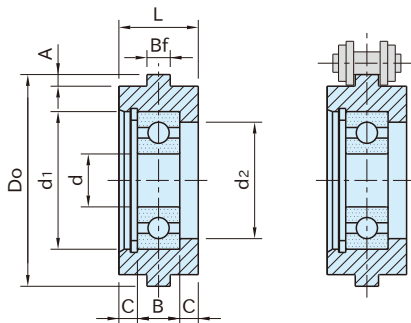


# RABJ

# CHAIN-DRIVE IDLE PULLEYS



Pulley	Bearing / Retaining Ring
Polyacetal plastic Black	Steel

Part Number	Chain No.	Do	d	B	L	Bf	d <sub>1</sub>	d <sub>2</sub>	A	C	Bearing	Weight (g)	Proper Idler Pin
RABJ35-30	35	30	6	6	12	4.4	17	13	2.2	3	606ZZ	20	PID0606
RABJ35-40		40	10	8	15		26	22		3.5	6000ZZ	40	PID1008タイプ
RABJ35-50		50	12	10	16		32	26		3	6201ZZ	70	PID1210タイプ
RABJ40-40	40	40	10	8	15	7.6	26	22	2.3	3.5	6000ZZ	40	PID1008タイプ
RABJ40-50		50	12	10	16		32	26		3	6201ZZ	70	PID1210タイプ
RABJ40-60		60	15	11	19		35	29		4	6202ZZ	100	PID1511タイプ
RABJ50-50	50	50	10	8	19	9.1	26	22	2.7	5.5	6000ZZ	65	PID1008タイプ
RABJ50-60		60	12	10			32	26		4.5	6201ZZ	100	PID1210タイプ
RABJ50-70		70	15	11			35	29		4	6202ZZ	130	PID1511タイプ
RABJ60-60	60	60	10	8	23	12.2	26	22	3.4	7.5	6000ZZ	110	PID1008タイプ
RABJ60-70		70	12	10			32	26		6.5	6201ZZ	150	PID1210タイプ

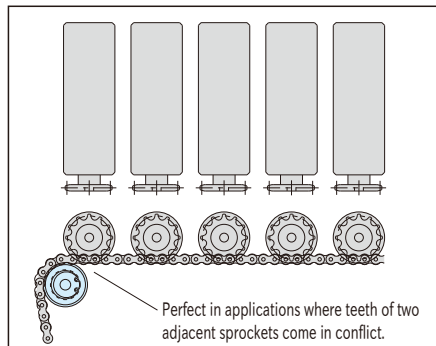
## Features

- Can be used as driven rollers in chain drive applications.
- Ball bearing is locked by a retaining ring.

## Reference

- TENSIONER ASSEMBLY EXAMPLES

## How To Use



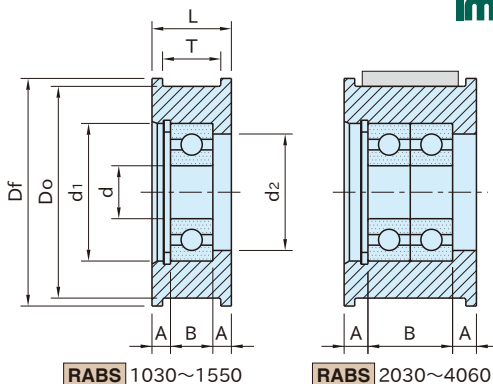
## Technical Information

Allowable Bearing Radial Loads(N)<for 3,000 hours of average service life>

Bearing	Speed (min <sup>-1</sup> )							
	100	500	1000	1500	2000	2500	3000	3500
606ZZ	680	390	310	270	250	230	210	200
6000ZZ	1370	1090	640	560	500	470	440	420
6201ZZ	2040	1190	940	830	750	700	650	620
6202ZZ	2310	1350	1080	940	850	790	740	710

# RABS

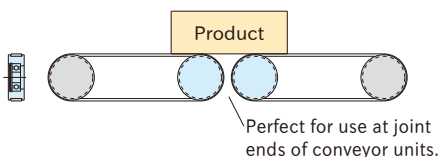
# FLANGED IDLE PULLEYS



Pulley	Bearing / Retaining Ring
Steel(S45C) Electroless nickel plated	Steel

Part Number	Flange Height	$D_o$	$D_f$	T	d	B	L	$d_1$	$d_2$	A	Bearing	Weight (g)	Proper Idler Pin
RABS1030	1.5	30	33	11	8	7	14	22	18	3.5	608ZZ	55	PID0807
RABS1040		40	43		10	8	15	26	22		6000ZZ	115	PID1008
RABS1530	1.5	30	33	16	8	7	19	22	18	6	608ZZ	70	PID0807
RABS1540		40	43		10	8	20	26	22		6000ZZ	150	PID1008
RABS1550	3	50	56								270		
RABS2030	1.5	30	33	21	8	14	24	22	18	5	608ZZ×2	95	RLB0814
RABS2040		40	43		10	16	25	26	22	4.5	6000ZZ×2	200	PID1016
RABS2050	3	50	56								340		
RABS2540	1.5	40	43	26	10	16	30	26	22	7	6000ZZ×2	225	PID1016
RABS2550	3	50	56		10	16	30	26	22	7	6000ZZ×2	400	PID1016
RABS4060	3	60	66	41	12	20	45	32	26	12.5	6201ZZ×2	840	RLB1220

## How To Use



## Reference

• TENSIONER ASSEMBLY EXAMPLES

## Features

- Can be used as driven rollers in flat-belt drive applications.
- The flange height smaller than the belt thickness allows carrying the product over these pulleys.
- Ball bearing is locked by a retaining ring.

