



SUGATSUNE

SECTION 08 71 00 DOOR HARDWARE

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PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Double action hinges.
- B. Hidden door hinges.
- C. Sliding door hardware.

1.2 RELATED SECTIONS

- A. Section 08 11 13 "Hollow Metal Doors and Frames.
- B. Section 08 11 19 "Stainless-Steel Doors and Frames.
- C. Section 08 12 13 "Hollow Metal Frames.
- D. Section 08 12 16 "Aluminum Frames.
- E. Section 08 14 16 "Flush Wood Doors.
- F. Section 08 14 33 "Stile and Rail Wood Doors.
- G. Section 08 35 13 "Folding Doors.
- H. Section 10 2600 "Wall and Door Protection.

1.3 SUBMITTALS

- A. Submit under provisions of Section 01 30 00.
- B. Product Data:

1. Manufacturer's data sheets on each product to be used.
 2. Preparation instructions and recommendations.
 3. Storage and handling requirements and recommendations.
 4. Typical installation methods.
- C. Verification Samples: Two representative units of each type, size, pattern, and color.
- D. Shop Drawings: Include details of materials, construction, and finish. Include relationship with adjacent construction.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum of five years documented experience.
- B. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
- C. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.
- D. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
1. The intent of a mock-up is to demonstrate quality of workmanship and visual appearance.
 2. If the mock-up is not acceptable, rebuild the mock-up until satisfactory results are achieved.
 3. Retain mock-up during construction as a standard for comparison with completed work.
 4. Do not alter or remove mock-up until work is completed or removal is authorized.

1.5 PRE-INSTALLATION CONFERENCE

- A. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
- B. Protect from damage due to weather, excessive temperature, and construction operations.

1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.8 WARRANTY

- A. Manufacturer's standard limited warranty unless indicated otherwise.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Sugatsune America, Inc., which is located at: 18101 Savarona Way; Carson, CA 90746; Toll Free Tel: 800-562-5267; Tel: 310-329-6373; Fax: 310-329-0819; Email:[request info \(sales@sugatsune.com\)](mailto:sales@sugatsune.com); Web:<http://www.sugatsune.com>
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with the provisions of Section 01 60 00.

2.2 DOUBLE ACTION HINGES

- A. Model JDA-120-30A. Spring Hinge as manufactured by Sugatsune.
 - 1. Spring loaded for self-closing. Adjustable spring tension.
 - 2. Material: Aluminum.
 - 3. Cycles: 500,000 open/close.
 - 4. Length: 4.72 inches (120 mm).
 - 5. Width or Depth of item Open: 4 inches (101 mm).
 - 6. Width or Depth of item Closed: 1.65 inches (42 mm).
 - 7. Dimensions (W x H): 0.63 inches (16 mm) x 4.72 inches (120 mm).
 - 8. Maximum Door Thickness: 1.18 inches (30 mm).
 - 9. Weight: 9.7 oz (275 grams).
 - 10. Fasteners: Required and not included.
 - 11. Fastener Type: 4.5 mm or No. 10 screw.
- B. Model JDA-120-36S. Spring Hinge as manufactured by Sugatsune.
 - 1. Spring loaded for self-closing. Adjustable spring tension.
 - 2. Cycles: 500,000 open/close.
 - 3. Material: 304 Stainless steel.
 - 4. Length: 4.72 inches (120 mm).
 - 5. Width or Depth of item Open: 4 inches (101 mm).
 - 6. Width or Depth of item Closed: 1.65 inches (42 mm).
 - 7. Dimensions (W x H): 0.67 inches (17 mm) x 4.72 inches (120 mm).
 - 8. Maximum Door Thickness: 1.42 inches (36 mm).
 - 9. Weight: 20.11 oz (570 grams).
 - 10. Fasteners: Required and included.
 - 11. Fastener Type: 4.5 mm or No. 10 stainless steel screw
- C. Model JDA-120-40A. Spring Hinge as manufactured by Sugatsune.
 - 1. Spring loaded for self-closing. Adjustable spring tension.
 - 2. Cycles: 500,000 open/close.
 - 3. Material: Aluminum.
 - 4. Length: 4.72 inches (120 mm).
 - 5. Width or Depth of Item Closed: 1.65 inches (42 mm).
 - 6. Width or Depth of item Open: 4 inches (101 mm).
 - 7. Dimensions (W x H): 0.63 inches (16 mm) x 4.72 inches (120 mm).
 - 8. Maximum Door Thickness: 1.57 inches (40 mm).
 - 9. Weight: 11.29 oz (320 grams).
 - 10. Fasteners: Required and not included.
 - 11. Fastener Type: 4.5 mm or No. 10 screw.
- D. Model JDA-180-30A. Spring Hinge as manufactured by Sugatsune.
 - 1. Spring loaded for self-closing. Adjustable spring tension.
 - 2. Cycles: 500,000 open/close.
 - 3. Material: Aluminum.
 - 4. Length: 7.09 inches (180 mm).
 - 5. Width or Depth of Item Closed: 1.65 inches (42 mm).
 - 6. Width or Depth of item Open: 4 inches (101 mm).

