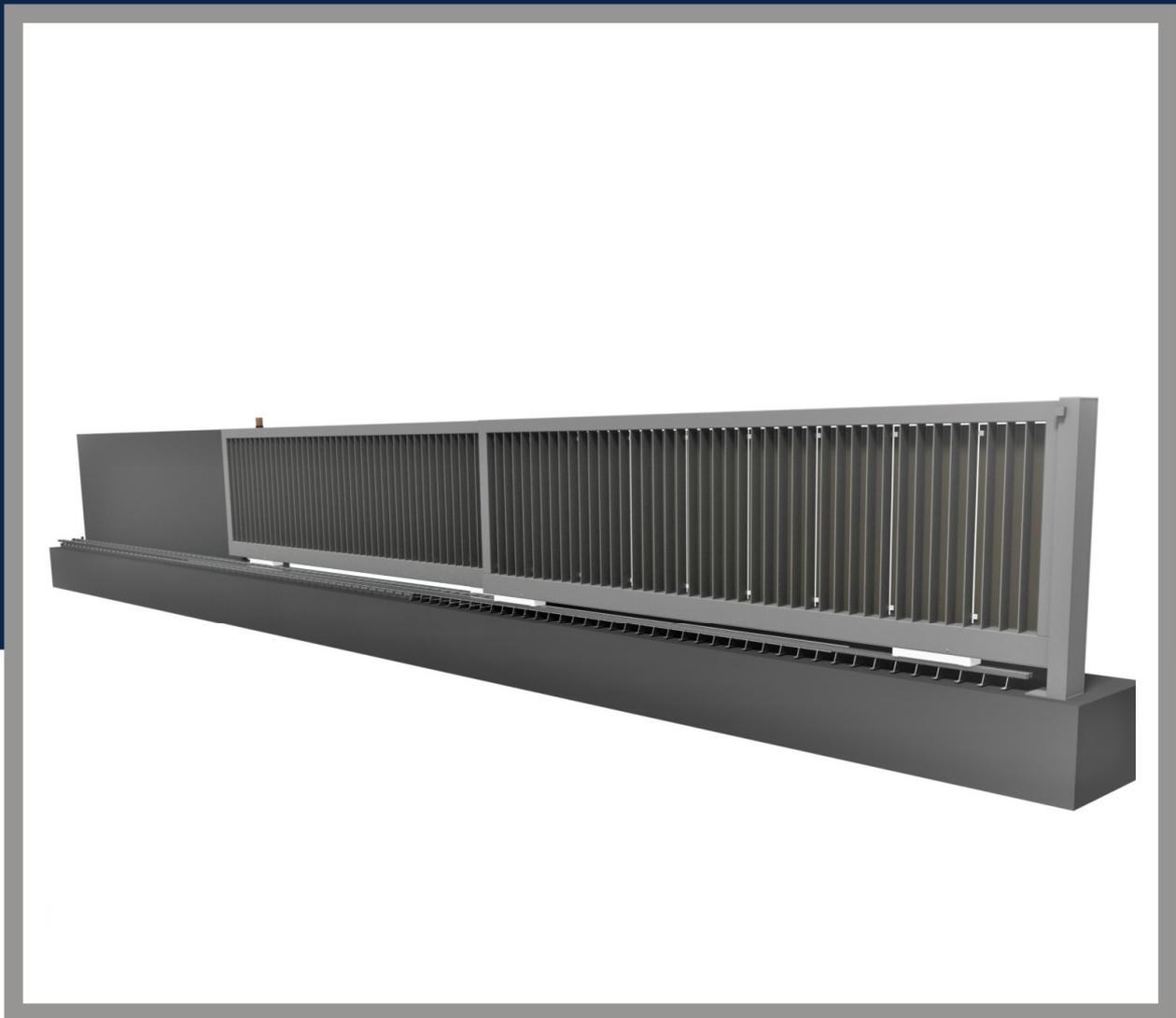


SLIDING GATE - RUNNING RAIL TSTL- TELESCOPE



FOR CLEAR WIDTHS FROM 4 TO 25 M

SLIDING GATE TSTL TELESCOPE

TSTL telescopic gates are two-leaf, telescopic, but single-leaf sliding gates on rails for passages with limited opening area. In exposed locations, they can be the only practical solution for the mechanical protection of passageways to vulnerable areas. By the lateral sliding of the telescopic gate leaves along a fence or a wall, the passage area is not spatially restricted. The second gate leaf is driven by a specially developed chain hoist technology with the help of corresponding deflection rollers. During each opening and closing process, the second gate leaf covers twice the distance of the first gate leaf. Despite the different speeds, the gate leaves reach the end position at the same time.

The **rail-guided telescopic sliding gate TSTL** can be supplied both manually operated for low-frequented safety areas and power-operated with deadman or self-holding control. The gates can be controlled with all common access control systems and are a possible solution for critical structural property entrances.

Attributes:

- reliable securing of outdoor areas and open-air grounds with medium vehicle frequency
- compact design with reduced lateral space requirement (factor 0.6 x clear passage)
- various design options for the gate height (up to 4.60m) and for the gate filling
- short opening and closing times
- clear optics due to vandalism-proof integration of all drive components
- emergency drive release not exposed, but integrated in the gate post in a tamper-proof manner
- 60% duty cycle, industrial standard
- numerous options, for example can be extended as a gate lock

Cross reference 1

The modern folding leaf gates of the Garant series should be taken into consideration when deciding on the right gate system, as the performance criteria are similar, but even more design and combination options can be considered.

Cross reference 2

