

SECTION 08351

ACCORDION FOLDING DOORS

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(due to continuing product development, these specifications are subject to change

Woodfold-Marco offers a complete line of space utilization dividers, sight dividers, room dividers, security, and energy saving accordion folding doors for commercial, institutional, and residential applications.

SECTION 08351 - ACCORDION FOLDING DOORS

PART 1 GENERAL

1.1 SECTION INCLUDES

Delete items below not required for project.

- A. Accordion Folding Doors.
- B. Accordion Folding Security Doors.
- C. Accordion Folding Utility Doors.
- D. Accordion Folding Room Dividers.
- E. Acoustical Rated Accordion Folding Doors.

1.2 RELATED SECTIONS

Delete any sections below not relevant to this project; add others as required.

- A. Section 06100 - Rough Carpentry.
- B. Section 06200 - Finish Carpentry.

1.3 REFERENCES

Delete references from the list below that are not actually required by the text of the edited section.

- A. ADA - Americans with Disabilities Act.
- B. ASTM E 336 - Standard Method of Measurement of Airborne Sound Insulation in Buildings.

Light Oak Vinyl and Chalk Vinyl door panel coverings available with Class 1 fire retardant panel core; delete Article if inapplicable. Fire resistance rating is for core panel material only - it does not apply to doors or openings.

1.4 SYSTEM DESCRIPTION

- A. Performance Requirements: Class 1 fire retardant door panel core material.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's descriptive literature for door opening assemblies; include specified and required components.
- C. Shop Drawings: Indicate door and opening sizes, and head and jamb conditions.

Delete the following paragraph if specifying custom panels or finishes.

- D. Selection Samples: Two sets of manufacturer's standard-size color chips, or color chart, representing manufacturer's full range of available finishes.
- E. Verification Samples: Two samples, minimum size 4 inches square, representing actual

color and finish of installed door panel.

F. Quality Assurance Submittals: Printed installation instructions for door assemblies, including each component.

1.6 QUALITY ASSURANCE

A. Regulatory Requirements: Door opening assemblies ADA compliant for opening load force.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Store products of this section in manufacturer's unopened packaging until installation.

B. Maintain dry, heated storage area for products of this section until installation.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Woodfold-Marco Mfg., Inc.; P.O. Box 346, Forest Grove OR 97116; Voice 503-357-7181, FAX 503-357-7185.

Delete one of the two following paragraphs; coordinate with Division 01 requirements.

B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

C. Substitutions: Not permitted.

Retain the following Article to specify Woodfold Series 240 door.

2.2 ACCORDION FOLDING DOORS

A. Acceptable Product: Woodfold Series 240 door.

B. Components:

Delete all but one of the following three paragraphs to specify track type required.

1. Track: 1-1/8 inch by 1 inch aluminum, pre-punched for screw fasteners for surface mounting.

2. Track: 1-1/8 inch by 1 inch aluminum, pre-punched for screw fasteners, with aluminum hat channel for recess mounting.

3. Track: 1/2 inch by 1-1/8 inch aluminum, I-beam profile, with ceiling clips; capable of being formed to 12-inch radius curve.

4. Roller assembly: Nylon wheels on ball-bearing steel axles; rivet-attached to hinge, dual trolley at lead post, single trolley at alternate panels, type for specified track.

5. Hinge assembly: 18 gauge steel, continuous pin, rivet-attached to top and bottom of door panel, with automatic stop at full extension.

The following sentence specifies standard panel core material; delete if specifying decorative inserts.

6. Panel core material: 1/4 inch thick medium-density fiberboard (MDF), with rabbeted edge for panel connector.

7. Panel connector: Continuous non-rigid vinyl, inserted and glued into panel rabbet.

8. Lead post: Extruded aluminum, 3/4 inch by 2-3/4 inch cross-section.

Retain the following paragraph if specifying pairs of doors or intersecting configurations.