7. Dimensions (W x H): 0.63 inches (16 mm) x 7.09 inches (180 mm).
 8. Maximum Door Thickness: 1.18 inches (30 mm).
 9. Weight: 14.46 oz (407 grams).
 10. Fasteners: Required and not included.
 11. Fastener Type: 4.5 mm or No. 10 screw.
- E. Model JDA-180-38S. Spring Hinge as manufactured by Sugatsune.
1. Spring loaded for self-closing. Adjustable spring tension.
 2. Cycles: 500,000 open/close.
 3. Material: 304 Stainless steel.
 4. Length: 7.09 inches (180 mm).
 5. Width or Depth of Item Open: 5.24 inches (133 mm).
 6. Width or Depth of item Closed: 2.09 inches (53 mm).
 7. Dimensions (W x H): 0.71 inches (18 mm) x 7.09 inches (180 mm).
 8. Maximum Door Thickness: 1.5 inches (38 mm).
 9. Weight: 34.22 oz (947grams).
 10. Fasteners: Required and included.
 11. Fastener Type: 4.5mm or No. 10 stainless steel screw.
- F. Model JDA-180-40A. Spring Hinge as manufactured by Sugatsune.
1. Spring loaded for self-closing. Adjustable spring tension.
 2. Cycles: 500,000 open/close.
 3. Material: Aluminum.
 4. Length: 7.09 inches (180 mm).
 5. Width or Depth of Item Open: 5.24 inches (133 mm).
 6. Width or Depth of item Closed: 2.09 inches (53 mm).
 7. Dimensions (W x H): 0.63 inches (16 mm) x 7.09 inches (180 mm).
 8. Maximum Door Thickness: 1.57 inches (40 mm).
 9. Weight: 16.93 oz (466 grams).
 10. Fasteners: Required and not included.
 11. Fastener Type: 4.5 mm or No. 10 screw.
- G. Model JDA-180-50A. Spring Hinge as manufactured by Sugatsune.
1. Spring loaded for self-closing. Adjustable spring tension.
 2. Cycles: 500,000 open/close.
 3. Material: Aluminum.
 4. Length: 7.09 inches (180 mm).
 5. Width or Depth of Item Closed: 2.36 inches (60 mm).
 6. Length or Depth of item Open: 6.18 inches (157 mm).
 7. Dimensions (W x H): 0.63 inches (16 mm) x 7.09 inches (180 mm).
 8. Maximum Door Thickness: 1.97 inches (50 mm).
 9. Weight: 17.99 oz (510 grams).
 10. Fasteners: Required and not included.
 11. Fastener Type: 4.5mm or No. 10 screw.
- H. Model JDAW-120-35A. Double Action Spring Hinge as manufactured by Sugatsune.
1. Spring loaded for self-closing.
 2. Adjustable spring tension.
 3. Material: Aluminum.
 4. Cycles: 500,000 Open/Close.
 5. Length: 4.72 inches (120 mm).
 6. Width or Depth of Item Closed: 2.17 inches (55 mm).
 7. Length or Depth of item Open: 5.75 inches (146 mm).
 8. Dimensions (W x H): 0.63 inches (16 mm) x 4.72 inches (120 mm).
 9. Maximum Door Thickness: 1.38 inches (35 mm).
 10. Weight: 12.35 oz (350 grams).

