

SCORPION HIGH SECURITY TURBO SPIKE BARRIER



 **SCORPION**
TURBO SPIKE BARRIER

BoomGate
Systems (PTY) LTD
Specialising in Engineering Access Control



MARKET LEADER



- DC Brushless Servo Motor
- Planetary Gear Box
- Lab tested with over 10 million cycles without any deterioration in performance

APPLICATIONS

- Parking Facilities, Golf or Residential Estates
- Airports
- Casinos
- Shopping Centers
- Commercial & Industrial
- Any applications where high security and high volume traffic flow needs to be controlled

DESIGNED FOR

- BGS10 DC Brushless Servo motorized barrier is designed to be maintenance free, offers more torque, 100% duty cycle, with fast opening time from 0.6s adjustable up to 6s.
- This barrier redefines performance in non-stop most severe operational conditions. It is the ideal solution for very high frequented toll/parking stations providing great reliability and sustainability as well as comprehensive functionality.

CONFIGURATIONS

- Available from 2.5m – 6m with 500mm increment as standard but any size can be manufactured on request.
- Left hand and right hand configurations
- Jack-knife Kit for height restricted areas
- Housings: mild steel powder coated, brushed stainless steel 304 or 316 Ip54
- Boom arms are Octagonal aluminium.
- Barrier boom arms are manufactured from extruded aluminium tubing with red reflective tape.

MECHANISM:

- Electromechanical designed for extreme conditions .
- Designed for reliability and long lasting high impact.
- Designed to disassemble in small manageable size.

CONFIGURATIONS

TECHNOLOGY:

- First introduced by Boomgate Systems double drive system, using two 100% duty cycle Brushless Servo motors.
- The spikes lower before the boom arm opens. This ensures a safe passage for the vehicle to pass through. Electrical interlocked to prevent forced tampering
- Heavy duty industrial bearings.
- Adjustable counter-weight spring system.

SECURITY LEVEL RATING



ULTRA SECURE

FEATURES

1. EASY INTEGRATION

Access Reader, Push Button, Parking Control Equipment or Remote can be used to trigger the Genius Turbo Barrier to open via a dry contact signal.

2. USER FRIENDLY

The Genius Turbo Barrier is easily maintained and user friendly to work on when programming and setup.

3. AUTO-RECOVERY

Upon power failure, the barrier arm can be lifted up manually. When main power is restored, the barrier will automatically return to its normal operating position.

4. AUTO-UNLOCK (Optional)

A 12V battery can be used to auto-unlock the boom arm in the event of a total power failure.

5. MECHANISM

The mechanism comes with solid state mechanical lock, to prevent the boom arm being forced open.

6. LED ROBOT

The Genius Turbo Barrier comes standard with an integrated LED Robot (red and green) on the lid. A LED Robot Strip (red and green) can be fitted on the boom arm.

GENERAL FEATURES

- New control panel allows for interlocking with other barrier to create a trap barrier.
- Spikes will stay up when boom arm is forced open.
- Spike barrier can be used for reversible lanes.
- Optional extra: High security lock – tamper proof door.
- Return spring to lower spike on power failure.
- The spike barrier can be interfaced with single or multiple remote triggering devices.
- The spike barrier framework is designed to handle vehicles weighing up to 100 tons (except surface mount).
- The spikes protrude 90mm above the road surface and offer protection from both directions.
- The boom arm is joined to the boom adaptor with nylon clips, which will shear in case of accidental collision with the boom arm and prevent damage to the barrier and the boom arm.

EMERGENCY EVACUATION MODE:

- To allow emergency evacuation from the premises.
- To allow emergency vehicles into premises in case of an emergency.

SPECIAL DESIGN FEATURES

1. NO SENSOR & LIMIT SWITCH

Innovative design, which doesn't need any sensor nor limit switch. The Genius Turbo Barrier is controlled by BGS-MCU drive unit. Three main parts only, drive mechanism, motor and control unit.

2. MAINTENANCE FREE

DC Brushless Servo Motors does not require a carbon brush, unlike brushed motors that requires you to replace the carbon brush. Galvanized and powder coated parts are anti-rust treated, to ensure long term usage.

