SECTION 08 71 00.14 - Sliding and Folding Door Hardware\*

SLIDING AND FOLDING DOOR HARDWARE

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\*\* NOTE TO SPECIFIER \*\* Hafele; Hawa hardware for wood and glass doors, pocket, sliding, and folding walls.
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This section is based on sliding hardware, exclusively distributed in North America by Hafele America Co., which is located at:
 3901 Cheyenne Drive
 Archdale, NC 27263-4000
 Tel: (888) 437-7477
 Tel: (336) 434-2322
 Fax: (800) 451-8633
 <www.hafeleonline.com>
 [click Here] for additional information.
Hawa Junior series hardware is for straight track with glass, metal, or wood panels of up to 550 pounds (250 kg) per panel. The Junior system is a maintenance free, top hung aluminum track system with an integrated track stop, two high density nylon wheel trolleys, and floor guide or channel. The hardware attachment varies by the type of door panel.
Curved track applications using Hawa Media or Rondo for glass, wood or metal panels. Multiple panel sliding walls are achieved using Hawa Variotec GV, Variotec GR or Cornertec for glass panels, and Variotec for wood panels, for panels up to 330 pounds (150 kg) each. Hawa Variofold and Centerfold are for hinged-panel folding doors and walls.

1. GENERAL
	1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Straight and curved track sliding doors.
		2. Straight and curved track sliding walls and partitions.
		3. Multiple panel, straight track folding doors and walls.
	1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 05 12 16 - Fabricated Fireproofed Steel Columns.
		2. Section 08 11 13.16 - Custom Hollow Metal Doors and Frames.
		3. Section 08 11 16 - Aluminum Doors and Frames.
		4. Section 08 14 16 - Flush Wood Doors.
		5. Section 08 71 53 - Security Door Hardware.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. Product Data: Manufacturer's data sheets on each product to be used, including:
			1. Preparation instructions and recommendations.
			2. Storage and handling requirements and recommendations.
			3. Installation methods.
		3. Shop Drawings: Show layout, components, track mounting and support, anchorage details, and interface with adjacent construction.

\*\* NOTE TO SPECIFIER \*\* Delete selection samples if colors have already been selected.

* + 1. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and finishes.
		2. Component Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) long, representing actual product, color, and finish.
		3. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
	1. QUALITY ASSURANCE
		1. Installer Qualifications: Approved by hardware supplier.
	2. DELIVERY, STORAGE, AND HANDLING
		1. Store products in manufacturer's unopened packaging until ready for installation.
		2. Store in dry, protected, well ventilated area and protect from damage.
	3. WARRANTY
		1. Provide manufacturer's two-year warranty.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Hafele America Co., which is located at: 3901 Cheyenne Dr. P.O. Box 4000; Archdale, NC 27263; Toll Free Tel: 888-437-7477; Tel: 336-434-2322; Fax: 336-431-3831; Email: [request info (ccbengtson@hafeleamericas.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=Hafele+America+Co.&coid=38431&rep=&fax=336-431-3831&message=RE:%20Spec%20Question%20(08719haf):%20%20&mf=); Web: [oneweb-us.hafele.com/us/en/home](http://oneweb-us.hafele.com/us/en/home)

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
		2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
	1. SLIDING AND FOLDING DOOR AND WALL HARDWARE

\*\* NOTE TO SPECIFIER \*\* The following hardware can be used on either straight track (Junior, Porta and Media 70) or curved track (Media 70, Rondo 150, Variotec and Cornertec), for bi-parting doors, bypassing doors, and multiple panel sliding walls. The glass must be specified elsewhere.

* + 1. Hardware for Sliding All-Glass Doors and Walls: Top track, single or two-wheeled trolleys with high-density nylon wheels or nylon-cladded ball bearing wheels, capacity as recommended by manufacturer for size and weight of door panels; mounting and configuration as indicated on drawings.
			1. Opening and Closing Force: Not more than 5.2 pounds force (23 n) to ADA requirement certified by independent testing laboratory.

\*\* NOTE TO SPECIFIER \*\* Delete all but one of the following glass thicknesses. Glass must be fully tempered.

* + - 1. Glass Thickness: 5/16 inch (8 mm).
			2. Glass Thickness: 25/64 inch (10 mm).
			3. Glass Thickness: 15/32 inch (12 mm).
			4. Glass Thickness: 1/2 inch (12.7 mm).
			5. Glass Thicknesses: As indicated on drawings.

\*\* NOTE TO SPECIFIER \*\* Delete all but one of the following top fittings. See the Hafele catalog for details and appearance. Junior, Porta and Media 70 series is only for straight track; other series can be used with curved track for multiple panel sliding walls.

