

Rollers

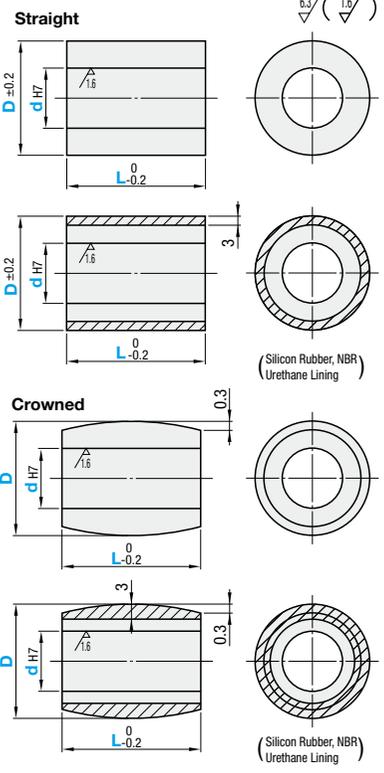
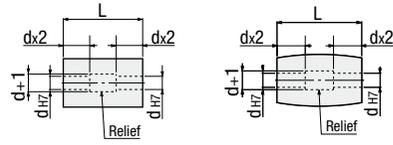
Straight, Crowned-(L=15~100)



Type				Material	Surface Treatment (Lining)	Hardness	
Straight		Crowned					
L Selectable	L Configurable	L Selectable	L Configurable	Core			
ROLB	-	-	-	S45C	Black Oxide	-	
ROLM	-	-	-	S45C	Electroless Nickel Plating	-	
ROLS	-	ROCS	-	SUS304	-	-	
ROLA	-	ROCA	-	A5052	Clear Anodize	-	
ROKS	-	-	-	SUS304	Urethane (Natural Color)	Shore A95	
ROKA	-	-	-	A5052		Shore A95	
ROUS	ROFUS	ROCUS	-	SUS304		Shore A90	
ROUA	ROFUA	ROCUA	ROFCUA	A5052		Shore A90	
ROGS	-	ROCGS	-	SUS304		Shore A70	
ROGA	ROFGA	ROCGA	-	A5052		Shore A70	
ROHS	ROFHS	ROCHS	-	SUS304		Shore A50	
ROHA	ROFHA	ROCHA	-	A5052		Shore A50	
ROMS	-	-	-	SUS304		Antistatic Urethane (Gray)	Shore A90
ROMA	-	-	-	A5052			Shore A90
ROSS	ROFSS	ROCSS	-	SUS304	Silicon Rubber (Light Gray)	Shore A70	
ROSA	-	-	-	A5052		Shore A70	
ROJA	-	-	-	A5052	Shore A50		
ROTS	-	-	-	SUS304	Heat Resistant Urethane (Red Brown) Operating Temperature: ~110°C	Shore A90	
ROTA	-	-	-	A5052		Shore A90	
RONA	-	-	-	A5052		NBR (Black)	Shore A60

Urethane, Silicon Rubber and NBR are baked on the roller's outer diameter.

- When L ≤ dx3, hole d is machined from the same direction.
- When L > dx3, hole d is machined from both ends as shown below. There may be no relief in some cases.



Ordering Example: Part Number - d - L
ROLB20 - 8 - 30

L Dimension Selectable - Straight

D	L	Unit Price																		
		Straight																		
		Core Only			Urethane						Antistatic Urethane		Silicon			Heat Resistant Urethane			NBR	
ROLB	ROLM	ROLS	ROLA	ROKS	ROKA	ROUS	ROUA	ROGS	ROGA	ROHS	ROHA	ROMS	ROMA	ROSS	ROSA	ROJA	ROTS	ROTA	RONA	
20	15-25																			
	30-50																			
25	15-25																			
	30-50																			
30	15-25																			
	30-50																			
35	20-25																			
	30-50																			
40	20-25																			
	30-50																			
50	25																			
	30-50																			
60	100																			
	30-50																			
80	100																			
	40-50																			
80	100																			
	40-50																			

L Selectable

Type	Part Number	D	dh7 Selection					L Selection						
			20	25	30	35	40	15	20	25	30	40	50	
Straight Core Only	Urethane	20	8					15	20	25	30	40	50	
	Silicon Rubber		8	10	12			15	20	25	30	40	50	
	ROKS		8	10	12	15			15	20	25	30	40	50
	ROKA		8	10	12	15			15	20	25	30	40	50
	ROSA		8	10	12	15			15	20	25	30	40	50
	ROJA	8	10	12	15			15	20	25	30	40	50	
	Heat Resistant Urethane	30	8	10	12	15			15	20	25	30	40	50
	ROGA		8	10	12	15			15	20	25	30	40	50
	ROHS		8	10	12	15			15	20	25	30	40	50
	NBR	40	10	12	15	20			20	25	30	40	50	
RONA	10		12	15	20			20	25	30	40	50		
Crowned Core Only	Urethane	50		12	15	20	25			25	30	40	50	100
	Silicon Rubber			12	15	20	25			25	30	40	50	100
	ROCUS			12	15	20	25			25	30	40	50	100
	ROCUA			12	15	20	25			25	30	40	50	100
	ROCGS			12	15	20	25	30			30	40	50	100
ROCGA		12	15	20	25	30			30	40	50	100		
ROCHS		15	20	25	30			40	50	100				
ROCHA		15	20	25	30			40	50	100				

D60 and D80 are not available for ROSS, ROSA, ROJA, ROCSS and RONA.

L Configurable

Type	Part Number	D	dh7 Selection					L 1mm Increment					
			20	25	30	35	40	16-49	21-49	26-99	31-99	41-99	
Straight Urethane	ROFUS	20	8										
			8	10	12			16-49					
			8	10	12	15							
			10	12	15	20							
			10	12	15	20							
Crowned Urethane	ROFCUA	20	8										
			8	10	12			16-49					
			8	10	12	15							
			10	12	15	20							
			10	12	15	20							

Urethane may discolor over time, but there is no effect on physical properties.
D60 and D80 are not available for ROFSS. L dimensions that can be configured in L Selectable Type, cannot be selected.

Crowned

D	L	Unit Price						
		Crowned						
		Core Only			Urethane		Silicon	
ROCS	ROCA	ROCUS	ROCUA	ROCGS	ROCGA	ROCSS	ROCCHA	
20	15-25							
	30-50							
25	15-25							
	30-50							
30	15-25							
	30-50							
35	20-25							
	30-50							
40	20-25							
	30-50							
50	25							
	30-50							
60	100							
	30-50							
80	100							
	40-50							
80	100							
	40-50							

L Dimension Selectable - Straight, Crowned

D	L	Unit Price						
		Straight						
		Urethane				Silicon		Crowned Urethane
ROFUS	ROFUA	ROFHS	ROFGA	ROFHA	ROFSS	ROFCUA	ROFCUA	
20	16-25							
	26-49							
25	16-25							
	26-49							
30	16-25							
	26-49							
35	21-25							
	26-49							
40	21-25							
	26-49							
50	26-50							
	51-99							
60	31-50							
	51-99							
80	41-50							
	51-99							

Alterations Part Number - d - L - (MC, UDC)
ROUS20 - 8 - 30 - UDC

Alterations	Code	Spec.								
	MC	Adds 2 tapped holes at 90°. <table border="1"> <tr> <th>D</th> <th>M</th> </tr> <tr> <td>20, 25, 30</td> <td>3</td> </tr> <tr> <td>35, 40</td> <td>4</td> </tr> <tr> <td>50, 60, 80</td> <td>5</td> </tr> </table> Ordering Code MC	D	M	20, 25, 30	3	35, 40	4	50, 60, 80	5
D	M									
20, 25, 30	3									
35, 40	4									
50, 60, 80	5									

Alterations	Code	Spec.
Change to Antistatic Urethane (Urethane Color: Gray)	UDC	Change Urethane (Shore A90) to Antistatic Urethane Ordering Code UDC Specific Volume Resistivity 2.1 x 10 ⁹ Ω·cm Surface Resistivity 4.0x10 ⁹ Ω (Temperature 30°C / Humidity 60%)

For Core Only and Urethane (Natural Color) Tapped Type, refer to the next page.

