BANDO

BANDO Power transmission belt selector

we transmit power across space

REVISED 10

T-T003007-E

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 more 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 the 21st century, we have grown into a company with more than 20 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, we do not only focus our 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.

Contents

This content may change without notice. The numerical values are not guaranteed values.

BANDO Power Transmission Belts Table

《SYNCHRONOUS BELTS》

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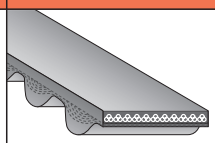
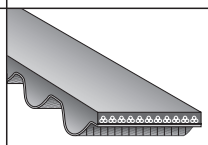
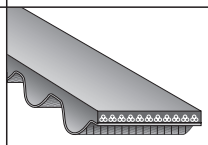
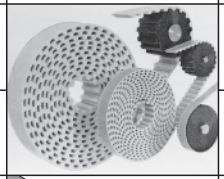
KING POWER Synchronous Belts (KPS Ⅱ)	P		7
High Performance STS Belts (HP-STS)	R		8~9
Ceptor Ⅵ	R		10
Long Synchronous / STS Belts	R		11
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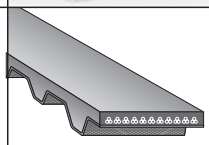
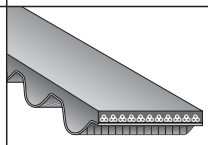
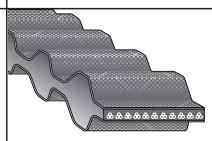
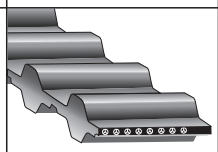
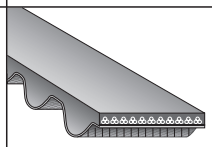
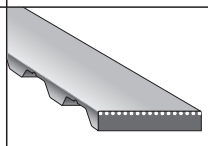
Synchronous Belts	R		13~14
Super Torque Synchronous Belts	R		15~16
Double Sided Synchronous / STS Belts	R		17
BANCOLLAN Double Sided Synchronous / STS Belts	P		18
HTS Belts	R		19
BANCOLLAN Synchronous / STS Belts	P		20~22

《V BELTS》

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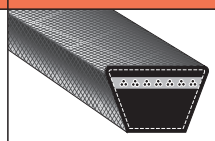
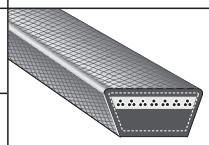
Fractional H.P. V Belts (FHP) AND MULTIPLE V BELTS	R		23~24
Agricultural V-belts RED-S Ⅱ	R		25
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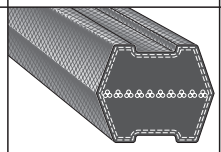
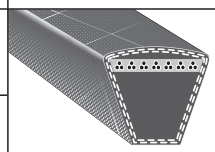
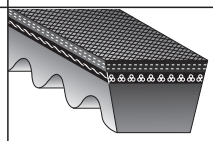
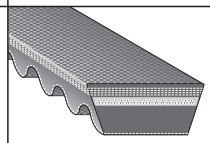
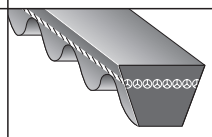
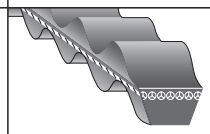
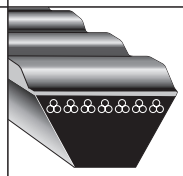
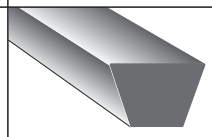
Double-V Belts	R		27
POWER ACE	R		28~29
Narrow V-Belts (SP type)	R		31
POWER ACE COG	R		30
Variable Speed Belts	R		32
BANCOLLAN V-Belts (VC type)	P		36
Bancollan V-Belts (DC Type)	P		36
Banflex	P		37
Bancord V-Belts	P		44

※Material: R=Rubber, P=Polyurethane

BANDO Power Transmission Belts Table

《ENERGY SAVING BELTS》

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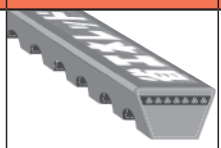
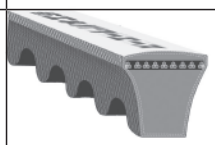
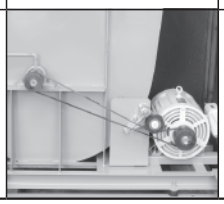
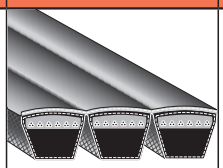
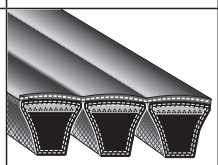
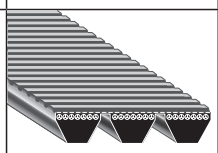
Energy Saving Red	R		33
Energy Saving POWER ACE	R		34
Hyper Flat Drive System	R		35

《BANDED BELTS》

Description	Material	Belt Profile	Page
POWER SCRUM (V-Belt type)	R		39~40
POWER SCRUM (POWER ACE type)	R		39~40
Banflex Scrum	P		38

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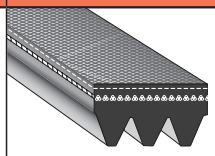
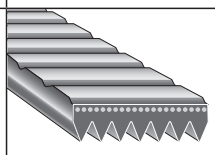
Description	Material	Belt Profile	Page
RIB-ACE Ⅱ	R		41
BANCOLLAN Poly Banrope	P		42

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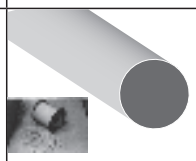
Bancord Round Belts (Open end type)	P		44

《FLAT BELTS》

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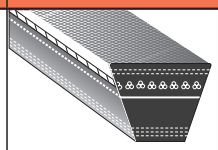
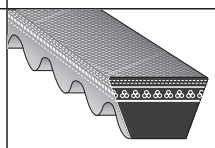
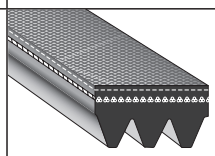
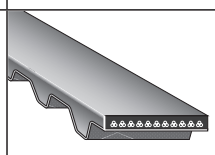
BANCOLLAN Cordless Flat Belts (Seamless type)	P		44
PS Belts	R / P		45~46

《AUTOMOTIVE POWER TRANSMISSION BELTS》

Description	Material	Belt Profile	Page
RAF (Laminated type)	R		47~48
RPF (Cogged type)	R		47~48
RIB-ACE	R		47~48
OHC Synchronous / STS Belts	R		47~48

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]
POWER ACE				[3V]	[5V] [8V]			40	Under 1.0		[3V]	[5V, 8V]
POWER SCRUM (Banded Belts)	POWER ACE 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 Ⅱ		[PJ]	[PK] [PL]					50	1.0~1.5			
Synchronous Belts		[MXL] [XL]	[L]	[H] [XH]	[XXH]			30	Under 0.15			
STS HP-STS CeptorⅦ			[S4.5M] [S5M]	[S8M]	[S14M]			33	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)					10			1.5~2.0			
	Double cogged V-Belts (DC)					10			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			
Banflex Scrum			[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 Belts (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 CHARACTERISTICS

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 ioad	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-S Ⅱ					[SA]60 [SB]80	[SC]100					
Double-V						[AA]100 [BB]180	[CC]260				
POWER ACE			1:10		[3V]67	[5V]150	[8V]300				
POWER SCRUM (Banded Belts)	POWER ACE 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 Ⅱ				[PJ]20	[PK]50 [PL]70						
Synchronous Belts			1:10	[MXL] 12 teeth [XL] [L] 10 teeth	[H] 14 teeth	[XH] 22 teeth [XXH] 22 teeth					
STS HP-STS Ceptor Ⅳ			1:10	[S8M] 18 teeth [S4.5M] 12 teeth [S5M] 12 teeth	[S14M] 28 teeth						
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] 18 teeth	[S14M] 22 teeth						
Polyurethane V-Belts	FHP (2L)			[2L]							
	Cogged V-Belts (VC)			16							
	Double cogged V-Belts (DC)			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			(0.6mmt)6 (1.0mmt)10							
Polyurethane V-Ribbed Belts				[H]14 [J]24							
Polyurethane Round Belts	Endless			[3mmϕ]18 [5mmϕ]30							
	Open End (Bancord)			[3mmϕ] 23	[10mmϕ] 80						
Polyurethane Synchronous Belts			1:10	[TN15] 20 teeth [XL][L][T5] 15 teeth [T10] 12 teeth							
Polyurethane Long Synchronous Belts (LSB-U)			1:10	[S2M] [S3M] [XL][L] [T5][T10]	[S8M] [H]	[XH]					

1. COLOR CODE

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

Oil Resistance	Acid Resistance	Alkali Resistance	Ozone Resistance	Water Resistance	Flame Resistance	Low Noise	Vibration	BELT TYPE	
Rubber Belts									
								Fractional H.P.	V-Belts
								Multiple, RED-S DOUBLE-V	
								POWER ACE	
								POWER ACE type	POWER SCRUM (Banded Belts)
								Multiple V type	
								Variable Speed Belts	
								RIB-ACE Ⅱ	
								Synchronous Belts, STS, HP-STS Ceptor-Ⅵ	
								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	
								Banflex Scrum	
								Cordless	Polyurethane Flat Belts
								Polyurethane V-Ribbed Belts	
								Endless	Polyurethane Round Belts
								Open End (Bancord)	
								Polyurethane Synchronous Belts	
								Polyurethane Long Synchronous Belts (LSB-U)	

1. COLOR CODE

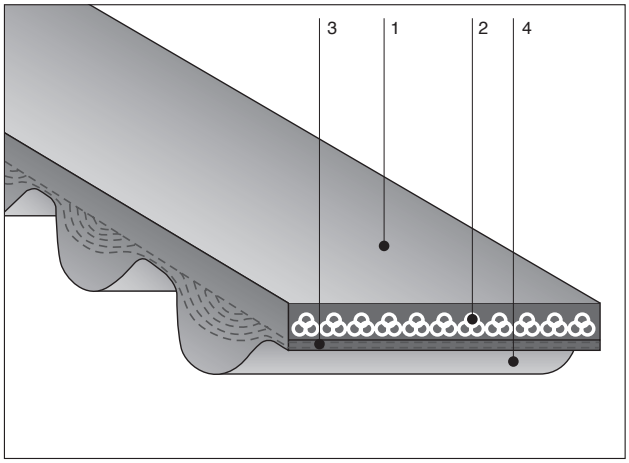
Belt is perfectly suitable for conditions shown.
Belt is adequately suitable for conditions shown.
Belt is marginally suitable for conditions shown, but not recommendable.
DO NOT apply belt in these environments.

Selection Table for Bando Power Transmission Belts – 2

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

BELT TYPE		DRIVING CONDITIONS Ambient Temperature Range -40 (-40) -30 (-22) -20 (-4) -10 (14) 0 (32) 10 (50) 20 (68) 30 (86) 40 (104) 50 (122) 60 (140) 70 (158) 80 (176) 90 (194) 100 (212) 110 (230) 120 (248) ℃ (℉)	Electrical conductivity
Rubber Belts			
V-Belts	Fractional H.P.	← →	less than 6MΩ
	Multiple RED-S DOUBLE-V	← →	less than 6MΩ
POWER ACE		← →	less than 6MΩ
POWER SCRUM (Banded Belts)	POWER ACE type	← →	less than 6MΩ
	Multiple V type	← →	less than 6MΩ
Variable Speed Belts		← →	less than 6MΩ
RIB-ACE Ⅱ		← →	less than 6MΩ
Synchronous Belts, STS, HP-STS Ceptor-Ⅵ		Standard ← → 90℃ (194℉) High Temperature Resistance ← → 120℃ (248℉)	less than 6MΩ insulation over 100MΩ
Long Synchronous Belts (LSB-R)		← →	less than 6MΩ
Polyurethane Belts			
KING POWER Synchronous Belts		← → 80℃ (176℉)	10^4~10^6MΩ
Polyurethane V-Belts	FHP (2L)	← → 70℃ (158℉)	10^4~10^6MΩ
	Cogged V-Belts (VC)	← → 70℃ (158℉)	10^4~10^6MΩ
	Double Cogged V-Belts (DC)	← → 70℃ (158℉)	10^4~10^6MΩ
	Cordless (BANCOLLAN V-Belts)	← → 70℃ (158℉)	10^4~10^6MΩ
	Open End (Bancord V-Belts)	10℃ (50℉) ← → 70℃ (158℉)	10^4~10^6MΩ
Banflex		← → 60℃ (140℉)	10^4~10^6MΩ
Banflex Scrum		← → 60℃ (140℉)	10^4~10^6MΩ
Polyurethane Flat Belts	Cordless	0℃ (32℉) ← → 70℃ (158℉)	10^4~10^6MΩ
Polyurethane V Ribbed Belts		← → 80℃ (176℉)	10^4~10^6MΩ
Polyurethane Round Belts	Endless	0℃ (32℉) ← → 70℃ (158℉)	10^4~10^6MΩ
	Open End (Bancord)	10℃ (50℉) ← → 50℃ (122℉)	10^4~10^6MΩ
Polyurethane Synchronous Belts		← → 70℃ (158℉)	10^4~10^6MΩ
Polyurethane Long Synchronous Belts (LSB-U)		-10℃ (14℉) ← → 70℃ (158℉)	10^4~10^6MΩ

BANDO KING POWER Synchronous Belts (KPS Ⅱ)



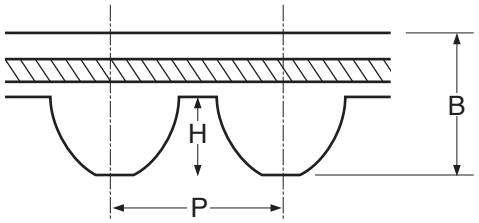
Construction

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

600 KPS Ⅱ 14M 1708

- 1708: Belt pitch length (1708mm)
- 14M: Belt type (14mm tooth pitch)
- 600: Belt width (mm) × 10 (60.0mm)

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			

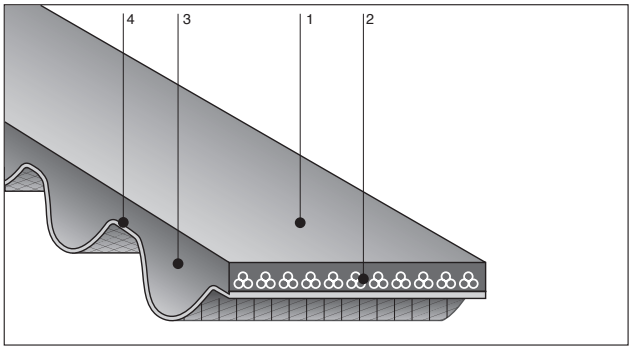
KPS Ⅱ 14M					
Type	Nominal pitch length (mm)	Number of teeth	Type	Nominal pitch length (mm)	Number of teeth
S14M994	994	71	S14M1568	1568	112
1120	1120	80	1650	1652	118
1190	1190	85	1708	1708	122
1260	1260	90	1890	1890	135
1400	1400	100	1960	1960	140
1470	1470	105	2380	2380	170

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)



Concept

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

Features

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

*Conventional standard pulleys are also applicable.

