

# Tyre Killer TC-TYK 200...600



**BREAKTHROUGH-RESISTANT**

## TYRE KILLER TC-TYK 200-500

The Tyre Killer TC-TYK Tescon secures the access area of vulnerable properties with the greatest possible security. The blocking element is extended 475 mm above the road level into a 60-degree blocking position. This happens by means of an electro-hydraulic drive unit. The lowered Tyre Killer can be driven over in accordance with bridge class SLW 60.

### General technical data for TC-TYK ...

	Tyre Killer TC-TYK .00
Blocking element	steel, galvanised and plastic-coated
Height	475 mm
Blocking position	60°
Distance between spikes	200 mm
Blocking width	from 2.00 to 6.00 m
Action periods	lifting and lowering in 2-3 seconds
Load capacity	100 kN wheel load according to SLW 60 - DIN 1072
Hydraulic unit	separately installed, maximum distance approximately 20 m
Hydraulic medium	biodegradable, water hazard class 1
Emergency operation in case of power failure	hand pump or hydraulic accumulator for one cycle
Control	separately installed
Supply voltage	400 V 50 Hz

# TYRE KILLER TC-TYK 200-500

Standard versions for Tyre Killer TC-TYK 200 to 600

Tyre Killer TC-TYK 200 bis 600				
	Type	Capacity in kW		Lifting/lowering time
2 m clear width of passage	TC-TYK 200	1.5		2/2 to 3/3
3 m clear width of passage	TC-TYK 300	1.5		2/2 to 3/3
4 m clear width of passage	TC-TYK 400	1.5		2/2 to 3/3
5 m clear width of passage	TC-TYK 500	1.5		2/2 to 3/3
6 m clear width of passage	TC-TYK 600	1.5		2/2 to 3/3

## Accessories – Tyre Killer TC-TYK

pressure accumulators for one cycle in case of power failure for
2 m clear width of passage
3 m clear width of passage
4 m clear width of passage
5 m clear width of passage
6 m clear width of passage
light red/green 200 mm Ø for wall mounting
light red/green 200 mm Ø for mast mounting including light mast

## **TYRE KILLER TC-TYK 200-500**

surface-mounted key switch "Lift-Lower"
integrated key switch "Lift-Lower"
hazard lights red or yellow 200 mm Ø
horizontal laser scanner
communication terminals
push button "Lift-Lower"
emergency stop button with mechanical locking
induction loop (s)
light barrier (s)
additional heating



## TYRE KILLER TC-TYK 200-500

The **Tyre Killer TC-TYK Tescon** secures the access area of vulnerable properties with the greatest possible security. The blocking element is extended 475 mm above the road level into a 60-degree blocking position. This happens by means of an electro-hydraulic drive unit. The lowered Tyre Killer can be driven over in accordance with bridge class SLW 60. It is suitable for a maximum blocking width of 6,000 mm per tyre killer.

required blocking width: \_\_\_\_\_ mm

**Tyre-Killers** with a separate electro-hydraulic drive consist of an underground casing and massive blocking spikes made of steel, which destroy the tyres, suspensions and axles of a car entering unauthorised.

### Blocking width:

from 2.00 m to 6.00 m

required blocking width:	_____ mm
installation depth of the underground casing:	570 mm
height of the blocking spikes above the road level:	475 mm
blocking position steel spikes:	60 °

The underground casing consists of an all-around closed steel housing with anchors set in concrete. The bearings for the hydraulic cylinders and the blocking spikes are integrated into the underground casing.

The top part of the underfloor housing is equipped with a cover that allows even the heaviest vehicles to drive over. This cover is designed for a wheel load of 100 kN according to DIN 1072. It has recesses which are closed as soon as the blocking spikes are in blocking position. Thus, it prevents the ingress of dust, dirt, etc. into the underground casing. The massive blocking spikes are welded to the massive rotary axle with distances of approximately 200 mm. The axle itself is connected to the hydraulic cylinder by a lever system. The blocking spikes unit is operated by an electro-hydraulic drive unit (230/400 V, 50/60 Hz, three-phase current).

