





**SEATING** 

**POSTS** 

**BOLLARDS** 

**BARRIERS** 



# Introduction

AUTOPA Ltd concentrates on the manufacture and supply of parking posts, bollards, barriers, vehicle access control and cycle storage equipment. Having patented the original parking post in 1959, AUTOPA Ltd (Incorporated in 1997) offer a wide range of parking and vehicle control products utilising a variety of materials, finishes and colours. With our in-house manufacturing facilities and flexibility we are able to supply many special requirements.

Quality assured to ISO 9001:2008, it is our intention to always offer quality product and quality service. Quality procedures cover all aspects of our operation from control of incoming raw material through to delivery of the finished item to you. Certificate No: FM 31071.

Accredited to ISO 14001: 2004, we operate an environmental management system which recognises our responsibility to the environment. Our Environmental management system covers the design and manufacture of street furniture. Certificate No: EMS 503166.

Accredited to BS OHSAS 18001:2007, for our Health & Safety Policy which recognises our responsibility and commitment to Health and Safety in the workplace and on site. Certificate No: OHS 552103



# INDEX/CONTENTS

Introduction	2	Column & corner protection	58-59
Index/Contents	3	Hooped perimeter barriers	60-64
Company Information	4	Low level & trolley protection rails	65
		Trolley bays & shelters	66-67
AUTOPA PARKING POSTS		Pedestrian guard rail	68
Hinged lockable & Toplok posts	5-7		
Stealth posts	8	VELOPA CYCLE SECURITY	
Sprung boundary & fixed posts	9	Bicycle stands	69-74
Coordinated fixed posts	10-12	Secure cycle stands	75
Removable posts	13-15	Wall mounted cycle holders	76
Retractable posts	16-22	Motor cycle security	77
		Bicycle holders	78-79
BOLLARDS		Bicycle racks	80-83
Stainless steel bollards	23-26	Scooter rack	83
Mild steel bollards	27-29	Bicycle lockers	84-86
Bollard options	30	Bicycle shelters	87-98
Ornamental steel bollards	31-33		
Illuminated bollards	34-35	SHELTERS, CANOPIES & WALKWAYS	
Steel core bollards	36-37	Covered canopies & walkways	99-101
Polyurethane bollards	38-39	Teenage shelters	102-103
Recycled plastic bollards	40-41	Smoking & waiting shelters	102-103
Verge markers & rubber bollards	42	Smoking & Waiting Shelters	104
reige maniers a rabber boileras		CTDEET ELIDAUGUNAGO	
VELUCIE ACCESS CONTROL		STREET FURNISHINGS	405.440
VEHICLE ACCESS CONTROL	45.44	Outdoor seating	105-110
Automatic barriers	43-46	Litter bins	111-113
Automatic bollards	47	Fencing rail	114-115
Sliding gates	48	Tree grilles	115
Control systems	49		
Manual arm barriers	50	Accessories/Extras	117-118
Manual swing gate	51	Manufacturing & coatings	119-121
Height restrictors	52-53	Terms & conditions	122-123
One way flow plates	54	Bespoke products	124
Speed ramps	55		
Safety & parking barriers	56-57		

### Installation advice

Installation service, site surveys and quotations are available in most areas of the U.K.

Full installation instructions accompany all products, where applicable.

To install, most items will normally require some form of breaker or drill, depending on site conditions.

The stronger the foundation you can lay, the better. Site conditions will dictate the size and type of foundation.

To prevent vehicle access, gaps between posts/bollards should be no larger than 1.2-1.3 metres.

Chain should not be allowed to span more than approx. 4 metres length.

When working outside we recommend the following:-

Secure the site from pedestrians and vehicles, where applicable, by use of high visibility tape, barriers, cones, safety lamps etc.

Ensure you are familiar with statutory regulations, especially if working in a public area.

When drilling or cutting, wear protective goggles and suitable clothing.

Wear strong protective gloves.

Wear a safety helmet.

Ensure your power supply is secure and in a safe dry location. Beware of any possible underground services – gas, water, electricity etc.

### Maintenance

All outdoor products need occasional cleaning & maintenance. Clean with a mild detergent, cloth & water. Lubricate locks. Clear away all dirt, debris, leaves etc.

### Transport, carriage, packing

National carriers are used to effect deliveries. Standard delivery times allow goods to be delivered within 3/4 working days at a standard carriage cost.

Overnight deliveries and Saturday deliveries are available at extra cost.

To comply with Health and Safety regulations most goods over 25kg weight are strapped on to pallets to facilitate shipping and on/off loading – except where bulkiness or abnormal size do not make this possible, e.g. cycle racks and arm barriers. Items which are painted or coated are carefully wrapped in bubble wrap and/or other protective packaging.

### Colour & finished options.

Many items in our range can be painted or coated.

All steel products are galvanised unless otherwise stated. All galvanising is to BS EN ISO 1461: 2009.

Painting:- Most painting is effected inhouse within our own painting booth. Most RAL & BS colours are available, but please always check with our sales office. Very small quantities are often uneconomic for both us and the customer.

Polyester coating is sub-contracted operations to specialist coaters. Polyester powder coating is a spray process.

# Methods of payment.

Options available are on current trading account:- net 30 days (subject to agreement)

**BACS Transfer** 

Proforma invoice:- cheque or cash with order.

Credit/Debit cards:- VISA, MASTERCARD or DELTA cards are accepted for mail order.

### Subcontractors details.

UTR 23142 10329 001

Constructionline reference. 51833

### **CHAS** approved

Members of **ROSPA: M40701190** 

### For our latest information:-

Web site: http://www.autopa.co.uk e-mail: info@autopa.co.uk

### Abbreviations used

CHS - Circular hollow steel

SHS - Structural hollow section

o.d. - outside diameter

i.d - inside diameter

SG - Spheroidal graphite

BS – British Standard

ISO – International Standards Organisation

galv - galvanised

### Applicable standards

SG iron is to BS EN 1563: 1997 Grade 420-12.

Whiteheart malleable iron is to BS EN 1562: 1997 Grade W40.05.

Tube is to BS EN 10255 : 2004, BS EN 10219 : 1997 - S235, BS 6323/5 1982 ERW 1KM

& BS 1387 : 1985

Galvanising is to BS EN ISO 1461: 2009.

Stainless steel is grade 304 as standard, grade 316 optional.



# Hinged lockable parking post





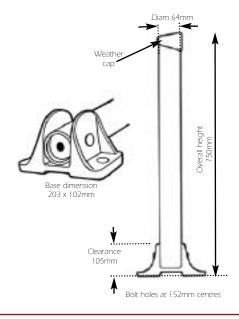


Galvanised finish

- Lockable in the up and down positions.
- Internally spring assisted.
- Made of mild steel tube or stainless steel grade 304 tube.
- Base plate of cast SG iron.
- Weather cap of black polypropylene.
- Overall base dimension 203 x 102mm.
- Hinged Lockable posts have two bolt holes 18mm diameter (for 16mm bolts) at 152mm centres.
- 2 bolts are required to bolt down Hinged lockable posts.
- Operational lift up weight for hinged posts is 4kgs.
- For master suited posts, each post is randomly keyed. All master suited posts can be opened with the use of the master key purchased separately.
- Available in galvanised, galvanised and coloured and stainless steel.
- Each post is supplied with 2 keys
- Fixed posts to match are also available, see page 9.

For colour coated finishes RAL numbers must be specified at time of order.

Also available is the Type B hinged lockable post for emergency service access. Usually specified by local authorities or fire brigades, this post is similar to the hinged lockable post but includes an extended hinge pin (called a type B adaptor) to allow a fire brigade padlock to be fitted at the bottom of the post. Confirm with your local fire brigade or council planning office to ascertain the type of lock they recommend - usually a type FB padlock. The FB padlock is available extra.





Model	Part no. Random	Part no. Ident	Height mm	Diameter mm	Wall thickness mm	Gross weight kg
Hinged lockable, galvanised	138300001	138300100	750	64	3	8
Hinged lockable, galv & colour coated	138300005	138300105	750	64	3	8
Hinged lockable, stainless steel	138300009	138300109	750	64	2	8
Hinged lockable, Master suited, galv	138300201	-	750	64	3	8
Type B lockable post, galvanised,	138300010		750	64	3	9

# Hinged TOPLOK parking post







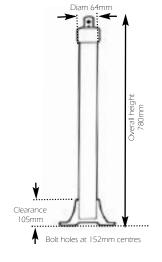
Galvanised finish

Stainless steel

Colour coated

- Lockable in the up and down position.
- Lockable by padlock (sold separately).
- Made of mild steel tube or stainless steel grade 304 tube.
- Base plate of cast SG iron.
- Weather cap of black polypropylene.
- Overall base dimension 203 x 102mm.
- Toplok have two bolt holes 18mm diameter (for 16mm bolts) at 152mm centres.
- 2 bolts are required to bolt down Hinged lockable & Toplok posts.
- Operational lift up weight for hinged posts is 4kgs.
- Available in galvanised, galvanised and coloured or stainless steel.
- Fixed posts to match are also available, see page 9.

For colour coated finishes ral numbers must be specified at time of order. All padlocks and bolts are available at extra cost.



Model	Part no. Excl. Padlock	Height mm	Diameter mm	Wall thickness mm	Gross weight kg
Toplok, galvanised	138300301	750	64	3	8
Toplok, galv & colour coated	138300304	750	64	3	8
Toplok, stainless steel	138300309	750	64	2	8

### Installation for the bolt down Posts

It is essential that the immediate surrounding area is flat and level with no surface irregularities or gradient changes, which could reduce vehicle clearance when passing over. Positioning of the post and the direction of access should be such that no part of the vehicle contacts any part of the post. Vehicles with a ground clearance of less than 110mm should not attempt to pass over the lowered post. Posts should be bolted onto a suitable concrete surface, 300mm cube depending on site conditions and if laying new concrete. The under side of the base plate should be laid flat on the ground and care should be taken that the circular recess in the base plate is kept clear of cement, stones and debris, which if allowed to accumulate may obstruct the post's correct operation.

Finishes - for all posts galvanising is standard, painted & powder coated and stainless steel options available extra.



# **Autopa Stealth post**







Row of stealth posts

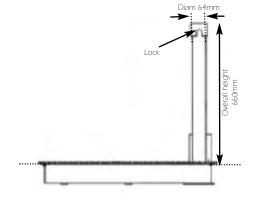
Galvanised finish

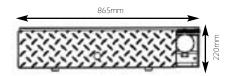
Colour Coated

The Stealth post is similar in design to the standard hinged lockable posts but lays inside a ground socket when in the down position. This allows the whole unit to lay flat with the ground, when the post is down the lid covers the post reducing obstruction to vehicles and pedestrians.

- Lockable in the up and down position.
- Internally spring assisted.
- Made of mild steel tube or stainless steel grade 304 tube.
- Base plate of cast SG iron.
- Weather cap of black polypropylene.
- Box of Stealth post is 835mm x 220mm x 95mm deep x 3mm thick, with a heavy chequered lid 6mm thick.
- Operational lift up weight for stealth posts is 4kgs.
- Each post is supplied with 2 keys.
- For master suited posts, each post is randomly keyed. All master suited posts can be opened with the use of the master key purchased separately.
- Available in galvanised, galvanised and coloured and stainless steel.
- Fixed posts to match are also available, see page 9.
- The main lid lowers down to cover the hole when the post is both in the up or down position.







Model	Part no. Random	Part no. Ident	Height mm	Diameter mm	Wall thickness mm	Gross weight kg
Stealth post, galvanised	138300401	138300450	660	64	3	18
Stealth post, galv & colour coated	138300420	138300455	660	64	3	18
Stealth post, stainless steel	138300430	138300435	660	64	2	18

### **Installation for the Stealth Post**

Excavate a hole approximately 95mm deep x 1150mm long x 450mm wide.

Ensure top lid is level with the ground. The base should sit on concrete, but allow for drainage out of the base by drilling through. Ensure there are no irregularities directly below the post or the base plate, and ensure that the base plate recess is not blocked in any way, particularly by cement, gravel or debris – this may result in faulty operation if not adhered to. Lay concrete around the outside of the unit up to ground level.

Not suitable for heavily used areas nor for HGV use.

Finishes - for all posts galvanising is standard, painted & powder coated and stainless steel options available extra.

# Sprung boundary post



Available ragged for casting in or flanged for bolting down.

Spring allows post to return to position after

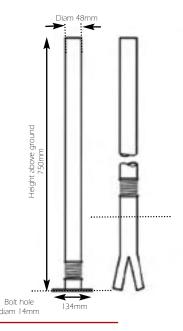
Weather cap of black polypropylene.

Wall thickness 3mm.

Galvanised, flanged

Will spring approx 30 degrees from the vertical.





# **Fixed posts**

Colour coated finish, flanged

The fixed posts are designed to complement hinged and removable posts for areas where a hinged or removable version is not required.

Available ragged for casting in or flanged for bolting down.



Colour coated option available extra.

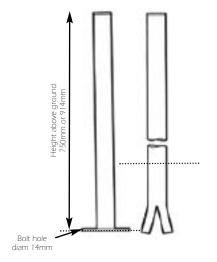
Chain and eyelets available extra.







76mm Fixed Posts



Model	Part no. Galvanised	Height mm	Diameter mm	Wall thickness mm	Gross weight kg
Sprung boundary post, ragged	138100503	750	48	3	3.5
Sprung boundary post, flanged	138100403	750	48	3	3.5
48mm Fixed post, ragged	138100501	750	48	3	3.5
48mm Fixed post, flanged	138100401	750	48	3	3.5
60mm Fixed post, ragged	138100205	750	60	3	6
60mm Fixed post, flanged	138100201	750	60	3	6
76mm Fixed post, ragged	138100801	914	76	3	8
76mm Fixed post, flanged	138100805	914	76	3	8

Finishes: for all posts galvanising is standard, stainless steel and colour coated options available extra. Installation

Flanged posts should be bolted on to a suitable existing surface, preferably concrete (bolts available extra). Ragged posts should be cast into a concrete foundation approx 300mm cube. The ragged ends ensure a good anchorage into concrete. Flanged version requires 3 gty 12mm bolts. The flange plate is 6mm thick steel, 134mm diameter.

Ragged version is 240mm below ground and is splayed for firm ground anchorage.

# Fixed posts - Mild steel







The mild steel range of fixed posts is to complement the full range of hinged, sprung and retractable posts

750mm posts are to match the same height above ground as hinged & boundary posts.

Both the 750mm and 900mm above ground bollards are to match the range of RetractaPost-GL's.

When access isn't required but a form of barrier to stop access, the fixed version is the perfect choice. Can also be used on their own as a cost effective simple solution.

- Galvanised finish is standard.
- Ragged ends as standard.
- Flanged for bolting down available extra.
- Colour coated option available extra.
- Removable version available extra.
- Recommended centres to stop vehicular access is 1.2
  - 1.3m.

- 48, 60 & 76mm diameter with 750mm above ground posts are to match hinged, sprung and removable posts.
- 89, 101 & 114mm diameters to match RemovaPost, RetractaPost & RetractaPost-GL.
- 114, 139 & 168mm diameters to match RetractaPost-GL lift assist.

Diameter mm	Wall thickness mm		ove ground, n below	900mm Above ground 300mm below		
		Part number	Weight Kg	Part number	Weight Kg	
48	3	138100501	3.5	=		
60	3	138100205	6	-		
76	3	138100881	7	138100801	8	
90	3	138121283	7	138121293	8	
101	3	138121323	8	138121313	9	
114	3	138121423	10	138121413	12	
139	5	138121623	16	138121613	20	
168	5	138121723	20	138121713	24	

### Installation

Bollards supplied with welded fixing spikes to ensure firm ground anchorage. Excavate holes to depth of approx. 400mmx300mm diameter and cast into concrete.

Can be supplied with flanges for bolting down or in a removable option, complete with sockets for locking in by padlock.

# Fixed posts - Stainless steel







The stainless steel range of fixed posts is to complement the full range of hinged, sprung and retractable stainless steel posts Contemporary and practical - stainless steel bollards will enhance any location. Stainless steel looks elegant and clean, with the added benefit of being easy to maintain. Grade 304 as standard (grade 316 available extra). 750mm posts are to match the same height above ground as hinged & boundary post pages. Both the 750mm and 900mm above ground bollards are to match the range of RetractaPost-GL's.

- Grade 304 brushed finish as standard.
- 2mm wall thickness.
- Flanged for bolting down available extra.
- Removable version available extra.
- Recommended centres to stop vehicular access is 1.2
   1.3m.
- 48, 60 & 76mm diameter with 750mm above ground posts are to match hinged, sprung and removable posts.
- 89, 101 & 114mm diameters to match RemovaPost, RetractaPost & RetractaPost-GL.
- 114, 139 & 168mm diameters to match RetractaPost-GL lift assist.

Diameter mm	Wall thickness mm		ove ground, n below		ove ground 1 below
		Part number	Weight Kg	Part number	Weight Kg
48	2	138000105	3.5	-	
60	2	138000115	3.5	-	
76	2	138000120	4	138125075	5
89	2	138000125	5	138125090	6
101	2	138000130	6	138125104	7
114	2	138000135	6.5	138125117	8
139	2	-		138125142	10
168	2	-		138125169	13

### Installation

Bollards supplied with welded fixing spikes to ensure firm ground anchorage. Excavate holes to depth of approx. 400mmx300mm diameter and cast into concrete.

Can be supplied with flanges for bolting down or in a removable option, complete with sockets for locking in by padlock.

# Fixed posts - Square







A comprehensive range of mild steel square fixed posts have been introduced to match new and existing square removable and retractable posts. These square posts have flat caps as standard, diamond top versions are also available depending on size, see page28.

- Galvanised finish as standard.
- Ragged ends as standard.
- Flanged for bolting down available extra.
- Removable version available extra.

- Recommended centres to stop vehicular access is 1.2-1.3m.
- 70x70 & 80x80mm with 750mm above ground posts are to match removable & retractable square posts.
- 90x90, 100x100, 120x120mm to match the larger Removable post & Retractable posts,

Diameter mm	Wall thickness mm		ove ground, n below	900mm Above ground 300mm below			
		Part number	Weight Kg	Weight Kg Part number			
70x70	3	138121865	6	-	-		
80x80	3	138121876	7	-	-		
90x90	3	138121884	8	138121882	9		
100x100	3	-	- 138121825		10		
120x120	5	=		138121832	17		

### Installation

Bollards supplied with welded fixing spikes to ensure firm ground anchorage. Excavate holes to depth of approx. 400mmx300mm diameter and cast into concrete.

Can be supplied with flanges for bolting down or in a removable option, complete with sockets for locking in by padlock.

# Removable posts

# Removable square post RPSQ







100x100mm square removable post



Versatile socket fits both size posts

The Square removable posts are suitable for allowing occasional access, usually locked in place over night and removed during daytime. These square removable posts are available in two standard sizes with both using the same ground socket.

- Socket depth for removables is 330mm.
- Socket weight 5kg.
- Top of socket =  $120 \times 140$ mm.
- Ground socket & flap are made from galvanised mild steel.
- Fixed posts to match are also available, see page 21.
- Padlock available extra.
- 100x100mm square post includes lifting handles.
- Retractable & fixed square posts are also available see pages 12, 16, 18 & 19.

Model	Part no. Galvanised	Height mm	Wall thickness mm	Gross weight kg	Lift out weight kg
80x80mm square removable post	138100671	790	3	13	8
100x100mm square removable post	138100651	970	3	17	12

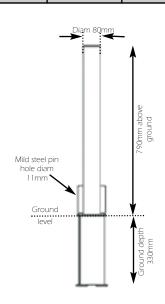
Finishes: for all posts galvanising is standard, stainless steel and colour coated options available extra.

Eyelets also available, please see accessories page.

### Installation

Ground socket must be concreted in to ground to depth of at least 330mm & approx 300mm square. Flap when closed should be flush with surrounding ground and it is important that the socket is in a vertical position before the concrete sets. Allow for draining from bottom of excavated hole.

Recommended centres for posts to prevent vehicle access is 1.2 - 1.3m.



# Removable posts RSP & RPP







RPP's with chain & eyelets

RSP - Galvanised finish

RPP - Galvanised finish

The Removable posts are suitable for allowing occasional access, usually locked in place over night and removed during daytime. With a new ground socket design available from Summer 2012, the same ground socket can also be used for a post mounted key lockable version.

- Socket depth for removables is 267mm.
- Socket weight 9kg.
- Top of socket = 152 x 160mm.
- Ground socket & flap are made from galvanised mild steel.
- Weather cap of black polypropylene.
- RSP includes CISA high security padlock.
- RPP padlocks are extra.
- RKP includes post mounted cylinder lock, supplied with 2 keys.
- Wall thickness 3mm.
- Fixed posts to match are also available, see page 9.



Ground socket

Model	Part no. Galvanised	Height mm	Diameter mm	Wall thickness mm	Gross weight kg	Lift out weight kg
RSP Removable Post incl. CISA padlock	138100701	914	76	3	17	8
RPP Removable Post excl. padlock	138100601	914	76	3	17	8
RKP Removable Key lockable post	138100731	914	76	3	17	8

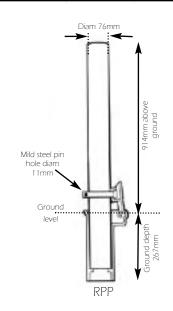
Finishes: for all posts galvanising is standard, stainless steel and colour coated options available extra.

Eyelets also available, please see accessories page.

### Installation

Ground socket must be concreted in to ground to depth of at least 267mm & approx 300mm square. Flap when closed should be flush with surrounding ground and it is important that the socket is in a vertical position before the concrete sets. Allow for draining from bottom of excavated hole.

Recommended centres for posts to prevent vehicle access is 1.2 - 1.3m.



# RemovaPost-GL & RemovaPost-TL







RemovaPost-GL stainless steel

RemovaPost-GL

RemovaPost-TL

New RemovaPost<sup> $\mathbb{T}$ </sup> GL & TL, both of these posts include an integral lock instead of a padlock. The removable ground lock and top lock posts are suitable for sites where deep groundworks are unsuitable. The posts match the RetractaPost<sup> $\mathbb{T}$ </sup> GL & TL on pages 15 and 16.

- Socket depth for removables is 313mm.
- Socket weight 9kg.
- GL includes 7 pin anti drill centre push lock at the base of the post.
- TL includes High security 10 pin lock at the top of the post.
- TL includes inner core for extra strength.
- GL & TL include 2 keys, available randomly or identically keyed.
- Galvanised as standard, also available colour coated.
- Fixed posts to match are also available, see pages 10-11.







RemovaPost-GL Ground socket

Model	Part no.	Height	Diameter	Wall	Gross	Lift out
	Galvanised	mm	mm	thickness	weight	weight
				mm	kg	kg
RemovaPost-GL, integral base lock	138100751	745	90	3	19	10
RemovaPost-TL, integral top lock	138100771	830	90	5+3	23	13.5

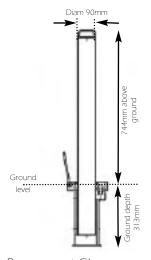
Finishes: for all posts galvanising is standard, stainless steel and colour coated options available extra.

Eyelets also available, please see accessories page.

### Installation

Ground socket must be concreted in to ground to a depth of at least 350mm & approx 300mm square. Flap when closed should be flush with surrounding ground and it is important that the socket is in a vertical position before the concrete sets. Allow for draining from bottom of excavated hole.

Recommended centres for posts to prevent vehicle access is 1.2 - 1.3m.



Removapost-GL

# Retractable posts

# RetractaPost-TL (Heavy duty security post)







Retractapost-TL, galvanised finish

Retractapost-TL, galv & coated finish

Retractapost-TL square

The RetractaPost-TL range of posts are suitable for car show rooms, access control, car parks, retail parks, shop fronts and domestic driveways.

The posts have an integral camlock supplied with two keys and easy to lock action. The posts are manufactured in house by Autopa and are available in a variety of sizes and finishes, square versions are also available.

- Made from mild steel round tube.
- Galvanised finish is standard.
- Colour coated finishes available extra.
- Available round or square.
- Lockable in the up and down position.
- High security 10 pin lock supplied with 2 keys.
- Available randomly or identically keyed.
- Hardened steel security rings protect vulnerable areas.
- Ergonomic handle.
- Includes Red/White class 1 reflective tape.

- Autopa Retractapost-TL's are dual cored offering higher security.
  - Outer core 90mm od, 5mm wall thickness. Inner core - 48mm od, 3mm wall thickness.
- Other sizes are also available.
- Fixed posts to match are also available, see pages 10 & 12.

All RetractaPosts are supplied with reflective tape. All steel posts are available colour coated (extra).

Model	Part no.	Depth below ground mm	Height above ground mm	Diameter mm	Wall thickness mm	Gross weight kg	Pull-up weight kg
RetractaPost-TL, galv	138130100	1070	830	90	5 + 3	33	13.5
RetractaPost-TL, galv & coated	138130105	1070	830	90	5+3	33	13.5
RetractaPost-TL baby galv	138130110	830	500	90	5 + 3	30	10
RetractaPost-TL baby galv & coated	138130115	830	500	90	5 + 3	30	10
RetractaPost-TL square, galv	138130120	1070	830	90x90	5 + 3	34	14
RetractaPost-TL square, galv & coated	138130125	1070	830	90x90	5 + 3	34	14

### Installation

Excavate hole 1100mm deep and 300mm diameter. Allow chippings in bottom to allow drainage. Lid of post should be no more than 10mm above ground level. Concrete should be used to cover the top 360mm of the hole around the post. Keep sliding post clean and occasionally lubricate lock with Ambersil 40+.

Recommended centres for posts to prevent vehicle access is 1.2 - 1.3m.

# **RetractaPost™**





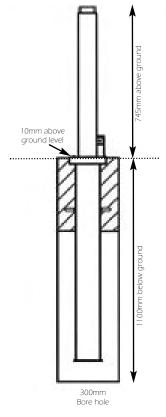
RetractaPost™ socket

RetractaPost™, galvanised finish

A simple, cost effective but highly effective and convenient way to prevent unwanted vehicle access and deter ram raids. The padlock is positioned at the base of the post, between the post and cover flap for added protection.

A choice of padlocks are available to offer an increasing level of security, padlocks are extra. The post is operated by lifting fully out of the ground and then rotating 45deg. The lug at the rear of the post aligns with the flap to allow the padlock to lock the post to the flap.

- No internal mechanism.
- Mild steel sliding post facilitates smooth moving action.
- Standard or higher security padlocks can be fitted.
- In the event of damage, the sliding post can be replaced by authorised key holders.
- Will only lock in the up position no jamming possible below ground.
- Flap design helps protect padlock from malicious attack.
- All parts are fully galvanised and corrosion protected.
- Painting and powder coating coloured finishes available extra.
- Supplied with self-adhesive safety reflector for higher visibility.



RetractaPost

Model	Part no.	Depth below ground mm	Height above ground mm	Diameter mm	Wall thickness mm	Gross weight kg	Pull-up weight kg
RetractaPost, galv	138130400	1005	745	90	3	28	8
RetractaPost, galv & coated	138130405	1005	745	90	3	28	8
RetractaPost baby, galv	138130410	755	500	90	3	20	6

### Installation

Excavate hole 1100mm deep and 300mm diameter. Install with chippings in bottom to allow drainage. Lid of post should be no more than 10mm above ground level. Concrete should be used to cover the top 360mm of the hole around the post. Keep sliding

Recommended centres for posts to prevent vehicle access is 1.2 - 1.3m.

# RetractaPost™ Square





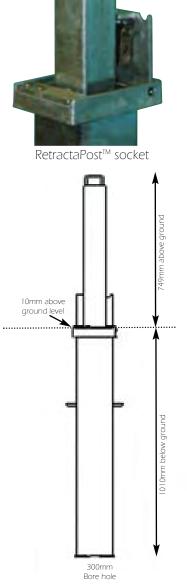
RetractaPost™, Square

RetractaPost™, Square, baby

A simple, cost efficient but highly effective and convenient way to prevent unwanted vehicle access and deter ram raids. The padlock is positioned at the base of the post, between the post and cover flap for added protection.

