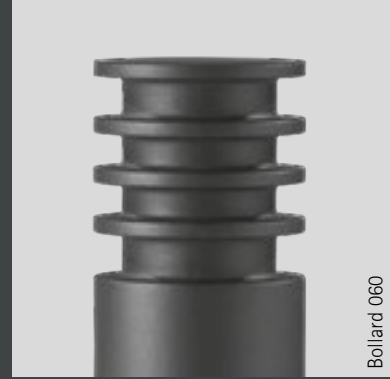




Bench 146



Bollard 027-2 with coat of arms



Bollard 060



Waste-Container 540



Lighting-Bollard 230 LED



Bicycle-Stand 450-1

STREET FURNITURE
2 0 2 0

Contacts

ABES S.à r.l. Niederanven/Luxembourg



ROTGER BARICH
ABES Manager
+352 . 28 67 65 10
rbarich@abes-online.com



HEIKE BARICH
Administration/Distribution
+352 . 28 67 65 11
hbarich@abes-online.com



FRANZISKA DITTMER
Administration/Distribution
+352 . 28 67 65 12
fdittmer@abes-online.com



THOMAS KRIMGEN
Administration/Distribution
+352 . 28 67 65 15
tkrimgen@abes-online.com



CHRISTOPH MARZI
Technical Purchasing
+352 . 28 67 65 16
cmarzi@abes-online.com



MICHEL REUTER
Online Shop, Web Development
+352 . 28 67 65 14
mreuter@abes-online.com



DORIS SCHÄFER
Media Design
+352 . 28 67 65 13
dschaefer@abes-online.com

Sales and Distribution Germany (Howatec GmbH) Siegen/Germany



LUTZ BARICH
HOWATEC Manager
+49 (0)271 . 4059-688
mail@abes-deutschland.de



CHRISTEL RAU
Distribution
+49 (0)271 . 4059-699
crau@abes-deutschland.de



HELIA NEMATOLLAHI
Distribution
+49 (0)271 . 4059-699
hnematollahi@abes-deutschland.de



PHILIPP SYNDIKUS
Drafter
+49 (0)271 . 4059-699
psyndikus@abes-deutschland.de

STOCK Wormeldange/Luxembourg



UWE FISCHBACH
Stock
+352 . 26 74 70 85
ufischbach@abes-online.com



NICO CRISTANTIELLI
Stock
+352 . 26 74 70 85
ncristantielli@abes-online.com



"A smart bollard has to give in ..."

We have been committed to this motto for over 20 years. Our bollards, regular as well as LED, combined with the 3p-Technology mounting system with integrated predetermined breaking point we have developed, have set new standards. In hundreds of cities and municipal facilities, 3p-Technology has become the standard mounting system. From page 10 you can read what is behind this cost-saving and up-to-date technology.

In our current catalog 2020/21 you will also find a wide range of future-oriented street furniture for public spaces and for a livable environment.

If you are looking for solutions to specific problems or need support in the selection of appropriate city furniture for your planning project, do not hesitate to contact us. Your ideas are the focus of our efforts. Free samplings are just as much a part of our service as telephone consultations and personal presentations on site.

We are looking forward to help you.

Handwritten signatures in blue ink. The first signature is 'Rotger' and the second is 'Lutz Barich'.

Rotger Barich and Lutz Barich

Innovative technology combined with unique design

Founded in 1994, ABES focuses on the design of urban furniture and elements for public space since 1999.

ABES' 3p-Technology system was developed with the customer's needs in mind. This advanced technology, by now used as standard mounting system in many cities, allows easy, time-saving and low-cost repair of public furniture. The main idea is to connect bollards with a junction piece having a predetermined breaking point. If damaged, object and foundation stay intact, and only the junction piece has to be replaced on site.

ABES offers unique products with an individual character. They attract attention, inspire people, and encourage viewers to engage in a variety of opinions and discussions, which creates their uniqueness. This has been confirmed by the "Design Centre North Rhine-Westphalia" by giving the red dot award to the Bicycle-Stand 450-1 (formerly Signum I) and the Bollard 001-1 (formerly Metropol 520 5RK), which are built using 3p-Technology. We use a

variety of first-class materials for ABES products.

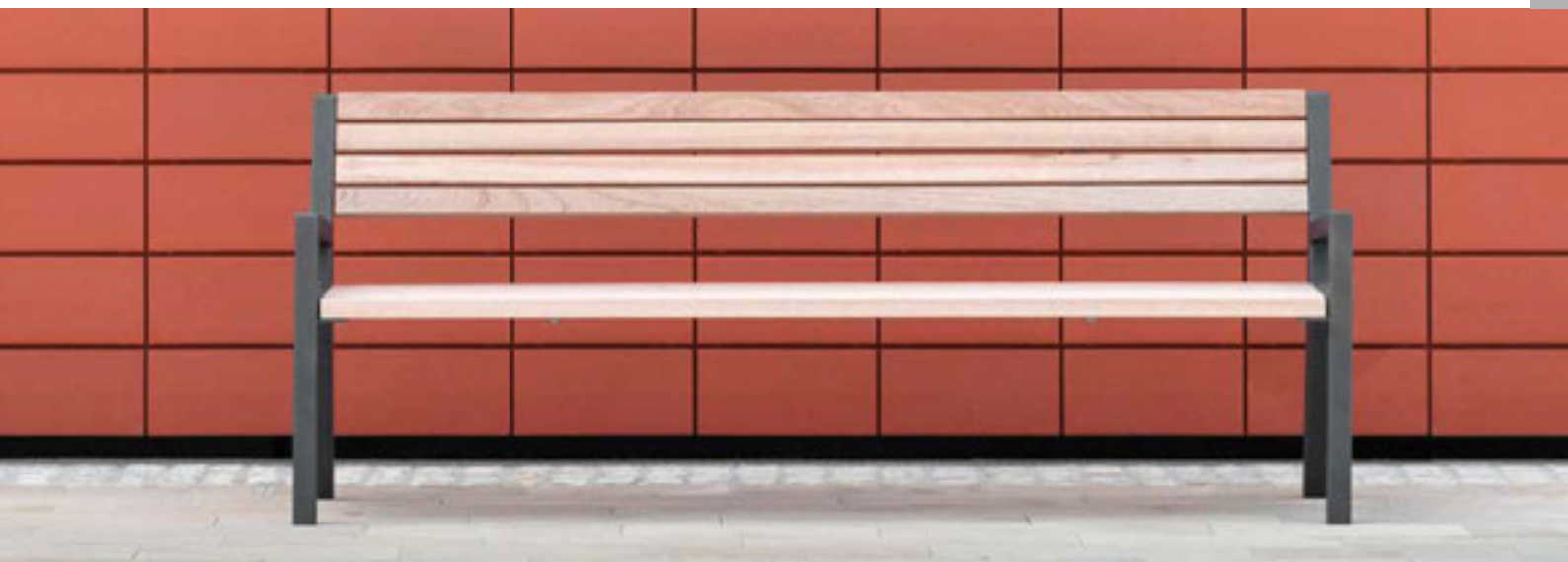
Apart from galvanised or stainless steel and selected woods, ABES is increasingly using cast iron or cast aluminium. These materials, which have been somewhat forgotten, have special characteristics so that regular welding techniques cannot be used for them.

Last but not least, cast technology is extraordinarily environmentally friendly because 95% of the materials originate from recycled resources, and the products themselves can be almost completely recycled. When choosing these raw materials, you are helping our environment by saving scarce resources and avoiding waste production.

Discover the aesthetically and technically innovative ABES products for yourself.



Bicycle-Stand 450-1



Bench 146-2 | Page 89

INSTRUCTIVE. INFORMATIVE. INTERESTING.



Online practical guides and technical articles

Interesting and informative articles on the topics urban planning and development. New contributions are published regularly.

Stay up-to-date and receive the latest updates with our newsletter (from 10/2020).



<https://abes-online.com/en/publications/>



Technical article 
www.abes-online.com

Urban planning, urban development and identity

Cities are, in most contexts, growing structures. What often seems arbitrary and random overall is basically a series of changes that have been, at the time of their creation, a reasonable intervention in existing urban structures – always oriented towards the conditions, the requirements, and the possibilities.

Read the full article on our website:

<https://abes-online.com/en/guides/urban-planning-urban-development-and-identity/>



THE ABES ONLINE-SHOP

From planning to purchase and delivery tracking



ABES ONLINE-SHOP:
WWW.ABES-ONLINE.COM/EN

Calculate your individual savings in the event of damage



Interactive cost calculator
3p-Technology



In general, a car or a truck hitting a bollard results in considerable repair costs. The interactive cost calculator lets you determine the cost advantages of the 3p-Technology fastening system for bollards:

- Adjust the values in the yellow boxes according to your prices
- Click the button "Savings with 3p-Technology" below the cost calculation to get your result.

Example:

Savings with 3p-Technology 515,60 €

<https://abes-online.com/en/3p-technology/3p-cost-comparison/>

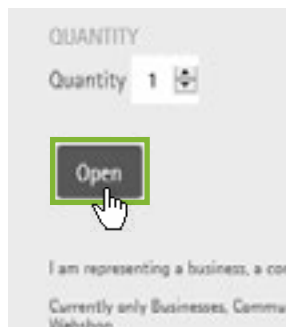
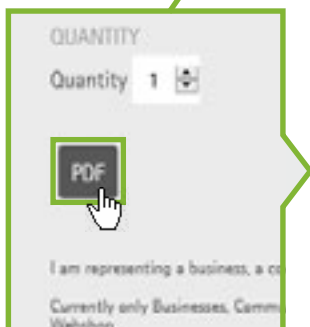
Download product offers in PDF format instantly



Offers in PDF format



- Navigate to a product page, select the requested options and decide on the amount to be calculated
- Click the button "PDF" below the amount
The PDF is automatically generated
- Click the button "Open"
You can open the PDF in a PDF reader or save it to your hard drive and print it out if necessary



CONTENT

| | |
|------------------------|----------------------|
| INTRODUCTION | 2 |
| ABES ONLINE-SHOP | 4 |
| PRODUCT OVERVIEW | 157 |
| ACCESSORIES | 158 |
| ADDITIONAL INFORMATION | BOTH COVER FOLD-OUTS |



| | |
|-----------------------|-----|
| NEW RELEASES | 8-9 |
| PROJECTS & REFERENCES | 154 |



01

| | |
|--------------------------------------------|-----------|
| 3P-TECHNOLOGY | 10 |
| What is the ABES 3p-Technology? | 10 |
| The 3p-Technology and its individual parts | 12 |
| An overview of the 3p-Technology | 14 |
| BASt report | 17 |



02

| | | | |
|-------------------|-----------|-------------------------|----|
| BOLLARDS | 18 | | |
| Overview | 20 | Steel + Stainless steel | 56 |
| Mounting variants | 24 | Function bollards | 64 |
| Special models | 25 | Feeder bollard | 68 |
| Cast aluminium | 28 | LED Lighting bollards | 70 |



03

| | |
|-----------------------------|-----------|
| BENCHES & TABLES | 80 |
| Overview | 82 |
| Benches & tables | 84 |
| Seating bollard | 101 |
| Lounger/Lean-on bench | 102/103 |



Project: Orscholz-Cloef, Germany | Bench 144 | Page 87

04

WASTE CONTAINERS

104

| | |
|------------------|-----|
| Overview | 106 |
| Waste Containers | 107 |



05

BICYCLE STANDS

114

| | |
|----------------------------------------|-------------|
| Overview | 116 |
| Bicycle stands | 118-121/131 |
| Support stands | 122 |
| Bicycle stands recommended by the ADFC | 132 |



06

PARKLANDS & CITY

138

| | | | |
|-------------------------------|-----|-------------|-----|
| Overview | 140 | Tree Guard | 144 |
| Bicycle-Stand 453 as handrail | 141 | Fire Basket | 145 |
| Tree-Stand | 141 | | |
| Planters | 142 | | |



07

SHELTER

146



08

FLOOD PREVENTION

150



NEW
RELEASES
2020

BICYCLE-STAND 474
Steel + Stainless steel

130



BOLLARD 079
Steel + Stainless steel

59



LIGHTING-BOLLARD 267 LED *Steel*

77



PHOTOLUMINESCENT COATING for bollards

25



LATERAL EMPTYING

108

WASTE-CONTAINER 540
Steel + Stainless steel

- With lateral door



LATERAL EMPTYING

109

WASTE-CONTAINER 541
Steel + Stainless steel

- With lateral door



BENCH 147
Steel + Wood

91



LOUNGER 1.120
Steel + Wood

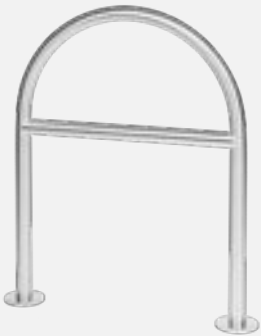
102



BICYCLE-STAND 476

Steel + Stainless steel

122



BICYCLE-STAND 477

Steel + Stainless steel

123



BICYCLE-STAND 480

Steel + Stainless steel

131



BICYCLE-STAND 1.414

ADFC recommended quality, Steel + Stainless steel

134



BICYCLE-STAND 1.415

ADFC recommended quality, Steel + Stainless steel

135



BICYCLE-STAND 1.416

ADFC recommended quality, Steel + Stainless steel

136



BICYCLE-STAND 1.417

ADFC recommended quality, Steel + Stainless steel

133



SHELTER 1.310

Modular multi-purpose shelter system

148

CLASSICS – NEW EDITIONS



92

BENCH 103
with stainless steel supports

3p Technologie



95

BENCH 109
Bench 107 with rectangular tube frame
(also available with 3p-Technologie)



What is the ABES 3p-Technology?

Help through ABES 3p-Technology

A complete repairs system

In 2001, ABES has launched 3p-Technology, a mounting system that allows a bollard that has been hit to be repaired in a very short time and in just a few steps.

The core of 3p-Technology is a junction piece with a predetermined breaking point.

Under the effect of an external force carried out by a car, a conventional bollard, including ground shell and locking mechanism, is seriously damaged or even destroyed.

This does not apply to bollards with 3p-Technology: their junction piece yields and breaks at the predetermined breaking point. Except for possible scratches on the bollard, every part, including the foundation and the pavement, remains intact. The junction piece is replaced, and in just a few minutes the bollard is ready for use again – without having lost any of its stability.

In numerous cities and municipal facilities, the 3p-Technology has become the standard mounting system.

It's not just bollards offering flexibility and easy assembly

While the 3p-Technology was originally developed for bollards, it is today also used in other street furniture, such as benches, bins and LED illuminated bollards, all of which enable the same easy assembly and maintenance.

In addition to simple maintenance, the system also offers further advantage:

Objects featuring the 3p-Technology are removable, giving you lots of freedom when it comes to design and layout. Bollards or benches can be easily removed during large events like Christmas markets or public gatherings, and reassembled afterwards in the blink of an eye.

All 3p-Technology products can similarly replace each other: the junction piece can be fitted onto any base, meaning you can easily replace a bin with a bollard if necessary.

Only the 3p-Technology can offer such design freedom!

THE PROBLEM

Defective bollards on the street

Crooked or broken bollards can be seen in every city. These pictures are certainly quite familiar. The replacement of conventional bollards is laborious, it takes a lot of manpower and time. This results in high costs.



Enter your repair costs and compare:

<https://abes-online.com/en/3p-technology/3p-cost-comparison/>

THE SOLUTION



Bollards with patented 3p-Technology

The patented ABES 3p-Technology is the solution. If the bollard has been rammed or knocked over by a vehicle, the junction piece with predetermined breaking point gives way.



Bollard hit by a car.



The replaceable junction piece breaks at the predetermined breaking point. The bollard and foundation with base generally remain intact.



The broken junction piece is replaced with a new one, and the bollard can be immediately reassembled.



More informations and videos:
<https://abes-online.com/en/3p-technologie/>

Advantages at a glance



COST ADVANTAGES IN CASE OF DAMAGE

- ✓ Cost savings up to 90% compared to all conventional and known bollards made of steel or cast aluminium
- ✓ Less than 3 minutes working time
- ✓ Bollards, foundations with floor sleeves and plaster usually remain intact

SIMPLIFIED STORAGE

ONE single ground shell for all products with 3p-Technology

- ✓ Easy stockpiling
- ✓ Less storage space
- ✓ Lower storage costs



MOUNTING ADVANTAGES

- ✓ Quick replacement with simple tools on site
- ✓ Removable
- ✓ Absolutely accurate and firm

All ABES bollards, lighting bollards, waste containers, etc. can be mounted alternately on the same ground shell.



The 3p-Technology and its individual parts



STANDARD

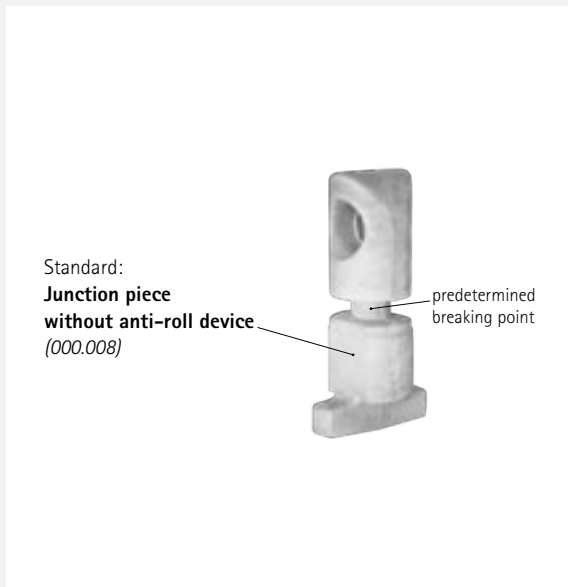
CLAMPING CONE SET with hex head screw

- Tightens the system firmly

Consisting of: M12 hexagonal head screw, N1 clamping cone without internal thread, N2 clamping cone with internal thread or N1 with M12 nut

Material: stainless steel 1.4301

Before installation, it's recommended to lubricate hex head screw and nut with a special ceramic paste. Please inquire! We will be happy to advise you.



STANDARD

JUNCTION PIECE WITH PREDETERMINED BREAKING POINT without anti-roll device

- Links bollard to the ground shell
- Breaks at the predetermined breaking point when damaged by a vehicle
- Can be instantly replaced if damaged

Material: cast iron, galvanised



STANDARD

GROUND SHELL 300 mm

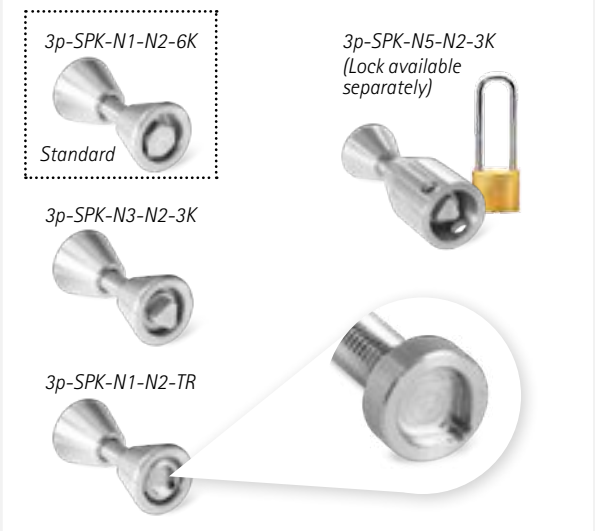
- Extremely robust component for long-lasting concrete embedment

Material: cast iron, galvanised

Note: In order to prevent the interruption of the construction process, the ground shells can be delivered in advance, if requested.

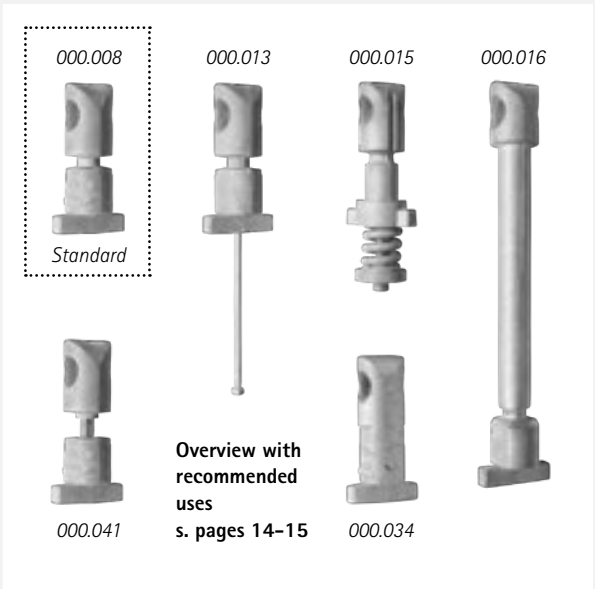
OPTIONS

- 3p-SPK-N3-N2-3K Clamping cone set with triangular head screw**
- 3p-SPK-N5-N2-3K Clamping cone set with lengthened clamping cone (N5)**
Additional protection with a padlock in order to prevent unauthorised removal (e.g. fire brigade padlock), possible use with triangular head screw or with hex head screw
- 3p-SPK-N1-N2-TR Clamping cone set with ABES bolt (Drop shaped)**
Special head screw with drop shaped drive
Can only be opened with an optional special tools; hence protection against unauthorised opening with standard tools (utility model protection)



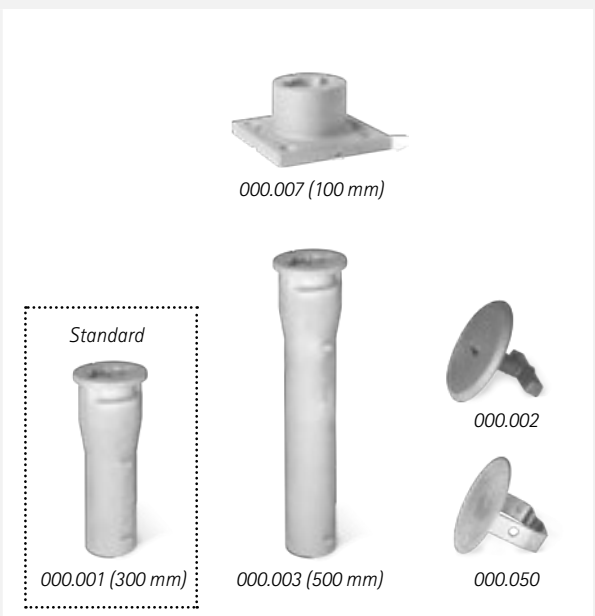
OPTIONS

- 000.013 Junction piece with anti-roll device**
The metal rod prevents the bollard from rolling away
- 000.015 Junction piece with steel spring (3p-Flex)**
The bollard returns to its initial position after impact (8-10° tilt), and only breaks if the breaking load is exceeded
- 000.016 Junction piece with extended connection (3p-High)**
Allows to open and close the locking mechanism with long fire brigade triangular keys without a break
- 000.034 Junction piece without predetermined breaking point**
Solid protection for people and objects
- 000.041 Height-adjustable junction piece**
 - Height can be adjusted with a threaded rod
 - Compensates for the gap between bollard and ground shell, if it ends below level, e.g. with paving stones of different heights



OPTIONS

- 000.003 Ground shell 500 mm**
For additional stability on unstabilised subsoil, cobblestone pavement etc.
- 000.007 Ground shell 100 mm**
As special solution in case of small mounting depth, e.g. car parks, bridges etc.
- Ground shell cover**
Reduces risk of tripping, prevents soiling
- 000.002 Cast aluminium**
- 000.050 S235 Steel with spring, hot-dip galvanised**





Removable WITH predetermined breaking point

3p-Technology

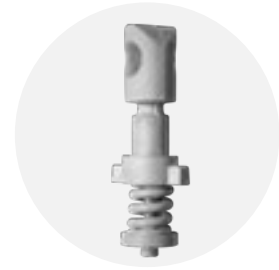
Junction piece
without anti-roll device
000.008 (Standard)



Junction piece
with anti-roll device
000.013







Junction piece
with steel spring (3p-Flex)
000.015



| | | | |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Properties when hit by a vehicle | <ul style="list-style-type: none"> ▪ Breaks at the predetermined breaking point | <ul style="list-style-type: none"> ▪ Breaks at the predetermined breaking point ▪ Metal rod prevents the bollard from rolling away (e.g. on slopes) | <ul style="list-style-type: none"> ▪ 8-10° flexure, bollard returns to original position after impact ▪ The predetermined breaking point yields if the spring is overexpanded |
| Recommended areas of application | <ul style="list-style-type: none"> ▪ Parked cars/Stationary traffic ▪ Inner-city traffic ▪ Parking places | <ul style="list-style-type: none"> ▪ On slopes ▪ Parked cars/Stationary traffic ▪ Inner-city traffic ▪ Parking places | <ul style="list-style-type: none"> ▪ Parked cars/Stationary traffic ▪ Delivery traffic ▪ Parking places |
| Features | <ul style="list-style-type: none"> ▪ Flexible, since removable (with predetermined breaking point) ▪ Low repair costs after impacts | | |
| Removable | Yes | | |
| Repair costs after impacts | Minor | | |
| Vehicle damage after impacts | Minor to medium | | |



| Removable <u>WITHOUT</u> predetermined breaking point | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3p-Technology | 3p-Snaplock |
| <p>Junction piece <u>without</u> predetermined breaking point</p> <p>000.034</p>  | <p>Triangular or cylinder lock</p>  |
| <ul style="list-style-type: none"> ▪ High resistance to impacts (suitable for protecting objects and people) | <ul style="list-style-type: none"> ▪ Higher resistance to impacts, due to the absence of a predetermined breaking point |
| <ul style="list-style-type: none"> ▪ Protecting people/objects ▪ Multiple consecutive rows can be used as simple object protection | <ul style="list-style-type: none"> ▪ Critical locations, where the removal has to be done quickly in case of emergency |
| <ul style="list-style-type: none"> ▪ Flexible, since removable (without predetermined breaking point) ▪ High resistance to impacts | <ul style="list-style-type: none"> ▪ Self-latching, thus allowing a quick insertion ▪ Available for most steel or cast aluminium models (also with cast emblem) ▪ Hybrid ground shell, also suited for every 3p product with a predetermined breaking point |
| Yes | Yes |
| High | High |
| High | High |
|  |  |

3p-Snap Lock System

An overview of the 3p-Technology

Street furniture with 3p-Technology comes in all kinds of versions, each offering specific advantages depending on the purpose.

(LED) bollards and bins with predetermined breaking point are very inexpensive to repair. If they get damaged, the junction piece breaks at the predetermined breaking point, and can be replaced very quickly. The pavement does not generally require any work.

Street furniture objects with predetermined breaking point are also very flexible to replace. If necessary, they can be removed or replaced quickly and very easily with other street furniture.

If you are looking to provide particular protection for certain areas, we recommend bollards without predetermined breaking point. Not only are they flexible and inexpensive, they are also extremely robust. Unlike bollards with predetermined breaking point, the junction piece does not break. This makes the bollard a stable obstacle. This version – especially if two or three rows of bollards are set up behind one another – is particularly useful for protecting people and objects, e.g. to prevent vehicles from driving into pedestrian zones or areas close to pedestrians. Please keep in mind, however, that the foundations, bollards, ground shells and paving stones are very likely to be (severely) damaged or destroyed.

As you can see, the options offered by 3p-Technology are as varied as the requirements for street furniture. In addition to the versions with and without predetermined breaking point, there are also 3p-Technology products with flexible steel springs and with or without anti-rollaway features. Standard fixed installation is of course also possible.

Contact us; we'll be glad to advise you on the various 3p-Technology options.



Report n° V4 – 61/2002 dated Sep 13, 2002
on the

Characteristics of a bollard system regarding the effort required for repair

APPLICATION

Applicant: ABES Büro Deutschland
Zur Ehreliche 3
57250 Netphen

Application date: 27 August 2002

Subject of application: Confirmation of the effort required to repair a damaged bollard



1 | Bollard before damage



2 | Damaged bollard

MATERIAL

Description*: **Metropol bollard with 3p-Technology including:**

- Ground shell n° 000.001, ductile cast iron GGG, embedded at ground level
- Junction piece, ductile cast iron GGG, with hexagon bolt and nut M12, stainless steel 1.4301, n° 000.008
- Clamping cone, stainless steel 1.4301, Nr. 000.004
- Anchor, galvanised steel ST37, n° 000.013
- Bollard, cast iron GG 20, n° 001.003

Serial number: None

Condition: New

*provided by applicant



3 | Bollard system after damage

The junction piece yields, the bollard falls over and is held to the ground shell by an anchor. The bollard itself, the ground shell and the foundations do not show any visible signs of damage (see figure 3).

The bollard is mounted with a new junction piece within 3 minutes (see figure 4 and figure 5). After repair, the bollard is firmly fixed in place.



4 | Junction piece: damaged (right) and replacement (left)



5 | Repairing the bollard

TEST

A properly installed Metropol bollard with 3p-Technology is damaged by a car (see figure 1 and figure 2).



(Dipl.-Phys. U. Ellmers)
Oberregierungsrat



(Dipl.-Phys. D. Heuzeroth)
Regierungsrat

02

BOLLARDS

Barrier posts or bollards are natural parts of our cityscapes. Elegant boundaries or driveway and walkway markings are just a few of their many applicabilities. The various ABES designs, ranging from classic to modern, allow the harmonic integration of bollards in any environment.

These objects are permanently exposed to the risk of being knocked over by cars pulling in and out of parking bays. To counteract this risk, ABES has developed the 3p-Technology for bollard fastening as an alternative to fixed mounting. This is an easy and low-cost way to replace damaged bollards.



1



2














3












1: Bollard 055-2 page 63 | 2: Bollard 005-2 page 44 | 3: Bollard 001 page 29

















BOLLARD 001 page 29


















| | | CAST ALUMINIUM | | | | | | | | | | |
|-----------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| | |  |  |  |  |  |  |  |  |  |  |  |
| | | 001 | 001-1 | 002 | 003 | 004 | 005-1 | 005-2 | 006-1 | 006-2 | 007 | 008 |
| Catalogue page | | 29 | 29 | 35 | 50 | 47 | 44 | 44 | 36 | 37 | 43 | 29 |
| NEW 2020 | | | | | | | | | | | | |
| Material | Cast aluminium (with powder coating) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | Steel S235 (galvanised) | - | - | - | - | - | - | - | - | - | - | - |
| | Steel S235 (galvanised with powder coating) | - | - | - | - | - | - | - | - | - | - | - |
| | Stainless steel 1.4301 (smoothed, grain 240) | - | - | - | - | - | - | - | - | - | - | - |
| | Stainless steel 1.4301 (pickled/glass bead blasted) | - | - | - | - | - | - | - | - | - | - | - |
| | Stainless steel 1.4301 (with powder coating) | - | - | - | - | - | - | - | - | - | - | - |
| Material | Rubber granulate | - | - | - | - | - | - | - | - | - | - | - |
| Mounting | Fixed mounting (concrete embedment) | 001.001 | 001.011 | 002.001 | 003.001 | 004.001 | 005.001 | 005.201 | 006.001 | 006.201 | 007.001 | 008.001 |
| | Removable with 3p-Technology | 001.020 | 001.040 | 002.020 | 003.020 | 004.020 | 005.020 | 005.220 | 006.020 | 006.220 | 007.020 | 008.020 |
| | Removable with 3p-High | ○ | - | ○ | ○ | 004.030 | ○ | ○ | ○ | ○ | 007.030 | ○ |
| | Option: Fold-down | - | - | - | - | - | - | - | - | - | - | - |
| | Option: With flanges to enable screwing | - | - | - | - | - | - | - | - | - | - | - |
| | Ground rosette included with 3p-Technology | - | - | - | - | - | - | - | - | - | - | - |
| Mounting | Ground rosette as an option | - | - | - | - | - | - | - | - | - | - | - |
| Measurements | Height above ground level (mm) | 870 | 520 | 820 | 738 | 820 | 890 | 900 | 870 | 870 | 905 | 870 |
| | Diameter (top/bottom, mm) | 85/120 | 85/120 | 140 | 144/120 | 112/180 | 70/170 | 80/140 | 95/120 | 95/120 | 84/98 | 85/120 |
| | Compatible 3p ground shells: 100 mm/300 mm (standard)/500 mm | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ |
| | Weight (approx. in kg, for fixed mounting + 1.5 kg) | 11 | 7 | 15,5 | 10 | 11,8 | 10,5 | 13 | 11 | 11 | 10 | 11 |
| | Design | hrd | hrd | hrd | hrd | | | | hrd | hrd | | hrd |












| | | CAST ALUMINIUM | | | | | | | | | | |
|-----------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| | |  |  |  |  |  |  |  |  |  |  |  |
| | | 020 | 021-1 | 021-2 | 022 | 023 | 024 | 025 | 027-1 | 027-2 | 028 | 029 |
| | | | 600 mm | 900 mm | | | | | 600 mm | 870 mm | | |
| Catalogue page | | 49 | 39 | | 49 | 43 | 39 | 45 | 28 | | <AE> | 41 |
| NEW 2020 | | | | | | | | | | | | |
| Material | Cast aluminium (with powder coating) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | Steel S235 (galvanised) | - | - | - | - | - | - | - | - | - | - | - |
| | Steel S235 (galvanised with powder coating) | - | - | - | - | - | - | - | - | - | - | - |
| | Stainless steel 1.4301 (smoothed, grain 240) | - | - | - | - | - | - | - | - | - | - | - |
| | Stainless steel 1.4301 (pickled/glass bead blasted) | - | - | - | - | - | - | - | - | - | - | - |
| | Stainless steel 1.4301 (with powder coating) | - | - | - | - | - | - | - | - | - | - | - |
| Material | Rubber granulate | - | - | - | - | - | - | - | - | - | - | - |
| Mounting | Fixed mounting (concrete embedment) | 020.001 | 021.001.060 | 021.001.090 | 022.001 | 023.001 | 024.001 | 025.001 | 027.001.060 | 027.001 | 028.001 | 029.001 |
| | Removable with 3p-Technology | 020.020 | 021.020.060 | 021.020.090 | 022.020 | 023.020 | 024.020 | 025.020 | 027.001.060 | 027.020 | 028.020 | 029.020 |
| | Removable with 3p-High | ○ | - | ○ | ○ | 023.030 | ○ | ○ | - | 027.030 | ○ | ○ |
| | Option: Fold-down | - | - | - | - | - | - | - | - | 027.005 | - | - |
| | Option: With flanges to enable screwing | - | - | - | - | - | - | - | - | - | - | - |
| | Ground rosette included with 3p-Technology | - | - | - | - | - | - | - | - | - | - | - |
| Mounting | Ground rosette as an option | - | - | - | - | - | - | - | - | - | - | - |
| Measurements | Height above ground level (mm) | 895 | 600 | 900 | 935 | 910 | 870 | 850 | 600 | 870 | 900 | 900 |
| | Diameter (top/bottom, mm) | 74/102 | 86/100 | | 140 | 85/100 | 80/100 | 85/140 | 85/98 | | 90 | 80/100 |
| | Compatible 3p ground shells: 100 mm/300 mm (standard)/500 mm | ○/●/○ | ○/●/○ | | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | | ○/●/○ | ○/●/○ |
| | Weight (approx. in kg, for fixed mounting + 1.5 kg) | 10 | 7,8 | 10,9 | 12 | 10,5 | 10,7 | 10,7 | 7 | 10 | 12,5 | 10,4 |
| | Design | | | | | | tw | | hrd | | | |