* + - 1. Top Fittings: Rounded or Squared patch type, requiring cutouts; plastic cover plate in finish selected by Architect from manufacturer's full range (Junior/GP).
			2. Top Fittings: Clamp type, approximately 5 inches (124 mm) wide; aluminum, in finish selected by Architect from manufacturer's full range (Junior/GS).
			3. Top Fittings: Rail full width of panel, requiring cutouts; aluminum, in finish selected by Architect from manufacturer's full range (Junior/GV, Variotec/GV).
			4. Top Fittings: Rounded or Squared patch type located at corners, requiring cutouts; plastic cover plate in finish selected by Architect from manufacturer's full range; trolley suspension point laterally adjustable (Cornertec/GV).
			5. Top Fittings: Stainless steel suspension type, requiring cut-out (Flattec, Unotec, Tritec, Duetec).

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two bottom fittings. On straight track no bottom fitting is absolutely necessary, as the bottom edge of the glass can run in either style of floor guide. A bottom fitting has a protruding guide that needs a continuous floor guide.

* + - 1. Bottom Fittings: None.
			2. Bottom Fittings: Same as top fittings.

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two floor guides. Both can be used with or without bottom fittings.

* + - 1. Floor Guide: Full width aluminum channel recessed in floor.
			2. Floor Guide: Surface mounted, located out of traffic path.
			3. Stops: Wall mounted rubber bumpers; track stop for each panel, with adjustable spring catch.

\*\* NOTE TO SPECIFIER \*\* Delete the following if not required. Patch type, clamp type and rail type fittings are available for fixed panels.

* + - 1. Provide matching mounting hardware for adjacent fixed glass panels and swing doors.

\*\* NOTE TO SPECIFIER \*\* Delete locks if not required. Otherwise, delete all but one of the following locks. If each panel is not to receive the same lock, edit to indicate which panels have which locks.

* + - 1. Locks: Hawa Toplock, side-mounted, with cover plate matching patch fittings; provide wall strike for single panels and matching patch-type strike for bi-parting pairs.
			2. Locks: Bottom rail mounted floor bolt with thumbturn inside.
			3. Locks: Bottom rail mounted floor bolt with thumbturn inside and cylinder outside.

\*\* NOTE TO SPECIFIER \*\* The following three paragraphs are optional and apply only to rail mounted panels.

* + - 1. Weatherstripping: Brush type, two rows mounted in top and bottom rails, jamb edges mounted in transparent plastic edge channel.
			2. Edge Protection: Transparent plastic edge channel on each jamb edge.
			3. Edge Profile and Seals: Aluminum jamb profiles, 15/16 inch (24 mm) wide with rubber seals, and two rows of brush type seals mounted in top and bottom rails (Variotec/GR).

\*\* NOTE TO SPECIFIER \*\* The following hardware can be used on either straight track (Junior) or curved track (Variotec), for bi-parting doors, bypassing doors, and multiple panel sliding walls.

* + 1. Hardware for Sliding Wood Doors and Walls: Hawa Junior or Variotec series; top track, two-wheeled trolleys with high-density nylon wheels, capacity as recommended by manufacturer for size and weight of door panels; mounting and configuration as indicated on drawings.
			1. Opening and Closing Force: Not more than 5.2 pounds force (23 n) to ADA requirement certified by independent testing laboratory.

\*\* NOTE TO SPECIFIER \*\* Delete all but one of the following floor guides. Curved track must use only the recessed floor channel.

* + - 1. Floor Guide: Surface mounted, running in groove in bottom of door.
			2. Floor Guide: Surface mounted, running in plastic channel set into bottom of door.
			3. Floor Guide: Full width metal channel recessed in floor; projecting plastic slider mounted on or in bottom of door.

\*\* NOTE TO SPECIFIER \*\* Delete all but one of the following stops. Spring loaded stops are recommended for heavy doors.

* + - 1. Stops: Wall mounted rubber bumpers; track stop for each panel, with adjustable catch.
			2. Stops: Bumpers mounted in floor channel; track stop for each panel, with adjustable catch.
			3. Stops: Wall mounted spring loaded bumpers; track stop for each panel, with adjustable catch.

\*\* NOTE TO SPECIFIER \*\* Delete locks and bolts if not required. Otherwise, delete all but one of the following locks. The Silent-Stop lock is for doors up to 92 inches (2350 mm) high.

* + - 1. Locks: Projecting dead bolt, mortised into bottom of door, with thumbturn inside.
			2. Locks: Projecting dead bolt, mortised into bottom of door, with thumbturn inside and cylinder outside.
			3. Locks: Hawa Silent-Stop, with bolt locking into top track, thumbturns both sides at approximately 36 inches (915 mm) above floor; mortised into edge of door.
			4. Locks: Hawa Silent-Stop, with bolt locking into top track, thumbturns both sides at approximately 36 inches (915 mm) above floor; mortised into edge of door; cylinder outside, thumbturn inside.
			5. Bolts: Hawa Doorfix, floor bolt with socket wrench operation from front and door edge at approximately 36 inches (915 mm) above floor; concealed in door.

\*\* NOTE TO SPECIFIER \*\* The following two accessories are optional, delete if not required.

