

ZABAG[®]

SECURITY ENGINEERING



THE NEXT LEVEL OF SECURITY

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ZABAG

SECURITY SOLUTIONS

Since 1990 ZABAG Security Engineering GmbH has been successfully on the market and is one of the leading manufacturers of access and security systems for perimeter protection. The company developed into a global player for high-security solutions and custom-made products. The fully-developed project solutions are already valued by customers in about 30 countries around the world.

The security of your premises or of your employees and visitors is our major concern. Together with you we develop your optimal solution. The beginning makes an individually planned security concept. We construct, produce and deliver innovative, secure and environmentally-friendly products to realise your project. To ensure trouble-free operation of your security system our competent and fast after-sales service is available for you 24 hours a day.

We create individual and custom-made solutions with sophisticated control units, monitoring and IT modules.

Everything from one source – ZABAG Security Engineering – The next level of security.

It is our aim to offer products and services with superior quality and high utility. Adding our comprehensive competence in all fields and the ambition for innovations, we succeed to lift our customers to the next level. In doing so, we take care of your special solutions, that are distinguished by highest security, modern design and innovation.

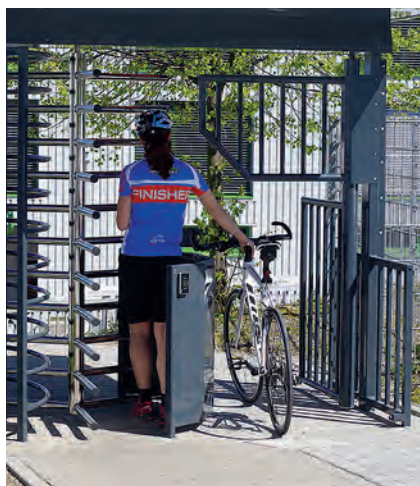
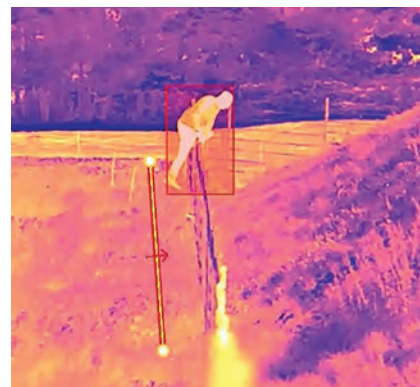
ZABAG is your competent partner for implementing your projects successfully.



HIGH SECURITY SOLUTIONS



AREA SYSTEMS



SPECIAL SOLUTIONS



SERVICES & PRODUCTS

ZABAG LEISTET



- competent security advice
- project planning & engineering services



- special constructions
- high security solutions



- delivery, assembly, repair service & spare part service
- inspection & maintenance

ZABAG LIEFERT



- access control systems
- video surveillance systems
- detection & alarm systems

ZABAG PRODUZIERT



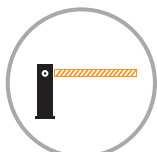
- sliding gates & telescopic sliding gates
- Swing gates & bi-fold gates



- turnstiles



- security bollards
- anti-ram barriers



- barrier systems
- control columns



ENGINEERING

WE DEVELOP SECURITY SOLUTIONS WITH IDEAS AND KNOW-HOW

From the beginning we accompany you in your project, advise you and use our know-how to develop the optimal solution for you.

The services offered relate to the handling of complete projects with process development, electronics and PLC software programs, construction, prototyping and testing of prototypes as well as the takeover of partial engineering services.

OUR SERVICES:

- risk assessment
- project planning
- project development, requirements and functional specification
- 3D design and models
- installation service
- service and maintenance
- product development & research

RISK ASSESSMENT

The preparation of a risk assessment is required by law and is not a voluntary service!

However, the on-site situation is often crucial. The entire situation must be surveyed, including all parameters, before an expert assessment can be made and competent advice offered.

Our trained systems analysts are happy to advise you on site, to evaluate the situation and perform a risk assessment.

In consultation with you, they will design a complete concept, taking into account the available products and their respective hazard analyses.



PROJECT PLANNING

We know how to plan and execute projects successfully. The expertise and knowledge of our systems analysts is available to you, from as early as the planning phase.

We can guarantee the quality of the project results, adhere to costs and deadlines and ensure that project goals are achieved. In so doing, we provide optimal planning and support for our customers' projects.



PROJECT DEVELOPMENT, REQUIREMENTS SPECIFICATION, FUNCTIONAL SPECIFICATION

We offer project development assistance for the preparation of your events, processes or a real construct. In this regard, we can provide you with technical (or non-technical) documents for the presentation.

We go over your requirements specification with you with concerning your requirements with regard to features, and we help you draft these documents.

Based on the requirements specification, we then create a functional specification, which describes specifically how we intend to resolve the requirements in the requirements specification.

3D DESIGN

Our experienced designers make plans according to your wishes – in strict compliance with our standard or with individual adaptations.

We draft subassemblies to suit your requirements and design them using state-of-the-art software.

Visualisation via 3D models enables defects to be detected and eliminated immediately. The desired results are thus achieved efficiently and directly.



PRODUCT DEVELOPMENT & RESEARCH

We strive not only to improve our existing products and develop new, innovative products, but also to refine our processes on a continual basis. The aim of this improvement process is to continually develop new ideas to

increase the efficiency, comfort, security and environmental friendliness of existing products.

Our engineers have access to state-of-the-art product development simulation and visualisation software.



SPEZIALLÖSUNGEN

CUSTOMISED AND INDIVIDUALLY ADAPTED TO REQUIREMENTS

ZABAG is your leading expert when it comes to individual and customized perimeter protection solutions tailored to customer demands.

ZABAG's special solutions can cope with the adaption of the gate frame in accordance to the site conditions, as well as bringing in special infills, up until a complete new gate design and construction.

As a matter of course, all these products comply with the highest quality standards.

ZABAG's know how matched with the state of the art machine outfit and technology ensures tailor-made solutions for each and every problem.

FEATURES:

- adaption to site conditions
- stronger dimensions
e.g. designed to withstand
wind class 4
- higher resistance classes
(RC)
- slope adjustments
- special infills
- breakthrough resistance
- special heights and
lengths





Custom-made

Adapted to your requirements, ZABAG special solutions protect people, buildings or areas effective and reliable, based on it's well designed and custom-made construction.

Resistance classes

Sensitive areas often require special protective measures and arrangements.

This can include resistance against armed and forcible intrusion attempts. On demand, ZABAG designs, manufactures and delivers its systems with appropriate measures to resist whichever attacks – even gunfire – effectively.





SECURITY ACADEMY

ZABAG TRAININGS

Well-trained expert staff and a professional handling with our products have a high priority for us. We are constantly working hard to ensure all quality requirements and to generate highest customer satisfaction.

For this reason we regularly offer trainings for our partners and customers in our premises. We think it is fundamental, that everyone involved in the supply chain, is qualified and has and significant knowledge of our extensive portfolio of products - beginning from sales, over installation, up to after sales support.

Technicians, installers, managing directors or sales representatives – we will find the right training for you.

Individual training courses tailored to meet your needs are as well possible - Please ask us for the training you require.

SIGN IN:

your contact -
Stefanie Stehr (Marketing)
s.stehr@zabag.de

Sign up and learn more
about the training schedule
and the costs.

You will receive a detailed
training plan after your
registration.

Our trainings usually
start at **8 a.m.** and
end about **4:30 p.m.**

LECTURERS:

- **CEO - Dipl.-Ing. (FH) Michael Simon:**
strategy, security concepts, integration in daily business
- **System consultant high security - Dirk Möbius:**
strategic planning and consulting high security
- **Head of Sales - Martin Burgdorf:**
safety-relevant product selection and product consultation
- **Service Manager - Sascha Sachse:**
mechanical functions and emergency release, electrical functions,
installation and maintenance, control panel settings and troubleshooting





HIGH SECURITY

FOR AREAS WITH INCREASED NEED FOR SECURITY

Each project is unique. Therefore it is necessary to go beyond current standards in order to find the best solution.

ZABAG designs and produces optimised security systems with maximum value to meet every need for highly sensitive areas such as national and international politics, military and judicial systems or air transport.

When designing and developing systems, we take individual requirements into account and then manufacture the systems in-house according to the highest quality standards. Our focus is always on the integration of security, design and functionality. The sophisticated, robust design of ZABAG gate systems enables effective, reliable and durable protection of buildings or areas with increased levels of security.

AREAS OF APPLICATION:

- federal and state offices of criminal investigation, police headquarters
- court buildings
- airports
- nuclear power plants
- IT centres
- correctional facilities
- forensics clinics, facilities and laboratories
- ministries and embassies
- agencies and banks
- military installations

COMPLETELY PERIMETER PROTECTION

An effective planning lays the foundation for optimal perimeter protection. Only in this way the installed security systems can resist the different threat scenarios.

With us - you receive everything from one source - starting with a protection concept to an intelligent and holistic solution for your personal completely perimeter security.





For example, the design, dimensions and impact loads of gate systems can be individually adapted to the most specific of user requirements and to suit the respective security concept. If appropriate structural measures are taken, our gate systems – depending on size and design – can absorb impact loads of up to 1000 kN.

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 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).

Resistance class versions of ZABAG's ZENTRA EH-120-RS and ZENTRA X turnstiles are certified in accordance to DIN EN 1627:2011-09 (certificate number 15/08-A340). In this case, various measures are being implemented in the turnstiles in order to meet the requirements of resistance class RC 2.

TECHNICAL DETAILS HIGH SECURITY

Impact resistance	in accordance with IWA14-1:2013, N3E, 48 km/h and DOS/PAS 68
Impact loads	up to 1067 kN
Resistance class	in accordance with SSIN EN 1627-1630
Bullet proof	in accordance with STANAG bzw. VPAM
Configuration	individual to requirements

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



Turnstile RC2



OVERVIEW

CERTIFIED PRODUCTS FROM ZABAG



High security bollard Z-HSP 500

Certificate according to IWA 14-1:2013, N3E, 48 Km/h

48



13.33 m/s

0.64 m Penetration depth

Kinetic energy:
2134 kJ

Static load:
1067 kN



Shallow mounted bollard Z-HFFP 273

Certificate according to IWA 14-1:2013 Bollard V/12000[N3D]80/90/5.4

80



22.22 m/s

5.4 m Penetration depth

Kinetic energy:
3043 kJ

Static load:
1522 kN



High security bollard Z-HSP 273

Certificate according to IWA 14-1:2013 Bollard V/12000[N3D]80/90/4.8

80



22.22 m/s

4.8 m Penetration depth

Kinetic energy:
2904 kJ

Static load:
1452 kN



High security barrier Z-HSTS 8000

Certificate according to IWA 14-1:2013 Bollard V/7200[N2B]48/90/0.4
ASTM F2656/F2656M-18a:C730/P1[0.3]

50



13.88 m/s

0.3 m Penetration depth

Kinetic energy:
679 kJ

Static load:
339 kN



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"> • uninterruptible power supply for control elements such as push button etc. • permanent memory of PLC-Control data to secure and to archive the limit switch positions and commands for the facility management as overflow system • interface for remote control receivers • spare space for additional installations

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.



Z-HFFP 273

CERTIFIED SHALLOW MOUNTED BOLLARD

This certified shallow mounted bollard is meant to protect people and visitors of crowded places in inner cities and event areas. Due to its depressed installation depth of only 300 mm, the Z-HFFP 273 is especially suitable for inner city market places, walkway or bicycle lanes. The local conditions – i.e. supply circuits, sewage pipes or drains won't collide with the shallow foundations, but the foundation will also ensure a long-lasting and secure access protection on one of the highest ever tested levels.

ZABAG's fixed and shallow mounted bollard Z-HFFP 273 successfully passed the crash test at the authorized Crash Test Service Center in Münster with a 12t truck and more than 80 km/h without any problem. This complies to a kinetic energy of 3043 KJ and an equivalent static load of 1522 KN. **(certificate according to IWA 14-1:2013 Bollard V/12000[N3D]/80/90/5.4)**

Due to design and construction, the system can be integrated perfectly into its surroundings by followings curves and by using different bollard covers. Pedestrians, cyclists, wheelchair and baby buggy users can pass the bollards without disturbance.

To allow access to authorized vehicles, police or emergency service, the system is combinable with the retractable bollards out of our range.

IMPACT:

- truck weight: 12 t
- speed: 80 km/h
- kinetic energy: 3043 kJ
- static load: 1522 kN

CERTIFIED TO:

IWA 14-1:2013 Bollard
V/12000[N3D]/80/90/5.4

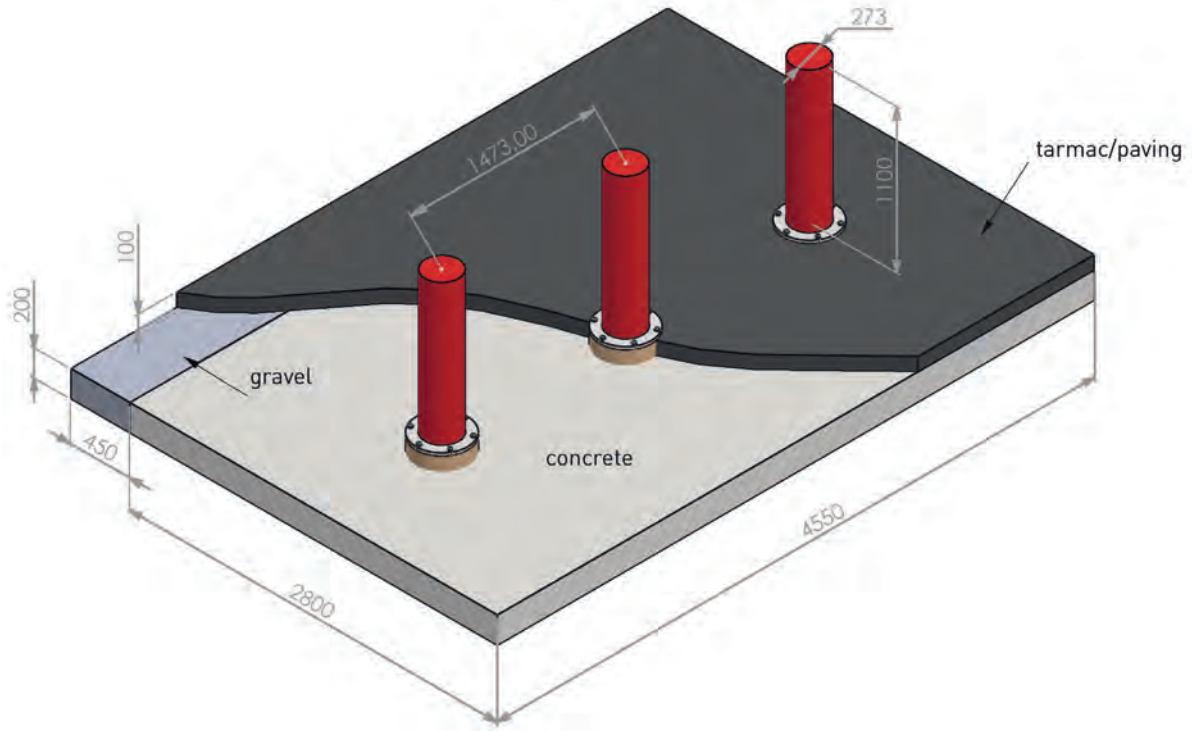
APPLICATION:

- inner cities
- walkways and bicycle lanes
- pedestrian zones
- event areas
- data centres
- airports
- critical infrastructure
- military institutions

FEATURES:

- **lowest installations** depth matched with the highest possible and tested safety
- **comply with the local conditions by:**
 - followings curves
 - using different bollard covers
 - building over city furniture like benches, plant buckets or advertisement signs





TECHNICAL DETAILS:

Corrosion Protection	3Plus - All steel parts are shot blasted, hot zinc sprayed, powder primed and then powder coated to the finished RAL colour. This special finish ensures the highest possible resistance against damages caused by ultraviolet light, scratches, chemicals or oil.
Installation depth	300 mm (200 mm concrete + 100 mm covering)
Blocking height	1100 mm
Diameter	<ul style="list-style-type: none"> • 250 mm - without cover • 273 mm - with cover made of stainless steel
Certification	IWA 14-1:2013 Bollard V/12000[N3D]/80/90/5.4

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.





Z-HSP 273

CERTIFIED AUTOMATIC BOLLARD

Unauthorized access of street-legal vehicles is prevented reliably and effectively by ZABAG's certified high-security bollards. The electro-hydraulic powered bollard opens after successful authorisation and allows free access for all vehicles on all entry's or exits. Pedestrians, cyclists, wheelchair and baby buggy users can pass the bollards without disturbance.

This high-security bollard successfully passed the crash-test at the authorized Crash Test Service Center in Münster. He stopped and destroyed a 12t truck, hitting with a speed of 80 km/h without any problem. This complies to a kinetic energy of 2904 KJ. [certificate according to IWA 14-1:2013 Bollard V/12000[N3D]/80/90/4.8]

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

Additional options, functions and special constructions are available up on request.

To meet all requirements of a holistic security concept, this bollard can be ideally combined with our fixed shallow mounted bollards.

