

# Calibration of instruments for measuring acoustic and vibration quantities

## **Why instruments for measuring acoustic related quantities need calibration?**

Today we live in an increasingly noisy environment. We are surrounded by busy roads, railways, and sometimes even in the proximity of airports. Workplaces are noisy too, especially in heavy industry. Moreover, we are occasionally exposed to disturbing noise in our homes due to the neighbours, various sports and cultural events in the neighbourhoods or due to the proximity of heavy industry and transport infrastructure. Daily exposure to excessive noise damages our hearing, so the number of hearing impairments is increasing. This noise must be measured accurately therefore several different instruments for measuring acoustic quantities have been developed. These acoustic instruments need to be periodically calibrated in order to obtain correct and reliable measurements. This is important for proving inappropriate working and living conditions, especially if excessive noise is the subject of litigation.

## **Why instruments for measuring vibration related quantities need calibration?**

Every rotating or moving part generates some vibrations. Minor vibrations are not critical. In contrast, major vibration could indicate the malfunction of a device, which may eventually even split the device apart and thus cause financial costs or even compromise human life. Vibration should therefore be measured with appropriate measuring equipment, which also needs to be periodically calibrated.



## **To measure means to know**

We calibrate a wide range of instruments for measuring acoustic and vibration quantities:

- Microphones according to standard EN 61094-5:2016
- Sound level meters including the acoustic filters according to standard EN 61672-3: 2013 and EN 61260-2:2016
- Sound calibrator according to standard EN 60942:2018
- Personal exposure meters according to EN 61252: 2011
- Accelerometers
- Shakers

## **Your vision and our common objectives**

- To provide traceability for instruments that measure acoustic or vibration quantities.
- To improve quality of life by reducing the noise level in living and working environments.
- To improve the safety of large machinery by reducing unwanted vibrations.

## **Why SIQ?**

- SIQ is a professional organization with over more than 50 years of proven performance and experience.
- Independence.
- Skilled personnel.
- State-of-the-art measuring equipment.
- Holders of several accreditations

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