■ = Material | ● = Standard | ○ = Option (with a surcharge) | - = Not available | hrd = hammer.runge.design | tw = Thomas Wüsten | nt = Nico Thurm

| | | | | | | | | | | | | | |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 009-1 | 009-2 | 010 | 011 | 012 | 013 | 014-1 | 014-2 | 014-3 | 015 | 016 | 017 | 018 | 019 |
| 870 mm | 1200 mm | | | | | 900 mm | 1000 mm | 1300 mm | | | | | |
| 29 | | 28 | 48 | 35 | 47 | 41 | | | 38 | 28 | 38 | 42 | 51 |
| ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 009.001 | 009.001.120 | 010.001 | 011.001 | 012.001 | 013.001 | 014.001 | 014.001.100 | 014.001.130 | 015.001 | 016.001 | 017.001 | 018.001 | 019.001 |
| 009.020 | 009.020.120 | 010.020 | 011.020 | 012.020 | 013.020 | 014.020 | 014.020.100 | 014.020.130 | 015.020 | 016.020 | 017.020 | 018.020 | 019.020 |
| ○ | ○ | ○ | ○ | ○12.030 | ○13.030 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| - | - | ○10.005 | - | - | - | - | - | - | - | ○16.005 | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | 000.030 | 000.030 | 000.030 | - | - | - | - | - |
| 870 | 1200 | 870 | 860 | 820 | 820 | 900 | 1000 | 1300 | 950 | 870 | 750 | 850 | 850 |
| 85/120 | | 85/98 | 102 x 96/108 | 140 | 125/160 | 85/98 | | | 105 | 85/98 | 105 | 90/130 | 160 |
| ○/●/○ | | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | | | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ |
| 11 | 13 | 10 | 11,5 | 15,5 | 11,9 | 10 | 11,5 | 14 | 14 | 10 | 12 | 12,9 | 11,5 |
| hrd | | hrd | hrd | hrd | | | | | | hrd | | | |

| | | | | | | | | | | | | | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 031-1 | 031-2 | 032 | 034 | 037-1 | 038 | 039 | 040 | 041 | 043 | 055-1 | 057 | 058 | 060 | 061 |
| 870 mm | 1200 mm | | | | | | | | | | | | | |
| 32 | | 34 | 38 | 53 | 40 | 46 | 40 | 48 | 29 | 53 | 52 | 52 | 34 | 33 |
| ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | ● | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | ○ | - | - | - | - | - | - | - | - | - | - | - | - |
| 870 | 1200 | 860 | 780 | 720 | 830 | 870 | 900 | 925 | 870 | 600 | 1000 | 1000 | 750 | 870 |
| 98 | | 96 x 100 | 90/100 | 220 | 80/100 | 61/80/170 | 82/100 | 185 | 85/120 | 180 | 150 | 250 | 102/140 | 98 |
| ○/●/○ | | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ |
| 15,8 | 21 | 8 | 7,4 | 22 | 8,5 | 11 | 10,5 | 15 | 11 | 13,5 | 30 | 29 | 11 | 15,5 |
| hrd | | | | | | | | | | | nt | | | |

02 BOLLARDS *Overview*

| | | CAST ALUMINIUM | | | | | | STEEL | | | | | |
|-----------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--|
| | |  |  |  |  |  |  |  |  |  |  |  | |
| | | 062 | 064 | 068 | 069 | 070 | 071 | 037-2 | 055-2 | 059 | 063 | 065 | |
| Catalogue page | | 42 | 55 | 45 | 54 | 54 | 55 | 63 | 63 | 60 | 61 | 61 | |
| NEW 2020 | | | | | | | | | | | | | |
| Material | Cast aluminium (with powder coating) | ■ | ■ | ■ | ■ | ■ | ■ | - | - | - | - | - | |
| | Steel S235 (galvanised) | - | - | - | - | - | - | - | - | ■ | - | - | |
| | Steel S235 (galvanised with powder coating) | - | - | - | - | - | - | ■ | ■ | - | ■ | ■ | |
| | Stainless steel 1.4301 (smoothed, grain 240) | - | - | - | - | - | - | - | - | - | - | - | |
| | Stainless steel 1.4301 (pickled/glass bead blasted) | - | - | - | - | - | - | - | - | - | - | - | |
| | Stainless steel 1.4301 (with powder coating) | - | - | - | - | - | - | - | - | - | - | - | |
| | Rubber granulate | - | - | - | - | - | - | - | - | - | - | - | |
| Mounting | Fixed mounting (concrete embedment) | 062.001 | 064.001 | 068.001 | 069.001 | 070.001 | 071.001 | - | - | 059.001 | 059.101 | 063.001 | |
| | Removable with 3p-Technology | 062.020 | 064.020 | 068.020 | 069.020 | 070.020 | 071.020 | 037.120 | 055.120 | 059.020 | 059.120 | 063.020 | |
| | Removable with 3p-High | ○ | ○ | ○ | ○ | ○ | ○ | - | - | - | - | ○ | |
| | Fixed mounting I | - | - | - | - | - | - | 037.101 | 055.101 | - | - | - | |
| | Fixed mounting II | - | - | - | - | - | - | 037.102 | 055.102 | - | - | - | |
| | Option: With flanges to enable screwing | - | - | - | - | - | - | - | - | - | - | - | |
| | Ground rosette included with 3p-Technology | - | ● | - | - | - | ● | - | - | ● | ● | ● | |
| Ground rosette as an option | - | ○ | - | - | - | ○ | - | - | ○ | ○ | ○ | | |
| Individual height | - | - | - | - | - | - | ○ | ○ | ○ | ○ | ○ | | |
| Measurements | Height above ground level (mm) | 910 | 1200 | 950 | 800 | 880 | 937 | 720 | 600 | 900 | 1000 | 900 | |
| | Diameter (top/bottom, mm) | 104/115 | 100 × 100 | 82/97 | 85/120 | 83/98 | 90 × 90 | 220 | 180 | 80 × 80 | 100 × 100 | 70 × 140 | |
| | Compatible 3p ground shells: 100 mm/300 mm (standard)/500 mm | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | |
| | Weight (approx. in kg, for fixed mounting + 1.5 kg) | 10 | 25 | 8,2 | 9 | 10 | 14 | 22 | 13,5 | 13,5 | 20 | 13 | |
| Design | | | | | | | | | | | | | |

| | | LIGHTING BOLLARDS | | | | | | | | | | | |
|-----------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------|----------------------|--------------------|----------------------|---------------------------------------------------------------------------------------|---------|--------|---------------------------------------------------------------------------------------|---------|---------|
| | |  | |  | | | |  | | |  | | |
| | | 200 | | 200 LED | | | | 210 LED | | | 220 LED | | |
| | | Acryl glass: clear | Acryl glass: satined | Acryl glass: clear | Acryl glass: satined | Acryl glass: clear | Acryl glass: satined | 6000 K | 4000 K | 2700 K | 6000 K | 4000 K | 2700 K |
| Catalogue page | | 78 | | 79 | | | | 70 | | | 71 | | |
| NEW 2020 | | | | | | | | | | | | | |
| Material | Cast aluminium (with powder coating) | - | - | - | - | - | - | ■ | ■ | ■ | ■ | ■ | ■ |
| | Steel S235 (galvanised) | - | - | - | - | - | - | - | - | - | - | - | - |
| | Steel S235 (galvanised with powder coating) | - | - | - | - | - | - | - | - | - | - | - | - |
| | Stainless steel 1.4301 (smoothed, grain 240) | ■ | - | ■ | - | ■ | - | ■ | - | - | - | - | - |
| | Stainless steel 1.4301 (pickled/glass bead blasted) | - | - | - | - | - | - | - | - | - | - | - | - |
| | Stainless steel 1.4301 (with powder coating) | - | ■ | - | ■ | - | ■ | - | ■ | - | - | - | - |
| | Rubber granulate | - | - | - | - | - | - | - | - | - | - | - | - |
| Mounting | Fixed mounting (concrete embedment) | - | - | - | - | - | - | - | - | - | - | - | - |
| | Removable with 3p-Technology | - | - | - | - | - | - | - | - | - | - | - | - |
| | Removable with 3p-Technology for (LED-)lighting bollards | - | - | - | - | - | - | - | - | - | 210.020 | 210.120 | 210.220 |
| | Removable with 3p-High | - | - | - | - | - | - | - | - | - | - | - | - |
| | Option: Fold-down | - | - | - | - | - | - | - | - | - | - | - | - |
| | Option: With flanges to enable screwing | 200.001 | 201.001 | 200.010 | 201.010 | 200.101 | 201.101 | 200.110 | 201.110 | - | - | - | - |
| | Ground rosette included with 3p-Technology | - | - | - | - | - | - | - | - | - | - | - | - |
| Ground rosette as an option | - | - | - | - | - | - | - | - | - | - | - | - | |
| Individual height | ○ | | ○ | | | | - | | | - | | | |
| Measurements | Height above ground level (mm) | 620 | | 620 | | | | 870 | | | 600 | | |
| | Diameter (top/bottom, mm) | 159 | | 159 | | | | 98 | | | 180 | | |
| | Compatible 3p ground shells: 100 mm/300 mm (standard)/500 mm | - | | - | | | | ○/●/○ | | | ○/●/○ | | |
| | Weight (approx. in kg, for fixed mounting + 1.5 kg) | 6 | | 6 | | | | 15,5 | | | 13,5 | | |
| Design | | | | | | | | | | | | | |

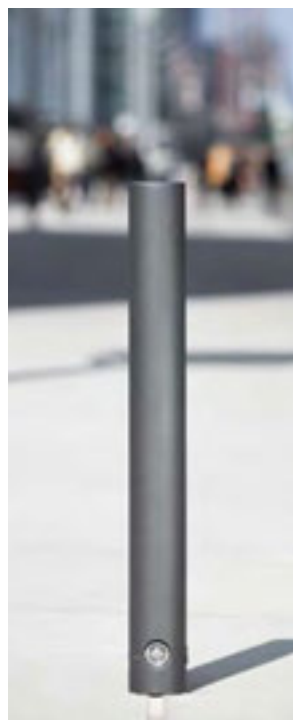
■ = Material | ● = Standard | ○ = Option (with a surcharge) | - = Not available | hrd = hammer.runge.design | tw = Thomas Wüsten | nt = Nico Thurm

| STEEL / STAINLESS STEEL | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---------|-----------------|---------|---------|---------|---------|---------|-----------|---------|---------|-------------|-------------|---------|---------|---------|---------|-----------|---------|---------|---------|
| 066 | | 076-10 | | 076-20 | | 076-30 | | 076-40 | 042-1 | | 042-2 | | 056 | | 074 | | 079 | | 089 | |
| 60 | | 56-57 | | 56-57 | | 56-57 | | 56-57 | 58 | | 58 | | 62 | | 62 | | 59 | | 62 | |
| Flat | | Slightly curved | | Round | | Round | | Spherical | 1000 mm | | 1200 mm | | | | | | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| - | ■ | - | ■ | - | ■ | - | ■ | - | ■ | - | ■ | - | ■ | - | ■ | - | ■ | - | ■ | - |
| - | - | ○ | ○ | ○ | ○ | ○ | ○ | - | - | ■ | - | ■ | - | ■ | - | ■ | - | ■ | - | ■ |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | ■ |
| - | - | ○ | ○ | ○ | ○ | ○ | ○ | ○ | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 066.001 | 066.101 | 076.201 | 076.301 | 076.001 | 076.101 | 076.401 | 076.501 | 076.701 | 042.001 | 042.101 | 042.001.120 | 042.101.120 | 056.001 | 056.101 | 074.001 | 074.101 | 079.201 | 079.301 | 089.001 | 089.101 |
| 066.020 | 066.120 | 076.220 | 076.320 | 076.020 | 076.120 | 076.420 | 076.520 | 076.720 | 042.020 | 042.120 | 042.020.120 | 042.120.120 | 056.020 | 056.120 | 074.020 | 074.120 | 079.220 | 079.320 | 089.020 | 089.120 |
| ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | - | - | 079.240 | 079.340 | ○ | ○ |
| ● | ● | ● | ● | ● | ● | ● | ● | ● | - | - | - | - | - | - | - | - | - | - | - | - |
| ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | - | - | - | - | - | - | - | - | - | - | - | - |
| ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 900 | 940 | 952 | 980 | 1020 | 1000 | 1200 | 1000 | 1200 | 1000 | 1000 | 1097 | 750 | 70 × 70 | 76 | 108 | 108 | 120 × 120 | 108 | 90 | |
| ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ |
| 8,5 | 7,5 | 7,5 | 7,5 | 10 | 10 | 12 | 11,5 | 15 | 13 | 9 | | | | | | | | | | |

| FUNCTION BOLLARDS | | | | | | | | | | | | | | | | | | | | |
|-------------------|---------|---------|---------|---------|-----------|---------|-----------|---------|--------|---------|--------------------|----------|--------------------|---------|--------|-------|--------|-------|--------|-------|
| 230 LED | | | 240 LED | | 265 LED-A | | 265 LED-B | 266 LED | | 267 LED | | 026-1 | | 026-2 | | 525 | | 300-1 | | 300-2 |
| 6000 K | | | 4000 K | | 2700 K | | 6000 K | | 2800 K | | RGB + White 4000 K | | RGB + White 4000 K | | 4000 K | | 600 mm | | 900 mm | |
| 72 | | | 73 | | 74 | | 75 | | 77 | | 66 | | 67/113 | | 68 | | 69 | | | |
| Bollard ashtray | | | | | | | | | | | | | | | | | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ■ | ■ | ■ | ■ | ■ | ■ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | ■ | ■ | ■ | ■ | - | - | - | - | - | - | ■ | ■ | ■ | ■ | ■ |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | ● | 026.001 | 026.101 | 525.001 | 525.011 | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | 026.020 | 026.120 | 525.020 | 525.022 | - | - | - | - | - | - |
| 230.020 | 230.120 | 230.220 | 240.020 | 240.120 | 265.120 | 265.220 | 266.120 | 267.020 | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | ○ | ○ | ○ | ● | - | - | 525.040 | 525.140 | 300.010 | 300.020 | - | - | - | - | - | - |
| - | - | - | - | - | ● | ● | ● | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | ○ | ○ | ○ | ○ | - | - | - | - | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 1000 | 870 | 900 | 900 | 1060 | 600 | 900 | 1097 | 1335 | 1340 | 150 | 85/120 | 70 × 140 | 70 × 70 | 101,6 | 200 | 108 | 245 | 245 | | |
| ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | ○/●/○ | - | - | - | - |
| 20 | 10 | 13 | 8,5 | 10 | 13 | 14,5 | 13,5 | 56,5 | 56,5 | | | | | | | | | | | |

Mounting variants

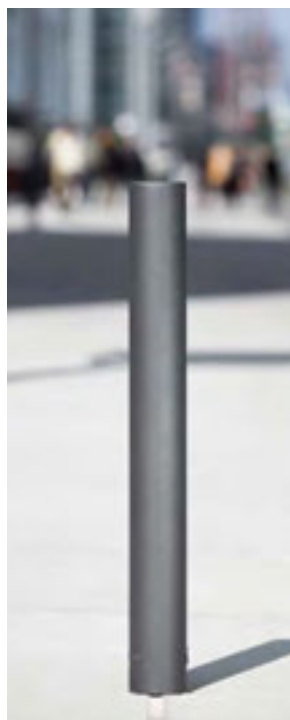
3p-Technology is by far the most frequently ordered type of mounting.
It is used in more than 85% of cases, because it significantly reduces costs.



3p-Technology (Standard)
(see pages 10–15)



3p-High



Fixed mounting



Screw-on



Fold-down*



Door stopper

*The embeddable fold-down version is currently available for the following bollards: Bollard 001, 010, 016, 027-1/-2, 032, 010, 059

NOVELTY: ABES 3p-Snap Lock System

Self-latching fastening system for bollards. Quick positioning into the ground shell, easy removal without bending over.



Easy and intuitive removal with little effort.



Bollards with junction pieces (3p-Technology) fit in the same ground shell.



Available with triangular or cylinder lock

- Removable fastening system without predetermined breaking point
- Optionally with triangular or cylinder lock
- Delivery includes hybrid ground shell* to embed in concrete
- Available for most steel or cast aluminium models, with cast emblem as well

* Suitable for the new 3p-Snap Lock System as well as for the proven 3p-Technology.

Special models

Paintwork, reflective tapes, finishings, eyelets, chains etc. are available on request.



1 ring – reflective tape

000.328



3 rings – reflective tape

000.328



1 ring – powder-coated

000.302



5 rings – powder-coated

000.301



With eyelets & chain

000.200/000.100



Stainless steel: smoothed, grain 240 (standard)

000.410



Stainless steel: electropolished/high-gloss

000.420



Cat's eye reflectors

000.326

NOVELTY: Photoluminescent coating for bollards

Enhanced safety and orientation with photoluminescent bollards



Above: in daylight, below: in the dark

Many have experienced this before – while driving home by bike at night, a hidden obstacle unexpectedly appears. Without artificial lighting, such routes are particularly hazardous.

Here, photoluminescent coatings on bollards or physical barriers could provide a greater security. Due to their light emission, photoluminescent coatings are visible in the dark, especially on routes without artificial lighting.

Features

- High durability and long service life
- Unlike conventional fluorescent colors, these photoluminescent colors do not fade. They keep their properties permanently
- Used among others in the manufacturing of firefighter helmets with significant safety relevance

Your personal ABES bollard

Give your bollard an individual touch and customize it with your coat of arms, your company logo or useful pictograms!

- ✓ Applicable for all cast aluminium bollards if their geometry allows it.
- ✓ From a specific order volume, depending on the shape of the emblem, we bear the non-recurring costs for the mold. Afterwards, single bollards with emblem can also be ordered at list price.

**We assist you in designing your personal bollard.
Feel free to contact us!**



Kayl-Tétange



Bad Urach



Volksbanken Raiffeisenbanken



Sparkassen



Heidelberg



Erbach



Stadt Heiligenhaus



Nieder-Olm



Luxembourg Fonds Kirchberg



Saarbrücken



Lindau



Luxexpo The Box



Bettembourg



Riedlingen



Airport Hamburg



Eckernförde

INDIVIDUAL. TOP QUALITY. EFFICIENT.

3 reasons for removable¹ bollards with emblem:

*Individual concept. Top quality processing.
Efficient maintenance costs.*



1 INDIVIDUAL

with the cast-in emblem of your city or the logo of your company

- ▶ **Accentuation of the city/municipality image respectively the enhancement of the corporate identity concept**

2 TOP QUALITY

due to powder coating in DB 703 glimmer grey²

- ▶ **Effective corrosion protection with an elegant look and feel**

3 EFFICIENT

thanks to the patented 3p-Technology

- ▶ **Low repair costs after the impact of a vehicle**

3p  Technologie

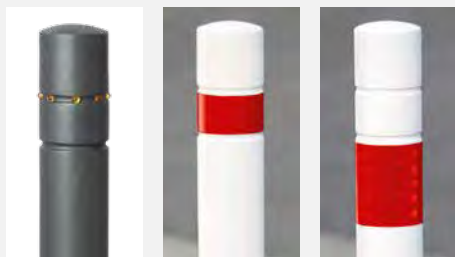
¹ Also available with other fastening options ² Also available in every Classic-RAL colour

THE ABES CLASSICS

Design: hammer.runge.design | Registered design M 9801747.0

Special models

Cat's eye reflectors, one powder-coated ring or one ring of reflective tape (*f. l. t. r.*)



Also available for other models (see pages 25 and 159 f).

With cylindrical base



016

027

010



BOLLARD 016 | 027 | 010

Cast aluminium

Specifications

Cylindrical cast aluminium bollard with a slightly domed top and a cylindrical base. Smooth or with one or three circumferential groove(s).
(See online shop for product-related texts)

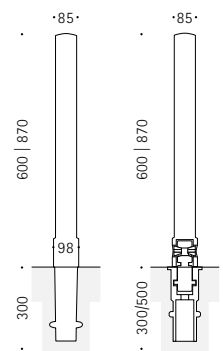
Mounting

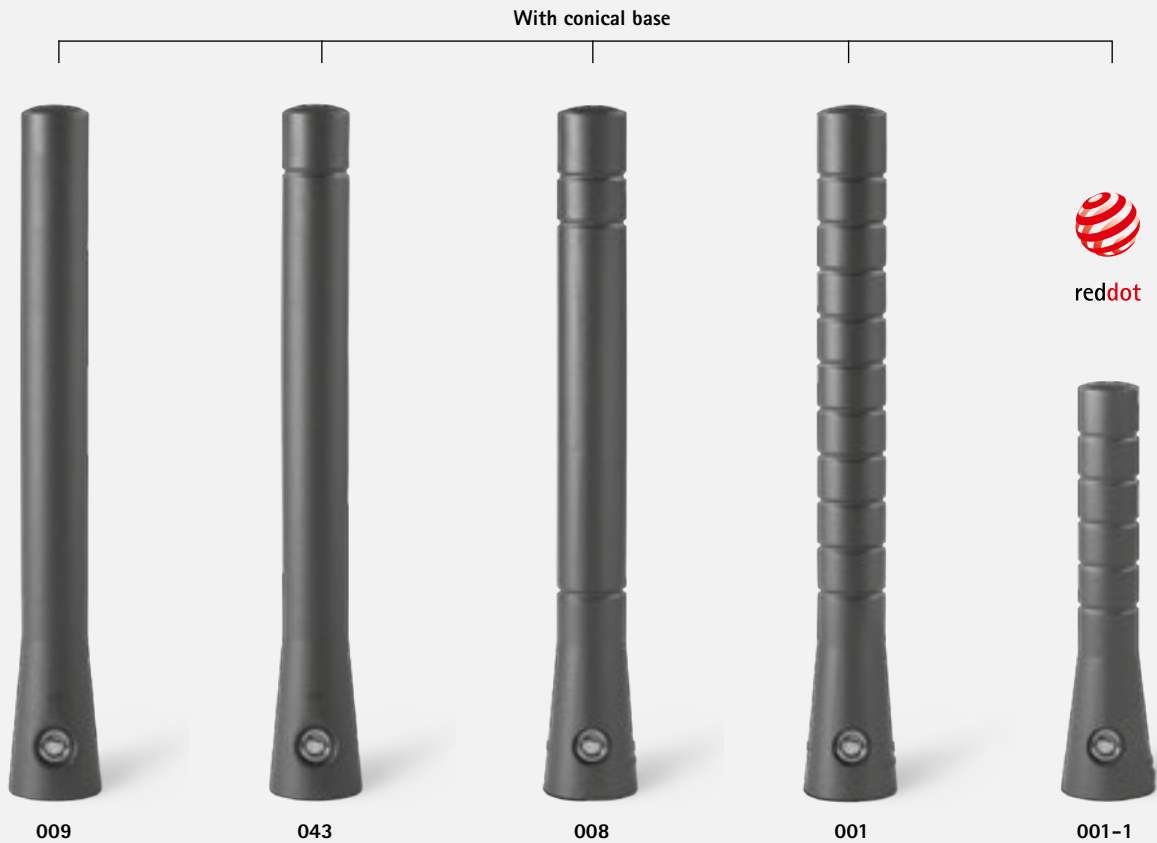
Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703

| | | | Fixed mounting | 3p-Technologie | 3p-High | Fold-down |
|----------------------|--------|-----------|--------------------|--------------------|----------------|----------------|
| Bollard 016 | 870 mm | 0 grooves | 016.001 | 016.020 | - | 016.005 |
| Bollard 027-1 | 600 mm | 1 groove | 027.001.060 | 027.020.060 | - | - |
| Bollard 027-2 | 870 mm | 1 groove | 027.001 | 027.020 | 027.030 | 027.005 |
| Bollard 010 | 870 mm | 3 grooves | 010.001 | 010.020 | - | 010.005 |





BOLLARD 009 | 043 | 008 | 001 | 001-1

Cast aluminium

Specifications

Cylindrical cast aluminium bollard with a slightly domed top and a conical base. Smooth or with one, three or ten circumferential groove(s).
(See online shop for product-related texts)

Mounting

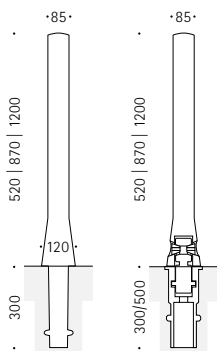
Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



Bollard 008 also available as Lighting Bollard 240 LED (see p. 73)



| | | | Fixed mounting | 3p-Technologie |
|----------------------|---------|------------|--------------------|--------------------|
| Bollard 009-1 | 870 mm | 0 grooves | 009.001 | 009.020 |
| Bollard 009-2 | 1200 mm | 0 grooves | 009.001.120 | 009.020.120 |
| Bollard 043 | 870 mm | 1 groove | 043.001 | 043.020 |
| Bollard 008 | 870 mm | 3 grooves | 008.001 | 008.020 |
| Bollard 001 | 870 mm | 10 grooves | 001.001 | 001.020 |
| Bollard 001-1 | 520 mm | 5 grooves | 001.011 | 001.040 |





1

- 1 BOLLARD 008 **Mersch** *Luxembourg*
- 2 BOLLARD 027-2 **Saarbrücken** *Germany*
- 3 BOLLARD 027-2 **Daun** *Germany*
- 4 BOLLARD 001 **Grevenmacher** *Luxembourg*
- 5 BOLLARD 001 **Luxembourg-Kirchberg** *Luxembourg*
- 6 BOLLARD 001 **Grevenmacher** *Luxembourg*



3



2



THE ABES CLASSICS

Design: hammer.runge.design | Registered design M 9801747.0



4



5



6



BOLLARD 031

031-1 | Cast aluminium | 870 mm
 031-2 | Cast aluminium | 1200 mm

Specifications

Cylindrical bollard made of cast aluminium, with a flat top.

Mounting

Removable with 3p-Technologie
 Alternative: concrete embedment

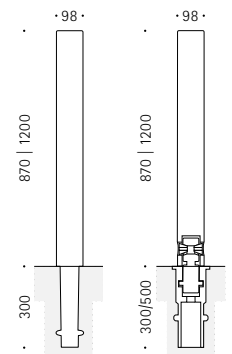
Finish

Powder coating in standard RAL colours or DB 703

| | | Fixed mounting | 3p-Technologie | 3p-High |
|----------------------|---------|--------------------|--------------------|----------------|
| Bollard 031-1 | 870 mm | 031.001 | 031.020 | 031.030 |
| Bollard 031-2 | 1200 mm | 031.001.120 | 031.020.120 | - |



Bollard 031-1 also available as **Lighting Bollard 210 LED** (see p. 70)





BOLLARD 061

Cast aluminium | 870 mm

Specifications

Cylindrical cast aluminium bollard with a flat top and a cast-in circumferential groove.

Mounting

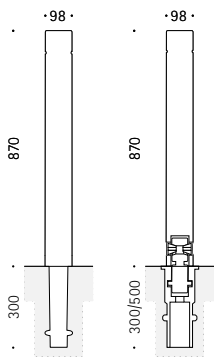
Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703

Note

Identical with Bollard 031, additionally: cast-in circumferential groove



| | Fixed mounting | 3p-Technologie | 3p-High |
|---------------------------|----------------|----------------|----------------|
| Bollard 061 870 mm | 061.001 | 061.020 | 061.030 |



1



2



3

1 BOLLARD 031-1
with 3p-Technologie
DB 703, 870 mm
Art. N° 031.020
Sandweiler Luxembourg

2-3 BOLLARD 031-1
with 3p-Technologie
DB 703, 870 mm
Art. N° 031.020
Rotondes Luxembourg



BOLLARD 060

Cast aluminium | 750 mm

Specifications

Cylindrical bollard made of cast aluminium with a flat top and a narrowed upper part with four intermitting, protruding rings.



Mounting

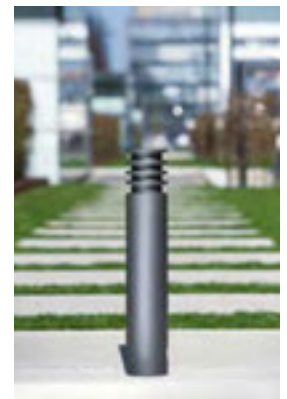
Removable with 3p-Technologie
Alternative: concrete embedment

Finish

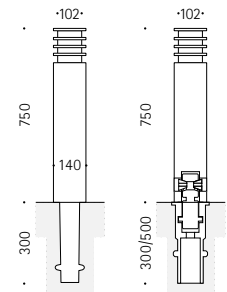
Powder coating in standard RAL colours or DB 703

| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 060 | 060.001 | 060.020 |

CA  



Design: Nico Turm



BOLLARD 032

Cast aluminium | 860 mm

Specifications

Rectangular cast aluminium bollard fitted flush with the top, with inward vertical walls.

Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



Note

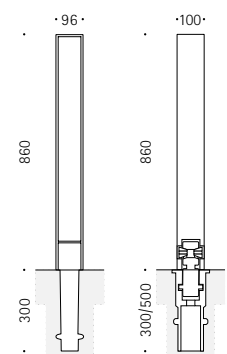
The ground rosette is part of the delivery (3p-Technologie)

Rosette 135 x 135 mm. Completely covers the ground shell

Material: S235 steel, hot-dip galvanised and powder-coated in bollard paint

| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 032 | 032.001 | 032.020 |

CA  





BOLLARD 012

Cast aluminium | 820 mm

Specifications

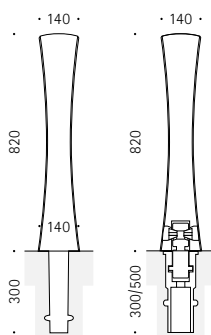
Cast aluminium bollard with a triangular base shape and a slightly domed top. The bollard tapers towards the middle.

Mounting

Removable with 3p-Technology
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



| | Fixed mounting | 3p-Technology | 3p-High |
|--------------------|----------------|----------------|----------------|
| Bollard 012 | 012.001 | 012.020 | 012.030 |



Design: hammerrunge.design | Registered design M 98017470



BOLLARD 002

Cast aluminium | 820 mm

Specifications

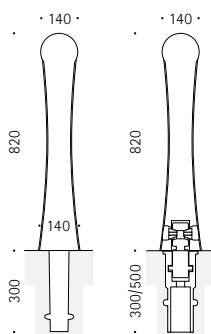
Bollard made of cast aluminium with a triangular base and a sphere set on top. The bollard tapers towards its centre.

Mounting

Removable with 3p-Technology
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



| | Fixed mounting | 3p-Technology |
|--------------------|----------------|----------------|
| Bollard 002 | 002.001 | 002.020 |



Design: hammerrunge.design | Registered design M 98017470

Detailed information can be found on the catalogue's back cover fold-out →



Design: hammer.rungedesign | Registered design M 9801747.0

BOLLARD 006-1

Cast aluminium | 870 mm

Specifications

Conical bollard made of cast aluminium with two cast-in eyelets at the top.

Mounting

Removable with 3p-Technologie

Alternative: concrete embedment

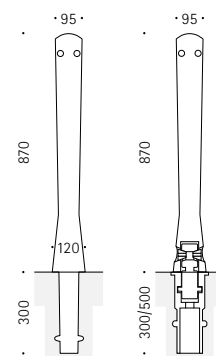
Finish

Powder coating in standard RAL colours or DB 703



| | Fixed mounting | 3p-Technologie |
|----------------------|----------------|----------------|
| Bollard 006-1 | 006.001 | 006.020 |

CA



1 BOLLARD 006-1
with 3p-Technologie
DB 703, 870 mm
Art. N° 006.020
Hörnum-Sylt Germany

2 BOLLARD 006-1
with 3p-Technologie
DB 703, 870 mm
Art. N° 006.020
Bunbury Australia

3 BOLLARD 006-2
with 3p-Technologie
DB 703, 870 mm
Art. N° 006.220
Walferdange Luxembourg





BOLLARD 006-2

Cast aluminium | 870 mm

Specifications

Bollard made of cast aluminium tapering towards its middle.

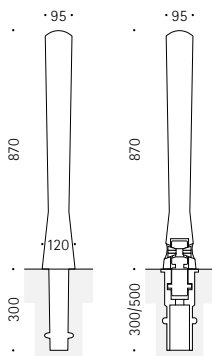
Mounting

Removable with 3p-Technologie

Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



| | Fixed mounting | 3p-Technologie |
|----------------------|----------------|----------------|
| Bollard 006-2 | 006.201 | 006.220 |



Design: hammerung.design | Registered design M 98017470





BOLLARD 034

Cast aluminium | 780 mm

Specifications

Cylindrical bollard made of cast aluminium with a cast, narrow groove that separates the slightly tapering top from the bollard and an accentuated cylindrical base.

Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

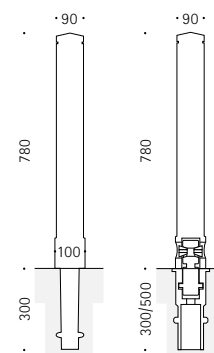
Powder coating in standard RAL colours or DB 703

| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 034 | 034.001 | 034.020 |

CA



3p-Technologie



BOLLARD 015 | 017

015 | Cast aluminium | 950 mm

017 | Cast aluminium | 750 mm

Specifications

Cylindrical bollard made of cast aluminium with an ornamental ring on the flat top and at the base.

Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

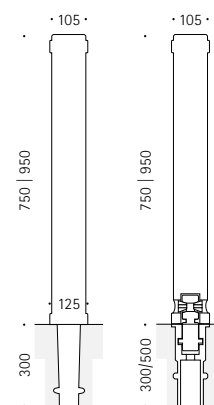
Powder coating in standard RAL colours or DB 703

| | | Fixed mounting | 3p-Technologie |
|--------------------|--------|----------------|----------------|
| Bollard 015 | 950 mm | 015.001 | 015.020 |
| Bollard 017 | 750 mm | 017.001 | 017.020 |

CA



3p-Technologie





Design: Thomas Wüsten - GFP

BOLLARD 024

Cast aluminium | 870 mm

Specifications

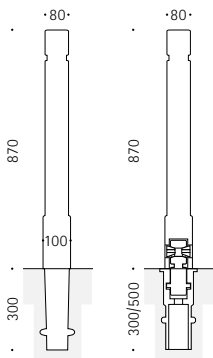
Cylindrical bollard made of cast aluminium with a cast recess separating the bollard optically from its top and a distinct cylindrical base.

Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 024 | 024.001 | 024.020 |



BOLLARD 021

021-1 | Cast aluminium | 600 mm

021-2 | Cast aluminium | 900 mm

Specifications

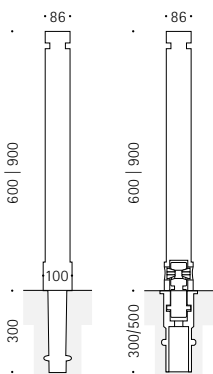
Cylindrical cast aluminium bollard with a flat top by an accentuated by an elongated recess.

Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



| | | Fixed mounting | 3p-Technologie |
|----------------------|--------|--------------------|--------------------|
| Bollard 021-1 | 600 mm | 021.001.060 | 021.020.060 |
| Bollard 021-2 | 900 mm | 021.001.090 | 021.020.090 |



Detailed information can be found on the catalogue's back cover fold-out →



BOLLARD 038

Cast aluminium | 830 mm

Specifications

Cylindrical cast aluminium bollard with a circumferential ring below the spherical top piece.

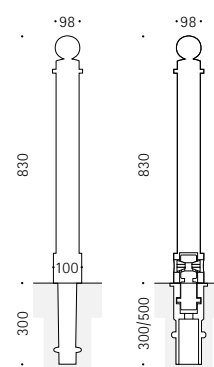
Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703

| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 038 | 038.001 | 038.020 |



BOLLARD 040

Cast aluminium | 900 mm

Specifications

Cylindrical cast aluminium bollard with a top sphere, a peripheral ring below the top, and another ring above the pedestal.

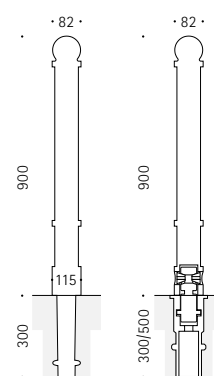
Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703

| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 040 | 040.001 | 040.020 |





BOLLARD 014

- 014-1 | Cast aluminium | 900 mm
- 014-2 | Cast aluminium | 1000 mm
- 014-3 | Cast aluminium | 1300 mm

Specifications

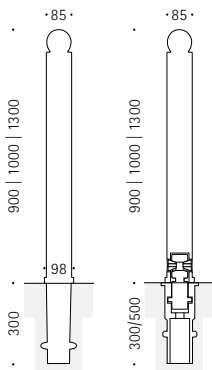
Smooth cylindrical bollard made of cast aluminium with a sphere on the top.

Mounting

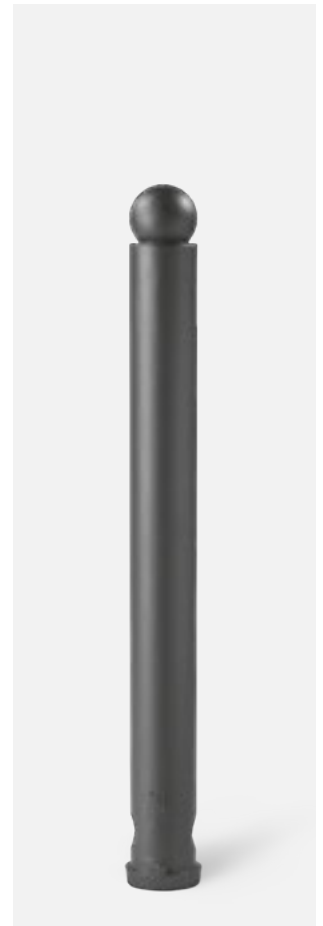
Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



| | | Fixed mounting | 3p-Technologie |
|----------------------|---------|--------------------|--------------------|
| Bollard 014-1 | 900 mm | 014.001 | 014.020 |
| Bollard 014-2 | 1000 mm | 014.001.100 | 014.020.100 |
| Bollard 014-3 | 1300 mm | 014.001.130 | 014.020.130 |



BOLLARD 029

Cast aluminium | 900 mm

Specifications

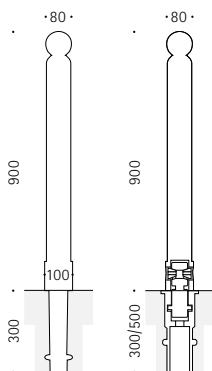
Cylindrical smooth bollard made of cast aluminium with a spherical top.

Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



| | | Fixed mounting | 3p-Technologie |
|--------------------|--|----------------|----------------|
| Bollard 029 | | 029.001 | 029.020 |



Detailed information can be found on the catalogue's back cover fold-out →



BOLLARD 018

Cast aluminium | 850 mm

Specifications

Bollard made of cast aluminium with a cylindrical base on a pedestal, several indentations and rings and a sphere on top.

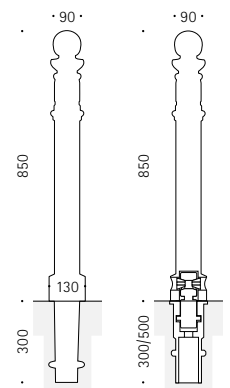
Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703

| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 018 | 018.001 | 018.020 |



BOLLARD 062

Cast aluminium | 910 mm

Specifications

Cylindrical bollard made of cast aluminium with a two-part base and a protruding ring below the enlarged spherical head.

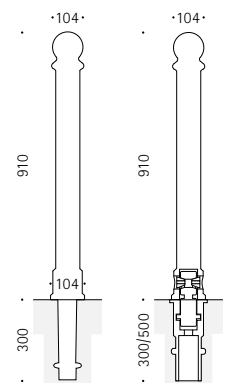
Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703

| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 062 | 062.001 | 062.020 |





BOLLARD 023

Cast aluminium | 910 mm

Specifications

Cylindrical bollard made of cast aluminium with a top sphere, with a horizontal indentation, and an accentuated base.

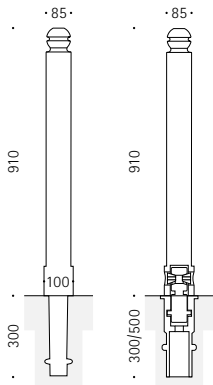
Mounting

Removable with 3p-Technology

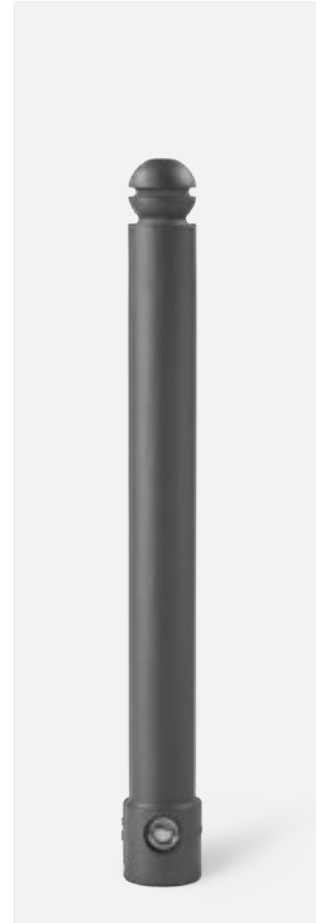
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



| | Fixed mounting | 3p-Technology | 3p-High |
|--------------------|----------------|----------------|----------------|
| Bollard 023 | 023.001 | 023.020 | 023.030 |



BOLLARD 007

Cast aluminium | 905 mm

Specifications

Cylindrical bollard with a smooth surface, made of cast aluminium with a circumferential groove and a leveled sphere as top piece.

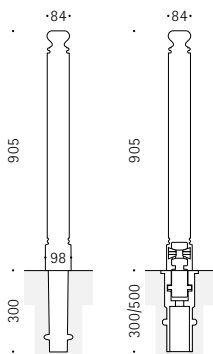
Mounting

Removable with 3p-Technology

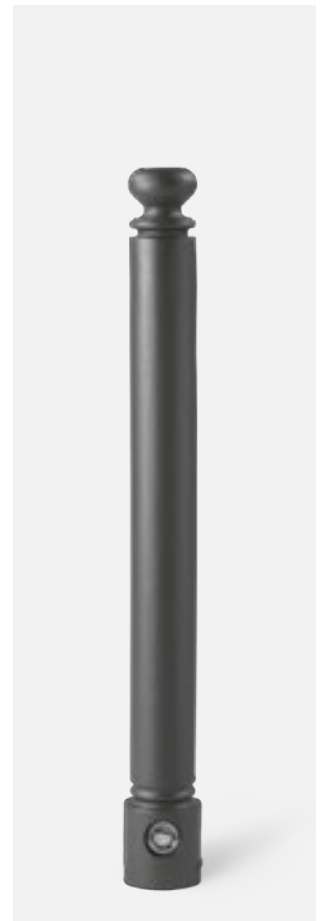
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



| | Fixed mounting | 3p-Technology | 3p-High |
|--------------------|----------------|----------------|----------------|
| Bollard 007 | 007.001 | 007.020 | 007.030 |





BOLLARD 005-1

Cast aluminium | 890 mm

Specifications

Cylindrical bollard made of cast aluminium with three multilayered rings, as well as a spherical top piece.

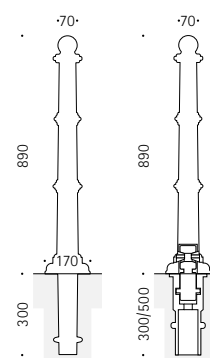
Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703

| | Fixed mounting | 3p-Technologie |
|----------------------|----------------|----------------|
| Bollard 005-1 | 005.001 | 005.020 |



BOLLARD 005-2

Cast aluminium | 900 mm

Specifications

Cylindrical bollard made of cast aluminium with two multilayered rings, a cylindrical base about 100 mm high and a sphere as top piece.

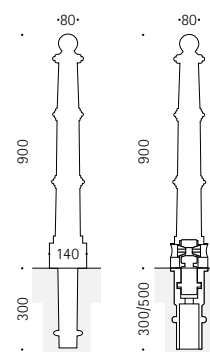
Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703

| | Fixed mounting | 3p-Technologie |
|----------------------|----------------|----------------|
| Bollard 005-2 | 005.201 | 005.220 |





BOLLARD 068

Cast aluminium | 950 mm

Specifications

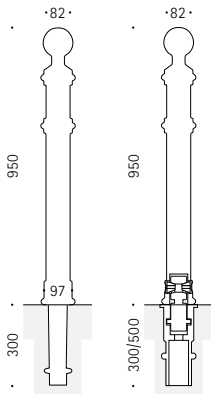
Cylindrical bollard made of cast aluminium surrounded by two multilayered rings and a tapering cone on top.

Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 068 | 068.001 | 068.020 |



BOLLARD 025

Cast aluminium | 850 mm

Specifications

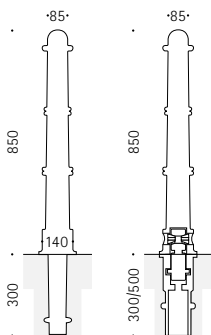
Cylindrical bollard made of cast aluminium with two paired rings and a ring below a flattened hemisphere at the top.

Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 025 | 025.001 | 025.020 |



Detailed information can be found on the catalogue's back cover fold-out →



BOLLARD 039

Cast aluminium | 870 mm

Specifications

Cylindrical bollard made of cast aluminium, with a revolving three split ring below the hemispherical top, as well as above the base.

Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

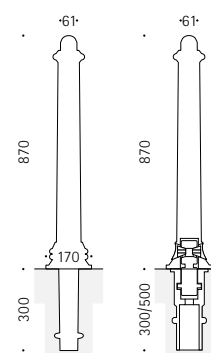
Finish

Powder coating in standard RAL colours or DB 703

| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 039 | 039.001 | 039.020 |



3p-Technologie



BOLLARD 028

Cast aluminium | 900 mm

Specifications

Cylindrical bollard made of cast aluminium with a two-part base and a hemisphere on top, separated by a ring.

Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

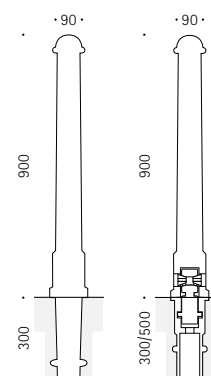
Finish

Powder coating in standard RAL colours or DB 703

| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 028 | 028.001 | 028.020 |



3p-Technologie





BOLLARD 004

Cast aluminium | 820 mm

Specifications

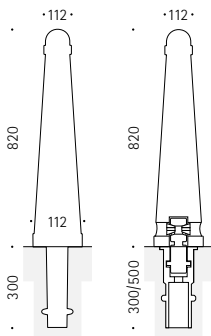
Cone-shaped bollard made of cast aluminium with a circumferential ring which optically separates the top from the rest of the bollard, and a second broader circumferential ring at the base.

Mounting

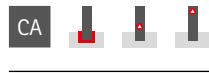
Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



| | Fixed mounting | 3p-Technologie | 3p-High |
|--------------------|----------------|----------------|----------------|
| Bollard 004 | 004.001 | 004.020 | 004.030 |



BOLLARD 013

Cast aluminium | 820 mm

Specifications

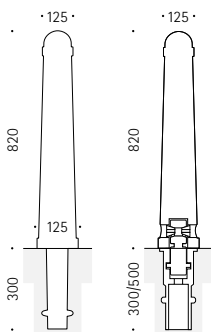
Slightly cone-shaped bollard made of cast aluminium with a circumferential ring which optically separates the top from the rest of the bollard, and a second broader circumferential ring at the base.

Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



| | Fixed mounting | 3p-Technologie | 3p-High |
|--------------------|----------------|----------------|----------------|
| Bollard 013 | 013.001 | 013.020 | 013.030 |



Detailed information can be found on the catalogue's back cover fold-out →



Design: hammer.rungedesign | Registered design M 9801747.0

BOLLARD 011

Cast aluminium | 860 mm

Specifications

Oval bollard made of cast aluminium with a spiral-shaped head and a protruding vertical joint.

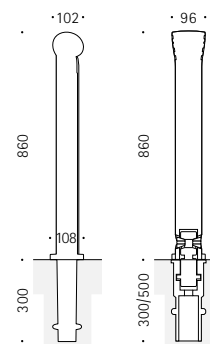
Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703

| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 011 | 011.001 | 011.020 |



BOLLARD 041

Cast aluminium | 925 mm

Specifications

Subdivided cast aluminium bollard on a hexagonal base, tapering towards the top and ending in an acorn-shaped figure. The six sides show rectangular, cast-in recesses.

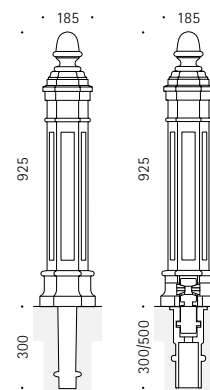
Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703

| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 041 | 041.001 | 041.020 |





BOLLARD 020

Cast aluminium | 895 mm

Specifications

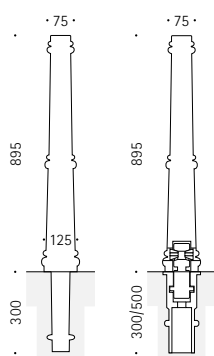
Cylindrical bollard made of cast aluminium with three circumferential paired rings, several vertical recesses and a flat top.

Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 020 | 020.001 | 020.020 |



BOLLARD 022

Cast aluminium | 935 mm

Specifications

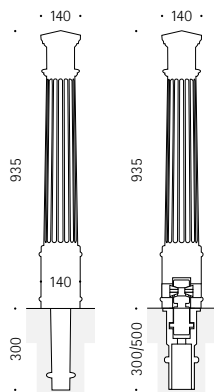
Slightly conical bollard made of cast aluminium with several vertical recesses in the middle section. The upper section is accentuated by a circumferential ring, a smooth surface and a slightly protruding tapering top piece. The base is characterised by a smooth shell enclosed by two rings.

Mounting

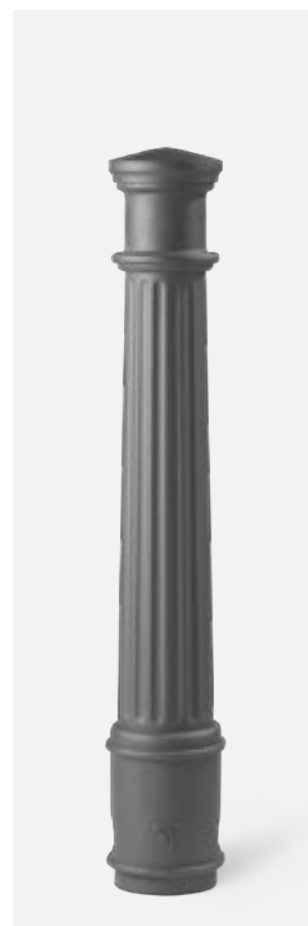
Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 022 | 022.001 | 022.020 |



Detailed information can be found on the catalogue's back cover fold-out →



Design: hammer.rungedesign | Registered design M 9801747.0

BOLLARD 003

Cast aluminium | 738 mm

Specifications

Cylindrical bollard made of cast aluminium with twelve window-like cast indentations, a protruding top and a distinct cylindrical base.

Mounting

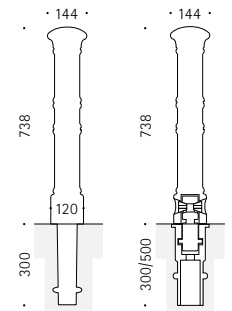
Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 003 | 003.001 | 003.020 |



1-2 BOLLARD 003

with 3p-Technologie

RAL 7016, 738 mm

Art. N° 003.020

Echternach *Luxembourg*





BOLLARD 019

Cast aluminium | 850 mm

Specifications

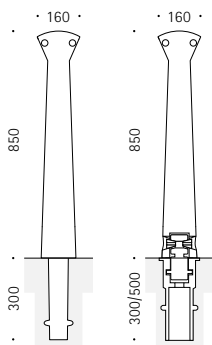
Conical cast aluminium bollard with four wing-like side parts which taper further up into eyelets. The top is domed.

Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



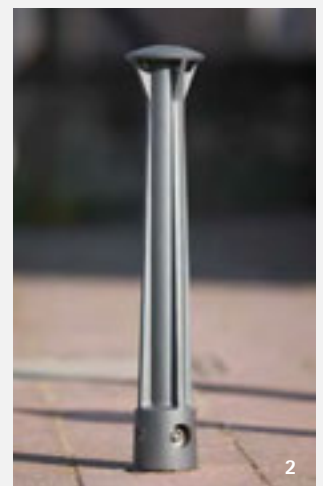
| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 019 | 019.001 | 019.020 |



1-2 BOLLARD 019

with 3p-Technologie
DB 703, 850 mm
Art. N° 019.020

Nommern Luxembourg





BOLLARD 057

Cast aluminium | 150 · 1000 mm

Specifications

Cylindrical bollard made of cast aluminium with a flat top and a broad ring-shaped recess in the upper region.

Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

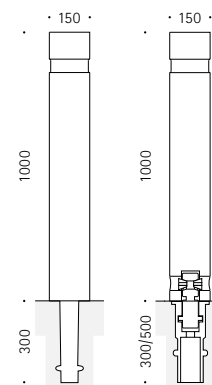
Finish

Powder coating in standard RAL colours or DB 703

| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 057 | 057.001 | 057.020 |



Bollard 057 also available as
Lighting Bollard 230 LED
(see p. 72)



BOLLARD 058

Cast aluminium | 250 · 1000 mm

Specifications

Cylindrical bollard made of cast aluminium with a flat top and a broad ring-shaped recess in the upper region.

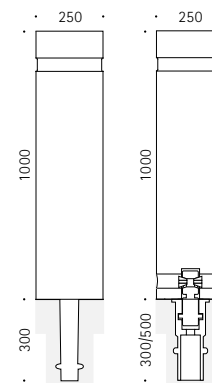
Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703

| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 058 | 058.001 | 058.020 |





Bollard 055-1 also available as **Lighting Bollard 220 LED** (see p. 71)

BOLLARD 037-1 | 055-1

037-1 | Cast aluminium | 220 · 720 mm

055-1 | Cast aluminium | 180 · 600 mm

Specifications

Cylindrical bollard made of cast aluminium with a flat top.

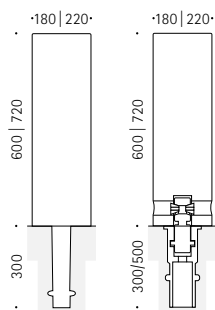
Mounting

Removable with 3p-Technology

Alternative: concrete embedment

Finish

Powder coating in standard RAL colours or DB 703



| | | Fixed mounting | 3p-Technology |
|----------------------|--------------|----------------|----------------|
| Bollard 037-1 | 220 · 720 mm | 037.001 | 037.020 |
| Bollard 055-1 | 180 · 600 mm | 055.001 | 055.020 |



1 BOLLARD 055-1
with 3p-Technology
DB 703, 180 · 600 mm
Art. N° 055.020
Cologne Germany

2-3 BOLLARD 058
with 3p-Technology
DB 703, 250 · 1000 mm
Art. N° 058.020
Manchester Great Britain





BOLLARD 069

Cast aluminium | 800 mm

Specifications

Cylindrical cast aluminium bollards with a wide, circular recess at the top and a tapering base.

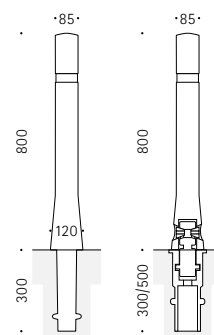
Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

- Powder coating in standard RAL colours or DB 703
- Reflective tape protected in the recess

| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 069 | 069.001 | 069.020 |



BOLLARD 070

Cast aluminium | 880 mm

Specifications

Cylindrical cast aluminium bollards with a wide, circular recess at the top and a cylindrical base.

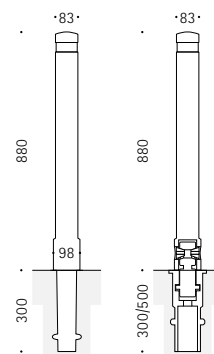
Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

- Powder coating in standard RAL colours or DB 703
- Reflective tape protected in the recess

| | Fixed mounting | 3p-Technologie |
|--------------------|----------------|----------------|
| Bollard 070 | 070.001 | 070.020 |





BOLLARD 064

Cast aluminium | 1200 mm

Specifications

Square bollard made of cast aluminium with a flat top.

Mounting

Removable with 3p-Technology

Alternative: concrete embedment

Finish

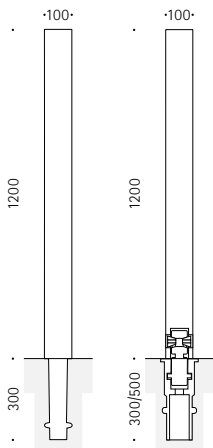
Powder coating in standard RAL colours or DB 703

Note

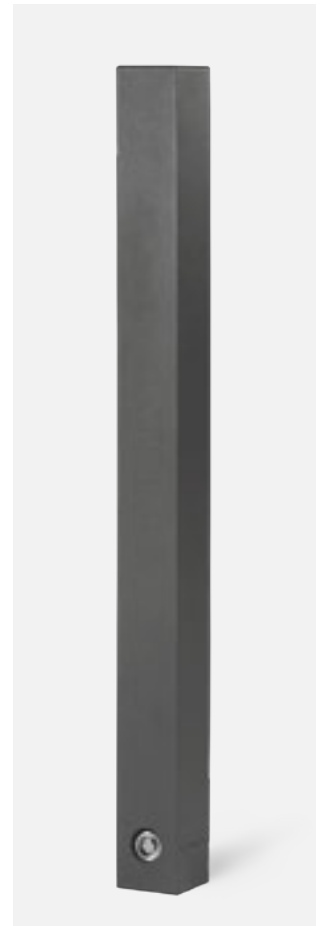
The ground rosette is part of the delivery (3p-Technology)

Completely covers the ground shell

Material: S235 steel, hot-dip galvanised and powder-coated in bollard paint



| | Fixed mounting | 3p-Technology |
|--------------------|----------------|----------------|
| Bollard 064 | 064.001 | 064.020 |



BOLLARD 071

Cast aluminium | 937 mm

Specifications

Square cast aluminium bollards with rounded corners, a wide circular recess at the top, and flat head piece.

Mounting

Removable with 3p-Technology

Alternative: concrete embedment

Finish

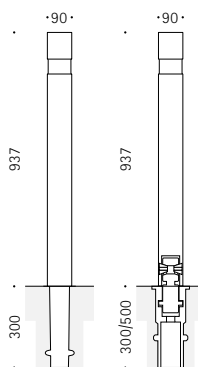
Powder coating in standard RAL colours or DB 703

Note

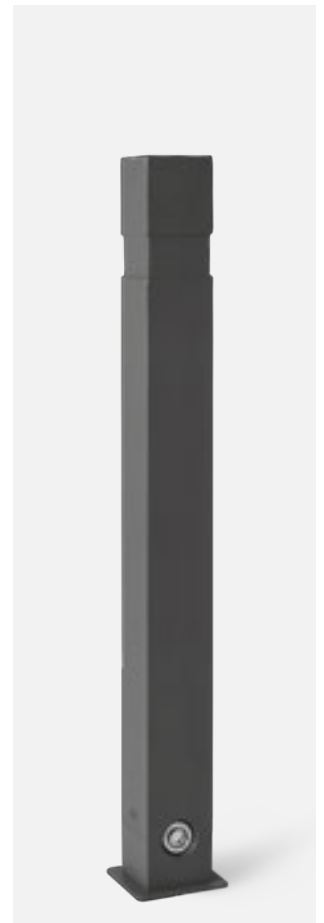
The ground rosette is part of the delivery (3p-Technology)

Completely covers the ground shell

Material: S235 steel, hot-dip galvanised and powder-coated in bollard paint



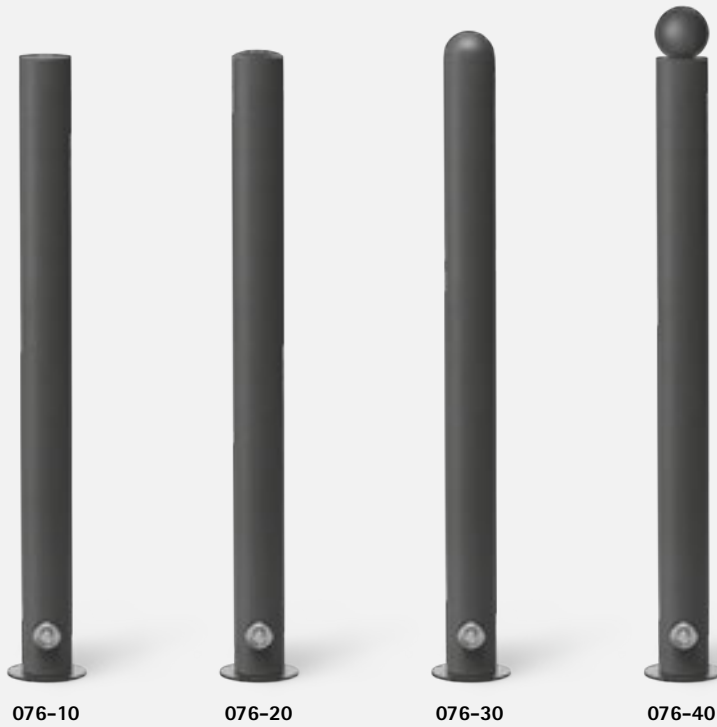
| | Fixed mounting | 3p-Technology |
|--------------------|----------------|----------------|
| Bollard 071 | 071.001 | 071.020 |



Detailed information can be found on the catalogue's back cover fold-out →

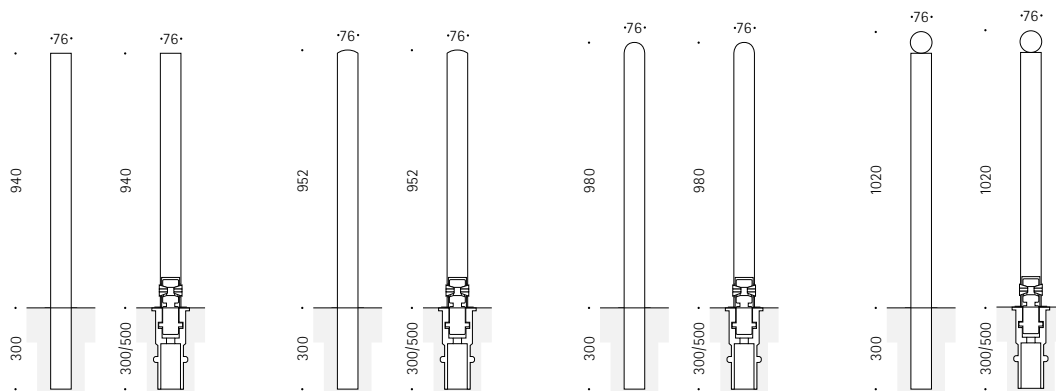
BOLLARD 076

Steel



Diameter 76 mm:

Suitable for multipurpose clips to fasten signs, bins, dog waste containers etc.



BOLLARD 076*Steel***Specifications**

- 076-10** Cylindrical bollard made of galvanised steel with flat top.
- 076-20** Cylindrical bollard made of galvanised steel with slightly curved top.
- 076-30** Cylindrical bollard made of galvanised steel with round top.
- 076-40** Cylindrical bollard made of galvanised steel with a spherical top.

Mounting

- Removable with 3p-Technology
- Alternative: concrete embedment
- Optional: with flange to enable screwing

Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Stainless steel 1.4301 on request
- Suitable for multipurpose clips to fasten signs, bins, dog waste containers etc.
- Height can be adjusted on customer request

Note

- The ground rosette is part of the delivery (for 3p-Technology)
- Completely covers the ground shell
- Material: S235 steel, hot-dip galvanised and powder-coated in bollard paint



| | Top shape | Material | Fixed mounting | 3p-Technology |
|-----------------------|-----------------|--------------------------------------|----------------|----------------|
| Bollard 076-10 | Flat | Steel S235, galvanised | 076.201 | 076.220 |
| | | Steel S235, galvanised/powder-coated | 076.301 | 076.320 |
| Bollard 076-20 | Slightly curved | Steel S235, galvanised | 076.001 | 076.020 |
| | | Steel S235, galvanised/powder-coated | 076.101 | 076.120 |
| Bollard 076-30 | Round | Steel S235, galvanised | 076.401 | 076.420 |
| | | Steel S235, galvanised/powder-coated | 076.501 | 076.520 |
| Bollard 076-40 | Spherical | Steel S235, galvanised/powder-coated | 076.701 | 076.720 |





BOLLARD 042

042-1 | *Steel + Stainless steel* | 1000 mm

042-2 | *Steel + Stainless steel* | 1200 mm

Specifications

Cylindrical galvanised steel bollard with a slightly domed top.

Mounting

Removable with 3p-Technology

Alternative: concrete embedment

Optional: with flange to enable screwing

Finish

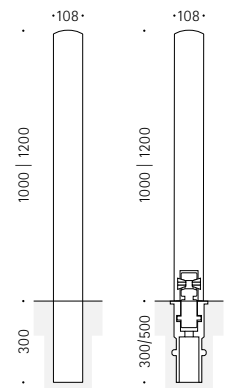
· Stainless steel 1.4301 smoothed, grain 240

Optional: electropolished/high-gloss

· Steel S235, galvanised with powder coating in standard RAL colours or DB 703

· Height can be adjusted on customer request

| | | | Fixed mounting | 3p-Technology | 3p-High |
|----------------------|------|---------------|--------------------|--------------------|--------------------|
| Bollard 042-1 | 1000 | Steel | 042.001 | 042.020 | 042.030 |
| Bollard 042-2 | 1200 | Steel | 042.001.120 | 042.020.120 | 042.030.120 |
| Bollard 042-1 | 1000 | Stainl. Steel | 042.101 | 042.120 | 042.130 |
| Bollard 042-2 | 1200 | Stainl. Steel | 042.101.120 | 042.120.120 | 042.130.120 |



BOLLARD 056

Steel + Stainless steel | 1000 mm

Specifications

Fully cylindrical bollard made of galvanised steel/stainless steel, including a circumferential groove and a slightly domed top.

Mounting

Removable with 3p-Technology

Alternative: concrete embedment

Optional: with flange to enable screwing

Finish

· Stainless steel 1.4301 smoothed, grain 240

Optional: electropolished/high-gloss

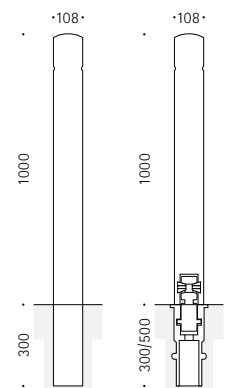
· Steel S235, galvanised with powder coating in standard RAL colours or DB 703

· Height can be adjusted on customer request

Note

Identical with Bollard 042, additionally: circumferential groove

| | | Fixed mounting | 3p-Technology | 3p-High |
|--------------------|-----------------|----------------|----------------|----------------|
| Bollard 056 | Steel | 056.001 | 056.020 | 056.030 |
| Bollard 056 | Stainless steel | 056.101 | 056.120 | 056.130 |





BOLLARD 079

Steel + Stainless steel | 1097 mm

Specifications

Fully cylindrical bollard with a slanted top.

Mounting

Removable with 3p-Technology

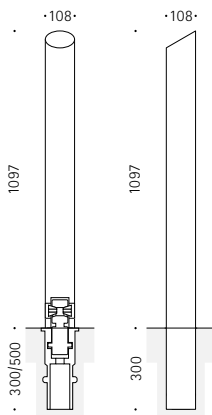
Alternative: concrete embedment or with flange to enable screwing

Finish

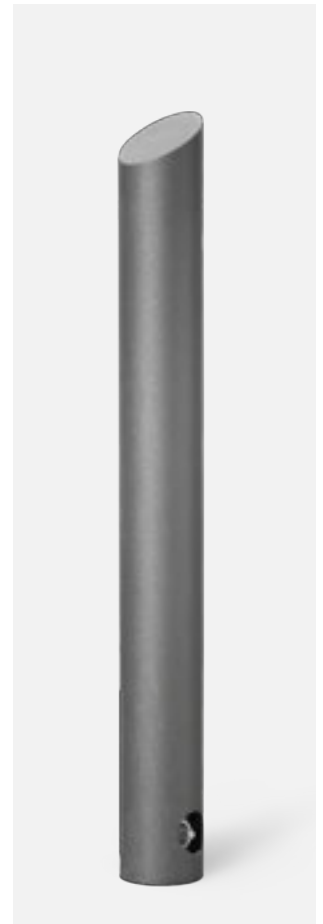
- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Height can be adjusted on customer request

Note

Also available with a cigarette slot, see Bollard-Ashtray 525



| | | Fixed mounting | 3p-Technology | For screwing |
|--------------------|-----------------|----------------|----------------|----------------|
| Bollard 079 | Steel S235 | 079.201 | 079.220 | 079.240 |
| Bollard 079 | Stainless steel | 079.301 | 079.320 | 079.340 |



BOLLARD-ASHTRAY 525

Steel + Stainless steel | 1097 mm

Specifications

Fully cylindrical bollard ashtray with a sloping slot area. Labelling in the form of an outlined, laser-printed cigarette symbol.

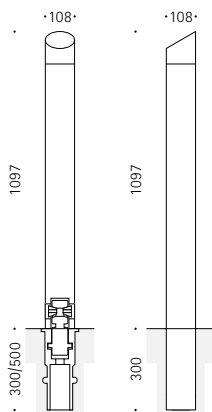
Mounting

Removable with 3p-Technology

Alternative: concrete embedment or with flange to enable screwing

Finish

- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- May be unlocked for emptying using a triangular key
- Height can be adjusted on customer request



| | | Fixed mounting | 3p-Technology | For screwing |
|------------|------------------------|----------------|----------------|----------------|
| 525 | Steel S235 | 525.001 | 525.020 | 525.040 |
| 525 | Stainless steel 1.4301 | 525.011 | 525.022 | 525.140 |





BOLLARD 059

Steel | 900 mm

Specifications

Square bollard made of flat steel with two open sides, a horizontal divider in the middle, and a solid base.

Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Height can be adjusted on customer request

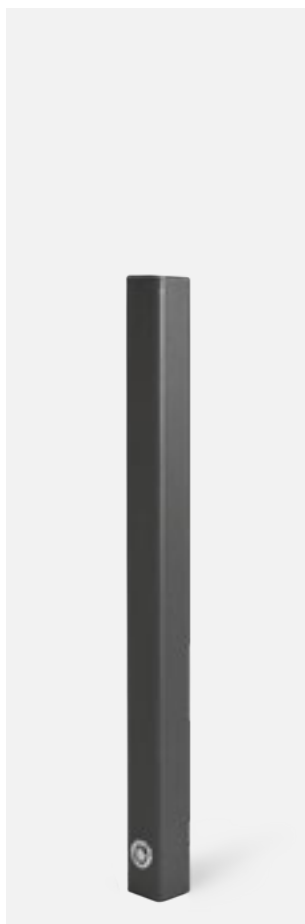
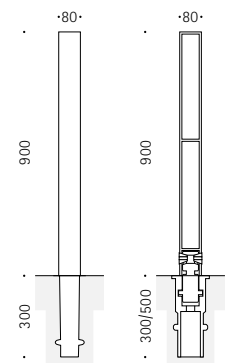
Note

The ground rosette is part of the delivery (3p-Technologie)

Completely covers the ground shell

Material: S235 steel, hot-dip galvanised and powder-coated in bollard paint

| | | Fixed mounting | 3p-Technologie |
|--------------------|---------------|----------------|----------------|
| Bollard 059 | Galvanised | 059.001 | 059.020 |
| Bollard 059 | Powder-coated | 059.101 | 059.120 |



BOLLARD 066

Steel | 900 mm

Specifications

Square steel bollard with slightly rounded corners and a flat, square top.

Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Height can be adjusted on customer request

Note

The ground rosette is part of the delivery (3p-Technologie)

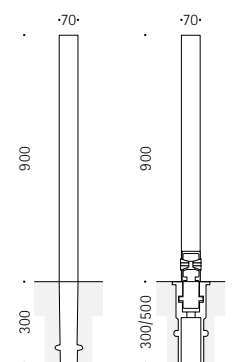
Completely covers the ground shell

Material: S235 steel, hot-dip galvanised and powder-coated in bollard paint

| | | Fixed mounting | 3p-Technologie |
|--------------------|---------------|----------------|----------------|
| Bollard 066 | Galvanised | 066.001 | 066.020 |
| Bollard 066 | Powder-coated | 066.101 | 066.120 |

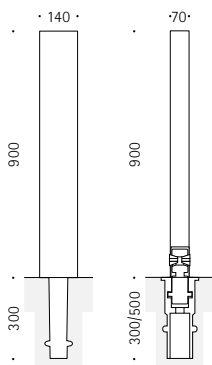


Bollard 066 also available as **Lighting Bollard 266 LED** (see p. 75)





Bollard 065 also available as **Lighting Bollard 265 LED** (see p. 74)



BOLLARD 065

Steel | 900 mm

Specifications

Rectangular bollard made of steel with a flat top.

Mounting

Removable with 3p-Technology

Alternative: concrete embedment

Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Height can be adjusted on customer request

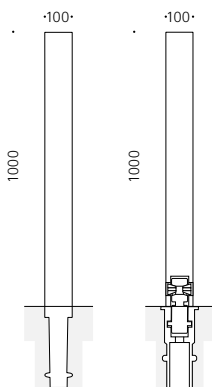
Note

The ground rosette is part of the delivery (3p-Technology)

Completely covers the ground shell

Material: S235 steel, hot-dip galvanised and powder-coated in bollard paint

| | Fixed mounting | 3p-Technology |
|--------------------|----------------|----------------|
| Bollard 065 | 065.001 | 065.020 |



BOLLARD 063

Steel | 1000 mm

Specifications

Square bollard made of galvanised steel with rounded corners (approx. 15 mm radius) and a flat top.

Mounting

Removable with 3p-Technology

Alternative: concrete embedment

Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Height can be adjusted on customer request

Note

The ground rosette is part of the delivery (3p-Technology)

Completely covers the ground shell

Material: S235 steel, hot-dip galvanised and powder-coated in bollard paint

| | Fixed mounting | 3p-Technology |
|--------------------|----------------|----------------|
| Bollard 063 | 063.001 | 063.020 |





BOLLARD 089

Steel + Stainless steel | 750 mm

Specifications

Fully cylindrical bollard made of galvanised steel/stainless steel, with a slightly curved top end.

