

## Architectural Specification

### Section 11 14 00 – Pedestrian Control Equipment (Gates/Turnstiles)

#### PART 1- GENERAL

##### 1.01 SECTION INCLUDES

- A. Manufacturer's descriptive literature for HT431 Single Full Height Turnstile including components and accessories. See product brochure.
- B. Shop drawings submitted upon request.

##### 1.02 RELATED SECTIONS

- A. 10450 – Pedestrian Control Devices.
- B. Section 08400 - Entrances and Storefronts.

##### 1.03 Quality Assurance

- A. Manufacturer shall be a company specializing in the supply of security turnstiles with a minimum of 10 years' experience.

##### 1.04 SUBMITTALS

- A. Manufacturer's descriptive literature for equipment specified including components and accessories. See product brochure.
- B. Shop drawings submitted upon request.
- C. Manufacturer's instructions for assembly and installation.

##### 1.05 DELIVERY, STORAGE AND HANDLING

- A. Store products of this section in manufacturer's unopened packaging until installation.
- B. Store off ground, under cover, protected from weather and construction activities.

##### 1.06 Project Site Conditions

- A. Install the HT431 on a level concrete pad.

##### 1.07 WARRANTY

- A. Hayward Turnstiles warrants its products against defects in material and workmanship for a period of one (1) year from the date of invoicing. The warranty covers defects in materials and workmanship and does not cover freight, labor, or incidental costs. Obtain full warranty terms from Hayward Turnstiles.

#### PART 2 PRODUCTS

##### 2.01 MANUFACTURER

- A. Acceptable Manufacturer:  
Hayward Turnstiles Inc.  
160-A Wampus Lane, Milford, CT USA 06460  
Phone: 203-647-9147 Fax: 203-200-7866 Email: sales@haywardts.com  
[www.haywardturnstiles.com](http://www.haywardturnstiles.com)

##### 2.02 PRODUCT

- A. **HT431 Single Full Height Security Turnstile:** no substitutions. Features of this turnstile shall include a self-centering mechanism to maintain rotor at the stop position with a removeable top cover for inspection and maintenance of internal mechanism.
- B. **Dimensions:** Height 89 3/8"  
Width 62 3/8"  
Depth 55"

##### 2.03 CONSTRUCTION

- A. **Mechanism:** The main mechanism components shall be precision cut by laser from corrosion resistant 304 stainless steel. A heavy-duty hydraulic damper shall be used to ensure smooth rotation of the turnstile arms and a soft return to the home position after every passage. The damper will have a service life of over 10 million cycles. All springs are to be rated for a long service life. All shafts to be made from stainless steel and surrounded by bearings or permanently lubricated oil impregnated bronze bushings.
- B. **Top Channel:** is fabricated from 10-gauge steel. All electrical and mechanical components are attached to the channel. The channel and operating mechanism are covered by a 16-gauge 304 stainless steel cover with a brushed finish.

- C. **Rotor (rotating) Assembly:** consists of a one piece center post fabricated from 3" diameter, 1/8" wall steel tube with 12 rows of 1-1/2" diameter 14 gauge steel arms which are welded to the center rotor post. Each rotor section is set at a position 120 degrees apart from one another. Construction material is carbon steel and galvanized and/or powder coated.
- D. **Stationary Barrier Assemblies (straight, fixed arms in center):** fabricated using 2"x2"x.083" steel vertical posts with 12 horizontal 1 1/2" diameter 14 gage steel arms welded perpendicularly to the post. The assembly consists of a barrier post and 12 arms welded and equally spaced at an offset to the rotor assembly. Construction material is carbon steel and galvanized and/or powder coated.
- E. **Yoke (angled/curved) Assembly:** The yoke is a fully welded 2 piece assembly consisting of 8 vertical steel tubes (1-1/2" diameter .083 wall) welded upper and lower horizontal steel tubes (2" square .083 wall) formed at an angle to comfortably follow the rotor movement allowing for comfortable patron access.
- F. **Bottom Bearing Assembly:** pre-greased tapered roller bearing. The bearing sits on a 2-3/8" diameter stainless steel floor mount base. The base attaches to the floor with a single anchor bolt through the center.

#### 2.04 EQUIPMENT

- A. **One-way mechanical turnstiles** utilize a ratchet assembly to direct traffic flow.
- B. **Electric turnstiles** use a heavy-duty electro-mechanical ratchet and pawl operating mechanism to restrict traffic flow. All electrical controls are low voltage 24 VDC.
- C. **Standard self-centering feature** - the turnstile shall self-center, automatically returning to the "home" position after rotation.
- D. **Shielded bearings** provide free, easy rotation even in hostile environments.

#### 2.05 FACTORY TESTING

- A. Product shall be tested at the factory prior to shipment.
- B. Inspect product finishes and touch up prior to shipment.

#### 2.06 FINISH

- A. **Hot-Dip Galvanized:** All exterior components, except the top channel cover and top and bottom bearing covers (which are to be stainless steel) are to be hot-dip galvanized.

and/or

- B. **Powder Coat:** All exterior components are to be painted in a powder coat color specified by the project requirements.

#### 2.07 Available Options: All full height turnstiles available clockwise, counterclockwise, or bi-directional passage.

- A. **Electronic Operation:** This option includes a 24 VDC pull solenoid and electronic interface PC board with timeout feature, capable of controlling one direction of traffic through an access control device (card reader, RFID, biometric reader, etc.). The timeout feature is used for automatic relocking of the turnstile if entry is not completed.
- B. **Lane Status Indicator Lights:** Red and green lane status indicator lights. Red light illuminates when the turnstile lane is locked and green light illuminates when the turnstile lane is unlocked. Only available with electronic operation turnstiles.
- C. **Card Reader Mounting Plate:** Allows for mounting of reader devices directly to turnstile frame.
- D. **Out of Service Lock:** Manually places the turnstile out of service using a key lock.
- E. **Safety Sleeves:** industrial grade PVC arm sleeves to protect patrons from injury and soften impact with steel arms for comfortable passage. Safety sleeves also shield patrons from extremes in metal turnstile arm temperatures due to installation site climate and sun exposure.
- F. **Additional Options Available Upon Request**

## PART 3 EXECUTION

#### 3.01 SITE EXAMINATION

- A. **Inspection:** Installer must examine the installation location and advise the Contractor of any site conditions inconsistent with proper installation of the product. Turnstile must be installed on a level concrete pad.
- B. **Installation:** Install turnstiles in accordance with manufacturer's instructions.
- C. **Adjustment:** Installer shall adjust turnstiles for proper performance after installation.

**Note: this specification includes recommended options. Hayward Turnstiles, Inc. reserves the right to change this specification at any time without notice. Hayward Turnstiles, Inc. is not responsible for errors or omissions.**