WE MAKE SOUND VISIBLE

sevenbel
EFFECTIVE SOUND IMAGING

EFFECTIVE
SOUND IMAGING

As an independent expert or consulting engineer you are used to working effectively and target-oriented. Stop losing time to a lenghty search for possible sources of acoustic problems within buildings. Use Seven Bel Sound Scanners and make disturbing sound sources visible. Fast, simple and effective.

1 Results in 3 minutes

No other measurement system delivers acoustic images that fast and efficiently. You can set up the measurement system in less than 3 minutes, conduct the measurement of your use case and immediately receive dependable results for further analysis.

2 Anytime – anywhere

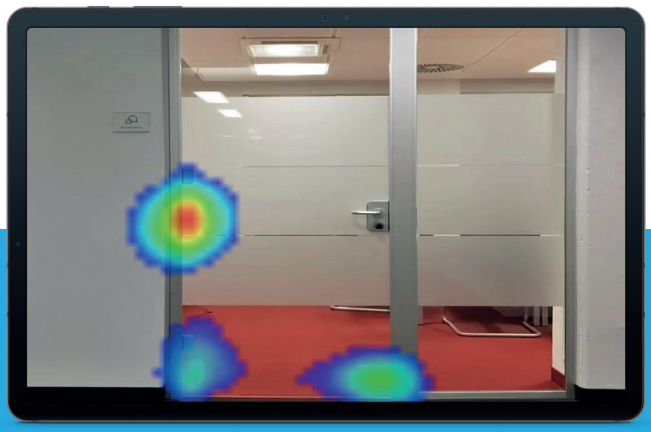
Due to the ultra-compact and light construction you are entirely independent in terms of location. Seven Bel's high performance measurement system works with a mobile device and cloud infrastructure in the background. Notebooks, power supply units or recorders that are usually required are no longer necessary.

3 Extraordinary image quality

Distributed microphones based on state-of-the-art semiconductor technology scan the acoustic field on an area of a disc and produce acoustic images with superior image quality and a high level of information. This facilitates the correct interpretation of the measured data for the user and leads to solutions that can be implemented quickly.

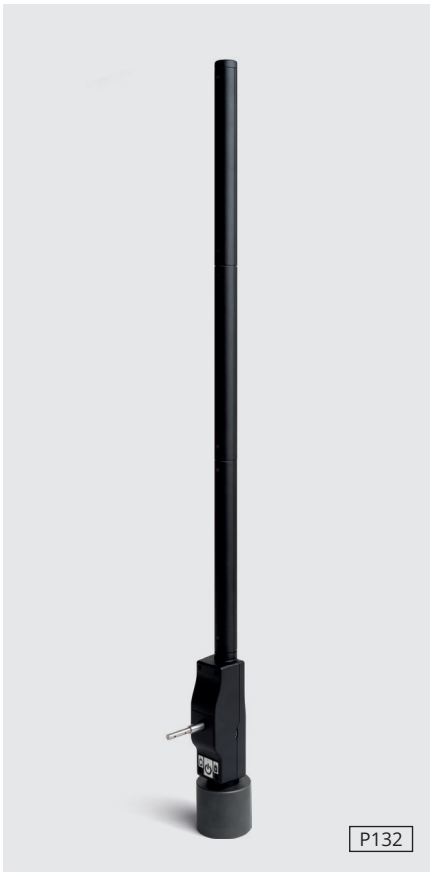
4 Intuitive handling

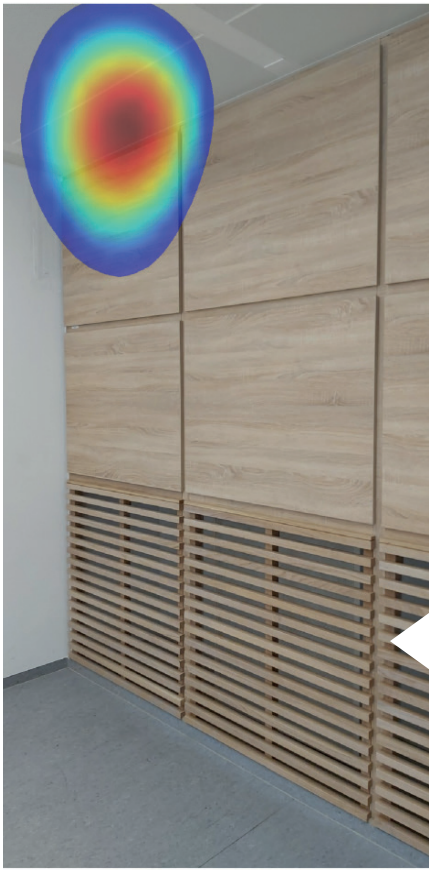
Benefit from a massively simplified workflow to measure and analyse your sound events. Share your results with your colleagues, partners or clients in the form of automatically generated reports.



