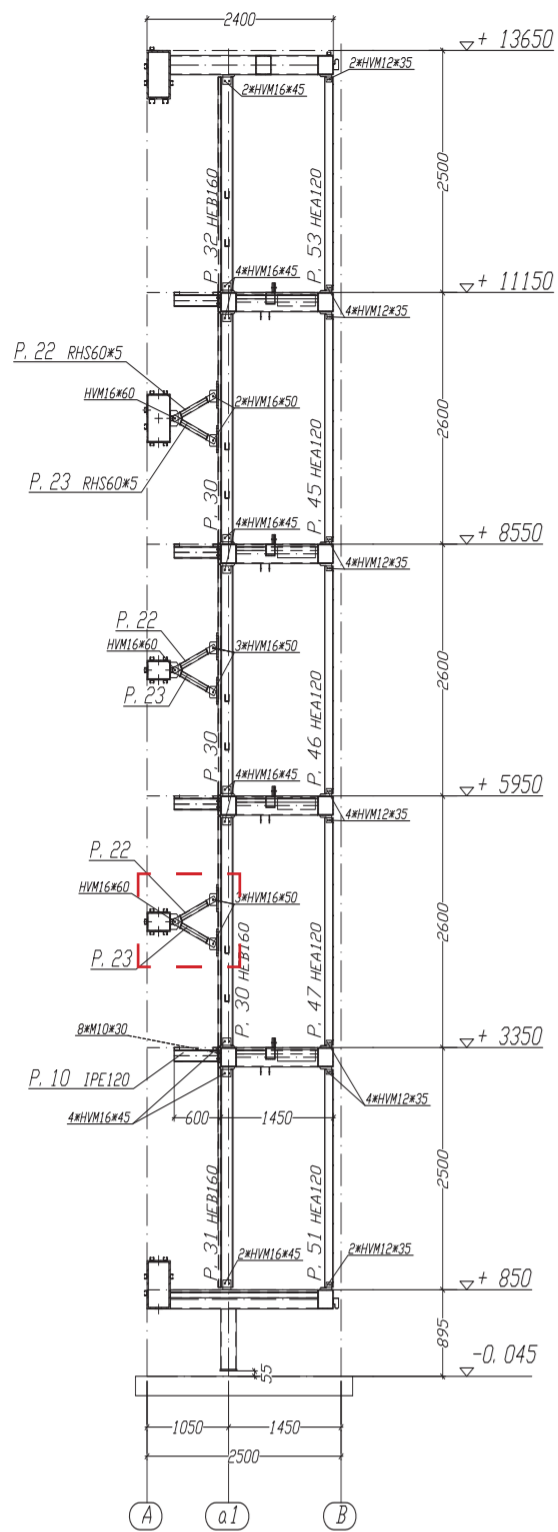
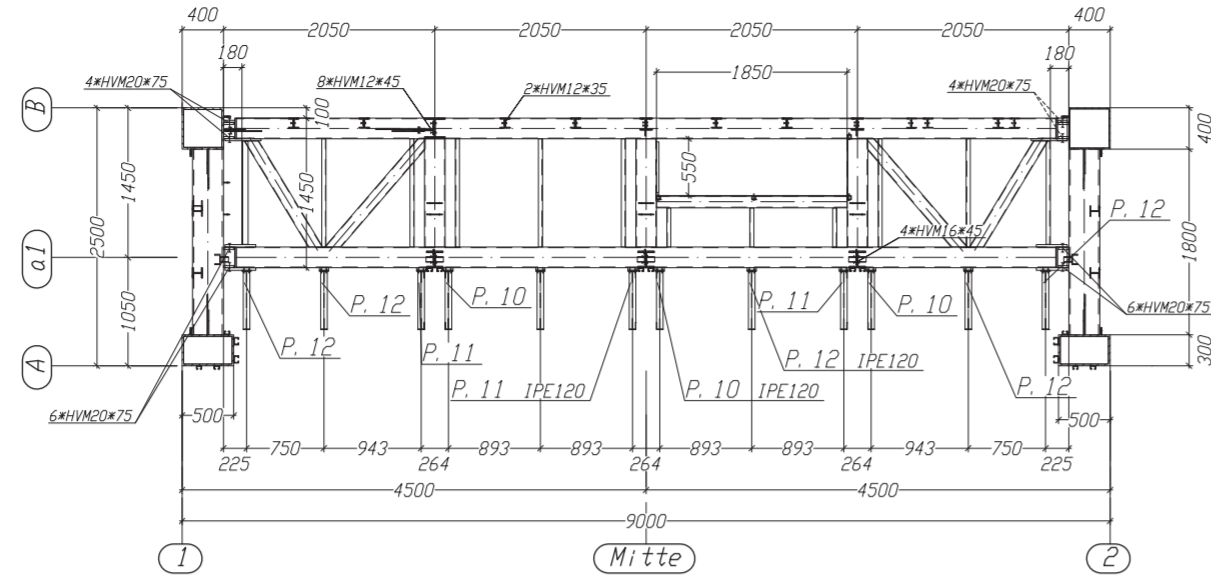


