

Double Hung Windows



Commercial Double Hung Windows for Retrofit and New Construction



Chaville Condominiums - Chicago, IL
Series 700, White



Gallery Place Apartments - Washington, DC
Series 700, Bronze



Continental Towers - Indianapolis, IN (*above & inset*)
Series 700, Hartford Green



Bennett Hall, Oklahoma State University - Stillwater, OK
Series 700, White

Manufactured by Thermal Windows, Inc. • 12805 E. 31st Street • Tulsa, OK 74146 • (800) 259-7580 • Fax (918) 665-2197
Website: www.thermalwindows.com Email: info@thermalwindows.com



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DOUBLE HUNG WINDOWS

Standard Features

- Custom Sizes
- 3¼" frame depth
- Integral Thermal Barrier throughout frame and sash
- Spiral balances
- AAMA 2604 organic powder coat finish
- 5 standard powder coat finish colors (see 'Finishes' section)
- Tested to AAMA specifications
- 7⁄8" Insulated glass
- Extruded screen frame with fiberglass mesh
- Operable sash tilts in for easy cleaning

Available Options

- Ultra-lift balances; Block and tackle balances
- Dual seal
- Anodized finishes
- AAMA 2605 high-performance finishes
- Tier 2 colors at no additional charge (minimums apply)
- Hundreds of special colors
- Single glazing
- Low-E glass; tinted glass; obscure (frosted) glass
- Spandrel glass; Insulating panels
- External applied muntins available on most models
- Wire screen mesh
- Panning, receptor systems, subsills, snap trim and other accessories
- Internal, external and special angled mullions
- Nailing fin
- Front flanged frame
- Lock-out tilt latches
- Internal muntins

SERIES 700 3-1/4" DOUBLE HUNG (CW30)

SPECIFICATIONS

I. GENERAL:

Scope of Work - Furnish all necessary materials, labor and equipment for the complete installation of aluminum windows for this project as shown on the drawings and herein specified. Windows shall be the "Series 700" as manufactured by Thermal Windows, Inc., Tulsa, Oklahoma. The "Series 700" is a double hung with thermally improved frame and sash consisting of an operable, tilt lower sash as well as an operable, tilt upper sash. The specifications and materials for the "Series 700" are as follows:

II. PRODUCTS:

Materials - Aluminum shall be of proper alloy for commercial window construction. All extruded sections shall be of 6063-T5 aluminum alloy.

Frame - Main frame and sash members shall be a nominal thickness as required by ANSI/AAMA 101. Main frame shall be 3.250" in depth. Horizontal sash members shall be hollow extrusions. Main frames and sash members are to be extruded aluminum with a structural thermal barrier of high density low thermal conductivity polyurethane, poured and debrided.

Locks - Shall consist of a cam latch at the interlocking meeting rail along with an independent spring loaded latch for each sash (upper and lower).

Balances - Sash will be balanced by field adjustable spirally wound spring sash balances attached to the main frame by pivot sash shoes of nylon. Balances shall hold the sash stationary in any position along the full range of sash travel. Where weight of sash requires, double sash balances will be used. Balances shall meet the requirements of AAMA 902.2.

Weatherstripping - Shall be .250 polypile with mylar fins conforming to AAMA 701.2, Specification for Pile Weatherstrip. Weatherstripping shall be doubled at all points of contact of the sash and main frames and at the interlocking meeting rail. A dual vinyl bulb seal will be used at the sill.

III. CONSTRUCTION:

Assembly - Main frame shall be a mechanically joined construction. Corner joints should be "seam sealed" with a quality grade of sealant meeting the requirements of AAMA 803.3. The sash shall be assembled with two screws at each corner. All screws at joints of sash and main frame shall be secured into integral screw ports.

Glazing - Glass in each operable sash shall be factory glazed with a marine (wrap around) reusable vinyl glazing channel. The insulated glass units shall be .875" overall thickness with two panes of double strength glass, separated by a .625" air space for optimum insulation. All insulated glass units shall

meet the requirements of the ASTM E 2190 specification, Class "A".

Screens - Screen frame shall be of hollow extruded aluminum frames. Finish shall match the main frames and sash. Insect screening shall be aluminum wire or fiberglass secured with a vinyl spline. Screens shall be full length.

Finish - Shall be a factory applied baked polyurethane powder coat finish meeting the requirements of AAMA 2604 for Pigmented Organic Coating on Extruded Aluminum. Refer to "Colors and Finishes" chart for examples. Bronze anodizing, clear anodizing and high performance AAMA 2605 finishes are optional.

Operation - The lower and upper sash are operable on the "Series 700" Double Hung window and will raise and / or lower for ventilation. Each sash is equipped with a release latch so that it will tilt in for cleaning and is removable from the interior for ease of maintenance.

IV. PERFORMANCE:

Structural - Shall meet the requirements of AAMA/WDMA/CSA 101/I.S.2/A440-08, CW-PG30-H specification.

Thermal - Shall meet the requirements of AAMA 1503.1 CRF 56 / 59.

NFRC - Shall meet the requirements of NFRC 100 and 200.

Forced Entry - Shall meet the requirements for ASTM F588 Load Identification Grade 10.

Sound Transmission Class - Shall meet the requirements of ASTM E90. Ratings vary depending upon glazing. See Product Selection Guide for summary.

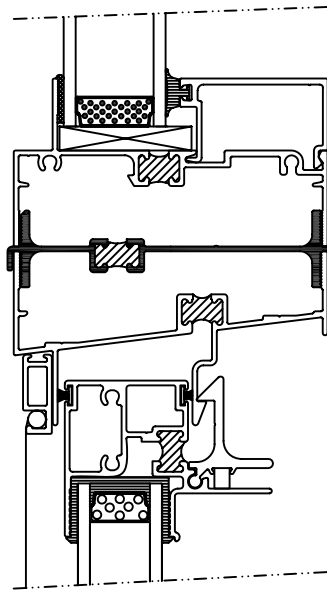
V. INSTALLATION:

Qualifications - Installation shall be performed by skilled, experienced tradesmen. Units shall be installed plumb, level, square and shall be secured in accordance with detailed shop drawings. A non-hardening sealant compatible with aluminum shall be provided by the installer and applied in sufficient quantity to provide a weathertight seal between the window and surrounding construction.

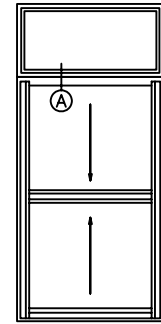
Installation Details - The window manufacturer shall submit complete installation details for the Architects approval. The drawings shall show elevations of windows, full size details of frame and vents, details of construction and anchorage of window.