9. Intersecting jamb molding: Types for indicated configurations.

10. Handle: Rigid molded polyvinyl chloride (PVC).

Delete all but one of the following five paragraphs to specify latching option required; thumbturn both sides with deadlatch is standard.

11. Latching: Thumbturn both sides with deadlatch.

12. Latching: Magnetic catch.

13. Latching: Thumbturn one side with deadlatch.
14. Latching: Thumbturn one side, pull with keylock on side, with deadlatch.
15. Latching: Pull with keylock both sides, with deadlatch.

C. Finishes:

A wide variety of non-standard finishes can be applied to standard panels, including custom wood finishes, wallcoverings, plastic laminates, custom logos, and murals; in addition, decorative leaded glass and laser-crafted inserts can be incorporated into standard panels. Consult manufacturer for available options.

One of the two paragraphs below can be used to specify manufacturer's standard finishes on standard panels; consult manufacturer's product literature.

1. Panels: Vinyl laminate, _____ pattern.
2. Panels: Hardwood veneer, _____ species, with sealer and clear lacquer topcoats.
3. Aluminum surfaces: Manufacturer's standard finish, in color complementing panel finish.

- D. Sizes: Indicated on drawings.

Retain the following Article to specify Woodfold Series 440 Visifold door.

2.3 ACCORDION FOLDING SECURITY DOORS

- A. Acceptable Product: Woodfold Series 440 Visifold door.
B. Components:

Delete all but one of the following three paragraphs to specify track type required.

1. Track: 1-1/8 inch by 1 inch aluminum, pre-punched for screw fasteners for surface mounting.
2. Track: 1-1/8 inch by 1 inch aluminum, pre-punched for screw fasteners, with aluminum hat channel for recess mounting.
3. Track: 1/2 inch by 1-1/8 inch aluminum, I-beam profile, with ceiling clips; capable of being formed to 12-inch radius curve.
4. Roller assembly: Nylon wheels on ball-bearing steel axles; rivet-attached to hinge, dual trolley at lead post, single trolley at alternate panels, type for specified track.
5. Hinge assembly: 18 gage steel, continuous pin, rivet-attached to top and bottom of vertical panels, with automatic stop at full extension.
6. Panel frame: Aluminum vertical channels having inside dimension between webs to accept 1/8 inch thick material.

Delete one of the following two paragraphs; the first paragraph specifies standard panel. Optional panels of 1/8 inch thick material can be specified using the second paragraph. Consult with manufacturer for options.

7. Panel: 1/8 inch thick transparent acrylic sheet.
8. Panel: 1/8 inch thick _____.
9. Panel connector: Continuous non-rigid vinyl, inserted into panel frame channel.
10. Lead post: Extruded aluminum, 3/4 inch by 2-3/4 inch cross-section.

Retain the following paragraph if specifying pairs of doors or intersecting configurations.

11. Intersecting jamb molding: Types for indicated configurations.

12. Handle: Rigid molded polyvinyl chloride (PVC).

Delete all but one of the following five paragraphs to specify latching option required; thumbturn both sides with deadlatch is standard.

13. Latching: Thumbturn both sides with deadlatch.
14. Latching: Magnetic catch.
15. Latching: Thumbturn one side with deadlatch.
16. Latching: Thumbturn one side, pull with keylock one side, with deadlatch.
17. Latching: Pull with keylock both sides, with deadlatch.

C. Finishes:

Delete all but one of the following three paragraphs to specify panel finishes; first and second paragraphs are for manufacturer's standard finishes, third paragraph is for custom panel finish.

1. Panels: Clear.
2. Panels: Bronze.
3. Panels: _____.
4. Aluminum surfaces: Manufacturer's standard finish, in color complementing panel finish.

- D. Sizes: Indicated on drawings.

Retain the following Article to specify Woodfold Series 540 Visifold Plus door.

2.4 ACCORDION FOLDING SECURITY DOORS

- A. Acceptable Product: Woodfold Series 540 Visifold Plus door.
- B. Components:

Delete all but one of the following three paragraphs to specify track type required.

