

Functional Selection Table

Characteristics		Load (kW)		Belt speed (m/s)		Driving machine characteristics		Center distance (m)		Speed ratio						
		0.25 or less	0.25 to 7.5	7.5 or more	20 or less	20 to 30	30 or more	*1 Standard driving machine	*2 Special driving machine	0.5 or less	0.5 to 2	2 or more	1.5 or less	1.5 to 1:10		
Synchronous Belts	Belt type	KPSII (King Power Synchronous Belt)		[S8M]	[S14M]		30			0.1 or less				1:10		
		Cepron-X														
		Cepron-VI														
		HP-ST5 (High-Performance Super-Torque Synchronous Belt)	[S3M]	[S3M]	[S8M]	[S14M]		33			0.15 or less			1:10		
		Double-Sided STS	[S2M]	[S2M]	[S8M]	[S14M]										
	Synchronous Belts	Synchronous Belt	[M4L]	[L]	[D4H]	[D4H]		30			0.15 or less			1:10		
		Double-Sided Synchronous Belt														
		Bancollan Synchronous Belt	[XL]	[L]		20					0.25 or less			1:10		
		Bancollan Double-Sided Synchronous Belt	[T15]	[T10]												
		Bancollan STS	[S2M]	[S2M]		20					0.25 or less			1:10		
		Long Synchronous Belt				10					0.15 or less			1:10		
		Bancollan Long Synchronous Belt				10					0.25 or less			1:10		
		V-belt	Red Scrum	[M]	[A]	[B-C]	[D-E]	[M15]	[A~E]	30		1.5~2	[M]	[A~E]		
			Standard		[A]	[B-C]	[D-E]		[A~E]	30		1.5~2		[A~E]		
Red S II	[S4]		[S4]	[S8-SC]		30				1.5~2						
Power Ace Scrum				[E100]	[S16-8M]			40		1.0 or less	[E100]	[S16-8M]	1:10			
Power Ace Aramid Combo				[E100]	[S16-8M]											
Frictional Transmission Belts	Power Ace Cog			[E100]	[S16-8M]			40		1.0 or less	[E100]	[S16-8M]	1:10			
	Sunrope (open-ended)	[M]	[A-B-C]		[M15]	[A~C]				2~3						
	Double-sided V-belt															
	Baniflescum		[A4]	[B]	[C-C]	30				1.5~2	[A4]	[B]	[C-C]			
	Bancollan V-Belt		[S4S]	[7MS]	[11MS]			60		0.8 or less				1:10		
	Flat Ace 2 (for general industry)	[J]			10					1.5~2						
	Bancollan Polybanrope	[P2]	[P4]			50				1~1.5						
	Bancord round belt	[H]	[J]			25				2~2.5						
	Bancord round belt	φ2~φ5			10					0.5~1						
	Bancord round belt	φ15~φ12			10					3~5						
	PS Belt	[A series]	[B series]	[C series]	[C series]	[B series]	[A series]	[A series]	[B series]	2.0 or less				1:10		
	Flat belt (cotton)			San Special San Atlas		20				2~3						
	Banbelt		[Light]				30			1.5~2						

Values in the table indicate general allowable values of belt characteristics. Color-coded indication
However, the permanent elongation indicates a normal range.

Can be used sufficiently.
Can be used conditionally.
Avoid use.