11. Fasteners: Required and not included.
 12. Fastener Type: 8 No. 8 flathead countersunk screws, 3/4 inch (19 mm) or longer.
- I. Model JDAW-180-35A. Double Action Spring Hinge as manufactured by Sugatsune.
1. Spring loaded for self-closing.
 2. Adjustable spring tension.
 3. Material: Aluminum.
 4. Cycles: 500,000 Open/Close.
 5. Length: 7.09 inches (180 mm).
 6. Width or Depth of Item Closed: 2.17 inches (55 mm).
 7. Width or Depth of item Open: 5.75 inches (146 mm).
 8. Dimensions (W x H): 0.63 inches (16 mm) x 4.72 inches (120 mm).
 9. Maximum Door Thickness: 1.38 inches (35 mm).
 10. Weight: 12.35 oz (350 grams).
 11. Fasteners: Required and not included.
 12. Fastener Type: 8 No. 8 flathead countersunk screws, 3/4 inch (19 mm) or longer.

2.3 HIDDEN DOOR HINGES

- A. Model HES3D-120BL. 3-Way Adjustable Concealed Hinge Black as manufactured by Sugatsune.
1. Hinge leaves separate for easy installation and removal.
 2. Cover caps hide screw heads.
 3. Material: Zinc Alloy.
 4. Cycles: 300,000 Open/Close.
 5. Width or Depth of Item Closed: 1.71 inches (43.5 mm).
 6. Width or Depth of item Open: 2.44 inches (62 mm).
 7. Dimensions (W x H): 0.98 inches (25 mm) x 4.72 inches (120 mm).
 8. Weight: 13.4 oz (380 grams).
 9. Fasteners: Required and included.
 10. Fastener Type: Flat Head Screw.
 11. Maximum Door Weight for 2 Hinges: 66 lbs (30 kg). 3 Hinges: 88 lbs (40 kg).
 12. Maximum Door Size (W x H): 35.44 x 94.5 inches (900 x 2400 mm)
 13. Minimum Door Thickness: 1.125 inches (29 mm).
 14. Sheet Metal: Bracket is available.
- B. Model HES3D-120DC. 3-Way Adjustable Concealed Hinge as manufactured by Sugatsune.
1. Hinge leaves separate for easy installation and removal.
 2. Cover caps hide screw heads.
 3. Material: Zinc Alloy.
 4. Cycles: 300,000 Open/Close.
 5. Width or Depth of Item Closed: 1.71 inches (43.5 mm).
 6. Width or Depth of item Open: 2.44 inches (62 mm).
 7. Dimensions (W x H): 0.98 inches (25 mm) x 4.72 inches (120 mm).
 8. Weight: 13.4 oz (380 grams).
 9. Fasteners: Required and included.
 10. Fastener Type: Flat Head Screw.
 11. Maximum Door Weight for 2 Hinges: 66 lbs (30 kg). 3 Hinges: 88 lbs (40 kg).
 12. Maximum Door Size (W x H): 35.44 x 94.5 inches (900 x 2400 mm).
 13. Minimum Door Thickness: 1.125 inches (29 mm).
 14. Sheet Metal: Bracket is available.
- C. Model HES3D-120DN. 3-Way Adjustable Concealed Hinge as manufactured by Sugatsune.
1. Hinge leaves separate for easy installation and removal.
 2. Cover caps hide screw heads.
 3. Material: Zinc Alloy.
 4. Cycles: 300,000 Open/Close.

