

**dormakaba FSW-ES Horizontal Sliding Walls – Guide Specification**

**dormakaba HSW Horizontal Sliding Wall Systems** are ideal for any application where total vision is required. Whether the purpose is to link or separate, add security, provide noise or thermal insulation, or remove barriers, dormakaba HSW sliding wall systems are available in a variety of configurations to meet your design requirements.

dormakaba HSW sliding wall partitions can be flexibly adapted to a wide range of customer requirements. The beauty of the system is that floor guides are not required, allowing the use of one flooring material throughout and without breaks.

Designed for each individual application and precision-made, dormakaba HSW sliding glass wall partitions are equally suitable for both renovated and newly constructed buildings.

Available versions in this Section:

**●****HSW-ES - Fully glazed horizontal sliding walls with top and bottom rails 4-1/8 inch (105mm) in a variety of sizes**

Other dormakaba sliding wall versions include:

● HSW-DRS - Fully glazed horizontal sliding walls with top and bottom DRS rails in a variety of sizes and finishes

● HSW-FT - Fully framed horizontal sliding walls with thermal-break frame profiles

● HSW-GP - Fully glazed horizontal sliding walls with point-fixed track roller carriers engaging in standard track

● HSW-R - Fully framed horizontal sliding walls for tempered monolithic/laminated safety glass or double glazing

● FSW-ES - Fully glazed folding walls with top and bottom rails 4-1/8 inch (105mm)

● FSW-C - Center hung, fully glazed sliding walls with top and bottom rails 4-1/8 inch (105mm)

We recommend consulting with your dormakaba representative through dormakaba USA Inc.; (800) 523-8483; email: specifications@dormakaba.com; website: [www.dormakaba.com](http://www.dormakaba.com). dormakaba USA products appear in the following CSI MasterFormat specifications sections:

dormakaba Interior and Glass Solutions

08 17 53 Interior Glass Door Assemblies: VISUR; TENSOR, Beyond, MUTO Premium / MUTO Comfort; RS120 / RS120 SYNCHRO; DRS120

08 41 26 All-Glass Entrances and Storefronts: Rail Fittings; Patch Fittings, Headers, and glazing fittings

10 22 15 Fixed Glass Panel Partitions: PURE; PURE Enclose; Privé; Fusion;

10 22 39 Folding Partitions, Glass: FSW ES, C

10 22 43 Sliding Partitions, Glass: HSW DRS, ES, R; FT; GP, R

dormakaba Entrances

08 42 29 Automatic Entrances, Swinging: ED100/ED250; ED400; ED400-IG; ED700

08 42 29 Automatic Entrances, Folding: ED1200

08 42 29 Automatic Entrances, Sliding: ESA100/ESA100T; SA200/ESA200T; ESA300/ESA300T; ESA400; ESA500

08 42 29 Automatic Sliding Interior Entrances: MAGNEO

08 42 43 ICU/CCU Entrances: ICU300 / 300T; ICU1200

CRANE Revolving Doors

08 42 33 Revolving Door Entrances: 1000 Series; 2000 Series; 3000 Series; 4000 Series; KTC Series

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SECTION 10 22 43 – SLIDING GLASS PARTITIONS

1. GENERAL
	* + 1. SUMMARY
				1. Section includes sliding frameless glass panel partitions.
				2. Related Requirements: Related project requirements can be found in the following documents:

Section 05 50 00 "Metal Fabrications" for overhead supports that attach glass panel partition tracks to structure.

Section 28 13 00 "Access Control" for security access system providing control for door access and intrusion detection systems interfacing with glass panel partition door controls.

* + - 1. REFERENCE STANDARDS

Specifier: If retaining References article, edit the list below to include only those references in the edited section.