## Technical Information

Allowable Bearing Radial Loads(N)<for 3,000 hours of average service life>

Bearing	Speed (min <sup>-1</sup> )							
	100	500	1000	1500	2000	2500	3000	3500
608ZZ	990	580	460	400	360	340	320	300
608ZZ×2	1600	940	740	640	580	550	510	480
6000ZZ	1370	1090	640	560	500	470	440	420
6000ZZ×2	2210	1760	1030	900	810	760	710	680
6201ZZ×2	3300	1920	1520	1340	1210	1130	1050	1000

# Pulleys for Flat Belts


Flanged, Crowned, Press-Fit Urethane

Width T=6 ~ 32

# Idlers for Flat Belts

Flanged, Crowned

Width T=6 ~ 32



Type	Material	Surface Treatment
Flanged	S45C Equivalent	Black Oxide
Crowned	Aluminum Alloy	Electroless Nickel Plating
Press-Fit Urethane	SUS304	Clear Anodize

**Flanged Type** **Crowned**  $6.3 / (1.6 / )$

**Shaft Hole Specifications**  
 Round Hole + Tap (P) **New JIS Keyway + Tap** (N)

**Press-Fit Urethane Type**

**Keyway Dimensions**  
 N: New JIS (B1301) Keyway Dimensions

Symbol	dH7	bJS9	tTolerance
N8	8	3	±0.0125 1.4
N10	10	4	±0.0150 1.8
N12	12	5	±0.0180 2.3
N15	15	6	±0.0215 2.8
N20	20	8	±0.0280 3.3
N30	30	12	±0.0375 4.0
N40	40	16	±0.0500 5.0

Shore A70 (Blue) Urethane is press-fit on Roller surface. D dimension does not change. Urethane Thickness 1mm

**RoHS**

Part Number	Type	D	dh7			T Selection	D1	l	l1	M	L
			P (Round Hole + Tap) Selection	N (Keyway + Tap) Selection							
Flanged Type		15	5	6		12					T+2
HBPG		18	5	6	8	16	8	4	3		
HBPM		20	5	6	8						
HBPA		28	6	8	10						
HBPS		30	6	8	10	12					
Crowned		35	8	10	12	20					
HBPCG		40	8	10	12						
HBPCM		45	8	10	12						
HBPCA		50	10	12		30	12	6	5		
HBPCS		60	10	12	15	50	16	8	8		
Press-Fit Urethane Type		80				60					
HBPUS		100	15	20	30						


\*T=6 is not available for Crowned. Specify NK10 when Keyway + Tap with shaft bore dia. 10 and keyway width 4.0mm (height 1.8mm) is desired.

Ordering Example: Part Number - P - N - T  
 HBPM30 - P6 - NK10 - 11  
 HBPCG35

D	Unit Price								
	Flanged Type			Crowned			Press-Fit Urethane Type		
15	HBPG	HBPM	HBPA	HBPS	HBPCG	HBPCM	HBPCA	HBPCS	HBPUS
18									
20									
28									
30									
35									
40									
45									
50									
60									
80									
100									

Alterations: Part Number - P, N - T - (BC, HRC, FC, TC)  
 HBPM18 - P8 - 11 - BC6.5

Alterations Code	Boss Cut	Knurl Flat Thread	Flange Cut	Flange Thickness
BC	<b>BC</b> Cuts the hub length in 0.5mm increment. M+3≤BC≤2	<b>HRC</b> Machines knurling flat pattern on the roller section.	<b>FC</b> Lowers the flange by cutting. FC: 0.5mm Increment	<b>TC</b> Machines flange thickness to 0.5mm. L dimension becomes 1mm shorter.
Spec.	BC/2 BC Ordering Code BC6.5	Applicable to HBPG, HBPM, HBPA and HBPS.	D≤FC<D+4 Ordering Code FC42 Not applicable to Crowned.	0.5 0.5 Not applicable to Crowned.



Type	Material	Surface Treatment	Material Bearing	Accessory
Flanged	S45C Equivalent	Black Oxide	Steel	Retaining Ring (SUS304)
Crowned	Aluminum Alloy	Electroless Nickel Plating	Stainless Steel	
HBG	SUS304	Clear Anodize	Steel	
HBGM	Polyacetal	-	Steel	
HBGA	-	-	-	-
HBGC	-	-	-	-
HBGCM	-	-	-	-
HBGCA	-	-	-	-
HBGCS	-	-	-	-
HBGP	-	-	-	-

