

Radiation hazards

EN 12198-1, -2, -3	Assessment and reduction from emitted radiation: General principles, measurement procedure, reduction
EN 12254	Screens for laser working places – Requirements and testing Attention : rayonnement laser ! www.suva.ch/66049.f

The following regulation may also be relevant in connection with this hazard:

Directive 2014/30/EU relating to electromagnetic compatibility
<http://data.europa.eu/eli/dir/2014/30/oj>

EN 61000-6-1	Immunity – residential, commercial and light-industrial environments
EN 61000-6-2	Immunity – industrial environments
EN 61000-6-3	Emission – residential, commercial and light-industrial environments
EN 61000-6-4	Emission – industrial environments

Material/substance hazards

EN 1093-1, -2, -3, -4, -6, -7, -8, -9, -11	Evaluation of the emission of airborne hazardous substances Valeurs limites exposition aux postes de travail www.suva.ch/1903.f
EN ISO 14123-1, -2	Reductions of risks to health resulting from hazardous substances: Principles and specifications, verification
EN ISO 14159	Hygiene requirements

Ergonomic hazards

EN 547-1	Openings for whole body access
EN 547-2	Access openings
EN 547-3	Anthropometric data L'ergonomie Un facteur de succès pour toutes les entreprises www.suva.ch/44061.f
EN 614-1/2	Ergonomic design principles – Terminology, general principles, interactions between the design of machinery and work tasks
EN 894-1, -2, -3, -4	Displays and control actuators
EN 1005-1, -2, -3, -4	Human physical performance, manual handling, force limits for machinery operation, working postures and movement in relation to machinery Manutention des charges www.suva.ch/88190.f
EN 1837	Integral lighting of machines
EN 14738	Anthropometric requirements for the design of workstations at machinery Aménagement ergonomique des postes de travail www.suva.ch/44075.f

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Safety of machinery - Important type-B standards

Overview of frequently used type-B standards with additional information

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European notified body, identification number 1246
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Orders

www.suva.ch/CE19-1.e
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Orders for standards

Swiss Association for Standardization
www.snv.ch
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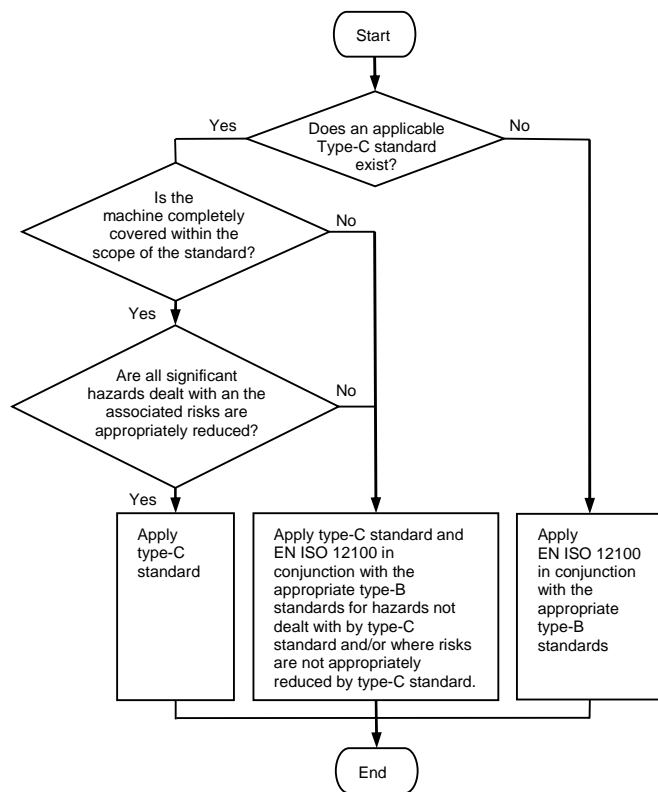
Electrosuisse - Association for Electrical, Power and Information Technologies
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Order number

CE19-1.e - 11.19

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CERTIFICATION

The Technical Report ISO/TR 22100-1 recommends the following steps for the practical use of the type A standard EN ISO 12100 and existing type-B and type-C standards for risk reduction:



Source: ISO/TR 22100-1:2015 How ISO 12100 relates to type-B and type-C standards

If there is no machinery safety standard for a machine (type-C standard), chapter 6 of the EN ISO 12100 standard describes protective measures to reduce risks.

