Rib-Ace 2

It is generally called V-ribbed belt and is a belt that combines a flat belt and a V-belt to make use of the features of both. Previously, the application of this belt was limited to driving of auxiliary machinery for automobiles; however, even for general-purpose machinery, it is a power transmission belt that can meet such requirements as miniaturization, machinery functional improvement, and labor-saving in maintenance.

1. Product Introduction

Features

Already from around 1980, "Bando Rib-Ace Auto" started to be used as a belt for automobiles, and it has been providing such features as pulley miniaturization, labor-saving in belt maintenance, and belt service life extension for such purposes as weight reduction, space-saving, and energy-saving of automotive engines.

■ Allows miniaturization of power transmission devices.

It can be used with small-diameter pulleys and allows compact designs.

■ Allows high-speed operation.

It has little losses in power transmission by centrifugal force, is suitable for high-speed operation, and can be used up to a belt speed of 50 m/s.

■ It has high rotation accuracy and has little belt vibration.

The rib section is combined with the belt and is ground, it has little rotation non-uniformity during each rotation of the belt in running, allowing you to expect smooth operation.

■ High transmission efficiency (little power loss).

The belt is thinner than V-belts and has little loss from bending, which provides high transmission efficiency.

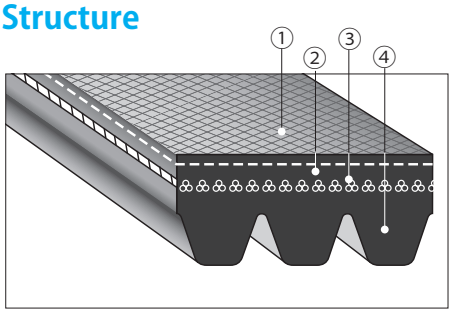
■ Advantageous in tension retention and maintenance.

Compared to V-belts, it has less belt deformation and has less sink into the pulley groove due to abrasion, allowing the maintenance period, such as re-tensioning, to be extended.

■ Characteristics

Heat resistance: It compounds heat-resistant rubber.
Oil resistance: It can be used even with slight adhesion of oil or grease. (Be careful that adhesion of dispersed cutting oil etc. can cause slipping.)
Water resistance: Be careful that slip tends to occur when water splashes over directly or when the belt is constantly used in a high-temperature condition.
Static electricity prevention: When you need static electricity prevention, please contact us.

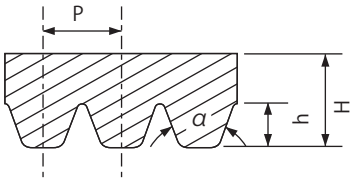
Structure



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

Indication

■ Belt designation example



4 PK 1000

No. of ribs | Belt type (Type PK) | Effective length (1000 mm)

	P	H	h	α
	mm	mm	mm	(°)
Type PJ	2.34	3.4	1.3	40
Type PK	3.56	4.3	2.0	40
Type PL	4.70	6.0	3.3	40

■ Standard size

(Unit: mm)

Effective length					
Type PJ		Type PK		Type 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 No. of ribs

Type PJ	3PJ～18PJ
Type PK	3PK～12PK
Type PL	3PL～12PL

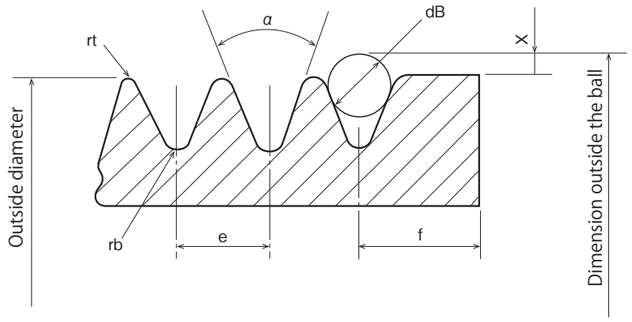
* When using multiple belts, please specify a matched set. However, please note that Rib-Ace is used in a multiple quantity with the same number of ribs.

2. Rib-Ace 2 pulley

We standardize Rib-Ace Type-PK pulleys (bushing type) for you to be able to use Rib-Ace (Type PK) more conveniently. Please make use of them. **(→ See P. 241 to P. 242)**

Dimensional accuracy

■ **Profile and dimensions of the groove section**



(Unit: mm)

	e	f (minimum)	α	rt (minimum)	rb (maximum)	dB	2X
Unit	mm	mm	°	mm	mm	mm	mm
PJ	2.34±0.03	1.8	40±0.5	0.20	0.4	1.50±0.01	0.23
PK	3.56±0.05	2.5	40±0.5	0.25	0.5	2.50±0.01	0.99
PL	4.70±0.05	3.3	40±0.5	0.40	0.4	3.50±0.01	2.36

Note 1) A cumulative pitch error is ±0.3 mm or less.