**Flanged Type** T=6, 11 **Crowned** T=11

**T=16, 21, 27, 32** **T=16, 21, 27, 32**

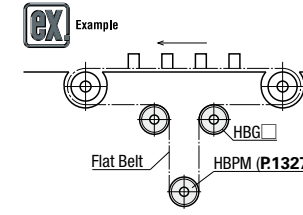
**RoHS**

Part Number	Type	T	P	dh	l	l1	L	Bearing	Unit Price											
									HBG	HBGM	HBGA	HBGS	HBGP	HBGC	HBGCM	HBGCA	HBGCS			
15	Flanged Type	6	11	9	2	-	8	694ZZx1	4	4										
20		6	16	13	1.5	-	8	625ZZx1	5	5										
28		11	16	13	4	3	13	625ZZx1	5	5										
30		11	19	17	3.5	2.5	13	626ZZx1	6	6										
35		11	19	17	-	-	18	698ZZx1	8	6										
40		16	26	23	(22) <sup>1</sup>	(17) <sup>2</sup>	23	6000ZZx2 (6900ZZx2) <sup>3</sup>	10	8										
45		21	26	23	-	-	23	685ZZx2	5	5										
50		21	28	25	-	-	23	688ZZx2	8	6										
55		21	28	25	-	-	29	698ZZx2	10	8										
60		27	28	25	-	-	29	6001ZZx2	12	8										
65		27	26	23	-	-	29	685ZZx2	5	5										
70		27	28	25	-	-	29	688ZZx2	8	6										
75		32	26	23	-	-	34	698ZZx2	10	8										
80		32	28	25	-	-	34	6000ZZx2	10	8										
85		32	28	25	-	-	34	6001ZZx2	12	8										

For detailed bearing dimensions, see P899, 991. HBGP is only applicable to sizes marked with \*. \*1 T=6 is not available for Crowned. \*2 Values in ( ) are Bearing Dimensions when T=16 and D=35 or 40 for Crowned.

Ordering Example: Part Number - T  
 HBG15 - 6  
 HBGCS50 - 21

Combination of these app. examples can be selected on our website. Details of this selection process **#P87**  
 e-Catalog Search Keyword **#MA612** Search



Flat Belt HBG  
 HBPM (P1327)

Tensioning Unit with an Idler

Alterations: Part Number - T - (FC, KLC, KFC, TC)  
 HBG15 - 6 - KFC

Alterations Code	Flange Cut	One Side Low Flange	One Flange Type	Flange Thickness
FC	<b>FC</b> Lowers the flange by cutting. FC: 0.5mm Increment	<b>KLC</b> Lowers the flange on one side. Not applicable to Crowned. Cannot be combined with Alteration KFC	<b>KFC</b> Cuts off the flange on the right side of the drawing. Not applicable to Crowned. Cannot be combined with Alteration KLC. Combine FC and KFC when Flange Cut + One Flange is desired.	<b>TC</b> Machines flange thickness to 0.5mm. L dimension becomes 1mm shorter. 2 dimensions are changed in the following models.
Spec.	D≤FC<D+4 Ordering Code FC30.5 Not applicable to Crowned.	D D-1	Not applicable to Crowned. Cannot be combined with Alteration KLC. Combine FC and KFC when Flange Cut + One Flange is desired.	0.5 0.5 Not applicable to HBG. Not applicable to Crowned.

# Pulleys for Flat Belts

Crowned, Crosspiece Groove Straight

Width L=25 ~ 100

# Idlers for Flat Belts

Straight, Crosspiece Groove Straight, Crowned

Width L=25 ~ 100

**Crowned ROBAC** (No Flange)

**ROBACF** (Flanged)

**Crosspiece Groove Straight ROBAM** (No Flange)

**Shape of Keyway**

Material: Aluminum Alloy  
Surface Treatment: Clear Anodize

For Crosspiece Groove Straight, key length is shorter under the following conditions in order to avoid causing interference with through holes made by keyway machining.

When  $L/2 - X/2 \leq K \leq L/2 + X/2$ ,  $K = L/2 - (X/2 + (b+1)/2 + 1)$

**New JIS (B1301) Keyway Dimensions**

Normal	dH7	bJS9	t Tolerance
N8	+0.015	3	±0.0125 1.4
N10	0		
NK10	0	4	1.8
N12	+0.018	5	±0.0150 2.3
N15	0	6	2.8
N20	+0.021	8	±0.0180 3.3
N25	0		
N30	0		

Part Number	Type	dh7		1mm Increment	Crowned only	Crosspiece Groove Straight only: 0.1mm Increment			Key Length	M		F
		D	Round Hole + Tap			X	Y	Z		Round Hole + Tap	Keyway + Tap	
Crowned <b>ROBAC</b> <b>ROBACF</b>	15	8	N8	Crowned 25-100	H	-	-	-	25	M3	-	-
	20	8	N8									
	20	10	N10, NK10									
	25	8	N8									
	25	10	N10, NK10									
	30	8	N8									
	30	10	N10, NK10									
	30	12	N12									
	35	10	N10, NK10									
	35	12	N12									
	35	15	N15									
	35	20	N20									
Crosspiece Groove Straight <b>ROBAM</b>	40	12	N12	Crosspiece Groove Straight 50-100	0.3	7.0-15.0	5.0-12.0	4.0-7.0	25	M4	M3	3.5
	40	15	N15									
	40	20	N20									
	40	25	N25									
	50	15	N15									
	50	20	N20									
	50	25	N25									
	50	30	N30									
	60	25	N25									
	60	30	N30									
	60	35	N35									
	80	30	N30									
80	35	N35										

⊕ K=L (No Flange) or K=L+4 (Flanged) when L≤36(N8, M10, NK10) or L≤43(N12, N15, N20) or L≤45(N25, N30).  
 ⊕ Flanged Type is only applicable to D=25 or more; Flanged Type with Keyways to D30 or more.  
 ⊕ Specify NK10 when Keyway + Tap with shaft bore with keyway width 4.0mm (height 1.8mm) is desired.

