

Schmersal Group

Safety solutions for the construction materials industry

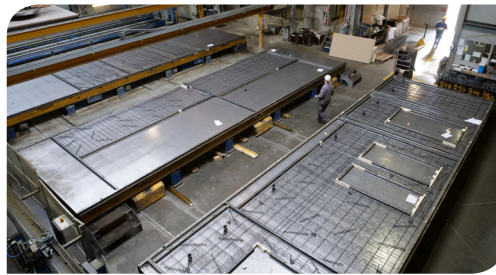
Occupational safety is a strategic priority for CRH. As part of continual investment in its safety systems, CRH Structural Concrete Belgium (CRH Belgium) opted to equip its 11 locations with safety solutions from the Schmersal Group.

CRH Belgium produces a wide range of construction materials for industrial, commercial and residential buildings, including prefabricated concrete structures, pre-stressed concrete slabs and prefabricated reinforced concrete parts for steps. Six brands make up its corporate structure, including the Prefaco plant in Neeroeteren, which produces prefabricated concrete slabs. Like its other facilities, the plant has been absorbed into CRH since the turn of the 21st Century.

In 2017 CRH spent over Euro160m on health and safety measures and carried out safety audits at 83% of its 3600 locations. One such audit led to the first meeting between CRH Belgium and Schmersal in 2016. The resultant audit identified zones of high risk at all 11 of CRH Belgium's locations.

At the Neeroeteren plant, slabs are produced on work benches of 12m x 4m that move from one stage to the next on a carousel, which is fitted with protective guards. However, access to some areas is required for maintenance purposes and manual work. The plant has a safety door that remains closed throughout the production process. Immediately adjacent to the safety door is a waist-high gap in the safety guard that is passed by the workbenches as they work through the automatic production process. The gap has now been fitted with series SLG 445 safety light curtains on either side to prevent employees from passing through the gap in the guard to bypass the closed safety door. The SLG 445 can distinguish between workers and the product, so the plant only stops in an emergency.

The optoelectronic light curtains are easily connected via an M12 plug connector. In addition, the SLC/SLG 445 offers an integrated setup aid with status display. It indicates to installation personnel whether the emitting and receiving units are precisely aligned.




Left: At the Prefaco plant in Neeroeteren, prefabricated concrete slabs are produced on work benches measuring about 12m x 4m.



CRH also uses another version of the safety light barrier in the form of the SLG 420 which, thanks to IP69K degree of protection, is suitable for use outdoors and in harsh environments and remains functional from -25°C to +50°C.

To safeguard the doors on the safety guards, CRH uses, among others, the AZM161 electro-mechanical safety interlocks from Schmersal. The package also included evaluation systems for safety component signals, including the safety relay modules in the PROTECT SRB-E series.

Standard ISO 13857 stipulates that certain safety clearances must be adhered to when installing safety guards. In addition to components, Schmersal also provided a comprehensive advisory service, which included determining the minimum safety clearances around guards and safety light curtains, as well as full conception of the optimal safety solution for the respective CRH location, comprising guards, safety components and evaluation systems. In the future, CRH Belgium could also call upon Schmersal to carry out safety audits and risk assessments, to provide support for retrofit projects or deliver training.

“Our aim was to standardise our safety solutions across our locations in Belgium, and to concentrate on one brand,” says Kenny de Krem, Project Manager at CRH Belgium. “With Schmersal, we now receive everything from a single source.” 

Left: Schmersal supplied Satech safety fences with adapted security technology to CRH. The image shows a hinge TESF/U safety switch for hinged safety guards.

Below: Safety light grids protect employees. They are also suitable for outdoor use with the SG5 protective cover.

