

By accepting the order, the Contractor undertakes to apply the following provisions and to meet the demands arising therefrom. If they are not met, the order shall be deemed not to be duly executed. Claims for damages arising from the consequences thereof shall remain reserved.

The following provisions and requirements must be observed for:

1. Technical equipment, general

- The EC Directive(s) on CE marking applicable to the product and, if required, its (their) national implementation
- German Product Safety Act
- Ordinances on the German Product Safety Act
- Act on the electromagnetic compatibility of equipment

2. Machinery ^{*)} and technical equipment for which European harmonisation directives apply

- EC Machinery Directive
- other applicable Community directives, in particular
 - EC Directive relating to simple pressure vessels
 - EC Pressure Equipment Directive
 - EC Directive relating to electromagnetic compatibility
 - EC Directive relating to electrical equipment designed for use within certain voltage limits
 - EC Directive relating to equipment and protective systems intended for use in potentially explosive atmospheres
- all harmonised European standards, in particular those listed in Appendix A to this document
- If a harmonised European “type C standard” has been published by the EU for this product, this must be complied with. Deviations must be agreed in advance.
- In the absence of harmonised European standards, the Contractor undertakes to observe other applicable international or, where appropriate, national standards or other technical specifications/regulations.
- Where deviations are made from harmonised European standards or other applicable international or national standards or other technical specifications/regulations, it shall be demonstrated and documented that the same level of safety has been achieved by other means.

^{*)} The text can generally be used for

- New machinery (also newer refurbished machinery)
- Substantially modified old and new refurbished machinery

Obligations include, among others:

- Performance of the CE conformity assessment procedure in accordance with the applicable EC Directives and, if required, their national implementation
- CE marking (except for exemption(s) e.g. partly completed machinery according to the Machinery Directive)
- Provision of EC Declaration of Conformity
- For partly completed machinery according to the Machinery Directive, the “Extended Declaration of Incorporation” form shall be issued in German and the local language, if required
- The EC type examination procedure, if required
- Provision of the operator manual in German, including the stipulated noise and vibration characteristic values. For partly completed machinery (according to the Machinery Directive) a partial operating manual is prepared up to the interfaces.
- The provision of technical documentation in accordance with the relevant regulations, including risk assessment and, upon request, its supply.

3. Technical equipment for which no European harmonisation directives apply

- The German Occupational Health and Safety Directive (Betriebssicherheitsverordnung) as well as occupational safety and accident prevention regulations and, in addition, the generally recognised safety and occupational health regulations shall be observed for technical equipment not subject to Directives of the European Community. In case of deviation from the above, a certificate guaranteeing the same level of safety shall be supplied on delivery.
- For machinery in the sense of the EC Work Equipment Directive, the provisions for equipment contained in the national implementation regulations (e.g. German Occupational Health and Safety Directive) must also be observed.

4. Refurbished machinery from EEA countries

- For refurbished machinery without CE marking, the requirements according to the German Occupational Health and Safety Directive shall apply.

5. Parts of technical equipment

- For parts of technical equipment that do not fall within the scope of the German Product Safety Act, the provisions of No. 3 shall apply.

6. Noisy technical equipment

- The German Occupational Health and Safety Directive relating to Noise and Vibrations shall apply. The workplace-related emission value and the measuring surface sound pressure level at 1 m measuring distance (1 m measuring surface sound pressure level) must be less than 75 db(A). Different values may be permitted or required in individual cases.

7. Technical equipment with GS mark

- The equipment shall be accompanied by a certificate from an approved inspection body attesting the type examination and a workshop test carried out by the manufacturer.

8. Order of interlinked machinery or “assembly of machinery” according to the Machinery Directive

- A special agreement must be concluded for ordering interlinked machinery with regard to the assumption of responsibility for the conformity of the overall machine assembly.
- If the client intends to provide and/or install essential parts of equipment himself, this shall be laid down in a special agreement.

