MODEL BM – Motor Operated (Belt Drive)
Service Door
Galvanized Finish – Between Jamb Mount

1.0 GENERAL

1.1 Summary

A. All Rolling Service Doors shall be as manufactured by Service Door Industries, Mississauga, Ontario, Canada. Furnished materials shall include all curtains, bottom bars, guides, brackets, hoods, operating mechanisms and any special features.

B. Work not to be included by **SDI** includes design of, material for, and preparation of door openings but not limited to structural or miscellaneous iron work, access panels, finish painting, electrical wiring, conduit and disconnect switches.

1.2 Quality Assurance

A. Exterior rolling service doors shall be designed to withstand at least a twenty (20) pounds per square foot wind load. Endlocks/windlocks shall be installed on every slat for doors over 14'1" wide.

B. All rolling service doors shall be designed to a standard maximum of 25 cycles per day and an overall maximum of 50,000 operating cycles for the life of the door.

2.0 PRODUCTS

2.1 Materials

A. The door curtain shall be constructed of interconnected strip steel slats conforming to ASTM A-526. The proper gauge of steel shall be chosen as follows:
   1. 22 gauge with a [Curved Slat (measuring 2-1/4" high by 3/4" deep)] [Flat Slat (measuring 2-1/4" high by 5/8" deep)] as designated by **SDI** if the door width is under or including 21'2".
   2. 20 gauge with a [curved] or [flat] slat as designated by **SDI** if the door width is between 21'3" and 24'2".
   3. 18 gauge flat slat (measuring 2-3/4" high by 3/4" deep) as designated by **SDI** if the door width is over 24'2".

B. The finish on the door curtain shall be galvanized consisting of the following:
   1. Hot dipped galvanized G-90 coating consistent with ASTM A-525

C. The bottom bar shall consist of two 1/ 8" steel angles mechanically joined together. The finish on the bottom bar shall be one (1) coat of prime paint.

D. The guides shall consist of 3 steel angles bolted together with 3/8" fasteners to form a channel for the curtain to travel. The wall angle portion shall be continuous and fastened to the surrounding structure with either minimum 1/2" fasteners or welds, both on 36" centers. The finish on the guide angles shall be prime paint.

E. The brackets shall be constructed of steel not less than 1/4" thick and shall be bolted to the wall angle with minimum 1/2" fasteners. The finish on the brackets shall be prime paint.

F. All gears shall be cast iron with teeth cast from machine cut patterns. The pinion gear shall not be less than a 3" pitch diameter. The gear ratio shall be designed for a maximum effort of not more than 30 pounds.

G. The barrel shall be steel tubing of not less than 4" in diameter. Oil tempered torsion springs shall be capable of correctly counter balancing the weight of the curtain. The barrel shall be designed to limit the maximum deflection to .03" per foot of opening width. The springs shall be adjusted by means of an exterior wheel. The finish on the barrel shall be prime paint.

H. The hood shall be fabricated from 24 gauge galvanized steel and shall be formed to fit the curvature of the brackets. The finish on the hood shall be galvanized.

2.2 Operation

A. The door shall be operated at a speed of 2/3 foot per second by an open drip-proof electric motor with belt drive and roller chain sprocket reducer. The motor operator shall include a geared limit switch, and an electrically interlocked emergency chain operator. The motor starter shall be housed in a NEMA 1 housing and include a magnetic reversing starter size 0, a 24 volt control transformer, and complete terminal strip to facilitate field wiring. The motor operator shall be activated by [a 3 button push-button station] [other controls as selected] in a NEMA 1 enclosure. The motor shall be size as required by the door [115 volts single phase] [230 volts single phase] [230 volts three phase] [460 volts three phase] [575 volts three phase]. The motor operator shall be mounted to the door bracket as shown on drawings. All motor operators shall be U.L. listed.

B. The service door shall include the "Air Wave Technology" rolling door safety edge system as manufactured by **SDI** and shall include the following features:
   1. The safety edge shall be installed on the bottom bar of the door and shall automatically reverse the door if the device detects an obstruction in the downward travel of the door.
   2. The safety edge shall consist of a rubber boot attached below the bottom bar with an electrical switch secured to the back of the bottom bar. The safety edge shall operate with air wave technology and shall not rely on pneumatic pressure or electrical strip contacts to operate properly. The safety edge shall create an air wave that shall be detected and reverse the direction of the rolling door.
   3. The operation of the safety edge shall not be subject to interferences by temperature, barometric pressure, water infiltration, or cuts in the rubber boot.

3.0 EXECUTION

3.1 Installation

A. All **SDI** Rolling Service Doors shall be installed by an authorized **SDI** Distributor.

3.2 Warranty

A. All **SDI** Rolling Service Doors shall be warranted for a period of twelve (12) months from the time of shipment against defects in workmanship and materials.