Characteristics		Minimum pulley diameter (mm)					Back face tension pulley dia.	Back face tension	Cross application	Vertical-shaft power transmission	Sudden stop	Miniaturized	Low initial tension	Back face drive
Belt type	50 or less	50 to 100	100 to 200	200 or more	3 or more									
Synchronous Belts	VPSII (King Power Synchronous Belt)	[S8M] 18 teeth	[S14M] 22 teeth											
	Cepron-X	[S13M] 16 teeth [S20M] 14 teeth [S24M] 12 teeth												
	HP-ST5 (High-Performance Super-Torque Synchronous Belt)	[S4.5M] 14 teeth [S5M] 12 teeth												
	HP-HTS (High-Performance High-Torque Synchronous Belt)	[S8M] 22 teeth [S8M] 22 teeth												
	Synchronous Belt	[MXL] 12 teeth [SXL] 10 teeth [J] 12 teeth	[H] 14 teeth	[MXH] 22 teeth [XXH] 22 teeth										
	Bancollan Synchronous Belt	[T10] 20 teeth [XLL] 150 teeth												
	Bancollan Double-Sided Synchronous Belt	[T10] 12 teeth												
	Bancollan STS	[S2M] 14 teeth [S2M] 14 teeth												
	Long Synchronous Belt	MXL XLL S43MS3M	S8M H	XH S14M										
	Bancollan Long Synchronous Belt	S2M-S3M XLL TS,T10	S8M H											
Frictional Transmission Belts	V-belt	Red Scrum	[M] 40	[A] 67	[B] 118 [C] 180	[D] 300 [E] 450	1.3x							
		Standard		[A] 67	[B] 118 [C] 180	[D] 300 [E] 450	1.3x							
		Red S II		[S4] 60 [S8] 80	[S-C] 100		[S4] 35 [S8] 45 [S-C] 60							
	Power Ace Scrum		[S4] 67	[S5M] 150	[B] 300 [B] 300	1.3x								
	Power Ace Cog		[S3M] 56	[S5M] 112		1.3x								
	Sunrope (open-ended)		[M80]	[A] 100 [B] 150	[C] 250									
	Double-Sided V-Belt			[A] 100 [B] 180	[C] 260	-								
	Baniflescum		[S4S] 26 [TMS] 40	[T1MS] 63										
	Bancollan V-Belt	16					1.3x							
	Rib Ace 2 (for general industry)		[P] 20 [P-L] 70				1.5x							
Bancollan Polybanrope		[H] 14 [J] 24												
Bancollan round belt		[S4] 18 [S4] 30				-								
Bancord round belt		[S4] 23	[104] 80			-								
PS Belt		[A] 5 [B] 11 [C] 5												
Flat belt (cotton)			[D] 80	[4P] 130 [5P] 180		-								
Banbelt				[Spinning] 150	[Light] 225 [Medium] 255 [Heavy] 500	-								

*1 Standard driving machines refer to AC motors (normal torque, squirrel-cage type, synchronous power transmission), DC motors (shunt-wound), and engines with two or more cylinders.
*2 Special driving machines refer to AC motors (high torque, single-phase series-wound), DC motors (series-wound, compound-wound), single-cylinder engines, line shafts, and clutches.
*3 Back face tension pulley diameters are expressed by multiples of minimum pulley diameters.

Characteristics Selection Table (Reference)

*1		Operating limit temperature (°C of cold resistance and heat resistance)																		
Characteristics																				
Belt type		-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	100	110	120		
Synchronous Belts																				
KPSII (King Power Synchronous Belt)			↔										↔							
Ceptor-X Ceptor-VI HP-ST5 (High-Performance Super-Torque Synchronous Belt) STS (Super-Torque Synchronous Belt) Double-Sided STS HP-HT5 (High-Performance High- Torque Synchronous Belt)			↔											↔						
Synchronous Belt Double-Sided Synchronous Belt			↔											↔						
Bancollan Synchronous Belt Bancollan Double-Sided Synchronous Belt			↔											↔						
Bancollan STS			↔											↔						
Long Synchronous Belt			↔											↔						
Bancollan Long Synchronous Belt			↔											↔						
Red Scrum	V-belt		↔											↔						
Standard			↔											↔						
Red S II			↔											↔						
Power Ace Scrum Power Ace Aramid Combo			↔											↔						
Power Ace Cog			↔											↔						
Sunrope (open-ended)			↔											↔						
Double-Sided V-Belt			↔											↔						
Banflexscrum			↔											↔						
Bancollan V-Belt			↔											↔						
Rib Ace 2 (for general industry)			↔											↔						
Bancollan Polybanrope			↔											↔						
Bancollan round belt			↔											↔						
Bancord round belt			↔											↔						
PS Belt			↔											↔						
Flat belt (cotton)			↔											↔						
Banbelt			↔											↔						

Characteristics		*2 Oil resistance	Acid resistance	Alkali resistance	Weather resistance	Water and humidity resistance	Flame resistance	Noise	Vibration
Belt type									
Synchronous Belts									
KPSII (King Power Synchronous Belt)									
Ceptor-X Ceptor-VI HP-ST5 (High-Performance Super-Torque Synchronous Belt) STS (Super-Torque Synchronous Belt) Double-Sided ST5 HP-HT5 (High-Performance High- Torque Synchronous Belt)									
Synchronous Belt Double-Sided Synchronous Belt		*3	*4			*4		*5	
Bancollan Synchronous Belt Bancollan Double-Sided Synchronous Belt									
Bancollan ST5									
Long Synchronous Belt									
Bancollan Long Synchronous Belt									
Frictional Transmission Belts									
V-belt	Red Scrum								
	Standard								
	Red S II								
Power Ace Scrum Power Ace Aramid Combo									
Power Ace Cog									
Sunrope (open-ended)									
Double-Sided V-Belt									
Banflexscrum									
Bancollan V-Belt									
Rib Ace 2 (for general industry)									
Bancollan Polybanrope									
Bancollan round belt									
Bancord round belt									
PS Belt									
Flat belt (cotton)									
Banbelt									

Color-coded indication

Very high
High
Slightly problematic
Better not to use

*1 The operating limit temperature indicates ambient temperature.
*2 For material quality, oil resistance evaluation takes belt slip into consideration.
*3 Very high with oil-resistant specification products.
*4 Low-noise specification products should not be used.
*5 High with low-noise specification products.