3. 24/7 CONTINUOUS OPERATION

4. SPEED ADJUSTABLE

Our Genius Turbo Barrier allows you to set the opening and closing speed according to your requirements. The speed varies according to boom arm length.

SPIKE BARRIER CAN BE CONFIGURED IN THE FOLLOWING WAYS:

Boom stays down on power failure and spikes remain up; or spike will lower on power failure.

NEW PATENTED SPECIAL OPERATING FEATURES:

Emergency trigger inputs – 2 types:

- Spike will raise, boom will close while loop is detecting.
- Spike will rise even if boom arm is in the up position.

BUILT-IN ROBOT CONTROLLER FOR DUAL DIRECTION (OPTIONAL):

Robot will turn green for right of way and red for opposite traffic.

TWO ARM CONDITIONS (OPTIONAL):

- Alarm outputs, 1 sec n/o pulse output and a permanent close output.
- When boom arm has been knocked off the adaptor – permanent close output.
- When the barrier door is opened – permanent close output.
- This can be used to trigger an alarm. Switch a camera to focus on the spike barrier. Can also be used to raise the spikes by means of an internal triggering device or alert armed response.
- The road spike barrier modular design allows the unit to be stripped down to small manageable sizes for easy transportation and installation.

TECHNOLOGY

DC Brushless Servo Motor and Planetary Gearbox, we offer maximum reliability at fast speeds with a 100% Duty Cycle

WARRANTY



1 Year Warranty Electronics



2 Year Warranty Mechanical



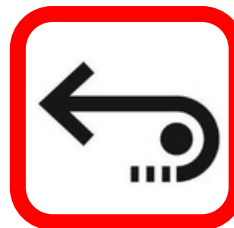
100% Duty Cycle



Adjustable Speed



Maintenance Free



Auto-Recovery



Unlimited Operations

TECHNICAL SPECIFICATIONS

Supply Voltage- 220V AC $\pm 10\%$ at 50Hz/60Hz -step down/24V DC

Battery Charger- 27.6V DC, 10 AMP, 270W

Battery- 2 x 12V 7AH (Li-ion batteries)

Battery Backup- 5500 Transactions on battery only

Drive- BGS-MCU MicroDrive

Motor Driven BLDC- 24V DC Brushless Servo Motor, 100W

Temperature- -35°C to $+70^{\circ}\text{C}$

Gearbox- Planetary

100% Rated- Continuous non-stop duty cycle

Speed- 0.6 to 6 Sec - Adjustable

Arm Length- 2.5, 3m, 3.5m, 4m, 4.5m, 5m, 5.5m, 6m

Boom Arm Safety- Resettable shear away swing arm

Arm Weight- 750mg/m

Barrier Arm- White aluminium with red reflective

Manual Override- Internal/External - Customizable

Collision Detection- Motor embedded hall sensors

Collision Action- Mid cycle auto-reverse

Safety Input- Single or Dual channel safety loop detector or IR Beam, Radar detectors

Integration- N/O Dry Contact

Outputs- N/O and N/C Relay Outputs

Cabinet Options- Mild Steel- SSC3R12 Power Coated, 304-316 Stainless Steel Brushed

Variety of Colours- Customized cabinet (Colour Branding Upon Request)

