

**KOGANEI**

**ACTUATORS GENERAL CATALOG**



# **RUBBER HANDS**

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Not for export to U.S.A. for sales.

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Koganei's rubber hands  
which fit like a glove and  
hold extremely well!

*Koganei's high function pneumatic type  
rubber hand is soft in the way it works  
and firmly grips with a wide contact area.*

# RUBBER HANDS

For many types of work, it grips wide contact surfaces gently, and is a new type of pneumatic holder. Use it for many fields of FA as a device you cannot be without, for not just taking out the parts, loading, moving and inserting the work, but also for sealing and stopping.

## Pick type which outward inflates

The hollow cylindrical rubber part inflates like the doughnut type and softly contacts a wide area without damaging the part, and holds it firmly.

■ Air pressure 0MPa {0kgf/cm<sup>2</sup>}



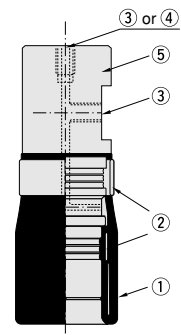
■ Air pressure 0.15MPa {1.5kgf/cm<sup>2</sup>}



■ Air pressure 0.3MPa {3.0kgf/cm<sup>2</sup>}



### Inner construction and parts



- ① Rubber
- ② Tightening ring
- ③ Supply, exhaust port
- ④ Mounting thread
- ⑤ Body

※The inner construction might be different according to the type.

## Grip type which inflates internally

The hollow doughnut shape rubber part inflates internally and contacts a wide area softly, so the part is not damaged, and it holds it firmly.

■ Air pressure 0MPa {0kgf/cm<sup>2</sup>}



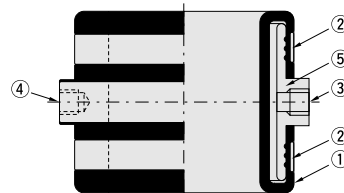
■ Air pressure 0.05MPa {0.5kgf/cm<sup>2</sup>}



■ Air pressure 0.1MPa {1.0kgf/cm<sup>2</sup>}



### Inner construction and parts



- ① Rubber
- ② Tightening ring
- ③ Supply, exhaust port
- ④ Mounting thread
- ⑤ Body

※The inner construction might be different according to the type.

## Pick Type

### ●RBP□RCA

The rubber section is reinforced with radial nylon string.  
This is suitable for holding or handling the part whose inner diameter is small to medium size or is of medium weight.

### ●RBP□TCA

The rubber section is reinforced with bias nylon string.  
This is suitable for holding or handling the part whose inner diameter is large or whose weight is heavy.



## Specifications and Order Code

Order code	Applicable inner diameter of the part (mm)	Recommended load mass <sup>Note</sup> (g)	Media	Maximum operating air pressure (MPa)	Proof pressure (MPa)	Operating temperature range (°C)	Lubrication	Construction of the rubber section	Body materials	Product mass (g)		
RBP006RCA	φ 8.5~10	300	Air	0.40	0.60	0~50	Not allowed (It is not possible to use under mineral oil atmosphere.)	Radial with string (Chloroprene rubber)	Stainless steel	8		
RBP007RCA	φ 10~12	300								12		
RBP009RCA	φ 12~17	1300								17		
RBP010RCA	φ 16~21	2000							Free-cutting steel (Plated)	28		
RBP014RCA	φ 21~27	2500								60		
RBP017RCA	φ 24~32	3000		0.50	0.75					Bias with string (Chloroprene rubber)	Aluminum	85
RBP019RCA	φ 28~36	3500										105
RBP022RCA	φ 30~44	6000										160
RBP025RCA	φ 32~52	9000										245
RBP035TCA	φ 45~65	12000										180
RBP045TCA	φ 58~85	22000	370									
RBP055TCA	φ 70~105	28000	610									

Note: The recommended load mass shows the case where the inner diameter of the application part is the maximum value. (The load mass increases as the inner diameter of the part becomes smaller.)