5. Width or Depth of Item Closed: 1.71 inches (43.5 mm).
 6. Width or Depth of item Open: 2.44 inches (62 mm).
 7. Dimensions (W x H): 0.98 inches (25 mm) x 4.72 inches (120 mm).
 8. Weight: 13.4 oz (380 grams).
 9. Fasteners: Required and included.
 10. Fastener Type: Flat Head Screw.
 11. Maximum Door Weight for 2 Hinges: 66 lbs (30 kg). 3 Hinges: 88 lbs (40 kg).
 12. Maximum Door Size (W x H): 35.44 x 94.5 inches (900 x 2400 mm).
 13. Minimum Door Thickness: 1.125 inches (29 mm).
 14. Sheet Metal: Bracket is available.
- D. Model HES3D-E160BL. 3-Way Adjustable Concealed Hinge as manufactured by Sugatsune.
1. Hinge leaves separate for easy installation and removal.
 2. Cover caps hide screw heads.
 3. Material: Zinc Alloy (ZDC).
 4. Cycles: 300,000 Open/Close.
 5. Width or Depth of Item Closed: 2.11 inches (53.5 mm).
 6. Width or Depth of item Open: 2.96 inches (75.2 mm).
 7. Dimensions (W x H): 1.18 inches (30 mm) x 6.3 inches (160 mm).
 8. Weight: 26.81 oz (760 grams).
 9. Fasteners: Required and included.
 10. Fastener Type: Flat Head Screw.
 11. Maximum Door Weight for 2 Hinges: 121 lbs (55 kg). 3 Hinges: 154 lbs (70 kg).
 12. Maximum Door Size (W x H): 35.44 x 94.5 inches (900 x 2400 mm).
 13. Minimum Door Thickness: 1.375 inches (35 mm)
- E. Model HES3D-E160DC. 3-Way Adjustable Concealed Hinge as manufactured by Sugatsune.
1. Hinge leaves separate for easy installation and removal.
 2. Cover caps hide screw heads.
 3. Material: Zinc Alloy (ZDC).
 4. Cycles: 300,000 Open/Close.
 5. Width or Depth of Item Closed: 2.11 inches (53.5 mm).
 6. Width or Depth of item Open: 2.96 inches (75.2 mm).
 7. Dimensions (W x H): 1.18 inches (30 mm) x 6.3 inches (160 mm).
 8. Weight: 26.81 oz (760 grams).
 9. Fasteners: Required and included.
 10. Fastener Type: Flat Head Screw.
 11. Maximum Door Weight for 2 Hinges: 121 lbs (55 kg). 3 Hinges: 154 lbs (70 kg).
 12. Maximum Door Size (W x H): 35.44 x 94.5 inches (900 x 2400 mm).
 13. Minimum Door Thickness: 1.375 inches (35 mm)
- F. Model HES3D-E160DN. 3-Way Adjustable Concealed Hinge as manufactured by Sugatsune.
1. Hinge leaves separate for easy installation and removal.
 2. Cover caps hide screw heads.
 3. Material: Zinc Alloy (ZDC).
 4. Cycles: 300,000 Open/Close.
 5. Width or Depth of Item Closed: 2.11 inches (53.5 mm).
 6. Width or Depth of item Open: 2.96 inches (75.2 mm).
 7. Dimensions (W x H): 1.18 inches (30 mm) x 6.3 inches (160 mm).
 8. Weight: 26.81 oz (760 grams).
 9. Fasteners: Required and included.
 10. Fastener Type: Flat Head Screw.
 11. Maximum Door Weight for 2 Hinges: 121 lbs (55 kg). 3 Hinges: 154 lbs (70 kg).
 12. Maximum Door Size (W x H): 35.44 x 94.5 inches (900 x 2400 mm).