SERIES 700 3-1/4" DOUBLE HUNG (CW30)

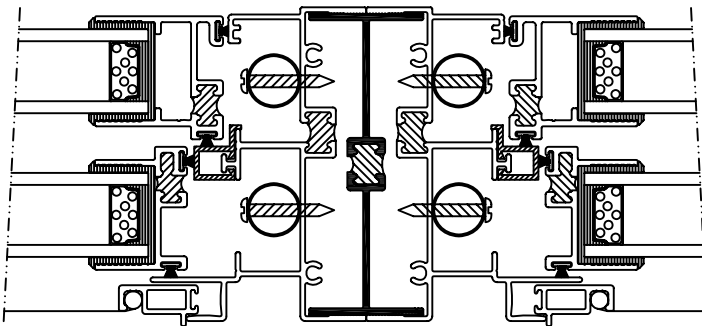
Typical Configurations (Scale: Half Size)



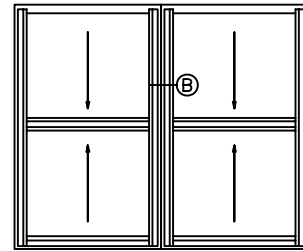
Ⓐ 750-700



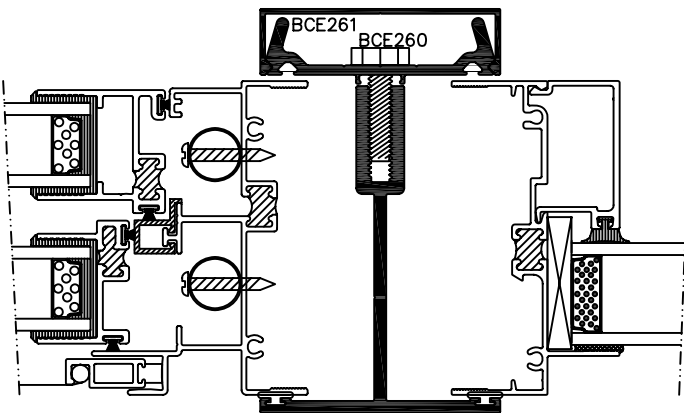
750-700



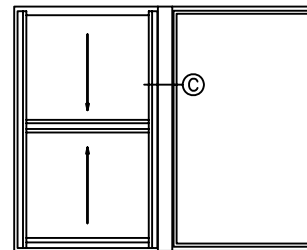
Ⓑ 700-700



700-700



Ⓒ 700-750

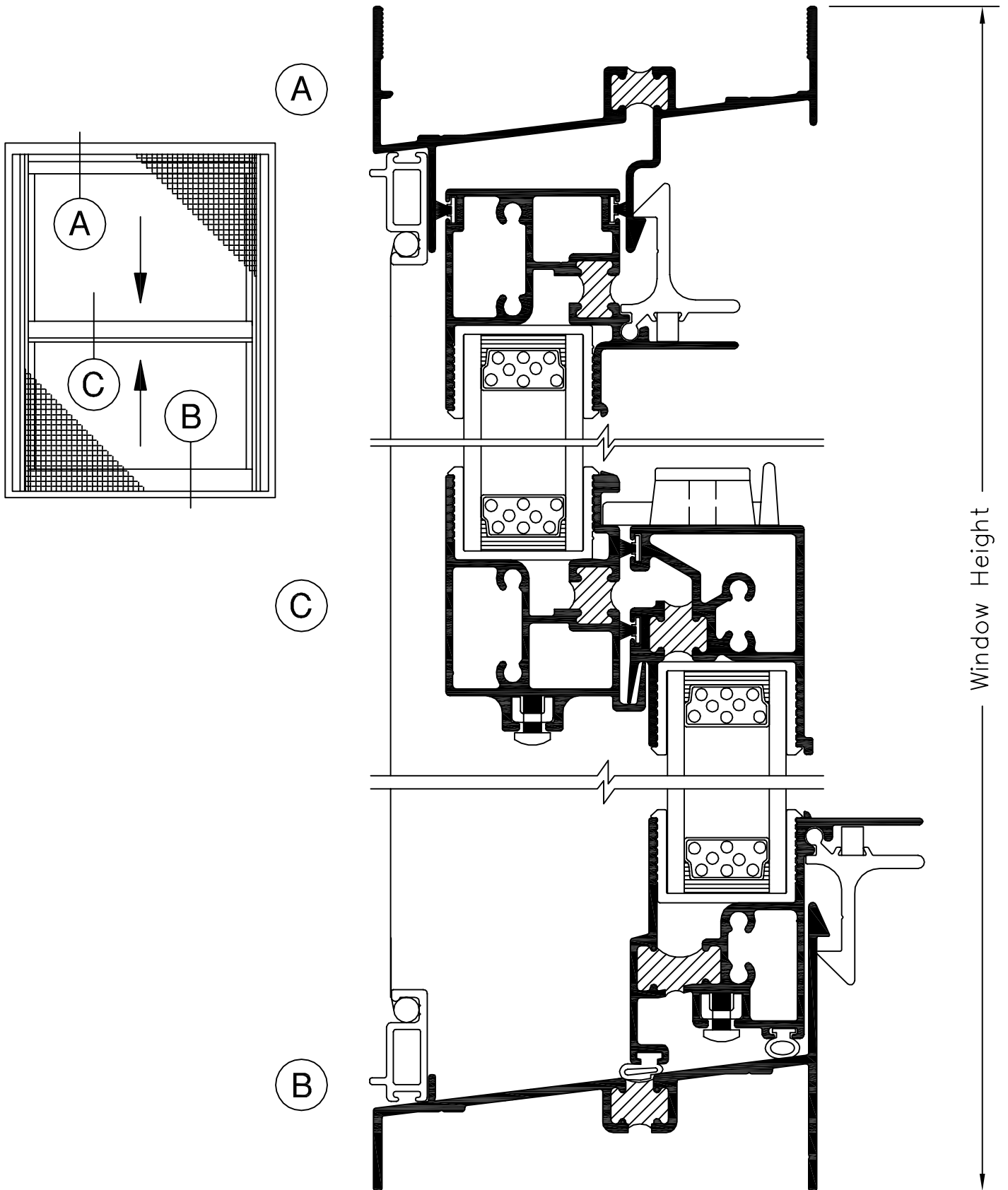


700-750

See Accessories section for additional options

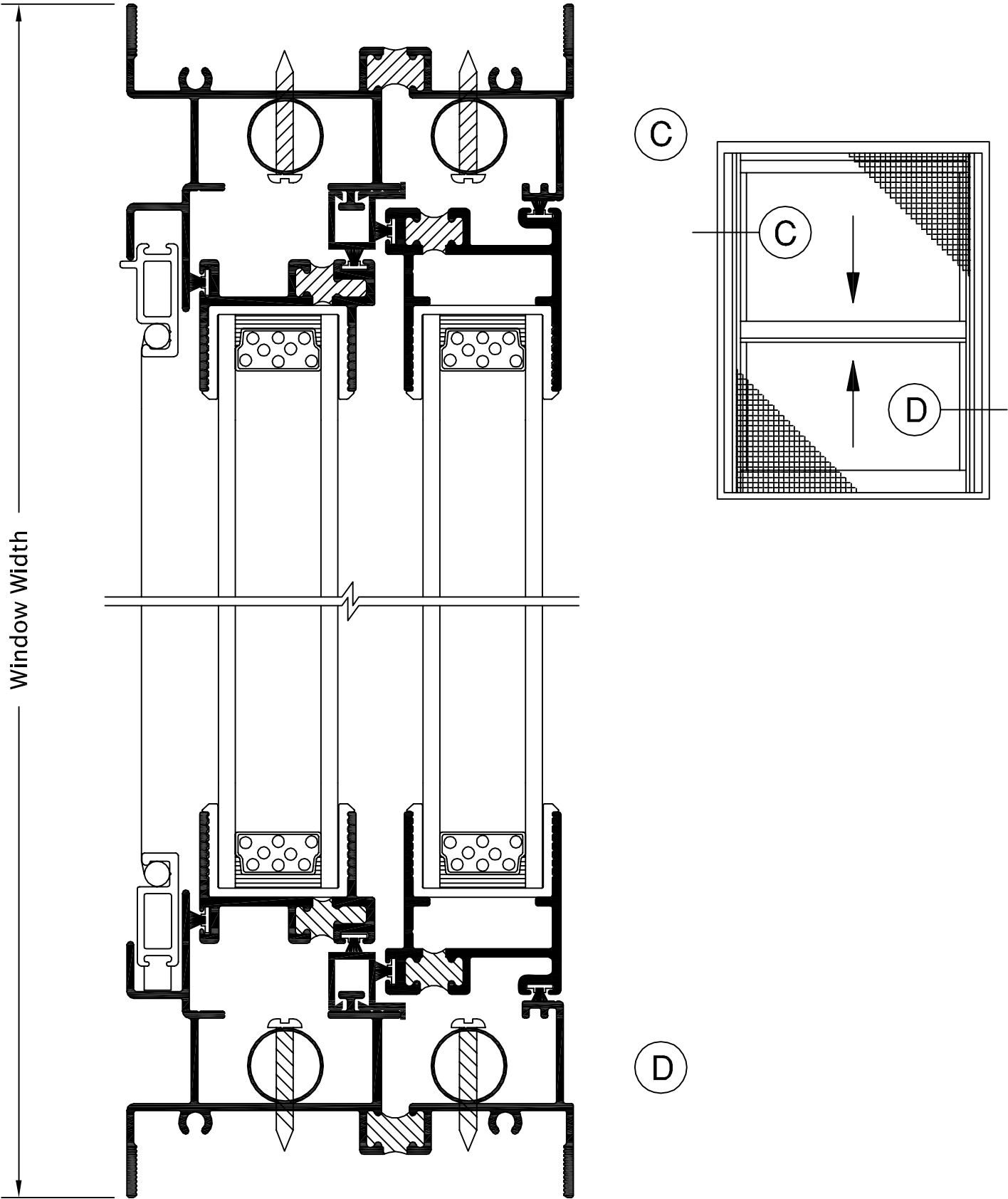
SERIES 700 3-1/4" DOUBLE HUNG (CW30)

Product Details (Scale: Full Size)



SERIES 700 3-1/4" DOUBLE HUNG (CW30)

Product Details (Scale: Full Size)



SERIES 700C 3-1/4" DOUBLE HUNG (CW40)

SPECIFICATIONS

I. GENERAL:

Scope of Work - Furnish all necessary materials, labor and equipment for the complete installation of aluminum windows for this project as shown on the drawings and herein specified. Windows shall be the "Series 700C" as manufactured by Thermal Windows, Inc., Tulsa, Oklahoma. The "Series 700C" is a double hung with thermally improved frame and sash consisting of an operable, tilt lower sash as well as an operable, tilt upper sash. The specifications and materials for the "Series 700C" are as follows:

II. PRODUCTS:

Materials - Aluminum shall be of proper alloy for commercial window construction. All extruded sections shall be of 6063-T5 aluminum alloy.

Frame - Main frame and sash members shall be a nominal thickness as required by ANSI/AAMA 101. Main frame shall be 3.250" in depth. Horizontal sash members shall be hollow extrusions. Main frames and sash members are to be extruded aluminum with a structural thermal barrier of high density low thermal conductivity polyurethane, poured and debridged.