1. Track: 1-1/8 inch by 1 inch aluminum, pre-punched for screw fasteners for surface mounting.
2. Track: 1-1/8 inch by 1 inch aluminum, pre-punched for screw fasteners, with aluminum hat channel for recess mounting.
3. Track: 1/2 inch by 1-1/8 inch aluminum, I-beam profile, with ceiling clips; capable of being formed to 12-inch radius curve.
4. Roller assembly: Nylon wheels on ball-bearing steel axles; rivet-attached to hinge, dual trolley at lead post, single trolley at alternate panels, type for specified track.
5. Hinge assembly: 18 gage steel, continuous pin, rivet-attached to top and bottom of door panel, with automatic stop at full extension.

Delete one of the following two paragraphs; first paragraph specifies standard panel.

Optional panels of 1/8 inch thick material can be specified using the second paragraph. Consult with manufacturer for options.

6. Panel: 1/8 inch thick transparent acrylic sheet.
7. Panel: 1/8 inch thick _____.
8. Panel connector: Continuous steel vertical rods with rigid polyvinyl chloride (PVC) hinge knuckles full length of each panel edge.
9. Lead post: Extruded aluminum, 3/4 inch by 2-3/4 inch cross-section.

Retain the following paragraph if specifying pairs of doors or intersecting configurations.

10. Intersecting jamb molding: Types for indicated configurations.
11. Handle: Rigid molded polyvinyl chloride (PVC).

Delete all but one of the following five paragraphs to specify latching option required; pull with keylock both sides with deadlatch is standard.

12. Latching: Pull with keylock both sides, with deadlatch.
13. Latching: Magnetic catch.
14. Latching: Thumbturn one side with deadlatch.
15. Latching: Thumbturn both sides with springlatch.
16. Latching: Thumbturn one side, pull with keylock one side, with deadlatch.
17. Latching: Thumbturn both sides with deadlatch.

C. Finishes:

Delete all but one of the following three paragraphs to specify panel finishes; first and second paragraphs are for manufacturer's standard finishes, third paragraph is for custom panel finish.

1. Panels: Clear.
2. Panels: Bronze.
3. Panels: _____.
4. Aluminum surfaces: Manufacturer's standard finish, in color complementing panel finish.

D. Sizes: Indicated on drawings.

Retain the following Article to specify Woodfold Series 640 Visifold door.

2.5 ACCORDION FOLDING SECURITY DOORS

- A. Acceptable Product: Woodfold Series 640 Visifold door.
- B. Components:

Delete all but one of the following three paragraphs to specify track type required.

1. Track: 1-1/8 inch (29 mm) by 1 inch (25 mm) aluminum, pre-punched for screw fasteners for surface mounting.
2. Track: 1-1/8 inch (29 mm) by 1 inch (25 mm) aluminum, pre-punched for screw fasteners, with aluminum hat channel for recess mounting.
3. Track: 1/2 inch (13 mm) by 1-1/8 inch (29 mm) aluminum, I-beam profile, with ceiling clips; capable of being formed to 12-inch (305 mm) radius curve.
4. Roller Assembly: Nylon wheels on ball-bearing steel axles; rivet-attached to hinge, dual trolley at lead post, single trolley at alternate panels, type for specified track.
5. Hinge Assembly: 18 gage (1.2 mm) steel, continuous pin, rivet-attached to top and bottom of door panel, with automatic stop at full extension.
6. Panel: 0.08 inch (2 mm) thick solid aluminum.
7. Panel Connector: Flexible polyvinyl chloride (PVC) hinge knuckles full length of each panel edge.
8. Lead Post: Extruded aluminum, 3/4 inch (19 mm) by 2-3/4 inch (70 mm) cross-section.
9. Intersecting Jamb Molding: 1/4 inch (6 mm) deep, for indicated configurations.
10. Handle: Rigid molded polyvinyl chloride (PVC).

Delete all but one of the following five paragraphs to specify latching option required; latch two sides is standard.

1. Latching: Thumbturn both sides with deadlatch.
2. Latching: Magnetic catch.
3. Latching: Thumbturn one side with deadlatch.
4. Latching: Thumbturn one side, pull with keylock one side, with deadlatch.
5. Latching: Pull with keylock both sides, with deadlatch.

C. Finishes:

Delete one of the following two paragraphs to specify panel style.

1. Panels: Clear anodized aluminum, solid.
2. Panels: Clear anodized aluminum, decorative perforation, nominal 1/2 inch (13 mm) by 1 inch (25 mm) openings.
3. Steel Surfaces: Manufacturer's standard finish, in color complementing panel finish.
4. Aluminum Surfaces: Manufacturer's standard finish, in color complementing panel finish.

D. Sizes: Indicated on drawings.

Retain the following Article to specify Woodfold Series 740 Visifold door.

2.6 ACCORDION FOLDING SECURITY DOORS

A. Acceptable Product: Woodfold Series 740 Visifold door.

B. Components:

Delete all but one of the following three paragraphs to specify track type required.

1. Track: 1-1/8 inch (29 mm) by 1 inch (25 mm) aluminum, pre-punched for screw fasteners for surface mounting.
2. Track: 1-1/8 inch (29 mm) by 1 inch (25 mm) aluminum, pre-punched for screw fasteners, with aluminum hat channel for recess mounting.
3. Track: 1/2 inch (13 mm) by 1-1/8 inch (29 mm) aluminum, I-beam profile, with ceiling clips; capable of being formed to 12-inch (305 mm) radius curve.
4. Roller Assembly: Nylon wheels on ball-bearing steel axles; rivet-attached to hinge, dual trolley at lead post, single trolley at alternate panels, type for specified track.
5. Hinge Assembly: 18 gage (1.2 mm) steel, continuous pin, rivet-attached to top and bottom of door panel, with automatic stop at full extension.
6. Panel: 0.08 inch (2 mm) thick solid aluminum.
7. Panel Connector: Continuous steel vertical rods with rigid polyvinyl chloride (PVC) hinge knuckles full length of each panel edge.
8. Lead Post: Extruded aluminum, 3/4 inch (19 mm) by 2-3/4 inch (70 mm) cross-section.

Retain the paragraph if specifying pairs of doors or interesting configurations.

1. Intersecting Jamb Molding: 1 inch (25 mm) deep, for indicated configurations.
2. Handle: Rigid molded polyvinyl chloride (PVC).

Delete all but one of the following three paragraphs to specify latching option required; pull with keylock both sides is standard.

1. Latching: Pull with keylock both sides, with deadlatch.
2. Latching: Thumbturn both sides with springlatch.
3. Latching: Thumbturn both sides with deadlatch.

C. Finishes:

Retain the following Article to specify Woodfold Series 140 door.

2.7 ACCORDION FOLDING UTILITY DOORS

A. Acceptable Product: Woodfold Series 140 door.

B. Components:

1. Track: 1-1/8 inch by 1 inch aluminum, pre-punched for screw fasteners for surface mounting.
2. Roller assembly: Nylon wheels with Lexan axles; rivet-attached to hinge, single trolley at alternate panels.
3. Hinge assembly: 18 gage steel, continuous pin, rivet-attached to top and bottom of door panel, with automatic stop at full extension.
4. Panel: 1/4 inch thick medium-density fiberboard (MDF), with rabbeted edge for panel connector.
5. Panel connector: Continuous non-rigid vinyl, inserted and glued into panel rabbet.
6. Handle: Rigid molded polyvinyl chloride (PVC), full length of door, with molded finger pull front side.
7. Latching: Magnetic catch, with strike plate for attaching to wall or jamb.

C. Finishes:

Delete one of the following two paragraphs to specify manufacturer's standard finishes on standard panels; consult manufacturer's product literature.