Rollers

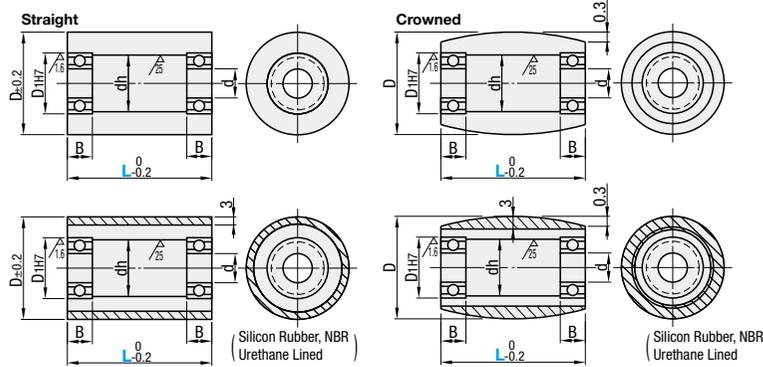
With Bearings (L=15 ~ 100)



Type		Material Core	Surface Treatment (Lining)	Bearing	Hardness
L Selectable	L Configurable				
RORB	ROCRB	S45C Equivalent	Black Oxide	Steel	-
RORM	ROCRM		Electroless Nickel Plating		
RORS	ROCRS		SUS304		
RORA	ROCRA		Aluminum Alloy		
RORKS	-	SUS304	Urethane (Natural Color)	Steel	Shore A95
RORKA	-	A5052		Stainless Steel	Shore A90
RORUS	ROFRUS	SUS304			
RORUA	ROFRUA	Aluminum Alloy (RORUA) (ROFRUA) A5052 (ROCRUA)			
RORUP	-	MC Nylon		Steel	Shore A70
RORGS	ROCRGS	SUS304			
RORGA	ROFRGA	Aluminum Alloy (RORGA) (ROFRGA) A5052 (ROCRGA)			
RORHS	ROCRHS	SUS304			
RORHA	ROFRHA	Aluminum Alloy		Steel	Shore A50
RORSS	ROFRSS	SUS304			
RORSA	ROCRSA	A5052	Silicon Rubber (Light Gray)	Shore A70	
RORJS	-	SUS304			
RORJA	-	A5052			
RORWS	-	SUS304			
RORTS	ROFRTS	SUS304	Silicon Rubber (White)	Steel	Shore A70
RORTA	-	SUS304	Heat Resistant Urethane (Red Brown)	Steel	Shore A90
RORNS	-	Aluminum Alloy	Operating Temperature: ~ 110°C		
RORNA	-	SUS304	NBR (Black)		

Urethane, Silicon Rubber and NBR are baked on the roller's outer diameter.

6.3 / (25 / 15 /)



For bearing detailed dimensions, see P.989, 993.

L Selectable

Part Number			No.	D	L Selection	d	D1(H7)	dh	B	Bearing Used
Type	Material	Core								
Straight Core Material Only	RORB	ROCRB	(20)	20	15 20 25 30 40 50	6	15	10	5	696ZZx2
	RORM	ROCRM	25	25	20 25 30 40 50 60 70 80 90 100	6	15	10	5	696ZZx2
	RORS	ROCRS	30	30	20 25 30 40 50 60 70 80 90 100	8	19	15	6	698ZZx2
	RORA	ROCRA	35A	35	25 30 40 50	8	22	15	7	608ZZx2
Urethane	RORKS	-	35	35	25 30 40 50 60 70 80 90 100	10	22	18	6	6900ZZx2
	RORKA	-	40A	40	25 30 40 50	10	26	18	8	6000ZZx2
	RORUP	-	40	40	25 30 40 50 60 70 80 90 100	12	28	24	8	6001ZZx2
	RORUS	-	50A	50	25 30 40 50 100	12	32	24	10	6201ZZx2
Heat Resistant Urethane	RORGA	ROCRGA	50	50	25 30 40 50 60 70 80 90 100	15	32	28	9	6002ZZx2
	RORHS	ROCRHS	50	50	25 30 40 50 60 70 80 90 100	15	32	28	9	6002ZZx2

D20 is only applicable to Core Only Types (RORB, RORM, RORS, RORA, ROCRB, ROCRM, ROCRS and ROCRA).

No. 35A, 40A, 50A are not available for RORUP.

L Configurable (Straight Only)

Part Number		No.	D	L 1mm Increment	d	D1(H7)	dh	B	Bearing Used
Type	Material								
Urethane	ROFRUS	25	25	21~49	6	15	10	5	696ZZx2
	ROFRUA	30	30		8	19	15	6	698ZZx2
	ROFRGA	35A	35		10	22	18	7	608ZZx2
	ROFRHA	40A	40		12	28	24	8	6001ZZx2
	ROFRHA	50A	50		12	32	24	10	6201ZZx2
Heat Resistant Urethane	ROFRTS	50	50	15	32	28	9	6002ZZx2	

Urethane may discolor over time, but there is no effect on physical properties.

L dimensions that can be configured in L Selectable Type, cannot be selected.



Ordering Example
Part Number - L
RORB30 - 30
ROFRSS40 - 38

L Selectable

D	L	Unit Price																		
		Straight																		
		Core Only				Urethane				Silicon										
		RORB	RORM	RORS	RORA	RORKS	RORKA	RORUS	RORUZ	RORUA	RORUP	RORGS	RORGA	RORHS	RORHA	RORSS	RORSA	RORJS	RORJA	RORWS
20	15-25																			
	30-50																			
25	20-25																			
	30-50																			
30	20-25																			
	30-50																			
35	25																			
	30-50																			
35A	25																			
	30-50																			
40	25																			
	30-50																			
40A	25																			
	30-50																			
50	25																			
	30-50																			
50A	25																			
	30-50																			

D	L	Unit Price													
		Straight				Core Only				Crowned					
		Heat Resistant Urethane		NBR		Urethane		Silicon		Urethane		Silicon			
		RORTS	RORTA	RORNS	RORNA	ROCRB	ROCRM	ROCRS	ROCRA	ROCRUS	ROCRUA	ROCRGA	ROCRGS	ROCRHS	ROCRSS
20	15-25														
	30-50														
25	20-25														
	30-50														
30	20-25														
	30-50														
35	25														
	30-50														
35A	25														
	30-50														
40	25														
	30-50														
40A	25														
	30-50														
50	25														
	30-50														
50A	25														
	30-50														

L Configurable

D	L	Unit Price					
		Straight					
		Urethane		Silicon		Heat Resistant Urethane	
		ROFRUS	ROFRUA	ROFRGA	ROFRHA	ROFRSS	ROFRTS
25	21-25						
	26-49						
30	21-25						
	26-49						
35	26-49						
	26-49						
35A	26-49						
	26-49						
40	26-49						
	26-49						
40A	26-49						
	26-49						
50	26-50						
	26-50						
50A	26-50						
	26-50						



Alterations Part Number - L - (UDC, SB)
RORNS40 - 50 - SB

Alterations	Code	Spec.
Change to Antistatic Urethane (Urethane Color: Gray)	UDC	Change Urethane (Shore A90) to Antistatic Urethane Ordering Code UDC Specific Volume Resistivity 2.1x10 ⁹ Ω · cm Surface Resistivity 4.0x10 ⁹ Ω (Temperature 30°C / Humidity 60%)

Alterations	Code	Spec.
Bearing Material	SB	Changes the Bearing to Stainless Steel Bearing Ordering Code SB Not applicable to RORUZ

Rollers

Urethane Thickness Selectable

Type	Material	Hardness	Bearing
No Bearing Straight	SUS304	Shore A95	
With Bearings Straight	Core: SUS304, Lining: Urethane (Natural Color)	Shore A90, Shore A70, Shore A50	Steel

When L < dx3, hole d is machined from the same direction.
When L > dx3, hole d is machined from both ends as shown below. There may be no relief in some cases.

Urethane is baked on the outer circumference of the core material.

No Bearing Type			
Part Number	Type	dH7 Selection	L 10mm Increment
ROEUHS	Straight	20	20~100
ROEUHA	Straight	25	20~100
ROEUS	Straight	35	20~100
ROEUA	Straight	40	20~100
ROEGS	Straight	50	30~100
ROEGA	Straight	60	30~100
	Straight	80	30~100
	Straight	100	30~100

With Bearings									
Part Number	Type	D	d Selection	L 10mm Increment	T Selection	D1	dh	B	Bearing Used
ROERUHS	Straight	40	8	20~100	5	19	15	6	698ZZx2
ROERUHA	Straight	40	10	20~100	5	22	18	6	6900ZZx2
ROERUS	Straight	50	12	30~100	5	22	18	6	6900ZZx2
ROERUA	Straight	50	15	30~100	5	28	24	8	6001ZZx2
ROERGS	Straight	60	15	30~100	10	32	28	9	6002ZZx2
ROERGA	Straight	60	20	30~100	5	28	24	8	6001ZZx2
ROERHS	Straight	80	20	30~100	5	42	36	12	6004ZZx2
ROERHA	Straight	80	25	30~100	5	32	28	9	6002ZZx2
	Straight	100	25	30~100	10	42	36	12	6004ZZx2
	Straight	100	30	30~100	10	47	41	12	6005ZZx2
	Straight		30	30~100	10	47	41	12	6005ZZx2
	Straight		30	30~100	10	55	48	13	6006ZZx2

D	L	Unit Price Straight					
		ROEUHS	ROEUHA	ROEUS	ROEUA	ROEGS	ROEGA
20	20						
20	30, 40, 50						
20	60~100						
25	20						
25	30, 40, 50						
25	60~100						
30	20						
30	30, 40, 50						
30	60~100						
35	20						
35	30, 40, 50						
35	60~100						
40	20						
40	30, 40, 50						
40	60~100						
50	20						
50	30, 40, 50						
50	60~100						
60	20						
60	30, 40, 50						
60	60, 70						
80	20						
80	30, 40, 50						
80	60, 70						
80	80, 90, 100						
100	20						
100	30, 40, 50						
100	60, 70						
100	80, 90, 100						

Ordering Example: Part Number - d - L - T
ROEUS60 - 20 - 50 - T5

Alterations Example: Part Number - d - L - T - (MC)
ROEUA50 - 12 - 50 - T5 - MC

D	L	Unit Price											
		Straight						Crowned					
		ROERUHS	ROERUHA	ROERUS	ROERUA	ROERGS	ROERGA	ROERHS	ROERHA	ROECRUS	ROECRUA	ROECRGA	ROECRHA
40	20												
40	30, 40, 50												
40	60~100												
50	20												
50	30, 40, 50												
50	60~100												
60	20												
60	30, 40, 50												
60	60, 70												
80	20												
80	30, 40, 50												
80	60, 70												
80	80, 90, 100												
100	20												
100	30, 40, 50												
100	60, 70												
100	80, 90, 100												

Alteration Code: MC

Spec. Adds 2 tapped holes at 90°.

