

Replacement of the retractable roof at the Bad Hersfeld monastery

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ABSTRACT

In 775 a.C. Charlemagne raised the Hersfeld monastery to an imperial abbey, built till 850 a.C.

To use the space at the abbey for annual festivals between 1958 – 1967 Frei Otto, a pioneer in tensile lightweight architecture, designed a retractable membrane roof. In 1968 the fabrication and installation of the 1600m² retractable membrane roof has been completed with a grand-opening. The PVC/PES membrane roof is suspended by 14 motorized cable clamps spanned over a 36m higher mas to external tie-back points avoiding any contact with the existing historical building.

In 2019 the complete membrane roof surface has been replaced. For this replacement the initial design has been evaluated and optimized. The complete site works for the replacement took 6 weeks. The presentation will describe the relevant design, optimisation and installation works that took place as part of the replacement.

