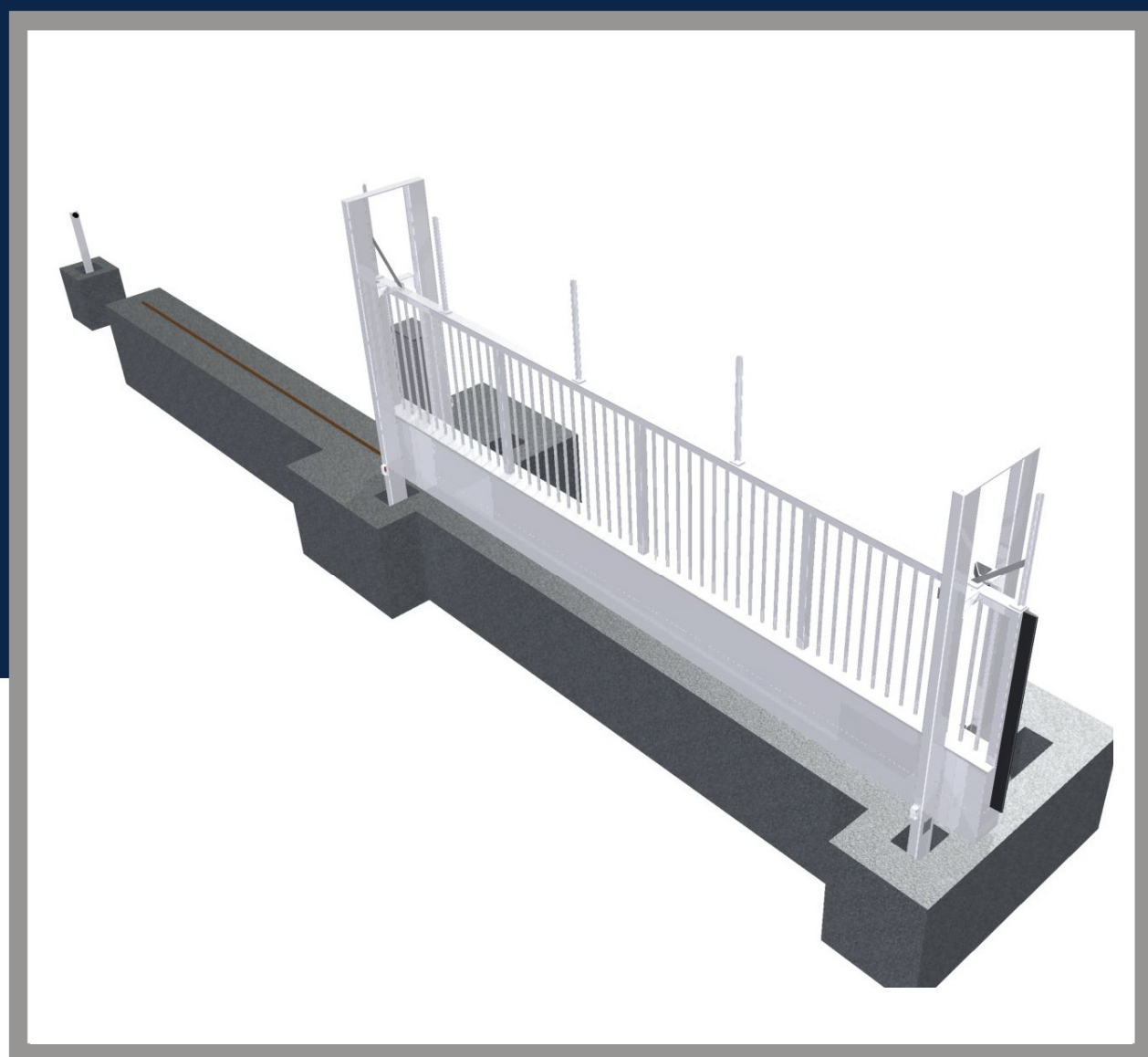


# SLIDING GATE-RAIL STL-M50/K12



**IMPACT-RESISTANT, CONTAINMENT LEVEL M50/K12**

## **STL-M50/K12**

**Impact-resistant sliding gates with rail STL-M50/K12** are an ideal solution for securing access areas of sensitive properties, where next to the protection against unauthorised entry the entering by heavy motor vehicles should be prevented. Due to the lateral slide opening of the gate leaf along the fence or wall, the passage area is not limited. The sliding gate **STL-M50/K12** can be delivered hand-operated for low-traffic security sectors and power-operated in dead man's or self-locking control. Because of its type related high weight the powered version is always equipped with a frequency-controlled drive in order to prevent mechanical overuse of the power unit by smooth starting and braking.