*Standard belt sizes are available.

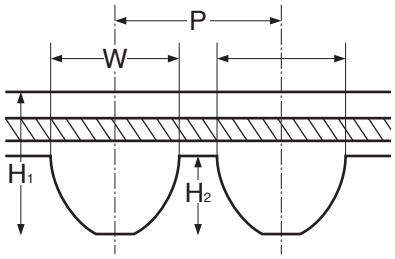
Construction & Members

1. 3. Rubber:
Using synthetic rubber results in less tooth deformation and a high level of hardness.

2. Tensile member:
Use of fiber glass tensile members with consideration 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 in operation.
Furthermore, the S14M type has a two-ply tooth canvas which enables further reductions in noise levels and improvement in durability.
The HP-S5M type is only available for clean specifications.

Dimensions



Type	P	H1	H2	W
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

Size Mark

600 HP-S8M 1000

- 1000: Belt pitch length (mm)
- HP-S8M: Belt type
- 600: Belt width (mm) × 10 (60mm)

Standard Belt Width

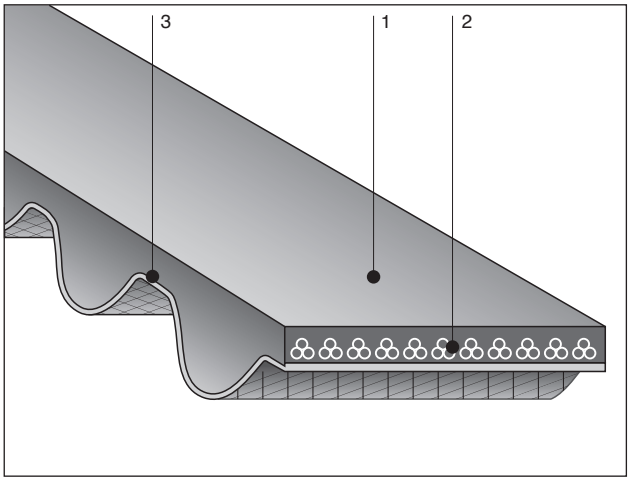
Width Mark	100	150	200	250	400	600	800	1000	1200
Width (mm)	10	15	20	25	40	60	80	100	120
HP-S5M	●	●	●						
HP-S8M		●		●	●	●			
HP-S14M					●	●	●	●	●

BANDO High-Performance STS Belts (HP-STS)

Standard Belt Length

BELT TYPE	Material		BELT NUMBER (PITCH LENGTH mm)
HP-S5M	R	100, 150, 200, 250	225, 230, 255, 275, 285, 295, 300, 305, 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, 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, 2000
HP-S8M	R	150, 250, 400, 600	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, 2040, 2120, 2160, 2240, 2304, 2400, 2496, 2560, 2600, 2800, 2880, 2944, 3200, 3600, 3720, 3904, 4400
HP-S14M	R	400, 600, 800, 1000, 1200	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 Ceptor-VI



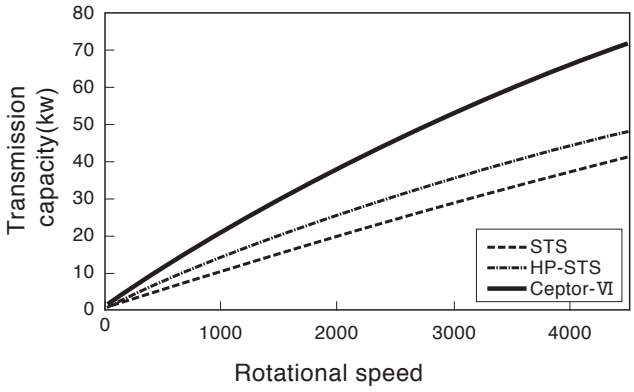
Construction

1. Rubber : Synthetic rubber with a high degree of hardness and elasticty.
   Tooth deformation is low.
2. Cord : Cord with high strength and elasticity that helps prevent decrease in tension.
3. Canvas: Abrasion-resistant tooth canvas and other materials improving resistance against tooth cracking and abrasion.

Features

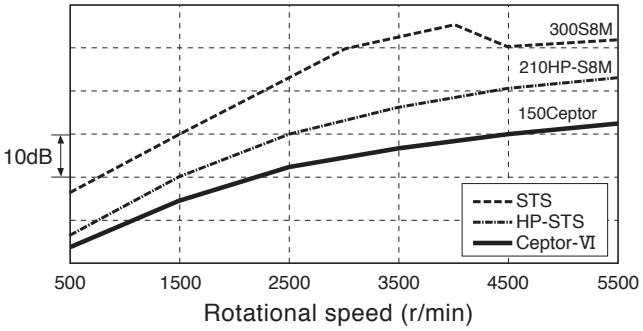
● High torque transmission
Ceptor-VI has a distinctive rounded tooth profile that, compared to a trapezoidal tooth profile, results in higher torque and transmission capacity that is further improved through the inclusion of materials with high rigidity and high elasticity. When compared to standard STS, Ceptor-VI has higher than twice the transmission capacity. (results vary depending on usage conditions)

Belt width: 60mm / Pulley: 26 teeth



● Low Noise
Because Ceptor-VI can be designed with a narrower width than standard STS and HP-STS specifications, the belt produces less noise.

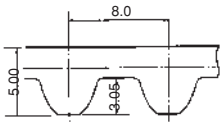
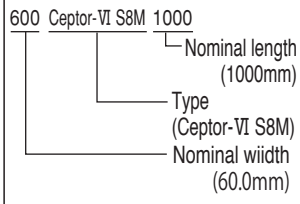
Noise comparison evaluation



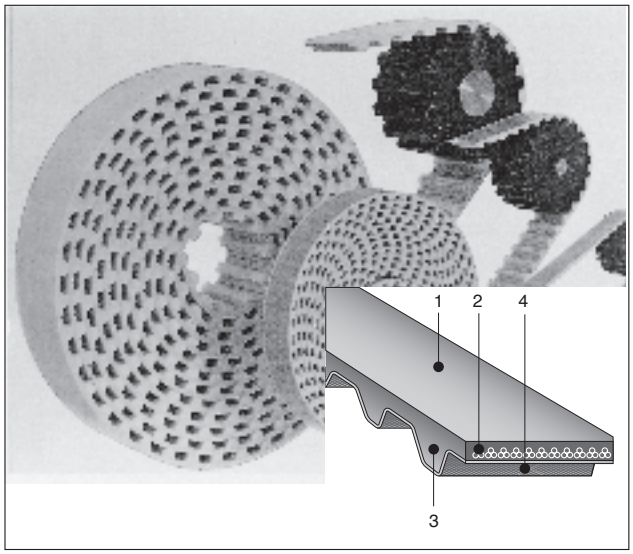
● Compact design
More compact design is possible owing to the higher transmission capacity. It is possible to adopt narrower width and smaller pulley than normally used with STS and HP-STS.

※Standard STS pulley can be used with Ceptor-VI
※Same sizes available as standard STS and HP-STS

Belt profile dimensions and notation

Type	Belt profile dimensions	Belt notation
Ceptor-VI S8M		

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

Allows for synchronous power transmission and conveyance over longer spans than 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 chains, 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 custom specifications (reverse side logo, white color, etc.).

Endless

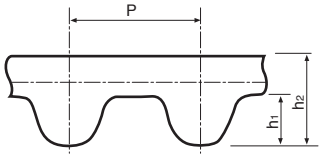
- On-site endless processing is available.
- Increasing the number of joints allows synchronous conveyance or synchronous transmission over any span length.

Open-end

- Capable of accurate reciprocating motion in indexing applications.

Dimensions

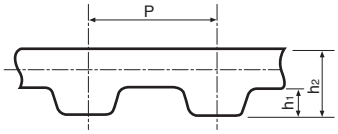
Long STS Belts



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

Seamless Synchronous Belts (without Joints)

200 XH 1000
- Belt length (mm)
- Belt type
- Belt nominal width (2': 50.8mm)

Seamless STS Belts (without Joints)

500 S14M 7850
- Belt length (mm)
- Belt type
- Belt nominal width (50mm)

Open-end (Synchronous Belts)

XL 025 × 53M
- Belt length (m)
- Nominal width (0.25': 6.4mm)
- Belt type

Open-end (STS Belts)

250 S8M × 30M
- Belt length (m)
- Belt type
- Nominal width (25mm)

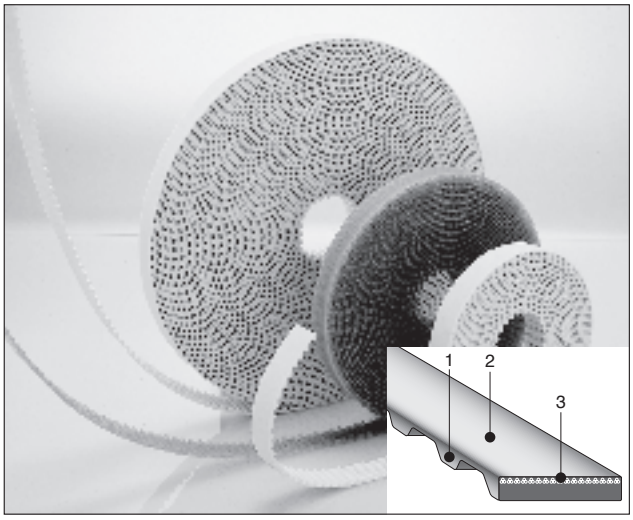
Standard Sizes

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

Unit: m

Open-end																										
Nominal width	019	025	031	037	050	075	100	150	200	300	Nominal width	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			40	28							
H						42	31	40	28	17	S5M				40	40		40	30	24				
											S8M					40		50	40	30	53	38	29	24

BANDO Bancollan Long Synchronous / STS Belts (LSB-U)



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

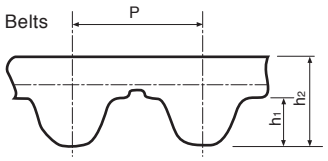
- Long-span belts capable of synchronous transmission and synchronous conveyance.

Open-end

- Capable of accurate reciprocating motion in indexing applications.

Dimensions

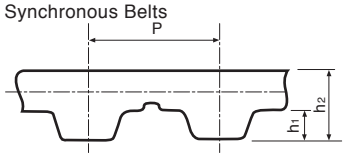
Bancollan Long STS Belts



Unit: mm ( )

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

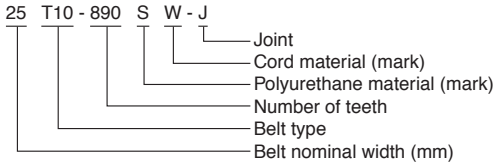
Bancollan Long Synchronous Belts

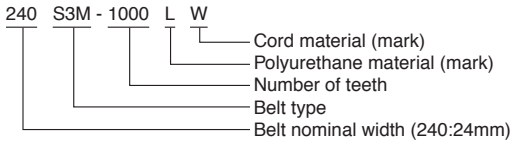


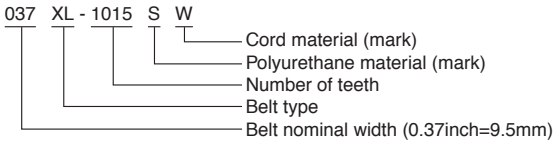
Unit: mm ( )

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







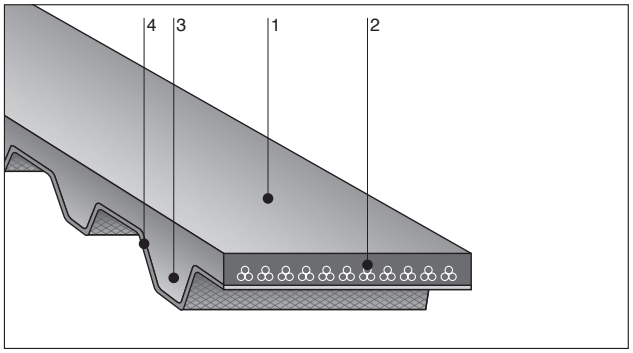
Polyorethane material mark
S···(standard translucent)
W···(standard milky-white)
L···(low friction milky-white)
M···(moisture and heat resistant milky-white)

Cord mark
W···steel cord
K···aramid cord

Standard Sizes

Endless (With Joints)					Open end			
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	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	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	10,15,20,25,30,40,50	50	50
					T10	15,20,25,30,40,75,100	100	50

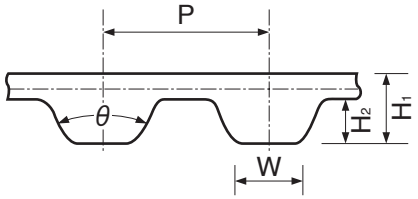
BANDO SYNCHRONOUS BELTS



Construction

1: Chloroprene rubber backing
2: Glass fiber tensile member
3: Chloroprene rubber teeth
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°

