# Instructions for Choice and Use of Rubber Vibration Damper

### Features

These dampers will abate the noise or protect the perimeter machines from vibration. And increase service life of the machinery equipment.

#### **Technical Information**

- ·Working temperature : -40 to 80℃
- •The max. load for horizontal use must be considered as the 30% of the max. load for vertical use.

#### Determining Rubber Vibration Damper

Notes

- It is not recommended to use these dampers in environments where sunlight, humidity, acids or chemical agents are present.
- •Ensure that the deflection of each mounted dampers are even.
- •These dampers must not be used for tensil direction.
- The white powdery blooming on the surface of the rubber is normanl and does not affect function or quality of these dampers.
- The rate of deterioration of rubber vibration dampers depends on usage environments or conditions.
- •Ensure to check the following points regurally.
  - •Appearance (cracks or flakings)
  - Rubber elasticity
- [Step 1] From the below graph, obtain the deflection value from an intersection of the machine frequency (Hz = r.p.m./60) and the vibration absorption ratio.
- [Step 2] Divide the load on each damper by the deflection value to calculate the required spring constant(N/mm).
- [Step 3] Choose a proper damper whose spring constant calculated is closest to that of listed in the table on each catalog page.

## Choice of Proper Rubber Vibration Damper

Usage conditions Frequency of machine: 50Hz (3,000 r.p.m.) Load applied on each rubber vibration damper: 120N Required rate of vibration absorption: 90% Demanding type of rubber vibration damper = VD1

- [Step 1] In the graph, an intersection of the machine frequency 50Hz and the vibration absorption ratio 90% indicates the deflection value of 1.0mm.
- [Step 2] Derive the required spring constant by dividing the load on each damper by the deflection value. 120/1.0=120N/mm
- [Step 3] Check the spring constant in table on each calatog page and choose the damper whose spring constant is closest to the calculated value 120N/mm. The demanding type VD1 as in the usage condition determines the proper damper is VD1-2520M6.

