

## **Procurement Specification for the Avon Pedestrian Turnstiles Systems (TS120)**

### **A. Requirement**

This document is to be used to specify the physical and operational requirements of the TS120 (3 arm turnstile rotating through 120 degrees).

The TS120 is pedestrian turnstile system which is a rotary barred barrier system to control pedestrian access. Each system will be comprised of a number of Turnstiles' with associated drive units, control systems and access control

### **B. Turnstile Unit**

#### **B.1 Turnstile construction**

The Full-Height Turnstile is constructed from steel framed panels with a combination of sheet and bar infill. The main body shaft shall be 76.1 dia x 3 CHS with 3 sets of 15 rotor arms 26.9 x 2 CHS welded at 120° angles and welded to the length of main body shaft, with 100mm gaps. One inner frame of 15 no 26.9 x 3CHS will be bolted to the inside frame of the turnstile.

The sections are modular in design giving ease of installation.

The turnstile head will be located in the lid to the turnstile

#### **B.2 Turnstile Height**

The overall installed height of the TS120 will be 2200mm high from FFL.

#### **B.3 Turnstile Width**

A single turnstile system dimensions will be 1400mm Wide x 1450mm Long x 2200mm High, with a walkway of 616mm Wide x 1950mm High

#### **B.4 Finish**

The turnstile will be fully galvanised however options of painting to match site conditions or a stainless steel finish can be provided as an option.

## **C. Drive System**

### **C.1 Operation**

The turnstile is operated by rotary head mechanism that is operated by powered solenoids, the rotary head is held in the normally locked position by a locking bar and on operation of the solenoids the locking bar is released and the main body shaft is free to turn 120 degrees, allowing access through the turnstile.

### **C.2 Limit Switches**

Solid state proximity type limit switches will be fitted to provide opened and closed signalling to the control system.

### **C.3 Power fail conditions**

The turnstile controller can be configured to free wheel in one or both directions on power fail or fire alarm signal.

### **C.5 Casing**

All mechanical controls are housed within the head unit of the turnstile and these are accessed via the lid. The electrical controls are housed within a waterproof IP65 rated box and are also situated within the head unit.

## **D. Control System**

### **D.1 Controller**

The electrical controls are housed within a waterproof IP65 rated control box and are also situated within the head unit. There are also termination panels located at the bottom left and right hand corners for ease of installation.

The control box houses a transformer which provides 24 volts for the Alpha controller (which operates the solenoids), and the terminations. An isolator should also be located here for safety alongside the fuses.

The controller will accept inputs from the access control system as well as output signals to the solenoids to operate the rotary head mechanism. The controller shall be sized to suit site requirements.

### **D.2 Voltage**

The incoming mains supply to the alpha control panel is single- phase 220/250 V.

### **D.3 Casing**

The control system will be housed within a waterproof IP65 rated box and are situated within the head unit and should give easy access to all electrical components for connection, maintenance and programming. There should

also be termination panels located at the bottom left and right hand corners for ease of installation.

## **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 – Swipe card readers, proximity card readers, communication equipment and biometric readers.

The system should be able to be used in a bi-directional or uni-directional manner.

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

## **F. Performance**

### **F.1 Manufacturers Experience**

The manufacturer of the TS120 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 Testing**

The TS120 design must fully comply with CE regulations.

## **G. QA**

### **G.1 Equipment Testing**

The manufacturer will have fully tested the TS120, Control System and Access Control equipment 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 TS120 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 TS120 will be suitably packed ready for despatch & shipping.

Two full sets of operation and maintenance manuals will be provided with the equipment to include site specific program, wiring and installation drawings.

## **H. Disclaimer**

This type of equipment is designed for the use of controlling pedestrian access, while it is possible to integrate a number of safety features into the system design; it is strongly recommended that a safety / security risk assessment is carried out prior to specifying the product and any necessary safety systems.

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

## **I. Procurement Source**

The TS120 Turnstile can be purchased from the following sources:

**Avon Barrier Corporation Ltd**

149 South Liberty Lane

Ashton Vale

Bristol

BS3 2TL

UK

Tel +44 117 9535252

Fax +44 117 9535373

Email [sales@avon-barrier.com](mailto:sales@avon-barrier.com)