D	M
35, 40	4
50, 60, 80	5
100	6

Ordering Code: MC

Applicable to "No Bearing" Type only.

Plastic Rollers

Milled, Press Fit

Type	Material	Bearing
Milled Straight	Polycetal	Steel
Milled Double Flanged	UHMWPE	Steel
Press Fit Straight	MC Nylon	Steel

When L ≤ dx3, hole d is machined from the same direction.
When L > dx3, hole d is machined from both ends as shown below. There may be no relief in some cases.

Core is press fit in plastic.

Milled, Straight									
Part Number	Type	No.	L 1mm Increment	Bearing Used	D	D1	d	B	(dh)
RORPOS	Straight	20	15~100	696ZZx2	20	15	6	5	10
RORPHS	Straight	30	15~100	698ZZx2	30	19	8	6	15
RORPES	Straight	30-10	15~100	6900ZZx2	30	22	10	6	15
RORPJS	Straight	30-12	15~100	6901ZZx2	30	24	12	6	18
RORPSS	Straight	40	20~100	6900ZZx2	40	22	10	6	18
RORPQS	Straight	40-12	20~100	6901ZZx2	40	24	12	6	18
RORMCS	Straight	40-15	20~100	6902ZZx2	40	28	15	7	24
	Straight	40-20	20~100	6804ZZx2	40	32	20	7	24
	Straight	50	30~100	6001ZZx2	50	28	12	8	24
	Straight	60	30~100	6002ZZx2	60	32	15	9	28
	Straight	80	30~100	6002ZZx2	80	32	15	9	28

Milled, Double Flanged												
Part Number	Type	No.	D	L 1mm Increment	E	G	Bearing Used	F	D1	d	B	(dh)
RORPOWF	Double Flanged	40	30~35	20~100	5~10	5~10	6900ZZx2	40	22	10	6	18
RORPHWF	Double Flanged	50	35~45	40~100	5~10	5~10	6001ZZx2	50	28	12	8	24
RORPEWF	Double Flanged	60	40~55	40~100	5~20	5~20	6002ZZx2	60	32	15	9	28
RORMCWF	Double Flanged	80	40~75	40~100	5~20	5~20	6002ZZx2	80	32	15	9	28

Press Fit									
Part Number	Type	D	dH7 Selection (Specify Straight Type Only)	L Selection	With Bearings				
		D	dH7 Selection	L Selection	d	D1(dH7)	dh	B	Bearing Used
ROASP	Straight	25	8	15 20 25 30 40 50	6	15	10	5	696ZZx2
ROAAP	Straight	30	8	10 12 15 20	8	19	15	6	698ZZx2
	Straight	35	10	12 15 20	10	22	18	6	6900ZZx2
	Straight	40	10	12 15 20	12	28	24	8	6001ZZx2
	Straight	50	12	15 20 25	15	32	28	9	6002ZZx2

No.	Unit Price Milled, Straight																									
	Polyacetal						UHMWPE						Polypropylene						MC Nylon							
		RORPOS	RORPHS	RORPES	RORPJS	RORPSS	RORPQS	RORMCS			RORPOWF	RORPHWF	RORPEWF	RORPWF			RORPOWF	RORPHWF	RORPEWF	RORPWF			RORPOWF	RORPHWF	RORPEWF	RORPWF
		L15	L26	L51	L76	L15	L26	L51	L76	L15	L26	L51	L76	L15	L26	L51	L76	L15	L26	L51	L76	L15	L26	L51	L76	
20																										
30																										
30-10																										
30-12																										
40																										
40-12																										
40-15																										
40-20																										
50																										
60																										
80																										

No.	Unit Price Milled, Double Flanged												
	MC Nylon				Polyacetal				UHMWPE				
		RORMCWF	RORPOWF	RORPHWF	RORPEWF	RORPWF			RORPOWF	RORPHWF	RORPEWF	RORPWF	
		L20	L26	L51	L76	L20	L26	L51	L76	L20	L26	L51	L76
40													
50													
60													
80													

D	Unit Price Press Fit										
	Straight					with Bearings					
		ROASP	ROAAP	RORASP	RORAAP			RORPOWF	RORPHWF	RORPEWF	RORPWF
		L15-25	L30-50	L15-25	L30-50	L20-25	L30-50	L20-25	L30-50	L20-25	L30-50
20											
25											
30											
35											
40											
50											

Ordering Example: Part Number - D - d - L - E - G
 (Milled) RORPOS60 - D60 - L75 - E10 - G10
 (Press Fit) ROASP40 - L12 - L50 - G40

Urethane may discolor over time, but there is no effect on physical properties.

Rollers - Tapped

Straight, Crowned (L=15 ~ 100)

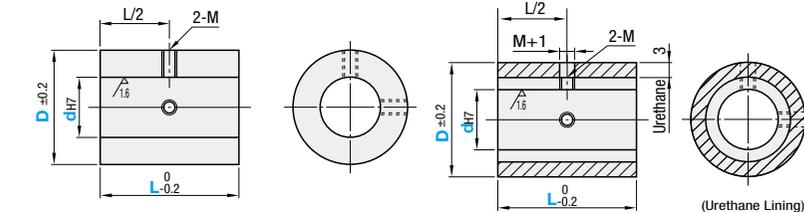


Type	Material Core	Surface Treatment (Lining)	Hardness
Straight			
ROLSN	SUS304	-	-
ROLAN	A5052	Clear Anodize	-
Crowned			
ROUSN	SUS304	Urethane (Natural Color)	Shore A90
ROUAN	A5052	Urethane (Natural Color)	Shore A70
ROGSN	SUS304	Urethane (Natural Color)	Shore A70
ROGAN	A5052	Urethane (Natural Color)	Shore A70
ROHSN	SUS304	Urethane (Natural Color)	Shore A50
ROHAN	A5052	Urethane (Natural Color)	Shore A50

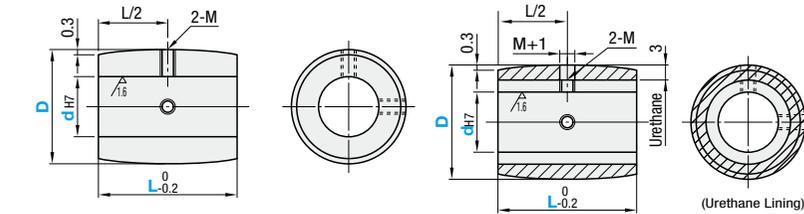
Urethane is baked on the outer circumference of the core material.



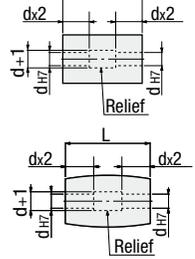
Straight



Crowned



- When L ≤ dx3, hole d is machined from the same direction.
- When L > dx3, hole d is machined from both ends as shown below. There may be no relief in some cases.



Part Number Type	D	dh7 Selection	L Selection					M	
Straight	20	8	15	20	25	30	40	50	M3
Urethane Core Only	25	8 10 12	15	20	25	30	40	50	M3
ROLSN	30	8 10 12 15	15	20	25	30	40	50	M4
ROLAN	35	10 12 15 20	20	25	30	40	50	M4	
ROUSN	40	10 12 15 20	20	25	30	40	50	M4	
ROUAN	50	12 15 20 25	25	30	40	50	100	M5	
ROGSN	60	12 15 20 25 30	30	40	50	100	M5		
ROGAN	80	15 20 25 30	40	50	100	M5			
Crowned									
Urethane Core Only									
ROCSN									
ROCAN									
ROCUSN									
ROCUAN									

Urethane may discolor over time, but there is no effect on physical properties.

Ordering Example: Part Number - d - L

ROLSN30	-	8	-	30
ROLAN40	-	10	-	25

Alterations: Part Number - d - L - (UDC)

ROUSN50	-	12	-	50	-	UDC
---------	---	----	---	----	---	-----

D	L	Unit Price									
		Straight					Crowned				
		Core Only		Urethane			Core Only		Urethane		
		ROLSN	ROLAN	ROUSN	ROUAN	ROGSN	ROGAN	ROCSN	ROCAN	ROCUSN	ROCUAN
20	15-25										
	30-50										
25	15-25										
	30-50										
30	15-25										
	30-50										
35	20-25										
	30-50										
40	20-25										
	30-50										
50	25										
	30-50										
60	100										
	30-50										
80	100										
	40-50										
100	100										
	100										

Rollers

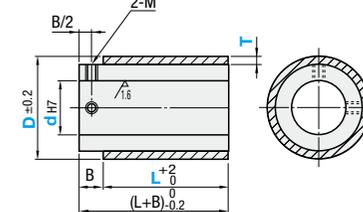
Straight with Set Screw Holes



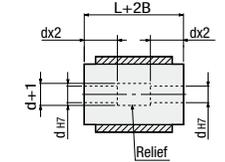
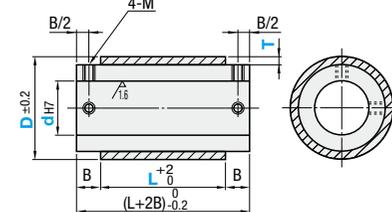
L Selectable	Urethane Thickness Selectable, L Configurable	Material Core	Material Lining	Hardness
Set Screw Holes at Both Ends	Set Screw Hole at One End	Set Screw Holes at Both Ends		
RONUS	ROEKUS	ROENUS	SUS304	Shore A90
RONUA	ROEKUA	ROENUA	A5052	Shore A70
RONGS	ROEKS	-	SUS304	Shore A50
RONGA	ROEKA	ROENGA	A5052	Shore A70
RONHA	ROEKHA	ROENHA	A5052	Shore A70
RONSS	-	-	SUS304	Shore A90
RONSA	-	-	A5052	Shore A90
RONTS	-	-	SUS304	Shore A90

Urethane and Silicon Rubber are baked on the outer circumference of the core material.

