MODEL “SECTOR”
Light Weight,
High Speed

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Architectural Specifications* Model "Sector"

PART 1 - GENERAL Ref Master Format

1.1 SECTION INCLUDES:

.01 Steel channel door frames and reinforcing steel. Section 05500.

.02 Electrical power supply. Division 16, Electrical.

1.2 DESIGN CRITERIA

.01 Rolling door to have modular curtain sections, modular counterweights and knock-away feature for easy reassembly upon impact.

.02 Rolling door polyester curtain for service temperature range of -4°F to +122°F (-20°C to +50°C).

.03 Rolling door PVC vision panels for service temperature range of 23°F to +122°F (-5°C to +50°C).

1.3 SAMPLES

.01 Submit shop drawing in accordance with Section 01340 [Division 1 - General Requirements] - Shop Drawings, Product Data, Samples and Mock-Ups.

1.4 SHOP DRAWINGS

.01 Submit shop drawing in accordance with Section 01340 [Division 1 - General Requirements] - Shop Drawings, Product Data, Samples and Mock-Ups.

.02 Indicate each type of door arrangement of hardware, required clearances, electrical characteristics including voltages, size of motors, auxiliary controls and wiring diagrams.

.03 Indicate assembly details and dimensions of fabrication, required clearances and electrical connections.

PART 1 – GENERAL

1.5 MAINTENANCE DATA

.01 Provide operation and maintenance data for the Model “Sector” door and hardware for incorporation into manual specified in Section 01730 [Division 1 - General Requirements] - Operation and Maintenance Manual.

.02 Maintenance data shall include:

- a complete description of operation in order of task
- wiring diagrams showing all electrical connections
- a list of parts requiring replacement
- a parts list with illustrations and identifications
- identification numbers for each door

1.6 QUALITY ASSURANCE

.01 Installer with Factory-Approved qualifications.

PART 2 - PRODUCTS

2.1 MATERIALS

.01 The acceptable material for the roll-up door is to be as per the Model “Sector” Door System as manufactured by TNR Industrial Doors or approved equal. All approved equals must be submitted for approval ten (10) days prior to the closing date of tender and must be approved in writing by addenda.

2.2 CURTAIN

.01 Self extinguishing polyester, modular sections, horizontally connected with aluminium extrusions. Polyester provides normal resiliency and flexibility at temperatures ranging from -4° F to +122°F (-20°C to +50°C)

.02 Standard colours of blue, red or orange.

PART 2 – PRODUCTS

2.3 GUIDES

.01 Side curtain retention: Guides shall be two-piece formed galvanized steel to form a slot of sufficient width to allow the curtain and bottom bar to move freely in the guides at all times.

.02 Side Columns: Top of columns to provide for direct attachment of transom. Door to be self-supporting, additional customization of door frame is not required.

2.4 BOTTOM RAIL

.01 Bottom bar shall extend the full width of the curtain, sufficient to maintain the bottom edge of the curtain parallel to the door threshold at all times. The bottom bar shall be constructed of two aluminium extrusions bolted together and shall have flexible knock-away arms to reduce risk of damage during accidental impact, allowing for simple re-assembly.

2.5 ROLL-UP DOOR SYSTEM

.01 The curtain is to be rolled on a barrel of sufficient size to carry the door load with a deflection of not more than 2.5 mm/m (.03" per foot) of opening width. Both the drive barrel shafts are to be constructed of minimum 25mm steel shafts.

.02 Door shall be designed to operate safely with the use of a modular counterweight system.

.03 End brackets are constructed of 10 gauge, formed galvanized steel sheet c/w sealed heavy-duty, self-aligning bearings with cast iron housings to support the drive barrel. Bearings shall be load-rated at 1430 kg (3150 lbs.) dynamic and 800 kg (1760 lbs.) static.

.04 Transom shall brace endplates together at the top, back and front with a formed galvanized steel full roll cover.

PART 2 - PRODUCTS

2.6 REVERSING EDGE

.01 Equip door with a fail-safe reversing sensing edge to stop and reverse door to manufacturer’s standard.

2.7 ACCESSORIES

.01 Various accessories are available i.e.: radio controls, motion sensors, loop detectors, pull cords, etc.

2.8 CONSTRUCTION

.01 Doors: constructed of steel, aluminum and polyester curtain.

.02 Structural elements: assembled by mechanical fasteners.

2.9 OPERATION OF DOOR

.01 Doors shall be equipped for operation by:

1- electric operator
2- manual egress

2.10 MANUAL OPERATION

.01 Emergency egress shall be provided to allow manual door operation.

2.11 ELECTRICAL OPERATION

.01 Electric door operators shall be UL Listed, inverter compatible, planetary gear type c/w plug and play wiring as required, to manufacturer’s standard.

.02 Motor and sprockets to be of capacity to open door at maximum speeds of up to 48" per second, depending on door size to manufacturer’s standard, rated for 1.5 HP, 210 Voltage, 3 phase, 50/60 Hz.

.03 Operator shall be equipped with rotary cam limit switches to control open and close door positions as well as an electro mechanical brake system to stop and hold door in any position to manufacturer’s standards.

PART 2 - PRODUCTS

2.11 ELECTRICAL OPERATION (cont'd)

.04 Operator shall be equipped with built-in manual egress. Built-in electrical interlock shall prevent motor operation during use of manual egress.

.05 Control Panel:
Panel enclosure shall be NEMA-4 and wiring shall be completed by manufacturer and shall be UL Listed. Drive system shall be controlled by an integrated circuit board c/w variable frequency inverter drive for soft start and soft stop door operation. Motor control by a reversing contactor is not acceptable. Control panel shall have fused primary power, adjustable closing timer, four push buttons for open, partial open, close and stop functions.

.06 Control panel designed for 208/230 primary voltage or to include multi-tap transformer for primary power supply of 480 or 600 volts where applicable.

PART 3 - EXECUTION

3.1 INSTALLATION

.01 Install doors in accordance with manufacturer's printed instructions.

.02 Install electrical motors, controller units, push-button stations and other electrical equipment required for door operation.

.03 All electrical wiring including power supply, control and interface located near the door to be installed by an electrical contractor (to be put into electrical contractor's specification).

.04 Upon completion of the door and electrical installation, the door installer must make necessary adjustments to the door to ensure smooth operation.