■ **Outside diameter**

(Unit: mm)

Nominal outside diameter	Tolerance
74 or less	±0.25
74 to 200 or less	±0.50
200 or more	±{0.50 + [(pulley diameter - 200) × 0.002]}

■ **Groove outside diameter of a single pulley Tolerance of (the dimension outside the ball)**

(Unit: mm)

Range of nominal outside diameter and No. of grooves	Maximum dimension outside the ball
74 or less and 6 grooves or less	0.10 (When 6 grooves are exceeded, add 0.003 per groove.)
74 to 500 or less and 10 grooves or less	0.15 (When 10 grooves are exceeded, add 0.005 per groove.)

■ **Circumferential run-out**

(Unit: mm)

Nominal outside diameter	Run-out tolerance (TIR) (Note 2)
74 or less	0.13
74 to 250 or less	0.25
250 or more	0.25 with 0.0004 added per outside diameter of 1.0 over 250

Note 2: TIR is an abbreviation for Total Indicator Reading and refers to a difference between the maximum value and the minimum value in readings of run-out measurement.

■ **Run-out of rim side face**

(Unit: mm)

Nominal outside diameter	Tolerance of run-out of rim side face
125 or less	0.15
Over 125 to 315 or less	0.20
Over 315	0.30

■ **About balance**

Cases with a peripheral speed of 35 m/s or less and cases with a peripheral speed over 35 m/s need to be separated.

① **Standard pulley (use up to a peripheral speed of 35 m/s)**
For an unbalanced mass at the periphery, the larger of ⓐ or ⓑ is used as the tolerance.
ⓐ **0.001 kg**
ⓑ **0.1% of the total mass of the pulley and the bushing**
The value of ⓑ corresponds to G16 of JIS B 0905 "Balance quality of rotating machines" at a peripheral speed of 15 m/s..

② **When a peripheral speed of 35 m/s is exceeded**
When 35 m/s is exceeded, a dynamic balance is required.

● **Finish accuracy**

The finish accuracy of the groove section that contacts with the belt is 3.2a or less (10•S (JIS)).

● **Material**

FC200 (former FC20) or more of JIS-G-5501 "Gray Iron Castings."

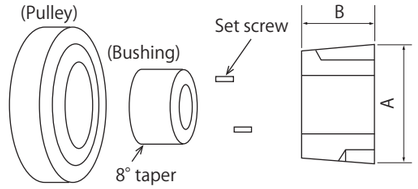
Bushing System

The pulley for Rib-Ace is a bushing system that consists of a combination of the pulley body and a bushing.
It employs "ISOMEC™ Bushing" (hereinafter referred to as bushing), does not require machining of the shaft hole or keyway, and allows installation on, removal from, and positioning on a shaft to be performed with a single hex key. It has an equivalent fastening force with shrinkage fit and guarantees safe and reliable power transmission.

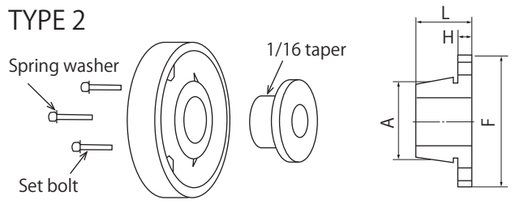
Features

- **Allows simple and speedy installation on, removal from, and positioning on a shaft.**
- **No need for additional machining such as shaft hole machining.**
- **Safe and reliable fastening system.**
- **Easy responses to design changes.**
- **Design standardization by the bushing system leads to cost reduction.**
- **The same standard with major European and American manufacturers provides compatibility.**
- **Can be applied to any rotating power transmission devices.**

TYPE 1



TYPE 2



■ **How to designate pulleys and bushings**

Pulley (example) **PK - 80 - 4**
- PK: Type PK
- 80: Pulley nominal diameter (80 mm)
- 4: No. of grooves

Bushing (example) **1210 - 20 - N**
- 1210: Bushing part number
- 20: Shaft hole diameter (20 mm)
- N: Keyway for new JIS keys

■ **Table of applicable part numbers**

Pulley nominal diameter (mm)	No. of pulley grooves					
	4	5	6	8	10	12
63		1108				
71						
80				1310		
90	1210					
100						
112			1610			
125						
140						
160						
180						
200						
224	2012			2517		
250						
280						
315						
355					3020	
400						
450						3526
500						
560						4036
630						

■ **Table of Type 1 ISOMEC™ Bushing dimensions**

(Unit: mm)

Bushing part number	Maximum shaft hole dia. (Note 1) (mm)	A (mm)	B (mm)	Set screw				Mass (Note 2) (kg)	Allowable transmission torque (N•m)
				Nominal (inch)	Length (inch)	Quantity	Hex key Nominal (mm)		
1108	28(25)	38.48	22	W1/4	1/2	2	3	0.13	150
1210	32(28)	47.60	25	W3/8	5/8	2	5	0.23	290
1310	35(32)	50.77	25	W3/8	5/8	2	5	0.27	350
1610	42(38)	57.12	25	W3/8	5/8	2	5	0.32	490
2012	50(48)	69.82	32	W7/16	7/8	2	5	0.59	900
2517	60(60)	85.70	45	W1/2	1	2	6	1.22	1,700
3020	75(70)	107.92	51	W5/8	1 1/4	2	8	2.41	3,000

