



## **Distance to Danger!** **Perimeter Security**

**Drop Arm Barriers, Steel Blade Barriers and Bollards**

# Drop Arm Barriers

## - Optimum Protection against unauthorized Access

SÄLZER drop arm barriers offer the highest security level for the protection of personnel and commercial, industrial and institutional facilities against unauthorized access. They further provide for a smooth entry and exit.

The complete steel construction is hot dip galvanized. The system consists of a drive and receiver stanchion, a gate arm, a control panel, hydraulic cylinder and hydraulic hose, a housing with hydraulic aggregate, motor, hand pump, oil tank. The housing is attached to the drive stanchion (see right photo).

An optional locking pin is available in those situations that the drop arm is not under direct supervision.



*The steel beam is exactly designed to the need of the customers.*

## Technical Description – Drop Arm Barriers

<b>Material:</b>	High grade steel, hot dipped galvanized
<b>Highest impact loads:</b>	Tested and certified according to the <b>US DoS standard SD-STD-02.01:</b> K4/Pass (15,000 lbs/30 mph, impact load: 610kJ), tested according <b>customer requirements:</b> 44,092lbs /18.6 mph. Also available according <b>ASTM F2656/F2656M-15 and PAS 68</b>
<b>Control system:</b>	Siemens S7
<b>Drive:</b>	Electro hydraulic, 400 V hydraulic power unit is housed at same location of drop arm assembly.
<b>Operation:</b>	Separate control panel. Compatible with many access control systems. Optional manual hand pump.
<b>Standard opening and closing time:</b>	Recommended opening speed 15 seconds. Opening speed adjustable.
<b>Standard foundation:</b>	47 inch (1,200 mm)
<b>Standard barrier height:</b>	35 inch (900 mm)
<b>Standard barrier width:</b>	up to 236 inch (6,000 mm)
<b>Surface:</b>	Galvanized, primed, powder coated or painted. Color marks and claddings on request.
<b>Further options:</b>	Automatic or manual drop arm locking pin, signal and security lighting, traffic lights, heater for HPU and for foundation, induction loop detectors, access control, card readers and more, automatic operation, remote control, limit switches, extreme weather packet: - 40 up to + 50 degrees

## Specific Access Control with two Drop Arm Barriers



*Secure access control by the combination of several drop arm barriers.*

The standard drop arm is designed for a 142 inches (3.6 m) lane, but can be extended to cover a 236 inches (6 m) lane.

The opening and closing speed is individually adjustable. Other options include: signal and security lighting, traffic lights, heater for HPU and for foundation, induction loop detectors, access control e.g. card readers/fingerprints, remote-control, interfaces to the property management systems, extreme weather package: - 35 up to + 50 degrees and many other options.

Due to high protection of corrosion SÄLZER drop arm barriers have a specially good weathering resistance. Optional the drop arms can be also designed for the use in extreme temperature zones from -40° to +50° degrees.

Another advantage is the most economical and cost-saving use of SÄLZER drop arms.

An optimal vehicle separation is guaranteed by the combination of two barriers as a sally port. Of course, a drop arm barrier can also be combined with a steel blade barrier or with several bollards.

Numerous field tests, as well as real attempts, have proven that SÄLZER products offer reliable protection.

Innovative technology, high quality processing guarantee reliable security products.



*Optional: traffic lights.*



*Real tested security products provide reliably protection in case of emergency.*



# Barriers

## - Highest Security for special Requirements

Terrorists and criminals use all methods available to reach their targets. SÄLZER barriers offers highest protection for this kind of threat. In case of emergency the whole roadway is blocked by the system additional to trucks, vans, cars also motorbikes will be stopped.

SÄLZER barriers are tested in accordance to the U.S. State Department's SD-STD-02.01 standard. SÄLZER barriers are rated K12/pass, stopping a 15,000 lbs vehicle traveling with 50 mph against the barrier steel plate. Also available according to PAS 68 and ASTM F2656/F2656M-15.

SÄLZER barriers only need a 16 inches (400 mm) foundation allowing installation in areas with underground cables and water mains. SÄLZER barriers can be installed in many locations that would be impossible with other systems due to the shallow-depth foundation.



*Barrier opens in 1 second in case of emergency.*

### Technical Description – Barrier (shallow mount barrier)

<b>Material:</b>	High grade steel, hot dipped galvanized
<b>Highest impact loads:</b>	Tested and certified according to the <b>US DoS standard SD-STD-02.01:</b> K12/Pass (15,000 lbs/50 mph, impact load: <b>1,695kJ</b> ) Also available according <b>ASTM F2656/F2656M-15 and PAS 68</b> (impact load: 1,852kJ)
<b>Control system:</b>	Siemens S7
<b>Drive:</b>	Electro hydraulic, 400 V hydraulic power unit is housed at same location of barrier. Optional remote installation possible.
<b>Operation:</b>	Separate control panel. Compatible with many access control systems. Optional manual hand pump.
<b>Standard opening and closing time:</b>	Individual adjustable, e.g. 2-10 seconds. Optional emergency function: 1second
<b>Standard foundation:</b>	16 inches (400 mm)
<b>Standard barrier height:</b>	35 inches (900 mm) (Barrier is flush with the surface of the roadway in closed position)
<b>Standard barrier width:</b>	From 106 inch (2,700 mm) up to 157 inches (4,000 mm), other sizes on request.
<b>Surface:</b>	Galvanized, primed, painted, anti-slip paint
<b>Further options:</b>	Signal and security lighting, traffic lights, heater for HPU and for bollard foundation, induction loop detectors, access control, card readers and more, extreme weather packet: - 40 up to + 50 degrees

# Shallow-depth Foundation of the Barriers



*We are testing for your safety. A lorry (15.000 lbs) drives with a speed of 50 mph against the barrier.*

SÄLZER barriers have a hydraulic drive power system controlled by a Siemens S7 primary logic controller. Standard activation time for the barrier 2-7 seconds with an optional "Emergency Up" which activates the barrier in less than 1 second. The Siemens S7 controller also allows future adjustments to the normal activation times as the security situation dictates.

The electro hydraulic drive is installed in a separate cabinet which is protected from the weather in a housing. It is possible to place it directly near the barrier or in a surrounding building.

## Simple Installation

Pre-assembled components ensure an easy installation. The electro-hydraulic drive is factory preset. A comprehensive installation manual and a foundation plan will be delivered.

Upon request installation can be made by the SÄLZER experienced installation team. We look forward to doing the the maintenance work.



*Barrier: barrier is flush to the surface of the roadway in closed position. In opening position: standard height 35 inches (900 mm).*

## In case of electrical power outage

Lift the closing element by hand pump or pressure accumulator.  
Lower the closing element by hand pump and by own weight.

## For altering Security Requirements: Mobile Barrier



*Mobile barrier with removable axle for easy transport.*

# Bollards

## - As a fixed or automatic Bollard



*Different forms, colored markings and claddings on request. Also with signal and security lighting available.*

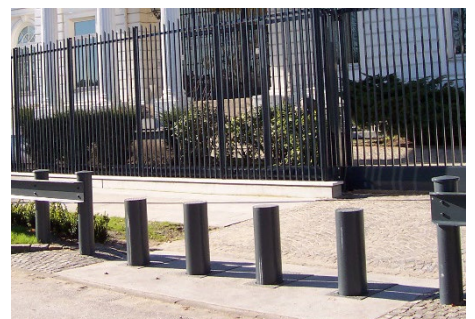
Depending on the location, frequency of access and the individual requirements, SÄLZER offers fixed, fully automatic and semi-automatic bollards to meet your needs.

Fixed bollards provide security in areas where you need to deny access to vehicles, but not hinder normal foot traffic. Automatic bollards are placed in high traffic areas to allow authorized vehicle access while blending in with the surrounding fixed bollards. There are no optical differences between the two types of bollards.

Every bollard type is characterized by the highest stability and resistance, without using a decorative design. Quite the contrary: the design can be perfectly customized to the historical conditions of a building.

