

# Shock Absorber

## Series *RB/RBL/RBQ*

### Absorbing impact and noise

Dampening to meet the high speed requirements of the modern world.

**Shock absorber: Series RB**  
**Coolant resistant type: Series RBL**

**Usable without a stopper nut**  
 The strong body can be positioned directly.

**Short type: Series RBQ**

**A compact style that has been shortened lengthwise**

**Allowable eccentric angle is 5°**  
 Suitable for absorption of rotation energy.

**Usable without a stopper nut**  
 The strong body can be positioned directly.

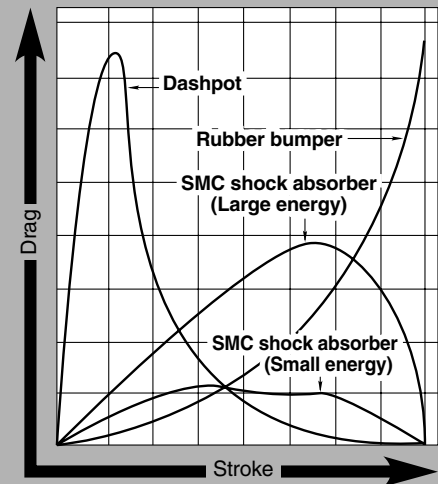


### Shock absorber

**Automatic adjustment to the most appropriate absorption performance**

Specially designed orifice can absorb energy comprehensively and most appropriately in many different applications. This ranges from high speed low loads, to load speed high loads; without requiring additional adjustment of the shock absorber.

Example of comparison for drag characteristics



\* Drag waveform will vary depending on the operating conditions.

### Series Variations

Series	Basic type	With cap or bumper (Option)	Hexagon nut *	Stopper nut (Option)	Foot bracket	Page
<b>Series RB</b> 	Series RB	●	●	●	●	18-10-2
<b>Coolant resistant Series RBL</b> (Except 08 type)		●	●	●	●	18-10-8
<b>Series RBQ</b> 	Series RBQ	●	●	●		18-10-10

\* 2 Hexagon nuts are attached for Series RB and standard models RBQ.

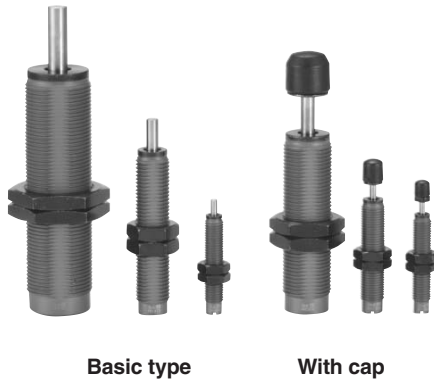
- RE<sup>A</sup><sub>B</sub>
- REC
- C□X
- C□Y
- MQ<sup>Q</sup><sub>M</sub>
- RHC
- MK(2)
- RS<sup>Q</sup><sub>G</sub>
- RS<sup>H</sup><sub>A</sub>
- RZQ
- MI<sup>W</sup><sub>S</sub>
- CEP1
- CE1
- CE2
- ML2B
- C<sup>J</sup><sub>G5-S</sub>
- CV
- MVGQ
- CC
- RB**
- J
- D-
- X
- 20-
- Data

# Shock Absorber Series *RB*

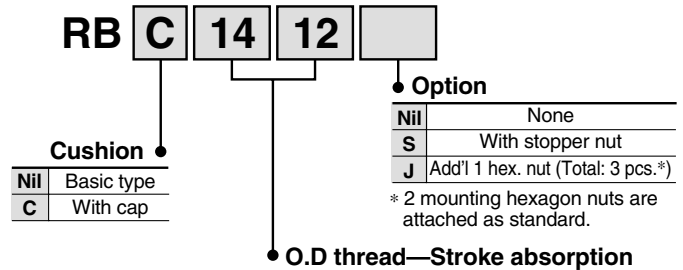
## Specifications

Model	Basic type	RB0805	RB0806	RB1006	RB1007	RB1411	RB1412	RB2015	RB2725
	With cap	RBC0805	RBC0806	RBC1006	RBC1007	RBC1411	RBC1412	RBC2015	RBC2725
Max. energy absorption (J)		0.98	2.94	3.92	5.88	14.7	19.6	58.8	147
Stroke absorption (mm)		5	6	6	7	11	12	15	25
Collision speed (m/s)		0.05 to 5.0							
Max. operating frequency * (cycle/min)		80	80	70	70	45	45	25	10
Max. allowable thrust (N)		245	245	422	422	814	814	1961	2942
Ambient temperature range (°C)		-10 to 80 (No freezing)							
Spring force (N)	Extended	1.96	1.96	4.22	4.22	6.86	6.86	8.34	8.83
	Retracted	3.83	4.22	6.18	6.86	15.30	15.98	20.50	20.01
Weight (g)	Basic type	15	15	23	23	65	65	150	350
	With cap	16	16	25	25	70	70	165	400

\* It denotes the values at the maximum energy absorption per one cycle.  
Max. operation cycle/min can increase in proportion to energy absorption.