1. Power Ace Product Introduction

Power Ace is a narrow V-belt for high power transmission capability that significantly enhanced various characteristics and performance such as power transmission capability, high speed, and reliability by changing the cross-sectional structure of the previous V-belt. (Prescribed as Narrow V-belts for power transmission in JIS K 6368).

Features

■ Allows miniaturization and cost reduction of power transmission devices.

Power Ace has an extremely high power transmission capability, and the space for the power transmission device is about one-third of that of the standard V-belt.

Unlike chain transmission or gear transmission, it requires no lubrication device, allowing the equipment cost and maintenance cost to be reduced.

■ Allows high-speed operation.

Power Ace has an extremely high power transmission capability per belt and has a reduced loss in power transmission by centrifugal force; hence, it is also suitable for high-speed operation and can be used up to a speed of 40 m/s.

■ Allows labor-saving in maintenance.

Power Ace has little belt elongation during operation and rarely requires re-tensioning. Unlike chain transmission and gear transmission, it requires no lubrication, allowing significant labor-saving in maintenance.

■ Long belt service life and excellent reliability.

Power Ace, based on the ideal profile that was made by studying the power transmission theory as well as on the manufacturing technology on the highest standard, has a long service life and rarely incurs trouble during operation.

■ Excellent physical characteristics.

● Excellent heat resistance.

Generally, the higher the ambient temperature, the shorter the belt service life becomes; however, Power Ace can withstand high temperature compared to the standard V-belt.

● Static electricity prevention.

It has an electric resistance performance that conforms to the U.S. RMA standard.

*RMA (An abbreviation for Rubber Manufacturers Association)

● Excellent flame resistance.

The specially compounded chloroprene rubber used in Power Ace has a self-anti-inflammation property and therefore can be used at ease.

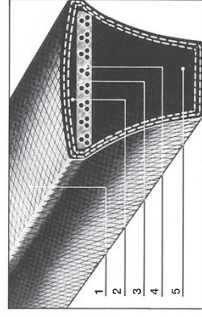
● Excellent oil resistance.

It can be used even with slight adhesion of oil mist, oil, or grease.

● Excellent weather resistance and ozone resistance.

It can also be used outdoors and in coastline areas without problems. Where the belt is exposed to direct sunlight, please protect the belt with a belt cover of the like if possible.

Structure



● Cord

It uses a polyester cord, has extremely little elongation, and has no concern for peeling of the cord layer.

● Compression rubber

The specially compounded chloroprene rubber reduces heat generation during running and increases the belt service life.

● Cover canvas

The special canvas has only a little tension and strain on the fiber even when it is wound around a small-diameter pulley, reducing losses in power transmission due to bending stress. It is also excellent in protection of the inside of the belt.

● Arched top

At the time of operation, it prevents cross-sectional deformation of the belt and maintains the group of tension members at a normal position; hence the group of tension members receives a uniform force, leading to a longer belt service life.

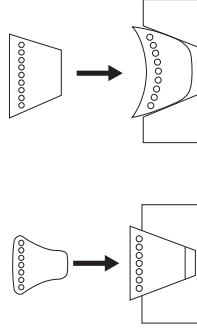


Power Ace

Standard V-belt

● Concave side wall

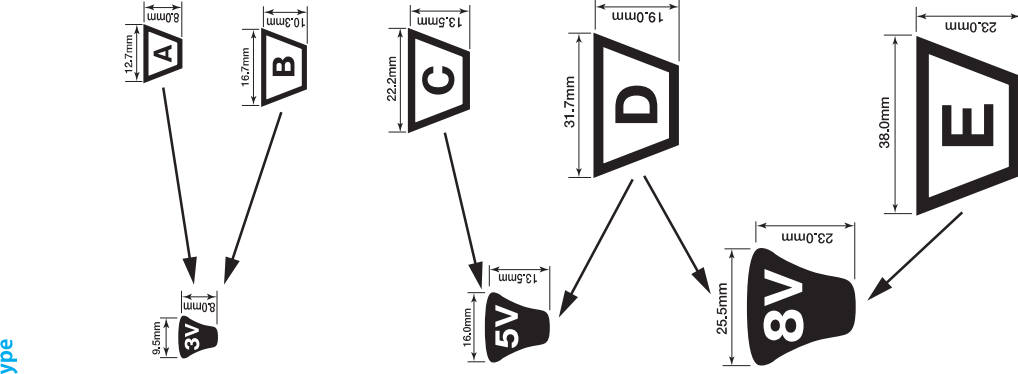
When the belt is wound around a pulley, the belt side face becomes straight and comes in uniform contact with the pulley, which increases the power transmission capability. The abrasion on the belt side face is uniform, which extends the belt service life.



