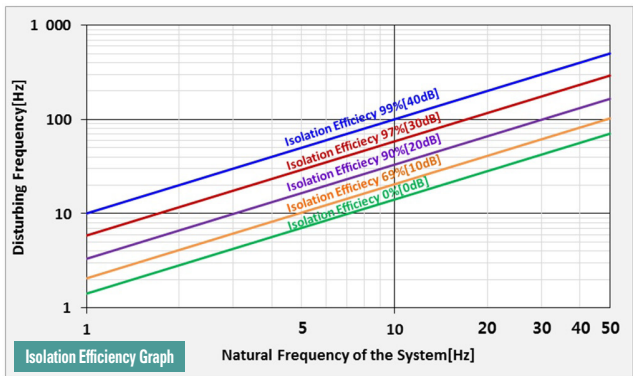
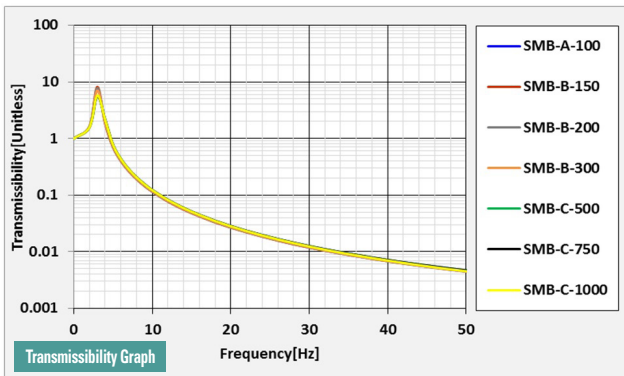
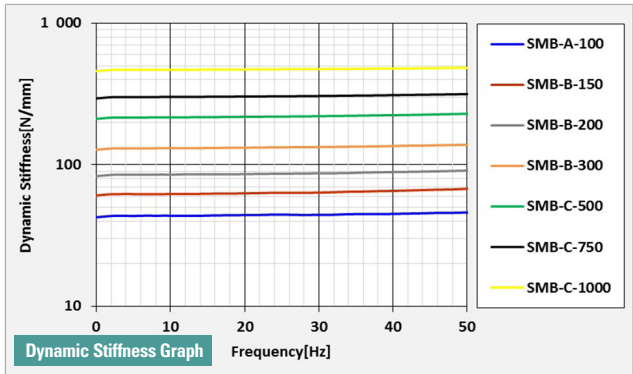
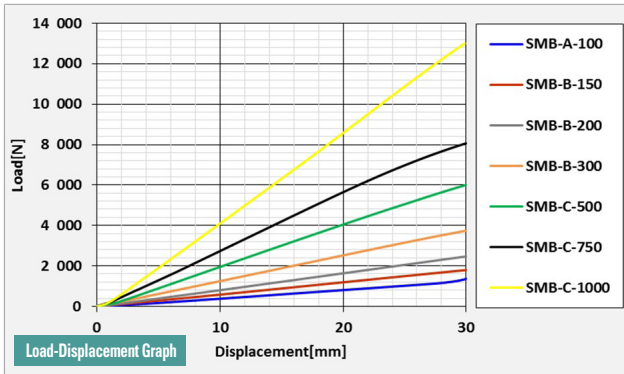


# SMB Spring Mount (Deflection : 25mm)

## ■ SMB Test Data



## ■ Explanation(Commonness)

### 1. Vibration Transmissibility( $T_r$ )

Vibration Transmissibility is the amplitude ratio of Output to Input.

$$T_r = \frac{\text{Output Amplitude}}{\text{Input Amplitude}} = \sqrt{\left(\frac{1}{1-\eta^2}\right)^2}, \eta = \frac{\text{Disturbing Frequency of the equipment}}{\text{Natural Frequency of the Isolator (Damping}(c) = 0)}$$

### 2. Natural Frequency( $F_n$ ) of Vibration Isolation System

The mass and spring stiffness dictate a natural frequency of the system.

$$F_n = \frac{1}{2\pi} \sqrt{\frac{k}{m}}$$

### 3. Isolation Efficiency( $E$ )

Isolation Efficiency in percent transmission is related to Vibration Transmissibility  $E = 100(1 - T_r)$

ex) Disturbing Frequency of the equipment=100 Hz,

Natural Frequency of the isolator=10Hz

$$T_r = \sqrt{\left(\frac{1}{1-\eta^2}\right)^2} = \sqrt{\left(\frac{1}{1-\left(\frac{100}{10}\right)^2}\right)^2} = 0.101 \quad E = 100(1 - T_r) = 100(1-0.101)=99(\%)$$

## ■ Installation Features