Ordering Example

■ Crowned  
**ROBAC30** - d - L - H  
 ■ Crosspiece Groove Straight  
**ROBAM40** - d - L - X - Y - Z

D	Body Price						Keyway Machining Charge (Body Price +)
	Crowned			Crosspiece Groove Straight			
	ROBAC	ROBACF	ROBAM	ROBAC	ROBACF	ROBAM	
15	L25-50	L51-75	L76-100	L25-50	L51-75	L76-100	
20							
25							
30							
35							
40							
50							
60							
80							

**Straight ROFAM** (No Flange)

**ROFAM** (Flanged)

**Crosspiece Groove Straight ROFAM** (No Flange)

**Crowned ROFAC** (No Flange)

Material: Aluminum Alloy  
Surface Treatment: Clear Anodize

⊕ X≥Y  
 ⊕ For Crosspiece Groove Part Dimensions, see "Pulley, Idler Relief Dimensions".  
 ⊕ P.1363

Part Number	Type	d	1mm Increment	Crosspiece Groove Straight only: 0.1mm Increment			Crowned only Selection	Bearing Dimension			F	
				X	Y	Z		H	No.	D1		B
Straight <b>ROFAM</b> <b>ROFAM</b>	Straight	15	(5)	-	-	-	-	7	B675Z	8	2.5	-
		15	(6)									
		20	(6)									
		20	(8)									
		25	(6)									
		25	(8)									
		25	(8)									
		30	(10)									
		30	(12)									
		35	(12)									
		35	(15)									
		Crosspiece Groove Straight <b>ROFAM</b>	Crosspiece Groove Straight					40	(8)	Straight Crowned 25-100	7.0-15.0	
40	(10)											
40	(12)											
40	(15)											
40	(15)											
40	(20)											
40	(20)											
50	(10)											
50	(12)											
50	(15)											
50	(20)											
50	(25)											
Crowned <b>ROFAC</b>	Crowned	60	(12)	Crosspiece Groove Straight 50-100	7.0-15.0	5.0-12.0	-	22	B620Z	30	9	51
		60	(15)									
		60	(20)									
		60	(25)									
		60	(30)									
		60	(30)									
		80	(25)									
		80	(30)									
		80	(35)									
		80	(35)									
		80	(35)									
		80	(35)									

⊕ Sizes in ( ) for d are only applicable to No Flange Type. ⊕ For detailed bearing dimensions, see P.989, 991.

Ordering Example

■ Straight  
**ROFAM30** - d - L - L52

■ Crosspiece Groove Straight  
**ROFAM40** - d - L - L82 - X7.8 - Y6.0 - Z5.0

■ Crowned  
**ROFAC60** - d - L - L75 - H0.5

D	Unit Price										
	Straight						Crosspiece Groove Straight			Crowned	
	ROFAM	ROFAM	ROFAM	ROFAM	ROFAM	ROFAM	ROFAM	ROFAM	ROFAM	ROFAM	ROFAM
15	L25-50	L51-75	L76-100	L25-50	L51-75	L76-100	L50-75	L76-100	L25-50	L51-75	L76-100
20											
25											
30											
35											
40											
50											
60											
80											

# Pulleys for Flat Belts with Urethane

## Crowned, Crosspiece Groove Straight

Width L=25 ~ 100

# Economy Pulleys for Flat Belts with Urethane

## Crowned, Crosspiece Groove Straight

Width L=110 ~ 500

■Features: Urethane lining is applied on the surface to increase friction resistance for the prevention of slip between belt and pulley.

■Features: Compared with conventional products, price reductions have been realized.

Type				Material		Hardness
Crowned		Crosspiece Groove Straight		Core	Lining	
No Flange	Flanged	No Flange	Flanged	A5052	Urethane (Natural Color)	Shore A90
RWCUN	RWCUF	RWMUN	RWMUF			Shore A70
RWCGN	RWCGF	RWMGN	RWMGF			

Ⓜ Urethane is heat-bonded on the outer circumference of the core material.

6.3 / (1.6 / )

RoHS

Type		Material		Hardness
Crowned		Core	Lining	
RWBCU	RWBMU	Aluminum Alloy	Urethane (Natural Color)	Shore A90
RWBCG	RWBMG			Shore A70

Ⓜ Urethane is heat-bonded on the outer circumference of the core material.

6.3 / (1.6 / )

RoHS

■New JIS (B1301) Keyway Dimensions

Nominal	dH9	bJS9	t Tolerance
N10	+0.036	3 ±0.0125	1.4
NK10	0	4 ±0.0150	+0.1
N12	+0.043	6 ±0.0150	2.8
N20	+0.052	8 ±0.0180	+0.2
N25	0	10 ±0.0180	0
N30	0	10 ±0.0180	0
N35	+0.062	10 ±0.0180	0

Part Number Type	D	dH7	1mm Increment L			H Selection Crowned Type only	1mm Increment X Y Z			T	M	ℓ	F	P
Crowned (No Flange) RWCUN RWCGN	15	8							2					
	20	8							2	M4	4.5			
	25	8							3					
	30	10							3			31	19	
	35	12							3	M4	4.5			
Crosspiece Groove Straight (No Flange) RWMUN RWMGN	40	10				0.3			6			41	23	
	50	12				0.5		4-5	6	M5	5	51	33	
	60	15					7-15	5-12	8	M6	5.5	61	39	
	80	20						4-7	8	M8	7	81	59	
	80	25												

Ⓜ Crosspiece Groove Straight is available in D dimension 40 or larger.