* + - * 1. American Architectural Manufacturers Association (AAMA): [www.aama.org](http://www.aama.org):

AAMA 611 Voluntary Specification for Anodized Architectural Aluminum

* + - * 1. ASTM International (ASTM): [www.astm.org](http://www.astm.org):

ASTM A666 Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar

ASTM B221/ASTM B221M Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes

ASTM C1048 Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass

ASTM C1172 Standard Specification for Laminated Architectural Flat Glass

* + - * 1. Builders Hardware Manufacturers Association (BHMA): [www.buildershardware.com](http://www.buildershardware.com):

ANSI/BHMA A156 Series

* + - * 1. Code of Federal Regulations

16 CFR 1201 Safety Standard for Architectural Glazing Materials

* + - * 1. International Code Council (ICC): [www.iccsafe.org](http://www.iccsafe.org):

ICC A117.1 Accessible and Usable Buildings and Facilities (ANSI)

* + - * 1. U.S. Architectural & Transportation Barriers Compliance Board: [www.access-board.gov](http://www.access-board.gov):

Americans with Disabilities Act (ADA) and Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities

* + - 1. ADMINISTRATIVE REQUIREMENTS
				1. Coordination:

Coordinate installation of glass panel partitions with installation of floor, wall, and ceiling construction to comply with substrate tolerance requirements of partition manufacturer.

Coordinate installation of anchors and secondary structural members indicated on approved glass panel partition shop drawings and specified in other sections.

* + - * 1. Preinstallation Conference: Conduct conference at Project Site.
			1. ACTION SUBMITTALS
				1. Product Data: For each glass panel partition and door component specified, including:

Glass panels.

Rails and top track.

Door hardware and accessories.

* + - * 1. Shop Drawings: For fixed glass panel partitions.

Include plans, elevations, sections, and details. Provide numbered panel installation sequence.

Show locations and requirements for tracks, bracing, blocking, and attachments to other work.

Indicated stacking arrangements and clearances.

* + - * 1. Hardware Schedule:

Submit hardware schedule for each door opening.

Include catalog cuts if not shown on shop drawings.

* + - * 1. Samples for Verification: For each exposed component including hardware, for each color and finish selected, of size indicated below:

Glass: Units 12 inches (300 mm) square.

Exposed Rail and Track Members: Not less than 6 inches (150 mm) long.

Hardware: One of each type of exposed door hardware items.

Specifier: If required by authorities having jurisdiction, add delegated design requirement for projects requiring seismic bracing designed by Contractor's qualified professional engineer.

* + - 1. INFORMATIONAL SUBMITTALS
				1. Qualification Data: For qualified installer.
				2. Warranty: Sample of unexecuted manufacturer warranty.
			2. QUALITY ASSURANCE
				1. Installer Qualifications: Experienced Installer equipped and trained for installation of glass panel partitions required for this Project with record of successful completion of not less than five projects of similar scope.
				2. Single Source Responsibility: Provide glass panel partitions and associated hardware by a single manufacturer through a single source.

Specifier: Retain below for large or complex projects where added expense of mockup is justified. Typically treat approved mockup as part of finished work.

* + - * 1. Mockups: Provide mockup consisting of initial sections of tracks, frames, and glass panels with operating doors and hardware, in location as directed by Architect. Proceed with work upon approval of mockup by Architect.
			1. WARRANTY

Specifier: Verify that warranty provisions of other products meet those offered by dormakaba.

* + - * 1. Special Manufacturer's Warranty: Standard form in which manufacturer agrees to repair or replace components of glass panel partitions that demonstrate deterioration or faulty operation due to defects in materials or workmanship under normal use within warranty period specified.

Warranty Period: [Two] years date of Substantial Completion.

1. PRODUCTS
	* + 1. MANUFACTURERS

Specifier: Retain option for substitutions below when required for project.

* + - * 1. Basis-of-Design Product: Provide sliding glass panel partitions manufactured by **dormakaba USA Inc.**; email: specifications@dormakaba.com; website: www.dormakaba.com, [or comparable products of other manufacturer approved by Architect in accordance with Instructions to Bidders and Division 01 General Requirements].
				2. Source Limitations: Obtain glass panel partition components through one source from a single manufacturer.
			1. PERFORMANCE REQUIREMENTS

Specifier: If required by authorities having jurisdiction, add delegated design requirement and seismic performance requirements for projects requiring seismic bracing designed by Contractor's qualified professional engineer.

Specifier: Retain "Accessibility Standard" Paragraph below if sliding wall incorporates operable door to which requirements apply.

* + - * 1. Accessibility Standard: Comply with applicable provisions in ADA-ABA Accessibility Guidelines for Buildings and Facilities] [and] [ICC A117.1] [requirements of authorities having jurisdiction].

