

// Individual solutions in serial quality



# Special Control Systems

For commercial and industrial applications



**Brand-name quality  
for top safety and reliability**



**Hörmann develops quality reliable solutions which  
are optimised to be both economic and efficient.  
Competency and diligence provide you with more  
flexibility and productivity in implementing your projects.**



### **Door and operator systems manufactured in-house**

All key door and operator components are developed and manufactured by Hörmann. In order to ensure that the quality of production remains at a consistently high level, we use special production systems based on our own ideas.



### **Modular solutions, compatible with the Hörmann operator technology**

Every special control solution is based on a Hörmann serial control. A great number of functions can already be implemented with this control without the need for individual programming. In addition, the basic control ensures the 100% compatibility with other Hörmann operator systems.



### **High-quality individual components in serial quality**

When using additional components, such as programmable logic controllers, control elements, etc., we only employ standardised, specially tested components by high-quality suppliers. This ensures the secure, long-term functioning of the special control. As a result, we provide you with a 2-year warranty for the entire control technology.



### **Individual practical application tests ensure easy handling**

In addition to extensive process and system trials, as well as voltage and insulation tests, we also consistently test the practical application of our special controls. This ensures high user-friendliness in addition to optimal functionality.

**Hörmann is your partner  
for special solutions**



**Hörmann offers you a complete individual control concept from a single source. From the integration of the Hörmann special control into your control concept, via a complete central control for all functional processes, up to PC-based visualisation of all door and loading components.**



### Individual project development

The entire electrical planning is developed and tested in-house. The electronics documentation is created with E-Plan and ensures great modularity and intelligibility of the wiring diagrams.



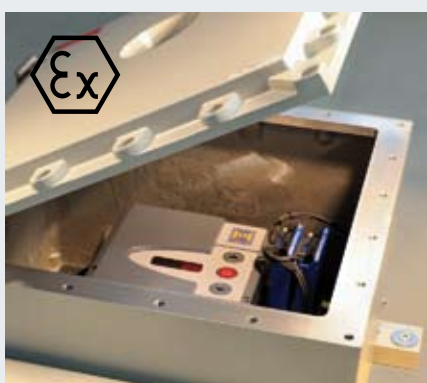
### Integration into customer-specific systems

In the implementation of control concepts, special attention is paid to the optimal integration of the Hörmann special controls into existing control systems. For this purpose, the Hörmann solutions are matched to the customer requirements or factory standards.



### Visualisation ensures controlled processes

You control, monitor and manage the entire control system via a graphic interface. It is depicted via a control panel or a web application.



### ATEX

Hörmann industrial door and operator systems are available in the respective versions according to ATEX directives. Specialised internal ATEX officers at the Hörmann factories are responsible for the correct implementation of the directives.

### Our references speak for themselves

**Aldi**

**Amazon**

**Audi Böhrringer**

**Daimler**

**DHL**

**Eon**

**Feuerwehr Bergneustadt  
(Bergneustadt fire station)**

**Feuerwehr Dresden  
(Dresden fire station)**

**Flughafen München  
(Munich airport)**

**Fraport AG**

**Gaz de France**

**Generali Kaldewei**

**Knauf Gips KG Lidl**

**MAN**

**Opel**

**Porsche**

**City of Einbeck**

**Toyota**

**VW**

**and many more**

# Porsche assembly factory



## Owner

Dr. Ing. h. c. Ferdinand Porsche AG

## Architect

gmp von Gerkan, Marg und Partner (Volkwin Marg and Hubert Nienhoff), agiplan Integrale Bauplanung

## Hörmann products

Decotherm rolling shutters, T90 fire sliding doors, SPU industrial sectional doors, Speed sectional doors, V 4011 high-speed doors, H3D multi-function doors and operator technology.