A choice of padlocks are available to offer an increasing level of security, padlocks are extra. The post is operated by lifting fully out of the ground and then rotating 45deg. The lug at the rear of the post aligns with the flap to allow the padlock to lock the post to the flap.

- No internal mechanism.
- Mild steel sliding post facilitates smooth moving action.
- Standard or higher security padlocks can be fitted.
- In the event of damage, the sliding post can be replaced by authorised key holders.
- Will only lock in the up position no jamming possible below ground.
- Flap design helps protect padlock from malicious attack.
- All parts are fully galvanised and corrosion protected.
- Painting and powder coating coloured finishes available extra.
- Supplied with self-adhesive safety reflector for higher visibility.
- Fixed posts to match are also available, see page 12.



RetractaPost

Model	Part no.	Depth below ground mm	Height above ground mm	Diameter mm	Wall thickness mm	Gross weight kg	Pull-up weight kg
RetractaPost square	138130401	1010	749	70x70	3	28	6.2
RetractaPost square galv & coated	138130404	1010	749	70x70	3	28	6.2
RetractaPost square baby	138130411	760	500	70x70	3	22	4.7

### Installation

Excavate hole 1100mm deep and 300mm diameter. Install with chippings in bottom to allow drainage. Lid of post should be no more than 10mm above ground level. Concrete should be used to cover the top 360mm of the hole around the post. Keep sliding post clean.

Recommended centres for posts to prevent vehicle access is 1.2 - 1.3m.

# RetractaPost-GL Square





RetractaPost-GL square

RetractaPost-GL square lift assist

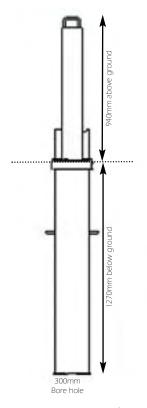
The Retractapost-GL square is available as a standard manual lift up post or with internal gas strut as a lift assist for the heavier version. The RetractaPost-GL square range of posts are suitable for car show rooms, access control, car parks, retail parks, shop fronts and domestic driveways.

The posts have an integral push lock at the base of the post and are supplied with two keys with push to lock action. The posts are manufactured in house by Autopa and are available in two sizes and a variety of finishes.

To operate the post, fully extend out of the ground and then rotate 45deg. To lock, push the lock in at the base of the post. The gas strut in the lift assist version reduces the lifting weight by approximately 70%.

- Lockable in the up position.
- 7 pin anti drill centre push lock.
- Supplied with 2 keys.
- Available randomly or identically keyed.
- Includes sprung flap cover to protect the lock.

All galvanised RetractaPosts are supplied with reflective tape. All galvanised steel posts are available colour coated (extra).



RetractaPost-GL Square Lift Assisted

Model	Part no.	Depth below ground mm	Height above ground mm	Section size mm	Wall thickness mm	Gross weight kg	Pull-up weight kg
RetractaPost-GL, square	138130421	1070	780	90x90	3	39	9
RetractaPost-GL, square, lift assist	138130451	1270	940	120x120	5	63	8

### Installation

Excavate hole 1300mm deep and 500mm diameter. Allow chippings in bottom to allow drainage. Lid of post should be no more than 10mm above ground level. Concrete should be used to cover the top 360mm of the hole around the post. Keep sliding post clean and occasionally lubricate lock with Ambersil 40+.

Recommended centres for posts to prevent vehicle access is 1.2 - 1.3m.

### RetractaPost-GL







Stainless steel RetractaPost-GL

Galvanised RetractaPost-GL

Galvanised Retractapost-GL

The RetractaPost-GL range of posts are suitable for car show rooms, access control, car parks, retail parks, shop fronts and domestic driveways.

The posts have an integral push lock at the base of the post and are supplied with two keys with push to lock action. The posts are manufactured in house by Autopa and are available in two sizes and a variety of finishes.

To operate the post, fully extend out of the ground and then rotate 45deg. To lock, push the lock in at the base of the post.

- Made from mild steel round tube.
- Galvanised finish is standard.
- Colour coated finishes available extra.
- Lockable in the up position.
- No internal mechanism
- 7 pin anti drill centre push lock.
- Supplied with 2 keys.
- Available randomly or identically keyed.
- Available in Stainless steel grade 304, brushed finish.
- Includes sprung flap cover to protect the lock.

All galvanised RetractaPosts are supplied with reflective tape. All galvanised steel posts are available colour coated (extra).



RetractaPost-GL ground socket

Model	Part no.	Depth below ground mm	Height above ground mm	Diameter mm	Wall thickness mm	Gross weight kg	Pull-up weight kg
RetractaPost-GL, galv	138130420	1070	745	90	3	30	7
RetractaPost-GL, galv	138130430	1070	745	101	3	36	10
RetractaPost-GL, galv	138130440	1251	900	114	3	48	12
RetractaPost-GL, stainless steel	138130429	1070	745	90	2	26	6
RetractaPost-GL, stainless steel	138130439	1070	745	101	2	33	7
RetractaPost-GL, stainless steel	138130449	1251	900	114	2	43	8

### Installation

Excavate hole 1100mm -1300mm deep (depending on post) and 300mm diameter. Allow chippings in bottom to allow drainage. Lid of post should be no more than 10mm above ground level. Concrete should be used to cover the top 360mm of the hole around the post. Keep sliding post clean and occasionally lubricate lock with Ambersil 40+.

Recommended centres for posts to prevent vehicle access is 1.2 - 1.3m.

### RetractaPost-GL lift assisted







Galvanised RetractaPost-GL

Stainless steel RetractaPost-GL

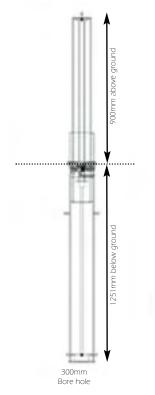
The Retractapost GL is available with internal gas strut as a lift assist for the heavier posts. This allows the user to lift an otherwise heavy bollard with minimal effort, and reducing the risk of injury.

The actual lifting weight of the bollards is reduced between 70 – 80%, dependent upon the bollard. Not only is the lifting weight reduced, but also the system acts as a control when the bollard is being lowered into the ground.

Available in 114mm, 139mm and 168mm, galvanized mild steel 3.6-5mm wall thickness, 900mm above ground. In addition to this the bollards come with an internal core of 2mm wall thickness the complete length of the bollard, making them that bit more "heavy duty".

- Lockable in the up position.
- 7 pin anti drill centre push lock.
- Supplied with 2 keys.
- Available randomly or identically keyed.
- Available in Stainless steel grade 304, brushed finish.
- Includes sprung flap cover to protect the lock.

All galvanised RetractaPosts are supplied with reflective tape. All galvanised steel posts are available colour coated (extra).



RetractaPost-GL Lift Assisted

Model	Part no.	Depth below ground mm	Height above ground mm	Diameter mm	Wall thickness mm	Gross weight kg	Pull-up weight kg
RetractaPost-GL, galv	138130450	1251	900	114	3	53	4
RetractaPost-GL, galv	138130460	1251	900	139	5	56	6
RetractaPost-GL, galv	138130470	1251	900	168	5	60	8
RetractaPost-GL, stainless steel	138130459	1251	900	114	2	48	3
RetractaPost-GL, stainless steel	138130469	1251	900	139	2	50	4
RetractaPost-GL, stainless steel	138130479	1251	900	168	2	53	5

### Installation

Excavate hole 1300mm deep and 500mm diameter. Allow chippings in bottom to allow drainage. Lid of post should be no more than 10mm above ground level. Concrete should be used to cover the top 360mm of the hole around the post. Keep sliding post clean and occasionally lubricate lock with Ambersil 40+.

Recommended centres for posts to prevent vehicle access is 1.2 - 1.3m.

# Retractable posts **SS710**



**SS490** 



**HD670** 



**ST850** 



ST670



**ST500** 



A fully retractable solution for securing forecourts, controlling access, reserving parking spaces & deterring ram-raid style attacks. Locks in the raised and lowered position. All of the above posts include a high security 10 pin lock which is positioned at the top of

- Internal stainless steel components and nylon bushed mechanism for smooth operation.
- SS710 & SS490 are stainless steel grade 316. HD670, Std850, Std670 & Std500 are all galvanised finish as standard.
- Powder coated options for galvanised posts are available on request.
- Posts can be keyed identically or randomly. Each post is supplied with 2 keys.
- Push lock mechanism and twist handle operation to pull up and lower down.
- Fixed posts to complement the retractables are also available see pages 10-12.

Model	Part no.	Depth below ground mm	Height above ground mm	Diameter mm	Wall thickness mm	Gross weight kg	Pull-up weight kg
SS710 stainless steel	138130250	1100	710	101	2 + 4	45	10
SS490 stainless steel	138130260	700	490	76	4	21	6
HD670	138130201	1000	670	90x90 square	5	42	11
ST850	138130270	1110	850	114	5	54	17
ST670	138130204	1000	670	90	5	40	9
ST500	138130232	700	500	76	4	21	6

### Installation

As Retractapost installations, alter installation depth to suit.

Recommended centres for posts to prevent vehicle access is 1.2 - 1.3m.



# Plain stainless steel bollards - 1000mm above ground

### Round







114x1400 Stainless steel bollard

139x1400 Stainless steel bollard

139x1400 stainless steel bollards

Contemporary and practical - stainless steel bollards will enhance any location. Stainless steel looks elegant and clean, with the added benefit of being easy to maintain.

- Standard finish is brushed grade 304, 1400mm overall length.
- 1000mm above ground as standard.
- Removable versions are 260mm below ground.
- Round bollards come with slightly domed welded caps.
- Grade 316 also available on request.
- Brushed/satin finish is standard.
- **Re-inforced option available,** please see page 25 for available internal galvanised cores.
- Re-inforced bollards are not available removable or flanged.
- Other sizes are available on request.
- Telescopic versions are also available, please see pages 18, 20 & 21.

For different heights above ground please see pages 11 & 25.



Stainless removable socket

Model Overall diameter	Part no. Ragged	Finish	Height above ground mm	Depth below ground mm	Wall thickness mm	Gross weight kg
89 slightly domed	138125089	304 brushed	1000	400	2	7
101 slightly domed	138125101	304 brushed	1000	400	2	8
114 slightly domed	138125114	304 brushed	1000	400	2	9
129 slightly domed	138125129	304 brushed	1000	400	2	11
139 slightly domed	138125139	304 brushed	1000	400	2	12
154 slightly domed	138125154	304 brushed	1000	400	2	14
168 slightly domed	138125168	304 brushed	1000	400	2	15
204 slightly domed	138125204	304 brushed	1000	400	2	16

### Installation

Bollards supplied with welded fixing spikes to ensure firm ground anchorage. Excavate holes to depth of approx. 400mmx300mm diameter and cast into concrete.

Can be supplied with flanges for bolting down or in a removable option, complete with sockets for locking in by padlock.

**Maintenance -** Occasionally clean with warm soapy water and a soft cloth & rinse with cold water. If stained use a soft cloth and cif or similar cream and rinse as above. For persistent stains, seek expert advice on acid cleaning.

# Trinity stainless steel bollards - 900mm above ground





- Standard finish is brushed grade 304, grade 316 also available on request.
- Bollards come with slightly domed welded caps.
- 1200mm overall length.
- Brushed/satin finish is standard.
- **Re-inforced option available,** please see below for available internal galvanised cores.
- Re-inforced bollards are not available removable or flanged.
- Other sizes are available on request.
- Telescopic versions are also available, please see pages 18, 20 & 21.

The **TRINITY** stainless steel bollards come in brushed finished **grade 304** at **900mm** above ground and **300mm** below ground. Stainless steel bollards are ideal for all modern developments from pedestrian precincts, shopping centres to office developments. For trolley rails in stainless steel see page 57, for cycle stands in stainless steel see pages 72-76.

Model Overall diameter	Part no. Ragged	Finish	Height above ground mm	Depth below ground mm	Wall thickness mm	Gross weight kg
76mm Trinity	138125075	304 brushed	900	300	2	5
89mm Trinity	138125090	304 brushed	900	300	2	6
101mm Trinity	138125104	304 brushed	900	300	2	7
114mm Trinity	138125117	304 brushed	900	300	2	8

### Installation

Bollards supplied with welded fixing spikes to ensure firm ground anchorage. Excavate holes to depth of approx. 400mmx300mm diameter and cast into concrete.

Can be supplied with flanges for bolting down or in a removable option, complete with sockets for locking in by padlock.

**Maintenance -** Occasionally clean with warm soapy water and a soft cloth & rinse with cold water. If stained use a soft cloth and cif or similar cream and rinse as above. For persistent stains, seek expert advice on acid cleaning.

### Reinforced stainless steel bollards

The internal galvanised steel core (extra cost) will increase the root depth to 500mm or 600mm below ground. The steel core can be filled with concrete during installation for additional reinforcement.

Bollard diameter	Galv core size mm	Galv core length 1200	Galv core length 1000
101	90	Y	Υ
114	90	Y	Υ
129	114	Y	Ν
139	114	Y	Ν
154	139	Y	Ν
168	139	Y	Ν
204	193	Y	Ν

We suggest stainless steel bollards 1400mm overall should have 1200mm galv cores, bollards 1200mm overall should have 1000mm galv cores.

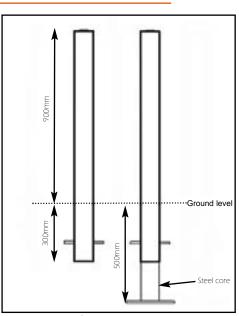


Illustration of Standard Trinity bollard & with core

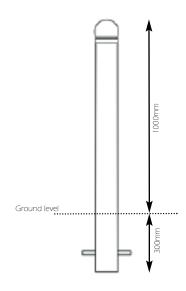
# **Ornamental stainless steel bollards**

# **Mitre Top**

# **Imperial**







A choice of two different caps are available for our stainless steel bollards to offer the most prestigious of projects that added elegance.

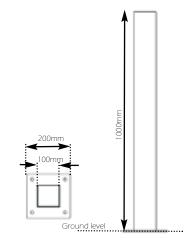
- Standard finish is brushed grade 304, grade 316 also available on request.
- 1400mm overall length, 1000mm above ground.
- Brushed/satin finish is standard to 240 grit.
- Also available flanged for bolting down and removable.
- Other sizes are available on selected designs.
- Reinforced options are available, see page 25.

Model Overall diameter	Part no. Ragged	Finish	Height above ground mm	Depth below ground mm	Wall thickness mm	Gross weight kg
Mitre 101	138126101	304 brushed	1000	400	2	8
Mitre 114	138126114	304 brushed	1000	400	2	9
Imperial 101	138127101	304 brushed	1000	300	2	9
imperial 114	138127114	304 brushed	1000	300	2	10

# Plain stainless steel bollards

# Square

- Standard finish is brushed grade 304, grade 316 also available on request.
- Square bollards come with flat caps, as standard.
- 1400mm overall length, 1000mm above ground.
- Brushed/satin finish is standard to 240 grit.
- Re-inforced bollards are not available removable or flanged.
- Other sizes are available on request.
- Mitre top finish also available.





Model Overall diameter	Part no. Ragged	Finish	Height above ground mm	Depth below ground mm	Wall thickness mm	Gross weight kg
80x80 square, flat top	138125080	304 brushed	1000	400	2	7
100x100 sq, flat top	138125100	304 brushed	1000	400	2	9

# Steel bollards

# Plain steel - Round







Painted finish 139 x1400mm, ragged



Painted finish 114 x1400mm, ragged

- Galvanised finish is standard.
- Ragged ends as standard.
- Flanged for bolting down available.
- Removable versions available.
- 1400mm overall length as standard, other sizes available on request.

Round bollards Overall diameter	Part no. Galvanised Ragged	Height above ground mm	Depth below ground mm	Wall thickness mm	Gross weight kg
90, slightly domed	138121284	1000	400	3	9
101, slightly domed	138121303	1000	400	3	11
114, slightly domed	138121403	1000	400	3	14
127, slightly domed	138121503	1000	400	3	16
139, slightly domed	138121603	1000	400	5	23
152, slightly domed	138121675	1000	400	3	23
168, slightly domed	138121703	1000	400	5	28
193, slightly domed	138121803	1000	400	5	33
219, slightly domed	138121903	1000	400	5	47

# Plain steel - Square

Square bollards Size	Part no. Galv, Ragged	Height above ground mm	Depth below ground mm	Wall thickness mm	Gross weight kg
80x80, flat	138121878	1000	400	3	10
90x90, flat	138121880	1000	400	3	11
100x100, flat	138121820	1000	400	3	12
120x120, flat	138121830	1000	400	5	20
150x150, flat	138121840	1000	400	5	25

### Installation

Fixed versions – cast into concrete to minimum 400mm deep by 300mm square, depending on ground conditions.

Removables – 114mm diameter cast socket in to concrete approx 267mm deep by 300mm square, allowing for drainage from bottom of excavated socket hole. 150mm -165mm diameter cast in 400mm deep minimum by 300mm square minimum.

# **Steel bollards**

# **Shaped bollards**







Diamond top 150 x 150 x 1400mm, ragged - Painted finish

- Galvanised finish is standard.
- Ragged ends as standard.
- Flanged for bolting down available.
- Removable versions are available.
- 1400mm overall length as standard, other sizes available on request.

Shaped	Outside Diameter mm	Part no. Galvanised Ragged	Height above ground mm	Depth below ground mm	Wall thickness mm	Gross weight kg
Round	76 (domed)	138121260	1000	330	3	9
Round	90 (domed)	138121270	1000	400	3	10
Round	114 (domed)	138121420	1000	400	3	1 1
Square	100 (diamond)	138121900	1000	400	3	12
Square	150 (diamond)	138121905	1000	400	5	31

# **Stepped bollards**



Stepped bollard 139 to 114 x1400 -Painted finish



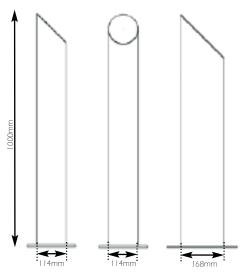
168 to 139 removable stepped bollard - Galvanised finish

- Galvanised finish is standard.
- Ragged ends as standard.
- Flanged for bolting down available.
- Removable versions are available.
- Step height 150mm max, will fit tape to 130mm.
- 1400mm overall length as standard, other sizes available on request.

	rairiled III i	121.1	Galvai	11260 111 1121 1			
Stepped	Outside diameter mm	Stepping to mm	Part no. Galvanised Ragged	Height above ground mm	Depth below ground mm	Wall thickness mm	Gross weight kg
Round	139	114	138121955	1000	330	5	9
Round	152	139	138121925	1000	400	3	14
Round	168	139	138121975	1000	400	5	16
Square	150x150	140x140	138121915	1000	400	5	32

# Mitre top steel bollards





- Galvanised finish is standard.
- Ragged ends as standard.
- Flanged for bolting down available.
- Removable versions are available.
- 1400mm overall length as standard, other sizes available on request.

114mm Mitre top bollard

Outside Diameter mm	Part no. Galvanised Ragged	Height above ground mm	Depth below ground mm	Wall thickness mm	Gross weight kg
101	138121315	1000	400	3	1 1
114	138121415	1000	400	3	14
139	138121615	1000	400	5	23
168	138121715	1000	400	5	28
193	138121815	1000	400	5	33

# Installation

Fixed versions – cast into concrete to minimum 400mm deep by 300mm square, depending on ground conditions.

Removables – 114mm diameter cast socket in to concrete approx 267mm deep by 300mm square, allowing for drainage from bottom of excavated socket hole. 150mm -165mm diameter cast in 400mm deep minimum by 300mm square minimum.



168x900mm ragged bollards undercoated



193x1000mm flanged bollard - Painted black with yellow reflective tape



Square 100x100x1000mm removable bollards with lifting handles - Painted black & white

# Re-inforced bollards

Bollard diameter	Galv core size mm	RSJ available Y/N
101	90	Ν
114	90	Y
127	114	Ν
139	114	Ν
152	139	Ν
168	139	Y
193	168	Ν
219	193	Ν

- Internal galvanised steel cores are available for both galvanised & stainless steel bollards for additional re-inforcement.
- Cores are available 500ag/500bg, 600ag/600bg or made to order.
- An RSJ is available to re-inforce 114 or 168mm od bollards.
- For extra strength, fixed steel bollards can be filled with concrete on site, loose caps are available for bollards being filled on site with concrete
- Re-inforced bollards are not available flanged for bolting down or removable.
- Colour coated reflective tape/banding is also available.

# **Bollard options**



### Ragged ends

Most steel posts & bollards are supplied with ragged ends for casting in to the ground as standard. Straps at the bottom of the bollards may be used instead of lugs in certain cases.



### Flanged ends

Flanged ends for bolting down are available for mild & stainless steel posts and bollards. Round and square flanges are available.

Bollard diameter	Flange shape for galvanised bollards	Flange shape for stainless bollards
48	Round 135od x 5mm	Round 120od x 5mm
60	Round 135od x 5mm	Round 120od x 5mm
76	Round 180od x 5mm	Round 150od x 5mm
90/89	Round 180od x 5mm	Round 150od x 5mm
101	Round 180od x 5mm	Round 175od x 5mm
114	Round 180od x 5mm	Round 175od x 5mm
127/129	Square 250x250 x 10mm	dependent on order
139	Square 250x250 x 10mm	dependent on order
152/154	Square 250x250 x 10mm	Round 250 x 6mm
168	Square 250x250 x 10mm	dependent on order
193	Square 400x400 x 10mm	-
219/204	Square 400x400 x 10mm	dependent on order



### Removable

Most posts and bollards are available as a removable option. Lockable by padlock. Padlock & ground socket available extra.

Smaller posts & bollards have a cast ground socket.



### Loose caps

Loose caps are supplied on request if customer requires bollards filling with concrete. The hook attached to the cap can be pushed into wet cement which will fix the cap in place.

All steel bollards are supplied galvanised finish as standard, colour coated finishes are available at extra cost.

RAL or BS colour codes must be supplied for colour coated finishes.

### Installation

Ragged bollards - cast in to concrete to minimum 400mm deep by 300mm square, depending on ground conditions.

Flanged bollards - bolt down to suitable concrete foundation, at least 300mm cube depending on ground conditions. All round flanges require 3x 12mm bolts, 250mm square flanges require 4x12mm bolts & 400mm square flanges require 4x16mm bolts.

Removables – 114mm diameter cast socket in to concrete approx 267mm deep by 300mm square, allowing for drainage from bottom of excavated socket hole. 150mm -165mm diameter cast in 400mm deep minimum by 300mm square minimum.

# **GFC** ornamental bollards

# **GFC2000s**

# GFC1500

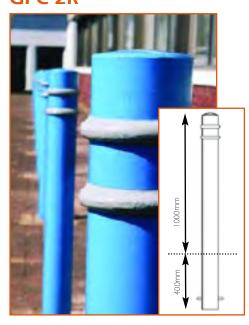
# **GFC1700**







# GFC 2R



### GFC Fixed and removable ornamental bollards.

Aesthetically pleasing, for safety, security and protection, preventing unauthorised parking and access. GFC ornamental bollards provide an attractive yet functional barrier to unauthorised vehicle access. They are ideal for use around pedestrian precincts, pavements, play and parking areas, as part of traffic calming measures, pedestrianisation schemes and as a deterrent to ram-raiders.

- Main construction of mild steel tube.
- Cap & rings of high grade, impact resistant, malleable cast iron, for ornamental furnishing.
- Ground fixing of ragged bollards is assisted by ground fixing spikes.
- Available with flanges for bolting down (bolts available extra).
- Removable versions include fabricated steel ground socket.
- Removable versions are lockable by padlock (extra).

Model	Part no. Galvanised Ragged	Part no. Galvanised Removable	Height above ground mm	Depth below ground	Diameter mm	Wall thickness mm	Ragged weight kg	lift out weight kg
GFC2000s	138120111	138120117	1000	400	76	3	8	8
GFC1500	138120023	138120006	1000	400	114	3	19	17
GFC1700	138120251	138120257	1000	400	114	3	19	17
GFC 2R	138120151	138120157	1000	400	114	3	14	14

### Installation

Fixed ornamentals – cast in to concrete to 300mm - 500mm deep by 300mm square, depending on ground conditions and bollard model.

# **GFC** ornamental bollards

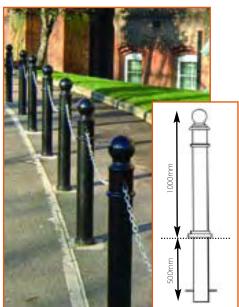
# **GFC3000**

# 900mm + 900mm

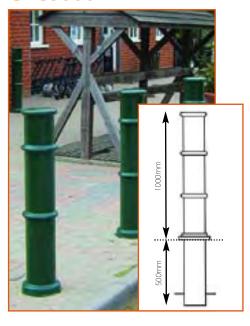
# **GFC4000**



# **GFC5000**



# **GFC6000**



### Galvanised finish is standard.

- Colour coated finishes are available in painted or powder coated.
- A variety of colours are available depending on the type of finish required.
- For colour coated finishes, please confirm RAL or BS number at time of order.
- Options for eyelets & hooks for chain are available extra.
- Hoops for locking cycles are also available.

Other sizes and modifications can be manufactured to order, please contact our sales office.

Model	Part no. Galvanised Ragged	Part no. Galvanised Removable	Height above ground mm	Depth below ground	Diameter mm	Wall thickness mm	Ragged weight kg	lift out weight kg
GFC3000	138120061	138120067	900	500	114	3	17	15
GFC4000	138120071	138120077	900	500	114	3	17	15
GFC5000	138120081	138120087	1000	500	114	3	20	17
GFC6000	138120091	138120097	1000	500	165	5	38	36

### Installation

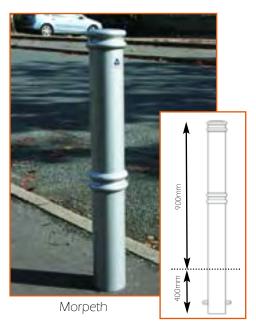
Fixed ornamentals – cast in to concrete to 300mm - 500mm deep by 300mm square, depending on ground conditions and bollard model.

# **GFC** ornamental bollards

# **GFC3500**

# **GFC7000**

# **GFC9000**



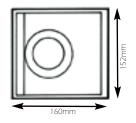


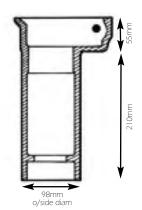


Model	Part no. Galvanised Ragged	Part no. Galvanised Removable	Height above ground mm	Depth below ground	Diameter mm	Wall thickness mm	Ragged weight kg	lift out weight kg
GFC3500 (Morpeth)	138120301	138120307	900	500	114	3	20	18
GFC7000 (Manchester)	138120131	138120137	1000	500	114	3	20	18
GFC9000	138122601	138122607	1000	400	139	5	24	22

# Removable GFC's







All ground sockets for removable posts are manufactured from fabricated galvanised mild steel.

Weight of ground socket: 9kg, Depth of ground socket: 267mm.

### Installation

Removables – 114mm diameter; cast socket in to concrete approx 267mm deep by 300mm square, allowing for drainage from bottom of excavated socket hole. 165mm diameter cast in 400mm deep minimum by 300mm square minimum.

# Illuminated bollards GFC9000i (illuminated)



The GFC9000 has been specifically designed in-house by Autopa. Plain and illuminated versions are available, they are designed with a classic appearance, and made with robust material, a product to suit most architectural designs.

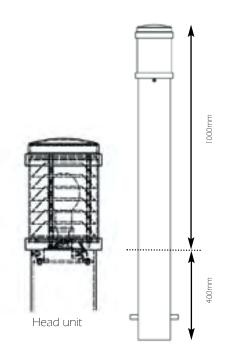
The Autopa illuminated bollard is suitable for pedestrian walkways, squares, gardens, marinas, forecourts and all 24 hour public areas from hotels to supermarkets.

The head unit has been tested and rated to IP54, against solid objects and liquid ingress, the rating means it is protected against dust, with limited ingress (no harmful deposits), and protected against spray from all directions, with limited ingress permitted.

Conforms to BS EN 60598-1:2004 Luminaries - Part 1: general requirements & tests.