Specifier: **dormakaba HSW-ES** is a Premier Line custom model using frameless 3/8, 1/2, 5/8, and 3/4 inch thick tempered glass with 4-1/8 inch (105 mm) top and bottom rails.

* + - 1. GLASS PANEL PARTITIONS
				1. Horizontal Folding Glass Panel Partitions: Fully-glazed, top-hung stackable folding glass panel partition without floor track, with top and bottom door rails and butt-glazed dry joint between panels, and equipped with pivoting door panels where indicated.

Basis of Design: **dormakaba Horizontal Folding Wall FSW-ES**.

Stacking Arrangements: As indicated on Drawings.

Stacking Operation: Manual.

Partition Top Track: 5/16 inch (8mm) thick, aluminum extrusion, low-profile; designed for operation, size, and weight of glass panel door, with factory-finished head closure trim and seals.

Specifier: Retain one or more track mounting methods below as required for project. Indicate requirements for secondary structural supports under Section 055000 Metal Fabrications and show details on Drawings.

Track Mounting: [Ceiling surface-mounted] [Ceiling recess-mounted].

Folding Panel Carriers: Center-mounted, self-balancing trolley system designed for operation, size, and weight of glass panel door consisting of stainless steel components with vinyl roller surfaces.

* + - * 1. Rail Fittings, General: All-glass clamping fittings in types, sizes, quantities, and mounting locations recommended by manufacturer for glass door types, sizes, and operation and glass panel configurations.

Specifier: Retain "Rail Configurations" below for HSW-ES sliding wall system.

Rail Configuration:

Basis of Design, **dormakaba FSW-ES Rails**.

Top Rail: 4-1/8 inch (105mm) by length required for door size indicated.

Profile: Square.

Hardware: With manufacturer's standard pivot where indicated on Drawings.

For use with 3/8 inch (10mm) - 3/4 inch (19mm) tempered and tempered laminated glass

Bottom Rail: 4-1/8 inch (105mm) by length required for door size indicated.

Profile: Square.

Hardware: With manufacturer's standard pivot [and slide bolt] [and deadlock] where indicated on Drawings.

For use with 3/8 inch (10mm) - 3/4 inch (19mm) tempered and tempered laminated glass

Rail Caps: Formed metal snap-on face and end caps, material and finish as follows:

[Aluminum clear anodized, 628] [white, 714]

Aluminum, powder coated, match RAL color standard, [Insert color number].

Stainless steel, [satin] [polished].

Locking System: Mounted on bottom rail, engaged by use of interlocking floor bolt.

Mortise Lock: Brass, in position indicated, with round bolt engaging dustproof floor strike, [with cylinder] [with thumbturn].

* + - * 1. Partition Substructure: Modular extruded aluminum I-beam with associated threaded rod, struts, brackets, plates, and fasteners designed for continuous support and rigid bracing of partition top track and adjustable following installation of partition to maintain partition within operating tolerances specified by manufacturer.
			1. PIVOTING PANELS

Specifier: Retain this article and one of two pivoting panel options below if fixed end panels pivot to act as operable door. Show location and swing direction on Drawings.

* + - * 1. Accessibility Standard: Comply with applicable provisions in ADA-ABA Accessibility Guidelines for Buildings and Facilities] [and] [ICC A117.1] [requirements of authorities having jurisdiction].
				2. Pivoting Fixed End Panel: Single or paired glass panel matching partition panel material and thickness; size and swing as indicated on Drawings.
			1. MATERIALS
				1. Aluminum: ASTM B221 (ASTM B221M), with strength and durability characteristics of not less than Alloy 6063-T5.
				2. Stainless Steel: ASTM A666, Type 304.
			2. FINISHES

Specifier: Edit this article to correspond to sliding wall fitting finishes selected above.

* + - * 1. Aluminum Finish:

Clear anodic finish: AAMA 611, AA-M12C22A31, Class II, 0.010 mm or thicker.

Color Anodic Finish: AAMA 611, AA-M12C22A32/A34, Class II, 0.010 mm or thicker.