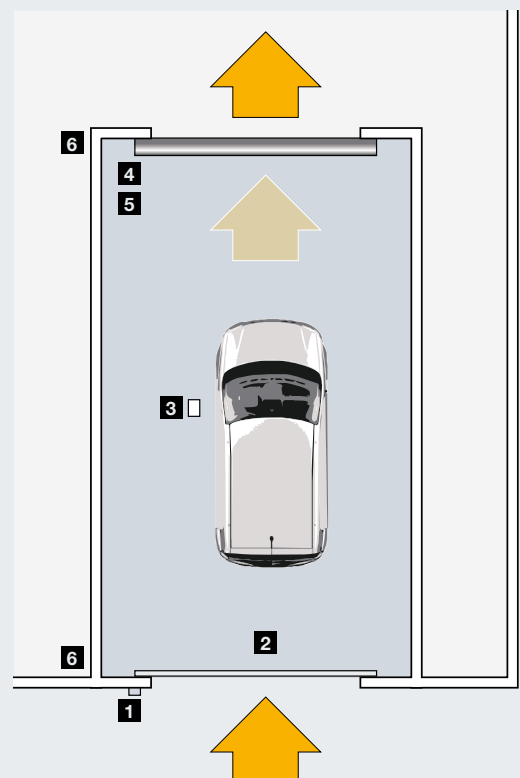
# Lock controller with link to the fire alarm system

## Requirement

When constructing a new assembly hall it should be ensured that vehicle and personnel traffic is only possible from the old to the new assembly hall. This requires a security lock to be installed in the transition zone that ensure the control of vehicle traffic in one direction only. In addition, the passage through the lock should be for authorised persons only. In addition, the controller should be linked to the fire alarm system, preventing entry into the lock in case of fire.

## Solution

- 1** The industrial sectional door is opened by authorised persons via a card reader.
- 2** The vehicle enters the lock.
- 3** The sectional door is closed once again by a pull switch inside the lock.
- 4** The high-speed door opens automatically and the vehicle can drive into the hall.
- 5** After a fixed interval, the high-speed door closes again automatically.
- 6** The link to the fire alarm system ensures that both doors are locked in case of fire and cannot be opened again.



# DHL Airhub Europe



## Owner

Deutsche Post Bauen GmbH

## Architect

gaa Goebel Architekten, Münster

## Hörmann products

SPU industrial sectional doors, HTL telescopic lip dock levellers, DSL/DAS dock shelters and operator technology.

# Door and operator systems according to the ATEX directive 94/9/EG



## Requirement

In the newly built operational buildings and maintenance halls, warehouses for kerosene, petrol and lubricants as well as a maintenance hall for the tank lorries were equipped with Hörmann industrial sectional doors and operators.

Due to the danger of explosion of the stored materials, there are special requirements for electrically operated door and operating systems. These systems must comply with the requirements of the ATEX directive 94/9/EC for potentially explosive areas.

### ATEX directive 94/9/EC

The ATEX directive determines the regulations for placing products on the market that will be employed in potentially explosive areas. The directive aims to protect persons working in potentially explosive areas. In Appendix II, the directive contains the basic health and safety requirements to be observed by manufacturers that have to be substantiated by appropriate conformity evaluation processes.

### ATEX workplace directive 1999/92/EG

This directive contains basic safety requirements for the operators/employers regarding the minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres. This includes the prevention or limitation of the formation of explosive atmospheres, the avoidance of the ignition of explosive atmospheres, and the mitigation of the detrimental effects of an explosion so as to ensure the health and safety of workers.

## Solution

The especially high requirements on door and operating systems in explosive areas require extensive expertise, experience and qualified specialists. They ensure:

- 1 The integration of the test documents in the manufacturing documents while complying with all aspects of relevance to ATEX.
- 2 Implementation of the provisions of the relevant ATEX standards.
- 3 Updating the certification documents.
- 4 Training of ATEX product manufacturing employees.

The ATEX expertise of Hörmann provides you with benefits from the start. This offers security to you, your products and your employees.

## Interview

### Mr Kämper, how did Hörmann become certified?

As manufacturers of ATEX products cannot be certified, only their individual products, a conformity evaluation method was applied to all products in accordance with the ATEX directive 94/9/EC. The key issue was the ignition danger evaluation, which was prepared in accordance with the standards EN 1127-1 and EN 13463-1 ff for the mechanical

devices. Based on the detailed results, an adjusted instruction manual was created. All documents were combined in a special folder and are available to the ATEX official for his/her work even after more than 10 years after introduction of the product.