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)

140 MXL 9.5
- 9.5 — Belt width in mm
- MXL — Belt type
- 140 — Number of teeth

(XL, L, H, XH, XXH)

140 XL 025
- 025 — Belt width 0.25" (1/4")
- XL — Belt type
- 140 — Pitch length in inches ×10 (14"×10-140)

Standard Belt Width

	BELT WIDTH													
Nominal 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	6
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										●	●	●	●	●

BANDO SYNCHRONOUS BELTS

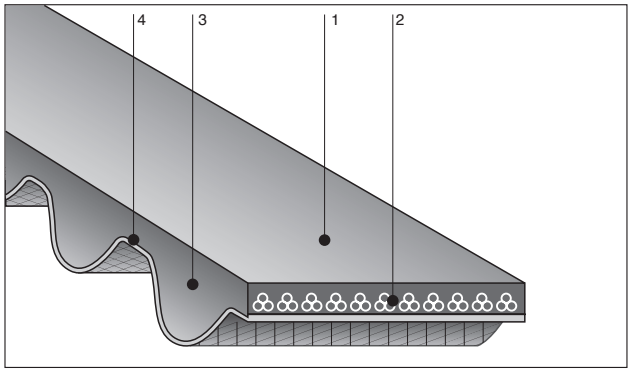
Standard Sizes

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



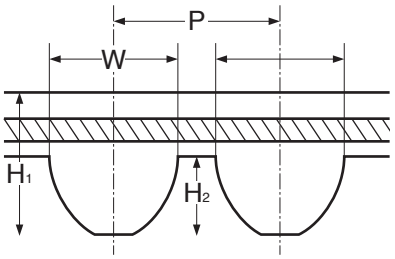
Features

- 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 layer 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 retensioning required.
- Space saving
  Due to higher power transmission capacity, the belt width and the pulley width can be designed more narrowly.
  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 teeth
4: Nylon canvas

Dimensions



Type	P	H_1	H_2	W
S1.5M	1.5mm	1.12mm	0.57mm	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

600 S8M 1000
- 1000: Belt pitch length (1000mm)
- S8M: Belt type (8mm tooth pitch)
- 600: Belt width (mm) × 10 (60mm)

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							●	●	●	●	●

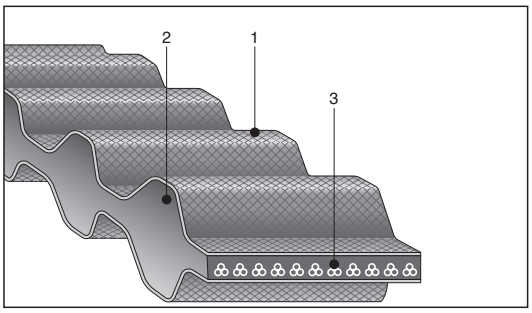
BANDO SUPER TORQUE SYNCHRONOUS (STS) BELTS

Standard Belt Length

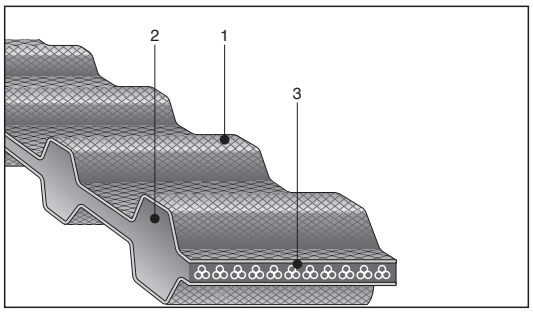
BELT TYPE	BELT PITCH (mm)	BELT NUMBER (PITCH LENGTH mm)
S1.5M (Rubber)	1.5	92, 93, 95, 98, 99, 101, 102, 108, 119, 134, 150, 158, 161, 164, 165, 168, 174, 180, 185, 186, 204, 206, 210, 224, 225, 236, 240, 255, 261, 263, 273, 281, 288, 290, 303, 305, 315, 335, 390, 441, 444, 480, 1116
S2M (Rubber)	2.0	74, 76, 80, 84, 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	93, 99, 108, 120, 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



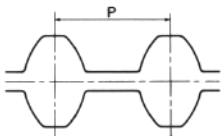
DOUBLE SIDED SYNCHRONOUS BELTS



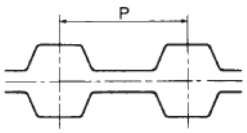
Construction

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

Dimension and Size Mark



250 D - S8M 1400
- 1400: Nominal length in mm
- S8M: Type
- D: Double Sided
- 250: Nominal width in mm × 10



600 D - H 150
- 150: Nominal width in inches × 100
- H: Type
- D: Double sided
- 600: Nominal length in inches × 10

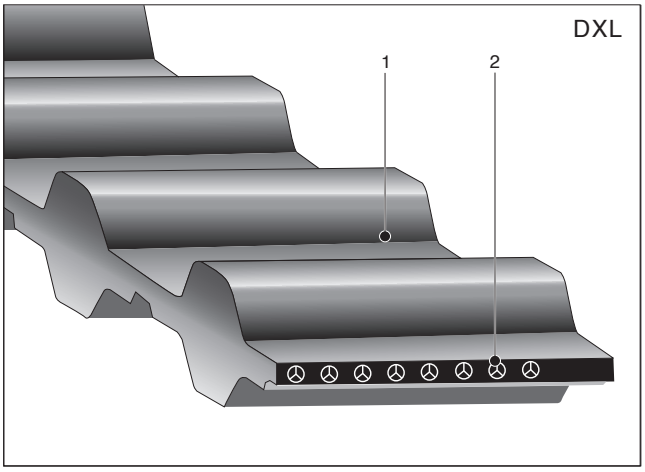
Standard Sizes

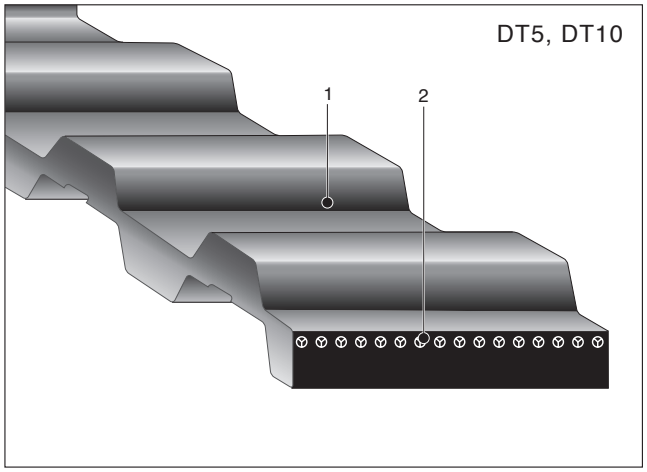
Type	P(mm)	Nominal Width	Nominal Length
DS2M	2	40, 60, 100	300, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 350, 354, 360, 364, 370, 372, 374, 376, 380, 386, 390, 396, 400, 406, 408, 410, 416, 420, 426, 428, 434, 436, 438, 440, 448, 452, 454, 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, 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	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, 638
DL	9.525	050, 075, 100, 150, 200,	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 ,
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.

BANDO BANCOLLAN DOUBLE SIDED SYNCHRONOUS / STS BELTS

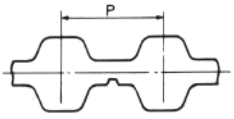




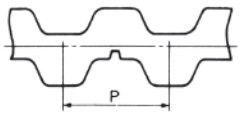
Construction

1: Polyurethane teeth 2: DXL = Aramid
DT5, DT10 = Glass Fiber

Dimension and Size Mark



180 D X L 037 UK
- Material mark
- Nominal width in inch × 100
- Type
- Nominal length in inch × 10



25 D T 10 1800 UG
- Material mark
- Pitch length in mm
- Type
- Nominal width in mm

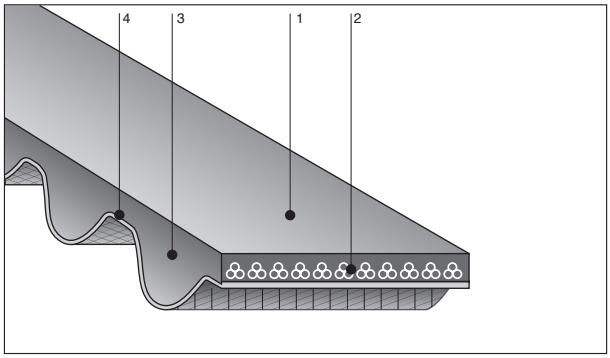
※UK = Aramid UG = Glass Fiber

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

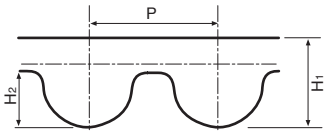
BANDO HTS Belts



Construction

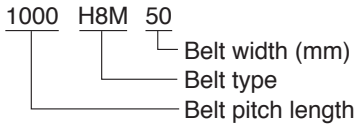
1: Chloroprene rubber backing
2: Glass fiber tensile member
3: Chloroprene rubber teeth
4: Nylon canvas

Dimensions



Type	P	H_1	H_2
H8M	8.0mm	5.3mm	3.5mm
H14M	14.0mm	10.2mm	6.0mm

Size Mark



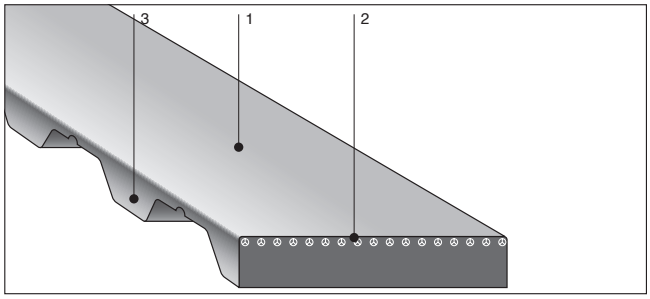
Standard Belt Width

Width(mm)	20	25	30	40	50	55	60	70	85	100	115	130	150	170
H8M	●	●	●	●	●	–	●	–	●	–	–	–	–	–
H14M	–	–	●	●	–	●	–	●	●	●	●	●	●	●

Standard Sizes

Belt Type	Belt number (Pictch length mm)
H8M	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
H14M	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: Glass Fiber tensile members (For MXL, Aramid tensile members)
3: Polyurethane teeth

Features

- Non-slip
  Accurate tooth dimensions 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) 140 MXL 9.5 U K

- K — Cord mark
- U — Material mark (polyurethane)
- 9.5 — Belt width in mm
- MXL — Belt type
- 140 — Number of teeth

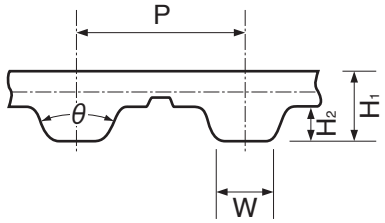
(T2.5, T5, T10) 10 T5 - 280 U G

- G — Cord mark
- U — Material mark (polyurethane)
- 280 — Pitch length mm
- T5 — Belt type
- 10 — Belt width in mm

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°

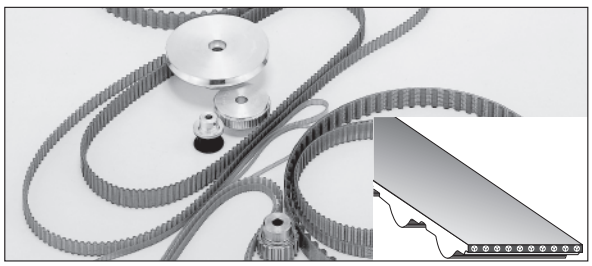
(XL, L)

140 XL - 025 U G

- G — Cord mark
- U — Material mark (polyurethane)
- 025 — Belt width 6.4mm (0.25")
- XL — Belt type
- 140 — Pitch length in inches × 10 (14" × 10 = 140)

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

BANDO BANCOLLAN STS BELTS

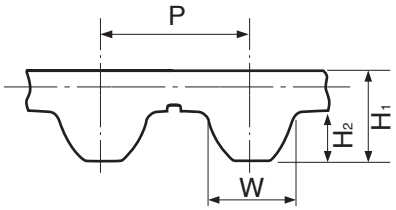


Size Mark

60 S2M 200 U G

- G — Cord mark
- U — Material mark (polyurethane)
- 200 — Pitch length in mm
- S2M — Belt type
- 60 — Belt width in mm □10 (6.0mm)

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 LENG TH mm)
S2M (Polyurethene)	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 (Polyurethene)	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 (Polyurethene)	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 (Polyurethene)	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 (Polyurethene)	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 (Polyurethene)	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 (Polyurethene)	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 (Polyurethene)	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

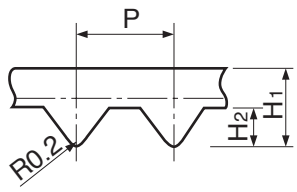
BANDO BANCOLLAN SYNCHRONOUS BELTS TN-TYPE

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
- K — CORD MARK
- 5.0 — Nominal width
- TN15 — Belt type
- 180 — Number of teeth

※CORD MARK
K=Aramid
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

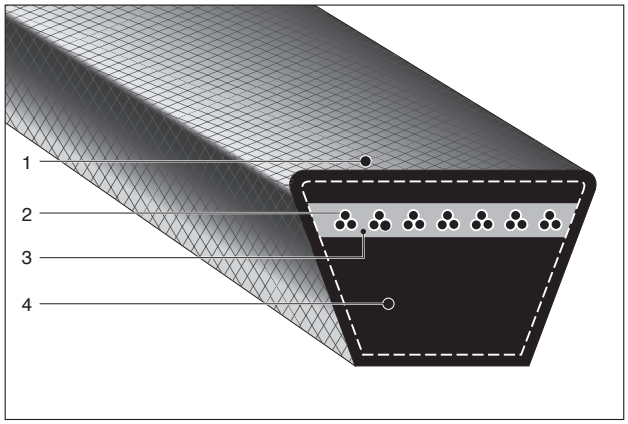
TN15 Type

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			
130TN15	195.0	130	339TN15	508.5	339
131TN15	196.5	131	340TN15	510.0	340
140TN15	210.0	140	350TN15	525.0	350
			360TN15	540.0	360
			370TN15	555.0	370
150TN15	225.0	150	380TN15	570.0	380
160TN15	240.0	160	390TN15	585.0	390
170TN15	255.0	170	400TN15	600.0	400
180TN15	270.0	180	421TN15	631.5	421
			441TN15	661.5	441
186TN15	279.0	186	460TN15	690.0	460
190TN15	285.0	190	480TN15	720.0	480
192TN15	288.0	192	481TN15	721.5	481
196TN15	294.0	196			
200TN15	300.0	200			
220TN15	330.0	220			
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