IMPACT:

- truck weight: 12 t
- speed: 80 km/h
- kinetic energy: 2904 kJ
- static load: 1452 kN

CERTIFIED TO:

IWA 14-1:2013 Bollard
V/12000[N3D]/80/90/4,8

APPLICATION:

- inner cities
- walkways and bicycle lanes
- pedestrian zones
- event areas
- data centres
- airports
- critical infrastructure
- military institutions

FEATURES:

- powered electro-hydraulic
- the hydraulic fluid is bio-degradable in accordance to hazard class 1
- in case of power failure, the bollard remains locked
- emergency operable with manual hand pump
- cap made from stainless steel
- LED-lighting on top of bollard

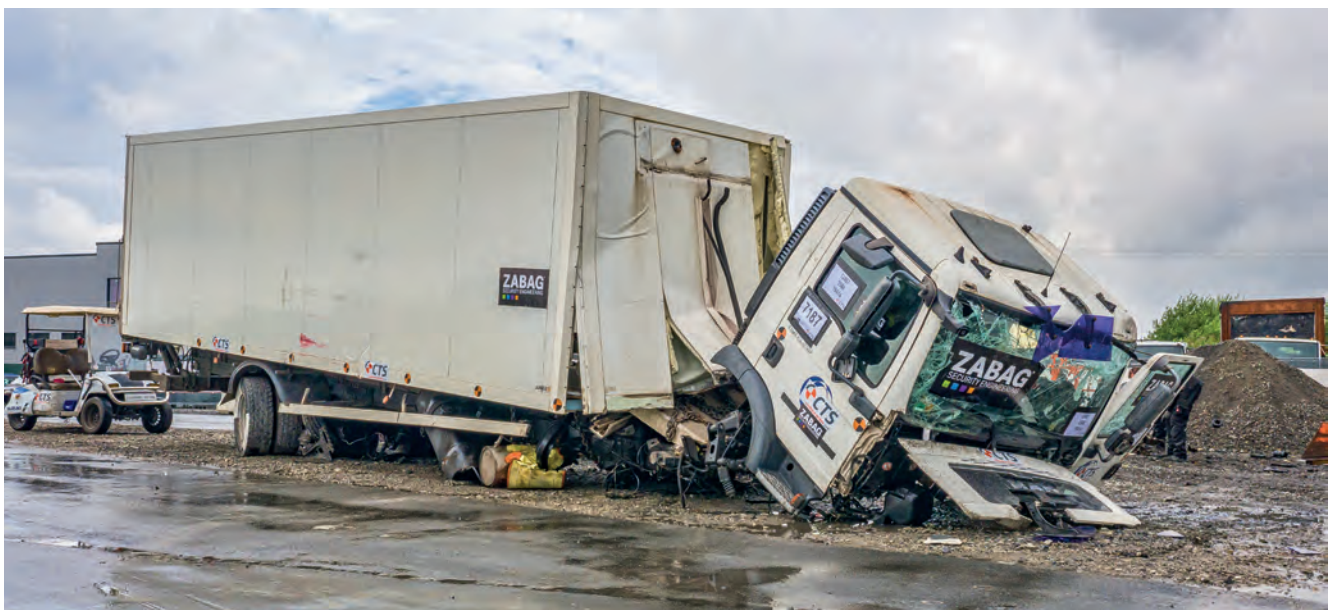
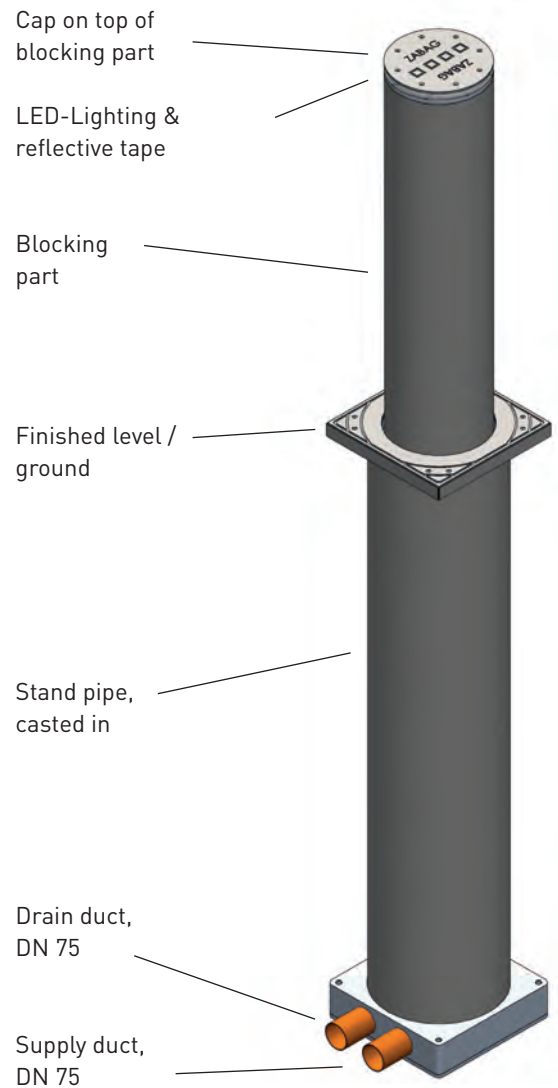




TECHNICAL DETAILS

Corrosion protection	The blocking part is made from stainless steel V4A
Diameter	app. 273 mm
Blocking height	1.100 mm
Installation depth	app. 2.000 mm
Rising time	app. 8 seconds
Lowering time	app. 6 seconds
Drive unit	3 x 400 V 50 Hz 3-phase current
Security rating	IWA 14-1:2013 Bollard V/12000[N3D]/80/90/4,8

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.





MOBILE BOLLARDS

PORTABLE BLOCKERS

New attack scenarios of international terrorism as well as lonely wolf assassins need considerable answers, to protect human beings on public areas and during events. Often these events are only held temporarily, for example Christmas markets during the Christmas period only. ZABAG Mobile Bollards is the answer. They can be used repeatedly and aligned to the size of the event and the local conditions.

To face this new challenge, ZABAG's research and development department invented the portable bollards made from steel, which are adjustable in length by a bolt and plug connection and create safe areas as they can stop vehicles trying to break through.

Pedestrians, cyclists, bikers and even wheelchairs can easily pass these system. That means that visitors can get easy access, and probably even more important also get free exit – everywhere to and from the secured area.

RANGE OF APPLICATION:

- pedestrian zone
- events
- concerts

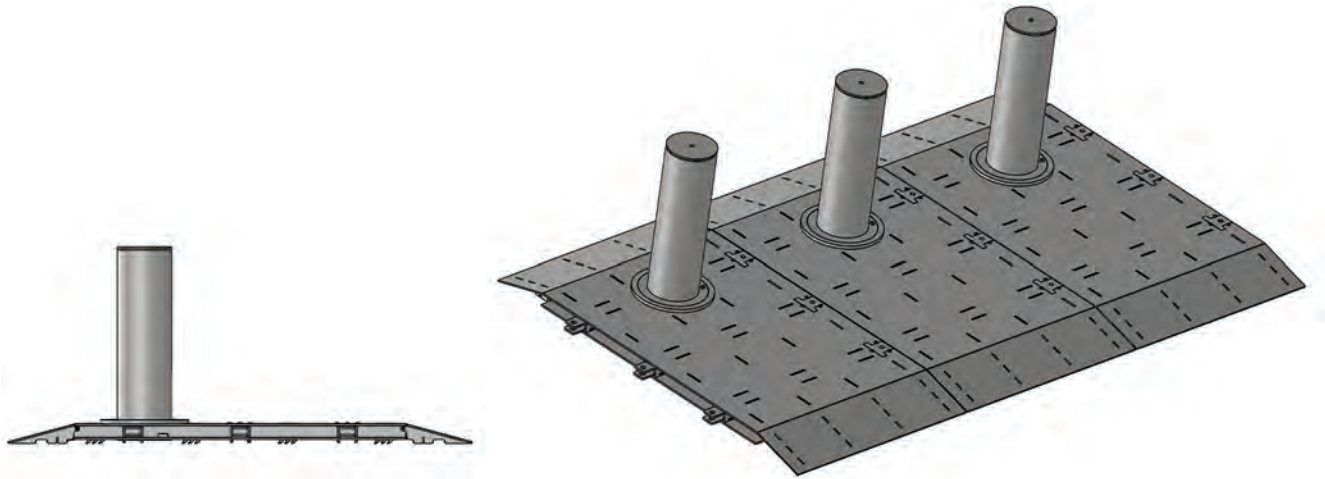
HIGHER SECURITY

The resistibility could easily increase by using concrete weights underneath the bottom cover plate and/or earth pegs, app. 1 m deep in the ground.

FEATURES:

- vehicles will be stopped effectively
- pedestrians, cyclists, bikers and even wheelchairs can easily pass the system
- individual layout and the possibility to integrate local conditions
- can be used repeatedly
- flexibly expandable depending on the size of the event
- space saving storage





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.
Blocking height	1000 mm (different height on request)
Connecting material	0°, 15°, 30° and 45°
Optional	steel rope anchoring between the modules, earth pegs, LED-lights

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.

MODULAR SYSTEMS

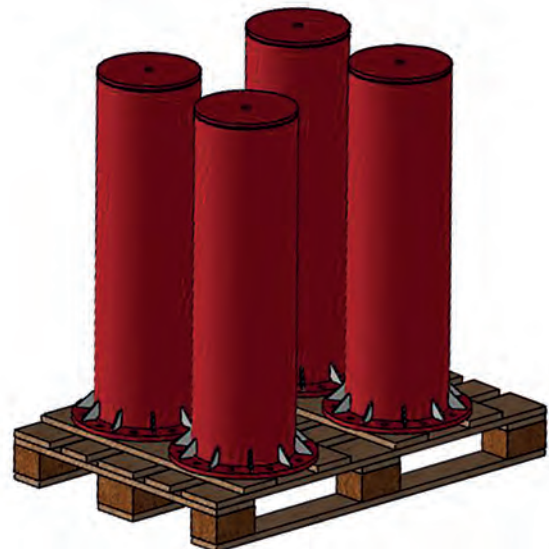
The bollards, base construction and cover sheet steel are made from high-strength steel and designed for single, separate and space saving storage. Zabag 3Plus corrosion protection is applied to all steel parts of the system.

The layout of the system can be adjusted to the local circumstances to create the required guard line or ring.

One module consists of:

- base construction (app. 500 kg)
- bollard (app. 180 kg)

Any RAL colour is available. Individual bollards can be coated in a signal colour to stand out.





Z-VP 275

TRAFFIC CONTROL BOLLARDS

Reliable passage barriers for areas and facilities that need protection and a controlled entry

The use of traffic calming bollards reliably prevents unauthorised vehicle access. The bollards can release or block the passage within seconds by electro-hydraulic operation.

With this type of securing you have the passage restriction for your commercial, industrial or urban area clearly under control. Authorized persons identify themselves, e.g. via an access card, and get the allowance to enter the premises.

For supply traffic and garbage collection regulated access times can be set. Rescue or emergency services can give the enter permission by remote control for example. The exit passage can be granted automatically at any time.

The bollards, made of durable stainless steel, fits in very well into the surroundings. If not required, they are lowered in the ground anyhow and almost not visible. Pedestrians, wheelchair user, cyclists and motorcyclists can pass the bollards without any obstruction.

AREAS OF APPLICATION

- passage restrictions in public areas - traffic calming in the City centres
- protection of company premises
- commercial, industrial and urban areas
- residential areas
- access regulations for parking spaces
- protection of entrance doors and glass facades
- access regulations to public buildings
e.g. hospitals or airports
- protection of public places or stadiums
- event protection



TECHNICAL DETAILS

Corrosion protection	bollard blocking part made of V4A stainless steel
Bollard diameter	approx. 273 mm
Blocking height	900 mm
Installation depth	approx. 1200 mm
Rise time	approx. 8 sec.
Descent time	approx. 6 sec.
Drive unit	3 x 400 V 50 Hz three-phase current

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



FEATURES:

- electro-hydraulically operating
- the hydraulic medium is biodegradable and corresponds to water hazard class "1"
- in case of a power failure, the bollards remain in their current position
- emergency hand operation using a hand pump or back up batterie
- blocking height 900 mm or customized
- bollard cover made of stainless steel

The traversable covering 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.



Z-HSTS 8000

CERTIFIED HIGH SECURITY BARRIER

The high security barrier Z-HSTS 8000 is especially suitable to secure people and objects in sensitive areas. The tested and certified high security barrier reliably denies unauthorized access of roadworthy vehicles.

The electro-hydraulically barrier system successfully passed the crash test at the authorized and accredited Crash Test Service Center in Münster. It easily withstood an impact of a 7.2 t truck at a speed of 49.5 km/h. This corresponds with a kinetic energy of 679 kJ. The in the foundation embedded slam posts were still unhurt after the test, so that only the barrier boom and the drive unit needed to be replaced after the impact. Therefore, in case of a critical incident, extensive work on the foundations will not apply.

Military and critical infrastructure, governmental and industrial buildings, embassies, nuclear power plants, research and data centres as well as banking institutions – they all need the highest possible protection available. The high security barrier Z-HSTS 8000 effectively secures these objects.

IMPACT:

- truck weight: 7,2 t
- speed: 49,5 km/h
- kinetic energy: 679 kJ
- static load: 339 kN
- penetration depth: 0,3 m

CERTIFIED TO:

- IWA14-1:2013:
V/7200[N2B]/48/90:0.4
- ASTM F2656/F2656M-18a:
C730/P1(0,3m)



TECHNICAL DETAILS

Corrosion protection	3Plus - All steel parts are shot blasted, hot zinc sprayed, powder primed and then powder coated to the finished RAL colour. This special finish ensures the highest possible resistance against damages caused by ultraviolet light, scratches, chemicals or oil. Hot dip galvanising is also available if specified.
Drive system	electro hydraulic drive with frequency converter with 7.5 kW rated power, 400 V, 3-phase, 50 Hz
Hydraulic system	In addition to the pressure relief valve for the pump and system, the hydraulic valve control on the unit includes a pressure gauge and the electrically controlled control valves for opening and closing. Furthermore, an additional valve for the secure catch of the boom in the boom support is integrated, to prevent boom from dropping down.
Control unit	microprocessore control unit, frequency converter for soft start / soft stop and adjustable speed

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



FEATURES:

- certified to IWA14-1:2013: V/7200[N2B]/48/90:0.4 and ASTM F2656/F2656M-18a: C730/P1(0.3m)
- kinetic energy: 679 kJ
- boom length up to 8 m
- opening/closing time 15 s
- electro-hydraulically driven
- ZABAG corrosion protection 3Plus
- colour to a RAL standard colour chart or as required
- selectable for left/right use

OPTIONAL FEATURES:

- loop detector
- LED flashing light on the control box
- remote control
- GSM-module
- special accessories upon request

APPLICATION:

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



WEDGE BARRIER

VEHICLE BARRIER SYSTEMS

The anti-ram shallow mounted wedge barrier is crash rated to 926 kN, provides highest operational standards, is designed for maximum and reliable perimeter security and secures sites that require a high level of perimeter protection. The blocking device is being brought into its blocking position by an electrohydraulic operating cylinder. A passage of the lowered barrier is designed for vehicles up to 60 t. The minimum foundation depth is another unique advantage.

ZABAG's blocking device shows v-shaped red/white (RAL 3000 / RAL 9010) stripes at the front and is highly visible when in use. Other colours like black/yellow (RAL 9005 / RAL1023) are also available if required. All other parts are delivered in RAL 7030. Signal lights can also be integrated into the retractable blocking device as an option.

The wedge barrier is delivered as a mounting unit and features an automatic raising and lowering function. It is installed to be flush to the finished roadway when fully retracted. The electrohydraulic drive unit is integrated in a separate control cabinet and operated by a PLC-control panel (IP code 64).

ZABAG WB 926

crash / impact rating

Load 926 kN
(equates a vehicle of 7.5 t
with 80 km/h)

standard dimensions

2 m, 3 m or 4 m
clear width

raising and lowering time

approx. 3.5 sec

SUPPLEMENTARY ITEMS:

- pressure accumulator for one cycle in case of power failure
- signal lights red or yellow Ø 100 mm
- traffic control signal red/green Ø 200 mm for wall mounting
- traffic control signal red/green Ø 200 mm for pole mounting incl. light pole
- exposed key switch "Raise-Lower"
- integrated key switch "Raise-Lower"
- push-button "Raise-Lower"
- trace heating
- safety cover



TECHNICAL DETAILS

Blocking device	steel, galvanized and powder coated
Raising height	1100 mm
Blocking width	2 m to 4 m
Crash / Impact load	926 kN (1952 kJ)
Raising and lowering time	3.5 sec; Fast raising with accumulator approx. 1 sec.
Control cabinet	HxWxD 1200x800x600 mm
Passage capacity	100 kN axis thrust load according to DIN 1072
Hydraulic power unit	separated in control cabinet, distance max. 20 m
Hydraulic oil	bio-degradable, water hazard class I
Power supply voltage	400 V, 50 Hz

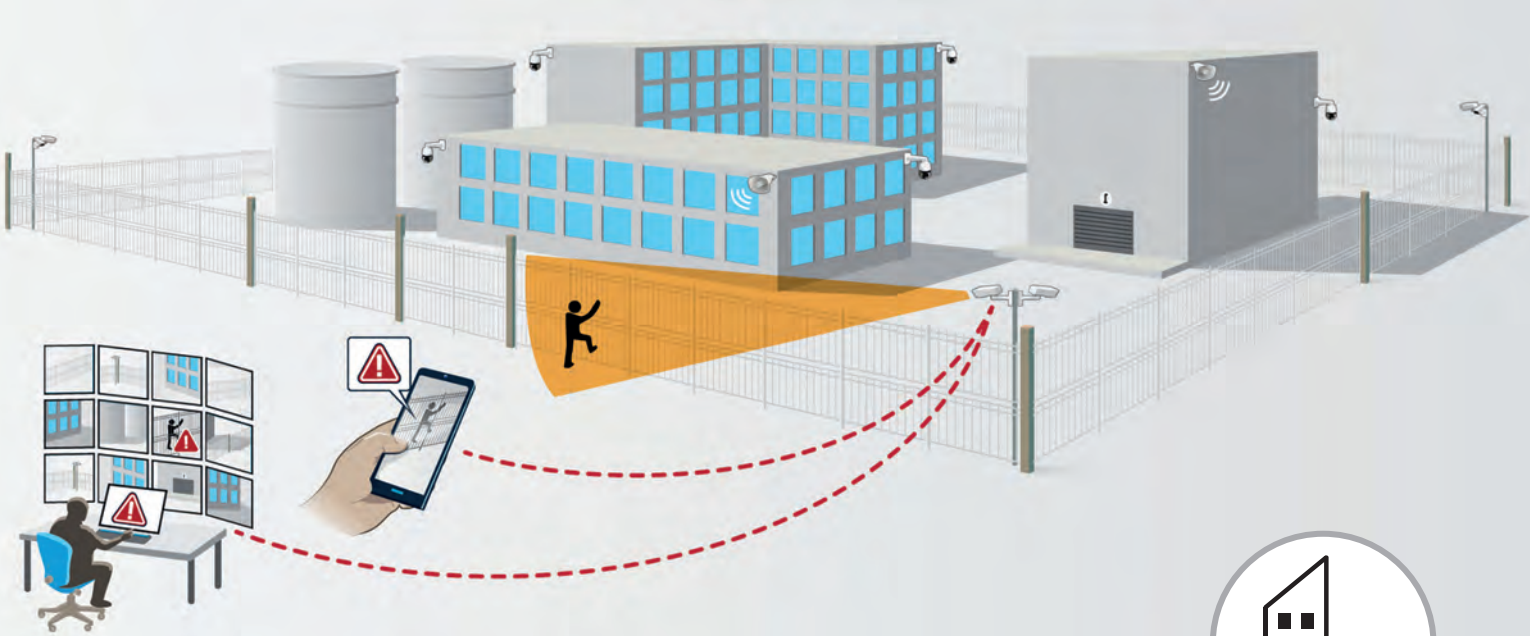
As part of our ongoing process of product improvement, we reserve the right to change design and specification or to discontinue products without prior notice.