Set Screw Holes at One End



Set Screw Holes at Both Ends



- When L+2B ≤ dx3, hole d is machined from the same direction.
- When L+2B > dx3, hole d is machined from both ends as shown above. There may be no relief in some cases.

L Selectable (Set Screw Holes at Both Ends Type Only)

Part Number Type	D	dh7 Selection	L Selection					T	B	M	
RONUS	20	8	15	20	25	30	40	50	3	8	M3
RONUA	25	8 10 12	15	20	25	30	40	50			
RONGS	30	8 10 12 15	15	20	25	30	40	50	3	8	M4
RONGA	35	10 12 15	20	25	30	40	50				
RONHA	40	10 12 15	20	25	30	40	50	10	10	M5	
RONTS	50	12 15	25	30	40	50	100				

Ordering Example: Part Number - d - L - T

RONSS20	-	8	-	30	-	T
ROEKUA50	-	15	-	80	-	T10

Urethane Thickness Selectable (Set Screw Holes at One End / Both Ends)

Part Number Type	D	dh7 Selection	L Selection	T Selection	B	M
ROEKUS	40	10 12 15	30-50	5	10	M5
ROENUS	50	10 12 15	30-50	5	10	M5
ROEKUA	60	12 15 20	30-100	5	10	M6
ROEKS	80	15 20 25	30-100	12	12	M6
ROEKA	100	20 25 30	30-100	12	12	M6

L Selectable (Set Screw Holes at Both Ends Type Only)

D	L	Unit Price							
		Set Screw Holes at Both Ends							
		RONUS	RONUA	RONGS	RONGA	RONHA	RONSS	RONSA	RONTS
20	15, 20, 25								
	30, 40, 50								
25	15, 20, 25								
	30, 40, 50								
30	15, 20, 25								
	30, 40, 50								
35	20, 25								
	30, 40, 50								
40	20, 25								
	30, 40, 50								
50	25								
	30, 40, 50								
100	100								

Urethane Thickness Selectable (Set Screw Holes at One End / Both Ends)

D	L	Unit Price								
		Set Screw Hole at One End				Set Screw Holes at Both Ends				
		ROEKUS	ROEKUA	ROEKS	ROEKA	ROEKHA	ROENUS	ROENUA	ROENGA	ROENHA
40	30-50									
	30-50									
50	60-100									
	30-50									
60	60-100									
	30-50									
80	30-50									
	60-100									
100	30-50									
	60-100									

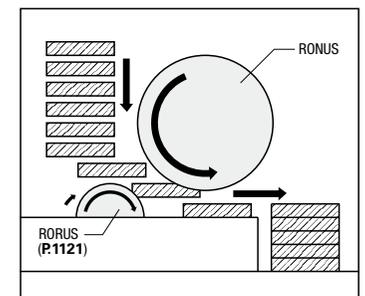
Urethane may discolor over time, but there is no effect on physical properties.

Alterations: Part Number - d - L - T - (UDC)

RONUS20	-	8	-	30	-	UDC
ROEKUA50	-	15	-	80	-	UDC

Alteration	Code	Spec.
Change to Antistatic Urethane (Urethane Color: Gray)	UDC	Change Urethane Shore A90 to Antistatic Urethane Change to Urethane Ordering Code: UDC Specific Volume Resistivity 2.1x10 ¹¹ Ω-cm Surface Resistivity 4.0x10 ¹¹ Ω (Temperature 30°C / Humidity 60%)

EX Example



As a Feeding Roller for a Card Collator

Rollers

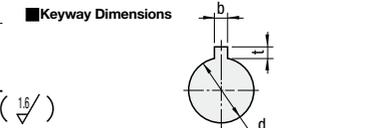
Straight with Keyway

■Features: 5th business day shipping is available for shaft bore with keyway machining and Urethane Lined.

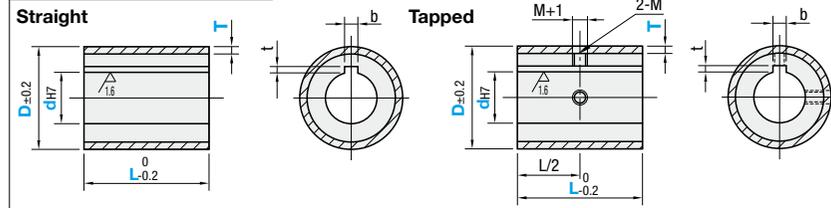


L Selectable		Urethane Thickness Selectable		Material Lining		Hardness
Straight	Tapped	Straight	Tapped	Core	Lining	
ROUSK	ROUSKN	ROEUSK	ROEUSKN	SUS304	Urethane (Natural Color)	Shore A90
ROUAK	ROUAKN	ROEUAK	ROEUAKN	Aluminum Alloy		
ROGSK	ROGSKN	ROEGSK	ROEGSKN	SUS304		Shore A70
ROGAK	ROGAKN	ROEGAK	ROEGAKN	Aluminum Alloy		
ROHSK	ROHSKN	ROEHSK		SUS304		Shore A50
ROHAK	ROHAKN	ROEHAK	ROEHAKN	Aluminum Alloy		

When $L \leq dx3$, hole d is machined from the same direction.
 When $L > dx3$, hole d is machined from both ends as shown below. There may be no relief in some cases.



Shaft Hole Dia	d	Reference Dim.	b	Tolerance (JS9)	Reference Dim.	t	Tolerance (JS9)
8	8	3		± 0.0125	1.4		
10	10	4		± 0.0150	1.8		+0.1 0
12	12	5		± 0.0150	2.3		
15	15	6		± 0.0180	2.8		
20	20	8		± 0.0180	3.3		+0.2 0
25	25						
30	30						



Part Number		D	dh7 Selection	L Selection										T	M	
Type	Type			10mm Increment												
Straight	Tapped	20	8	15	20	25	30	40	50	60	70	80	90	100	3	3
ROUSK	ROUSKN	25	8 10 12	15	20	25	30	40	50	60	70	80	90	100		
ROUAK	ROUAKN	30	8 10 12 15	15	20	25	30	40	50	60	70	80	90	100		
ROGSK	ROGSKN	35	10 12 15 20	20	25	30	40	50	60	70	80	90	100			
ROGAK	ROGAKN	40	10 12 15 20	20	25	30	40	50	60	70	80	90	100	4	4	
ROHSK	ROHSKN	50	12 15 20 25	25	30	40	50	60	70	80	90	100				
ROHAK	ROHAKN															

Part Number		D	dh7 Selection	L Selection	T Selection	M
Type	Type					
Straight	Tapped	50	10 12 15	30~100	5	5
ROEUSK	ROEUSKN	60	12 15 20			
ROEUAK	ROEUAKN	80	15 20 25			
ROEGSK	ROEGSKN	100	20 25 30			
ROEGAK	ROEGAKN					
ROEHSK	ROEHSKN					
ROEHAK	ROEHAKN					

Part Number	d	L	T
ROUSK20	8	30	
ROGSKN30	12	40	
ROEUSK80	20	50	T5

Part Number	d	L	T	(UDC, LC)
ROUSK20	8	30		UDC
ROEUSK80	20	50		T5
ROUAK30	10	30		LC29

Alterations	Code	Spec.
Change to Antistatic Urethane (Urethane Color: Gray)	UDC	Change Urethane Shore A90 to Antistatic Urethane Change to Urethane Ordering Code UDC Specific Volume Resistivity $2.1 \times 10^{10} \Omega \cdot \text{cm}$ Surface Resistivity $4.0 \times 10^{10} \Omega$ (Temperature 30°C / Humidity 60%)
L Dimension	LC	Ordering Code LC11 LC=1mm Increment $10 \leq LC < L$ Only applicable to L Selectable Types.

D	L	Unit Price					
		Straight (ROUSK)	Tapped (ROUSKN)	Straight (ROUAK)	Tapped (ROUAKN)	Straight (ROGSK)	Tapped (ROGSKN)
20	15-25						
	30-50						
25	15-25						
	30-50						
30	15-25						
	30-50						
35	20-25						
	30-50						
40	20-25						
	30-50						
50	25						
	30-50						

D	L	Unit Price					
		Straight (ROEUSK)	Tapped (ROEUSKN)	Straight (ROEUAK)	Tapped (ROEUAKN)	Straight (ROEGSK)	Tapped (ROEGSKN)
50	30-50						
	60-100						
60	30-50						
	60-100						
80	30-50						
	60-100						
100	30-50						
	60-100						

Urethane may discolor over time, but there is no effect on physical properties.