Günter Kämper  
Independent engineering company  
for explosion protection

### What are the tasks of an explosion-proofing officer?

He/she is responsible for ensuring that Hörmann door systems comply with all ATEX-relevant requirements. He/she must be sufficiently experienced in the application of the standards for explosion protection and refresh this knowledge at regular intervals.

### How do you expect ATEX protection to develop?

Currently there is a great transition going on in electrical explosion protection in particular. The dust and gas ATEX standards are being combined, while new insights gained on an international scale change some requirements. Hörmann is paying great attention to this area, allowing them to react quickly to new customer requirements.

# Generali headquarters



## Owner

Generali Versicherung AG

## Architect

HPP Architekten, Düsseldorf

## Hörmann products

Industrial sectional door, traffic control system

# Traffic routing in an underground garage

## Requirement

The underground garage of the office building is divided into a parking section for passenger cars and a delivery area, which is accessed by lorries. To reach the delivery area, the lorries must also manoeuvre on the lanes that lead to the passenger vehicle parking area. The special control handles the entire traffic routing, enabling smooth passenger car and lorry traffic.

During the daytime office hours the door to the underground garage remains open and the traffic is controlled by the barriers and traffic lights.

During the night, the door to the underground garage remains closed and only opens together with the barriers upon demand.

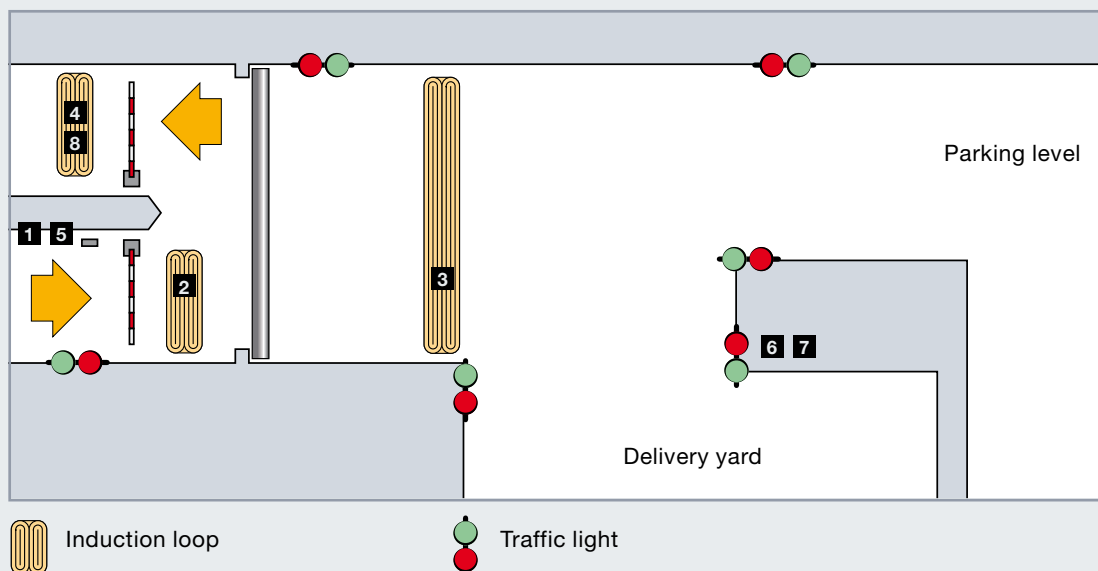
## Solution

The special control receives all signals needed for the door control, the barrier system, the induction loops, the card reader and the central building control system. Based on this data, the special control regulates the traffic by controlling the barriers, the door control and the traffic light combinations.

