

On-site measurements

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General description

The Architectural Technology Laboratory of the AUTH has special equipment for the measurement of the time of resonance $f \approx 60$ of spaces and of the noise level LA of hydraulic and air-conditioning systems on site, in accordance with the requirements of standards

DIN EN ISO 3382-1: 2007-10 Akustik - Messung von raumakustischen Parametern - Teil 1 : Aufführungsräume

DIN EN ISO 3382-2: 2006-05 Akustik - Messung von Parametern der Raumakustik - Teil 2 : Nachhallzeit in gewöhnlichen Räumen

DIN 52219:1993-07 Akustik - On-site measurement of noise emitted by water supply and drainage systems

DIN EN 12102:2008-09 Air conditioners, liquid chilling packages, heat pumps and dehumidifiers with electrically driven compressors for space heating and cooling - Measurement of airborne noise - Determination of the sound power level

For the realisation of these tests it is essential to check the conditions that prevail in the worksite. During the test, the work might be required to stop or there might be the need for some special temporary constructions in order to meet the requirements of standards. The on-site measurements are not included in the accreditation field of the Laboratory.

The on-site tests which are realised by the Laboratory concern particularly:

Measurement of time of resonance of rooms and spaces

Measurement of acoustic criteria of rooms and spaces

Measurement of level of noise of hydraulic installations

Measurement of level of noise of air conditioning installations

The procedure of the measurement of time of resonance includes the installation of the sound sources and the measuring microphones and the realization of the test that is checked by a computer and lasts up to 4h.

The procedure of the measurement of level of noise installations presupposes the existence of integrated facilities fully operational. All on-site measurements are non-destructive.