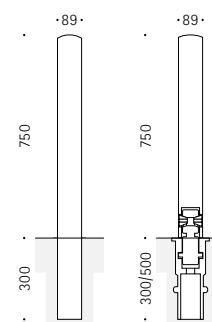
Mounting

Removable with 3p-Technologie
 Alternative: concrete embedment
 Optional: with flange to enable screwing

Finish

- Stainless steel 1.4301 smoothed, grain 240
 Optional: electropolished/high-gloss or glass bead blasted
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Height can be adjusted on customer request

| | | Fixed mounting | 3p-Technologie |
|--------------------|-----------------|----------------|----------------|
| Bollard 089 | Steel | 089.001 | 089.020 |
| Bollard 089 | Stainless steel | 089.101 | 089.120 |



BOLLARD 074

Stahl + Stainless steel | 1000 mm

Specifications

Square steel bollard with slightly pyramidal square top.

Mounting

Removable with 3p-Technologie
 Alternative: concrete embedment

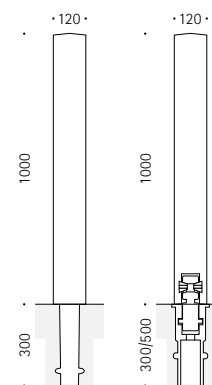
Finish

- Stainless steel 1.4301 smoothed, grain 240
 Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Height can be adjusted on customer request

Note

The ground rosette is part of the delivery (3p-Technologie)
 Completely covers the ground shell
 Material: S235 steel, hot-dip galvanised and powder-coated in bollard paint

| | | Fixed mounting | 3p-Technologie |
|--------------------|-----------------|----------------|----------------|
| Bollard 074 | Steel | 074.001 | 074.020 |
| Bollard 074 | Stainless steel | 074.101 | 074.120 |





BOLLARD 037-2 | 055-2

037-2 | Steel | 220 · 720 mm

055-2 | Steel | 180 · 600 mm

Specifications

Cylindrical bollard made of steel with a slightly domed top.

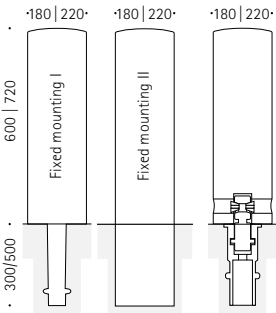
Mounting

Removable with 3p-Technology

Alternative: concrete embedment (see illustration Fixed mounting I and II)

Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Stainless steel 1.4301 on request
- 2 fixed installation versions (see illustration Fixed mounting I and II)
- Height can be adjusted on customer request



| | | Fixed mounting I | Fixed mounting II | 3p-Technology |
|----------------------|--------------|------------------|-------------------|----------------|
| Bollard 037-2 | 220 · 720 mm | 037.101 | 037.102 | 037.120 |
| Bollard 055-2 | 180 · 600 mm | 055.101 | 055.102 | 055.120 |



1-3 BOLLARD 037-2

with 3p-Technology

DB 703, 220 · 720 mm

Art. N° 037.120

Esch-Belval Luxembourg



FUNCTION BOLLARDS & LIGHTING BOLLARDS



1: Lighting-Bollard 210 LED *page 70* | 2: Lighting-Bollard 220 LED *page 71*
3: Feeder-Bollard 300-2 *page 69*





- Suitable for playgrounds and sports fields
- Low risk of injury due to rubber granulate
- High stability due to internal steel tube
- Can be used as seat



BOLLARD 026

026-1 | Rubber granulate | 600 mm
026-2 | Rubber granulate | 900 mm

Specifications

Dual waisted bollard made of rubber granulate with a distinct top, middle and base section.

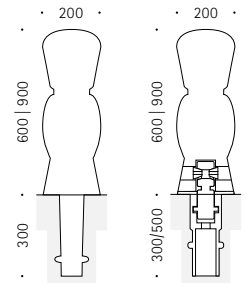
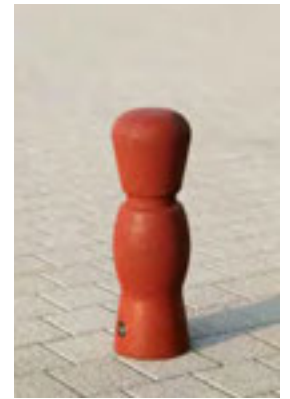
Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

Finish

- Rubber granulate (anthracite)
- Available colours (not RAL): reddish-brown (see photo), grey, green

| | | Fixed mounting | 3p-Technologie |
|----------------------|--------|----------------|----------------|
| Bollard 026-1 | 600 mm | 026.001 | 026.020 |
| Bollard 026-2 | 900 mm | 026.101 | 026.120 |



SEATING-BOLLARD 105

Cast aluminium | 450 mm

Specifications

One-piece seat bollard made of cast aluminium with small diamond-shaped apertures in the circular seat supported by a cylindrical leg, tapering slightly at the base.

Mounting

Removable with 3p-Technologie
Alternative: concrete embedment

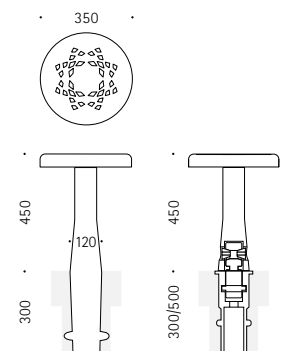
Finish

- Powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge



Design: Charles O. Job | Registered design 129813

| | Fixed mounting | 3p-Technologie |
|----------------------------|----------------|----------------|
| Seating-Bollard 105 | 105.001 | 105.101 |



BOLLARD-ASHTRAY 525

Steel + Stainless steel | 1097 mm

Specifications

Fully cylindrical bollard ashtray with a sloping slot area. Labelling in the form of an outlined, laser-printed cigarette symbol.

Mounting

Removable with 3p-Technology

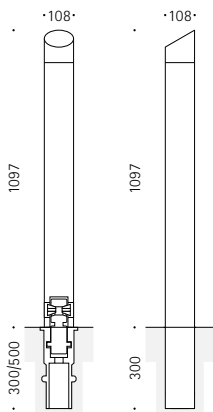
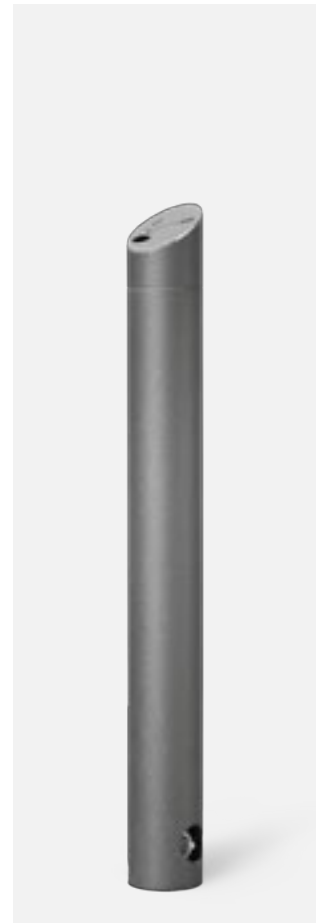
Alternative: concrete embedment or with flange to enable screwing

Finish

- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- May be unlocked for emptying using a triangular key
- Height can be adjusted on customer request

Note

Identical with Bollard 079 (without ashtray), see page 59



| | | Fixed mounting | 3p-Technology | For Screwing |
|----------------------------|-----------------|----------------|----------------|----------------|
| Bollard-Ashtray 525 | Steel | 525.001 | 525.020 | 525.040 |
| Bollard-Ashtray 525 | Stainless steel | 525.011 | 525.022 | 525.140 |



The only bollard ashtray with predetermined breaking point





Registered design

FEEDER-BOLLARD 300-1

Steel | 1335 mm

Specifications

Cylindrical tube with two grooves at the top and a flattened upper end. Access to the internal circuit via a lockable door, including cable slide. IP Code IP44.

Mounting

Screw-on inside the bollard

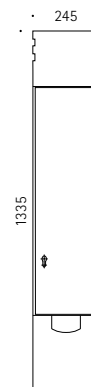
Finish

- Hot-dip galvanised steel S235, cast aluminium top, powder coating in standard RAL colours or DB 703
- Standard design with adapter plate without electricity and water connections
- Incl. cable slide (operation possible with the flap closed)

► Equipment with either electrical or water connection possible at an additional cost.



| | Fixed mounting |
|----------------------|----------------|
| Feeder-Bollard 300-1 | 300.010 |



FEEDER-BOLLARD 300-1

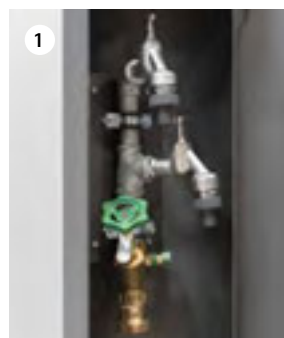
EII Luxembourg



FEEDER-BOLLARD 300-1 AND 300-2

1 Fittings for electrical or water connection (optional)

Example: Water connection with two 3/4" tapping points with hose coupling and an emptying facility before periods of frost.



2 Incl. cable feeder

Wires can be led out through the cable feeder, enabling operation even when the flap is closed.

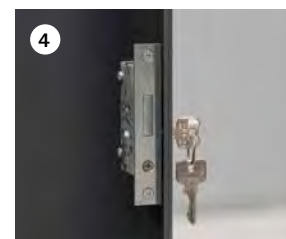


3 Lockable access panel

With profile cylinder lock



4 Delivery incl. 3 keys





FEEDER-BOLLARD 300-2

Steel | 1340 mm

Specifications

Cylindrical tube with a circumferential set-on ring in the top section as well as a hemispherical upper closure. Access to the internal circuit via a lockable door, including cable slide. IP Code IP44.

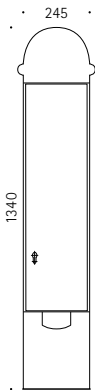
Mounting

Screw-on inside the bollard

Finish

- Hot-dip galvanised steel S235, cast aluminium top, powder coating in standard RAL colours or DB 703
- Standard design with adapter plate without electricity and water connections
- Incl. cable slide (operation possible with the flap closed)

► Equipment with either electrical or water connection possible at an additional cost.



| | |
|-----------------------------|----------------|
| | Fixed mounting |
| Feeder-Bollard 300-2 | 300.020 |



1 FEEDER-BOLLARD 300-2
Daun Germany

**2 FEEDER-BOLLARD 300-1/
FEEDER-BOLLARD 300-2**
Mersch Luxembourg



LED – BLAZING ROLE MODELS

The LED lighting bollards 210, 220, 230 and 240 are setting an example in matters of energy consumption. With a power consumption of less than 4 watts per hour, they significantly reduce the urban electricity costs compared to conventional light sources.

All these models are available with 3p-Technology only.



LIGHTING-BOLLARD 210 LED

Cast aluminium | 870 mm

Specifications

Fully cylindrical lighting bollard made of cast aluminium with a flat top. With LED lighting in the head section, 2 LED strips each with 14 LEDs and Perspex diffuser (PMMA). Operated with 24 V extra-low voltage, 2 m connector cable with plug coupling in the base. IP Code IP67.

Mounting

Available only with 3p-Technology

Finish

Powder coating in standard RAL colours or DB 703

Technical information

- Light unit: 2 LED strips, each with 14 LEDs
- Power supply: 24 Volt DC
- Power input: 4 W
- Luminous flux: approx. 430 lm
- Beam angle: vertical 360°, horizontal approx. 120°
- Light colour: 6000 K, 4000 K or 2700 K
- IP Code: IP67

Note

- Including power cable, consisting of a bollard-sided cable with a plug (IP67, 50 cm) and a ground-sided cable with a socket (IP67, 150 cm).
- Technical components for power supply and control are not included. The connection has to be made by the customer.

Identical with Bollard 031-1, see page 32

| | | | 3p-Technology |
|---------------------------------|--------|---------------|----------------|
| Lighting-Bollard 210 LED | 6000 K | Cool white | 210.020 |
| Lighting-Bollard 210 LED | 4000 K | Neutral white | 210.120 |
| Lighting-Bollard 210 LED | 2700 K | Warm white | 210.220 |



No risk of
electric shock
due to low 24 V
voltage

ADVANTAGES AT A GLANCE

- Significantly lower power consumption by LEDs
- Considerably longer life than conventional light sources
- LED unit is replaceable
- No risk of electric shock, since safety extra-low voltage
- The junction piece can be replaced in a few minutes only
- Quick disassembly for short-term space requirements
- Ground shell can be covered, therefore no risk of tripping

LIGHTING-BOLLARD 220 LED

Cast aluminium | 180 · 600 mm

Specifications

Fully cylindrical lighting bollard made of cast aluminium with a flat top. With LED lighting in the lower section, 1 LED strip of 21 LEDs and acrylic glass diffuser (PMMA). Operated with 24 V extra-low voltage, 2 m connector cable with plug coupling in the base. IP Code IP67.

Mounting

Available only with 3p-Technology

Finish

Powder coating in standard RAL colours or DB 703

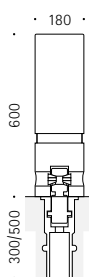
Technical information

- Light unit: 1 LED strip of 21 LEDs
- Power supply: 24 Volt DC
- Power input: 3 W
- Luminous flux: approx. 320 lm
- Beam angle: vertical 360°, horizontal approx. 120°
- Light colour: 6000 K, 4000 K or 2700 K
- IP Code: IP67

Note

- Including power cable, consisting of a bollard-sided cable with a plug (IP67, 50 cm) and a ground-sided cable with a socket (IP67, 150 cm).
- Technical components for power supply and control are not included. The connection has to be made by the customer.

Identical with Bollard 055-1, see page 53



| | | | 3p-Technology |
|---------------------------------|--------|---------------|----------------|
| Lighting-Bollard 220 LED | 6000 K | Cool white | 220.020 |
| Lighting-Bollard 220 LED | 4000 K | Neutral white | 220.120 |
| Lighting-Bollard 220 LED | 2700 K | Warm white | 220.220 |



3p-Technologie





LIGHTING-BOLLARD 230 LED

Cast aluminium | 150 · 1000 mm

Specifications

Continuous cylindrical light bollard made of cast aluminium with a flat top. With LED lighting in the head section, 1 LED strip of 21 LEDs and acrylic glass diffuser (PMMA). Operated with 24 V extra-low voltage, 2 m connector cable with plug coupling in the base. IP Code IP67.

Mounting

Available only with 3p-Technology

Finish

Powder coating in standard RAL colours or DB 703

Technical information

- Light unit: 1 LED strip of 21 LEDs
- Power supply: 24 Volt DC
- Power input: 3 W
- Luminous flux: approx. 320 lm
- Beam angle: vertical 360°, horizontal approx. 120°
- Light colour: 6000 K, 4000 K or 2700 K
- IP Code: IP67

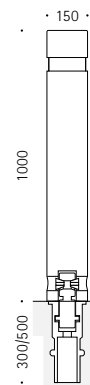
Note

- Including power cable, consisting of a bollard-sided cable with a plug (IP67, 50 cm) and a ground-sided cable with a socket (IP67, 150 cm).
- Technical components for power supply and control are not included. The connection has to be made by the customer.

Identical with Bollard 057, see page 52



| | | | 3p-Technology |
|---------------------------------|--------|---------------|----------------|
| Lighting-Bollard 230 LED | 6000 K | Cool white | 230.020 |
| Lighting-Bollard 230 LED | 4000 K | Neutral white | 230.120 |
| Lighting-Bollard 230 LED | 2700 K | Warm white | 230.220 |





LIGHTING-BOLLARD 240 LED

Cast aluminium | 870 mm

Specifications

Cylindrical cast aluminium bollard with three circumferential grooves and a conical base. Ring-shaped installation of six LED spotlights in V4A stainless steel casing between the first and second groove. Operated with 12 V DC safety extra-low voltage, 2 m connector cable with plug coupling in the base. IP Code IP67.

Mounting

Available only with 3p-Technologie

Finish

Powder coating in standard RAL colours or DB 703

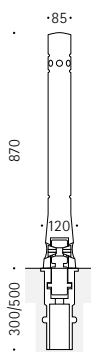
Technical information

- Light unit: 6 x LED spotlights, Ø 25 mm
- Power supply: 12 Volt DC
- Power input: 1.5 W (6 x 0.25 W)
- Luminous flux: 6 x approx. 16 lm
- Beam angle: vertical 360°, horizontal approx. 120°
- Light colour: 5000 K (cool white), 2700 K (warm white)
- IP Code: IP67

Note

- Including power cable, consisting of a bollard-sided cable with a plug (IP67, 50 cm) and a ground-sided cable with a socket (IP67, 150 cm).
- Technical components for power supply and control are not included. The connection has to be made by the customer.

Identical with Bollard 008, see page 29



| | | | 3p-Technologie |
|--------------------------|--------|------------|----------------|
| Lighting-Bollard 240 LED | 5000 K | Cool white | 240.020 |
| Lighting-Bollard 240 LED | 2700 K | Warm white | 240.120 |



3p-Technologie



Design: hammerrunge.design | Registered design M 98017470

Detailed information can be found on the catalogue's back cover fold-out →



Lighting-Bollard 265 LED-A

LIGHTING-BOLLARD 265 LED

Steel | 900 mm

Specifications

Lighting-Bollard 265 LED-A:

Rectangular steel bollard with a flat top and a vertical LED light strip (650 mm) on both narrow sides. Each with 2 LED strips, acrylic glass (PMMA) diffuser, operated using 24 V safety extra-low voltage, 2 m connector cable with plug socket at the base of the bollard. IP Code IP67.

Lighting-Bollard 265 LED-B:

Rectangular steel bollard with a flat top and a vertical LED light strip (550 mm) on both wide sides. Each with 2 LED strips, acrylic glass (PMMA) diffuser, operated using 24 V safety extra-low voltage, 2 m connector cable with plug socket at the base of the bollard. IP Code IP67.

Mounting

Removable with 3p-Technologie

Optional: with flange to enable screwing

Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Height can be adjusted on customer request

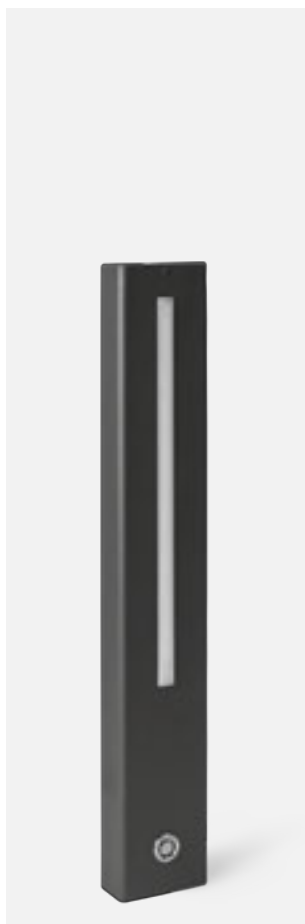
Technical information

- Light unit: 2 LED strips (550 mm/650 mm)
- Power supply: 24 Volt DC
- Power input (max.): approx. 2 × 8 W (550 mm) resp. approx. 2 × 9.5 W (650 mm)
- Luminous flux (max.): approx. 2 × 360 lm (550 mm) resp. approx. 2 × 430 lm (650 mm)
- Beam angle: 120°
- Light colour: RGB + white (4000 K)
- IP Code: IP67

Note

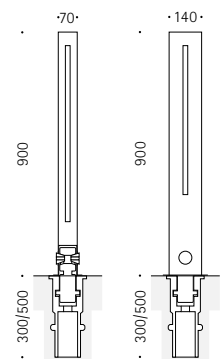
- Including power cable, consisting of a bollard-sided cable with a plug (IP67, 50 cm) and a ground-sided cable with a socket (IP67, 150 cm).
- Technical components for power supply and control are not included. The connection has to be made by the customer.
- The ground rosette is part of the delivery (for 3p-Technologie)
Completely covers the ground shell
Material: S235 steel, hot-dip galvanised and powder-coated in bollard paint

Identical with Bollard 065, see page 61



Lighting-Bollard 265 LED-B

| | | 3p-Technologie |
|-----------------------------------|----------------------|----------------|
| Lighting-Bollard 265 LED-A | RGB + white (4000 K) | 265.120 |
| Lighting-Bollard 265 LED-B | RGB + white (4000 K) | 265.220 |



LIGHTING-BOLLARD 266 LED

Steel | 900 mm

Specifications

Square steel bollard with a flat top and a vertical LED light strip (650 mm) on two opposite sides. Each with 2 LED strips, acrylic glass (PMMA) diffuser, operated using 24 V safety extra-low voltage, 2 m connector cable with plug socket at the base of the bollard. IP Code IP67.

Mounting

Removable with 3p-Technology

Optional: with flange to enable screwing

Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Height can be adjusted on customer request

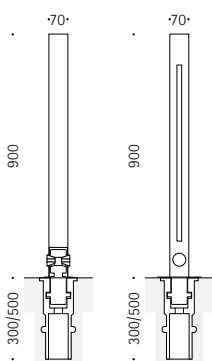
Technical information

- Light unit: 2 LED strip (650 mm)
- Power supply: 24 Volt DC
- Power input (max.): approx. 2 × 8.5 W
- Luminous flux (max.): approx. 2 × 430 lm
- Beam angle: 120°
- Light colour: RGB + 4000 K
- IP Code: IP67

Note

- Including power cable, consisting of a bollard-sided cable with a plug (IP67, 50 cm) and a ground-sided cable with a socket (IP67, 150 cm).
- Technical components for power supply and control are not included. The connection has to be made by the customer.
- The ground rosette is part of the delivery (for 3p-Technology)
Completely covers the ground shell
Material: S235 steel, hot-dip galvanised and powder-coated in bollard paint

Identical with Bollard 066, see page 60



3p-Technology

Lighting-Bollard 266 LED RGB + white (4000 K)**266.120**

3p-Technologie



LIGHTING-BOLLARD 267 LED

Steel | 1060 mm

Specifications

Fully cylindrical lighting bollard made of steel with a flat top. Lighting unit, consisting of a light fixture with 4 LED strips and a diffuser made of satined acrylic glass. Operates with 24 V safety extra-low voltage. 2 m power cable with plug and socket coupling in the lower part of the bollard. IP Code IP67.

Mounting

Removable with 3p-Technology

Optional: with flange to enable screwing

Finish

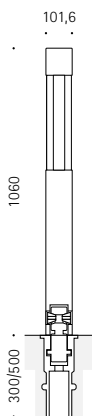
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Height can be adjusted on customer request

Technical information

- Light unit: 4 LED strips with a length of approx. 30 cm each
- Power supply: 24 volt DC
- Power input (max.): 11,5 W
- Luminous flux (max.): approx. 960 lm approx. 960 lm (lighting unit, without diffuser)
- Beam angle: 360°
- Light colour: 4000 K (white)
- IP Code: IP67 at the base

Note

- Including power cable, consisting of a bollard-sided cable with a plug (IP67, 50 cm) and a ground-sided cable with a socket (IP67, 150 cm).
- Technical components for power supply and control are not included. The connection has to be made by the customer.



3p-Technologie

Lighting-Bollard 267 LED 4000 K Neutral white**267.020**

ST

LED



2020

3p-Technologie



LIGHTING-BOLLARD 200

Stainless steel | 620 mm

Specifications

Fixed mounting: Cylindrical stainless-steel lighting bollard as permanent fixtures. With satined or clear acryl glass. Reflective slats surround the light unit. With standard lighting. Internal cable plus electric ballast for connection to a 230 Volt (AC) power source. IP Code IP54.

Mounting

Screw-on (fixed mounting)

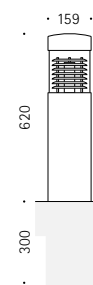
Finish

- Stainless steel 1.4301 smoothed, grain 240
- Stainless steel 1.4301 with powder coating in standard RAL colours or DB 703
- Available with satined or clear acryl glass
- Supplied with standard Dulux D/E 13 watts TC-DEL lighting (26 watts available on request with a surcharge)
- Lower fitting: hexagon shell safety screws with pin, incl. key

Note

- Including power cable, consisting of a bollard-sided cable with a plug (IP67, 50 cm) and a ground-sided cable with a socket (IP67, 150 cm).
- Technical components for power supply and control are not included. The connection has to be made by the customer.

| | Light unit | Acryl glass | Finish | Fixed mounting |
|-----------------------------|------------|-------------|------------------|----------------|
| Lighting-Bollard 200 | standard | Clear | Pickled/smoothed | 200.001 |
| Lighting-Bollard 200 | standard | Satined | Pickled/smoothed | 200.010 |
| Lighting-Bollard 200 | standard | Clear | Powder coating | 201.001 |
| Lighting-Bollard 200 | standard | Satined | Powder coating | 201.010 |



Technical information

(Standard lighting)

- Light unit: Osram Dulux TC-DEL 13 watts
- Connection voltage: 230 Volt AC
- Luminous flux: 900 lm
- Light colour: 830 K (warm white)
- Protection class 1, IP Code IP54



Stainless steel, satined acryl glass





LIGHTING-BOLLARD 200 LED

Stainless steel | 620 mm

Specifications

Fixed mounting: Cylindrical stainless-steel lighting bollard as permanent fixtures. With satined or clear acryl glass. Reflective slats surround the light unit. With energy efficient LED technology. Internal cable plus electric ballast for connection to a 230 Volt (AC) power source. IP Code IP54.

Mounting

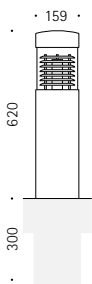
Screw-on (fixed mounting)

Finish

- Stainless steel 1.4301 smoothed, grain 240
- Stainless steel 1.4301 with powder coating in standard RAL colours or DB 703
- Available with satined or clear acryl glass
- Supplied with LED stick with 3 x 3 LEDs
- Lower fitting: hexagon shell safety screws with pin, incl. key

Note

- Including power cable, consisting of a bollard-sided cable with a plug (IP67, 50 cm) and a ground-sided cable with a socket (IP67, 150 cm).
- Technical components for power supply and control are not included. The connection has to be made by the customer.



| | Light unit | Acryl glass | Finish | Fixed mounting |
|---------------------------------|------------|-------------|------------------|----------------|
| Lighting-Bollard 200 LED | LED stick | Clear | Pickled/smoothed | 200.101 |
| Lighting-Bollard 200 LED | LED stick | Satined | Pickled/smoothed | 200.110 |
| Lighting-Bollard 200 LED | LED stick | Clear | Powder coating | 201.101 |
| Lighting-Bollard 200 LED | LED stick | Satined | Powder coating | 201.110 |



LED, Stainless steel, clear acryl glass



Technical information

(LED stick)

- Light unit: LED stick with 3 x 3 LEDs
- Connection voltage: 230 Volt AC
- Power: 9 watts (incl. 11 watts driver unit)
- Luminous flux: 1000 lm
- Max. power input: 350 mA
- Light colour: 3000 K (warm white)
- Protection class 1, IP Code IP54

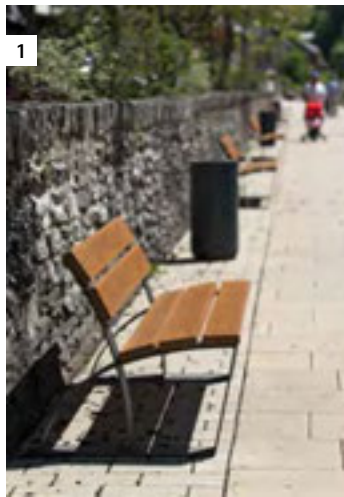
03

BENCHES & TABLES

Since park benches are meant to invite passers-by to rest and relax, they should be comfortable. Located in public parks or squares they add to the urban space with their aesthetic appearance. In public places, the bench is not only a resting place or viewpoint: meeting others, communicating with people of different ages, strangers before, symbolise the function of the bench in the urban context.

ABES benches are a tasteful composition of robust steel, stainless steel and aluminium frames, which – combined with wooden, steel and stainless steel supports – make a finely designed outdoor furniture. Weatherproof materials and solid anchoring to the ground protect the benches from vandalism and can be installed all year round.







BENCH 146-2 *page 89*









1: Bench 100 *page 90* | 2: Bench 141-1 *page 84* | 3: Seating-Bollard 105 *page 101*



03 BENCHES & TABLES *Overview*

| | |  |  |  |  |  |  |
|----------------|----------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| | | 100 | 103 | 103 | 104 | 107-1 | 107-2 |
| | | With back rest | With wooden supports | With stainless steel supports | Modular | Round tube frame | |
| Catalogue page | | 90 | 93 | 92 | 96-97 | 94 | |
| NEW 2020 | | | | 2020 | | | |
| Model | Bench without back rest | - | - | - | ■ | ■ | - |
| | Bench with back rest | ■ | ■ | ■ | - | - | ■ |
| | Stool | - | - | - | ■ | - | - |
| | Chair | - | - | - | - | - | - |
| | Table | - | - | - | - | - | - |
| Material | Cast aluminium (with powder coating) | - | - | - | ■ | - | - |
| | Steel S235 (galvanised with powder coating) | ■ | ■ | - | - | ■ | ■ |
| | Stainless steel 1.4301 (smoothed, grain 240) | ■ | ■ | ■ | - | ■ | ■ |
| | Modular configuration | - | - | - | ■ | - | - |
| Mounting | For screwing | ■ | ■ | ■ | ■ | ■ | ■ |
| | For concrete embedding | - | - | - | - | ■ | ■ |
| | Free standing | ■ | ■ | ■ | ■ | (■) | (■) |
| | Removable with 3p-Technology | - | - | - | - | - | - |
| Options | Individual color (RAL/DB) | ○ | ○ | ○ | ○ | ○ | ○ |
| | Individual length | ○ | - | - | - | - | - |
| | Individual (seat) height | - | ○ | ○ | - | ○ | ○ |
| | Individual wooden slats | ○ | ○ | - | - | - | - |
| Measurements | Total width (mm) | 1700 | 2380 | 2380 | modular | 1585 | 1585 |
| | Total height (mm) | 740 | 835 | 835 | modular | 576 | 840 |
| | Total depth (mm) | 760 | 730 | 730 | modular | 340 | 522 |
| | Seat width (mm) | 1700 | 2380 | 2380 | modular | 1500 | 1500 |
| | Seat height (mm) | 420 | 430 | 430 | 452 | 437 | 437 |
| | Weight (approx. in kg) | 79 | 62,5 | 90 | modular | 26 | 46 |
| Design | | hammer.runge.design | Charles O. Job | Charles O. Job | | | |

| | |  | |  | |  | |  | |  | |  | |
|----------------|----------------------------------------------|-------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------|------|
| | | 142-1 | 142-2 | 143-1 | 143-2 | 143 | 144-1 | 144-2 | 144 | 144-1 | 144-2 | 144 | |
| | | Without back rest | With back rest | Without back rest | With back rest | Table | Without back rest | With back rest | Table | Without back rest | With back rest | Table | |
| Catalogue page | | 85 | | | | 86 | | | | 87 | | | |
| NEW 2020 | | | | | | | | | | | | | |
| Model | Bench without back rest | ■ | - | - | - | ■ | - | - | - | ■ | - | - | |
| | Bench with back rest | - | ■ | - | - | ■ | - | - | - | - | ■ | - | |
| | Stool | - | ■ | - | - | ■ | - | - | - | - | - | - | |
| | Chair | - | - | - | ■ | - | - | ■ | - | - | - | - | |
| | Table | - | - | - | - | - | ■ | - | - | - | - | ■ | |
| Material | Cast aluminium (with powder coating) | - | - | - | - | - | - | - | - | - | - | - | |
| | Steel S235 (galvanised with powder coating) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | Stainless steel 1.4301 (smoothed, grain 240) | - | - | - | - | - | - | - | - | - | - | - | |
| | Modular configuration | - | - | - | - | - | - | - | - | - | - | - | |
| Mounting | For screwing | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | For concrete embedding | - | - | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | Free standing | - | - | ■ | ■ | ■ | - | - | - | - | - | - | |
| | Removable with 3p-Technology | - | - | - | - | - | - | - | - | - | - | - | |
| Options | Individual color (RAL/DB) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Individual length | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Individual (seat) height | - | - | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Individual wooden slats | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| Measurements | Total width (mm) | 2002 | 722 | 2002 | 722 | 1590/1890 | 610 | 1590/1890 | 610 | 1587 | 1587 | 1587 | 1587 |
| | Total height (mm) | 550 | 550 | 821 | 821 | 453 | 453 | 823 | 823 | 750 | 453 | 813 | 750 |
| | Total depth (mm) | 440 | 440 | 542 | 542 | 444 | 444 | 544 | 544 | 735 | 400 | 544 | 735 |
| | Seat width (mm) | 1800 | 520 | 1800 | 520 | 1500/1800 | 520 | 1500/1800 | 520 | - | 1500 | 1500 | - |
| | Seat height (mm) | 453 | 453 | 453 | 453 | 453 | 453 | 453 | 453 | - | 453 | 453 | - |
| | Weight (approx. in kg) | 22 | 16 | 27 | 20 | 18 | 13 | 23 | 16 | 31 | 18 | 23 | 31 |
| Design | | Stefan Wehrmann 3Dsign | | | | Stefan Wehrmann 3Dsign | | | | Stefan Wehrmann 3Dsign | | | |

■ = Model | ● = Finish | ○ = Option (with a surcharge) | - = Not available

|  | |  | |  | |  | |  | |  | |  | |
|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|------|
| 109-1 | | 109-2 | | 121-1 | | 121-2 | | 131 | | 141-1 | | 141-2 | |
| Rectangular tube frame | | | | Without back rest | | With back rest | | Without back rest | | Without back rest | | With back rest | |
| 95 | | | | 99/100 | | | | 98/100 | | 84 | | | |
| 2020 | | | | | | | | | | | | | |
| ■ | - | - | ■ | - | - | - | ■ | - | ■ | - | - | - | ■ |
| - | ■ | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | ■ | - | ■ | - | ■ | - | - | - | - | - |
| ■ | ■ | ■ | - | - | - | - | - | - | ■ | - | - | ■ | - |
| ■ | ■ | ■ | - | - | - | - | - | - | - | - | - | - | - |
| - | - | ■ | - | ■ | - | ■ | - | ■ | - | - | - | - | - |
| ■ | ■ | ■ | - | - | - | - | - | - | ■ | - | - | ■ | - |
| ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ○ | - | ○ | - | ○ | - | ○ | - | ○ | - | ○ | - | ○ | - |
| - | - | - | - | - | - | - | - | - | - | ○ | - | ○ | - |
| ○ | - | ○ | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | ○ | - | ○ | - | ○ | - |
| 1585 | 1585 | 2060 | 2060 | 2060 | 2060 | 2060 | 2060 | 2240 | 2240 | 2240 | 2240 | 2240 | 2240 |
| 576 | 840 | 458 | 820 | 458 | 820 | 458 | 820 | 453 | 823 | 453 | 823 | 453 | 823 |
| 340 | 522 | 340 | 528 | 340 | 528 | 340 | 528 | 430 | 537 | 430 | 537 | 430 | 537 |
| 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| 437 | 437 | 458 | 458 | 458 | 458 | 458 | 458 | 453 | 453 | 453 | 453 | 453 | 453 |
| 26 | 46 | 48 | 61 | 48 | 61 | 48 | 61 | 22 | 27 | 22 | 27 | 22 | 27 |
| | | | | hammer.runge.design | | | | hammer.runge.design | | Stefan Wehrmann | | | |

|  | |  | |  | |  | |  | |  | |  | |
|-------------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|------|--------------------------------------------------------------------------------------|-----|---------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------|------|
| 145 | | 146-1 | | 146-2 | | 147 | | 105 | | 108 | | 1.120 | |
| Stool Table | | Without back rest | | With back rest | | With back rest | | Seating bollard | | Lean-on bench | | Lounge | |
| 88 | | 89 | | | | 91 | | 66/101 | | 103 | | 102 | |
| | | | | | | 2020 | | | | | | 2020 | |
| - | - | - | ■ | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | ■ | - | ■ | - | - | - | - | - | - | - |
| ■ | - | - | - | - | - | - | - | ■ | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | ■ | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | ■ | - | ■ | - | - | - | ■ | - | - | - | - | - |
| ■ | ■ | - | - | - | - | ■ | - | - | - | ■ | - | ■ | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ■ | ■ | ■ | - | ■ | - | ■ | - | - | - | ■ | - | - | - |
| ■ | ■ | - | - | - | - | ■ | - | ■ | - | ■ | - | - | - |
| - | - | ■ | - | ■ | - | ■ | - | - | - | - | - | ■ | - |
| - | - | - | - | - | - | - | - | ■ | - | - | - | - | - |
| ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| ○ | ○ | ○ | ○ | ○ | ○ | - | - | - | - | - | - | - | - |
| ○ | ○ | - | - | - | - | - | - | - | - | - | - | - | - |
| ○ | ○ | ○ | ○ | ○ | ○ | - | - | - | - | ○ | - | - | - |
| 401 | 574 | 2100 | 2100 | 2100 | 2100 | 1800 | 1800 | 350 | 350 | 740 | 740 | 1000 | 1000 |
| 453 | 750 | 602 | 877 | 877 | 877 | 800 | 800 | 450 | 450 | 1250 | 1250 | 760 | 760 |
| 401 | 574 | 615 | 588 | 588 | 588 | 780 | 780 | 350 | 350 | 300 | 300 | 1840 | 1840 |
| 342 | - | 2000 | 2000 | 2000 | 2000 | 1800 | 1800 | 350 | 350 | - | - | 1000 | 1000 |
| 453 | - | 447 | 447 | 447 | 447 | 448 | 448 | 450 | 450 | - | - | 420 | 420 |
| 9 | 12 | 18 | 23 | 23 | 23 | 40 | 40 | 8 | 8 | 105 | 105 | 62,5 | 62,5 |
| Stefan Wehrmann | | Stefan Wehrmann 3Dsign | | | | Max Steffen | | Charles O. Job | | J. P. Gillen | | | |

Every bench is also available without wood (except lean-on bench 108 and lounge 1.120). Blueprints for the wooden slats are then part of the delivery.



