GT SYSTEM 300 & 8300
OVERHEAD CONCEALED (OHC)
Suggested Architectural Specifications
Section 8

Models GT300 & GT8300
HEAVY DUTY - SWING DOOR OPERATOR - OVERHEAD CONCEALED

Division 08 – Openings
Section 08 42 29.33 SWINGING AUTOMATIC ENTRANCES

Note to Specifier: Articles and paragraphs below may be edited or modified to suit specific project requirements.

Add section numbers and titles per CSI "MasterFormat" and specifier's standard practice. Contact manufacturer's representative to discuss specification modifications, performance requirements, accessories and/or related equipment that may be applicable to this project.

Part 1 - GENERAL

1.01 DESCRIPTION

A. Furnish and install swing door equipment as indicated on drawings and specifications.

B. Related work specified elsewhere.
   a. Electrical Supply:
      Section_____

1.02 REFERENCES

A. American Association of Automatic Door Manufacturers (AAADM) - www.aaadm.com
B. American National Standards Institute (ANSI) - www.ansi.org
C. Builders' Hardware Manufacturers Association (BHMA) - www.buildershardware.com
D. Underwriters Laboratory, Inc. (UL) - www.ul.com
E. Canadian Standards Association (CSA) - www.csa.ca
F. National Fire Protection Association (NFPA) - www.nfpa.org
G. International Code Council (ICC) - www.iccsafe.org

1.03 QUALITY ASSURANCE

A. Manufacturer's Qualifications: Manufacturer to have at least (5) five years of experience in the fabrication of automatic and manual entrance systems.

B. Installer's Qualifications: Products specified shall be represented by a factory authorized and trained distributor. Distributor shall be AAADM Certified, maintain a parts inventory and have trained service personnel with experience installing and maintaining units indicated for this project.

C. All automatic equipment to comply with UL325 (USA and Canada).

D. All automatic equipment to comply with ANSI A156.10.

1.04 SUBMITTALS

A. Product Data: Submit manufacturer's product and complete installation data for all materials covered in this section.

B. Shop Drawings: Submit complete elevations, details and methods of anchorage to location; installation of hardware; size, shape, joints and connections; and details of joining with other construction.

C. Templates and Diagrams: As needed shall be furnished to fabricators and installers of related work for coordination of door system installation with concrete work, masonry, and other related work.

D. A copy of appropriate manual shall be provided to owner / contractor upon completion of installation.

1.05 SUBSTITUTIONS

A. Equipment as manufactured by NABCO Entrances, Inc. has been specified and shall be quoted as the base bid. Proposals for substitution products may be submitted by the bidding contractors a minimum of 10 days prior to bid due date. The proposed substitution shall meet the quality and performance standards described in this specification.

NABCO Entrances Inc.
S82W18717 Gemini Dr. Muskego, WI 53150
Phone 877.622.2694 | **Fax** 888.679.3319 | Email info@nabcoentrances.com

1.06 JOB SITE CONDITIONS

A. Site Survey: Verify site conditions including, but not limited to the following; opening sizes, floor conditions, plumb and level mounting surfaces (substrates shall be of proper dimension and material).

B. Coordinate installation with glass, glazing, hardware and other trades to avoid construction delays.

1.07 WARRANTY

A. Warranted materials shall be free of defects in material and workmanship for a period of one year from date of substantial completion. During the warranty period the Owner shall request NABCO factory-trained technicians to perform service. Warranty repairs are provided during normal business hours. Owner to receive warranty after completion of installation.

PART 2-PRODUCTS

2.01 APPROVED MANUFACTURER

A. All door equipment shall be manufactured by:

NABCO Entrances Inc.
S82 W18717 Gemini Drive
Muskego, WI 53150
Phone: (877) 622-2694
Fax: (888) 679-3319
Email: info@nabcoentrances.com

2.02 AUTOMATIC OVERHEAD CONCEALED (OHC) SWING DOOR SYSTEM
Model GT300 Bottom Load or GT8300 Side Load Swing Door System as indicated on door schedule and details.

A. Mode of operation: Spring Close. NABCO swing operator shall open door by energizing motor and shall stop door by electrically reducing voltage and stalling motor against mechanical stop. Door shall close by means of spring energy and closing force shall be controlled by gear system and with motor being used as a dynamic brake without power. System shall operate as a manual door control in event of power failure. Manual operation shall require less than 30 lbs. force applied to door lockstile. Opening and closing speeds shall be adjustable. Hold open time shall be adjustable from 1-60 seconds. Door operation shall not require any fluids or gases under pressure to be used in opening and closing of door.

B. Components:

1. Operator Housing
2. NABCO GT300 & GT8300 Swing Door Operator
3. Microprocessor Control
4. Connecting Hardware
5. Breakaway Door Stop – If required

1a) Operator Housing for the GT300 Bottom Load shall be, 5 1/2" (140mm) deep by 5" (127mm) high aluminum extrusion with finished end caps and shall be prepared for mounting to new or existing door frames. All structural sections shall have a minimum thickness of .146” (4mm) and shall be fabricated of 6063-T5 aluminum alloys. Housing cover shall be removable to provide service access and shall be extruded from 6063-T5 aluminum alloys to a minimum thickness of .093” (2mm). Plastic covers shall not be acceptable.

1b) Operator Housing for the GT8300 Side Load shall be, 5 1/2" (140mm) deep by 6" (152mm) high aluminum extrusion with finished end caps and shall be prepared for mounting to new or existing door frames. All structural sections shall have a minimum thickness of .166” (4mm) and shall be fabricated of 6063-T5 aluminum alloys. Hinged housing cover shall be able to be raised and secured or removed to provide service access and shall be extruded from 6063-T5 aluminum alloys to a minimum thickness of .100” (3mm). Plastic covers shall not be acceptable.

