

## MULTI-APERTURE ORIFICE

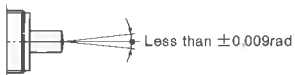


## COMPACT SHOCK ABSORBER OF OUTER-SCREWED TYPE

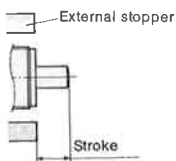
- With adjustment not needed, the impact object is stopped softly according to the fluctuation of load.
- With the mounting thread provided on the outer surface of cylinder, the handling is easy as if bolt is mounted.
- It is ideal for the impact absorption with air cylinder.
- As the structure is simple and strongly built, MINI-SOFTER body can be used as stopper.
- In case of similar impact object, the parallel use of over 2 MINI-SOFTERS is available.

## PRECAUTIONS FOR HANDLING

1. In case that MINI-SOFTER is mounted, loads shall be applied at the center of piston rod. In case of the declination, the impact angle shall be set at less than  $\pm 0.009\text{rad}$ .



2. For MINI-SOFTER, it is unnecessary to install the external stopper. In case that the external stopper is especially installed, it shall be mounted at the position of MINI-SOFTER stroke end.



3. Nut clamp torque is  $170\text{N} \cdot \text{m}$ .
4. Do not use at locations where cutting oil and other liquids are adhered to piston rod.
5. Do not damage piston rod. The lowering of durability and inferiority of return of piston rod may be caused.
6. Do not turn plug.



7. Do not use MINI-SOFTER in air cylinder. The air blow to rod seal shall not be conducted.

## SPECIFICATIONS

Code	F6M30N016	
Max. energy absorption	J	39.2
Stroke	mm	16
(※1)Max. energy capacity	J/min	804
Impact speed range	m/s	0.1~1.0
Max. resisting force value	N	6250
(※2)Rod return force	N	9.81~21.6
(※2)Rod return time	s	0.15
Max. operating cycle	cycle/min	60
Operating temp. range	°C	-5~+70 (at non-freezing condition)
Weight	kg	0.30(With 2 hexagonal nuts)

(※1) The max. energy capacity per minute in the table is shown at the ambient temperature of 26.7°C.

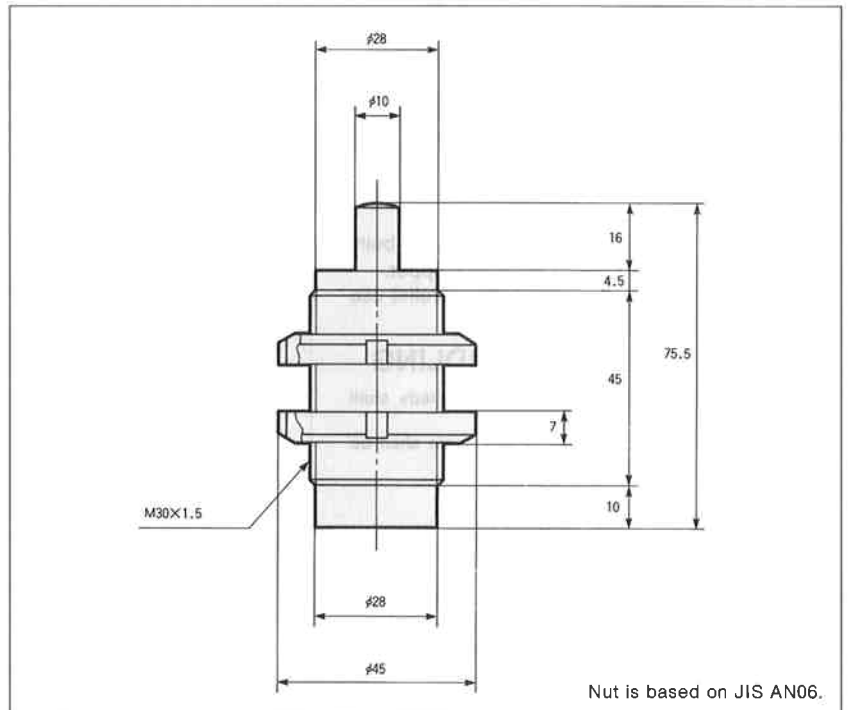
The max. energy capacity per minute at the ambient temperature T(°C) mentioned as E<sub>2</sub>(J/min) is calculated according to the following formula:

$$E_2 = \frac{(82.2 - T)}{55.5} \times (\text{Max. energy capacity per min. in table})$$

(※2) It indicates the max. value when stroke 16mm is pushed.

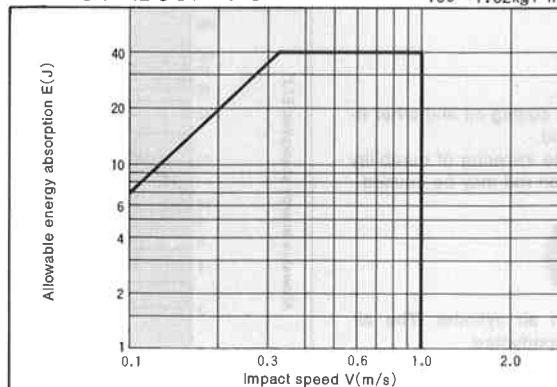
## DIMENSIONAL DRAWINGS

Unit : mm



## ENERGY ABSORPTION TABLE

10J=1.02kg f·m



## WAY OF LOOKING AT TABLE

In case of impact speed  $V = 0.4\text{m/s}$ , the allowable energy absorption  $E(\text{J})$  is computed.  $E$  coping with  $V = 0.4\text{m/s}$  is 39.2J according to the Energy Absorption Table.