There are also **self-supporting telescopic sliding gates TSTF-165** without running rails in the lane. Required opening area slightly less favourable: Factor 0.6 x clear passage

SLIDING GATE TSTL TELESCOPE

Used for the separation of motor vehicles with simultaneous protection against unauthorised access by persons, especially in areas which are in need of control and protection:

- authority facilities
- industrial plants and power plants
- military facilities
- supply facilities
- police and judicial administrations
- execution of justice and therapeutic measures

Versions / Names: (examples)

TSTL-Telescope- 4000 telescopic sliding gate with running rail

TSTL-Telescope- 25000 telescopic sliding gate with running rail

Specifications:	TSTL-Telescope 4000	TSTL-Telescope 25000
Passage width	4,000 mm	25,000 mm
Variable gate height	up to 4,600 mm	2,000 to 3,650 mm
Ground clearance	50 mm	50 mm
Lateral sliding area	2,800 mm	15,000 mm
Gate leaf	2 pieces	2 pieces
Running rail profile	light railway rail S 10	light railway rail S 14
Downstand beam	minimum RT* 120/80	minimum RT* 200/150
Frame, reinforcement	RT* 120/80, ST*80	ST*150
Filling	RT* 30/20 + welding grid or sheet metal filling single or double sided	RT*30/20 + welding grid or double bar grid 25/200 mesh size
Twin portal	ST* 150	ST* 200
Drive motor	3x230/400 V, 50 Hz, 0.75 kW self-locking gear magnetic brake, frequency converter	3x230/400 V, 50 Hz, up to 3 kW self-locking gear magnetic brake, frequency converter
Opening time	approx. 11 seconds (without braking)	approx. 60 seconds (without braking)

* RT = rectangular tube, ST = square tube

SLIDING GATE TSTL TELESCOPE

The **rail-guided telescopic sliding gate TSTL** is manufactured as an assembly unit, consisting of the gate leaf, the guide portal, the stop post, the running gear, the drive, control, safety and operating components.

The **folding gate leaves** are welded torsion-resistant and dimensioned according to the static requirements. The filling is welded in between the upper, lower and side rails. The gate leaves are each guided by two supporting rollers on the running rail.

The **sliding gate leaf** is welded torsion-resistant and dimensioned according to the static requirements. The gate filling is welded in between the upper and lower bars (bar spacing max. 120 mm). The lower beam is used to accommodate brackets with rollers on roller bearings for the track rails SXX.

The **gate guide** consists of twin portals made of tubular steel profiles with rainproof head plate and a laterally mounted roller guide with 2 guide rollers on adjustable V2A bolts.

The **stop post** also consists of a twin portal made of tubular steel profiles with a rainproof head plate and a set-back inlet fork.

Electric drive: The three-phase motor 230/400 Volt, 50 Hz for industrial uninterrupted operation is combined with a maintenance-free, low-noise worm gear running in an oil bath. The three-phase geared motor installed in a separate lockable **drive control cabinet** is equipped with a slip clutch. The locking mechanism works through the self-locking worm gear and a magnetic brake. The driving force is provided by a sprocket and an adjustable and spring-loaded gall chain attached to the door leaf. The control (24 Volt) consists of a microprocessor control including the proximity limit switches. A key switch OPEN/CLOSE with EMERGENCY STOP button is mounted on the inside of the control cabinet.

Easily accessible components: All components required for operation are accommodated safely inside the drive gate post. This simplifies assembly, commissioning and maintenance considerably.

Control: Microprocessor control unit and frequency converter

Mains connection: three-phase 3x230/400 V, 50 Hz

Control voltage: 24 VDC

Power consumption: according to data sheet (without accessories)

Duty cycle: 60%, class 3

Class of protection: IP 44

SLIDING GATE TSTL TELESCOPE

Control functions of the power-operated version:

- gate **Stop** as well as **Open** and **Close** in self-locking mode between the end positions
- closing leaf delay
- remote controllability is ensured via potential-free contacts
- standard transfer of alarm signals for gate states gate open, gate closed, collective fault
- that all gate typical components can be connected and controlled in different logics.

Behaviour in case of power failure / emergency:

By releasing the slipping clutch in the profile cylinder-locked drive column, manual operation is possible in the event of a power failure.

Standard foundation console for light rail and drive control column:

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

TORWERK – long-lasting corrosion protection in 4 steps:



The coating thickness is 260 µm, all requirements on corrosion protection stresses according to DIN EN 12944-2 of the category C4 (long protective effect) are met.

First-class surface haptics through:

- hermetically welded construction
- a surface free of zinc cavities
- no protrusion of flat ground weld seams (mitre corners) after zinc coating
- no warping caused by zinc blowholes in the surface

Environmentally friendly procedure:

- no use of solvents
- recycling of the overspray

Options:

Colour design / labelling:

Gate posts and gate leaves can be designed in different RAL/DB colours.

SLIDING GATE TSTL TELESCOPE

Signaller:

- LED rotating beacon (standard)
- LED light red/ green (optional)
- Reflexite contour markings from microprismatic foils with high reflection value, visibility even from an acute angle, on the inside and outside of the lower gate beam

Safety (optional):

- 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, consisting of sender and receiver in different heights outside between the gate posts as additional security device
- 2-channel induction loop detector
- rail heating with temperature control system

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)

Controls:

- key switch open-close outside and key switch emergency-stop-close inside (standard)
- radio remote control (optional)
- key switch on/off (optional)
- time switch (optional)
- code card reader and other communication systems possible on request

Design of the gate leaves:

- instead of bar filling, optional filling in the manner of a fence
- closed sheet filling or perforated sheet filling in powder-coated design limited possible

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Torwerk assembly service:

Each **TSTL telescopic gates** is completely pre-assembled at the factory and internally wired and as far as possible connected before it is delivered. Due to the high weight and dimensions of this gate, an increased assembly effort must be expected.

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Construction and design:

Siegmund Huth / Kathrin Krebs / Maik Brunner

Electrotechnical equipment: Stefan Carl /
Matthias Martius

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