Part Number Type	D	dH9		10mm Increment L	1mm Increment X Y Z			Urethane Thickness T	Keyway Length K	d1	D1	M
		Round Hole + Tap	Keyway + Tap									
Crowned RWBCU RWBCG	28	8	-	110-500	-	-	-	5	-	10	12	M3
	38	12	N12		-	-	-	5	25	20	22	
	48	15	*N10, *NK10		7-15	7-12	4-7	10	25	20	22	
Crosspiece Groove Straight RWBMU RWBMG	48	20	N20	110-500	-	-	-	5	30	30	32	M5
	58	25	*N20		-	-	-	10	30	30	32	
	78	30	*N25, *N30		7-15	7-12	4-7	10	30	50	52	
	78	35	*N35		-	-	-	10	30	50	52	

Ⓜ Crosspiece Groove Straight is applicable to \* marked d dimension only.

Ⓜ Flanged Type is applicable to \* marked d dimensions only. Ⓜ Urethane may discolor over time, but there is no effect on properties.

Ⓜ Urethane may discolor over time, but there is no effect on properties. Ⓜ Specify NK10 when Keyway + Tap with shaft bore dia. 10 and keyway width 4.0mm (height 1.8mm) is desired.

Ordering Example

■ Crowned Part Number - d - L - H  
RWBCUN30 - 10 - 62 - H0.3

■ Crosspiece Groove Straight Part Number - d - L - X - Y - Z  
RWMGF40 - 15 - 82 - X7 - Y6 - Z5

Ordering Example

■ Crowned Part Number - d - L  
RWBCU58 - N20 - 320

■ Crosspiece Groove Straight Part Number - d - L - X - Y - Z  
RWBMG48 - 15 - 120 - X8 - Y7 - Z5

D	Unit Price											
	Crowned Shore A90						Crowned Shore A70					
	RWCUN	L51	L76	RWCUF	L51	L76	RWCGN	L51	L76	RWCGF	L51	L76
15	L25-50	L75	-100	L25-50	L75	-100	L25-50	L75	-100	L25-50	L75	-100
20												
25												
30												
35												
40												
50												
60												
80												

D	Unit Price											
	Crosspiece Groove Straight Shore A90				Crosspiece Groove Straight Shore A70							
	RWMUN	L50	L76	RWMUF	L50	L76	RWMGN	L50	L76	RWMGF	L50	L76
40	L50-75	L100	-100	L50-75	L100	-100	L50-75	L100	-100	L50-75	L100	-100
50												
60												
80												

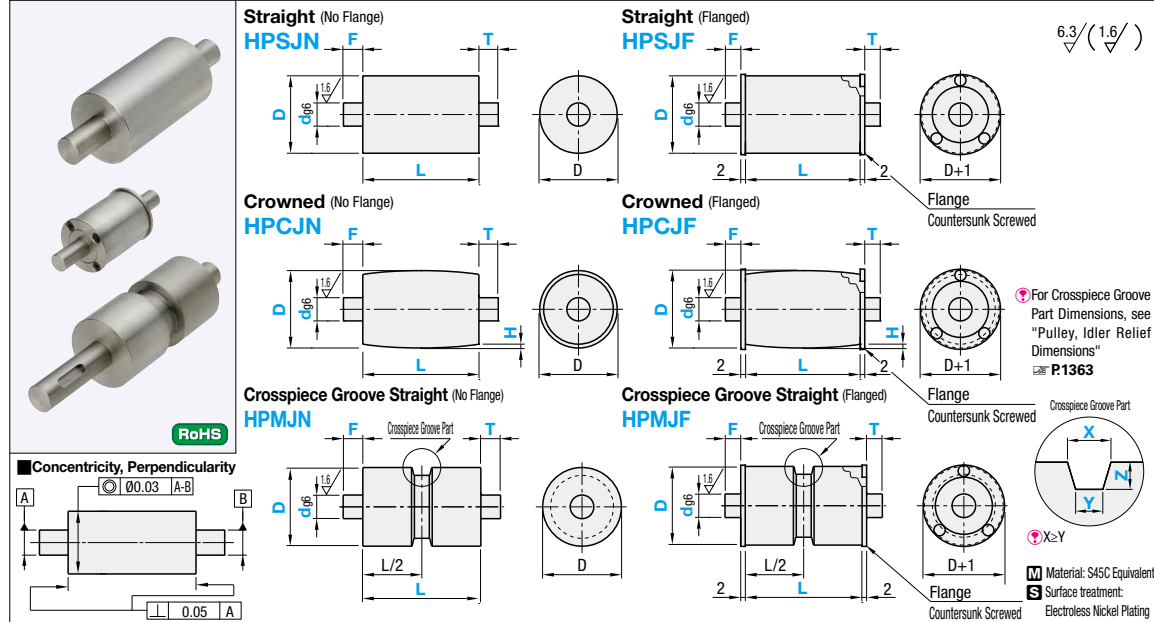
D	Body Price												Keyway Machining Charge (Body Price +)				
	Crowned						Crosspiece Groove Straight										
	RWBCU						RWBMG										
28	L110-150	L160-200	L210-250	L260-300	L310-350	L360-400	L410-450	L460-500	L110-150	L160-200	L210-250	L260-300	L310-350	L360-400	L410-450	L460-500	
38																	
48																	
58																	
78																	

# Shaft Pulleys for Round Belts

Width L=25 ~ 100

Straight, Crowned, Crosspiece Groove Straight

■ Features: Flat belt pulleys with integrated shafts. Useful in reducing assembly part counts.



