RB C60

Technical datasheet

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(Non-contractual illustration)

The **RB C60** Security automatic bollards were designed to protect and control access to sensitive sites.

Equipped with a hydraulic pump, the **RB C60** bollards are very appreciate in places where winter temperatures are very high or when the installation requires a considerable distance (up to 80 m) between the bollard and the control unit.

This kind of equipment can be used on any site to create a retractable obstacle to control the vehicles traffic without restricting pedestrian access.

In urban environments, the RB C60 obstacles offer the advantage of being completely invisible when lowered.

They are also well-suited for controlling vehicles access to pedestrian areas.

The bollards are available with two cylinder heights from ground level:

- **RB C60_600** : 600mm
- **RB C60_800** : 800mm

DESCRIPTION

1. Mobile obstacle with a diameter of 273 mm and a cylinder thickness of 10 mm.
   The obstacle is available in three three finishes*: powder coated steel, powder coated stainless steel or brushed stainless steel (standard powder coat colour: anthracite grey).
2. 30 mm thick casted powder coated aluminium upper crown.
   The upper crown is also available with LED lighting strip on the perimeter of the crown; flashing with or without warning before movement of the neighbouring terminal*.
3. 55 mm reflective strip with Automatic Systems logo.
4. Synthetic seal at the base of the cylinder.
5. Counterframe cover and link frame between the obstacle and the road surface (mounted onto the embedded casing).
6. Foundation box in aluzinc.
7. Mobile obstacle is held vertically and reinforced by means of a thick steel collar connected to the supporting structure and a built-in nylon bush and sliding along the central jack.
8. Double-acting central hydraulic jack for rising and lowering the obstacle. In order to limit damage caused by moderate impacts, the obstacle is not fixed to the jack.
9. Hydraulic unit mounted on the supporting structure. Reduced hydraulic pressure during rising of the obstacle to allow a movement reversal if an obstacle > 40 kg is detected.
   Full pressure is applied during the final 10 cm of the rising cycle and in the up position.
10. Stop of the obstacle in upper position by mechanical stops.
11. Steel/rubber bearings support the obstacle in low position, allowing it to withstand the passage of heavy vehicles.
12. Inductive sensor delivers to the logic control board a low position status information.
13. A remote microprocessor control board is located in a cubicle separated from the obstacle (10 m of electric cable provided). The features include dipswitches to modify the settings, LED display for obstacle status information and inputs/outputs level.

* Product configuration to be specified when ordering.

STANDARD TECHNICAL CHARACTERISTICS

Impacts resistance certifications		
Rated in compliance with	PAS68:2013 V/3500(N1)/48/90 IWA 14-1:2013 V/3500(N1)/48/90 ASTM C60	
Breakout resistance (type of vehicles)	1.5 T at 80 km/h 3.5 T at 48 km/h	
Breakout resistance	400,000 joules	
Impact resistance (without deformation)	40,000 joules	
Power supply	230Vac (+/- 10%) 50/60Hz [1]	
	RB C60_600	**RB C60_800**
Obstacle height	600 mm	800 mm
Cylinder diameter	273 mm	
Foundation dimensions	1000 x 1000 mm	
Foundation depth	1300 mm	1500 mm
Rising time	4 sec.	5 sec.
Lowering time	2 sec.	2.5 sec.
Emergency Fast Operation (EFO)		1 sec.
Weight included 10m connection cable and foundation box	204 kg	219 kg
Foundation box weight	68 kg	73 kg
Ambient operating temperature	de -20°C à +70°C. (Please select the appropriate heating option to prevent the formation of ice)	
Frequency of use	2000 cycles/day	
MCBF (Mean Cycles Between Failure)	**3,000,000** cycles, in compliance with recommended maintenance	
IP rating	IP 67	
Load class	D400	
Complies with European standards		

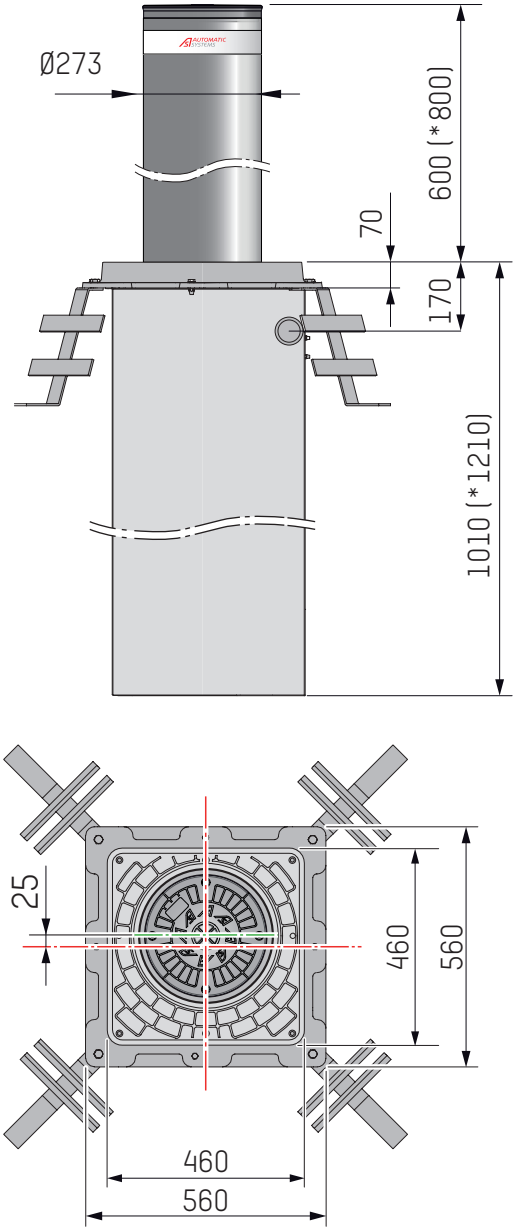
[1] Do not connect to an isolated ground network or a high impedance earthed industrial network.

WORKS TO BE PROVIDED BY THE CUSTOMER

- Sealing of the frame in a concrete foundation.
- Drainage or connection to main drainage.
- Power supply.
- Electric connections with external peripherals (if necessary).

Note: please follow the installation plan

STANDARD DIMENSIONS (MM)



(*) = RB C60_800 dimensions

OPTIONS

FOUNDATION BOX

- Foundation box in aluzinc - Counterframe with ground anchoring brackets.
- Foundation box in AISI 304 stainless steel - Counterframe with ground anchoring brackets.
- Foundation box in AISI 304 stainless steel - Immersion pump & Counterframe with ground anchoring brackets.
- Suspended foundation box in AISI 304 - Counterframe (chemical anchors excluded).
- Bollard placed inside into the foundation box (not fully fitted / to reduce transport costs).
- Metal cover cap for the temporary closure of the counterframe with screws during the civil work phase.
- Counterframe top in stainless steel AISI 304.
- Security screws for the counterframe cover (with their key) - similar to Torx TS profile.
- Adaptation of the bollard to the inclination of the road (valid from 0.5° up to 4.5°).

AESTHETICS

- Finely structured matt powder coating (any RAL colour on request) of cylinder.
- Cylinder in brushed stainless steel AISI 316 instead of AISI 304.
- Cylinder in powder coated knurled steel.
- Cylinder in knurled stainless steel.
- Anti-corrosion marine treatment for bollard steel cylinder. ⓘ
- Anti-corrosion marine treatment for bollard frame. ⓘ
- Anti-corrosion marine treatment for bollard counterframe. ⓘ

CONTROL

- Control unit for an installation from 1 to 15 bollards.
- Additionnal electric cables and hydraulic hoses to connect the bollard to the control unit (max 80m in total; 10m included in standard + max 70m as an option) - Supplied in multiples of 5m.
- EFO circuit for emergency rising.
- Kit to test and recharge the nitrogen pressure into the pressure accumulator.
- UPS device 3.0kW - 3kVA for operation of max 3 bollards (10 operations or 1 hour) in case of power failure.
- Emergency lowering in case of power failure - terminal block ready for the installation of a button (not included) on the control panel in the electrical cabinet.
- Device for manual handling of bollards in case of power failure.
- Heating device in the bollard (including transformer and thermostat - for operation up to -20°C).
- Heating device in the electrical cabinet for the control unit (including transformer and thermostat - for operation up to -20°C).
- Position information kit (return of a signal Up or Down).
- Electrical cabinet for the control unit, standing on the ground with ground fitting support and anchors (stainless steel, dim. 330x280x967mm, IP40) - One cabinet for max 4 units.
- Electrical cabinet for the control unit, standing on the ground with ground fitting support and anchors (glass fiber, dim. 580x330x940mm, IP55) - One cabinet for max 4 units.
- Retractable structure with double foundation box in powder coated steel for the control units (max. 3 units).
- EuroLock profile EN 1303 on the electrical cabinet with the control unit.
- Kit with lighting & Shuko socket 230V in the electrical cabinet.

SIGNALIZATION

- Buzzer > 80dB.
- Vandalism alarm kit for detection of the attempts of : (1) bollard lifting, (2) removal of the cover plate .
- Traffic light diam.100mm - Red/Green (without post).
- Powder coated steel post for traffic lights (diam.105mm - height 3.55m).

OTHER OPTIONS

- Presence sensor for:
  - one-channel safety inductive loop
  - OR for one-channel command inductive loop
- Presence sensor for:
  - two-channel safety inductive loops
  - OR for two-channel command inductive loops
  - OR for one-channel safety inductive loop and for one-channel command inductive loop
- Cell phone activator for remote control (up to 900 connected cell phones).
- Weekly / Yearly timer programmer.
- Pressure gauge 0/60 bar with connection to show the pressure in the hydraulic pump.
- Kit to test and recharge the nitrogen pressure into the pressure accumulator. [1]
- Bollard driven by a barrier command (using limit switches).

[1] This option MUST be ordered with the EFO option (one unit per group of products installed at the same location is sufficient).

ⓘ Recommended for installations less than 3 km away from the sea or for location were de-icing salt is sprayed in the winter time.

Note: For restrictions on options, please contact us.

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