13. Minimum Door Thickness: 1.375 inches (35 mm)
- G. Model HES3D-E190BL-UL. 3-Way Adjustable Concealed Hinge With UL as manufactured by Sugatsune.
1. Allows vertical, horizontal, and depth adjustment after hinge is installed.
 2. Lift-Off Feature: Hinge can be split into two parts; one for the frame and one for the flap. Can temporarily be hung and held without being affixed with screws.
 3. Cycles: 300,000 open/close.
 4. UL Rated, up to 3 Hours.
 5. Covers to hide screw heads.
 6. Door Weight for 2 Hinges: 220 lbs (100 kg).
 7. Door Weight for 3 Hinges: 275 lbs (125 kg).
 8. Door Thickness: 1-1/2 inches (38 mm) minimum.
 9. Door Size (HxW): 94-1/2 x 36 inches (2400 x 915 mm) maximum.
 10. Material: Zinc Alloy.
 11. Width or Depth of Item Closed: 2.34 inches (59.5 mm).
 12. Width or Depth of item Open: 3.125 inches (79 mm).
 13. Dimensions (W x H): 1.34 inches (34 mm) x 7.48 inches (190 mm).
 14. Weight: 37.04 oz (1050 grams).
 15. Fasteners: Required and included.
 16. Fastener Type: Steel flat head screw.
 17. Bracket for sheet metal doors and frames.
 18. Metal cover plates with Polished Nickel (PN) finish HES3D-E190PN-CM.
- H. Model HES3D-E190DC-UL. 3-Way Adjustable Concealed Hinge with UL as manufactured by Sugatsune.
1. Allows vertical, horizontal, and depth adjustment after hinge is installed.
 2. Lift-Off Feature: Hinge can be split into two parts; one for the frame and one for the flap. Can temporarily be hung and hold position without being affixed with screws.
 3. Cycles: 300,000 open/close.
 4. UL Rated, up to 3 Hours.
 5. Supplied with steel flat head screw.
 6. Covers to hide screw heads.
 7. Door Weight for 2 Hinges: 220 lbs (100 kg).
 8. Door Weight for 3 Hinges: 275 lbs (125 kg).
 9. Door Thickness: 1-1/2 inches (38 mm) minimum.
 10. Door Size (HxW): 94-1/2 x 36 inches (2400 x 915 mm) maximum.
 11. Material: Zinc Alloy.
 12. Width or Depth of Item Closed: 2.34 inches (59.5 mm).
 13. Width or Depth of item Open: 3.125 inches (79 mm).
 14. Dimensions (W x H): 1.34 inches (34 mm) x 7.48 inches (190 mm).
 15. Weight: 37.04 oz (1050 grams).
 16. Fasteners: Required and included
 17. Fastener Type: Steel flat head screw.
 18. Bracket for sheet metal doors and frames.
 19. Metal cover plates with Polished Nickel (PN) finish; HES3D-E190PN-CM.
- I. Model HES3D-E190DN-UL. 3-Way Adjustable Concealed Hinge With UL as manufactured by Sugatsune.
1. Allows vertical, horizontal, and depth adjustment after hinge is installed.
 2. Lift-Off Feature: Hinge can be split into two parts; one for the frame and one for the flap. Can temporarily be hung and hold position without being affixed with screws.
 3. Cycles: 300,000 open/close.
 4. UL Rated, up to 3 Hours.
 5. Supplied with steel flat head screw.
 6. Covers to hide screw heads.

