

Safety, Control and Security

Protection Railings




Collision Protection



BLACK BULL MD Impact Protection System



* Max. force absorption. For details please request data sheets.

Description	Support Posts 1,000 x 70 x 70mm		
	End Post	Centre Post	Corner Post
			
Delivery weight (kg/ea.)	10	10.5	10.5
Powder coated	194.24.261	194.29.943	194.29.694
Typical despatch time (working days)		5 / 10 days	
Hot dip galvanised and powder coated	194.25.033	194.20.894	194.21.831
Typical despatch time (working days)		5 / 10 days	



This highly visible Medium Duty Railing System separates and protects machinery and pedestrian walkways from light duty vehicular traffic effectively and inexpensively. Ideal for protecting buildings, inventory and workspaces. It is easily and quickly installed with no protruding lugs or bolts.

Finish:

For Indoor use: Powder coated yellow.

For Outdoor use: Hot Dip Galvanised and Powder coated yellow.

Specifications:

Support posts: 3mm wall thickness with black cap.

Base plate: 140 x 160 x 10mm
(Drilled 4 fixing holes)

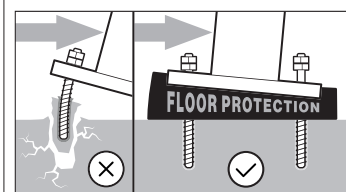
Lateral rails: 60 x 40mm with 3mm wall thickness

Under-run rail: 200 x 100 x 4 mm

Option:

Can also be supplied in our **FLEX** system (see page 30 for details).

- Indoor and Outdoor use
- Excellent build quality and strength
- Quickly and easily installed
- Modular construction for easy extension
- Highly visible
- TUV-tested according to DGUV 108-007



Fixings	Dimensions (mm)	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Surface fixing bolt S14 (4 per post)	10/100	0.2	109.17.393	1 / 2 days
Through bolt anchor (4 per post)	12/120	0.3	109.24.665	

Lateral Rails (mm) including fixing screws			
1,000	1,200	1,500	2,000
5	6	7	9
194.21.266	194.27.076	194.25.352	194.25.650
5 / 10 days			
194.29.126	194.27.265	194.27.828	194.29.847
5 / 10 days			

Dimensions (mm) H x D x WT	Under-run Guard (mm), Steel			
	800	1,080	1,380	1,880
200 x 100 x 4				
Delivery weight (kg/ea.)	9	11	13.5	17.5
Powder coated	194.20.522	194.24.463	194.23.061	194.20.550
Number of surface fixing bolts per length	4	4	5	5
Typical despatch time (working days)	5 / 10 days			

Protection Railings




Collision Protection



BLACK BULL HD Impact Protection Railing System



* Max. force absorption. For details please request data sheets.

Description	Support Posts 500 x 100 x 100 mm		
	End Post	Centre Post	Corner Post
			
Delivery weight (kg/ea.)	10	10.5	10.5
Powder coated	194.16.094	194.18.550	194.13.760
Typical despatch time (working days)			
Hot dip galvanised and powder coated	194.15.765	194.18.142	194.15.032
Typical despatch time (working days)			



This highly visible Heavy Duty Railing System separates and protects machinery and pedestrian walkways from fork lift and other vehicular traffic effectively both indoors and outdoors. Ideally suited for protecting buildings, equipment, machinery and workspaces from accidental damage. It is easily and quickly installed with no protruding lugs or bolts.

Surface treatment:

For Indoor use: Powder coated yellow.

For Outdoor use: Hot Dip Galvanised and Powder coated yellow.

Specifications:

Support posts: 3mm wall thickness.

Base plate: 200 x 200 x 10 mm (Drilled 4 fixing holes)

Lateral rails: 120 x 80 mm with 3 mm wall thickness

Option:

Can also be supplied in our **FLEX** system (see page 22 for details).








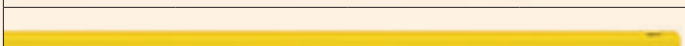


Under-run guards manufactured in 4 mm thick steel and powder coated yellow prevent forklift forks and pallet trucks from entering walkways. See page 19 for details.

- Indoor and Outdoor use
- Superior build quality and strength
- Quickly and easily installed
- Modular construction for customised applications
- Countersunk bolts secure rails to posts
- TUV-tested according to DGUV 108-007



Fixings	Dimensions (mm)	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Surface fixing bolt S12 (4 per post)	8/100	0.2	109.17.393	1 / 2 days
Through bolt anchor (4 per post)	12/120	0.3	109.24.665	

Support Posts 1,000 x 100 x 100 mm			Lateral Rails (mm) included fixing screws				Bollard (mm)
End Post	Centre Post	Corner Post	1,000	1,200	1,500	2,000	1,000 x 100 x 100
							
							
							
							
17	18	18	9.5	11.5	14	18	16
194.14.244	194.17.026	194.18.205	194.18.997	194.16.172	194.15.942	194.13.434	194.15.516
1 / 2 days							5 / 10 days
194.13.501	194.13.894	194.15.572	194.16.672	194.14.863	194.16.449	194.13.826	194.13.700
5 / 10 days							5 / 10 days

Protection Railings



- Indoor and Outdoor use
- UV resistant Polyurethane
- Deflects up to 10 degrees
- Quickly and easily installed
- Can be fitted retrospectively
- TUV-tested according to DGUV 108-007

BLACK BULL FLEX Impact Protection System



A unique and patented shock absorbing feature which is incorporated into the upright posts of the Railing Systems. This is achieved by the addition of a polyurethane pad which is UV, weather and temperature resistant. The pad enables the Guard Rails to deflect up to 10 degrees. This enables the railing system to absorb shocks and impacts whilst damage is reduced significantly and still protects pedestrians, machinery etc.

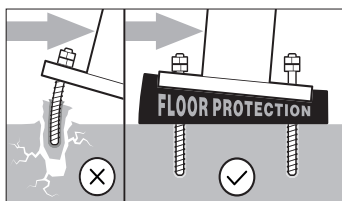


Reduces repairs and damage to floors.

Full information on posts and lateral rails can be found on pages 20–21.



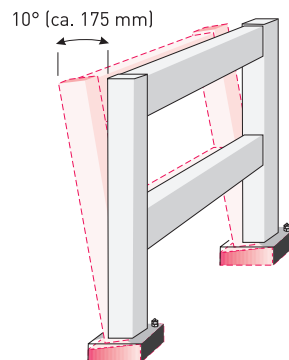
* Max. force absorption.
For details please request data sheets.



Maximum inclination:

Post height 540mm = 90mm deviation from vertical.
Post height 1,040 mm = 175mm deviation from vertical.

Installed using 4 chemi-anchors per post.



Shock absorbing pad

Dimension (mm) H x D x W	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
50 x 206 x 206	0.6	422.21.456	5 / 10 days

Chemical anchor set (Set of 8)

Dimension (mm) H x D x W	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
10/170	2.0	109.20.858	1 / 2 days



- Indoor use
- Quickly and easily installed
- Can be fitted retrospectively
- Manual and Self-closing versions



Collision Protection

BLACK BULL Railing Gate – Manual or Self-closing styles.

The **BLACK BULL Railing Gate** has been designed specifically for use with our MD and HD Railing Systems being identical for both systems with the exception of the fittings. The manual style gates are designed to fix to End Posts, Centre Posts or Corner Posts. The newly introduced self-closing gate has its own specifically designed installation post (see table).

Both styles can be hung either on the left-hand side or the right-hand side and can be opened up to 90° either inwards or outwards. This range of options ensures that the **BLACK BULL Railing Gate** range is even more versatile and will suit most applications.

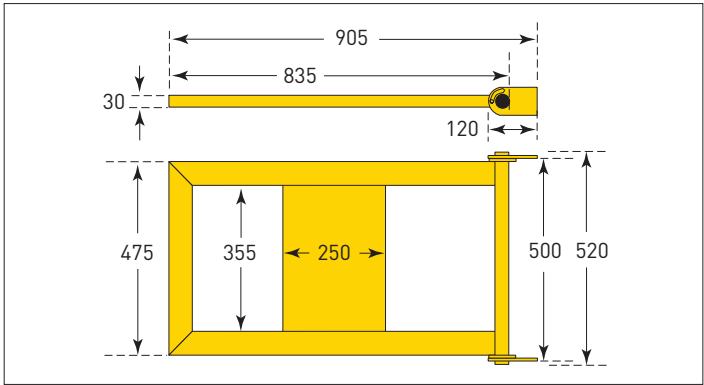
Manufactured from high quality steel with a welded protective panel for additional strength, better visibility and to which a warning sign can be attached if required. (Sign not supplied).

Two styles:

- For manual opening and closing. No need for special posts – gate fits all posts.
- Gas-spring powered self-closing action. Requires separate installation post (see table).

Specification:

- Gate size: 835 x 475 mm
O/all size: 905 x 520 mm
Frame profile: 60 x 30 mm
Wall thickness: 2 mm
Protective panel: 250 x 355 mm
Finish: Powder coated
Colour: Yellow:



Gate	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
HD – Manual	12	194.29.743	5 / 10 days
MD – Manual		194.20.653	
HD – Self closing	30	194.26.359	5 / 10 days
MD – Self closing		194.28.624	



Protection Railings

Collision Protection



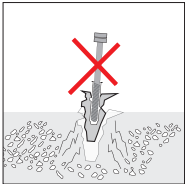
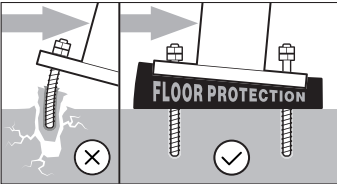
BLACK BULL FLEX Impact Protection System Hybrid



Description	Support Posts, Steel 1,040 x 100 x 100mm		
	End Post	Centre Post	Corner Post
Delivery weight (kg/ea.)	14	14	14
Powder coated	203.29.934	203.20.790	203.22.221
Typical despatch time (working days)	5 / 10 days		
Hot dip galvanised and powder coated	203.22.248	203.28.846	203.20.486
Typical despatch time (working days)	5 / 10 days		



* Due to the dynamic absorption effect an exact force absorption can only be determined to a limited extent. For details please request data sheet.



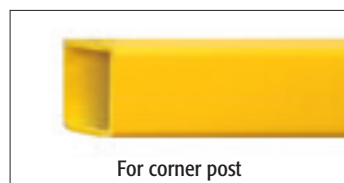


The **BLACK BULL FLEX HYBRID** System offers the best of both worlds – a practical combination of the advantages of steel and plastic.

Most plastic railings systems must have the posts secured with steel plates featuring welded studs. In short, to provide the required stability, the posts are fitted internally with steel components.

Our solution: A hybrid railing system that combines the advantages of steel with those of plastic, combining yielding steel posts with equally yielding PP plastic lateral rails.

