

# CECE guidance on the requirements for fixed guards for the machinery directive 2006/42/EC

This document provides additional guidance by means of a flow chart about fixing systems of fixed guards to the comments given in the *Commission guidelines* in order to ensure proper application.

Extract from the directive 2006/42/EC

## 1.4.2.1. Fixed guards

Fixed guards must be fixed by systems that can be opened or removed only with tools.

***Their fixing systems must remain attached to the guards or to the machinery when the guards are removed.***

Where possible, guards must be incapable of remaining in place without their fixings

## Extract of the guide to application of the machinery directive – 1st edition December 2009 §218 Fixed guards

Section 1.4.2.1 sets out three requirements for the first type of guards: fixed guards. The requirements set out in section 1.4.2.1 are complementary to the general requirements for guards and protective devices set out in section 1.4.1.

If the zone protected by a fixed guard does not need to be accessed or if the necessary access can be obtained by another route, fixed guards can be permanently fixed, for example, by welding, riveting or gluing. On the other hand, if it is necessary to open or remove a fixed guard, the first paragraph of section 1.4.2.1 requires that it must only be possible to open or remove the fixing systems with tools. This requirement aims to restrict the removal of fixed guards to competent or authorised persons. Fixed guards may thus be fixed, for example, by means of bolts, screws or other fasteners that can only be removed by using tools such as keys or wrenches. The choice of fixing system and tools must be considered in light of the risk assessment. Fixings that can be quickly loosened or removed such as, for example, wing nuts, or quick-release fasteners, must not be used.

The second indent of section 1.4.2.1 requires the fixing systems for fixed guards to remain attached to the guards or to the machinery when the guards are removed. This requirement aims to reduce risks due to loss of one or more of the fixings when guards are removed, for example, for maintenance purposes. This can lead to the guards not being replaced, being only partially fixed in place or fixed with replacement fixings that do not have adequate strength, so that the guard cannot adequately perform its protective function, for example, where containment of ejected parts is necessary.

Application of this requirement depends on the manufacturer's assessment of the risk concerned. The requirement applies to any fixed guards that are liable to be removed by the user with a risk of loss of the fixings, for example, to fixed guards that are liable to be removed during routine cleaning, setting or maintenance operations carried out at the place of use. The requirement does not necessarily apply to fixed guards that are only liable to be removed, for example, when the machinery is completely overhauled, is subject to major repairs or is dismantled for transfer to another site. For the same reason, it may not be necessary to apply the requirement to the casings of machinery intended for use by consumers, where the manufacturer's instructions specify that the repairs requiring removal of these casings are only to be carried out in a specialist repair workshop. In that case, fixing systems should be used that are not easy to remove.

The requirement set out in the third paragraph of section 1.4.2.1 aims to prevent the situation where the operators are unaware that a fixed guard has not been properly fixed in place or have failed to replace the guard correctly. Where possible, fixed guards should automatically come away from their fixed position when the fixings are loosened.

Flowchart to guide the application of Annex 1 §1.4.2.1

