



TEST REPORT - Panel Flexi (screw)

Smart Fix 1000 Joules

Report No. TR-20-036 B
Date: 2020-08-11
Place: Troax Test Center



TEST MATERIAL

Panel: ST20; Panel Flexi, 2050x1000 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 ST20 Smart Fix machine guard system, the 60x40 posts and the ST20 Panel Flexi, secured using self-drilling screws.

TEST PROCEDURE

Pendulum mass: 100 kg
Pendulum speed: 16 km/h
Impact energy: 1000J

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 1000 J the pendulum was raised 1018 mm from the starting point.

RESULTS

The Smart Fix system with Panel Flexi performed well in the test and withstands the high energy impact. Panel Flexi, the surrounding panels and the posts absorb all energy and obtain a remaining deformation. The total deflection of the panel curve was 188 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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