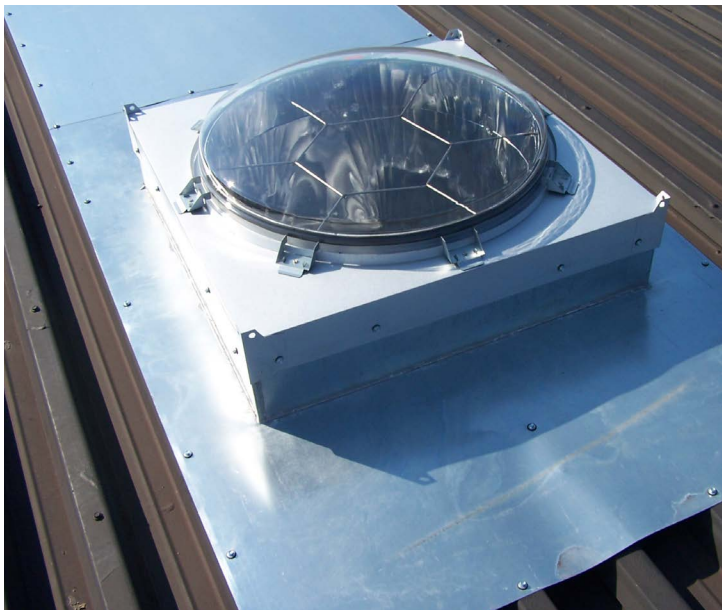
Case Study

Project:

ArcelorMittal Poland
Dabrowa Górnicza, Poland

Building Type: Steelworks

ArcelorMittal is the world's leading steel and mining company. Guided by the principles to produce safe, sustainable steel, ArcelorMittal is the largest provider of quality steel products in all major markets e.g. automotive industry, construction, household appliances and packaging. The Steelworks in Dabrowa Górnicza is the biggest facility of its kind in Poland. ArcelorMittal is looking for new technologies that improve the quality of the work conditions for their employees, as well as care for the natural environment.



Objective

The main objective of the project was to illuminate the workplace for cranes that carry semi-finished products for further processing. The subject of the project consisted of two separate halls:
-The first hall with dimensions of 36 m width, 160 m length and 22 m height; the target was to improve the illumination of the space and achieve the average luminance of 100 lux.
-The second hall with dimensions of 30 m width, 72 m length and 22 m height - the target was to improve the illumination of the space and achieve the average luminance of 200 lux.
An additional challenge to overcome was to install the systems from the top of the roof without interfering with the production process since ladders and other equipment were not permissible.

Solution

To meet all the project requirements, the Solatube SkyVault® M74 DS with the Amplifier was proposed. The Amplifier was installed to focus the light on the task plane due to the large heights of the installation. To adapt the system to the roof, customized flashings were prepared, on which Solatube M74 DS was installed. The most serious challenge was to install the system only from the upper side of the roof. To minimize disruption, the Diffuser, Amplifier and Extension Tube were assembled from inside the building. Afterwards, the assembly was hoisted up on a specially prepared net through penetration in the roof. Once the SkyVault with Amplifier was hoisted through the roof penetration, it was assembled with flashing and installed on the roof.

Products Used

- 35 Solatube SkyVault® M-74 DS with Amplifier units

Testimonial

After the installation, measurements of light intensity were made, and it was determined that all requirements were met. Moreover, ArcelorMittal appreciated the positive influence of daylight on improving the working conditions. "This technology innovation is a revolution in the Polish market. We did not expect that it would be possible to install this kind of object on the roof without interrupting the production process."

Marcin Maciag,
Director of ArcelorMittal Poland

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