■ **Table of Type 2 ISOMEC™ Bushing dimensions**

Bushing part number	Maximum shaft hole dia. (Note 1) (mm)	A (mm)	B (mm)	F (mm)	L (mm)	H (mm)	Set bolt				Mass (Note 2) (kg)	Allowable transmission torque (N•m)
							Nominal (mm)	Length (mm)	Quantity	Socket wrench nominal (mm)		
3526	75(75)	97.38	-	152	67	19	M12	65	3	19	3.92	3,200
4036	95(85)	112.71	-	168	92	21	M14	90	3	22	6.33	3,400

(Note 1) Maximum shaft hole diameter when the new JIS parallel key or shallow key is applied. However, the values within the parentheses ( ) are maximum shaft hole diameters when the previous JIS parallel key is applied.
(Note 2) Mass with the intermediate size of the standard shaft hole diameter.

■ List of standard shaft hole diameters

(Unit: mm)

Bushing part number	Standard shaft hole dia.																													
	10	11	12	14	15	16	17	18	19	20	22	24	25	28	30	32	35	38	40	42	45	48	50	55	60	65	70	75	80	85	90	95
1108	●	●	●	●	●	●	●	●	●	●	●	●	●	△																		
1210	○	○	○	○	○	○	○	●	●	●	●	●	●	●	○	△																
1310				○	○	○	○	●	●	●	●	●	●	●	●	●	△															
1610				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	△	△												
2012				○	○	○	○	○	○	○	○	●	●	●	●	●	●	●	●	●	●	●	△									
2517						○	○	○	○	○	○	○	○	○	●	●	●	●	●	●	●	●	●	●	●								
3020													○	○	○	●	●	●	●	●	●	●	●	●	●	●	●	●	○				
3526																			●	●	●	●	●	●	●	●	●	●					
4036																				●	●	●	●	●	●	●	●	●	●	●	○	△	

●, ○, and △ are all standard stock products.
Applicable keys are as follows.
● - Parallel key of the new JIS and previous JIS
○ - Parallel key of the new JIS
△ - Shallow key (a special standard key, equipped with the bushing)

(Reference) About shaft diameters and keys used

● Shaft diameter

When a bushing is applied, the shaft diameter tolerance can be increased from the previous one; for the diameter tolerance, refer to the following table.

(Unit: mm)

Shaft diameter	Tolerance
10～30	+0.03 -0.06
32～125	+0.03 -0.12

● Key used

When a key is used for a bushing, use the parallel key of the nominal dimension indicated in the following table for the respective standard shaft hole diameter.
Do not use a taper key.
Although the bushings with the shaft hole diameters to which a shallow key is applied (△ mark in the table above) are all equipped with a shallow key, perform keyway machining on the shaft to the same dimensions as those of the new JIS parallel key.

■ Bushing for the new JIS parallel key groove

(Unit: mm)

Standard shaft hole dimension d	Key nominal dimension b × h	Standard shaft hole dimension d	Key nominal dimension b × h
10	3 × 3	32 35 38	10 × 8
11 12	4 × 4		
14 15 16 17	5 × 5	40 42 45 48 50	12 × 8 14 × 9
18 19 20 22	6 × 6	55 60 65	16 × 10 18 × 11
24 25 28 30	8 × 7	70 75	20 × 12

- The tolerance of width b of the keyway of the bushing is Js9.

■ Bushing for the previous-JIS parallel key groove

(Unit: mm)

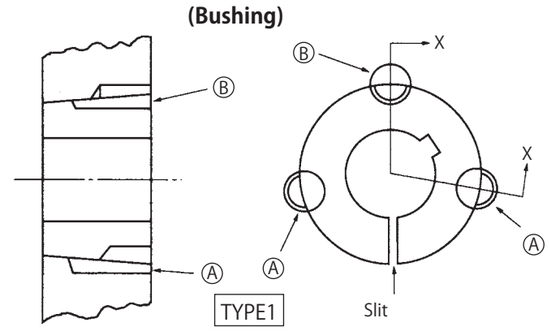
Standard shaft hole dimension d	Key nominal dimension b × h	Standard shaft hole dimension d	Key nominal dimension b × h
10 11 12	4 × 4	32 35 38 40	10 × 8
14 15 16 17 18 19 20	5 × 5	42 45 48 50 55 60	12 × 8 15 × 10
21 22 24 25 28 30	7 × 7	65 70 75	20 × 12 20 × 13

- The tolerance of width b of the keyway of the bushing is F7.

Note) Distinction of the new and previous JIS keyways. Previous-JIS product: with an inscribed "K" mark, contained in a box with a blue label, New-JIS product: Without an inscribed "K" mark, contained in a box with a red label.

Handling Method and Precautions for the Bushing System (Type 1)

The bushing has a total of three holes, two half drilled holes and one half threaded hole. The pulley side has threaded holes at positions corresponding to the drilled holes in the bushing and a drilled hole at a position corresponding to the threaded holes in the bushing Type 1.
Installation and removal are performed by tightening set screws into these holes and utilizing their jacking effect.



