

Declaration of guard's safety performance

FlexLink's structural system TC40 is proven to fulfill the ISO 14120:2018 robustness requirements by withstanding 309 J.

A machine must be safe before it is put into service or released on the market. The legal requirements deviates between countries. In Europe, machines must fulfill the Machinery directive, a directive which is transcribed into law and expresses the essential health and safety requirements for machines and their guards.

A guard is per definition a part of the machinery used specifically to provide protection by means of a physical barrier. It should withstand and contain reasonably foreseeable impacts from the operator and ejections of parts, for example a workpiece, from the machine. The guard's support posts, guard frames, mountings and infill materials shall provide a rigid and stable structure and resist deformation.

The international harmonized standard ISO 14120:2018 specifies the general requirements on design and construction of guards. The aspects of guard design and construction is subject to verification. Robustness shall be verified by practical tests.

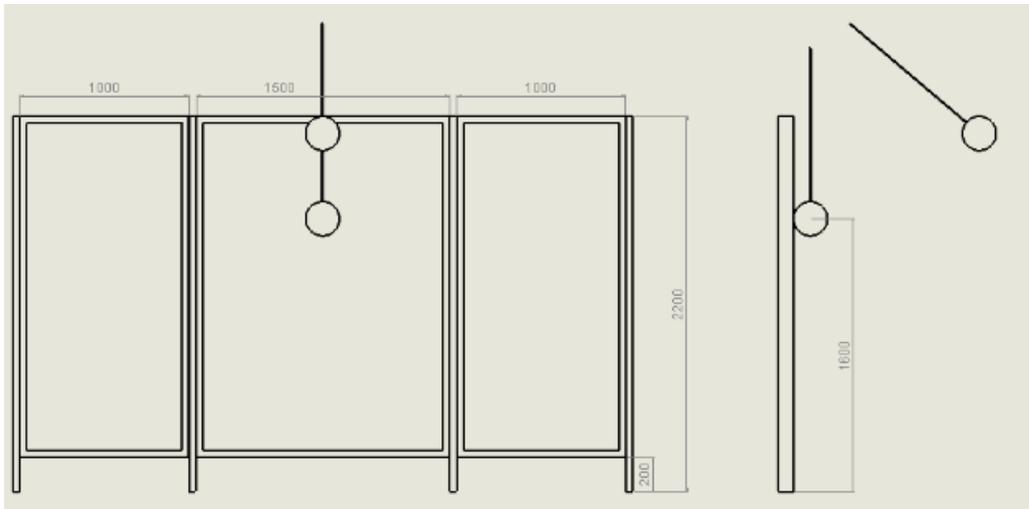
Annex C of ISO 14120:2018 describes a test method for verification of robustness. The basis values simulates a human body with a minimum weight of 90 kg crashing into the guard at walking speed 1,6 m/s as a minimum, resulting in an impact energy at $E = 115 \text{ J}$.

Date: Year 2010
Testing company: FlexLink, Bielefeld
Test method: ISO 140120:2018 Annex C

Parts:

- Support posts with foot: J9248420099
- Guard frames: TCBL 3x40 (beam), TCSJ 12x40 (connector), TCET 2 EB (net strip)
- Infill materials: PC panel 5mm
- Post/frame connector: J9247870099
- Fixing: M8 screw

Pendulum properties: $m = 80 \text{ kg}$, $v = 2.78 \text{ m/s}$, $E = 309 \text{ J}$.



Test results:

- No deformations or cracks cause harm,
- No penetration observed,
- Guard window still fixed in frame,
- Guard still fixed to guard support

FlexLink AB
Byfogdegatan 11
SE-415 50 Göteborg
SWEDEN

Olaf Witschass
2019-04-24 Gothenburg