



# TEST REPORT - Double ST20

## Strong Fix 8180 Joules

**Report No.** TR-20-069A  
**Date:** 2020-12-01  
**Place:** Troax Test Center



### TEST MATERIAL

Panel: ST20 2050x1500 mm, 2 pcs  
Post: 80x80x2200 mm  
Fixing: Strong Fix bracket  
Floor fixing: M12 expander bolt

### PURPOSE

To document the effect of a very high energy impact test from inside the hazard zone with Strong Fix machine guard system, the 80x80 posts and the ST20 mesh panels.

### TEST PROCEDURE

Pendulum mass: 238 kg  
Pendulum speed: 29,85 km/h  
Impact energy: 8180J

The test was performed in accordance with the pendulum test method stated in ISO14120:2015 Annex C. Panels and posts were assembled with the Strong Fix system according to the assembly instruction and then bolted to the concrete floor. 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 8180 J the pendulum was raised 3500 mm from the starting point.

### RESULTS

The Strong Fix system withstand the very high energy impact. The centre panel, posts and surrounding panels absorb all energy and obtain a remaining deformation. The total deflection of the panel was 656 mm. Despite the high energy impact there was no penetration and no parts departed.



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