QUERSCHNITT 1: 50

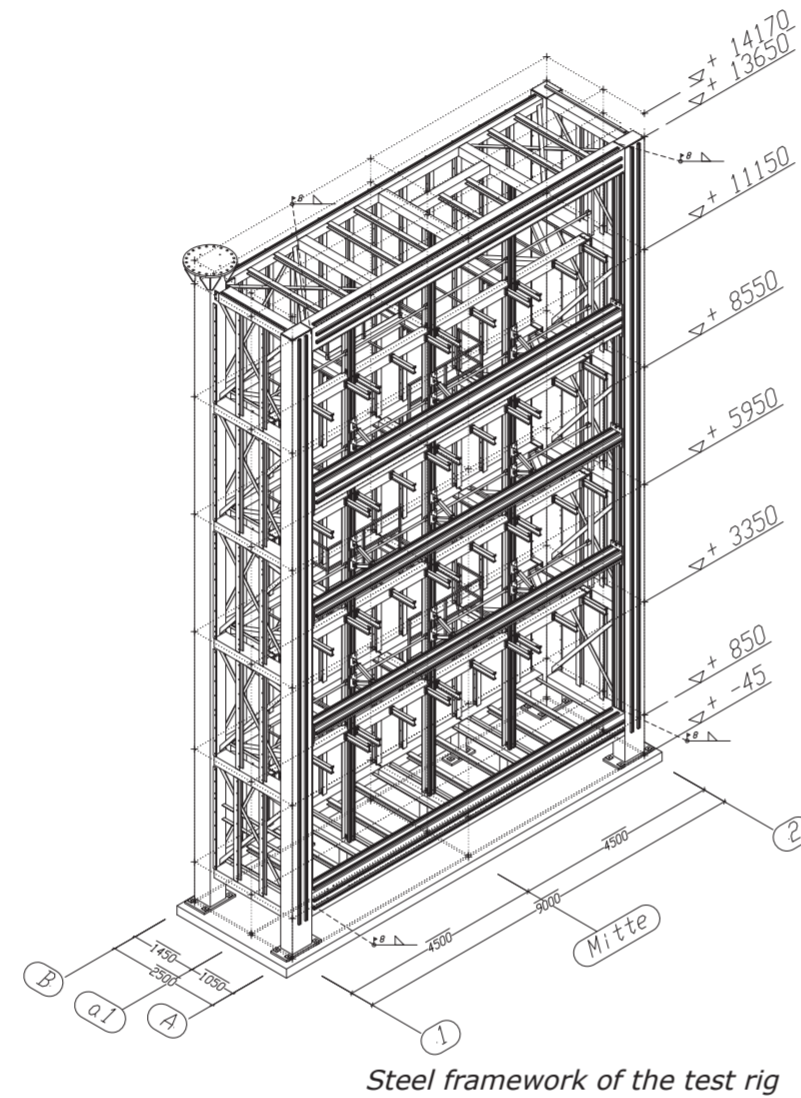


Vertical section of the test rig

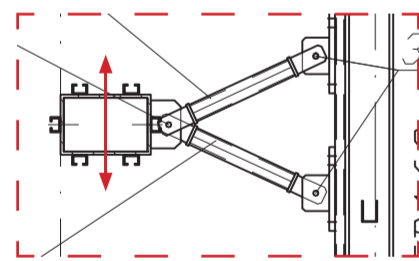
DRAUFSICHT *WARTUNGSSTEG EBENE +3.350 U. +8.550