Part Number Type	D	d <sub>g6</sub>	1mm Increment		Crowned Type only H	Crosspiece Groove Straight only: 0.1mm Increment		
			L	F, T		X	Y	Z
Straight HPSJN HPSJF	20	6, 8	Straight Crowned 25-100	4≤F, T≤60 F, T≤dx5	0.3	7.0-15.0	5.0-12.0	4.0-5.0
	30	8, 10, 12						
	35	10, 12, 15						
	40	12, 15, 20						
	50	15, 20, 25						
Crowned HPCJN HPCJF	40	15, 20	Crosspiece Groove Straight 50-100	For Crowned, when D=50-80, 8≤F, T≤60	0.5	7.0-15.0	5.0-12.0	4.0-7.0
	50	20, 25, 30						
	60	25, 30, 35						
Crosspiece Groove Straight HPMJN HPMJF	40	15, 20	Crosspiece Groove Straight 50-100	For Crowned, when D=50-80, 8≤F, T≤60	0.5	7.0-15.0	5.0-12.0	4.0-7.0
	50	20, 25, 30						
	60	25, 30, 35						
	80	30, 35						

Ordering Example: Part Number - d - L - F - T - H - X - Y - Z  
 (Straight) HPSJN40 - 15 - 52 - F50 - T10  
 (Crowned) HPCJF60 - 20 - 75 - F25 - T40 - H0.5  
 (Crosspiece Groove Straight) HPMJN30 - 12 - 76 - F15 - T50 - X14.0 - Y11.8 - Z5.0

D	Unit Price								
	Straight		Crowned		Crosspiece Groove Straight				
	HPSJN	HPSJF	HPCJN	HPCJF	HPMJN	HPMJF			
20	L25-50	L76-100	L25-50	L51-75	L25-50	L51-75	L76-100	L50-75	L76-100
30									
35									
40									
50									
60									
80									

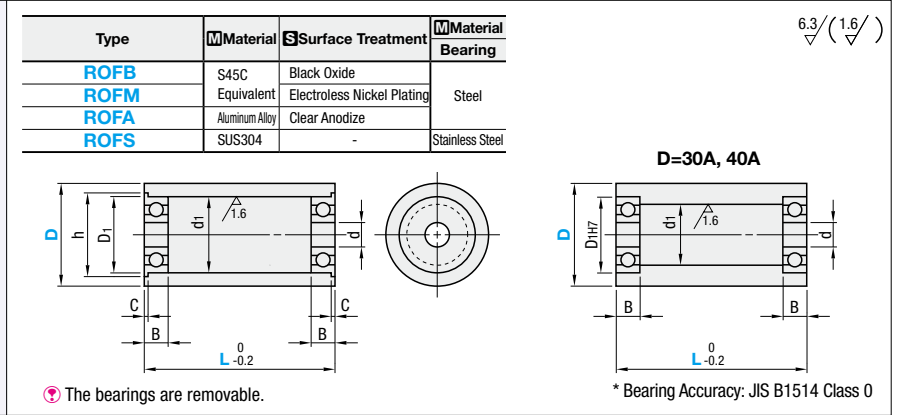
Alterations: Part Number - d - L - F - T - X - Y - Z - (FKC, TKC, FD, TD, TA, TB, FS, TS)  
 HPMJN30 - 12 - L76 - F50 - T15 - X14.0 - Y11.8 - Z5.0 - FKC5-A15

Alterations	Keyway Machining	Step Machining	Retaining Ring Groove	Shaft Dia. Change
	Code	FKC, TKC	FD, TD	TA, TB
Spec.	Adds a keyway on shaft F (T). FKC, TKC, A, B=1mm Increment Ordering Code: FKCS-A10 (TKCO-B10) FKC=0 or 2:FKC TKC=0 or 2:TKC FKC+AcF-2 TKC+BtT-2 For keyway details, see P.820	Adds a step on shaft F (T). FD, TD, P, Q=1mm Increment Ordering Code: FDS-P8 (TDS-O8) FD≤F-2 TD≤T-2 No Flange: d<P(Q)<D-2 Flanged : d<P(Q)<D-12	Adds a Retaining Ring Groove Retaining ring is not included. TA, TB = 1mm Increment Ordering Code: TA5 (TB5) 4:TA≤F-2 (When FD is specified: 4:TA≤F-FD-2) 4:TB≤T-2 (When TD is specified: 4:TB≤T-TD-2) For dimensions of Retaining Ring Groove, refer to P.820	Changes shaft diameter (d). FS, TS=1mm Increment Ordering Code: FS17 (TS17) D FS (TS) Specification Range: D FS (TS) Specification Range: 20 6-18 50 15-48 30 8-28 60 20-58 35 10-33 80 25-78 40 12-38

# Idlers for Flat Belts

Width L=38 ~ 90, Width L=100 ~ 300

■ Width L38 ~ 90



Type	Material	Surface Treatment	Bearing
ROFB	S45C	Black Oxide	Steel
ROFM	Equivalent	Electroless Nickel Plating	
ROFA	Aluminum Alloy	Clear Anodize	Stainless Steel
ROFS	SUS304	-	

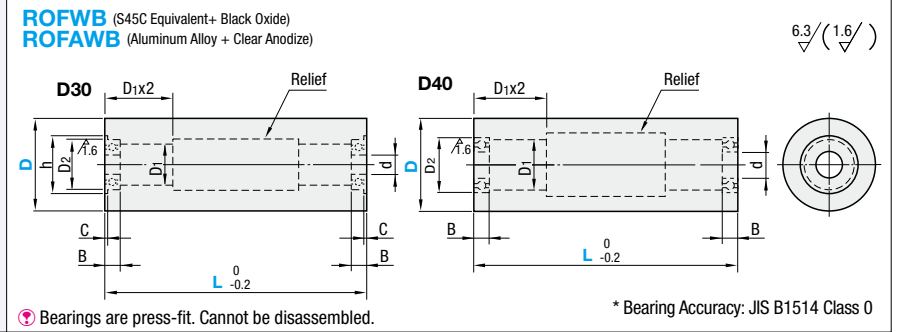
Part Number Type	D	L Selection							d	d <sub>1</sub>	Bearing Dimension				
		38	45	50	60	70	85	90			No.	D <sub>1</sub>	B	C	h
ROFB ROFM ROFA ROFS	20	38	45	50	60	70	85	90	6	15	5	1.2	17		
	25	38	45	50	60	70	85	90		17	6	-	19		
	30	38	45	50	60	70	85	90	8	19	-	-	-		
	30A	38	45	50	60	70	85	90		22	7	1.5	25		
	35	38	45	50	60	70	85	90		22	22	7	1.5	25	
	40	38	45	50	60	70	85	90			B6000ZZx2	26	8	-	-
	40A	38	45	50	60	70	85	90	10						

For detailed bearing dimensions, see P.989, 991.

Ordering Example: Part Number - L  
 ROFM25 - 50

D	Unit Price											
	ROFB			ROFM			ROFA			ROFS		
	L38-50	L60, 70	L85, 90	L38-50	L60, 70	L85, 90	L38-50	L60, 70	L85, 90	L38-50	L60, 70	L85, 90
20	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-
30A	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-
40A	-	-	-	-	-	-	-	-	-	-	-	-

■ Width L100 ~ 300



ROFWB (S45C Equivalent+ Black Oxide)  
 ROFAWB (Aluminum Alloy + Clear Anodize)

Part Number Type	D	L	10mm Increment	d	d <sub>1</sub>	Unit Price								
						ROFWB				ROFAWB				
						No.	D <sub>2</sub>	B	C	h	L100-150	L160-200	L210-250	L260-300
ROFWB	30	100-300		8	10	FL678ZZ	12	3.5	0.8	13.6				
ROFAWB	40			12	18	B6801ZZ	21	5	-	-				

Ordering Example: Part Number - L  
 ROFWB40 - 150

# Pulleys for Flat Belts - Width L = 110~510

Crowned, Crosspiece Groove Straight

For products uncovered by the e-Catalog Standard, see P.131.

Type	Material	Surface Treatment
<b>Crowned</b> ROBAWC, ROBAWM, ROBMC, ROBMCW, ROBSWC, ROBSWM	Aluminum Alloy Aluminum Alloy STKM13A SUS304	Clear Anodize S45C Equivalent Electroless Nickel Plating -

Set screws are not included. P.2-239  
 \*1. Since the drawing surface of pipe is unpolished, the Inner Dia. d1 is misshapen to some extent.

**Keyway Shape**

**Crowned**  
ROBAWC, ROBMC, ROBSWC

**Crosspiece Groove Straight**  
ROBAWM, ROBMCW, ROBSWM

**New JIS (B1301) Keyway Dimensions**

Nominal	dH9	bJS9	t Tolerance
N8	8	3	±0.0125
N10	10	4	±0.0150
N12	12	5	±0.0180
N15	15	6	±0.0225
N20	20	8	±0.0300
N25	25	10	±0.0375
N30	30	12	±0.0450
N35	35	15	±0.0562

Type	D	dH9	Keyway + Tap	H Selection		0.1mm Increment			K	d1			M		
				L=110-300	L=310-510	X	Y	Z		Aluminum Alloy	Steel (STKM13A)	Stainless Steel (SUS304)	Round Hole + Tap	Keyway + Tap	
Crowned ROBAWC ROBMC ROBSWC	30	8	N8	0.3	0.5	7.0~15.0	5.0~12.0	30	25	15	15.8	18	22	M4	M3
										10	10.5	12			
										12	12.0	15			
										15	15.0	20			
										20	20.0	25			
										25	25.0	30			
	Crosspiece Groove Straight ROBAWM ROBMCW ROBSWM	50	15	N15	0.8	1.0	-	-	30	17	18.7	20	33	M4	M4
										20	20.0	25			
										25	25.0	30			
										30	30.0	35			
										35	35.0	40			
										40	40.0	45			

\*D=(60) or (80) is applicable only for the Aluminum Alloy material. For Crosspiece Groove Straight Type with D = 30 or 35, only Aluminum Alloy is available as the material. Specify NK10 when Keyway + Tap with shaft bore dia. 10 and keyway width 4.0mm (height 1.8mm) is desired.

