

# Tensegrity<sup>®</sup> Glass Beams

## Why stainless?

- Aesthetics
- Good mechanical properties.

## Fabrication process:

Cut and threaded bars.

## Grade:

EN: 1.4401 (AISI: 316).

## Manufacturer:

Experiment of Professor Ing. M. Froli and Dr. Ing. L. Lani, Department of Structural Engineering , University of Pisa, Italy (unipi.it).



A new type of glass panel beam has been developed at the University of Pisa, Italy. The basic concept involves preventing and guiding glass fracture by breaking it into triangular modular elements. The elements are connected to each other by applying a pre-stress in the form of pre-tensioned stainless steel cables or bars. The glass is predominately subject to compression. The final collapse of the structure depends on the ductility of the steel.

The structure relies on the principle of tensile integrity, or Tensegrity as it is better known. Tensegrity refers to the integrity of structures as being based in a synergy between balanced tension and compression components.

All ancillary are made of stainless steel. This is for both aesthetic and durability reasons.

Prototypes are currently being tested at the University of Pisa.



Images courtesy of Centro Inox, Italy.