- Standard finish is in black, with other colours available to order.
- Illuminated bollard is available ragged for casting in only.
- CE marked.
- Diameter of lens: 150mm

The GFC9000i illuminated bollard is made from 5mm thick steel tube available coated in a variety of RAL colours (black as standard, RAL numbers must be supplied for colours).

The head unit is made of a steel cap, with 3mm thick polycarbonate lens. The louvre stack is made from individual aluminium fans, positioned to give a controlled spread of light. A 70W SON-E lamp is used which is accessed via 1 tamper proof screw and positioned on the bollard core through a bayonet style lock.

A technical file containing all test results, approvals, conformances and light dispersal patterns is available on request.

Model	Part no. Black Ragged	Part no. Galvanised Removable	Height above ground mm	Depth below ground	diameter mm	Wall thickness mm	Ragged weight kg	lift out weight kg
GFC9000i	138122500	-	1000	400	139	5	18	-
GFC9000	138122600	138122607	1000	400	139	5	24	22

# Illuminated bollards Stainless steel (illuminated)



The Stainless steel illuminated bollard has been specifically designed in-house by Autopa. They are designed with a modern appearance, and made with robust material, a product to suit most architectural designs.

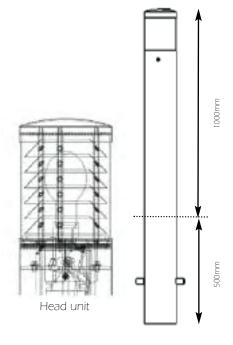
The Autopa illuminated bollard is suitable for pedestrian walkways, squares, gardens, marinas, forecourts and all 24 hour public areas from hotels to supermarkets.

The head unit has been tested and rated to IP54, against solid objects and liquid ingress.

Conforms to BS EN 60598-1:2004 Luminaries - Part 1: general requirements & tests.







- Standard finish is stainless steel grade 304.
- Available ragged for casting in only.
- CE marked.
- Diameter of lens: 150mm

The Stainless steel illuminated bollard is made from 2mm thick stainless steel tube.

The head unit is made of a stainless steel cap, with 3mm thick polycarbonate lens. The louvre stack is made from individual aluminium fans, positioned to give a controlled spread of light. A 70W SON-E lamp is used which is accessed via 1 tamper proof screw and positioned on the bollard core through a bayonet style lock.

A technical file containing all test results, approvals, conformances and light dispersal patterns is available on request.

Model	Part no. Ragged	Height above ground mm	Depth below ground	Diameter mm	Wall thickness mm	Ragged weight kg
Stainless steel Illuminated bollard	138122550	1000	500	154	2	16
Fixed bollard	138125154	1000	400	154	2	14

# Steel core environmental bollards

# EB100 EB200







**DDA100** 

The EB range of bollards are the preferred bollard on many retail parks.

These attractive and practical fixed bollards have a high strength galvanised steel core and rugged, self coloured casing sleeve, made from medium density polyethylene MDPE. If the sleeve is damaged it can be easily replaced without any of the associated costly ground works. Available ragged for casting in, flanged for bolting down or removable.

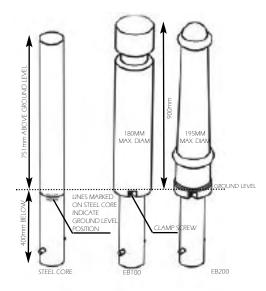
- Sleeve has a durable textured finish and is UV stable and weather resistant.
- Standard colour black. Other colours to order (min. order quantity may apply).
- DDA100 includes 150mm reflective band. EB100 & EB200, reflective bands are extra
- MDPE is an easily re-cyclable material.
- Ragged galvanised steel core is 1151mm long overall (400mm below ground.).
- 114mm diameter, 3mm wall thickness.
- Ram-raid deterrent by filling steel core with concrete on site.
- Flanged version is also available.
- Removable version also available with ground socket, 127mm below ground.
- Lockable by padlock (extra).

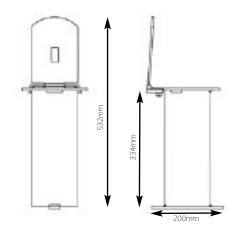
### Installation

To be cast into concrete, minimum of 400mm deep by 300mm square. Fixing spikes ensure stable casting into concrete. Polyethylene sleeve fits over steel core. Allen key is required to tighten steel clamp to fix sleeve to core.

Recommended centres to prevent vehicular access is 1.2-1.3m.







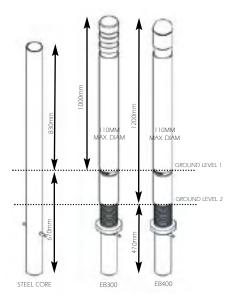
Model	Part no. Ragged	Part no. Removable	Height above ground mm	Depth below grnd Fixed mm	Depth below grnd Removable	Max diameter mm	J	Gross weight removable kg
EB100	138108300	138108305	900	400	127	180	13.5	22.5
EB200	138108400	138108420	900	400	127	195	13.5	22.5
DDA100	138108100	138108320	1000	400	127	180	13.5	22.5

#### **EB300**

#### **EB400**







The new EB300 and EB400 are slimline versions of the popular range of EB bollards. Designed for retail parks for demarcation and pedestrian safety along walkways.

- Sleeve has a durable textured finish and is UV stable and weather resistant.
- Standard colour black. Other colours to order (min. order quantity may apply).
- Self adhesive reflective bands available extra.
- MDPE is an easily re-cyclable material.
- Overall diameter of sleeve is 110mm.
- EB300 includes 3x 25mm bands.
- EB400 includes 1x 50mm band.
- Galvanised steel core is 1500mm long overall as standard.
- Either 470mm or 670mm below ground depending on installation requirements.
- 90mm diameter.
- 3mm wall thickness.
- Steel core can be filled on site with concrete for added strength.

Unique design allows the option of having the bollards either 1000mm or 1200mm above ground.

Model	Part no.	Finish	Height above grnd/Depth below grnd mm	Height above grnd/Depth below grnd mm		Gross weight with core kg
EB300 fixed	138108500	Black	1000/670	1200/470	110	12
EB400 fixed	138108550	Black	1000/670	1200/470	110	12

#### Installation

To be cast into concrete, minimum of 500mm deep by 300mm square for the 1200mm above ground version. To be cast into concrete, minimum of 700mm deep by 300mm square for the 1000mm above ground version. Fixing spikes ensure stable casting into concrete. Polyethylene sleeve fits over steel core and is embedded into the ground.

## Polyurethane bollards

## **Exeter**

## **Blackpool**



## **Hexham**



### **Manchester**



City



Ornamental Polyurethane bollards, aesthetically pleasing, ideal for use in traffic calming, pedestrianisation schemes and as a deterrent to ram-raids.

Advantages of polyurethane over castiron include:

- Typically polyurethane bollards weigh 35% of their cast iron equivalent.
- Polyurethane does not corrode.
- Under severe impact polyurethane will not shatter.
- Additional benefit of durability.

Model	Part no.	Height above ground mm	Depth below ground mm	Overall diameter mm	Gross weight kg
Exeter	138124020	983	300	135	16
Blackpool	138124010	815	300	180	22
Hexham	138124030	917	300	190	22
Manchester	138124000	1000	300	210	21
City	138124050	950	300	140	24

### Installation

Fixed versions to be cast preferably in to concrete, to the respective depth below ground, as shown in table, as a minimum guideline. Excavated holes should be approximately 300mm square. Smaller items can have smaller foundations, but the existing ground conditions should always be taken into account by the installer.

# Polyurethane bollards

## Morpeth











## Camden







Polyurethane bollards are cast in an engineering grade, heavy duty polymer, Fully pigmented and finished in black polyurethane paint as standard, many other colours are available. Cast around a mild steel core with 300mm root and anchoring bar for casting in.

The Streetwise is a composite modern design made from engineering grade, heavy duty elastomeric polymer, Ultrathane 1000 in 97A hardness, incl. reflective band.

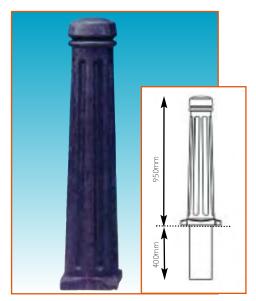
Model	Part no.	Height above ground mm	Depth below ground mm	Overall diameter mm	Gross weight kg
Morpeth	138124060	900	300	110	12
Delaval	138124090	800	300	150	21
Redroute	138124080	950	300	151	18
Camden	138124070	1075	300	246	44
Streetwise	138124040	900	300	150	18

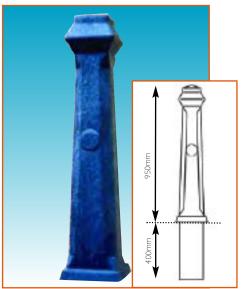
#### Installation

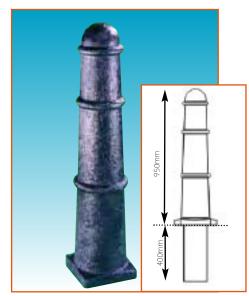
Fixed versions to be cast preferably in to concrete, to the respective depth below ground, as shown in table, as a minimum guideline. Excavated holes should be approximately 300mm square. Smaller items can have smaller foundations, but the existing ground conditions should always be taken into account by the installer.

## Recycled plastic ornamental bollards

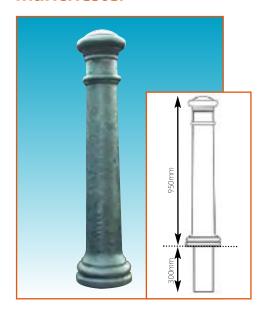
## Tudor Crest Amsterdam







#### **Manchester**



- 100% recycled mixed consumer plastic waste.
- Durable, extremely long life time.
- High impact strength, but flexible and malleable.
- Solid construction.
- Not brittle and does not rot.
- Impervious to rain and frost.
- No rust, no corrosion.
- Vandal & graffiti resistant.
- U.V. stable. Can again be recycled.
- Available ragged for casting in or removable with ground socket.

With our environment of ever important concern, the Autopa range of recycled plastic bollards is the perfect choice. All plastic used comes from mixed consumer waste which would otherwise go to landfill.

Recycled plastic bollards have many uses including perimeter protection for footpaths and car parks.

Model	Part no. Black Ragged	Finish	Height above ground mm	Depth below ground mm	Diameter at base mm	Gross weight kg
Tudor	138107021	Black	950	400	210	29
Crest	138107011	Black	950	400	225	29
Amsterdam	138107001	Black	950	400	225	27
Manchester	138107031	Black	950	300	225	15

#### Installation

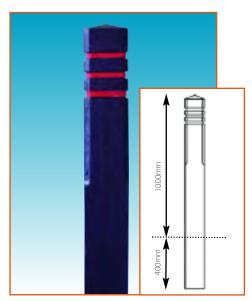
Fixed versions to be cast preferably in to concrete, to the respective depth below ground, as shown in table, as a minimum guideline. Excavated holes should be approximately 300mm square. Smaller items can have smaller foundations, but the existing ground conditions should always be taken into account by the installer.

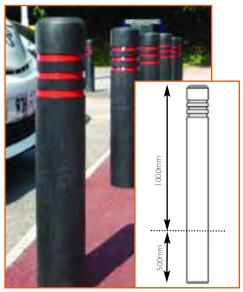
## Recycled plastic traffic bollards

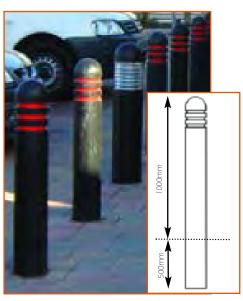
## **Diamond top**

## **Chamfered top**

## **Domed top**

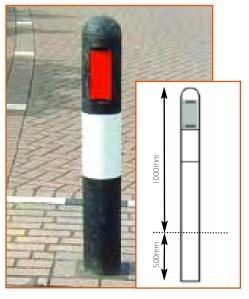


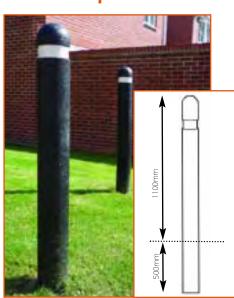




## Hazard type B

**Domed top - Slimline** 





The Hazard marker with black/white/black bands as standard with 1x red & 1x white reflector.

Traffic bollards available in masterbatch black, 3 grooves, reflective tape (diamond class available extra). Red tape is supplied as standard, other colours must be specified at the time of order.

The Slimline domed top bollard is popular with many retail parks as the low cost option for demarcation. They come complete with 50mm reflective band.

Model	Part no. Black Ragged	Finish	Height above ground mm	Depth below ground mm	Diameter at base mm	Gross weight kg
Diamond	138107071	Black	1000	400	150x150	27
Chamfered	138107061	Black	1000	500	150	23
Domed	138107051	Black	1000	500	150	22
Hazard B	138107094	Black/White	1000	500	150	23
Domed - Slimline	138107081	Black	1000	500	130	19

#### Installation

Fixed versions to be cast preferably in to concrete, to the respective depth below ground, as shown in table, as a minimum guideline. Excavated holes should be approximately 300mm square. Smaller items can have smaller foundations, but the existing ground conditions should always be taken into account by the installer.

## Verge markers

## **Allegrini**



## **Fleximarker**



- Extremely high visibility in bad weather conditions and at night.
- Resistant to UV radiation.
- Long life and proven safety record.
- Cost effective, light weight, rust and rot proof.
- In the event of impact will not splinter.
- Reduced maintenance due to self cleaning in wet weather.
- Highly resistant to vandalism.
- Allegrini Hollow extruded plastic with reflective plate
- Fleximarker Flat extruded plastic with reflective plate.

#### Installation

All posts are suitable for installation in concrete, asphalt or soil. Quick & easy installation.

Allegrini - to be cast into concrete approx 300mm cube.

Fleximarker - preferably cast into concrete 300mm cube, but can be installed into earth using tool available extra (ask for details).

## Ro-Cycle rubber bollards

#### **Universal**



#### Konus



The flexible bollard will bend under low speed impact without normally being damaged. It will in time return to its original position. Low speed impacts will cause virtually no damage to the bollard, therefore considerable replacement costs are avoided.

- Extremely robust, durable.
- Maintenance free.
- Made from re-cycled granulated rubber.
- 200kg force needed to bend to 45°.
- Universal steel socket 780 long x 160mm od.
- Konus flange 50mm x 305mm diameter.
- The universal includes 2x recesses for tape.
- Reflective tape for both bollards is available extra.

#### Installation

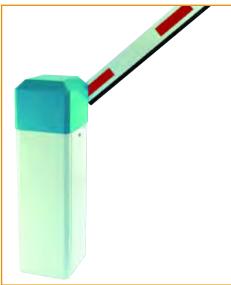
Universal - excavate hole 780mm deep, 300mm diameter, insert steel tube, pack sand to required depth then place bollard in hole and pack sand around to secure it.

Konus - Simply drill & bolt down on to a suitable concrete surface. 6x12mm bolts available extra.

Model	Part no.	Finish	Height above ground mm	Depth below ground mm	Overall diameter mm	Gross weight kg
Universal	138122000	Black	1000	340	140	25
Konus	138122025	Black	740	N/A	140	17.5
Allegrini	138107200	Black & White	1000	300	127	1.8
Fleximarker	138107205	Black & White	1000	400	104x5	1.1



## Automatic arm barriers - ES 25 to 40 series



ES25 barrier and boom

parking garages and car parks, available up to 4m.
Cabinet and boom made of aluminium.
Aluminium boom with rubber tube on underside and red reflective stripes.

Available up to 4m arm lengths.
Boom lengths to 3m, supports are not required, for boom lengths of 3.5m - 4m,

The AUTOPA ES 25 - 40 series of Automatic Rising Arm Barriers are designed for

- supports are optional.
- 10 years warranty against rust perforation of the powder coated aluminium housing.
- Articulated booms are available on all sizes.
- Hi quality TRIACS for at least 5,000,000 movements.
- Complies with EMC Directive and CE marked.
- Complies with the Machinery Directive.
- 100% duty cycle.
- Safety facility through reverse function.
- Standard colours, Lid blue Ral 5015, Cabinet white Ral 9010.
- Other colours are available.
- LED boom lighting is available as an optional extra.
- Hi speed version of all sizes available extra.



ES40 barrier

# Specification Cabinet hxwxl

Counterbalance

**Logic Controller** 

Power supply

requirement

Arm

1100 x 300 x 350mm. Made from Aluminium, powder

coated white & blue Standard colours.

Lid - blue RAL 5012, Cabinet - white Ral 9010.

Weight 118kg.

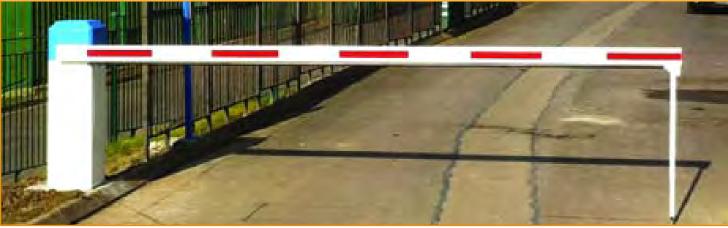
Aluminium boom 138x60mm with red reflective stripes and

rubber tube on the boom underside.

No springs

MO63, 'Komfort' as standard, MO64 'Plus' available extra.

Single phase, 230v, 2.5amp (max).



ES40 barrier

Model	Part no.	Maximum Boom length m	Swing or fixed support	Available with skirt	Available with double height skirt	Running time
ES25	138105121	2.5	No	Ν	Ν	1.4s
ES30	138105131	3.0	No	Ν	Ν	2.3s
ES40	138105141	4.0	Optional	Ν	Ν	3.2s

#### Automatic arm barriers - ES 50 to 80 series



ES6.0 barrier

The AUTOPA ES 50-80 series of Automatic Rising Arm Barriers are heavy duty barriers suitable for a variety of industrial applications. For higher security, single skirt options are available on boom lengths up to 8m and double height skirts are available for the 6m boom. For 2012 a new High speed 6m version has also been introduced.

- Cabinet and boom made of aluminium.
- Aluminium boom with rubber tube on underside and red reflective stripes.
- Available up to 8m arm lengths.
- Available with fixed or swinging support.
- 10 years warranty against rust perforation of the powder coated aluminium housing.
- Hi quality TRIACS for at least 5,000,000 movements.
- Complies with EMC Directive and CE marked.
- Complies with the Machinery Directive.
- 100% duty cycle.
- Safety facility through reverse function.
- Standard colours, Lid blue Ral 5015, Cabinet white Ral 9010.
- Other colours are available.
- LED boom lighting is available as an optional extra.
- Stabilisation rope is required for the ES 60 & ES80 barriers.
- Hi speed ES60 also available at extra cost.



ES6.0 with single skirt

# Specification Cabinet hxwxl

 $1\,100\,x\,400\,x\,450$ mm. Made from Aluminium, powder

coated white & blue Standard colours.

Lid - blue RAL 5012,

Cabinet - white Ral 9010.

Weight 118kg.

Aluminium boom 138x60mm with red reflective stripes and

rubber tube on the boom underside.

Three Tension springs for 250,000 operations.

MO63, 'Komfort' as standard, MO64 'Plus' available extra.

Single phase, 230v, 2.5amp (max).



#### Arm

Counterbalance Logic Controller Power supply requirement



ES6.0 barrier

Model	Part no.	Maximum Boom length m	Swing or fixed support	Available with skirt	Available with double height skirt	Running time
ES50	138105151	5.0	Required	Y	Ν	4.0s
ES60	138105161	6.0	Required	Y	Y max 4.5m	5.5s
ES80	138105181	8.0	Required	Y	Y max 6m	8.5s

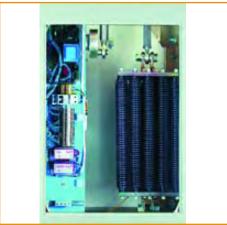
#### Automatic arm barriers - Koloss 60 to 120 series



Koloss cabinet

Autopa have introduced a range of heavy duty barriers designed for industrial use. The Koloss range of barriers are available with single booms from 6m to 12m.

- Cabinet and boom made of aluminium.
- Aluminium boom with rubber tube on underside and red reflective stripes.
- Available up to 12m arm lengths.
- Available with fixed or swinging support. (required over 6m)
- 10 years warranty against rust perforation of the powder coated aluminium housing.
- Hi quality TRIACS for at least 5,000,000 movements.
- Complies with EMC Directive and CE marked.
- Complies with the Machinery Directive.
- 100% duty cycle.
- Safety facility through reverse function.
- Skirt options available depending on size.
- LED boom lighting is available as an optional extra.
- Stabilisation rope is required for the Koloss barriers.



Inside Koloss cabinet

Specification Cabinet hxwxl

Counterbalance

**Logic Controller** 

Power supply requirement

Arm

1250 x 720 x 656mm. Made from Aluminium, powder

coated white & blue Standard colours.

Lid - blue RAL 5012, Cabinet - white Ral 9010.

Weight 118kg.

Aluminium boom 138x60mm with red reflective stripes and

rubber tube on the boom underside.

Three Tension springs for 250,000 operations.

MO63, 'Komfort' as standard, MO64 'Plus' available extra.

Single phase, 230v, 2.5amp (max).



Koloss cabinet and boom

Model	Part no.	Maximum Boom length m	Swing or fixed support	Available with skirt	Available with double height skirt	Running time
Koloss 60	138105060	6.0	OPtional	Y	Y max 6m	6.0s
Koloss 70	138105070	9.0	Required	Y	Y max 6m	9.0s
Koloss 120	138105080	12.0	Required	N	Y max 6m	12.0s

## **Automatic bollards**



Automatic bollard at Marshall Aerospace



Automatic bollard 275 stainless steel



Automatic bollard 275 stainless steel With optional lights

Autopa's new bollards are fully automated and suitable for a variety of applications, for reserving spaces, access control, control of limited vehicle traffic and pedestrian zones and anti-intrusion variations are also available.

Recommended uses include: Private vehicle entrances, Company vehicle entrances, Industrial vehicle access, Commercial vehicle entrances, and Warehousing facilities among others.

The Automatic bollards can be configured with a variety of optional extras to suit installation requirements.

Access control options include:

Radio transmitters

Keypad

Key fobs

Numerical transmitters

**Timers** 

Audio & Video intercoms.

- Designed for intensive use.
- Standard finish is anthracite grey (painted).
- Other colours are available RAL numbers must be specified.
- Stainless steel finish is available (satin finish).
- Complete with reflective band.

**Specifications** 

**Diameter:** 127 or 275mm. **Height available:** 600, 800mm.

**Wall thickness.** 6mm

**Raising speed:** 10 seconds **Lowering speed:** 10 seconds

**Impact resistance:** 275mm - 7000J or 90000J

127mm - 2800J or 30000J

**Breakout resistance:** 275mm - 120,000 J (180,000 J reinforced version)

Variations are available on the 275mm diameter bollard to increase strength (including anti-terror).

Options:-

- Built in flashing lights
- Automatic blackout device
- Immersion pump to remove water.

#### Installation

All automatic products must be installed by approved installers.

Model	Overall diameter mm	Height above ground mm	Depth below ground mm	Wall thickness
127/P 600	127	600	945	6
127/P 800	127	800	1145	6
275/P 600	275	600	1000	6
275/P 800	275	800	1200	6

## Sliding gate



4m automatic sliding gate



4m automatic sliding gate

Manual gate Opening Width	Part no. Galvanised	Overall length m
3m	138106730	4.7
4m	138106740	5.7

Autopa's new sliding gate is available as a manual or automatic version. A robust design and in house manufacture offers a range of options suitable for the more demanding sites. Manufactured from hot dipped galvanised mild steel ensures years of operation.

- 60mm galvanised mild steel square framework.
- Vertical mild steel infills, other options are available.
- 2.4m tall.
- 90mm ground clearance.
- 6m max drive through opening, on single leaf.
- Can be used in pairs for larger openings.

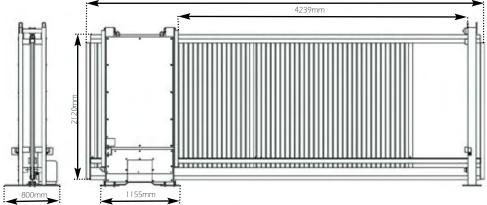
The automatic version has a smooth operation.

- 230V, 1 phase, 50Hz.
- IP44 rated.

•	citiergericy release.	
•	Operation speed 0.4m/s	



Automatic gate Opening Width	Part no. Galvanised	Overall length m
3m	138106830	4.7
4m	138106840	5.7



The automated version is sold with rubber safety contact strips. Other safety options include:-

- Photo electric cells
- Traffic lights.

Access control options include:-

- Ground loops.
- Remote control.
- Keypads.
- Swipe card.
- Audio & Video intercoms.

## **Control systems**

AUTOPA offers a wide selection of access control systems designed to be combined with all barriers & bollards in providing a complete access control solution.

Site Surveys are advised for all automatic systems to ensure correct, safe operation and the most suitable control combinations are selected. Suitable signage is recommended to ensure drivers and pedestrians are aware of automatic barrier operation.

Separate, safe provision should always be allowed for pedestrians where required.

#### **Induction Loop and Vehicle detectors**

- Inductive loop detectors or photoelectric cell systems control the barrier by detecting vehicles.
- Photoelectric cells use a reflective beam, 'sensing' an object when the beam is broken.

#### **Remote Controls**

- Push buttons and switches provide easy local control of the barrier, for barrier systems that are permanently manned.
- Alternatively a keyswitch can be fitted to the barrier cabinet with control override raise & lower commands (key may be removed at any position).

#### Card Technology

- Magnetic stripe and proximity card technologies provide the ideal solution for controlling access for a large number of users.
- Each card is encoded with a site code and an individual number, providing easy system management.
- Timed allocation, PC management and capture (Magnetic stripe only) systems are also available.

#### Intercom/Video

- Intercom systems provide easy remote verification before allowing visitor access.
- The only effective system for providing visitor access to a site.

#### **Token Acceptors**

• Nil value token acceptors useful for free entry/controlled exit.



Proximity reader



Stripe card reader



Intercom & numerical key pad



ES Barrier with skirt - Voice intercom & keypad entry, with dual induction loops

AU & AS barriers have been superseded by the ES 25-40 barriers however, parts are still available for maintenance and repair.

#### Manual arm barrier



Manual Arm Barrier



Manual Arm Barrier

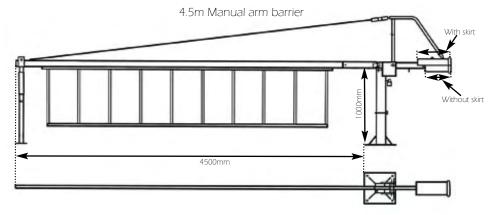


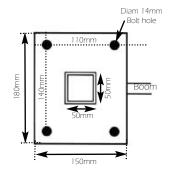
Manual Arm Barrier with skirt

#### **Specification**

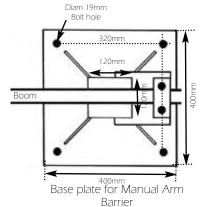
- Galvanised steel construction.
- Painted red as standard.
- Height, 1.0m to underside of boom.
- Catch post 50 x 50 x 4mm mild steel, adjustable to ±70mm.
- Boom weight 2.0kg/m.
- Boom:- Up to 7.0m length, made of rectangular aluminium section.
- Lockable in raised and lowered position by padlock (available extra).
- Also available with ragged end for casting into ground.
- Skirt option available, for up to 6m size only (skirt is aluminium).

Model Size	Part no. flanged	Finish
3m	138106330	Red
4m	138106340	Red
5m	138106350	Red
6m	138106360	Red
7m	138106370	Red
Catch post	138106380	Red





Base plate for End Catch Post



#### Installation

Recommended concrete foundation 600x600x500mm deep minimum for main post. Catch post foundation 300mm cube.

Requires 4 qty 16mm bolts for main pivot post. Main base size 400 x 400 x 10mm steel. 4 qty 12mm bolts required for catch post.

Measurements from flange front to end of boom.