## Grip Type

### ●RBG□GCA

The part is securely held softly from the outside.  
This is best for handling parts without an opening, or which has a small opening and is not easily gripped from the inside.



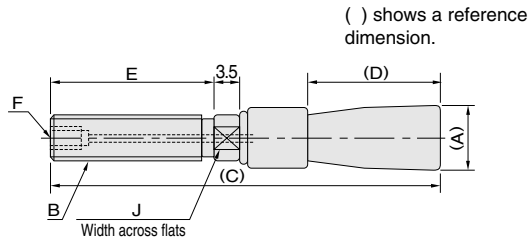
## Specifications and Order Code

Order code	Applicable outer diameter of the part (mm)	Recommended load mass <sup>Note</sup> (g)	Media	Maximum operating air pressure (MPa)	Proof pressure (MPa)	Operating temperature range (°C)	Lubrication	Construction of the rubber section	Body materials	Product mass (g)
RBG020GCA	φ 5~15	1400	Air	0.15	0.20	0~50	Not allowed (It is not possible to use under mineral oil atmosphere.)	Whole rubber (Chloroprene rubber)	Aluminum	60
RBG030GCA	φ 10~25	3800								145
RBG040GCA	φ 15~35	9000								210
RBG050GCA	φ 20~45	9000								285

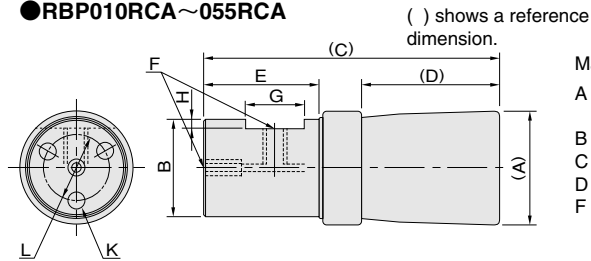
Note: The recommended load mass shows the case where the outer diameter of the application part is the minimum value. (The load mass increases as the outer diameter of the part becomes larger.)

## Dimensions of Pick Type (Unit mm)

### ●RBP006RCA~009RCA



### ●RBP010RCA~055RCA

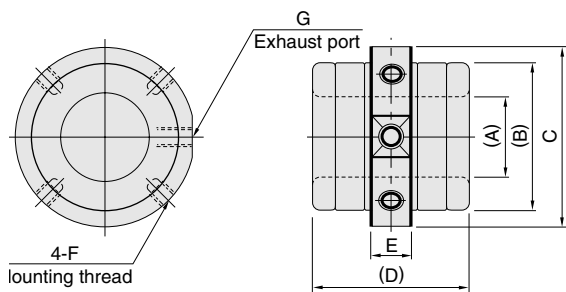


Major parts

- A : Rubber part outer diameter
- B : Outer diameter of body
- C : Total length
- D : Rubber length
- F : Exhaust port size

Model	Code	(A)	B	(C)	(D)	E	F	G	H	J	K	L		
RBP006RCA		φ 8	M6×1	51	17.5	21	M3×0.5	—	—	5	—	—		
RBP007RCA		φ 9.5	M6×1	51	17.5	21	M3×0.5			6				
RBP009RCA		φ 11	M8×1.25	51	17.5	21	M5×0.8			8				
RBP010RCA		φ 14	φ 10	52	21	22	M5×0.8	12	2	—	—	—		
RBP014RCA		φ 19	φ 14	56	22	22	M5×0.8							
RBP017RCA		φ 22	φ 17	56	22	22	M5×0.8							
RBP019RCA		φ 25	φ 19	55	22	22	M5×0.8							
RBP022RCA		φ 27	φ 22	64	28	25	M5×0.8	14	—	—	—	—		
RBP025RCA		φ 29	φ 25	76	34	30	M5×0.8	15					2.5	
RBP035TCA		φ 41	φ 34	71	42	17.5	M6×1·Rc1/8	—	—	—	—	—		
RBP045TCA		φ 51	φ 44	90	52	26	M6×1	18	3				3-M6×1	φ 32
RBP055TCA		φ 63	φ 54	101	53	35	M6×1	20					3-M6×1	φ 40

## Dimensions of Grip Type (Unit mm)



Major parts

- A : Rubber part inner diameter
- B : Rubber part outer diameter
- C : Maximum diameter (Flange is included.)
- D : Height (Flange is included.)
- E : Height of flange
- F : Mounting thread size
- G : Exhaust port size

( ) shows a reference dimension.

