



SITE INFORMATION

Demag Cranes – Luisenthal





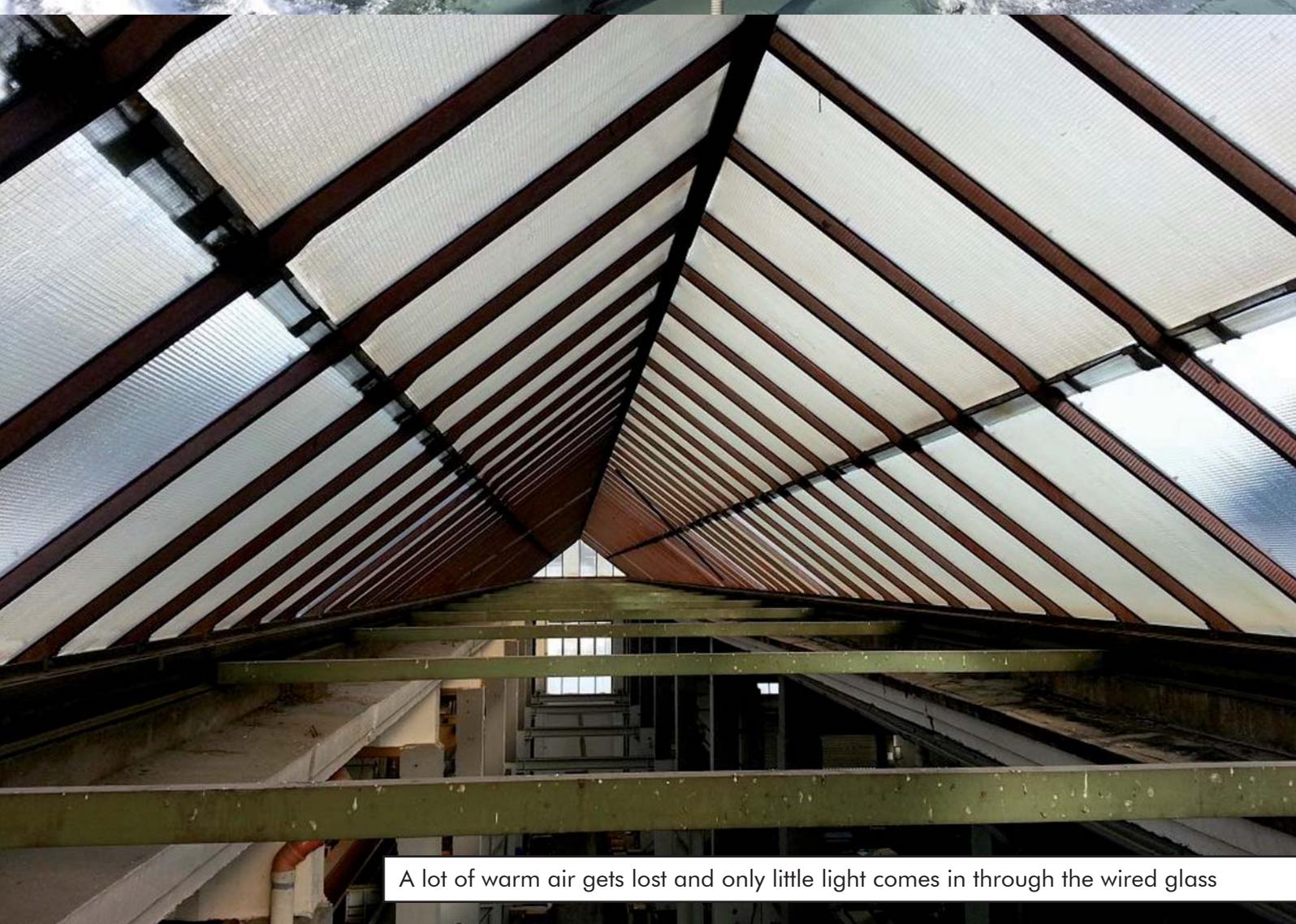
DEMAG Cranes – Light supply for an established German enterprise

In the year 1910 three mechanical engineering factories merged to form the Demag-Group, which today belongs to the TEREX Corporation specialised on the production of cranes. For the roof refurbishment of the factory in Luisenthal, the existing roof light system was replaced by modern 40 mm polycarbonate multi-wall panels with click system. The well-preserved sub-construction was re-utilised. As the multi-wall panels were laterally plugged together by tongue and groove, no upper and lower glazing bars were needed, making the continuous skylight system appear to be made in one piece. But the multi-wall panels not only bring much more light to the building. With a U-value of $1.1 \text{ W/m}^2\text{K}$ the panels feature significantly improved thermal insulation values in comparison to the formerly used wired glass panels, which had darkened over the years.

In the course of the skylight refurbishment a state-of-the-art smoke and heat extraction system was installed in accordance with the German Industrial Standards DIN 18232-2. The PHOENIX smoke and heat extraction systems are also used for day-to-day ventilation. Thus, the skylight system not only provides free daylight throughout the entire year, but also reduces heating bills in winter and improves the working environment by supplying fresh air and a cool breeze in summer.



Single glazing with wired glass before refurbishment



A lot of warm air gets lost and only little light comes in through the wired glass



No upper or lower glazing bars are required for the multi-wall panel click system



In the course of refurbishment, SHE units were also installed as per DIN 18232-2