



- 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.

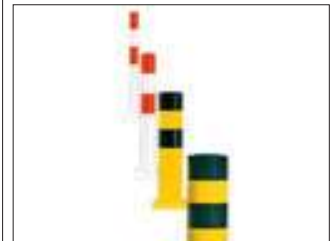
The Type S Bollard can also be fitted with our patented FLEX Pad. See page 22 for FLEX Pad details.

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.



Model	Dimensions (mm) Ø x WT x height	Colour	Delivery weight (kg/ea.)	Reference
S	Surface fix Base plate 200 x 200 x 10 mm	yellow-black	14.5	199.19.943*
		white-red		199.29.625*
	Root fix	yellow-black	16.5	199.17.454
		white-red		199.88.378
L	Surface fix Base plate 250 x 250 x 15 mm	yellow-black	33.5	199.16.549*
		white-red		199.88.077*
	Root fix	yellow-black	35.5	199.15.852
		white-red		199.88.026
XL	Surface fix Base plate 250 x 250 x 15 mm	yellow-black	42	199.15.151*
	Root fix		44	199.19.836
XXL	Surface fix Base plate 350 x 350 x 15 mm	yellow-black	51	199.19.146*
	Root fix		53	199.13.769
3XL	Surface fix Base plate 450 x 450 x 15 mm	yellow-black	89.6	199.22.056
	Root fix		85.5	199.24.742
Surface fixing bolts for models S + L (4 per bollard)			0.2	109.18.268
Surface fixing bolts for models XL + XXL (4 per bollard), 3XL (8 per bollard)			0.3	109.14.550

Ø 90 / 159 / 194 / 273 / 323



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