



TEST REPORT - ST20, 2700mm

Smart Fix 2100 Joules

Report No. TR-24-022A
Date: 2024-10-10
Place: Troax Test Center



TEST MATERIAL

Panel: ST20, 2550x1000 mm
Post: 60x40x2700 mm
Fixing: Smart Fix bracket
Floor fixing: Bolted to test rig

PURPOSE

To document the effect of a high energy impact test from inside the hazard zone with Smart Fix machine guard system, the 60x40x2700 mm posts and the ST20, 2550 mm mesh panels.

TEST PROCEDURE

Pendulum mass: 134,5 kg
Pendulum speed: 20,12 km/h
Impact energy: 2100J

The test was performed in accordance with the pendulum test method stated in ISO14120:2015 Annex C. Panels and posts were assembled with the Smart Fix system according to the assembly instruction and then fixed to the test rig with M10 bolts. The pendulum was adjusted so the impact hits the panel 1600 mm above the floor. To reach the energy of 2100 J the pendulum was raised 1600 mm from the starting point.

RESULTS

The Smart Fix system withstand the high energy impact successfully. The centre panel, the posts and surrounding panels absorb all energy and obtain a remaining deformation. The total deflection of the panel was 430 mm. Despite the high energy impact there was no penetration, and no parts departed. The Smart Fix bracket shows no deformation.



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