Design: Stefan Wehmann 3Design

BENCH 141

Steel

141-1 | without back rest

141-2 | with back rest

Specifications

Bench 141-1 without back rest, consisting of two semi-circular steel side parts capable of holding five wooden slats ending level with the steel frames.

Bench 141-2 with back rest

Optionally includes a back rest consisting of three wooden slats connected to steel girder.

Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Seating slats made of hardwood
- The following changes are possible for an extra price: colour, length and wooden surface

Mounting

Screw-on

| | | Seat width | Seat height | W | D | H | For screwing |
|--------------------|-------------------|------------|-------------|------|-----|-----|----------------|
| Bench 141-1 | Without back rest | 1800 | 453 | 2240 | 430 | 453 | 141.001 |
| Bench 141-2 | With back rest | 1800 | 453 | 2240 | 537 | 823 | 141.101 |





Design: Stefan Wehrmann 3Design

BENCH 142

Steel

142-1 | without back rest

142-2 | with back rest

Specifications

Bench 142-1 without back rest, consisting of two steel side parts bent outwards at the top, capable of holding five wooden slats. The side parts are higher than the seating slats and serve as armrests.

Bench 142-2 with back rest

Optionally includes a back rest consisting of three wooden slats connected to steel girders.

Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Seating slats made of hardwood
- The following changes are possible for an extra price: colour, length and wooden surface

Mounting

Screw-on

| | | Seat width | Seat height | W | D | H | For screwing |
|--------------------|-------------------------|------------|-------------|------|-----|-----|----------------|
| Bench 142-1 | Bench without back rest | 1800 | 453 | 2002 | 440 | 550 | 142.001 |
| Bench 142-1 | Stool | 520 | 453 | 722 | 440 | 550 | 142.002 |
| Bench 142-2 | Bench with back rest | 1800 | 453 | 2002 | 542 | 821 | 142.101 |
| Bench 142-2 | Chair | 520 | 453 | 722 | 542 | 821 | 142.102 |



03 BENCHES & TABLES



Design: Stefan Weimann 3Design

BENCH 143

Steel

143-1 | without back rest

143-2 | with back rest

Specifications

Bench 143-1 without back rest, consisting of two perpendicular side parts made of steel profiles, which hold five wooden slats.

Bench 143-2 with back rest consisting of three wooden slats connected to steel girders.

Mounting

Screw-on or concrete embedment

Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Seating slats made of hardwood
- The following changes are possible for an extra price: colour, length and wooden surface

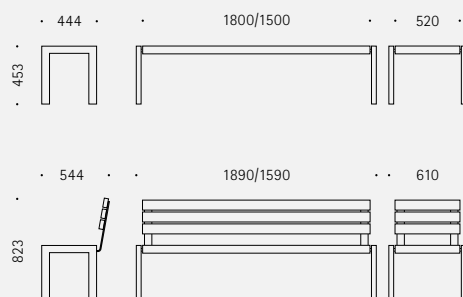
TABLE 143

Specifications

Table consisting of two perpendicular side parts made of steel profiles and a rectangular steel frame into which eight wooden slats are set flush. The lower areas of the side parts are stabilised lengthways and diagonally by supports.

| | | Seat width | Seat height | W | D | H | For concrete embedding | For screwing |
|--------------------|----------------------|------------|-------------|------|-----|-----|------------------------|----------------|
| Bench 143-1 | Bench w/o back rest | 1800 | 453 | 1890 | 444 | 453 | 143.051 | 143.001 |
| Bench 143-1 | Bench w/o back rest | 1500 | 453 | 1590 | 444 | 453 | 143.053 | 143.003 |
| Bench 143-1 | Stool | 520 | 453 | 610 | 444 | 453 | 143.052 | 143.002 |
| Bench 143-2 | Bench with back rest | 1800 | 453 | 1890 | 544 | 823 | 143.151 | 143.101 |
| Bench 143-2 | Bench with back rest | 1500 | 453 | 1590 | 544 | 823 | 143.153 | 143.103 |
| Bench 143-2 | Chair | 520 | 453 | 610 | 544 | 823 | 143.152 | 143.102 |
| Table 143 | | - | - | 1587 | 735 | 750 | 143.550 | 143.500 |

ST





Design: Stefan Wehmann 3Design

BENCH 144

Steel

144-1 | without back rest

144-2 | with back rest

Specifications

Bench 144-1 without back rest, consisting of two T-shaped side parts made of steel profiles, connected to a rectangular steel frame into which four wooden slats are set flush as a seating slat.

Bench 144-2 with back rest consisting of three wooden slats connected to steel girders.

Mounting

Screw-on or concrete embedment

Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Seating slats made of hardwood
- The following changes are possible for an extra price: colour, length and wooden surface

TABLE 144

Specifications

Table consisting of two T-shaped side parts made of steel profiles, connected to a rectangular steel frame into which eight wooden slats are set flush. The lower areas of the side parts are stabilised lengthways by a support.

| | | Seat width | Seat height | W | D | H | For concrete embedding | For screwing |
|--------------------|-------------------|------------|-------------|------|-----|-----|------------------------|----------------|
| Bench 144-1 | Without back rest | 1500 | 453 | 1587 | 400 | 453 | 144.051 | 144.001 |
| Bench 144-2 | With back rest | 1500 | 453 | 1587 | 544 | 813 | 144.151 | 144.101 |
| Table 144 | | - | - | 1587 | 735 | 750 | 144.550 | 144.500 |





Design: Stefan Wehrmann 3Design

STOOL 145

Steel

Specifications

Stool consisting of a revolving square steel frame sitting on a steel profile and into which four wooden slats are set flush.

Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Seating slats made of hardwood
- The following changes are possible for an extra price: colour and wooden surface

TABLE 145

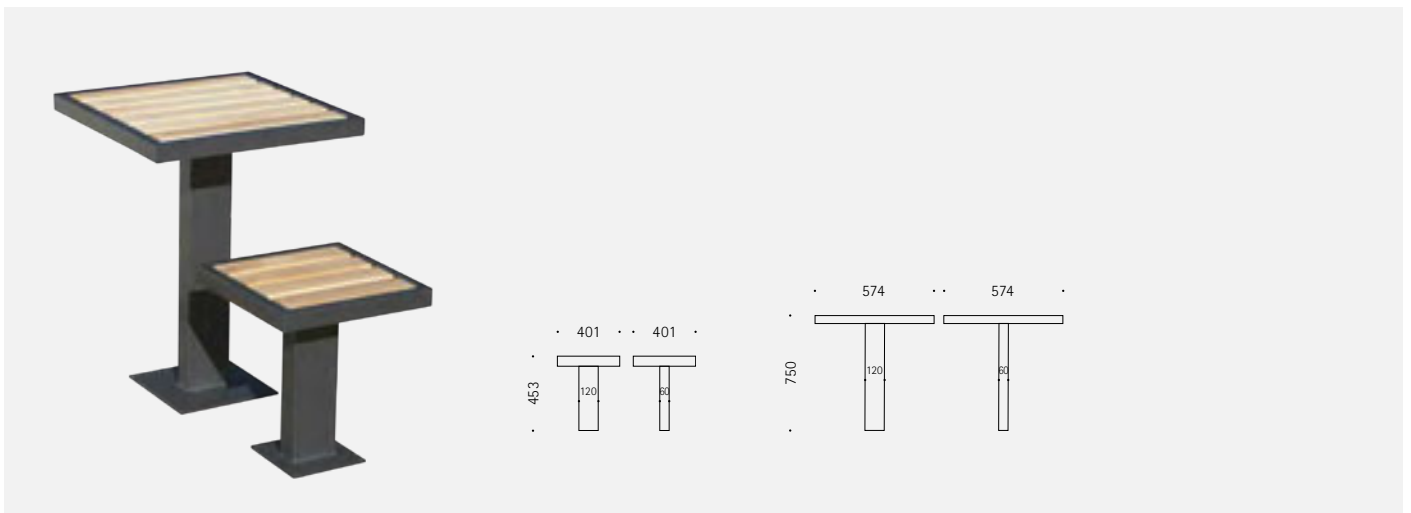
Specifications

Table consisting of an encompassing square steel frame which sits on a steel profile and into which six wooden slats are set flush.

Mounting

Screw-on or concrete embedment

| | Seat width | Seat height | W | D | H | For concrete embedding | For screwing |
|------------------|------------|-------------|-----|-----|-----|------------------------|----------------|
| Stool 145 | 342 | 453 | 401 | 401 | 453 | 145.051 | 145.001 |
| Table 145 | - | - | 574 | 574 | 750 | 145.550 | 145.500 |



Design: Stefan Wehrmann 3Design



BENCH 146

Cast aluminium

146-1 | without back rest

146-2 | with back rest

Specifications

Bench 146-1 without back rest

Armrests and wood slatting, consisting of two cast aluminium frames, each with two legs, an inwardly inclined panel and supports for the seat.

Bench 146-2 with back rest

Armrests and wood slatting, consisting of two cast aluminium frames, each with two legs, an inwardly inclined panel and supports for the seat. The back rest and armrests merge with one another, forming an almost 90° angle to one another.

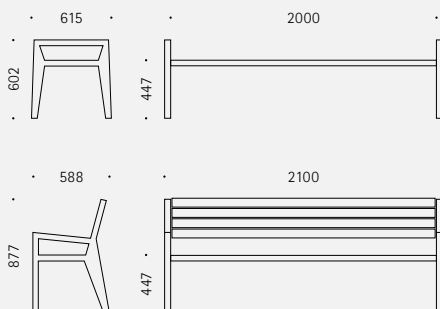
Mounting

Screw-on

Finish

- Powder coating in standard RAL colours or DB 703
- Seating slats made of hardwood
- The following changes are possible for an extra price: colour, length and wooden surface

| | | Seat width | Seat height | W | D | H | For screwing |
|--------------------|-------------------|------------|-------------|------|-----|-----|----------------|
| Bench 146-1 | Without back rest | 2000 | 447 | 2100 | 615 | 602 | 146.101 |
| Bench 146-2 | With back rest | 2000 | 447 | 2100 | 588 | 877 | 146.201 |





BENCH 100

"The Original Design"

Steel + Stainless steel

Specifications

Park bench with back rest made of 140 mm wide steel profiles to hold the wooden slats. The profiles are bent and closed at the footing. The wooden slats align with the frames.

Mounting

Screw-on

Finish

- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Seating slats made of hardwood
- The following changes are possible for an extra price:
colour, length and wooden surface

| | | Seat width | Seat height | W | D | H | S235 steel | Stainless steel 1.4301 |
|------------------|----------------|------------|-------------|------|-----|-----|----------------|------------------------|
| Bench 100 | With back rest | 1700 | 420 | 1700 | 760 | 740 | 100.002 | 100.003 |



Design: hammerrunge design | Registered design M 93801747.0





BENCH 147

Steel

Specifications

Bench with back rest, frame made of bent steel tubes without armrests, accommodating two seats conically converging towards the center, and a slanted wooden back rest.

Mounting

Free standing, Screw-on or concrete embedment

Finish

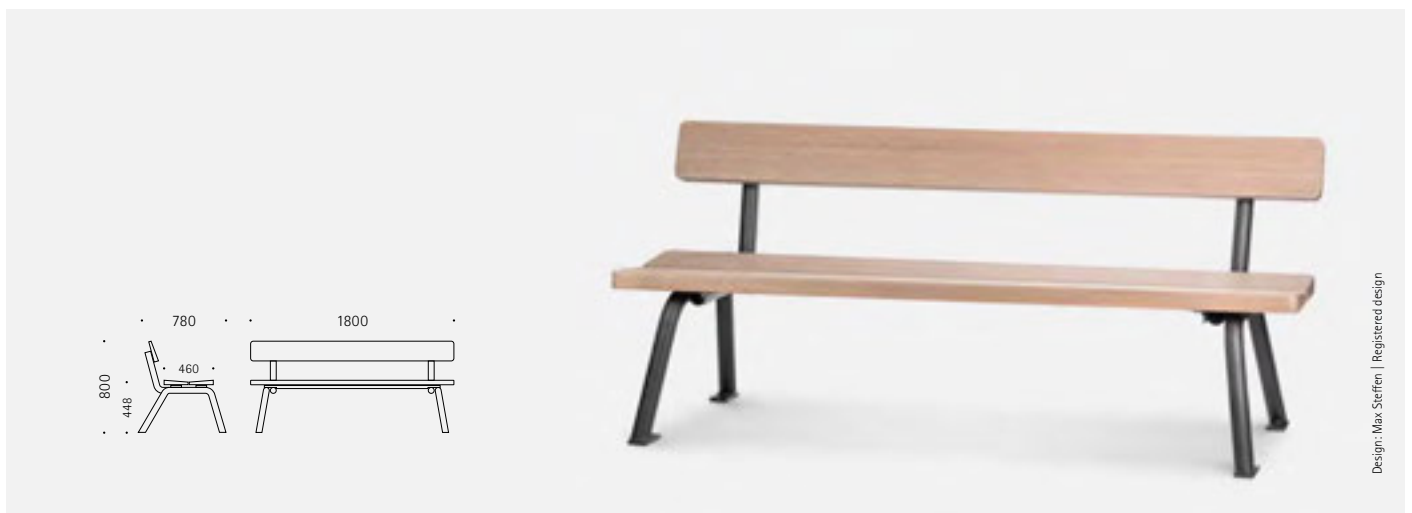
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Seating slats made of hardwood

| | | Seat width | Seat height | W | D | H | Steel S235 |
|------------------|------------------------|------------|-------------|------|-----|-----|----------------|
| Bench 147 | Free standing | 1800 | 448 | 1800 | 780 | 800 | 147.101 |
| Bench 147 | For screwing | 1800 | 448 | 1800 | 780 | 800 | 147.111 |
| Bench 147 | For concrete embedding | 1800 | 448 | 1800 | 780 | 800 | 147.151 |



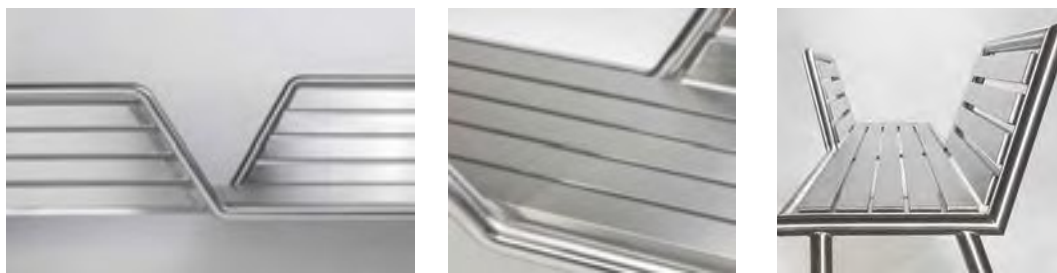
ST

2020



Design: Max Steffen | Registered design

03 BENCHES & TABLES



BENCH 103

WITH STAINLESS STEEL SUPPORTS

Stainless steel

Specifications

Bench made of curved and mitred stainless steel tubes, with two diagonally opposite backrests. The stainless steel frame holds seats and backrests made of closed stainless steel profiles.

Mounting

Screw-on (recommended) or free standing

Finish

- Stainless steel 1.4301 smoothed, grain 240
- Optional: electropolished/high-gloss

| | Supports | Seat width | Seat height | W | D | H | Stainless steel 1.4301 |
|------------------|-----------------|-----------------|-------------|------|-----|-----|------------------------|
| Bench 103 | Stainless steel | 2 × approx. 900 | 430 | 2380 | 730 | 835 | 103.203 |



2020





BENCH 103

WITH WOODEN SUPPORTS

Steel + Stainless steel

Specifications

Park bench made of bent steel tubes adjusted to miter with two diagonally opposite back rests. The steel frame is designed to accommodate seating supports and back rests made of wood.

Mounting

Screw-on (recommended) or free standing

Finish

- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703

| | Supports | Seat width | Seat height | W | D | H | S235 steel | Stainless steel 1.4301 |
|------------------|----------|-----------------|-------------|------|-----|-----|----------------|------------------------|
| Bench 103 | Wood | 2 × approx. 900 | 430 | 2380 | 730 | 835 | 103.102 | 103.103 |



Design: Charles O. Job | Registered design 129813

03 BENCHES & TABLES



► Also available as bench for senior citizen

- 10 cm higher
- Seating surface tilted slightly forward
- 10% surcharge

BENCH 107

ROUND TUBE FRAME

Steel + Stainless steel

107-1 | without back rest

107-2 | with back rest

Specifications

Bench 107-1 without back rest, consisting of two U-shaped steel tube frames including mounting options for a seating slat made of several steel tube profiles.

Bench 107-2 with back rest, connected to the seat's rear tube with crescent-shaped suspensions.

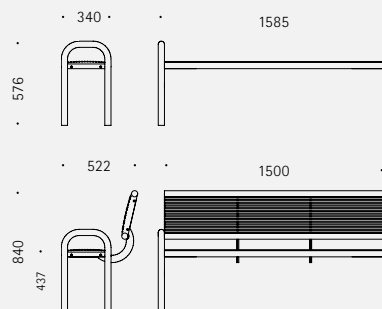
Finish

- Stainless steel 1.4301 pickled
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge

Mounting

Screw-on (recommended) or free standing

| | | Seat width | Seat height | W | D | H | S235 steel | Stainless steel 1.4301 |
|--------------------|-------------------|------------|-------------|------|-----|-----|----------------|------------------------|
| Bench 107-1 | Without back rest | 1500 | 437 | 1585 | 340 | 576 | 107.001 | 107.003 |
| Bench 107-2 | With back rest | 1500 | 437 | 1585 | 522 | 840 | 107.101 | 107.103 |





BENCH 109

RECTANGULAR TUBE FRAME

Steel

109-1 | without back rest

109-2 | with back rest

Specifications

Bench 109-1 without back rest, consisting of two rectangular hollow steel elements without armrests, including attachment options for a seat made of multiple steel tube profiles.

Bench 109-2 with back rest, connected to the seat's rear tube with crescent-shaped suspensions.

Bench 109-3 Seat cover, to bolt onto stone or concrete.

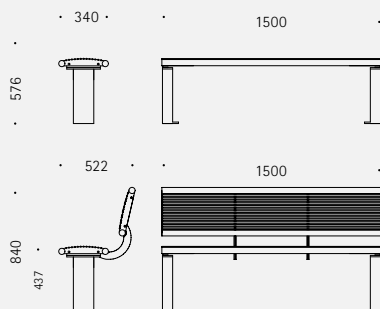
Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge

Mounting

Removable with 3p-Technology, with flange to enable screwing or concrete embedment

| | | Seat width | Seat height | W | D | H | Steel S235 |
|--------------------|-------------------------------------------|------------|-------------|------|-----|-----|----------------|
| Bench 109-1 | Without back rest, for screwing | 1500 | 437 | 1585 | 340 | 437 | 109.102 |
| Bench 109-1 | Without back rest, with 3p-Technology | 1500 | 437 | 1585 | 340 | 437 | 109.120 |
| Bench 109-1 | Without back rest, for concrete embedding | 1500 | 437 | 1585 | 340 | 437 | 109.101 |
| Bench 109-2 | With back rest, for screwing | 1500 | 437 | 1585 | 522 | 840 | 109.202 |
| Bench 109-2 | With back rest, with 3p-Technology | 1500 | 437 | 1585 | 522 | 840 | 109.220 |
| Bench 109-2 | With back rest, for concrete embedment | 1500 | 437 | 1585 | 522 | 840 | 109.201 |
| Bench 109-3 | Screw-on seat cover | 1500 | - | 1585 | 340 | - | 109.302 |





BENCH 104

Cast aluminium

Specifications

Cast aluminium bench system without back rest, consisting of four basic units. The system has a modular construction:

- A straight seating unit
- A seating unit bent at a 45° angle
- A seating unit bent at a 90° angle
- Base with inward-facing legs, joined to a plate at the lower end, with the upper end of the plate supporting the seating units

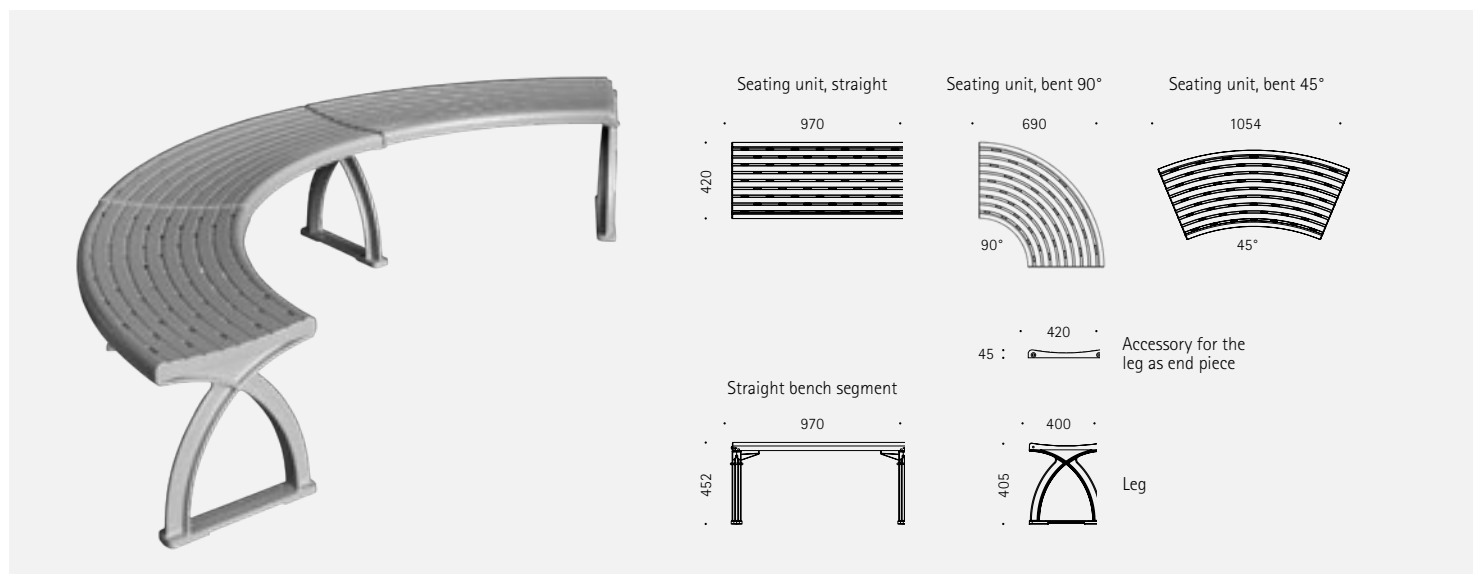
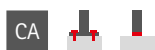
Mounting

Screw-on (recommended) or free standing

Finish

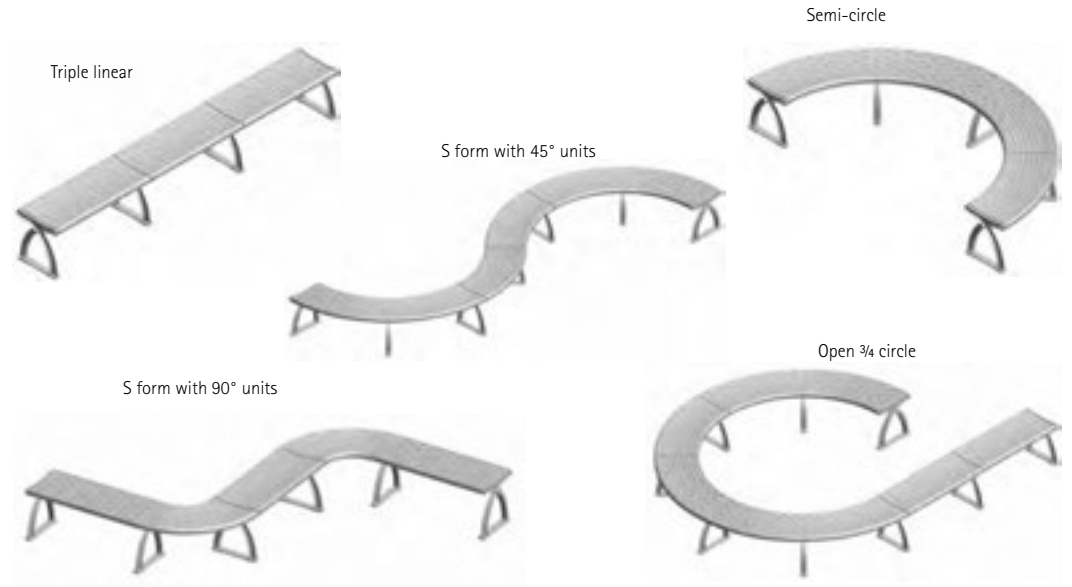
- Powder coating in standard RAL colours or DB 703 (other colours available on request at a surcharge)

| | | For screwing |
|------------------|------------------------------------|----------------|
| Bench 104 | Seating unit, straight | 104.101 |
| Bench 104 | Seating unit, bent 45° | 104.201 |
| Bench 104 | Seating unit, bent 90° | 104.202 |
| Bench 104 | Leg | 104.301 |
| Bench 104 | Accessory for the leg as end piece | 104.350 |



BENCH 104

Sample configurations





BENCH 131

Cast aluminium

Specifications

Bench system without back rest, made of at least two conical cast aluminium bollards with a diameter of 220 mm at the base. The upper end serves to support three seating slats. Each bench bollard has a groove all around the top to distinguish the bollards from the seat support.

Mounting

Removable with 3p-Technology
Alternative: concrete embedment

Finish

- Bench bollard: cast aluminium, powder coating in standard RAL colours or DB 703 (other colours available on request at a surcharge)
- Seating slats made of hardwood
- The following changes are possible for an extra price: colour, wooden surface

Example of a Bench 131

| | Fixed mounting | Removable (3p-Technology)* |
|---------------------------------|--------------------|----------------------------|
| 2 cast aluminium bench bollards | 2 x 131.004 | 2 x 131.005 |
| 1 set of hardwood bench seats | 1 x 132.001 | 1 x 132.001 |

| | | Fixed mounting | Removable (3p-Technology) * |
|------------------|-----------------------------|----------------|-----------------------------|
| Bench 131 | Bench bollard as end piece | 131.004 | 131.005 |
| Bench 131 | 90° right-angle junction | 131.006 | 131.007 |
| Bench 131 | 180° series junction | 131.008 | 131.009 |
| Bench 131 | 120° star-shaped formation | 131.010 | 131.011 |
| Bench 131 | Set of hardwood bench seats | 132.001 | |



Design: hammerrunge design | Registered design M 91801747.0





BENCH 121

Cast aluminium

121-1 | without back rest

121-2 | with back rest

Specifications

Bench 121-1 without back rest, made of two conical cast aluminium bollards with a diameter of 220 mm at the base. The upper end serves to support 14 seat strips. Each bench bollard has a groove all around the top to distinguish the bollards from the seat support.

Bench 121-2 with back rest, connected to the rear tube of the seat support on sickle-shaped suspensions.

Mounting

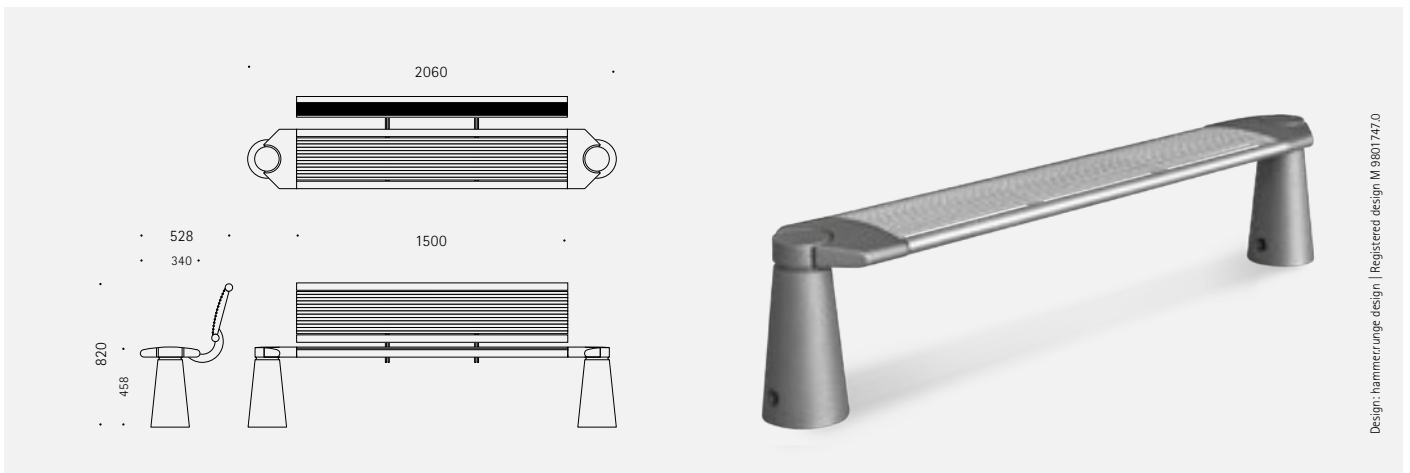
Removable with 3p-Technologie

Alternative: concrete embedment

Finish

- Bench bollard: cast aluminium, powder coating in standard RAL colours or DB 703 (other colours available on request at a surcharge)
- Bench seats and back rests: Stainless steel 1.4301 smoothed, grain 240
- Bench seats and back rests: Steel S235, galvanised with powder coating in standard RAL colours or DB 703

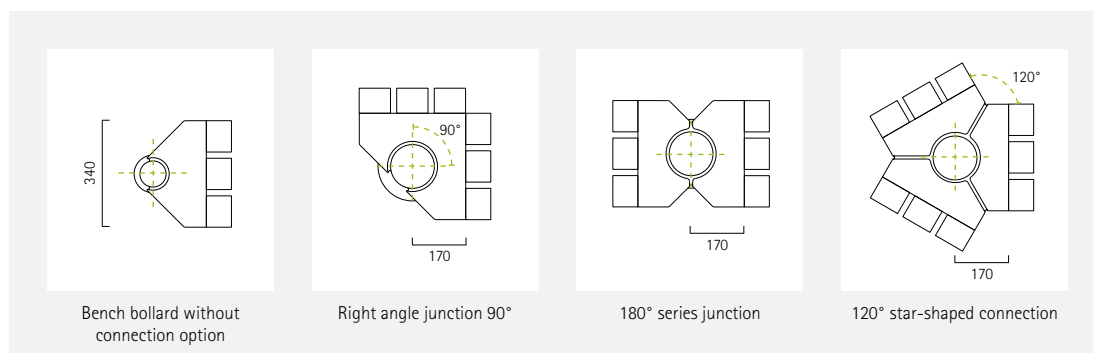
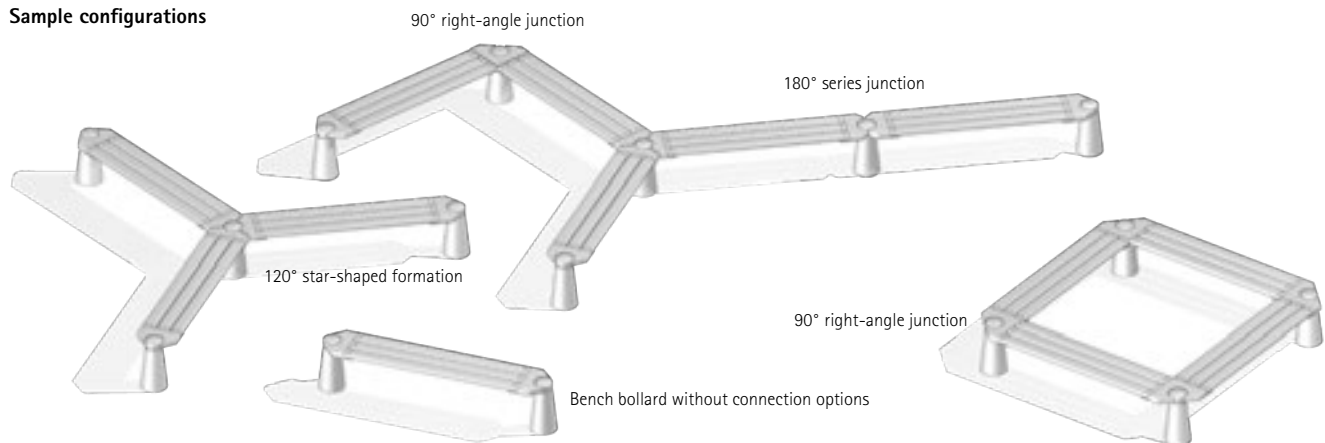
| | | Fixed mounting | Removable (3p-Technologie) * |
|------------------|----------------------------|----------------|------------------------------|
| Bench 121 | Bench bollard as end piece | 121.004 | 121.005 |
| Bench 121 | 90° right-angle junction | 121.006 | 121.007 |
| Bench 121 | 180° series junction | 121.008 | 121.009 |
| Bench 121 | 120° star-shaped formation | 121.010 | 121.011 |
| | | S235 steel | Stainless steel 1.4301 |
| Bench 121 | Set of bench seats | 121.200 | 121.210 |
| Bench 121 | Back rest | 121.100 | 121.110 |



Design: hammerrunge design | Registered design M 9801747.0

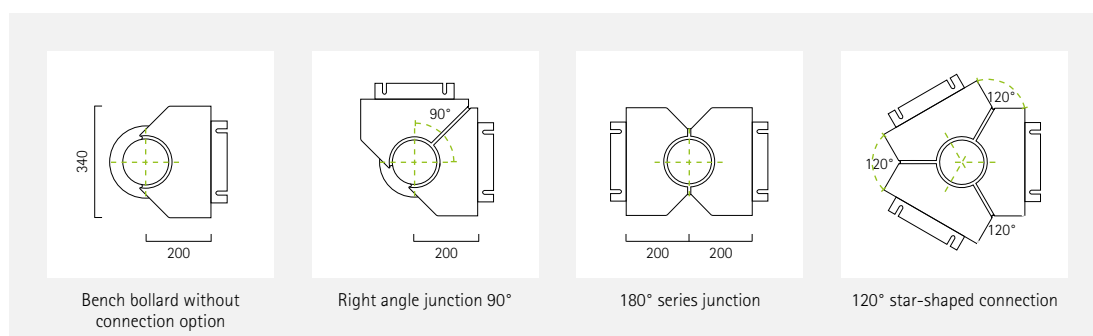
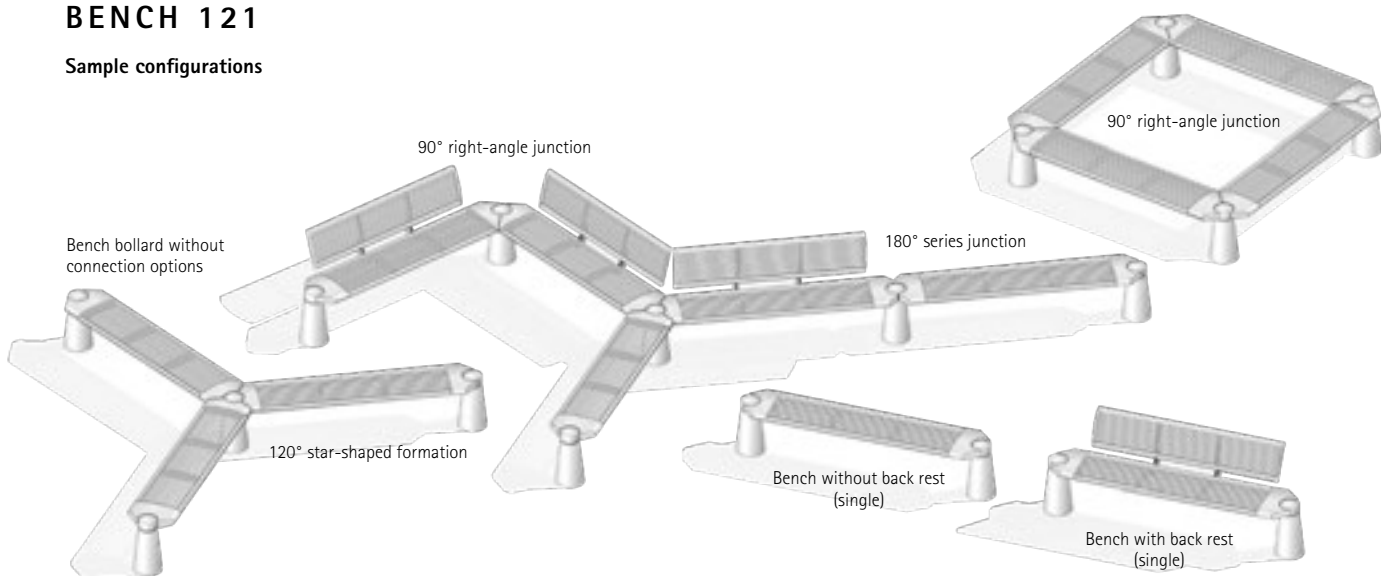
BENCH 131

Sample configurations



BENCH 121

Sample configurations





SEATING-BOLLARD 105

Cast aluminium

Specifications

One-piece seat bollard made of cast aluminium with small diamond-shaped apertures in the circular seat supported by a cylindrical leg, tapering slightly at the base.