Power Ace

Standard V-belt

Type



■ Belt size

Type 3V			Type 5V			Type 8V		
Nominal No.	Effective outside length (mm)	Nominal No.	Nominal No.	Effective outside length (mm)	Nominal No.	Nominal No.	Effective outside length (mm)	Nominal No.
250	635	500	1270	1270	1000	1000	2540	
265	673	530	1346	1346	1060	1060	2692	
280	711	560	1422	1422	1120	1120	2845	
300	762	600	1524	1524	1180	1180	2997	
315	800	630	1600	1600	1250	1250	3175	
335	851	670	1702	1702	1320	1320	3353	
355	902	710	1803	1803	1400	1400	3556	
375	953	750	1905	1905	1500	1500	3810	
400	1016	800	2032	2032	1600	1600	4064	
425	1080	850	2159	2159	1700	1700	4318	
450	1143	900	2286	2286	1800	1800	4572	
475	1207	950	2413	2413	1900	1900	4826	
500	1270	1000	2540	2540	2000	2000	5080	
530	1346	1060	2692	2692	2120	2120	5385	
560	1422	1120	2845	2845	2240	2240	5690	
600	1524	1180	2997	2997	2360	2360	5994	
630	1600	1250	3175	3175	2500	2500	6350	
670	1702	1320	3353	3353	2650	2650	6731	
710	1803	1400	3556	3556	2800	2800	7112	
750	1905	1500	3810	3810	3000	3000	7620	
800	2032	1600	4064	4064	3150	3150	8001	
850	2159	1700	4318	4318	3350	3350	8509	
900	2286	1800	4572	4572	3550	3550	9017	
950	2413	1900	4826	4826	4000	4000	9525	
1000	2540	2000	5080	5080	4160	4160	10160	
1060	2692	2120	5385	5385	4250	4250	10795	
1120	2845	2240	5690	5690	4500	4500	11430	
1180	2997	2360	5994	5994	4750	4750	12065	
1250	3175	2500	6350	6350	5000	5000	12700	
1320	3353	2650	6731	6731	5112	5112	13244	
1400	3556	2800	7112	7112	5600	5600	14224	

When using multiple belts, please specify a matched set.

Indication Example

5V 1250

Nominal No.

Effective outside length (125 inches; 3175 mm)

Belt type (Type 5V)

Top width (5/8 inches; 16 mm)

(Note) The cross-sectional dimensions of Power Ace are nominal dimensions.

2. Power Ace Cog Product Introduction

This is an additional specification of the high power transmission narrow V-belt "Bando Power Ace" and is a raw-edge cogged type narrow V-belt that can meet the requirements of high transmission capacity and miniaturization. *For other widths than the above, please contact us.

Features

■ Allows miniaturization and cost reduction of power transmission devices.

Power Ace Cog has a higher transmission capacity than that of Power Ace and can also be used for small pulley diameters and high-speed revolution.

■ Transmission capacity

Although the rate of increase of transmission capacity varies slightly depending on the pulley diameter and the revolution, in generally used operating conditions, it has 20 to 30% higher transmission capacity than that of Power Ace.

■ Minimum pulley diameter

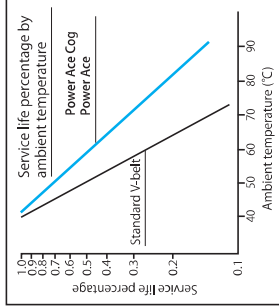
Power Ace Cog has a cogged profile at the bottom of the belt and therefore can be used for small pulley diameters as well.

Belt type	Power Ace Cog	Minimum pulley diameter
Type 3V	56(3VX)	67(3V)
Type 5V	112(5VX)	150(5V)

■ Allows high-speed operation.

Power Ace Cog has a high power transmission capacity per belt and has a small loss in power transmission by centrifugal force; hence, it is also suitable for high-speed operation and can be used up to a speed of 40 m/s.

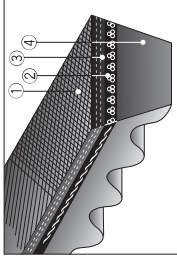
■ Excellent heat resistance.



■ Excellent oil resistance.

