

- Checklist -

Use of Mobile Industrial Robots and DSIMR¹

Version 1.1, August 2026

Instructions for completing the form: The preferred answer is “Yes.” If a question is answered with “No,” the “Comments” field should include a brief explanation of how to proceed. If a question is answered with “Not applicable,” this means that the question does not apply (e.g., electrical hazards at pneumatic machines).

No.	Question	Yes	No	N.A.	Comments
1. Marking					
1.1.	Does the robot ² have a type plate showing name and full address of manufacturer ³ , as well as the year of manufacture and digital contact information?				
1.2.	Does the robot (machine) have a CE marking?				
1.3.	Are the main electrical supply data—such as voltage, current, and/or power—located near the connection terminals to the electrical power grid?				
1.4.	Are warning labels affixed to the robot where necessary?				
1.5.	Are the markings clearly legible and permanent, even when cleaned with cleaning agents (if necessary, perform a wipe test in accordance with EN 60335-1)?				
2. Documentation					
2.1.	Is there an EC Declaration of Conformity in accordance with the Machinery Directive, or—as of January 20, 2027—an EU Declaration of Conformity in accordance with the Machinery Regulation?				
2.2.	Is there an operating manual available that includes instructions for safe operation?				
2.3.	Is the robot suitable for industrial use when used as intended (see operating instructions)?				
2.4.	Are the technical specifications required for safe operation available, such as mass, maximum speed, load capacity, and electrical supply data?				
2.5.	Are the procedures for safe maintenance, cleaning, and inspection intervals described?				
2.6.	Is the procedure for handling malfunctions and emergencies described?				
2.7.	Are the procedures for safely starting up and shutting down the robot described?				
2.8.	Are the safe handling and transport of the robot described, e.g., load take-up points?				
2.9.	Are the noise and vibration emissions specified in the operating instructions?				
2.10.	Are specific requirements regarding staff capabilities described where necessary, such as professional qualifications and physical and mental capacity?				
2.11.	Are requirements for specific personal protective equipment (PPE)—such as helmets, protective gloves, and clothing—described where necessary?				

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3. Technical requirements					
3.1.	Can the robot be operated safely without safety devices provided by the operator, such as safety fences, barriers, or cable guides?				
3.2.	Are sharp edges, pointed parts, and rough surfaces avoided on the robot?				
3.3.	Are the openings at the joints designed so that no hazard arises if touched by parts of human body, such as fingers?				
3.4.	Can the robot safely meet the specified performance requirements, such as load weight, speed, turning radius, and battery capacity?				
3.5.	Can the robot safely and autonomously restart after losing stability?				
3.6.	Is the robot equipped with safeguards that cause it to stop when persons approach?				
3.7.	In the event of potential contact between humans and robots, are the forces and pressures at the contact surfaces safely limited so as to prevent injuries (see EN ISO 10218-2 for limit values)?				
3.8.	Does the failure or malfunction of safety-related parts of the control system not lead to hazardous situations, regardless of the cause of the malfunction—e.g., broken wires, short circuits, pollution, radiation, or cyberattacks?				
3.9.	Are the robot's external components resistant to common cleaning agents?				
3.10.	Do the robot's movements remain within the specified limits (e.g., speed, force, acceleration)?				
3.11.	Is the robot mechanically stable under various load conditions, even when it collides with obstacles?				
3.12.	Is contact between human body parts and hazardous electrical live parts prevented?				
3.13.	Does the robot have a main power disconnecter?				
3.14.	Do loss, interruptions, or disruptions of power supply not lead to dangerous situations, such as falls?				
3.15.	Can the user escape without further help from emergency situations (e.g., being trapped)?				
3.16.	Are the robot's noise and vibration emissions low enough so that use of personal protective equipment (PPE) is not necessary?				
3.17.	Are there no emissions of allergenic substances coming from materials used in the robot, such as solvents or gases from batteries?				
3.18.	Are the robot's control elements designed in such a way that they are easy to understand and allow for clear operation?				
3.19.	Does the use of the robot not cause any mental or physical stress, such as poor posture or fatigue?				

No.	Question	Yes	No	N.A.	Comments
4.	Environment				
4.1.	Are the robots suitable for use in an industrial environment (see 2)?				
4.2.	Is the work environment suitable for using the robots—for example, are there no crash edges, loading ramps, or stairs?				
4.3.	Can the facility features comply with the minimum requirements for the brightness of the work environment specified by the manufacturer to ensure that staff can see the robots clearly?				
4.4.	Can the facility comply with the maximum slope of the floor specified by the manufacturer?				
4.5.	Can the facility comply with the maximum potholes or hills in the floor specified by the manufacturer?				
4.6.	Can the facility comply with the stair dimensions specified by the manufacturer?				
4.7.	Can the facility meet the minimum friction coefficient for the floor specified by the manufacturer?				
4.8.	Can the manufacturer's specifications regarding permissible contaminants on the floor—such as water, oil, dirt, particles, and dust—be met?				
4.9.	Can the requirements specified by the manufacturer for the robot's navigation be met, e.g., the environmental light conditions, brightness, and wavelength?				
4.10.	Can the facility meet the manufacturer's specified requirements for the robot's navigation with regard to the complexity of the environment, e.g., due to data processing?				
4.11.	Can the user's company comply with the manufacturer's requirements for the robot's navigation regarding the maps to be provided, such as resolution?				
4.12.	Can the facility comply with the manufacturer's specified requirements regarding permissible optical and electromagnetic radiation?				
4.13.	Can the user's company comply with the manufacturer's specified requirements for minimum clearance heights and widths, as well as minimum distances from obstacles that must be navigated around?				
4.14.	Can the user's company meet the manufacturer's specified requirements for the obstacles to be navigated so that they can be detected by the robot mounted safeguards, e.g., color and size (test specimens may be required)?				
4.15.	Can the facility meet the ambient air requirements specified by the manufacturer, such as temperature, humidity, and dust levels?				
4.16.	Can the user's company meet the manufacturer's specifications regarding specific landmarks used for navigation?				

No.	Question	Yes	No	N.A.	Comments
4.17.	Can the manufacturer's specified requirements for specific startup procedures be met, such as extending the arms and legs (DSIMR only)?				
5.	Use				
5.1.	Are only robots that comply with the European Machinery Directive or Machinery Regulation (see 1 and 2) put into service?				
5.2.	Has a risk assessment been conducted and documented by the user in accordance with the German Betriebssicherheitsverordnung?				
5.3.	In emergency situations, can people easily reach the escape routes specified in the Workplace Safety Regulations—for example, with a passage width of no less than 0.5 m, as required by EN ISO 14122?				
5.4.	Have the employees designated to operate the robots received training?				
5.5.	Was the occupational safety training documented?				
5.6.	Have inspection intervals been established for recurring inspections in accordance with TRBS 1201?				
5.7.	Have the test criteria and scope of testing been defined in accordance with TRBS 1201, e.g., for force limits and stopping distances?				

Footnotes:

¹ DSIMR: Dynamically Stable Industrial Mobile Robot, e.g. robot dogs and humanoid industrial robots

² Robots, defined as mobile industrial robots or DSIMRs, as complete machines under the Machinery Directive or the Machinery Regulation (effective January 20, 2027)

³ alternatively a representative if applicable. The word integrator can be used instead of manufacturer.

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Note 1: This document is a translation from German original. For more information see <https://robot-safety.net>

Note 2: Future relevant standards can be but are not limited to: ISO 26058 series, ISO 25785 series