7. Door Weight for 2 Hinges: 220 lbs (100 kg).
 8. Door Weight for 3 Hinges: 275 lbs (125 kg).
 9. Door Thickness: 1-1/2 inches (38 mm) minimum.
 10. Door Size (HxW): 94-1/2 x 36 inches (2400 x 915 mm) maximum.
 11. Material: Zinc Alloy.
 12. Width or Depth of Item Closed: 2.34 inches (59.5 mm).
 13. Width or Depth of item Open: 3.125 inches (79 mm).
 14. Dimensions (W x H): 1.34 inches (34 mm) x 7.48 inches (190 mm).
 15. Weight: 37.04 oz (1050 grams).
 16. Fasteners: Required and included.
 17. Fastener Type: Steel flat head screw.
 18. Bracket for sheet metal doors and frames.
 19. Metal cover plates with Polished Nickel (PN) finish HES3D-E190PN-CM.
- J. Model HES3D-E190WT-UL. 3-Way Adjustable Concealed Hinge UL Type as manufactured by Sugatsune.
1. Allows vertical, horizontal, and depth adjustment after hinge is installed.
 2. Lift-Off Feature: Hinge can be split into two parts; one for the frame and one for the flap. Can temporarily be hung and hold position without being affixed with screws.
 3. Cycles: 300,000 open/close.
 4. UL Rated, up to 3 Hours.
 5. Supplied with steel flat head screw.
 6. Covers to hide screw heads.
 7. Door Weight for 2 Hinges: 220 lbs (100 kg).
 8. Door Weight for 3 Hinges: 275 lbs (125 kg).
 9. Door Thickness: 1-1/2 inches (38 mm) minimum.
 10. Door Size (HxW): 94-1/2 x 36 inches (2400 x 915 mm) maximum.
 11. Material: Zinc Alloy.
 12. Width or Depth of Item Closed: 2.34 inches (59.5 mm).
 13. Width or Depth of item Open: 3.125 inches (79 mm).
 14. Dimensions (W x H): 1.34 inches (34 mm) x 7.48 inches (190 mm).
 15. Weight: 37.04 oz (1050 grams).
 16. Fasteners: Required and included.
 17. Fastener Type: Steel flat head screw.
 18. Bracket for sheet metal doors and frames.
 19. Metal cover plates with Polished Nickel (PN) finish HES3D-E190PN-CM.
- K. Model HES3D-W190BL-UL. 3-Way Adjustable Concealed Hinge For Cladded Doors; UL-Rated as manufactured by Sugatsune.
1. A long arm for a wider throw, allowing 3/8 inch (10 mm) clearance for flush installation or 1/2 inch (13 mm) clearance for installation with a molding.
 2. Opens to 180 degrees.
 3. UL Rated, up to 3 Hours.
 4. Flanges come apart for the door to be provisionally hung for making adjustments.
 5. Replacement screw covers available for all finishes.
 6. Plastic cover plates.
 7. Door Weight for 2 Hinges: 220 lbs (100 kg).
 8. Door Weight for 3 Hinges: 275 lbs (125 kg).
 9. Door Thickness: 1-1/2 inches (38 mm) minimum.
 10. Door Size (W x H): 36 x 94-1/2 inches (915 x 2400 mm) maximum.
 11. Cycles: 300,000 open/close.
 12. Material: Zinc Alloy.
 13. Width or Depth of Item Closed: 1.42 inches (36 mm).
 14. Width or Depth of item Open: 3.125 inches (79 mm).
 15. Dimensions (W x H): 2.66 inches (67.5 mm) x 7.48 inches (190 mm).
 16. Weight: 41.27 oz (1170 grams).

17. Fasteners: Required and included.
 18. Fastener Type: Self tapping countersunk screw.
 19. Bracket for sheet metal doors and frames.
- L. Model HES3D-W190DC-UL. 3-Way Adjustable Concealed Hinge For Cladded Doors; UL-Rated as manufactured by Sugatsune.
1. Allows vertical, horizontal, and depth adjustment after hinge is installed.
 2. Lift-Off Feature: Hinge can be split into two parts; one for the frame and one for the flap. Can temporarily be hung and hold position without being affixed with screws.
 3. Cycles: 300,000 open/close.
 4. UL Rated, up to 3 Hours.
 5. Supplied with steel flat head screw.
 6. Covers to hide screw heads.
 7. Door Weight for 2 Hinges: 220 lbs (100 kg).
 8. Door Weight for 3 Hinges: 275 lbs (125 kg).
 9. Door Thickness: 1-1/2 inches (38 mm) minimum.
 10. Door Size (HxW): 94-1/2 x 36 inches (2400 x 915 mm) maximum.
 11. Material: Zinc Alloy.
 12. Width or Depth of Item Closed: 2.34 inches (59.5 mm).
 13. Width or Depth of item Open: 3.125 inches (79 mm).
 14. Dimensions (W x H): 1.34 inches (34 mm) x 7.48 inches (190 mm).
 15. Weight: 37.04 oz (1050 grams).
 16. Fasteners: Required and included.
 17. Fastener Type: Steel flat head screw.
 18. Bracket for sheet metal doors and frames.
 19. Metal cover plates with Polished Nickel (PN) finish HES3D-E190PN-CM.
- M. Model HES3D-W190DN-UL. 3-Way Adjustable Concealed Hinge For Cladded Doors; UL-Rated as manufactured by Sugatsune.
1. Allows vertical, horizontal, and depth adjustment after hinge is installed.
 2. Lift-Off Feature: Hinge can be split into two parts; one for the frame and one for the flap. Can temporarily be hung and hold position without being affixed with screws.
 3. Cycles: 300,000 open/close.
 4. UL Rated, up to 3 Hours.
 5. Supplied with steel flat head screw.
 6. Covers to hide screw heads.
 7. Door Weight for 2 Hinges: 220 lbs (100 kg).
 8. Door Weight for 3 Hinges: 275 lbs (125 kg).
 9. Door Thickness: 1-1/2 inches (38 mm) minimum.
 10. Door Size (HxW): 94-1/2 x 36 inches (2400 x 915 mm) maximum.
 11. Material: Zinc Alloy.
 12. Width or Depth of Item Closed: 2.34 inches (59.5 mm).
 13. Width or Depth of item Open: 3.125 inches (79 mm).
 14. Dimensions (W x H): 1.34 inches (34 mm) x 7.48 inches (190 mm).
 15. Weight: 37.04 oz (1050 grams).
 16. Fasteners: Required and included.
 17. Fastener Type: Steel flat head screw.
 18. Bracket for sheet metal doors and frames.
 19. Metal cover plates with Polished Nickel (PN) finish HES3D-E190PN-CM.