As this belt uses a synthetic rubber and takes oil resistance into consideration, it can be used even with slight adhesion of oil mist, oil, or grease.

Structure



1. Top canvas
2. Cord
3. Adhesion rubber
4. Compression rubber

- **Top canvas**
The highly elastic biased canvas protects the belt.
- **Adhesion rubber**
While it maintains the cord at an appropriate position, it also improves the adhesion between the cord and the rubber layer.
- **Cord**
It uses a polyester cord and completely adheres to the adhesion rubber; hence, it rarely has belt elongation during running. In addition, it has no concern for peeling of the cord, allowing stable power transmission.
- **Compression rubber**
The specially compounded synthetic rubber mitigates fatigue during running and provides high side pressure resistance.
- **Cogged profile**
The cogged profile at the bottom of the belt allows a smaller-diameter pulley than the previous pulley diameter to be used and provides high flexibility; hence, it generates only little heat during running and has a longer belt service life.

Belt profile and size range

- The bottom of the belt is "cogged."
- Because Power Ace Cog is often used in small to medium-sized machines that generally use small-diameter pulleys; hence, the types and sizes of the belt are limited.

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

When using multiple belts, please specify a matched set.

For details of the size, refer to the table on P. 230.

For Power Ace Cog Scrum (3VX), please contact us.

3. Power Scrum Product Introduction

Bando Power Scrum is a combined belt that combines the top sections of Power Ace using tie bands. As the cross-sectional profile of the belt is the same as Power Ace, our Power Ace pulleys can be used.

Features

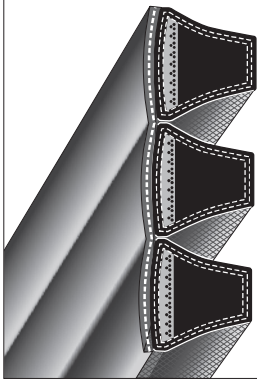
■ Stable operation even under violent load fluctuations

Even when the machine involves shock loads and pulsating loads, the belt, tied with tie bands vibrates little and can operate stably, and it does not flip over to the side or come off of a pulley.

■ Belt most suitable for vertical shaft drives

The tying with tie bands allows the belt to be used even in a vertical shaft drive with no detachment from the pulleys.

Structure



How to Design

Refer to Power Ace belt design (P. 245 to P. 273).

Belt Indication

- Indication example

10 - 5V 1250

No. of ridges Nominal No. (1250 inches; 3175 mm)
Belt type (Type 5V)

■ Belt combination

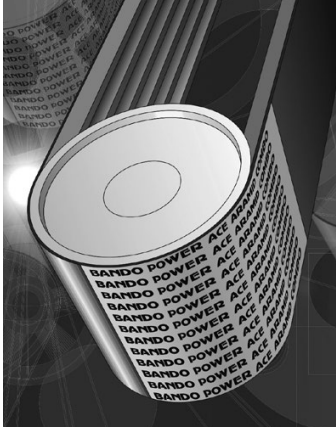
No. of ridges	Combination	No. of ridges	Combination
-	-	11	4+3+4
2	2	12	4+1+4
3	3	13	4+5+4
4	4	14	5+4+5
5	5	15	5+5+5
6	3+3	16	4+4+4+4
7	3+4	17	4+4+5+4
8	4+4	18	5+4+4+5
9	4+5	19	5+4+5+5
10	5+5	20	5+5+5+5

■ Matched set

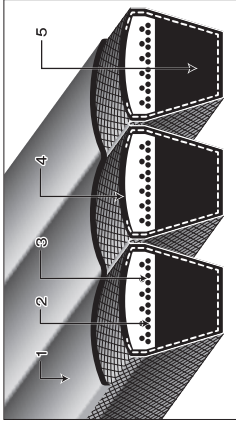
When using multiple belts, please specify a matched set.

4. Power Ace™ Aramid Combo Product Introduction

Power Ace™ Aramid Combo is a belt that employs a high-elasticity aramid cord and has improved dimensional stability and shock resistance. It also has excellent heat resistance and electric conductivity.



Structure



1. Tie band
2. High-elasticity aramid cord
3. Adhesion rubber
4. Cover fabric
5. Compression rubber

● Tie band

A peeling-resistant new type tie band structure is employed.

● High-elasticity aramid cord

The high-elasticity aramid cord provides a 50% or higher breaking strength than the previous products.

The belt has a 40% or higher transmission capacity than the previous products.

● Cover fabric

The belt has an electric conductivity that conforms to ARPMA (RMA).

