

Preventing defeating of protective devices on machinery

Module 2: Design of machines

March 30th 2016

Target group

- Machine designers
- Production planners, including purchasers
- Machine operators, who modify the machine
- Safety delegates
- OSH professionals
- Industry association representatives
- Students
- Prevention experts

Learning targets

Following successful completion of the module, the course participants are to have acquired the following knowledge:

1. Recognition that customer requirements must be identified regarding operation of machinery at all stages in the life cycle
2. Use of requirements and functional specifications as useful tools during design work
3. Observance of binding safety requirements with regard to customer requirements
4. Addressing possible incentives for the defeating of protective devices and removing these incentives at the design stage
5. Structured procedure during the design process, with inclusion of risk assessment and consideration for the incentive to defeat protective devices
6. Review of usability and safety concept
7. Involvement of machine operating personnel in the selection of protective measures

Duration of the tuition unit: 45 minutes

Module 2: Design of machines		
Duration (minutes)	Content	Materials
5	Conflicting priorities in design and operation of the machine Manufacturer and operator acting in concert User's specification and manufacturer's information	Slides/speakers' notes
8	How much is it worth to defeat protective equipment? Operating cost situation without incentive for defeating	Slides/speakers' notes
3	Availability Life-cycle phases of a machine	Slides/speakers' notes
8	Identification of customer requirements Persons involved	Slides/speakers' notes
8	Requirement specification, functional specification Risk assessment Safety concept and its integration	Slides/speakers' notes
3	Three-step procedure Technical measures to prevent the defeating of protective equipment	Slides/speakers' notes
5	Incentives for defeating Assessment matrix	Slides/speakers' notes
5	Example from the field with presentation of problem and solution	Slides/speakers' notes