■ Installation Procedure (Type 1)

① Clean the bushing, the taper holes in the pulley, and the shaft. Adhesion of oil or dust is not allowed.
② Gently fit the bushing in the taper hole in the pulley, insert set screws in two holes Ⓐ (a combination of drilled holes for the bushing and threaded taper holes in the pulley) of Type 1, and temporarily tighten them to about one-third of the entire length.
Be sure to use provided set screws.
③ Slide the bushing in with the bushing floating off the taper holes in the pulley and set the bushing at a desired position **(Type 1-①)**.
The bushing can be slid in more easily by inserting a slotted screwdriver or the like into the slit in the bushing and widening the slit. When using a key, use a parallel key **(→ See P. 239)** and with this key embedded in the keyway in the shaft in advance, set the pulley and the bushing. Do not use a taper key.
④ Uniformly tighten the set screws alternately and gradually using the hex key **(Type 2-②)**. The propulsive force of the screw attracts the pulley in the direction of the bushing, and the wedge effect of the taper and the spring effect of the slit contract the shaft hole, completely fastening the pulley, bushing, and shaft.
When the set screws are difficult to tighten, lightly hit the hub section of the pulley and the bushing with a wooden or plastic hammer. For the tightening torque of the set screws, follow the table below. Be careful that non-uniform tightening can cause run-out.

■ Tightening torques of Type-1 set screws

Bushing part number	Set screw nominal (inch)	Tightening torque (N•m)	Bushing part number	Set screw nominal (inch)	Tightening torque (N•m)
1108	W1/4	5.6	2012	W7/16	31
1210	W3/8	20	2517	W1/2	48
1310	W3/8	20	3020	W5/8	90
1610	W3/8	20			

■ Tightening torques of Type-2 set bolts

Bushing part number	Set bolt nominal (mm)	Tightening torque (N•m)	Bushing part number	Set bolt nominal (mm)	Tightening torque (N•m)
3526	M12	81	4036	M14	102

⑤ Measure the run-out of the rim side face and the outer periphery of the pulley and check that they are equal to or less than the tolerance.
Perform a loaded trial operation for about ten minutes and check the fastening condition and the tightening condition of the set screws.

<Type 1-①>

<Type 1-②>

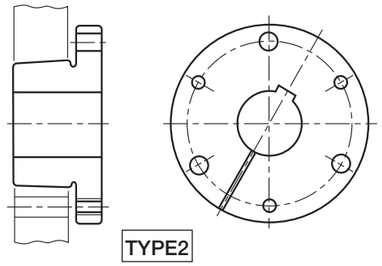
<Type 1-③>

■ Removal Procedure (Type 1)

① Remove the set screws from the holes Ⓐ of Type 1.
② Apply oil on the tips of the set screws and insert and tighten them in the holes Ⓑ (a combination of the threaded hole in the bushing and the drilled taper hole in the pulley) of Type 1 **(Type 1-③)**.
The jacking effect of the set screws separates the pulley, bushing, and shaft, allowing them to be easily removed.

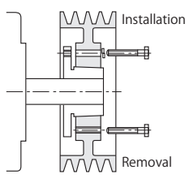
Handling Method and Precautions for the Bushing System (Type 2)

The Type-2 ISOMEC Bushing has three threaded holes and three drilled holes alternately at equal intervals. As with Type 2, the pulley also has three threaded holes and three drilled holes.
Although installation and removal are performed in the same way as Type 1 by inserting set bolts into these holes, there are four methods depending on the combination of the direction of the bushing in relation to the shaft and the direction of insertion of the set bolts.
Type 2-① Type 2-② Type 2-③ Type 2-④.

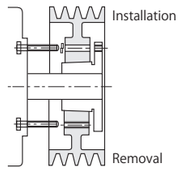


■ Installation Procedure - In the case of Type 2-①

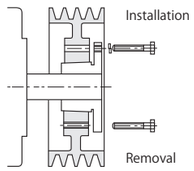
① Clean the bushing, the taper holes in the pulley, and the shaft. Adhesion of oil or dust is not allowed.
② Set the pulley and the bushing aligning the drilled hole position of the pulley with the threaded hole position of the bushing, insert a set bolt from the pulley side, and slightly tighten the set bolt. Do not lubricate the threaded section. Be sure to use provided set bolts.
③ Slide the pulley and the bushing assembled in ② onto the shaft and set them at a desired position.
When using a key, use a parallel key and with this key embedded in the keyway in the shaft in advance, set the pulley and the bushing. Do not use an inclined key.
④ Uniformly tighten the set bolts alternately and gradually using the socket wrench. Check that at the time of completion of tightening, there is a clearance between the flange section of the bushing and the hub section of the pulley. When the set bolts are difficult to tighten, lightly hit the hub section of the pulley and the bushing with a wooden or plastic hammer.
For the tightening torque of the set bolts, follow the separate table. Non-uniform tightening can cause run-out.
⑤ Measure the run-out of the rim side face and the outer periphery of the pulley and check that they are equal to or less than the tolerance. Perform a loaded trial operation for about ten minutes and check the fastening condition and the tightening condition of the set bolts.



