

# Kick – Plate

## „CAR plus“



## General

**GDS-kick-plates** are designed for

- ✓ Easy handling
- ✓ Highest flexibility
- ✓ Optimal efficiency
- ✓ Low installation and operating costs

This GDS-kick-plate is designed for all cars with axle loads below 6,5 tons, but it can be used with cars up to 8,0 tons axle load.

## Components

- zinc plated movable plate 6,10 x 3,56 m
- zinc plated frame 7,80 x 3,60 x 1,15 height
- hydraulic under the plate
- control cabinet with control panel
- external speed indicator 2-digit 25cm height

Frame, plate and hydraulic will be supplied in one piece and fully functional. The control cabinet and the speed indicator will be installed separately

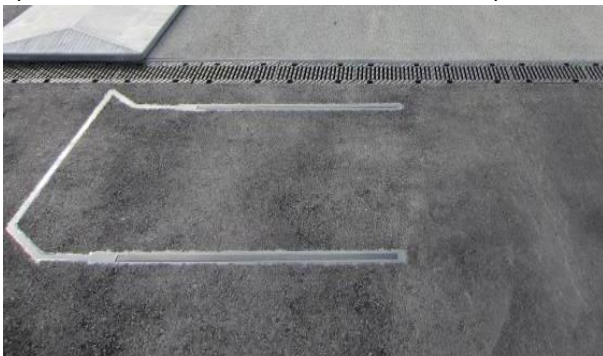
## installation of the kick plate



## hydraulic underneath the kick plate



## Speed measurement in front of the GDS- kick plate



control panel

## Operation

An automatic system check is performed after each system start. This requires only 30 seconds. Then the **GDS-kick-plates** is fully operational and ready for 5 cars / minute.

The severity and shot-direction can be adjusted according to the training requirements. For easy operation the changes can be done on the electrical control panel. 4 severity steps are available. The shot can be chosen for always the same direction (right or left) or alternate right/left or at random. Optional the **GDS-kick-plates** can be operated via an iPad and Wifi-Network.

With the signal of the two load sensitive sensors, which are positioned only 1 meter in front of the GDS-kick-plate, the speed of the vehicle is calculated the shot is performed exact at the right moment. The cars can enter with a speed in-between 22 and 99 km/h. Changes in the entry speed are irrelevant due to the short distance in-between the sensors and the kick-plate. Optional the entry speed can be published at a speed indicator.

After only 12 second the next car can enter and the next cycle can be performed.

## Design

The kick plates are zink plated and designed for a minimum required maintenance.

In front of the kick plate are 2 load sensitive sensors in the asphalt which detect the wheels of a vehicle. With this sensor signals the controller of the system calculates the speed and the wheel base of a car. With just one proportioning valve it controls the movement of the plate depending by the speed and wheelbase of the car and the chosen severity for the driver.

## Installation

The installation will take one day.

After the road and the skid pad are finished it will take another day until the beginning of operation.

## Training and Service

For the operation of the GDS-kick-plate is no special training for the instructor required.

Easy maintenance work can be performed by the plant supervisor. Training will be performed by the GDS-engineer during installation and commissioning.

We recommend one service visit performed by a GDS-engineer per year.

During the warranty and optional extended online -support can be performed by GDS-engineers. In case of problems during operations we can support the local operator with an online-analyses-system. The GDS-kick-plate records permanent the last 10 performed cycles and in addition cycles where an error message occurred. In addition, data of the initiation process can be recalled. With this support most of the problems can be located and due to the professional instructions resolved by the local supervisor.

**Service – Intervals'**

Service should be performed every 250 operating hours

Following work need to be performed:

- Visual check of the system
- Check screw connection and guidance systems
- Check hydraulic system (tightness – only visual check)
- Greasing of cylinder installation points

This work can easily be performed by the operator of the unit. The first maintenance (after 10 hours) is included in the price of the unit – it will be used as training of the operator.

**Other service intervals'**

Oilfilter	2500 operating hours	
Hydrauliccoil	5000 operating hours	min. every 5 years
Hydraulic hoses	5000 operating hours	Min. every 6 year
Pressure tanks		Min. every 10 years (please refer to local regulations)

**Recommended Spare Parts on Site:**

3 pcs Positioning limit switch

3 pcs pressure switch

**GDS-Engineering GmbH & Co.KG**

Hinter Viedel 6  
56751 Polch / Germany

Phone: +49 2654 2013

Fax +49 2654 962 91 73

Email: contact@gds-engineering.com

[www.gds-engineering.de](http://www.gds-engineering.de)

## Technical Data

### GDS-kick-plate CAR plus

#### loads and dimensions

Best performance at axle load of	[to]	<b>6,5</b>
max. axle load	[to]	<b>8</b>
(load on the plate)	[to]	<b>(12)</b>
plate driving depth	[m]	<b>3,56</b>
driving through size	[m]	<b>4,50</b>

#### Dynamic

speed range	[km/h]	<b>20 - 99</b>
max. acceleration	[g]	<b>1,5</b>
max. plate speed	[m/s]	<b>2,5</b>
max. achievable car offset	[m]	<b>0,60</b>
stroke	[m]	<b>1,5</b>
no. of shots	[1/min]	<b>5</b>

#### electrical data

electrical connection	[V]	<b>3 x 400</b>
power pump motor	[kW]	<b>15</b>
power filter motor	[kW]	<b>Not required</b>
no heating required		

#### Hydraulic

tank volume	[liter]	<b>200</b>
working pressure	[bar]	<b>170</b>
pressure accumulator	[liter]	<b>60</b>