



## Bollards

### High security with blocking effect

elkosta Bollards type: crash rated bollard SP 275-900 and crash rated K 12 bollard (SP275-1100). Gunnebo offers from the product family “Bollards” solutions for entries, where pedestrians may enter unhindered but vehicle traffic is to be stopped.

The attractive design makes the elkosta Bollard useable in inner city surroundings and can be used for city security and traffic management.

Applications can range from temporary closing of city centres, but still allowing vehicles with permission to pass, to real estate properties with high security needs. Gunnebo products are widely used on military sites, governmental buildings, embassies, banks and city centres. Compact and

crash bollard share a rigid steel tube as blocking element and is available in different sizes. The lowered elkosta Bollard adheres to bridge class 60, so even the heaviest vehicles can drive over it safely.

All moving elkosta Bollards are equipped with a hydraulic drive. The advantages of this drive technology are maximum power transmission and working reliability under most adverse weather conditions. The lifting speed is adjustable. A second advantage of the hydraulic drive is the possibility to drive several bollards with one aggregate and control board. The drive can be installed in the elkosta Bollard or in a separate drive cabinet.

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## High security with blocking effect

The elkosta Bollard can be supplied with different control possibilities or be integrated in existing security systems. After power failure the elkosta Bollards are hand lowerable. As an option an automatic lowering function of is available. The blocking width can be varied by the number of elkosta Bollards in a row. The elkosta Bollards can be driven simultaneously, but it is also possible to lower them individually (as an option). For user safety optical and acoustic warning devices as well as induction loops and photo beam systems are available. The elkosta Bollard has a conically shaped lid that seals the under housing when the elkosta Bollard is lowered. The blocking element and the housing are milled with minimal tolerances.

- Lid illumination in different Designs (option)
- Tri protect Long-term corrosion protection
- Low maintenance costs
- Installation in all climate zones possible
- Manual emergency lowering of the blocking element after power failure
- Automatic lowering available as an option

The SP 275-1100 is able to take an even higher impact load. The height is 1100mm. The Crash Bollard Type SP 275-900 is designed for High Security applications and has a height of 900mm.

### Advantages of the bollard

- Short operating time
- Variable blocking width
- Single of multiple control options
- Stable construction, all basic parts made of steel with high tensile strength
- Easy assembly: compact assembly-finished lower floor panel unit complete with guide tubes and integrated drive unit
- Separate drive unit as an option
- Blocking element available in stainless steel (only for type CP)

### Truck crash tests

The elkosta Bollards fulfil high safety levels. Apart from static calculations the elkosta Bollards type SP 275-900 was successfully tested and certified in GB in the year 2005 under the conditions of the BS PAS 68 of US DOS standard SD-STD-02.01 Rev.

A from March 2003. Heavy vehicles with high speed are effectively stopped. Gunnebo Bollards offer highest security. The K12 elkosta Bollard passed the highest certification test in 2007 and was rewarded with the DOD K12 L2 certification.

### “Everything from one source”

“Everything from one source” is our principle. Planning, manufacturing, installation and maintenance is our competence. Gunnebo stands at your side as a strong and experienced partner.