9. Special provisions

- DIN EN 13478 also applies for the fire protection of machinery and plants
- For electro-sensitive protective equipment (light curtains, light grids, laser scanners, etc.), the measured values required for regular inspection (distances, run-on times) shall be supplied on delivery. These must in any case be determined as part of the risk assessment.
- The pressure medium of hydraulic systems in foundry machinery must be fire-resistant, type HFC hydraulic fluid. Apart from the latest safety data sheet, a full “Technology tests – 7th Luxembourg Report” test certificate must be provided. Preferably, a release of the “Ultrasafe 620 BU” hydraulic fluid usually used in the Handtmann light-metal foundry should be included in the delivery.
- In accordance with the Federal Water Act (WHG) and the Ordinance on Installations Handling Materials Hazardous to Water (VAWS), for the use of substances harmful to water, plants, machinery and devices must be designed, installed, set up, maintained and operated in such a way that they comply with the generally recognised rules of technology as well as statutory provisions.
- All supplied input materials or consumables must be accompanied by the latest safety data sheet according to the REACH Regulation 1907/2006 as well as working instruction according to GefStoffV (Ordinance on Hazardous Substances) when submitting the offer. The use of

these materials must be approved in writing beforehand by the occupational safety and environmental protection department, among others.

- All documents required for the verification of approvability according to the Federal Emission Control Act (BlmSchG), WHG and VAWS must be available to Handtmann with submission of the offer. Plants subject to approval under immission control law must be operated according to Article 5 BlmSchG in such a way that precautions are taken against harmful effects on the environment, in particular by means of “state-of-the-art” measures to limit emissions.

A measurement protocol of a measuring point recognised according to Article 26 BlmSchG shall prove that legally prescribed emission limit values, such as e.g. TA-Luft (Technical Instructions on Air Quality Control), TA-Lärm (Technical Instructions on Noise Abatement) and “state of the art” are significantly undercut. Articles 57 and 58 of the Federal Water Act shall apply accordingly for water samples.

All provisions are subject to the most recently amended version.

Annex A - essential harmonised European standards

EN 1127-1:2011	Explosive atmospheres — Explosion prevention and protection — Part 1: Basic concepts and methodology
EN ISO 12100: 2010	Safety of machinery — General principles for design— Risk assessment and risk reduction
Lighting	
EN 1837:1999 +A1:2009	Safety of machinery — Integral lighting of machines
Ergonomics	
EN 614-1:2006 +A1:2009	Safety of machinery — Ergonomic design principles — Part 1: Terminology and general principles
EN 614-2:2000 +A1:2008	Safety of machinery — Ergonomic design principles — Part 2: Interactions between the design of machinery and work tasks
Start-up	
EN 1037:1995+A1:2008	Safety of machinery — Prevention of unexpected start-up
Emergency shutdown	
EN ISO 13850:2008	Safety of machinery — Emergency stop function – Principles for design
Risk of breakage during operation	
EN ISO 4413:2010	Hydraulic fluid power — General rules and safety requirements for systems and their components
EN ISO 4414:2010	Pneumatic fluid power — General rules and safety requirements for systems and their components
Risks from moving parts	
EN 349:1993/A1:2008	Safety of machinery — Minimum gaps to avoid crushing of parts of the human body
EN ISO 13857:2008	Safety of machinery – Safety distances to prevent hazard zones being reached by upper and lower limbs

Special requirements for separating guards

EN 953:1997+A1:2009 Safety of machinery – Guards – General requirements for the design and construction of fixed and movable guards

Movable separating guards with interlocking

EN 1088:1995+A2:2008 Safety of machinery – Interlocking devices associated with guards – Principles for design and selection

Special requirement for non-separating guards

EN ISO 13855:2010 Safety of machinery — Positioning of safeguards with respect to the approach speeds of parts of the human body

EN 61496-1:2004 Safety of machinery — Electro-sensitive protective equipment - Part 1: General requirements and tests

EN 61496-1:2004/A1:2008 Safety of machinery — Electro-sensitive protective equipment - Part 1: General requirements and tests

Electrical energy supply

EN 60204-1:2006 Safety of machinery — Electrical equipment of machines — Part 1: General requirements

EN 60204-1:2006/A1:2009 Safety of machinery — Electrical equipment of machines — Part 1: General requirements

IEC 60204-1:2005/A1:2008 Safety of machinery — Electrical equipment of machines — Part 1: General requirements

Non-electrical energy supply

EN ISO 4413:2010 Hydraulic fluid power — General rules and safety requirements for systems and their components

EN ISO 4414:2010 Pneumatic fluid power — General rules and safety requirements for systems and their components

Extreme temperatures

EN ISO 13732-1:2008 Ergonomics of the thermal environment — Methods for the assessment of human responses to contact with surfaces — Part 1: Hot surfaces

Noise

EN ISO 11688-1:2009 Acoustics — Recommended practice for the design of low-noise machinery and equipment — Part 1: Planning

Radiation hazards

EN 12198-1:2000+A1:2008 Safety of machinery — Assessment and reduction of risks arising from radiation emitted by machinery — Part 1: General principles

Laser Radiation

EN ISO 11252:2008 Lasers and laser-related equipment — Laser device — Minimum requirements for documentation

EN 12254:2010 Screens for laser working places — Safety requirements and testing

EN 12254:2010 /AC:2011 Screens for laser working places — Safety requirements and testing

Emission of hazardous materials and substances

EN 626-1:1994+A1:2008 Safety of machinery – Reduction of health hazards from hazardous substances emitted by machinery – Part 1: Principles and specifications for machine manufacturers

Access to the control stands and maintenance access points

EN ISO 14122-1:2001 Safety of machinery – Permanent means of access to machinery – Part 1: Choice of fixed means and general requirements of access

EN ISO 14122-1:2001/A1:2010 Safety of machinery – Permanent means of access to machinery – Part 1: Choice of fixed means and general requirements of access

EN ISO 14122-2: 2001 Safety of machinery – Permanent means of access to machinery – Part 2: Working platforms and walkways

EN ISO 14122-2:2001/A1:2010 Safety of machinery – Permanent means of access to machinery – Part 2: Working platforms and walkways

EN ISO 14122-3:2001 Safety of machinery – Permanent means of access to machinery – Part 3: Stairs, stepladders and guard-rails

EN ISO 14122-3:2001/A1:2010 Safety of machinery – Permanent means of access to machinery – Part 3: Stairs, stepladders and guard-rails

EN ISO 14122-4:2004 Safety of machinery – Permanent means of access to machinery – Part 4: Fixed ladders

EN ISO 14122-4:2004/AC:2010 Safety of machinery – Permanent means of access to machinery – Part 4: Fixed ladders

Warning of residual risks

EN 842:1996+A1:2008 Safety of machinery – Visual danger signals – General requirements, design and testing

EN 981:1996+A1:2008 Safety of machinery — System of auditory and visual danger and information signals

MECHANICAL ENGINEERING – Industrial robots, handling systems

EN ISO 11161:2007	Safety of machinery — Integrated manufacturing systems — Basic requirements
EN ISO 11161:2007/A1:2010	Safety of machinery — Integrated manufacturing systems — Basic requirements
EN ISO 10218-1:2011	Robots and robotic devices — Safety requirements for industrial robots — Part 1: Robots
EN ISO 10218-2:2011	Robots and robotic devices — Safety requirements for industrial robots — Part 2: Robot systems and integration

