

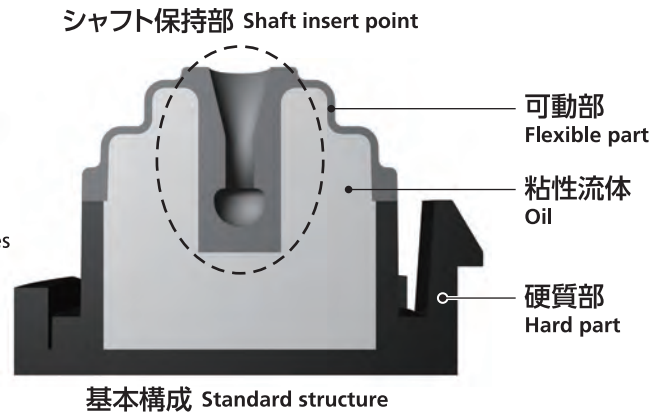


# 粘性流体封入式ダンパー

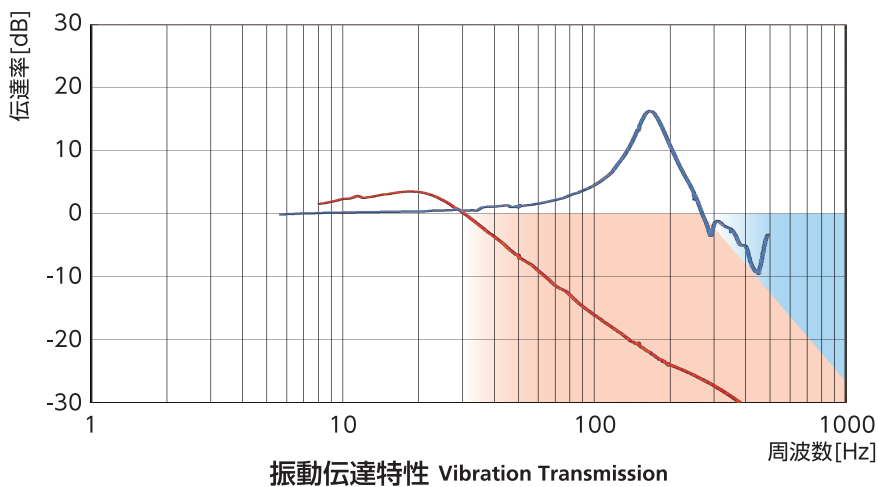
## Oil Filled Damper

優れた防振効果・緩衝緩和効果が得られる粘性流体封入型ダンパー  
Viscous fluid infused damper achieves an excellent effect as vibration absorption insulator and shock absorber.

- 封入された粘性流体による高い減衰性能  
High damping performance with filled-in viscous fluid
- 高い耐久性:自動車等の大きな振動が発生する環境内でも破損しません  
High durability in intensive vibration environments, such as auto-mobiles
- 樹脂部の設計自由度を生かした、幅広いカスタマイズ性  
Wide range of customizing capabilities because of design flexibility of plastic



### 特性例 Characteristic



- : ゴムダンパー伝達特性  
Rubber Damper's Propagation characteristics of Vibration
- : 粘性流体封入式ダンパー伝達特性  
Viscous Fluid Infused Damper's Propagation characteristics of Vibration
- : ゴムダンパー防振領域  
Rubber Damper Vibration-proof Area
- : 粘性流体封入式ダンパー防振領域  
Viscous Fluid Infused Damper's Vibration-proof Area

ゴムダンパーと比較し、広周波数域で高い防振性が得られます。  
A broad range of high vibration absorption in comparison to rubber dampers.

### バリエーション Variation



**HBD**

Hard Resin Lid: Hard Resin  
Bellows: Thermoplastic elastomer



**HFD**

Hard Resin Lid: Hard Resin  
Bellows: Thermoplastic elastomer  
Shaft Pocket: Hard Resin



**Butyl HBD**

Hard Resin Lid: Hard Resin  
Bellows: Butyl Rubber

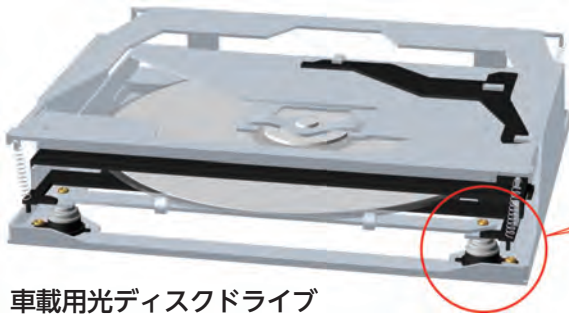


**LRD**

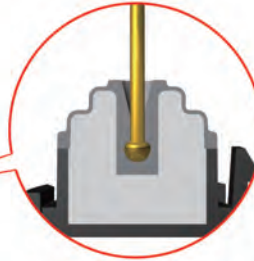
Lid: Rubber  
Bellows: Rubber



用途例 Use Example



車載用光ディスクドライブ  
In-Car Optical disc drive



シャフトを挿入して固定  
Shaft goes into retention pocket to support



ドローン (カメラへの振動抑制)  
Drone (Suppression of vibration to the camera)



くぼみを利用しLRDを  
挟み込む様に固定  
Use the concave and insert  
& fix the LRD



LRD

標準形状 Standard type



HBD-20T	
Size [mm]	
Damper Height	6.0
Length	19.5
Width	12.9
Vibration Characteristics (58g/1 pcs)	
$f_0$ [Hz]	20.0
Q [dB]	4.86
$f_{cr}$ [Hz]	28.8
T <sub>100</sub> [dB]	-18.7



HBD-42T	
Size [mm]	
Damper Height	12.8
Length	22.0
Width	16.1
Vibration Characteristics (75g/1 pcs)	
$f_0$ [Hz]	15.0
Q [dB]	1.83
$f_{cr}$ [Hz]	24.3
T <sub>100</sub> [dB]	-14.9



HBD-31U	
Size [mm]	
Damper Height	10.8
Length	21.0
Width	14.5
Vibration Characteristics (77g/1 pcs)	
$f_0$ [Hz]	22.0
Q [dB]	1.86
$f_{cr}$ [Hz]	39.0
T <sub>100</sub> [dB]	-11.3



HBD-380CS	
Size [mm]	
Damper Height	12.3
Length	28.6
Width	28.6
Vibration Characteristics (360g/1 pcs)	
$f_0$ [Hz]	7.0
Q [dB]	6.18
$f_{cr}$ [Hz]	9.6
T <sub>100</sub> [dB]	-30.1