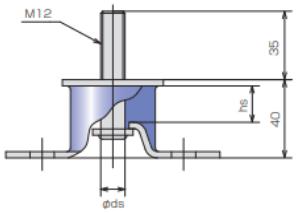
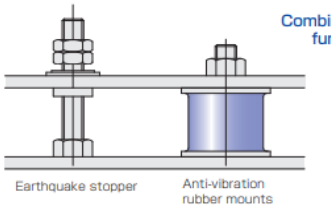
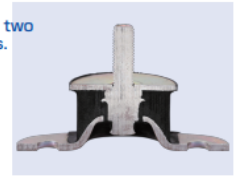




Combine the two functions.

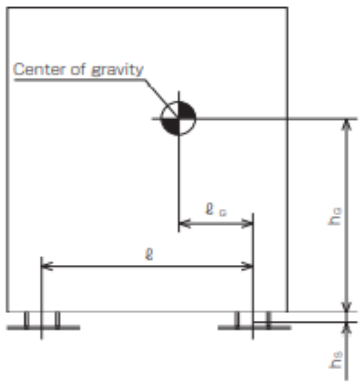


Cross-section photograph

Product number	Standard dimensions mm				Permissible load N {kgf}	Spring constant N/mm {kgf/cm}	Stopper specifications					
	D	A	P	d			Tensile strength N {kgf}	Shear strength N {kgf}	ds (cm)	Ae (cm²)	hs (cm)	Z (cm³)
SB-50	50	106	70	12	800 { 82}	250 { 250}	3200 { 330}	1600 {160}	1.2	1.13	1.9	0.17
SB-60	60	121	85	12	2000 {200}	800 { 820}	8000 { 820}	4000 {410}	1.7	2.27	1.5	0.48
SB-80	80	141	105	14.5	4000 {410}	1600 {1630}	16000 {1630}	8000 {820}	1.9	2.84	1.2	0.67

The elastomer is natural rubber.
This type is provided with 1 hexagon nut and 1 spring washer.

Calculation formula for seismic performance



Tensile force $T = \dfrac{m \cdot g\{K_H \cdot h_G - (1-K_V) \cdot \ell_G\}}{\ell \cdot n_t}$

Shear force $S = \dfrac{K_H \cdot m \cdot g}{n}$

Shear stress $\tau = \dfrac{S}{Ae}$

Combined stress $\sigma tb = \dfrac{T}{Ae} + \dfrac{S \cdot h_S}{n}$

Criterion formula $\tau \leq f_s$ (Allowable shear stress for temporary loading :135N/mm²)

$\sigma tb \leq f_b$ (Allowable bending stress for temporary loading :235N/mm²)

- m : Machinery mass(kg)
- K_H : Design lateral seismic factor
- K_V : Design vertical seismic factor
- n_t : One side number of stoppers
- n : Total number of stoppers
- A_e : Effective cross section of stopper(cm²)
- h_s : Height of stopper(cm)
- Z : Section modulus of stopper(cm³)
- g : Gravitational acceleration(m/s²)