**Ordering Example**

**Crowned**

Part Number	d	L	H
ROBAWC30	10	L350	H1.0
ROBMCW35	N10	L300	H0.5
ROBSWC50	N15	L400	H0.5

**Crosspiece Groove Straight**

Part Number	d	L	X	Y	Z
ROBAWM60	25	L250	X14.0	Y11.8	Z5.0
ROBMCW50	20	L350	X13.0	Y11.5	Z6.0
ROBSWM50	25	L400	X12.0	Y10.0	Z6.0

D	Unit Price																Keyway Machining Charge (Body Price +)
	ROBAWC Aluminum Alloy								ROBSWC Stainless Steel (SUS304)								
30	L110-150	L160-200	L210-250	L260-300	L310-350	L360-400	L410-450	L460-510	L110-150	L160-200	L210-250	L260-300	L310-350	L360-400	L410-450	L460-510	
35																	
40																	
50																	
60																	
80																	

D	Unit Price																Keyway Machining Charge (Body Price +)
	ROBAWM Aluminum Alloy								ROBSWM Stainless Steel (SUS304)								
30	L110-150	L160-200	L210-250	L260-300	L310-350	L360-400	L410-450	L460-510	L110-150	L160-200	L210-250	L260-300	L310-350	L360-400	L410-450	L460-510	
35																	
40																	
50																	
60																	
80																	

# Idlers for Flat Belts - Width L = 110~510

Straight, Crowned, Crosspiece Groove Straight

For products uncovered by the e-Catalog Standard, see P.131.

Type	Material	Surface Treatment
<b>Straight</b> ROFAWC, ROFMWC, ROFSWC	Aluminum Alloy STKM13A SUS304	Clear Anodize Electroless Nickel Plating -

**Crowned**  
ROFAWT, ROFMWT, ROFSWT

**Crosspiece Groove Straight**  
ROFAWM, ROFMWM, ROFSWM

**New JIS (B1301) Keyway Dimensions**

Nominal	dH9	bJS9	t Tolerance
N8	8	3	±0.0125
N10	10	4	±0.0150
N12	12	5	±0.0180
N15	15	6	±0.0225
N20	20	8	±0.0300
N25	25	10	±0.0375
N30	30	12	±0.0450
N35	35	15	±0.0562

Type	D	d	L	H Selection	0.1mm Increment			Bearing Dimension																
					X	Y	Z	No.	D1	B														
Straight ROFAWC ROFMWC ROFSWC	30	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
																		15	15.8	18	B698ZZ	19	6	
																		20	20.0	25	B608ZZ	22	7	
																		25	25.0	30	B690ZZ	22	6	
																		30	30.0	35	B690ZZ	24	6	
																		35	35.0	40	B690ZZ	28	7	
	Crowned ROFAWT ROFMWT ROFSWT	40	10	-	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-						
																			15	15.8	18	B628ZZ	24	8
																			20	20.0	25	B600ZZ	26	8
																			25	25.0	30	B690ZZ	24	6
																			30	30.0	35	B690ZZ	28	7
																			35	35.0	40	B680ZZ	32	7
Crosspiece Groove Straight ROFAWM ROFMWM ROFSWM	50	15	-	0.5	7.0~15.0	5.0~12.0	-	-	-	-	-	-	-	-	-	-	-							
																		20	20.0	25	B620ZZ	30	9	
																		25	25.0	30	B600ZZ	28	8	
																		30	30.0	35	B690ZZ	28	7	
																		35	35.0	40	B680ZZ	32	7	
																		40	40.0	45	B690ZZ	42	9	
	(60)	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
																			25	25.0	30	B620ZZ	32	10
																			30	30.0	35	B600ZZ	32	9
																			35	35.0	40	B690ZZ	37	9
																			40	40.0	45	B690ZZ	42	9
																			45	45.0	50	B690ZZ	47	9
(80)	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
																		30	30.0	35	B620ZZ	52	15	
																		35	35.0	40	B600ZZ	55	13	
																		40	40.0	45	B690ZZ	55	13	
																		45	45.0	50	B690ZZ	55	10	
																		50	50.0	55	B690ZZ	55	10	

\*D=30 and d=8A are only available for Steel or Stainless Steel. \*D=(60) or (80) is applicable only for the Aluminum Alloy material. For Crosspiece Groove Straight Type with D = 30 or 35, only Aluminum Alloy is available as the material.

**Ordering Example**

(Straight) ROFAWC40 - 8 - L200

(Crowned) ROFAWT30 - 10 - L350 - H0.5

(Crosspiece Groove Straight) ROFSWM50 - 20 - L250 - X14.0 - Y11.8 - Z5.0

D	Unit Price																Keyway Machining Charge (Body Price +)
	ROFAWT Aluminum Alloy								ROFSWT Stainless Steel (SUS304)								
30	L110-150	L160-200	L210-250	L260-300	L310-350	L360-400	L410-450	L460-510	L110-150	L160-200	L210-250	L260-300	L310-350	L360-400	L410-450	L460-510	
35																	
40																	
50																	
60																	
80																	

D	Unit Price																Keyway Machining Charge (Body Price +)
	ROFAWM Aluminum Alloy								ROFSWM Stainless Steel (SUS304)								
30	L110-150	L160-200	L210-250	L260-300	L310-350	L360-400	L410-450	L460-510	L110-150	L160-200	L210-250	L260-300	L310-350	L360-400	L410-450	L460-510	
35																	
40																	
50																	
60																	
80																	