Locks - Shall consist of a cam latch at the interlocking meeting rail along with an independent spring loaded latch for each sash (upper and lower).

Balances - Sash will be balanced by field adjustable spirally wound spring sash balances attached to the main frame by pivot sash shoes of nylon. Balances shall hold the sash stationary in any position along the full range of sash travel. Where weight of sash requires, double sash balances will be used. Balances shall meet the requirements of AAMA 902.2.

Weatherstripping - Shall be .250 polypile with mylar fins conforming to AAMA 701.2, Specification for Pile Weatherstrip. Weatherstripping shall be doubled at all points of contact of the sash and main frames and at the interlocking meeting rail. A dual vinyl bulb seal will be used at the sill.

III. CONSTRUCTION:

Assembly - Main frame shall be a mechanically joined construction. Corner joints should be "seam sealed" with a quality grade of sealant meeting the requirements of AAMA 803.3. The sash shall be assembled with two screws at each corner. All screws at joints of sash and main frame shall be secured into integral screw ports.

Glazing - Glass in each operable sash shall be factory glazed with a marine (wrap around) reusable vinyl glazing channel. The insulated glass units shall be .875" overall thickness with two panes of double strength glass, separated by a .625" air space for optimum insulation. All insulated glass units shall

meet the requirements of the ASTM E 2190 specification, Class "A".