1. Panels: Vinyl laminate, _____ pattern, sight-exposed face; unfinished or utility grade back face, manufacturer's option.
2. Panels: Hardwood veneer, _____ species, with sealer and clear lacquer topcoats, sight-exposed face; unfinished or utility grade back face, manufacturer's option.
3. Aluminum surfaces: Manufacturer's standard finish, in color complementing panel finish.

D. Sizes: Indicated on drawings.

Retain the following Article to specify Woodfold Series 220 door.

2.8 ACCORDION FOLDING ROOM DIVIDERS

A. Acceptable Product: Woodfold Series 220 door.

B. Components:

1. Track: 1-1/8 inch by 1 inch aluminum, pre-punched for screw fasteners, for surface mounting.
2. Roller assembly: Nylon wheels with Lexan axles; rivet-attached to hinge, single trolley at alternate panels.
3. Hinge assembly: 18 gage steel, continuous pin, rivet-attached to top and bottom of door panel, with automatic stop at full extension.
4. Panel: 1/4 inch thick medium-density fiberboard (MDF), with rabbeted edge for panel connector.
5. Panel connector: Continuous non-rigid vinyl, inserted and glued into panel rabbet.
6. Handle: Rigid molded polyvinyl chloride (PVC), full length of door, with molded finger

pull both sides.

7. Latching: Magnetic catch, with strike plate for attaching to wall or jamb.

C. Finishes:

A wide variety of non-standard finishes can be applied to standard panels, including custom wood finishes, wallcoverings, plastic laminates, custom logos, and murals. Consult manufacturer for available options.

Delete one of the following two paragraphs below to specify manufacturer's standard finishes on standard panels; consult manufacturer's product literature.

1. Panels: Vinyl laminate, _____ pattern.

2. Panels: Hardwood veneer, _____ species, with sealer and clear lacquer topcoats.

3. Aluminum surfaces: Manufacturer's standard finish, in color complementing panel finish.

D. Sizes: Indicated on drawings.

Retain the following Article to specify Woodfold Series 2100 door.

2.9 ACOUSTICAL RATED ACCORDION FOLDING DOORS

A. Acceptable Product: Woodfold Series 2100 door.

B. Components:

1. Track: 2 inches by 1-1/8 inches aluminum, pre-punched for screw fasteners for surface mounting.

2. Head molding: Hardwood molding for sound seal to top sweep strips.

3. Roller assembly: Nylon wheels on ball-bearing steel axles; rivet-attached to hinge, dual trolley at lead post, single trolley at alternate panels.

4. Hinge assembly: 18 gage steel, continuous pin, rivet-attached to top and bottom of door panel, with automatic stop at full extension.

5. Sound seal: Extruded vinyl sweeps attached to top and bottom hinge assemblies; 1/2 inch wide sweep for top hinge, 1-3/8 inches wide sweep for bottom hinge.

6. Panel: 1/4 inch thick medium-density fiberboard (MDF), with rabbeted edge for panel connector.

7. Panel connector: Continuous non-rigid vinyl, inserted and glued into panel rabbet.

8. Lead post: Extruded aluminum, 3/4 inch by 2-3/4 inch cross-section.

9. Interlocking jamb moldings: Types for indicated configurations; aluminum with sound seal gaskets.

10. Handle: Rigid molded polyvinyl chloride (PVC).

Retain one of the following four paragraphs to specify latching option required; thumbturn both sides with deadlatch is standard.

11. Latching: Thumbturn both sides with deadlatch.

12. Latching: Thumbturn one side with deadlatch.

13. Latching: Thumbturn one side, pull with keylock one side, with deadlatch.

14. Latching: Pull with keylock both sides, with deadlatch.

15. Latching: Magnetic catch.

C. Finishes:

A wide variety of non-standard finishes can be applied to standard panels, including custom wood finishes, wallcoverings, plastic laminates, custom logos, and murals. Consult manufacturer for available options.