2.4 SLIDING DOOR HARDWARE

- A. Model FD80DHCHP-PD. Recessed Dual Soft Closer Pocket Door as manufactured by Sugatsune.
1. Built in soft close and soft open damper.
 2. Two Rail System: Allows components to be fixed or adjusted through the opening

- without breaking the pocket.
 - 3. For interior use only.
 - 4. Rollers are recess mounted to top of door.
 - 5. Maximum Door Weight: 176 lbs (80 kg).
 - 6. Maximum Door Height: 106.31 inches (2700 mm)
 - 7. Door Width: 30.88 to 59.06 inches (784 to 1500 mm); dependent on height
 - 8. Minimum Door Thickness: 1.34 inches (34 mm)
 - 9. Durability: 200,000 cycles.
 - 10. Material: Aluminum.
 - 11. Weight: 59.97 oz (1700 grams).
 - 12. Fasteners: Required and included.
 - 13. Tracks are ordered separately from the hardware. The retail kit is also available but ordered separately. Delete if not required.
 - 14. Upper Track Length: 49.61 inches (1260 mm).
 - 15. Upper Track Length: 85.04 inches (2160 mm).
 - 16. Upper Track Length: 106.66 inches (2760 mm)
 - 17. Upper Track Length: 155.91 inches (3960 mm).
 - 18. Retail Kit: With 85.04 inches (2160 mm) track. No. FD80PD-RM2-RT
- B. Model FD80DHCMP-PD. Surface Mount Two-Way Soft Close For Pocket Door as manufactured by Sugatsune.
- 1. Built in soft close and soft open damper.
 - 2. Two Rail System: Allows components to be fixed or adjusted through the opening without breaking the pocket.
 - 3. For interior use only.
 - 4. Rollers are recess mounted to top of door.
 - 5. Maximum Door Weight: 176 lbs (80 kg).
 - 6. Maximum Door Height: 106.31 inches (2700 mm)
 - 7. Door Width: 30.88 to 59.06 inches (784 to 1500 mm); dependent on height
 - 8. Minimum Door Thickness: 1.34 inches (34 mm)
 - 9. Durability: 200,000 cycles.
 - 10. Material: Aluminum.
 - 11. Weight: 56.44 oz (1600 grams).
 - 12. Fasteners: Required and included.
 - 13. Tracks are ordered separately from the hardware. The retail kit is also available but ordered separately. Delete if not required.
 - 14. Upper Track Length: 49.61 inches (1260 mm).
 - 15. Upper Track Length: 85.04 inches (2160 mm).
 - 16. Upper Track Length: 106.66 inches (2760 mm)
 - 17. Upper Track Length: 155.91 inches (3960 mm).
 - 18. Retail Kit: With 85.04 inches (2160 mm) track. No. FD80PD-SM2-RT
- C. Model FD80-TRP1260-SL. Pocket Door Upper Track 1260 mm as manufactured by Sugatsune.
- 1. Material: Aluminum.
 - 2. Length or Depth of Item: 49.61 inches (1260 mm).
 - 3. Dimensions (W x H): 1.57 inches (40 mm) x 1.5 inches (38 mm).
 - 4. Weight: 55.42 oz (1571 grams).
 - 5. Fasteners: Required and included.
- D. Model FD80-TRP2160-SL. Pocket Door Upper Track 2160 mm as manufactured by Sugatsune.
- 1. Material: Aluminum.
 - 2. Length or Depth of Item: 85.04 inches (2160 mm).
 - 3. Dimensions (W x H): 1.57 inches (40 mm) x 1.5 inches (38 mm).
 - 4. Weight: 104.76 oz (2970 grams).