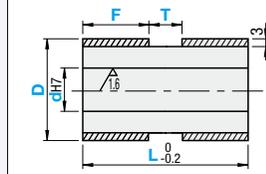
Groove Rollers



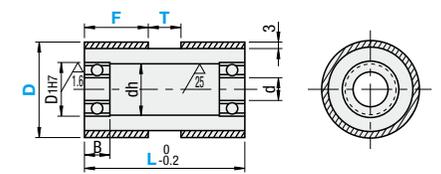
Type	Material		Hardness
No Bearing / With Bearings	Core	Lining	Bearing
ROUAM / RORUAM	Aluminum Alloy	Urethane (Natural Color)	Steel
ROUSM	SUS304		

Urethane is baked on the outer circumference of the core material.

■No Bearing



■With Bearings

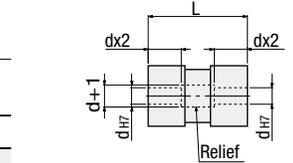


Bearings are removable.

■No Bearing

Part Number	D	dh7 Selection	1mm Increment		
			L	F	T
ROUAM ROUSM	25	8 10 12	15-50	0-46 (F+T≤L-2)	
	30	8 10 12 15			
	35	10 12 15 20	20-50		
	40	10 12 15 20			
	50	12 15 20 25	25-100		
	60	12 15 20 25 30			
	80	15 20 25 30	30-100		

When $L \leq dx3$, hole d is machined from the same direction.
 When $L > dx3$, hole d is machined from both ends as shown below. There may be no relief in some cases.



■With Bearings

Part Number	D	L	1mm Increment		d	D1H7	dh	B	Bearing Used
			F	T					
RORUAM	25	20-50	0-46 (F+T≤L-2)		6	15	10	5	696ZZx2
	30				8	19	15	6	698ZZx2
	35	10			22	18	6	6900ZZx2	
	40	12			28	24	8	6001ZZx2	
	50	15			32	28	9	6002ZZx2	

For bearing detailed dimensions, see P989.



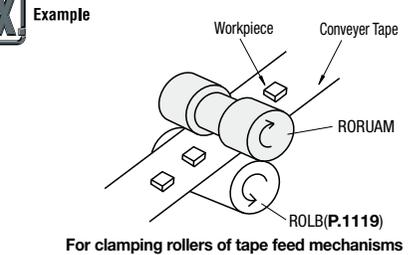
Ordering Example	Part Number	d	L	F	T
	ROUSM30	8	L30	F10	T5
	RORUAM40		L40	F8	T3

D	L	Unit Price		
		No Bearing (ROUAM)	With Bearings (RORUAM)	With Bearings (ROUSM)
25	15(20)-25			
	26-50			
30	15(20)-25			
	26-50			
35	20(25)-25			
	26-50			
40	20(25)-25			
	26-50			
50	25			
	26-50			
60	30-50			
	51-100			
80	40-50			
	51-100			

L dimensions in () are for Bearing Type.

Part Number	d	L	F	T	(MC, DC, SB)
ROUSM30	8	L30	F10	T5	MC
RORUAM30		L40	F10	T5	SB

Alterations	Tapping	Groove Depth	Bearing Material								
Code	MC	DC	SB								
Spec.	<p>Adds 2 tapped holes at 90°.</p> <table border="1"> <thead> <tr> <th>D</th> <th>M</th> </tr> </thead> <tbody> <tr> <td>25, 30</td> <td>3</td> </tr> <tr> <td>35, 40</td> <td>4</td> </tr> <tr> <td>50, 60, 80</td> <td>5</td> </tr> </tbody> </table> <p>Ordering Code MC</p> <p>Applicable to "No Bearing" Type only.</p>	D	M	25, 30	3	35, 40	4	50, 60, 80	5	<p>No Bearing: $D-2xDC \geq d+6$ With Bearings: $D-2xDC \geq dh+6$ $T \geq 4$ $DC \leq 15$ Changes groove depth in 1mm increment. Ordering Code DC5</p>	Changes the Bearing to Stainless Steel Bearing. Ordering Code SB Applicable to Bearing Type only.
D	M										
25, 30	3										
35, 40	4										
50, 60, 80	5										



For clamping rollers of tape feed mechanisms

Vertical Guide Rollers / Rollers with Oil Free Bushings

Urethane Rollers / End Feed Rollers With Side Through Holes

■ Features: Preassembled rollers contribute to labor savings.

Vertical Guide Rollers

RoHS

Type	Material				Surface Treatment		
	Roller	Shaft	Retaining Ring	Bearing	Roller	Shaft	Retaining Ring
TGRB	S45C Equivalent	S45C Equivalent	Spring Steel	Steel	Electroless Nickel Plating	Electroless Nickel Plating	-
TGRS	SUS304	SUS304	SUS304		-	-	-
TGRA	Aluminum Alloy	S45C	Spring Steel		Clear Anodize	Electroless Nickel Plating	-
TGRAU	A5052	SUS304	SUS304		Urethane Lining (Natural Color)	-	-
TGRSU	SUS304	SUS304	SUS304	-	-	-	

Core Only

Urethane Lined

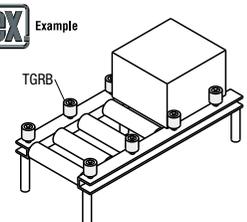
Please use these products for vertical applications.

Part Number Type	D	L Selection	N	d	l	C	B	r	m	n	dh	D1	F	M (Coarse)	W	Used Bearing	Retaining Ring Standards Shape JIS Nominal	Unit Price					
																		TGRB	TGRS	TGRA	TGRAU	TGRSU	
Core Only Urethane TGRB (S45C) TGRS (SUS304) TGRA (A5052)	20	25	10	6	9	10	8	5	2	0.7	10	15	5	6	8	696ZZ	E Type No.5						
		30																40	50				
	25	30		40	50	8	12	12	10	7	0.9	15	19	6	8	10	698ZZ	E Type No.7					
		40		50																			
	30	30		40	50	10	15	15	13	9.6	1.15	24	28	8	12	14	6001ZZ	C Type No.10					
		40		50																			
	35	20		25	30	12	18	18	14	11.5	24	32	10	12	14	6201ZZ	C Type No.12						
		25		30	40													50					
	40	20		25	30	12	18	18	14	11.5	24	32	10	12	14	6201ZZ	C Type No.12						
		25		30	40													50					
50	20	25	30	12	18	18	14	11.5	24	32	10	12	14	6201ZZ	C Type No.12								
	25	30	40													50							

Ordering Example: Part Number - L
TGRS30 - 30
TGRSU30 - 50

Alterations Example: Part Number - L - (NC)
TGRB25 - 30 - NC15

Alteration Code	Spec.
NC	Ordering Code NC15 NC=1mm Increment 5≤NC≤30 Dimensions other than N dim. will not change.



■ Use of oil free bushings instead of bearings accomplished lower cost and space savings.

Rollers with Oil Free Bushings

RoHS

Type	Roller		Oil Free Bushings
	Material	Surface Treatment	
FRTA	A5052	Clear Anodize	Filler Added PTFE Layer Sintered Bronze Layer Steel-backed Metal Layer (SPCC: Tin Plating)
FRTS	SUS304	-	
FRTAU	A5052	Urethane Lining (Natural Color) Shore A90	
FRTSU	SUS304	-	

Core Only

Urethane Lined

Bushing Details

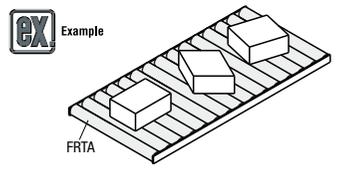
d	F	d1	H
3	+0.062	5	4.6
5	0	5	7
6	+0.065	8	8
8	0	10	10
10	0	10	12
12	+0.068	10	14
15	0	10	17
20	0	10	23

For L20, oil free bushing F dim. will be 10 or less.

Part Number Type	D	d (I.D.) Selection	L Selection	t	Unit Price			
					FRTA	FRTS	FRTAU	FRTSU
Core Only FRTA (A5052) FRTS (SUS304)	8	3	20' 25 30 40 50	0.8				
	10	5						
	12	5						
	15	6						
	18	8						
	20	8						
	25	10						
	30	10						
Urethane FRTAU (A5052) FRTSU (SUS304)	8	3	20' 25 30 40 50	1.0				
	10	5						
	12	5						
	15	6						
	18	8						
	20	8						
	25	10						
	30	10						

For Oil Free Bushing details, see P378. L20 cannot be selected for *d15.

Ordering Example: Part Number - d - L
FRTA10 - 5 - 30



■ Features: Can be used as a set with shaft collar shown on P.279, 281.

Urethane Rollers with Side Through Holes

RoHS

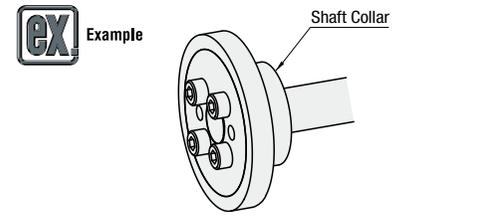
Type	Material		Hardness
	Core	Lining	
ULSH	A5052	Urethane	A90

Urethane is baked on the outer circumference of the core material.

Part Number Type	D	d Selection	L	T	P	P2	S	S2	Unit Price
	50	12	22	22	5.5	5.5			
	60	15	10		25	26	6.5	6.5	
	70	20			32	34			
	80	25			32	34	6.5	6.5	
					37	38			

Shaft collar shown on P.281 may not be installable depending on the B size.