Screens - Screen frame shall be of hollow extruded aluminum frames. Finish shall match the main frames and sash. Insect screening shall be aluminum wire or fiberglass secured with a vinyl spline. Screens shall be full length.

Finish - Shall be a factory applied baked polyurethane powder coat finish meeting the requirements of AAMA 2604 for Pigmented Organic Coating on Extruded Aluminum. Refer to "Colors and Finishes" chart for examples. Bronze anodizing, clear anodizing and high performance AAMA 2605 finishes are optional.

Operation - The lower and upper sash are operable on the "Series 700C" Double Hung window and will raise and / or lower for ventilation. Each sash is equipped with a release latch so that it will tilt in for cleaning and is removable from the interior for ease of maintenance.

IV. PERFORMANCE:

Structural - Shall meet the requirements of AAMA/WDMA/CSA 101/I.S.2/A440-08, CW-PG40-H specification.

Thermal - Shall meet the requirements of AAMA 1503.1 CRF 56 / 59.

NFRC - Shall meet the requirements of NFRC 100 and 200.

Forced Entry - Shall meet the requirements for ASTM F588 Load Identification Grade 10.

Sound Transmission Class - Shall meet the requirements of ASTM E90. Ratings vary depending upon glazing. See Product Selection Guide for summary.

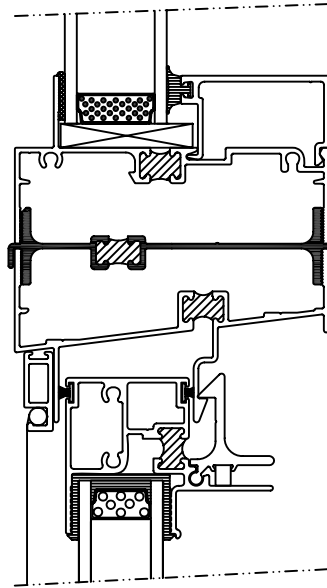
V. INSTALLATION:

Qualifications - Installation shall be performed by skilled, experienced tradesmen. Units shall be installed plumb, level, square and shall be secured in accordance with detailed shop drawings. A non-hardening sealant compatible with aluminum shall be provided by the installer and applied in sufficient quantity to provide a weathertight seal between the window and surrounding construction.

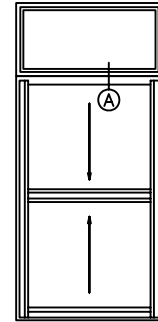
Installation Details - The window manufacturer shall submit complete installation details for the Architects approval. The drawings shall show elevations of windows, full size details of frame and vents, details of construction and anchorage of window.

SERIES 700C 3-1/4" DOUBLE HUNG (CW40)

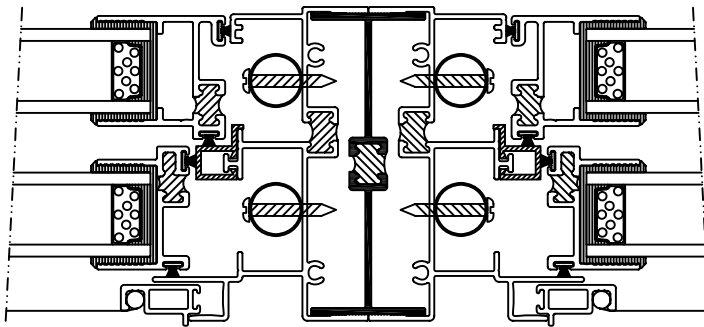
Typical Configurations (Scale: Half Size)



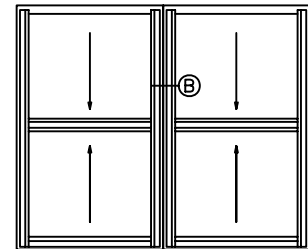
Ⓐ 750-700C



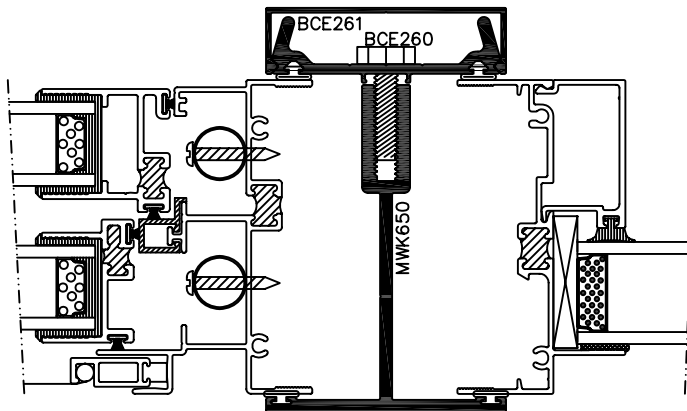
750-700C



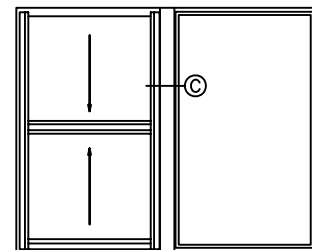
Ⓑ 700C-700C



700C-700C



Ⓒ 700C-750

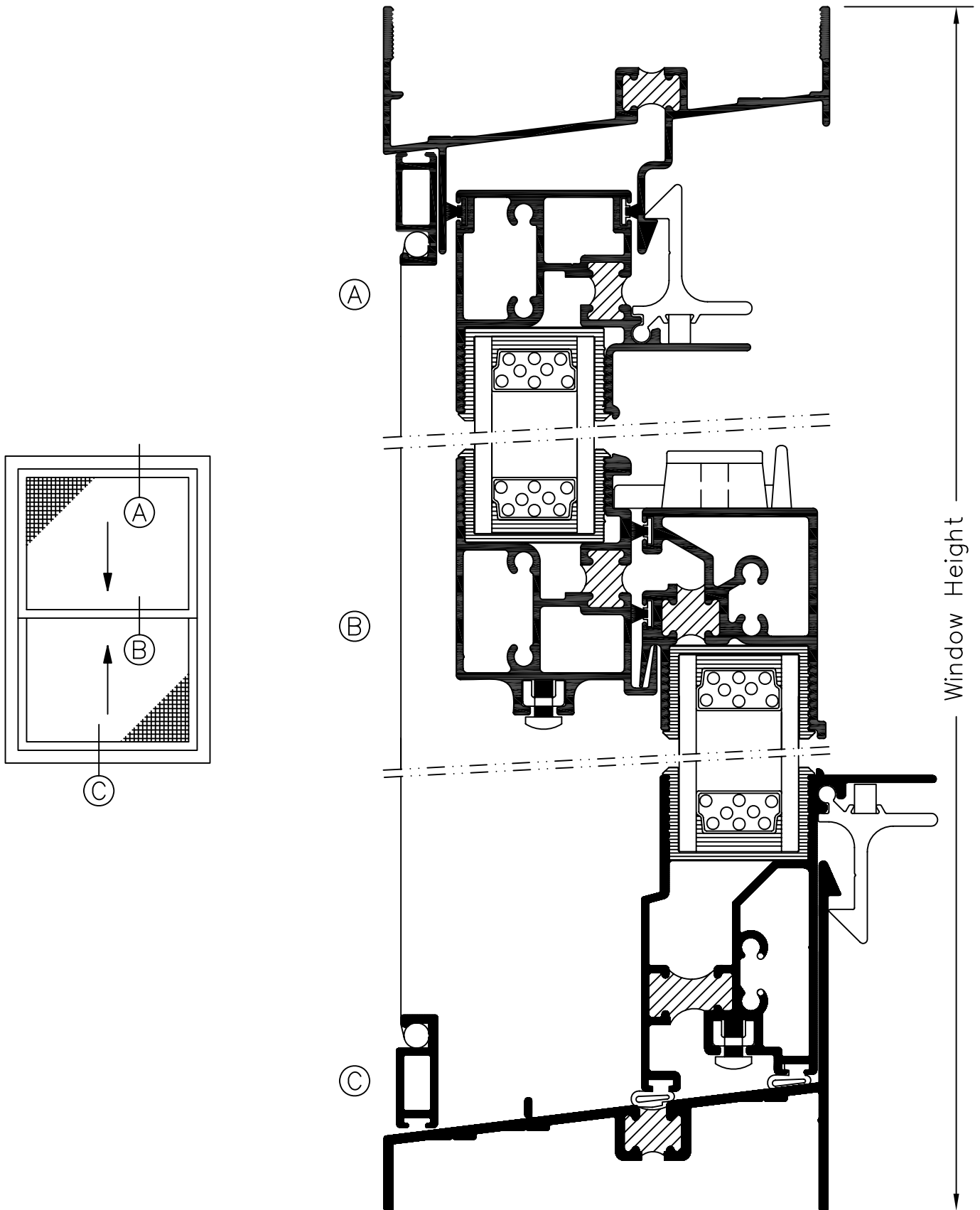


700C-750

See Accessories section for additional options

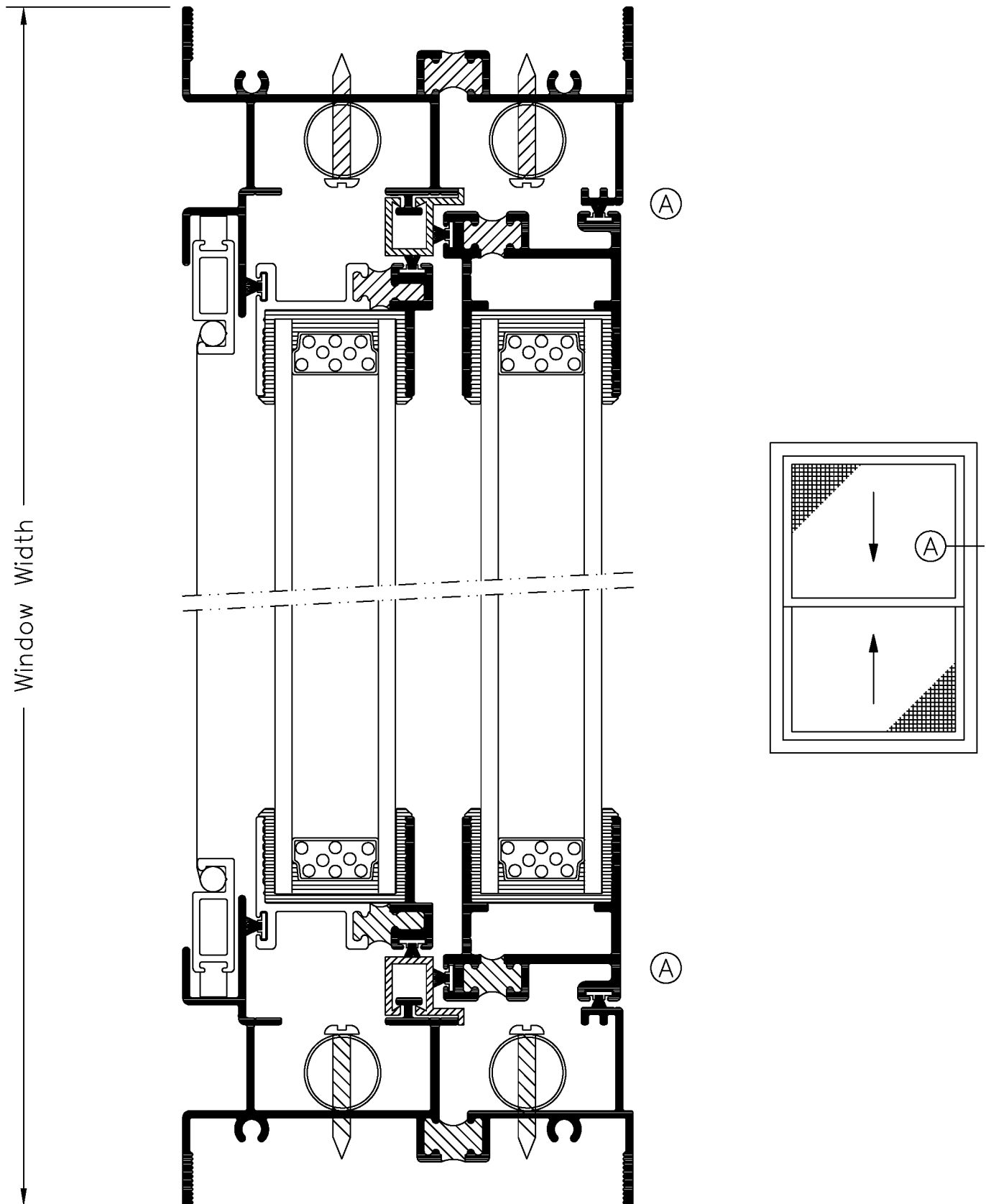
SERIES 700C 3-1/4" DOUBLE HUNG (CW40)

Product Details (Scale: Full Size)



SERIES 700C 3-1/4" DOUBLE HUNG (CW40)

Product Details (Scale: Full Size)



SERIES 710 3-1/4" DOUBLE HUNG (CW40)

SPECIFICATIONS

I. GENERAL:

Scope of Work - Furnish all necessary materials, labor and equipment for the complete installation of aluminum windows for this project as shown on the drawings and herein specified. Windows shall be the "Series 710" as manufactured by Thermal Windows, Inc., Tulsa, Oklahoma. The "Series 710" is a double hung with thermally improved frame and sash consisting of an operable, tilt lower sash as well as an operable, tilt upper sash. The specifications and materials for the "Series 710" are as follows:

II. PRODUCTS:

Materials - Aluminum shall be of proper alloy for commercial window construction. All extruded sections shall be of 6063-T5 aluminum alloy.

