

### II.3.3 Compliance with category of the safety related parts of the machine control system

Whereas the essential requirements of the Directive aim for a high level of safety, the resources used must nevertheless be in proportion to the risk occurring.

The guarding of an operator who manually loads and unloads piece parts inside a metal press shall not be treated in the same way as the guarding of an operator working on a machine where the maximum risk is that of pinching a finger.

Furthermore, one and the same machine may have several points of access with varying degrees of risk. Different measures shall therefore be taken for different parts of a machine's safety related control system.

With this in mind, standard EN 954 helps the designer to define the categories of the different parts of the safety related control system on the basis of three parameters:

- The potential severity of the injury
- The frequency and/or duration of exposure to the hazard
- The possibility of avoiding the hazard

The behaviour of safety related control systems in the event of a fault is defined for each of the categories (B, 1, 2, 3, 4) (cf. table on p. 20).

Assuming identical technology (pneumatic, electronic, mechanical, hydraulic etc.), these categories represent a progressive scale. For example, category 4 is higher than category 3. On the other hand, they are not intended to compare different technologies. Nevertheless, the AOPD and its interface shall meet the requirements of the category of the safety related parts of the machine control system in question, in order that the safety function shall be performed (e.g. stopping the machine and keeping it stopped).