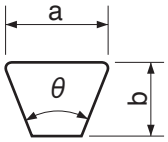
FHP V-BELTS

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 motoros 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	M	10.0mm (0.38")	5.5mm (0.22")	40°
	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

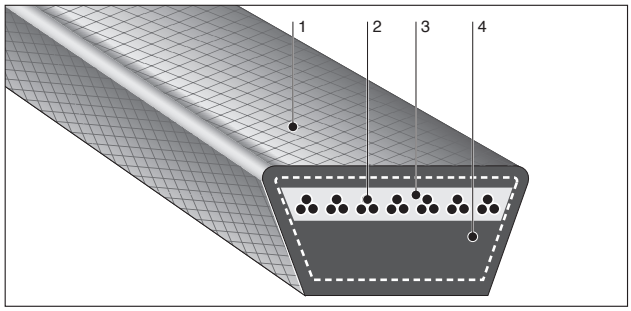
Size Mark

Standard Sizes

※These sizes conform with 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
M	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
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



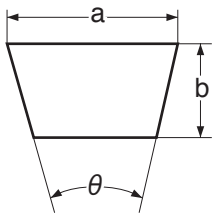
Construction

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

Features + Benefits

- Designed specifically for reverse-bend drives by positioning tensile members closer to the neutral axis and by making the belt a little thinner than conventional multiple V-Belts A, B, & C sections.
- Particularly suitable for agricultural machinery such as combine harvesters and garden tillers where belts are often driven with a 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	450	100

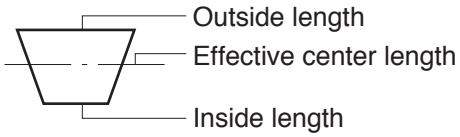
Numerical values shown above represent indexes with multiple V belts as 100

Size Mark

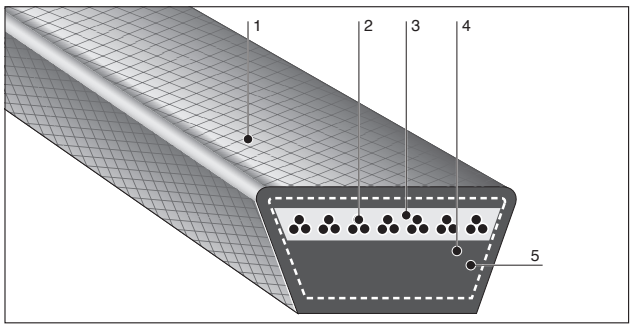
SA 50
- Belt effective center length
- Belt type

Standard Sizes

Belt type	a×b (mm)	Belt pitch length in inches
SA	12.7×7.0	17, 18, 19, 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



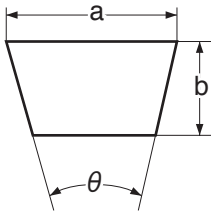
Construction

1: Rubber impregnated canvas
2: Aramid tensile members
3: Chloroprene insulation rubber
4: Fiber loaded chloroprene 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 agricultural machinery use enabling high-load power transmission. You can be assured using this V-Belt in 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

SA 50
- 50: Belt effective center length in inches
- SA: Belt type

Making full use of the Capabilities of Agricultural Machinery

As the functions and performance of agricultural machinery are increasingly improved, the quality of V-Belts used on such machinery must also be top quality.

There are cases now where the belts used on agricultural machinery should be of a higher grade than RED-S in order to fully complement the machinery's functions. To meet these demands BANDO has released the W800 Series of V- Belts for the agricultural machinery market.

Features Comparison

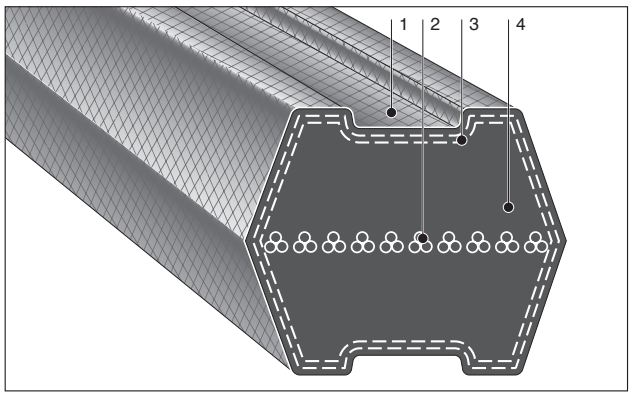
	Standard V-Belt	RED-S Ⅱ	W800
Power transmission capability	100	150	300
Service life against reverse bending	100	450	1800
Service life against shock	100	150	450

※Numerical values shown above represent indexes with standard V-Belts as 100.

Standard Sizes

Belt type	a×b(mm)	Belt pitch length in inches
SA	12.7 × 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 × 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 × 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 V-BELTS



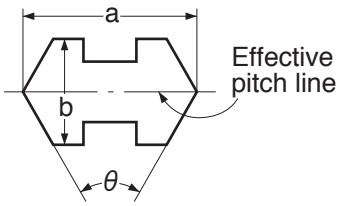
Construction

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 the new cross section, service life has increased by about 40% over that of traditional.

Dimensions

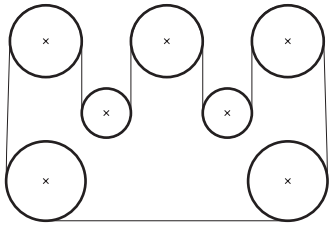


Type	a (mm)	b (mm)	θ
AA	12.5	10.3	40°
BB	16.5	13.5	
CC	22.0	18.0	

Size Mark

BB 100
- 100: Effective pitch length in inches
- BB: Belt type

Typical reverse-bend serpentine drive

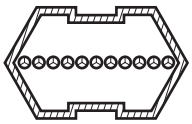


Standard Sizes

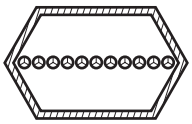
Type	Size number (Effective pitch length in inches)
AA	50, 53, 56, 60, 63, 67, 71, 75, 80, 85, 90, 95, 100, 106, 112, 118, 125, 132, 140
BB	60, 63, 67, 71, 75, 80, 85, 90, 95, 100, 106, 112, 118, 125, 132, 140, 150, 160, 170, 180, 190, 200, 212, 224, 236, 250
CC	132, 140, 150, 160, 170, 180, 190, 200,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

※These sizes conform with JIS

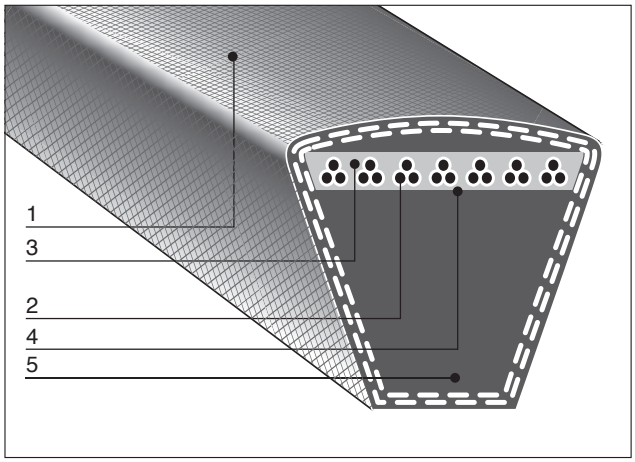
New cross section



Conventional cross section



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

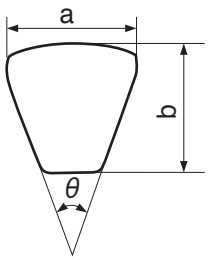
Features

- High horsepower rating
  Requires about 1/3 of the space needed by traditional multiple V-Belt drives.
- 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.
- By increasing the angle of the canvas weave from 90˚ to 120˚, transmission loss is reduced.

Power Ace outer jacket. (120˚)

Conventional V-Belt outer jacket. (90˚)

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

5V 1250

- 1250: Effective outside length in inches × 10 (125" × 10 = 1250) (3.175m)
- 5V: Belt type

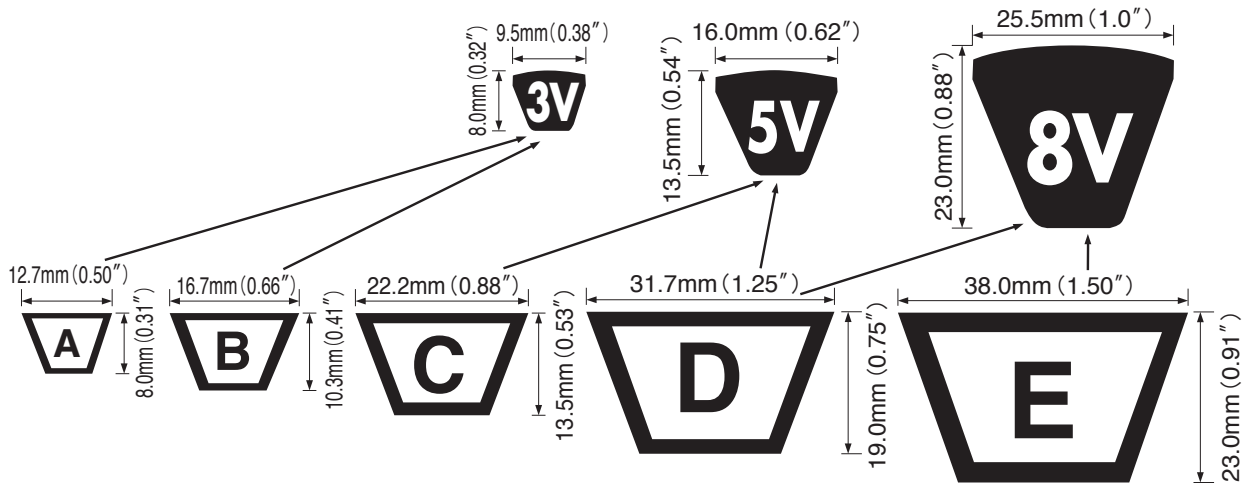
Pulley

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.

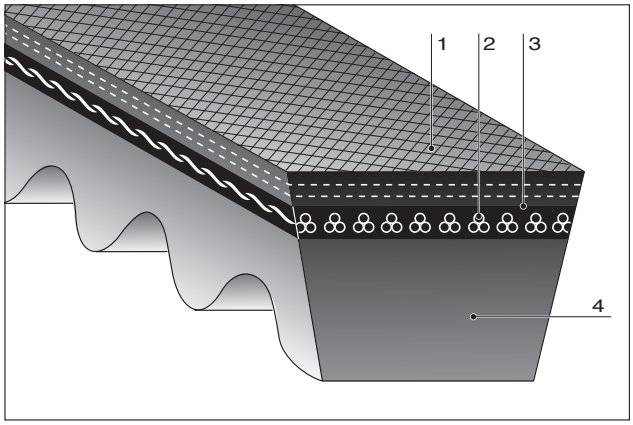


Standard Sizes

※These sizes conform with 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 POWER ACE COG



Construction

1. Canvas Top
2. Tensile Cord
3. Adhesion Rubber
4. Bottom Rubber

Features

- The cog-shaped bottom rubber enables use in compact transmission systems with small pulley diameters.
- Transmission capacity is 20-30% more than traditional POWER ACE, although the rate varies slightly depending on pulley diameter and rotation speed.
- High 'per-belt' capacity and low centrifugal force related loss make POWER ACE Cog suitable for high-speed transmission.

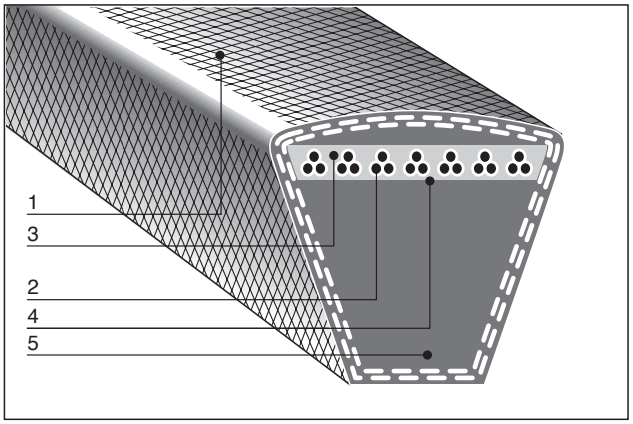
Belt		Minimum pulley diameter
POWER ACE Cog	3VX	56
	5VX	112
POWER ACE	3V	67
	5V	150

Standard Sizes

Type	Size	Size
3VX	~ 1200	3VX250 ~ 3VX1400
	1200 ~	
5VX	~ 1200	5VX500 ~ 5VX2000
	1200 ~	

Type	a×b(mm)	Size
3V	9.5×8.0	250, 265, 280, 300, 315, 335, 355, 375, 400, 425, 450, 475, 500, 530, 560, 600, 630, 670, 710, 750, 800, 850, 900, 950, 1000, l060, 1120, 1180, 1250, 1320, 1400
5V	16.0×13.5	500, 530, 560, 600, 630, 670, 710, 750, 800, 850, 900, 950, 1000, 1060, 1120, 1180, 1250, 1320, 1400, l500, 1600, l700, 1800, 1900, 2000, 2120, 2240, 2360, 2500, 2650, 2800, 3000, 3150, 3350, 3550
8V	25.5×23.0	1000, 1060, 1120, 1180, 1250, 1320, 1400, 1500, 1600, 1700, 1800, 1900, 2000, 2120, 2240, 2360, 2500, 2650, 2800, 3000, 3150, 3350, 3550, 3750, 4000, 4250, 4500, 4750, 5000, 5600

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

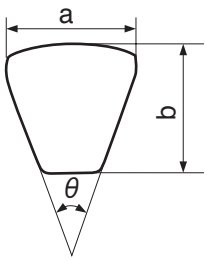
Features

- High horsepower rating
  Requires about 1/3 of the space needed by traditional multiple V-Belt drives.
- 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-Belts. Bando Narrow V-Belts are can handle high loads.