Detailed safety aspects and requirements for safeguards can be taken from type-B standards.

This publication gives an overview of frequently used type-B standards depending on the existing hazard. For the exact title of the existing standard, see the current excerpt from the Official Journal of the European Union.

https://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/machinery_en

This document also contains references to publications related to the subject of the standards.

Mechanical hazards

EN 349 EN ISO 13854	Minimum gaps to avoid crushing of parts of the human body Distances de sécurité www.suva.ch/66137.f
EN 574 EN ISO 13851	Two hand control devices Dispositifs de commande de machines – Commande bimanuelle www.suva.ch/33066/08.f
EN ISO 4413	Hydraulic
EN ISO 4414	Pneumatic
EN ISO 11161	Integrated manufacturing systems
EN ISO 13849-1	Safety related parts of control systems – Part 1: General principles for design
EN ISO 13849-2	Safety related parts of control systems – Part 2: Validation
EN ISO 13850	Emergency stop
EN ISO 13855	Positioning of safe guards with respect to the approach speeds of parts of the human body Exigences de sécurité relatives aux barrages immatériels www.suva.ch/material/factsheets/sicherheitsanforderungen%20an%20lichtvorhaenge
EN ISO 13857	Safety distances to prevent hazard zones being reached by upper and lower limbs Distances de sécurité www.suva.ch/66137.f
EN ISO 14118	Prevention of unexpected start-up Interrupteur de révision www.suva.ch/CE93-9.f démarrages intempestifs – Liste de contrôle www.suva.ch/67075.f
EN ISO 14119	Interlocking devices associated with guards
EN ISO 14120	Guards
EN ISO 14122-1, -2, -3, -4	Permanent means of access to machinery Conception des garde-corps sur les accès permanents aux machines www.suva.ch/44006.f

Electrical hazards

EN 60204-1	Electrical equipment of machines – General requirements
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Electrical hazards (Fortsetzung)

	Sécurité des machines – L'essentiel sur l'équipement électrique des machines www.suva.ch/CE16-1.f
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Thermal hazards

EN 1127-1	Explosion prevention and protection Prévention de explosions – Principes, Prescriptions minimales, Zones www.suva.ch/2153.f
EN ISO 13732-1	Hot surfaces
EN ISO 13732-3	Cold surfaces
EN ISO 19353	Fire prevention and fire protection

Nois hazards

EN ISO 11200	Guidelines for the use of basic standards for the determination of emission sound pressure levels at a work station and at other specified positions
EN ISO 11202	Determination of emission sound pressure levels at a work station and other specified positions applying approximate environmental corrections Mesurage des émissions acoustiques produites par les machines. www.suva.ch/66027.f Déclaration sur les émissions sonores des produits www.suva.ch/86044.f
EN ISO 11688	Design of low noise machinery Lutte contre le bruit des machines et des installations www.suva.ch/66076.f Des enceintes pour lutter contre le bruit www.suva.ch/66026.f

The following regulation may also be relevant in connection with this hazard: Directive 2000/14/EC relating to the noise emission in the environment by equipment for use outdoors
<http://data.europa.eu/eli/dir/2000/14/oj>

Vibration hazards

EN 1032	Testing of mobile machinery in order to determine the vibration emission value Liste des tableaux des vibrations www.suva.ch/86705.dfi
EN 1299	Vibration isolation of machines – Information for the application of source isolation
EN ISO 13753	Method for measuring the vibration transmissibility of resilient materials when loaded by the hand-arm system
EN ISO 20643	Hand-held and hand-guided machinery – Principles for evaluation of vibration emission