

# Main changes between Annex I of machinery directive 2006/42/CE and Annex III of new MR

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This document only relates to Annex III of Machinery regulation.

This document was prepared by the CEN – CENELEC Sector Forum on Machinery to assist the Technical Committees but they shall still always use the original text of the Machinery Regulation as a reference and shall check whether there are maybe other changes brought by the Machinery Regulation (MR). It is the Technical Committee task to determine if these changes are relevant /applicable for their specific standards.

## General

- ✓ “Hazards” is replaced by « risks » at several places (taking into account the definition provided at the beginning of annex III)
- ✓ Definitions have been added (protected device, guard,...)
- ✓ “Machinery” has been replaced by “machinery or related product”

Note : These particular changes do not necessarily have an impact on all standards.

## Detailed modifications

### B “General principles”

- ✓ B 1 (f) : Explanation for risk assessment and risk reduction
- ✓ **New** B 5 “These general principles shall apply to the risk assessment carried out by the manufacturer of partly completed machinery”

### Subclause 1.1 “General remarks »

- ✓ 1.1.1 : Applicability explained, e.g for partly completed machinery
- ✓ 1.1.2 (e) “Principles of safety integration” : Addition of test of safety functions
- ✓ 1.1.6 “Ergonomics” : **New** requirements added
- ✓ **New** 1.1.9 “Protection against corruption”

### Subclause 1.2 “Control systems”

- ✓ 1.2.1 “Safety and reliability of control systems” : Several modifications and **new** requirements for Control systems
- ✓ 1.2.6 “Failure of the power supply or communication network connection” : Applies also to communication network connection

### Subclause 1.3 “Protection against mechanical risks”

- ✓ 1.3.7 “Risks related to moving parts” : Addition of “The prevention of risks of contact leading to hazard situations and the psychological stress that may be caused by the interaction with the machine shall be adapted to:
  - (a) human-machine coexistence in a shared space without direct collaboration;
  - (b) human-machine interaction”

#### Subclause 1.5 "Risks due to other causes"

- ✓ 1.5.12 "Laser radiation" : "should" has been replaced by "shall"
- ✓ 1.5.13 "Emissions of hazardous materials and substances" : Modification : Where the process is not totally enclosed during normal operation of the machinery or related product, the devices for containment or capture, filtration or separation and evacuation shall be situated in such a way as to have the maximum effect

#### Subclause 1.6 "Maintenance"

- ✓ 1.6.2 "Access to operating positions and servicing points" : Addition of "In the case of machinery into which persons shall enter for operation, adjustment, maintenance or cleaning, the machinery accesses shall be dimensioned and adapted for the use of rescue equipment in such a way that a emergency rescue of the persons is possible."

#### Subclause 1.7 "Information"

- ✓ 1.7.1 "Information and warnings on the machinery or related product" : Any written or verbal information and warnings must be expressed in a language which can be easily understood by users, as determined by the Member State concerned.
- ✓ 1.7.3 "Marking of a machinery or related product" : Written as an addition to the marking requirements in Article 10 and 20 and precision that Products covered by Annex III points 2 to 6 shall also be marked according to the additional requirements set out in these sections
- ✓ 1.7.4 "Instructions for use" : Written as an addition to the obligations set out in Article 10(7),
- ✓ 1.7.4.2 (c) : Written in relation to Article 10 (8)
- ✓ 1.7.4.2 (r) : Addition of "taking account of the design and the use of the machinery or related product"
- ✓ 1.7.4.2 (u) : Addition of "or common specifications adopted by the Commission in accordance with Article 17(3)"
- ✓ 1.7.4.2 (u) : Addition of "With respect to noise reduction machinery or related products, the instructions for use shall specify, where appropriate, how to correctly assemble and install that equipment (see also section 1.7.4.2(1), point (j))."
- ✓ 1.7.4.2 (ua) : Addition of "information on the necessary precautions, devices and means for the immediate and gentle rescue of persons"
- ✓ 1.7.4.2 (w) : Addition of requirements where the machinery or related product design allows emissions of hazardous substances from the machinery or related product

#### Clause 2 "Supplementary essential health and safety requirements for certain categories of machinery and related products"

- ✓ 2.1.1 "General" (a) and (b) : Addition of water intended for human consumption
- ✓ 2.2.1 "General" (e) : Addition of "Portable hand-held or hand-guided machinery or related product shall have a device or a connected exhaust system, with an extraction connection outlet or equivalent system to capture or reduce emissions of hazardous substances. This requirement does not apply if it leads to a new hazard or where the main function of the machinery or related product is the application of hazardous substances and to emissions of internal combustion engines"
- ✓ 2.2.1 "General" (f) : Modification "be designed and constructed in such a way that the handles of portable machinery or related product make starting and stopping straightforward"
- ✓ 2.2.1.1 "Instructions for use" : Change in information concerning vibrations

- ✓ 2.4 “Machinery or related products for plant protection products application” : “pesticide” replaced by “plant protection products” (and reference to regulation updated)

### Clause 3 “Supplementary essential health and safety requirements to offset risks due to the mobility of machinery or related products”

- ✓ 3.1.1 “Definitions” : Definitions added for “Autonomous mobile machinery”, “Supervisor”, “Supervisory function”
- ✓ 3.2.2 “Seating” : **New** requirements
- ✓ **New** 3.2.4 “Supervisory function”
- ✓ 3.3 “Control systems” : Addition of “For autonomous mobile machinery or related product, the control system shall be designed to perform the safety functions by itself as set out in this section, even when actions are ordered by using a remote supervisory function.”
- ✓ 3.3.2 “Starting/moving” : Addition of “The movement of an autonomous mobile machinery shall take into account the risks related to the area where it is intended to move and work”
- ✓ 3.3.3 “Travelling function” : Addition for autonomous mobile machinery or related product
- ✓ 3.3.5 “Control circuit failure” : Addition for autonomous mobile machinery
- ✓ 3.5.1 “Batteries” : **New** requirement for batteries with automatic charging for mobile machinery
- ✓ 3.5.3 “Emissions of hazardous substances” : “spraying of products” is replaced by “application of hazardous substances”
- ✓ 3.5.3 “Emissions of hazardous substances” : Addition of “Ride-on mobile machinery having application of hazardous substances as the main function shall be equipped with filtration cabs or equivalent safety measures”
- ✓ **New** 3.5.4 “Risk of contact with live overhead power lines”
- ✓ 3.6.3 “Instructions for use” : Change in information concerning vibrations
- ✓ **New** 3.6.3.3 “Autonomous mobile machinery or related products”

### Clause 4 “Supplementary essential health and safety requirements to offset hazards due to lifting operations”

- ✓ 4.1.2.3 “Mechanical strength” : Several precisions : “during their lifetime”, “and any reasonably foreseeable misuse” and “radiation”
- ✓ 4.1.2.5 “Lifting accessories and their components” (c) : Addition of “webbing”
- ✓ 4.1.3 “Fitness for purpose” : Indication that the appropriate measures shall be taken at the place of use by the manufacturer

### Clause 6 “Supplementary essential health and safety requirements for machinery or related products presenting particular risks due to the lifting of persons”

- ✓ 6.2 “Control devices” : Addition of « If there is no risk of persons or objects on the carrier colliding or falling and no other risks due to the upward and downward movements of the carrier, control devices authorising automatic stops at preselected positions may be used instead of hold-to-run type control devices »