Standard Sizes

Type	Effective inside length
	mm
SPZ	630 ~ 3550
SPA	800 ~ 4500
SPB	1250 ~ 8000
SPC	2000 ~ 12500

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

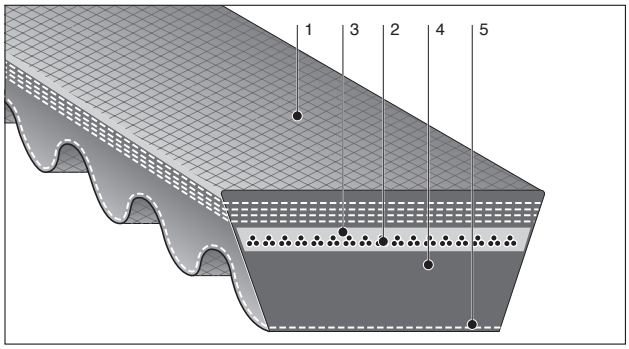
SPZ 630
- 630: Belt pitch length in mm
- SPZ: Belt Type

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

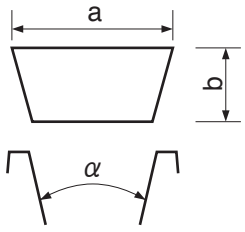
Features + Benefits

- 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

850 VA
- VA: Belt type
- 850: Nominal number (Pitch length in mm)

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				

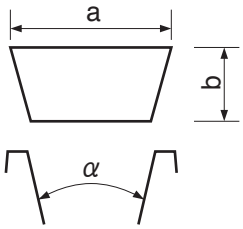
Fig.2 Standard Sizes

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



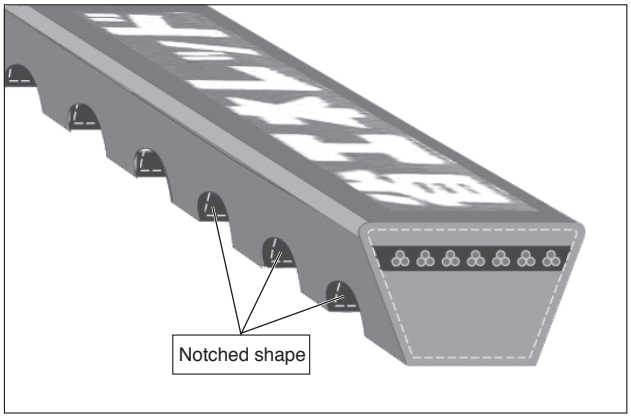
Size Mark

850 VA 23 22
- 22: Pulley groove angle
- 23: Belt top width (mm)
- VA: Belt type
- 850: Nominal number (Pitch length in mm)

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 Energy-Saving Red



Features

- Extremely small torque loss and improved transmission efficiency lead to energy savings.
- Energy-Saving Red can be installed and used on existing standard-V pulleys
- Long service life due to improved belt construction and reduced heat generation.

※ Comparison results based on in-house testing.

- Compact - The same transmission capacity as Red, with about 30% less space required compared with standard V-belts

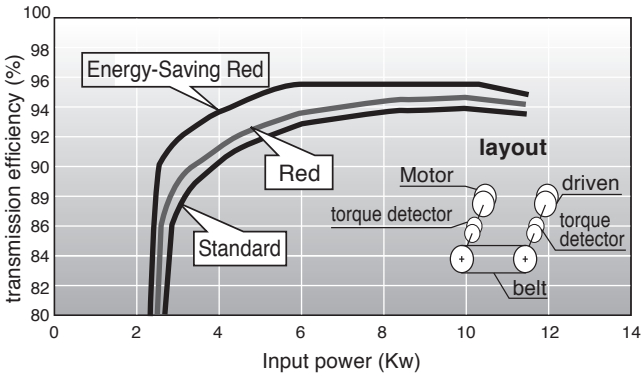
Standard Sizes

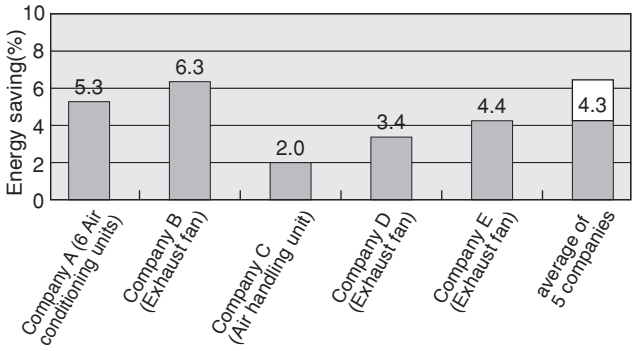
Belt type	Size range	
	nominal length	effective pitched length(mm)
A	20～360	508～9144
B	25～360	508～9144
C	35～360	889～9144
D	100～360	2540～9144

Test result of Energy-Saving Red

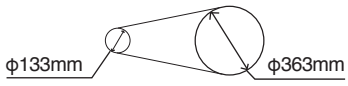
● Transmission efficiency

(tension : 490N B50 3pcs φ118 - φ118)

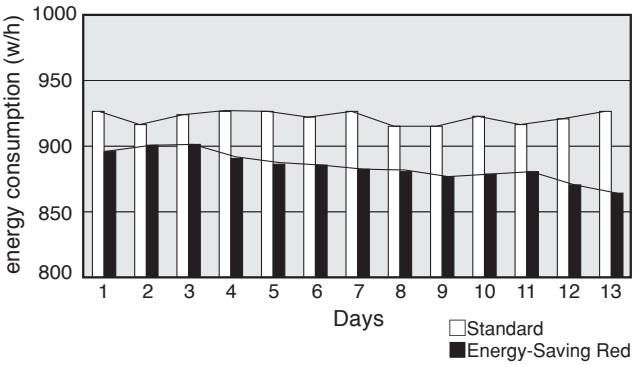




● Energy consumption



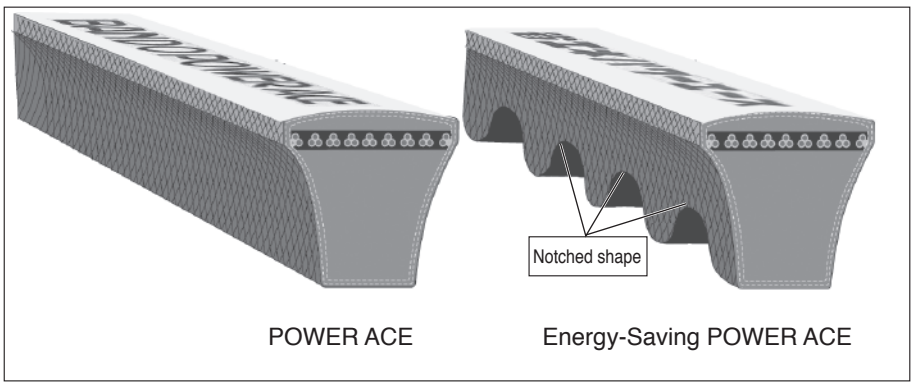
motor: 2.2kw／1750min-1
Drive pulley: 133mm
Driven pulley: 368mm
Belt: B8 1×1pcs



	Motor Power (Kw)	Energy Saving (%)	Estimated annual energy saving amount (Kwh)
Company A (6 Air conditioning units)	5.5～37.0	5.3	37,600 (6units)
Company B (Exhaust fan)	37	6.3	16,700
Company C (Air handling unit)	22	2.0	3,700
Company D (Exhaust fan)	1.5	3.4	260
Company E (Exhaust fan)	5.5	4.4	1,200

BANDO Energy-Saving POWER ACE

Energy-Saving POWER ACE is an advanced V-Belt with the following features: compact design, high-speed operation, high-power transmission and long life.
The belt's excellent flexibility reduces bending stress and increases energy savings. Energy-Saving POWER ACE is available in 3V, 5V, and 8V.



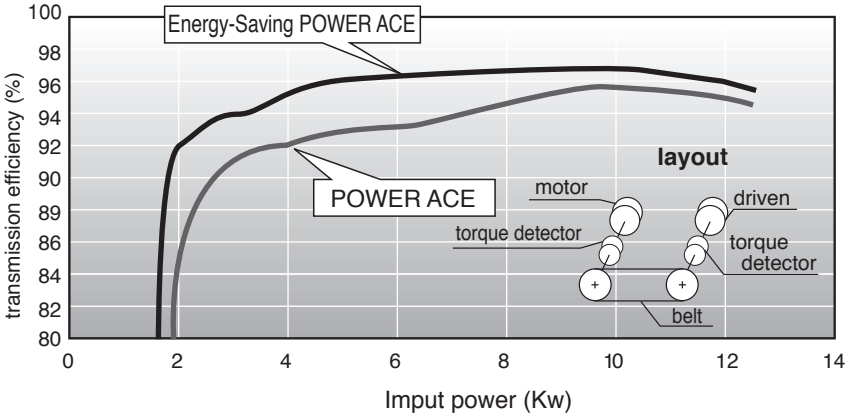
Standard Sizes

Belt type	Size range	
	nominal length	effective outside length
3V	250～1400	635～3556
5V	500～3550	1270～9017
8V	1000～3550	2540～9017

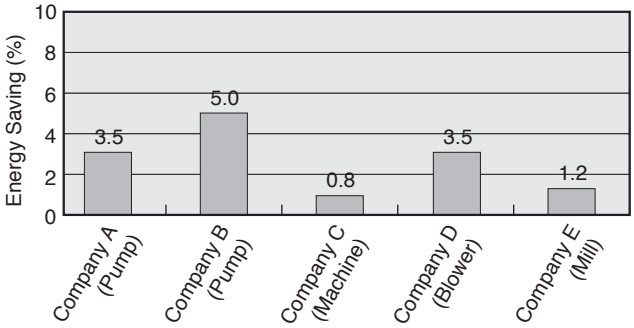
※Please order with nominal length
※Belt length = effective outside length
= 25.4X nominal length / 10

Test result of Energy-Saving POWER ACE

● Transmission efficiency
Transmission efficiency (tension: 490N 5V-530 1pcs φ150- φ150)

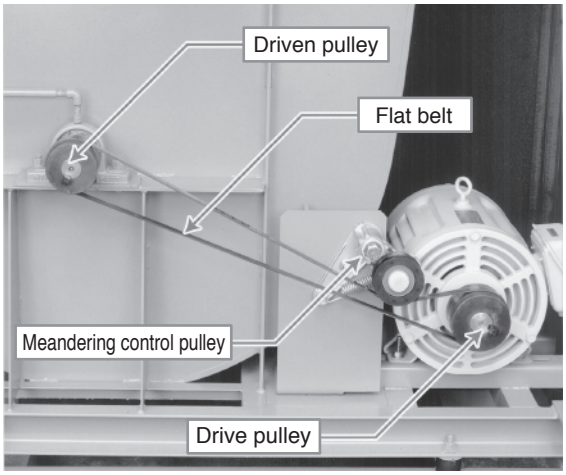


● Energy saving test on existing machines (compared to POWER ACE)



	Motor Power	Energy Saving (%)	Estimated anual energy saving amount (Kwh)
Company A (Pump)	7.5	3.5	1,341
Company B (Pump)	11	5.0	3,346
Company C (Machine)	30	0.8	2,022
Company D (Blower)	11	3.5	3,326
Company E (Mill)	55	1.2	5,300

BANDO Hyper Flat Drive System



Concept

At Bando we recognized the excellent qualities of the flat belt and we refined those qualities resulting in a next generation flat belt with further improved transmission capability: Bando "Hyper Flat Drive Belt (HFDB)". Further, we developed a meandering control and prevention device that autonomously controls the belt running position and by combining that device with auto-tensioner technology we overcame the meandering and loss of tension problems. We hope that you will use our next generation energy saving power transmission product, "HFD System", in your machines and equipment.

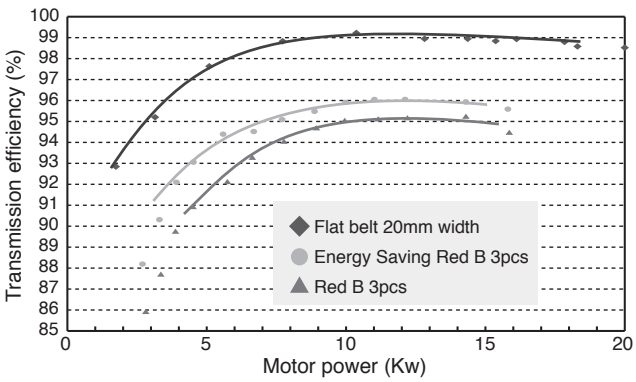
Features

- Operation with ideal tension and improved transmission efficiency lead to energy savings
- Maintenace free is possible due to the longer service life and tension control by the auto tensioner.
- Because the belt is thin and has little flex distortion, compact layouts are possible as reverse flexion has no influence on durability.