The centrepiece of the gate **STL-M50/K12** is its extremely rigid continuous beam, which is arranged at the bumper bar height of a truck. In combination with two rigid thrust bearings, it can absorb the dynamic impact energy of a 7.5-ton truck at a speed of 80 kilometres per hour running into an accordingly dimensioned foundation. The statistic equivalent load is 926 kN. The remaining gate construction with frame, gate filling and climb over protection serves the protection against people entering unauthorised.

A popular version is the parallel arrangement of the gates in the form of locks (opposite-facing) in order to allow a protected security area. The gates can be controlled by all common access control systems and are predestined for plant, military base, airport and public access areas with the highest security level.

The impact-resistant sliding gate **STL-M50/K12** was tested according to PAS 68:2010. However, the certificate is only valid if the construction requirements in the interaction between foundation and gate are met.

### **Attributes:**

- reliable securing of outdoor areas and open-air grounds with the highest security level against impact by vehicles
- tested and certified by an authorised body
- proven reliability and high production stage with far more than 100 manufactured units
- compact design with low space
- modular and optimised construction for export in containers
- smooth starting and braking in power-operated systems
- clear optics by vandalism proof integration of all power unit components
- power emergency release not exposed but integrated into the drive post and therefore tamper-resistant
- 100% duty cycle, industrial standards
- various options, for example: extending to a lock

# STL-M50/K12

Use for vehicle separation with concurrent protection against persons entering unauthorised, especially in areas that are vulnerable:

- authority facilities
- industrial plants and power plants
- military facilities
- supply facilities
- airports (operating areas)

## Versions / Names:

**STL-M50/K12- hand-operated:** sliding gate with rail according to containment level M50 respectively K12

**STL-M50/K12- power-operated:** sliding gate with rail according to containment level M50 respectively K12

## Geometrical Key Figures:

	STL-M50/K12-6000	STL-M50/K12-7000
<b>opening width</b>	6000 mm	7000 mm
<b>gate height variable</b>	2000 to 3650 mm	2000 to 3650 mm
<b>ground clearance</b>	50 mm	50 mm
<b>lateral opening space</b>	7200 mm	8200 mm
<b>rail profile</b>	light rail track S XX	light rail track S XX
<b>frame, reinforcement</b>	RR 120/80, QR 80	RR 120/80; QR 80
<b>filling</b>	RR 30/20	RR 30/20
<b>twin portal</b>	RR 200/100 + IPE 200 mm	RR 200/100 + IPE 200 mm
<b>impact bar reinforced</b>	minimum 400/200 mm	minimum 400/200 mm
<b>drive motor (optional)</b>	3x230/400 V, 50 Hz, 1.5 kW	3x230/400 V, 50 Hz, 1.5 kW
	self-locking gear, magnetic brake, frequency converter	self-locking gear, magnetic brake, frequency converter
<b>opening time</b>	approx. 24 seconds (without braking)	approx. 24 seconds (without braking)

The sliding gate **STL-M50/K12** is manufactured as an assembly unit consisting of gate leaf guiding post, slam post, drive unit, control, safety and operating components.

## **STL-M50/K12**

The sliding gate leaf is welded torsion-resistant and dimensioned according to the static requirements. The gate filling and the reinforcement are welded in between upper and lower beam (bar spacing maximum 120 mm). The lower beam, additionally lined with sheet metal, accommodates consoles with the track rollers mounted in anti-friction bearing for the guide rail S14.

The gate guide consists of a twin portal with diagonal stiffening made of steel tube profiles with a rainproof head plate and a lateral roller guide with 2 guide rollers on adjustable V2A bolts.

The slam post also consists of a twin portal with diagonal stiffening made of steel tube profiles with a rainproof head plate and an entry fork that is set back.