Full technical documentation is included in the delivery, such as:

- assembly drawings
- cable specifications
- wiring diagram
- assembly, operation and service manual
- lock book

UVIS, license plate recognition and systems for video security can be offered complementary. We gladly advice you in any further questions to make sure to supply the perfect matching security solution for every purpose.



AREA SYSTEMS

PERIMETER PROTECTION WITH THE LATEST TECHNOLOGY

The security of your area through access systems is optimally supplemented with innovative technology and access control systems. With the various technologies of our Swedish partner Axis Communications, we offer you reliable solutions in the sector of area systems - in addition to our system solutions in the sector of perimeter protection.

Indoors and outdoors, we supply reliable video surveillance systems, intelligent access control systems and various technologies for securing your site, for reliably detecting and reporting intruders, for access for authorized persons and vehicles, and for protecting your own employees.

We advise you comprehensively on your requirements, plan the right technical solution for you, configure the technology for direct use and assemble the system at your location.

WE OFFER YOU:

- perimeter protection
- license plate recognition
- long range reader
- network planning
- video security
 - > network cameras
 - > PTZ cameras
 - > thermal cameras
 - > management software
- access control
 - > QR code readers
 - > intercoms
 - > GSM modules
 - > card readers
 - > encoders

ZABAG SERVICES:

- planning and project development
- pre-configuration
- installation
- maintenance of IP surveillance systems
- support





LICENSE PLATE RECOGNITION

RELIABLE ACCESS CONTROL

Access control combined with the latest video technology works automatically and reliably with excellent IP cameras from AXIS. Gates, barriers and bollards, combined with this system, automatically allows the passage for authorized vehicles and registers or reports the license plate at the same time.

The license plate recognition solutions (LPR) are based on an Axis camera with integrated partner software that runs either on the camera or on a server. The system automatically detects the number plate in real time and then takes suitable measures such as opening a gate or generating an alarm.

ZABAG adjust the products and services to your needs, so that you get the most suitable solution for your site and the people on it. The ZABAG service includes professional consultings and a professional installation as well a ready to use pre-configuration according to customer requirements.

ZABAG provides you a system, in which the individual components are perfectly coordinated so that you will get a reliable and holistic solution.

ZABAG SERVICES ACCORDING TO DIN 62676-4:

- project planning
- commissioning
- maintenance of IP monitoring systems
- support

TECHNICAL SOLUTION:

- high-performance AXIS cameras

COMPATIBLE WITH:

- AXIS access control
- AXIS network relay



Event	Date / Time	Plate	R/O	Direction	Time (ms)	Access	Photo
	2019-09-03 14:16:46	HA224170	1	UNK	77.0	Accepted	
	2019-09-03 14:15:50	HA224170	1	OUT	72.0	Accepted	
	2019-09-03 14:15:36	HA224170	1	IN	77.0	Denied	
	2019-09-03 14:10:27	HA224170	1	UNK	75.0	Denied	
	2019-09-03 14:08:27	HA224170	1	UNK	65.0	Denied	
	2019-09-03 14:06:13	HA224170	1	UNK	100.0	Accepted	
	2019-09-03 14:06:04	HA224170	1	UNK	78.0	Denied	
	2019-09-03 14:05:37	HA224170	1	UNK	66.0	Accepted	
	2019-09-03 13:44:48	HA224170	1	OUT	60.0	Denied	
	2019-09-03 13:44:36	HA224170	1	UNK	63.0	Denied	
	2019-09-03 13:44:26	HA224170	1	IN	73.0	Accepted	
	2019-09-03 13:43:12	HA224170	1	UNK	61.0	Accepted	
	2019-09-03 13:42:52	HA224170	1	IN	81.0	Accepted	
	2019-09-03 13:40:25	HA224170	1	OUT	72.0	Accepted	
	2019-09-03 13:39:59	HA224170	1	IN	88.0	Accepted	
	2019-09-03 13:35:26	HA224170	1	IN	62.0	Denied	
	2019-09-03 13:30:51	HA224170	1	UNK	62.0	Denied	



COST EFFECTIVE REGULATIONS OF ACCESS AUTHORIZATION

AXIS P1455-LE-3 License Plate Verifier Kit

The AXIS P1455-LE-3 License Plate Verifier Kit consists of the network camera AXIS P1455-LE and the preinstalled analysis functions of the AXIS License Plate Verifier. This combination is a simple and cost-effective solution for the automated management of entry and exit authorizations. AXIS P1455-LE-3 works with release lists in order to precisely check the access authorization to controlled areas.



TECHNICAL DETAILS

Image sensor	1/2.8 inch RGB CMOS
Resolution	HDTV 1080p
Lens	F1.7 / 10,9 - 29 mm
Horizontal field of view	up to 30°
Vertical field of view	up to 17°
Infrared lighting	up to 45 m
Detection range	7 up to 20 m
Vehicle speed	up to 70 km/h
Operating conditions	-40°C up to 60°C humidity 10 up to 100%
Weight	1,2 kg
Dimensions	Ø 132 x 264 mm
License plate recognition rate	approx. 98%

SPECIAL CAMERA FOR SHARP IMAGES AT GREAT DISTANCES

AXIS Q1700-LE License Plate Camera

The AXIS Q1700-LE License Plate Camera delivers clear and crisp images of license plates up to 100 m day and night. The robust design ensures reliable operation. The camera can be optimally adapted to your requirements.



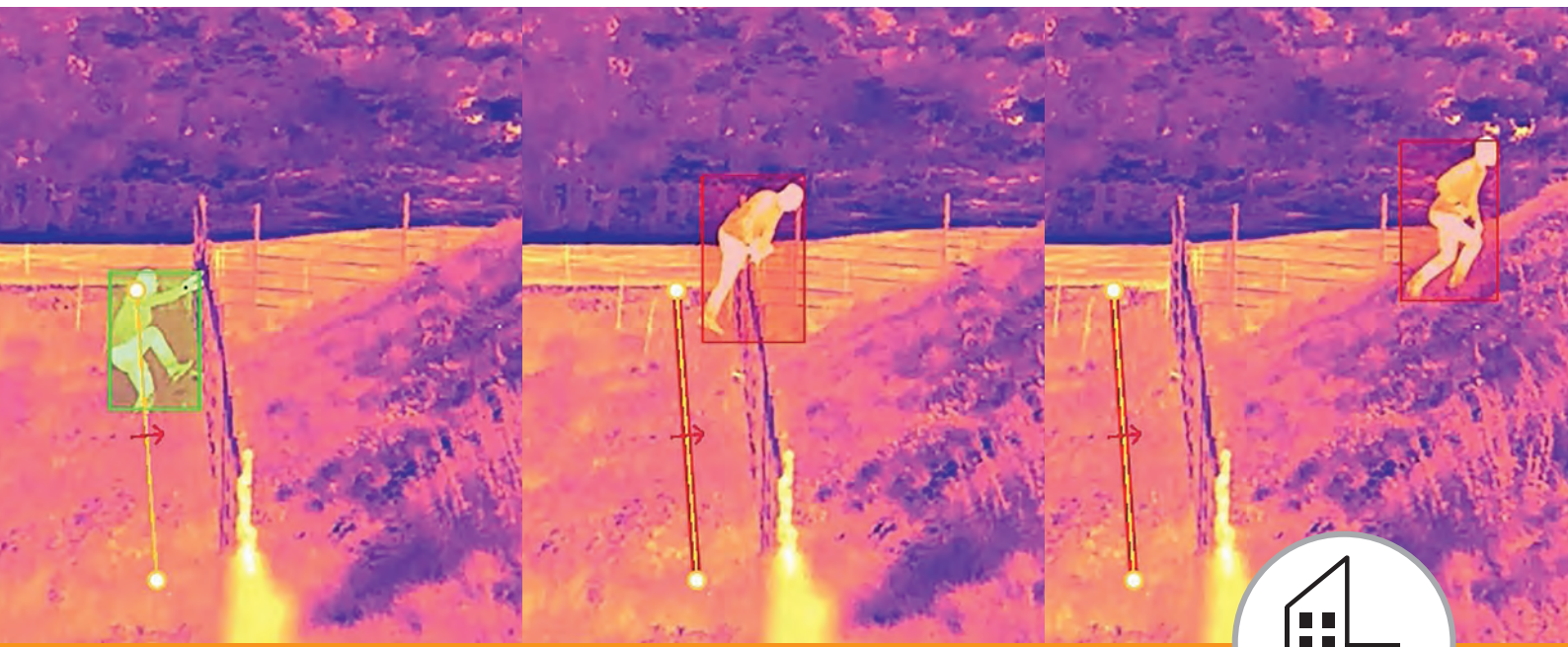
TECHNICAL DETAILS

Image sensor	1/2.8 inch RGB CMOS
Resolution	HDTV 1080p
Lens	18 - 137 mm / F2.9 - 4.1
Horizontal field of view	16° up to 2.3°
Vertical field of view	9.6° up to 1.3°
Infrared lighting	up to 50 m
Detection range	20 up to 100 m
Vehicle speed	up to 130 km/h
Operating conditions	-40°C up to 60°C humidity 10 up to 100%
Weight	2.4 kg
Dimensions	Ø 147 x 439 mm
License plate recognition rate	approx. 98%

We reserve the right to make specification changes in accordance with technical improvements.



Images: © by Axis Communications



CCTV SECURITY FOR YOUR PERIMETER PROTECTION

The optimal security of your area is supplemented with systems for video surveillance. With the latest technologies of our Swedish partner Axis Communications, we offer reliable solutions in the field of CCTV to monitor and detect intruders.

In particular, we will assist you during your planning process, understand your requirements, specify your demands and support you thru all different phases of the project.

End-to-end solutions from Axis Communications - whether for basic monitoring or an advanced security system for critical infrastructure i.e. with higher demands - will reliably protect your premises. With IP standards and user-friendly systems, our partner's technology can easily be integrated into your existing IT infrastructure. The solutions are also expandable and can enlarged to cope with increasing demands.

ZABAG SERVICES ACCORDING TO DIN 62676-4:

- project planning
- commissioning
- maintenance of IP monitoring systems
- support

TECHNICAL SOLUTIONS:

- standard network & dome cameras
- PTZ cameras
- thermal cameras
- management software

DOMES CAMERAS

AXIS dome cameras provide an excellent picture quality, either at daylight as well as in darkness. They offer an up to 360 ° overview and rectified views such as panorama, double panorama as well as 270 ° corner and quadruple views.

Thanks to the compact design, these cameras can be installed inconspicuously anywhere.

AXIS dome cameras support you in identifying activities, tracking the flow of people and help to beware the general survey.



NETWORK CAMERAS

The network cameras from Axis deliver recordings of outstanding quality - regardless of the lighting conditions, the size and the special features of the monitored area. They are energy efficient with minimized bandwidth and storage space requirements.

The analysis skills developed by Axis and its partners turn your network cameras into real business tools. They point out evolving situations and help you make efficient decisions.

The data can be integrated into your other system.



PTZ CAMERAS

Axis PTZ network cameras can be panned, tilted and zoomed so that both large areas and small details can be covered with just one camera. Thanks to the excellent image quality and the zoom function, recorded security incidents can be checked.

The cameras are equipped with a variety of intelligent functions and can automatically switch between preset positions and the zoom function in response to recorded events. They can also be easily integrated into a system with other cameras.



THERMAL CAMERAS

A thermal camera delivers reliable images in difficult lighting conditions such as shadows, backlighting, darkness and even in camouflaged objects, with which the operator can identify suspicious activities and react accordingly - around the clock.

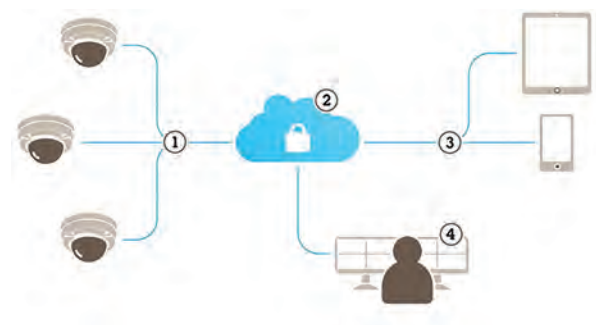
Thermal imaging cameras use the emitted heat from any objects, such as vehicles or people, to image the picture.



MANAGEMENT SOFTWARE

Axis offers IP surveillance software that complements the company's range of network cameras, video encoders and access control products.

- | | |
|-----------------------|----------------------|
| 1 - customer location | 3 - customer access |
| 2 - internet | 4 - alarm monitoring |



Images: © by Axis Communications



ACCESS CONTROL SYSTEMS

RELIABLE, FLEXIBLE & SECURE

Our access control solutions are designed “open”. This means, that you can freely combine the best software and hardware and seamlessly integrate them into other systems, including your surveillance systems. They are suitable for all areas of application - from simple identification to sophisticated and complex access management.

Open interfaces allow ongoing and flexible enhancements in line with your requirements.

ZABAG tailors the products and services to your needs, both indoors and outdoors, so that you get the best solution for your site's security and the people living or working on it. ZABAG consults and installs, but our Service also includes a plug & play pre-configuration in accordance with the requirements.

ZABAG provides you with a system in which the individual components are perfectly inter-coordinated with each other.

APPLICATION AREAS:

- logistics and traffic
- industrial areas
- airports and parking lots
- business buildings
- office buildings or public administrations
- shopping centers
- hardware stores





RESISTANT FOR SOPHISTICATED CONDITIONS

2N® IP Force

The 2N® IP Force is an extremely robust IP intercom that can withstand the toughest conditions. In addition to communication with people, it also enables monitoring and excess control. Use the extra functions of the IP Force and achieve maximum security in your property. Thanks to a 10 W loudspeaker, perfect communication is guaranteed even in a noisy environment (e.g. truck traffic).

Optional expansion modules:

- code keyboard
- bell fields
- card / chip reader



HIGH MODULARITY IN COMBINATION WITH MODERN DESIGN

2N® IP Verso

Thanks to its modularity, you can put together the 2N® IP Verso security intercom according to your needs. It ensures reliable access control to the building and can also be easily connected to other systems. This allows you to increase the security of the object.