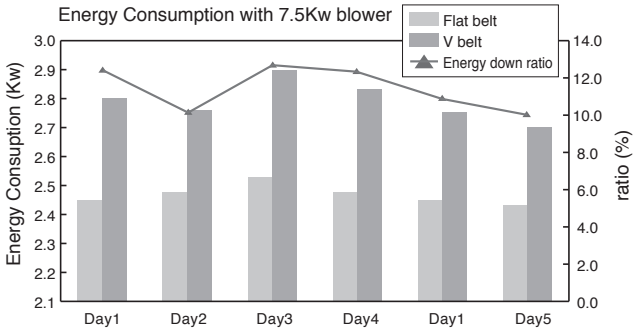
Standard Size (Belt Length)

600	630	670	710	750	800
850	900	950	1000	1060	1120
1180	1250	1320	1400	1500	1600
1700	1800	1900	2000	2120	2240
2360	2500	2650	2800	3000	

Transmission efficiency



Energy saving and CO_2 reduction



<Energy saving results>
about 0.3kwh Power cost @ JPY 12/kwh
Results: JPY 12×0.3kwh×10h/day×300 days/year = Cost reduction JPY 10,800/year

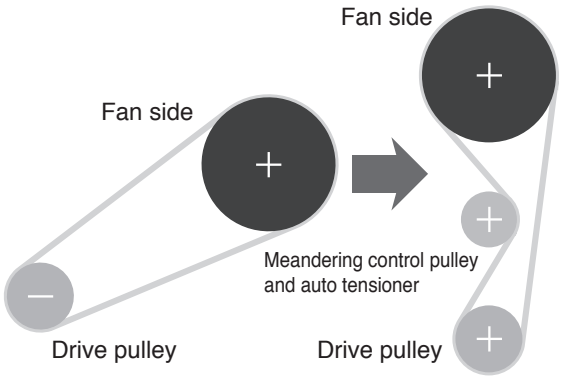
<CO_2 reduction>
CO_2 conversion factor = 0.378kg @CO_2/kwh
Reduction: 0.378×0.3kwh×10h/day×300 days/year
≒340kg/year CO_2 reduction

Note: CO_2 reduction coefficient is according to a report from the Ministry of Global Environment Bureau dated July 2003.

Compact layouts possible

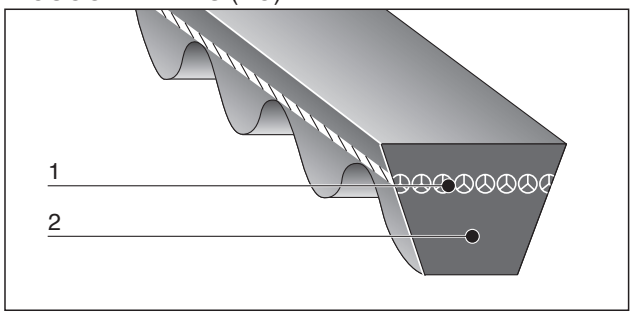
(Compared to V-belt: about 40% reduction)

		Fomer system	HFD system
Belt type		V-Belt Red	Flat belt
Test with 11Kw		B 3pcs (50.1mm width)	20mm width
Pulley diameter	Drive pulley	ϕ133mm 1750rpm	ϕ115mm 1750rpm
	Driven pulley	ϕ710mm	ϕ612mm
Center distance		1220mm	500mm
Pitch length		3810mm (150inch)	2542mm

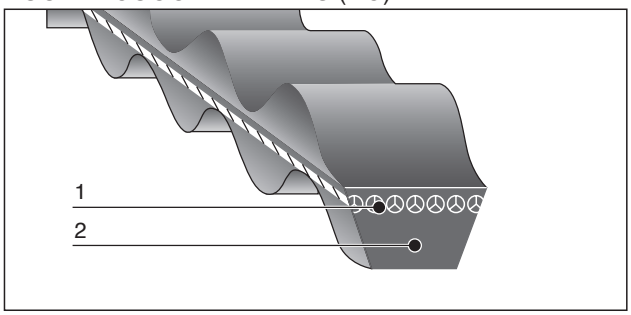


BANDO BANCOLLAN V-BELTS

V-COGGED BELTS (VC)



DOUBLE COGGED V-BELTS (DC)



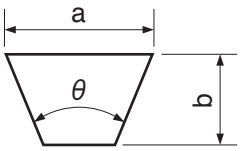
Construction

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°

Size Mark

(VC 2L types)

2L 080
- 080: Outside length in inches multiplied by 10 (8×10 = 080)
- 2L: 2L type cogged V-Belts

(VC-6 type)

VC 6x 350
- 350: Outside length in mm
- 6x: 6 type
- VC: Cogged V-Belts

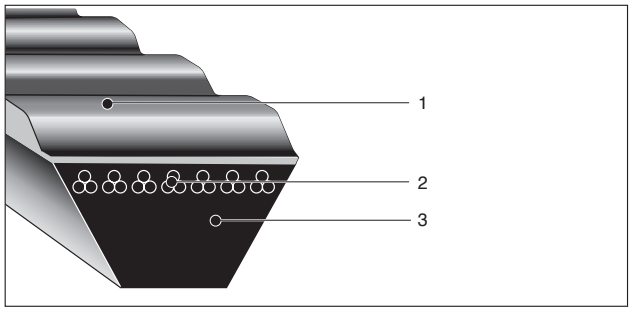
(DC-6 type)

DC 6x 350
- 350: Outside length in mm
- 6x: 6 type
- DC: Double cogged V-Belts

Standard Sizes

Type	Belt number	Outside length mm	Outside length inch	Belt number	Outside length mm	Outside length inch	Belt number	Outside length mm	Outside length inch	Belt number	Outside length mm	Outside length 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			

BANDO BANFLEX



Construction

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

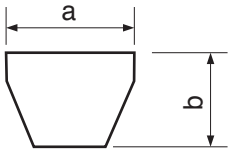
Size Mark

5M 1000
- 1000 — Effective outside length in mm
- 5M — Belt type

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

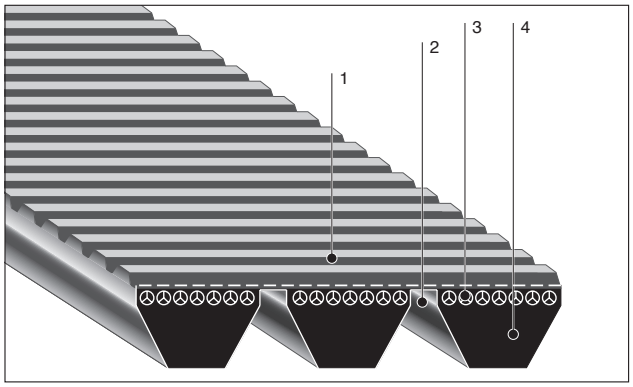


Type	Top width a		Thickness b	
3M	3.0mm	(0.12")	2.1mm	(0.08")
5M	5.0mm	(0.20")	3.3mm	(0.12")
7M	7.0mm	(0.28")	5.3mm	(0.20")
11M	11.0mm	(0.43")	6.9mm	(0.28")

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		○	○	○						

BANDO BANFLEX SCRUM



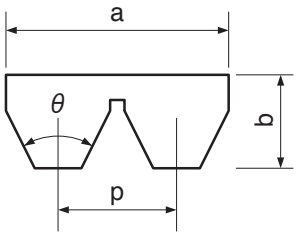
Construction

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 drives.
- High oil and ozone resistance.

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

7 - 5MS 800

- 800: Outside length in mm
- 5MS: Belt type
- 7: Number of ribs

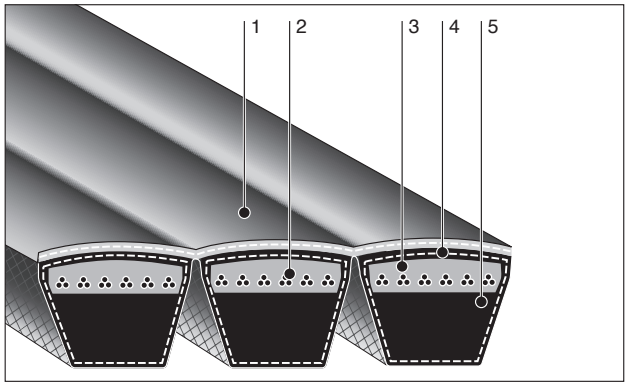
※For more than 4 ribs we use a combination of belts.

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

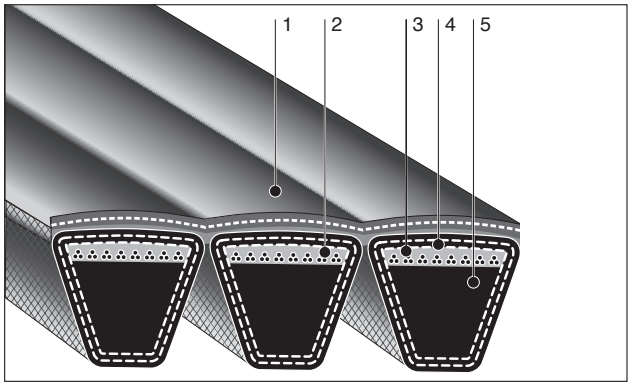
Standard Sizes

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	○	○	○					

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

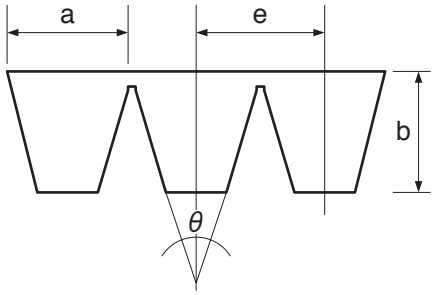
(Multiple V-Belt type)

5 C 100
- 100 — Belt pitch length in inches
- C — Type
- 5 — Number of belts in band

(POWER ACE type)

5 - 3V 1000
- 1000 — Outside length in inches × 10 (100" × 10 = 1000)
- 3V — Type
- 5 — Number of belts in band

Dimensions



Type	Top width of one belt a	Thickness b	Angle θ	Pitch between two belts e
A	12.7mm	10.0mm	40	15.0mm
B	16.7mm	13.0mm	40	19.0mm
C	22.2mm	16.0mm	40	25.5mm
D	31.7mm	21.5mm	40	37.0mm
3V	9.5mm	10.0mm	40	10.3mm
5V	15.9mm	16.0mm	40	17.5mm
8V	25.4mm	25.0mm	40	28.6mm

※For more than 6ribs we use a combination of belts.

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

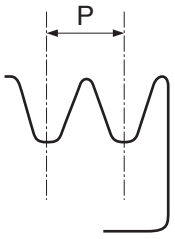
※These sizes conform with JIS.

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	315.0
	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

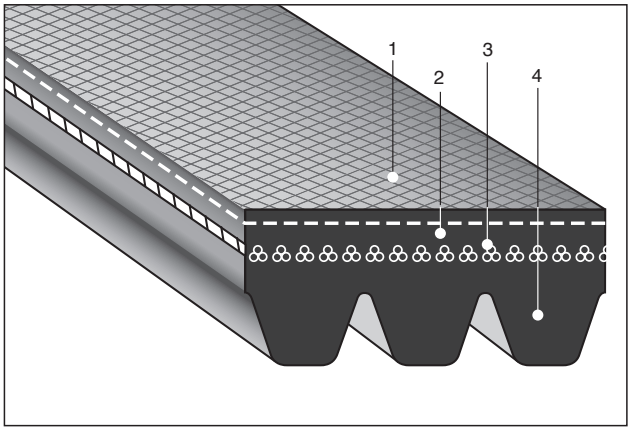
Recommended pulley groove pitch



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 RIB ACE Ⅱ



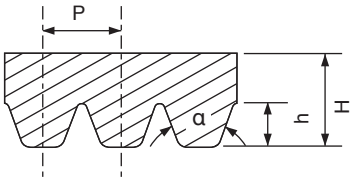
Construction

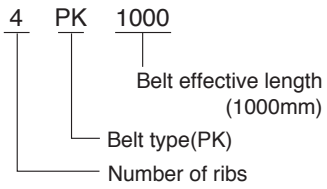
1: Canvas Top
2: Adhesion rubber
3: Tensile cord
4: Rib rubber

Features

- Compact design
  More compact design is possible because Rib Ace Ⅱ can be used with smaller pulleys.
- High-speed operation
  Suitable for high-speed applications up to 50m/s as there is little centrifugal force related loss.
- Highly accurate with little belt vibration
  Due to the manufacturing process used (grinding) the ribs are all connected resulting in smooth running and less rotational uneveness.
- Highly efficient transmission (Low power loss)
  Compared to V-Belt, RIB ACE Ⅱ is thinner and has less flexion loss resulting in high transmission efficiency.
- Low maintenance owing to a stable tension
  Due to better deformation and abrasion resistance than V-belts, RIB ACE Ⅱ is less likely to sink into pulleys meaning longer periods between maintenance.