Ordering Example: Part Number - D - d
ULSH - 40 - 10



Alterations Example: Part Number - D - d - (MC)
ULSH - 40 - 10 - MC

Alteration Code	Tapping
MC	Change S to tapped hole
	S M
	4.5 M4
	5.5 M5
	6.5 M6
	Ordering Code MC

End Feed Rollers

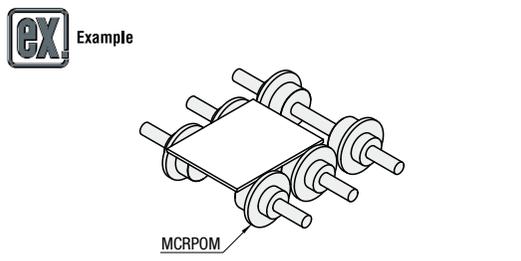
End Feed Rollers

RoHS

Type	Material	
	Core	Lining
MCRPOM	Polyacetal	
MCRUPE	UHMWPE	

Part Number Type	D	d	P	L	W	l	D1	M	Unit Price	
									MCRPOM	MCRUPE
MCRPOM MCRUPE	3-10	30	6 8 10 12	40 45 50 55 60	8	13-(P-D)/√3 (4.34-10.11)	d+20	4		
		35	6 8 10 12 15	45 50 55 60 65						
		40	8 10 12 15 20	50 55 60 65 70						
		45	10 12 15 20	55 60 65 70 75						
	10	50	12 15 20	60 65 70 75 80						
		55	15 20 30	65 70 75 80						
		60	15 20 30	70 75 80						

Ordering Example: Part Number - d - P - L
MCRPOM30 - 8 - 50 - 3



Urethane Rollers with Collars / Knurled Urethane Rollers

Set Screw Type

Urethane Rollers with Collars

Type	Material		Hardness
	Core	Lining	
UMC	Aluminum Alloy	Urethane (Natural Color)	Shore A90
UMCM			Shore A70
UMCL			Shore A50

Urethane is baked on the outer circumference of the core material.

L dims. tolerance is ± 0.3 when $D > 50$

* Secure to the shaft with Loctite adhesive.

Part Number	Type	D	d Selection	L Selection					t					
				5	10	15	20	25		30				
UMC (Shore A90) UMCM (Shore A70) UMCL (Shore A50)	10	3		5	10	15	20	25	30	2				
	12	3		5	10	15	20	25	30					
	13	4		5	10	15	20	25	30					
	15		5		5	10	15	20	25	30	3			
	16		5	6	5	10	15	20	25	30				
	20		5	6	8	10	15	20	25	30				
	25		6	8	10	10	15	20	25	30	40	50	4	
	30		8	10	12	15	10	15	20	25	30	40		50
	35		8	10	12	15	10	15	20	25	30	40		50
	40		8	10	12	15	10	15	20	25	30	40	50	5
	45		10	12	15	10	15	20	25	30	40	50		
	50		10	12	15	10	15	20	25	30	40	50		
	55		10	12	15	15	20	25	30	40	50			
	60		10	12	15	20	25	30	40	50				
	70		12	15	20	20	25	30	40	50				
	80		12	15	20	20	25	30	40	50				

Ordering Example: Part Number - d - L
UMC30 - 10 - 20

Alterations: Part Number - d - L - (HRC)
UMC30 - 10 - 20 - HRC
UMCL80 - 15 - 50 - MC

Alteration Code	Parallel Knuris	Tapping
HRC		MC
Spec.	Straight-line knurling is applied to roller surfaces.	Adds two M3 tapped holes at 90°. (Ordering Code) MC Applicable to D dim. 20 or more. Not available for t2

D	Unit Price																								
	UMC					UMCM					UMCL														
	L5	L10	L15	L20	L25	L30	L40	L50	L5	L10	L15	L20	L25	L30	L40	L50	L5	L10	L15	L20	L25	L30	L40	L50	
10																									
12																									
13																									
15																									
16																									
20																									
25																									
30																									
35																									
40																									
45																									
50																									
55																									
60																									
70																									
80																									

Knurled Urethane Rollers - Set Screw Type

Type	Material		Hardness
	Core	Lining	
UMKH	A5052	Urethane (Natural Color)	Shore A90
UMKM			Shore A70
UMKL			Shore A50

Urethane is baked on the outer circumference of the core material.

Part Number	Type	D	dh7	alpha	Number of Teeth	D1	D2	W	L	l	M	Unit Price		
												UMKH	UMKM	UMKL
UMKH (Shore A90)	15	4	5	10	36	8	8							
	20	4	5	7.5	48	10		10	20	5	M3			
UMKM (Shore A70)	25		6	6	60	12	15	15	25					
	30		8	5	72									
UMKL (Shore A50)	40		8	3.75	96	16	20	20	35	7.5	M4			
	50		8	3	120	18	22							

Ordering Example: Part Number - d
UMKM25 - 6

Bearing Integrated Urethane Rollers / Urethane Rollers / Knurled Urethane Rollers

Set Screw Type

Features: Economical Urethane Rollers with bearings directly adhesive bonded.

Bearing Integrated Urethane Rollers

UMJ

Material: Bearing: Steel
Urethane Roller: Polyurethane (Natural Color)
Hardness: Shore A90

Part Number	Type	D	L Selection (10 mm Increment)	d	D1	dh	B	Bearing Used	Unit Price													
									L20	L30	L40	L50	L60	L70	L80	L90	L100					
UMJ	20		20~100	6	15	10	5	696ZZx2														
	25			6	15	10	5	696ZZx2														
	30			8	19	15	6	698ZZx2														
	35		30~100	10	22	18	6	6900ZZx2														
	40			12	28	24	8	6001ZZx2														
	50			15	32	28	9	6002ZZx2														

Ordering Example: Part Number - L
UMJ30 - 30

Urethane Rollers - Set Screw Type

Type	Material		Hardness
	Core	Lining	
UMHSH	SUS304	Urethane	Shore A90
UMHS			Shore A70
UMHSL			Shore A50
UMHAH	Aluminum Alloy	Urethane	Shore A90
UMHA			Shore A70
UMHAL			Shore A50

Urethane is baked on the outer circumference of the core material.

Part Number	Type	No.	D	d	D1	D2	W	L	l	M	Unit Price					
											UMHSH	UMHS	UMHSL	UMHAH	UMHA	UMHAL
Stainless Steel UMHSH (Shore A90) UMHS (Shore A70) UMHSL (Shore A50)	15	4	15	4	10	-	6	12	3	3						
	15-5	5														
	20	4	20	4	16	-	6	12	3	3						
	20-5	5														
	25	6	25	6	16	20	8	20	6	3						
	25-8	8														
Aluminum UMHAH (Shore A90) UMHA (Shore A70) UMHAL (Shore A50)	30	6	30	6	16	24	8	20	6	3						
	30-8	8														
	35	8	35	8	20	28	10	25	7.5	4						
	35-10	10														
	40	8	40	8	25	36	10	25	7.5	4						
	40-10	10														
50	10	50	10	30	42	10	25	7.5	4							
50-12	12															

Knurled Urethane Rollers

ULCV

Material: Polyurethane (Natural Color)
Hardness: Shore A50

Part Number	Type	D	L Selection	d Selection	alpha	Number of Teeth	Unit Price			
							L6	L10	L15	L20
ULCV (Shore A50)	15	6	10	8	12	30				
	20		10	8	9	40				
	25		10	8	7.2	50				
	30		10	8	6	60				

Ordering Example: Part Number - L - d
UMHS15 ULCV20 - 10 - 8

Belt Tensioners - Screw Type

■Features: It is the tensioner for roller and idler. It can be easily installed and adjusted by spanner or wrench.



RoHS

Components	Bearing Block	Spacer Block	Chassis	Adjusting Bolt	Stopper Bolt
Material	SS400	SS400	SPH	S45C	SUS304 Equivalent
Surface Treatment	Electroless Nickel Plating				
Components	T-Nut	Dowel Pin	Hex Socket Flat Head Cap Screw	Metal Washer	Hexagon Socket Set Screw
Material	SS400	SUJ2	SUS304 Equivalent	S45C	SUS304 Equivalent
Surface Treatment	Trivalent Bright Chromate Plating	-	-	Electroless Nickel Plating	-

•RONAJ10, 12, 15

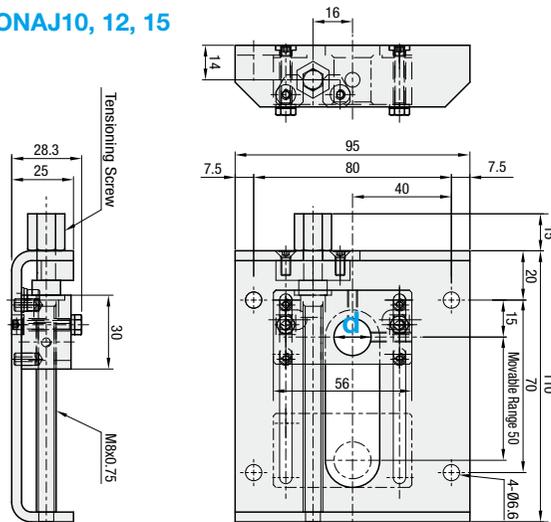
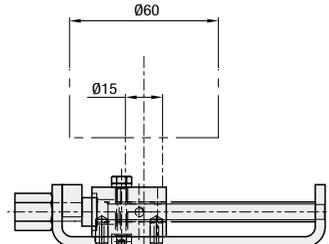


Diagram of mounting state of Ø60 Roller



Recommended Rollers
 P-1142 RORSPA60-15

Part Number	Unit Price	
TYPE	d	1~10 pcs.
RONAJ	10	
	12	
	15	

For orders larger than indicated quantity, please check with WOS.

