

OBJECT FUSES • The manufactory for tailor made protection



# SLIDING GATE - SELF-SUPPORTING STF-165 VARIOGATE



for clear widths from 6 to 9 m

## **SLIDING GATE - SELF-SUPPORTING STF-165**

**Self-Supporting Sliding Gates STF-165 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 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 1.35 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

### **Note:**

During the decision-making process for the right gate system the modern **Folding Swing Gates** of the **Garant Series** should be also considered, because the performance criteria are similar but there are even more design and combination options.

**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)

# SLIDING GATE - SELF-SUPPORTING STF-165

Versions / Names:

STF-165 Variogate: self-supporting sliding gate

Geometrical Key Figures:	STF-165 6000	STF-165 7000	STF-165 7500
opening width	5500-6000 mm	6500-7000 mm	7000-7500 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	8925 mm	10275 mm	10925 mm
track profile	LSP 165	LSP 165	LSP 165
track roller blocks	LRP 165	LRP 165	LRP 165
frame	RT* 120/100 mm	RT* 120/100 mm	RT* 120/100 mm
reinforcement	RT* 120/80 mm	RT* 120/80 mm	RT* 120/80 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-165 8000	STF-165 8500	STF-165 9000
opening width	7500-8000 mm	8000-8500 mm	8500-9000 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* 120/100 mm	RT* 120/100 mm	RT* 120/100 mm
reinforcement	RT* 120/80 mm	RT* 120/80 mm	RT* 120/80 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

## SLIDING GATE - SELF-SUPPORTING STF-165

The **self-supporting sliding gate STF-165** 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.

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

# SLIDING GATE - SELF-SUPPORTING STF-165

## 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

## **SLIDING GATE - SELF-SUPPORTING STF-165**

### **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

### **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

## SLIDING GATE - SELF-SUPPORTING STF-165

### 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** is ready for operation. The time-consuming reading of manuals and sorting of components and fasteners are reduced to a minimum.



Construction: Maik Brunner

Electrotechnical equipment: Stefan Carl / Matthias Martius

## **SLIDING GATE - SELF-SUPPORTING STF-165**