Belt profile dimensions and notation





	P	H	h	α
	mm	mm	mm	(°)
PJ	2.34	3.4	1.4	40
PK	3.56	4.3	2.0	40
PL	4.70	6.0	3.3	40

Standard Sizes

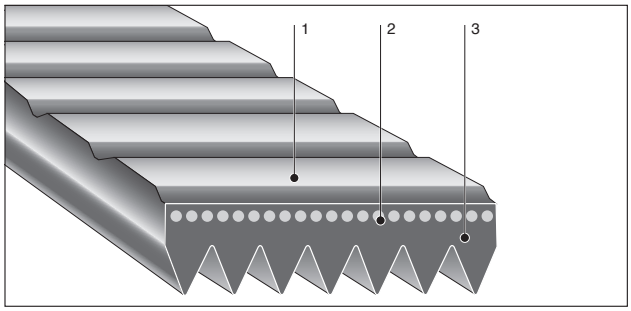
Unit: mm

Belt effective length					
PJ		PK		PL	
273	887	600	1220	540	1520
294	911	615	1250	605	1555
332	937	630	1280	655	1645
353	962	650	1320	700	1720
401	988	670	1360	730	1750
454	1013	690	1400	825	1850
480	1089	710	1450	850	1900
502	1140	730	1500	870	1975
530	1165	750	1550	875	2065
556	1191	775	1600	880	2115
567	1201	800	1650	905	2190
594	1242	825	1700	915	2360
607	1318	850	1750	950	2470
619	1343	875	1800	975	2575
634		900	1850	1000	2695
657		925	1900	1035	2840
704		950	1950	1050	3045
708		975	2000	1055	
759		1000	2120	1070	
777		1030	2240	1190	
797		1060	2360	1240	
817		1090	2500	1305	
835		1120	2650	1340	
852		1150	2800	1365	
861		1180	3000	1445	

Standard number of ribs

PJ	3PJ～18PJ
PK	3PK～12PK
PL	3PL～12PL

BANDO BANCOLLAN POLYBANROPE



Construction

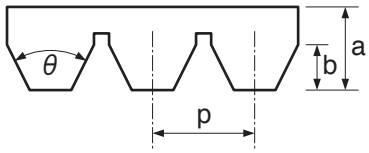
1: Polyurethane
2: Polyamid tensile members
3: Polyurethane

Features + Benefits

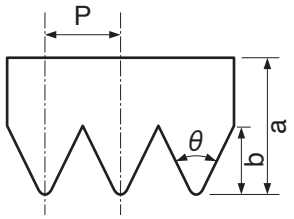
- Suitable for fixed center distance applications.
  The belt's elasticity allows for easy installation on fixed center distance pulleys without tools.
- Withstands high shock load.
  Polyamid tensile members protect belts from shock load damage, making them well-suited for small machines and other high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

Dimensions

(H type)

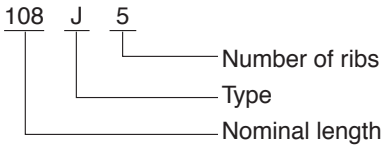


(J type)



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

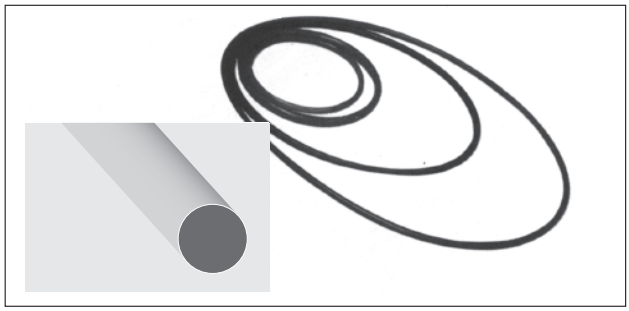


Standard Sizes

Type	Belt number	Pitch length mm	Pitch length inch	Belt number	Pitch length mm	Pitch length inch	Belt number	Pitch length mm	Pitch length 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).

BANDO BANCOLLAN ROUND BELTS (Seamless Type)



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 maintenance.
- High oil and ozone resistance

Construction

Polyurethane without tensile members

Size Mark

2 × 100

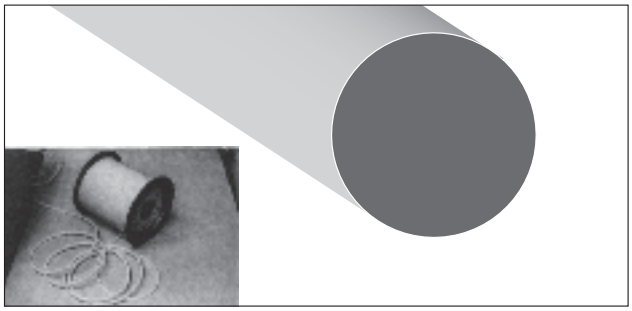
- 100 — Belt length in mm under no tension
- 2 — Type (diameter of round belt in mm)

Standard Sizes

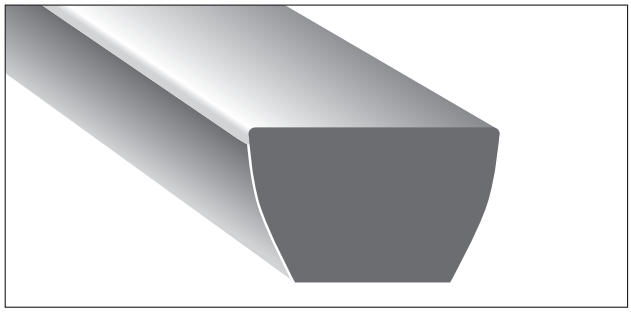
Type 2 2mm diameter		Type 3 3mm diameter		Type 4 4mm diameter		Type 5 5mm diameter	
Belt length		Belt length		Belt length		Belt length	
mm	inch	mm	inch	mm	inch	mm	inch
100.0	3.94	115.0	4.53	140.0	5.51	200.0	7.87
107.0	4.21	120.0	4.72	160.0	6.30	210.0	8.27
112.0	4.41	132.0	5.20	170.0	6.69	220.0	8.66
120.0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



BANCORD V-BELTS



Construction

Polyurethane without tensile members

Features

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

Standard Sizes

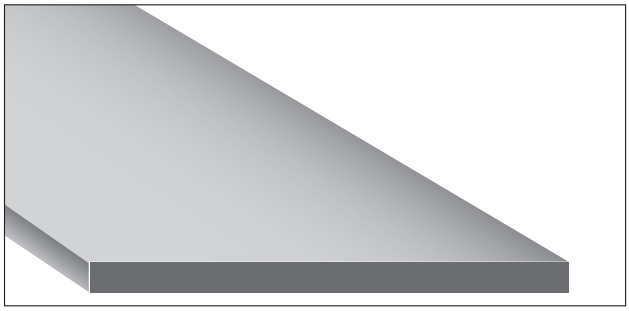
ROUND Belts

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°

BANDO BANCOLLAN (CORDLESS) FLAT BELTS



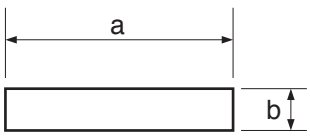
Construction

Polyurethane without tensile members

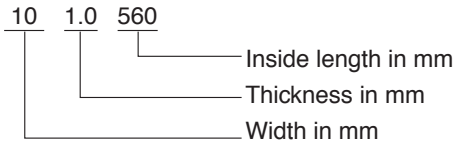
Features + Benefits

- Smooth constant speed
  Thickness tolerance is ± 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×b(mm)	BELT INSIDE LENGTH (mm)
10×1.0	170~950 (Please contact us for size details)

The above belt should be installed at 6% stretch.

BANDO PS BELTS

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

Type *-1	Characteristics / Application	Construction				Color tone	Available dimensions *-3		
		Number of tensile member(ply)	Material	Surface 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	Smooth	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	Smooth	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	Smooth	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	Smooth	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	Smooth	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	Canvas	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	Canvas	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	Smooth	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	Smooth	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	Smooth	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	Smooth	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	Smooth	Black	1.0	10~300	250~5700
C-8C	Precision power transmission and conveyance of light objects on equipment fixed between axis	1-ply polyester	Chloroprene rubber	Rough	Smooth	Black	0.7	3~300	160~5700
C-16C	Precision power transmission and conveyance of light objects on equipment fixed between axis	1-ply polyester	Chloroprene rubber	Rough	Smooth	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	Mirror	Liver	0.9	10~300	460~2000
E-8U	Conveyance of light objects such as banknotes, cards, tickets, etc. on equipment fixed between axis	1-ply polyester	Polyurethane (Millable)	Polished	Polished	Black	0.65 0.8 1.0	8~200	50~1500
EXL-101	Conveyance of light objects such as banknotes, cards, tickets, etc. on equipment fixed between axis	1-ply polyester	Polyurethane (Millable)	Mirror surface (Molded)	Polished	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.
※-4 10 mm to (0.15Belt's inside perimeter length) mm

BANDO PS BELTS

Features

1. Compact design Drives are compact because the belt is thin, seamless, and flexible.
2. Smooth running Seamless belts allow for smooth running with no vibration.
3. Maintenance free Belts do not stretch because of specially treated tension members.
4. Energy saver Lightweight and flexible belts minimize 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	○	○	◎	◎	◎	• Precision gauge drives • Acoustic equipment
A-1U	150	0.5% 30	5	2.3	◎	◎	×	○	◎	
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 • Banknote checker • Office equipment • Automatic checker • Fare box • Ticket vending machine • Printing machine
B-2H	250	1% 30 2% 50 3% 60	10	9	○	○	×	◎	◎	
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
B - 2 C E
① ②③④

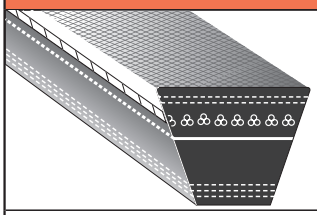
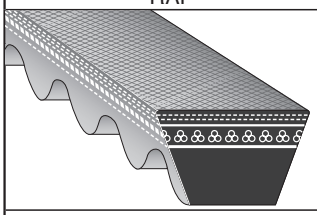
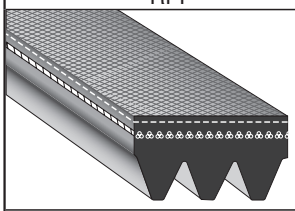
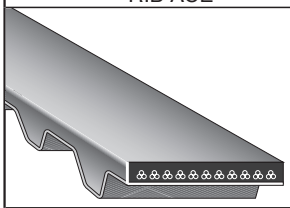
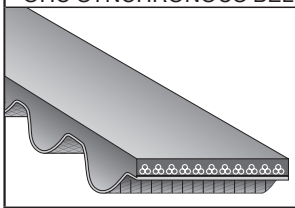
※-1 Besides types listed above. available types A-1N, A-4C, A-10C, A-13N, B-2N, B-2UF, B-3N, B-6C, C-8N, C-8U, C-16N, C-16U and others.
① Series name of belt ··· A: Mainly used for high-speed power transmission, B: Mainly used for conveyance of light objects such as sheets of paper, tickets, etc., C: 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: Chloroprene, 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.

※P,W: Special textile fabric

BANDO AUTOMOTIVE POWER TRANSMISSION BELTS

- V-Belts (Row Edge)
  - RAF (laminated type)
  - RPF (cogged type)
- V-Ribbed Belts ····· RIB-ACE
- OHC Synchronous / STS Belts

Features

	Sidewall wear resistance	Bending stress resistance	Noise level
 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

	RAF			RPF		
Type	Top Width	Thickness	Angle	Top Width	Thickness	Angle
FM	10.5mm	7.3mm	35±1°	11.0mm	8.0mm	35±1°
A	12.5mm	8.0mm	35±1°	13.2mm	8.5mm	35±1°
B				17.0mm	11.0mm	35±1°
C				23.0mm	13.0mm	35±1°
CD				25.4mm	13.0mm	35±1°
BC				19.0mm	11.0mm	35±1°

	Type	Rib pitch	Thickness	Size range
RIB-ACE	PK	3.56mm	4.8mm	(500mm-2540mm)

	Type	Tooth pitch	Thickness	Size range
OHC Synchronous Belts	ZA	9.525mm	4.10mm	Please contact us
	ZB	9.525mm	4.50mm	
	ZBS	9.525mm	4.89mm	
	YH	8.0mm	5.2mm	
	ZH	9.525mm	5.65mm	
	YU	8.0mm	5.02mm	
	RU	9.525mm	5.40mm	

	Type	Tooth pitch	Thickness	Size range
OHC STS Belts	S8M	8.0mm	5.2mm	Please contact us

