Koganei's rubber hand fits like a glove and holds extremely well!

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

RUBBER HANDS

For many types of workpieces, these grip wide contact surfaces gently and are a new type of pneumatic holder. Use these for many fields of FA, not just for taking out the workpieces, loading, transferring and inserting the workpieces, but also for sealing and stopping. These are devices you cannot work without.

Pick type that inflates outward

The hollow cylindrical rubber portion inflates like the doughnut shape and gently and firmly contacts a wide area without damaging the workpiece.

■ Air pressure 0MPa [0psi.]



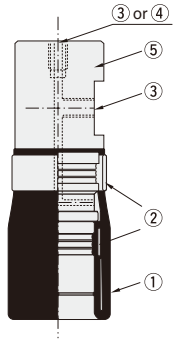
■ Air pressure 0.15MPa [22psi.]



■ Air pressure 0.3MPa [44psi.]



Inner construction and parts



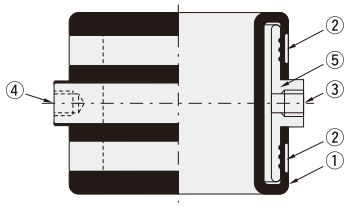
① Rubber
② Clamping band
③ Supply/exhaust port
④ Mounting thread
⑤ Body

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

Grip type that inflates inward

The hollow doughnut shape rubber portion inflates internally and gently contacts a wide area and firmly holds without damaging the workpiece.

Inner construction and parts



① Rubber
② Clamping band
③ Supply/exhaust port
④ Mounting thread
⑤ Body

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

■ Air pressure 0MPa [0psi.]



■ Air pressure 0.05MPa [7psi.]



■ Air pressure 0.1MPa [15psi.]



Pick Type



●RBP□RCA

The rubber portion is reinforced with radial nylon cords. This type is suitable for holding or handling the workpiece whose inner diameter is small to medium-size or whose weight is medium.

●RBP□TCA

The rubber portion is reinforced with bias nylon cords. This type is suitable for holding or handling the workpiece whose inner diameter is large or whose weight is heavy.

Specifications

Order codes	Applicable inner diameter of the workpiece (mm [in.])	Recommended load mass Note (g [oz.])	Media	Maximum operating air pressure (MPa [psi.])	Proof pressure (MPa [psi.])	Operating temperature range (°C [°F])	Lubrication	Construction of the rubber portion	Body materials	Product mass (g [oz.])
RBP006RCA	φ8.5～10 [0.335～0.39]	300 [10.6]	Air	0.40 [58]	0.60 [87]	0～50 [32～122]	Prohibited (It is not possible to use under mineral oil atmosphere, etc.)	Radial cords construction (Chloroprene rubber)	Stainless steel	8 [0.28]
RBP007RCA	φ10～12 [0.39～0.47]	300 [10.6]								12 [0.42]
RBP009RCA	φ12～17 [0.47～0.67]	1300 [45.9]								17 [0.60]
RBP010RCA	φ16～21 [0.63～0.83]	2000 [70.5]							Free-cutting steel (Plated)	28 [0.99]
RBP014RCA	φ21～27 [0.83～1.06]	2500 [88.2]		0.50 [73]	0.75 [109]					60 [2.12]
RBP017RCA	φ24～32 [0.94～1.26]	3000 [105.8]								85 [3.00]
RBP019RCA	φ28～36 [1.10～1.42]	3500 [123.5]								105 [3.70]
RBP022RCA	φ30～44 [1.18～1.73]	6000 [211.6]								160 [5.64]
RBP025RCA	φ32～52 [1.26～2.05]	9000 [317.5]								245 [8.64]
RBP035TCA	φ45～65 [1.77～2.56]	12000 [423.3]						Bias cords construction (Chloroprene rubber)	Aluminum	180 [6.35]
RBP045TCA	φ58～85 [2.28～3.35]	22000 [776.0]								370 [13.05]
RBP055TCA	φ70～105 [2.76～4.13]	28000 [987.7]								610 [21.52]

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

Grip Type



●RBG□GCA

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

Specifications

Order codes	Applicable outer diameter of the workpiece (mm [in.])	Recommended load mass Note (g [oz.])	Media	Maximum operating air pressure (MPa [psi.])	Proof pressure (MPa [psi.])	Operating temperature range (°C [°F])	Lubrication	Construction of the rubber portion	Body material	Product mass (g [oz.])
RBG020GCA	φ5～15 [0.20～0.59]	1400 [49.4]	Air	0.15 [22]	0.20 [29]	0～50 [32～122]	Prohibited (It is not possible to use under mineral oil atmosphere, etc.)	Whole rubber (Chloroprene rubber)	Aluminum	60 [2.12]
RBG030GCA	φ10～25 [0.39～0.98]	3800 [134.0]								145 [5.11]
RBG040GCA	φ15～35 [0.59～1.38]	9000 [317.5]								210 [7.41]
RBG050GCA	φ20～45 [0.79～1.77]	9000 [317.5]								285 [10.05]

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

Pick type

1. Check for any damage on outside, etc., on the rubber portion before using.
2. Do not let the rubber portion come into contact with sharp objects 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 sunlight 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 in good time.
8. When gripping, if there is any oil or water (any substance that reduces friction) between the workpiece and the rubber, the friction force will sharply be decreased to cause the gripping force to reduce, and caution is advised.
9. Air should be supplied after passing it through a pressure reducing valve, a filter, or an oil mist removal filter, and it should be used at or less than the maximum operating pressure. If used at high pressure, or if there is oil or moisture contained in the air, it may reduce its operating life.
10. Use in excess of the applicable workpiece inner diameter range may cause early failure of the product.
11. Additional machining to the product body by the customer might damage the rubber portion, and it will cause early failure of the product.
12. Block with a sealant coated plug at unused female thread on supply/exhaust ports.

