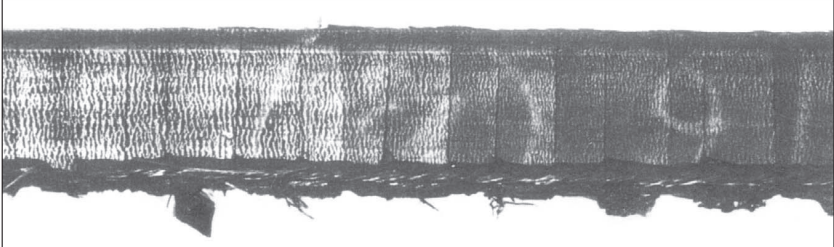
4. Side wear of belt



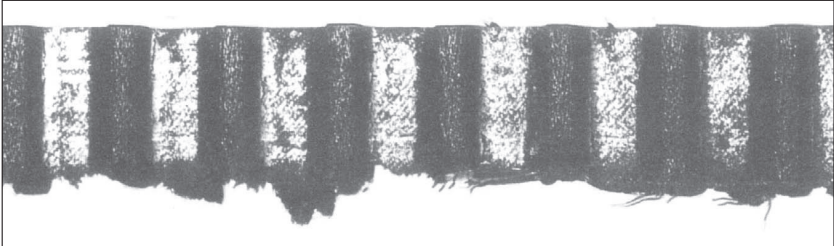
5. Break off of Belt



6. Cracks on the belt surface






7. Side wear of belt



Belt Design Factors

(Fill in the blanks and consult with Bando.)

1	Machine type														
2	Service factor	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	
		2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0						
3	Type of drive	Motor	Engine			Normal:		(PS. KW. kg-m, kg-cm)							
							Max:								
4	Transmission characteristics	Horse power constant					Torque constant		Operating hours / Day (hrs.)						
5	Speed ratio	Acceleration, Reduction					:		Pulley layout Describe separately if details are required.						
6	Drive pulley	Outer dia.				(mm) ×		(r.p.m.)							
		Pitch dia.													
7	Driven pulley	Outer dia.				(mm) ×		(r.p.m.)							
		Pitch dia.													
8	Tension pulley	Yes	(φ)			Inside	Slack side								
		No				outside	tight side								
9	Center distance	±					(mm)								
10	Drive system	Ordinary		Horizontal				Vertical							
															
11	Sudden stop	Sudden stop			Brake:			Time from sudden Stop to sudden Start or vice versa. (sec)							
		Yes				Input side			GD2: (kg-m-sec ²)						
		No				Output side									
12	Pulley space	Any restriction:													
13	Special requirement (Circle items and describe in detail.)	Heat resistance, Oil resistance, Cold resistance, Moisture resistance, Low noise, static conductive, Insulation, Others (Speed-up, Compactness, Vibration Non-slip, Light weight etc.) Details													
14	Belt Service Life desired	(hrs.)					Service condition: outdoor, dusty, others								
15	General Information on Belts now used.	Manufacturer:					Type:								
		Total quantity:					Quantity by size:								
		Belt service life					Any problems:								

Bando reserves the right to change product design, size, specifications, and materials at any time without obligation of replacement or refund on any products or parts there of which may be in any customers' possession at the time such changes become effective.
 Bando Chemical Industries, Ltd. shall not be liable for any damages and/or injuries whatsoever caused by any usage of the belts in this brochure for purposes other than power transmission.



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BANDO CHEMICAL INDUSTRIES, LTD.

2008.2

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