The posts are equipped with our patented PU pads which allow the posts to deflect to a maximum angle of 10°



(approx. 17.5cm), and which reduce the forces that are transmitted through the post to the floor. Lateral rails are manufactured from a tough grade of Polypropylene (PP) which is highly resistant to impact stresses. The whole assembly protects personnel, vehicles and property and reduces the incidence of repair costs to floors.

The above factors result in an eye catching black and yellow heavy-duty railing system suitable for either indoor or outdoor installation.

Surface mounting only.

Specification:

Posts:

Material: Steel
Dimensions: 1,040 x 100 x 100 mm
Wall thickness: 3mm
Base plate: 200 x 200 x 10 mm
Finish: Internal – Powder coated
External – Hot Dip Galvanised and Powder coated.

Colour: Black

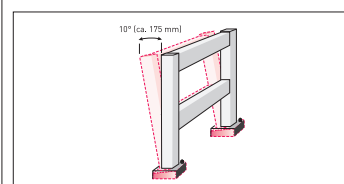
Lateral rails:

Material: Polypropylene (PP)
Dimensions: 74 x 52 x 5 mm
Lengths: 1,500, 2,000 and 2,300 mm





Colour: Yellow


Installed using 4 chemi-anchors per post.


- For Indoor and Outdoor use
- Steel and Plastic construction
- Superior heavy-duty design
- Modular construction for customised applications
- Quick and easy installation
- TUV-tested according to DGUV 108-007



Option: Steel under-run protection bar 76mm Ø x 86mm high.
Base plates 130 x 70 x 40mm.
Colour yellow.

Description	Lateral Rails, Polypropylene (mm)			
	1,000	1,500	2,000	2,300
				
Delivery weight (kg/ea.)	2,25	3	3.5	4
For End and Centre posts	203.22.870	203.27.147	203.21.049	203.26.648
Typical despatch time (working days)	5 / 10 days			
For Corner posts 45° bevel one side	203.28.997	203.29.688	203.21.999	203.20.533
Typical despatch time (working days)	5 / 10 days			

Fixing set			
Dimensions (mm) Ø x L	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
10/170	2.0	109.20.858	1 / 2 days

Description	Under-run protection bar – Steel		
	1,250mm	1,750mm	2,050mm
			
Delivery weight (kg/ea.)	10	13	16
Powder coated	203.29.159	203.21.033	203.20.865
Typical despatch time (working days)	5 / 10 days		
Hot dip galvanised and powder coated	203.24.056	203.27.061	203.29.733
Typical despatch time (working days)	5 / 10 days		
Fixing bolts per length	4	6	6

Fixing methods	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Surface fixing bolt S12 8/100, S. 36	0.2	109.17.393	1 / 2 days
Through bolt 12/120, S. 36	0.3	109.24.665	1 / 2 days

Protection Railings

BLACK BULL Railing Gate for hybrid railing system



The BLACK BULL Railing Gate has been designed specifically for use with the BLACK BULL Hybrid Railing System. Manufactured in high quality steel, the gate can be installed to hang either left-hand or right-hand side, and the unique hinge feature allows it to be opened either inwards or outwards up to 90°. It also features a welded panel for extra strength, better visibility, and can be used to feature a warning sign if required. (sign not supplied).

Two versions:

- **NEW:** Can be opened and closed manually.
- Self-closing by means of gas cylinder.

- For indoor installation only
- High quality steel construction
- Self-closing operation
- Warning sign panel

Specification:

Gate size:	835 x 475 mm
O/all Size:	905 x 520 mm
Frame profile:	60 x 30 mm
Wall Thickness:	2 mm
Protective panel:	250 x 355 mm
Finish:	Powder coated
Colour:	Gate Yellow Post Black



TRAFFIC-LINE Pallet Racking Protectors Plastic



Impact Protection for pallet racking uprights manufactured from high quality polyethylene. Easily and quickly secured by two Velcro straps – no drilling into the floor required.

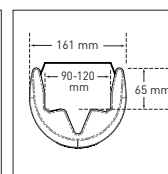
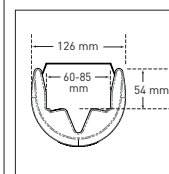
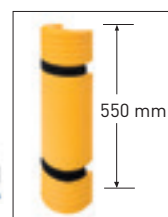
- For racking uprights 60 to 85mm and 90 to 120 mm.
- Fixing by Velcro tape.
- Protects floor from damage.
- Recyclable.

Dimensions (mm) 550 x 126 x 104 and 550 x 161 x 115.

- Flexible cushioning
- Dimensionally stable
- Installed without tools
- TUV approved
- Meets requirements of DIN EN 15512

Note:

According to DGUV Rule 108-007 (formerly BGR 234) plastic impact protection products associated with pallet racking uprights should not be used on corners or passageways. In this situation it is recommended to use steel protection bolted to the floor.



Gate	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Manual closing with installation post	32	203.25.471	5 / 10 days
Self-closing with installation post	30	203.29.398	

For racking upright dimensions	Dimensions (mm) H x W x D	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
60 – 85 mm	550 x 126 x 104	1	197.29.201	1 / 2 days
90 – 120 mm	550 x 161 x 115	1.5	197.22.285	5 / 10 days



- For indoor use only
- Semi rigid or flexing versions
- Absorbs impact forces
- High quality steel and polypropylene (PP)
- TUV-tested according to DGUV 108-007

Collision Protection



BLACK BULL Protection Barrier Individual Hybrid



The **BLACK BULL** Protection Barrier-Individual comprises two high quality steel posts and three polypropylene (PP) lateral rails which are produced in two versions to suit various installations:

- Rigid steel posts with polypropylene (PP) lateral rails.
- Steel posts with PU pads which allow for 175 mm maximum deflection with lateral rails in polypropylene (PP) material.

The first option allows for impact forces to be absorbed by the lateral rails, whilst the second option allows for impact

forces to be absorbed by the combination of the lateral rails, the posts and our unique PU pad thus reducing transfer of the impact forces to the floor which reduces cost of repairing the floor etc. The BLACK BULL Protection Barriers-Individual have been specifically designed to protect personnel in small vulnerable areas found in workplaces, walkways, entrance and exit areas etc.

Specification:

Posts for fixing direct to floor:

Dimensions: 1,000 x 100 x 100 mm

Posts with Flex-Pad:

Dimensions: 1,040 x 100 x 100 mm

Wall thickness: 3 mm

Base plate: 200 x 200 x 10 mm

Finish: Powder coated

Colour: Black

Lateral rails:

Material: Polypropylene (PP)

Dimensions: 74 x 52 x 5 mm Wall

Lengths: 1,100, 1,600 and 2,100

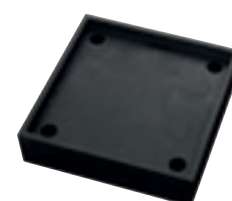
Colour: Yellow

Pad for full flexible version:

Material: Polyurethane (PU)

Size: 206 x 206 x 50 mm

Colour: Black



PU Shock absorber

Description	Dimensions (mm)		Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
	H x W (mm)	Assembled width (mm)			
Rigid without PU Flex-Pad	1,000 x 1,100	1,000	36	203.25.210	10 / 15 days
	1,000 x 1,600	1,500	37.5	203.20.990	
	1,000 x 2,100	2,000	38	203.21.654	
Through bolt anchor 12/120 (8 per barrier)			0.3	109.24.665	
Flexible style with PU Flex-Pad	1,040 x 1,100	1,000	36.5	203.27.069	10 / 15 days
	1,040 x 1,600	1,500	38	203.27.747	
	1,040 x 2,100	2,000	38.5	203.26.585	
Chem. Anchor Set 10/170 (1 Set per barrier)			2.0	109.20.858	




Protection Railings

Collision Protection



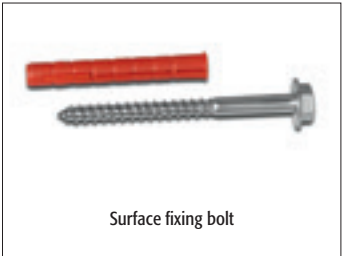
BLACK BULL Impact Guard Rails

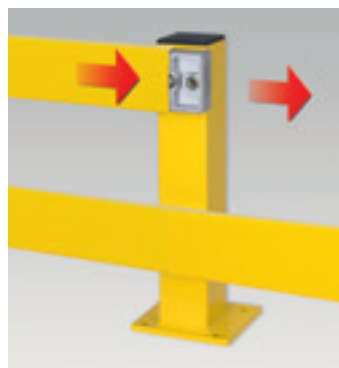


Description	Support Post
	
Delivery weight (kg/ea.)	9.5
Powder coated	198.22.571
Typical despatch time (working days)	
Hot dip galvanised and powder coated	198.27.574
Typical despatch time (working days)	



* Max. force absorption. For details please request data sheets.





- Indoor and Outdoor use
- High quality steel
- Strong 'C' section rails
- Quickly and easily installed
- Innovative assembly method
- TUV-tested according to DGUV 108-007

BLACK BULL Impact Guard Rails provide a most effective and efficient method of protecting property, machinery and plant from damage by moving traffic. Extremely resilient to collisions from vehicular traffic.

Innovative connection system enables assembly by one man. Modular construction ensures the system is very easily extended/modified.

Specifications:

Support post: 465 x 80 x 80 mm
3 mm Wall thickness
With Black cap

Base plate: 160 x 140 x 10 mm

Rails: 'C' Profile, 100 x 40 mm
3 mm Wall thickness

Finish:

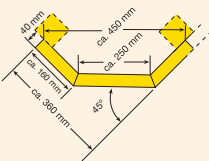
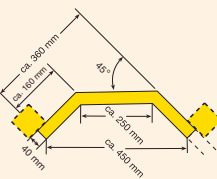

For Outdoor use: Hot Dip Galvanised and Powder coated yellow.

For Indoor use: Powder coated yellow.

Option: Hot Dip Galvanised only.

Fixed 90° external and internal corner rails or alternatively an adjustable knuckle is available for adjustment between 90° and 180°.



