

TechNote #10 Magnetic holder VIB 8.736

For mounting transducers on curved surfaces

Measurement locations

Accuracy of vibration measurement depends in large part upon close mechanical contact between the transducer base and the surface to which it is attached. Incorrect transducer mounting can interfere with vibration measurements by severely limiting the usable frequency range. Several options are available for attaching transducers to machines, such as stud mounting, cementing and mounting using beeswax, but all of these are time consuming and costly solutions.

However, a simple and fast method of transducer mounting for temporary measurement is via permanent magnet. Prüftechnik has, therefore, developed magnetic holder VIB 8.736 for this purpose. It is particularly useful for taking readings from curved measurement surfaces.

Simple and easy to use

Magnetic holder VIB 8.736 is ideal for use in many measurement locations where attachment of transducers is difficult. The holder can easily be placed in the desired measurement location without the need for extensive preparation. Of course, as with any vibration transducer, the measurement location must present a clean, metallic surface to ensure proper signal transmission. Simply screw the transducer (for example a TANDEM-PIEZO® accelerometer, Prüftechnik order number VIB 8.515) directly onto the holder and then position the holder and accelerometer at the desired measurement location (see Fig. 2 on the right). You can then easily connect your accelerometer, via cable, to the measurement instrument.

The frequency response of the magnetic holder depends on the measurement surface. However, the holder itself gives good results up to 10 kHz.

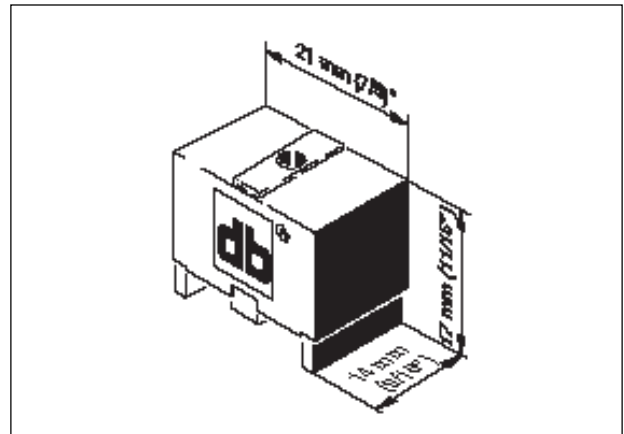


Fig. 1 The magnetic holder (order number VIB 8.736)

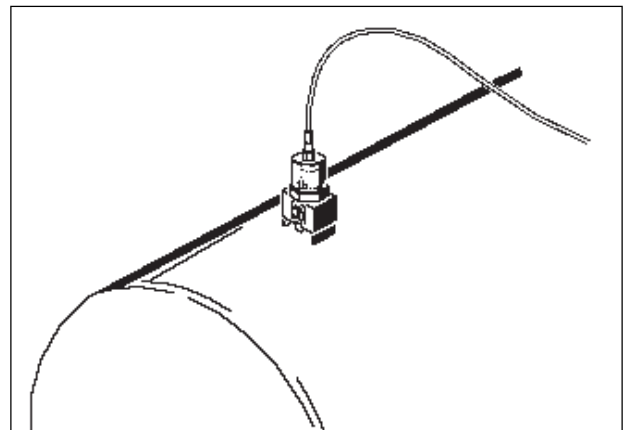


Fig. 2 The magnetic holder can easily be attached to curved measurement surfaces

Saves time during balancing

The magnetic holder is ideal for use with Prüftechnik's VIBROTIP® and VIBROSPECT® FFT program. For example, during fan balancing the transducer usually has to be mounted on a curved surface. In that case, the measurement surface ordinarily would have to be prepared in advance by permanently mounting a flat measurement base. However, using magnetic holder VIB 8.736, you can simply place the transducer and holder directly on the machine to be measured without any special preparation. This enables you to take measurements quickly at almost any desired measurement location.

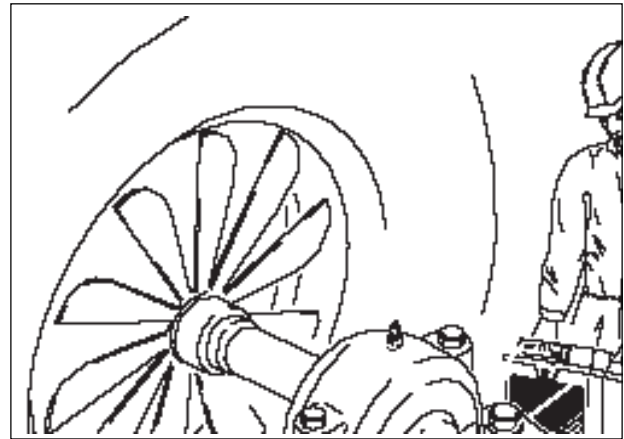
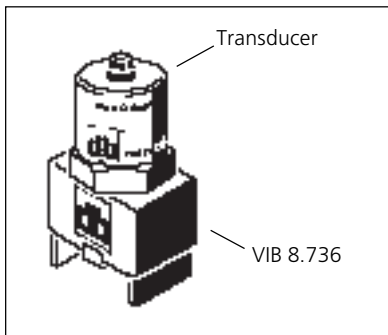
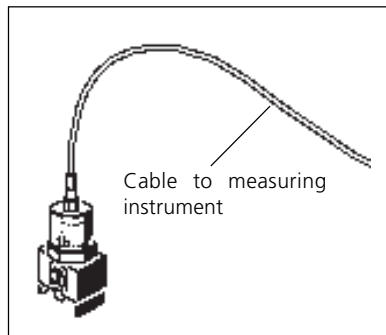


Fig. 3 The magnetic holder in use during balancing

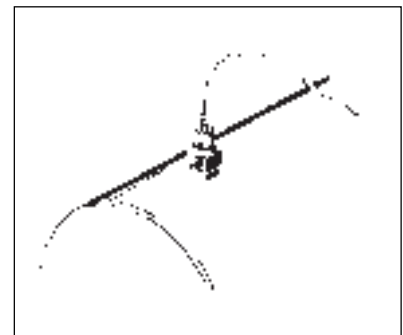
Connecting the transducer to VIB 8.736



1. Connect the sensor end of the transducer to magnetic holder VIB 8.736.



2. Connect the transducer output to your measuring instrument.



3. Place the holder and transducer on the desired measurement location and take the measurement.