•RONAJ20, 25, 30

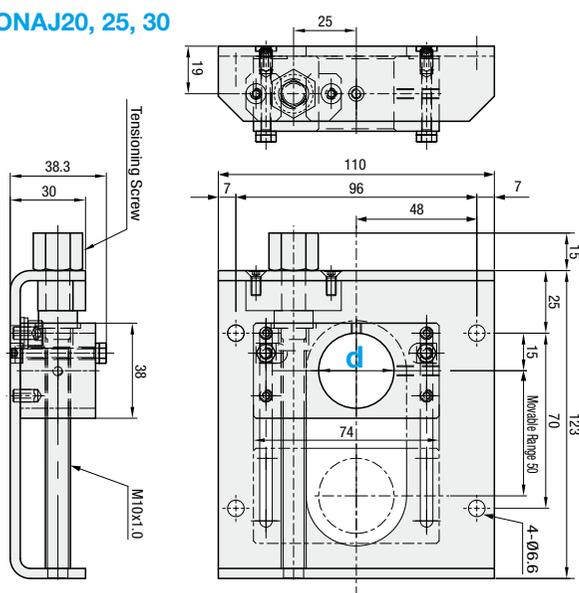
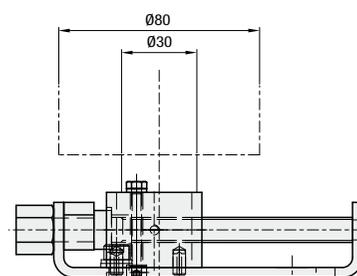


Diagram of mounting state of Ø80 Roller

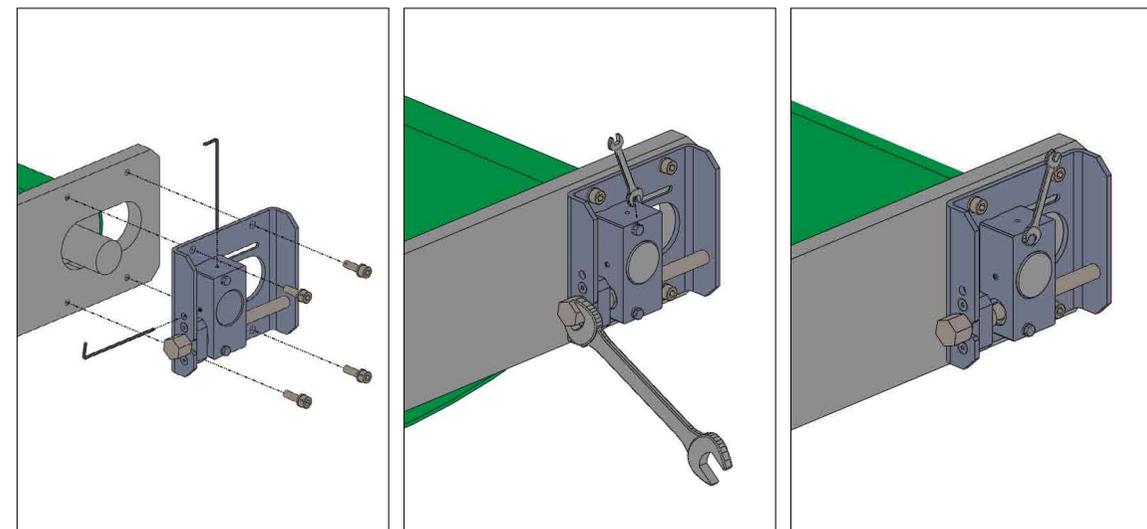


Recommended Rollers
 P-1142 ROSPA80-30

Part Number	Unit Price	
TYPE	d	1~10 pcs.
RONAJ	20	
	25	
	30	

For orders larger than indicated quantity, please check with WOS.

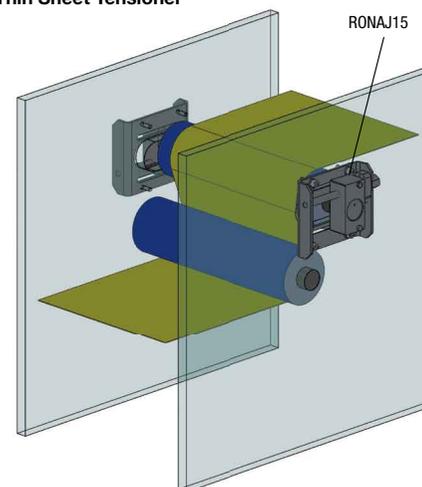
How to Mount



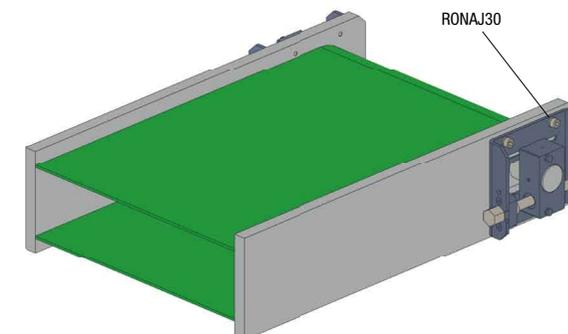
1. Mount the main body on the chassis. Mount the Roller (Idler).
2. Loosen the fixing nut, and adjust the tensioner with Hex Head Stud.
3. Tighten the fixing nut at the desired position and thereby fix the position.



• Thin Sheet Tensioner



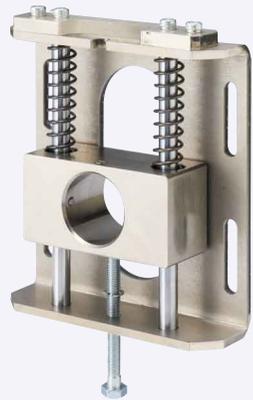
• Flat Belt Tensioner



Ordering Example
 Part Number
RONAJ 30

Belt Tensioners - Spring-Loaded

■Features: It is the auto-tensioner for roller and idler. It can be easily installed and adjusted by spanner or wrench.



RoHS

Components	Bearing Block	Mounting Plate	Chassis	Adjusting Screw	Shaft
Material	SS400	SPH	SPH	SUS304 Equivalent	SUJ2
Surface Treatment	Electroless Nickel Plating			-	Hard Chrome Plating

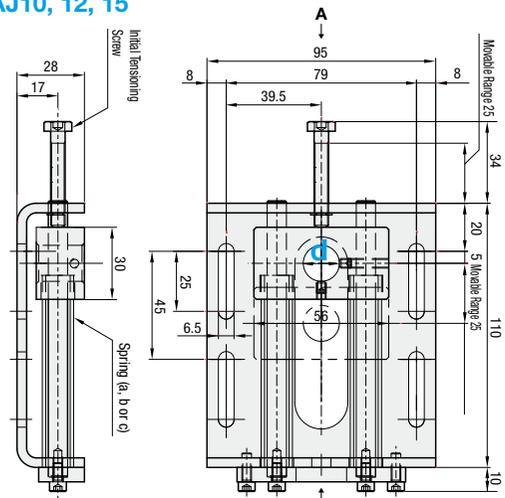
Components	Bolt	Retaining Ring	Spring	Set Screw
Material	SCM435	Spring Steel	SWP-A	SUS304 Equivalent
Surface Treatment	Trivalent Chromate			-

* 3 types of Springs are included in the shipment.

a: WL13-80	b: WT13-80	c: WM13-80
(Spring Constant: 1.0N/mm)	(Spring Constant: 2.0N/mm)	(Spring Constant: 2.9N/mm)
Fmax 32mm	Fmax 32mm	Fmax 32mm
Set Deflection Amount 25mm	Set Deflection Amount 25mm	Set Deflection Amount 25mm
1.0x25x2 (pcs.)	2.0x25x2 (pcs.)	2.9x25x2 (pcs.)
=50N/9.8=5.1kg	=50N/9.8=10.2kg	=145N/9.8=14.8kg

☝ For other Spring details, see P2-345.

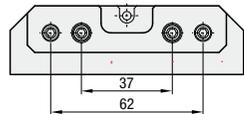
•ROBAJ10, 12, 15



Arrow View A



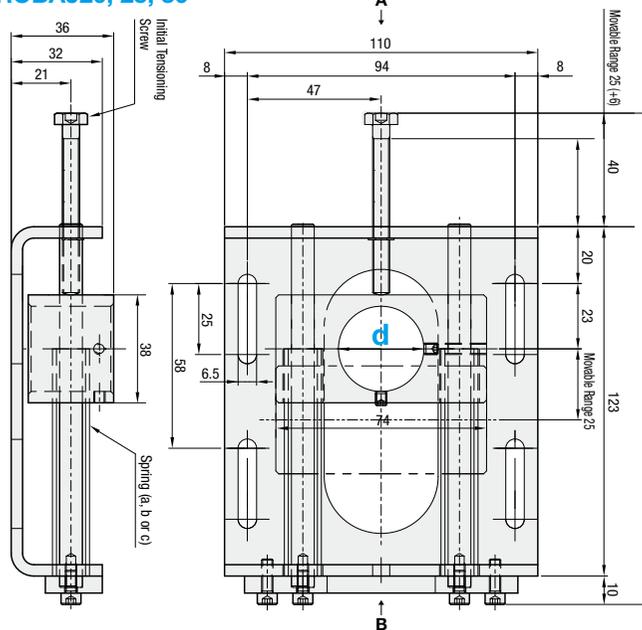
Arrow View B



Part Number	Unit Price
TYPE	d
ROBAJ	10
	12
	15

☝ For orders larger than indicated quantity, please check with WOS.