Rail C-profile 100 x 40 x 3mm				Angle rail External Corner	Angle rail Internal Corner	Adjustable Knuckle Variable 90° to 180°
1.000	1.200	1.500	2.000			
						
9	11	13.5	17.5	6	6	2
198.21.933	198.21.114	198.26.826	198.26.176	198.23.160	198.26.087	198.22.565
5 / 10 days						
198.23.147	198.23.683	198.22.929	198.20.197	198.24.064	198.26.165	–
5 / 10 days						

Accessories	Dimensions (mm)	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
End cap for rails, black		0.1	198.26.315	5 / 10 days
Mounting plates for rails, Alu, hot dip galvanised and powder coated		1.5	198.25.794	
Surface fixing bolt S12 – (4 per post)	8/100	0.2	109.17.393	1 / 2 days
Through bolt anchor (4 per post)	12/120	0.3	109.24.665	

Protection Railings



- Indoor and Outdoor use
- UV resistant Polyurethane
- Deflects up to 10 degrees
- Quickly and easily installed
- Can be fitted retrospectively
- TUV-tested according to DGUV 108-007

BLACK BULL FLEX Impact Guard Rails



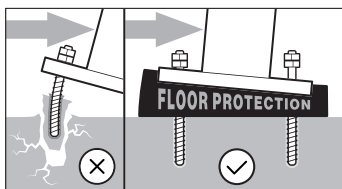
A unique shock absorbing feature which is incorporated into the upright posts of the Guard Rail System. This is achieved by the addition of a polyurethane pad which is UV, weather and temperature resistant. The pad enables the Guard Rails to deflect up to 10 degrees. This allows the railing system to absorb shocks and impacts whilst damage is reduced significantly.

Reduces repairs and damage to floors.

Full information on Guard Rails can be found on pages 28–29.



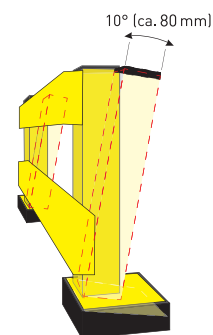
* Max. force absorption.
For details please request data sheets.



Maximum inclination:

Post height 505mm =
80mm deviation from vertical.

Installed using 4 chemi-anchors per post.
Can also be used with MD railings, see pages 20–21.



Shock absorbing pad for post

Dimension (mm) H x D x W	Delivery weight. (kg/ea.)	Reference	Typical despatch time (working days)
10/170	2.0	109.20.858	5 / 10 days

Chemical ancor set (Set of 8)

Dimension (mm) H x D x W	Delivery weight. (kg/ea.)	Reference	Typical despatch time (working days)
50 x 146 x 166	0.4	422.23.497	1 / 2 days



- Indoor use
- High quality steel tube
- Available in various lengths
- Individual elements or continuous length installations
- Integrated cable/hose conduit



BLACK BULL Raised Collision Protection Bars



This innovative Collision Protection system is ideal for separating traffic lanes and for protecting personnel, work areas, equipment and machinery etc.

The **BLACK BULL Raised Collision Bars** are manufactured in high quality thick walled steel tubes which are welded to metal uprights. These are then welded onto solid steel base plates 10mm thick. All metal work is powder coated yellow with black moulded plastic plugs inserted in the tube ends.

The Collision Bars are available in standard lengths which can, if required, be made into longer continuous lengths by means of connecting adapters. Please advise at time of ordering.

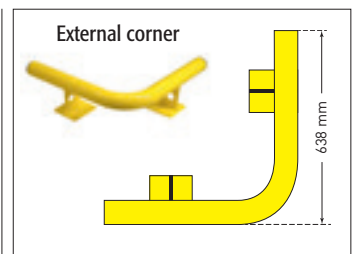
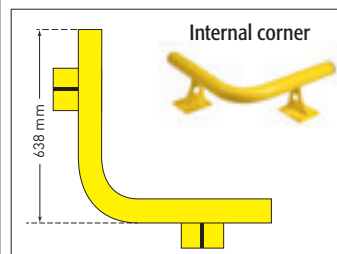
BLACK BULL Raised Collision Bars are secured to the floor with rawl plug bolts or through bolts. (Supplied separately).

A 50 mm Ø hole is drilled into each upright which provides a conduit for cables/airlines etc. up to 48 mm Ø.

Specification:

Diameter: 76 mm Ø
Wall thickness: 3 mm
O/all height: 200 mm
Base plate: 160 x 140 x 10 mm
Finish: Powder coated
Colour: Yellow

Available in special lengths (on request)



**Can be upgraded to FLEX version:
Max. yield angle 10°.**

Description		Number of bolts required	Dimensions (mm) H x L	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Raised Collision Bars		8	200 x 1,000 x 160	12.5	202.29.766	5 / 10 days
			200 x 1,500 x 160	15	202.24.306	
		12	200 x 2,000 x 160	20.5	202.27.522	
Corner element	External corner	8	200 x 638 x 638	12.5	202.27.943	
	Internal corner				202.24.284	
Connecting Adapter				0.5	202.29.983	1 / 2 days
End cap, black				0.1	202.20.854	
Surface fixing bolt S12				0.2	109.17.393	
Throughbolt anchor				0.3	109.24.665	

Bollards



- For Indoor and Outdoor use
- High quality steel
- Heavy duty protection
- Thick wall gauge
- Highly visible yellow and black marking



BLACK BULL Heavy Duty Bollards



* Max. force absorption.
For details please request data sheets.

A comprehensive range of Heavy Duty bollards with a wide range of protective capabilities, designed to meet most eventualities ranging from medium to extremely heavy impacts.

Produced in high quality steel, these bollards are highly suitable for protecting storage areas, traffic routes and work areas. They are also useful in protecting machinery, pillars, loading ramps and bays, entrances etc.

Types L to 3XL are particularly suitable for areas of high risk of collisions such as HGV and forklift traffic, driveways, corners of buildings etc. Type S is usually employed where space is restricted.

The Type S Bollard can also be fitted with our patented FLEX Pad. See page 22 for FLEX Pad details.

NEW: Heavy Duty Bollard size 323 mm Ø x 6.3 m wall thickness designed for extremely heavy impact resistance.

Type XXL and 3XL are equipped with a removable cap, which enables the bollard to be filled with concrete when installed in situ if required.

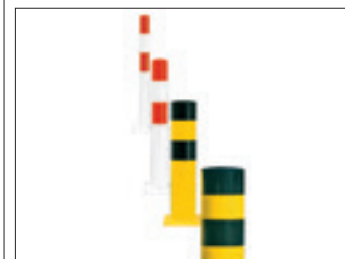
Finish:

Hot Dip Galvanised and powder coated yellow with black bands.

Hot Dip Galvanised and powder coated white with red bands.

Note:

We can also supply removable and/or lockable versions of the range by triangular key or cylinder lock. Bollards from type L upwards are supplied with lifting aid feature. Please ask for details (Except Type XXL and 3XL).

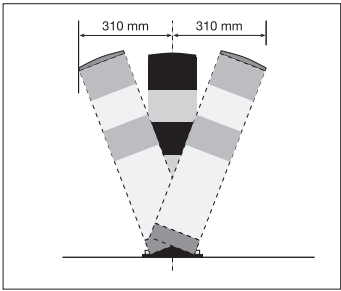
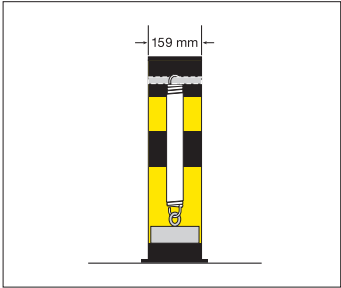


Model		Dimensions (mm) Ø x WT x height	Colour	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
S	Surface fix Base plate 200 x 200 x 10 mm	90 x 3.6 x 1,200	yellow-black	14.5	199.19.943*	1 / 2 days
			white-red		199.29.625*	5 / 10 days
	Root fix	90 x 3.6 x 1,600	yellow-black	16.5	199.17.454	1 / 2 days
			white-red		199.88.378	5 / 10 days
L	Surface fix Base plate 250 x 250 x 15 mm	159 x 4.5 x 1,200	yellow-black	33.5	199.16.549*	1 / 2 days
			white-red		199.88.077*	5 / 10 days
	Root fix	159 x 4.5 x 1,600	yellow-black	35.5	199.15.852	1 / 2 days
			white-red		199.88.026	5 / 10 days
XL	Surface fix Base plate 250 x 250 x 15 mm	194 x 4.5 x 1,200	yellow-black	42	199.15.151*	5 / 10 days
	Root fix	194 x 4.5 x 1,600		44	199.19.836	
XXL	Surface fix Base plate 350 x 350 x 15 mm	273 x 5.0 x 1,200		51	199.19.146*	
	Root fix	273 x 5.0 x 1,600		53	199.13.769	
3XL	Surface fix Base plate 450 x 450 x 15 mm	323 x 6.3 x 1,200		89.6	199.22.056	
	Root fix	323 x 6.3 x 1,600		85.5	199.24.742	
Surface fixing bolts for models S + L (4 per bollard)		14/110		0.2	109.18.268	1 / 2 days
Surface fixing bolts for models XL + XXL (4 per bollard), 3XL (8 per bollard)		16/140		0.3	109.14.550	



* TUV tested variant

BLACK BULL FLEX Heavy Duty Bollards



The “smart” protection bollard – yields up to 25° from centre when hit helping to reduce damage to bollard, vehicle and floor.
A combination of internal spring and an elastic polyurethane (PU) buffer effectively absorbs the impact force (progressive force absorption), and returns the bollard to original upright position. Ideal for the protection of high traffic areas, loading bays, site entrances etc.

Specifications:

- 159 mm Ø
- 4.5 Wall thickness
- Base plate: 270 mm Dia. x 10 mm



- For Indoor and Outdoor use
- High quality steel
- Heavy duty protection
- Flexes up to 25° and returns to the vertical
- Highly visible yellow and black marking

Finish:

- Indoor use: Powder coated yellow with black bands.
- Outdoor use: Hot Dip Galvanised & powder coated yellow with black bands.

Finish	Dimensions (mm) H x Ø	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Powder coated	665 x 159	18	199.23.867	5 / 10 days
Hot dip galvanised			199.28.165	
Powder coated	965 x 159	26	199.25.732	
Hot dip galvanised			199.27.906	

Root fixing adapter, Size 200 x 200 x 10mm, 76 Ø	5	199.25.395	1 / 2 days
Surface fixing bolt S12 (4 per bollard)	0.2	109.17.393	
Through bolt anchor (4 per bollard)	0.3	109.24.665	

BLACK BULL FLEX Heavy Duty Bollards, rotating



Utilising the same technology as the FLEX bollard but with the addition of six heavy duty ball-bearings housed in the bollards base, which enable the bollard to rotate freely on its heavy-duty steel base plate. This additional feature enables the bollard to flex and to rotate if impacted.

The result is that the bollard yields to frontal impacts, whilst lateral impacts are deflected by the rotational action, thus reducing costly damage to property and vehicles.



- Indoor use
- High quality steel
- Energy absorption
- Flexes and rotates
- Self-righting

Manufactured from high grade steel, the bollard flexes up to a maximum of 25° (approx. 310mm) from the vertical, then will return automatically to the up-right position.

Ideal for protecting roller shutters, fire gates, ramps, crossings etc.

Specifications:

- 159 mm Ø
- 4.5 mm Wall thickness
- Base plate: 270 mm Ø x 35 mm

Finish:

- Powder coated yellow with black bands.
- Standard fixing – Surface.
- Sub-surface fixing available.