Belt Indication

■ Indication example

3 - 8VK 1250

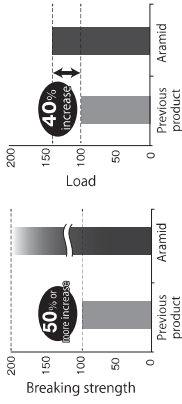
No. of ridges Nominal No. (1250 inches: 3175 mm)

Belt type (Type 8VK)

Features

- The new tie band structure is resistant to peeling.
- The high-elasticity aramid cord provides a 50% or higher breaking strength than the previous products.
- The belt has a 40% or higher transmission capacity than the previous products.
- The belt has an electric conductivity that conforms to the ARPMA (RMA) standard.

● Breaking strength ● Transmission capacity



*Pay due attention to the installation tension of the belt.

■ Standard effective lengths

5VK			8VK		
Nominal No.	Effective outside length (mm)	Nominal No.	Effective outside length (mm)	Nominal No.	Effective outside length (mm)
600	1524	2120	5385	1060	2692
630	1600	2240	5690	1120	2845
670	1702	2360	5994	1180	2997
710	1803	2500	6350	1250	3175
750	1905	2650	6731	1320	3353
800	2032	2800	7112	1400	3556
850	2159	3000	7620	1500	3810
900	2286	3150	8001	1600	4064
950	2413	3350	8509	1700	4318
1000	2540	3550	9017	1800	4572
1060	2692			1900	4826
1120	2845			2000	5080
1180	2997			2120	5385
1250	3175			2240	5690
1320	3353			2360	5994
1400	3556			2500	6350
1500	3810			2650	6731
1600	4064			2800	7112
1700	4318			3000	7620
1800	4572			3150	8001
1900	4826			3350	8509
2000	5080			3550	9017

● 5VK can be manufactured with up to 16 ridges, and 8VK can be manufactured with up to 10 ridges.

(For other sizes than the indicated sizes, please contact us.)

■ Belt combination

No. of ridges	Combination	No. of ridges	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

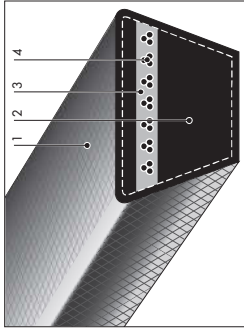
For pulleys, our Power Ace pulleys can be used as with Power Ace and Power Scrum.

■ List of belt sizes of Power Ace / Power Ace Cog / Power Scrum / Power Ace Aramid Combo

3V			5V			8V		
Belt nominal No.	Effective outside length (mm)	Power Ace	Power Ace Cog 3VK	Power Scrum	Power Ace	Power Ace Cog 5VK	Power Scrum	Power Ace Aramid Combo 8VK
250	635	○	○	○	○	○	○	○
265	673	○	○	○	○	○	○	○
280	711	○	○	○	○	○	○	○
300	762	○	○	○	○	○	○	○
315	800	○	○	○	○	○	○	○
335	851	○	○	○	○	○	○	○
355	902	○	○	○	○	○	○	○
375	953	○	○	○	○	○	○	○
400	1016	○	○	○	○	○	○	○
425	1080	○	○	○	○	○	○	○
450	1143	○	○	○	○	○	○	○
475	1207	○	○	○	○	○	○	○
500	1270	○	○	○	○	○	○	○
530	1346	○	○	○	○	○	○	○
560	1422	○	○	○	○	○	○	○
600	1524	○	○	○	○	○	○	○
630	1600	○	○	○	○	○	○	○
670	1702	○	○	○	○	○	○	○
710	1803	○	○	○	○	○	○	○
750	1905	○	○	○	○	○	○	○
800	2032	○	○	○	○	○	○	○
850	2159	○	○	○	○	○	○	○
900	2286	○	○	○	○	○	○	○
950	2413	○	○	○	○	○	○	○
1000	2540	○	○	○	○	○	○	○
1060	2692	○	○	○	○	○	○	○
1120	2845	○	○	○	○	○	○	○
1180	2997	○	○	○	○	○	○	○
1250	3175	○	○	○	○	○	○	○
1320	3353	○	○	○	○	○	○	○
1400	3556	○	○	○	○	○	○	○
1500	3810	○	○	○	○	○	○	○
1600	4064	○	○	○	○	○	○	○
1700	4318	○	○	○	○	○	○	○
1800	4572	○	○	○	○	○	○	○
1900	4826	○	○	○	○	○	○	○
2000	5080	○	○	○	○	○	○	○
2120	5385	○	○	○	○	○	○	○
2240	5690	○	○	○	○	○	○	○
2360	5994	○	○	○	○	○	○	○
2500	6350	○	○	○	○	○	○	○
2650	6731	○	○	○	○	○	○	○
2800	7112	○	○	○	○	○	○	○
3000	7620	○	○	○	○	○	○	○
3150	8001	○	○	○	○	○	○	○
3350	8509	○	○	○	○	○	○	○
3550	9017	○	○	○	○	○	○	○

