

## **SPECIFICATIONS: WON-DOOR DURASOUND (SOUND BARRIER PARTITION STC43)**

### **ACCORDION FOLDING PARTITIONS**

#### **PART 1 - GENERAL**

##### **1.01 SUMMARY OF WORK**

- A. Furnish and install all accordion folding partitions shown on the drawings and specified herein.
- B. All headers, support structures, surrounding insulations, jambs, pocket doors, blocking, architraves and trim shall be furnished and installed by others.
- C. Peripheral leakage of sound through ceiling, floor, other walls, ducts or vents is to be made good by others.

##### **1.02 QUALITY ASSURANCE**

- A. Installation shall be carried out by factory trained personal.
- B. DuraSound model shall have the laboratory sound rating indicated (STC43), when tested in accordance with the requirements of ASTM E-90.

##### **1.03 SUBMITTALS**

- A. Specification listed as either Single Parting, Bi-Parting or Rolling Lead Post.
- B. Indicate Clear Opening Width & Clear Opening Height of partitions (height is from underside of header to top of flooring coverings).
- C. Indicate required stack depth & pocket width (if applicable).
- D. Show installation details, layout and any optional electrical requirements.

##### **1.04 DELIVERY, STORAGE & HANDLING**

- A. Deliver to job site in manufacturer's original and unopened packaging.

##### **1.05 COORDINATION BY GENERAL CONTRACTOR**

- A. Coordinate the efforts of the various trades affected by the work of this section. Assure accurate construction of header, jambs and trims. Provide "As-Built" Final Fabrication dimensions of each opening on forms provided by manufacturer.
- B. Supervise unloading and handling. Store boxes flat (no more than three high) in a dry area and protect from elements that may damage the materials. Replace any damaged materials at no additional cost to the owner.
- C. **OPTION:** If section **2.02 O** is specified, the following paragraph should be included: Permanent power shall be in place for final connection when partitions are installed. Insure access to and proper clearance for motor operators.

##### **1.06 WARRANTY**

- A. Materials shall be warranted against defects and workmanship for a period of three (3) years from the date of installation. DuraSound to be installed by factory trained personal or warranty is void.

## PART 2 – PRODUCTS

### 2.01 MANUFACTURER

- A. Folding partitions shall be DuraSound model as manufactured by Won-Door New Zealand Limited and Won-Door Australia Pty Ltd.

### 2.02 MATERIALS

- A. **Operation:** Shall be top hung and manually operated (no floor track)
- B. **Construction:** Shall consist of two parallel accordion-type folding partition walls of panels independently suspended from top track. With no pantograph or interconnections except for the Lead Post.
- C. **Panels:** Shall be formed of 115mm wide x 1.6mm thick aluminium, V-grooved and powder coated for added strength. Panels shall be connected by full height extruded vinyl hinges.
- D. **Insulation:** Interior surfaces of both walls of partition panels shall be completely covered with a continuous acoustic blanket of high-density foil-backed fibreglass insulation fastened to each panel with patented stainless-steel spring-loaded clips.
- E. **Suspension & Track System:** Shall consist of two extruded aluminium tracks spaced 152mm apart (or 203mm for motorized operation) on centre of header. Tracks to be attached to the overhead structural support.
- F. **Trolleys:** Each panel shall be suspended by a hardened-steel hanger pin and a 25mm diameter nylon-tyred ball bearing roller. Each Lead Post shall be suspended by a 12-wheel ball bearing aluminium trolley.
- G. **Lead Posts:** Shall be of 3.15mm extruded aluminium and shall be connected to the partition by specially designed aluminium Wing Panels.
- H. **Striker (receiver):** Shall be of 1.9mm extruded aluminium and shall be secured to wall with fasteners by Won-Door. Striker face to be fitted with full height acoustic seal.
- I. **Perimeter Seals:** Shall consist of continuous extruded vinyl sweep strips attached to the top & bottom of the partition. Leading edges of Lead Posts and Striker receiver posts shall be acoustically sealed by extruded vinyl interlocking seals.
- J. **Handle:** Lead Post Handles shall include standard grip-type aluminium handles and sliding latch to affect closure.  
Note: *LOCK AND KEY mechanism can also be specified as OPTON (refer 2.02 M).*
- K. **Hanging Weight:** shall be 18kg per m<sup>2</sup>.
- L. **Fixings:** All necessary track and fixing screws are supplied
- M. **OPTION: LOCK AND KEY:** DuraFlex can be specified with a LOCK AND KEY mechanism for added security. Standard specification is for a Latch closure mechanism only.
- N. **OPTION: DURASOUND WITH STABILIZER BAR:** For DuraSound models over 3.4m tall. Shall consist of a top supported, internally mounted diagonal brace connected to the Lead Post for proper alignment during operation and latching. Requires a minimum 368mm wide header (refer manufacturers Technical Details on DuraSound with Stabilizer Bar).
- O. **OPTION: MOTOR OPERATION:**
  - 1. **Operation:** Motor operated folding partition shall be driven by means of a roller chain attached to the stabilizer bar trolley. An internally mounted stabilizer bar shall keep Lead Posts plumb and in proper alignment during operation and insure a tight-fitting closure without the use of mechanical latches.
  - 2. **Assembly:** Shall consist of a 115/230 volt single-phase A.C. motor or 208 volt 3-phase A.C. gear motor, reversing electromagnetic starter and limit switches. Size of each motor shall be determined by manufacturer to insure proper operation.

