



# RUN AT THE FIRE BRIGADE

## Lünen fire brigade and ambulance station

Every second counts when someone's life is at stake, so the technology must work reliably. The Lünen fire brigade's new facility shows that this can be achieved whilst maintaining an attractive appearance. The city has invested 13 million Euros - the largest single municipal investment in the last 30 years - and in the process, they built a fire station that fulfils all the current standards. In early 2012, the Lünen fire brigade moved into their new building after seven years of planning and 18 months of construction time. The buildings on the 14,200 square metre site include about 47 industrial sectional doors „SL“ and a lot of fire protection doors from Teckentrup.

## Conforming to standards.

The function and straight lines of the architecture of the Lünen fire station remind the viewer of the clear form language of the Bauhaus era. The modest, straight line-based architecture embodies an unpretentious self-image: The functionality of the facility was what was important.

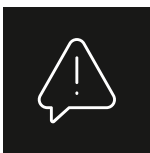
The vehicle halls with 32 parking spaces for fire engines and a further 5 spaces for ambulances are connected to the main building. Extremely robust power-operated sectional doors („SL“) have been installed to enable the vehicles to leave the facility quickly whenever there is an emergency. Their average opening speed is 0.25 m per second - as per the regulations. They are operated from the control centre, either by the person on duty there or by an alarm connection. The doors in the halls can also be directly opened - each door is therefore equipped with a control box. If there is a power cut, the doors are separated from the drive by a quick release function and can then be drawn upwards manually with a chain. Many doors are equipped with a wicket door. They ensure comfortable access into the halls even when the doors are closed.





The generous glazing of the doors means that the halls are flooded with daylight. This saves electrical light, is comfortable for the eyes and makes the interior appear larger. The aluminium construction (powder-coated in the colour RAL 9007) and the scratch-proof glazing also make the doors very robust and easy to care for.

The installation conditions in the halls were ideal, as they offered sufficient space for the installation with normal fittings and the vertical guide rails only rarely had to be raised higher. Also constructions such as the low header rails or those that follow the roof can be used with this door, however they were not necessary here. As such, the installation took place efficiently in the following steps: frame - side guide rails - ceiling suspension - spring shaft - sections - lay and wind up control cables - tension the spring. The final position was then adjusted after a test run. The gain of time due to the doors being largely prefabricated has been proven. For example, the drives were supplied ready to plug in, meaning the electrical work was omitted that would otherwise have been necessary.



**DIN 14092- 1 „Fire stations - part 1: planning principles“ (re-issued in April 2012)**

Prescribes minimum heights and a clearance widths depending on the sizes of vehicles and parking spaces. In accordance with this, a clearance width of 3.6 metres and clearance height of 4.5 metres must be adhered to. For the parking space size 4, an additional 0.5 metres must be allowed on each side and 0.2 metres of height must be provided for special vehicles. In Lünen, all doors are built in the size 3.85 x 4.5 metres - therefore basically each parking space can fulfil the requirement of parking space size 3.

Red - it's the first and only colour you think of when you hear the phrase „fire brigade“. There are many red surfaces to be found in Lünen as well, such as the doors in the main station. The doors of each different zone (e.g. main station, workshop, wash hall, disinfection room, service rooms) are painted in a different colour to separate the parts of the building from one another, without losing the harmonic architecture that feels as if everything has been cast from one mould. The robust fire protection doors are also equipped with large window elements in the important passageways. This helps to ensure that the doors are never opened when someone is standing behind them, even when people are running.



Clear view: The door to the vehicle hall is glazed to allow staff to see into the area into which the door opens.

#### Construction board

Object	Feuerwehr-/Rettungswache Lünen, Kupferstrasse 60, 44532 Lünen
Principal contractor	Stadtbetrieb Zentrale Gebäude- bewirtschaftung Lünen
Project management	Civil and turnkey construction Depenbrock Bau GmbH & Co. KG
Architects	kplan AG, Siegen
Construction price	approx. 13 mio Euro