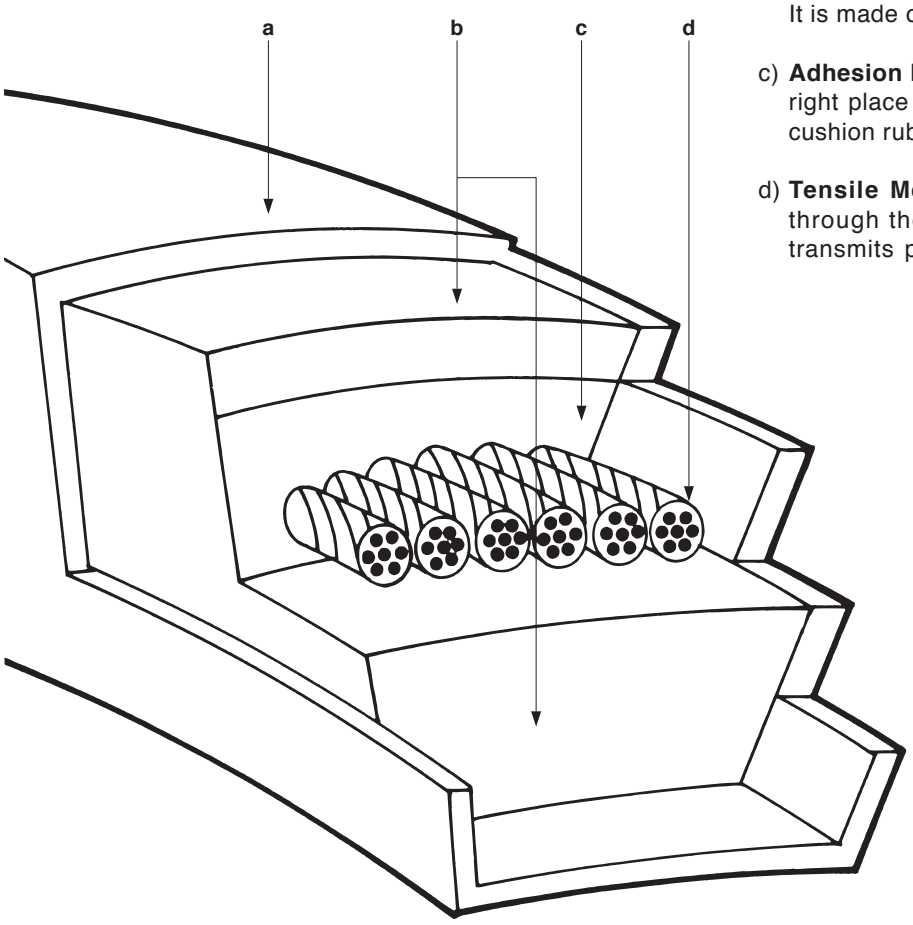
BANDO POWER TRANSMISSION BELT

OPERATING, TROUBLESHOOTING, and MAINTENANCE

CONSTRUCTION

V-BELT

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

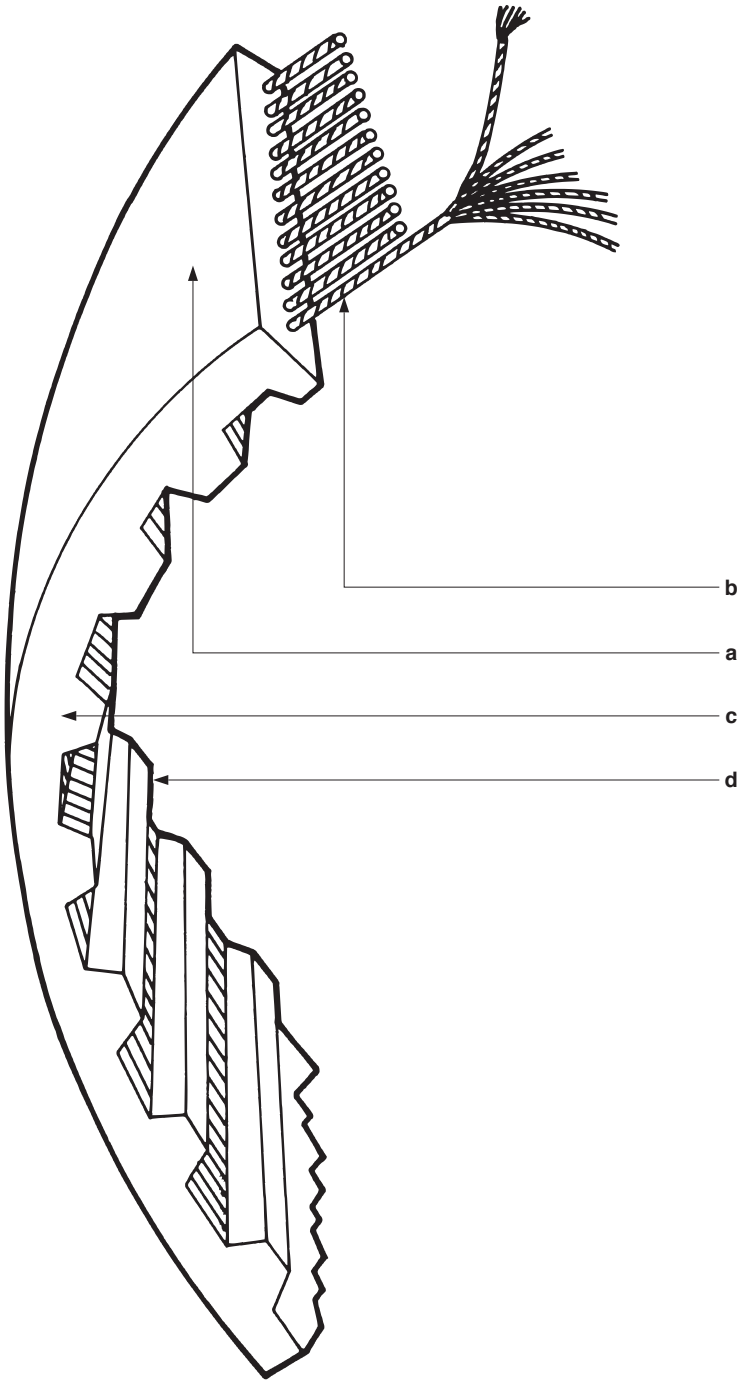


a) **Cover:** A canvas cover is usually wrapped completely around the belt, sometimes only on the top and bottom. It provides the proper amount of traction and protects the internal components from oil, dust and other foreign materials. It also increases belt flexibility.

b) **Cushion Rubber:** The material surrounding the Tensile Member. It absorbs the power from the drive pulley and helps transmit this power to the driven pulley. 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 through the belt. The 'muscles' of the belt, it transmits power from one pulley to the next.



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.

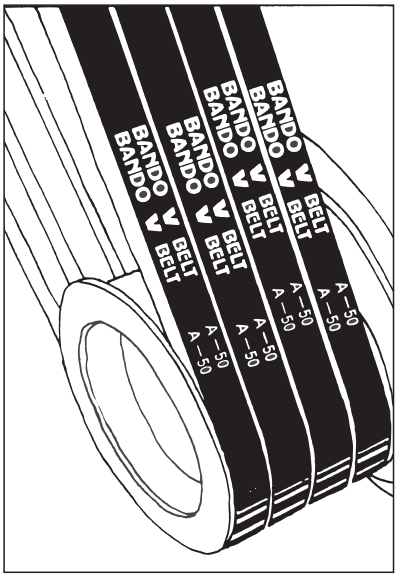
b) **Tensile Member:** Made of helically wound glass fiber cord, it is designed to transmit the power. The small diameter cord possesses high tensile strength, low stretch and high resistance to bending fatigue.

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, which is tough and has excellent abrasion resistance, protects the belt teeth from wear caused by pulley contact. This gives long belt service life.

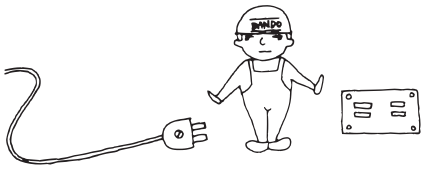
USE A MATCHED SET

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.

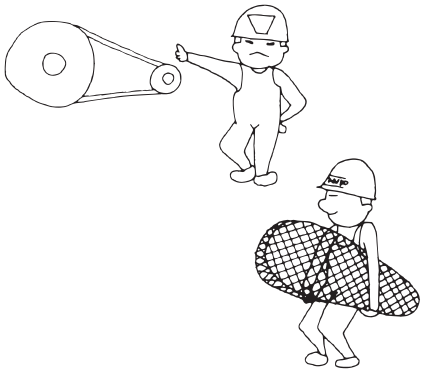


SAFETY

Make sure that all equipment is turned off, and disconnected from the power source even if you are only going to touch it for a moment.

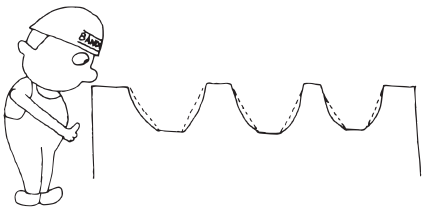


The drive should be fully protected by a guard.
This not only ensures safe operation but also protects the drive from debris and keeps the belt running smoothly.



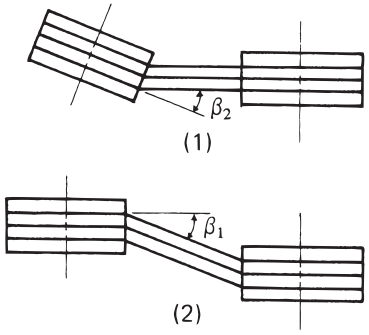
PULLEYS

Pulleys should be checked and worn ones replaced. Any rust should be removed from the Pulley surface as it accelerates belt wear. Paint or wax should never be applied to the Pulley grooves.



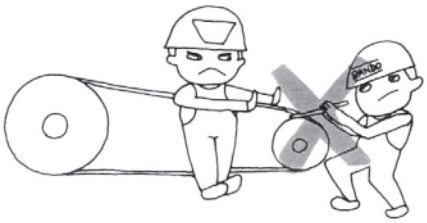
PULLEY MOUNTING AND ALIGNMENT

Unless belts enter and leave pulley 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 pulleys are incorrectly aligned.
Use a steel straight edge to ensure correct alignment.



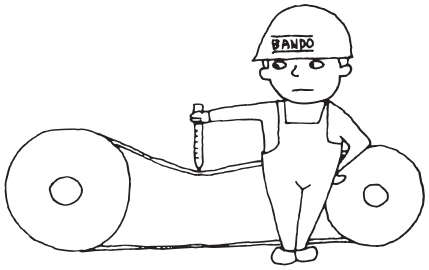
BELTS MUST NOT BE PRISED OR ROLLED ONTO THE PULLEY

This damages the belt internally and greatly shortens belt service life.
Fingers can also be seriously injured if caught in the pulley. Always fit the belt on the driven pulley first.



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 or 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 the first day of operation.



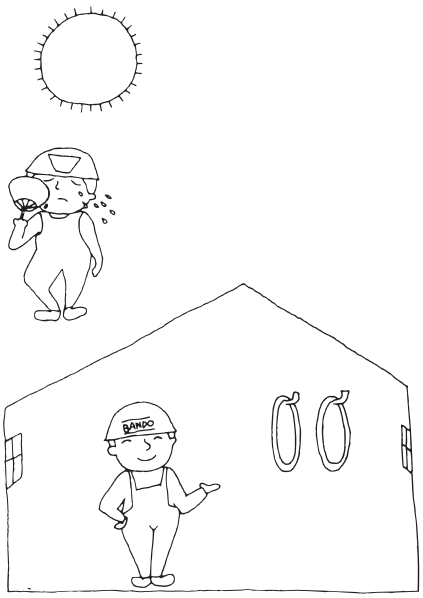
STORAGE

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

a) Belts should be stored in a cool dark place, away from heaters 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%.

b) 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)

c) Ensure that belts do not come into contact with oil or chemicals.



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 properly installed matched set.
Belts stretch about equally	Insufficient take up allowance.	Check take up allowance in manual.
	Greatly over or under-loaded drive.	Redesign user 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 user manual.
	Pulley diameter too small.	Redesign user manual.
	Belt runs on to pulley flange, due to misalignment.	Redesign user manual.
	Worn pulley grooves.	Replace pulleys.
	Belt damaged through improper installation.	Replace with a properly installed matched set.
	Foreign substance caught between belt and pulley.	Shield the drive.
Sidewalls soft, sticky, and swollen, low adhesion between cover plies	Oil or grease on belts or pulleys.	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	Pulley diameter too small.	Redesign using larger pulleys.
	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 slipping because of insufficient tensioning.	Re-tension.
	Improper storage.	Store belts properly.
Belt bottom cut	Belt ran off the pulley.	Check tension and alignment.
	Foreign material fell into drive.	Install drive shield.
	Improper installation.	Install new belts properly.

TROUBLE AREA	CAUSE	REMEDY
Extreme cover wear, worn corners	Dust on belt.	Clean surfaces and re-tension. Install shield.
	Insufficient belt tension.	Re-tension.
	Too few belts.	Increase belt quantity.
	Pulley grooves rusted.	Remove rust or replace pulley.
	Sharp corners or burrs on pulleys.	Round corners and remove burrs with a file.
	Pulleys misaligned.	Re-align.
	Angle of pulley groove incorrectly finished or badly worn.	Replace pulley with a new one, with suitable groove angle.
	Outside diameter of right and left side of the pulley differs.	Replace with an accurately machined pulley.
Spin burns on belt	Belt slips under starting or stalling load.	Tighten belt until slipping stops.
	Belt too loose.	Adjust belt tension.
	Pulley diameter too small.	Replace pulley 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 stucked 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 pulleys.	Realign.
	Worn pulley grooves (use gauge).	Replace.
	Insufficient belt tension.	Adjust tension.
	Belt deformed by fluctuating load.	Replace with scrum, flat, or poly-V-belt.
	Belt dameged through improper installation.	Replace with a properly installed matched set.
	If multi-strand driven, belt lengths differ.	Replace belts with a matched set.
BELT VIBRATION		
	Incorrectly placed flat idler pulley.	Carefully align idler on flat side as close as possible to drive shaft.
	Distance between shafts is too long.	Install an idler.
	Insufficient belt tension.	Re-tension.
	Belt lengths uneven.	Replace with a new matched set.

TROUBLE AREA	CAUSE	REMEDY
BELT MEANDERS / BELT NOISE		
	Pulleys 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 out.	Replace, re-tension drive.
	Improper tensioning.	Re-tension.
Pulleys too small	Design error.	Redesign manuals.
Poor bearing condition	Bearings underdesigned and/or badly maintained.	Observe recommended bearing design and maintenance.
Pulleys 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.

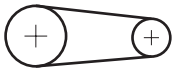
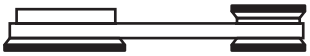
SYNCHRONOUS BELT:		
Teeth broken off	Belt skips pulley teeth because it is undertensioned.	Re-tension.
	Pulley teeth poorly machined, or badly worn.	Replace pulley with correctly machined one. If Install cover if teeth surfaces are dusty.
	Equipment stopping too quickly.	Increase deceleration time, or use a stronger belt.
	Fewer than specified belt teeth are gripping the pulley teeth.	Install back side idler on stuck side of belt, or redesign.

TROUBLE AREA	CAUSE	REMEDY
Belt becomes stiff and cracks appear on the belt surface	Ambient temperature is excessively high. (over 90℃)	Decrease the temperature or use heat-resistant belt.
Belt breaks without showing any signs of fatigue	Power transmission capacity of belt is insufficient.	Use a wider belt, a wider pulley, or go through the belt selection procedure again.
	Belt is unnaturally bent.	Pay 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 present.	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	Pulleys are misaligned.	Align the pulleys.
	The outside diameter of right and left side pulleys differ.	Replace with an accurately machined pulley.

BANDED BELT:		
Tie band separation or belt riding out of pulley groove	Worn pulleys (check with gauge)	Replace with new pulleys.
	Misalignment of pulley.	Realign.
	Insufficient 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. Worn idler pulley.	Adjust shielding. Replace pulley.
Top of tie band frayed	Obstruction on machine.	Realign drive and remove obstruction.
Tie band top blistered	Foreign material accumulating between belts.	Check shielding on drive.
Bottom of belt cracking	Belt slipping causing heat build up and gradual hardening of undercord.	Check tension.

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: Max:	(PS. KW. kg-m, kg-cm)
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. Pitch dia.	(mm) ×	(r.p.m.)	
7	Driven pulley	Outer dia. Pitch dia.	(mm) ×	(r.p.m.)	
8	Tension pulley	Yes No (ϕ)	Inside Outside	Slack side Tight side	
9	Center distance	±		(mm)	
10	Drive system	Ordinary 	Horizontal 	Vertical 	
11	Sudden stop	Sudden stop Yes No	Brake: Input side Output side	Time from sudden stop to sudden start or vice versa. (sec) GD2: (kg-m-sec2)	
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: Total quantity: Belt service life	Type: Quantity by size: Any problems:		

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