Optional expansion modules:

- code keyboard
- bell fields
- card / chip reader
- bluetooth / NFC
- fingerprint
- electronic phone book



STYLISH AND HIGH QUALITY

2N® Indoor Touch / Talk / Compact

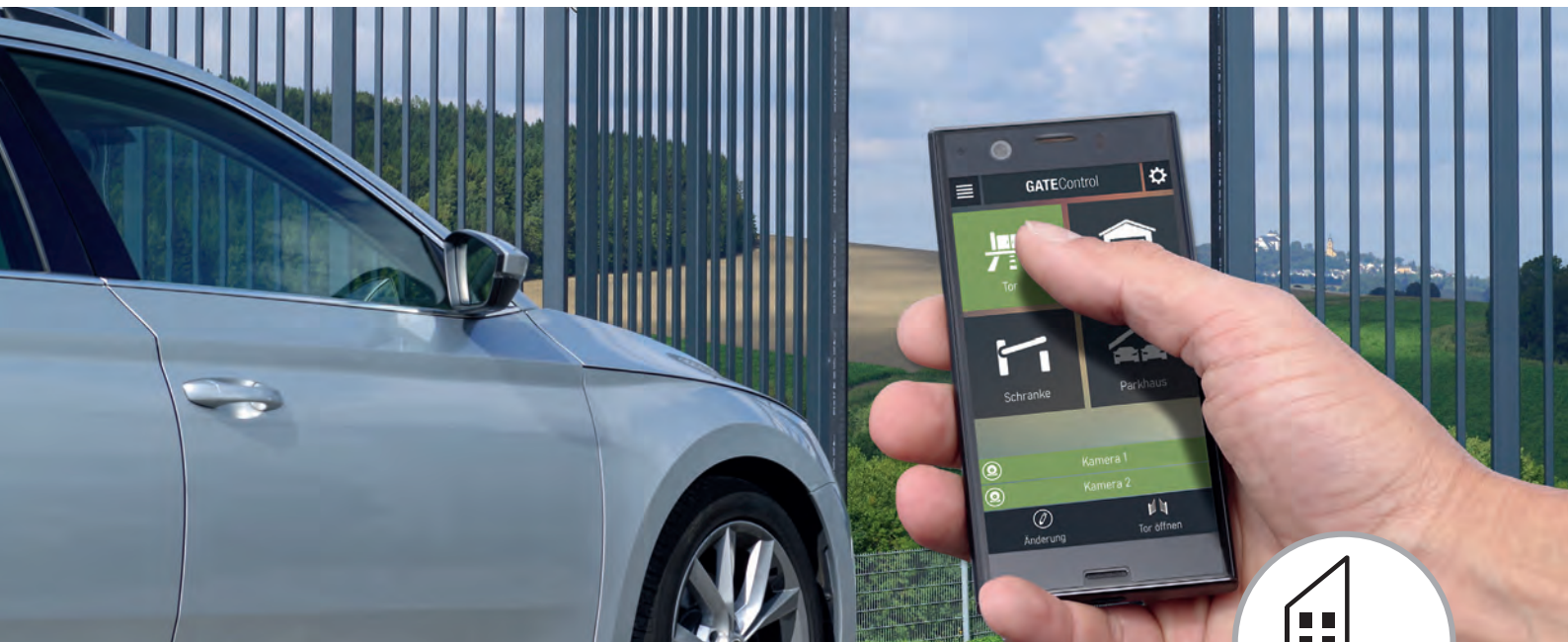
The stylishly designed, multifunctional 2N® Indoor control centers fit perfectly into any room. With a look at the up to 7" display you can determine who is standing in front of your door, start a conversation with your visitors or simply open the gate or door.

In conjunction with the 2N® IP door intercom systems, you also get an all-encompassing, compact system for external communication.



An Axis company

Images: © by 2N®/An AXIS company



GSM MODULE

REMOTE CONTROL VIA CELL PHONE

Would you like to control your security system remotely? With the GSM module you can open your entrance gate or barriers by a ring with your phone or by an app installed on your smart phone. The product has an extensive event memory, identifies the caller's phone number and transfers the open signal, in accordance to various combinations, i.e. to a time-based limited permission only. The reports can be sent by email or SMS.

It can be programmed in easy and comfortable via USB port or mobile internet and it is also resistant to radio interference and unauthorized door openings. The GSM Gate Module allows up to 1000 users with the associated authorizations (i.e. no entry permission out of standard working hours).

The GSM module also has an ONVIF camera support with the associated picture image in the smartphone app. Up to two cameras can be integrated. We would be happy to tell you more if you are interested.

AREAS OF APPLICATION:

- power operated
- gates
- bollards
- barriers
- turnstiles

VERSIONS:

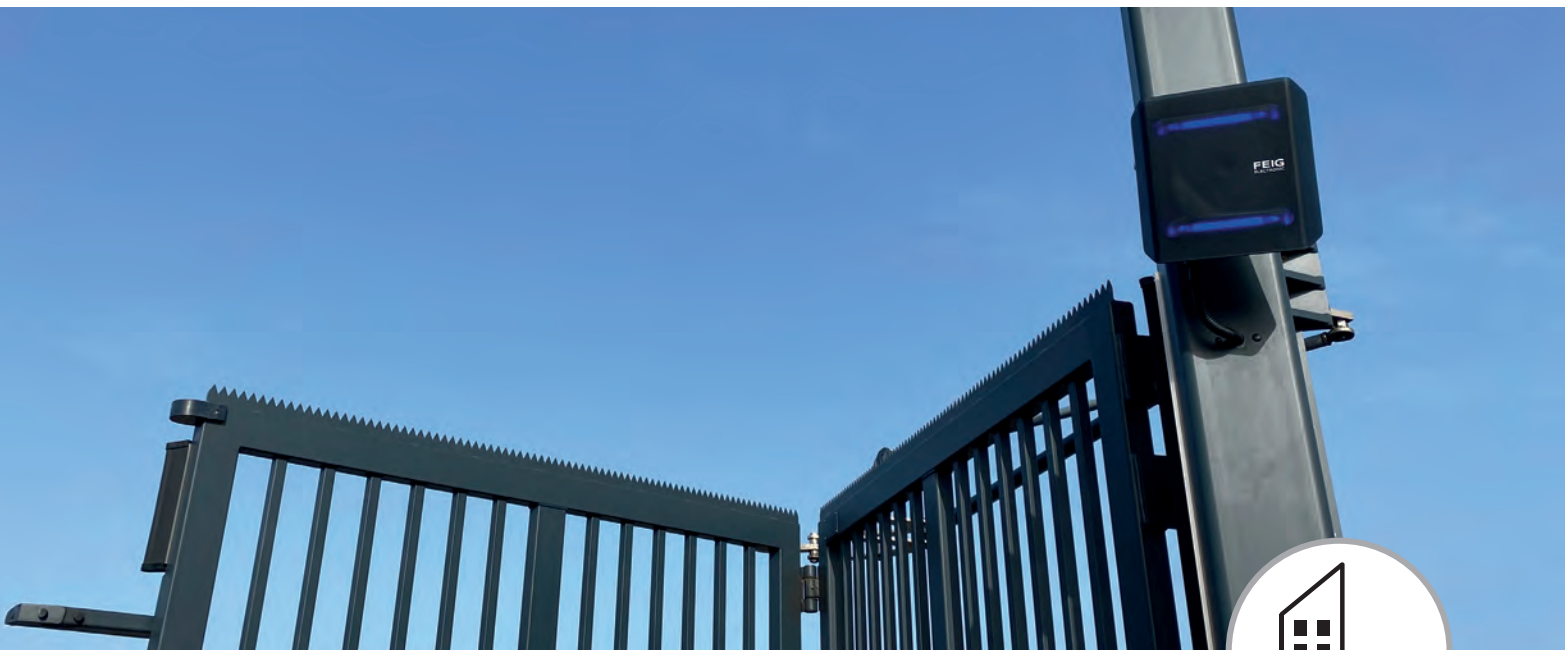
- standard: open signal via phone call
- additional function:
use of the app services -
very user-friendly with an
optimized range of services,
for mobile phone contracts
including data volume

FEATURES:

- control of two gates, barriers, bollards etc.
- up to 1000 users
- management of permissions, groups and schedules
- programmable time clock

SMARTPHONE APP:

- opening/closing of gates
- feedback on open/close control, push notification in the case of an error
- display of moving images from connected video cameras
- administration and control of several GSM modules
- users management
- user and admin versions available for IOS (App store) and android (GooglePlay)



LONG-RANGE READER

ELECTRONIC ACCESS CONTROL SYSTEM

To ensure that access is only granted to authorized vehicles, we offer various technical options. One of them is the long range reader.

In the field of vehicle identification with RFID, we work together with the company FEIG ELECTRONIC, a German manufacturer of contactless identification since more than 50 years.

With its read range of up to 10 m it is ideal to control and grant access for industrial or governmental parking lots or other critical areas and can be an excellent alternative to LPR (licence plate recognition systems).



ANWENDUNGSBEREICHE:

- Wherever a selectable group of users needs to get access to the premises during eligible times, e.g. employees during production times only, suppliers during opening hours only.
- Vehicle access control and monitoring
- RFID transponder in the car window > is recognized from a certain distance and, if authorized, access is granted

VORTEILE:

- reliable detection with visual feedback red, blue or green
 - > blue: device is in function;
 - > green: transponder detected; entry granted
 - > red: transponder recognized; admission refused
- definition of group authorizations possible e.g. parcel service XY is only allowed on the company premises Mon - Wed from 1 - 5 p.m., otherwise access denied
- quick and easy locking of the transponder
- intuitive operation of the authorization management (who is allowed when on the premises) conveniently via pc (network interface)



TECHNICAL DETAILS

Housing	robust, weatherproof design
Colour	transluzent
Technical features	<ul style="list-style-type: none">• Access repetition lock (anti-passback)• Management of over 4,000 access authorizations• Simultaneous monitoring of up to 2 lanes with read ranges of up to 10m• IP67 protection class for outdoor use

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

WHAT DOES RFID MEAN?

RFID (radio-frequency identification) is a technology for transmitter-receiver systems for the automatic and contactless identification and localization of objects using radio waves.

HOW DOES IT WORK?

Basically, RFID technology consists of a transponder and a reader. A transponder is a radio communication device that receives incoming signals and automatically responds or forwards them. The term transponder is a portmanteau of the terms transmitter and responder. A distinction can be made between active and passive transponders.

RECOMMENDED MOUNTING HEIGHTS

Cars and Motorbikes only

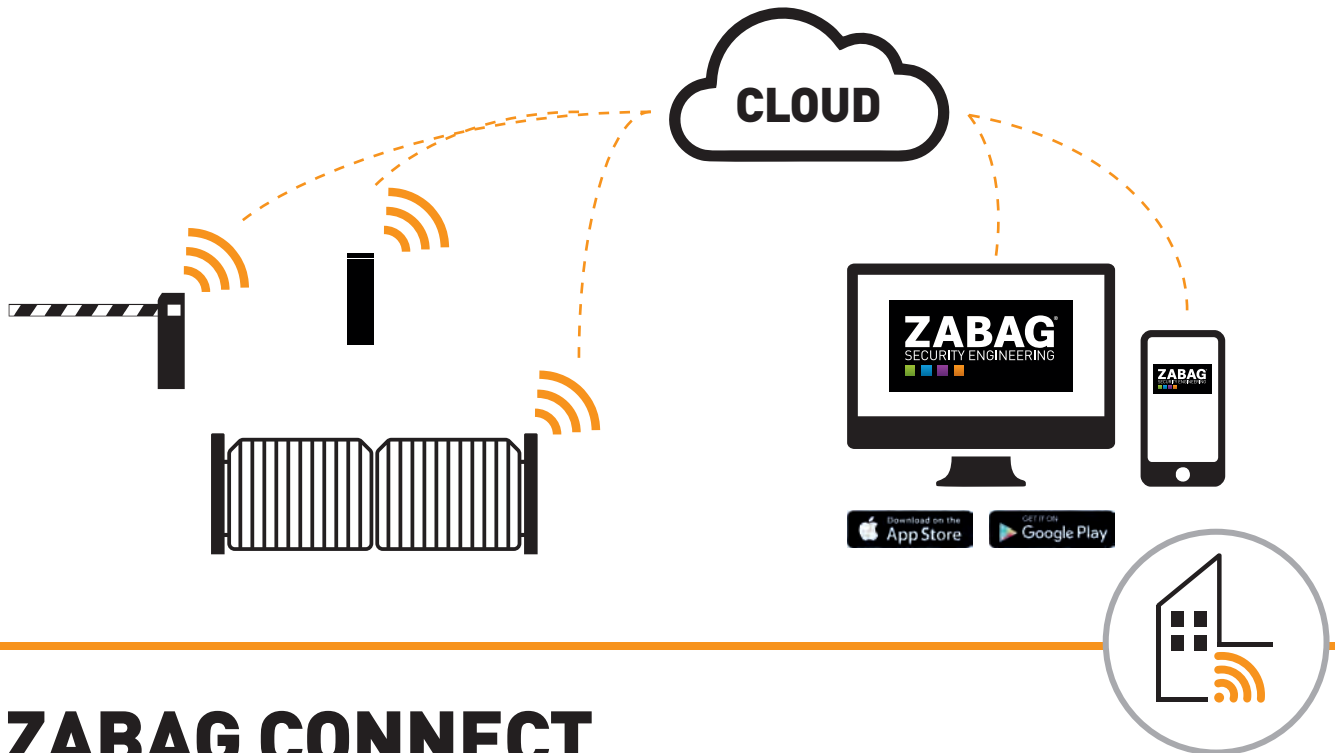


Lorries and Busses only



Cars, Lorries and Busses





ZABAG CONNECT

CLOUD-BASED SOLUTION FOR NETWORKING ACCESS SYSTEMS IN PERIMETER PROTECTION

Connect and monitor all your gates, barriers, turnstiles and bollards in only one system. Control your perimeter protection products with your own mobile App. Benefit from real-time remote monitoring, open / close control, maintenance recommendation and much more.

ZABAG Connect is a complete IoT solution that is specially designed to control perimeter security products. With ZABAG Connect and the ZABAG GSM modules you can generate and report status and error messages easily. The products can also be controlled by phone call and the ZABAG App. Additionally you can use the inbuilt programmable annual timed clock to open or close the product automatically.

The module can also be easily retrofitted to existing products.

APPLICATION:

- Compatible with all products
- Pre-installed SIM card
- Monitoring the gate status and report of errors
- Automatic maintenance planning
- User friendly and adaptable to the individual demands
- Easy installation



Operator of the gate

- reported monitoring via web or mobile app
- Automatically generated alarms via App, email or SMS
- Allocation of authorizations and programming of the integrated annual timed clock
- Integration of all access systems into one system

Operation of the gate

- Open/close and status report via app, web browser or call (GSM)
- Automated control via integrated annual timed clock

Service messages

- Status report, open/close control
- Counted/reported number of operations
- Maintenance planning
- Reporting of defective components

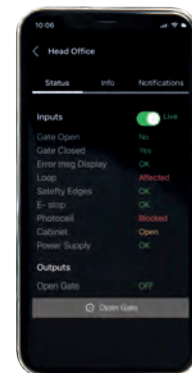


CHARACTERISTICS OF THE GSM-BASED HARDWARE:

- 9-24V AC/DC
- 8 inputs for sensors
- Operation counter
- 2-closing relays
- Power failure protection
- Pre-installed SIM card

EXAMPLES OF MONITORED FUNCTIONS:

- Open / close / in motion (with operation counter)
- Induction loop detector
- Safety contact strips
- Photo Cells
- Motor protection switch
- Acces-Door closed (Reed-contact)
- Power supply



ADVANTAGES FOR THE OPERATOR AND THE SERVICE PROVIDER:

- Operation of the gates/barriers/bollards via phone call (GSM)
- Operation and monitoring of the gates/barriers/bollards via app from wherever you are
- Operation and monitoring of the gates/barriers/bollards via web browser from wherever you are
- Integrated annual timed clock
- PC access management via a web browser
- Recorded log files of all events and opening commands
- Remote monitoring of malfunctions or defects on components via web browser and app - possible via automatic generated notification by e-mail or SMS
- Operation counter and maintenance planner



OUR SERVICE FOR YOU

service.zabag.de

SERVICE AND SUPPORT FOR YOUR SECURITY SOLUTIONS

Our experienced service engineers and our certified partners will be pleased to install and put our products in operation directly on site. It goes without saying in compliance with all current regulations and guide lines.

And of course our proven after-sales support is also available for you at any time. Either with our competent specialists on site or by giving support on the phone.

Malfunction regardless of the cause? Repairs required after an accidental damage? Are you planning extensions or retrofitting? Please just get in touch with our service department. We are there for you at any time and will take care of your requirements - fast, competent and reliable.

We look forward to helping and assisting you!

OUR SERVICES:

- installation
- start-up
- repairs
- service & maintenance
- original spare parts
- support in all technical issues and challenges

WHAT ALLOCATES OUR CERTIFIED STAFF:

- expert in Perimeter Protection
- professionals in hydraulic, mechanical & electronical systems
- state-of-the-art test and maintenance tools
- well-equipped service vans
- permanent education and ongoing trainings
- knowledge of all relevant regulations and guidelines
- 24-hour hotline





WE OFFER SAFETY - A SERVICE CONTRACT WITH YOUR SERVICE EXPERT

Testing and maintenance work on power-operated gates, barriers, turnstiles and bollard systems belong in the hands of professionals. ZABAG Security Engineering GmbH is your competent and reliable partner.

In accordance with the regulations of the European standards DIN EN 12453, EN 12605 and EN 12604, power operated systems need to be checked by a qualified expert before handing over and at least once a year on a recurring basis. Our service employees have both the required expertise and the necessary equipment. As well they are informed about the latest innovations due to regular trainings organized by relevant gate associations.

Regular maintenance is important and significantly extends the lifetime of the systems. In addition regular service maintenance works reduce repair costs and prevents breakdowns. **Our tip – entrust us with the yearly inspection, which is a legal requirement anyway, and will be the most cost-effective option for you.**

Maintenance services and safety tests are carried out by our service technicians for almost all makes and brands, processed and documented by means of our comprehensive checklists.



ZABAG SERVICE AND MAINTENANCE CONTRACT

We will be happy to submit a detailed offer for a service and maintenance contract.

With us, you benefit twice:

- You have the certainty that your access systems are always in a perfect condition and comply with the legal requirements.
- Save repair costs by increased reliability. By combining scheduled repairs with maintenance, you are in a position to operate your system even more cost-effective.



MAPO FGZ

BI-FOLD GATES

ZABAG MAPO FGZ bi-fold speed gates achieve opening/closing speeds of up to 1m/second, thus equaling or exceeding the operating time of many rising arm barriers but with the added advantage of securing an entrance against both vehicles and pedestrians.

The bi-fold gates MAPO FGZ impress thanks to their functionality and efficiency as well as to their space-saving design. This style of gate is most practicable to secure two-way restricted entrances and locations where there is a limited space for the gate leaves.

Thanks to the special innovative lever arm system, the bi-fold gate operates reliably and without any additional guide tracks. However, for certain applications the gate leaves can be guided by an optional track in the roadway (heated if required) or by an overhead track.