## How to Order



## Replacement part no./Cap (Resin part only)

RBC 08 C

Applicable model

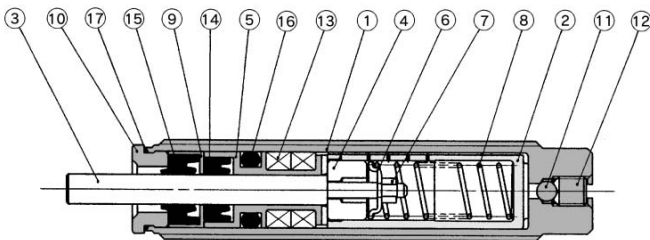
08	RBC0805, 0806	20	RBC2015
10	RBC1006, 1007	27	RBC2725
14	RBC1411, 1412		

Cap

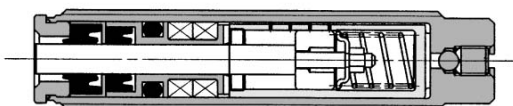
Cap cannot be mounted for basic type. Please place an order with cap type from the beginning.

## Construction

### Extended



### Compressed



## Component Parts

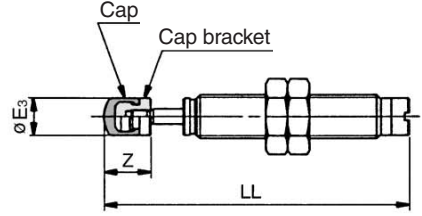
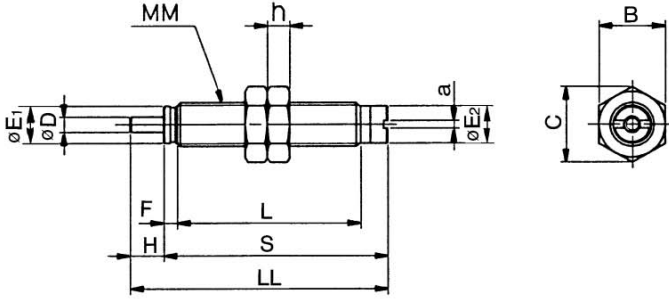
No.	Description	Material	Treatment
①	Outer tube	Rolled steel	Gray coated
②	Inner tube	Special steel	Heat treated
③	Piston rod	Special steel	Electroless nickel plated
④	Piston	Special steel	Heat treated
⑤	Bearing	Special bearing material	
⑥	Spring guide	Carbon steel	Zinc chromated
⑦	Lock ring	Copper	
⑧	Return spring	Piano wire	Zinc chromated
⑨	Seal holder	Copper alloy	
⑩	Stopper	Carbon steel	Zinc chromated
⑪	Steel ball	Bearing steel	
⑫	Set screw	Special steel	
⑬	Accumulator	NBR	Foam rubber
⑭	Rod seal	NBR	
⑮	Scraper	NBR	
⑯	Gasket	NBR	
⑰	Gasket	NBR	Only RB(C)2015, 2725

**Dimensions**

Basic type: RB0805, RB0806, RB1006, RB1007

With cap: RBC0805, RBC0806  
RBC1006, RBC1007

\* Other dimensions are the same as the basic type.

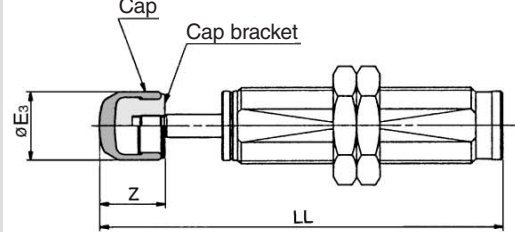
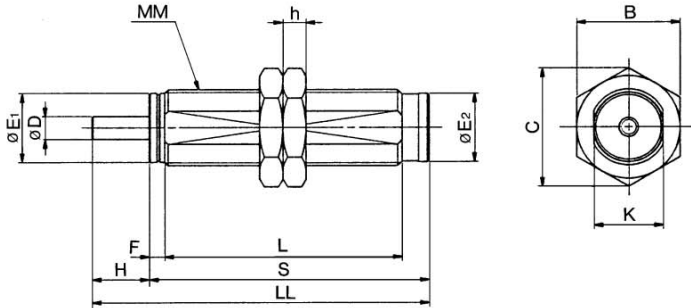


