



## Measurements of Physical Factors

The measurements of physical factors include the following:

- **Noise:** Despite the changes and developments in the production base of modern economy, noise remains one of the most important problems at the workplace. Noise-induced loss of hearing remains one of the most common occupational diseases. According to the PD. 149/2006, the employer is obliged to take measures to protect workers from the risks that may incur from the exposure to noise at work.
- **Thermal conditions (temperature, relative humidity):** The thermal conditions at a workplace depending on the form and type of work, govern the heat exchange between the worker and the environment by determining the thermal state (thermal comfort or thermal stress) of the human organization. The thermally burdened workplaces affect the physical and mental health, through the exhaustion and fatigue of the normal thermo-regulation mechanisms of the organism. This not only contributes to the appearance of certain occupational diseases, but also significantly reduces the worker's ability to react appropriately to external stimuli, or to follow complex work processes, creating conditions for causing accidents at work.
- **Lighting:** Although there are no legally enforced acceptable levels of lighting in Greece, the lighting, that is the proper illumination of the workplace, is an element of primary importance, both for maximizing the performance of the work system and for the safety of workers. Insufficient lighting can cause discomfort, fatigue, eye irritation, headache, nausea or even the risk of an accident at work.
- **Ventilation:** According to the PD. 16/96, there must be enough fresh air in the confined workplaces, considering the working methods and the physical effort paid by the workers. When air renewal is achieved by artificial means or systems, they must be operated continuously and maintained in good working condition.
- **Vibrations:** The effect of vibrations on the human body can cause serious damage and disturbances to physiological functions, as well as various anatomical lesions as a consequence of continuous soft tissues damage. It also causes psychological disorders that are capable of adversely affecting the general state of the person's mental well-being.
- **Electromagnetic radiation:** The use of radiation in recent years has immensely increased due to the explosive growth of telecommunications, broadcasting, industrial and household appliances, etc., following the general advance in science and technology. Consequently, the number of workers employed in posts exposed to electromagnetic radiation has accordingly increased. The most undesirable phenomenon caused by the electromagnetic radiation is the heating of tissues, which in turn results in a series of cells' lesions.
- **GEP possesses the suitable portable equipment for carrying out measurements of physical factors, using measuring methods in accordance with the Greek legislation and the international standards. The equipment used by GEP is calibrated for its good functioning.**