Model	Code	(A)	(B)	C	(D)	E	F	G
RBG020GCA		φ 19	φ 33	φ 40	36	10	M5×0.8	M5×0.8
RBG030GCA		φ 27	φ 48	φ 60	48	13	M6×1	M6×1
RBG040GCA		φ 37	φ 58	φ 70	52	14	M6×1	M6×1
RBG050GCA		φ 48	φ 69	φ 80	56	15	M8×1.25	Rc1/8



### WARNING

- The rubber hand wears out, so as it ages (refer to the rubber hand replacing period), replace it with a new one.
- Do not use the rubber hand for the purpose of absorbing shocks or vibrations of the equipment. It may get damaged causing injury or damage to the equipment.

## Handling Instructions, and Precautions

### Pick type

1. Check for any outside damage on the rubber part before using.
2. Do not hit the rubber part with a sharp object, and do not apply shocks.
3. Prior to using the product, and before using it again after not using it for a long time, test by supplying and exhausting the air a few times.
4. Do not leave it for a long time unused with air inside.
5. Avoid storing in places with direct sunshine or moisture.
6. Do not inflate it frequently in a load free state because this may cause early failure of the product.
7. The product wears out, so as it ages, replace it with a new one.
8. When gripping, if there is any oil or moisture between the part and the rubber, the friction force may suddenly be reduced to cause the gripping force to decrease, so caution is advised.
9. Air should be supplied after passing it through a pressure reducing valve, a filter or an oil removal filter, and should be used at less than maximum operating pressure. If used at high pressure, or if there is oil or moisture contained in the air, it may reduce its life.
10. Use in excess of the applicable part inner diameter range may cause early failure of the product.
11. Additional machining to the body by the customer might damage the rubber part, and could cause early failure of the product.
12. Plugged with sealant at unused female thread on exhaust ports.

### Grip type

1. Check for any outside damage, etc. to the rubber part before using.
2. Do not hit the rubber part with a sharp object, and do not apply shocks.
3. Prior to using the product, and before using it again after not using it for a long time, test by supplying and exhausting the air a few times.
4. Do not leave it for a long time unused with air inside.
5. Avoid storing in places with direct sunshine or moisture.
6. Do not inflate it frequently in a load free state because this may cause early failure of the product.
7. The product wears out, so as it ages, replace it with a new one.
8. When gripping, if there is any oil or moisture between the part and the rubber, the friction force may suddenly be decreased to cause the gripping power to reduce, so caution is advised.
9. Air should be supplied after passing it through a pressure reducing valve, a filter or an oil removal filter, and should be used at less than maximum operating pressure. If used at high pressure, or if there is oil or moisture contained in the air, it may reduce its life.
10. Additional machining to the body by the customer might damage the rubber part, and may cause early failure of the product.

### Rubber hand replacing period

As the rubber hand reaches the end of its life, the following phenomena can be seen. These phenomena will differ depending on the conditions of use (use environment, operating purpose, gripping conditions, etc.), so make regular inspections and replace quickly.

- ① The string is exposed due to wear of the rubber part (pick type).
- ② Cracks appear in the rubber part.
- ③ When inflated, unevenness between the threads appears (pick type).
- ④ Inserting the part becomes difficult.
- ⑤ It takes time to exhaust.<sup>Note</sup>
- ⑥ Inflating the rubber part gets bad.<sup>Note</sup>

Note: The phenomena ⑤ and ⑥ above can be caused by blockages or air leakage in the piping, so the piping should be checked if these phenomena occur.