Model		Basic type dimensions										With cap*			Hexagon nut		
Basic type	With cap	D	E <sub>1</sub>	E <sub>2</sub>	F	H	a	L	LL	MM	S	E <sub>3</sub>	LL	Z	B	C	h
RB0805	RBC0805	2.8	6.8	6.8	2.4	5	1.4	33.4	45.8	M8 x 1.0	40.8	6.8	54.3	8.5	12	13.9	4
RB0806	RBC0806	2.8	6.8	6.8	2.4	6	1.4	33.4	46.8	M8 x 1.0	40.8	6.8	55.3	8.5	12	13.9	4
RB1006	RBC1006	3	8.8	8.6	2.7	6	1.4	39	52.7	M10 x 1.0	46.7	8.7	62.7	10	14	16.2	4
RB1007	RBC1007	3	8.8	8.6	2.7	7	1.4	39	53.7	M10 x 1.0	46.7	8.7	63.7	10	14	16.2	4

Basic type: RB1411, RB1412, RB2015, RB2725

With cap: RBC1411, RBC1412  
RBC2015, RBC2725

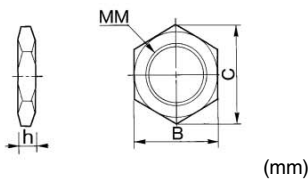
\* Other dimensions are the same as the basic type.



Model		Basic type dimensions										With cap*			Hexagon nut		
Basic type	With cap	D	E <sub>1</sub>	E <sub>2</sub>	F	H	K	L	LL	MM	S	E <sub>3</sub>	LL	Z	B	C	h
RB1411	RBC1411	5	12.2	12	3.5	11	12	58.8	78.3	M14 x 1.5	67.3	12	91.8	13.5	19	21.9	6
RB1412	RBC1412	5	12.2	12	3.5	12	12	58.8	79.3	M14 x 1.5	67.3	12	92.8	13.5	19	21.9	6
RB2015	RBC2015	6	18.2	18	4	15	18	62.2	88.2	M20 x 1.5	73.2	18	105.2	17	27	31.2	6
RB2725	RBC2725	8	25.2	25	5	25	25	86	124	M27 x 1.5	99	25	147	23	36	41.6	6

**Hexagon Nut**

(2 pcs. standard equipment)

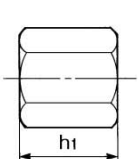


Part no.	Dimensions			
	MM	h	B	C
RB08J	M8 x 1.0	4	12	13.9
RB10J	M10 x 1.0	4	14	16.2
RB14J	M14 x 1.5	6	19	21.9
RB20J	M20 x 1.5	6	27	31.2
RB27J	M27 x 1.5	6	36	41.6

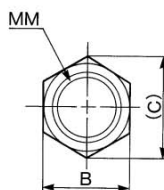
**Option**

Stopper nut

For basic type



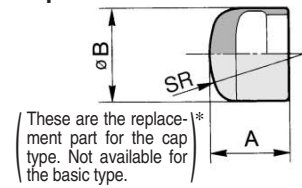
For cap type



Part no.	Dimensions								
	Basic type	With cap	B	C	h1	h2	MM	d	f
RB08S	RBC08S	12	13.9	6.5	23	8	M8 x 1.0	9	15
RB10S	RBC10S	14	16.2	8	23	8	M10 x 1.0	11	15
RB14S	RBC14S	19	21.9	11	31	11	M14 x 1.5	15	20
RB20S	RBC20S	27	31.2	16	40	16	M20 x 1.5	23	25
RB27S	RBC27S	36	41.6	22	51	22	M27 x 1.5	32	33

**Replacement Parts**

Cap



Material: Polyurethane (mm)

Part no.	Dimensions		
	A	B	SR
RBC08C	6.5	6.8	6
RBC10C	9	8.7	7.5
RBC14C	12.5	12	10
RBC20C	16	18	20
RBC27C	21	25	25

RE<sup>A</sup><sub>B</sub>  
REC  
C□X  
C□Y  
MQ<sup>Q</sup><sub>M</sub>  
RHC  
MK(2)  
RS<sup>Q</sup><sub>G</sub>  
RS<sup>H</sup><sub>A</sub>  
RZQ  
MI<sup>W</sup><sub>S</sub>  
CEP1  
CE1  
CE2  
ML2B  
C<sup>J</sup><sub>5-S</sub>  
CV  
MVGQ  
CC  
RB  
J  
D-  
-X  
20-  
Data