

OBJECT FUSES • The manufactory for tailor made protection



SLIDING GATE - SELF-SUPPORTING STF-165S VARIOGATE



for clear widths from 9.5 to 13 m

SLIDING GATE - SELF-SUPPORTING STF-165S

Self-Supporting Sliding Gates STF-165 S Variogate are the classic solution for securing access areas of medium-sized properties when there are not any areal swivelling ranges but only lateral opening spaces. Due to the lateral opening of the gate body along a fence or wall, the passing area is not limited spatially. The self-supporting sliding gate STF-165 S can be delivered manually operated for low-frequented security areas as well as power-operated in dead man's control or self-retaining control. All gates can be controlled by all common access control systems and they are a solution for critical structural property entrance areas.

Attributes:

- reliable securing of outdoor areas with a medium vehicle frequency
- compact construction with lateral space requirements (factor 1.40 x clear passage)
- due to the self-supporting version there are no barriers or thresholds in the clear passage
- long opening and closing times
- clear optics by vandalism proof integration of all power unit components
- power emergency release not exposed but integrated into the gate post and therefore tamper-resistant
- duty cycle: 60%, industrial standard
- various options, for example, enhancement as a lock

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

- authority facilities
- industrial plants and power plants
- military facilities
- supply facilities
- airports (average gate)

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Versions / Names:

STF-165 S Variogate: self-supporting sliding gate

Geometrical Key Figures:	STF-165S 10000	STF-165S 10500	STF-165S 11000
opening width	9500-10000 mm	10000-10500 mm	10500-11000 mm
gate height	up to 3000 mm	up to 3000 mm	up to 3000 mm
ground clearance	on average 100 mm	on average 100 mm	on average 100 mm
opening space	14535 mm	15185 mm	15885 mm
track profile	LSP 165 S	LSP 165 S	LSP 165 S
track roller blocks	LRP 165 S	LRP 165 S	LRP 165 S
frame	RT* 160/120 mm	RT* 160/120 mm	RT* 160/120 mm
reinforcement	RT* 150/120 mm	RT* 150/120 mm	RT* 150/120 mm
filling	RT* 30/20 mm	RT* 30/20 mm	RT* 30/20 mm
bar spacing	maximum 120 mm	maximum 120 mm	maximum 120 mm
guiding post	ST* 150 mm	ST* 150 mm	ST* 150 mm
slam post	ST* 150 mm	ST* 150 mm	ST* 150 mm
drive motor	3x230/400 V, 50 Hz, 0.75 kW, self-locking gear, magnetic brake	3x230/400 V, 50 Hz, 0.75 kW, self-locking gear, magnetic brake	3x230/400 V, 50 Hz, 0.75 kW, self-locking gear, magnetic brake
opening times (sec.)	30	35	37.5
optional (sec.)	15 frequency converters	18 frequency converters	19 frequency converters
lock (optional)			
Geometrical Key Figures:	STF-165S 12000	STF-165S 12500	STF-165 13000
opening width	11500 -12000 mm	12000 -12500 mm	12500 -13000 mm
gate height	up to 3000 mm	up to 3000 mm	up to 3000 mm
ground clearance	on average 100 mm	on average 100 mm	on average 100 mm
opening space	11625 mm	12275 mm	12925 mm
track profile	LSP 165	LSP 165	LSP 165
track roller blocks	LRP 165	LRP 165	LRP 165
frame	RT*160/120 mm	RT*160/120 mm	RT*160/120 mm
reinforcement	RT*150/120 mm	RT*150/120 mm	RT*150/120 mm
filling	RT*30/20 mm	RT*30/20 mm	RT*30/20 mm
bar spacing	maximum 120 mm	maximum 120 mm	maximum 120 mm
guiding post	ST* 150 mm	ST* 150 mm	ST* 150 mm
slam post	ST* 150 mm	ST* 150 mm	ST* 150 mm
drive motor	3x230/400 V, 50 Hz, 0.75 kW, self-locking gear, magnetic brake	3x230/400 V, 50 Hz, 0.75 kW, self-locking gear, magnetic brake	3x230/400 V, 50 Hz, 0.75 kW, self-locking gear, magnetic brake
opening times (sec.)	40	42.5	45
optional (sec.)	20 frequency converters	22 frequency converters	23 frequency converters
lock (optional)			