## Swing gate



3m swing gate - galvanised finish



4.5m swing gate - painted finish



6m Swing Gate - red finish

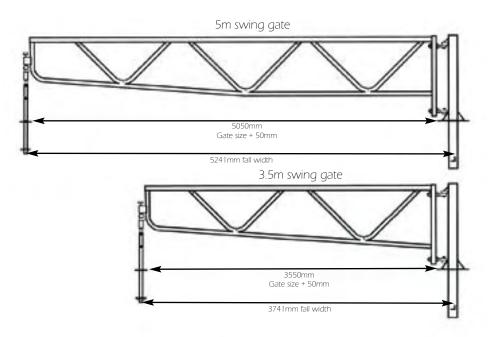


Adjustable catch Post & latch

#### Specification

- Galvanised steel construction.
- Painted red as standard.
- White/red reflective tape.
- Boom length up to 6.0m, 60 x 60 x 3mm steel, 996mm to underside of boom.
- Lockable by padlock (available extra).
- Main catch post is included with the gate.
- Additional catch post is required to lock gate in "open" position (extra).
- Steel pivot post 120 x 120 x 5mm thick.
- Also available with ragged end for casting into ground.
- The gate can be secured with the minimum of user intervention due to the spring loaded **Self Latching** mechanism.
- Padlocks can be used to secure the gate in the open or closed position (recommended).
- Adjustable hinges allow on-site adjustment to ensure that the gate and catchpost are correctly aligned.
- The catch post has a reduced height making the release mechanism of the gate easier and reduces the risk of trapped fingers.
- Added safety features include: Skirt height of 550mm (approx car bumper height).
- Double gates are also available with central locking or double removable catchpost.

Model	Part no. flanged	Finish
3m	138106430	Red
4m	138106440	Red
5m	138106450	Red
6m	138106460	Red
Catch post	138106480	Red



#### Installation

Main foundation 600 x 600 x 500mm deep minimum.

Catch post foundation 300mm cube Main post – 4 qty 16mm bolts required to bolt down.

End catch post 4 qty 12mm bolts needed.

(inside measurement flange to flange = given length minus 200mm)

## Height restrictors - Fixed & swing



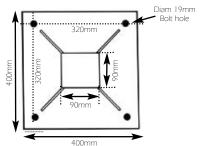
Fixed Height Restrictor



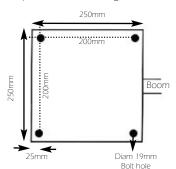
Swing Height Restrictor



Double Height Restrictor



Base plate for Fixed Height Restrictor



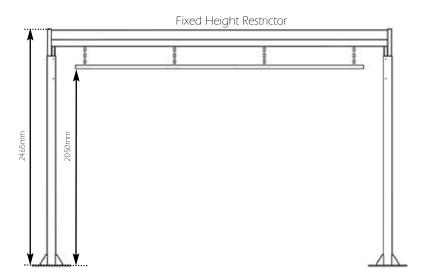
Base plate for catch post of Swing Height Restrictor

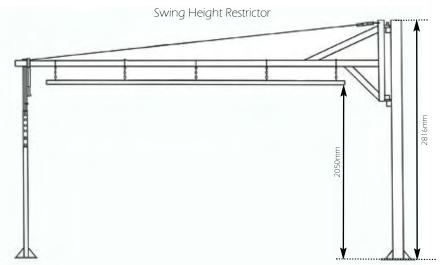
#### **Specification**

- Galvanised steel main post construction 90 x 90 x 3mm (fixed).
   Base 400 x 400 x 10mm thick.
   120 x 120 x 5mm for swing version main post.
- Swing boom catch post 90 x 50 x 3.6mm thick. Base 250 x 250 x 10mm thick.
- 2.05m ±70mm standard clearance to knocking arm.
- All fabrication of galvanised steel construction.
- Finish painted red with white reflective tape.
- Swing boom version with additional catch post available for occasional access by high sided vehicles. Additional catch post will be required if swing boom is to be locked in the open position.
- Swing boom lockable by padlock (available extra).
- Up to 6m post centres
- Also available with ragged end for casting into ground.
- Knocking bar is 48mm od.

#### Road warning signs are available

Model Size	Part no. flanged <b>Fixed</b>	Part no. flanged <b>Swing</b>	Finish
3m	138106530	138106630	Red
4m	138106541	138106640	Red
5m	138106550	138106650	Red
6m	138106560	138106660	Red
Catch post	-	138106558	Red





## Swing height restrictor with swing gate



Swing height restrictor with gate



Swing height restrictor with gate



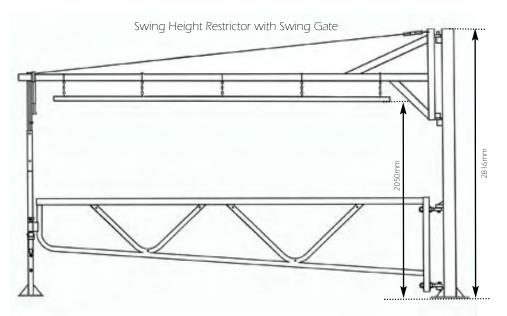
Catch post

#### **Specification**

- Galvanised steel main post construction 120x120 x 3mm (fixed).
   Base 400 x 400 x 10mm thick.
   120 x 120 x 5mm for swing version main post.
- Swing boom catch post 90 x 50 x 3.6mm thick. Base 340 x 254 x 10mm thick.
- 2.05m ±70mm standard clearance to knocking arm.
- All fabrication of galvanised steel construction.
- Finish painted red with white reflective tape.
- Swing boom version with additional catch post available for occasional access by high sided vehicles. Additional catch post will be required if swing boom is to be locked in the open position.
- Swing boom lockable by padlock (available extra).
- Up to 6m post centres
- Also available with ragged end for casting into ground.
- Knocking bar is 48mm od.
- Swing gate boom made from 60x60x3mm steel, 996mm to underside of boom.
- The Swing gate is secured with the minimum of user intervention due to the spring loaded **Self Latching** mechanism.

#### Road warning signs are available

Model Size	Part no. flanged	Finish
3m	138106636	Red
4m	138106646	Red
5m	138106656	Red
6m	138106666	Red
Catch post	138106668	Red



#### Installation

Recommended concrete foundation 600x600x500mm deep minimum for main post. Catch post foundation 300mm cube. Requires 4 qty 16mm bolts for each leg. Main base size 400 x 400 x 10mm steel. 4 qty 12mm bolts required for catch post. Measurements from flange front to end of boom.

## One way flow plates



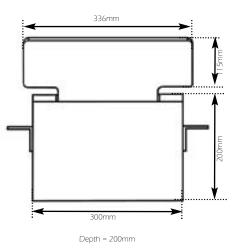
Road Width	No. of plates required
3m	6
4m	8
5m	11
6m	13

To restrict traffic flow to one direction only by preventing/deterring traffic from going the wrong way over the plates. Can be used in conjunction with AUTOPA Arm Barriers and Gates etc.

#### **Specification**

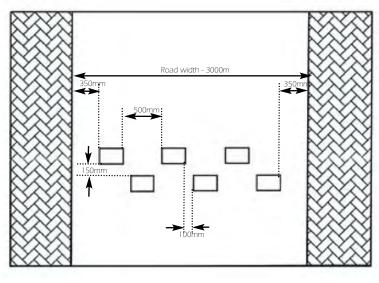
- Heavy duty steel box 300 x 200 x 200mm deep.
- Flap and top of heavy duty steel plate 12.5mm thick.
- Heavy duty rubber buffer.
- Heavy duty hinge diameter 19mm.
- Total weight 15kg.
- All galvanised to BS EN ISO 1461: 2009, top plate and flap are painted yellow.

Part no. 138106400



HGVs should not be permitted access over the plates. 5mph maximum speed should be advised and enforced. (Road warning signs are available)

We recommend one way flow plates are used in conjunction with Autopa Speed Ramps.





#### Installation

Positioning of the plates should be such that vehicles can only approach the plates head on, and not at an angle. Suitable road signs should be erected to advise road users that plates are in use, advising of slow speed limit. Good street illumination should be used to ensure good visibility.

Excavate hole 600 x 500 x 200mm deep

Allow for drainage immediately below the base.

Ensure cement does not ingress in to the box.

Ensure top plate is marginally above the ground (10mm maximum).

Lay concrete around the unit to level with surrounding ground.

Leave to properly cure before using.

## **Speed ramps**





75mm PVC speed ramp



PVC speed ramp

#### Installation

Simple to install, for bolting down to good quality surface at least 100mm thick.

Due to variable specifications of vehicle designs some "grounding" of vehicles on ramps may occasionally occur.

#### Made from heavy duty recycled PVC.

- Each segment includes white reflectors which provide excellent night and bad weather visibility.
- Both ends and inners are available in black and yellow.
- Each segment has interlocking ends.
- Segments are sold separately to accommodate any road width.
- All bolts, fixings and reflectors are included with the ramp segments (bolts provided are recommended for concrete fixing).
- Also suitable for HGVs with pneumatic tyres up to 44 tonnes.
- 50mm high ramps slow traffic to 10mph, 75mm high ramps slow traffic to 5mph.

# Speed ramps are not suitable for use by solid tyred vehicles such as solid tyred fork-lifts

Specification PVC	Part no. Yellow	Part no. Black	Length mm	Width mm	Gross weight kg
50mm high inner	138106420	138106425	500	420	8
50mm high shoulder	138106415	138106418	210	420	2.2
75mm high inner	138106060	138106065	500	420	13
75mm high shoulder	138106050	138106055	210	420	3.2

Overall	PVC Ouantities required - With Shoulders				Without Shoulders (eg. kerb to kerb)	
length of Ramp	Inner (yellow)	Inner (black)	Shoulder (yellow)	Shoulder (black)	Inner (yellow)	Inner (black)
2.5m	2	2	1	1	3	2
3.0m	3	2	-	2	3	3
3.5m	3	3	1	1	4	3
4.0m	4	3	-	2	4	4
4.5m	4	4	1	1	5	4
5.0m	5	4	-	2	5	5
5.5m	5	5	1	1	6	5
6.0m	6	5	-	2	6	6



## Safety and parking barriers



Double Height Heavy Duty Rail

The unique spring steel buffer, suitable for both light and heavy vehicles, is widely used in car park and industrial applications worldwide. It is designed to absorb impact loads, putting less stress on the bolts so that most concrete slabs are suitable for fixing on to, and thereby reducing maintenance and replacement costs.

Standard finish is galvanised.

A concrete foundation to at least 25N/mm<sup>2</sup> will give maximum pullout tension of 60KN. Heavy duty barriers have been tested by MIRA to BS 6399 Part 1 – Design loading for buildings.

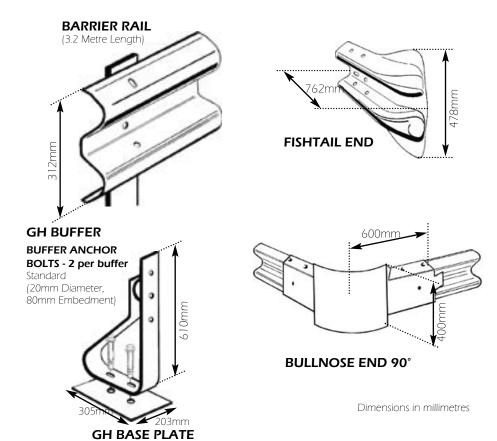
## Heavy duty system



Heavy Duty Rail, GH Buffer with Fishtail Ends



Heavy Duty Rail, GH Buffer with Bullnose End



All Buffers and metal Barrier Rails are supplied with a Galvanised finish.

1600mm buffer spacing recommended as maximum for the Heavy duty system.

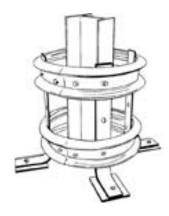
## **Column protectors**



#### **WAREHOUSE RAIL SYSTEM**

Available in three diameters: 500mm, 750mm & 1000mm SYSTEM CONSISTS of:-

- 4 (2\*) No. Warehouse Semi-circles
- 4 No. RB '610' Buffers
- 4 No. RB Base Plates
- 4 (2\*) No. Joint Plates
- 4 No. Anchor Bolts
- + Fixing Accessories
- (\* Denotes quantity required for Single Hoop System)



Note: for all Heavy Duty and Standard Duty systems, some cutting and drilling may be required on site during installation. In order to maintain the products integrity the complete system must be purchased - including bolts.

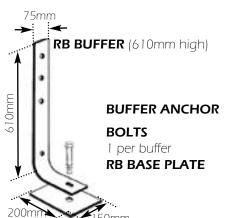
## Standard duty system



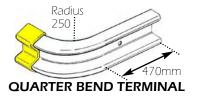
Standard Rail, RB 610 Buffer



Standard Rail, RB 235 Buffer

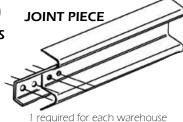




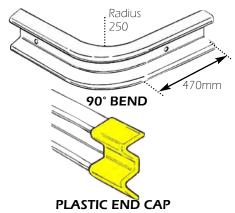


Hole diameter 23mm





1 required for each warehouse rail connection.



#### Dimensions in millimetres

All Buffers and metal Barrier Rails are supplied with a Galvanised finish. We recommend a maximum Buffer spacing of 1500mm for the Standard duty system.

Specification Heavy Duty System	Part no.
Berh/d barrier rail 3.2m	138180032
Berh/d fishtail end	138180040
Berh/d plastic end cap	138180045
Berh/d bullnose end 90 deg.	138180049
Berh/d GH buffer	138180050
Berh/d GH baseplate	138180055
Berh/d double height L extension for GH buffer	138180052
Ber Anchor bolts AS20/15 (2 required per GH baseplate)	138180300

Specification Standard Duty System	Part no. Yellow
Berstd Warehouse rail 4.0m	138180140
Berstd 90 deg bend	138180149
Berstd joint piece	138180142
Berstd plastic end cap	138180145
Berstd 1/4 bend terminal	138180141
Berstd RB610 buffer	138180161
Berstd RB235 buffer	138180123
Berstd RB baseplate	138180155
Ber anchor bolts AS20/15 (1 required per RB baseplate	138180300

Note: For all heavy duty and standard duty systems, some cutting and drilling may be required on site during installation.

In order to maintain the products integrity the complete system must be purchased - including bolts.

## **Column protectors**

A variety of Column Protectors have been designed by Autopa to suit all types of columns, posts and corners. Suitable for external use and inside warehouses.

#### ACP1



ACP2



ACP3



ACP4



- Ragged for casting in as standard, flanged for bolting down is available on request (bolts extra).
- Made of mild steel tube and section.
- ACP5 has black plastic caps on top of uprights, other column protectors have welded steel caps.
- Galvanised finish as standard.
- A variety of colour coated finishes are available on request (extra).
- Reflective tape also available in various colours (extra).
- ACP's 5 & 6 are also available in stainless steel.
- All ragged column protectors are 250mm below ground.

Model	Part no. Galvanised	Above ground mm	Outside width mm	Inside width mm	Internal clearance to back mm	Uprights od mm	Horizontals od mm
ACP1	138177710	900	580	420	460	80x80	64
ACP2	138177720	910	560	440	530	64x64	48
АСР3	138177730	500	480	460	250	80x80	64
ACP4	138177740	900	510	380	350	64	48
ACP4 Stainless	138177741	900	500	400	295	48	48

## **Column protectors**

#### ACP5



#### ACP6



Model	Part no.	Above ground mm	Outside width mm	Inside width mm	Internal clearance to back mm	Uprights od mm	Horizontals od mm
ACP5, galvanised	138177750	500	510	380	350	64	48
ACP5 stainless	138177800	500	510	380	350	64	48
ACP6 stainless	138177850	185	320	224	115	48	48

**Maintenance of stainless steel -** Occasionally clean with warm soapy water and a soft cloth & rinse with cold water. If stained use a soft cloth and cif or similar cream and rinse as above. For persistent stains, seek expert advice on acid cleaning.

# Corner protection hoop CPH



- Ragged for casting in as standard, Flanged for bolting down is available on request (bolts extra).
- Made of galvanised mild steel tube.
- 76mm diameter tube.
- Galvanised finish as standard.
- A variety of colour coated finishes are available on request (extra).
- Reflective tape also available in various colours (extra).
- Ragged version is 250mm below ground.

Model	Part no. Galvanised	Above ground mm	Outside width mm	Inside width mm
CPH, ragged	138177760	500	700x700	624
CPH, ragged	138177770	1000	700x700	624

#### Installation

For ragged ends a concrete foundation approx. 300mm cube is recommended for each leg, depending on ground conditions. For flanged ends, a suitable surface, preferably concrete should already exist for drilling into and bolting down.

## Hooped perimeter barriers - Perimeter protection



76mmx500mmx1000mm, painted finish

Suitable for protecting vehicles and entrances and securing perimeters. Ideal for garage forecourts and car parks.

Manufactured from 60, 76 or 90mm galvanised mild steel tube.

Barriers are 500, 750 or 1000mm above ground as

- Barriers are 500, 750 or 1000mm above ground as standard.
- Overall widths of 1000, 1500 or 2000mm as standard.
- Ragged versions are 300mm below ground.
- Galvanised finish as standard, colour coated finish available extra.
- Corporate colours are available.
- Removable versions available extra.
- 90mm diameter removable GL versions (key lockable at base see pg 16) are also available.
- 6 bolts required for surface mounted barriers.
- Stainless steel available in 48, 60 & 76mm.
- 3mm wall thickness.



76mmx500mmx1500mm, galvanised finish, flanged for bolting down



76mmx500mmx1500mm, painted finish, Removable

o.d. mm Mild steel	Part no. Galvanised Ragged	Height above ground mm	Depth below ground	Length mm	Wall thickness mm	Weight kg
60	138176050	500	300	1500	3	8
60	138176070	750	300	1500	3	21
60	138176084	1000	300	1000	3	26
60	138176096	1000	300	2000	3	31
76	138177688	500	300	2000	3	25
76	138177670	750	300	1500	3	32
76	138177660	1000	300	1000	3	40
76	138177650	1000	300	2000	3	40
90	138178956	500	300	1500	3	20
90	138178972	750	300	1500	3	22
90	138178978	750	300	2000	3	27
90	138178951	500	300	1000	3	18

#### Installation

For ragged ends a concrete foundation approx. 300mm cube is recommended for each leg, depending on ground conditions. For flanged ends, a suitable surface, preferably concrete should already exist for drilling into and bolting down.

## Hooped perimeter barriers - Pedestrian safety



48mmx1000mmx2000mm, stainless steel finish with horizontal rail

For protecting door ways and entrances and marking pedestrian areas. Manufactured from 48mm diameter steel tube is also available in 60, 76 & 90mm diameter galvanised mild steel tube.

- Barriers are 1000mm above ground as standard.
- Ragged barriers are 300mm below ground, surface fixed option is available.
- Galvanised and colour coated finish available.
- Also available Stainless steel, grade 304 or 316 for harsher environments.
- 3 bolts required for each flange for surface mounted barriers.
- Other sizes are available (Up to 2.5m lengths depending on height above ground).
- Horizontal rail is available extra.



48mmx500mmx1000mm, painted finish



48mmx750mmx2000mm, galvanised finish

o.d. mm Stainless steel, Grade 304	Part no. Ragged	Height above ground mm	Depth below ground	Length mm	Wall thickness mm	Weight kg
48 Stainless steel	138205118	500	300	1000	3	9
48 Stainless steel	138205110	500	300	2000	3	13
48 Stainless steel	138205120	1000	300	2000	3	16
48 Stainless steel	138205138	750	300	1500	3	16
48 Stainless steel	138205134	750	300	2000	3	15
48 Galvanised mild steel	138174851	750	300	1000	3	13
48 Galvanised mild steel	138174857	750	300	1500	3	15
48 Galvanised mild steel	138174863	750	300	2000	3	18
48 Galvanised mild steel	138174865	1000	300	1000	3	15
48 Galvanised mild steel	138174873	1000	300	1500	3	18
48 Galvanised mild steel	138174880	1000	300	2000	3	20

#### Installation

For ragged ends a concrete foundation approx. 300mm cube is recommended for each leg, depending on ground conditions. For flanged ends, a suitable surface, preferably concrete should already exist for drilling into and bolting down.

## Hooped perimeter barriers - Impact protection



76mmx1000mmx1500mm, painted finish with horizontal rail

For protecting door ways and entrances and marking pedestrian areas. Manufactured from 48, 60 & 76mm diameter galvanised mild steel tube as standard

- Barriers are 1000mm above ground as standard.
- Ragged barriers are 300mm below ground, surface fixed option is available.
- Galvanised and colour coated finish available.
- Also available Stainless steel, grade 304 or 316 for harsher environments.
- 3 bolts required for each flange for surface mounted barriers.
- Other sizes are available.



48mmx750mmx1500mm, painted finish with horizontal rail



Special - 500mmx1500mm painted finish

o.d. mm Mild steel	Part no. Galvanised Ragged	Height above ground mm	Depth below ground	Length mm	Wall thickness mm	Weight kg	Additional Vertical leg	Additional Horizontal rail
48	138174830	500	300	1000	3	10		
48	138174833	500	300	2000	3	14		
48	138174845	1000	300	2000	3	23		~
60	138176432	580	300	390	3	8		
60	138176084	1000	300	1000	3	21		
60	138176096	1000	300	2000	3	26		
60	138176445	1000	300	2000	3	31		~
76	138177660	1000	300	1000	3	25		
76	138177650	1000	300	2000	3	32		
76	138177662	1000	300	2000	3	40	<b>✓</b>	
76	138177653	1000	300	2000	3	40		<b>✓</b>

#### Installation

For ragged ends a concrete foundation approx. 300mm cube is recommended for each leg, depending on ground conditions. For flanged ends, a suitable surface, preferably concrete should already exist for drilling into and bolting down.

## **Hooped perimeter barriers - Options**

#### 48mm



- Available ragged for casting in.
- Available flanged for bolting down.
- Removable version available (with padlock).
- Available galvanised finish, colour coated finish or stainless steel finish grade 304 (316 available to order).
- 3 bolts required for each flange plate.
- Height and length of barrier can be specified by customer see page 64.

#### **60mm**



- Available ragged for casting in.
- Available flanged for bolting down.
- Removable version available (with cylinder lock or padlock).
- Available galvanised finish, colour coated finish or stainless steel finish grade 304 (316 available to order).
- 3 bolts required for each flange for surface mounted barriers.
- Height and length of barrier can be specified by customer see page 64.

#### **76mm**



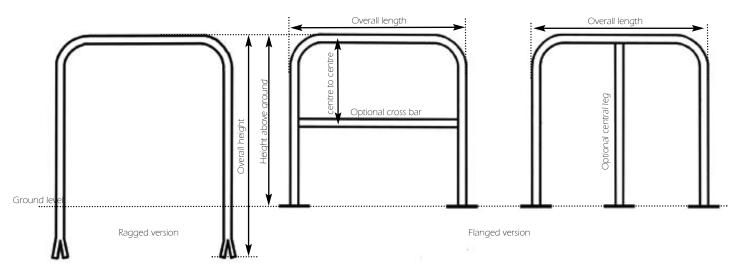
- Available ragged for casting in.
- Available flanged for bolting down.
- Removable version available (with cylinder lock or padlock).
- Available galvanised finish, colour coated finish or stainless steel finish grade 304 (316 available to order).
- 3 bolts required for each flange for surface mounted barriers.
- Height and length of barrier can be specified by customer see page 64.

#### 90mm



- Available ragged for casting in.
- Available flanged for bolting down.
- Removable version available (with cylinder lock or padlock).
- Available galvanised finish, colour coated finish or stainless steel finish grade 304 (316 available to order).
- 3 bolts required for each flange for surface mounted
- Height and length of barrier can be specified by customer see page 64.

## How to specify hooped barriers



Information required	Ot	Options & specifications				
Type Required	Rag	ged	Flan	ged		
Diameter of tube (mm)	48	60	76	90		
Overall length (mm)		-	-			
Height above ground (mm)						
Horizontal cross bar required?	Ye	Yes		0		
Central leg required?	Ye	es	V	lo		
Distance between top bar & crossba (centre to centre in mm)	r					
Finish	Galvanised	Galvanised & Color coated		Stainless steel		
Please supply RAL or BS number for colour coated finish:-						

Autopa Hooped perimeter barriers can be manufactured to suit customer requirements, to the left is a table outlining the information required by Autopa for manufacture.

Standard sizes are:-500, 750 & 1000 a/g 1000, 1500 & 2000 overall length Other sizes can be made to order.



Ragged ends for casting in to the ground. Straps at the bottom of the barrier or splayed ends may be used instead of lugs in certain cases.



Flanged ends for bolting down are available for mild & stainless steel barriers. Round and square flanges may be used depending on tube diameter.



Removable barriers are lockable by padlock. Padlock & ground socket available extra. In summer 2012 a new fabricated ground socket will be introduced allowing the barriers to be padlocked or key locked.

## Low level protection rails

Low level protection rails are suitable for protecting machinery, walls and racking from fork lift truck movements. Low level design allows unrestricted access by pedestrians to equipment and materials.

- Manufactured from galvanised mild steel tube with bevelled ends.
- Standard lengths of 500, 1000 and 2000mm overall.
- Yellow/black finish as standard, red/white finish available.
- Surface mounted, 4 bolts required per rail.
- Other lengths and sizes available on request.



#### Model Part no. Diameter Height Galvanised mm mm 500 138177905 76 86 1000 138177910 76 86 2000 138177915 76 86

#### Installation

Simple to install, for bolting down to good concrete surfaces at least 100mm thick.

## **Trolley protection rails**

Trolley protection rails are used to protect the areas around shop fronts where trolleys could cause damage. This is usually around the entrance or glass panels.

- Manufactured from galvanised mild steel or stainless steel.
- 48mm diameter tube.
- Average leg spacing is 1500mm.
- Ragged for casting in as standard.
- Overall height above ground is 185mm with 250mm below ground.
- Rose plates are also available.
- Also available for bolting down.



#### Installation

For ragged ends a concrete foundation approx. 300mm cube is recommended for each leg, depending on ground conditions.

For flanged ends, a suitable surface, preferably concrete should already exist for drilling into and bolting down.

Model	Part no. Galvanised (per metre)	Diameter mm	Height above ground mm	Depth below ground mm
Stainless steel	138174700	48	185	250mm
Galvanised mild steel	138174800	48	185	250mm

## **Trolley bays**



Double length trolley bay, galvanised finish

Trolley Bays are made up of individual perimeter barriers (see pages 56-58) they can be made to any size to suit customer requirements.

Commonly trolley rails are 800mm above ground and are available with extra central rail approx 200mm above ground. Ragged trolley rails are 300mm below ground.

- Made of mild steel tube.
- Galvanised finish as standard.
- Tube diameter 48, 60 & 76mm diameter.
- Individual barriers available made to measure.
- Stainless steel is also available in 48mm and 60mm od.
- Available ragged for casting in or flanged for bolting down.
- Stainless steel is grade 304 as standard (grade 316 available extra).



Special trolley bay, stainless steel finish



Double width trolley bay, galvanised finish

The Modular nature of the rails allow a variety of configurations to be available. Using 1no 1.9m rail with 6no 1.5m rails a trolley bay can be made to fit an average parking space or approx 2x4.5m as shown.

Size	Finish	Part no. Ragged	Height above ground mm	Depth below ground	Length mm	Wall thickness mm
76 x 1500 + horizontal rail	Galvanised	138177690	800	300	1500	3
76 x 1900 + horizontal rail	Galvanised	138177695	800	300	1900	3
48 x 1500	Stainless steel	138205105	800	300	1500	3
48 x 1500 + horizontal rail	Stainless steel	138205108	800	300	1500	3
60 x 1500	Stainless steel	138205220	750	300	1500	3

#### Installation

Excavate holes to depth of approx. 400mmx300mm diameter and cast into concrete. Can be supplied with flanges for bolting down to a suitable concrete base.

**Maintenance of stainless steel -** Occasionally clean with warm soapy water and a soft cloth & rinse with cold water. If stained use a soft cloth and cif or similar cream and rinse as above. For persistent stains, seek expert advice on acid cleaning.

