

**SPECIFICATION SECTION**  
**08470**

MANUFACTURER:

**INTERNATIONAL REVOLVING DOOR COMPANY**

2138 N SIXTH AVE.

EVANSVILLE, IN 47710-2895 USA

PHONE: 812-425-3311

FAX: 812-426-2682

TOLL FREE: 800-745-4726

**1.00 DESCRIPTION OF WORK**

**1.01 Description of work**

Provide complete revolving door assemblies which have been fabricated, assembled and tested for proper operation at the factory. Include circular enclosure walls, ceiling, ceiling lights, locks, glass, emergency collapsing mechanism, Jupiter automatic drive, all as required for installation as shown and specified.

**PROVIDE: International Revolving Door Company's Jupiter Design Revolving Door.**

**2.00 MATERIALS**

**2.01 Stainless Steel**

18-8, type 304, with minimum thickness .062 inch.

**Finish**

- A) #4 Fine-lined satin
- B) #6 Fine-lined satin
- C) #8 Mirror polished

**2.02 Bronze**

Bronze Alloy #280 (Muntz Metal) sheet, minimum thickness .062 inch.

**Finish**

- A) #4 Satin fine-lined, lacquered
- B) #4 Statuary fine-lined, lacquered
- C) #6 Satin fine-lined, lacquered
- D) #8 Mirror polished, lacquered

NOTE: It is generally recommended that Bronze Material be field refinished immediately after erection. Regular field maintenance is required on bronze material.

**2.03 Aluminum**

Extrusions and sheets shall be of alloy and temper appropriate for finish and color specified. Extrusions .125 inch minimum thickness; sheets .063 inch minimum thickness.

**Finish**

- A) Anodized - Any Standard Architectural Color Class I anodizing 1.2 mill deep
- B) Painted - Specify any Kynar 500 / Hylar 5000 Finish

**3.00 HARDWARE**

**3.01 Emergency collapsing mechanism**

Collapsing mechanism shall permit the wings to fold to emergency exit position allowing a minimum aggregate width of 36 inches. Pressure setting shall be capable of being adjusted from 60 pounds to a maximum setting of 220 pounds. Revolving door units shall be initially installed with pressure setting of 120 to 140 pounds.

The adjusting device shall be accessible without removal of wings, center shaft or discs. Pressure setting shall be preset and tested in the factory and shall only be adjusted in the field to meet the specific needs of the building.

**3.02 Testing**

All Revolving Doors must be pre-erected & tested in factory prior to shipment.

### **3.03 Jupiter automatic drive**

Continuous Heavy Duty 90 volt DC Motor drive system allowing manual use of Revolving door in the event of power failure.

Motor Controls shall be 110 volt AC with regenerative four quadrant drive capable of controlling both motor direction and torque. Torque limiting feature will be adjustable to allow rapid stalling of wings and motor when pedestrian interference is detected.

### **3.04 Startup options**

- A) Coded carrier active infrared proximity sensors for door startup. Sensors are mortised into the wing muntin and are adjustable from 6" to 24". This "hands free" operation of the touchless switch is ideally suited for compliance with the Americans with Disabilities Act of 1990.
- B) Active infrared presence sensor surface applied at the top rail of each wing. This option is also ideally suited for compliance with the Americans with Disabilities Act of 1990.
- C) Canopy mounted Microwave Motion detectors

### **3.05 Safety systems**

All Jupiter design doors shall adapt their speed automatically to the slowest moving pedestrian, shall comply with the Americans with Disabilities Act of 1990 and shall come equipped with the following:

- A) **Backstop Active Infrared Sensors** - To detect a pedestrian stopped or fallen in the door and allow the wings time to stop to eliminate or reduce impact contact.
- B) **Wall Post Safety Switches** - Located in the leading edge of each entry wall post. Contacting these rubber enclosed cushioned switches will immediately stop the power to the motor.
- C) **Wing collapsing sensors** - This device located at the back stile of each wing will immediately stop the power to the motor anytime a wing is collapsed for emergency egress.
- D) **Push to Slow Switch – (Optional)** Provided at each entry wall post, on actuation the door speed will reduce by 50%. The interior switch will house a key switch; which will act as the main shut off switch.
- E) **Voice Enunciator - (Optional)** To notify all pedestrians when the door is slowing or stopping.

### **3.06 Floor bearing assembly**

Consisting of a stainless steel (type 304) removable stub shaft assembly. Allowing the self-aligning tapered roller bearing to be located within the center housing, elevated above the bottom plate to insure a dry clean atmosphere.

### **3.07 Weather-stripping**

Weather strips shall be made of dual durometer extruded Santoprene and woven felt and installed in top rails, stiles and bottom rails; designed to properly engage the curved enclosure walls, revolving door ceiling and floor. Special adjustment feature will allow for three-eighths inch adjustment.

### **3.08 Ceiling lights (Optional)**

Furnish Manufacturer's standard ceiling lights with lamps and lamp fixtures. Electrical wiring and hookup by electrical contractor.

### **3.09 Wing locks**

Manufacturers standard surface locks using standard mortise cylinders. All hardware surfaces shall match door finish.

## **4.00 GLASS & GLAZING**

### **4.01 Wing glass**

Furnish glass and glazing in strict accordance with governing codes. International Steel Company recommends one-quarter inch thick clear tempered for Jupiter wings.

### **4.02 Wall glass**

Design requires a total of eight lights of single bend glass per revolving door. Manufacturer recommends a minimum 7/16" thickness laminated safety glass.

## **5.00 FABRICATION**

### **5.01 Aluminum**

Fabricate revolving door individual assemblies using reinforced and welded joinery, with all members fitted to flush hairline joints.

## **5.02 Stainless Steel or Bronze**

All members to be fabricated from stainless steel or bronze formed sheet. Reinforcement to be fabricated of stainless steel or bronze sections.

## **5.03 Joints**

Fabricate revolving door individual assemblies using reinforced and face welded surface joinery, with all welds dressed flush and finish blended to match adjacent surfaces. Per American Welding Society standards.

## **5.04 Bending**

Where bends in steel forming are required, all stretch lines and die marks shall be refinished to blend with adjacent surfaces. Door shall be fabricated with no visible glazing stops except those required for the wall bottom rail glazing molds.

## **5.05 Fasteners**

No visible fasteners shall be used except those necessary for the application of manufacturer's hardware, and bottom wall rail glazing mold.

## **6.00 GUARANTEE**

### **6.01 Guarantee**

Manufacturer shall guarantee door to be free from defects in materials and workmanship for a period of one year following initial installation date. The manual speed control shall be guaranteed for five years and shall be adjusted, repaired or replaced should it fail to perform in any respect to the specifications as outlined herein, at no additional cost to the owner.

## **7.00 MAINTENANCE**

### **7.01 Sensors**

Once per week check the function of each safety sensor.

### **7.02 Mechanical egress mechanism**

Every three months, at least, fold wings and check operation. Use a clean, dry paintbrush to remove any accumulation of dirt from areas around the hold plunger and V-recess. Wipe with a slightly oiled cloth to ensure trouble free operation.

### **7.03 Bearings**

Annually lubricate the top and bottom spindle bearings.