5. Fasteners: Required and included.
- E. Model FD80-TRP2760-SL. Pocket Door Upper Track 2760 mm as manufactured by Sugatsune.
1. Material: Aluminum.
 2. Length or Depth of Item: 108.66 inches (2760 mm).
 3. Dimensions (W x H): 1.57 inches (40 mm) x 1.5 inches (38 mm).
 4. Weight: 120.32 oz (3411 grams).
 5. Fasteners: Required and included.
- F. Model FD80-TRP3960-SL. Pocket Door Upper Track 3960MM as manufactured by Sugatsune.
1. Material: Aluminum.
 2. Length or Depth of Item: 155.91 inches (3960 mm).
 3. Dimensions (W x H): 1.57 inches (40 mm) x 1.5 inches (38 mm).
 4. Weight: 172.84 oz (4900 grams).
 5. Fasteners: Required and included.
- G. Model SDR-RA80SYN-40. Synchro+Softclose Set for 40 kg as manufactured by Sugatsune.
1. Cycles: 100,000.
 2. Weight Capacity: 88 lbs (40 kg).
 3. Minimum Door Thickness: 1.06 inches (27 mm).
 4. Door Width: 28.13 to 59.06 inches (715 to 1500 mm).
 5. Mounting: Ceiling or Wall Barn Door.
 6. Door Brackets: Surface mounted.
 7. Double rollers with ball bearings.
 8. Quiet precision movement.
 9. Two-Way softclose and open feature.
 10. Steel braided band allowing both doors to open simultaneously.
 11. Vertical Adjustment: Plus or minus 1/16 inches (1 mm).
 12. Material: Aluminum.
 13. Weight: 77.6 oz (2200 grams).
 14. Fasteners: Required and included.
 15. Track Length: 78.74 inches (2000 mm).
 16. Track Length: 118.11 inches (3000 mm)
- H. Model SDR-RA80SYN-80. Synchro+Softclose Set for 176 lbs (80 kg) as manufactured by Sugatsune.
1. Cycles: 100,000.
 2. Weight Capacity: 176 lbs (80 kg).
 3. Minimum Door Thickness: 1.06 inches (27 mm)
 4. Door Width: 36 to 59.06 inches (915 to 1500 mm).
 5. Mounting: Ceiling or Wall Barn Door.
 6. Door Brackets: Surface mounted.
 7. Double rollers with ball bearings.
 8. Quiet precision movement.
 9. Two-Way Soft close and open feature.
 10. Steel braided band allowing both doors to open simultaneously.
 11. Vertical Adjustment: Plus or minus 1/16 inches (1 mm).
 12. Material: Aluminum.
 13. Weight: 95.24 oz (2700 grams).
 14. Fasteners: Required and included.
 15. Track Length: 78.74 inches (2000 mm).
 16. Track Length: 118.11 inches (3000 mm)
- I. Model SDR-RA80-2000. Sliding Door Upper Track 3960MM as manufactured by Sugatsune.
1. Material: Aluminum.

2. Length or Depth of Item: 78.74 inches (2000 mm).
 3. Dimensions (W x H): 1.44 x 1.69 inches (36 x 43 mm).
 4. Weight: 59.05 oz (1674 grams).
 5. Fasteners: Required.
- J. Model SDR-RA80-3000. Sliding Door Upper Track 3960MM as manufactured by Sugatsune.
1. Material: Aluminum.
 2. Length or Depth of Item: 118.11 inches (3000 mm).
 3. Dimensions (W x H): 1.44 x 1.69 inches (36 x 43 mm).
 4. Weight: 88.57 oz (2511 grams).
 5. Fasteners: Required.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until the substrates have been properly constructed and prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.

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 in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.

3.4 FIELD QUALITY CONTROL

- A. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.
- B. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.

3.5 CLEANING AND PROTECTION

- A. Clean products in accordance with the manufacturers recommendations.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION