TOMOKIT

accessories

Seismic tomography kit on structures

Kit for non-destructive structural investigations with seismic tomography for verification of quality preservation status of construction materials, ideal for: beams (wooden also), masonry walls, columns in stone material, masonry works with poor degree of material homogeneity, works of historical and cultural interest. This survey method is used to identify physical-geometrical anomalies inside structures or individual structural elements with a definitely higher resolution compared to other seismic prospecting methods; it creates an image of investigated object where all present anomalies will be reproduced. In particular, tomographic method allows to reproduce geometric distribution of the elements that constitute a specific section, starting from the analysis of radiations behavior across it. Tomography is a general technique that allows to reproduce two-dimensional or three-dimensional objects through a defined number of one-dimensional and variously oriented projections of those objects. Seismic tomography reproduces an image of the internal structure of investigated element by measuring crossing time (or amplitudes) of seismic waves which propagate through a specific section. Purpose is to determine a detailed distribution progress of such physical properties as the speed or extenuation of seismic waves. A numerical simulation of the propagating phenomenon will identify unknown fields of seismic waves velocity and will allow, in that way, to calculate more accurately their crossing times and, consequently, to make an effective discretization of the structure, which can be then transformed into the two-or-three-dimensional image. In this type of surveys you can use, instead of geophones, a proper type of piezoelectric transducers connected to an high resolution-seismograph; these can be applied with different non-invasive techniques to the structural elements to be studied and without damaging them.

Methodologies
Seismic Tomography

Kit products		
	**MS243** Trigger hammer for sonic test	: x **1**
	**SPZ** Sensor for seismic tomography on structure	: x **12**

Kit products		
	**TOMBOX** 12 channels interface for structural seismic sensors	: x **1**
	**TRGPZ** Trigger sensor for seismic tomography on structures	: x **1**
	**CUM2F2ODM3** Connection cable for trigger hammer MS243	: x **1**