

# Soft Absorber

Double Direction Type Multiple-orifice type

Fixed Type Adjustable type Self-adjusting

## FW Series (M12~M25)

RoHS Compliant

● Products specification might be changed without notice.



## Characteristics

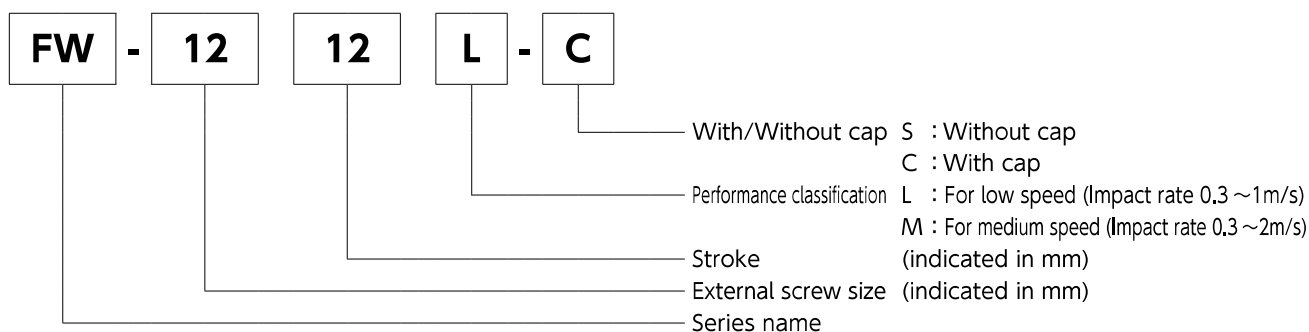
- This product is a double-rod type that can absorb impact from both directions.
- Because of its multiple-orifice structure, a smooth impact absorption is possible.
- Idea for small spaces.

## Specifications

Model	Stroke mm	Max. absorption energy J (kgf·m)	Max. equivalent mass kg (kgf)	Range of impact rate m/s	Max. drag N (kgf)	Max. cycle rate cycle/min	Max. absorption energy per minute J/min (kgf·m/min)	Recovering power of the piston rod N (kgf)	Operating temperature °C	Mass g	
										S type	C type
FW-1212L-C	12	4.9 (0.5)	39 (39)	0.3~1	1,078 (110)	60	41 (4.2)	7.8 (0.8) or lower	-5~70	—	64
FW-1616M-□	16	13.7 (1.4)	30 (30)	0.3~2	2,646 (270)	60	235 (24)	17.6 (1.8) or lower	-5~70	130	142
FW-2025M-□	25	39.2 (4.0)	87 (87)	0.3~2	4,900 (500)	60	343 (35)	24.5 (2.5) or lower	-5~70	234	271
FW-2530M-□	30	62.7 (6.4)	140 (140)	0.3~2	6,370 (650)	60	490 (50)	29.4 (3.0) or lower	-5~70	460	527

Note) Insert S in the □ to order without a cap, and insert C in the □ to order with a cap (R if ordering urethane cap)..

## Key to Model Number



## Precautions for Use

- \* Do not use this product without carefully reading the attached owner's manual.
- \* Ensure that sufficient mounting strength is secured for this product. (As a guideline, it should be 2 to 3 times the maximum drag listed in the catalogue.)
- \* It cannot absorb impact from both directions at the same time.
- \* Do not use this product in a vacuum or a location where it may come in contact with oil.
- \* Ensure that an eccentric load is not applied to the soft absorber. (Allowable eccentric angle:  $\pm 2.5^\circ$ )
- \* Ensure that an external stopper is also used.

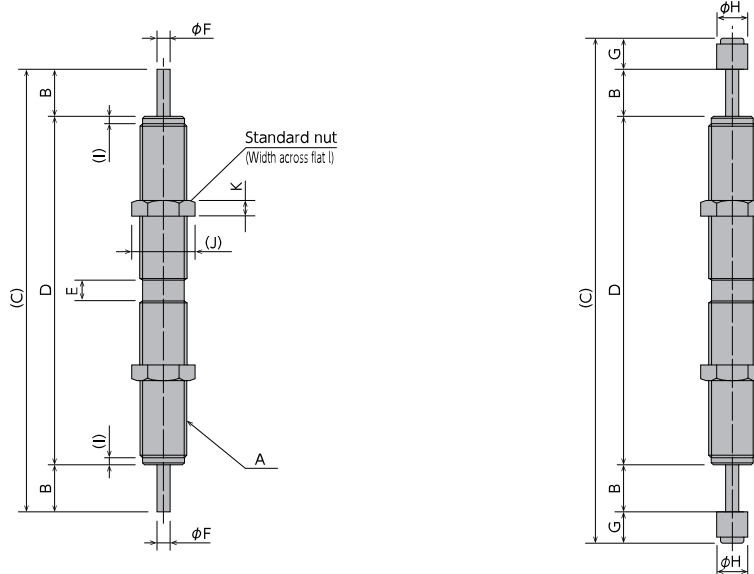
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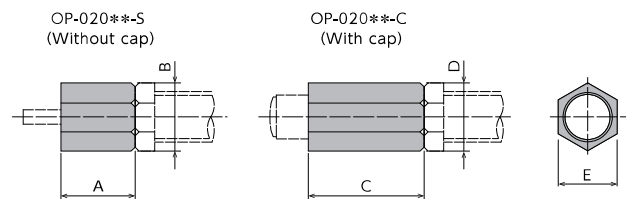
## Dimensions

Model	A	B	C	D	E	φF	G	φH	I	J	K	L
FW-1212L-C	M12×1.0	12	130	90	5	3.5	8	8	2	16.2	4	14
FW-1616M-S	M16×1.5	16	134	102	—	5	—	—	6	21.9	6	19
FW-1616M-C			164				15	13.5	6			
FW-2025M-S	M20×1.5	25	170	120	—	6	—	—	6	27.7	8	24
FW-2025M-C			204				17	18	6			
FW-2530M-S	M25×1.5	30	205	145	—	8	—	—	6	37	10	32
FW-2530M-C			241				18	22	6			

## Optional Parts

Stopper nut OP-020 \*\* - □

Model	A	B	C	Applicable model	Mass g
OP-020KB-C	16	16.2	14	FW-1212L-C	8
OP-020HB-S	15	21.9	19	FW-1616M-S	15
OP-020HB-C	30	21.9	19	FW-1616M-C	28
OP-020EB-S	30	27.7	24	FW-2025M-S	46
OP-020EB-C	47	27.7	24	FW-2025M-C	68
OP-020GB-S	20	37	32	FW-2530M-S	65
OP-020GB-C	32	37	32	FW-2530M-C	102



● Adjust so that it stops 1mm before the stroke end, and fasten with the main unit's nut until secured.  
Note) When attaching, make sure that the side without a bearing chamfer is the impact surface.

Standard nuts are sold separately as well.

Applicable model	Model
FW-1212L	M12 nut
FW-1616M	M16 nut
FW-2025M	M20 nut
FW-2530M	M25 nut

New products

1 Soft Absorber

2 Rotary Damper

3 Magnum Series

4 Speed Controller

5 Helical Isolator

6 Model Selection Form