



# TEST REPORT - ST30

## Smart Fix 2100 Joules

**Report No.** TR-22-031A  
**Date:** 2021-09-02  
**Place:** Troax Test Center



### TEST MATERIAL

Panel: ST30 2050x700 mm, ST30 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 Troax Smart Fix machine guard system, the 60x40 posts and the ST30 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 375 mm and deflection of the 1500 panel was 368 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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