



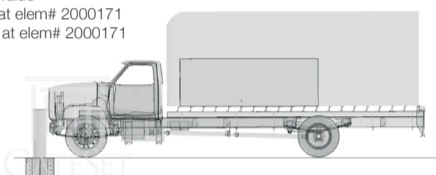
FIXED BOLLARD BARRIERS GFB9000 Series

GateSet GFB9000 Series High Impact Resistant Static Bollards are designed to provide maximum perimeter security to protect sensitive areas. The product has already proven its durability and stopping power through computer aided element analysis tests, providing compliance to IWA14-1:2013 / PAS68 / ASTM M50 standards at P1 level with N3C vehicle. Manufactured from heavy gauge steel, GateSet GFB9000 Series Static Bollards provide solid protection with its design; engineered to withstand extreme forces by destroying front suspension system of the hostile vehicle and preventing intended penetration into the restricted area. With embedded foundation and concrete filled structure, GFB9000 Series Bollards are suitable for any sensitive site with city infrastructure below.

GFB9000Datasheet v.2.0

Crash Analysis Screens*

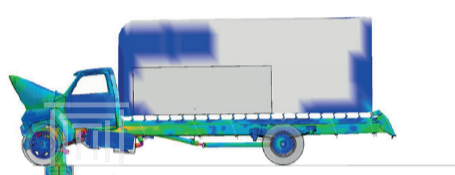
NCAC-F800 7200 kg Single Unit Truck Test (version 05_1025)
Contours of Effective Stress (v-m)
max IP, value
min=0, at elem# 2000171
max=0, at elem# 2000171



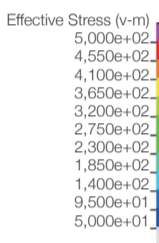
NCAC-F800 7200 kg Single Unit Truck Test (version 05_1025) Resultant Displacement
Contours of Resultant Displacement
min=0, at node# 2302072
max=-84.6961, at node# 2138776



NCAC-F800 7200 kg Single Unit Truck Test (version 05_1025)
Contours of Effective Stress (v-m)
max IP, value
min=0, at elem# 2001040
max=1866.48, at elem# 2036864



NCAC-F800 7200 kg Single Unit Truck Test (version 05_1025)
Contours of Effective Stress (v-m)
max IP, value
min=1.98962, at elem# 2124058
max=707.94, at elem# 2111416



* Detailed report of Computer Aided Finite Elements Crash Analysis is available on demand

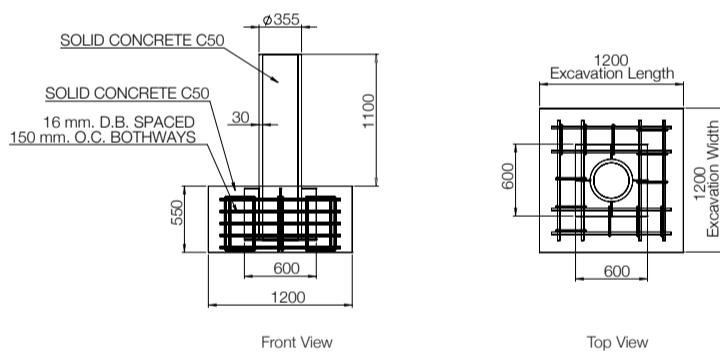
Usage Areas

- Access Control
- Military Sites
 - Government Offices
 - Police Headquarters
 - Research Centers
 - Embassies
 - Airports
 - Industrial Areas

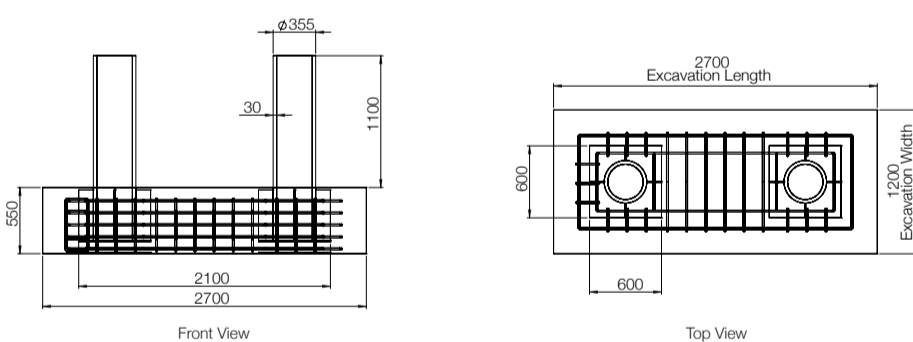
GFB9000Datasheet v.2.0

Drawings and Dimensions

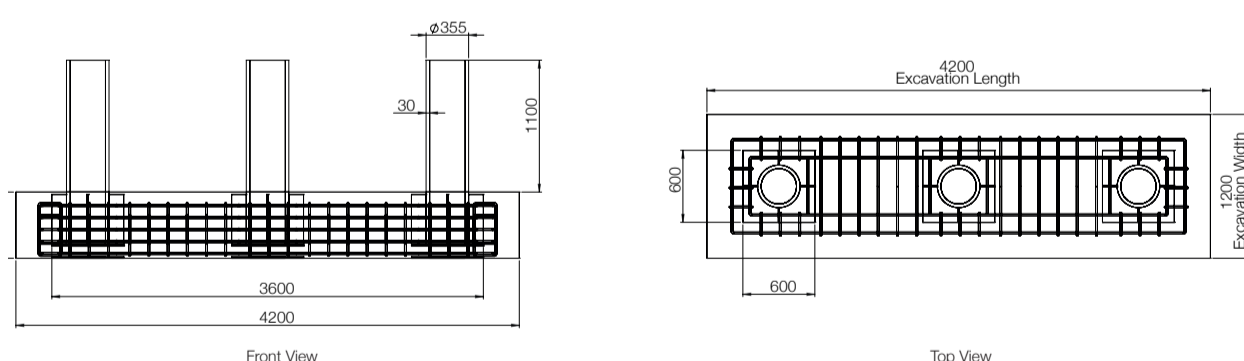
Single Bollard



Array of 2 Bollards



Array of 3 Bollards



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Technical Specifications

| | |
|-----------------------|--|
| TYPE | Static |
| CORE BOLLARD DIAMETER | 355 mm |
| OBSTACLE HEIGHT | 1100 mm |
| TOTAL BOLLARD HEIGHT | 1552 mm |
| CORE THICKNESS | 30 mm Steel Core (to be filled with C70 Concrete) |
| FOUNDATION DIMENSIONS | 1200 mm x 1200 mm x 550 mm (WxLxH) (For single bollard) |
| FLANGE | 12 mm Thick ST52 Steel Plate with Gussets |
| CYLINDER MATERIAL | ST52 Steel |
| IMPACT RESISTANCE | 7,200 kg at 80 km/h (IWA14-1 / K12 / PAS68 Equivalent) |
| BOLLARD FINISHING | Anti-corrosive Coating with Two Component Surface Tolerant Epoxy Mastic (Jotamastic), Different RAL Colors Available on Demand |
| CERTIFICATION | ISO 9001:2015 |
| WARRANTY | 2 Years |