

## Test report summary

### NTF Stainless Steel High Line

Report No. TR-15-012

Date: 2015-05-21

Place: Troax Test Centre

#### Purpose

To document the effect of a high energy impact test from inside the hazard zone with NTF High Line Stainless Steel machine guard system.

#### Test material

Panel: Framed stainless steel mesh panel A001-001, 1870x1000 mm

Post: Stainless steel V-shaped post A001-026, 2000 mm

Fixing: Stainless steel bolt and plastic spacer

Floor fixing: Bolted to the test rig

#### Test procedure

The test was performed in accordance with the pendulum test method stated in ISO 14120:2015 Annex C. Panels and posts of the High Line system were assembled and fastened to the test rig. The pendulum of 100 kg was adjusted so the impact hit the panel at 1466 mm above the floor, i.e. 1336 mm from the bottom of the panel (with a 130 mm floor gap). To reach the energy of 1600 J the 100 kg pendulum was raised 1629 mm from the starting point.

#### Impact energy

Pendulum mass: 100 kg

Pendulum speed: 20 km/h

$$E = \frac{mv^2}{2} = \frac{100 * (\frac{20}{3,6})^2}{2} = 1543 J$$

$$E = mgh = 100 * 9,82 * 1.629 = 1600 J$$

#### Results

The High Line wall performed well in the test and withstands the high energy impact. The centre panel and the posts absorb all energy and obtain a remaining deformation. The total deflection of the panel and the posts was approximately 406 mm. Despite the high energy impact there was no penetration and no parts departed.



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