

## RODCRAFT General Statement

### Regarding Vibration Declaration

On December 29, 2009 the new Machinery Directive, 2006/42/EC will repeal the directive 98/37/EC. From that date, vibration emission must be declared as vibration total values (3-axes values) in order to address the essential requirement 2.2.1.1 in Annex 1 of the new Directive. The new values are measured according to revised or new vibration emission standards and they will differ from, and normally be higher than, the values given with reference to the previous standards.

According to the Machinery Directive 2006/42/EC, vibration values must be given as numbers when they are higher than  $2.5 \text{ m/s}^2$ . For machines with vibration emission values lower than  $2.5 \text{ m/s}^2$  it is enough to state  $< 2.5 \text{ m/s}^2$ , but lower values can be given voluntarily.

We, RODCRAFT Pneumatic Tools GmbH, have decided not to quote vibration values below  $2.5 \text{ m/s}^2$  as numerical values in our documentation, but instead to declare that they are " $< 2.5 \text{ m/s}^2$ ".

Emission values below  $2.5 \text{ m/s}^2$  imply a low risk of vibration disorders resulting from normal use of the tool, and it is important to realize that there can be other ergonomic factors that are more important to consider. It has been found that under real working conditions, the influences of the operator and the process can be particularly important at low magnitudes. For these reasons, it is stated in the new ISO 28927-series vibration measurement standards that it is not recommended that emission values below  $2.5 \text{ m/s}^2$  be used for estimating the vibration magnitude under real working conditions. In such cases, it is recommended that a vibration magnitude of  $2.5 \text{ m/s}^2$  is used to estimate the machine vibration.

Declarations of vibration and noise emission should always be given in the Product Information supplied with the machines. The same information is normally given in technical sales information. During the transition period to the new Directive and vibration measurement standards, the most recently updated information is available on our web site [www.rodcraft.com](http://www.rodcraft.com) for downloading as a pdf.

The new vibration declaration is, in most cases, a measured vibration value according to ISO 28927 or EN 60745 published 2006 or later, together with a calculated uncertainty. Vibration values measured to the previous standards will also be given during the transition period. For some types of portable hand-held and hand-guided machines there is no specific test code available; in such cases ISO 20643 is used to develop a suitable test procedure. Details of how the test is performed can be found on our web site [www.rodcraft.com](http://www.rodcraft.com) for downloading as a pdf.

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According to the Physical Agents (Vibration) Directive 2002/44/EC all employers in Europe must perform vibration exposure assessments for their employees. A vibration exposure assessment requires an estimation of the in-use vibration value for the operation analyzed and an estimated trigger time.

Some points to note when making rough estimates of the vibration value in the workplace:

- The in-use vibration emission varies greatly with task and operator technique.
- The declared vibration value relates to the main handle(s) and much higher vibration levels may occur at other hand positions.
- The declared emission value is probably a useful average emission value when, for example, roughly estimating the likely average exposures of users performing a wide range of tasks within the intended use of the tool.
- We point out that application of the tool to a sole specialist task may produce a different average emission and in such cases we strongly recommend a specific evaluation of the vibration emission.
- Many tools can cause hand-arm vibration syndrome if their use is not adequately managed.
- We recommend a program of health surveillance to detect early symptoms which may relate to vibration exposure, so that management procedures can be modified to help prevent future impairment.

#### **Further sources of information:**

More information about estimating vibration values and workplace exposures can be found in the publications section of the Pneurop website [www.pneurop.org](http://www.pneurop.org).

An EU guide to managing hand-arm vibration can be found at [www.humanvibration.com/EU/VIBGUIDE.htm](http://www.humanvibration.com/EU/VIBGUIDE.htm).

A calculator for vibration values and workplace exposures can be downloaded from [www.atlascopco.de/dede/Aboutus/incountry/howweareorganized/tools\\_literature\\_downloadpage.asp?paging=1&](http://www.atlascopco.de/dede/Aboutus/incountry/howweareorganized/tools_literature_downloadpage.asp?paging=1&)

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