Horizontal section of the test rig



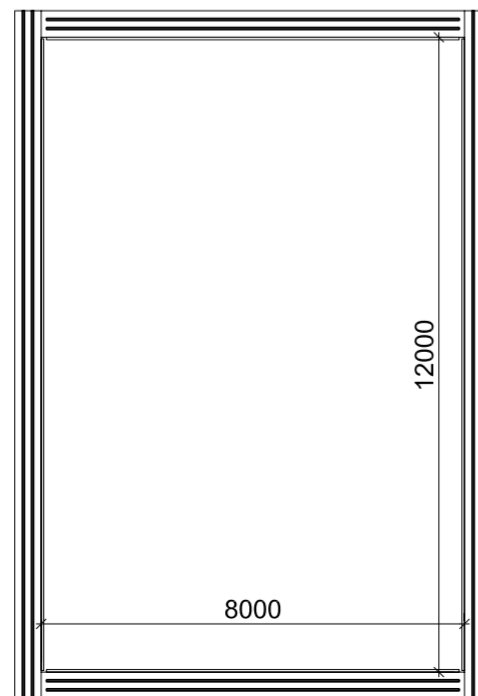
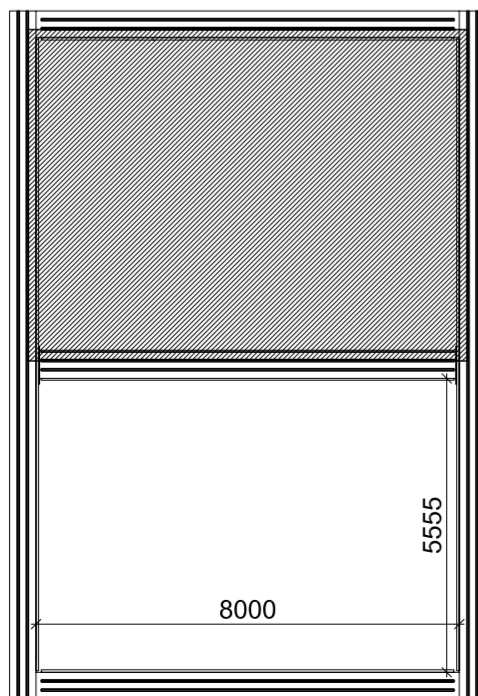
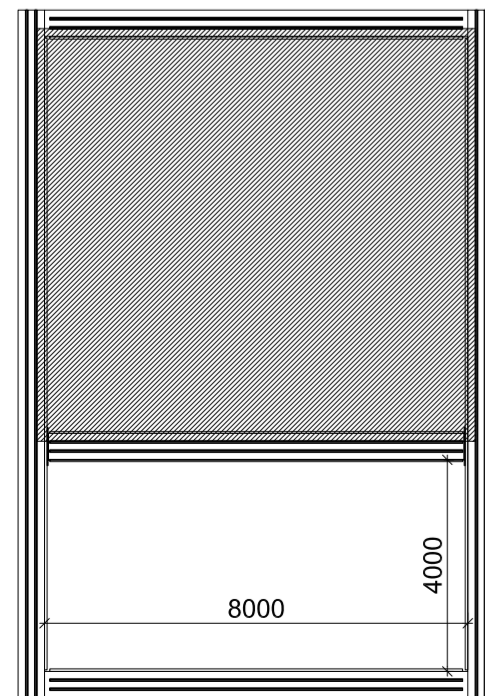
Steel framework of the test rig



Adjustable floor slabs

The floor slab simulating profiles are continuously vertically adjustable.

The profiles are equipped with welded on Halfen fastening rails allowing for flexible use.



Adjustable compartment opening

A flexible membrane system allows the installation of bespoke façade test specimens. Pre-mounted standard openings are 8 x 4 meters, 8 x 5.5 meters and 8 x 12 meters.

Revolving crane

Safe working load 2.5 tons
Working radius 10 meters

Driving rain unit

Water spray system
Moving fan for turbulent wind effects

Test rig

Airtight steel compartment
Adjustable slab simulating profiles and pre-mounted Halfen channel system allowing for flexible use and installation

Cabin

Control stand
Instruments
Aggregates

Façade Testing

The Lucerne University façade engineering centre provides test and research facilities for façades and lightweight structures. At the desire of contractors, consultancies as well as architects, specific assessments and investigations are being carried out. Our flagship, the new façade test rig, allows for weather resistance testing, including air permeability, water tightness, wind load and impact.