Frame - Main frame and sash members shall be a nominal thickness as required by ANSI/AAMA 101-93. Main frame shall be 3.250" in depth. Horizontal sash members shall be hollow extrusions. Main frames and sash members are to be extruded aluminum with a structural thermal barrier of high density low thermal conductivity polyurethane, poured and debridged.

* Optional Framing includes: Integral 2" offset "flanged" frame".

Locks - Shall consist of a cam latch at the interlocking meeting rail along with an independent spring loaded latch for each sash (upper and lower).

Balances - Sash will be balanced by field adjustable spirally wound spring sash balances attached to the main frame by pivot sash shoes of nylon. Balances shall hold the sash stationary in any position along the full range of sash travel. Where weight of sash requires, double sash balances will be used. Balances shall meet the requirements of AAMA 902.2.

Weatherstripping - Shall be .250 polypile with mylar fins conforming to AAMA 701.2, Specification for Pile Weatherstrip. Weatherstripping shall be doubled at all points of contact of the sash and main frames and at the interlocking meeting rail. A dual vinyl bulb seal will be used at the sill.

III. CONSTRUCTION:

Assembly - Main frame shall be a mechanically joined construction. Corner joints should be "seam sealed" with a quality grade of sealant meeting the requirements of AAMA 803.3. The sash shall be assembled with two screws at each corner. All screws at joints of sash and main frame shall be secured into integral screw ports. Optional Framing assembly includes: Continuous head and sill Main Framing members with Integral Common jamb/mullion in center.

Glazing - Glass in each operable sash shall be factory glazed with a marine (wrap around) reusable vinyl glazing channel. The insulated glass units shall be .875" overall thickness with

two panes of double strength glass, separated by a .625" air space for optimum insulation. All insulated glass units shall meet the requirements of the ASTM E 2190 specification, Class "A".

Screens - Screen frame shall be of hollow extruded aluminum frames. Finish shall match the main frames and sash. Insect screening shall be fiberglass or aluminum wire secured with a vinyl spline. Screens shall be full length.

Finish - Shall be a factory applied baked polyurethane powder coat finish meeting the requirements of AAMA 2604 for Pigmented Organic Coating on Extruded Aluminum. Refer to "Colors and Finishes" chart for examples. Bronze anodizing, clear anodizing and high performance AAMA 2605 finishes are optional.

Operation - The lower and upper sash are operable on the "Series 710" Double Hung window and will raise and / or lower for ventilation. Each sash is equipped with a release latch so that it will tilt in for cleaning and is removable from the interior for ease of maintenance.

IV. PERFORMANCE:

Structural - Shall meet the requirements of AAMA/WDMA/CSA 101/I.S.2/A440-11 Class CW40-H specification.

Thermal - Shall meet the requirements of AAMA 1503.1 CRF 56 / 59.

NFRC - Shall meet the requirements of NFRC 100 and 200.

Forced Entry - Shall meet the requirements for ASTM F588 Load Identification Grade 10.

Sound Transmission Class - Shall meet the requirements of ASTM E90. Ratings vary depending upon glazing. See Product Selection Guide for summary.

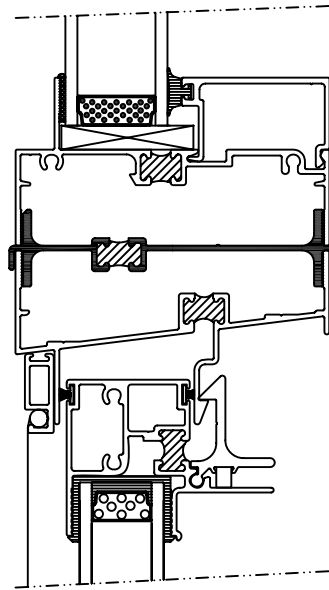
V. INSTALLATION:

Qualifications - Installation shall be performed by skilled, experienced tradesmen. Units shall be installed plumb, level, square and shall be secured in accordance with detailed shop drawings. A non-hardening sealant compatible with aluminum shall be provided by the installer and applied in sufficient quantity to provide a weathertight seal between the window and surrounding construction.

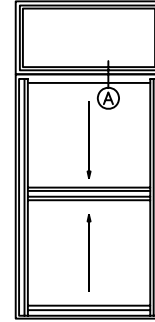
Installation Details - The window manufacturer shall submit complete installation details for the Architects approval. The drawings shall show elevations of windows, full size details of frame and vents, details of construction and anchorage of window.

SERIES 710 3-1/4" DOUBLE HUNG (CW40)

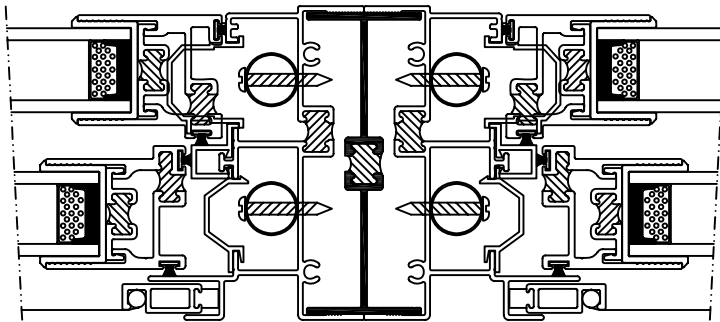
Typical Configurations (Scale: Half Size)



