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GUARDRAIL SYSTEM

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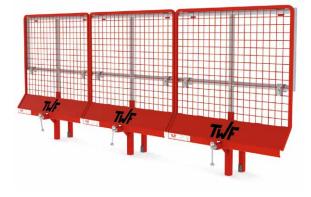
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► Guardrail system

1. Picture of guardrail system





2. Description of the guardrail system

The TWF guardrail system is a lightweight temporary edge protection system designed to be manually installed on a wide variety of TWF shoring systems quickly and easily (shoring boxes, slide rail plates, etc.). The guardrails are supplied in lengths of 3.0 m, 3.5 m, or 4.0 m with fixing brackets. They are attached to the top edge of the TWF shoring systems and then tightened securely. We recommend mounting the guardrails directly to the TWF shoring system by two persons. The system meets the specifications of EN 13374:2013 Class A "Temporary edge protection systems".



3. Installation and safety instructions

- **1.** Before use, ensure that the guardrails and fixing clamps are not damaged, the correct number of fixing clamps has been supplied and that they are attached in the right places.
- 2. Always install the system from a secure position. If you work on an unsupported edge, a comprehensive risk assessment must be carried out prior to installation. After attaching and securing the clamps, please check that none of the guardrail elements can be lifted, slid, or twisted. Guardrails can be turned around in order to enable tightening of the clamping bolts from either side (subject to risk assessment).
- **3.** Never lean over the guardrail or the edge of the construction pit to adjust the clamps.



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Operating manual

- 4. Always ensure that the bolts are fully tightened and the guardrails are standing vertically at least 1.0 m above the edge of the surrounding terrain.
- 5. Avoid any gaps exceeding 25 cm between guardrail elements.
- 6. Handle and store the guardrail systems carefully on the site, as they can be easily damaged. Always stack the elements on timbers and lift them manually or with a forklift.
- 7. Do not use the guardrails to support ladders, service accessories, or any other equipment or materials.
- 8. At least two persons are required to install and / or remove the guardrail system. This will ensure that installation is carried out from a secure position, preventing the installers having to stretch or lean over an edge where they could fall from a height.
- 9. No persons are allowed to work next to an unsecured shoring edge at any time.
- 10. The guardrail elements must not be installed or removed while anyone is standing directly underneath. It is recommended to leave a strip least 1.2 m wide around the edge of the construction pit to ensure safe installation.
- 11. The TWF guardrail is not intended as a barrier for pedestrians and was designed exclusively to prevent persons from falling into construction pits.
- 12. The guardrail system should not be used on strongly inclined surfaces (> 10 degrees) because there is a risk of impact loads causing the system to be overloaded.



- 13. Damaged guardrail elements must not be used and need to be replaced by TWF.
- 14. Ensure that the fixing clamps are securely fastened to the guardrail.
- 15. Lift the guardrail with attached fixing clamps vertically and slide / push the clamp over the top edge of the shoring plate.
- 16. Ensure that the clamp is fully slid into place and that the guardrail is stable before tightening the threaded rods. Care must be taken when tightening the rods to avoid any risk of falling into the construction pit. The guardrails are reversible, making it possible to position the threaded rods to the inside or the outside (subject to risk assessment to determine the safest position for installing / removing the elements).
- 17. Once the rods are tightened, check that the elements cannot be lifted or slid horizontally.
- **18.** To uninstall the elements, reverse the sequence of installation

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