



TEST REPORT - ST20

Smart Fix 2100 Joules

Report No. TR-22-030A
Date: 2021-09-02
Place: Troax Test Center



TEST MATERIAL

Panel: ST20 2050x700 mm, ST20 2050x1500 mm
Post: 60x40x2200 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 60x40 posts and the ST20 mesh panels.

TEST PROCEDURE

Pendulum mass: 134 kg
Pendulum speed: 20,15 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 1466mm above the floor, 2/3 of the total wall height of 2200 mm. To reach the energy of 2100 J the pendulum was raised 1596 mm from the starting point.

RESULTS

The Smart Fix system successfully withstand the high energy impact. The centre panel and the posts absorb all energy and obtain a remaining deformation. The total deflection of the 700 panel was 427 mm and deflection of the 1500 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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