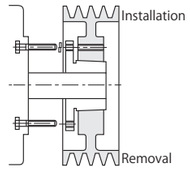
TYPE2-①



TYPE2-②



TYPE2-③



TYPE2-④

■ Removal - In the case of Type 2-①

① Remove all set bolts.
② Insert the set bolts into the threaded holes in the pulley and tighten them alternately. The set bolts come in contact with the flange section of the bushing, and pushing this separates the pulley, bushing, and shaft, allowing them to be easily removed.

The same as above applies to installation and removal indicated in Type 2-②, Type 2-③, and Type 2-④.
A tip for installation is to set the bushing and the pulley so that the drilled holes come to the side to which the set bolts are inserted and the threaded holes come to the opposite side.

■ Precautions

The Bushing System uses fastening using taper and therefore has a centering function that automatically matches the shaft center with the rotation center, causing the run-out of the outer periphery and side face of the pulley to be extremely smaller compared to the previous fastening method. However, an inappropriate installation method may inhibit this self-centering function and cause run-out.
In particular, pay attention to the following three points at the time of installation.

- **Clean the outer peripheral taper surface of the bushing, the taper holes in the pulley, threaded holes, and drilled holes in the pulley.**
  Completely remove foreign objects such as dust.
- **Tighten set screws (set screws for the bushing) uniformly, alternately, and gradually.**
- **When you use a key, use a parallel key.**
  In this case, make the key work in the axial direction and make sure that there is a clearance between the top of the keyway and the key in the depth (height) direction.

(Note) Do not use a taper key.

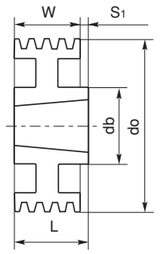
When a run-out is still large even after taking care of the above three points, further tighten a specific or all set screws while measuring them with a dial gauge, or remove the bushing and re-install it.

Table of Rib-Ace 2 (Type PK) pulley standard dimensions

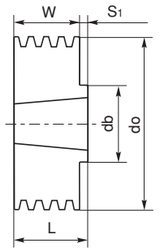
4PK

(Pulley Profile)

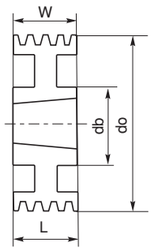
Types 10U/10Y/10Z



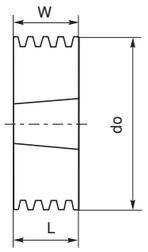
Type 11U



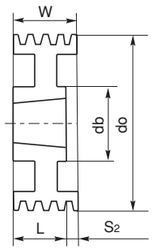
Types 30U/30Y/30Z



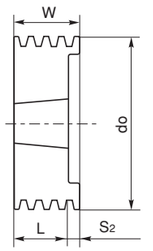
Type 31U



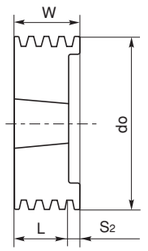
Types 40U/40Z



Type 41U



Type 41UR

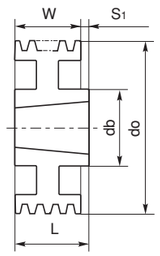


Explanation of symbols
U: Flat-plate solid type
Y: Six-arm type
Z: Flat-plate round-window type
R: Bushing insertion direction

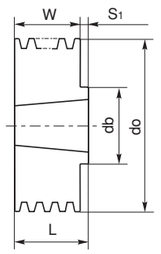
4PK/5PK/6PK/8PK/10PK/12PK

(Pulley Profile)

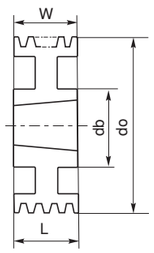
Types 10U/10Y/10Z



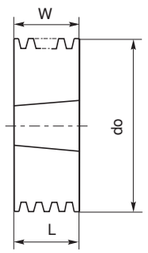
Type 11U



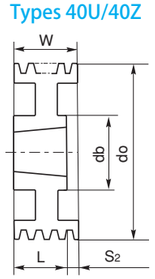
Types 30U/30Y/30Z



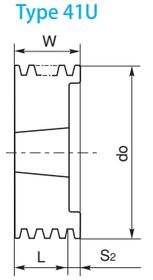
Type 31U



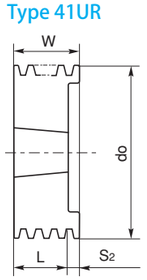
Types 40U/40Z



Type 41U



Type 41UR



Explanation of symbols
U: Flat-plate solid type
Y: Six-arm type
Z: Flat-plate round-window type
R: Bushing insertion direction

PK-4 (for belts with four ribs)

(Unit: mm)