Up to 600 open/close cycles per day are no problem with the ZABAG MAPO FGZ bi-fold gates. If security demands are higher, the gates can be equipped with an additional motor driven locking device, which keeps the gate secure locked in closed position.

MAPO FGZ single leaf
clear opening up to 7 m

MAPO FGZ double leaf
clear opening up to 14 m
(special widths upon request)

Gate frame height
up to 2.4 m
(other heights upon request)

VARIANTS:

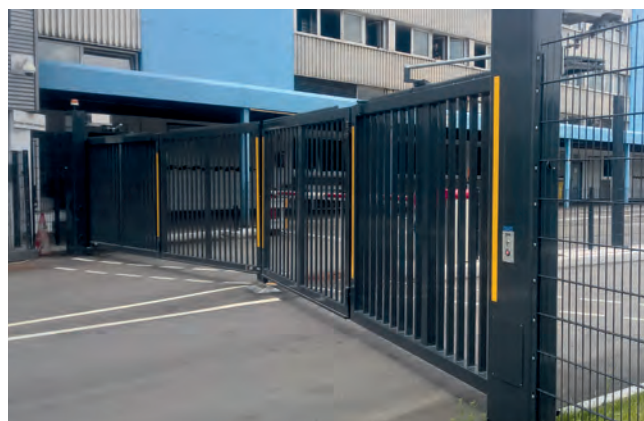
FGZ TL
trackless bi-fold gate

FGZ TT
bi-fold gate with
overhead track

FGZ BT
bi-fold gate with track in the
roadway (heated if required)

OPTIONAL FEATURES:

- cross fall adjustment
- crash resistant
- special infills and coatings
- opening angles up to 110°
- addition locking with motor driven bolts.
- serrated top edge or spikes
- laser-cut company logo



TECHNICAL DETAILS

Corrosion protection	3Plus - All steel parts are shot blasted, hot zinc sprayed, powder primed and then powder coated to the finished colour. This special finish ensures high resistance to damage caused by ultraviolet light, scratches, chemicals or oil. Hot dip galvanising is also available if specified.
Colour	as required, to a RAL standard colour chart
Drive system	drive size according to the gate dimension and frequency of use with lockable emergency release
Control unit	microprocessore control unit, frequency converter for soft start / soft-stop
Safety equipment	in accordance with DIN EN 12453
Produced	in accordance with DIN EN 13241
Certification	TÜV-tested, ISO 9001 : 2015

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

LOCK GATES



Wherever unauthorized access shall be prevented, but authorized access must be permitted, vehicles are getting locked with 2 gates. The authorized vehicle enters the lock through the first gate. After entering, the first gate closes. Only after the first gate is completely closed, the second gate can be opened. This can happen automatically or via a new verification.

In high sensitive areas, the passage can also be secured against a vehicle attack trying to break through. This can be done, for example, with a bollard, a wedge or even with a reinforced and impact resistant gate.

A vehicle lock can be designed with different door types. But high-speed folding gates are often particularly suitable. It`s high opening and closing speeds of approx. 1 m/s, reduces the time the gates is standing open and the time it takes for a vehicle to complete a full lock cycle to a minimum.

PRE-ASSEMBLED

ZABAG has been supplying its bi-fold gates up to a total gate height of 2.3 m completely pre-assembled. The width of the passage does not matter.

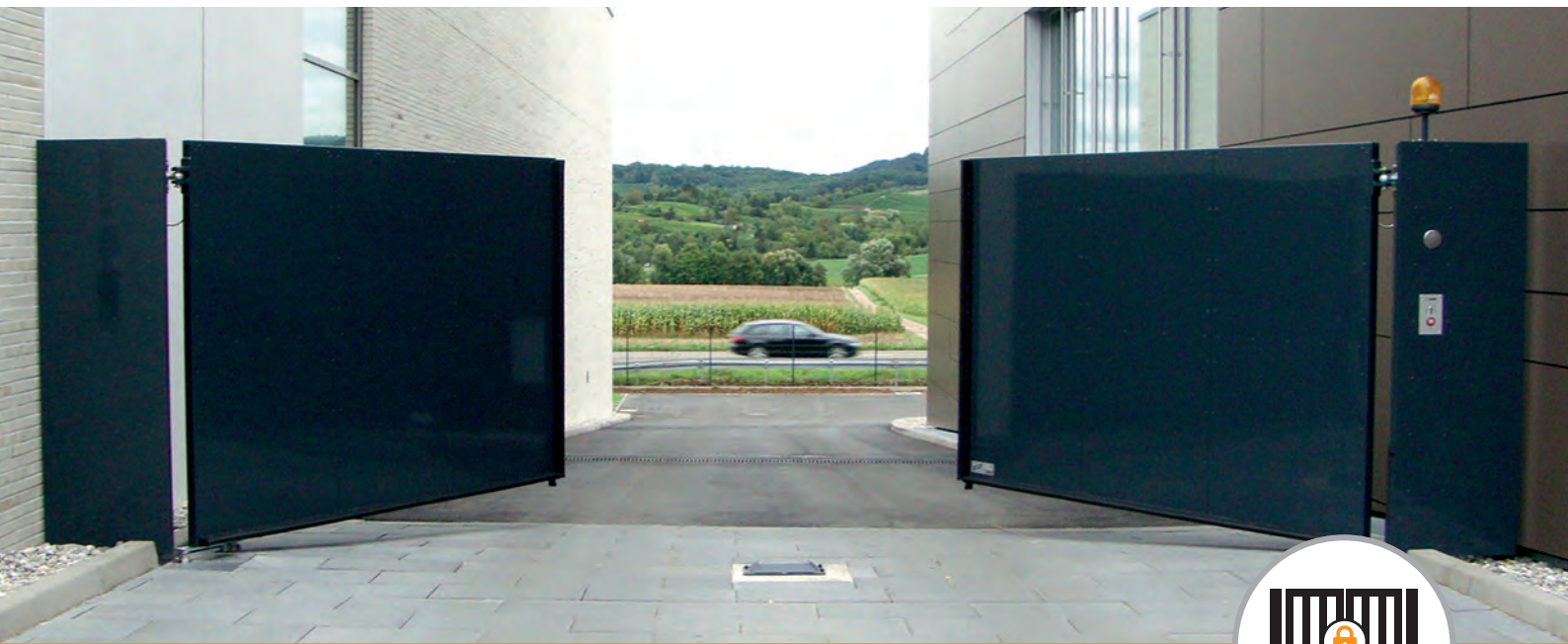
After a successful test run, the gates are mounted on a wooden substructure. Then the center of gravity is marked and the system is lashed standing on the truck.

With electric gates, all cables for the safety buffers are already laid and wired up. The drive is installed and the lever arm is connected to the gate leaf.

After delivery, the entire package is to be placed on the foundation and bolted down. There is no need to hang in the leaves, wire the safety buffers or mount the lever arms from the drive unit.



This means a drastic reduction in assembly times. The time for the required forklift or crane is also reduced. In addition, templates for the base plates are available from ZABAG in advance. This enables the installer to set the anchor bolts before delivery.



MAPO

SWING GATES

Swing gates can effectively secure an entrance at reasonable costs. All the gates in the ZABAG MAPO product range are fully welded and torsion free fabrications. These economical gates are extensively used to secure industrial, commercial and public utility sites, particularly where there is no space for a sliding gate.

Swing gates are suitable for a installation situation, where there is not enough back run for a sliding gate. High-quality drive systems, above- or underframe mounted, with a duty cycle corresponding to the required applications, ensure trouble-free and quiet operation.

The ZABAG MAPO gates are available with either a compact electro-mechanical drive with a 50 % duty rating for medium use or a heavy duty electro-mechanical drive with lever arms and 100 % duty rating for industrial applications.

MAPO single leaf

clear opening up to 11 m

MAPO double leaf

clear opening up to 22 m

Gate frame height

up to 2.4 m
(special height on request)

All ZABAG swing gates with drive system are secured on all shear edges with active safety contact buffers, on both sides of the front and bottom rails. The gate complies with the DIN EN and ASR A1.7 health and safety at work act.

OPTIONAL FEATURES:

- cross fall adjustment
- special infills and coatings
- opening angles manually up to 160°, electrical up to 135°
- electro-magnetic lock or motor driven locking bolt
- serrated top edge or spikes
- laser-cut company logo



TECHNICAL DETAILS

Corrosion protection	3Plus - All steel parts are shot blasted, hot zinc sprayed, powder primed and then powder coated to the finished colour. This special finish ensures high resistance to damage caused by ultraviolet light, scratches, chemicals or oil. Hot dip galvanising is also available if specified.
Colour	as required, to a RAL standard colour chart
Drive systems	drive size according to the gate dimension and frequency of use with lockable emergency release
Control panel	microprocessore control unit, frequency converter for soft start / soft stop
Safety equipment	in accordance with DIN EN 12453
Produced	in accordance with DIN EN 13241
Certification	ISO 9001 : 2015

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

PRE-ASSEMBLED

ZABAG has been supplying its swing gates up to a total gate height of 2.4 m completely pre-assembled. The width of the passage does not matter.

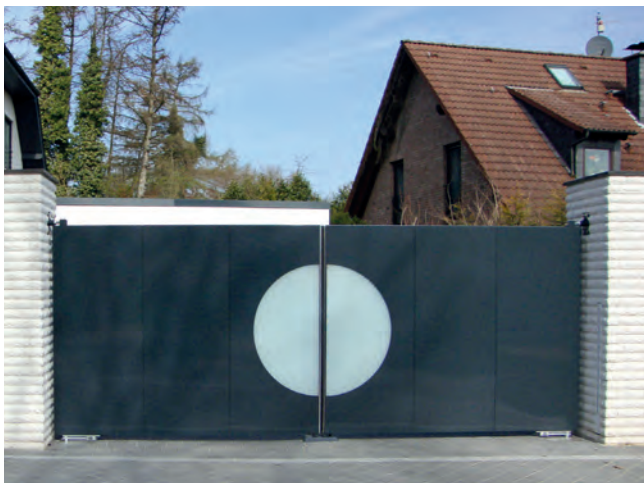
After a successful test run, the gates are mounted on a wooden substructure. Then the center of gravity is marked and the system is lashed standing on the truck.

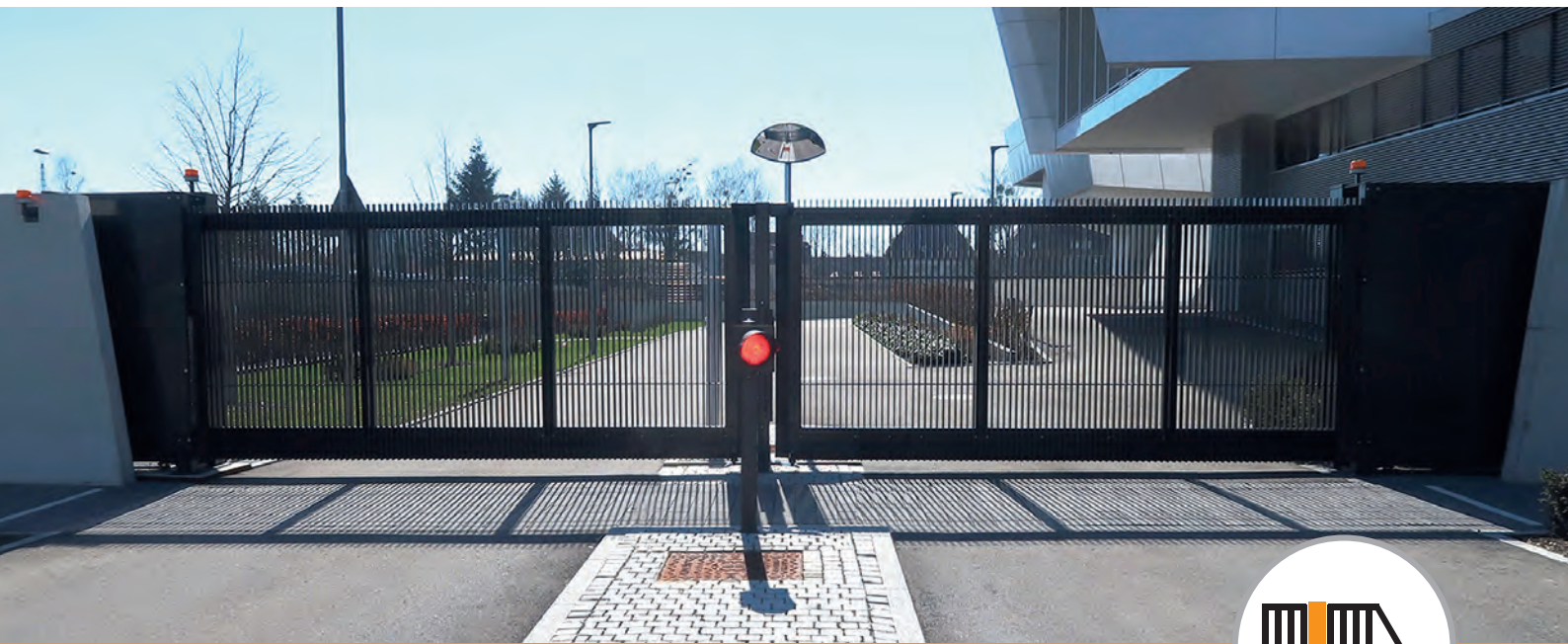
With electric gates, all cables for the safety buffers are already laid and wired up. The drive is installed and the lever arm is connected to the gate leaf.

After delivery, the entire package is to be placed on the foundation and bolted down. There is no need to hang in the leaves, wire the safety buffers or mount the lever arms from the drive unit.



This means a drastic reduction in assembly times. The time for the required forklift or crane is also reduced. In addition, templates for the base plates are available from ZABAG in advance. This enables the installer to set the anchor bolts before delivery.





KOMBI

CANTILEVERED SLIDING GATES

Sliding gate systems are a reliable means of securely controlling access to industrial and commercial properties. They operate without tracks or foundations in the passage independently of roadway characteristics and roadway cross slope.

Manually operated or in combination with the sophisticated and individually configurable drive, control and safety technology, they offer the highest level of operating comfort while complying with all legal safety requirements.

Cantilevered ZABAG sliding gate systems of the type KOMBI are delivered with the control system completely wired and ready to install on construction site. Low-noise and low-wear gate movement is guaranteed by the rollers made of extremely pressure-resistant special polyamide, which are perfectly adapted to the specially rolled support profile.

Clear opening

up to 19 m
(larger sizes upon request)

Gate frame height

up to 2.4 m
(special heights upon request)

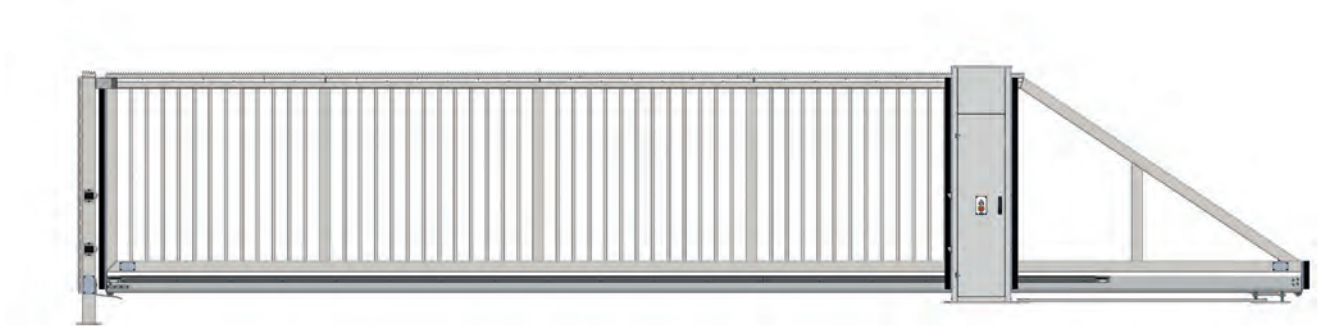
All ZABAG KOMBI gates can be manufactured horizontally or vertically divided, to allow transport on a standard trailer or export container shipping.

All ZABAG sliding gates are equipped with active safety buffers at all main and side closing edges.

OPTIONAL FEATURES:

- cross fall adjustments according to BVT association guideline
- crash resistant
- special infills and coatings
- special height up to 5 m
- serrated top edges or spikes
- sheet steel infill with company logo by laser-cut out
- faster opening and closing speeds





TECHNICAL DETAILS

Height	up to 2.5 m (up to 5.0 m upon request)
Corrosion protection	System 3Plus - All steel parts are shot blasted, hot zinc sprayed, powder primed and then powder coated to the finished colour. This special finish ensures high resistance to damage caused by ultraviolet light, scratches, chemicals or oil. Hot dip galvanising is also available if specified.
Colour	as required, to a RAL standard colour chart
Drive system	GfA drive (size according to the gate dimension and frequency of use) complete with manually adjustable clutch
Control panel	ZABAG-control panel FU 15.5 or rather 27.5 with integrated inverter for soft start and soft stop will guarantee a fast, silent and low-wear movement.
Drive transmission	sprocket (with automatic height adjustment) and resilient roller chain mounted in the c-profile
Gate speed	0.2 m/s (higher speeds available upon request)
Safety equipment	in accordance with DIN EN 12453
Produced	in accordance with DIN EN 13241
Certification	TÜV-tested, ISO 9001 : 2015

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





KOMBİ ALU

CANTILEVERED SLIDING GATES

Sliding gates do not necessarily have to be made from steel. Cantilevered gates made from aluminium are an interesting alternative to traditional ways of securing private and commercial property or objects that are publicly accessible. Clearance widths of up to 13 m are implementable independent of road characteristics and slope. In addition, there is no need for tracks, rollers or foundations in the clear opening.

In combination with well-engineered and individually configurable control and safety technology, electrically-operated gates ensure highest ease of use providing drives with sufficient power reserve in accordance with all legal safety requirements.

ZABAG cantilevered sliding gate systems type KOMBİ ALU are delivered preinstalled and therefore ensure quick and cost-saving installation on site.

Clear opening
up to 13 m

Gate frame height
up to 2.4 m

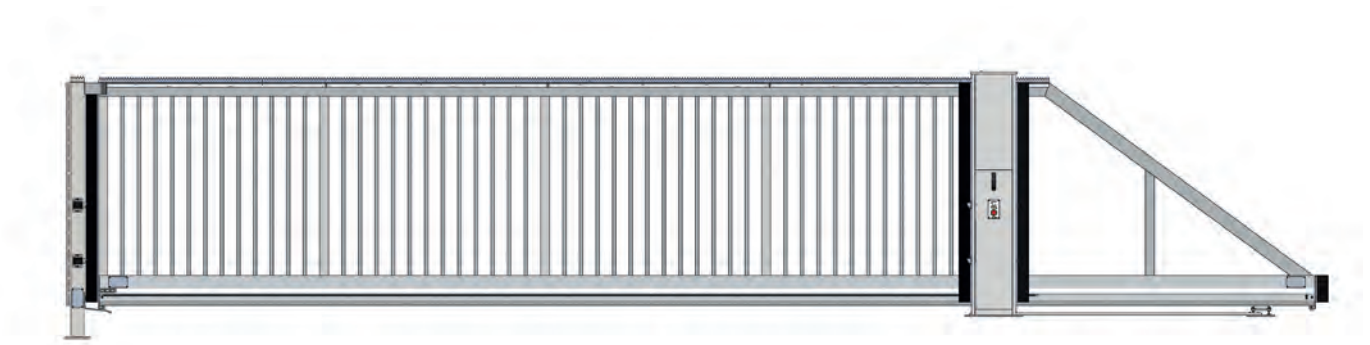
Due to the gate leaf weight which is approx. $\frac{2}{3}$ less compared to a steel gate, aluminium gates may be operated manually with ease and minimum effort.

All ZABAG sliding gates are equipped with active safety buffers at all main and side closing edges.

OPTIONAL FEATURES:

- cross fall adjustments according to recommendations of various gate associations
- special infills and coatings
- serrated top edges or spikes
- sheet steel infill with company logo by laser-cut out





TECHNICAL DETAILS

Corrosion protection	Aluminium parts are blasted and powder-coated twice. All steel parts are shot blasted, hot zinc sprayed - hot dip galvanising is also available if specified - powder primed and then powder coated to the finished colour. This special finish ensures high resistance to damage caused by ultraviolet light, scratches, chemicals or oil.
Colour	as required, to a RAL standard colour chart
Drive system	400 V drive ZA-MO, duty ratio of 100 %, class S1 with highly user-friendly emergency release
Control panel	ZABAG-control panel FU 15.5 or rather 27.5 with integrated inverter for soft start and soft stop will guarantee a fast, silent and low-wear movement.
Drive transmission	sprocket and toothed rack module 4 attached to the bottom beam
Gate speed	approx. 0.32 m/s
Safety equipment	in accordance with DIN EN 12453
Produced	in accordance with DIN EN 13241
Certification	ISO 9001:2015

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





BASIC KOMBI

CANTILEVERED SLIDING GATES MADE OF ALUMINIUM

Short delivery time | high quality | competitive prices

We offer the BASIC KOMBI as an economic alternative to our cantilevered sliding gates KOMBI and KOMBI Alu. This gate is available in standard dimensions. The gate frame is fully welded in aluminium design to ensure long life fatigue strength.

Due to application of latest welding robot technology we are able to reduce production time and guarantee high-speed production – as a matter of course in the quality provided by ZABAG.

When operated manually or in combination with the well-engineered and individually configurable drive, control and safety technology, these systems offer highest ease of use in accordance with all legal safety requirements.

Of course, all gates are delivered completely pre-assembled to ensure a fast installation on site.

Clear opening

3 up to 12 m
(in 0.5 meter steps)

Gate frame height

- 1.8 m
- 2 m
- 2.2 m

All ZABAG sliding gates are equipped with active safety buffers at all main and side closing edges.

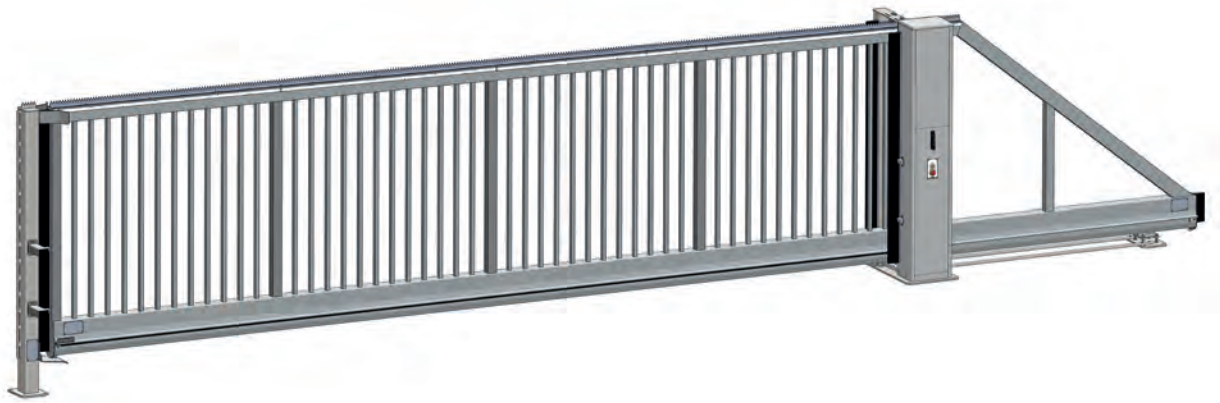
Optional

At your option, the BASIC KOMBI gate can be combined with a pedestrian gate (width 1.20 m).

YOUR BENEFITS:

- full height motor guide column, which provides enough space for comfortable access and easy installation of additional control components
- well-known ZABAG quality
- fully welded gate frame with state of the art welding technology
- short lead times
- standardized foundation plans and gate drawings available shortly after ordering





TECHNICAL DETAILS

Gate leaf	fully welded gate frame made of aluminium
Corrosion protection	Aluminium parts are blasted and powder-coated twice.
Standard colours	RAL: 6005, 7016, 7030, 9010 (additional colors available upon request)
Drive system	400 V, duty ratio of 100 % ED, S1; The motor can be adjusted very easily and quickly using an adjusting spindle, but is very precisely height-adjustable.
Control panel	ZABAG-control panel FU 15.5 or rather 27.5 with integrated inverter for soft start and soft stop will guarantee a fast, silent and low-wear movement.
Drive transmission	toothed rack module 4
Gate speed	approx. 0.2 m/s
Safety equipment	in accordance with DIN EN 12453
Produced	in accordance with DIN EN 13241
Certification	ISO 9001 : 2015

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





KOMBI TZ

TELESCOPIC SLIDING GATE SYSTEMS CANTILEVERED

Where gate back run space is restricted the ZABAG KOMBI TZ gate can provide the solution. When using a 2-part telescopic sliding gate, the opening space is reduced to approx. 83% of the passage.

The KOMBI TZ is a very economic and efficient solution. The gate consists of two primary leaves, running parallel and carrying a third leaf between them. All three gate leaves are made from steel.

The drive remains stationary in a drive column matching gate height. Thanks to the special drive technology, the three leaves are running at different speeds, so that their current end positions are reached at the same time.

Of course, all gates are delivered completely pre-assembled to ensure a fast and cost-saving installation on site.

Clear opening

up to 18 m
(larger sizes upon request)

Gate frame height

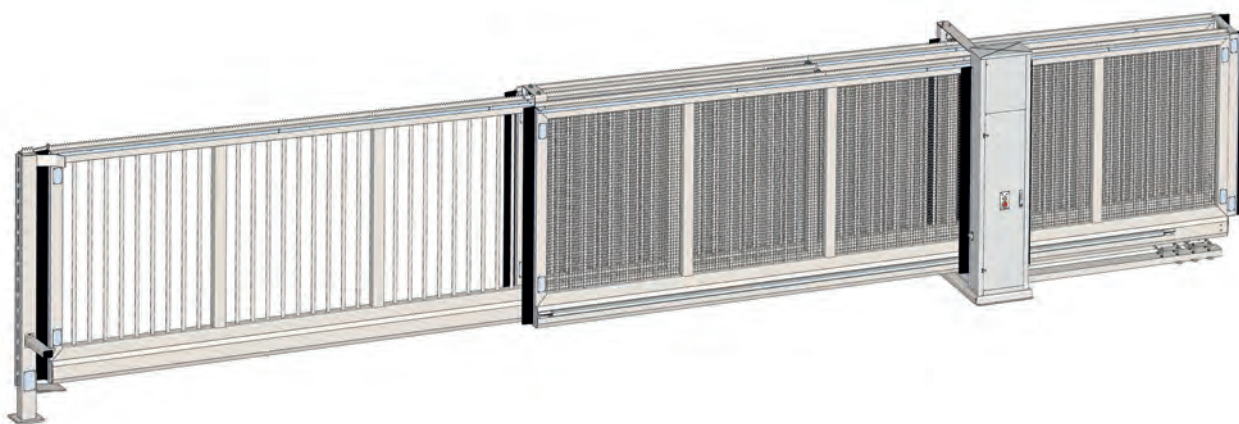
up to 2.4 m
(special heights upon request)

All ZABAG sliding gates are equipped with active safety buffers at all main and side closing edges.

OPTIONAL FEATURES:

- cross fall adjustments according to recommendations of various gate associations
- special infills and coatings
- special heights up to 5 m
- serrated top edge, spikes or barbed wire stringers
- sheet steel infill with company logo by laser-cut out





TECHNICAL DETAILS

Corrosion protection	System 3Plus - All steel parts are shot blasted, hot zinc sprayed, powder primed and then powder coated to the finished colour. This special finish ensures high resistance to damage caused by ultraviolet light, scratches, chemicals or oil. Hot dip galvanising is also available if specified.
Colour	as required, to a RAL standard colour chart
Drive system	GfA drive (size according to the gate dimension and frequency of use) complete with manually adjustable clutch
Control panel	ZABAG-control panel FU 15.5 or rather 27.5 with integrated inverter for soft start and soft stop will guarantee a fast, silent and low-wear movement.
Drive transmission	sprocket (with automatic height adjustment) and resilient roller chain mounted in the c-profile
Gate speed	0.2 m/s
Safety equipment	in accordance with DIN EN 12453
Produced	in accordance with DIN EN 13241
Certification	ISO 9001 : 2015

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





KOMBI TZ ECO

TELESCOPIC SLIDING GATE SYSTEMS CANTILEVERED

Where gate back run space is restricted the ZABAG KOMBI TZ ECO gate can provide the solution. When using a 2-part telescopic sliding gate, the opening space is reduced to approx. 83% of the passage.

The gate KOMBI TZ ECO is a very economic and efficient solution. It consists of two gate leaves. The driven gate leaf is made from steel, carrying the second gate leaf made from aluminium. This saves weight and costs because there is no need for a third leaf.

The drive remains stationary in a drive column matching gate height and standing on the outside of the gate. Thanks to the special drive technology, the two leaves are running at different speeds, so that their current end positions are reached at the same time.

Of course, all gates are delivered completely pre-assembled to ensure a fast and cost-saving installation on site.

Clear opening
up to 12 m

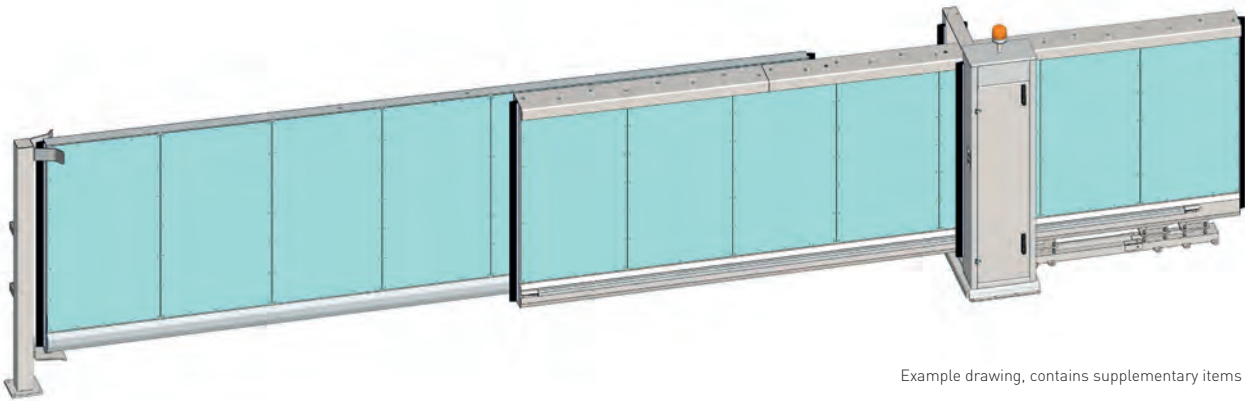
Gate frame height
up to 2.4 m

All ZABAG sliding gates are equipped with active safety buffers at all main and side closing edges.

OPTIONAL FEATURES:

- cross fall adjustments according to recommendations of various gate associations
- special infills and coatings
- special heights up to 5 m
- serrated top edge, spikes or barbed wire stringers
- sheet steel infill with company logo by laser-cut out



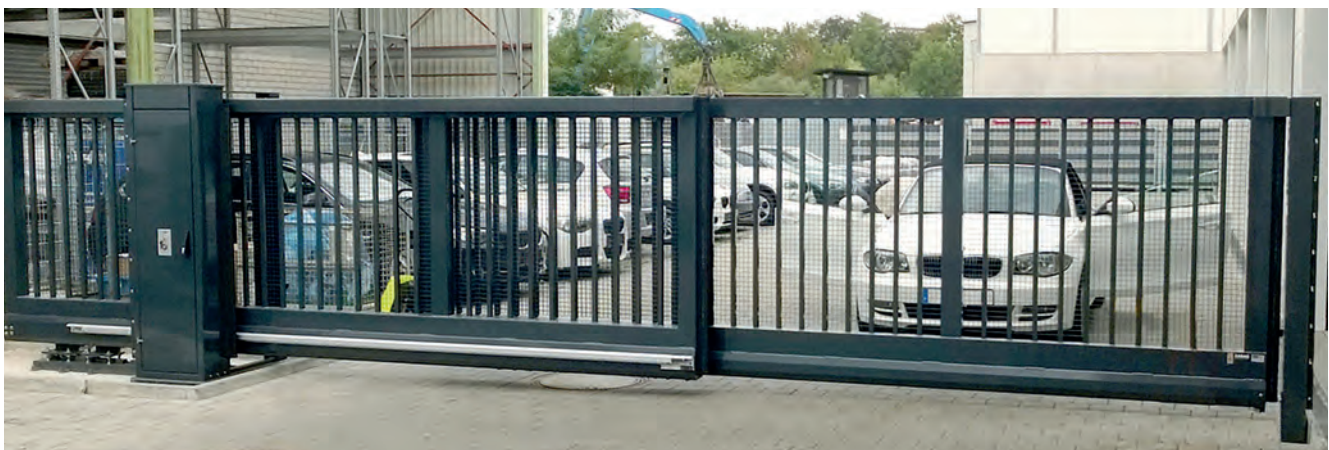


Example drawing, contains supplementary items

TECHNICAL DETAILS

Corrosion protection	Aluminium parts are blasted and powder-coated twice. All steel parts are shot blasted, hot zinc sprayed - hot dip galvanising is also available if specified - powder primed and then powder coated to the finished colour. This special finish ensures high resistance to damage caused by ultraviolet light, scratches, chemicals or oil.
Colour	as required, to a RAL standard colour chart
Drive system	GfA drive (size according to the gate dimension and frequency of use) complete with manually adjustable clutch
Control panel	ZABAG-control panel FU 15.5 or rather 27.5 with integrated inverter for soft start and soft stop will guarantee a fast, silent and low-wear movement.
Drive transmission	sprocket and toothed rack module 4 attached to the bottom beam
Gate speed	approx. 0.2 m/s
Safety equipment	in accordance with DIN EN 12453
Produced	in accordance with DIN EN 13241
Certification	ISO 9001 : 2015

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





TERRA

TRACKED SLIDING GATES

Where gate back run space is restricted or whenever a very large clear opening is required a ZABAG TERRA tracked sliding gate will provide the solution.

These economical, low maintenance gates may be manually or power operated. The gate frames are fully welded, torsion free fabrications designed in accordance with normal static load requirements and in accordance with DIN 1055.

The gate systems are available with the sophisticated and individually configurable drive, control and safety technology, they offer the highest level of operating comfort while complying with all legal safety requirements.

TERRA single leaf

Clear opening up to 25.0 m

TERRA

double leaf-bi parting

Clear opening up to 50.0 m

Gate frame height

up to 2.4 m
(special heights upon request)

All ZABAG TERRA gates can be manufactured horizontally or vertically divided, to allow transport on a standard trailer or export container shipping.

OPTIONAL FEATURES:

- cross fall adjustments according to BVT association guideline
- crash resistant
- special infills and coatings
- special height up to 5 m
- serrated top edges or spikes
- sheet steel infill with company logo by laser-cut out
- faster opening and closing speeds
- lowered tracks to be on surface level for taxi way gates etc.
- heated tracks





Example drawing, included optional features

TECHNICAL DETAILS

Corrosion protection	System 3Plus - All steel parts are shot blasted, hot zinc sprayed, powder primed and then powder coated to the finished colour. This special finish ensures high resistance to damage caused by ultraviolet light, scratches, chemicals or oil. Hot dip galvanising is also available if specified.
Colour	as required, to a RAL standard colour chart
Drive system	GfA drive (size according to the gate dimension and frequency of use) complete with manually adjustable clutch
Control panel	ZABAG-control panel FU 15.5 or rather 27.5 with integrated inverter for soft start and soft stop will guarantee a fast, silent and low-wear movement.
Drive transmission	sprocket (with automatic height adjustment) and resilient roller chain mounted in the c-profile
Gate speed	0.2 m/s (higher speeds available upon request)
Safety equipment	in accordance with DIN EN 12453
Produced	in accordance with DIN EN 13241
Certification	ISO 9001 : 2015

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





TERRA TZ

TRACK-MOUNTED TELESCOPIC SLIDING GATE

Where gate back run space is restricted the ZABAG TERRA TZ gate can provide the solution. Because these gates can consist of up to five segments. When using a 5-part telescopic sliding gate, the push-open space can be reduced to up to 1/3 of the passage.

Moving or fixed drives, housed in a drive column, are possible. Thanks to the special drive technology, the leaves open and close at different speeds, but reach their respective end positions all together at the same time they.

Clear opening

up to 25 m
(telescopic sliding gate
2- to 5-part)

Gate frame height

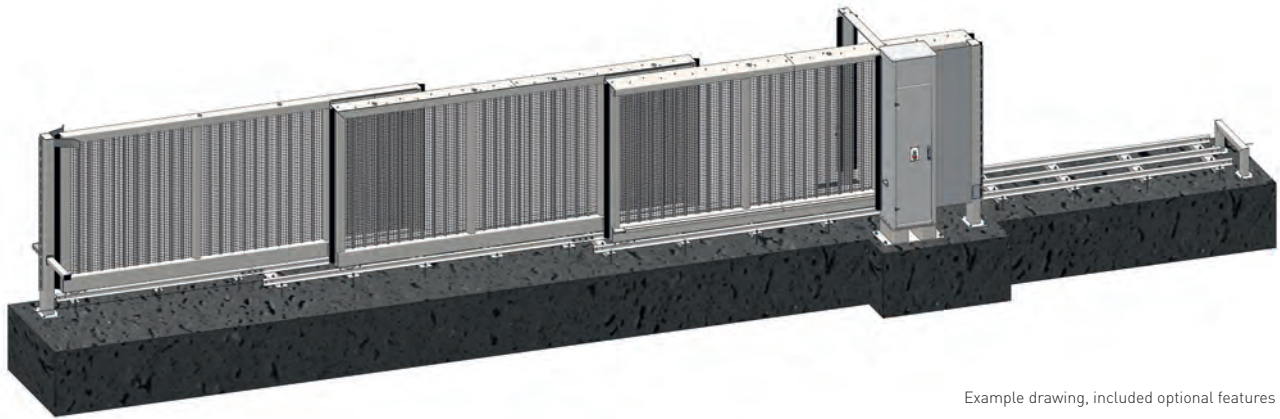
up to 2.4 m
(special heights upon request)

All ZABAG sliding gates are equipped with active safety buffers at all main and side closing edges.

OPTIONAL FEATURES:

- cross fall adjustments according to BVT association guideline
- crash resistant
- special infills and coatings
- special height up to 5 m
- serrated top edges or spikes
- sheet steel infill with company logo by laser-cut out
- faster opening and closing speeds
- lowered tracks to be on surface level for taxi way gates etc.
- heated tracks



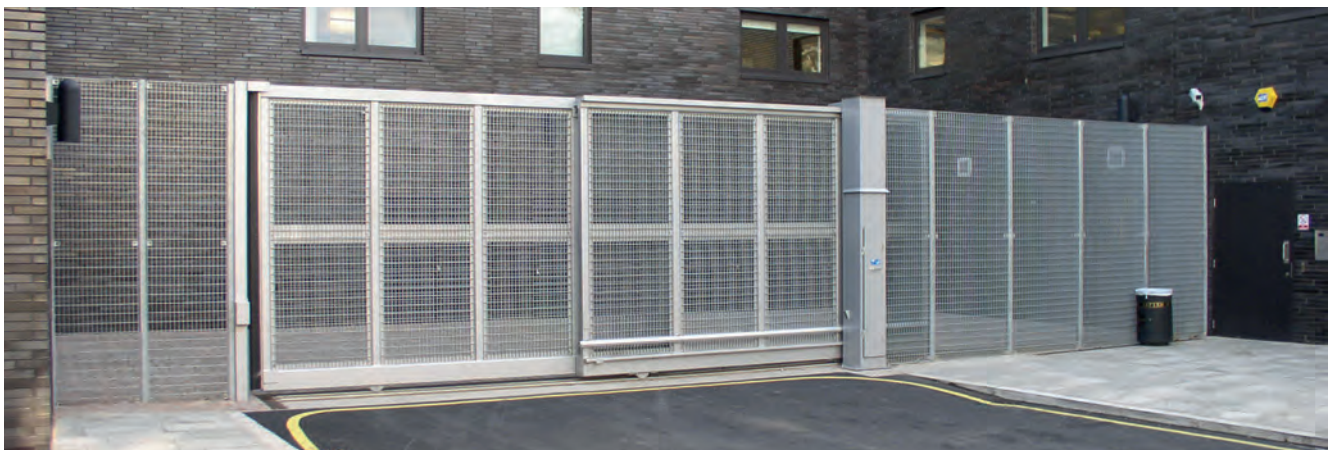


Example drawing, included optional features

TECHNICAL DETAILS

Corrosion protection	System 3Plus - All steel parts are shot blasted, hot zinc sprayed, powder primed and then powder coated to the finished colour. This special finish ensures high resistance to damage caused by ultraviolet light, scratches, chemicals or oil. Hot dip galvanising is also available if specified.
Colour	as required, to a RAL standard colour chart
Drive system	GfA drive (size according to the gate dimension and frequency of use) complete with manually adjustable clutch
Control panel	ZABAG-control panel FU 15.5 or rather 27.5 with integrated inverter for soft start and soft stop will guarantee a fast, silent and low-wear movement.
Drive transmission	sprocket (with automatic height adjustment) and resilient roller chain mounted in the c-profile
Gate speed	0.2 m/s
Safety equipment	in accordance with DIN EN 12453
Produced	in accordance with DIN EN 13241
Certification	ISO 9001 : 2015

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





ZENTRA

TURNSTILES

Robust and reliable pedestrian access control has become more and more important and ZABAG ZENTRA turnstiles provide an adaptable and economical solution. Connected to card or proximity fob readers the ZENTRA turnstile will only allow authorized access and securely deny entry to any unauthorized persons.

The ZENTRA family of turnstiles meets current health and safety regulations. The sophisticated control panels comply with the latest standards and are programmable to meet individual customer requirements. Various mounting plates and cabinets can be provided to accommodate all types of card readers, intercom and video communication. The top housing contains both the turnstile head mechanism and the control panel and has removable panels for ease of access. There are a number of different roof options and the steel framework may be powder coated to a RAL standard colour of the customer's choice.

For rapid and economical installation all ZABAG turnstiles are delivered as a complete unit on a temporary transit frame to enable unloading by fork lift truck.

VARIANTS:

ZENTRA E

servo motor driven rotor and fully automatic control panel

ZENTRA EH

manual with solenoid locking rotor and fully automatic panel

ZENTRA X

manual with one way lock

ZENTRA XL

manual with one way lock – for wheelchairs and prams

OPTIONAL FEATURES:

- complete turnstile manufactured from electro-polished stainless steel
- rotors with diameters between 1400 or 1800 mm
- special infill for guide wings
- simple roof for weather protection
- extended flat roof incl. drainage
- walkway lighting
- mounting plates and/or lockable cabinets for card readers, intercoms, control panels etc
- additional door VERSO for wheelchair and bicycle access
- Resistance Class 2 (RC2) in accordance to DIN EN 1627:2011-09



TECHNICAL DETAILS

Corrosion protection	3Plus - All steel parts are shot blasted, hot zinc sprayed, powder primed and then powder coated to the finished colour. This special finish ensures high resistance to damage caused by ultraviolet light, scratches, chemicals or oil. Hot dip galvanising is also available if specified.
Rotor fender angle	3 x 120° or 4 x 90°
Total width	1510 mm (single turnstile) with standard diameter
Total height without roof	2270 mm
Clear entry height	2060 mm
Stainless steel rotors	hairpin arms Ø 27 mm or straight arms Ø 42 mm
Rotor diameter	1300 mm (standard)
Control unit	programmable logic control
Guide wing infill	30 x 20 mm vertical bars max. 120 mm distance

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

ZENTRA E

The ZABAG ZENTRA-E turnstile may be controlled in both directions and, following authorization by the access control system, the servo motor provides 'push and go' drive to the rotor until the next stop position is reached.

The start time, torque and speed of rotation can be adjusted to suit individual customer requirements. Compliance with the mandated operating forces by trade law are guaranteed any time. Due to the sophisticated locking lever solution, it is impossible, that pedestrian get trapped while passing through.



ZENTRA EH

The turnstile Zentra EH is separate controllable for entry and exit as well, but without having a servo motor to manoeuvre the rotor.

After clearance from whichever access system, the rotor needs to be pushed by the pedestrian up to 60°. From 60° a simple but reliable mechanical solution will rotate the rotor the remaining 60° until it reaches its next end position where it will be locked securely again.

The behaviour in case of power failure can be set in accordance with the requirements. By default the entry will remain locked and the exit will be free open.



ZENTRA-BIKE

TURNSTILE WITH SEPARATE BIKE ENTRY

Parts of your health and environmentally conscious staff are coming to work by bike? You would like to have a controlled admission but also want to grant access for the bike as well? Our latest invention, the ZABAG ZENTRA-BIKE will offer both and combines a controlled personal passage with a separate and automated bike entry.

Access through the turnstile is given by card reader, key pad or such like as usually. Will the induction loop detect a bike at the same time, the bike access door will be opened automatically and the person can guide his bike through while passing the turnstile. The bike access door will then close again after an adjustable time.

The ZENTRA-BIKE stands out by its robust construction protected by ZABAG's long lasting corrosion protection 3Plus and mixed with sophisticated details. The low-maintenance and energy efficient drive technology guarantees a high availability of the product.

AREAS OF APPLICATION:

- industrial parks
- government buildings/
public authorities
- plant security
- public utility
- arenas, leisure parks
- residential parks and
garages
- schools and universities

OPTIONAL FEATURES:

- roof
- rotor electrocally polished (glossy)
- bike door electrocally polished (glossy)
- push button, card reader
- intercom
- video surveillance systems
- separate card reader posts
- control cabinet





TECHNICAL DETAILS

Corrosion protection	All steel parts (that are not hot dip galvanized) are finished to the ZABAG 3PLUS corrosion protection system - shot blasted, hot zinc sprayed, powder primed and a final finishing powder colour coat. This special finish ensures high resistance to damage caused by ultraviolet light, scratches, chemicals or oil.
Rotor fender angle	3 x 120°
Total width	1.570 mm (single turnstile)
Total height	2.270 mm
Clear entry height	2.060 mm
Stainless steel rotors	straight arms Ø 42 mm
Rotor diameter	1.300 mm (standard)
Control unit	programmable logic control
Guide wing infill	30 x 20 mm vertical bars max. 120 mm distance

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





BASIC ZENTRA

TURNSTILES

Short delivery times | high product quality | competitive prices

Access of pedestrians is reliably controlled by ZABAG's turnstile BASIC ZENTRA. Due to its standardised performance the BASIC ZENTRA turnstiles are an economical alternative to our professional turnstiles.

- standardised dimensions
- turnstile column made of stainless steel - powder coated
- fully welded and hot-dip galvanized
- hot-dip galvanized base frame with eye bolts and height adjusting bolts
- delivered as a complete unit on a support frame ready for installation
- instant supply of foundation drawings
- with electromagnetic locking device
- easy to use and full compliance with safety regulations
- function in case of power failure either for one or both directions locked or unlocked

BASIC ZENTRA EH 120 RS
with electromagnetic locking device

Standard colour
RAL 7035 light gray
(additional colors available upon request)

All turnstiles are delivered fully preinstalled for cost-saving installation on site.

OPTIONAL FEATURES:

- weather protection roof made from aluminium-sheet metal
- LED spots with twilight switch
- operating panel
- electro-polished rotor

The turnstile can also be double powder-coated in a RAL colour. So it has additional corrosion protection on top of the gain of visual impression.

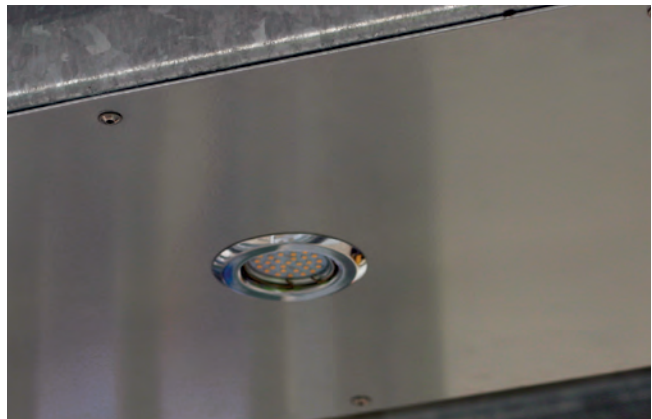




TECHNICAL DETAILS

Rotor fender angle	3 x 120°
Total width	1510 mm (single turnstile); 1570 mm (single turnstile with roof)
Standard colour	RAL 7035 light gray (additional colors available upon request)
Total height without roof	2270 mm
Clear entry height	2060 mm
Rotors	straight arms Ø 42 mm made of stainless steel
Guide wing infill	30 x 20 mm vertical bars, max. 120 mm distance
Corrosion protection	hot-dip galvanised in accordance with DIN1461, optionally powder coating in RAL colours
Operating panel	extra charge
Lighting	LED spots with twilight switch at extra charge

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





VERSO

WHEELCHAIR AND BICYCLE ACCESS DOOR

The perfect solution to enable access for bicycles, wheelchairs, strollers or loads - automated, secure, fast and user-friendly. The VERSO door is multifunctional and offers safe and barrier-free access for disabled people, people with prams or bicycles - whether standing alone or standing next to one of our turnstile systems. It also enables small loads to be transported with a trolley.

The door is motor-driven in compliance with the relevant safety regulations. It can be opened 90° inwards or 90° outwards, depending from which site the respective control impulse is given. Therefore the door always opens away from the person and prevents the gate leave to interfere with the passers-by at all.

If used as a standalone solution, various operating columns can optionally be used to hold card readers, intercoms or release buttons.

Of course, all VERSO doors are delivered completely pre-assembled to ensure fast and easy installation on site.

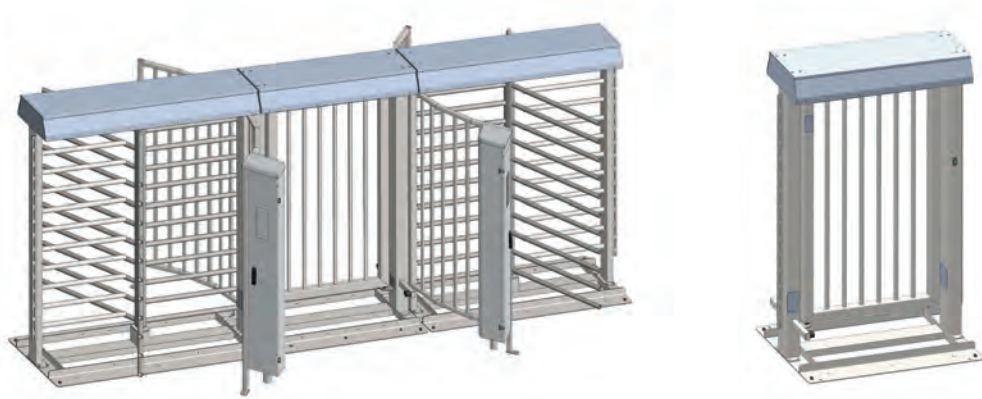
FEATURES:

- selectable opening, 90° inwards or outwards
- clear entry height: 2060 mm
- LED direction indicator on both sides, Ø 20 mm, alternately signalise a pre-warning time and flashing red/yellow when "closed", for the opposite direction
- accessible
- suitable for strollers, bicycles and wheelchairs
- active infrared presence detector on both sides for additional safety

OPTIONAL FEATURES:

- universal fence connector strips
- weather protection roof
- control columns SP1, BS11
- over climbing protection
- LED downlight
- twilight switch
- red / yellow / green direction indicator





TECHNICAL DETAILS

Corrosion protection	3Plus - All steel parts are shot blasted, hot zinc sprayed, powder primed and then powder coated to the finished colour. This special finish ensures high resistance to damage caused by ultraviolet light, scratches, chemicals or oil. Hot dip galvanising is also available if specified.
Colours	as required, to a RAL standard colour chart
Clear entry height	2060 mm
Drive system / control panel	24 V DC motor with worm gear and slip clutch; frequency converter for soft-start, soft-stop; PLC control in the locking house
Safety equipment	slip clutch, active infrared presence detector
Gate speed	4 - 5 sec.
Opening	90° inwards or 90° outwards
Emergency release	in locking house, PZ-vorgerichtet

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

TECHNICAL INFORMATION – DRIVE UNIT:

- 24V DC motor with worm gear, self-locking, and slipping clutch
- slipping clutch adjustable via v-belt tension
- position indication via encoder
- The motor torque electronically increases, if no movement is detected via the encoder up to a certain point. This ensures a nice and smooth operation, even during changing weather conditions such as: snow and ice, wind loads etc.
- Time out after 10 seconds, motor switches off and tries to restart after 60 seconds. This will be tried automatically 3 times. Then drive is being switched off and the optional LED direction indicators remain flashing.





CONTROL COLUMNS

EXCLUSIVE LINE

Modern parking lot management systems are an essential part of every days life. With the help of the latest technologies, it is possible to protect entrances and exits perimetrically. The Control Columns Exclusive Line also offer a wide range of options and additional functions.

The columns are made in three sizes, depending on the type of vehicles that pass through the driveway. Adapted to the vehicles, it is possible for drivers of cars and trucks as well as drivers of vans to operate the columns easily from the vehicle.

The solid body is made of durable stainless steel. The front and rear shell are protected by an elaborate KTL corrosion protection process and a UV-resistant powder coating and ensure a long lasting and representative appearance even under difficult environmental conditions. The optional modern LED strips, which increase the visibility of the control columns and improves the traffic safety.

The equipment of the column is individually adapted to customer requirements. Additional operational controls, such as camera, code lock, fingerprint readers, card reader etc. can also be integrated.

VARIANTS:

BS11 EL - cars

W 250 x D 188 x H 1150 mm

BS12 EL - cars

W 410 x D 188 x H 1150 mm

BS21 EL - cars + trucks

W 250 x D 188 x H 2185 mm

BS22 EL - cars + trucks

W 410 x D 188 x H 2185 mm

BS31 EL - vans and pedestrians

W 250 x D 188 x H 1700 mm

SPECIAL FEATURES:

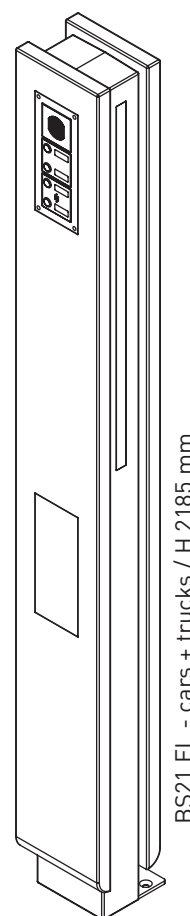
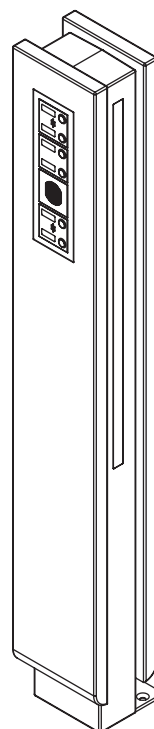
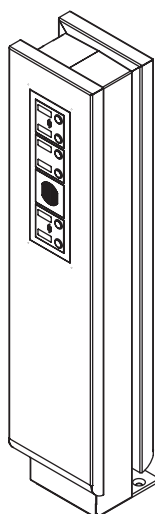
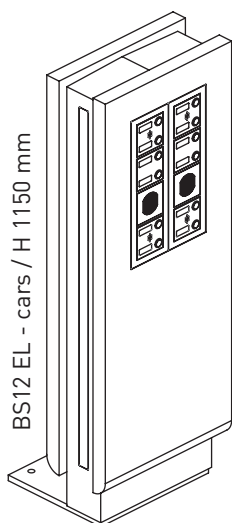
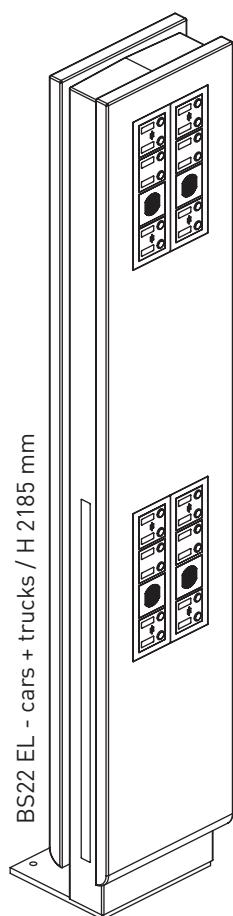
- modern housing design
- easy integration of various operating elements in a comfortable modular system
- anodized aluminum control panel
- integrated mounting plate
- on the back inspection door with profile cylinder lock lockable



TECHNICAL DETAILS

Corrosion protection front and back site	KTL-Corrosion protection process + UV-resistant powder coating
Surface middle element	polished stainless steel
Colours	Sparkling Iron Effect (similar to DB 703, RAL-colours available upon request)
Optional features	<ul style="list-style-type: none"> • intercom / bell system • fingerprint access control • keypad • security camera • full engravings with or without backlighting • ambient lighting • touchscreen applications for access control systems • integrated collection container for card reader or manual card insertion • coin acceptor
Optional	LED strips integrated laterally in the column body; displayable colours: red, green, blue; LED control unit for color mixing, with transmitter and receiver

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





CONTROL COLUMNS

FOR CARS, TRUCKS AND VANS

Modern parking lot management systems are an essential part of every day's life. With the help of the latest technologies, it is possible to protect entrances and exits perimetrically. The ZABAG Control Columns also offer a wide range of options and additional functions. Modular diversity in design and technology can be combined here according to the modular concept.

The columns are made in three sizes, depending on the type of vehicles that has to pass the driveway. Adapted to the vehicles, it is possible for drivers of cars and trucks as well as drivers of vans to operate the columns easily from the vehicle.

The equipment of the column is individually matched to customer requirements. Additional operational controls, such as camera, code lock, fingerprint readers, card reader etc. can also be integrated.

Lettering or company logos, if required illuminated, are available, as well as special heights.

VARIANTS:

SP1 - cars

W 140 x D 140 x H 1.100 mm

SP2 - cars + trucks

W 140 x D 140 x H 2.100 mm

BS11 - cars

W 305 x D 275 x H 1.230 mm

BS21 - cars + trucks

W 305 x D 275 x H 2.430 mm

BS31 - vans and pedestrians

W 305 x D 275 x H 1.805 mm

SPECIAL FEATURES:

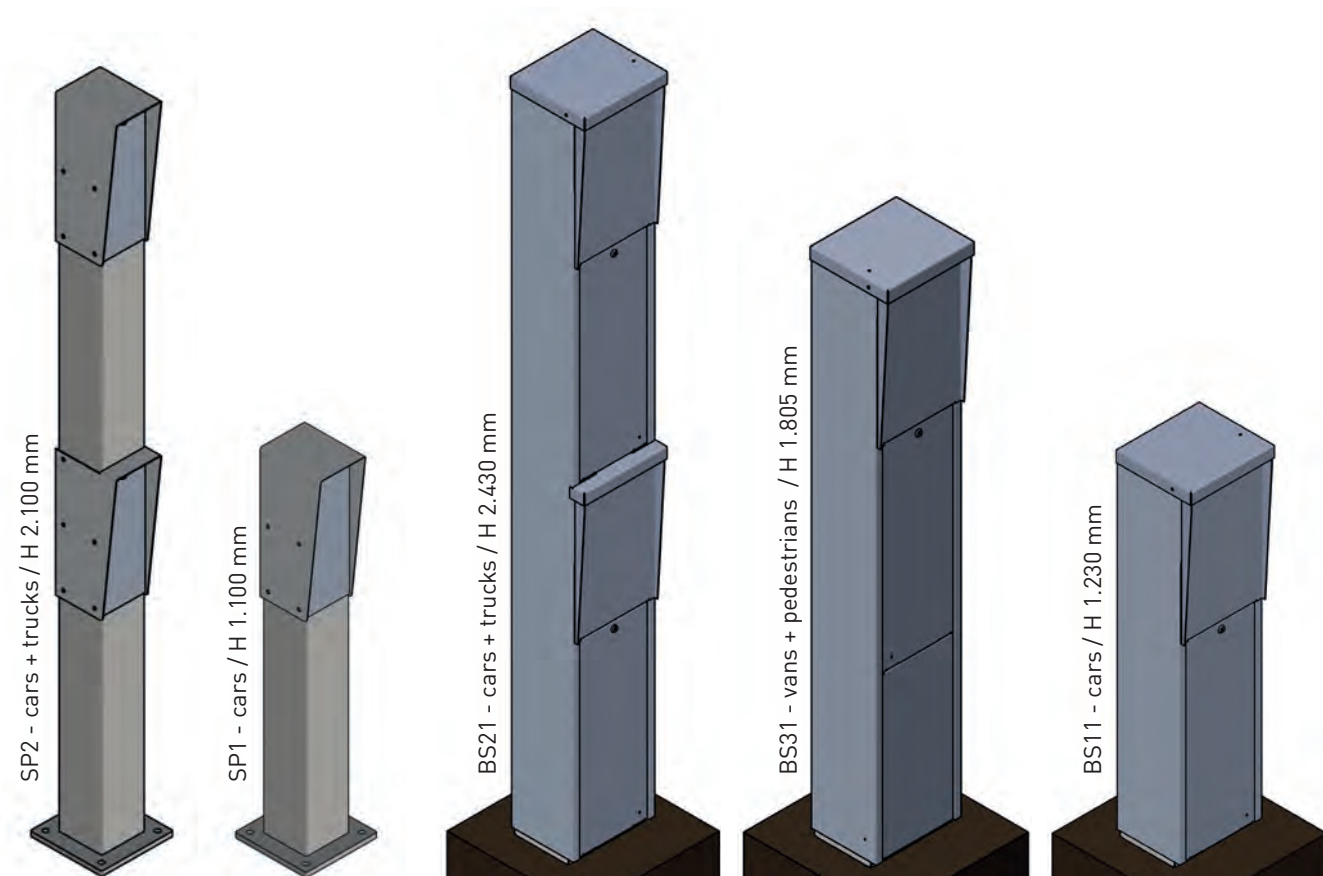
- Allows easy integration of operating elements such as card readers or intercom
- Solid construction with lockable inspection openings
- Individual dimensions for special applications available
- Removable mounting plate made from anodized Aluminium
- Integrated cap rail available
- Inspection doors lockable with euro-profile cylinder

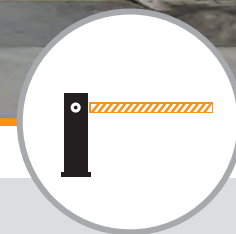


TECHNICAL DETAILS

Corrosion protection	Aluminium parts are blasted and powder-coated twice. All steel parts are shot blasted, hot zinc sprayed - hot dip galvanising is also available if specified - powder primed and then powder coated to the finished colour. This special finish ensures high resistance to damage caused by ultraviolet light, scratches, chemicals or oil.
Colour	as required, to a RAL standard colour chart
Optional features	<ul style="list-style-type: none"> • intercoms • fingerprint readers • keypad • security camera • laser lettering, illuminated • ambiance illuminating • screen printing applications such as logos and lettering • touchscreen applications for access control systems • integrated collection container for cards or coins • coin validator

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TSZ 35e/50e/60se/80se BARRIERS

ZABAG barriers are reliable, economical and low maintenance. They are suitable for use in combination with other security gates or as a stand-alone system or parking system.

Our barriers are characterized by a "user friendly" approach, including a power socket integrated into the control unit which provides a convenient power source when working on site.

You would like secure a large entrance? Our barriers type TSZ 80se ensure it with a boom length up to 8m.

TSZ 35e

boom length up to 4 m
opening/closing time: 2.5 sec

TSZ 50e

boom length up to 5 m
opening/closing time: 4.5 sec

TSZ 60se

boom length up to 6 m
opening/closing time: 5.5 sec

TSZ 80se

boom length up to 8 m
opening/closing time: 8.5 sec

FEATURES:

- position left/right selectable on site
- powder coated body housing, made from aluminium, IP 54
- control panel with 3 No (s) on board single channel detectors and 6 pcs. 24 V / 1 A multifunction relay
- service switch for switching off external commands

SUPPLEMENTARY ITEMS:

- LED boom Lightning red/green
- photo cells
- pendular tip rest
- fixed tip rest
- TCP/IP or RS 485 Modul
- slope grid for TSZ 60/80se





TSZ 35e and TSZ 50e

- energy-saving concept with powerful 24V BLDC-motor
- 3 different running speeds adjustable
- automatic opening by additional module in case of power failure
- closing force control - the boom reverses when hitting a vehicle
- boom connector usable left / right, without alteration of the barrier head

TSZ 60se and TSZ 80se

- energy-saving concept with powerful 24V BLDC-motor
- 3 different running speeds adjustable
- Motor control swivels out
- closing force control - the boom reverses when hitting a vehicle
- usable with pendular skirt under the boom

TECHNICAL DETAILS

Equipment	<ul style="list-style-type: none">• barrier boom made of aluminium, with red reflective signal stripes and rubber tube on the boom underside• perfect running performance - precise barrier boom movement through electronic rotation speed control - fast, quiet, smooth• sinusoidal motion sequence with soft-stop, self-locking effect of the closed barrier• reliable manual unlocking• lockable front door• installed service socket• standard-barrier drawing with foundation plan• documentation, inspection logbook and drill template• incl. fixing anchors
Standard colours	mounted housing: RAL 9010 pure white, top cap: RAL 6018 yellow green (further colours are available on request)
Control panel	<ul style="list-style-type: none">• power switch selectable as a safety device• 6 freely programmable multifunctional relays / potential-free (max. 24 V, 1 A)
Power supply	230 V 50 Hz
Duty cycle	S1 100 %

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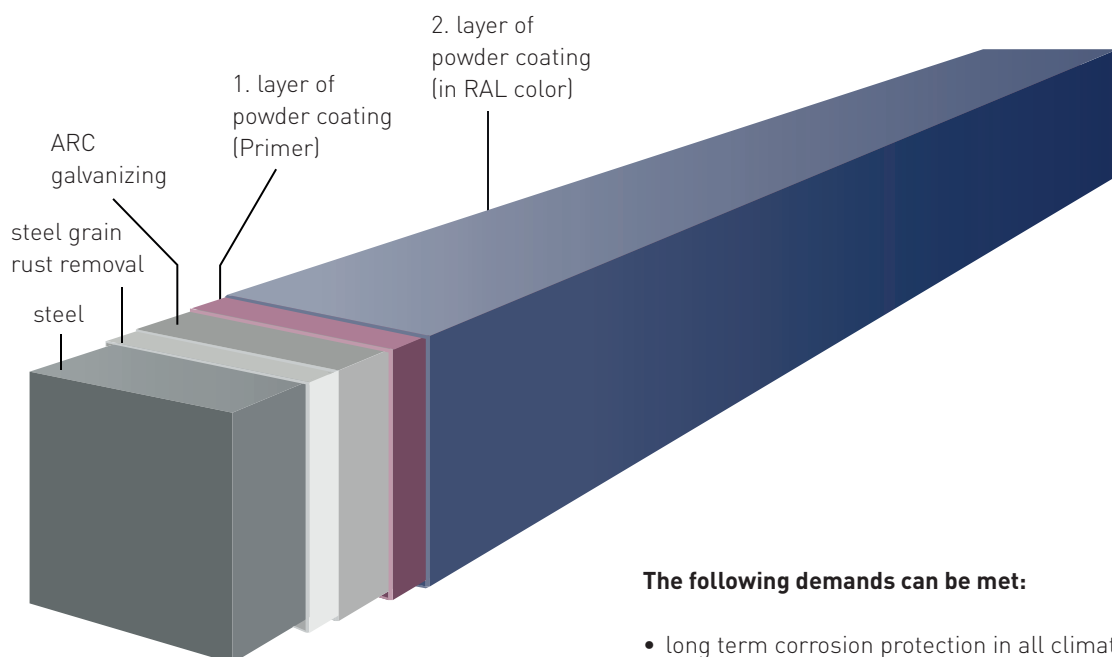


CORROSION PROTECTION SYSTEM 3PLUS

The long-term corrosion protection ZABAG 3Plus-Coating consists of a process with three surface layers providing the perfect protection for every climate. The thickness of the complete corrosion protection layers is approx. 260µ.

STEP 1: Preparation (Clean-Blasting of the steel surface)

The basic preparation of steel surfaces for an optimal application of the corrosion protection layers is the perfect cleaning. All metal parts are blasted clean accordance to Swedish standard SIS 055900, level Sa3 to obtain a surface with a special defined surface roughness. This surface structure is the optimal basis for the subsequent application of the corrosion protection layers.



The following demands can be met:

- long term corrosion protection in all climate zones
- UV resistance
- inure to scratches and chemicals

CORROSION PROTECTION

SYSTEM 3PLUS

STEP 2: First Layer (Galvanizing of the surface by arc galvanizing)

Immediately after the clean blasting process 100% pure zinc is applied to the blasted clean steel surface by electrical arc galvanizing according to DIN EN 22063. During this process zinc wire is melted in the arc with very high temperatures and is applied to the steel surface from a short distance. The extremely hot and liquid zinc turns into a fused adhesive coating with the rough steel surface. The minimum thickness of the layer is 100 µ. An important advantage of arc galvanizing is the small quantity of heat being transferred to the steel surface. This prevents thermal distortion of the material.

STEP 3: thermal outgassing

After zincing the products are being tempered in the oven on 200°C. This method will guarantee that trapped gas can exhaust to prevent for blisters under the coat.

STEP 4: 2 Layers of powder coating.

First layer of powder will be applied electrostatic as Epoxidprimer and 20 minutes cured on 200°C in the oven. Thickness of applied primer is 80 µ.

The ZABAG Corrosion protection 3Plus achieves a total thickness of 260µ and is appropriate as long term corrosion protection in all climatic zones. 3Plus also fulfills highest demands on UV resistance, is insured to scratches and chemicals.

ZABAG[®]

SECURITY ENGINEERING



THE NEXT LEVEL OF SECURITY