The electro-hydraulic drive unit as well as the PLC control are installed in a lockable weatherproof housing suitable for outdoor installations.

The distance between **Tyre-Killer** and drive unit should not exceed 20 m.

## **TYRE KILLER TC-TYK 200-500**

### **Control**

Control "Lift/Lower" in self-locking mode, with the main switch arranged in the control cabinet.

The control- and hydraulic cabinet is dimensioned approximately 800x500x1200 (LxWxH).

### **Hydraulic Drive**

hydraulic unit with motor 1.5 kW IP 55 400 V, pump, solenoid valves and high-pressure hydraulic cylinders, hand pump, oil tank with oil heating 60 W, room heater 200 W.

### **Hydraulic Medium**

The used medium is biodegradable and corresponds to water hazard class "1".

### **Lock**

The blocking part is hydraulically locked in the upper end position (locked position).

lifting time of the blocking spikes:           approximately 2–3 seconds

lowering time of the blocking spikes:       approximately 2–3 seconds

### **Manual Emergency Operation:**

- lifting of the blocking element: approx. 30 double strokes, approx. 40 seconds
- lowering of the blocking element: approx. 15 double strokes, approx. 20 seconds

### **Control Device**

1 push button "UP-STOP-DOWN" as surface-mounted version

### **Assembly Unit:**

- all assembly units are completely pre-assembled at the factory and internally wired and as far as possible connected
- massive foundation frame with pressure screws for fine adjustment
- including dowel material for the professional fixation of the foundation

### **TORWERK- Long-lasting corrosion protection**

- all requirements on corrosion protection stresses according to DIN EN ISO 12944- 2 C4 are met
- 260µm coating thickness

## **TYRE KILLER TC-TYK 200-500**

- preparation of the surface by steel grain rust removal
- arc-sprayed zinc coatings
- powder primer
- powder top coating

### **Colours:**

- blocking spikes - red, RAL 3000
- all other parts - stone grey, RAL 7030

### **Further Scopes of Services:**

- factory drawing in 2D
- foundation and reinforcement plan in 2D
- cable laying, connection and wiring diagrams in 2D
- operating and maintenance manual
- manufacturer and conformity declaration
- inspection book

### **Note:**

- delivery ex works
- mains cable and cable laying for external control elements are always provided by the customer.

### **Options:**

- delivery free on site, unloaded
- delivery and ready-to-use assembly on foundations provided by the customer

### **Allowance - foundation works:**

- according to the manufacturer's specifications according to the foundation and reinforcement plan for main and secondary foundations
- earthworks according to DIN 18300 for BKL 3-5
- separating the topsoil
- excavating the foundation pit profile-compliant
- compaction of the foundation base with 30 MN/m<sup>2</sup>
- filling the foundations laterally and compacting them in layers
- loading the displacement soil and the proper disposal of it
- producing the required formwork for foundations and quivers
- supplying the required reinforcement and installing it professionally

## **TYRE KILLER TC-TYK 200-500**

- connecting the empty conduit
- recommended concrete quality C25/30 XA1 or higher (calculation note for required cubature clear width x 1.5 = approx. concrete requirement in m<sup>3</sup>)

**Allowance** for pressure accumulators for one cycle in the event of power failure:

- function "EXTEND BLOCKING SPIKES"

**Allowance – double light barrier system:**

- 2 infrared through-beam sensors, 30 m range
- weather-protected concealed version
- inside arrangement at 300 mm and 600 mm height upper edge area
- professional connection in flush-mounted assembly area
- the connecting cable is included in the scope of delivery

**Allowance – horizontal laser scanner (MLSHOR01):**

- The laser scanner extends the range of application of the Tyre Killer.
- Its use offers an alternative to light barriers and induction loop controls.
- It reliably detects vehicles and persons and thus ensures maximum personal protection.
- It scans a maximum area size of 9.9 x 9.9 metres.
- The field can be divided into a surveillance area and an opening area.
- Depending on the selected setting, the gate system opens when a vehicle is detected, but persons are hidden.
- Vehicles and persons are always detected within the surveillance area.
- The gate system only closes if there are no persons within the surveillance area.
- The laser scanner generates a total of 4 overlying beam surfaces and thus, effectively suppresses disturbances.