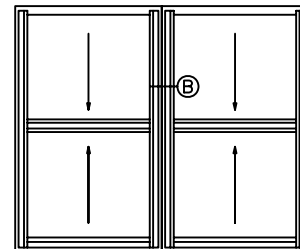
Ⓐ 750-710



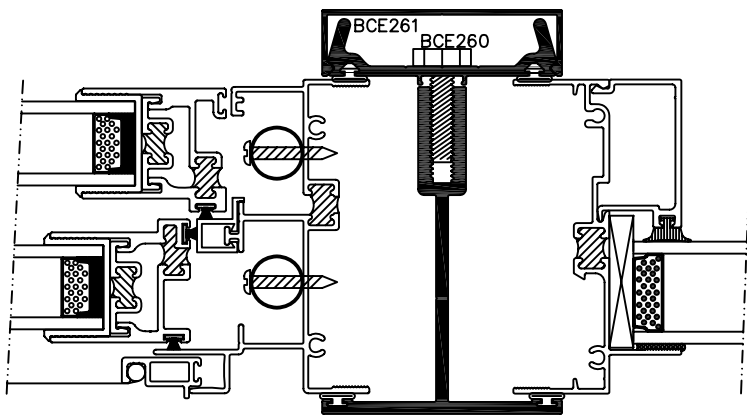
750-710



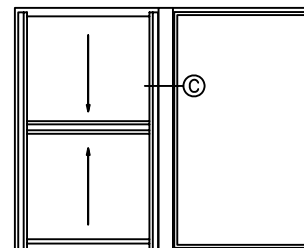
Ⓑ 710-710



710-710



Ⓒ 710-750

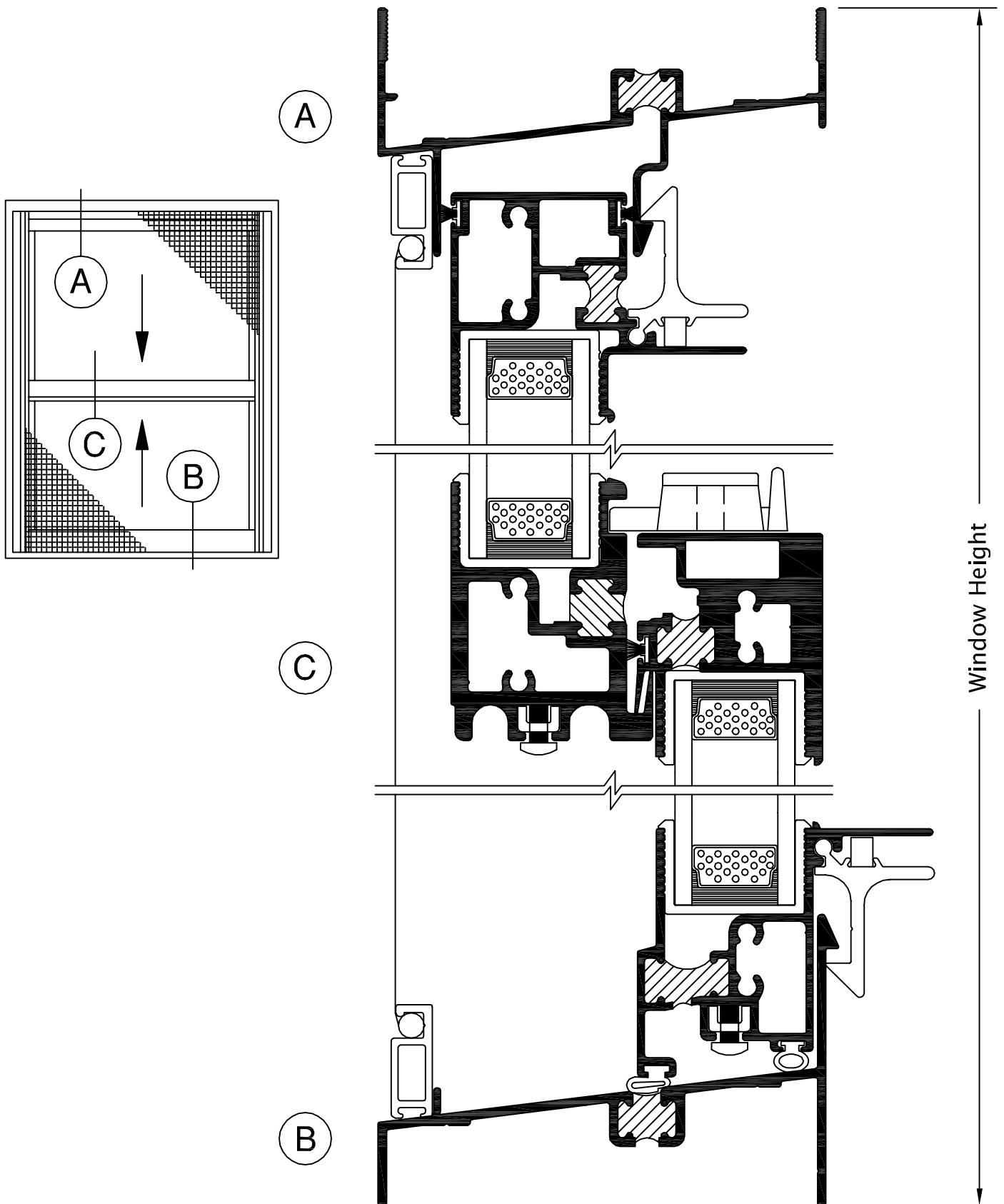


710-750

See Accessories section for additional options

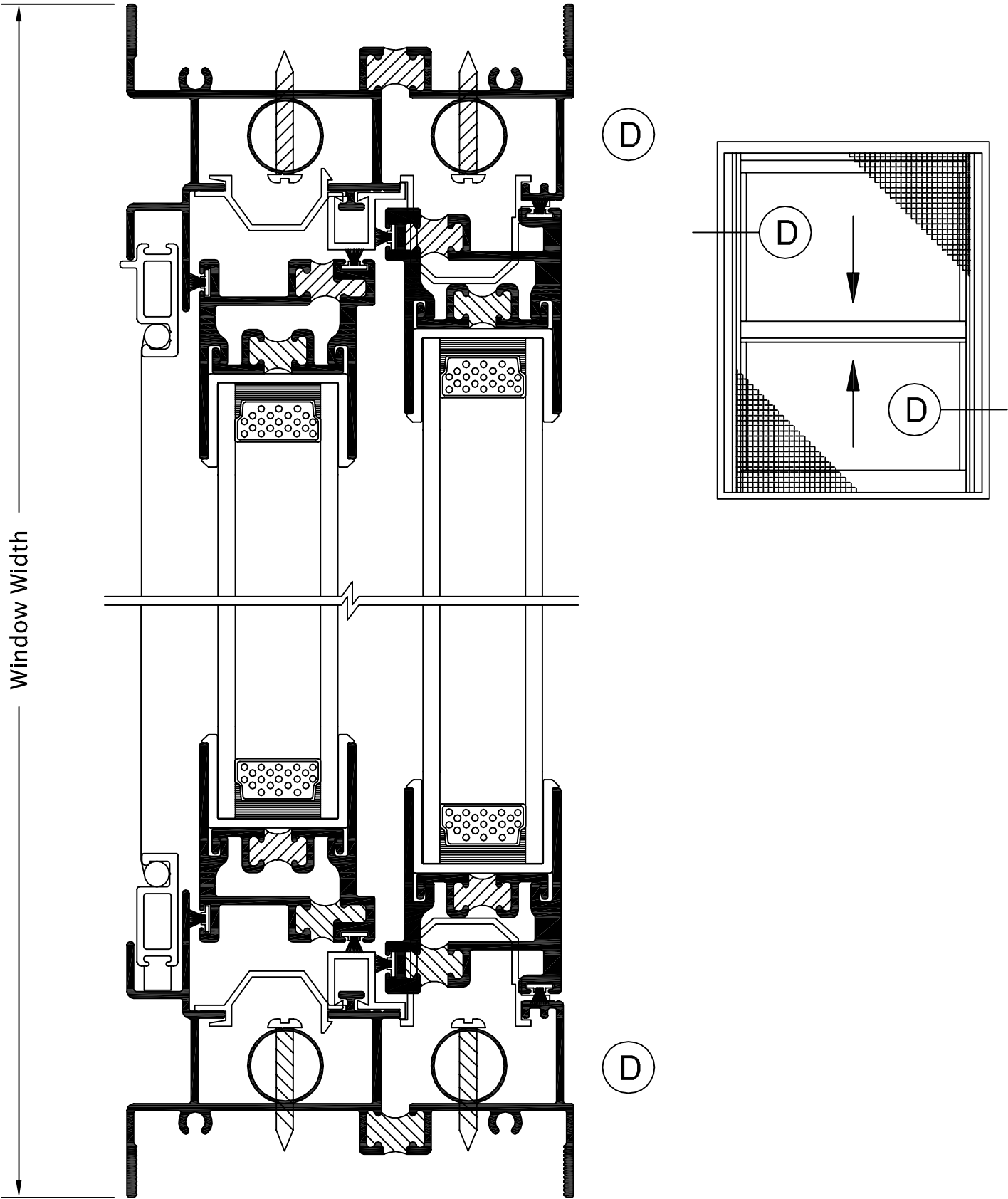
SERIES 710 3-1/4" DOUBLE HUNG (CW40)

Product Details (Scale: Full Size)



SERIES 710 3-1/4" DOUBLE HUNG (CW40)

Product Details (Scale: Full Size)



SERIES 715 3-1/4" DOUBLE HUNG (CW60)

SPECIFICATIONS

I. GENERAL:

Scope of Work - Furnish all necessary materials, labor and equipment for the complete installation of aluminum windows for this project as shown on the drawings and herein specified. Windows shall be the "Series 715" as manufactured by Thermal Windows, Inc., Tulsa, Oklahoma. The "Series 715" is a double hung with thermally improved frame and sash consisting of an operable, tilt lower sash as well as an operable, tilt upper sash. The specifications and materials for the "Series 715" are as follows:

II. PRODUCTS:

Materials - Aluminum shall be of proper alloy for commercial window construction. All extruded sections shall be of 6063-T5 aluminum alloy.

Frame - Main frame and sash members shall be a nominal thickness as required by ANSI/AAMA 101-93. Main frame shall be 3.250" in depth. Horizontal sash members shall be hollow extrusions. Main frames and sash members are to be extruded aluminum with a structural thermal barrier of high density low thermal conductivity polyurethane, poured and debridged.

Locks - Shall consist of a cam latch at the interlocking meeting rail along with an independent spring loaded latch for each sash (upper and lower).

Balances - Sash will be balanced by field adjustable spirally wound spring sash balances attached to the main frame by pivot sash shoes of nylon. Balances shall hold the sash stationary in any position along the full range of sash travel. Where weight of sash requires, double sash balances will be used. Balances shall meet the requirements of AAMA 902.2.

