

Procurement Specification for a Rising Arm Barrier

EB750 Excel Barrier

A. Requirement

This document is to be used to specify the physical and operational requirements of the EB750 Excel Rising Arm Barrier.

The EB750 Excel Barrier is ideal for car parks and security control. It can easily integrate with revenue collection and access control systems and is recommended for a wider road width.

B. Barrier Unit

B.1 Barrier Construction

The steel cabinet is shot blasted, primed and powder coated (RAL 1007 other options available) Barrier Arms shall be of rectangular extruded aluminium 76 x 38mm white powder coated with red fascal strips, Max length 7m giving a clear width opening of 6.31m.

The barrier arm will have the option to be supplied with an under slung skirt or apron up to the arm length of 6 metres.

The barrier arm will have the option to supply warning signage and warning lights fitted to the arm.

B.2 Barrier Height

The height of the Barrier Arm when in the closed (lowered) position, as measured from the top of the Arm frame to the road surface, will be a minimum of 900mm in accordance with BS6571 part 4.

B.3 Barrier Width

The width of the Barrier Arm will be between 3,000mm and 7,000mm to suit site conditions.

B.4 Finish

The Barrier Cabinet and Boom Arm are to be finished with an anti-corrosion paint system

C. Technical Details

C.1 Operation

The heavy duty motor plate supports the 100% duty cycle permanent 4 pole T.E.F.C. motor, which provides the power for the toothed belt driven industrial grade gearbox. This in turns drives the sinusoidal output mechanism. Two heavy duty bearings support the drive shaft; this having two machined cams to activate the adjustable limit switches to control the boom travel.

C.2 Motor

The heavy duty motor used will be a single ph, 230v unit with a power rating sufficiently sized to allow for continuous operation (100% duty cycling).

The motor should be protected by a thermal overload cut out device.

C.3 Power fail conditions

A winding handle will be provided to enable the manual raising and lowering of the Barrier Arm in the event of electrical power failure.

C.4 Casing

The Barrier Cabinet will have fully lockable doors to the front of the cabinet for ease of access.

D. Control System

D.1 Voltage

The main system input voltage is to be 230v 1phase 50-60Hz supply with the control system operating at 24V SELV provided from an internally mounted power supply.

D.2 Casing

The control system will be located inside the main Barrier Cabinet and should give easy access to all electrical components for connection, maintenance and programming, including the power isolation switch.

E. Access Control

E.1 System Interfacing

The control system will be capable of accepting inputs from every major type of access control including but not limited to – Push buttons to raise, lower and emergency stop, swipe card readers, proximity card readers, inductive loop systems, RF transmitter equipment and biometric readers.

The system must be able to interface with other equipment (by other manufacturers) to create an interlock.

F. Performance

F.1 Manufacturers Experience

The manufacturer of the Rising Arm Barrier will have a minimum of 20 years experience in the manufacture, installation and maintenance of this type of equipment and must be a member of a recognised Professional Trade Association.

F.2 Speed of operation

Standard operation speed will be 4.2 seconds for either raising or lowering.

In normal operation the Rising Arm Barrier shall be capable of 100% duty cycling and must have been satisfactorily factory tested in a single continuous run of 1,200 cycles.

Technical summary

1. Electro-Mechanical drive unit
2. 100% duty cycling
3. Fast acting 4.2 sec
4. Modular design
5. Multi-process coating specification
6. Winding handle for manual operation
7. Power requirement 230V single phase 50Hz 6A
8. Operating temperature range available: -25°C - +70°C
9. Cabinet- 305mm W x 460mm D x 1135mm H
10. Barrier Arm Length Max 7m

G. QA

G.1 Equipment Testing

The manufacturer will have fully tested the Rising Arm Barrier and Control System prior to despatch. These tests will be fully traceable to each unit despatched and must be transparent.

The QA testing will include dimensional checks, workmanship quality and finish as well as full operational testing. Once fully tested, the Rising Arm Barrier will be fitted with a nameplate bearing the manufacturers details, serial number and test date.

The manufacturer's quality system must be certified to ISO 9001.

G.2 Despatch

The Rising Arm Barrier will be packed ready for despatch with cardboard sheeting strapped to the outer casing for protection. The structure will be substantial enough to enable lifting from either below or above without incurring damage or warping.

Two full sets of operation and maintenance manuals will be provided with the equipment to include site specific program, installation risk assessment, method statement, and wiring and installation drawings (additional manuals should be available at a nominal cost).

H. Disclaimer

This type of equipment is designed for security use and while it is possible to integrate a number of safety features into the system design, it is generally better to provide adequate traffic calming measures, signage, area illumination and traffic lights to warn users of the potential hazard.

Avon Barrier Corporation Ltd can provide information on safety systems to suit most sites / applications on request.

It is strongly recommend that advice is taken from relevant security or safety engineers with regard to the system design, alternatively Avon Barrier Corporation would be pleased to provide such information – contact our Security Department at our UK offices.

I. Procurement Source

The EB750 Excel Rising Arm Barrier can be purchased from the following sources:

Avon Barrier Corporation Ltd
149 South Liberty Lane
Bristol
BS3 2TL UK
Tel +44 117 9535252
Fax +44 117 9535373
Email sales@avon-barrier.com