Nominal outside diameter do	Profile drawing number	Bushing		Hub				Rim		Mass (kg) Note 1)
		Product No.	Maximum shaft hole dia.	Dia. db	Length L	Projection Si	Recess S_2	Width W	Height H	
50	(11U)	Shaft-hole type	22	40	30	9.32	-	20.68	-	0.35
56	(11U)	Shaft-hole type	25	46	30	9.32	-	20.68	-	0.45
63	11U	1108	28	60	22	1.32	-	20.68	-	0.28
67	11U	1108	28	60	22	1.32	-	20.68	-	0.34
71	11U	1108	28	60	22	1.32	-	20.68	-	0.40
75	11U	1108	28	60	22	1.32	-	20.68	-	0.47
80	11U	1210	32	75	25	4.32	-	20.68	-	0.54
85	11U	1210	32	75	25	4.32	-	20.68	-	0.64
90	11U	1210	32	75	25	4.32	-	20.68	-	0.74
95	11U	1210	32	75	25	4.32	-	20.68	-	0.85
100	11U	1210	32	75	25	4.32	-	20.68	-	0.96
106	11U	1610	42	85	25	4.32	-	20.68	-	1.00
112	11U	1610	42	85	25	4.32	-	20.68	-	1.16
118	11U	1610	42	85	25	4.32	-	20.68	-	1.32
125	11U	1610	42	85	25	4.32	-	20.68	-	1.52
132	11U	1610	42	85	25	4.32	-	20.68	-	1.73
140	11U	1610	42	85	25	4.32	-	20.68	-	1.99
150	11U	1610	42	85	25	4.32	-	20.68	-	2.34
160	11U	1610	42	85	25	4.32	-	20.68	-	2.70
170	10U	1610	42	85	25	4.32	-	20.68	10	1.87
180	10U	1610	42	85	25	4.32	-	20.68	10	2.03
190	10U	2012	50	105	32	11.32	-	20.68	10	2.66
200	10U	2012	50	105	32	11.32	-	20.68	10	3.09
212	10U	2012	50	105	32	11.32	-	20.68	10	3.07
224	10U	2012	50	105	32	11.32	-	20.68	10	3.67
236	10U	2012	50	105	32	11.32	-	20.68	10	3.57
250	10U	2012	50	105	32	11.32	-	20.68	10	4.37
280	10Z	2012	50	105	32	11.32	-	20.68	10	4.71
315	10Z	2012	50	105	32	11.32	-	20.68	10	5.80
355	10Z	2012	50	105	32	11.32	-	20.68	10	7.04

PK-5 (for belts with five ribs)

(Unit: mm)

Nominal outside diameter do	Profile drawing number	Bushing		Hub				Rim		Mass (kg) Note 1)
		Product No.	Maximum shaft hole dia.	Dia. db	Length L	Projection Si	Recess S_2	Width W	Height H	
50	(11U)	Shaft-hole type	22	40	32	7.76	-	24.24	-	0.38
56	(11U)	Shaft-hole type	25	46	32	7.76	-	24.24	-	0.48
63	41UR	1108	28	-	22	-	2.24	24.24	10	0.30
67	41UR	1108	28	-	22	-	2.24	24.24	10	0.36
71	41UR	1108	28	-	22	-	2.24	24.24	10	0.43
75	41UR	1108	28	-	22	-	2.24	24.24	10	0.50
80	11U	1210	32	75	25	0.76	-	24.24	-	0.54
85	11U	1210	32	75	25	0.76	-	24.24	-	0.65
90	11U	1210	32	75	25	0.76	-	24.24	-	0.77
95	11U	1210	32	75	25	0.76	-	24.24	-	0.90
100	11U	1210	32	75	25	0.76	-	24.24	-	1.03
106	11U	1610	42	85	25	0.76	-	24.24	-	1.06
112	11U	1610	42	85	25	0.76	-	24.24	-	1.24
118	11U	1610	42	85	25	0.76	-	24.24	-	1.43
125	11U	1610	42	85	25	0.76	-	24.24	-	1.67
132	11U	1610	42	85	25	0.76	-	24.24	-	1.92
140	11U	1610	42	85	25	0.76	-	24.24	-	2.22
150	11U	1610	42	85	25	0.76	-	24.24	-	2.62
160	11U	1610	42	85	25	0.76	-	24.24	-	3.05
170	10U	1610	42	85	25	0.76	-	24.24	10	1.96
180	10U	1610	42	85	25	0.76	-	24.24	10	2.13
190	10U	2012	50	105	32	7.76	-	24.24	10	2.76
200	10U	2012	50	105	32	7.76	-	24.24	10	3.08
212	10U	2012	50	105	32	7.76	-	24.24	10	3.19
224	10U	2012	50	105	32	7.76	-	24.24	10	3.62
236	10U	2012	50	105	32	7.76	-	24.24	10	3.70
250	10U	2012	50	105	32	7.76	-	24.24	10	4.52
280	10Z	2012	50	105	32	7.76	-	24.24	10	4.87
315	10Z	2517	60	120	45	20.76	-	24.24	10	6.55
355	10Z	2517	60	120	45	20.76	-	24.24	10	7.77

PK-6 (for belts with six ribs)

(Unit: mm)