The Lucerne University of Applied Sciences and Arts are accredited in accordance to ISO 17025 for following standards:

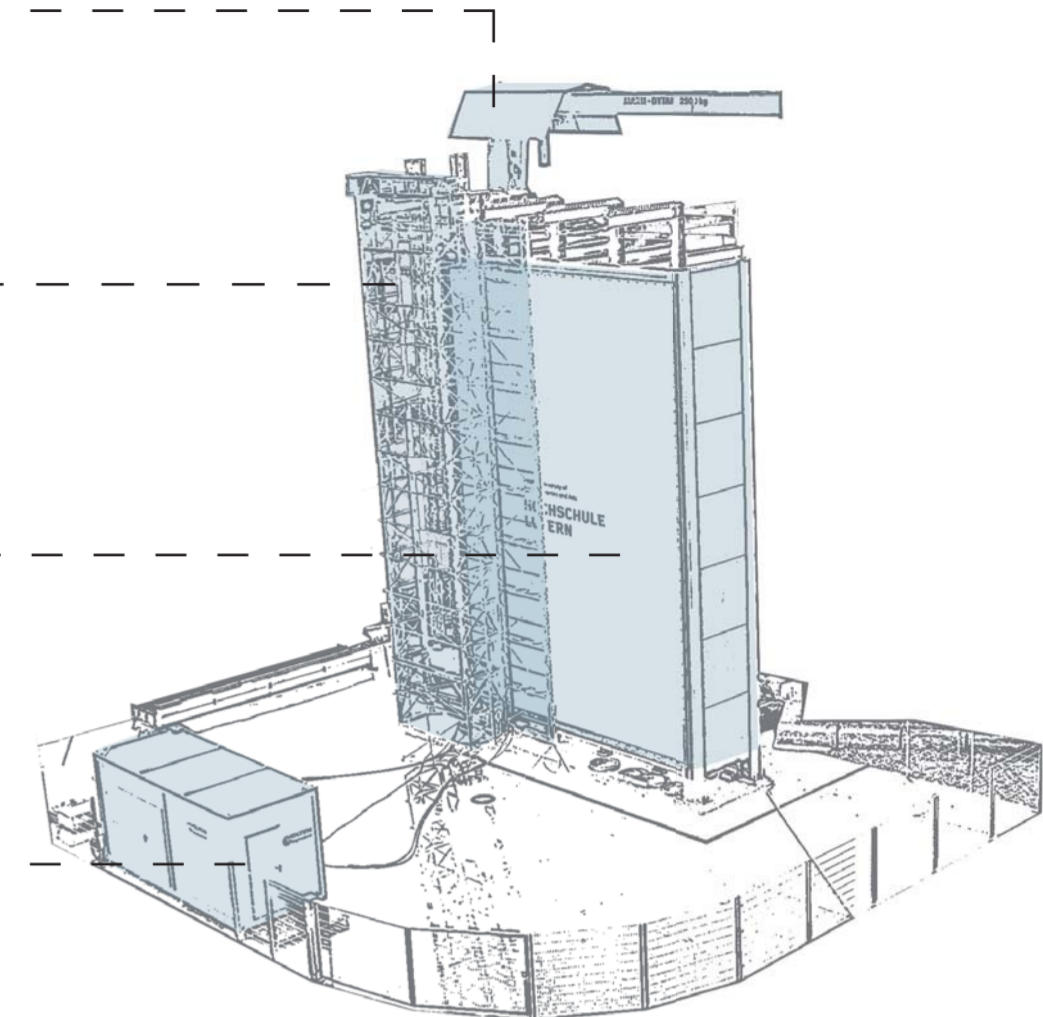
- EN 13830 Curtain walling - Product standard
- EN 12153 Curtain walling - Air permeability
- EN 12155 Curtain walling - Watertightness
- EN 12179 Curtain walling - Resistance to wind loads
- ENV 13050 Curtain walling - Watertightness under dynamic conditions
- EN 12600 Glass in building - Pendulum test

Façade Test Rig

The outstanding high specification façade test rig is highly flexible. Façades of various sizes with up to 8 meter width and 12 meter height can be accommodated very comfortably. Wireless instruments ensure a straight forward handling during installations, as well as during testing.

The Lucerne University of Applied Sciences and Art façade test rig allows for most severe and precise testing.

- Maximum pressure 10'000 Pa
- Minimum pressure -10'000 Pa
- Pressure pulse -3'000 Pa to 3'000 Pa within 5 seconds
- Driving rain up to 4 L/(m² · min)



Project Partners

Holten Prüftechnik GmbH (test equipment)
Brannenburg, Germany

Josef Meyer Stahl & Metallbau AG (test rig)
Emmenbrücke, Switzerland

Tenta AG (membrane system)
Hasle, Switzerland

Sika AG (sealing system)
Zurich, Switzerland

Façade Test Rig

Lucerne University of Applied Sciences and Arts

HOCHSCHULE LUZERN

Engineering and Architecture

Rev. 002

08.06.09

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Luzerne University of Applied Sciences and Arts

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