MECHANICAL ENGINEERING – Machine tools

EN 692:2005+A1:2009	Machine tools — Mechanical presses — Safety
EN 693:2001+A2:2011	Machine tools — Safety — Hydraulic presses
EN 1550:1997+A1:2008	Machine-tools safety — Safety requirements for the design and construction of work holding chucks
EN 12417:2001+A1:2009	Machine tools — Safety — Machining centres
EN 12417:2001+A1:2009/AC:2010	Machine tools — Safety — Machining centres
EN 12622:2009	Safety of machine tools — Hydraulic press brakes
EN 12717:2001+A1:2009	Safety of machine tools — Drilling machines
EN 12957:2001+A1:2009	Machine tools — Safety — Electro-discharge machines
EN 13128:2001+A2:2009	Safety of machine tools — Milling machines (including boring machines)
EN 13128:2001+A2:2009/AC:2010	Safety of machine tools — Milling machines (including boring machines)
EN 13218:2002+A1:2008	Machine tools — Safety — Stationary grinding machines
EN 13218:2002+A1:2008/AC:2008	Machine tools — Safety — Stationary grinding machines
EN 13736:2003+A1:2009	Safety of machine tools — Pneumatic presses
EN 13898:2003+A1:2009	Machine tools — Safety — Sawing machines for cold metal
EN 13898:2003+A1:2009/AC:2010	Machine tools — Safety — Sawing machines for cold metal
EN 14070:2003+A1:2009	Safety of machine tools — Transfer and special-purpose machines
EN 14070:2003+A1:2009/AC:2010	Safety of machine tools — Transfer and special-purpose machines
EN ISO 23125:2010	Machine tools — Safety — Turning machines
EN ISO 23125:2010/A1:2012	Machine tools — Safety — Turning machines

MECHANICAL ENGINEERING – Foundry machinery

EN 710:1997+A1:2010	Safety requirements for foundry moulding and coremaking machinery and plant and associated equipment
EN 869:2006+A1:2009	Safety of machinery — Safety requirements for pressure metal die-casting units
EN 1247:2004+A1:2010	Foundry machinery — Safety requirements for ladles, pouring equipment, centrifugal casting machines, continuous and semi continuous casting machines
EN 1248:2001+A1:2009	Foundry machinery — Safety requirements for abrasive blasting equipment

MECHANICAL ENGINEERING – Surface treatment, surface coating

EN 12921-1:2005+A1:2010	Machines for surface cleaning and pre-treatment of industrial items using liquids or vapours — Part 1: Common safety requirements
EN 12921-2:2005+A1:2008	Machines for surface cleaning and pre-treatment of industrial items using liquids or vapours — Part 2: Safety of machines using water-based cleaning liquids
EN 12921-3:2005+A1:2008	Machines for surface cleaning and pre-treatment of industrial items using liquids or vapours — Part 3: Safety of machines using flammable cleaning liquids

OPTOELECTRONICS, LASER TECHNOLOGY

EN ISO 11145:2008	Optics and photonics – Lasers and laser-related equipment – Vocabulary and symbols
EN ISO 11553-1:2008	Safety of machinery — Laser processing machines - Part 1: General safety requirements
EN ISO 11553-2:2008	Safety of machinery — Laser processing machines — Part 2: Safety requirements for hand-held laser processing devices
EN ISO 11554:2008	Optics and photonics – Lasers and laser-related equipment – Test methods for laser beam power, energy and temporal characteristics

CONVEYOR SYSTEMS – Industrial trucks

EN 1175-1:1998+A1:2010	Safety of industrial trucks – Electrical requirements – Part 1: General requirements for battery-powered trucks
EN 1175-2:1998+A1:2010	Safety of industrial trucks – Electrical requirements – Part 2: General requirements of internal combustion engine-powered trucks
EN 1175-3:1998+A1:2010	Safety of industrial trucks – Electrical requirements – Part 3: Specific requirements for the electric power transmission systems of internal combustion engine-powered trucks
EN 1459:1998+A3:2012	Safety of industrial trucks – Self-propelled variable reach trucks
EN 1526:1997+A1:2008	Safety of industrial trucks – Additional requirements for automated functions on trucks
EN 1755:2000+A1:2009	Safety of industrial trucks – Operation in potentially explosive atmospheres – Use in flammable gas, vapour, mist and dust
EN 12053:2001+A1:2008	Safety of industrial trucks – Test methods for measuring noise emissions
EN 13059:2002+A1:2008	Safety of industrial trucks – Test methods for measuring vibration

EN 15000:2008 Safety of industrial trucks – Self-propelled variable reach trucks – Specification,
performance and test requirements for longitudinal load moment indicators and
longitudinal load moment limiters

COATING MATERIALS INDUSTRY, PAINT INDUSTRY

EN 1953:1998+A1:2009 Atomising and spraying equipment for coating materials – Safety requirements

EN 12621:2006+A1:2010 Machinery for the supply and circulation of coating materials under pressure – Safety
requirements