## **Trolley shelters**

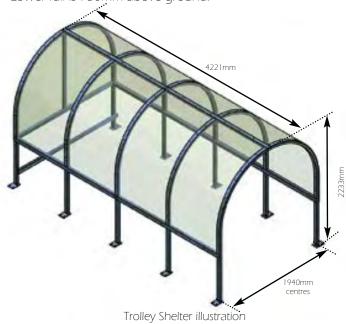


Trolley shelter with galvanised steel frame & 5mm PET glazing

Back view

The Autopa Trolley Shelter is designed to fit in a standard car parking space. The shelters are also available with back to back extension bays. Made from galvanised mild steel frame and 5mm PET sheeting supported every metre for added strength and durability.

- Single shelter is suitable for approx 36 standard trolleys.
- Framework 60x40mm mild steel hollow section, galvanised finish.
- All steel parts are galvanised to BS EN 1461: 2009.
- 5mm Clear PET sheeting.
- Sheeting externally fixed to frame and retained by clamping strips.
- Galvanised finish is standard.
- Colour coated finishes are available extra.
- Adjustable flanged feet for bolting down (bolts are available extra).
- Lower rail is 750mm above ground.



Size	Part no.	Overall length mm	Overall width mm	Centres mm	Height above ground mm
Trolley Shelter, Galvanised	138000500	4221	2208	1940	2233

#### Installation

Supplied in component form for easy installation on site. Cladding/roofing needs to be fixed on site. **Sheeting is clamped to frame using clamping strips.** Legs can be flanged for bolting down to a suitable concrete base (400mm cube minimum), or with ragged ends for casting into the ground.

Ground fixing bolts can be supplied extra.

Flanged version - 20 x 16mm bolts required per flanged main bay.

Ragged version - Excavate a hole 500mm x 500mm x 400mm deep for casting in each end.

## Pedestrian guardrail



Pedestrian Guardrail with see through top

The standard pedestrian guardrail is an effective barrier for pedestrians, manufactured from galvanised mild steel with inline bars.

Standard panels are 2000mm, other sizes are available upon request. Autopa Pedestrian Guardrail is manufactured in accordance with BS 7818:1995 for class 1 and class 2 loading.

- 1000mm height above ground.
- 2000mm overall width.
- 50mm x 30mm rectangular hollow frame.
- 12mm solid infill bar, in-line.
- Galvanised finish as standard.
- Option of colour coated finish (Extra).
- Joining bolts are available extra.
- Also available with a visibility gap at the top of the panel.
- Complies with BS7818.



Pedestrian Guardrail with see through top

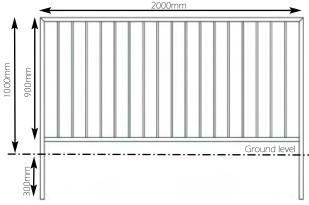


Pedestrian Guardrail

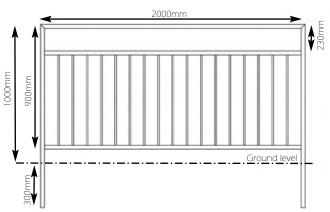
Model	Part no. Ragged	Overall width mm	Height above ground mm	Depth below ground mm	Height to see through mm
Galvanised	138174500	2000	1000	300	-
Galvanised, with see through	138174550	2000	1000	300	770

#### Installation

For ragged ends a concrete foundation approx. 300x300x400mm deep minimum is recommended for each leg, depending on ground conditions.



pedestrian Guardrail



Pedestrian Guardrail with see through top

# **VELOPA Cycle Security**



## Sheffield cycle stands







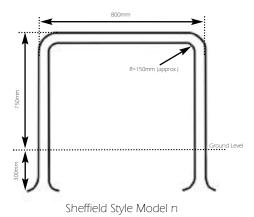
Galvanised finish, ragged ends

Black finish, ragged ends

Stainless steel grade 304, ragged ends

- Length 800mm overall, Height (above ground) 750mm.
- Ragged version 300mm below ground.
- 48mm overall diameter.
- Wall thickness 3mm.
- Three 12mm bolts required per flange (6 per stand).
- Weight: 10kg.
- Mild steel galvanised to BS EN ISO 1461: 2009.
- Stainless steel is Grade 304 as standard, grade 316 available to order.
- Other colours available.

Model	Part no. Galvanised	Galv & coated black	Part no. Stainless steel
Ragged	138200111	138200112	138200107
Flanged	138200101	138200102	138200106



## Junior Sheffield stands



Galvanised finish, ragged ends

- Length 695mm overall, Height (above ground) 600mm.
- Ragged version 300mm below ground.
- 48mm overall diameter.
- Wall thickness 3mm.
- Three 12mm bolts required per flange (6 per stand).
- Weight: 9kg.
- Mild steel galvanised to BS EN ISO 1461 (2009).
- Stainless steel is Grade 304 as standard, grade 316 available to order.
- Other colours available.

•	695mm	- <del>:</del>
mm009	R-150mm (approx.)	Ground Level
300mm	J	- CHOMP LEVEL
	Junior Sheffield Stand	

Model	Part no. Galvanised	Galv & coated black	Part no. Stainless steel
Ragged	138515245	138515247	138515249
Flanged	138515240	138515242	138515244

#### Installation

For sheffield stands

For flanged ends, a suitable surface, preferably concrete should already exist for drilling into and bolting down.

For ragged ends a concrete foundation approx. 300mm cube is recommended for each leg, depending on ground conditions.

## **Toastrack -** Sheffield style cycle racks







Galvanised finish

Galvanised & painted black finish

Stainless steel finish

- Made to accommodate any number of stands.
- Width 800mm overall, Height (above ground) 750mm.
- 48mm overall diameter.
- Wall thickness 3mm.
- Square section 50x50mm.
- Mild steel galvanised to BS EN ISO 1461: 2009.
- Stainless steel is Grade 304 as standard, grade 316 available to order.
- Colour coated finish also available.
- Supplied in modules for assembly on site.
- Stands are positioned 800mm apart and are for bolting down only.
- Average weight 17kgs per stand.

Model	Part no. Galvanised	Galv & coated Black	Stainless steel
3 rails (3/6 bikes)	138200303	<b>~</b>	<
4 rails (4/8 bikes)	138200304	<b>~</b>	<
5 rails (5/10 bikes)	138200305	<b>~</b>	<
6 rails (6/12 bikes)	138200306	<b>&gt;</b>	<
7 rails (7/14 bikes)	138200307	<b>~</b>	<b>&gt;</b>
8 rails (8/16 bikes)	138200308	<b>&gt;</b>	<b>&gt;</b>

# VOJIV 400mm 800mm SHS 50 x 50mm

Sheffield Style Toastrack

#### Installation

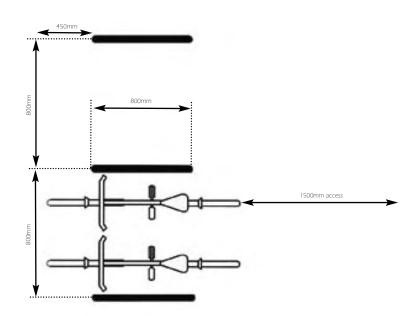
For Toastrack-

Supplied in sections, each module is bolted down. Surface should already be suitable for bolting onto – preferably concrete.

#### Stand spacing

Recommended minimum stand spacing is 800mm, which is sufficient to park two cycles between double sided stands. This spacing allows the user to walk into the space while another cycle is parked against the adjoining stand and easily attach a patented lock or lock and chain to multiple points on the bike and stand.

Some users prefer a spacing of 900mm or 1000mm, which allows better access to lock the cycle.



## Sheffield style variants

#### Hillmorton

## **Bilton**

## Clifton







## **Kirby**

## **Eco sheffield**





Sheffield style variants are now available in a selection of different designs and finishes. Each stand will accommodate up to two bikes (one each side). The sheffield variants like the Model n and Toastracks offer higher security cycle storage, the user can lock the wheel and frame of the bike to the stand using their own D-lock or chain etc.

- Mild steel galvanised as standard
- Stainless steel grade 304 available,
- Colour coated finish is available.

Model	Part no. Galvanised	Galv & coated Black	Stainless steel	Height above ground mm	Length mm
Hillmorton, ragged	138515085	<b>✓</b>	<b>&gt;</b>	750	800
Hillmorton, flanged	138515095	<b>✓</b>	<b>&gt;</b>	750	800
Bilton, ragged	138515105	<b>✓</b>	<b>&gt;</b>	750	750
Bilton, flanged	138515101	<b>✓</b>	<b>&gt;</b>	750	750
Clifton, ragged	138515135	<b>✓</b>	<b>&gt;</b>	750	750
Clifton, flanged	138515131	<b>✓</b>	<b>&gt;</b>	750	750
Kirby, ragged	138515145	<b>✓</b>	<b>&gt;</b>	750	750
Kirby, flanged	138515140	<b>✓</b>	<b>&gt;</b>	750	750
Eco Sheffield, ragged	138515165	<b>✓</b>	>	750	340
Eco Sheffield, flanged	138515160	~	>	750	340

#### Installation

For sheffield stands and variants

When positioned adjacent to one another stands should be approx 800mm apart and approx 450mm from any wall or other obstruction.

For flanged ends, a suitable surface, preferably concrete should already exist for drilling into and bolting down. (not available for wellington stand)

For ragged ends a concrete foundation approx. 300mm cube is recommended for each leg, depending on ground conditions.

# **Sheffield style variants**

# **Frankton**

# **Buckby**

# **Ashby**







# Rugby



#### Specifications

- Available ragged for casting in to the ground or flanged for bolting down.
- 48mm overall diameter.
- Wall thickness 3mm.
- Ragged version 300mm below ground.
- Flanged versions require three 12mm bolts per flange (6 per stand) available extra.
- Mild steel galvanised to BS EN ISO 1461: 2009.
- Stainless steel variants are grade 304 as standard, grade 316 available to order.
- Stainless steel variants are ragged for casting in as standard.
- Colour coated finishes available.

Model	Part no. Galvanised	Galv & coated Black	Stainless steel	Height above ground mm	Length mm	Additional measurements
Frankton, ragged	138515015	<b>&gt;</b>	<	750	750	-
Frankton, flanged	138515005	<b>&gt;</b>	<	750	750	-
Ashby, ragged	138515125	<b>&gt;</b>	>	750	750	-
Ashby, flanged	138515120	>	>	750	750	-
Rugby, ragged	138515060	>	>	760	700	Legs 350mm centres
Rugby, flanged	138515050	>	>	760	700	P section height 319mm
Buckby, ragged	138515185	>	>	750	750	-
Buckby, flanged	138515180	<b>✓</b>	<b>&gt;</b>	750	750	-

#### Installation

For sheffield stands and variants

When positioned adjacent to one another stands should be approx 800mm apart and approx 450mm from any wall or other obstruction.

For flanged ends, a suitable surface, preferably concrete should already exist for drilling into and bolting down. (not available for wellington stand)

For ragged ends a concrete foundation approx. 300mm cube is recommended for each leg, depending on ground conditions.

# Sheffield style variants

# **Duston**

# **Harlestone**



# Kingsthorpe



# **Dallington**



#### Specifications

- Available ragged for casting in to the ground or flanged for bolting down.
- 48mm overall diameter.
- Wall thickness 3mm.
- Ragged version 300mm below ground.
- Flanged versions require three 12mm bolts per flange (6 per stand) available extra.
- Mild steel galvanised to BS EN ISO 1461: 2009.
- Stainless steel is Grade 304 as standard, grade 316 available to order.
- Colour coated finishes available.

Model	Part no. Galvanised	Galv & plastic coated Black	Stainless steel	Height above ground mm	Overall length mm	Leg centres mm
Duston, ragged	138515205	<b>&gt;</b>	<	775	804	750
Duston, flanged	138515200	<b>&gt;</b>	<b>~</b>	775	804	750
Harlestone, ragged	138515215	<b>~</b>	<b>&gt;</b>	750	810	640
Harlestone, flanged	138515210	<b>&gt;</b>	>	750	810	640
Kingsthorpe, ragged	138515225	>	>	756	816	750
Kingsthorpe, flanged	138515220	>	<b>&gt;</b>	756	816	750
Dallington, ragged	138515235	>	>	750	810	410
Dallington, flanged	138515230	<b>&gt;</b>	<b>&gt;</b>	750	810	410

#### Installation

For sheffield stands and variants

When positioned adjacent to one another stands should be approx 800mm apart and approx 450mm from any wall or other obstruction.

For flanged ends, a suitable surface, preferably concrete should already exist for drilling into and bolting down. (not available for wellington stand)

For ragged ends a concrete foundation approx. 300mm cube is recommended for each leg, depending on ground conditions.

# Secure cycle stands

# Wellington

# Leicester



# Lutterworth



# **Arden**



The Wellington and other secure cycle stands are similar to a Sheffield and Sheffield variant stands, but they include the addition of a re-inforcing panel around the stand offering higher security. These stands are also suitable for motorcycle security.

- Suitable for up to two bikes.
- Available ragged for casting in only.
- 48mm diameter tube.
- Mild steel, galvanised finish as standard.
- Colour coated finish available extra.
- Suitable for bicycle and motorcycle security.

Model	Part no. Galvanised	Galv & plastic coated Black	Stainless steel	Height above ground mm	Overall length mm	Leg centres mm
Wellington, ragged	138200110	<b>✓</b>	×	780	800	750
Leicester, ragged	138200175	<b>✓</b>	×	875	1170	750
Lutterworth, ragged	138200180	<b>✓</b>	X	820	1100	300
Arden, ragged	138200170	<b>✓</b>	X	810	1090	1040

#### Installation

For secure cycle stands

When positioned adjacent to one another stands should be approx 800mm apart and approx 450mm from any wall or other obstruction.

Ragged ends for casting in to concrete foundation approx. 300mm cube is recommended for each leg, depending on ground conditions.

# Wall mounted sheffield



Single wall mounted Sheffield



Wall mounted Sheffield with extension pieces

Wall mounted	Shaffiald with	avtancion	niacas

Model	Part no.	Galv & coated	Part no.	Length
	Galvanised	Black	Stainless steel	mm
Wall mounted sheffield	138200240	>	>	1000

- 48mm overall diameter.
- Wall thickness 3.2mm.
- Single unit 1000mm long.
- Extendible by units of 1000mm to suit requirements.
- For bolting to a suitable brick or concrete wall (12mm bolts extra).
- 3no 12mm bolts required per flange.
- Mild steel galvanised to BS EN ISO 1461 : 2009.
- Other colours available.

#### Installation

Position rail in required location, ensuring height and accessibility is suitable for your application. Mark out drill holes. Drill to suit bolt type and then bolt rail into position.

# Security rail



- Made of 15mm diameter steel bar.
- Galvanised finish as standard.
- Overall length 830mm.
- Weight: 2.0kg.
- Flange diameter 80mm.
- Suitable for 1/2 bicycles.
- Also useful for securing garden tools, lawnmowers etc.
- 4no. fixing bolts & shear nuts for brick/concrete are supplied.

ln۰	κta	llati	on

Position rail in required position, ensuring height and accessibility is suitable for your application. Mark out drill holes. Drill to suit bolt type and then bolt rail into position. If the shear nuts are used the top hexagonal nut will shear off on tightening.

Model	Part no. Galvanised	Recommended Height above ground mm	Length mm
Security rail	138200201	800	830

# Vertical holder



- For bolting to the wall only (bolts are available extra).
- Mild steel tube, bar and plate.
- Galvanised finish as standard.
- 130mm x 514mm x 160mm.
- Weight: 1.42kg.
- Flange diameter 80mm.
- Normal height for adult bikes is 1750mm to the hook.

#### N.B The user must bear the whole weight of the bike when lifting.

Model	Part no. Galvanised	Recommended Height above ground mm	Length mm
Vertical holder	138200290	1750 to hook	514
Screw fixing pack	138200295	-	-

#### Installation

Position rail in required location, ensuring height and accessibility is suitable for your application. Mark out drill holes. Drill to suit bolt type and then bolt rail into position.

For installation 4 plugs & screws are required, these are available extra.

# Motor cycle security Motor cycle barrier



For securing Motor cycles, the users lock their motor cycle to the barrier using their own chain or cable.

- A strong mild steel barrier for securing motor cycles.
- Made of 76mm diameter tube.
- The legs and lower horizontal tube have a loose steel bar inserted to prevent cutting and hacksawing.
- 1000mm above ground (300 below).
- Mild steel tube galvanised finish as standard.
- Colour coated finishes available on request.
- For casting in only.
- Sign available Extra.

Model	Part no.	Overall height mm	Length mm	Tube diameter mm	Weight Kg
Motor cycle barrier	138200124	1300	2000	76od	40

# Motor bike loop







Flanged motor bike loop

For securing motor cycles, the users lock their motor cycle to the loop using their own chain or cable.

- Cast in or bolt down options available.
- Loop diameter 20mm solid steel.
- The bolt down version is particularly useful where installation depth is restricted.
- Lid of ragged version: 6.25mm thick.
- Body: 4.0mm thick.
- 4 x high security shear nuts & bolts included with bolt down version.

Model	Part no.	Overall height mm	Length mm	Width mm	Weight Kg
Cast in	138200250	308	150	150	6.4
Bolt down	138200260	20	300	220	4.7

# Model R holder







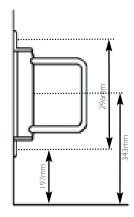
Model R 45 degree, (Left Hand Skew)

- Holders can be supplied individually for fixing to any convenient wall, post or rail.
- For single or double level parking (double level parking requires BC ramps).
- Made from galvanised steel tube, bar & plate.
- Wall mounted with brackets for 10mm bolts (available extra).
- Available in two fixed settings of 90 deg or 45 deg to the wall.
- 2no bolts required per holder, 8mm or 10mm bolts are suitable.
- 1.9kg per individual model 'R' holder.

#### Installation

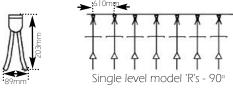
For fixing to a suitable brick or concrete wall, or timber with suitable bolts. Centre of holders should be approx 345mm above ground level. Position of bolt holes should be marked – then drill in to suit type of bolt being used.

Same level parking – holders should be not less than 610mm centres apart. Up/down parking - holders should be not less than 305mm centres apart.

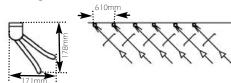


Model R cycle holder

90 degree holder



45 degree holder



Single level parking centres (right hand skew) -

Model	Part no. Galvanised
R90 degree	138200001
R45 degree	138200002

# BC ramp



90 degree BC ramp

- For use with the R90 and R45 degree holders.
- Made from galvanised steel bar & plate.
- Allowing centres not less than 305mm with R90 and 380mm with R45.
- When used with 45 dea holders it is necessary to indicate whether left hand skew (LHS) or right hand skew (RHS) is required (see drawing).
- BC ramp 2.4kg.

Model	Part no. Galvanised
BC 90 deg	138200039
BC 45 deg RHS	138200048
BC45 deg LHS	138200040

## Installation

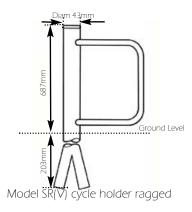
In conjunction with model R holders:- the model R should be bolted to the wall 418mm to the lower bolt hole above ground level, and the BC ramp should be bolted approx 240mm above ground level, ensuring top part of ramp is horizontal, directly below the centre line of the holder. Ensure that the lower bolt is secured into a suitable concrete surface or similar.

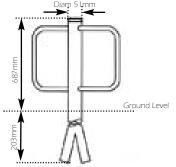
Note: Same level parking – holders should be not less than 610mm centres apart. Up/down parking - holders should be not less than 305mm centres apart.

# Model SR(V)

# Model SU(V)







Model SU(V) cycle holder ragged

Diam 5 l.mm	<i></i>
687 mm	
	Ground Level
203mm	

- SR(V) for one bike.
- SU(V) for two bikes.
- Made from galvanised steel tube, bar & plate.
- Flanged version are bolted to the floor with 3no. 12mm bolts (extra).
- Ragged version for casting in also available.
- SR(V) 3.0kg.
- SU(V) 5.5kg.
- Cap is black polypropylene.
- Flange diameter 134mm, 6mm thick.

Model	Part no. Ragged	Part no. Flanged
SR(V)	138200004	138200005
SU(V)	138200007	138200049

#### Installation

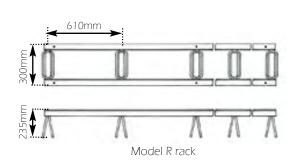
Ragged end for casting in to ground with suitable concrete foundation of 300mm cube size approx. Ragged end depth to be 203mm below ground. Flanged end for bolting on to existing good concrete. Centre of holder should be approx. 345mm above ground level. 3no 12mm bolts required per holder.

# Model R rack



Model R 90 rack for 5 bikes

- For bolting to a suitable wall, normally of brick.
- Made from galvanised steel tube, bar & plate.
- Holders are mounted on a top and bottom rail of galvanised angle iron.
- Holders are positioned at centres of 610mm.
- Wall mounted with brackets for 10mm bolts (available extra).
- Fixing holes at 1170mm centres.
- Available in two fixed settings of 90 deg or 45 deg to the wall.
- Can be manufactured to accommodate any quantity of bikes.
- 20kg per rack of 5 holders.



Model	Part no. Galvanised
R90 rack for 5	138200070

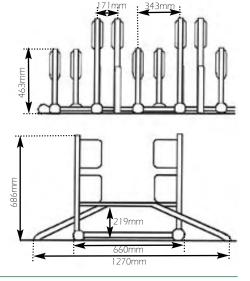
#### Installation

For fixing to a suitable brick or concrete wall, or timber with suitable bolts. Centre of holders should be approx 345mm above ground level. Position of bolt holes should be marked - then drill in to suit type of bolt being used.

# Bicycle racks Type A



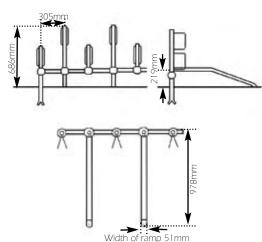
- A double sided rack.
- Type A rack for 16 bikes will fit under one T20 double-sided cycle shelter.
- Made from galvanised steel tube, section, bar & plate.
- For bolting down only.



# Type B



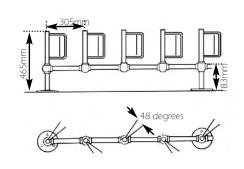
- A single sided rack with parking centres of 305mm.
- Type B rack for 10 bikes will fit under one AX1, AX2 or AX3 cycle shelter.
- Made from galvanised steel tube, section, bar & plate.
- Available ragged or flanged.
- Ragged versions are 203mm below ground.



# Type C



- A double sided rack with parking centres of 610mm.
- Available with 90 or 45 degree setting.
- Made from galvanised steel tube, section, bar & plate.
- Available ragged or flanged.

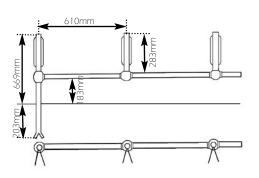


Model		To fit shelter	Available in other sizes	Gross weight per holder kg
Type A, bolt down only	Double sided holder	16 in T20	<b>~</b>	5.5
Type B, ragged	Single sided holder	10 in Type AX1, 2 or 3	<b>✓</b>	5.5
Type B, flanged	Single sided holder	10 in Type AX1, 2 or 3	<b>~</b>	5.5
Type C, ragged	Double sided holder	-	<b>✓</b>	4.0
Type C, flanged	Double sided holder	-	<b>✓</b>	4.0

# Type D



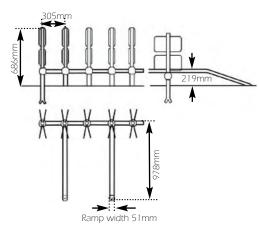
- A single sided rack with parking centres of 610mm.
- Available with 90 or 45 degree setting.
- Made from galvanised steel tube, section, bar & plate.
- Available ragged or flanged.



# Type E



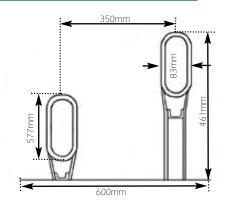
- A double sided rack with parking centres of 305mm.
- A type E for 20 bikes will fit under an AX4 double sided shelter.
- Made from galvanised steel tube, section, bar & plate.
- Available ragged or flanged.
- Ragged versions are 203mm below ground.



# Type H



- A single sided rack with parking Centres of 350mm.
- A type H for 8 bikes will fit under an AX1, AX2 or AX3 single sided shelter.
- Made from galvanised steel tube, section, bar & plate.
- Available ragged or flanged.
- Supplied in sections. 2 holders per section.



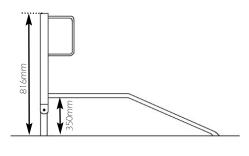
Model		To fit shelter	Available in other sizes	Gross weight per holder kg
Type D, ragged	Single sided holder	5 in AX1, 2 or 3	<	4.0
Type D, flanged	Single sided holder	5 in AX1, 2 or 3	<	4.0
Type E, ragged	Double sided holder	20 in AX4	<	5.5
Type E, flanged	Double sided holder	20 in AX4	<b>&gt;</b>	5.5
Type H, ragged	Single sided holder	8 in AX1,2 or3	<	12.4
Type H, flanged	Single sided holder	8 in AX1,2 or3	<b>~</b>	12.4

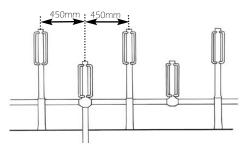
# **Installation of Racks**

See Page 82.

# Rack for Royal Mail bicycles

The 'BRM' or type 'ERM' racks are special versions of the standard type 'B' and 'E' (detailed previously) and allow for extra height on the ramps and for extra distance between adjacent holders, so allowing bikes to be secured easily and safely without handlebars, panniers or pedals fouling each other.





- BRM for 6 bikes will fit under an AX1, AX2 or AX3 shelter. ERM for 12 will fit under an AX4 shelter.
- Distance between adjacent holders = 450mm. Height to bottom of ramp = 350mm
- Specification covers most models of bikes including traditional Royal mail bikes.
- Ragged versions are 203mm below ground.

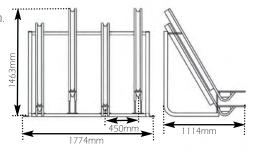
Model		To fit shelter	Available in other sizes	Gross weight per holder kg
Type BRM, flanged	Single sided holder	6 in AX1, 2 or 3	<	6.0
Type ERM, flanged	Double sided holder	12 in AX4	<b>&gt;</b>	6.0

## Semi vertical rack



- The rear wheel can be locked to the stand by the users own D-lock or chain.
- Racks can be manufactured for any number of bikes.
- Made from galvanised steel tube, section, bar & plate.
- Height 1463mm, Depth 1114mm.
- 450mm centres.
- Maximum tyre width 56mm.
- For bolting down only (bolts available extra).

# N.B. The user must bear the whole weight of the bike when lifting.



Model		To fit shelter	Available in other sizes	Gross weight per holder kg
Semi Vertical Rack, bolt down	Single sided holder	=	<	

## Installation of racks

Racks greater than approx 1.5m length are easily joined together on site by simple bolting.

**Type A** is self supporting and requires no ground fixing other than for the end of ramps.

# Type B, C, D, E, H, Royal Mail & Semi Vertical

For ragged ends, a concrete foundation of around 300mm cube should be laid around each leg, depending on ground conditions. Leg depth for ragged ends is 203mm below ground.

For flanged ends, ensure a suitable surface already exists for bolting on to - preferably this should be existing concrete. Refer to drawings for correct height positioning.

Leg flanges require 3 x12mm bolts per flange. Ramps require 1 qty 10mm bolt per ramp.

# Bike plus rack



- Each bicycle rests on a PARC-VELO holder on its handlebars
- Cable is wound through both wheels and the frame, locking by the users own padlock, D-lock etc.
- 2 level parking with holders at 380mm centres.
- Horizontal bar 48mm diameter.
- 1100mm above ground.
- Legs of 80mm square section mild steel, 3.6mm thick.
- Flanges 180x150mm, 6mm thick.
- Security cable is PVC sheathed, diameter 10mm high grade steel, coloured black.
- Holders coated blue as standard.
- Ragged for casting in and wall fixing options also available.