1. V-Belt (Red Standard) Product Introduction

Structure

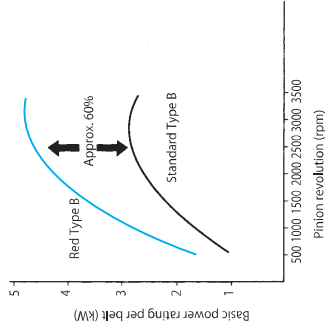


- 1 Cover fabric**
The cover fabric has a sufficient abrasion resistance to friction with the pulleys and is made of a strong, elastic, and bias special cloth. The further reinforcement with the abrasion-resistant rubber protects the inside sufficiently.
- 2 Compression rubber**
It keeps the normal belt cross-sectional profile, has extremely little heat generation against bending, and is very flexible.
- 3 Adhesion rubber**
While it maintains the cord layer at an appropriate position, it also improves the adhesion between the cord layer and the rubber layer.
- 4 Cord**
It is the main part that transmits power and uses a polyester cord that has a high strength, has little elongation, and has little flex fatigue. It strongly adheres to and is integrated with the rubber layer, hence, in power transmission, each cord receives uniform force and can perform stable power transmission.

Features/Red

High-quality and high-power-transmission V-belt

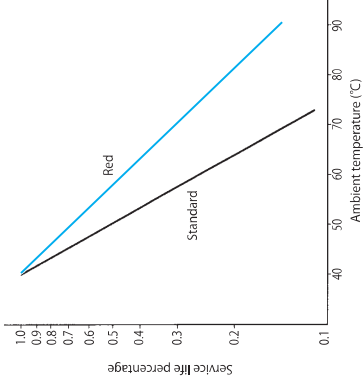
It employs polyester cords that are strong and have little elongation and a synthetic rubber compound, and has about 60% higher power than the previous Standard.



This graph plots the transmission power per belt as compared to revolution when a Type-B 125-mm-dia. pulley is used.

Excellent heat resistance

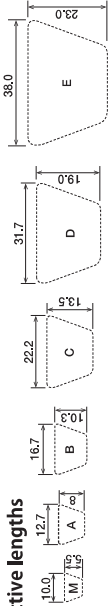
Generally, when the ambient temperature increases, the belt service life decreases as shown in the graph below. However, Bando Red has a lower reduction rate than Standard; hence, when the ambient temperature is high (normally 60 °C or more), it is recommended to use Bando Red.



Excellent flame resistance.

Because it does not have a self-burning property, the risk of ignition due to excessive slipping is low.

Table of effective lengths



Effective dimension: Represents effective outside length for Type M and effective pitch length for Types A, B, C, D, and E.
Type M and effective pitch length for Types A, B, C, D, and E.

V-Belt Power Scrum													
Nominal dimension (mm)		Belt type					Belt type						
		M	A	B	C	D	E	M	A	B	C	D	E
11	279							74	1880				
12	305							75	1905				
13	330							76	1930				
14	356							77	1956				
15	381							78	1981				
16	406							79	2007				
17	432							80	2032				
18	457							81	2057				
19	483							82	2083				
20	508							83	2108				
21	533							84	2134				
22	559							85	2159				
23	584							86	2184				
24	610							87	2210				
25	635							88	2235				
26	660							89	2261				
27	686							90	2286				
28	711							91	2311				
29	737							92	2337				
30	762							93	2362				
31	787							94	2388				
32	813							95	2413				
33	838							96	2438				
34	864							97	2464				
35	889							98	2489				
36	914							99	2515				
37	940							100	2540				
38	965							101	2565				
39	991							102	2591				
40	1016							103	2616				
41	1041							104	2642				
42	1067							105	2667				
43	1092							106	2692				
44	1118							107	2718				
45	1143							108	2743				
46	1168							109	2769				
47	1194							110	2794				
48	1219							111	2819				
49	1245							112	2845				
50	1270							113	2870				
51	1295							114	2896				
52	1321							115	2921				
53	1346							116	2946				
54	1372							117	2972				
55	1397							118	2997				
56	1422							119	3023				
57	1448							120	3048				
58	1473							121	3073				
59	1499							122	3099				
60	1524							123	3124				
61	1549							124	3150				
62	1575							125	3175				
63	1600							126	3200				
64	1626							127	3226				
65	1651							128	3251				
66	1676							129	3277				
67	1702							130	3302				
68	1727							131	3327				
69	1753							132	3353				
70	1778							133	3378				
71	1803							134	3404				
72	1829							135	3429				
73	1854							136	3454				