### Mode of operation

(Daytime operations for example)

- 1** The card reader enables access of passenger cars and the passage to the parking level is opened.
- 2** After passing over the induction loop, the barrier is closed and the access once more barred.
- 3** At the passenger car exit, the induction loop opens the barrier and counts the departing vehicles.
- 4** The barrier closes when all exiting cars have passed the second induction loop.
- 5** When a lorry is announced via the intercom, the delivery vehicle is given access to the delivery yard. During this time, the passenger car lane is closed.
- 6** After the lorry arrives in the delivery yard, the loadmaster enables passenger car traffic again via the building control system.
- 7** The loadmaster opens the lorry exit lane via the building control system.
- 8** After the lorry drives over the induction loop, passenger car traffic is once again enabled.



# E.ON Energy from Waste Thermal trash recycling plants



E.ON Energy from Waste plant, Premnitz

## **Owner**

E.ON Energy from Waste

## **Architect**

ARTUS, Berlin

## **Hörmann products**

Industrial rolling shutters with automatic door control

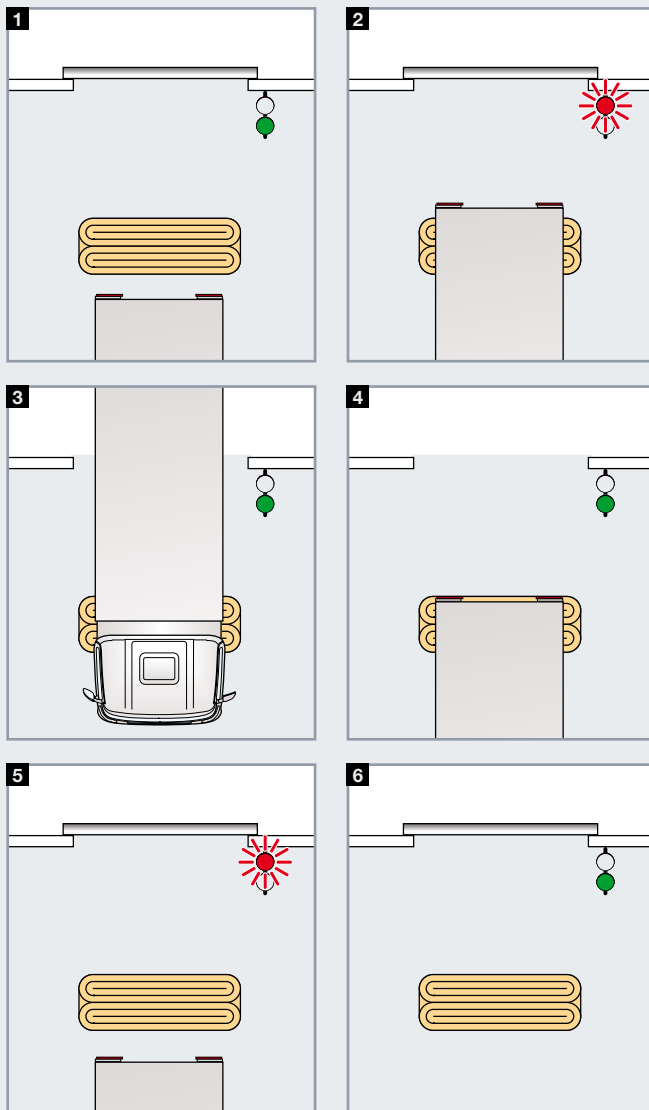
# Automatic door control during delivery

## Requirement

Effective work processes in the delivery area were the major challenge in the new construction of the waste incinerator. Seven Hörmann industrial rolling shutters were placed in front of the waste bunkers to function as so-called bunker doors. The shutters should open and close in three different ways:

1. Manual door operation by the crane driver
2. Automatic door opening and closing by induction loops
3. Manual door operation by the fire department

A traffic light system (red/green) indicates the different conditions.



## Solution

### 1. Manual door operation by the crane driver

The two crane drivers can operate the individual doors at any time via a control panel. If a door is manually operated, then a previously released door is automatically reset and closed (when at standstill, the traffic light shines red, while moving, it flashes red). The crane drivers can choose whether a door is controlled automatically by the induction loop or if it is automatically locked and switched to manual operation (door end-of-travel position OPEN, traffic light shines green).

