



# TEST REPORT - ST20, 2500mm

## Smart Fix 2000 Joules

**Report No.** TR-21-044A  
**Date:** 2021-07-02  
**Place:** Troax Test Center



### TEST MATERIAL

Panel: ST20, 2350x1200 mm  
Post: 60x40x2500 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 60x40x2500 mm posts and the ST20, 2350 mm mesh panels.

### TEST PROCEDURE

Pendulum mass: 140 kg  
Pendulum speed: 19,24 km/h  
Impact energy: 2000J

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 1667mm above the floor, 2/3 of the total wall height of 2500 mm. To reach the energy of 2000 J the pendulum was raised 1455 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 443 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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