* + - 1. Leading Edge Bumper: Continuous rubber bumper mortised into edge of door, color to be selected.
			2. Meeting Stile Seals: Continuous aluminum retainers mortised into edge of door, with rubber seals (Typical for multiple panel walls).

\*\* NOTE TO SPECIFIER \*\* The following hardware can be used on straight track only, for bi-parting and bypassing doors.

* + 1. Hardware for Sliding Hollow Steel and Aluminum Doors: Hawa Junior Series; top track, two-wheeled trolleys with high-density nylon wheels, capacity as recommended by manufacturer for size and weight of door panels; mounting and configuration as indicated on drawings.
			1. Opening and Closing Force: Not more than 5.2 pounds force (23 n) to ADA requirement certified by independent testing laboratory.

\*\* NOTE TO SPECIFIER \*\* Delete one of the following floor guides.

* + - 1. Floor Guide: Surface mounted, running in groove in bottom of door.
			2. Floor Guide: Full width aluminum or brass channel recessed in floor; projecting plastic slider mounted on or in bottom of door.
			3. Stops: Wall mounted rubber bumpers; track stop for each panel, with adjustable catch.
		1. Hardware for Folding Glass Walls: Top track, four-wheeled trolleys with high-density nylon wheels, capacity as recommended by manufacturer for size and weight of door panels; mounting and configuration as indicated on drawings.
			1. Suspension Point Location: Center of each panel; panels hinged to each other; half panel hinged to wall; up to 6-1/2 panels without floor guide (Centerfold).
			2. Suspension Point Location: One edge of each panel; panels hinged to each other; even number of panels; recessed floor guide channel (Variofold).

\*\* NOTE TO SPECIFIER \*\* Delete all but one of the following glass thicknesses. Glass must be fully tempered.

* + - 1. Glass Thickness: 5/16 inch (8 mm).
			2. Glass Thickness: 25/64 inch (10 mm).
			3. Glass Thickness: 15/32 inch (12 mm).
			4. Glass Thickness: 1/2 inch (12.7 mm).
			5. Glass Thicknesses: As indicated on drawings.
			6. Top and Bottom Fittings: Rail full width of panel, requiring cutouts; aluminum.
			7. Floor Guide: Full width aluminum channel recessed in floor.

\*\* NOTE TO SPECIFIER \*\* Delete the following if not required.

* + - 1. Provide matching mounting hardware for adjacent fixed glass panels and swing doors.

\*\* NOTE TO SPECIFIER \*\* Delete locks if not required.

* + - 1. Lock on Leading Panel: Bottom rail mounted floor bolt with thumbturn inside.
			2. Lock on Leading Panel: Bottom rail mounted floor bolt with thumbturn inside and cylinder outside.

\*\* NOTE TO SPECIFIER \*\* The following two paragraphs are optional; delete one or both.

* + - 1. Weatherstripping: Brush type, two rows mounted in top and bottom rails, jamb edges mounted in transparent plastic edge channel.
			2. Edge Protection: Transparent plastic edge channel on each jamb edge.
		1. Hardware for Folding Wood Walls: Hawa 20 and 21 Series; top track, two-wheeled trolleys with steel ball bearings, capacity as recommended by manufacturer for size and weight of wall panels; mounting and configuration as indicated on drawings.
			1. Suspension Point Location: Center of each panel; panels hinged to each other; and panel hinged to wall; up to 7 panels with floor guides.
			2. Suspension Point Location: One edge of each panel; panels hinged to each other; even number of panels.
			3. Floor Guide: Full width aluminum or brass channel recessed in floor; projecting plastic slider mounted on or in bottom of door.
			4. Stops: Wall mounted rubber bumpers; track stop for each panel, with adjustable catch.

\*\* NOTE TO SPECIFIER \*\* Delete locks if not required.

* + - 1. Deadbolt Lock on Leading Panel: Bottom rail mounted floor bolt with thumbturn inside.
			2. Deadbolt Lock on Leading Panel: Bottom rail mounted floor bolt with thumbturn inside and cylinder outside.
		1. Accessories: Provide all components recommended by hardware manufacturer or required to achieve a complete installation.
		2. Fasteners: Provide all fasteners required, of type recommended by hardware manufacturer.
1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until support and floor substrates have been properly completed.
		2. Verify that structural supports are level and of adequate strength to support the applied loads.
		3. Verify opening dimensions prior to fabrication and assembly.
		4. Notify Architect of unsatisfactory conditions.
	2. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
	3. INSTALLATION
		1. Install in accordance with manufacturer's instructions.
		2. Install hardware level, plumb, sure, true and straight.
		3. Adjust hardware as necessary to ensure smooth, quiet, and effortless operation and safety.
		4. Clean track and hardware surfaces before hanging sliding doors.
	4. PROTECTION
		1. Protect installed products until completion of project.
		2. Touch-up, repair or replace damaged products before Substantial Completion. Replace damaged products that cannot be repaired to original condition.

END OF SECTION