## **2.04 ACOUSTICAL PERFORMACE**

- A. Sound transmission class (STC) shall be STC43 when tested in accordance with requirements of ASTM E-90.

## **2.05 COLOURS**

- A. Powder coat finish colours to be selected from manufacturer's standard colours.

## **PART 3 – EXECUTION**

### **3.01 PREPERATION BY GENERAL CONTRACTOR**

- A. Openings shall be constructed to the dimensions specified & approved.
- B. Openings to be straight, plumb and level.
- C. Headers to be parallel with the finished floor to within +/- 5mm over the entire length of the opening.

### **3.02 INSTALLATION**

- A. Install partitions in accordance with manufacturer's instructions.
- B. Upon completion of the installation, the General Contractor shall protect partitions from damage and replace or repair subsequent damage so that the partitions are acceptable to the architect, at no additional cost to the owner.

## **PART 4 – FURTHER SPECIFIERS INFORMATION**

### **4.01 ELEVATION DESIGN SPEC**

- A. Single Parting – single partition which stacks entirely to one side when in the open position and latches closed at the other side.
- B. Bi-Parting – two partitions which stack to each side when in the open position and latch together in the middle.
- C. Rolling Lead Post – single partition which can latch closed at both sides and stack open at both sides.

### **4.02 PLAN VIEW DESIGN SPEC**

- A. Straight door only – all track types can be specified.

### **4.03 TRACK DESIGN SPEC**

- A. T-11 Standard Track with Soffit (310mm wide).
- B. T-11 Standard Track without soffit (305mm wide).
- C. T-02 Suspended Ceiling Track (282mm wide).
- D. If **2.02 Option N or O** is specified, then T-09 Track system with Soffit (364mm wide).

Tracks generally supplied as standard to match colour of partition. Arctic White, or other colours can be specified for the Track system to tie in with surrounding ceilings/bulkheads. Refer manufacturers Technical Details for further information on track types and designs.

#### **4.04 STACK DIMENSIONS**

- A. Stack Depth for DuraSound is 146mm per lineal meter of opening plus 152mm for Lead Post.  
For Bi-Parting partitions use half the width of the opening.
- B. Thickness of the door when Stacked Open is 280mm.

#### **4.05 MAXIMUM DIMENSIONS**

- A. 3.4m high Standard model DuraSound
- B. Over 3.4m high DuraSound with Stabilizer Bar
- C. Over 4.0m high Motorized Operation required (max 5m high)  
Note: almost no limitations in width.

#### **4.06 REQUIRED DIMENSIONS FOR MANUFACTURE**

- A. Fully detailed and authorised measurements of the opening are required on Fabrication Measurements Forms provided by Won-Door.
- B. Typical opening measurements required:
  - Width at top of opening.
  - Height at 2m intervals across length of opening.
  - Floor Covering thickness.

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