Finish	Dimensions (mm) H x Ø	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Powder coated	700 x 159	36	199.22.128	5 / 10 days
	1,000 x 159	42	199.25.417	

Collision Protection

Hoop Guards



- Indoor and Outdoor use
- Additional reinforcing bar
- Four mounting options
- Various widths available
- Highly visible

TRAFFIC-LINE Steel Hoop Guards

Protect and segregate pedestrians, machinery and other zones from works vehicles etc.

Manufactured from 48 mm Ø high quality steel tube with additional knee-bar for additional strength and rigidity, and finished in eye catching black/yellow powder coating.

Finish :

For Outdoor use: Hot dip galvanised and powder coated yellow with black bands.

For Indoor use: Powder coated yellow with black bands.

Diameter:

48 mm Ø x 2 mm wall thickness.

Mounting options:

For surface fixing:

Base plate: 160 x 70 x 10 mm

For wall fixing (permanent):

2 x mounting plates with pre-drilled fixing holes.

For root fixing:

As per the details for permanent wall mounting, utilising welded mounting plates as ground anchors.

For wall fixing (removable):

2 x sockets with mounting plates pre-drilled fixing holes.

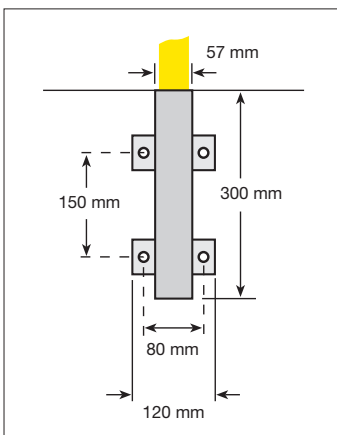
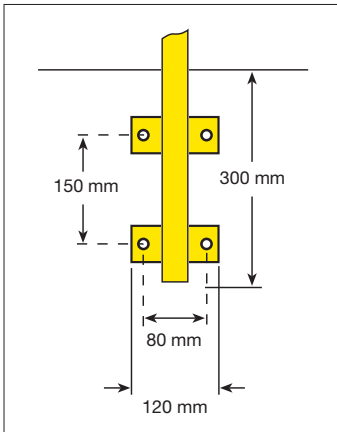
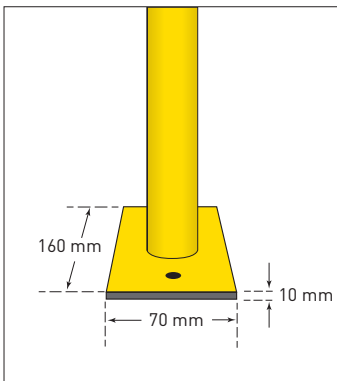
Additional options:

Galvanised only, special lengths and colours.

NEW:

Gate for Hoop Guards, see page 37.





Descripton	Height/length (mm)	Finish	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Floor mounting With mounting plates 160 x 70 x 10 mm Yellow with black bands	1,000 x 1,000	Powder coated	10	201.14.228	1 / 2 days
		Hot dip galvanised and Powder coated		201.15.512	
	1,000 x 1,500	Powder coated	12.5	201.15.794	
		Hot dip galvanised and Powder coated		201.17.982	
	1,000 x 2,000	Powder coated	15	201.14.465	
		Hot dip galvanised and Powder coated		201.13.553	
Through bolt anchor (4 per bollard)			0.3	109.24.665	
Surface fixing bolt S12 8/100 (4 per guard)			0.2	109.17.393	
Wall or roof fixing Yellow with black bands	1,300 x 1,000	Powder coated	10.5	201.23.846	5 / 10 days
		Hot dip galvanised and Powder coated		201.23.287	
	1,300 x 1,500	Powder coated	13	201.21.475	
		Hot dip galvanised and Powder coated		201.27.174	
	1,300 x 2,000	Powder coated	15.5	201.20.276	
		Hot dip galvanised and Powder coated		201.24.456	
Through bolt anchor (4 per bollard)			0.3	109.24.665	
Surface fixing bolt S12 8/100 (4 per guard)			0.2	109.17.393	
Wall or roof fixing (Removable) Yellow with black bands	1,300 x 1,000	Powder coated	10.5	201.25.003	5 / 10 days
		Hot dip galvanised and Powder coated		201.20.059	
	1,300 x 1,500	Powder coated	13	201.22.243	
		Hot dip galvanised and Powder coated		201.27.829	
	1,300 x 2,000	Powder coated	15.5	201.21.658	
		Hot dip galvanised and Powder coated		201.21.335	
Wall socket (2 per guard) 120 W x 300 H		Hot dip galvanised	2.5	201.27.454	
Through bolt anchor (4 per bollard)			0.3	109.24.665	5 / 10 days
Surface fixing bolt S12 8/100 (4 per guard)			0.2	109.17.393	1 / 2 days

Hoop Guards



- For indoor and outdoor use
- With knee bar
- High Quality



TRAFFIC-LINE Steel Hoop Guards – XL

NEW!

Manufactured from High Quality steel in 60 mm Ø tube with additional knee bar for extra strength and rigidity, these Hoop Guards are ideal for many applications such as delineation of danger zones, highlighting and guidance in situations that allow access onto trafficked areas etc. Ideal for indoor and outdoor use.

Finish:

- For Outdoor use: Hot Dip Galvanised
Hot Dip Galvanised and Powder coated white with red reflective bands
Hot Dip Galvanised and Powder coated yellow with black bands

- For indoor use:
Powder coated white with red reflective bands
Powder coated yellow with black bands

Diameter:

60 mm Ø x 2 mm wall thickness

Mounting options:

- Surface fixing:
Base plate: 160 x 70 x 10mm

- Root fix

Option: Removeable with one-sided triangular lock see page 140.

For version with gate see page 37.

			Hot Dip Galvanised	White-red Powder coated	Yellow-black Powder coated	Hot Dip Galvanised and white-red Powder coated	Hot Dip Galvanised and yellow-black Powder coated	Typical despatch time (working days)
Description	Height/length (mm)	Delivery weight (kg/ea.)	Reference	Reference	Reference	Reference	Reference	
Surface fix	1,000 x 1,000	16.5	201.29.045	201.28.374	201.23.679	201.25.647	201.27.967	5 / 10 days
	1,000 x 1,500	20.5	201.24.773	201.22.862	201.25.753	201.23.395	201.27.231	
	1,000 x 2,000	24.5	201.23.416	201.23.326	201.27.286	201.27.952	201.26.905	
Root fix	1,300 x 1,000	17.1	201.26.314	201.28.501	201.22.774	201.26.078	201.26.520	
	1,300 x 1,500	21.2	201.21.606	201.29.033	201.24.601	201.26.437	201.25.180	
	1,300 x 2,000	25.4	201.25.741	201.23.765	201.24.544	201.24.995	201.25.661	
Through bolt 12/120 (4 per Unit)							109.24.665	1 / 2 days
Surface fixing bolt with Sleeve 8/100 (4 per Unit)							109.17.393	



TRAFFIC-LINE Steel Hoop Guard *with Gate*



Designed specifically for use with TRAFFIC-LINE Steel Hoop Guards and Steel Hoop Guards XL, these gates are manufactured in high quality steel complete with welded in panel for extra strength which can be used for attaching warning signs (signs not supplied).

The gate is attached to either the 48 mm or 60 mm Ø Hoop Guard by a pre-assembled adapter bracket. The gate can be operated either manually or self-closing by means of a gas cylinder. The unique fitting technology enables the gate to hinge to either the left or to the right and allow the gate to open (90°) inwards or outwards. Supplied with a 1 metre wide Hoop Guard.

Finish:

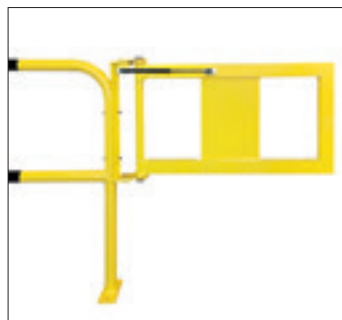
Powder coated yellow.

- Indoor use only
- For 48 and 60 mm Ø Hoop Guards
- Manual and Self-closing options

Option:

Can be retrofitted to existing installations.

For gate dimensions see page 23.



TRAFFIC-LINE Steel Hoop Guards – *Light Duty*



Collision Protection

These additions to our popular range of Hoop Guards are manufactured in 40mmØ steel with a 1.5mm wall thickness. Ideal for areas which require less heavy protection as provided by our standard range of Hoop Guards. Intended for indoor use only they are finished in an eye-catching powder coated yellow with black bands. Quickly and easily installed using 8 fixing bolts per guard.

Ideal for use in segregating work zones in factories and warehouses etc.

Finish:
Indoor use only:
Powder coated yellow with black bands.

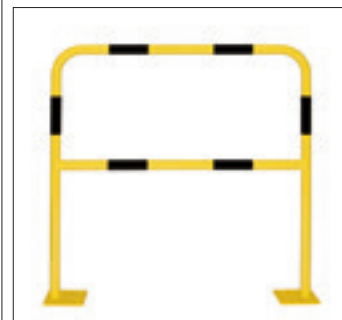
Diameter:
40mm Ø x 1.5mm wall thickness.

- Indoor use only
- Available in various widths
- With reinforcing bar
- Cost effective

Mounting method:

For surface fixing:

Base plate 150 x 150 x 6 mm.



	Gate	Dimensions (mm) Ø x Height x Width	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Gate-powder coated with pre-assembled adapter for fitting to hoop guard	Manual	48 x 1,000 x 1,920	22.5	201.22.589	5 / 10 days
		60 x 1,000 x 1,920	28	201.25.603	
	Self-closing with gas cylinder	48 x 1,000 x 1,920	22.5	201.21.134	
		60 x 1,000 x 1,920	28	201.28.583	
Through bolt 12/120 (4 per Unit)				109.24.665	1 / 2 days
Surface fixing bolt with Sleeve 8/100 (4 per Unit)				109.17.393	

Description	Height/length (mm)	Delivery weight. (kg/ea.)	Reference	Typical despatch time (working days)
Floor mounting With mounting plates 150 x 150 x 6 mm	1,000 x 1,000	9	201.24.623	1 / 2 days
	1,000 x 1,500	11	201.28.976	
	1,000 x 2,000	13	201.25.587	5 / 10 days
Through bolt anchor (4 per bollard)			109.24.665	1 / 2 days
Surface fixing bolt S12 8/100 (4 per guard)			109.17.393	

Hoop Guards



- For Indoor and Outdoor use
- High quality steel
- High impact resistance
- Highly visible yellow/black markings
- Easily installed
- TUV-tested according to DGUV 108-007

BLACK BULL Protection Guards



Manufactured from seamless high quality tube, these guards are bent as one piece to provide strong and effective collision protection in vehicle routes, work and inventory areas. They can be used for separating vehicle and pedestrian routes, protect machinery, pillars, racking, loading ramps etc.