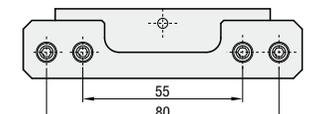
•ROBAJ20, 25, 30



Arrow View A



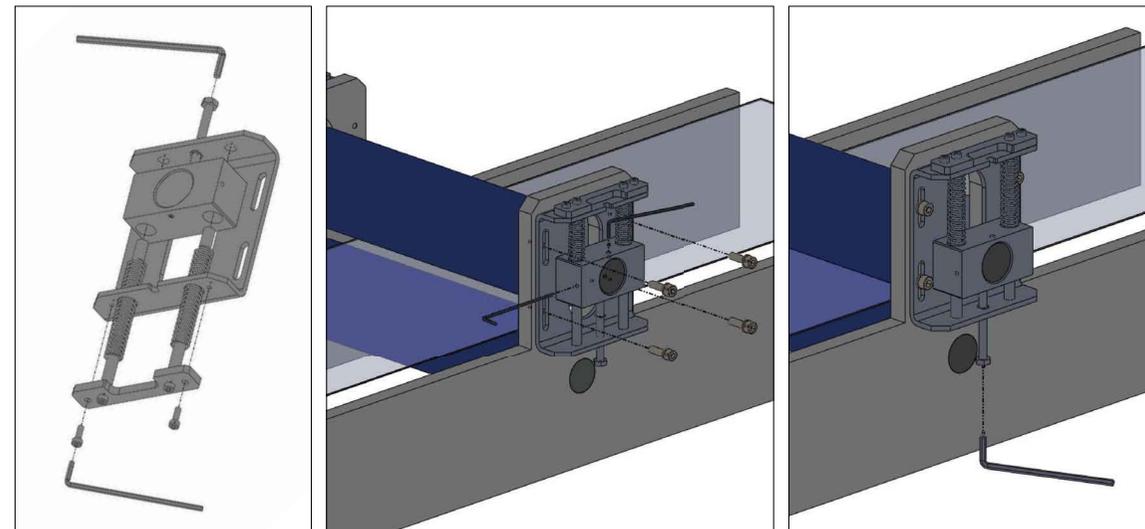
Arrow View B



Part Number	Unit Price
TYPE	d
ROBAJ	20
	25
	30

☝ For orders larger than indicated quantity, please check with WOS.

How to Mount

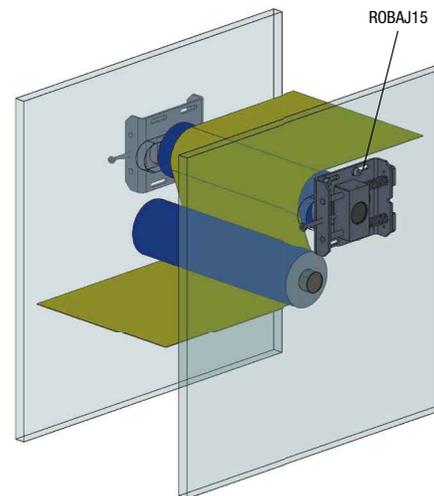


1. Select the required spring force and mount the spring. Adjust the amount of deflection with the adjustment screw.
2. Mount the Roller (Idler) and temporarily fasten the main body on the chassis.
3. Apply tension to the Roller (Idler), and tightly mount the main body. Loosen the bolt.

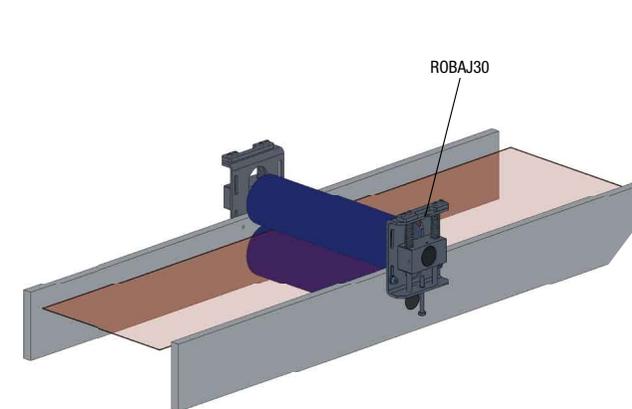


Example

• Belt Auto Tensioner



• Thin Plate Presser



Ordering Example

Part Number
ROBAJ 30

Rollers

Urethane Thickness Selectable

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

■ **Features:** As part of the Catalog Standard Extension, the upper limit for L dim. is enlarged from 100mm to 200mm.

Type			Material		Hardness	Bearing
No Bearing	With Bearings		Core	Lining		
ROEUHS	ROERUHS	-	SUS304	-	Shore A95	Steel
ROEUHA	ROERUHA	-	Aluminum Alloy	-		
ROEUS	ROERUS	ROECRUS	SUS304	-	Shore A90	Steel
ROEUA	ROERUA	ROECRUA	Aluminum Alloy	Urethane (Natural Color)		
ROEGS	ROERGS	ROECRGA	SUS304	-	Shore A70	Steel
ROEGA	ROERGA	ROECRHA	Aluminum Alloy	SUS304		
-	ROERHS	ROECRHA	Aluminum Alloy	-	Shore A50	-

☞ When L ≤ dx3, hole d is machined from the same direction.

☞ When L > dx3, hole d is machined from both ends as shown below. There may be no relief in some cases.

☞ Urethane is baked on the outer circumference of the core material.

6.3 / (25 / 1.6 /)

■ **No Bearing Type**

Part Number	D	dh7 Selection	L 10mm Increment	T Selection	
Straight ROEUHS ROEUHA ROEUS ROEUA ROEGS ROEGA	20	8	20-100	5	
	25	8 10 12			
	30	8 10 12 15			
	35	8 10 12 15	20-150		
	40	8 10 12 15			
	50	10 12 15 20			
	60	12 15 20 25	30-200 30-150 when ds ≤ 15		10
	80	15 20 25 30			
	100	20 25 30 40			

■ **With Bearings**

Part Number	D	d Selection	L 10mm Increment	T Selection	D1	dh	B	Bearing Used
Straight ROERUHS ROERUHA ROERUS ROERUA ROERGS ROERGA ROERHS ROERHA	40	8	20-200	5	19	15	6	698ZZx2
		10			22	18	6	6900ZZx2
		12			22	18	6	6900ZZx2
	50	12			28	24	8	6001ZZx2
		15			32	28	9	6002ZZx2
		12			28	24	8	6001ZZx2
	60	15			32	28	9	6002ZZx2
		20			42	36	12	6004ZZx2
		15			32	28	9	6002ZZx2
	80	20			42	36	12	6004ZZx2
25		47	41	12	6005ZZx2			
20		42	36	12	6004ZZx2			
100	25	47	41	12	6005ZZx2			
	30	55	48	13	6006ZZx2			

☞ For Crowned Type, L ≤ 100 ☞ For details for Bearings, see **P.1017**.

D	L	Unit Price					
		ROEUHS	ROEUHA	ROEUS	ROEUA	ROEGS	ROEGA
20	20						
	30, 40, 50						
	60-100						
25	20						
	30, 40, 50						
	60-100						
30	20						
	30, 40, 50						
	60-100						
	110-150						
35	20						
	30, 40, 50						
	60-100						
	110-150						
40	20						
	30, 40, 50						
	60-100						
	110-150						
50	20						
	30, 40, 50						
	60-100						
	110-150						
60	20						
	30, 40, 50						
	60-100						
	110-150						
80	20						
	30, 40, 50						
	60-100						
	110-150						
100	20						
	30, 40, 50						
	60-100						
	110-150						

D	L	Unit Price							
		ROERUHS	ROERUHA	ROERUS	ROERUA	ROERGS	ROERGA	ROERHS	ROERHA
20	20								
	30, 40, 50								
	60-100								
40	20								
	30, 40, 50								
	60-100								
50	20								
	30, 40, 50								
	60-100								
60	20								
	30, 40, 50								
	60-100								
80	20								
	30, 40, 50								
	60-100								
100	20								
	30, 40, 50								
	60-100								

D	L	Unit Price			
		ROECRUS	ROECRUA	ROECRGA	ROECRHA
40	20				
	30, 40, 50				
	60-100				
50	20				
	30, 40, 50				
	60-100				
60	20				
	30, 40, 50				
	60-100				
80	20				
	30, 40, 50				
	60-100				
100	20				
	30, 40, 50				
	60-100				

☞ Urethane may discolor over time, but there is no effect on physical properties.

Ordering Example: Part Number - d - L - T
ROEUS60 - 20 - 50 - T5

Alterations: Part Number - d - L - T - (MC)
ROEUAS0 - 12 - 50 - T5 - MC

Alteration Code Tapping MC

Spec. Adds 2 tapped holes at 90°.

D	M
35, 40	4
50, 60, 80	5
100	6

Ordering Code: MC

☞ Applicable to "No Bearing" Type only.