**Performance Data:**

- area of coverage: max. 9.9 x 9.9 m
- supply: 10 to 35 V DC/max. 5 W
- IR-laser: class 1, wavelength 905 nm, max. transmitting power 25 W
- red light laser: class 3R, wavelength 650 nm, max. transmitting power 3 W
- protection class IP65
- temperature range: -30°C to + 60°C
- air humidity: 0 to 95%, non-condensing

## **TYRE KILLER TC-TYK 200-500**

- accessories: supply unit for laser scanner (MLVE24)

### **Allowance – rotating beacon for optical warning:**

- with bracket for wall mounting
- ready for operation connection to control system
- advance warning time adjustable on control unit

### **Allowance for traffic light system:**

- single flame, red, Ø 200 mm incl. holder
- single flame, green, Ø 200 mm incl. holder
- two flames, red/green, Ø 200 mm incl. mast bracket for traffic lights, with inspection flap, height: 3.00 m, with base plate and dowel material
- ready for operation connection to control system

### **Allowance – key switch UP1 – 1R:**

- one-sided snap-in contact **OFF-ON**, key can be removed in both switching positions
- Function, e.g.: automatic closing off/on or induction loop off/on
- ready for operation connection to control system

### **Allowance for desk push button in slope console housing:**

- as OPEN/STOP/CLOSE
- as OPEN/STOP/CLOSE with optical display
- as OPEN/STOP/CLOSE – automatic ON/OFF- with optical display
- as OPEN/STOP/CLOSE with optical display for 2 Tyre-Killers

**Particulars:** \_\_\_\_\_

### **Allowance – warning signals for external status monitoring:**

- installation of 2 additional relays for the potential-free transfer of the gate states
- ready for operation connection to control system

### **Allowance for loop detector:**

- as single detector
- as double detector
- ready for operation connection to control system

### **Allowance – Induction loop XX m (IS06 to IS 15):**

- pre-assembled induction loop with waterproof junction box and 15 m supply cable

## **TYRE KILLER TC-TYK 200-500**

### **Suitable for selected road widths:**

- installation in asphalt/concrete
- installation in prepared pavement bedding

### **Allowance – FW–Key Depot (FSD):**

- easily accessible keys thanks to the innovative swivel mechanism of the object key monitoring
- modular design enables fast execution of maintenance work
- all components equipped with plug connectors, therefore no soldering work on site
- complete electronics and connections on one board
- according to DIN 14675 class 3 with VdS approval G 10 31 33
- controllable in 12 or 24 Volt by integrated voltage transformer
- available with monitoring of 1 to 4 object keys
- implementation of additional object key monitoring also possible after installation
- pre-assembled depot when ordering in combination with a column
- the placing in the shell construction phase can be carried out using a wall frame
- weight: 12 kg
- height: 170 mm
- width: 190 mm
- depth: 157 mm
- material: stainless steel (1.4301)
- Voltage: 12/24V
- Scope of delivery:  
inner door incl. KRUSE VdS change-over lock (G 10 50 01), blind frame, mounting flange, 10 m connection cable, auxiliary cylinder for object key monitoring, KRUSE SchlüsselPlombe (key seal), heavy duty anchors, assembly instructions

### **Allowance for installation in a gate system (incl.):**

- QR 220/6 removable head cover/ concrete filling
- delivery and assembly

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