Table of effective lengths

 Manufacturable range for Standard
 Manufacturable range for Red

*: Standard dimension prescribed in JIS
 ○: Bando's standard dimension

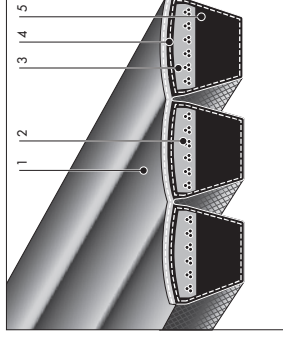
Nominal No.	Effective dimension (mm)	Belt type				
		M	A	B	C	E
137	3480					
138	3505					
139	3531					
140	3556					
141	3581					
142	3607					
143	3632					
144	3658					
145	3683					
146	3708					
147	3734					
148	3759					
149	3785					
150	3810					
151	3835					
152	3861					
153	3886					
154	3912					
155	3937					
156	3962					
157	3988					
158	4013					
159	4039					
160	4064					
161	4089					
162	4115					
163	4140					
164	4166					
165	4191					
166	4216					
167	4242					
168	4267					
169	4293					
170	4318					
171	4343					
172	4369					
173	4394					
174	4420					
175	4445					
176	4470					
177	4496					
178	4521					
179	4547					
180	4572					
181	4597					
182	4623					
183	4648					
184	4674					
185	4699					
186	4724					
187	4750					
188	4775					
189	4801					
190	4826					
191	4851					
192	4877					
193	4902					
194	4928					
195	4953					
196	4978					
197	5004					
198	5029					
199	5055					
200	5080					
205	5207					
210	5334					

When using multiple belts, please specify a matched set.

Nominal No.	Effective dimension (mm)	Belt type				
		M	A	B	C	E
215	5461					
220	5588					
225	5715					
230	5842					
235	5969					
240	6096					
245	6223					
250	6350					
255	6477					
260	6604					
265	6731					
270	6858					
275	6985					
280	7112					
285	7239					
290	7366					
295	7493					
300	7620					
305	7747					
310	7874					
315	8001					
320	8128					
325	8255					
330	8382					
335	8509					
340	8636					
345	8763					
350	8890					
355	9017					
360	9144					
365	9271					
370	9398					
375	9525					
380	9652					
385	9779					
390	9906					
395	10033					
400	10160					
410	10414					
420	10668					
430	10922					
440	11176					
450	11430					
460	11684					
470	11938					
480	12192					
490	12446					
500	12700					
510	12954					
520	13208					
530	13462					
540	13716					
550	13970					
560	14224					
570	14478					
580	14732					
590	14986					
600	15240					
610	15494					
620	15748					
630	16002					
640	16256					
650	16510					

2. Power Scrum Product Introduction

Structure (V-Belt Type)



1. Tie band
2. Cord
3. Adhesion rubber
4. Cover fabric
5. Compression rubber

Features

■ Stable operation even under violent load fluctuations

Even when the machine involves shock loads and pulsating loads, the belt tied with tie bands vibrates little and can operate stably, and it does not flip over to the side or come off of a pulley.

■ Belt most suitable for vertical shaft drives

The tying with tie bands allows the belt to be used even in a vertical shaft drive with no detachment from the pulleys.

■ Allows V-flat power transmission.

Deceleration at a high speed ratio is possible with V-flat power transmission, allowing inexpensive power transmission.

■ Can also be used for conveyance.

■ Manufacturable range for Power Scrum

Belt type	P(mm)	Nominal No.*
A	15.0	60~200
B	19.0	60~350
C	25.5	100~350
D	37.0	100~350

*The nominal numbers for V-belt type represent the effective pitch length of the belt in units of inches.

- The V-belt type is made to order. Please use the Power Ace type if possible.

Belt Indication

■ Indication example

5 - C 100

No. of ridges Nominal No. (100 inches: 2540 mm)

Belt type (Type C)

Standard Combination by the Number of Ridges

A single Power Scrum belt consists of a combination of two, three, four, and/or five ridges. For six ridges or more, the standard combinations are shown in the following table.

No. of ridges	Standard combination	No. of ridges	Standard combination
6	3+3	13	4+5+4
7	3+4	14	5+4+5
8	4+4	15	5+5+5
9	4+5	16	4+4+4+4
10	5+5	17	4+4+5+4
11	4+3+4	18	5+4+4+5
12	4+4+4	19	5+4+5+5

When using multiple belts, please specify a matched set.

Pulley

For pulleys for Power Scrum, the groove pitch is especially important.

Use JIS pulleys.