### 2. Automatic door opening and closing by induction loops

**1** With a green traffic light, the crane drivers allocate the released door to the lorry for unloading.

**2** The lorry drives backwards onto a marked area in front of the door. The induction loop integrated in the area recognises the lorry and the door opens (traffic light flashes red).

**3** The completed opening of the door is indicated by a continuous green light. The lorry can be unloaded.

**4** The lorry then drives forward out of the unloading area, yet remains in the marked area for follow-up and clean-up activities. The door remains open.

**5** When leaving the marked area, the door closes automatically – the traffic light flashes red.

**6** If the door is closed, the traffic light shines red and switches to green after a short period of time – the loading bay remains in automatic mode and is released for the next lorry.

### 3. Manual door operation by the fire department

In a control cabinet the automatic door operation can be switched off by the crane driver. It can only be released with a key switch via the central fire department control.

# Everything from a single source: For your building projects.

## 1 Sectional doors

These room-saving door systems can be adapted to different industrial facilities using various track applications. Hörmann offers you customised solutions for every type of application.

## 2 Rolling shutters and rolling grilles

Thanks to a simple construction with just a few components, rolling shutters are both economical and sturdy. Hörmann supplies rolling shutters in widths and heights of up to 11.75 m and 9 m respectively, or as special doors which are even higher.

## 3 Steel and aluminium folding doors

Hörmann folding doors in steel and aluminium are recommended for halls with low traffic frequency and little headroom, as well as areas where no roof load is permitted.

## 4 High-speed doors

Hörmann high-speed doors are used both inside and as exterior doors to optimise the flow of traffic, improve room conditions and save energy. The Hörmann programme includes vertically and horizontally opening transparent doors with flexible curtains.

## 5 Loading technology

Hörmann offers you complete loading systems for the logistics sector. The advantages: reliable planning, dependable execution of construction work and high functionality thanks to precisely matched components.

## 6 Fire sliding doors

Hörmann can provide you with single or double-leaf sliding door solutions suitable for all areas and fire-protection class requirements.

## 7 Multi-function doors and reinforced internal doors

Hörmann multi-function doors and reinforced internal doors are suitable for indoor and outdoor use. Our single and double-leaf doors can be used wherever robust door elements are required. With numerous additional functions, such as fire and smoke protection, acoustic insulation or burglar protection.