Cabinet Weight (excluding boom arm)- 55kg



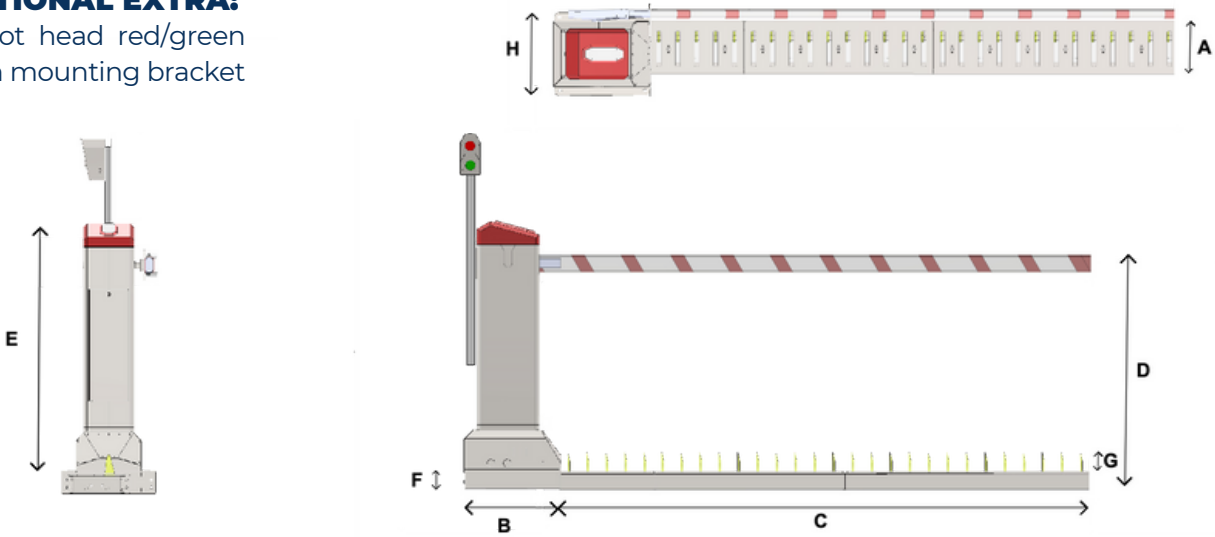
****All specifications are subjected to changes without prior notice.***

CABINET SPECIFICATIONS

SCORPION™ TURBO FLUSH MOUNT SPIKE BARRIER - LEFT HAND

OPTIONAL EXTRA:

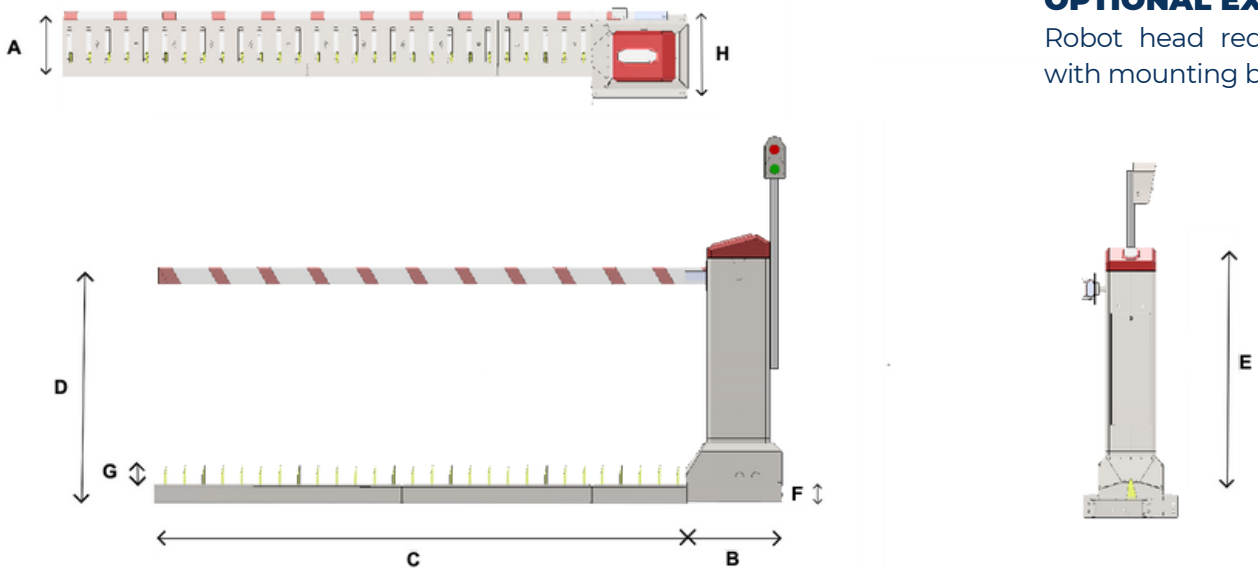
Robot head red/green with mounting bracket



SCORPION™ TURBO FLUSH MOUNT SPIKE BARRIER - RIGHT HAND

OPTIONAL EXTRA:

Robot head red/green with mounting bracket



SCORPION™ TURBO FLUSH MOUNT SPIKE BARRIER DIMENSIONS

A	Spike Tray Width	353mm	E	Spike Barrier Height	1400mm
B	Plinth Box Length	500mm	F	Spike Tray Height	108mm
C	Spike Tray Length	2500 - 6000mm	G	Spike Teeth Height above grid	100mm
D	Boom Arm Height	1200mm	H	Plinth Box Width	450mm

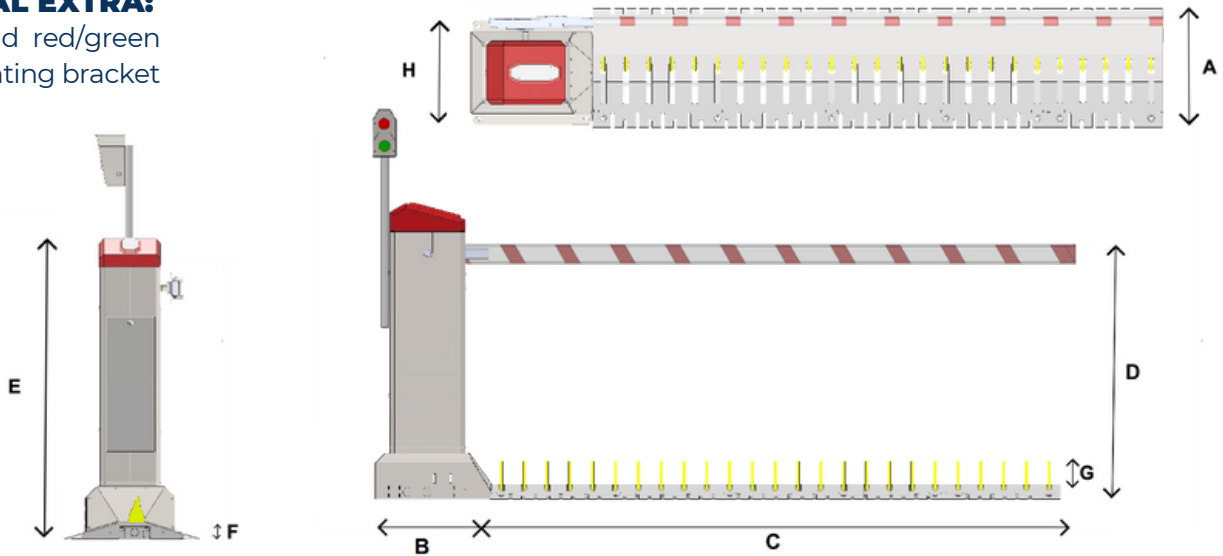
Due to continuous improvement, products and design are subject to change without notice.

CABINET SPECIFICATIONS

SCORPION™ TURBO SURFACE MOUNT SPIKE BARRIER - LEFT HAND

OPTIONAL EXTRA:

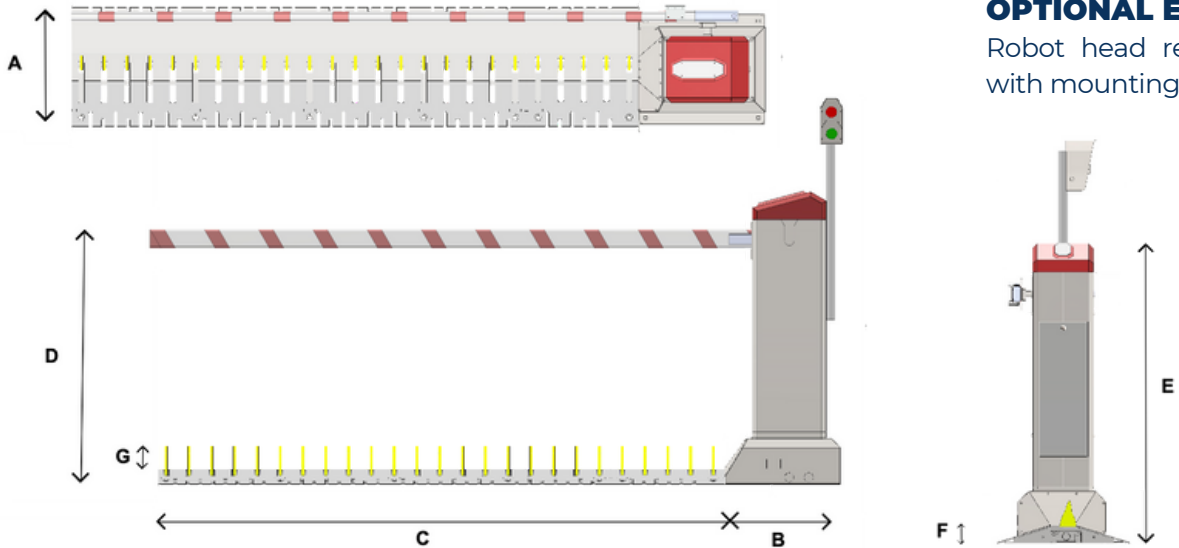
Robot head red/green with mounting bracket



SCORPION™ TURBO SURFACE MOUNT SPIKE BARRIER - RIGHT HAND

OPTIONAL EXTRA:

Robot head red/green with mounting bracket



SCORPION™ TURBO SURFACE MOUNT SPIKE BARRIER DIMENSIONS

A	Spike Tray Width	520mm	E	Spike Barrier Height	1300mm
B	Plinth Box Length	500mm	F	Spike Tray Height	65mm
C	Spike Tray Length	2500 - 6000mm	G	Spike Teeth Height above grid	100mm
D	Boom Arm Height	1125mm	H	Plinth Box Width	450mm

Due to continuous improvement, products and design are subject to change without notice.

AVAILABLE OPTIONS

TRAY OPTIONS:

- Surface Mount / Flush Mount

BOOMARM:

- Octagonal 86mm x 44mm with red reflective UV resistant tape, c/w Boomgate Systems unique break-away mechanism to save boom arm from damaging. Round 76mm with red reflective tape.

CONTROL LOGIC:

- Logic with separate loop detector PCB mother board with robot logic, interlock control, 12V output IR beam input, arming loop output for parking control systems.

BOOM ARM ACCESSORIES:

- Jack-knife kit for Octagonal.
- Boom Arm curtain comes standard on all Spike Barriers.
- Boom Arms come standard with breakaway mechanism.
- Boom cam kit to monitor boom arm position. Up/down.

BOOM ARM MOUNTING:

- Right hand is the standard. Left hand on request.

BARRIER HOUSING:

- Mild steel powder coated – standard
- 3CR12 stainless steel powder coated
- 304 / 316 brushed stainless steel
- Other colours available on request.

BARRIER OPENING TIMES

BOOM ARMS	OPEN IN SECONDS	OPEN IN SECONDS
3M	1	1
4M	1.5	1.5
5M	2	2
6M	3	3
SPIKE	0.9 - 1.5	0.8 - 1.5

ACCESSORIES

- LED on Boom Arm
- Push Buttons
- Gooseneck Stands
- Card Capture /Motorised.
- Stop / No Entry
- Robot Big Red/Green.
- Radar detectors
- Rubber Island
- Arrow Robots- Red Cross /Green Arrow
- Warning Signs- Spike Barrier Warning



Push Button



Gooseneck



Card Capture



Red Cross/Green Arrow



Rubber Island

Manufacturers & Suppliers of:

- Traffic Barriers •High Security Spike Barriers• Road Blockers
- Turnstiles • Security Booths •Pedestrian Barriers •Paraplegic Gates
- Speed Gates •Bollards• Goosenecks •Magnetic Locks
- Metal Enclosures •Rubber Islands

www.boomgatesystems.co.za

JOHANNESBURG BRANCH:

Tel: +27 11 674 4441 • Fax: +27 11 674 4450 • Email: boomgate@global.co.za
18 Minerva Avenue, Leaglen, Florida, Roodepoort, SOUTH AFRICA

EXPERIENCE CENTRE:

Tel: +27 11 674 4441 Fax: +27 11 674 4450
Email: boomgate@global.co.za
Motor City, Cnr William Nicol & Lower Lane,
Constantia Kloof Ext 21, Roodepoort. SOUTH AFRICA

CAPE TOWN BRANCH:

Tel: +27 21 551 0849 • Fax: +27 21 551 8627 • Email: sun-mari@boomgatesystems.co.za
Unit 2 Crest Park, 12B Longclaw Drive, Montague Gardens, Cape Town, SOUTH AFRICA

BoomGate
Systems (PTY) LTD
Engineering Access Control