Nominal outside diameter do	Profile drawing number	Bushing		Hub				Rim		Mass (kg) Note 1)
		Product No.	Maximum shaft hole dia.	Dia. db	Length L	Projection Si	Recess S_2	Width W	Height H	
50	(11U)	Shaft-hole type	22	40	35	7.2	-	27.8	-	0.41
56	(11U)	Shaft-hole type	25	46	35	7.2	-	27.8	-	0.53
63	41UR	1108	28	-	22	-	5.8	27.8	10	0.33
67	41UR	1108	28	-	22	-	5.8	27.8	10	0.39
71	41UR	1108	28	-	22	-	5.8	27.8	10	0.47
75	41UR	1108	28	-	22	-	5.8	27.8	10	0.54
80	31U	1310	35	-	27.8	-	-	27.8	-	0.55
85	31U	1310	35	-	27.8	-	-	27.8	-	0.67
90	31U	1610	42	-	27.8	-	-	27.8	-	0.70
95	31U	1610	42	-	27.8	-	-	27.8	-	0.85
100	31U	1610	42	-	27.8	-	-	27.8	-	1.00
106	31U	1610	42	-	27.8	-	-	27.8	-	1.19
112	31U	1610	42	-	27.8	-	-	27.8	-	1.40
118	31U	1610	42	-	27.8	-	-	27.8	-	1.62
125	31U	1610	42	-	27.8	-	-	27.8	-	1.89
132	31U	1610	42	-	27.8	-	-	27.8	-	2.17
140	31U	1610	42	-	27.8	-	-	27.8	-	2.55
150	11U	2012	50	105	32	4.2	-	27.8	-	2.89
160	11U	2012	50	105	32	4.2	-	27.8	-	3.38
170	10U	2012	50	105	32	4.2	-	27.8	10	2.57
180	10U	2012	50	105	32	4.2	-	27.8	10	2.85
190	10U	2012	50	105	32	4.2	-	27.8	10	2.98
200	10U	2012	50	105	32	4.2	-	27.8	10	3.32
212	10U	2012	50	105	32	4.2	-	27.8	10	3.46
224	10U	2012	50	105	32	4.2	-	27.8	10	3.93
236	10U	2012	50	105	32	4.2	-	27.8	10	4.05
250	10U	2012	50	105	32	4.2	-	27.8	10	4.91
280	10Z	2012	50	105	32	4.2	-	27.8	10	5.21
315	10Z	2517	60	120	45	17.2	-	27.8	10	7.07
355	10Z	3020	75	145	51	23.2	-	27.8	10	9.22

Note 1) The mass is only of the pulley body. When you include the mass of the bushing, add the **bushing mass** on **P. 238**.

PK-8 (for belts with eight ribs)

(Unit: mm)

Nominal outside diameter do	Profile drawing number	Bushing		Hub				Rim		Mass (kg) Note 1)
		Product No.	Maximum shaft hole dia.	Dia. db	Length L	Projection Si	Recess S_2	Width W	Height H	
50	(11U)	Shaft-hole type	22	40	40	5.08	-	34.92	-	0.47
56	(11U)	Shaft-hole type	25	46	40	5.08	-	34.92	-	0.61
63	41UR	1108	28	-	22	-	12.92	34.92	10	0.39
67	41UR	1108	28	-	22	-	12.92	34.92	10	0.46
71	41UR	1108	28	-	22	-	12.92	34.92	10	0.54
75	41UR	1108	28	-	22	-	12.92	34.92	10	0.62
80	41UR	1310	35	-	25	-	9.92	34.92	10	0.61
85	41UR	1310	35	-	25	-	9.92	34.92	10	0.73
90	41UR	1610	42	-	25	-	9.92	34.92	10	0.77
95	41UR	1610	42	-	25	-	9.92	34.92	10	0.90
100	41U	1610	42	-	25	-	9.92	34.92	10	1.05
106	41U	1610	42	-	25	-	9.92	34.92	10	1.23
112	41U	1610	42	-	25	-	9.92	34.92	10	1.43
118	41U	1610	42	-	25	-	9.92	34.92	10	1.64
125	31U	2012	50	-	34.92	-	-	34.92	-	2.05
132	31U	2012	50	-	34.92	-	-	34.92	-	2.40
140	31U	2012	50	-	34.92	-	-	34.92	-	2.84
150	31U	2012	50	-	34.92	-	-	34.92	-	3.41
160	31U	2012	50	-	34.92	-	-	34.92	-	4.03
170	30U	2012	50	105	34.92	-	-	34.92	10	2.94
180	10U	2517	60	120	45	10.08	-	34.92	10	3.74
190	10U	2517	60	120	45	10.08	-	34.92	10	3.91
200	10U	2517	60	120	45	10.08	-	34.92	10	4.26
212	10U	2517	60	120	45	10.08	-	34.92	10	4.47
224	10U	2517	60	120	45	10.08	-	34.92	10	4.96
236	10U	2517	60	120	45	10.08	-	34.92	10	5.14
250	10U	2517	60	120	45	10.08	-	34.92	10	5.79
280	10Z	2517	60	120	45	10.08	-	34.92	10	6.68
315	10Z	3020	75	145	51	16.08	-	34.92	10	8.62
355	10Z	3020	75	145	51	16.08	-	34.92	10	10.2
400	10Z	3526	75	180	41	6.08	-	34.92	12	16.38