* RT = rectangular tube, ST = square tube

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The **self-supporting sliding gate STF-165S Variogate** is manufactured as an assembly unit consisting of gate leaf, guiding post, slam post, running gear, drive unit, control, safety and operating components. The **gate leaf** is welded torsion-resistant and dimensioned according to the static requirements. The gate leaf extension ensures the optimal intake of the static load. The filling is welded in between upper and lower beam. In the opening area the gate leaf is guided by two spherical step and roller bearings inside the lower beam. These adjustable roller sets are equipped with ball bearing mounted and maintenance-free polyamide rollers and ensure the smooth running and the exact adjustment of the gate. Thus, the gate is also guided off the floor in the opening area. Specially designed roller blocks of Type DUO S that are characterized by a high load-bearing strength while having a low rolling resistance, are used for the running rail of the **self-supporting sliding gate STF-165S Variogate**.

The **gate guide** consists of a **guiding post** 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** consists of a steel tube profile with a rainproof head plate, an entry fork and a guide shoe.

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. 0.75 kW (without accessories), Duty cycle: 60 %, class 3

Protection class: IP 54

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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 gate leaf and power unit control column serial:

- up to 125 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:



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

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Options:

Colour design/ labelling:

Gate posts and gate leaves 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) in connection with additional guiding post or U-guiding rail
- barbed wire in ... rows on Y-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

Design gate leaves:

- instead of bar filling, optionally wire mesh, closed sheet metal filling or perforated steel plate filling in a powder-coated version

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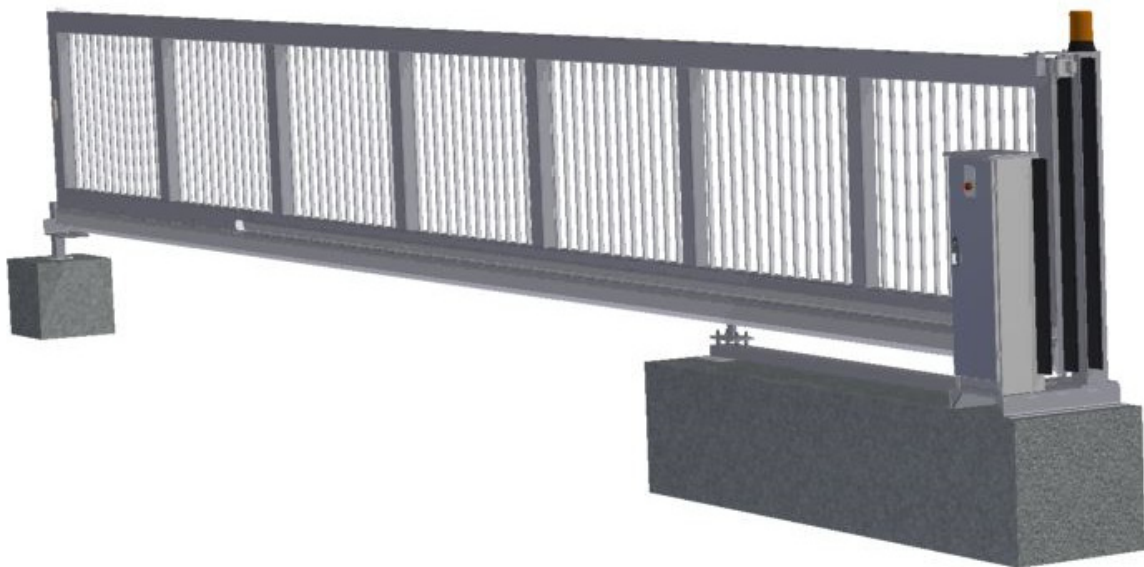
Torwerk-assembly service:

Every configured sliding gate is completely pre-assembled at the factory and internally wired and as far as possible connected before it is delivered.

The assemblers only need to unload the sliding gate onto the foundation on-site, adjust it, level it using the levelling screws and anchor it with the provided dowels.

A qualified gate technician needs to adjust the leaf mechanism and the end position switch-off if necessary. A qualified electrician connects the gate to the power supply, to the external control elements, to light barriers as well as to possible induction loops.

The self-supporting sliding gate **STF-165 S** is ready for operation. The time-consuming reading of manuals and sorting of components and fasteners are reduced to a minimum.



Construction: Max Palmowski / Maik Brunner

Electrotechnical equipment: Stefan Carl / Matthias Martius



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