**Electrical drive:** The three-phase motor (230/400 Volt, 50 Hz) for industrial continuous operation is combined with a maintenance-free, low-noise worm gear which runs in an oil bath. The three-phase current geared motor, which is built into a separate lockable control cabinet, is equipped with a slip clutch. The locking functions via the self-locking worm gear and a magnetic brake. A sprocket and an adjustable and spring-loaded draw-bench chain which is attached to the gate leaf provides the driving force. The control (24 V) consists of a microprocessor control, including a proximity limit switch.

A key switch **Open/ Close** with **Emergency-Stop** button is attached inside the control cabinet.

**Easily accessible components:** All components necessary for the operation are accommodated safely in the drive gate post, which simplifies the assembly, commissioning and maintenance significantly.

**Control:** Microprocessor-control unit and frequency converter

**Mains connection:** three-phase 3x230/400 V, 50 Hz, **Control voltage:** 24 V DC

**Power consumption:** approx. 1.5 kW (without accessories), **Duty cycle:** 60 %, class 3

**Protection class:** IP 54

# STL-M50/K12

## Control functions of the power-operated version:

- **Gate-Stop** as well as **Gate-Open** and **Gate-Close** (self-locking) between the end positions
- remote operability which is secured by floating contacts
- serial transfer of status signals of the gate statuses **Gate-Open**, **Gate-Closed** and **Collective Alarm**
- all gate typical components are connectable and controllable in various logics

**Power failure/ Damage:** By releasing the slip clutch in the profile cylinder locked drive post a manual operation is possible.

## Base plate for light railway track and power unit control column serial:

- 300 mm upper edge area with spacious cable entry,
- pairwise arrangement of dowel holes and levelling screws for an optimal perpendicular and flush assembly

## TORWERK- Long-lasting corrosion protection in 4 steps:

Raw Steel	Stage 1 Rust Removal by means of steel grains Sa3	Stage 2 Zinc Coating 100 µm	Stage 3 Primer Coating 80 µm	Stage 4 Top Coating 80 µm
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The coating thickness is 260 µm, all requirements on corrosion protection stresses according to DIN EN 12944-2- C4 (long protective effect) are met.

## First-class haptics due to:

- a hermetically welded construction
- a surface free of zinc cavities
- welding seams that are ground flatly (mitre corners) after zinc coating
- no warping of the surface because of zinc cavities

## Environmentally friendly procedure:

- no use of solvents
- recycling of oversprays

## Options:

### Colour design/ labelling:

Gate posts and gate leaf are designable in colour tones according to RAL/DB.

### Signaller:

- LED- rotating beacon (serial)
- LED-light - red/ green (optional)
- **Reflexite** contour marking from microprismatic foils with a high reflection value, high visibility even from sharp angles, on the gate's lower beam inside and outside (optional)

### Safety:

- TÜV approved safety device, self-monitoring, according to European gate standards DIN EN 12978 + 12453 for power-operated gates, consisting of double chamber pressure strips on the main and secondary locking edges and the electronic analysis unit
- 2 light barriers (optional), consisting of sender and receiver in different heights outside between the gate posts as additional security device
- 2-channel induction loop detector

### Climb over protection and accessories:

- serrated band 45 mm high
- steel tips 50 x 10 mm, 50 mm space
- barbed wire in ... rows on vertical holders (approx. 2 m space between holders)

### Control elements:

- key switch **Open-Close** outside and key switch **Open-Emergency Stop-Close** inside (serial)
- radio remote control (optional)
- key switch **On-Off** (optional)
- timer (optional)
- code card reader and other communication systems available on demand

# STL-M50/K12

## Design gate leaf:

- instead of bar filling, fence type filling
- closed sheet metal filling or perforated steel plate filling in a powder-coated version

## Torwerk-assembly service:

Every configured **STL-M50/K12** is completely pre-assembled at the factory and internally wired and as far as possible connected before it is delivered.

Due to its weight a higher installation effort needs to be expected.



Construction and Design: Dr. Peter Reimers (Tescon) / Maik Brunner  
Electrotechnical equipment: Stefan Carl / Matthias Martius

## **STL-M50/K12**