## 8 Fire and smoke-protection box frame parts

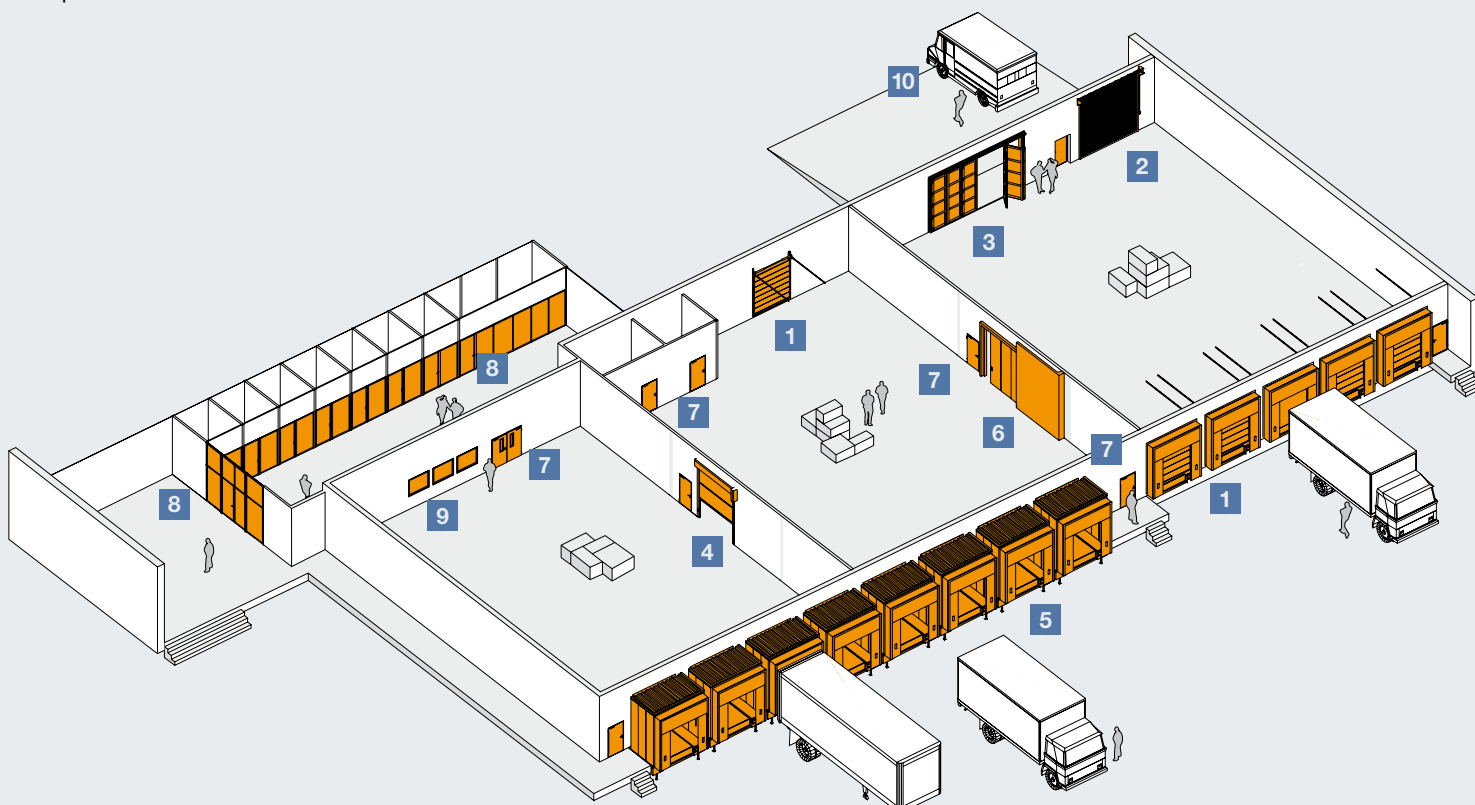
Hörmann can supply you with doors and fixed glazing made of steel and aluminium for areas where appearance is important, such as administration areas in industrial building.

## 9 Visibility windows

Hörmann visibility glazings are used as windows or room-high elements to provide more light and better visibility.

## 10 Service

Only intact, professionally maintained systems ensure smooth production processes and secure traffic ways. The statutory inspections and necessary repairs are professionally carried out and documented with an inspection and maintenance contract.



As a construction component specialist, Hörmann gives you the power to plan perfectly whatever your needs. Carefully-matched construction project solutions offer you the very best highly-functional products for every area.



## Hörmann: Quality without Compromise



Hörmann KG Amshausen



Hörmann KG Antriebstechnik



Hörmann KG Brandis



Hörmann KG Brockhagen



Hörmann KG Dissen



Hörmann KG Eckelhausen



Hörmann KG Freisen



Hörmann KG Ichtshausen



Hörmann KG Werne



Hörmann Genk NV, Belgium



Hörmann Alkmaar B.V., Netherlands



Hörmann Legnica Sp. z o.o., Poland



Hörmann Beijing, China



Hörmann Tianjin, China



Hörmann LLC, Montgomery IL, USA



Hörmann Flexon, Leetsdale PA, USA

Hörmann is the only manufacturer worldwide that offers you a complete range of all major building products from one source. We manufacture in highly-specialised factories using the latest production technologies. The close-meshed network of sales and service companies throughout Europe, and activities in the USA and China, make Hörmann your strong partner for first-class building products, offering "Quality without Compromise".

**GARAGE DOORS**

**OPERATORS**

**INDUSTRIAL DOORS**

**LOADING EQUIPMENT**

**HINGED DOORS**

**DOOR FRAMES**

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