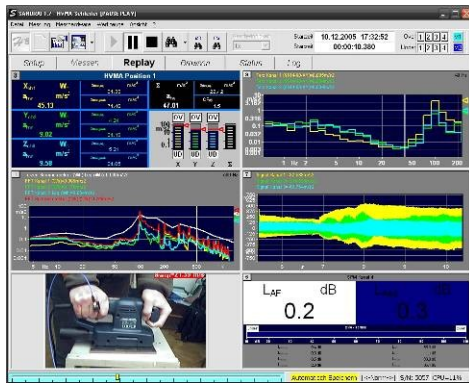


SAMURAI option: HVMA



Field of Application:

The effects of vibration at the workplace (e.g. when working with hammer drills) can range from nuisance or reduced productivity up to health damage.

Since July 2002, European Parliamentary Guideline 2002/44/EG regulates the minimum provisions for protection of workers against damaging vibrational effects at the workplace. This guideline obliges the EU member states to enact laws and issue administrative regulations in order to meet these obligations. For example, in Germany the "LärmVibrationsArbSchV" regulations came into effect on March 9th, 2007.

Description:

The HVMA (Human Vibration Multi-Analyzer) option allows the measurement of vibration for the purpose of evaluating the effects of the vibration on a person. Our measurement system conforms to the required characteristics and permitted margins of error for measuring systems according to DIN EN ISO 8041. This software option allows simultaneous vibration measurement in all three spatial directions. For the frequency weighting, all filter curves in the ISO 2631 and ISO 5349 standards are available. Alongside the measured values for each of the three spatial directions, the value of the result vector is displayed for hand-arm and whole-body vibration. In parallel to the above, third-octave, FFT and time signals can be displayed and saved in both weighted and unweighted forms.

The portable and robust [Soundbook](#) measurement system is available with up to eight channels, thus allowing an acoustical analysis to be performed in parallel to a vibration investigation with this option, whereby all the basis functionality of SAMURAI is also available. Furthermore, the [NOISECAM VIDEO](#) option allows the measurement situation to be recorded synchronously via a video camera.

Technical Data

Standards implemented	ISO 8041, ISO 2631, ISO 5349, ISO 8662, UNI 2614, UNI 11048, UNI 9916
Features	<ul style="list-style-type: none"> • 2 / 4 / 8 channels • Measurement ranges from 0.15 Hz • ISO 2631 Evaluation of human exposure to whole-body vibration • ISO 5349 Measurement and evaluation of human exposure to hand-transmitted vibration • ISO 8662 Hand-held portable power tools - Measurement of vibrations at the handle • Frequency weightings: W_c, W_d, W_g, W_j, W_k, W_b, W_{b_comb}, W_m, W_{db}, W_h, W_a, W_v • Measurement values: momentary, exposure, crest, max, min, CF, peak, VDV, MTVV • Vector calculation in real-time with axis weightings • Optional video recording (with NOISECAM VIDEO option) • Additionally available: time signal, third-octave and FFT of the vibration signal as well as acoustic measurement values from the SAMURAI basis functionality • Export to Excel, TXT, UFF and NWWin formats

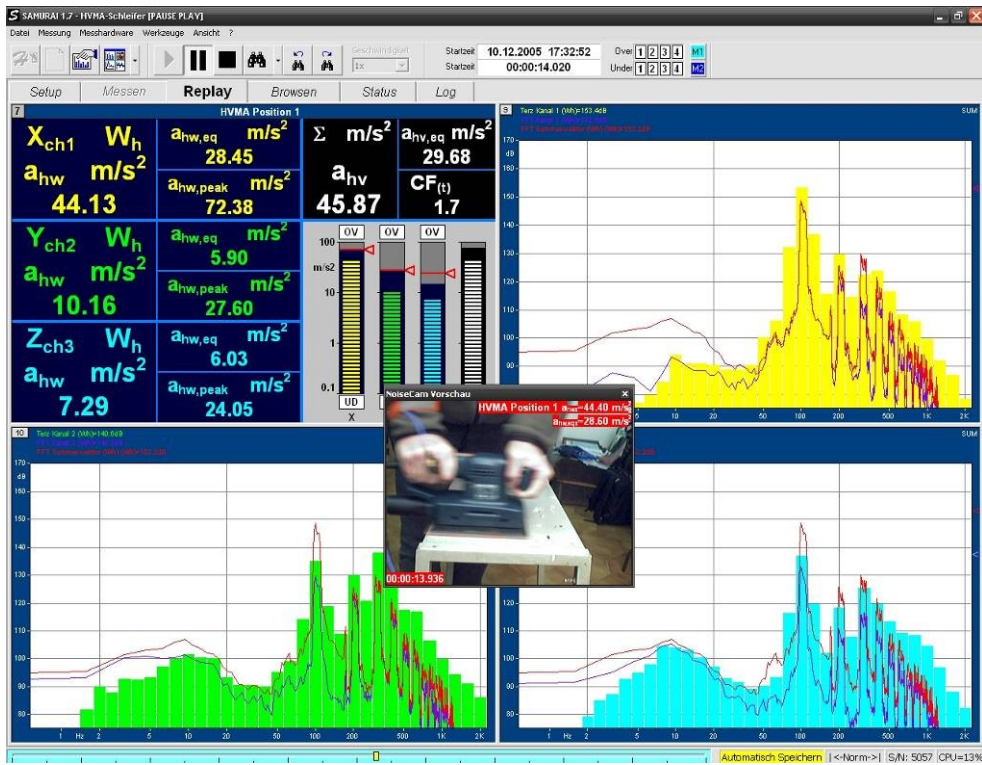


Figure 1: Frequency-weighted third-octave and FFT spectrum with NOISECAM

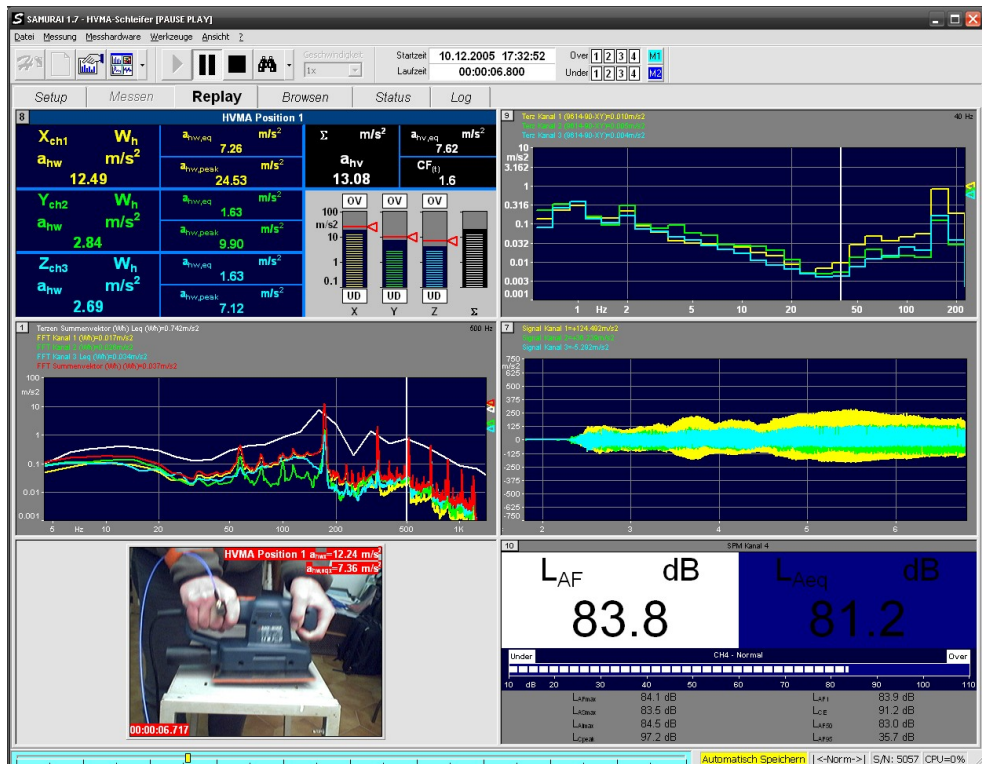


Figure 2: HVMA measurement with sound level recording and NOISECAM