ROOM ACOUSTICS

Complement your existing measurement equipment and locate leakages at doors, windows and other structural elements. Acoustic images help you identify weak spots and implement effective changes.





ENVIRONMENTAL NOISE

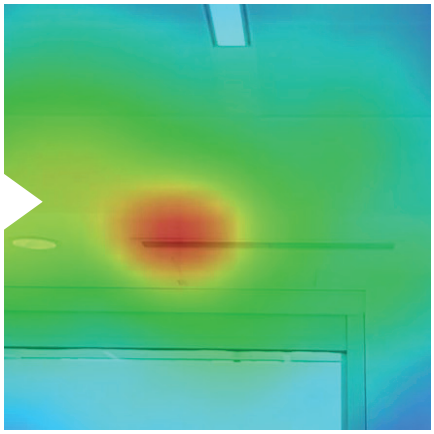
Identify the sources of noise emissions from industrial facilities, enabling the implementation of effective measures in the right areas to comply with legal limits.

BUILDING TECHNOLOGY

Localize sound transmission from neighboring rooms. Acoustic images help you isolate dominant transmission paths so that you can subsequently take targeted measures with construction companies.

VENTILATION SYSTEMS

By localizing airflow noise at exhaust shafts, weak spots in ventilation systems can be quickly identified. Noise transmission between rooms and noise emissions into rooms can thus be effectively prevented.



SPECIFICATIONS

	P50	P132	P254
SENSOR			
Diameter of scan area	50 cm	132 cm	254 cm
Weight (excl. sensor mount and tripod)	500 g	1400 g	900 g
Rotation frequency (min/typ/max)	0,2 / 2 / 5 revolutions/s	0,2 / 1 / 2 revolutions/s	0,2 / 0,5 / 1 revolutions/s
Number of microphones	5	5	5
Battery life (fully charged)	6 hours	6 hours	6 hours
ACOUSTIC IMAGE			
Frequency range	700 Hz - 10,5 kHz	250 Hz - 10,5 kHz	125 Hz - 4 kHz
Spatial resolution at 5 kHz (3 dB dynamic range)	6,7 °	2,6 °	1,4 °
Dynamic range	> 13 dB	> 13 dB	> 13 dB
Computed images per revolution	up to 6	up to 6	up to 6
Measuring distance	0,5 m - infinity	0,5 m - infinity	0,5 m - infinity
MICROPHONE			
Sample frequency	21,5 kHz	21,5 kHz	21,5 kHz
Resolution	24 bit	24 bit	24 bit
Frequency range	50 Hz - 20 kHz	50 Hz - 20 kHz	50 Hz - 20 kHz
Sensitivity tolerance	+/- 1 dB	+/- 1 dB	+/- 1 dB
Maximum measurable sound pressure level	117 dB	117 dB	117 dB
Absolute maximum sound pressure level	160 dB	160 dB	160 dB

ANALYSIS

Audio

- Real time display of time signal, frequency spectrum and spectrogram
- Stream/pause mode
- Selection of time intervals
- Playback of filtered audio

Acoustic image/video

- Selection of frequency band
- Audio playback
- Single frame or time averaged frames
- Video playback

Data management

- Automated pdf report generation of single acoustic image or timed averaged images including meta data (time, location, notes, etc.), time signal, spectrum and spectrogram
- Export and import of measurements in zip format via installed file sharing apps (e.g. Google Drive)

ENVIRONMENTAL CONDITIONS

Operating temperature	-10 °C - 60 °C
Relative humidity	45 % - 85 %

MOBILE DEVICE

Operating system	Android OS version 10.0 or higher

sevenbel
EFFECTIVE SOUND IMAGING

Seven Bel GmbH
Hafenstraße 47-51
4020 Linz, Austria

phone: +43 664 204 2710
email: info@sevenbel.com
www.sevenbel.com