#### Installation

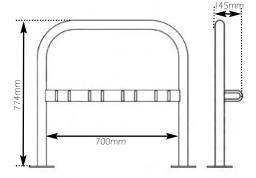
Legs for casting in require a concrete foundation of approx 400mm deep by 300mm square depending on ground conditions. Flanged legs require an existing suitable surface, preferably concrete. Suitable bolts will be needed – 4 qty 12mm bolts per flange.

Model	Part no. Ragged	Part no. Flanged	Overall length mm	Holder centres mm	No. legs	Weight Kg
PV4	138200204	138200217	1600	380	2	50
PV6	138200206	138200219	2360	380	2	55
PV8	138200208	138200222	3120	380	2	60
PV10	138200050	138200051	3880	380	3	80

# Scooter rack



- Scooters are secured by the users own padlock and chain or d-lock.
- Based upon the standard sheffield.
- Length 800mm overall, height above ground 774mm.
- 48mm diameter mild steel tube.
- Galvanised to BS EN ISO 1461: 2009.
- Available ragged or flanged.
- Colour coated finishes available extra.



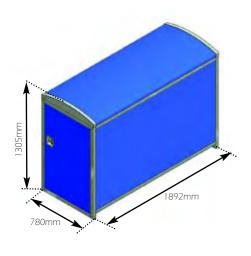
Model	Part no. Ragged	Part no. Flanged
4 holder, galvanised	138200145	138200140
4 holder, galvanised & colour coated	138200146	138200141
8 holder, galvanised	-	138200142
8 holder, galvanised & colour coated	-	138200144
10 holder, galvanised	-	138200154

# Installation

For flanged ends, a suitable surface, preferably concrete should already exist for drilling into and bolting down. For ragged ends a concrete foundation approx. 300mm cube is recommended for each leg, depending on ground conditions.

# Bicycle lockers Bicycle locker - Clad



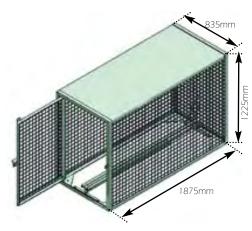


Model	Part no. Galvanised	Part no. Galvanised & colour coated
Locker with integral lock	138250400	138250450
Locker with padlockable door	138250500	138250550
Cycle holder	138250100	-

- The Locker has a robust frame made of galvanised mild steel.
- Door panels & roof are 1mm thick, reinforced with steel sections.
- Galvanised finish is standard with optional powder coated finish available in a variety of RAL colours.
- The door is lockable with 2 keys (supplied), with 3 point locking and stainless steel hinges.
- Cycle trough for 1 bike is available extra
- Locks can be randomly keyed or master suited. (Master key is extra).
- Raised side panels allow easy cleaning by hose & water, and basic visual security checks.
- Internal hooks for convenient hanging of clothing, bags & helmets.
- Steel Tube frame made of: 40 x 40mm square section, 1.5mm wall thickness.
- Length 1892mm
- Depth 780mm,
- Max height Front 1305mm.
- Weight 112Kgs (excluding holder).

# Bicycle locker - Mesh





- The Locker has a robust frame made of galvanised mild steel.
- The door is lockable with users own padlock or D-lock.
- Cycle trough for 1 bike is available extra.
- All panels are made from mesh.
- Optional galvanised sheet roof is available extra.
- Galvanised finish is standard with optional colour coated finish available in a variety of RAL colours.
- Length 1875mm
- Depth 835mm
- Max height Front 1225mm
- Weight 92Kgs (excluding holder).

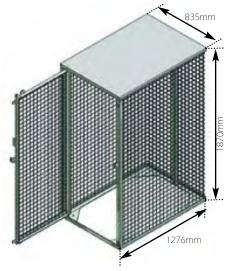
Model	Part no. Galvanised
Mesh locker	138250200
Cycle holder	138250100

#### Installation

Supplied fully assembled for easy installation on site. Fully welded construction. It is recommended the locker is bolted down to a level high strength good quality concrete floor using the  $4 \times 10$ mm expanding anchor bolts supplied.

# Vertical bicycle locker - Mesh





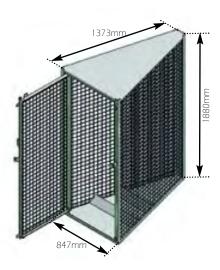
Model	Part no. Galvanised
Vertical Bicycle Locker - Mesh	138250300

- The Locker has a robust frame made of galvanised mild steel.
- The door is lockable with users own padlock or D-lock.
- All panels are made from mesh.
- Optional galvanised sheet roof is available extra.
- Galvanised finish is standard with optional colour coated finish available in a variety of RAL colours.
- Length 1276mm
- Depth 835mm
- Max height 1870mm
- Weight 92Kgs (excluding holder).

N.B. The user must bear the weight of the bicycle to use this locker.

# Vertical bicycle locker - Tapered





Model	Part no. Galvanised
Vertical Bicycled Locker - Tapered	138250350

- Installation

Supplied fully assembled for easy installation on site. Fully welded construction. It is recommended the locker is bolted down to a level high strength good quality concrete floor using the 4 x 10mm expanding anchor bolts supplied (3 bolts for the Tapered locker).

- The Locker has a robust frame made of galvanised mild steel.
- The door is lockable with users own padlock or D-lock.
- All panels are made from mesh.
- Optional galvanised sheet roof is available extra.
- Galvanised finish is standard with optional colour coated finish available in a variety of RAL colours.
- Length 1373mm
- Depth 847mm
- Max height 1880mm
- Weight 116Kgs (excluding holder).

N.B. The user must bear the weight of the bicycle to use this locker.

#### **MM** locker



MM1 with extension bay

- Can be used for bicycles, motorbikes, storage and security.
- Roof and cladding is galvanised profiled section 0.5mm thick steel and plastic coated.
- Frame, mesh, doors and roof frame are galvanised only.
- Doors can be locked by padlock (available extra).
- Uprights of 50x50x3mm hollow square section mild steel.
- Other colours available.
- Frame of 50x50x3mm hollow square section mild steel and 50x50x5mm angle iron all galvanised.
- A type B cycle rack for 5 bikes or 3 Sheffield cycle stands can fit inside the shelter.
- Extension bays available to accommodate larger quantities of bikes.
- Length 2060mm.
- Depth 2400mm.
- Height Front 2153mm, Rear 1500mm.
- Weight With side and rear cladding and doors 420kg.
   With mesh sides, rear and doors 400kg.



MM2

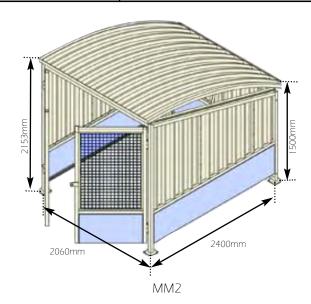


Model	Part no. Main bay	Part no. Extension bay
MM1	138200090	138200092
MM2	138200095	138200097

#### Installation

Sides, rear and doors are supplied in complete sections, roof is supplied in smaller sections ready for easy drilling & bolting together on site. Legs can be flanged for bolting down to a suitable concrete base, or with ragged ends for casting into the ground (300mm cube concrete is recommended).

Ground fixing bolts can be supplied extra. M12 100mm expanding anchor bolts or M12 110mm rawlbolts are required. 4 bolts are required per flange.



# **Bicycle shelters**

# VS1 shelter



VS1 Shelter with integral cycle stands

The VS1 Cycle Shelter from Autopa is suitable for all types of locations from schools to shopping precincts

- Free standing.
- Single sided.
- Frame is made of mild steel tube & box section.
- Roof is made of clearview PET sheeting.
- Adjustable foot fixing.
- Includes 4 integrated cycle stands.
- Main bay is suitable for 8 bikes.
- Extension bays available to accommodate larger quantities of bikes.
- Shipped in sections for easy assembly on site.
- Also available ragged for casting in.
- Weight Main bay: 196Kg.
   Extension bay: 185Kg.
- Colour coated frames also available.





Model	Part no. Galvanised	Overall length mm	Centres mm	Depth mm	Height above ground mm
VS1, main bay, flanged	138200160	3070	3000	2190	2200
VS1, extension bay, flanged	138200165	3070	3000	2190	2200

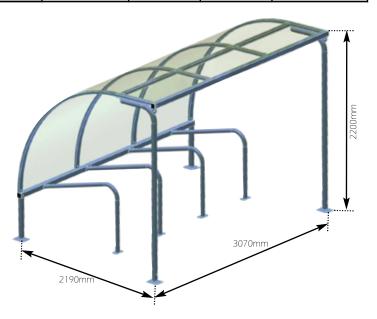
#### Installation

Supplied in component form for easy installation. Cladding/roofing needs to be drilled/fixed on site. Legs can be flanged for bolting down to a suitable concrete base (400mm cube minimum), or with ragged ends for casting into the ground.

Ground fixing bolts can be supplied extra.

Flanged version - 24 x 10mm bolts required per flanged main bay. 16 per flanged extension bay.

Ragged version - Excavate a hole 300mm cube, depending on ground conditions for casting in each leg.



# **Cambridge shelter**



Galvanised frame, polycarbonate roof + extn bays

A contemporary, robust cycle shelter for all types of users and locations.

- Free standing.
- Single sided.
- Frame is made of mild steel tube.
- Roof options include Polycarbonate, galvanised or galvanised and colour coated.
- Uprights of 76mm diameter steel tube.
- Roof purlins, supports and connections of heavy duty steel.
- 4 sheffield cycle stands can fit per bay or one type 'B' rack for 8 bikes (available extra).
- Extension bays available to accommodate more bikes.
- All racks & stands are sold separately.
- Ragged for casting in also available.
- Weight of Main Bay Steel 327kg, polycarb 355kg.
   Extension bay Steel 248kg, polycarb 253 kg.
- Colour coated frames are also available.



Galvanised frame and roof



Galvanised & painted frame, polycarbonate roof + extn bays

Model	Part no. Main bay	Part no. Extension bay	Overall length mm	Centres mm	Depth mm	Front height mm	rear height mm
Cambridge, polycarbonate roof, flanged	138200520	138200521	3450	3150	2670	2144	1346
Cambridge, galvanised roof, flanged	138200515	138200516	3450	3150	2670	2144	1346
Cambridge, galvanised & colour coated roof, flanged	138200525	138200526	3450	3150	2670	2144	1346

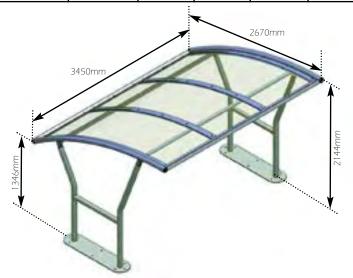
#### Installation

Supplied in component form for easy installation. Cladding/roofing needs to be drilled/fixed on site. **Sheeting is clamped to frame using clamping strips.** Legs can be flanged for bolting down to a suitable concrete base (400mm cube minimum), or with ragged ends for casting into the ground.

Ground fixing bolts can be supplied extra.

Flanged version - 16 x 16mm bolts required per flanged main bay. 8 per flanged extension bay.

Ragged version - Excavate a hole 1600mm x 500mm x 400mm deep for casting in each end.



# **Canterbury shelter**



Canterbury with extension bays, painted blue & red sheffields

A popular shelter based on the Cambridge style.

- Free Standing.
- Double sided.
- Frame is made of mild steel tube.
- Roof options include galvanised or galvanised and colour coated.
- Uprights of 76mm diameter steel tube.
- Roof purlins, supports and connections of heavy duty steel.
- 4 sheffield cycle stands can fit per bay or one type 'B' rack for 8 bikes
- Extension bays available to accommodate more bikes.
- All racks are sold separately.
- Weight of Main bay steel roof 327kg Extension bay - steel roof 248kg Main bay - polycarbonate roof 333kg Extension bay - polycarb roof - 253kg
- Colour coated frames are also available.



Galvanised frame with polycarbonate roof & extn bays



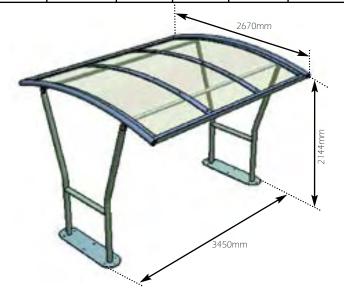
Galvanised frame & roof

Model	Part no. Main bay	Part no. Extension bay	Overall length mm	Centres mm	Depth mm	Front height mm	Rear height mm
Canterbury, polycarbonate roof, flanged	138200620	138200621	3450	3150	2670	2144	2144
Canterbury, galvanised roof, flanged	138200615	138200616	3450	3150	2670	2144	2144
Canterbury, galvanised & colour coated roof, flanged	138200625	138200629	3450	3150	2670	2144	2144

## Installation

Supplied in component form for easy installation. Cladding/roofing needs to be drilled/fixed on site. **Sheeting is clamped to frame using clamping strips.** Legs can be flanged for bolting down to a suitable concrete base (400mm cube minimum), or with ragged ends for casting into the ground.

Ground fixing bolts can be supplied extra.
Flanged version - 16 x 16mm bolts required per flanged main bay. 8 per flanged extension bay.
Ragged version - Excavate a hole 1600mm x 500mm x 400mm deep for casting in each end.



# Cambridge & Canterbury 4m shelters



4m Canterbury shelter with extension bays

Cambridge & Canterbury shelters are available in a variety of configurations and in 4m units to accommodate larger quantities of bikes.

A single 4m main bay Cambridge or Canterbury shelter will accommodate up to 10 bikes on 5 sheffield style cycle stands.

Specifications are the same as the standard Cambridge & Canterbury Shelters but are 4m long.

4m shelters are available with polycarbonate or steel roofing roofing.



4m Cambridge shelters with steel frame & polycarbonate roof

Model	Part no. Main bay	Part no. Extension bay	Overall length mm	Centres mm	Depth mm	Front height mm	Rear height mm
Cambridge 4m, galvanised frame	138200522	138200530	4450	4150	2670	2144	1346
Canterbury 4m, galvanised frame	138200622	138200623	4450	4150	2670	2144	2144

#### Installation

Supplied in component form for easy installation. Cladding/roofing needs to be drilled/fixed on site. **Sheeting is clamped to frame using clamping strips.** Legs can be flanged for bolting down to a suitable concrete base (1600x500x400mm minimum), or with ragged ends for casting into the ground.

Ground fixing bolts can be supplied extra.

Flanged version - 16 x 16mm bolts required per flanged main bay. 8 per flanged extension bay. Ragged version - Excavate a hole 1600mm x 500mm x 400mm deep for casting in each end.

# **Cambridge & Canterbury configurations**

Since the introduction of the Cambridge cycle shelter it has become increasingly popular for many sites throughout the UK and one of our most popular shelters, closely followed by the recently introduced Canterbury shelter. The Cambridge and Canterbury shelters are suitable for installation in a variety of configurations to meet site requirements, and to fit the space available.



Single 4m main bay



Canterbury cycle shelters with extension bays



Double Cambridge shelters

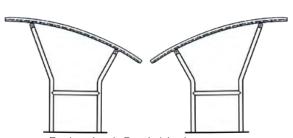


Double Cambridge's with central Canterbury shelter & extension bays

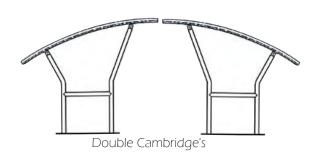




Single Canterbury



Back-to-back Cambridge's







Double Cambridge's with central Canterbury shelter

# **Boston shelter**



Boston shelter main bay with doors



- Free standing.
- Single sided.
- Frame is made of galvanised square box section.
- All steel parts are galvanised to BS EN ISO 1461 : 2009.
- Roof cladding is clearview PET sheeting.
- Available with Zaun mesh doors.
- 4 sheffield cycle stands can fit per 3m bay for 8 bikes.
- 4m version is now also available and will accommodate up to 10 bikes.
- Extension bays available for larger quantities of bikes.
- All racks are sold separately.
- Shipped in sections for easy assembly on site.
- Also available ragged for casting in.
- Weight -Main bay: 230Kg, Extension bay: 190Kg,
- Colour coated frames are also available.



Boston shelter, galvanised frame



Galvanised and painted frame with extension bays

Model	Part no. Galv. 3 panel	Overall length 3 panel - mm	Part no. Galv. 4 panel	Overall length 4 panel - mm	Depth mm	Height above ground mm
Boston, main bay, flanged	138200450	3300	138200462	4400	2460	2200
Boston, extension bay, flanged	138200455	3300	138200465	4400	2460	2200
Boston with doors, main bay	138200460	3300	138200472	4400	2460	2200
Boston with doors, extension bay	138200461	3300	138200474	4400	2460	2200



#### Installation

Supplied in component form for easy installation on site. Cladding/roofing needs to be fixed on site. **Sheeting is clamped to frame using clamping strips.** Legs can be flanged for bolting down to a suitable concrete base (400mm cube minimum), or with ragged ends for casting into the ground.

Ground fixing bolts can be supplied extra.

Flanged version - 16 x 12mm bolts required per flanged main bay. 8 per flanged extension bay.

Ragged version - Excavate a hole 500mm x 500mm x 400mm deep for casting in each end.

# **Boston compound**



Boston compound, red finish + extension bay & roof panel

Boston compound, black finish

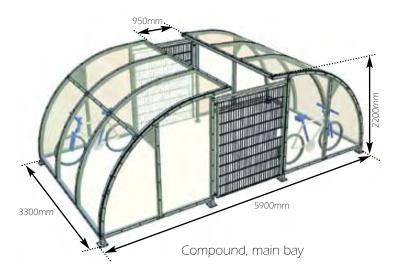
The Boston compound shelter is available in a variety of configurations suitable for many applications.

- Free standing.
- Frame is made of galvanised square box section.
- All steel parts are galvanised to BS EN ISO 1461: 2009.
- Roof cladding is clearview PET sheeting.
- Complete with Zaun mesh lockable doors 1500mm wide.
- Sheeting is supported and clamped every metre for additional strength and durability.
- Each compound is designed to accommodate 16 bikes.
- Extension bays available to fit more bikes.
- All racks are sold separately.
- Shipped in sections for easy assembly on site.
- Also available ragged for casting in.
- Weight Main bay: 455Kg.
- Colour coated frames are also available.
- Additional roof panel is available to cover the gap between shelters



Boston compound, galvanised finish with extension bay

Model	Part no.	Overall length	Centres	Depth	Height above
	Galvanised	mm	mm	mm	ground mm
Boston compound for 16 bicycles	138200470	3300	3230	5900	2200



## Installation

Supplied in component form for easy installation on site. Cladding/roofing needs to be fixed on site. **Sheeting is clamped to frame using clamping strips.** Legs can be flanged for bolting down to a suitable concrete base (400mm cube minimum), or with ragged ends for casting into the ground.

Ground fixing bolts can be supplied extra.
Flanged version - 32 x 12mm bolts required per flanged main bay. 16 per flanged extension bay.
Ragged version - Excavate a hole 500mm x 500mm x 400mm deep for casting in each end.

# **Bolton shelter**



Bolton shelter with extension bays & sheffield cycle stands

The Bolton shelter is a practical and versatile way to store cycles. Although designed for cycle storage it can also be used for a variety of other applications.

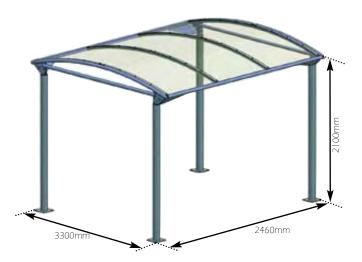
- Free standing.
- Double sided.
- Uprights are made of 101mm tube.
- All steel parts are galvanised to BS EN ISO 1461 : 2009.
- Roof cladding is clearview PET sheeting.
- 4 sheffield cycle stands can fit per bay.
- Extension bays available to accommodate larger quantities of bikes.

#### All racks are sold separately.

- Shipped in sections for easy assembly on site.
- Also available ragged for casting in.
- Weight Main bay: 210Kg, Extension bay: 186Kg,
- Colour coated frames are also available.



Bolton shelter



Model	Part no. Galvanised	Overall length mm	Centres mm	Depth mm	Height above ground mm
Bolton, main bay, flanged	138200550	3300	3199	2460	2100
Bolton, extension bay, flanged	138200555	3300	3199	2460	2100

#### Installation

Supplied in component form for easy installation on site. Cladding/roofing needs to be fixed on site. **Sheeting is clamped to frame using clamping strips.** Legs can be flanged for bolting down to a suitable concrete base (400mm cube minimum), or with ragged ends for casting into the ground.

Ground fixing bolts can be supplied extra.

Flanged version - 16 x 12mm bolts required per flanged main bay. 8 per flanged extension bay. Ragged version - Excavate a hole 500mm x 500mm x 400mm deep for casting in each end.

# **Chiswick shelter**



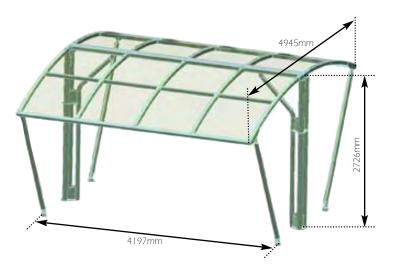
Chiswick shelter with 10 sheffield cycle stands (extra)

A new design based on the popular Cambridge style.

- Free Standing.
- Double sided.
- Frame is made of mild steel tube.
- Uprights of 89mm & 76mm diameter steel tube.
- Roof cladding is clearview PET 5mm thick sheeting.
- Roof purlins, supports and connections of heavy duty steel.
- 10 sheffield cycle stands can fit per bay or one type 'E' rack for 20 bikes.
- Extension bays available to accommodate more bikes.
- All racks are sold separately.
- Colour coated frames are also available extra.



Chiswick shelter



Model	Part no. Main bay	Part no. Extension bay	Overall length mm	Depth mm	Front height mm	Max height mm	Weight Kg
Chiswick, galvanised frame	138200570	138200575	4197	4945	2107	2726	1102

#### Installation

Supplied in component form for easy installation. Cladding/roofing needs to be drilled/fixed on site. **Sheeting is clamped to frame using clamping strips.** Legs are ragged for casting into the ground only, Concrete foundation should be min 2800x600x600mm minimum.

Ragged ends - Excavate a hole 2800mm x 600mm x 600mm deep for casting in each end.

# **AX** shelters

AX Shelters are basic shelters available in a variety of configurations and security options. These are modular shelters and allow for a selection of optional extras to meet security requirements.

# AX1



AX1 main bay

- Lean to, single sided.
- Frame is made of mild steel tube.
- Roof options include galvanised (standard), galvanised and colour coated or PVC profiled sheet.
- Uprights of steel tube diameter 48mm x 3.2mm thick.
- Roof purlins, supports and connections of heavy duty steel.
- 4 sheffield cycle stands can fit per bay or one type 'B' rack for 10 bikes.
- Extension bays available to accommodate larger quantities of bikes.
- All racks are sold separately.
- Available ragged or flanged.
- Standard main bay includes legs and roof only Side cladding, Secure version and plastisol coated sheets are all optional extras.

## AX2



(Rear & side cladding is an optional extra)

- Free standing, single sided.
- Frame is made of mild steel tube.
- Roof options include galvanised (standard), galvanised and colour coated or PVC profiled sheet.
- Uprights of steel tube diameter 48mm x 3.2mm thick.
- Roof purlins, supports and connections of heavy duty steel.
- 4 sheffield cycle stands can fit per bay or one type 'B' rack for 10 bikes.
- Extension bays available to accommodate larger quantities of bikes
- All racks are sold separately.
- AX2 roof slopes from back to front.
- Available ragged or flanged.
- Standard main bay includes legs and roof only Side & rear cladding, Secure version and plastisol coated sheets are all optional extras.

# AX3



(Secure = rear, sides cladding, doors & facia optional extra)

- Free standing, single sided.
- Frame is made of mild steel tube.
- Roof options include galvanised (standard), galvanised and colour coated or PVC profiled sheet.
- Uprights of steel tube diameter 48mm x 3.2mm thick.
- Roof purlins, supports and connections of heavy duty steel.
- 4 sheffield cycle stands can fit per bay or one type 'B' rack for 10 bikes.
- Extension bays available to accommodate larger quantities of bikes
- All racks are sold separately.
- AX3 roof slopes from front to back.
- Available ragged or flanged.
- Standard main bay includes legs and roof only Side & rear cladding, Secure version and plastisol coated sheets are all optional extras.



AX4 main bay + extension bays

- Free standing, double sided.
- Frame is made of mild steel tube.
- Roof options include galvanised (standard), galvanised and colour coated or PVC profiled sheet.
- Uprights of steel tube diameter 48mm x 3.2mm thick.
- Roof purlins, supports and connections of heavy duty steel.
- 8 sheffield cycle stands can fit per bay or one type 'E' rack for 20 bikes.
- Extension bays available to accommodate larger quantities of bikes.
- All racks are sold separately.
- Available ragged or flanged.
- Standard main bay includes legs and roof only Side cladding, Secure version and plastisol coated sheets are all optional extras.

## T20



T20 main bay

- Free standing, double sided.
- Frame is made of mild steel tube.
- Roof options include galvanised, galvanised and colour coated or PVC profiled sheet.
- Uprights of steel tube diameter 48mm x 3.2mm thick.
- Roof purlins, supports and connections of heavy duty steel.
- 8 sheffield cycle stands can fit per bay or one type 'A' rack for 16 bikes.
- Extension bays available to accommodate larger quantities of bikes.
- All racks are sold separately.
- Available ragged or flanged.
- Standard main bay includes legs and roof only plastisol coated sheets are an optional extra.

Model	Part no. Galvanised Ragged	Part no. Galvanised Flanged	Length centres mm	Depth centres mm	Roof depth	Height front mm	Height rear mm	Weight kg
AX1, main bay	138200008	138200010	3355	2279	2438	2175	2480	120
AX1, extension bay	138200009	138200011	3355	2279	2438	2175	2480	100
AX2, main bay	138200014	138200012	3355	1982	2438	2175	2480	140
AX2, extension bay	138200015	138200013	3355	1982	2438	2175	2480	110
AX3, main bay	138200018	138200016	3355	1982	2438	2404	2210	140
AX3, extension bay	138200019	138200017	3355	1982	2438	2404	2210	110
AX4, main bay	138200020	138200022	3355	4568	4876	2175	apex 2390	250
AX4, extension bay	138200021	138200023	3355	4568	4876	2175	apex 2390	220
T20, main bay	138200024	-	3355	3328	3660	2100	apex 2200	240
T20, extension bay	138200025	-	3355	3328	3660	2100	apex 2200	210

#### Installation

Framework is easily bolted together with the bolts/nuts supplied. Supports can be ragged for casting into a concrete foundation approx 300mm cube depending on ground conditions, or flanged for bolting down to an existing suitable surface, preferably concrete. Fixing down bolts are extra.

Optional Extras	AX1	AX2	AX3	AX4	T20
Rear cladding	-	<b>&gt;</b>	<b>&gt;</b>	-	-
Side cladding (each side)	>	>	>	>	-
Secure	>	>	>	>	-
Plastisol coated sheet	>	>	>	>	<b>&gt;</b>

Roof and cladding sections are supplied undrilled but complete with u-bolts, j-bolts, nuts, caps and washers. Roofing & cladding is normally 24 gauge corrugated galvanised steel.

3 qty 12mm bolts required for each flanged leg, (extra).

2 qty 12mm bolts required for each type AX1 wall support (extra).

A full installation/erection service is available in many areas.

# Cantilever shelter



Cantilever with side cladding & doors



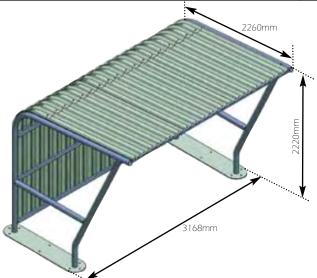
Galvanised frame and roof with black sheffield stands

A contemporary, robust cycle shelter for all types of users and locations.

- Free Standing.
- Single sided.
- Frame is made of mild steel tube.
- Roof options include galvanised or galvanised and colour coated.
- Uprights of 76mm diameter steel tube.
- Roof purlins, supports and connections of heavy duty steel.
- 4 sheffield cycle stands can fit per bay or one type 'B' rack or 8 bikes.
- Extension bays available to accommodate larger quantities of bikes.
- Side cladding & doors available extra..
- All racks are sold separately.
- Shipped in sections for easy assembly on site.
- Also available ragged for casting in.
- Weight Main bay: 232kg. Extension bay: 165kg.
- Colour coated frames now also available.



Model	Part no. Main bay	Part no. Extension bay	Overall length mm	Centres mm	Depth mm	Height above ground mm
Cantilever, galvanised, flanged	138200510	138200512	3168	3092	2260	2220
Cantilever, colour coated roof, flanged	138200500	138200505	3168	3092	2260	2220



#### Installation

Supplied in component form for easy installation on site. Cladding/roofing needs to be drilled/fixed on site. Legs can be flanged for bolting down to a suitable concrete base (400mm cube minimum), or with ragged ends for casting into the ground.

Ground fixing bolts can be supplied extra.

Flanged version - 16 x 16mm bolts required per flanged main bay. 8 per flanged extension bay.

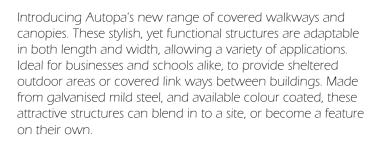
Ragged version - Excavate a hole 1600mm x 500mm x 400mm deep for casting in each end.



# **Covered canopies**



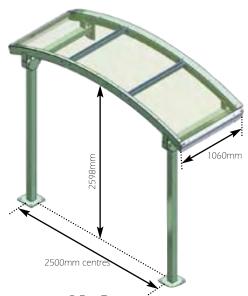
2.5m Door canopy



Designed to BS5950 (Structural Use of Steel in Buildings), these robust structures offer a practical, attractive and versatile solution to covering outdoor areas. The roofing material is a 5mm thick transparent PET glazing, which is designed with vandal resistance in mind. The transparency minimises loss of light underneath the structure.

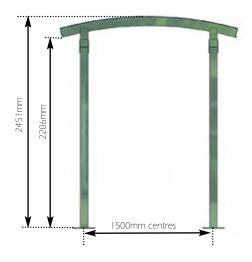


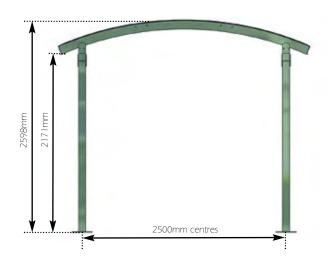
2.5m Door canopy



2.5m Door canopy

Model	Part no. Main bay Galvanised	Part no. Extn bay Galvanised	Overall width mm	Centres mm	Depth mm	Height above ground mm
1500mm wide	138220150	138220155	1750	1500	1060	2598
2500mm wide	138220250	138220255	2750	2500	1060	2598
3500mm wide	138220350	138220355	3750	3500	1060	2598





# **Covered walkways**



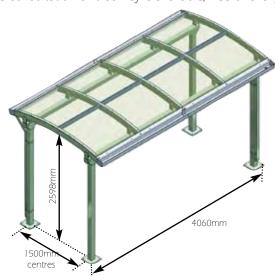
1.5m walkway



Bespoke walkway with adjusted and lengthened legs

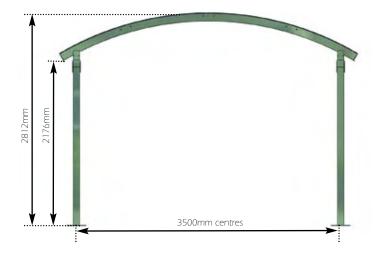
- Walkways are free standing.
- Canopies are wall and ground fixed.
- Available in 1.5m, 2.5m and 3.5m widths;
- Walkway Main bays are 4.0m in length, Canopies are 1m.
- Extension bays available.
- Uprights and cross beams made of 90mm x 90mm box section. Arches made of 100mm x 60mm box section.
- Roof cladding is clearview PET 5mm thick sheeting, (clamped in position to maintain rigidity).
- Shipped in kit-form for easy assembly on site.
- Available ragged for casting-in or flanged for bolting down.
- Guttering: the walkways are supplied as standard without rainwater guttering, however this is available at an extra charge.
- PET side-panelling is available at an extra charge to provide lateral weather protection.

Full site consultation and survey is available, free of charge.



1.5m Walkway with guttering

Model	Part no. Galvanised	Part no. Extn bay Galvanised	Overall width mm	Centres mm	Length mm	Height above ground mm
1500mm wide	138221150	138221155	1750	1500	4060	2598
2500mm wide	138221250	138221255	2750	2500	4060	2598
3500mm wide	138221350	138221355	3750	3500	4060	2598



#### Installation

Supplied in component form for easy installation. Cladding/roofing needs to be drilled/fixed on site. **Sheeting is clamped to frame using clamping strips.** Legs can be flanged for bolting down to a suitable concrete base (400mm cube minimum), or with ragged ends for casting into the ground.

Ground fixing bolts can be supplied extra.
Flanged version - 4 x 16mm bolts required per flange
Ragged version - Excavate a hole 1600mm x 500mm x 400mm
deep for casting in each end.

M10 bolts for wall fixing to be supplied by installer to suit wall type.

# Wimbledon teenage shelters



1 main bay + 3 extension bays

- Free standing modular design shelter.
- Available in a wide variety of configurations to suit site requirements.
- 2298mm overall height.
- 2218mm max headroom height.
- 500mm seat height.
- Arches made of 76mm galvanised mild steel tube.
- Seat made of 60mm galvanised mild steel tube.
- Side paneling of mild steel, galvanised finish as standard.
- Shipped in kit-form for easy assembly on site.
- Available ragged for casting-in or flanged for bolting down.
- Colour coated finishes available extra.
- Recommended centre gap for individual bays is 1500mm.

Full site consultation and survey is available, free of charge.

# Other configurations are available.



1 main bay + 1 extension bay

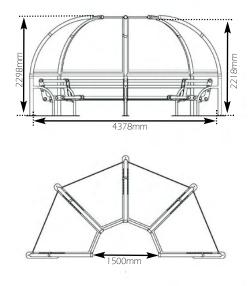


2 main bays + 2 extensions



4 main bays

Model	Part no. Main bay	Part no. Extension bay	Overall length mm (A)	Depth mm (B)	Inner length mm (C)
Galvanised finish	138222150	138222155	1722	1438	650

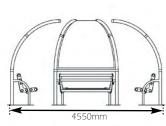


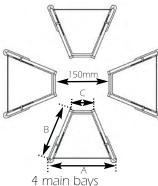
1 main bay + 3 extension bays





1 main bay + 1 extension bay





# Hampton teenage shelters



1081mm 1680mm

1 main bay

- Free standing design shelter.
- Available with extension bays.
- 2314mm overall height.
- 2381mm overall length.
- 2621mm overall depth.
- Arches made of 76mm galvanised mild steel tube.
- Seat made of 3mm mild steel plate..
- Roof paneling of mild steel, galvanised finish as standard.
- Shipped in kit-form for easy assembly on site.
- Available ragged for casting-in or flanged for bolting down.
- Colour coated finishes available extra.

Full site consultation and survey is available, free of charge.

# Other configurations are available.

Model	Part no.	Part no.	Overall depth	Length	Height
	Main bay	Extension bay	mm	mm	mm
Galvanised finish	138222250	138222255	2621	2381	2314

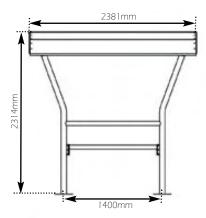
## Installation

Supplied in component form for easy installation. Cladding/roofing needs to be fixed on site. Legs can be flanged for bolting down to a suitable concrete base (400mm cube minimum), or with ragged ends for casting into the ground.

Ground fixing bolts can be supplied extra.

Flanged version - 4 x 16mm bolts required per flange

Ragged version - Excavate a hole 1600mm x 500mm x 400mm deep for casting in each end.



# **Smoking & waiting shelters**







2x2m Smoking Shelter



2x4m smoking Shelter



Ashtray included

Smoking Shelters are 50% enclosed, making them compliant with UK & Irish legislation.

Waiting shelters are fully enclosed shelters suitable for a variety of applications.

- Offer wind and rain protection.
- Smoking shelters help to promote a smoke free workplace.
- Made from strong aluminium frame.
- Powder coated finish, black as standard.
- Other colours available on request.
- Side panels made of 5mm vandal resistant, self extinguishing clear PET glazing.
- Glazing is UV stable.
- For bolting down only.
- Adjustable foot fixing for uneven surfaces (adjustable by 70mm).
- Location of smoking shelters in relation to other structures can affect their compliance.
- Perch bench option available extra.
- Ashtrays are included inside the smoking shelters.

#### Installation

Supplied in component form for easy installation. The shelters must be bolted to a suitable concrete pad. 1 no 10mm bolts required per leg. Fixing bolts available extra. Full installation instructions available on request.

Size	Smoking shelter Part no. Black finish	Waiting shelter Part no. Black finish	Overall height mm	Length mm	Width mm	No. of ashtrays (smoking shelter)	Maximum occupancy
2x1m	138000215	138000100	2330	1050	2050	1	3
2x2m	138000225	138000200	2330	2050	2050	2	6
2x3m	138000235	138000230	2330	3050	2050	3	9
2x4m	138000245	138000240	2330	4050	2050	4	12
2x5m	138000255	138000250	2330	5050	2050	5	15
2x6m	138000265	138000260	2330	6050	2050	6	18
Perch bench	138000050		700	1900	150	-	-

# Wall mounted ashtray

External wall cigarette disposal bin has a new improved design for easier use. Powder coated 'Zintec' steel body with textured finish, the ashtray features stubbing area, rain hood and integral ash collection box. The door is lockable with universal key. Comes supplied with fixing kit.

- Height 390mm
- Width 280mm
- Depth 140mm

Part number: 138174142







# Rockingham



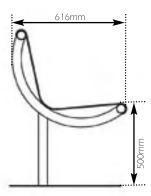
Rockingham Seat

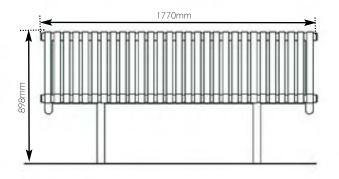


Rockingham Bench

A new range of steel seating is available in a variety of designs suitable for most locations from Schools and retail parks to public areas.

- Fully welded.
- Hot dip galvanised and painted.
- Stainless steel grade 304 brushed finish.
- Bench version to match.
- Seat is available with arm rests at approx 200mm above the level of the seat.
- Slats are 40mm x 5mm.
- Available ragged.





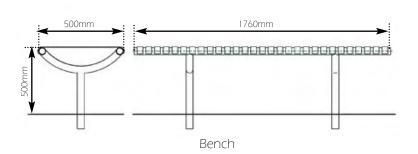
Seat

Model	Part no.	Overall length mm	Depth mm	Seat height mm	Overall height mm	Weight kg
Rockingham seat, galvanised steel	138117011	1770	616	500	898	60
Rockingham bench, galvanised steel	138117014	1760	594	500	500	55
Rockingham seat, Stainless steel	138117016	1770	616	500	898	58
Rockingham bench, Stainless steel	138117019	1760	594	500	500	53
Arms (each), galvanised finish	138117100	=	=	-	=	-
Arms (each), stainless steel finish	138117101	-	-	-	-	-

#### Installation

Supplied fully welded for easy on site installation. Supplied with ragged legs for casting into the ground.

Legs are approx 400mm below ground.
Concrete foundation should be 400mm cube for each leg depending on site conditions.



# **Drayton**



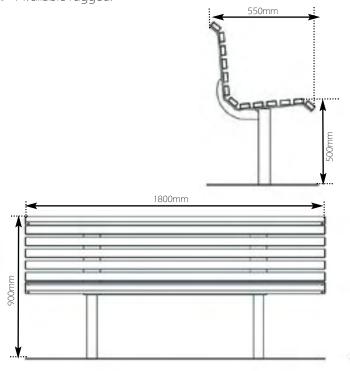
Drayton Seat



Drayton bench

The Drayton Seat and Bench are aesthetically pleasing and suitable for a variety of locations from schools and retail parks to public areas.

- Fully welded.
- Hot dip galvanised and painted.
- Stainless steel grade 304 brushed finish.
- Bench version to match.
- Seat is available with arm rests at approx 200mm above the level of the seat.
- Available ragged.



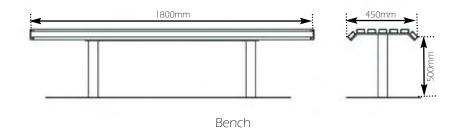
Seat

Model Part no. Overall Seat height Overall Weight Depth mm height mm Kg length mm mm 138117021 Drayton seat, galvanised steel 1800 550 500 900 58 Drayton bench, galvanised steel 138117024 1800 450 500 500 53 Drayton seat, Stainless steel 138117026 1800 550 500 900 56 138117029 1800 450 500 500 Drayton bench, Stainless steel 51 Arms (each), galvanised finish 138117100 138117101 Arms (each), stainless steel finish

#### Installation

Supplied fully welded for easy on site installation. Supplied with ragged legs for casting into the ground.

Legs are approx 400mm below ground.
Concrete foundation should be 400mm cube for each leg depending on site conditions.



# Caldecott - Metal



Caldecott Seat (galvanised mild steel)

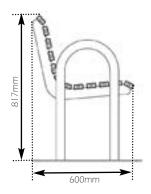


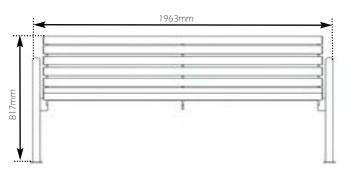
Caldecott Bench (galvanised mild steel)

The Caldecott design is available as both seat or bench, both seat and bench versions are available manufactured completely from galvanised mild steel. Finish is painted black as standard.

Specifications - Metal Caldecott

- Fully welded.
- Hot dip galvanised and painted.
- Stainless steel grade 304 brushed finish.
- Bench version to match.
- Armrests included as standard.
- Also available ragged.





Seat

Model	Part no.	Overall length mm	Depth mm	Seat height mm	Overall height mm	Weight Kg
Caldecott seat, galvanised steel	138117031	1963	600	500	817	96
Caldecott bench, galvanised steel	138117034	1963	473	500	680	90
Caldecott seat, Stainless steel	138117036	1963	600	500	817	80
Caldecott bench, Stainless steel	138117039	1963	473	500	680	74

## Installation

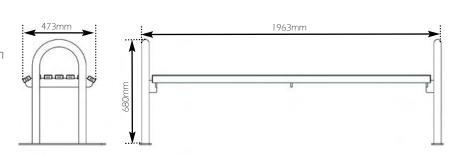
Supplied for easy bolting together on site. All assembly fixings included.

# Bolt down versions

Bolts are available extra, 4 bolts are required for fixing each bench (M12  $\times$  100mm). M12  $\times$  130mm long bolts for Triton).

#### Ragged versions

Legs are approx 400mm below ground. Concrete foundation should be 400mm cube for each leg depending on site conditions.



Bench

# **Caldecott - Recycled plastic**



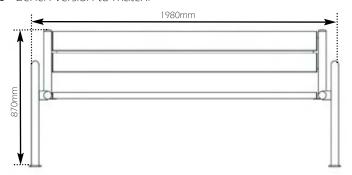
Caldecott Seat (galvanised frame with recycled plastic planks)

The Caldecott design is available as both seat and bench.

Manufactured from galvanised mild steel frame with recycled plastic slats. Finish is black as standard.

Specifications recycled plastic seating

- Seat planks are made of 100% recycled plastic
- Legs are mild steel tube and bar, galv & painted finish.
- Black finish.
- Bench version to match.



Model	Part no.	Overall length mm	Depth mm	Seat height mm	Overall height mm	Weight Kg
Caldecott seat, recycled plastic	138107130	1980	610	505	870	96
Caldecott bench, recycled plastic	138107131	1980	600	505	680	56

# **Triton**





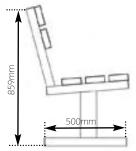
Triton seats are available as a bench or seat Manufactured completely from galvanised mild steel or Galvanised frame with plastic slats. Finish is black as standard.

Specifications recycled plastic seating

- Seat planks are made of 100% recycled plastic
- Legs are mild steel tube and bar, galv & painted finish.
- Black finish.
- Bench version to match.

Specifications Metal seating

- Fully welded.
- Hot dip galvanised and painted.
- Bench version to match.
- Available ragged.



For installation instruction see pg 110

Model	Part no.	Overall length mm	Depth mm	Seat height mm	Overall height mm	Weight Kg
Triton seat, recycled plastic	138107040	1706	500	500	859	66
Triton bench, recycled plastic	138107041	1706	500	500	500	50
Triton seat, galvanised steel	138117041	1706	500	500	859	73
Triton bench, galvanised steel	138117044	1706	500	500	500	56

# Rockingham picnic table

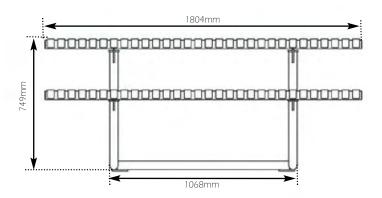


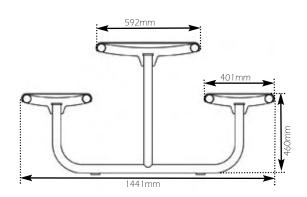
Rockingham Picnic Table

The Rockingham picnic table is an aesthetically pleasing and robust picnic table suitable for a variety of locations from Schools and retail parks to public areas. Manufactured from fully welded mild steel as standard.

- Fully welded.
- Hot dip galvanised and painted as standard.
- Stainless steel grade 304 brushed finish available extra.
- Bench version to match.
- Available ragged.

For installation instructions see pg110.





Model	Part no.	Overall length mm	Depth mm	Seat height mm	Overall height mm	Weight Kg
Rockingham picnic table, galvanised steel	138117111	1804	1441	460	749	144
Rockingham picnic table, stainless steel	138117116	1804	1441	460	749	148

# Picnic table



The Picnic table is available manufactured from Recycled plastic or completely from galvanised mild steel. Suitable for the more demanding public areas. The galvanised version has painted black finish as standard.

Specifications recycled plastic seating

- Seat planks are made of 100% recycled plastic
- Black finish.
- Bench version to match.

Specifications Metal seating

- Fully welded.
- Hot dip galvanised and painted.
- Available ragged.

For installation instruction see pg 110

Model	Part no.	Overall length mm	Depth mm	Seat height mm	Overall height mm	Weight Kg
Picnic table, recycled plastic	138107101	1500	1390	460	720	124
Picnic Table, galvanised steel	138117110	1500	1390	460	720	145

## Litter bins

## **Traditional**





Manufactured from UV stabilised, durable, Medium Density PE. The complete outer body lifts to allow the removal of the galvanised liner.

- Unique bayonet fixing locking mechanism.
- Available hooded, with open top & post mounted.
- Choice of standard liner for bolting down or short liner for ballasting.
- Concrete ballast may be ordered if required.
- Bolts supplied free if ordered with standard liner.
- Available in 3 standard colours Black,
   Dark Green & Burgundy.

#### Modern





Stylish modern design featuring unique bayonet fixing / locking mechanism to combine ease of emptying with maximum security.

- Available with contrasting coloured band (any combination from standard colour range).
- Available hooded, with open top & post mounted.
- Choice of standard liner for bolting down or short liner for ballasting.
- Concrete ballast may be ordered if required.
- Bolts supplied free if ordered with standard liner.
- Available in 9 standard colours Dark Green, Yellow, Brown, Black, Green, Burgundy, Blue, Beige & Red

Model	Part no. Black finish	Height mm	Diameter mm	Capacity litres
Traditional	138108701	990	490	90.0
Traditional - Open top	138108711	800	490	90.0
Traditional - Post mounted	138108716	740	390	40.0
Modern - Hooded	138108721	1000	490	90.0
Modern - Open top	138108731	1000	490	90.0
Modern - Post mounted	138108736	730	390	40.0

Closed top post mounted versions are also available for both the traditional and modern styled bins. The post mounted bins are attached to the post (available extra) using a jubilee clip.

#### Litter bins

The new all steel litter bins have the benefit of being durable and economical, making them suitable for public areas.

# Square



# Square with stub plate



The Square steel bin is fireproof, with lockable door, metal liner & fixing bolts. With the option of ashtray fitment.

#### Specification

- Height: 1000 mm
- Square 450 mm x 450 mm
- Capacity: 95.0 litres
- Standard liner for bolting down.
- Bolts supplied free if ordered with standard liner.
- Comes in black as standard, with the option of Dark Green.

# Round



The round version is fireproof with lockable lid and metal liner. The bin is supplied with a standard liner for bolting down. A short liner for ballasting is available as an option. Concrete Ballast may be ordered from accessories if required. Bolts supplied free if ordered with standard liner.

#### Specification

- Height: 975 mm
- Diameter: 440 mm
- Capacity: 90.0 litres
- Unique bayonet fixing locking mechanism.
- Choice of standard liner for bolting down or short liner for ballasting.
- Concrete Ballast may be ordered if required.
- Bolts supplied free if ordered with standard liner.
- Comes in black as standard, with the option of Dark Green.

Model	Part no. Black finish	Height mm	Diameter/Width mm	Capacity litres
Square	138118021	1000	485	95.0
Square with ashtray	138118024	1000	485	95.0
Round	138118011	975	440	90.0

#### Installation

The bases are predrilled ready for bolting down on site. It is recommended the bins are bolted down onto a suitable concrete pad.

# Flared Top bin



Flared top bin, painted grey

This open topped simple design is very popular for use in pedestrian high streets and schools.

The new Autopa flared top bin is manufactured from galvanised mild steel as standard, colour coated finishes and stainless steel available on request.

#### Specification

- Height: 870 mmDiameter: 580 mmCapacity: 89 litres
- Weight: 38Kg
- Comes complete with a steel liner.
- The bin comes complete with a locking latch to secure the liner to the bin as standard.
- Main construction from 40mm galvanised mild steel slats
- Stainless steel version available extra.

For the more prestigious sites, the bin is available in stainless steel, and being manufactured from the same material as the rockingham seats (page 108) can be used as part of an integrated streetscape plan.





Locking latch to secure liner

# 580mm 460mm



#### Installation

The bases are predrilled ready for bolting down on site. It is recommended the bins are bolted down onto a suitable concrete pad.

Model	Part no. Black finish	Height mm	Diameter/Width mm	Capacity litres
Galvanised finish	138118031	870	580	89
Stainless steel finish	138118039	870	580	89

# Fencing rail



Bow top fencing rail - coated black

Fencing rail is a practical option for children's play areas, retail parks with shrubs and housing developments for gardens.

Manufactured to meet BSEN1176.1.

Standard panels are 2750mm, other sizes are available upon request.

- 12mm solid infill bar, 112mm spacing.
- Option of colour coated finish (Extra).
- Flat top version also available.
- Posts are extra, see page 115 for options.
- Standard sizes are quoted Other sizes available to order for all designs (from 500mm - 2000mm above ground).

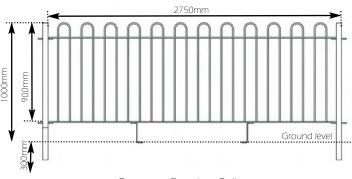


Bow top fencing rail - galvanised

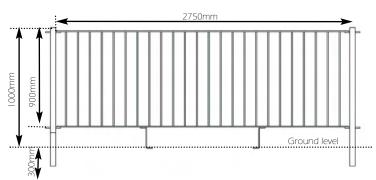


Bow top fencing rail - coated blue

Model	Part no. Ragged	Standard width mm (others can be specified)	Height above ground mm	Depth below ground mm
Bow top rail, galvanised finish	138174600	2750	1000	300
Flat top rail, galvanised finish	138174650	2750	1000	300



Bow top Fencing Rail



Flat top Fencing Rail

#### Installation

For ragged ends a concrete foundation approx. 300mm cube is recommended for each leg, depending on ground conditions. Set posts at the correct distance then bolt the panels to the posts.



Bow top 302 fencing rail - coated black



Bow top gate



Bow top 303 fencing rail - coated green



Bow top interlaced fencing rail - coated red

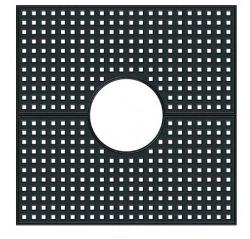
Model	Part no. Ragged	Standard width mm (others can be specified)	Height above ground mm	Depth below ground mm
Bow top 302 rail, galvanised finish	-	2750	1000	300
Bow top 303 rail, galvanised finish	-	2750	1000	300
Bow top interlaced rail, galvanised	-	2750	1000	300
Bow top gate, galvanised finish	-	1000 (opening)	1000	300 (Posts)
Bow top 302 gate, galvanised finish	-	1000 (opening)	1000	300 (Posts)
Bow top 303 gate, galvanised finish	-	1000 (opening)	1000	300 (Posts)
Bow top interlaced gate, galvanised	-	1000 (opening)	1000	300 (posts)
Post - end	138501800	50x50	1000	300
Post - internal	138501802	50x50	1000	300
Post - corner	138501804	50x50	1000	300

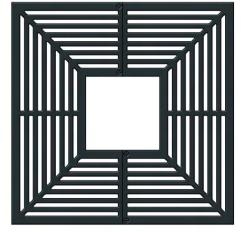
# **Tree grilles**

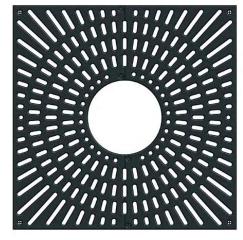
# Vine



# **Petal**

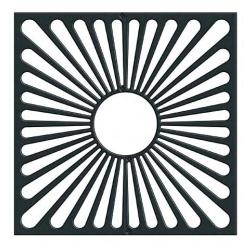


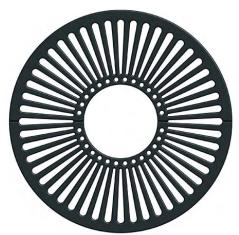




Rose

# Sunburst





The tree grilles are made of polyurethane which is not only resistant to corrosion, rust and the weather, but also the degradation that can be caused by street cleaning equipment.

Tree grilles are used to allow saplings to grow without their root growth disturbing paving.

- Made of Polyurethane.
- Tree guards & sub frames are also available.
- Black as standard.

Model	Part no.	Size mm	Aperture mm	Weight Kg
Vine	138124100	1200x1200	400	28
lvy	138124110	1200x1200	400	28
Petal	138124120	1200x1200	400	28
Rose	138124130	1200x1200	400	28
Sunburst	138124140	1200 diameter	400	28

#### Installation

Tree grilles can be installed with or without frames.

For installation without frame, a suitable concrete foundation should already be in situ. The concrete foundation must fit the grille well.

# Accessories/Extras

# Road warning signs



Autopa can provide road warning signs to be used in conjunction with our vehicle access control equipment. It is recommended that signage is used to warn of speed, height or entry restrictions.

#### **Specification**

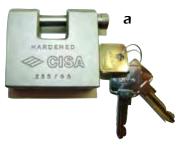
300mm signs can be used for private roads, and 750mm signs are available for public highways. Signs are made of mild steel and aluminium.

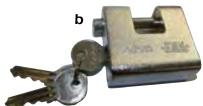
Lightweight foamex signs are also available.

3 metre by 76mm diameter galvanised steel posts can also be provided with the sign.



## **Padlocks**











Autopa supply a wide range of padlocks to suit posts, bollards, vehicle access control and cycle security products.

- The CISA padlock is our highest security sliding bolt padlock, it is supplied with 3 keys.
- The Baton padlock is also a sliding bolt padlock which also offers high security and is supplied with 3 keys.
- The 40mm heavy duty brass padlock is a standard padlock and can be used on most of Autopa's products, where a padlock is required.
- The FB14 and GLC FB1 padlocks are 'Fire Brigade' padlocks, these are sold excluding key. You will need to check with your local authority or local Fire Brigade to determine which type of padlock they hold keys for. These are not designed for every day use.

ltem	Description	Part no.
а	CISA high security padlock, sliding bolt, with 3 keys. carbon nitrogen body	138150301
b	Baton high security, sliding bolt, with 3 keys	138150325
С	Brass padlocks, with 2 keys 40mm identically keyed	138100907
С	Brass padlocks, with 2 keys 40mm randomly keyed	138100912
d	FB14 padlock, excluding keys	138100924
	FB14 key only	138100925
е	GLC FB 1 padlock , 2", excluding keys	138100920
	GLC FB 1 key only	138100921

Accessories 117

# **Bolts**





- For foundation bolts (f&g) you would set these into wet concrete then bolt the product onto, once set.
- For expanding anchor bolts (h, i & j) you would drill a suitably sized hole into existing concrete.
- For Rawlbolts (k, I & m) you would drill a suitably sized hole into exisiting concrete.



ltem	Description	Part no.
f	16mm x 150mm, foundation (ragbolt)	138100990
g	12mm x 150mm, foundation (ragbolt)	138100993
h	M16 16mm x 110mm, expanding bolt	138100991
i	M12 12mm x 100mm, expanding bolt	138100994
j	M10 10mm x 60mm, expanding bolt	138100999
k	M16 16mm x 150mm, rawlbolt	138100992
ı	M12 12mm x 105mm, rawlbolt	138100995
m	10mm rawlbolt. M10 x 75mm	138200047
n	10mm eyelet rawlbolt	138100997
0	10mm hook rawlbolt	138100996

Drill bit sizes	diameter mm	Bolt hole sizes	diameter mm
h	16	I	16
i	12	m	16
j	25	n	16
k	19		



ltem	Description	Part no.
	Reflective tape class 2, 500mm long, 150mm wide. Available in blue, white, orange, yellow or red.	138150950
	Reflective tape class 1, 500mm long, 150mm wide. Available in white, yellow or red.	138100955
Not shown	Reflective tape class 2, 500mm long, 50mm wide. various colours available.	138100960
I MOT SHOWN	Reflective tape class 1, 500mm long, 50mm wide. various colours available.	138100965
	Reflector strip red/white class 2, 600mm long Reflector strip black/yellow class 2, 600mm long	138100940 138100941

118 Accessories

# Manufacturing in the UK





Autopa manufacture at our warehouse in Rugby, Warwickshire, with our in-house manufacturing facilities we are able to supply many special requirements and bespoke products. We also supply many products from stock with short lead times for delivery throughout the UK.









# Coatings and technical information

# Galvanising

Many of the Autopa products are made of mild steel and some cast iron, both materials which, if left untreated, rust. Autopa use hot dipped galvanising on most products as standard to prevent rust. Galvanising can protect the products for decades and minimises maintenance requirements.

Galvanising is the coating of iron or steel with Zinc (a natural element responsible for corrosion resistance as well as being indispensible for humans, animals and plants).

Hot dipped galvanising has many benefits as a method of corrosion protection. It provides steel with a coating which has a long, predictable and maintenance free life. It is the most cost effective way to protect steel over long periods. It is environmentally

All galvanising is to BS EN ISO1461: 2009.

#### How it works

When the clean steel component is dipped into the molten zinc (which is commonly around 450°C) a series of zinc-steel alloy layers are formed by a metallurgical reaction between the steel and zinc. A typical time of immersion is about four or five minutes, (which is how long the chemical reaction takes to form the main thickness of the coating). The reaction slows down after this time and the coating thickness is not increased significantly.

No post-treatment of galvanising is necessary.

Many of our galvanised products are available with an additional colour coating to suit customer requirements.

We are able to paint or powder coat on top of galvanising, thus offering both long term protection and the desired colour finish.

#### Stainless steel

In 2002 about 20 million tonnes of stainless steel was produced. In its manufacture about 12 million tonnes of recycled stainless steel and other material was used. Any stainless steel object has an average recycled content of about 60%, the long term average annual growth rate of stainless steel use is 5%, as more stainless is used more is reused in the manufacturing process.

Grade 304 is the standard stainless; has excellent resistance to corrosion and is the most versatile and most widely used stainless steel. Available in a wider range of products, forms and finishes than any other grade. It has excellent forming and welding characteristics. The balanced austenitic structure of Grade 304 enables it to be severely deep drawn without intermediate toughening processes being required, which has made this grade dominant in the manufacture of stainless steel products. Grade 304 is readily formed into a variety of components for applications in the industrial, architectural, and transportation fields.

**Grade 316 is the standard molybdenum-bearing grade,** second in importance to 304 amongst the austenitic stainless steels. The molybdenum gives 316 better overall corrosion resistance in chloride environments, and is generally more resistant to chlorine than 304. Stainless steel is subject to pitting and crevice corrosion. Stainless steel grade 316 would be specified for use in marine and costal environments. Over time stainless steel will exhibit surface corrosion, usually visible as brown staining. This is particularly associated with surface "dirt" and lack of maintenance.

All of Autopa's stainless steel products (in grade 304 or 316) are 'brushed' finish.

#### Maintenance

All objects exposed to the British weather will get dirty. Atmospheric particles, dirt, fingerprints, grease and oils exist in the environment, and will over time settle on the surface of stainless steel, causing discolouration. The simplest method for keeping stainless steel looking good is to clean it as often as possible with clean warm soapy water and soft cloth, and to then rinse off with clean water and a dry cloth. Each site is different and it is recommended that cleaning should be done at least annually. If the surface becomes dented or damaged and starts to discolour and normal cleaning doesn't work we recommend you seek expert advice on more aggressive chemical cleaning methods. We recommend that abrasive cloths or pads or anything metallic such as wire wool are not used to clean the stainless as this will cause damage to the surface.

#### **During installation**

It is recommended that during all site works the stainless steel is kept covered to reduce any "contamination" during the installation process.

# **Painting**

Although most items are galvanised to prevent corrosion and do not need any post treatment, Autopa offer a colour coated option for most products to suit our customers requirements.

Painting Process; Mordant solution is used to etch the galvanised surface, a 'Hi-build' zinc primer is used, finally a 'Hi-build' top coat is applied using a spray process. Hi-build vinyl has outstanding adhesion, dries to a tough semi-matt flexible coating which resists chipping and flaking.

# Polyester powder coating

Polyester powder coating is a thermosetting powder coating based on linear polyester, applied as a spray. This technology produces very uniform coatings that have an attractive architectural finish with excellent atmospheric weathering characteristics. In combination with hot dip galvanized coatings, the powder coated product ensures maximum durability for steel components.

Autopa use a local company 'Rugby Powder Coaters' for all powder coated products, Autopa use 'Rugby Powder Coaters' as a local company to reduce time in transit, in turn reducing Autopa's carbon footprint and for the quality and attention to detail provided.

For all colour coated finishes RAL or BS numbers must be supplied. Below are a selection of readily available colours for Painted & Polyester Powder coated finishes.

N.B. Packaging for painted and powder coated items is for protection during transportation. It is recommended that all packaging is removed on receipt of goods.



N.B. Colours shown are close representations only, there may be some variation to painted & polyester powder coated finishes.

#### **Autopa Limited Terms and Conditions of Sale**

- 1.1 In these Conditions these words have the following meanings:
- "Consumer" any natural person who is acting for purposes which are outside his/her business:
- "Contract" any contract incorporating these Conditions under which we sell Goods and/or provide Services to you;
- "Goods" the whole or any part of the goods which we agree to supply to you;
- "Liability" the liability for any and all damages, claims, proceedings, actions, awards, expenses, costs (including legal costs on a full indemnity basis and administration costs) and any other losses and/or liabilities:
- "Services" the whole or any part of the services we agree to provide to you;
- "Working Day" any day which is not a Saturday, Sunday or statutory public holiday;

"we", "us" and "our" Autopa Limited; and "you", "your" and "yourself" the customer.

- Any reference to any provision of a statute includes a reference to that provision as amended, re-enacted or extended at the relevant time.
- 2. Contract Terms, Variations and Representatives
- 2.1 The Contract will be governed by these Conditions to the exclusion of any other terms and conditions. These Conditions will override any terms or conditions stipulated or referred to by you in your order or pre-contract negotiations.
- 2.2 Our employees, sub-contractors and/or agents have no authority to agree any term or make any representation or warranty concerning the Goods and/or Services or to enter into any contract except on the basis of these Conditions.
- 2.3 Unless otherwise agreed in writing by us no oral warranties, representations or variations to these Conditions shall bind us. The words "unless otherwise agreed in writing by us" in these Conditions means unless otherwise agreed in writing and signed by one of our Directors or Commercial Managers or Deputy Commercial Managers
- 2.4 Any illustrations, descriptions or specifications in our catalogues, price lists or other advertising material are intended merely to present a general approximation of the Goods and/or Services and will not form a representation or be part of the Contract unless otherwise agreed in writing by us.
- 2.5 Even if it is not expressly stated, any Order placed by you and our acceptance shall still be subject to these Conditions.
- 2.6 We may correct any clerical or typographical errors made by our employees at any time.
- 3. Orders and Contract
- 3.1 Any quotation we give to you for the Goods and/or Services is not binding and we may alter or withdraw any quotation at any time for any reason.

  3.2 We reserve the right to refuse to accept your order.
- 3.3 The Contract between you and us will become legally binding when we have notified you in writing of our acceptance of your order
- 4. Your Right to Cancel this Agreement
- 4.1 If you are a Consumer and your only means of communication with us has been exclusively a means of distance communication (such as telephone, mail order, catalogue, facsimilie or electronic mail) you may cancel the Contract only if you have notified us in writing before the end of 7 Working Days from either the date you receive our acceptance of your order if you have ordered Services, or from the date you receive the Goods you have ordered.
- 4.2 If you have received the Goods before you cancel the Contract then you must send the Goods back to us at your own cost and risk. If you cancelled the Contract but we have already processed the Goods for delivery, you must not unpack the Goods when they are received by you and you must send the Goods back to us at your own cost and risk as soon as possible.
- 4.3 You cannot cancel this Contract if you have ordered Goods which are being made to your specification or if the Services have started to be performed with your agreement.
- $4.4\ {\hbox{Once you}}\ {\hbox{have notified us that you}}\ {\hbox{are cancelling the Contract, any sum already paid to}}$ us will be returned to you as soon as possible and in any event within 30 days of your order, provided that the Goods in question are returned by you and received by us in the condition they were in when delivered to you. If you do not return the Goods delivered to you or do not pay the costs of delivery, we shall be entitled to deduct the direct costs of recovering the Goods from the amount to be credited to you
- 5. Specification, Instructions and Information
- 5.1 The quantity, quality, description and/or specification for the Goods and/or the Services shall be as set out in our quotation (if agreed by you) or your order (if agreed by us) unless otherwise agreed in writing by the parties.
- 5.2 You are responsible for checking the quotation and/or order and for making sure that you are satisfied that the Goods and/or Services are sufficient and suitable for the purposes for which they have been ordered. You must inform us of any special requirement which you consider necessary that the Goods and/or Services should
- comply with before we accept your order or we provide a quotation. 5.3 Any specification supplied by us to you, or specifically produced by us for you, all inventions, patents, copyright, design rights (whether registered or unregistered), trade marks (whether registered or unregistered) and/or know-how and/or any other intellectual property rights in the specification, in the Goods and/or arising as a result of our performing the Services and the right to apply for such rights shall be owned exclusively by us absolutely.
- 5.4 You shall not disclose to any third party or use any such specification referred to in Clause 5.3 except to the extent that it is or becomes public knowledge through no fault of yours, or as required for the purpose of the Contract.
- 5.5 You agree that, at your cost, you will do all acts and/or execute all documents and/or deeds which are necessary or desirable to give effect to Clause 5.3. 5.6 You shall not make any modification to the Goods or their packaging, nor alter, remove,
- or tamper with any trade marks used on or in relation to the Goods and/or Services.
- 5.7 We grant to you an non-exclusive royalty-free perpetual non-transferable licence to use for the purposes contemplated by this Contract all intellectual property rights owned by us which arise solely from the supply of the Goods and/or performance of the
- 5.8 We shall be free to utilise for the benefit of our other customers any skill and/or knowhow that we may develop or acquire in the supply of the Goods and/or performance of the Services.
- 5.9 We shall have no Liability for errors in any specification or details supplied by you or any third party on your behalf and you are solely responsible for the suitability and accuracy of such specification and details.
- 5.10 You will indemnify us for any Liability which occurs as a result of our use of

- specifications, details and/or drawings supplied by you or any third party on your
- 5.11 We reserve the right to make any changes to the specification for the Goods and/or Services if we are required to by law or in order to comply with applicable safety requirements or manufacturing requirements provided that such changes do not have a material adverse effect on the quality and/or performance of the Goods and/or Services.
- 5.12 You agree to follow any reasonable instructions that we may give you about the use and safe handling of the Goods and you agree that you will also pass such instructions on to all third parties to whom you may supply or who may use the Goods.
- 6.1 The charges for the Goods and/or Services are set out in our price list which may be updated from time to time. A copy of our current price list is available on request.6.2 All prices quoted are exclusive of any applicable value added tax, duties or other
- government charges payable in respect of the Goods and/or Services for which you shall bear any additional cost.
- 6.3 Unless otherwise agreed by both you and us, you bear the costs of any transport, packaging and insurance which shall be in addition to the charges stated in our price list. If you ask us to make a delivery using a specific carrier you agree to bear the cost of any difference in cost between our normal method of carriage and the specific carrier you have requested.
- 7. Exceptional Charges
- 7.1 We may charge additional charges to those set out in our price list if you order:
- 7.1.1 Goods and/or Services to be delivered and/or performed outside mainland United Kinadom
- 7.1.2 bulky, awkward, extra long or extra wide Goods; and/or
- 7.1.3 a small quantity of Goods depending on the type of material required.
- 7.1.4 Details of what we consider bulky, awkward, extra long, extra wide and small quantities of Goods to which this Clause 7.1 applies are available on request.
- 8. Delivery or Completion of Services
- 8.1 If your place of business is not within the United Kingdom the Goods will be sold to you on an ex-works basis within the meaning given to that term in the ICC Incoterms 2000 ("Incoterms") as revised from time to time which shall be incorporated into the Contract. If there is any inconsistency between Incoterms and any express term of the Contract the latter will prevail. We will be under no obligation to give you the notice specified in Section 32 (3) of the Sale of Goods Act 1979.
- 8.2 Any dates that we give you for delivery and/or performance are estimates only and are also conditional upon us promptly receiving from you final instructions for delivery and/or performance. Time is not of the essence in relation to such dates and we will not be responsible for any failure to deliver or complete by such dates.
- 8.3 You shall be responsible (at your own cost) for all arrangements to unload the Goods when delivered to you. Delivery will be made between 9.00 am and 5.00 pm on Working Days and during such hours you will make sure we are able to access the address for delivery in order to deliver the Goods.
- 8.4 If you refuse to take delivery of any Goods and/or to allow performance of the Services then we shall be entitled to withhold delivery and/or performance of any other Goods and/or Services and to treat this Contract as cancelled by you.
- 8.5 If the parties agree that the Goods are to be collected from our premises then you shall collect the Goods between 8.30 am and 3.30 pm on Working Days within 3 Working Days of our notifying you that the Goods are ready for collection. If the Goods are not collected by you within this period we may despatch the Goods to you at your expense and risk and/or store the Goods at your expense and risk until despatch and/or collection.
- 8.6 We will have no Liability if we are prevented or delayed from performing our obligations under the Contract due to matters beyond our reasonable control and in such circumstances may choose to suspend our performance or cancel the Contract without this suspension or cancellation affecting our right to recover all sums owing to us in respect of orders or parts of orders already delivered and/or costs incurred at that date. Matters beyond our reasonable control shall include but not be limited to rules. regulations, requisitions or orders of the Government or a Local Authority, war, strike, accident, fire or shortages of labour or materials or non-delivery by our suppliers or damage to or destruction of the whole or part of the Goods.
- 8.7 We reserve the right to despatch and invoice any part of your order when it is available or any part of the Services when such part is completed.
- 8.8 We will try to accommodate you if you make a reasonable request for postponement of delivery but we shall not be obliged to do so. Where delivery is postponed for a reason other than our fault, you shall pay all costs and expenses of delay including a reasonable charge for storage and transportation.
- 9.1 You agree to pay our charges by the end of the month following the month in which we have sent you an invoice for the Goods and/or Services, even if the Goods have not been delivered to you at that time.
- 9.2 Time for payment will be of the essence of the Contract.
- 9.3 In addition to any other rights we may have, we will charge interest on any accounts not paid by the due date at whichever is the greater of 4% above Barclays Bank Plc base rate from time to time compounded with monthly rests or the rate of interest prescribed under the Late Payment of Commercial Debts (Interest) Act 1998. For the purposes of Sections 10 and 13 the full purchase price of the Goods and/or Services will include any interest payable under this Clause 9.3. 9.4 If any invoice is not paid by the due date we will be entitled to demand payment of all
- outstanding balances whether due or not and/or cancel all outstanding orders in addition to any other rights we may have.
- 9.5 We will also have the right to suspend performance of our obligations if we reasonably believe that you will not make payment in accordance with this Section 9.
- 10. Passing of Risk
- 10.1 Except for Goods delivered on the basis set out in Clause 9.1 and unless otherwise agreed in writing by us the risk in the Goods shall pass on delivery of the Goods to you or your agent or, if delivery is postponed at your request or due to your fault, when the Goods are ready for despatch.
- 11. Retention of Title
- 11.1 Even if the Contract is terminated we shall still have the rights set out in this Section 11.
- 11.2 We shall retain title and ownership of the Goods until we have received the full purchase price in cash or cleared funds due and/or owing for all Goods and/or Services supplied to you by us under this Contract and any other agreement between

- you and us.
- 11.3 Upon delivery of the Goods you shall hold the Goods solely as bailee for us and set the Goods aside separately identified as being our property.
- 11.4 Until title in the Goods has passed to you, we shall be entitled to recover the Goods or any part of the Goods and for the purpose of exercising our rights we, our employees, representatives and/or agents with appropriate transport may enter upon your premises and any other location where the Goods are situated.
- 11.5 You are granted a licence by us to incorporate the Goods in any other products.
- 11.6 You are licensed to sell the Goods and any products incorporating any of them. You shall, immediately upon receipt of the proceeds of sale, and whether or not payment has become due under Section 8 of these Conditions, pay to us the full purchase price of the Goods sold on less any part of the full purchase price which has already been paid and until such amount has been so paid you shall hold such amount as our . trustee and agent.
- 11.7 From the date or dates on which risk in the Goods passes to you until title in the Goods has passed to you, you shall keep the Goods insured for the price at which the Goods were sold to you against all insurable risks. If any loss or damage occurs while the Goods remain our property you shall immediately upon receipt account to us for any proceeds of such insurance policy. Any monies we receive from you will not discharge your liability to pay the full purchase price for the Goods but shall be set off against such liability. Until you have accounted to us in accordance with this Clause 11.7, you shall hold any proceeds of such policy of insurance in relation to the Goods on trust for
- 11.8 The licences granted under Clauses 11.5 and 11.6 above shall end immediately at any time by our giving notice to you.
- 11.9 If we have to repossess Goods using the rights in this Section 11 it will not affect any other rights we may have against you. You shall bear any expenses incurred in such re-possession or any damage caused to any land by us in exercising their rights under these Conditions.
- 11.10 Our employees, representatives and/or agents shall be entitled to:-
- 11.10.1 enter onto your premises from time to time to check compliance with this Section 11; and/or
- 11.10.2 inspect all your books, accounts, records, documents and papers to determine what sums are due to us under Clause 11.6.
- 12. Repairs and Replacements
- 12.1 We will, at our option, either repair, replace free of charge or re-perform any defective Goods and/or Services where the defect is apparent on inspection provided that you have told us about the defect within 14 Working Days of delivery of such Goods and/or performance of the Services
- 12.2 If we request we shall have the right to inspect the allegedly defective Goods and/or the subject-matter of any allegedly defective Services, and we will not have any Liability for defective Goods and/or Services until we have been allowed to make such
- 12.3 We may, at our option, either repair, replace free of charge or re-perform defective Goods and/or Services which you do not tell us about within the specified time limit where in our opinion the defect could not have been discovered on inspection and you have told us about it as soon as reasonably practicable.
- 12.4 We will, at our option, either replace free of charge any Goods missing from a delivery of Goods provided that you tell us the items missing within 5 Working Days of delivery or, in the event of total non-delivery you tell us of this within 21 Working Days of you receiving the invoice.
- 13. Limitation of Liability
- 13.1 The limitations in this Contract are necessary in order to allow us to provide the Goods and/or Services at our current prices. If you require greater protection then we will agree to modify the limitations in return for the payment of a higher price for the Goods and/or Services
- 13.2 We shall have no Liability to you for defective Goods and/or Services, Goods not despatched or Goods damaged or lost in transit unless you have told us of the event within the appropriate time limits as set out in this Contract.
- 13.3 We shall have no Liability as a result from failure to follow any reasonable instructions that we may give you about the use and safe handling of the Goods.
- 13.4 Our Liability for defective Goods and/or Services is limited to replacing, repairing or reperforming the Goods and/or as set out in Section 12 above.
- 13.5 Where we agree to repair or replace Goods or carry out again any Services any time specified for delivery or performance under the Contract will be extended for such
- period as we may reasonably require. 13.6 We shall have no Liability to you for any:
- 13.6.1 consequential and/or indirect losses;
- 13.6.2 loss of profits and/or damage to goodwill;
- 13.6.3 special damages, economic and/or other similar losses;
- 13.6.4 exemplary, additional, aggravated and/or punitive damages; and/or
- 13.6.5 business interruption, loss of business, contracts, opportunity and/or production.
- 13.7 Our total Liability to you shall not be more than:
- 13.7.1 £500,000 for any claims which arise as a result of damage to property;
- 13.7.2 or the Contract price of the Goods and/or Services to which the order relates for any claims which are not as a result of damage to property.
- 13.8 Each of the limitations and/or exclusions in these Conditions shall be repeated and apply to Liability in contract (including fundamental breach), Liability in tort (including negligence), Liability for breach of statutory duty, Liability for breach of Common Law, except Clause 13.7 which shall apply once only in respect of all these types of Liability.
- 13.9 All warranties, terms, conditions and duties implied by law relating to fitness, quality or adequacy are excluded to the fullest extent permitted by law.
- 13.10 Nothing in this Contract shall exclude or limit our responsibility to you for death or personal injury which occurs as a result of our negligence or any Liability which is due to our fraud or any other matters for which we are not allowed to exclude or limit our responsibility as a matter of law.
- 14. Cancellation or Deferment
- 14.1.1 fail to make any payment to us when due;
- 14.1.2 breach any of these Conditions (and, if the breach is capable of being put right you have not put it right within 14 days of receiving a notice from us asking you to put it right);
- 14.1.3 persistently breach any one or more terms of these Conditions;
- 14.1.4 pledge or charge any Goods which remain ours, or stop or threaten to stop carrying

- on business, or propose to compound with your creditors, apply for an interim order under Section 252 Insolvency Act 1986 or have a Bankruptcy Petition presented against you, enter into voluntary or compulsory liquidation, have a receiver, administrator or administrative receiver appointed over all or any of your assets, or take
- or suffer any similar action in any country; 14.1.5 appear to us to be financially unable to meet your obligations under the Contract; and/or
- 14.1.6 appear reasonably to us to be about to suffer any of the above events; then we shall have the right, without prejudice to any other remedies, to exercise any or all of the rights set out in Clause 14.2 below.
- 14.2 If any of the events set out in Clause 14.1 happens to you:-
- 14.2. I we may enter, without prior notice, any of your premises (or premises of third parties with their consent) where Goods owned by us may be and repossess and dispose of or sell any Goods found which are owned by us so as to discharge any sums due to us under this Contract or any other agreement we have with you;
- 14.2.2 you will automatically no longer be entitled to re-sell, use or part with the possession of any Goods owned by us and the licences granted under Clauses 11.5 and 11.6 shall immediately end until you have paid in full all sums due to us under this Contract or any other agreement you have with us unless we give our express written agreement to such use and/or disposal of the Goods;
- 14.2.3 we may withhold delivery of any undelivered Goods and stop any Goods in transit; 14.2.4 we may withhold the performance of any Services and cease any Services in progress;
- 14.2.5 we may cancel, terminate and/or suspend without Liability to you any Contract with you; and/or
- 14.2.6 all monies owed by you to us shall become immediately due and payable.
- 14.3 Orders placed cannot be cancelled except with our written consent and on terms which will indemnify us for any loss we have suffered.
- 14.4 Without prejudice to the provisions of Section 13 Goods returned without our consent will not be accepted for credit. Where Goods are returned with our prior written consent it shall be your responsibility (at your entire risk and expense) to return the Goods to us in good and saleable condition. We will charge an additional minimum charge of 25% of the purchase price of the Goods to cover handling and expenses.
- 15 Installation and other Services
- 15.1 To allow us to perform our obligations under these Conditions, you will provide to us and will make sure that any other third party in control of the site where Services are to be performed provides (where applicable):
- 15.1.1 sufficient and suitable access to any site at which Services are to be performed;
- 15.1.2 a cleared, prepared, and safe site which complies with all applicable statutory or other regulations and codes of practice:
- 15.1.3 secure protection (from the time of delivery) of any Goods in respect of which Services are being performed; and
- 15.1.4 all necessary information, including but not being limited to any relevant health and safety policies applicable to any of our personnel when carrying out the Services
- 15.2 You will indemnify us for any Liability incurred by us as a result of you (or any applicable third party) not doing any of the things set out in Clause 15.1.
- 16. Testing
- 16.1 If we agree that any tests shall be carried out in your presence we shall notify you of the date on which we will be ready to carry out such tests and you will attend at the premises where the Goods are situated on the date specified by us for the purpose of witnessing the tests. You agree that if you do not attend we may carry on with the tests in your absence and you shall be bound by the results of those tests.
- 17. General
- 17.1 The parties to the Contract will at all times keep confidential and not use, except for purposes contemplated by this Contract, any and all information acquired in consequence of the Contract (including but not being limited to information relating to the Goods and/or the Services), except for information which they may be entitled or bound to disclose under compulsion of law or where requested by regulatory agencies or to their professional advisers where reasonably necessary for the performance of their professional services.
- 17.2 You shall not assign, sub-contract, transfer or in any other way deal in your rights or obligations under this Contract without our prior written consent. We shall be entitled to sub-contract the whole or any part of our rights or obligations under this Contract.
- 17.3 These Conditions and the Contract are governed by English Law and the parties agree to submit to the non-exclusive jurisdiction of the English Courts in the event of any dispute.
- 17.4 The headings in these Conditions are inserted for convenience only. They are not to affect their interpretation or construction.
- 17.5 If any provision of these Conditions is or becomes illegal or void for any reason, the validity of the remaining provisions shall not be affected.
- 17.6 These Conditions and the Contract or any part of them shall not be enforceable by any person who is not a party to them.
- 17.7 Failure by us to ensure you comply with these Conditions will not constitute a waiver of any of them
- The above Terms and Conditions of Sale are effective from February 2005.

123 **Terms & conditions** 













Autopa Manufacture in house in the UK and can manufacture a variety of products to individual specifications and bespoke products.

#### Customers include:

Wimpey Homes, Barratt Homes, Alfred McAlpine, Bowmer & Kirkland, B&Q, Tesco, Aldi, Honda, Audi, University of Cambridge, Prison Services, The Environment Agency, many NHS estates departments and Local Authorities and members of the public.

The technical data given in this publication are for general information purposes only. They imply no warranty of whatever kind.

Autopa reserve the right to change specifications when necessary.

Please consult General conditions of supply.

#### AUTOPA Ltd

AUTOPA is a registered trademark of Autopa Ltd VELOPA is a registered trademark of Autopa Ltd

Autopa Ltd., Cottage Leap, Rugby, Warwickshire. CV21 3XP Tel: +44 (0) 1788 550556 Fax: +44 (0) 1788 550265 e-mail: info@autopa.co.uk web: www.autopa.co.uk