Grip type

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2. Do not let the rubber portion come into contact with sharp objects and do not apply shocks.
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8. When gripping, if there is any oil or water (any substance that reduces friction) between the workpiece and the rubber, the friction force will sharply be decreased to cause the gripping power to reduce, and caution is advised.
9. Air should be supplied after passing it through a pressure reducing valve, a filter, or an oil mist removal filter, and it should be used at or less than the maximum operating pressure. If used at high pressure, or if there is oil or moisture contained in the air, it may reduce its operating life.
10. Additional machining to the product body by the customer might damage the rubber portion, and it will 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 operating conditions (using environment, operating purpose, gripping conditions, etc.), therefore make regular inspections and replace it soon.

① The cords are exposed due to wear of the rubber part (pick type).
② Cracks appear in the rubber portion.
③ When inflated, unevenness between the cords appears (pick type).
④ Inserting of the workpiece becomes difficult.
⑤ It takes time to exhaust.Note
⑥ Inflating the rubber portion becomes difficult.Note

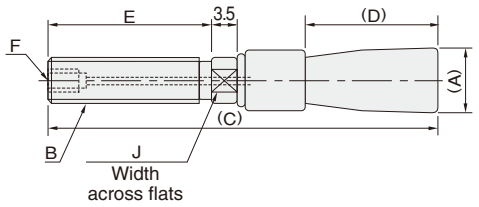
Note: The phenomena ⑤ and ⑥ above can be caused by clogging or air leakage in the piping, therefore the piping should also be checked if these phenomena occur.

Dimensions of Pick Type (mm)

RBP06RCA～RBP025RCA：RBP-RCA
RBP035TCA～RBP055TCA：RBP-TCA

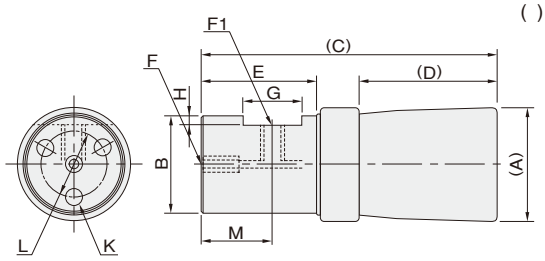
●RBP006RCA～009RCA

( ) show reference dimensions.



●RBP010RCA～055TCA

( ) show reference dimensions.

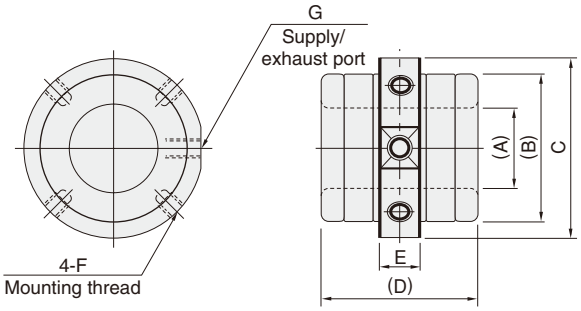


Major parts
A : Rubber portion outer diameter
B : Outer diameter of the body
C : Total length
D : Rubber length
F : Supply/exhaust port size

Code / Model	(A)	B	(C)	(D)	E	F	F1	G	H	J	K	L	M
RBP006RCA	ϕ8	M6×1	51	17.5	21	M3×0.5 Depth4	—	—	—	5	—	—	—
RBP007RCA	ϕ9.5	M6×1	51	17.5	21	M3×0.5 Depth4				6			—
RBP009RCA	ϕ11	M8×1.25	51	17.5	21	M5×0.8 Depth6				8			—
RBP010RCA	ϕ14	ϕ10	52	21	22	M5×0.8 Depth8	M5×0.8 Depth1.5	12	2	—			14
RBP014RCA	ϕ19	ϕ14	56	22	22	M5×0.8 Depth8	M5×0.8 Depth3.5						14
RBP017RCA	ϕ22	ϕ17	56	22	22	M5×0.8 Depth8	M5×0.8 Depth5						14
RBP019RCA	ϕ25	ϕ19	55	22	22	M5×0.8 Depth8	M5×0.8 Depth6						14
RBP022RCA	ϕ27	ϕ22	64	28	25	M5×0.8 Depth8	M5×0.8 Depth7	14					15
RBP025RCA	ϕ29	ϕ25	76	34	30	M5×0.8 Depth8	M5×0.8 Depth8	15	2.5				18.5
RBP035TCA	ϕ41	ϕ34	71	42	17.5	M6×1 Depth9	Rc1/8	—	—				12
RBP045TCA	ϕ51	ϕ44	90	52	26	M6×1 Depth6	M6×1 Depth8	18	3		3-M6×1	ϕ32	13
RBP055TCA	ϕ63	ϕ54	101	53	35	M6×1 Depth10	M6×1 Depth10	20			3-M6×1	ϕ40	15

Dimensions of Grip Type (mm)

RBG020GCA～RBG050GCA：RBG



( ) show reference dimensions.

Major parts
A : Rubber portion inner diameter
B : Rubber portion outer diameter
C : Maximum diameter (Flange is included.)
D : Height (Flange is included.)
E : Height of the flange
F : Mounting thread size
G : Supply/exhaust port size

Code / Model	(A)	(B)	C	(D)	E	F	G
RBG020GCA	ϕ19	ϕ33	ϕ40	36	10	M5×0.8	M5×0.8
RBG030GCA	ϕ27	ϕ48	ϕ60	48	13	M6×1	M6×1
RBG040GCA	ϕ37	ϕ58	ϕ70	52	14	M6×1	M6×1
RBG050GCA	ϕ48	ϕ69	ϕ80	56	15	M8×1.25	Rc1/8