

# OBTAIN ACCURATE MECHANICAL PROPERTIES FASTER WITH DTI'S CUSTOM TESTING SOLUTION.

In its third iteration, DTI's VBT System has been developed from data collected over 30 years of solving complex, real-world noise and vibration challenges.

Created for engineers and technicians, by engineers, VBT 3.0 is a one-of-a-kind system that accurately measures properties via automation, documenting properties for polymer development as well as for FEA and SEA design model input. That translates into quieter and more durable products.

## CUTTING EDGE TECHNOLOGY. BOTTOM LINE RESULTS.

Our structural dynamics engineers have worked extensively with the Vibrating Beam Technique and used the resulting measured properties to design optimized damping systems. There is no substitute for DTI's decades of experience taking these measurements, which has resulted in the development of the state of the art VBT 3.0.



NOISE + VIBRATION CONTROL SOLUTIONS

#### **HOW VBT 3.0 WORKS**

VBT 3.0 uses the Vibrating Beam Technique (VBT) to measure viscoelastic material properties in a variety of environments and applications, including a wide range of temperatures and frequencies. The technique has been adopted by the ASTM E756 and SAE J1637 as the preferred method for determination of the damping properties of materials. VBT's revolutionary software was developed for users to quickly measure and characterize material properties.

The software package includes:

#### **VBT 3.0 Data Acquisition Module**

Data acquisition hardware and software system that automates measurement of beam properties, as a function of temperature, simultaneously on multiple test fixtures. Ideal for QA needs.

#### **VBT 3.0 Post Processing Module**

Includes automated raw data extraction, enhanced usergenerated raw data extraction, intermediate data plotting, dynamic mechanical property calculation, as well as display and curve-fit of properties in the temperature-frequency nomogram format.



#### **VBT 3.0 SYSTEM AT A GLANCE**

VBT 3.0 provides everything you need to measure viscoelastic material properties.

#### **HARDWARE**



PC WORKSTATION



AMPLIFIER & CONNECTION KIT



DATA ACQUISITION SYSTEM



SIGNAL MODULE & CONDITIONING UNIT



BEAM FIXTURE(S)



OPTIONAL FEATURE
CLIMATE CHAMBER

#### **SOFTWARE**



DATA ACQUISITION SOFTWARE



DATA POST PROCESSING SOFTWARE

### **CONTACT US**

**DAMPING TECHNOLOGIES, INC.** 55656 Currant Rd. Mishawaka, IN 46545 **www.damping.com** 

(574) 258-7916 info@damping.com