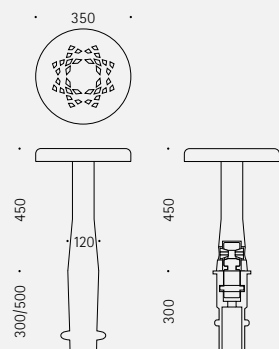
Finish

- Powder coating in standard RAL colours or DB 703 (other colours available on request at a surcharge)

Mounting

Removable with 3p-Technology
Alternative: concrete embedment

| | Seat width | Seat height | W | D | H | Fixed mounting | Stainless steel 1.4301 |
|----------------------------|------------|-------------|-----|-----|-----|----------------|------------------------|
| Seating-Bollard 105 | ø 350 | 450 | 350 | 350 | 450 | 105.001 | 105.101 |



Design: Charles O. Job | Registered design 129813



LOUNGER 1.120

Steel

Specifications

Lounger with ergonomically shaped surface, wooden slats and base made of zinc-phosphated (KTL) and powder-coated steel.

Mounting

Free standing

Finish

- Frame: steel S235, zinc-phosphated (KTL) and powder-coated in RAL 7016 (anthracite grey)
- Bench supports: 14 slats of thermo-wood (ash)

► *Details see in ABES Online Shop*

Free standing

Lounger 1.120 Steel S235, wooden support

1.120.001

ST



2020





▶ With the Bollard-Ashtray 525 suitable e.g. for smoke breaks (see photo)

LEAN-ON-BENCH 108

Steel

Specifications

Back to top widening lean-on element with a curved profile. The upper half is equipped with a wooden covering.

Mounting

Screw-on or concrete embedment

Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Lean-on surface made of wood

| | Lean-on width | Lean-on height | W | D | H | For screwing | For concrete embedding |
|--------------------------|---------------|----------------|-----|-----|------|----------------|------------------------|
| Lean-On-Bench 108 | 740 | 590 | 740 | 300 | 1250 | 108.101 | 108.151 |



Design: J. P. Gillen | Registered design

04

WASTE CONTAINERS

Waste containers are essential for a well-kept urban environment. ABES' models impress with their sophisticated functionality and attractive design, and fit perfectly into the cityscape.

The containers are robust and resistant to vandalism. They are supplied with a cover to prevent rainwater from leaking in, as well as from having unwanted household waste disposed of here. Separate internal containers facilitate cleaning, thereby ensuring hygienic waste disposal.



1: Bollard-Ashtray 525 page 113 | 2: Waste-Container 523 page 107
3: Waste-Container 529 page 111





04 WASTE CONTAINERS *Overview*

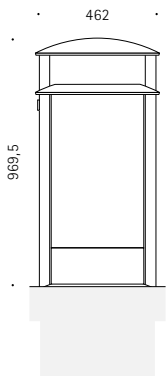
| |  |  |  |  |  |  |  |  |  | | |
|------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|---------|
| | 523 | 524 | 525 | | 527 | 529 | 530 | 531 | 540 | 541 | |
| | | | Bollard ashtray | | | | | | | | |
| Catalogue page | 107 | 107 | 67/113 | | 110 | 111 | 111 | 110 | 108 | 109 | |
| NEW 2020 | | | | | | | | | 2020 | 2020 | |
| Material | Steel S235 (galvanised) | - | ■ | - | - | - | - | - | - | - | |
| | Steel S235 (galvanised with powder coating) | ■ | ■ | ■ | - | ■ | ■ | ■ | ■ | ■ | |
| | Stainless steel 1.4301 (smoothed, grain 240) | - | - | - | ■ | ■ | - | - | - | - | |
| | Stainless steel 1.4301 (with powder coating) | - | - | - | - | - | - | - | - | - | |
| Mounting | For screwing (with flanges) | ■ | - | 525.040 | 525.140 | - | - | - | - | - | |
| | For concrete embedding | - | ■ | 525.001 | 525.011 | ■ | ■ | ■ | ■ | ■ | |
| | Removable with ground shell | - | ■ | - | - | - | - | - | - | - | |
| | Removable with 3p-Technology | | | 525.020 | 525.022 | ■ | ■ | ■ | ■ | ■ | |
| Configuration | Incl. internal container | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Covered slot | ● | ● | - | - | - | - | - | - | - | |
| | Unlocking/emptying using a triangular key | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Lateral emptying | - | - | - | - | - | - | - | ● | ● | |
| | Emptying at the top | ● | ● | ● | ● | ● | ● | ● | - | - | |
| Measurements | Ashtray/cigarette slot | ○ | - | ● | ● | ● | ● | ● | ● | ● | |
| | Individual color (RAL/DB) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Capacity (liters) | 50 | 33 | 3,5 | 3,5 | 75 | 75 | 50 | 50/75 | 50/75 | |
| | Height above ground level (mm) | 969,5 | 1100 | 1097 | 1097 | 1181 | 910 | 855 | 1027 | 1027/1181 | 855/910 |
| | Container diameter (mm) | 462 | 385 | 108 | 108 | 400 | 400 | 350 | 350 | 350/400 | 350/400 |
| | Container height (mm) | | 620 | - | - | 961 | 690 | 635 | 807 | 807/961 | 635/690 |
| Weight (approx. in kg) | 24 | 9 | 13,5 | 13,5 | 40 | 40 | 37 | 37 | 37/40 | 37/40 | |
| Design | hrd+hz | | | | | | | | | | |

■ = Model | ● = Configuration | ○ = Option (with a surcharge) | - = Not available | hrd+hz = ammer.runge design and Heiko Zetzsche





Design: hammerrunge.design and Heiko Zetzsche



WASTE-CONTAINER 523

Steel | 50 liters

Specifications

The first part of the stand-alone waste container consists of a frame made of two parallel tubes, connected by a lower and an upper rim as well as a cover, the second part consists of a cylindrical steel container to be hung into the frame. The container can be swung off the frame. The container is attached to the ground from the inside. Contains approx. 50 l.

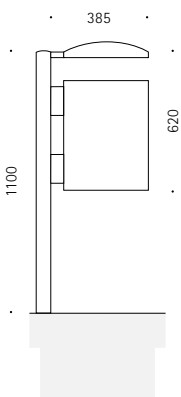
Mounting

On the ground from the interior of the container base

Finish

- Powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- Incl. internal container or alternatively with spikes to hold bin liners
- Cover including ashtray available as an optional accessory
- May be unlocked for emptying using a triangular key

| | | For Screwing |
|----------------------------|---------------------------------|----------------|
| Waste-Container 523 | S235 steel, powder-coated | 523.002 |
| Waste-Container 523 | Ashtray, stainless steel 1.4301 | 500.001 |



WASTE-CONTAINER 524

Steel | 33 liters

Specifications

Cylindrical waste container covered with a lid and holding a capacity of approx. 33 l, affixed to a circular post. A triangular lock must be opened to empty the container.

Mounting

Concrete embedment or insertion into a standard ground shell (not 3p-Technology)

Finish

- Hot-dip galvanised steel S235, alternatively with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- Incl. internal container
- May be unlocked for emptying using a triangular key

| | | For concrete embedding |
|----------------------------|---------------------------|------------------------|
| Waste-Container 524 | S235 steel, galvanised | 524.001 |
| Waste-Container 524 | S235 steel, powder-coated | 524.002 |





LATERAL EMPTYING

WASTE-CONTAINER 540

Steel | 75 + 50 liters

Specifications

Cylindrical waste container made of steel with an O-shaped slanted slot and a separate cigarette slot. Lateral door with internal hinges, triangular lock and curved opening flap for the easy removal of the inner container. The waste container is delivered together with a mounted bollard.

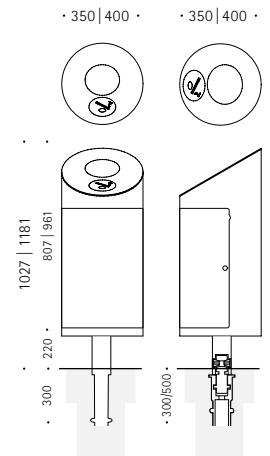
Mounting

Removable with 3p-Technology
Alternative: concrete embedment

Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- Cigarette slot: Stainless steel 1.4301
- Incl. internal container
- Emptying: Lateral door for an easier removal of the inner container
- May be unlocked for emptying using a triangular key

| | | | Steel S235 |
|----------------------------|-----------|--------------------|----------------|
| Waste-Container 540 | 75 liters | Fixed mounting | 540.201 |
| Waste-Container 540 | 75 liters | With 3p-Technology | 540.220 |
| Waste-Container 540 | 50 liters | Fixed mounting | 540.101 |
| Waste-Container 540 | 50 liters | With 3p-Technology | 540.120 |



ADVANTAGES AT A GLANCE

- Waste container stands completely firm without moving
- Thanks to its solid shell, the container generally remains undamaged after an impact
- Over 90% cost reduction for repairs
- Junction piece can be replaced in less than 3 minutes
- Only one call-out – reduced staff and vehicle costs
- Repair work does not have to be done on site
- Quick to disassemble if more space is needed at short notice
- Ground shells can be locked to prevent risk of tripping



WASTE CONTAINERS WITH 3P-TECHNOLOGY

Practical but stylish

This type of waste container combines functionality with design. Its classic cylindrical shape fits into any cityscape.

Its strong outer shell is extremely damage-resistant and also provides enough space for signs or billboards. When combined with the optional 3p-Flex junction piece, the waste container is even more resistant to everyday (traffic) inconveniences.

LATERAL EMPTYING

WASTE-CONTAINER 541

Steel | 75 + 50 liters

Specifications

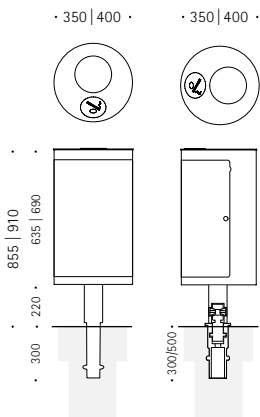
Cylindrical waste container made of steel with an O-shaped horizontal slot and a separate cigarette slot. Lateral door with internal hinges, triangular lock and curved opening flap for the easy removal of the inner container. The waste container is delivered together with a mounted bollard.

Mounting

Removable with 3p-Technology
Alternative: concrete embedment

Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- Cigarette slot: Stainless steel 1.4301
- Incl. internal container
- Emptying: Lateral door for an easier removal of the inner container
- May be unlocked for emptying using a triangular key



| | | | | Steel S235 |
|----------------------------|-----------|--------------------|--|----------------|
| Waste-Container 541 | 75 liters | Fixed mounting | | 541.201 |
| Waste-Container 541 | 75 liters | With 3p-Technology | | 541.220 |
| Waste-Container 541 | 50 liters | Fixed mounting | | 541.101 |
| Waste-Container 541 | 50 liters | With 3p-Technology | | 541.120 |



Laterally opening door for the comfortable removal of the inner container.



Curved opening flap for an easier opening of the door.



EMPTYING AT THE TOP

WASTE-CONTAINER 527 | 531

527 | *Steel + Stainless steel* | 75 liters

531 | *Steel* | 50 liters

Specifications

Cylindrical steel waste container with O-shaped, sloping slot area, separate cigarette slot and top opening lid. The container comes with an assembled bollard.

Mounting

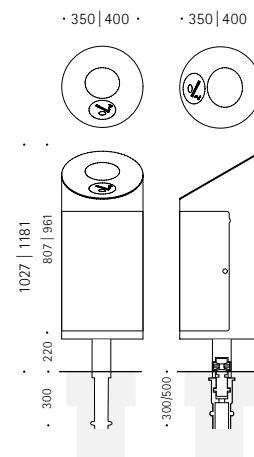
Removable with 3p-Technology

Alternative: concrete embedment

Finish

- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- Cigarette slot: Stainless steel 1.4301
- Incl. internal container
- May be unlocked for emptying using a triangular key

| | | | Steel S235 | Stainless steel 1.4301 |
|-----|-----------|--------------------|------------|------------------------|
| 527 | 75 liters | Fixed mounting | 527.001 | 527.011 |
| 527 | 75 liters | With 3p-Technology | 527.020 | 527.022 |
| 531 | 50 liters | Fixed mounting | 531.001 | - |
| 531 | 50 liters | With 3p-Technology | 531.020 | - |



▶ **ABES Waste-Containers equipped with 3p-Technology are always removable. They can easily be carried to different locations (e.g. the building yard) for cleaning or maintenance work.**

More about 3p-Technology: see pages 10-17

EMPTYING AT THE TOP

WASTE-CONTAINER 529 | 530

529 | Steel + Stainless steel | 75 liters

530 | Steel | 50 liters

Specifications

Cylindrical steel waste container with O-shaped, horizontal slot area and separate cigarette slot. The container comes with an assembled bollard.

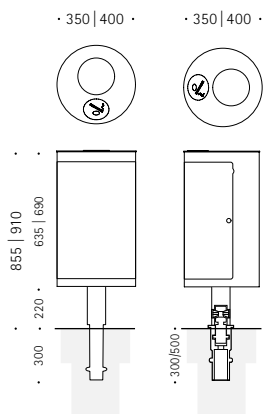
Mounting

Removable with 3p-Technology

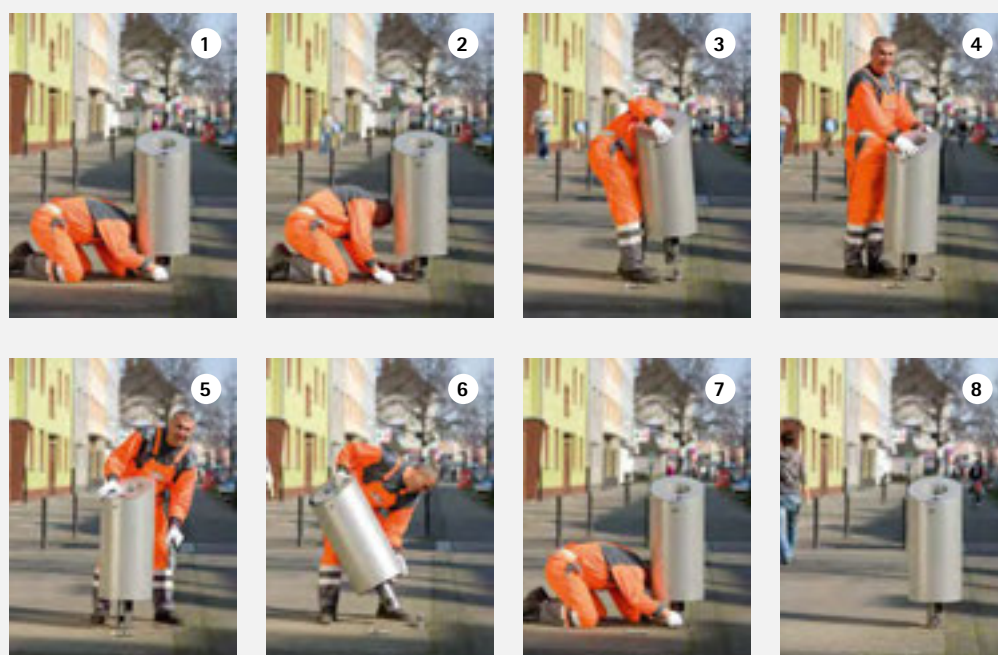
Alternative: concrete embedment

Finish

- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- Cigarette slot: Stainless steel 1.4301
- Incl. internal container
- May be unlocked for emptying using a triangular key



| | | | Steel S235 | Stainless steel 1.4301 |
|-----|-----------|--------------------|------------|------------------------|
| 529 | 75 liters | Fixed mounting | 529.001 | 529.011 |
| 529 | 75 liters | With 3p-Technology | 529.020 | 529.022 |
| 530 | 50 liters | Fixed mounting | 530.001 | - |
| 530 | 50 liters | With 3p-Technology | 530.020 | - |



Patented system:

Simple disassembly and assembly thanks to 3p-Technology

Removing waste container

- 1 Unscrew
- 2 Remove junction piece
- 3 Lift waste container out
- 4 Finished

Mounting waste container

- 5 Insert junction piece
- 6 Set up waste container
- 7 Screw in tightly
- 8 Finished



BOLLARD-ASHTRAY 525

Steel + Stainless steel | 1097 mm

Specifications

Fully cylindrical bollard ashtray with a sloping slot area. Labelling in the form of an outlined, laser-printed cigarette symbol.

Mounting

Removable with 3p-Technology

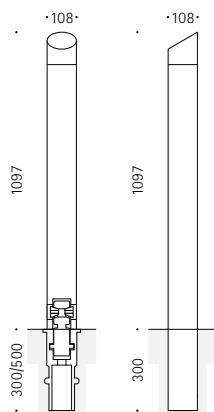
Alternative: concrete embedment or with flange to enable screwing

Finish

- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- May be unlocked for emptying using a triangular key
- Height can be adjusted on customer request

Note

Identical with Bollard 079 (without ashtray), see page 59



| | | Fixed mounting | 3p-Technology | For Screwing |
|----------------------------|-----------------|----------------|----------------|----------------|
| Bollard-Ashtray 525 | Steel | 525.001 | 525.020 | 525.040 |
| Bollard-Ashtray 525 | Stainless steel | 525.011 | 525.022 | 525.140 |



The only bollard ashtray with predetermined breaking point



05

BICYCLE STANDS

ABES bicycle stands are characterised by functionality and modern design, provide a firm grip and prevent the bikes from falling over, or having their wheels bent. The stands also allow bikes to be locked up securely, thereby protecting them from theft. The shape and function of the Bicycle-Stand 450-1 was given the "red dot" award by the NRW Design Centre for its high design quality.

The bicycle stands offer a wide variety of setup combinations, allowing different sized groups of stands to be combined. Their sophisticated design makes the various stands attractive objects in the urban setting. The tube constructions can be fitted with a curved cover, making it harder for the bikes to roll away, which allows them to be parked without risk to other road users.










1: Bicycle-Stand 453 LED page 126 | 2: Bicycle-Stand 451 page 119
3: Bicycle-Stand 450-1 row configuration page 121

BICYCLE-STAND 453 page 126













05 BICYCLE STANDS *Overview*

| | | BICYCLE STANDS | | | | ROW CONFIGURATIONS | | | | | | |
|----------------|------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|------|------|
| | |  |  |  |  |  | |  | |  | | |
| | | 450-1 | 450-2 | 451 | 480 | 450-1 | | 452 | | 473 | | |
| | | Bicycle stand | Bicycle stand | Bicycle stand | Bicycle stand | 2 | 3 | 2 | 3 | 2 | 3 | 4 |
| Catalogue page | | 118-120 | 118-120 | 119-120 | 131 | 121 | | 125 | | 128 | | |
| NEW 2020 | | | | | 2020 | | | | | | | |
| Material | Steel S235 (galvanised) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | Steel S235 (galvanised with powder coating) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | Stainless steel 1.4301 (smoothed, grain 240) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| Mounting | For concrete embedding (Installation depth: -300 mm) | ■ | ■ | ■ | ■ | - | - | - | - | - | - | |
| | Removable with ground shell(s) | ■ | ■ | ■ | - | - | - | - | - | - | - | |
| | For screwing (with flanges) | - | - | - | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| Options | With LED strip | - | - | - | - | - | - | - | - | - | ○ | |
| | Individual color (RAL/DB) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | Cover plate | ○ | ○ | ○ | - | - | - | - | - | - | - | |
| | Option: knee rail | - | - | - | - | - | - | ○ | ○ | ○ | ○ | |
| Measurements | Individual dimensions | - | - | - | - | - | ○ | ○ | ○ | ○ | ○ | |
| | Height above ground level (mm) | 845 | 845 | 855 | 810 | 848 | 848 | 800 | 800 | 860 | 860 | 860 |
| | Length (in mm) | 683 | 1240 | 340 | 720 | 1500 | 2250 | 1900 | 2850 | 800 | 1450 | 2100 |
| | Width (in mm) | 224 | 224 | 290 | 188 | ca. 700 | ca. 700 | 900 | 900 | 820 | 820 | 820 |
| | Weight (approx. in kg) | 8 | 10 | 8 | 6 | - | 53 | - | 21 | 20 | 28 | - |
| Design | | hrd | hrd | hrd | cm | hrd | | jpg | | | | |

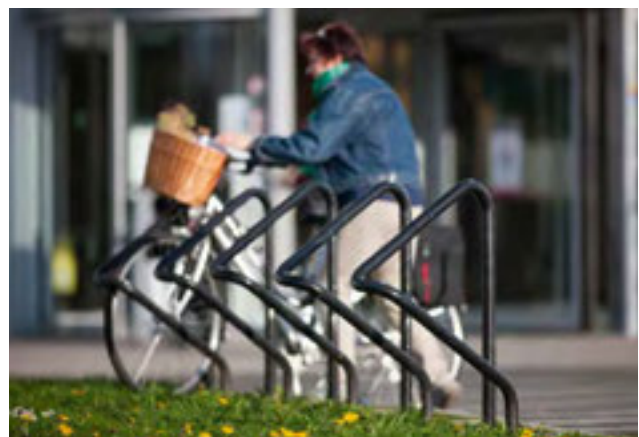
| | | RECOMMENDED BY ADFC | | | | | | | |
|----------------------------------------|-------------------------------------------------------------------|---------------------|-------------|-------|-------------|---------|-------------|-------------|-------------|
| | | 1.414 | | 1.415 | | 1.416 | | 1.417 | |
| | | High | Low | High | Low | High | Low | High | Low |
| Catalogue page | | 134 | | 135 | | 136 | | 133 | |
| NEW 2020 | | 2020 | | 2020 | | 2020 | | 2020 | |
| Material | Steel S235 (galvanised) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | Steel S235 (galvanised with powder coating) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | Stainless steel 1.4301 (electropolished) | □ | □ | □ | □ | □ | □ | □ | □ |
| Mounting | For bolting on trapezoidal rails | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | Extended version for underground bolting on trapezoidal rails | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | For concrete embedding | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Measurements (Single rack) | Individual color (RAL/DB) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | Surcharge for concrete bollard (from 450 mm wheel distance) | □ | □ | □ | □ | □ | □ | □ | □ |
| | Height above ground level (mm) | 985 | 740 | 985 | 740 | 800 | 800 | 680 | 680 |
| | Height wheel support in mm | 340 | 95 | 340 | 95 | 283 | 83 | 90 | 90 |
| | Width single sided at 90° in mm | 275 | 275 | 270 | 270 | 260 | 260 | 240 | 240 |
| | Width double sided at 90° in mm | 305 | 305 | 285 | 285 | 380 | 380 | - | - |
| | Rail distance (centre point) at 90° (45°/60°) wheel support in mm | 365 | 365 (330) | 365 | 365 (330) | 400 | 400 | 325 | 325 |
| | Total depth single sided in mm | 610 | 610 | 695 | 695 | 852 | 740 | 585 | 585 |
| | Total depth double sided in mm | 650 | 650 | 705 | 705 | 1084 | 1084 | - | - |
| | Storage footprint depth single sided at 90° (45°/60°) in mm | 1900 | 1900 (1300) | 1900 | 1900 (1300) | 1900 | 1900 (1300) | 1900 (1600) | 1900 (1600) |
| Storage space depth double sided in mm | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | - | - | |
| Weight single sided in kg | 10 | 10 | 8,5 | 8,5 | 13 | 13 (15) | 7 | 7 | |
| Weight double sided in kg | 12 | 12 | 10,5 | 10,5 | 16 | 16 | - | - | |

■ = Model | □ = On request | ● = Configuration | ○ = Option (with a surcharge) | - = Not available | hrd = hammer.runge.design | jpg = J. P. Gillen | cm = Christoph Marzi

| | | BICYCLE STANDS | | | | | | | |
|----------------|------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| | |  |  |  |  |  |  |  |  |
| | | 453 | 453 LED | 470 | 471 | 472 | 474 | 476 | 477 |
| | | Bicycle stand | Bicycle stand | Bicycle stand | Bicycle stand | Bicycle stand | Bicycle stand | Bicycle stand | Bicycle stand |
| Catalogue page | | 126-127 | 126-127 | 124 | 129 | 130 | 130 | 122 | 123 |
| NEW 2020 | | | | | | | 2020 | 2020 | 2020 |
| Material | Steel S235 (galvanised) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | Steel S235 (galvanised with powder coating) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | Stainless steel 1.4301 (smoothed, grain 240) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Mounting | For concrete embedding (Installation depth: -300 mm) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | Removable with ground shell(s) | ■ | ■ | ■ | ■ | - | - | ■ | ■ |
| | For screwing (with flanges) | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Options | With LED strip | - | ● | - | - | - | - | - | - |
| | Individual color (RAL/DB) | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | Cover plate | - | - | - | - | - | - | - | - |
| | Option: knee rail | ○ | ○ | ● | ● | ● | ● | ● | ● |
| | Individual dimensions | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Measurements | Height above ground level (mm) | 860 | 860 | 860 | 800 | 800 | 900 | 900 | 900 |
| | Length (in mm) | 820 | 820 | 860 | 800 | 850 | 900 | 700 | 350 |
| | Width (in mm) | 50 | 50 | 48 | 60 | 80 | 80 | 48 | 48 |
| | Weight (approx. in kg) | 6,5 | 6,5 | 5,5 | 6,5 | 7,5 | 7,5 | 7 | 5,5 |
| Design | | | | | | | | | |

A closer look on ... bicycle stands!

Urbanization is a leading trend of our time. Creating a livable urban environment is the challenge within that growth. How can the infrastructural, ecological, economic, and social problems resulting from an increasing urbanization be solved? How can quality of life and sustainability be guaranteed in an environment where everything is becoming increasingly condensed?



Read the full text on our website:

<https://www.abes-online.com/a-closer-look-on-bicycle-stands>



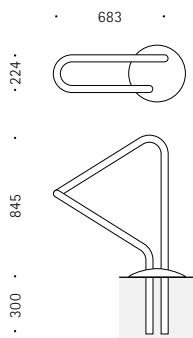


BICYCLE-STAND 450-1

Steel + Stainless steel

Specifications

Frame made of bent steel tubes with a 42.4 x 2.5 mm diameter, a vertical rear tube, and mutually offset tube ends.



| | | Bicycle stand | Cover plate (optional) |
|-------|---------------------------|---------------|------------------------|
| 450-1 | Steel S235, galvanised | 450.001 | 455.001 |
| 450-1 | Steel S235, powder-coated | 450.011 | 455.011 |
| 450-1 | Stainless steel 1.4301 | 450.002 | 455.002 |

Ground shell for removable model: **456.002**

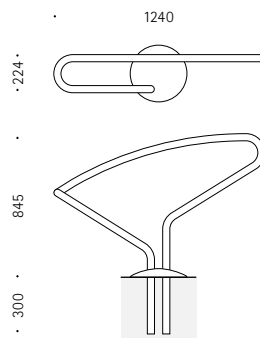


BICYCLE-STAND 450-2

Steel + Stainless steel

Specifications

Frame made of bent steel tubes with a 42.4 x 2.5 mm diameter, an overhanging rear tube, as well as mutually offset tube ends.



| | | Bicycle stand | Cover plate (optional) |
|-------|---------------------------|---------------|------------------------|
| 450-2 | Steel S235, galvanised | 450.003 | 455.001 |
| 450-2 | Steel S235, powder-coated | 450.013 | 455.011 |
| 450-2 | Stainless steel 1.4301 | 450.004 | 455.002 |

Ground shell for removable model: **456.002**





Design: hammer.runge.design | Registered design DM/050906

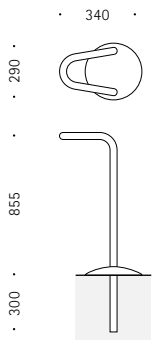


BICYCLE-STAND 451

Steel + Stainless steel

Specifications

Frame made of bent steel tubes with a 42.4 x 2.5 mm diameter and parallel tube ends.



Mounting

- Concrete embedment (only one foundation required)
- Alternative: removable with ground shell
- Optional: convex cover plate with a 300 mm diameter

Finish

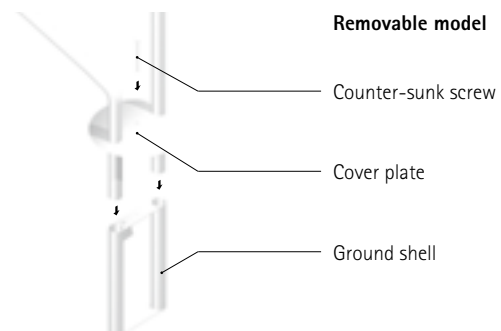
- Stainless steel 1.4301 smoothed, grain 240
- Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge

Note

For the removable version, the cover plate is needed.

| | | Bicycle stand | Cover plate (optional) |
|-----|---------------------------|---------------|------------------------|
| 451 | Steel S235, galvanised | 451.003 | 455.003 |
| 451 | Steel S235, powder-coated | 451.013 | 455.013 |
| 451 | Stainless steel 1.4301 | 451.004 | 455.004 |

Ground shell for removable model: **456.003**



Removable model

Counter-sunk screw

Cover plate

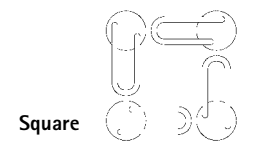
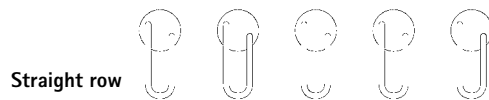
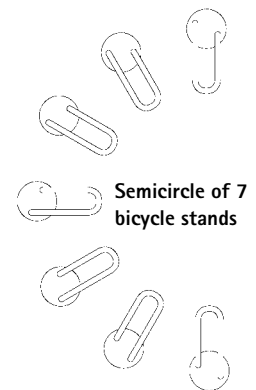
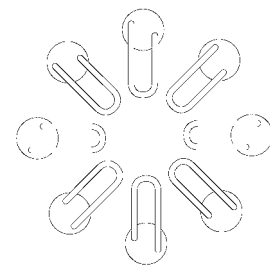
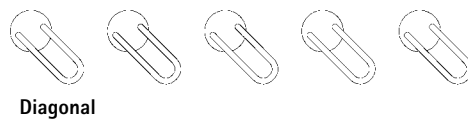
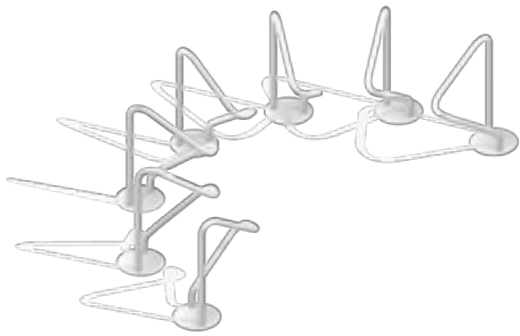
Ground shell



BICYCLE-STAND 450 | 451

Sample configurations

These examples for designing parking areas with the ABES Bicycle-Stand 450 or 451 may serve as inspiration for the variety of configuration options.



1 Bicycle-Stand 450-5

*Powder-coated,
DB703 glimmer grey*

2 Bicycle-Stand 450-1

*Powder-coated,
DB703 glimmer grey*

3 Bicycle-Stand 450-2

*Powder-coated,
DB703 glimmer grey*



Note

The division into segments of 2 or 3 racks and the row adapter plate allow the installation of any number of racks to create a row parking facility.



BICYCLE-STAND 450-1 row configuration

Steel + Stainless steel | Double or triple racks, prepared for row connection

Specifications

Two or three adjacent bars made of bent steel tube with a tube diameter of 42.4 x 2.5 mm, a vertical rear tube run, and with staggered tube ends. Each bar is welded at an angle of 90° (45° on request) to the curved base plate which can be assembled in rows at both ends.

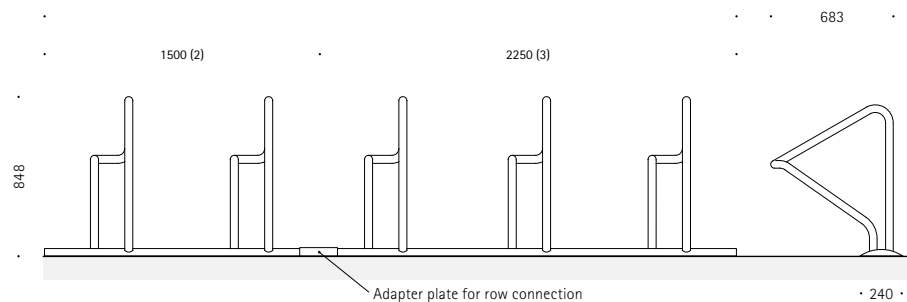
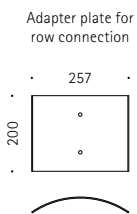
Finish

- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge

Mounting

Screw-on

Installation example: combination of 2 and 3 rack row system



| | | Double rack | Triple rack | Adapter plate |
|--------------------------------|---------------------------|----------------|----------------|----------------|
| 450-1 Row configuration | Steel S235, galvanised | 450.201 | 450.301 | 450.901 |
| 450-1 Row configuration | Steel S235, powder-coated | 450.211 | 450.311 | 450.903 |
| 450-1 Row configuration | Stainless steel 1.4301 | 450.202 | 450.302 | 450.902 |



05 BICYCLE STANDS



BICYCLE-STAND 476

Steel + Stainless steel

Specifications

U-rack made of steel tube with a tube diameter of 48 mm and a knee rail, optionally with or without knee rail.

Mounting

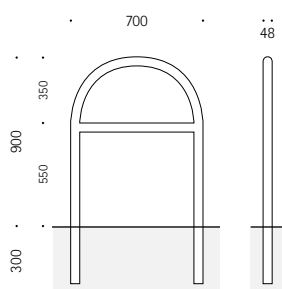
Concrete embedment

Alternative: version with two flanges to enable screwing

Option: removable with ground shells

Finish

- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- Tube dimensions, heights and widths other than specified are available on request and at an additional cost
- Optionally with or without knee rail

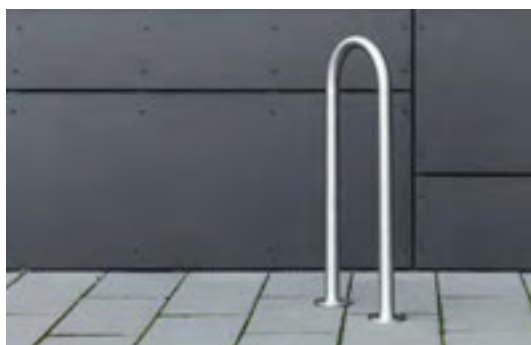


| | | Concrete embedment | With flanges to enable screwing |
|--------------------------------------------|---------------------------|--------------------|---------------------------------|
| Bicycle-Stand 476 without knee rail | Steel S235, galvanised | 476.001 | 476.040 |
| Bicycle-Stand 476 without knee rail | Steel S235, powder-coated | 476.101 | 476.140 |
| Bicycle-Stand 476 without knee rail | Stainless steel 1.4301 | 476.201 | 476.240 |
| Bicycle-Stand 476 with knee rail | Steel S235, galvanised | 476.301 | 476.340 |
| Bicycle-Stand 476 with knee rail | Steel S235, powder-coated | 476.401 | 476.440 |
| Bicycle-Stand 476 with knee rail | Stainless steel 1.4301 | 476.501 | 476.540 |



2020





BICYCLE-STAND 477

Steel + Stainless steel

Specifications

Rack made of a narrow U-shaped steel tube with a diameter of 48 mm, optionally with or without knee rail.

Mounting

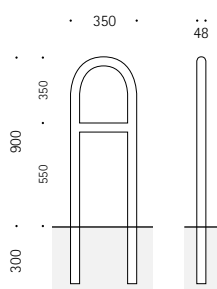
Concrete embedment

Alternative: version with two flanges to enable screwing

Option: removable with ground shells

Finish

- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- Tube dimensions, heights and widths other than specified are available on request and at an additional cost
- Optionally with or without knee rail



| | | Concrete embedment | With flanges to enable screwing |
|--------------------------------------------|---------------------------|--------------------|---------------------------------|
| Bicycle-Stand 477 without knee rail | Steel S235, galvanised | 477.001 | 477.040 |
| Bicycle-Stand 477 without knee rail | Steel S235, powder-coated | 477.101 | 477.140 |
| Bicycle-Stand 477 without knee rail | Stainless steel 1.4301 | 477.201 | 477.240 |
| Bicycle-Stand 477 with knee rail | Steel S235, galvanised | 477.301 | 477.340 |
| Bicycle-Stand 477 with knee rail | Steel S235, powder-coated | 477.401 | 477.440 |
| Bicycle-Stand 477 with knee rail | Stainless steel 1.4301 | 477.501 | 477.540 |



2020



BICYCLE-STAND 470

Steel + Stainless steel

Specifications

Bike rail made of a bent steel tube with a tube diameter of 48,3 mm, optionally with or without knee rail.

Mounting

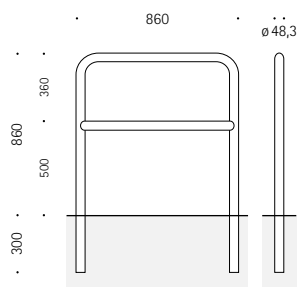
Concrete embedment

Alternative: version with two flanges to enable screwing

Option: removable with ground shells

Finish

- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- Tube dimensions, heights and widths other than specified are available on request and at an additional cost
- Optionally with or without knee rail



| | | Concrete embedment | With flanges to enable screwing |
|--------------------------------------------|---------------------------|--------------------|---------------------------------|
| Bicycle-Stand 470 without knee rail | Steel S235, galvanised | 470.001 | 470.040 |
| Bicycle-Stand 470 without knee rail | Steel S235, powder-coated | 470.101 | 470.140 |
| Bicycle-Stand 470 without knee rail | Stainless steel 1.4301 | 470.201 | 470.240 |
| Bicycle-Stand 470 with knee rail | Steel S235, galvanised | 470.301 | 470.340 |
| Bicycle-Stand 470 with knee rail | Steel S235, powder-coated | 470.401 | 470.440 |
| Bicycle-Stand 470 with knee rail | Stainless steel 1.4301 | 470.501 | 470.540 |





Design: J. P. Gillen | Registered design

Note

The division into segments of 2 or 3 racks and the row connector allow the installation of any number of racks to create a row parking facility.

BICYCLE-STAND 452

Steel + Stainless steel | Double or triple racks, prepared for row connection

Specifications

Two or three U-rack steel tubes with a tube diameter of 42.4 mm x 2.5 mm, bolted onto two flat bars which can be assembled in rows.
Holes for ground anchor bolts provided.

Mounting

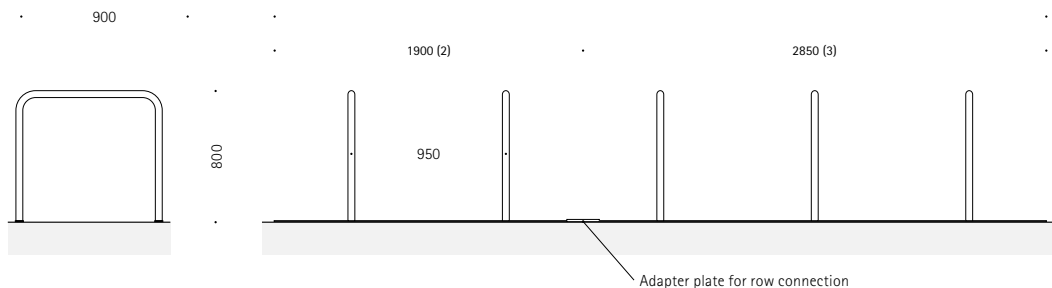
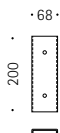
Screw-on

Finish

- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- Tube dimensions, heights and widths other than specified are available on request and at an additional cost
- Optionally with knee rail

Installation example: combination of 2 and 3 rack row system

Adapter plate for row connection



| | | Double rack | Triple rack | Adapter plate for row connection |
|--------------------------|---------------------------|----------------|----------------|----------------------------------|
| Bicycle-Stand 452 | Steel S235, galvanised | 452.201 | 452.301 | 452.901 |
| Bicycle-Stand 452 | Steel S235, powder-coated | 452.211 | 452.311 | 452.903 |
| Bicycle-Stand 452 | Stainless steel 1.4301 | 452.202 | 452.302 | 452.902 |





BICYCLE-STAND 453

Steel + Stainless steel

Specifications

U-rack made of perpendicular steel profiles (rectangular profile 50 x 20 mm mitre-cut), optionally with knee rail.



BICYCLE-STAND 453 LED

Steel + Stainless steel

Specifications

Bike rail made of right-angled steel profiles with LED strip on the underside of the cross tube (50 x 20 mm rectangular profile, mitre-cut). Operated with 24 V low voltage, 1 m connector cable with plug socket at the base of the rail. IP Code IP67, optionally with knee rail.

Technical information

LED strip (approx. 24.5 x 770 mm) on the underside of the cross tube

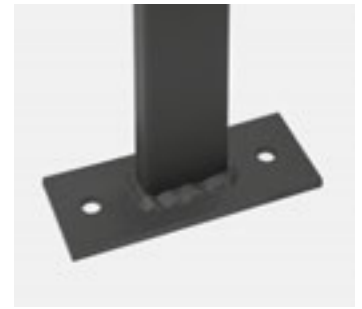
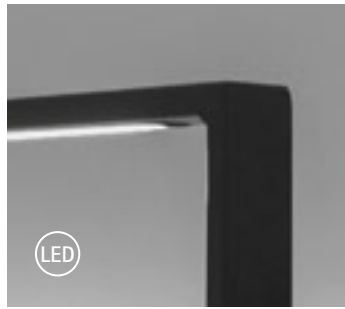
| | |
|------------------|-----------------------------|
| Power supply: | 24 Volt DC |
| Power input: | ca. 6,7 W |
| Luminous flux: | approx. 560 lm |
| Beam angle: | 120° |
| Light colour: | 4000 K |
| Light output: | CRI > 80 |
| IP Code IP67: | IP67 |
| Connector cable: | approx. 1 m with plug, IP67 |

Note

- Including power cable, consisting of a bollard-sided cable with a plug (IP67, 50 cm) and a ground-sided cable with a socket (IP67, 150 cm).
- Technical components for power supply and control are not included. The connection has to be made by the customer.

The LED unit is available as a spare part and be replaced in case of damage.

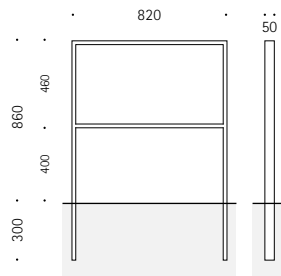
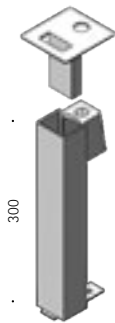




Usable side by side as a handrail or railing (see page 141)



Ground shell with clamping cover rosette
(removable version)*



Mounting

- Concrete embedment
- Option: removable with ground shells
- Alternative: version with two flanges to enable screwing

Finish

- Stainless steel 1.4301 smoothed, grain 240
- Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- Profile dimensions, heights and widths other than specified are available on request and at an additional cost
- Optionally with knee rail

| | | Concrete embedding/Removable* | With flanges to enable screwing |
|-----|---------------------------|-------------------------------|---------------------------------|
| 453 | Steel S235, galvanised | 453.001 | 453.240 |
| 453 | Steel S235, powder-coated | 453.011 | 453.040 |
| 453 | Stainless steel 1.4301 | 453.002 | 453.140 |

| | | Concrete embedding | Removable* | With flanges to enable screwing |
|---------|---------------------------|--------------------|------------|---------------------------------|
| 453 LED | Steel S235, galvanised | 453.101 | 453.201 | 453.540 |
| 453 LED | Steel S235, powder-coated | 453.111 | 453.211 | 453.340 |
| 453 LED | Stainless steel 1.4301 | 453.102 | 453.202 | 453.440 |

Accessories for the removable version*

| | | |
|--------------------------------------------------------------------|----------------------|-------------------|
| Pair of ground shell with clamping cover rosette for 453 + 453 LED | Steel, galvanised | 458.002 + 458.005 |
| Pair of ground shell with clamping cover rosette for 453 + 453 LED | Steel, powder-coated | 458.002 + 458.006 |
| Pair of ground shell with clamping cover rosette for 453 + 453 LED | Stainless steel | 458.002 + 458.007 |
| Cover plates for ground shells | | 458.003 |

*For the removable version, two ground shells and clamping cover rosettes are mandatory.





BICYCLE-STAND 473

Steel + Stainless steel | Two, three or four adjacent bicycle stands

Specifications

Two, three or four adjacent Bicycle-Stands 453 made of rectangular steel profiles (50 x 20 mm) with welded mast and rigid flag panel with individual laser cut pattern. Racks are bolted onto two flat bars, prepared to be assembled in a row.

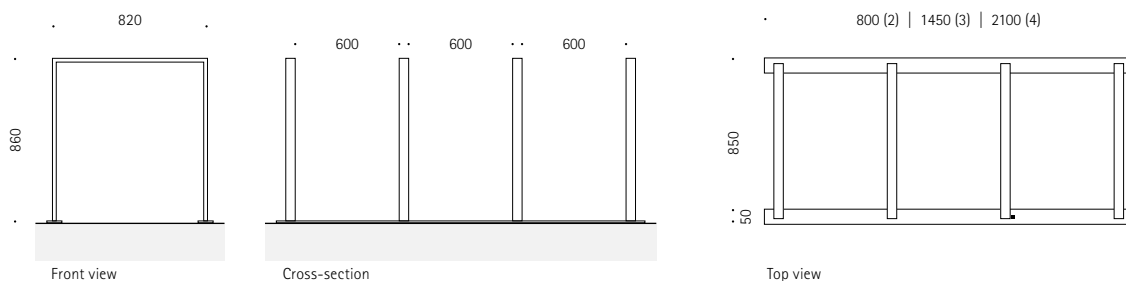
Mounting

Screw-on

Finish

- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- Profile dimensions, heights and widths other than specified are available on request and at an additional cost
- Optionally with knee rail

► Also available with LED strip on the underside of the cross tube or with knee rail (s. page 126)



| | | 2 bicycle stands | 3 bicycle stands | 4 bicycle stands |
|--------------------------|---------------------------|------------------|------------------|------------------|
| Bicycle-Stand 473 | Steel S235, galvanised | 473.201 | 473.301 | 473.401 |
| Bicycle-Stand 473 | Steel S235, powder-coated | 473.211 | 473.311 | 473.411 |
| Bicycle-Stand 473 | Stainless steel 1.4301 | 473.202 | 473.302 | 473.402 |





BICYCLE-STAND 471

Steel + Stainless steel

Specifications

Bike rail with rounded edges made of 60 x 12 mm flat steel, optionally with or without knee rail.

Mounting

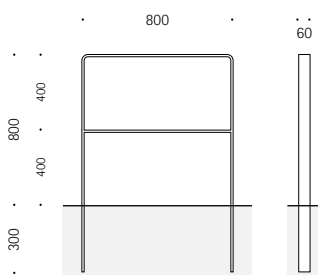
Concrete embedment

Alternative: version with two flanges to enable screwing

Option: removable with ground shells

Finish

- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- Additional material thicknesses, heights and widths available upon request and at a surcharge
- Optionally with or without knee rail



| | | Concrete embedment | With flanges to enable screwing |
|--------------------------------------------|---------------------------|--------------------|---------------------------------|
| Bicycle-Stand 471 without knee rail | Steel S235, galvanised | 471.001 | 471.040 |
| Bicycle-Stand 471 without knee rail | Steel S235, powder-coated | 471.101 | 471.140 |
| Bicycle-Stand 471 without knee rail | Stainless steel 1.4301 | 471.201 | 471.240 |
| Bicycle-Stand 471 with knee rail | Steel S235, galvanised | 471.301 | 471.340 |
| Bicycle-Stand 471 with knee rail | Steel S235, powder-coated | 471.401 | 471.440 |
| Bicycle-Stand 471 with knee rail | Stainless steel 1.4301 | 471.501 | 471.540 |





BICYCLE-STAND 472

Steel + Stainless steel

Specifications

Rack with knee rail and rounded edges made of 80 x 10 mm bent flat steel.

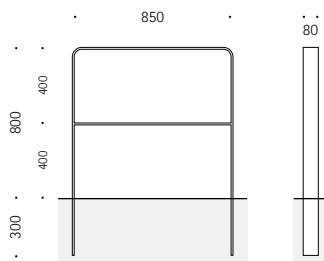
Mounting

Concrete embedment

Alternative: version with two flanges to enable screwing

Finish

- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- Additional material thicknesses, heights and widths available upon request and at a surcharge
- Optionally without knee rail



| | | Concrete embedding | For screwing |
|-----|---------------------------|--------------------|--------------|
| 472 | Steel S235, galvanised | 472.001 | 472.040 |
| 472 | Steel S235, powder-coated | 472.101 | 472.140 |
| 472 | Stainless steel 1.4301 | 472.201 | 472.240 |



BICYCLE-STAND 474

Steel + Stainless steel

Specifications

Rack with knee rail made of flat steel 80 x 10 mm with mitred edges and welded (90°).

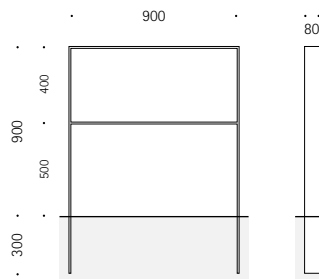
Mounting

Concrete embedment

Alternative: version with two flanges to enable screwing

Finish

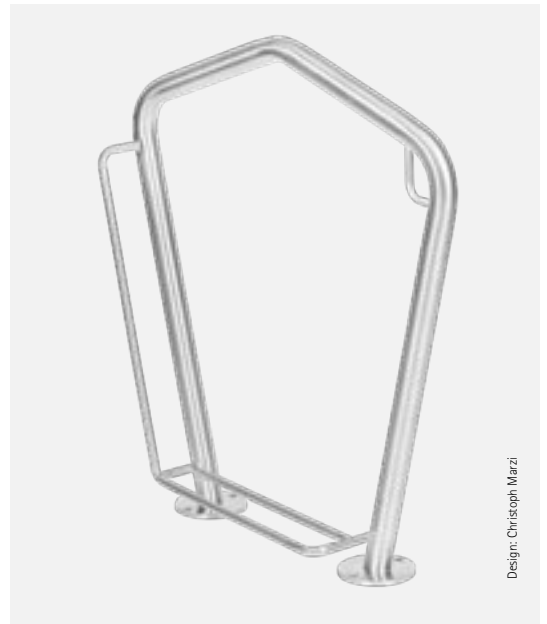
- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- Additional material thicknesses, heights and widths available upon request and at a surcharge
- Optionally without knee rail



| | | Concrete embedding | For screwing |
|-----|---------------------------|--------------------|--------------|
| 474 | Steel S235, galvanised | 474.001 | 474.040 |
| 474 | Steel S235, powder-coated | 474.101 | 474.140 |
| 474 | Stainless steel 1.4301 | 474.201 | 474.240 |



- ▶ High/low position to save parking space
- ▼ Suitable for all bicycles with a tire width of up to approx. 60 mm.



Design: Christoph Marzi

BICYCLE-STAND 480

Steel + Stainless steel

Specifications

Bicycle stand made of triple bent steel tube with a tube diameter of 42 mm. Lateral steel bar construction to store the front wheel at a 90° angle. Inward eyelet for attaching a bicycle lock

Mounting

Concrete embedment

Alternative: version with two flanges to enable screwing

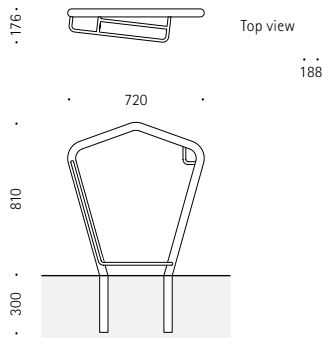
Finish

- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge

On request:

- Bicycle stand with two-sided wheel storage (2 bikes per bracket)
- Bicycle stand row configuration bolted onto flat steel rails
- High/low position to save parking space

▶ Suitable for all bicycles with a tire width of up to approx. 60 mm.



| | | Concrete embedment | With flanges to enable screwing |
|--------------------------|---------------------------|--------------------|---------------------------------|
| Bicycle-Stand 480 | Steel S235, galvanised | 480.001 | 480.040 |
| Bicycle-Stand 480 | Steel S235, powder-coated | 480.101 | 480.140 |
| Bicycle-Stand 480 | Stainless steel 1.4301 | 480.201 | 480.240 |



2020



Bicycle stands recommended by the ADFC

Finding the right model among a large selection of bicycle stands is mostly not easy. In order to define a common standard for bicycle parking facilities, the "Allgemeine Deutsche Fahrrad-Club" (ADFC) has summarized certain criteria in a certification.

Even though our bike racks have proven themselves in every possible situation over the past 25 years, we are also offering ADFC recommended bicycle stands from this year on.

On the topic of cycling, the ADFC is considered as an institution in Germany. As an interests group, it is committed to the consistent promotion of bicycles in road traffic. Furthermore, the association supports manufacturers in the development of serviceable products

related to bicycles. The ADFC experts have also made recommendations for bicycle parkers which are all met by our ADFC recommended bicycle stands: they are easy to use and are suitable for a wide range of models. They also offer the option of securing bikes on both the front and the rear wheel. Furthermore, the ADFC certified bicycle stands are protected against vandalism, offer extra space between the individual bikes and are no hazardous obstacle for pedestrians. Last but not least, their design prevents the handlebar of the bike to turn, even with strong cross winds, and provides a stable and secure stand even in poor conditions.

See for yourself the advantages of our ADFC recommended bicycle stands – you will find the entire range on the following pages.

Technical article 
www.abes-online.com 

Bicycle traffic – a challenge

Many cities and municipalities have been struggling with increased traffic for years. Promoting bicycle transport is a possible solution to reduce road congestion – associated with structural changes. Making this mode of transport to be safe in an urban environment and a real alternative to private motorized transport, the infrastructure has to be adapted to its particular needs.



Read the full article on our website:

<https://www.abes-online.com/en/guides/bicycle-traffic-a-challenge/>



- ✓ LOW REQUIREMENTS ON THE SITE (MINOR UNDERGROUND WORK)
- ✓ NO ROLLING AWAY OR TIPPING OVER



TESTED BY THE ADFC FOR CONVENIENT AND CAUTIOUS PARKING.

BICYCLE-STAND 1.417

Steel

Specifications

Bicycle stand, slightly inclined to the right, made of round steel tubes (Ø 27 mm) with single sided bike support made of steel rods.

ADFC recommended quality, ADFC test no. Q 1203.

Mounting

For bolting with trapezoidal rails

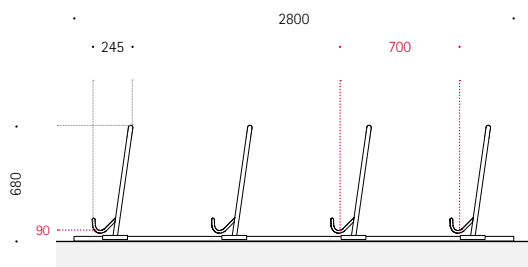
On request: version for concrete embedment or extended version for screw fixing at -200 mm

Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- On request: Stainless steel 1.4301, electropolished/high-gloss

► Details and additional versions in ADFC recommended quality on request or in the ABES online shop

Configuration example: 4 rack row system for bolting, 90° - for 4 bicycles



Single sided, low
Rack spacing recommended by the ADFC: 700 mm

| | galvanised | galvanised/powder-coated |
|------------------------------------------------------------------------|------------|--------------------------|
| Single rack for bolting with trapezoidal rails, bike support 90° | 1.417.101 | 1.417.102 |
| Single rack for bolting with trapezoidal rails, bike support 60° left | 1.417.104 | 1.417.105 |
| Single rack for bolting with trapezoidal rails, bike support 60° right | 1.417.106 | 1.417.107 |
| Single rack for concrete embedment | 1.417.110 | 1.417.111 |



No distribution in Austria and Switzerland

2020

05 BICYCLE STANDS *Recommended by the ADFC*



- ✓ LOW REQUIREMENTS ON THE SITE (MINOR UNDERGROUND WORK)
- ✓ VERSATILE THANKS TO MANY VARIANTS
- ✓ NO ROLLING AWAY OR TIPPING OVER
- ✓ CAUTIOUS PARKING AS THE BIKE FRAME DOES NOT TOUCH THE MAIN BAR



TESTED BY
THE ADFC FOR
CONVENIENT AND
CAUTIOUS
PARKING.

BICYCLE-STAND 1.414

Steel

Specifications

Bicycle stand made of round steel tube (Ø 42,4 mm) with single or double sided wheel support made of solid steel (Ø 16 mm) and either high or low support position. Possibility to attach a bike lock.

ADFC recommended quality, ADFC test no. Q 0904.

Mounting

For bolting with trapezoidal rails

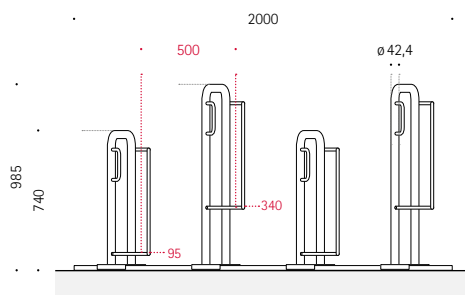
On request: version for concrete embedment or extended version for screw fixing at -250 mm

Finish

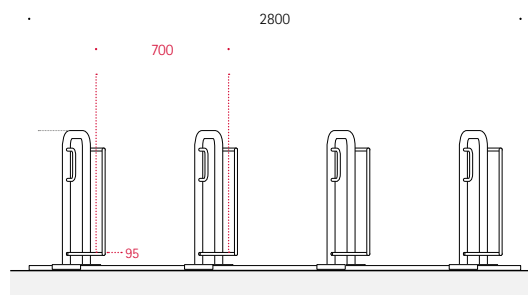
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- On request: Stainless steel 1.4301, electropolished/high-gloss

► *Details and additional versions in ADFC recommended quality on request or in the ABES online shop*

Configuration example: 4 rack row system on trapezoidal rail, for bolting, 90° bike support



Single sided, low/high
Rack spacing recommended by the ADFC: 500 mm



Single sided, low/low
Rack spacing recommended by the ADFC: 700 mm

| | | | | high/low | low/low |
|------------------------------------|--------------|----------------|------------------------|-----------|-----------|
| 4 rack row system for bolting, 90° | Single sided | for 4 bicycles | Steel S235, galvanised | 1.414.411 | 1.414.412 |
| 4 rack row system for bolting, 90° | Double sided | for 8 bicycles | Steel S235, galvanised | 1.414.421 | 1.414.422 |



No distribution in Austria and Switzerland

2020



- ✓ EXTENDED LOCKING RACK FOR NEWER FRAME GEOMETRIES
- ✓ LOW REQUIREMENTS ON THE SITE (MINOR UNDERGROUND WORK)
- ✓ VERSATILE THANKS TO DIFFERENT VARIATIONS
- ✓ NO ROLLING AWAY OR TIPPING OVER
- ✓ CAUTIOUS PARKING AS THE BIKE FRAME DOES NOT TOUCH THE MAIN BAR



TESTED BY THE ADFC FOR CONVENIENT AND CAUTIOUS PARKING.

BICYCLE-STAND 1.415

Steel

Specifications

Bicycle stand made of round steel tube (Ø 33,7 mm) with single or double sided wheel support made of solid steel (Ø 16 mm) and either high or low support position. Possibility to attach a bike lock.

ADFC recommended quality, ADFC test no. Q 1204.

Mounting

For bolting with trapezoidal rails

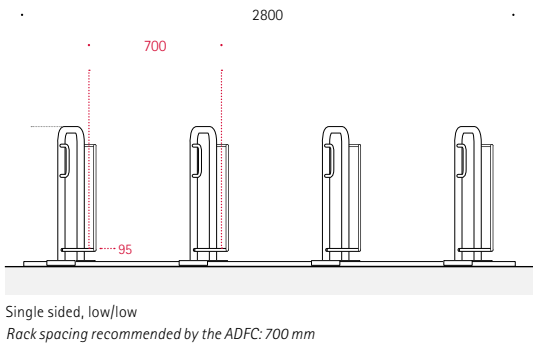
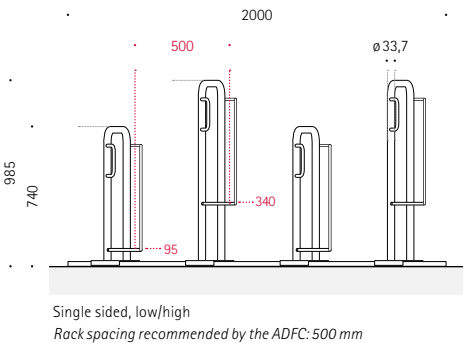
On request: version for concrete embedment or extended version for screw fixing at -250 mm

Finish

- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- On request: Stainless steel 1.4301, electropolished/high-gloss

► Details and additional versions in ADFC recommended quality on request or in the ABES online shop

Configuration example: 4 rack row system on trapezoidal rail, for bolting, 90° bike support



| | | | | high/low | low/low |
|------------------------------------|--------------|----------------|------------------------|-----------|-----------|
| 4 rack row system for bolting, 90° | Single sided | for 4 bicycles | Steel S235, galvanised | 1.415.411 | 1.415.412 |
| 4 rack row system for bolting, 90° | Double sided | for 8 bicycles | Steel S235, galvanised | 1.415.421 | 1.415.422 |



No distribution in Austria and Switzerland

2020

05 BICYCLE STANDS *Recommended by the ADFC*



- ✓ IN ALL WHEEL SUPPORT VARIANTS (HIGH/LOW), THE MAIN RACK REMAINS AT THE SAME HEIGHT
- ✓ LOW REQUIREMENTS ON THE SITE (MINOR UNDERGROUND WORK)
- ✓ NO ROLLING AWAY OR TIPPING OVER



TESTED BY THE ADFC FOR CONVENIENT AND CAUTIOUS PARKING.

BICYCLE-STAND 1.416

Steel

Specifications

Bicycle stand made of round steel tube (Ø 42,4 mm) wheel support made of solid steel (Ø 16 mm) and either high or low support position. Possibility to attach a bike lock.
ADFC recommended quality, ADFC test no. Q 0901.

Mounting

For bolting with trapezoidal rails

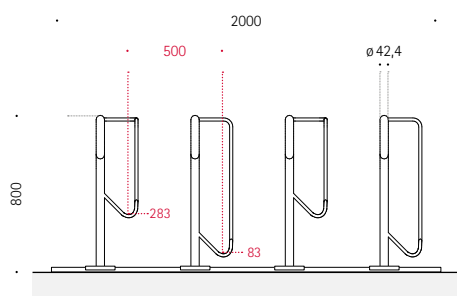
On request: version for concrete embedment or extended version for screw fixing at -200 mm

Finish

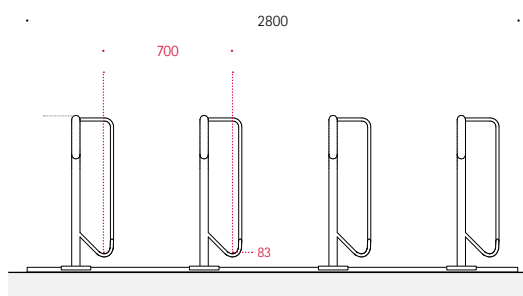
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge
- On request: Stainless steel 1.4301, electropolished/high-gloss

► *Details and additional versions in ADFC recommended quality on request or in the ABES online shop*

Configuration example: 4 rack row system on trapezoidal rail, for bolting, 90° bike support



Single sided, high/low
 Rack spacing recommended by the ADFC: 500 mm



Single sided, low/low
 Rack spacing recommended by the ADFC: 700 mm

| | | | | high/low | low/low |
|------------------------------------|--------------|----------------|------------------------|------------------|------------------|
| 4 rack row system for bolting, 90° | Single sided | for 4 bicycles | Steel S235, galvanised | 1.416.411 | 1.416.412 |
| 4 rack row system for bolting, 90° | Double sided | for 8 bicycles | Steel S235, galvanised | 1.416.421 | 1.416.422 |



No distribution in Austria and Switzerland

2020




CONFIGURATION ASSISTANT for bicycle stands recommended by the ADFC

using the example of the bicycle parker 1.414

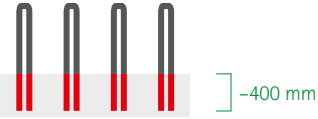
Six simple steps to the desired configuration.

STEP 1: FASTENING

FOR SCREW FIXING
Single racks in a row – mounted on trapezoidal rails¹

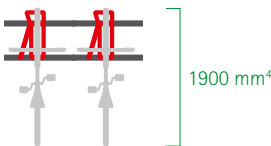


FOR CONCRETE EMBEDMENT
Single rack

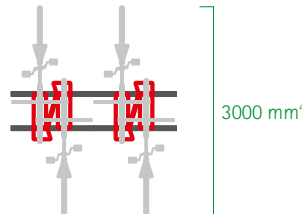


STEP 2: SINGLE OR DOUBLE SIDED BIKE SUPPORT

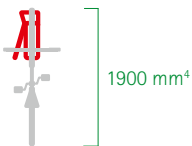
SINGLE SIDED
1 bike support per rack



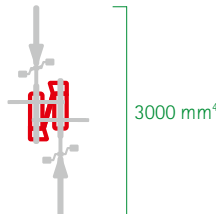
DOUBLE SIDED
2 bike supports per rack



SINGLE SIDED
1 bike support per rack



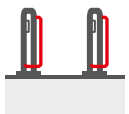
DOUBLE SIDED
2 bike supports per rack



STEP 3: BIKE SUPPORT HEIGHT

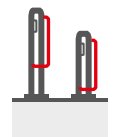
LOW/LOW
Rack spacing recommended by the ADFC:

700 mm




HIGH/LOW
Rack spacing recommended by the ADFC:


500 mm



LOW
Free arrangement¹




HIGH
Free arrangement²

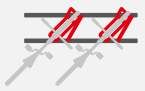


STEP 4: BIKE SUPPORT ANGLE

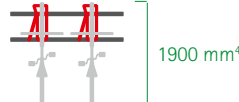
45° LEFT³
ergonomically recommended



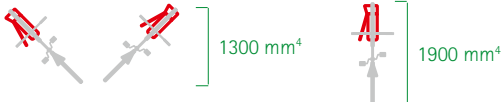
45° RIGHT³



90°



FREE CHOICE OF ANGLE FOR SINGLE RACK
Determined by the client



STEP 5: CHOICE OF MATERIAL

ST STEEL S235, GALVANISED

ST STEEL S235, GALVANISED AND POWDER-COATED

AISI STAINLESS STEEL 1.4301 ELECTROPOLISHED/HIGH-GLOSS

STEP 6: NUMBER OF RACKS

Single side option: 1 bike support per rack

Double side option: 2 bike supports per rack

¹Extended version for underground bolting on request ²ADFC recommended rack spacing: 700 mm or 500 mm ³for Bicycle-Stand 1.417: angle = 60°
⁴Stellraumtiefe bei gebräuchlichen Fahrrädern mit einer Gesamtlänge von ca. 1900 mm

06

PARKLANDS & CITY

Handrail

Attractive and safe route guidance in the city center.

Tree stand

Removable (Christmas) tree stand (with 3p-Technology) for your festive city center.

Planters

Shrubs, small trees and other plants in the city.

Tree guard

For the protection of trees or plants.

Fire basket

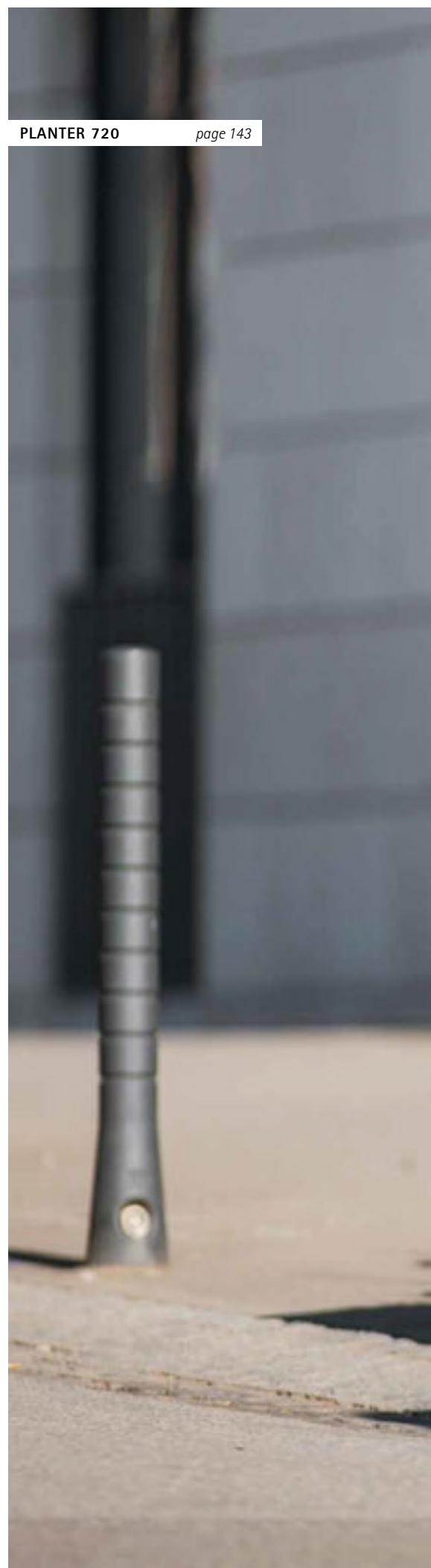
Pleasurable anticipation of a social gathering after work.









1: Tree-Guard 662 page 144 | 2: Fire-Basket 935 page 145





PLANTER 720

page 143





| |  |  |  |  |  |  |
|----------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| | 710 S | 710 M | 710 L | 710 XL | 720 | 721 |
| | Planter | Planter | Planter | Planter | Planter | Planter |
| Catalogue page | 142 | 142 | 142 | 142 | 143 | 143 |
| Material | Aluminium (with powder coating) | - | - | - | 720.004 | 721.004 |
| | Steel S235 (galvanised) | - | - | - | - | - |
| | Steel S235 (galvanised with powder coating) | - | - | - | - | - |
| | Sheet steel (untreated) | - | - | - | - | - |
| | Stainless steel 1.4301 (with powder coating) | 710.002 | 711.002 | 712.002 | 713.002 | - |
| Mounting | For concrete embedding | - | - | - | - | - |
| | Removable with ground shell(s) | - | - | - | - | - |
| | With flanges to enable screwing | - | - | - | - | - |
| | Free standing | ■ | ■ | ■ | ■ | ■ |
| Options | With LED strip | - | - | - | - | - |
| | With knee rail | - | - | - | - | - |
| | Individual color (RAL/DB) | ○ | ○ | ○ | ○ | ○ |
| Measurements | Length (in mm) | 1200 | 1500 | 1800 | 2000 | 700 |
| | Width (in mm) | 691 | 650 | 750 | 801 | 700 |
| | Height (in mm) | 500 | 500 | 600 | 600 | 800 |
| | Capacity (approx. in liters) | 210 | 250 | 430 | 450 | 343 |
| | Weight (approx. in kg) | 65 | 68 | 85 | 87 | 35 |
| Design | Doris Herrmann | | | | | |

| |  |  |  |  |
|------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| | 662 | 935 | 936 | 453 (LED) |
| | Tree Guard | Fire Basket | Tree stand | Bicycle stand as handrail/railing |
| Catalogue page | 144 | 145 | 141 | 141 |
| Material | Aluminium (with powder coating) | - | - | - |
| | Steel S235 (galvanised) | 662.001 | - | 936.020 |
| | Steel S235 (galvanised with powder coating) | 662.011 | - | 936.120 |
| | Sheet steel (untreated) | - | 935.001 | - |
| | Stainless steel 1.4301 (smoothed, grain 240) | 662.002 | - | - |
| Mounting | For concrete embedding | ■ | - | - |
| | Removable with ground shell(s) | ■ | - | - |
| | With flanges to enable screwing | □ | - | - |
| | Free standing | - | ■ | - |
| Options | Removable with 3p-Technology | - | - | ■ Junction piece without predetermined breaking point |
| | With LED strip | - | - | - |
| | With knee rail | - | - | - |
| Measurements | Length (in mm) | 1200 | - | - |
| | Width (in mm) | 1200 | Ø 355 | Ø 133 |
| | Height (in mm) | Variable | 750 | 390 |
| Capacity (approx. in liters) | - | 50 | Object-Ø max. 95 mm | - |
| Weight (approx. in kg) | 15 | 5 | 3,8 | 6,5 / each stand |
| Design | J. P. Gillen | | | |

■ = Model | □ = On request | ● = Configuration | ○ = Option (with a surcharge) | - = Not available

BICYCLE-STAND 453 (LED) as handrail or railing

Steel + Stainless steel

Specifications

U-rack made of perpendicular steel profiles (rectangular profile 50 x 20 mm mitre-cut). Other profile dimensions, heights and widths are available upon request at a surcharge.

Finish

- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Optionally with knee rail



For more informations see: BICYCLE-STAND 453 (LED) page 126



TREE-STAND 936

Steel | 390 mm

Specifications

Cylindrical stand with three locking screws in the upper area to hold a tree.

Mounting

Removable with 3p-Technology (with junction piece without predetermined breaking point)

Finish

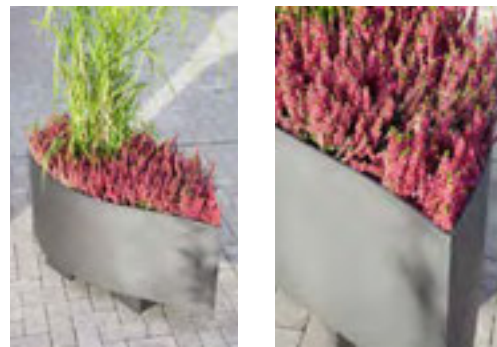
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge

- ▶ Removable with 3p-Technology (Empty ground shell can be covered with ground shell cover) See page 13
- ▶ Other ABES products with 3p-Technology can be mounted on the same ground shell

| | | 3p-Technology |
|----------------|---------------------------|---------------|
| Tree-Stand 936 | Steel S235, galvanised | 936.020 |
| Tree-Stand 936 | Steel S235, powder-coated | 936.120 |



Detailed information can be found on the catalogue's back cover fold-out →



PLANTER 710

Stainless steel

Specifications

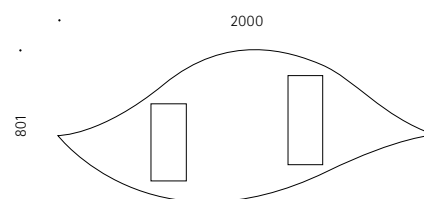
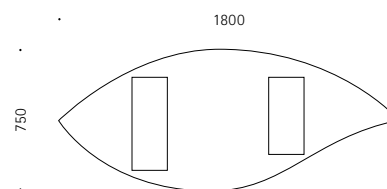
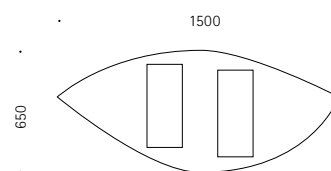
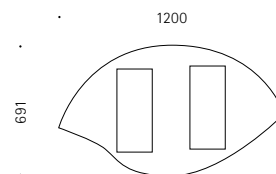
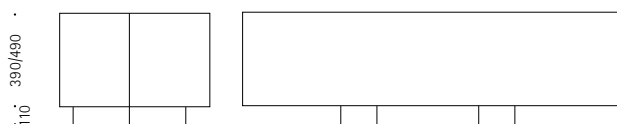
Plant pot with curved sides that taper at both ends. The base has apertures which may be sealed with a perforated plate cover. The container stands on rectangular tubes which serve as supports for hoisting equipment. The apertures of the tubes can be covered with removable caps.

Mounting

Free standing element

Finish

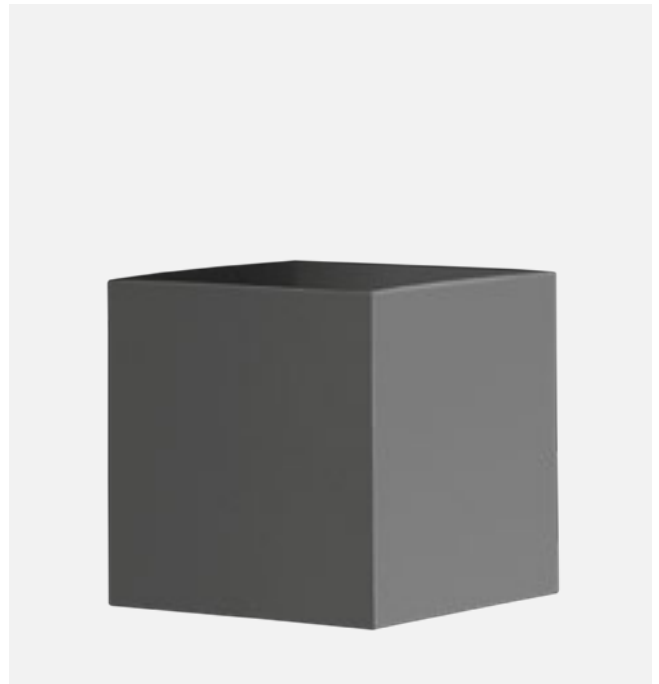
- Stainless steel 1.4301 with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge



► Customised laser cuts available

| Stainless steel 1.4301, powder-coated | | | |
|---------------------------------------|----|---------------|----------------|
| Planter 710 | S | 1200 × 691 mm | 710.002 |
| Planter 710 | M | 1500 × 650 mm | 711.002 |
| Planter 710 | L | 1800 × 750 mm | 712.002 |
| Planter 710 | XL | 2000 × 801 mm | 713.002 |





PLANTER 720 | 721

720 | Aluminium | 700 × 700 mm

721 | Aluminium | 700 × 1000 mm

Specifications

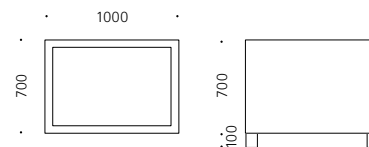
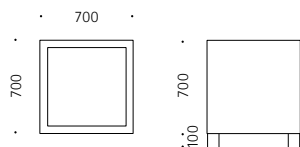
Plant pot with square or oblong basic shape and vertical side walls. Openings are countersunk in the base and closed with a perforated sheet metal cover. The container stands on four individual feet made of square tubes.

Mounting

Free standing element

Finish

- Aluminium with powder coating in standard RAL colours or DB 703
- Containers are also available without legs and with welded frames for chain suspension upon request



► Customised laser cuts available

| | Aluminium, powder-coated | |
|--------------------|--------------------------|----------------|
| Planter 720 | 700 mm × 700 mm | 720.002 |
| Planter 721 | 700 mm × 1000 mm | 721.002 |





TREE-GUARD 662

Steel + Stainless steel

Specifications

A bent, U-shaped steel frame with a diameter of 48.3 x 2.6 mm.

Three foundations are required.

Optional: a ground shell for the removable model

Mounting

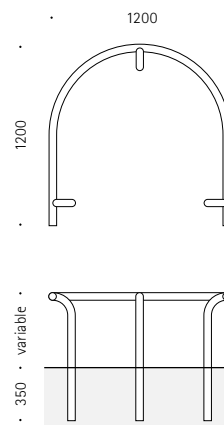
Concrete embedment or inserted into a standard ground shell

(not available with 3p-Technology)

Optional: with flanges to enable screwing

Finish

- Stainless steel 1.4301 smoothed, grain 240
Optional: electropolished/high-gloss
- Steel S235, galvanised with powder coating in standard RAL colours or DB 703
- Other colours available on request at a surcharge



| | Concrete embedding |
|----------------------------------|--------------------|
| S235 steel, galvanised | 662.001 |
| S235 steel, powder-coated | 662.011 |
| Stainless steel 1.4301 | 662.002 |
| Ground shell for removable model | 600.200 |





FIRE-BASKET 935

Sheet steel | 50 l

Specifications

Fire basket made of non-galvanised sheet steel with three welded feet and capacity of approx. 50 liters. Suitable as a simple fireplace or grill for all kinds of occasions.

Customised laser cuts at the top, middle and base ensure diverse designs, and make the basket unique.

The holes in the upper area may be used for spits. A grate is available as an accessory.

Using non-galvanised sheet steel ensures no harmful vapours are formed as heat builds up.

Mounting

Free-standing, with three feet

Finish

- Untreated steel
- Default or customised laser cutting

Measurements

Diameter: approx. 355 mm

Height: approx. 750 mm

Weight: approx. 5,0 kg

| | | Sheet steel |
|------------------------|---------------------------------|----------------|
| Fire-Basket 935 | without laser cutting | 935.001 |
| Fire-Basket 935 | with flame | 935.101 |
| Fire-Basket 935 | with flame + name | 935.201 |
| Fire-Basket 935 | with 1 preferred laser cutting | 935.301 |
| Fire-Basket 935 | with 2 preferred laser cuttings | 935.401 |

Accessories

| | |
|-----------------|----------------|
| Matching grate | 935.002 |
| Soil protection | 935.003 |

▶ Ask about additional accessories

▶ Customised laser cuttings possible

ST

07

SHELTERS

In relation to new construction or renovation measures, appropriate shelters that – in terms of design and technology – are easy to integrate, simply belong to a well ordered environment.

Customers can choose between open shelters which protect the bicycles from rain, snow, sun, and heat, and semi-open and lockable shelters in which valuable bicycles and garbage cans are equally safe from prying eyes.

Available in different versions, the modular shelters can be individually adapted.



Shelter 1.310 page 148







SHELTER 1.310

Modular multi-purpose shelter system

Specifications (Basic unit)

Multi-purpose shelter, closed on all sides on request, for garbage cans, bicycles, and other equipment. Weatherproof steel construction with lockable sliding doors, panels made of perforated sheet metal and roof covering made of corrugated sheet metal.

Supports with ground plates for bolting. Basic unit with add-on elements for extension.

Fastening

Supports with ground plates for bolting at -200 mm on foundations to be built by the customer according to our specifications. Installation is possible on request, fastening material included.

Specifications

Construction

Solid steel construction made of hot-dip galvanized square and rectangular steel tubes. Supports with ground plates for bolting at -200 mm. Rectangular tube roof rack.

Optional: with additional powder coating in RAL color.

Door

Two-part free-hanging sliding door with blended caster wheels (low-noise). Hook lock with profile cylinder (single key) with 6 keys.

Roof

Pent roof, optionally tilted backward or forward. Roof covering made of corrugated sheet metal (aluminium-zinc).

Optional: trapezoidal sheet, galvanized and powder-coated in RAL 9002 gray-white (surcharge), three-sided parapet (height 140 mm).

Back and side panels

Fillings made of perforated aluminium sheet (natural, thickness 2 mm, hole diameter 20 mm).

Optional: wood (larch, untreated), HPL facade panels (TRESPA® in uni-colors) or double-rod mats (steel, galvanized).

Drainage

Free draining

Optional: with gutter and downspout

Snow load (sk)

1,50 kN/m²

Wind load

Zone 2

► *Other dimensions, a preparation for roof greening, higher snow loads, lighting, transparent roofing or a double-sided version are available on request and for an additional charge.*

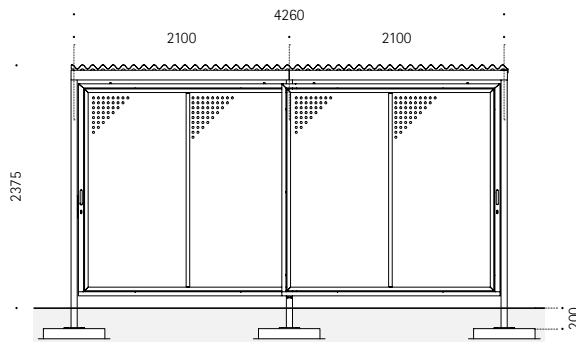
► *Up to 9 bicycles can be stored per basic unit.*



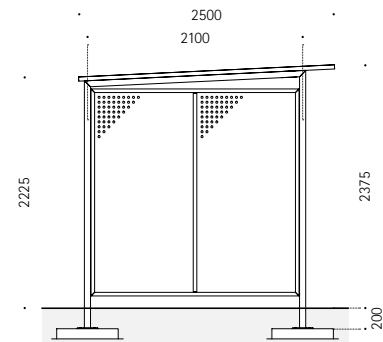
Installation information

- By default, the shelters are designed to be installed on a flat surface.
 - The construction can be adapted by the factory to any existing longitudinal or transverse gradient (surcharge).
 - The measurements of the ground have to be provided by the customer. The foundation is to be built according to ABES specifications.
 - We only carry out the installation if the foundations were made according to our plans.
 - Installation by ABES is possible on request, fastening material included.
- ABES does not set up shelters above cellars, underground garages etc. If subsoil conditions are uncertain, the expertise from a structural engineer may be required.
 - In individual cases, exceptions are possible after clarification of all details and the presentation of static load calculations.

Shelter 1.310, single sided



Front view



Side view



08

FLOOD PREVENTION

Extreme thunderstorms, with heavy rain and wind, are constantly increasing due to climate change. Even a small brook can unexpectedly transform into a raging river in a very short time. Result: flooding does not just occurring outdoors, it also spreads into houses and cellars rapidly.

In such scenarios, there is mostly no time left to take effective flood protection measures. It is time for a mobile flood prevention solution that can be set up quickly and easily, even with approaching floods.

HWS-mobil complies with the above criteria.

A mobile flood protection that is suitable for private users as well as municipalities.

There can be no guarantee that thunderstorms won't create some damage, despite the use of flood prevention systems. But you can at least try to prepare yourself with appropriate solutions.



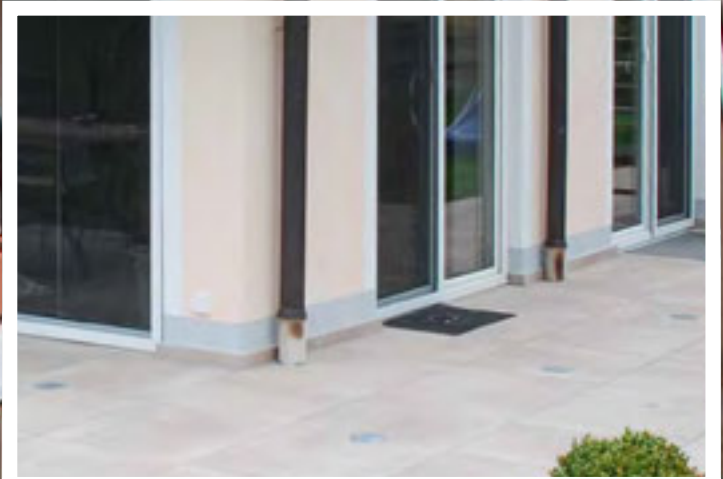
1: Inserting the junction piece into the ground shell | 2: Placing a support on the junction piece | 3: Installation of the Howatec mobile flood prevention system in front of an underground garage



COMPATIBLE

HWS-mobil





After the mobile flood protection is no longer used, the openings of the ground shells can be closed with a cover (see accessories on page 159). Mere optical reasons set aside, these floor covers help to avoid tripping and prevent the ingress of dirt over the course of the year.





Innovation
IN
STEEL



HWS-mobil

The mobile flood prevention system

HWS-mobil is a mobile flood prevention system developed in cooperation with the Water Management and Environmental Research Institute (fwu) at the University of Siegen. Working in an opposite way to a barrage, the baffle plates curve "away from the water" and are exposed to pressure by the rising flood waters. As sheet steel absorbs tractive forces very well, the protective walls, which are "just" 1 millimetre thick, provide reliable protection for damming heights of more than one metre.

Major characteristics of HWS-mobil:

- ✓ Lightweight = easy to transport without the need of lifting devices
- ✓ Minimum amount of seals
- ✓ Property protection
- ✓ Linear protection
- ✓ Interchangeable with ABES products

Advantages at a glance

Assembly & storage

- Quick assembly/disassembly using a single tool
- Only two people required for setup
- Easy to use (no component weighs more than 20 kg)
- Reusable and long-lasting due to hot-dip galvanising
- Compact for storage

Usage

- Very durable due to steel components
- Very good density; only two seals per field
- Effective protection against vandalism
- Personalised solutions possible

Areas of application

- Building projection: Protection of doors, gates and driveways
- Linear protection of company premises and private complexes
- Linear protection in the event of dyke raising

Compatibility with ABES products

Thanks to 3p-Technology, the ground shells can be used to mount benches, waste containers and other pieces of furniture, while not looking like eyesores during flood-free times.

SOLID | LIGHTWEIGHT | SECURE

Implementation of HWS-mobil



Protection of an underground car park



Protection of a private house



COMPATIBLE



HWS-mobil is compatible with all ABES 3p Technologie products

HWS-mobil individual parts

| Permanently embedded parts | Temporarily fitted parts | Optional |
|--------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------|
| | | |
| <p>1 Ground shell</p> <p>2 Wall connection profile</p> | <p>3 Wall module</p> <p>4 Support module</p> <p>5 Slide-in module</p> <p>6 Baffle plate</p> | <p>7 Support protection</p> |

More information can be found in the installation instructions, which we will gladly send you free of charge, or visit www.howatec-online.com



PROJECTS
AND
REFERENCES

A Selection



Vianden | Luxembourg



Washington D. C. | U. S. A.



Grevenmacher | Luxembourg



Kleinwalsertal | Austria



Findel | Luxembourg



Grevenmacher | Luxembourg



Bitburg | Germany



Daun | Germany



Orscholz-Cloef | Germany



Diekirch | Luxembourg



Gerstetten | Germany

Ask for references in your area!

Pictures of projects:
<https://abes-online.com/en/projects/>





| Category | Product name | Page |
|-------------------------|-------------------------------------|-------------|
| Waste Containers | WASTE-CONTAINER 523 | 107 |
| | WASTE-CONTAINER 524 | 107 |
| | WASTE-CONTAINER 527 | 110 |
| | WASTE-CONTAINER 529 | 111 |
| | WASTE-CONTAINER 530 | 111 |
| | WASTE-CONTAINER 531 | 110 |
| | WASTE-CONTAINER 540 <i>NEW 2020</i> | 108 |
| | WASTE-CONTAINER 541 <i>NEW 2020</i> | 109 |
| | Bollards | BOLLARD 001 |
| BOLLARD 001-1 | | 29 |
| BOLLARD 002 | | 35 |
| BOLLARD 003 | | 50 |
| BOLLARD 004 | | 47 |
| BOLLARD 005-1 | | 44 |
| BOLLARD 005-2 | | 44 |
| BOLLARD 006-1 | | 36 |
| BOLLARD 006-2 | | 37 |
| BOLLARD 007 | | 43 |
| BOLLARD 008 | | 29 |
| BOLLARD 009-1 -2 | | 29 |
| BOLLARD 010 | | 28 |
| BOLLARD 011 | | 48 |
| BOLLARD 012 | | 35 |
| BOLLARD 013 | | 47 |
| BOLLARD 014-1 -2 -3 | | 41 |
| BOLLARD 015 | | 38 |
| BOLLARD 016 | | 28 |
| BOLLARD 017 | | 38 |
| BOLLARD 018 | | 42 |
| BOLLARD 019 | | 51 |
| BOLLARD 020 | | 49 |
| BOLLARD 021-1 -2 | | 39 |
| BOLLARD 022 | | 49 |
| BOLLARD 023 | | 43 |
| BOLLARD 024 | | 39 |
| BOLLARD 025 | | 45 |
| BOLLARD 026-1 -2 | | 66 |
| BOLLARD 027-1 -2 | | 28 |
| BOLLARD 028 | | 46 |
| BOLLARD 029 | | 41 |
| BOLLARD 031-1 -2 | | 32 |
| BOLLARD 032 | | 34 |
| BOLLARD 034 | | 38 |
| BOLLARD 037-1 | | 53 |
| BOLLARD 037-2 | | 63 |
| BOLLARD 038 | | 40 |
| BOLLARD 039 | | 46 |
| BOLLARD 040 | | 40 |
| BOLLARD 041 | | 48 |
| BOLLARD 042-1 -2 | | 58 |
| BOLLARD 043 | | 29 |
| BOLLARD 055-1 | | 53 |
| BOLLARD 055-2 | | 63 |
| BOLLARD 056 | | 58 |
| BOLLARD 057 | 52 | |
| BOLLARD 058 | 52 | |
| BOLLARD 059 | 60 | |
| BOLLARD 060 | 34 | |
| BOLLARD 061 | 33 | |
| BOLLARD 062 | 42 | |
| BOLLARD 063 | 61 | |
| BOLLARD 064 | 55 | |
| BOLLARD 065 | 61 | |
| BOLLARD 066 | 60 | |

| Category | Product name | Page | |
|---------------------------------------|------------------------------------------|-----------------------|---------|
| | BOLLARD 068 | 45 | |
| | BOLLARD 069 | 54 | |
| | BOLLARD 070 | 54 | |
| | BOLLARD 071 | 55 | |
| | BOLLARD 074 | 62 | |
| | BOLLARD 076 | 56-57 | |
| | BOLLARD 079 <i>NEW 2020</i> | 59 | |
| | BOLLARD 089 | 62 | |
| | BOLLARD-ASHTRAY 525 | 67/113 | |
| | FEEDER-BOLLARD 300-1 | 68 | |
| | FEEDER-BOLLARD 300-2 | 69 | |
| | Tree Guard | TREE-GUARD 662 | 144 |
| | Bicycle Stands | BICYCLE-STAND 452 | 125 |
| | | BICYCLE-STAND 453 | 126-127 |
| | | BICYCLE-STAND 453 LED | 126-127 |
| | | BICYCLE-STAND 470 | 124 |
| | | BICYCLE-STAND 471 | 129 |
| BICYCLE-STAND 472 | | 130 | |
| BICYCLE-STAND 473 | | 128 | |
| BICYCLE-STAND 474 | | 130 | |
| BICYCLE-STAND 476 <i>NEW 2020</i> | | 122 | |
| BICYCLE-STAND 477 <i>NEW 2020</i> | | 123 | |
| BICYCLE-STAND 480 <i>NEW 2020</i> | | 131 | |
| BICYCLE-STAND 450-1 | | 118-120 | |
| BICYCLE-STAND 450-2 | | 118-120 | |
| BICYCLE-STAND 450-1 row configuration | | 121 | |
| BICYCLE-STAND 451 | | 119-120 | |
| BICYCLE-STAND 1.414 <i>NEW 2020</i> | | 134 | |
| BICYCLE-STAND 1.415 <i>NEW 2020</i> | | 135 | |
| BICYCLE-STAND 1.416 <i>NEW 2020</i> | 136 | | |
| BICYCLE-STAND 1.417 <i>NEW 2020</i> | 133 | | |
| Fire Basket | FIRE-BASKET 935 | 145 | |
| Stand | TREE-STAND 936 | 141 | |
| Lighting Bollards | LIGHTING-BOLLARD 200 | 78 | |
| | LIGHTING-BOLLARD 200 LED | 79 | |
| | LIGHTING-BOLLARD 210 LED | 70 | |
| | LIGHTING-BOLLARD 220 LED | 71 | |
| | LIGHTING-BOLLARD 230 LED | 72 | |
| | LIGHTING-BOLLARD 240 LED | 73 | |
| | LIGHTING-BOLLARD 265 LED | 74 | |
| | LIGHTING-BOLLARD 266 LED | 75 | |
| | LIGHTING-BOLLARD 267 LED <i>NEW 2020</i> | 77 | |
| | Benches & Tables | STOOL 145 | 88 |
| LOUNGER 1.120 <i>NEW 2020</i> | | 102 | |
| BENCH 100 | | 90 | |
| BENCH 103 | | 92-93 | |
| BENCH 104 | | 96-97 | |
| BENCH 107-1 -2 | | 94 | |
| BENCH 109-1 -2 <i>(NEW 2020)</i> | | 95 | |
| BENCH 121-1 -2 | | 99-100 | |
| BENCH 131 | | 98-100 | |
| BENCH 141-1 -2 | | 84 | |
| BENCH 142-1 -2 | | 85 | |
| BENCH 143-1 -2 | | 86 | |
| BENCH 144-1 -2 | | 87 | |
| BENCH 146-1 -2 | | 89 | |
| BENCH 147 <i>NEW 2020</i> | | 91 | |
| SEATING-BOLLARD 105 | | 66/101 | |
| LEAN-ON-BENCH 108 | | 103 | |
| TABLE 143 | | 86 | |
| TABLE 144 | | 87 | |
| TABLE 145 | 88 | | |
| Planters | PLANTER 710 | 142 | |
| | PLANTER 720 721 | 143 | |
| Shelter | SHELTER 1.310 <i>NEW 2020</i> | 148 | |
| Accessories | COMPONENTS OF 3P-TECHNOLOGY | 12-13 | |



3P-TECHNOLOGY





Ground shells (cast iron, galvanised)

| | | |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------|
|  | Ground shell 300 mm* (standard for 3p-Technology) | 000.001 |
|  | Ground shell 500 mm for additional stability with unstabilised subsoil, cobblestone pavement etc. | 000.003 |
|  | Ground shell 100 mm as special solution in case of small mounting depth, e.g. car parks, bridges etc. | 000.007 |





Junction pieces w. predetermined breaking point (cast iron, galvanised)

| | | |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
|  | Junction piece without anti-roll device* (standard for 3p-Technology) | 000.008 |
|  | Junction piece with anti-roll device After a collision with a vehicle, the metal rod prevents the bollard to roll away. | 000.013 |
|  | Junction piece w. anti-roll device + cable slot for <u>LED lighting bollards</u> The metal rod prevents the rolling away of the bollard after a collision with a vehicle | 000.017 |
|  | Junction piece with short anti-roll device for <u>ground shell 100 mm</u> (000.005) The metal rod prevents the rolling away of the bollard after a collision with a vehicle | 000.018 |
|  | Junction piece extended version for <u>3p-High</u> Allows to open and close the locking mechanism with long fire brigade triangular keys without offsets | 000.016 |
|  | Junction piece 3p-Flex (without cable slot) The bollard returns to its initial position after impact (8-10° tilt), and only breaks if the breaking load is exceeded. | 000.015 |


Junction pieces w/o predetermined breaking point (cast iron, galvanised)

| | | |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
|  | Junction piece w/o predetermined breaking point Solid protection for people and objects. Does not break in case of an impact. | 000.034 |
|  | Height-adjustable junction piece Height can be adjusted with a threaded rod Compensates for the gap between bollard and ground shell, if it ends below level, e.g. with paving stones of different heights. | 000.041 |

Clamping cone sets (stainless steel 1.4301)
















| | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
|  | Clamping cone set with hex head screw* (standard for 3p-technology) N1 + N2 + hexagonal head screw | 3p-SPK-N1-N2-6K |
|  | Clamping cone set with triangular head screw N3 + N2 + triangular head screw | 3p-SPK-N3-N2-3K |
|  | Clamping cone set w. lengthened clamping cone N5 (75 mm) + N2 + triangular head screw Additional protection by a padlock in order to prevent unauthorised removal. Possible use with triangular head screw. | 3p-SPK-N5-N2-3K |
|  | Clamping cone set with ABES Bolt - Teardrop shaped Screw with special head, with droplet-shaped hole so as to prevent it from being opened without authorisation using standard tools (Utility model protection) | 3p-SPK-N1-N2-TR |

Screws and clamping cones (stainless steel 1.4301)

| | | |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------|
|  | Hexagonal head screw spare part, M12, length 80 mm | 000.009 |
|  | Triangular head screw spare part, M12, length 75 mm | 000.019 |
|  | ABES Bolt - Teardrop shaped special asseccory, M12, length 75 mm | 000.035 |
|  | Cover caps (pair) , for hexagonal head screw grey or black, <i>plastic</i> | 000.006 |
|  | Clamping cone N1* spare part, without internal thread | N1.000 |
|  | Clamping cone N2* spare part, three-slotted and with internal thread (suitable tool see next page: 000.029/000.026) | N2.001 |
|  | Clamping cone N3 , for triangular head screw spare part, without internal thread | N3.000 |





* Part of the standard delivery for products with 3p technology.









| | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------|
|  | Clamping cone N4 lengthened, for protection by a padlock | N4.000 |
|  | Clamping cone N5 lengthened, for protection by a padlock | N5.000 |
| Ground shell covers | | |
|  | Ground shell cover cast aluminium, powder-coated in DB 703 | 000.002 |
|  | Ground shell cover with ressort steel S235, galvanised | 000.050 |
| Tools | | |
|  | Nut for for triangular head screws M12, stainless steel 1.4571 | 000.027 |
|  | Nut for ABES Bolts - Teardrop shaped stainless steel 1.4571 | 000.037 |
|  | Nut with 3-pin adapter to tighten the clamping cone N2.001 stainless steel 1.4571 | 000.029 |
|  | Socket wrench for triangular head screws robust design | 000.024 |
|  | Socket wrench for ABES Bolts - Teardrop shaped robust design | 000.036 |
|  | Socket wrench with 3-pin adapter to tighten the clamping cone N2.001 robust design | 000.026 |
|  | Triangular key simple, with short holder, M12 x 75 mm | 000.011 |
|  | Triangular key simple, with long holder, M12 x 160 mm | 000.014 |
| Ground rosettes (steel S235, galvanised, powder-coated in bollard paint) | | |
|  | Ground rosette for Bollard 032 with 3p-Technologie | 000.032 |
|  | Ground rosette for Bollard 066 with 3p-Technologie | 000.066 |
|  | Ground rosette for Bollard 014 with 3p-Technologie | 000.030 |

BOLLARDS



















Chains & accessories (galvanised, powder-coated in bollard paint)

| | | |
|-----------------------------------------------------------------------------------|------------------------------------------|----------------|
|  | Chain 8 x 52 mm sold per meter | 000.100 |
|  | Eylet | 000.200 |
|  | Shackle | 000.300 |
|  | Chainlink for eylet | 000.303 |

Special models

| | | |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------|
|  | Bollard 001, 5 rings red painted RAL 3020/9016 | 000.301 |
|  | Bollard 008 + 010, 1 ring red painted RAL 3020/9016 | 000.302 |
|  | 1 ring of reflective foil 100 mm wide; red, white or red/white | 000.321 |
|  | 2 rings of reflective foil 100 mm wide; red, white or red/white | 000.322 |
|  | 3 rings of reflective foil 100 mm wide; red, white or red/white | 000.323 |
|  | Cat's eye reflectors affixed reflectors | 000.326 |
|  | Finished with logo individual production | 000.327 |
| | 1 cutting of reflective foil 100 mm wide; red, white or red/white, self-adhesive, for manual installation | 000.328 |
|  | Reflective foil sold by the meter 50 mm or 100 mm wide; red, white or red/white, self-adhesive, to apply individually | on demand |
|  | Powder coating except standard RAL colours free of charge for more than 9 bollards in the same colour | 000.310 |

ACCESSORIES

| | | | | | |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------|
| Stainless steel – surface treatments | | | Waste containers | | |
|  | Smoothed e. g. grain 240 (standard) | 000.410 |  | Triangular key for waste containers standard | 500.003 |
|  | Electropolishing (high-gloss) | 000.420 | Ground shells (other) | | |
| Special coatings | | |  | Ground shell, ø 48 mm for standard tube with diameter 48 mm (e.g. for Tree-Guard 662) | 600.200 |
|  | Long-lasting phosphorescent coating Maintains fluorescent properties permanently | on demand |  | Ground shell, ø 60 mm for standard tube with diameter 60 mm | on demand |
| GENERAL | | | Clean & care products | | |
| Bicycle stands | | |  | Ceramic grease aerosol | on demand |
|  | Ground shells (pair), 300 mm for Bicycle-Stand 453 and 453 LED (needed for removable version) | 458.002 |  | Liqui Moli assembly paste | on demand |
|  | Clamping cover rosette for Bicycle-Stand 453 and 453 LED (needed for removable version) | 458.005 |  | Touch-up paint (RAL or DB colour) correct small defects in the product's coating | on demand |
| | steel S235, galvanised | 458.006 | Color Fans | | |
| | steel S235, galvanised, powder-coated in RAL or DB | 458.007 |  | RAL K7 CLASSIC colour fan containing 213 RAL CLASSIC colours | 000.341 |
|  | Cover plates for ground shells (pair) for Bicycle-Stand 453 and 453 LED | 458.003 |  | DB Glimmer Grey fan TL / TP-KOR steel structures attachment H - colour cards, 14 shades | 000.340 |
|  | Ground shell for removable model for Bicycle-Stand 451 galvanised | 456.003 | | | |
|  | Ground shell for removable model for Bicycle-Stand 450-1 and 450-2 galvanised | 456.002 | | | |
|  | Cover plate for Bicycle-Stand 451 | 455.003 | | | |
| | steel S235, galvanised | 455.013 | | | |
| | steel S235, galvanised, powder-coated in RAL or DB | 455.004 | | | |
|  | Ground shell for removable model for Bicycle-Stand 450-1 and 450-2 | 455.001 | | | |
| | steel S235, galvanised | 455.011 | | | |
| | steel S235, galvanised, powder-coated in RAL or DB | 455.002 | | | |
| | stainless steel 1.4301, smoothed, grain 240 | | | | |

EXPLANATION OF SYMBOLS & TENDER SPECIFICATIONS

DELIVERABLE MOUNTING VARIANTS



With 3p-Technology*

Removable with 3p-Technology, comprising a 300 mm ground shell, junction piece with predetermined breaking point (without anti-roll device), 1 clamping cone with internal thread, 1 clamping cone without internal thread and a hex head bolt as a standard.

**All bollards (except feeder bollards) can be supplied with 3p-Technology*



With 3p-Technology for LED lighting bollards

Comprising a 300 mm ground shell, junction piece with predetermined breaking point, anti-roll device and cable slot, 1 clamping cone with internal thread, 1 clamping cone without internal thread and a hex head bolt as a standard.



With 3p-Technology "3p-High"*

For the use of long fire brigade triangular keys without offsets.

**Is basically possible with all bollards. Extended junction piece required for 3p-High*



Fixed mounting



Fold down



Screw-on (for bollards: with flange)



Removable with ground shells



Free standing (for benches)

FINISH



Products made of cast aluminium

Powder coating in standard RAL colours or DB 703



Products made of steel S235

Steel S235, galvanised with powder coating in standard RAL colours or DB 703

Only for bollards: The height can be adjusted individually (except feeder bollards)



Products made from stainless steel 1.4301

Stainless steel 1.4301 pickled and smoothed, grain 240
Optional: electropolished/high-gloss (no surcharge)

Only for bollards: The height can be adjusted individually

Other colours available on request at a surcharge.

Only for bollards: Accessories and special requirements such as different colours, red and white paint, reflective film or powder coating of chains, rings, shackles, etc. in the same colour as the bollard are available on request at a surcharge (except feeder bollards and Bollard 026)



With LED Light unit



The ground rosette is part of the delivery (3p-Technology)

Completely covers the ground shell, material: S235 steel, hot-dip galvanised and powder coated in bollard paint

All presentations and descriptions in the brochure, as well as the product models and properties, including the 3p-Technology, are given for information purposes only.

Due to the unpredictability of daily usage, no guarantee can be given for the described product properties. All products have been carefully developed for a tough everyday use and are built accordingly robust.

We reserve the right to make technical or optical amendments without prior notice at any given time or when we believe this serves the further development and improvement of our products.

"ABES" and "3p-Technology" are registered word and figurative trademarks.

Catalogue design: Doris Schäfer

Photography: Kai Funk, Sebastian Gross, Guy Wolff, Moritz Leg and ABES

Printed: June 2020

For detailed product descriptions, tender texts and installation instructions for download, visit www.abes-online.com



ABES S.à.r.l.

48, rue Gabriel Lippmann

L-6947 Niederanven

Phone: +352 . 28 67 65 01

Fax: +352 . 28 67 65 20

Email: shop@abes-online.com

www.abes-online.com