Powder Coat: Manufacturer's standard thermosetting polyester or acrylic urethane powder coating with cured-film thickness not less than 1.5 mils (0.04 mm), in color selected by Architect from manufacturer's full range.

* + - * 1. Stainless Steel Finishes:

No. 4 directional satin finish.

No. 8 non-directional mirror-like reflective finish.

Specifier: dormakaba can provide a wide array of applicable hardware options for glass panel partitions. Consult with dormakaba representative for additional options and for selection of hardware items based upon functions and glass panel weights.

* + - 1. HARDWARE
				1. Door Closers and Bottom Pivots: Provide housings, arms, mounting brackets where required, and accessories.

Basis of Design: **dormakaba, ITS96 Series Concealed Closer.**

Swing: [Single-acting] [Double-acting] as indicated on Drawings, with adjustable cushioned stop [and positive dead stop] [and hold-open].

Opening Force: Comply with interior door operating force of authorities having jurisdiction for [accessibility requirements] [and] [egress doors].

Exposed Component Finish: [Metallic painted aluminum] [Metallic painted, as selected by Architect from manufacturer's full line] [Painted, match Architect's custom color] [Main arm plated, as selected by Architect from manufacturer's full line].

* + - * 1. Door Closers and Bottom Pivots: BHMA A156.4, Grade 1. Provide housings, arms, mounting brackets where required, and accessories.

Basis of Design: **dormakaba, BTS80 Series Floor Closer.**

Swing: Double-acting as indicated on Drawings, [with adjustable hold-open device][ without hold-open device].

Opening Force: Comply with interior door operating force of authorities having jurisdiction for [accessibility requirements] [and] [egress doors].

Exposed Component Finish: [Metallic painted aluminum] [Metallic painted, as selected by Architect from manufacturer's full line] [Painted, match Architect's custom color] [Main arm plated, as selected by Architect from manufacturer's full line].

* + - * 1. Door Closers and Bottom Pivots: BHMA A156.4, Grade 1. Provide housings, arms, mounting brackets where required, and accessories.

Basis of Design: **dormakaba, BTS75V Series Floor Closer.**

Swing: Double-acting as indicated on Drawings, [without hold-open device][ with 90 degree hold-open device].

Opening Force: Comply with interior door operating force of authorities having jurisdiction for [accessibility requirements] [and] [egress doors].

Exposed Component Finish: [Metallic painted aluminum] [Metallic painted, as selected by Architect from manufacturer's full line] [Painted, match Architect's custom color] [Main arm plated, as selected by Architect from manufacturer's full line].

Specifier: A wide variety of dormakaba decorative operating trim designs are suitable for use with dormakaba swinging doors. Pulls and handles can be any number of lengths and attachment points. Some popular combinations are stated below for your convenience. Contact your dormakaba representative for additional assistance.

* + - * 1. Pulls and Handles: [One-sided] [Back-to-back].

Design: Vertical bar, [13-3/4 inch (350 mm), with 2 connecting bolts] [28-3/8 inch (720 mm) with 2 connecting bolts] [48-13/16 inch (1240 mm) with 3 connecting bolts] [69-1/4 inch (1760 mm) with 4 connecting bolts].

Basis of Design: **dormakaba, MANET Ladder Pull**.

Design: [Specifier insert design] [As selected by Architect from manufacturer's standard designs].

 Specifier: Retain one of three "Lock Cylinder" paragraphs below. Third paragraph is for GP system.

* + - * 1. Lock Cylinders: Tumbler type, constructed from brass or bronze, stainless steel, or nickel silver; BHMA A156.5, Grade 1, permanent removable cores; with face finish matching lockset[, keyed to master key system].
				2. Lock Cylinders: As specified in Section 08 71 00 "Door Hardware."
				3. Lock Cylinders: Flat key, five-pin, corrosion resistant [brass] [nickel] finish, anti-pick, function as selected by Architect [,keyed to master key system].

Basis of Design: **dormakaba**, as provided by manufacturer in accordance with project scope and operational intent.

Specifier: Double brush in top carrier profile typical and optional in bottom rail. Available vertical stile with double brush.

* + - * 1. Weather Stripping: [Pile] [Brush] type; replaceable without removing door panels from pivots.
			1. GLASS PANELS
				1. Glass Panels, General: Provide glass panels that comply with 16 CFR 1201, Category II requirements for safety glazing. Permanently mark glazing with certification label of the SGCC.