## Technical Description – Fixed Bollard

<b>Material:</b>	High grade steel, hot dipped galvanized
<b>Highest impact loads:</b>	Tested and certified according to the <b>US DoS standard SD-STD-02.01:</b> K4/Pass (15,000 lbs/30 mph, impact load: 610kJ) K8/Pass (15,000 lbs/40 mph, impact load: 1,085kJ) K12/Pass (15,000 lbs/50 mph, impact load: 1,695kJ) Also available according <b>ASTM F2656/F2656M-15</b> and <b>PAS 68</b> (impact load: 1,852kJ)
<b>Bollard blocking width:</b>	Variable
<b>Standard size:</b>	Bollard height 35 inches (900 mm) Diameter 11 inches (273 mm). Other diameters available upon request.
<b>Standard foundation:</b>	51 inches (1300 mm)
<b>Surface:</b>	Galvanized, primed, powder coated or painted Ornamental cast sleeves upon request.
<b>Further options:</b>	Signal and security lighting





# High Resistance with appealing Design

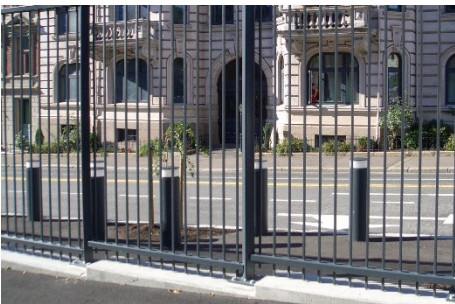
## Advantages

- Single and multiple system units
- Variable blocking width
- Simple installation
- Low maintenance
- Long term corrosion protection
- Bollard lighting in several versions
- Manuel operation by hand pump in case of electrical power outage
- Use in every climatic zone possible
- And many others!



Combination of fixed and automatic bollards.

## Technical Description – Automatic Bollard



<b>Material:</b>	High grade steel. Dipped galvanized Optional: stainless steel design.
<b>Highest impact loads:</b>	Tested and certified according to the <b>US DoS standard SD-STD-02.01:</b> K4/Pass (15,000 lbs/30 mph, impact load: 610kJ) K8/Pass (15,000 lbs/40 mph, impact load: 1,085kJ) K12/Pass (15,000 lbs/50 mph, impact load: 1,695kJ) Also available according <b>ASTM F2656/F2656M-15 and PAS 68</b> (impact load: 1,852kJ)
<b>Primary logic Controller:</b>	Siemens S7
<b>Drive:</b>	Electro hydraulic, 400 V hydraulic power unit is housed at same location of bollard assembly. Optional remote installation possible.
<b>Operation:</b>	Separate control panel. Compatible with many access control systems. Optional manual hand pump.
<b>Standard opening and closing time:</b>	4 – 5 seconds Optional emergency function: 2 – 3 seconds
<b>Bollard blocking width:</b>	Dependant upon security level and model. Bollard system consists of 1 – 6 bollards per HPU. Various systems could be combined.
<b>Standard size:</b>	Bollard height 35 inches (900 mm) Diameter 11 inches (273mm) Other sizes available upon request
<b>Standard foundation:</b>	51 inches (1300 mm)
<b>Exterior surfaces:</b>	Galvanized, primed, powder coated, painted Ornamental cast sleeves upon request
<b>Further options:</b>	Signal and security lighting, traffic lights, heater for HPU and for bollard foundation, induction loop detectors, access control, card readers and more, extreme weather packet: -45 up to + 50 degrees

# SÄLZER building security

## Forced Entry, Bullet and Blast Resistant Products



For more than 40 years SÄLZER has led the industry in the development and technology of forced entry, bullet, fire and blast resistant building components. Each of our products is subject to a strict internal and external quality management.

Please ask for additional brochures about our further products: windows, facades, doors, gates, guard houses, partition walls, access control, barriers, bollards, accessory components etc.

For additional information about our products and services please e-mail us at:

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Visit also our homepage:

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