Delete one of the following two paragraphs below to specify manufacturer's standard finishes on standard panels; consult manufacturer's product literature.

1. Panels: Vinyl laminate, _____ pattern.
2. Panels: Hardwood veneer, _____ species, with sealer and clear lacquer topcoats.
3. Head moldings: Finish coordinated with hardware and track system.
4. Aluminum surfaces: Manufacturer's standard finish, in color complementing panel finish.

D. Sizes: Indicated on drawings.

E. Field sound transmission class (FSTC): 21, when tested in accordance with ASTM E 336.

Retain the following Article to specify Woodfold Series 3300 door.

2.10 ACOUSTICAL RATED ACCORDION FOLDING DOORS

A. Acceptable Product: Woodfold Series 3300 door.

B. Components:

1. Track: 2-1/2 inches by 1-3/4 inches aluminum, pre-punched for screw fasteners for surface mounting.

Delete one of the following two paragraphs to specify head molding or optional head track.

2. Head molding: Hardwood molding for sound seal to top sweep strips.
3. Head track: Aluminum, 2-piece, for sound seal to top sweep strips.
4. Roller assembly: Nylon wheels on ball-bearing steel axles; rivet-attached to connecting clips, dual trolley at lead post, single trolley at alternate panels, type for specified track.
5. Hinge assembly: 18 gage steel, continuous pin, rivet-attached to top and bottom of door panel, with automatic stop at full extension; pantograph action for dual-wall door assembly.
6. Panel: 1/4 inch thick medium-density fiberboard (MDF), with rabbeted edge for panel connector.
7. Acoustical liner: Applied to inside faces of both walls.
8. Panel connector: Continuous non-rigid vinyl, inserted and glued into panel rabbet.
9. Lead post: Extruded aluminum, 2-7/8 inches by 4-1/2 inches cross-section, with jamb molding.

Delete all but one of the following three paragraphs.

10. Jamb panel: Flush type.
11. Jamb panel: Post type.
12. Jamb panel: Sliding type.
13. Handle: Rigid molded polyvinyl chloride (PVC).

Delete all but one of the following four paragraphs to specify latching option required; thumbturn both sides with deadlatch is standard.

14. Latching: Thumbturn both sides with deadlatch.
15. Latching: Thumbturn one side with deadlatch.
16. Latching: Thumbturn one side, pull with keylock one side, with deadlatch.
17. Latching: Pull with keylock both sides, with deadlatch.
18. Latching: Magnetic catch.

C. Finishes:

A wide variety of non-standard finishes can be applied to standard panels, including custom wood finishes, wallcoverings, plastic laminates, custom logos, and murals. Consult manufacturer for available options.

Delete one of the following two paragraphs below to specify manufacturer's standard finishes on standard panels; consult manufacturer's product literature.

1. Panels: Vinyl laminate, _____ pattern.
2. Panels: Hardwood veneer, _____ species, with sealer and clear lacquer topcoats.
3. Head moldings: Finish coordinated with hardware and track system.
4. Aluminum surfaces: Manufacturer's standard finish, in color complementing panel finish.

D. Sizes: Indicated on drawings.

E. Field sound transmission class (FSTC): 33, when tested in accordance with ASTM E 336.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions: Verify openings are in accordance with approved shop drawings.
- B. Installer's Examination: Have installer of this section examine conditions under which construction activities of this section are to be performed, then submit written notification if such conditions are unacceptable. Transmit two copies of installer's report to Architect within 24 hours of receipt. Beginning construction activities of this section before unacceptable conditions have been corrected is prohibited. Beginning construction activities of this section indicates installer's acceptance of conditions.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install door assembly components in accordance with accepted shop drawings and manufacturer's printed installation instructions.

3.4 ADJUSTING

- A. Ensure that door assembly components operate correctly in accordance with manufacturer's printed instructions.

3.5 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION