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## GUARDRAIL SPECIFICATIONS

### PART 1 GENERAL

#### 1.1 SCOPE

This specification is intended as a quick reference of general information related to pre-engineered guardrail system consisting of heavy-duty barrier rail, RackPal rack protectors, rack post protectors, bollards, pedestrian barrier rail and wire mesh rack guards.

#### 1.2 APPROVED MANUFACTURER

Cogan Wire and Metal Products Ltd.  
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#### 1.3 QUALITY ASSURANCE

The guardrail manufacturer shall be an established firm with a minimum ten years of experience in the design and fabrication of pre-engineered guardrail systems. The installation contractor shall be a firm experienced in installing guardrail systems.

The supplier shall warrant the guardrail materials to be free from manufacturing defects for a period of one year. Warranty does not cover damage caused by conditions beyond the control of the supplier.

#### 1.4 PROJECT APPROVAL

The client or owner must submit signed, approved drawings prior to the fabrication of the guardrail. The client or owner shall be responsible for all quantities and dimensions, including the verification of and coordination with field conditions. The client or owner shall verify all critical dimensions and conditions of existing construction that relate to the guardrail project prior to manufacturing. Cogan must be notified, in writing, of any elements found to be inconsistent or not compatible with the details indicated by approval drawings.



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## **PART 2 ARCHITECTURAL AND MATERIAL SPECIFICATIONS**

### **2.1 OVERVIEW**

The guardrail product shall be a pre-engineered system consisting of protective equipment and hardware. The guardrail products encompass the following models:

- 2.1.1 HEAVY-DUTY BARRIER RAIL
- 2.1.2 BOLLARDS
- 2.1.3 PEDESTRIAN BARRIER RAIL

### **2.2 HEAVY-DUTY BARRIER RAIL**

Heavy-duty barrier rail systems shall include roll-formed rail with welded end plates, single or double high columns, optional rail saddle supports for removable rails and hardware.

The barrier rails shall be manufactured with 13-gauge structural steel meeting the requirements of ASTM A1011 Grade 45. Each rail shall have welded end plate that meets the material requirements of ASTM A36 44W. Rails shall be bolted to columns.

Columns shall be 5"x5" shapes. Each column shall have a welded base plate that meets the material requirements of ASTM A36 44W and a rigid plastic plug on top.

Rails are sized for the following column center-to-center dimensions: 12", 24", 36", 48", 60", 72", 84", 96", 108" or 120".

Rails are manufactured in the following standard heights: 12".

### **2.3 BOLLARDS**

Bollards shall be manufactured of round shapes. Each bollard shall have a welded base plate that meets the material requirements of ASTM A36 44W, plastic cap and safety stripes on top.

Bollards are manufactured in the following standard diameters: 4½" or 6".

Bollards (4½" diameter) are manufactured in the following standard heights: 24", 36" or 42".

Bollards (6" diameter) are manufactured in the following standard heights: 42".

### **2.4 PEDESTRIAN BARRIER RAIL**

Pedestrian barrier rails shall include round tube rails assembled with bolted fittings. The systems shall consist of either two or three horizontal rails and the top rail shall be located 42" from the mounting or walking surface.

Pedestrian barrier rail is intended for pedestrian traffic control only. The system is not rated for lateral load capacity and shall not be used as a fall protection barrier or crash barrier. All pedestrian rail barriers must be installed at ground level only and shall not be used as a mezzanine or equipment platform guardrail/handrail system.



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## **2.5 FINISH**

All guardrail system products shall be finished with a safety yellow powder coat paint finish except pedestrian barrier rail fittings.

Pedestrian barrier rail fittings shall be galvanized.

## **2.6 HARDWARE**

All necessary assembly fasteners shall be provided except floor and wall anchors.



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## **PART 3 INSTALLATION STANDARDS**

### **3.1 WORK AREA**

The area where the guardrail is installed shall have a concrete slab, troweled smooth and level.

### **3.2 WORK AREA AND INSPECTION**

Working areas shall be inspected and cleaned of all debris to ensure that adequate access is provided to the installers. The client or owner shall advise the installation company of any embedded floor obstacles that may interfere with the installation of floor anchors.

### **3.3 INSTALLATION**

Erection of the guardrail system shall be in accordance with the specifications and instructions contained in the erection manual and installation drawings. The installation plan is based on the specifications, dimensions and approval of the dealer and/or client. All drawings must be reviewed carefully prior to installation.

### **3.4 ON-SITE MODIFICATIONS**

Any modifications required during installation (on-site) of any Cogan products shall be proposed to and approved by a product engineer employed by Cogan. Cogan shall not guarantee any products modified without the consent from a product engineer employed by Cogan.

**Cogan Wire & Metal Products Ltd.**

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