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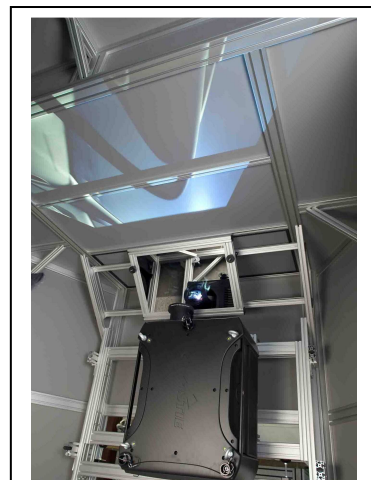
## Like a giant slide projector

### A mobile projection screen for intricate work in the automotive sector enables close inspection of 1:1 scale models

Thomas Kleefeld Metallbau, based in Krefeld, Germany, has designed and built a mobile back projection room to enable a customer in the automotive sector to work with projections of 3D computer models in 1:1 scale. The room, which has been dubbed VisWall and ensures both stability and flexibility, is made from components in the MB Building Kit System from item Industrietechnik GmbH. Projecting images or films in their original size helps observers to get a clear impression of details and a realistic overall impression of the project. The entire room can be moved on rollers and made smaller for transportation by slotting the section containing the projector into the rest of the projection space.



Inside the VisWall projection room, built using aluminium profiles from the item MB Building Kit System. (Left: Projector with slot-in function. Right: Projection surface)



Back projection process with projector and tilted mirror.

The core element of the system is a 5-metre long and 2-metre high specially coated glass panel that serves as the projection screen. The projection beam is guided onto the screen via a tilted mirror that can be adjusted along three axes. The alignment and spacing of the projector, mirror and projection surface must be exactly right to ensure the image is perfect.

The projection surface, which weighs in at 250 kg, must not sag by more than 1 mm in order to ensure optimum image transfer. This condition was met by suspending the panel on an item MB Profile 240 x 40 with eleven T-Slot Sliders. The frame of the room sits on Heavy-Duty Castors 8 from the MB Building Kit System and can be reduced in depth from 3.72 m to 2.2 m and moved freely.



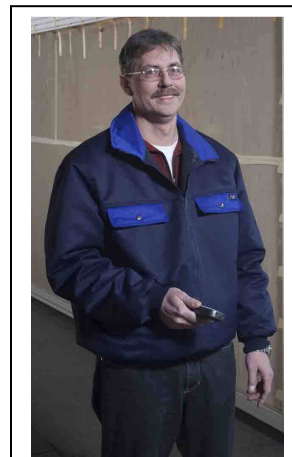
The new item T-Slot Slider 8

“One particular challenge was ensuring the design was rigid without obstructing the beam from the projector in any way,” explains the owner, Thomas Kleefeld. “That is why the entire structure is constructed using Line 8 aluminium profiles and the appropriate Parallel Fasteners from the item MB Building Kit System.” item Industrietechnik GmbH is the company behind the MB Building Kit System, a range of aluminium profiles and corresponding fasteners that delivers solutions in industrial

factory equipment engineering. In addition to the well-known item components used to construct the basic frame, the project also made use of new products from item such as the T-Slot Slider 8 and Heavy-Duty Castor 8.

The three-man start-up company Thomas Kleefeld Metallbau was established on 15 March 2005 in Krefeld, Germany, and specialises in the planning, design, production and assembly of all types of production facilities. It has already completed numerous successful international projects such as the Tower Simulation in Amsterdam.

Viscon GmbH specialises in 2D and 3D direct and back projection technology. Thomas Kleefeld Metallbau ([www.tk-metallbau.de](http://www.tk-metallbau.de)) works with Viscon to produce special frames for this technology using the item MB Building Kit System. Viscon then assembles and commissions the frames at the premises of end customers.



Thomas Kleefeld, owner of TK-Metallbau

VISCON ([www.viscon.de](http://www.viscon.de)) was established at the start of September 2002. The company focuses on planning, marketing and implementing immersive projection systems.

item Industrietechnik GmbH from Solingen, Germany, develops and supplies the MB Building Kit System, a system which enables customized solutions for all aspects of industrial factory equipment engineering. The Building Kit System is based on aluminium profiles, carefully coordinated fasteners, and versatile functional elements.