PK-10 (for belts with ten ribs)

(Unit: mm)

Nominal outside diameter do	Profile drawing number	Bushing		Hub				Rim		Mass (kg) Note 1)
		Product No.	Maximum shaft hole dia.	Dia. db	Length L	Projection Si	Recess S_2	Width W	Height H	
80	41UR	1310	35	-	25	-	17.04	42.04	10	0.69
85	41UR	1310	35	-	25	-	17.04	42.04	10	0.82
90	41UR	1610	42	-	25	-	17.04	42.04	10	0.86
95	41UR	1610	42	-	25	-	17.04	42.04	10	1.00
100	41U	1610	42	-	25	-	17.04	42.04	10	1.16
106	41U	1610	42	-	25	-	17.04	42.04	10	1.35
112	41U	1610	42	-	25	-	17.04	42.04	10	1.55
118	41U	1610	42	-	25	-	17.04	42.04	10	1.76
125	41U	2012	50	-	32	-	10.04	42.04	10	2.07
132	41U	2012	50	-	32	-	10.04	42.04	10	2.41
140	41U	2012	50	-	32	-	10.04	42.04	10	2.82
150	41U	2012	50	-	32	-	10.04	42.04	10	3.37
160	41U	2012	50	-	32	-	10.04	42.04	10	3.95
170	40U	2012	50	105	32	-	10.04	42.04	10	3.02
180	10U	2517	60	120	45	2.96	-	42.04	10	4.00
190	10U	2517	60	120	45	2.96	-	42.04	10	4.12
200	10U	2517	60	120	45	2.96	-	42.04	10	4.60
212	10U	2517	60	120	45	2.96	-	42.04	10	4.71
224	10U	2517	60	120	45	2.96	-	42.04	10	5.37
236	10U	2517	60	120	45	2.96	-	42.04	10	5.41
250	10U	2517	60	120	45	2.96	-	42.04	10	6.30
280	10Z	2517	60	120	45	2.96	-	42.04	10	7.00
315	10Z	3020	75	145	51	8.96	-	42.04	10	8.99
355	10Z	3020	75	145	51	8.96	-	42.04	10	10.57
400	30Z	3526	75	180	42	-	-	42.04	12	15.38

PK-12 (for belts with 12 ribs)

(Unit: mm)

Nominal outside diameter do	Profile drawing number	Bushing		Hub				Rim		Mass (kg) Note 1)
		Product No.	Maximum shaft hole dia.	Dia. db	Length L	Projection Si	Recess S_2	Width W	Height H	
80	41UR	1610	42	-	25	-	24.16	49.16	10	0.67
85	41UR	1610	42	-	25	-	24.16	49.16	10	0.81
90	41UR	1610	42	-	25	-	24.16	49.16	10	0.95
95	41UR	1610	42	-	25	-	24.16	49.16	10	1.10
100	41UR	1610	42	-	25	-	24.16	49.16	10	1.26
106	41UR	1610	42	-	25	-	24.16	49.16	10	1.46
112	41U	2012	50	-	32	-	17.16	49.16	10	1.61
118	41U	2012	50	-	32	-	17.16	49.16	10	1.88
125	41U	2012	50	-	32	-	17.16	49.16	10	2.21
132	41U	2012	50	-	32	-	17.16	49.16	10	2.55
140	41U	2012	50	-	32	-	17.16	49.16	10	2.97
150	41U	2517	60	-	45	-	4.16	49.16	10	3.88
160	41U	2517	60	-	45	-	4.16	49.16	10	4.68
170	41U	2517	60	-	45	-	4.16	49.16	10	5.54
180	41U	2517	60	-	45	-	4.16	49.16	10	6.45
190	40U	2517	60	120	45	-	4.16	49.16	10	4.51
200	11U	3020	75	145	51	1.84	-	49.16	-	7.98
212	11U	3020	75	145	51	1.84	-	49.16	-	9.38
224	11U	3020	75	145	51	1.84	-	49.16	-	10.86
236	10U	3020	75	145	51	1.84	-	49.16	10	6.67
250	10U	3020	75	145	51	1.84	-	49.16	10	7.38
280	10U	3020	75	145	51	1.84	-	49.16	10	8.68
315	10Z	3020	75	145	51	1.84	-	49.16	10	9.61
355	10Z	3020	75	145	51	1.84	-	49.16	10	11.35
400	40Z	3526	75	180	41	-	8.16	49.16	12	15.83
450	30X	3526	75	190	49	-	-	49.16	12	18.17
500	10X	4036	95	190	64	14.84	-	49.16	14	24.70
560	10X	4036	75	190	64	14.84	-	49.16	12	24.29
630	10X	4036	75	190	64	14.84	-	49.16	12	27.31

Note 1) The mass is only of the pulley body. When you include the mass of the bushing, add the **bushing mass** on **P. 238**.