Glass and Door Panel Thickness: Thickness required for size of panel based upon manufacturer's written recommendations, but not less than 10 mm.

Specifier: Retain one or more of the following glass type selections and edit to comply with Project requirements. If utilizing more than one type of glass, indicate glass type locations on Drawings.

* + - * 1. Fully Tempered Clear Float Glass [GL#\_\_]: ASTM C1048, Kind FT, Condition A, Type I, Class 1, Quality-Q3; thickness [10 mm] [13 mm] [16mm] [19mm].
				2. Fully Tempered Ultraclear (Low-Iron) Float Glass [GL#\_\_]: ASTM C 1048, Kind FT, Condition A, Type I, Class 1, Quality-Q3, with visible light transmission of not less than 91 percent; thickness [10 mm] [13 mm] [16mm] [19mm].
				3. Fully Tempered Tinted Float Glass [GL#\_\_]: ASTM C1048, Kind FT, Condition A, Type I, Class 2, Quality-Q3; thickness [10 mm] [13 mm] [16mm] [19mm].
				4. Laminated Fully Tempered Clear Float Glass [GL#\_\_]: ASTM C1172; consisting of two plies of 6 mm. thick glass with interlayer of 0.060-inch-thick clear polybutyral; unit thickness 13 mm.

Specifier: Consult DORMA representative for more information on the variety of textured and art glass and custom glass treatments that are available.

* + - * 1. Textured Glass: Clear Fully Tempered Float Glass [GL#\_\_]: ASTM C1048, Kind FT, Condition A, Type I, Class 1, Quality-Q3; Finish F1 (textured one side); thickness 12.0 mm.

Designer Glass Pattern: [Skyline Design] [Joel Berman Studios] <Insert designer glass source>, <Insert texture and pattern description>.

1. EXECUTION
	* + 1. EXAMINATION
				1. Examine partition substrates to determine if work is within glass panel partition manufacturer's required tolerances and ready to receive work. Proceed with installation of partitions once conditions affecting installation and performance of partitions meet manufacturer's requirements.
			2. PARTITION INSTALLATION
				1. General: Comply with glass panel partition manufacturer's written installation instructions and approved shop drawings.
				2. Install glass panel partitions after other finishing operations have been completed.
				3. Set units level, plumb, and true to line, with uniform joints.
				4. Fasten glass panel partition track and sill to building structure and supports as indicated on approved shop drawings, utilizing approved fasteners and spacing.

Specifier: Retain paragraph below if applicable to Project.

* + - * 1. Set, seal, and grout floor closer cases.
			1. ADJUSTING

Adjust doors and hardware to produce smooth operation and tight, uniform fit.

* + - * 1. Adjust door closers to required timing and force.
				2. Adjust latches and locks for smooth operation.
				3. Test and adjust hardware linked to access control system.
				4. Replace damaged panels and accessories.
			1. CLEANING
				1. Clean glass panels in accordance with glass manufacturer's written instructions. Do not use cleaning agents or methods not approved by glass manufacturer.
				2. Clean exposed metal surfaces to factory new appearance.

END OF SECTION

**Additional Specifiers Notes**

Substitution Reviews: When reviewing substitution requests for other products for compliance with this specification, dormakaba recommends particular attention to the following issues:

Compact track, frame, and edge conditions: Design details of DORMA's partitions are what give them the visual appeal that caused them to be selected as a basis of design

Door Hardware Options: The dormakaba position as an international leader in decorative door hardware allows DORMA to offer a complete array of coordinated hardware options and finishes for glass panel partitions.

Coordination: Make sure you coordinate the following:

Locations and operation of doors including swing or sliding travel

Reflected ceiling plan showing location of full-height partitions in relation to other ceiling-mounted elements, and stacking plan

Elevations of partitions indicating details of locking hardware and special decorative glass elements

Glass panel joint locations

Intersections of partitions and other elements of construction

Details of support and mounting of track or frame

Details of seismic bracing for partition where required

Details of ceiling finish in relation to track or frame

Details of floor finishes in relation to sill or bottom frame