Specification:

76 mm Ø x 3 mm Wall

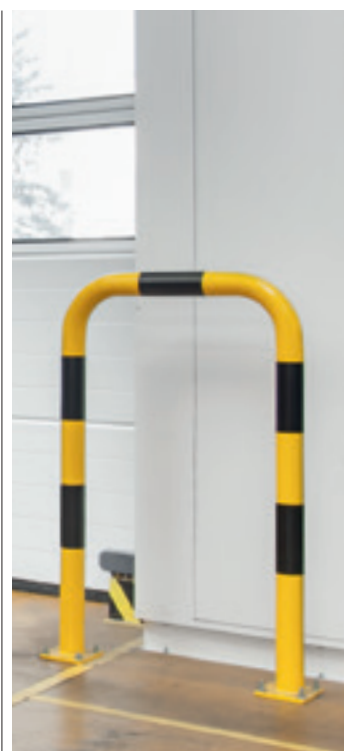
Base Plate: 160 x 140 x 10 mm

(Drilled 4 fixing holes)



* Max. force absorption.
For details please request data sheets.

Powder coated				
Description	Height/length (mm)	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Yellow with base plate	350 x 375	10	195.15.621	5 / 10 days
Yellow/black bands with base plate	350 x 750	12	195.14.450	1 / 2 days
	350 x 1,000	13	195.14.589	
	350 x 2,000	17	195.29.703	5 / 10 days
	600 x 750	14	195.18.515	1 / 2 days
	600 x 1,000	16	195.18.943	
	600 x 2,000	19	195.23.098	5 / 10 days
	1,200 x 750	20	195.19.573	1 / 2 days
	1,200 x 1,000	22	195.17.903	
	1,200 x 2,000	25.5	195.21.170	5 / 10 days
Through bolt anchor size 12/120 (8 per guard)		0.3	109.24.665	1 / 2 days
Surface fixing bolt size 8/100 (8 per guard)		0.2	109.17.393	



Finish:

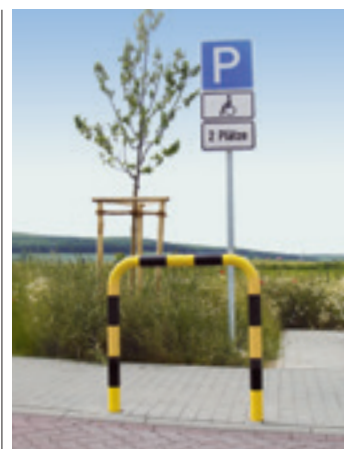
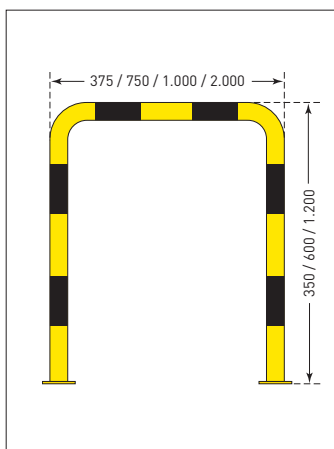
Indoor use: Powder coated yellow with black bands.

Outdoor use: Hot Dip Galvanised and powder coated yellow with black bands.

Root-fix versions, special sizes and colours can be manufactured to order. Please ask for details.

Option:

Sub-Surface adapter plates.



Hot dip galvanised and powder coated				
Description	Height/length (mm)	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Yellow with base plate	350 x 375	10	195.18.233	5 / 10 days
Yellow/black bands with base plate	350 x 750	12	195.16.265	1 / 2 days
	350 x 1,000	13	195.13.499	
	350 x 2,000	17	195.22.846	5 / 10 days
	600 x 750	14	195.17.623	1 / 2 days
	600 x 1,000	16	195.19.157	
	600 x 2,000	19	195.28.325	5 / 10 days
	1,200 x 750	20	195.17.296	1 / 2 days
	1,200 x 1,000	22	195.18.822	
	1,200 x 2,000	25.5	195.28.003	5 / 10 days
Sub-surface adapter plate including bolts	160 x 140 x 10 mm Length: 330 mm	4	195.28.577	1 / 2 days
Through bolt anchor size 12/120 (8 per guard)		0.3	109.24.665	
Surface fixing bolt size 8/100 (8 per guard)		0.2	109.17.393	

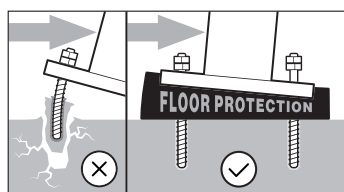
Hoop Guards



- For Indoor and Outdoor use
- High quality steel
- Shock absorbing features
- UV and temperature resistant pads
- Highly visible yellow and black marking
- TUV-tested according to DGUV 108-007



BLACK BULL FLEX Protection Guards



A unique and patented development of our standard **BLACK BULL** Protection Guards that features the strength and protective attributes of steel combined with the ability to flex up to 10° from the vertical, reducing the incidence of damage and the need for repairs to both guard and vehicle. This is achieved by equipping the guard with flexible shock absorbing polyurethane (PU) pads. These pads are UV, weather and temperature resistant, making them suitable for indoor and outdoor use.

- Flexible and yielding guard
- Flexes up to 10° from vertical
- Minimises damage to vehicles
- Reduces damage to floor

Specifications:

76 mm Ø x 3.0 mm Wall

Base Plate: 160 x 140 x 10 mm
(Drilled 4 fixing holes)

Finish:

Indoor use: Powder coated yellow with black bands.

Outdoor use: Hot Dip Galvanised and powder coated yellow with black bands.

Maximum inclination limits:

Height	Inclination
390 mm	55 mm
640 mm	95 mm
1,240 mm	190 mm



Upgradeable:

Existing **BLACK BULL** 76mm Ø Protection Guard installations can be upgraded. New chemi-anchor fixings will be required.



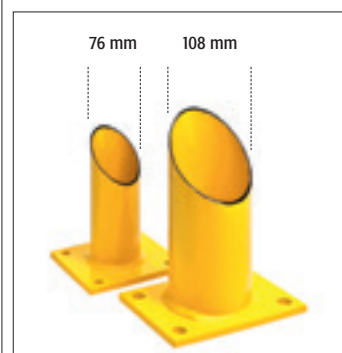
Powder coated				
Colour	Dimension (mm) H x W	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Yellow	390 x 375	10.6	196.21.558	5 / 10 days
Yellow with black bands	390 x 750	12.6	196.23.927	1 / 2 days
	390 x 1,000	13.6	196.20.479	
	390 x 2,000	17.6	196.23.138	5 / 10 days
	640 x 750	14.6	196.27.339	1 / 2 days
	640 x 1,000	16.6	196.29.617	
	640 x 2,000	19.6	196.28.884	5 / 10 days
	1,240 x 750	20.6	196.21.978	1 / 2 days
	1,240 x 1,000	22.6	196.21.739	
	1,240 x 2,000	26.1	196.27.054	5 / 10 days

Hot dip galvanised and powder coated				
Colour	Dimension (mm) H x W	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Yellow	390 x 375	10.6	196.24.195	5 / 10 days
Yellow with black bands	390 x 750	12.6	196.28.870	1 / 2 days
	390 x 1,000	13.6	196.28.678	
	390 x 2,000	17.6	196.29.639	5 / 10 days
	640 x 750	14.6	196.26.638	1 / 2 days
	640 x 1,000	16.6	196.21.658	
	640 x 2,000	19.6	196.20.921	5 / 10 days
	1,240 x 750	20.6	196.23.976	1 / 2 days
	1,240 x 1,000	22.6	196.29.532	
	1,240 x 2,000	26.1	196.22.922	5 / 10 days

Chemical anchors (Set of 8)	10/170	2.0	109.20.858	1 / 2 days
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- For Indoor and Outdoor use
- High quality steel
- Extremely strong protection
- Highly visible yellow and black marking
- TUV-tested according to DGUV 108-007



BLACK BULL Protection Guards XL



* Max. force absorption.

For details please request data sheets.

The **BLACK BULL** Protection Guards XL provide heavy duty protection to important and sensitive facilities in both indoor and outdoor situations.

Manufactured in high quality seamless tube it is highly suitable to protect columns, pillars, pipes, building structures, machinery and plant etc.

Specifications:

108 mm Ø x 3.6 mm Wall

Base Plate: 200 x 140 x 10 mm
(Drilled 4 fixing holes)

Finish:

Indoor use: Powder coated yellow with black bands.

Outdoor use: Hot Dip Galvanised and powder coated yellow with black bands.

Root-fix versions, special sizes and colours can be manufactured to order. Please ask for details.



Powder coated				
Colour	Dimensions (mm) H x W	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Yellow with base plate	600 x 650	17.5	195.23.294	15 / 20 days
Yellow/black bands with base plate	600 x 1,000	22	195.20.048	
	600 x 1,500	27.5	195.28.885	
	600 x 2,000	33.5	195.22.648	
	1,200 x 650	31	195.26.829	
	1,200 x 1,000	35	195.23.519	
	1,200 x 1,500	40.5	195.25.036	
	1,200 x 2,000	46.5	195.23.300	

Hot dip galvanised and powder coated				
Colour	Dimensions (mm) H x W	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Yellow with base plate	600 x 650	17.5	195.22.231	15 / 20 days
Yellow/black bands with base plate	600 x 1,000	22	195.23.338	
	600 x 1,500	27.5	195.28.652	
	600 x 2,000	33.5	195.20.481	
	1,200 x 650	31	195.27.565	
	1,200 x 1,000	35	195.26.554	
	1,200 x 1,500	40.5	195.26.278	
	1,200 x 2,000	46.5	195.28.961	

Surface fixing bolt (8 per guard)	16/140	0.3	109.14.550	1 / 2 days
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Hoop Guards

BLACK BULL

Protection Guards – Removable



Use **BLACK BULL** Removable Protection Guards wherever access is required from time to time to plant and machinery. These guards eliminate time consuming operations in removing permanently fixed Protection Guards

Specifications:

76 mm Ø x 3 mm Wall

Base Plate: 160 x 140 x 15 mm

(Drilled 4 fixing holes)

The **BLACK BULL** Removable Protection Guards are easily installed by means of the anchor plates which are secured to the floor with anchor bolts (4 per plate & available at extra cost), position the legs of the guard into the holes in the plates,

- For Indoor use
- High quality steel
- Strong effective protection
- Protect portable machinery and plant
- Highly visible yellow/black markings
- Quickly and easily installed

slide the flanges under the lip and secure with screws provided. Cover plates are provided to reduce the ingress of dirt etc.

Finish:

Indoor use: Powder coated yellow with black bands.



BLACK BULL

Protection Guards – with Under-run Protection



BLACK BULL Protection Guards – with Under-run Protection are to the same design and material specification as our **BLACK BULL** Protection Guards but with a 4 mm Gauge steel plate integrated into the hoop, designed to prevent fork-lift truck forks damaging property and personnel.

Particularly effective in applications such as in warehouses, distribution depots, storage areas etc.

Size:

76 mm Ø x 3 mm Wall

Base Plate: 160 x 140 x 10 mm

(Drilled 4 fixing holes)

Under-run plate heights:

150mm and 400mm

- For Indoor use
- High quality steel
- Strong effective protection
- Highly visible yellow/black markings
- Easily installed

Finish:

Indoor use: Powder coated yellow with black bands.

Root-fix versions, special sizes and colours can be manufactured to order. Please ask for details.



Dimensions (mm) H x W	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
350 x 750	12.5	196.15.471	5 / 10 days
350 x 1,000	13.5	196.17.299	
600 x 750	14.5	196.17.689	
600 x 1,000	16.5	196.19.365	
Surface fixing bolt S12 (8 per guard)	0.2	109.17.393	1 / 2 days
Through bolt anchor (8 per guard)	0.3	109.24.665	

Height of underrun protection plate (mm)	Dimensions (mm) H x W x D	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
150	350 x 750	14.5	196.16.857	5 / 10 days
	350 x 1,000	17.5	196.15.132	
400	600 x 750	24	196.17.125	
	600 x 1,000	29	196.17.619	
Surface fixing bolt S12 (8 per Guard)		0.2	109.17.393	1 / 2 days
Through bolt anchor (8 per Guard)		0.3	109.24.665	



- For Indoor and Outdoor use
- High quality steel
- Protects corners
- Withstands heavy impact forces

BLACK BULL Corner Protection Guards



Designed for protecting corners the **BLACK BULL** Corner Protection Guards manufactured in high quality 76mmØ seamless steel tube ensures a high degree of protection for vulnerable corners on vehicle routes, warehouses, production units etc. matching in with our **BLACK BULL** Protection Guards.

Specification:

76mm Ø x 3mm Wall

Base Plate: 160 x 140 x 10mm
(Drilled 4 fixing holes).

Finish:

Indoor use: Powder coated yellow with black bands, Powder coated white with red bands.

Outdoor use: Hot Dip Galv., powder coated yellow with black bands, Hot Dip Galv., powder coated white with red bands.

Root-fix versions, special sizes and colours can be manufactured to order. Please ask for details.



			Powder coated		Hot dip galvanised and powder coated	
Size (mm) H x W x D	Delivery weight (kg/ea.)	Colour	Reference	Typical despatch time (working days)	Reference	Typical despatch time (working days)
350 x 600 x 600	20	yellow-black	195.13.241	5 / 10 days	195.14.708	5 / 10 days
		red-white	195.28.711		195.24.042	
600 x 600 x 600	24	yellow-black	195.14.637		195.17.083	
		red-white	195.27.199		195.28.676	
1,200 x 600 x 600	34	yellow-black	195.17.512		195.13.874	
		red-white	195.27.817		195.20.484	
Through bolt anchor (12 per guard)					109.24.665	1 / 2 days
Surface fixing bolt S12 (12 per guard)					109.17.393	

Hoop Guards

BLACK BULL

Corner Protection Guards – with Under-run Protection



BLACK BULL Corner Protection Guards – with Under-run Protection are to the same design and material specification as our **BLACK BULL** Protection Guards but with a 4mm Gauge steel plate integrated into the hoop, designed to prevent fork-lift truck forks damaging property and personnel.

Particularly effective in applications such as in warehouses, distribution depots, storage areas etc.

Size:

76 mm Ø x 3 mm Wall

Base Plate: 160 x 140 x 10 mm
(Drilled 4 fixing holes)

Under-run plate heights:

150mm and 400 mm

Finish:

Indoor use: Powder coated yellow with black bands.

- For Indoor use
- High quality steel
- Strong effective protection
- Highly visible yellow/black markings
- Easily installed

Root-fix versions, special sizes and colours can be manufactured to order. Please ask for details.



BLACK BULL

Height of underrun protection plate (mm)	Dimensions (mm) H x W x D	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
150	350 x 600 x 600	22	196.22.305	5 / 10 days
400	600 x 600 x 600	34	196.27.835	
Surface fixing bolt S12 (12 per Corner Guard)		0.2	109.17.393	
Through bolt anchor (12 per Corner Guard)		0.3	109.24.665	

BLACK BULL

Corner Protection Guards XL



The **BLACK BULL** Corner Guards XL provide heavy duty protection for important and sensitive facilities such as areas of damage to building fabric, sensitive machinery and plant, heavy duty protection in traffic aisles in warehouses and logistics depots.

- For Indoor and Outdoor use
- High quality steel
- Extremely strong protection
- Highly visible yellow and black marking

Specifications:

108 mm Ø x 3.6 mm Wall.

Base Plate: 200 x 140 x 10 mm.
(Drilled 4 fixing holes)

Root-fix versions, special sizes and colours can be manufactured to order.

Please ask for details.

Finish:

Indoor use: Powder coated yellow with black bands.

Outdoor use: Hot Dip Galvanised and powder coated yellow with black bands.



BLACK BULL

Finish	Dimensions (mm) H x W x D	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Powder coated	600 x 900 x 900	42	195.23.857	15 / 20 days
Hot dip galvanised and powder coated			195.27.689	
Powder coated	1.200 x 900 x 900	55	195.27.431	
Hot dip galvanised and powder coated			195.23.796	
Surface fixing bolt S14 (12 per guard)		0.4	109.14.550	1 / 2 days



- For Indoor use only
- High quality steel
- Easily and quickly installed
- Low profile design
- Highly visible yellow and black marking

BLACK BULL Collision Protection Bars



BLACK BULL Collision Protection Bars provide low cost protection for plant and machinery from forklift trucks, roller containers, trolleys, pallet trucks etc. Additionally they can be used to protect shelving and wall mounted equipment such as instruments, switch cabinets, first aid equipment etc. Due to their low profile they allow easy pedestrian access to protected areas.

Manufactured from high quality seamless steel tube with 45° tapered ends and strong fixing plates 10mm thick.

Specifications:

76 mm Ø
3 mm wall thickness
Base plate: 130 x 70 x 10 mm

Finish:

Powder coated yellow with black bands.

Also available is a corner protection guard to the same high standards as the Collision Bars above.

Note:

We can supply special lengths and versions for root-fixing on request.

4 fixings required per straight bar.
6 fixings required per corner bar.



Description	Fixing bolts required per protector	Height/length (mm)	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Collision Protection Bars	4	86 x 400	5	199.13.478	1 / 2 days
		86 x 800	7.5	199.19.220	
		86 x 1,200	10	199.14.143	
Corner Collision Protection Bars	6	86 x 638 x 638	11	199.22.677	5 / 10 days
Through bolt anchor			0.3	109.24.665	1 / 2 days
Surface fixing bolt S12			0.2	109.17.393	

Machine and Rack Protection



- For Indoor use
- High quality steel
- Virtually indestructible
- Differing heights
- TUV-tested according to DGUV 108-007



BLACK BULL Pallet Racking Protectors Steel



Pallet racking protectors are required for fixed racking installations where industrial trucks are used (except where they are guided by rails). **BLACK BULL** Pallet Racking Protectors provide the ideal solution in most situations. They can also be used to protect machinery, partition systems, rectangular columns etc.

Conform to standards BGR 234 and DIN 4844.

Variants:

Right-angle: Two way protection.
U-profile: Three way protection.

Surface treatment:

Powder coated yellow with black striping.

Note:

According to DIN EN 15512 the minimum required height of pallet racking protectors is 400mm.

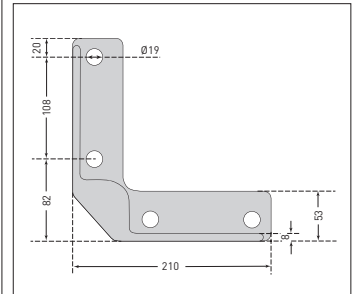


Description	Fixing bolts required per protector	Dimensions (mm) Height x W x Wall	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Right-angle 400	4	400 x 160 x 5	8	197.15.928	1 / 2 days
		400 x 160 x 6	9	197.13.182	
Right-angle 800		800 x 160 x 6	16	197.14.605	
Right-angle 1,200		1,200 x 160 x 6	22	197.18.380	
U-Profile 400	6	400 x 160 x 5	10	197.28.897	5 / 10 days
		400 x 160 x 6	11	197.18.365	
U-Profile 800		800 x 160 x 6	20	197.28.189	
U-Profile 1,200		1,200 x 160 x 6	26	197.88.004	
Surface fixing bolt S14			0.2	109.17.393	1 / 2 days
Through bolt			0.3	109.24.665	





- For indoor use
- Protects the floor
- Heavy-duty barrier
- High energy absorption
- TUV-tested according to DGUV 108-007



BLACK BULL FLEX Pallet Racking Protector



Extremely sturdy, high-impact pallet racking protectors manufactured in high quality steel, equipped with energy absorption element moulded in polyurethane. The strong PU element with lateral protective edges absorbs impacts and protects the floor from damage. The black energy absorption PU element is UV-resistant and permanently elastic. Uses include logistics depots, warehouses, manufacturing units etc.

- Minimises damage from collision
- Absorption pad UV-resistant and permanently elastic
- Yields up to. 45 mm approx.
- Yield angle: 6.5°

Easily installed:

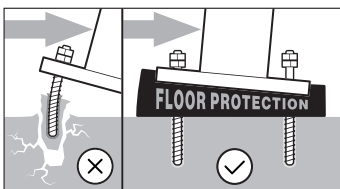
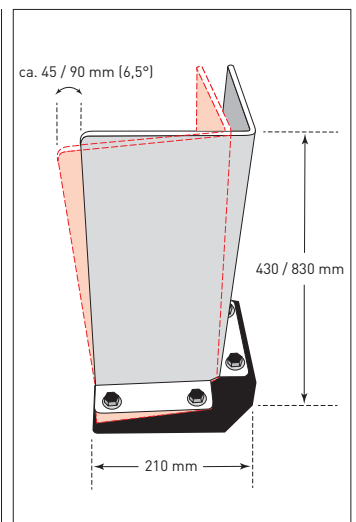
Position and align the collision pallet racking protector together with the 30 mm high energy absorption element (total height 430/830 mm), and bolt them to the floor using chemical fixing kit ref 109.20.858

Surface treatment:

Powder coated yellow with black striping

Upgrading options:

Already installed **BLACK BULL** right angle pallet racking protectors can be upgraded with PU elements; requires new anchoring with chemical fixing kit 109.20.858



Description	Fixing bolts required per protector	Dimensions (mm) H x W x WT	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Right-angle 400	4	430 x 160 x 5	8.5	197.25.180	5 / 10 days
Right-angle 800		830 x 160 x 6	16.5	197.25.566	



Fixing set			
Dimensions (mm) Ø x L	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
10/170	2	109.20.858	1 / 2 days

Machine and Rack Protection

BLACK BULL Pallet Racking Protectors – with Guide Rollers



Pallet racking protectors which include rollers to facilitate pallet placement to and from floor level locations. The incorporation of rollers helps to dampen shock and vibration which can occur when pallets are being located. They are most suitable for use in warehouses, distribution depots, manufacturing units etc.

Specifications:

Material: Steel

Roller material: Polyamid

Roller Dimensions:

110mm High

75mm from bottom edge of roller to floor.

Variants:

Right-angle and 'U' profiles.

Finish:

Indoor use: Powder coated yellow with black stripes.



- For Indoor use
- Highly visible colours
- Easily installed
- Virtually indestructible
- Guide roller(s) incorporated



Description	Dimensions (mm) Height/Width/Gauge	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Right-angle Fixing bolt = 4	400 x 160 x 6	9	197.22.542	1 / 2 days
U-Profile Rawl bolt = 6	400 x 160 x 6	12	197.22.021	
Rawl bolt S12		0.2	109.17.393	1 / 2 days
Surface fixing bolt S12		0.3	109.24.665	

BLACK BULL Sliding Door Protection Guards



Frequently fire doors, access doors and gates are damaged or impeded by pallets, boxes etc. with obvious consequences, especially in the case of sliding fire doors. **BLACK BULL** Sliding Door Protectors provide the right level of protection to prevent such occurrences.

Manufactured from 6 and 10mm Gauge steel these protectors are immensely strong and can withstand substantial collisions, prevent expensive repairs and ensure that vital fire doors operate correctly without being impeded.

Finish:

Indoor use: Powder coated yellow.

- For Indoor use
- Strong steel protection
- Radius corners with 45° angled ends
- Ensure full operation of fire doors etc
- Highly visible yellow coating



Dimensions (mm) H x L x D	Gauge (mm)	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
150 x 800 x 100 Anchor holes = 5	6	10.5	197.24.121	5 / 10 days
	10	16	197.17.683	
150 x 1,200 x 100 Anchor holes = 7	6	14.5	197.29.576	
	10	24	197.13.775	
Surface fixing bolt S12		0.2	109.17.393	1/2 days
Through bolt anchor		0.3	109.24.665	



- Indoor use
- High quality steel
- Strong 'C' section rails
- Quickly and easily installed
- Adjusts to all frame widths

BLACK BULL Racking End Frame Protectors A *Adjustable*



Protect vulnerable Racking End Frames from potentially hazardous damage from forklift trucks or other vehicles.

These strong adjustable protectors are easily installed and adjusted to your particular racking widths, simply select the width combination to suit the racking width from the options listed below.

Finish:

Powder coated yellow with black striping.

Easily installed:

Bolt down support posts and clamp 'C' profile rails to posts using supplied clamps and adjust to desired width and tighten.

Attach the protective end covers (350 x 300mm) to the 'C' profile rail ends and damp to the desired position.

Dimensions (mm):

All sets:

Support posts: 465 H x 80 x 80 Square
Anchor plates: 160 D x 140 W x 10 gauge
'C' Rails: 100 D x 40 W x 3mm gauge



Set A 900

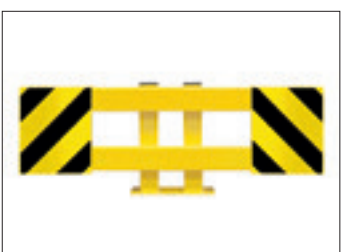
Adjustable up to 1,300mm
1 x Double post on base
2 x Rails 900mm L ('C' profile)
2 x End plates

Set A 1700

Adjustable up to 2,100mm
2 x Posts
2 x Rails 1,800mm L ('C' profile)
2 x End plates

Set A 2300

Adjustable up to 2,700mm
2 x Posts
2 x Rails ('C' profile)
2 x End plates



Variants	Required fixing bolts	Dimensions (mm) H x W x D	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Set A 900 Posts, 2 Railings, 2 End Plates	4	465 x 900 – 1,300 x 160	31	198.25.566	5 / 10 days
Set A 1700 Posts, 2 Railings, 2 End Plates	8	465 x 1,700 – 2,100 x 160	44	198.24.401	
Set A 2300 Posts, 2 Railings, 2 End Plates	12	465 x 2,300 – 2,700 x 160	58	198.22.991	
Surface fixing bolt S12			0,2	109.17.393	1 / 2 days
Through bolt anchor			0,3	109.24.665	

Machine and Rack Protection



- Indoor use
- High quality steel
- Strong 'C' section rails
- Quickly and easily installed
- Adjusts to all frame widths
- TUV-tested according to DGUV 108-007



BLACK BULL Racking End Frame Protectors B *Adjustable*



Protect vulnerable Racking End Frames from potentially hazardous damage from forklift trucks or other vehicles with the **BLACK BULL** Adjustable Racking End Frame Protectors.

The end frames protect the front uprights of the end frames and permit the lateral insertion of the 'C' section rails, allowing up to 400mm adjustment.

Components in Set B:

- 2 x End frames (H x W x D)
500 x 300 x 190 mm x 5 mm gauge
- 2 x 'C' section rails (H x W x D)
100 x 40 x 3 mm gauge
- 4 x Securing blocks

Finish:

Powder coated yellow with black striping on end frames.

Easily installed:

Assemble 'C' profile rails into slots in end frames and attach clamps (300 x 300mm), without bolting down end frames. Bolt down one end frame, adjust to desired width, bolt down second end frame and tighten clamps.

Set B 900

Adjustable from 900 to 1,300 mm

Set B 1700

Adjustable from 1,700 to 2,100 mm

Set B 2300

Adjustable from 2,300 to 2,700 mm
Version with rollers diverts much of the forces, absorbs collisions, protects the floor and extends the life of the installation.

Version with rollers diverts much of the forces, absorbs collisions, protects the floor and extends the life of the installation.



* Max. force absorption.

For details please request data sheets.

Variants	Required fixing bolts	Dimensions (mm) H x W x D	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Set B 900 2 Railings, 2 End Plates	12	500 x 900 – 1,300 x 190	32	198.23.925	5 / 10 days
			39	198.22.540*	
Set B 1.700 2 Railings, 2 End Plates		500 x 1,700 – 2,100 x 190	43	198.25.753	
			50	198.25.188*	
Set B 2.300 2 Railings, 2 End Plates		500 x 2,300 – 2,700 x 190	48	198.22.185	
			55	198.26.651*	
Surface fixing bolt S12			0,2	109.17.393	1 / 2 days
Through bolt anchor			0,3	109.24.665	
References marked with * are with rollers					



- For Indoor use only
- Manufactured in high quality steel and polypropylene (PP)
- Quickly and easily installed
- Easily adjusted to frame width
- Excellent value for money
- TUV-tested according to DGUV 108-007

BLACK BULL Racking End Frame Protectors Type C *Adjustable*



The **BLACK BULL** Racking End Frame Protectors Type C are a new addition to the Racking End Frame Protector range incorporating our Polypropylene (PP) lateral rails to replace the steel rails in the Type A & B series. The use of these rails in conjunction with the steel end supports provides maximum protection for pallet racking end frame uprights while the flexibility of the lateral rails reduces damage to the frames and vehicles.

The steel support end sections have extended outer flanges to protect pallet end frame uprights from sideways damage. Assembly is straightforward and carried out by bolting down one end section in the desired position and inserting the lateral rails, securing and then positioning the second end section at the desired width with the lateral rails positioned, then bolting down the end section and securing the lateral rails.

Components in Set C:

2 x End frames (H x W x D):
400 x 300 x 190 mm,
Wall thickness: 3 mm
Lateral Rails (PP) (H x D x Wall thickness):
74 x 52 x 5 mm

Finish:

Support frames powder coated yellow with black striping. PP lateral rails yellow only.

Three versions cover end frame widths 900 mm to 2,700 mm.



Versions	Dimensions (mm) H x W x D	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Set C 900	400 x 900 – 1,300 x 190	18	198.23.829	10 / 15 days
Set C 1.700	400 x 1,700 – 2,100 x 190	21	198.20.242	
Set C 2.300	400 x 2,300 – 2,700 x 190	23	198.24.154	
Surface fixing bolts 8/100 (12 per set)			109.17.393	1 / 2 days
Through bolt anchor 12/120 (12 per set)			109.24.665	



Machine and Rack Protection



- For indoor use only
- Absorbs impact forces
- High quality steel and Polypropylene (PP)
- TUV approved



BLACK BULL **BULL Impact Protection** **Barrier System-Low Level** *Hybrid*



The **BLACK BULL** Impact Protection Barrier System-Low Level is a versatile floor level barrier system of a modular construction comprising steel support posts and polypropylene (PP) lateral rails for a high degree of flexible protection of property and vehicles. Finished in eye catching black and yellow for high visibility, this system is both effective and cost efficient.

They are most suitable for the protection/demarcation of marshalling areas, manoeuvring zones and protection of wall/partition surfaces etc.

Specification:

Post: 255 x 100 x 100 mm
Base Plate: 200 x 200 x 10 mm
Lateral Rails: 74 x 52 x 5 mm

Finish:

Steel post: Powder coated black
Lateral rails: Polypropylene (PP) yellow



Post	Dimensions (mm) H x W x D	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
End post	255 x 100 x 100	6.5	203.26.335	10 / 15 days
Middle post		6	203.24.605	
Corner post		6	203.26.312	
Through bolt 12/120 (4 per post)		0.3	109.24.665	
Lateral rails for End and Middle Posts				
1,000 mm	74 x 52 x 5	2	203.22.870	10 / 15 days
1,500 mm		2.5	203.27.147	
2,000 mm		3	203.21.049	
Lateral rail for corner Post 45° bevel one side				
1,000 mm	74 x 52 x 5	2	203.28.997	10 / 15 days
1,500 mm		2.5	203.29.688	
2,000 mm		3	203.21.999	



Credit: Stadtwerke Jena

- For Indoor and Outdoor use
- Strong steel protection
- ‘One way’ assembly
- Isolates column from impact shock



Collision Protection

TRAFFIC-LINE
Column Protectors

These highly versatile Column Protectors provide strong protection for vulnerable columns, exposed pipework etc. against damage by motorised transport.

Easily installed by sliding the cross members into each other and bolting to the ground through the pre-drilled base plates.

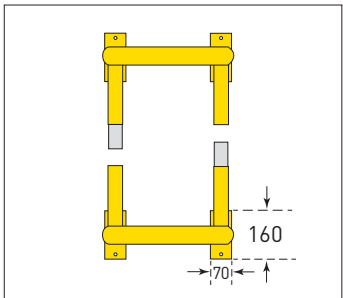
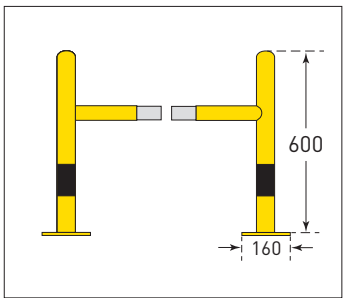
Many uses around warehouses, logistics depots, street posts and trees, factories, public buildings and spaces etc.

Specifications:
Tube: 60 mm/48 mm Ø
Wall thickness: 2 mm
Fixing plates: 160 x 70 x 10 mm
(Pre-drilled 4 holes)

Finish:
Indoor use only:
Powder coated yellow

Indoor and Outdoor:
Hot Dip Galvanised.
Hot Dip Galvanised and powder coated yellow with black bands.

Standard product is surface mounted with bolts. Sub-surface adapter plates available for root fixing.



		Powder Coated only		Hot dip galvanised		Hot dip galvanised and power coated	
Dimensions (mm) H x W x D	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)	Reference	Typical despatch time (working days)	Reference	Typical despatch time (working days)
600 x 520 x 520 Internal: 400 x 400	14.5	200.26.557	5 / 10 days	200.22.925	5 / 10 days	200.20.623	5 / 10 days
600 x 620 x 620 Internal: 500 x 500	16	200.28.694		200.29.787		200.23.561	
600 x 720 x 720 Internal: 600 x 600	17.5	200.24.782		200.26.195		200.29.660	
Sub-surface adapter (4 per guard)						200.20.157	1 / 2 days
Through bolt anchor (8 per guard)						109.24.665	
Surface fixing bolt S14 (8 per guard)						109.17.393	

Column and Pipe Protection

TRAFFIC-LINE Vertical Pipe Protectors

Wall and Ground Fixing



The **TRAFFIC-LINE** Pipe/Cable Guard provides protection for exposed down pipes against accidental damage from passing vehicles with wall and ground fixing plates providing secure anchorage.

Strong tubular construction affords a high degree of protection in factories, warehouses, distribution depots, public buildings, office blocks etc.

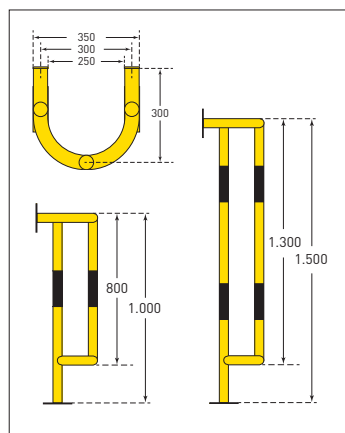
Finish:

Indoor and Outdoor use: Hot Dip Galvanised and powder coated yellow with black bands.

Specifications:

Tube: 48 mm Ø
Wall thickness: 2 mm
Fixing plates: 150 x 50 x 10 mm
Internal dimensions: 250 x 275 (W x D)

- For Indoor and Outdoor use
- Strong steel protection
- Easily and quickly installed
- Highly visible yellow and black marking



Dimensions (mm) H x W x D	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
1,000 x 350 x 300	15	200.27.919	5 / 10 days
1,500 x 350 x 300	21	200.20.402	

Surface fixing bolt S12 (8 per guard)	8/100	0.2	109.17.393	1 / 2 days
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TRAFFIC-LINE Vertical Pipe Protectors Wall Fixing



The **TRAFFIC-LINE** Pipe/Cable Guard provides protection for exposed down pipes against accidental damage from passing vehicles etc. Strong tubular construction complete with wall fixing plates affords a high degree of protection in factories, warehouses, distribution depots, public buildings, office blocks etc.

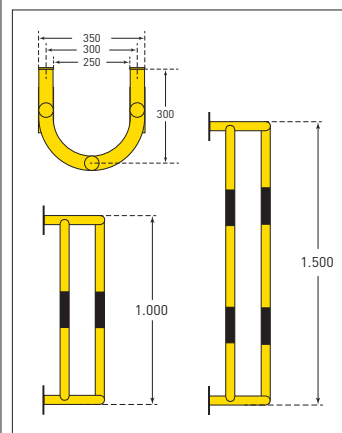
Finish:

Indoor and Outdoor use: Hot Dip Galvanised and powder coated yellow with black bands.

Specifications:

Tube: 48 mm Ø
Wall thickness: 2 mm
Fixing plates: 150 x 50 x 10 mm
Internal dimensions: 250 x 275 mm (W x D)

- For Indoor and Outdoor use
- Strong steel protection
- Easily and quickly installed
- Highly visible yellow and black marking



Dimensions (mm) H x W x D	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
1,000 x 350 x 300	15	200.28.423	5 / 10 days
1,500 x 350 x 300	21	200.20.616	

TRAFFIC-LINE Pipe/Cable Guard



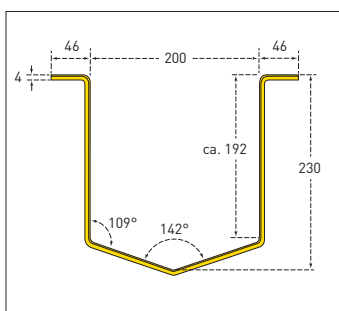
The **TRAFFIC-LINE** Pipe/Cable Guard provides protection for exposed down pipes, cables and cable runs against accidental damage from forklift trucks, cars etc.

The 'U' shaped guard with 4 keyhole slots is easily and quickly installed providing protection in areas such as manufacturing sites, warehouses, logistics depots, utility sites, public buildings, chemical plant, car parks etc.

Specifications:

Internal dimensions: 200 x 230 (W x D)

Wall thickness: 4 mm



- For Indoor and Outdoor use
- Easily and quickly installed
- Strong steel profile for maximum protection
- Highly visible yellow and black marking

Finish:

Indoor use: Powder coated yellow with black stripes.

Outdoor use: Hot Dip Galvanised.



Finish	Dimensions (mm) Height/width	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Hot dip galvanised	300 x 292 x 230	7	200.26.403	1 / 2 days
Powder coated yellow			200.28.445	
Hot dip galvanised	500 x 292 x 230	12	200.26.783	
Powder coated yellow			200.20.282	
Surface fixing bolt S14		0.2	109.17.393	1 / 2 days

TRAFFIC-LINE 360° Column Protector



Provides all-round 360 ° protection against damage from collision for free-standing posts, columns and masts.

Two-part steel structure manufactured from formed 48mm Ø tubing.

Ideal for use in public spaces, depots, freight yards, car parks etc.

Easily assembled and installed:

The formed tube sections are located around the object to be protected and pushed into each other and secured with bolts. This strong unit is then anchored with 4 base plates to the ground.

Finish:

Hot-dip galvanised

Hot-dip galvanised and powder coated yellow

- High-grade steel guard
- Effective all-round protection
- Easily installed

Specifications:

Height: 600 mm

Outer Ø: 350 mm

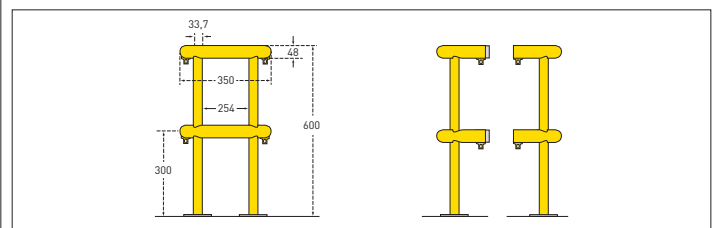
Inner Ø: 254 mm

Formed tube Ø: 48 mm

Wall thickness: 2 mm

Legs: Ø 33.7 x 2 mm

Base plates: 115 x 32 x 5 mm
(Pre-drilled 2 holes)

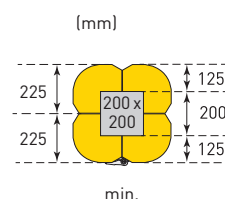


Finish	Dimensions (mm) Height/width	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Hot dip galvanised	600 x 350 x 350 Ø inner 254 mm	13	200.26.309	5 / 10 days
Hot dip galvanised and powder coated yellow			200.21.992	5 / 10 days
Surface fixing bolt S12 (8 per guard)		0.2	109.17.393	1 / 2 days

Column and Pipe Protection



- Indoor and Outdoor use
- Adjustable to column width
- Quick and easy installation
- High quality plastics
- TUV Approved



TRAFFIC-LINE Column Protectors – Plastic

TRAFFIC-LINE Column Protectors provide effective protection of columns and pillars against costly damage caused by forklift trucks, transport vehicles, HGV's etc.

The innovative design of the **TRAFFIC-LINE Column Protector's** sliding side sections allows it to adjust to suit column sizes from 200 x 200 mm to 300 x 300 mm, including rectangular cross-sections (e.g. 200 x 300 mm).

Moulded in modified polyethylene these are designed to withstand high impacts, whilst additionally the eye catching bright yellow ensures further protection.

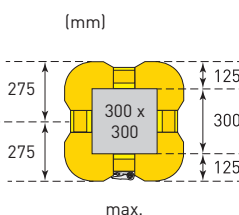
These are easily and quickly installed by means of two straps (220cm long) ensuring firm fixture to the column/pillar.

Specification:

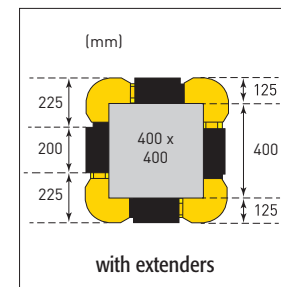
Height: 1,100 mm
Width: 450 x 450 mm (min.)
550 x 550 mm (max.)
Material: Polyethylene
Colour: Yellow

Column Guard Extender

These HDPE moulded sections enable the standard Column Protector to accommodate columns up to 200mm x 1,000mm section. Easily fixed and secured into Column Protector using tension belts (400 cm).



Column protector	Column dimension	Outer width
Standard column protector yellow	min. 200 x 200 max. 300 x 300	min. 450 x 450 max. 550 x 550
Column guard extender black	min. 400 x 200 max. 600 x 600	min. 650 x 450 max. 850 x 850



	Height (mm)	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Column Protector	1,100	34	206.28.690	5 / 10 days
Accessories	Dimensions (mm)	Delivery weight (kg/ea.)	Reference	Typical despatch time (working days)
Column Guard Extender	200 x 1,100	5	206.21.704	5 / 10 days
Lashing Strap	4,000 x 50	0.5	206.23.007	