



## Z-HSP 500

### CERTIFIED HIGH SECURITY BOLLARD

Unauthorized access of street-legal vehicles is prevented reliably by ZABAG's high-security bollard Z-HSP 500. This bollard system is especially effective and sustainable for the purpose of protecting human beings and buildings in sensitive and public areas as well as arenas and event locations. The unauthorized access of all kind vehicles will be precluded securely.

ZABAG's bollard Z-HSP 500 successfully passed the crash test at the authorized Crash Service Center in Münster with a 24t truck at 48 km/h without a problem and still was operational after the crash. This complies with an equivalent load of **1067 KN** (certificate according to IWA 14 - 1:2013, N3E, 48 km/h).

Military or general institutions, governmental and industrial buildings, embassies, nuclear power plants, research centres and banks – they all need the highest possible protection available. That's what the ZABAG Z-HSP 500 bollard was designed for.

#### IMPACT:

- truck weight: 24 t
- speed: 48 km/h
- kinetic energy: 2134 kJ
- static load: 1067 kN

#### CERTIFIED TO:

IWA 14-1:2013, N3E, 48km/h

#### APPLICATION:

- critical infrastructure
- governmental and industrial buildings
- embassies
- nuclear power plants
- research centres
- banks

#### OPTIONAL FEATURES:

- LED lights at the top: moving bollards blinking, in raised position steady light, in lowered position off
- bollard heating: thermostatically controlled at each cylinder
- traffic light control
- reflective tape
- loop detector or photo cells for automatic raising or lowering
- fast raising bollard
- Pressure accumulators to ensure operation in case of power failure
- high-security: in combination with surveillance and detection systems such as UVIS (under vehicle inspection system)





## TECHNICAL DETAILS

Corrosion protection	3Plus - All steel parts are shot blasted, hot zinc sprayed, powder primed and then powder coated. This special finish ensures high resistance to damage caused by ultraviolet lights, scratches, chemicals or oil.
Drive system	3 KW up to 11 kW rated output, 400 V, 3-phase, 50 Hz, according to run-time and number of bollards that need to be driven.
Hydraulic system	The hydraulic system, which is installed separately, contains the pressure relief valve for the pump and the whole system, the hydraulic valve control, a pressure gauge and the electrically activated control valves for raising and lowering. Also an extra valve is integrated in the system to ensure, that the bollards blocking part will not come down by it's own weight or by external forces.
Control unit	The control unit is also installed separately. Optional available features are: <ul style="list-style-type: none"> <li>• uninterruptible power supply for control elements such as push button etc.</li> <li>• permanent memory of PLC-Control data to secure and to archive the limit switch positions and commands for the facility management as overflow system</li> <li>• interface for remote control receivers</li> <li>• spare space for additional installations</li> </ul>

As part of our on-going process of product improvement, we reserve the right to change design and specification or to discontinue products without prior notice.



## FEATURES:

- certified to IWA 14-1:2013, N3E, 24t truck at 48 km/h
- equivalent load of **1067 KN**
- diameter of blocking part 500 mm
- blocking height 900 mm or customized
- electro-hydraulically operating
- ZABAG corrosion protection 3Plus
- bollard blocking part made of high-tensile steel, galvanized and powder-coated
- colour by RAL colour card or customized
- bollard cover made of stainless steel

The traversable top of the bollards is designed for 100 KN wheel load (bridge class SLW 60, DIN 1072).

Optional features are possible for example: LED lights at the top, reflective tape, bollard heating, loop detector or photo cells for automatic raising or lowering or traffic light control.