

# Technical equipments

## Prototype manufacturing:



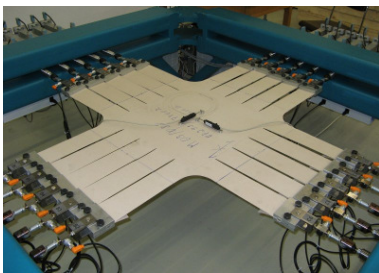
The Center for Synergetic Structures is very well equipped. We have a high-frequency welding machine for the assembling of coated fabrics and foils. Together with the mechanical workshop, this allows us to manufacture prototypes (up to 10m long), test samples and orders from clients.

## Prototype testing:



Our large test stands have been specially designed to study the load bearing behavior of complete Tensairity® structures. Different loads such as distributed loads, asymmetric loads and local loads can be applied.

## Material testing:



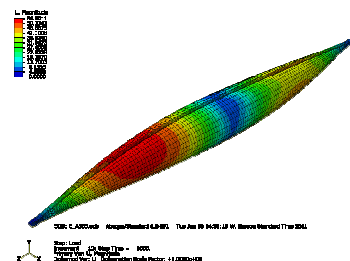
We can study the elasticity and strength of materials in house with uniaxial testing machines. Unique in Switzerland is our biaxial testing machine, which allows us to investigate the mechanical properties of fabrics. This machine is especially designed for the testing of coated fabrics used in civil engineering structures such as PVC/Polyester or PTFE/Glass. It has a load capability of 100kN/m in both directions.

## Optical measurement:



An optical 3D-correlation system with two 4-mega-pixels-cameras enables us the measure deformations of Tensairity® and other structures without contact.

## Design and modelling:



We are equipped with up to date CAD- and FEM tools:

- Pro/Engineer
- Rhino
- Ansys Classic
- Abaqus CAE

## Contact

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Materials Science & Technology



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