1c) Finish: Aluminum shall have a standard finish of AA-M12-C22-A31 (204R1, clear) or AA-M12-C22-A44 (dark bronze). Black and special finishes available upon request.

2) Motor/Operator: Completely assembled and sealed unit which shall include helical gear-driven transmission, mechanical spring and bearings, all located in cast aluminum housing and filled with special lubricant for extreme temperature conditions. Attached to transmission system shall be a DC shunt-wound permanent magnet motor with sealed ball bearings and motor mounted position encoder for exact door positioning and control. Door systems utilizing mechanical or magnetic position switches in lieu of motor encoder for determining door position shall not be approved. Motor shall operate from 115-volt supply and require less than 5 amps at full stall. Complete unit shall be resilient mounted with provisions for easy

NABCO Entrances Inc.
S82W18717 Gemini Dr. Muskego, WI 53150
Phone 877.622.2694 | **Fax** 888.679.3319 | Email info@nabcoentrances.com

replacement without removing door from pivots or frame. Systems that require door panels to be removed for servicing the motor-operator shall not be approved.

3) NABCO Opus Controller: Controller shall be equipped with multiple programmable inputs and outputs to enable custom door performance to meet specific jobsite requirements. Controller be microprocessor based with LCD on board programming display and rotary dial. LCD display to indicate current operational status of inputs and outputs and history data in real time. To facilitate remote control and ease of programming controller shall also be Bluetooth compatible. The microprocessor control shall allow the opening speed, closing speed; back check speed, latch check speed and back check and latch check positions to be adjusted separately and independently from each other to meet specific door widths and site conditions. The control system shall also be capable of providing transistor output signals at the door closed or door open positions to facilitate interaction with security and access control systems. Normally open or normally closed activation and safety signal inputs shall be available and able to be switched programmatically. Non-critical error resetting to be accomplished via cycling of On/Off Mode Switch. The processor shall be capable of providing information on the number of operations and error codes for maintenance purposes. Adjustable opening and closing speeds shall be set in accordance with ANSI 156.19. Control shall include time delay, Push-N-Go functionality and sequential mode operation. All adjustments shall be specific and reproducible.

4) Connecting Hardware: Connect overhead (OHC)-type power operator drive arm to door with a pin linkage rotating in a self-lubricated bearing, within a self-adjusting slide block, traveling in an interconnected steel track and top door pivot assembly. The (OHC) unit will independently support the door on heavy-duty steel top and bottom door pivots. To allow for durability and easy serviceability, the door shall not pivot on shaft of operator.

5) Emergency breakaway doorstop shall mount directly to the underside of operator housing. It shall function as a stop on all center pivoted in-swinging doors. A force of not more than 50 LBF applied at the lock stile shall cause the breakaway stop to rotate, interrupt automatic operation and allow the door to swing open 180 degrees opposite its normal travel. Swinging the door back into the normal mode of operation resets the breakaway doorstop and reengages the operator for normal automated operation.

2.03 ACTIVATING DEVICES

A. Sensor Devices - Approach side. NABCO Entrances Acusensor or Optex Reaction Two

   a. The Acusensor as manufactured by NABCO Entrances, INC. is a presence sensing active infrared sensor. Sensing shall be provided in a rectangular shaped pattern with sensing immediately next to the door system. To provide optimum coverage to meet specific site conditions the sensing pattern width and depth shall be adjustable while remaining at a full power setting.

   b. The OPTEX Reaction Two microwave sensor is specially designed to increase efficiency on opening of automatic doors. Uni-directional mode ignores traffic moving away from the door and assures the minimum door open time. The OPTEX microwave provides fast detection for automatic door installations and particularly for applications with high-speed entries.

B. Sensor Devices - Swing Side. The Optex OA Edge system shall be provided which includes two sensors mounted near the top of the door to provide continuous sensing coverage on both sides of the door panel including during the opening and closing operations.

C. Additional Specification Options for consideration - See product catalog.

PART 3-EXECUTION

3.01 INSTALLATION

A. Door equipment shall be installed by manufacturer-approved, factory-trained installers in compliance with manufacturer's recommendations and approved shop drawings.

3.02 CLEANING AND PROTECTION

A. After installation, clean framing members as recommended by manufacturer. Aluminum surfaces in contact with masonry, concrete, or steel shall be protected from contact by use of neoprene gaskets where indicated or a coat of bituminous paint to prevent galvanic or corrosive action. Advise general contractor to protect unit from damage during subsequent construction activities.

NABCO Entrances Inc.
S82W18717 Gemini Dr. Muskego, WI 53150
Phone 877.622.2694 | **Fax** 888.679.3319 | Email info@nabcoentrances.com

- **COVER NOTE TO SPECIFICATION WRITER**
  Indicate under appropriate Section the following work by others:

  - ELECTRICAL INSTALLER shall furnish and install all conduit and electrical wiring for activating devices and door operators. A minimum of 5 amperes, 115 volts, A/C, 1-phase circuit shall be furnished for each door operator, terminate and connect to operator control panel, in operator housing.

  - CONCRETE INSTALLER shall prepare floor at location of automatic entrance system to be level and smooth without changes in elevation between foundation and associated walkways.

END OF SECTION

NABCO Entrances Inc.
S82W18717 Gemini Dr. Muskego, WI 53150
Phone 877.622.2694 | **Fax** 888.679.3319 | Email info@nabcoentrances.com