



Door & Access Systems
Manufacturers Association
International

TECHNICAL DATA SHEET

#454

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Guide Specification for High Performance Doors

PART 1 – GENERAL

1.01 SUMMARY

A. Section Includes:

1. These specifications include various general aspects of high performance doors that may be considered for an application. Specific high performance door aspects should be obtained from the manufacturer's product information for the door specified.

1.02 REFERENCES

A. Definitions:

1. High Performance Door - A power-operated rolling, folding or sliding non-residential door, generally characterized by 100 or more cycles per day and/or 20 or more inches per second opening speed, and typically made-to-order and/or designed for higher durability, and/or designed to break away due to equipment impact.
2. High Speed Door - A subcategory type of High Performance Door; a non-swing door used primarily to facilitate vehicular access of material transportation, having an automatic closing device, with a minimum average opening rate of 32-inches per second and a minimum closing rate of 24-inches per second.

1.03 SUBMITTALS

A. Product Data:

1. For each type and size of high performance door and accessory, include details of construction relative to materials, components, profiles, and finishes. Provide basic dimensions, operating instructions, and maintenance information. Provide basic control/motor information.

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This Technical Data Sheet was prepared by the members of DASMA's High Performance Door Division. DASMA is a trade association comprising manufacturers of high performance doors, fire doors, grilles, counter shutters, sheet doors, and related products; upward-acting residential and commercial garage doors; operating devices for garage doors and gates, sensing devices, and electronic remote controls for garage doors and gate operators; as well as companies that manufacture or supply either raw materials or significant components used in the manufacture and installation of the Active Members' products.

- B. Shop Drawings:
1. Show actual dimensions, anchoring information, forces/loads (if required) and installation details.
 2. Wiring Diagrams - Detail wiring for power, signal, and control systems. Differentiate between manufacturer-installed and field-installed wiring and between components provided by door manufacturer and those provided by others.
- C. Samples:
1. Provide product samples from the manufacturer that accurately portray colors, finishes, and other physical qualities to be observed for approval by the design professional.
 2. Provide manufacturer's written operations and maintenance manuals.

1.06 QUALITY ASSURANCE

- A. Qualifications:
1. Manufacturer Qualifications - Engage a company experienced in manufacturing high performance doors like those indicated for this project and with a record of successful in-service performance.

1.07 DELIVERY, STORAGE AND HANDLING

- A. Delivery and Acceptance Requirements:
1. Door shall be delivered in such a manner to keep all packaged materials intact and protected from any unnecessary impact with other objects.
- B. Storage and Handling Requirements:
1. Where doors are required to be stored at the job site prior to installation, packaging shall be kept intact. Doors shall be stored away from excessive heat or cold, excessive humidity, contact with water, and contact with any environmental hazards.

1.08 WARRANTY

- A. Manufacturer Warranty:
1. As specified.

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2.03 PERFORMANCE / DESIGN CRITERIA

- A. Design and Configuration Requirements:
 - 1. Breakaway / Re-feed capabilities. If required, as specified.

- B. Structural Performance Requirements:
 - 1. Resistance to Wind Load. If required, as specified. Wind load may be determined in accordance with ASTM E330, TAS 202 or ANSI/DASMA 108. For testing to either ASTM E330 or ANSI/DASMA 108, acceptance criteria shall be as per ANSI/DASMA 108.
 - 2. Windborne Debris Resistance: If required, windborne debris resistance may be determined in accordance with either ANSI/DASMA 115 or TAS 201/203.

- C. Operation-Speed Requirements:
 - 1. Door Opening Speed. As specified.

- D. Operation-Cycle Requirements:
 - 1. Cycle Life. If required, as specified. Product cycle life may be determined in accordance with ANSI/DASMA 109.

- E. Section/Panel Thermal Resistance Requirements:
 - 1. R-value. If required, as specified. R-value of a door section or panel may be calculated in accordance with procedures outlined in DASMA TDS-163, or may be determined in accordance with ASTM C177 or ASTM C518.

- F. Assembly Thermal Transmittance Requirements:
 - 1. U-factor. If required, as specified. U-factor of a door assembly may be determined in accordance with either ANSI/DASMA 105 (testing) or NFRC 100/NFRC 102 (simulation and validation testing).

- G. Assembly Air Leakage Requirements:
 - 1. If required, as specified. Air leakage may be determined in accordance with either ASTM E 283 or ANSI/DASMA 105.

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H. Assembly Solar Heat Gain Coefficient**Requirements:**

1. If required, as specified. For doors containing glazing, the solar heat gain coefficient of the entire door assembly may be determined in accordance with either NFRC 200 (calculation/simulation) or NFRC 201 (testing).

I. Safety Performance Requirements:

1. Where supplied, pedestrian entrapment protection shall comply with UL 325.

2.04 OPERATION**A. Operators:**

1. Automatic Operation- Installation involving either timer to close or user-initiated activation shall be as specified.
2. Non-powered Manual Operation- As specified.

B. Controls:

1. NEMA rating and UL listing. As specified.

2.05 MATERIALS**A. Guide Tracks:**

1. As specified.

B. Perimeter Weather Seals:

1. As specified.

C. Door Headers, Spiral Guides, Drive Shaft, Upper Assembly:

1. As specified.

D. Door Curtain Counterbalance Assembly:

1. As specified.

E. Door Panels:

1. As specified.

F. Bottom Edge of Door:

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1. As specified.

2.08 ACCESSORIES

- A. Activation/ Sensors:
1. As specified.

PART 3 - EXECUTION

3.01 INSTALLERS

- A. Selection and Qualification of Personnel:
1. Engage experienced personnel who are authorized representatives of the high performance door manufacturer for installation, maintenance and repair of units required for the project.

3.02 EXAMINATION

- A. Verification of Conditions:
1. Examine wall and overhead areas, including opening framing and blocking, with Installer present; for compliance with requirements for installation tolerances, clearances, and other conditions affect performance of Work of the Section.
 2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.04 INSTALLATION

- A. General:
1. Install door assembly according to the Shop Drawings, manufacturer's written instructions, and as specified.
- B. Fastening and Mounting:
1. Fasten door assembly to building medium in accordance with the manufacturer's written instructions, using the proper fastening method for the application.

3.05 SYSTEMS STARTUP

- A. Initial Operation:
1. The door shall be automatically fully closed and opened a minimum of 5 times to ensure smooth and safe operation.
- B. Test Run:

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1. Test and adjust as specified.

3.06 ADJUSTING

A. Starting and Adjusting:

1. The high performance door manufacturer's written instructions shall be followed regarding proper operation, routine maintenance, troubleshooting procedures and means of handling repairs.

3.07 CLOSEOUT ACTIVITIES

A. Training:

1. Train the end user as required.

END OF SECTION

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