Weatherstripping - Shall be .250 polypile with mylar fins conforming to AAMA 701.2, Specification for Pile Weatherstrip. Weatherstripping shall be doubled at all points of contact of the sash and main frames and at the interlocking meeting rail. A dual vinyl bulb seal will be used at the sill.

III. CONSTRUCTION:

Assembly - Main frame shall be a mechanically joined construction. Corner joints should be "seam sealed" with a quality grade of sealant meeting the requirements of AAMA 803.3. The sash shall be assembled with two screws at each corner. All screws at joints of sash and main frame shall be secured into integral screw ports.

Glazing - Glass in each operable sash shall be factory glazed with a marine (wrap around) reusable vinyl glazing channel. The insulated glass units shall be .875" overall thickness with two panes of double strength glass, separated by a .625" air

space for optimum insulation. All insulated glass units shall meet the requirements of the ASTM E 2190 specification, Class "A".

Screens - Screen frame shall be of hollow extruded aluminum frames. Finish shall match the main frames and sash. Insect screening shall be fiberglass or aluminum wire secured with a vinyl spline. Screens shall be full length.

Finish - Shall be a factory applied baked polyurethane powder coat finish meeting the requirements of AAMA 2604 for Pigmented Organic Coating on Extruded Aluminum. Refer to "Colors and Finishes" chart for examples. Bronze anodizing, clear anodizing and high performance AAMA 2605 finishes are optional.

Operation - The lower and upper sash are operable on the "Series 715" Double Hung window and will raise and / or lower for ventilation. Each sash is equipped with a release latch so that it will tilt in for cleaning and is removable from the interior for ease of maintenance.

IV. PERFORMANCE:

Structural - Shall meet the requirements of AAMA/WDMA/CSA 101/I.S.2/A440-11 Class CW60-H specification.

Thermal - Shall meet the requirements of AAMA 1503.1 CRF 56 / 59.

NFRC - Shall meet the requirements of NFRC 100 and 200.

Forced Entry - Shall meet the requirements for ASTM F588 Load Identification Grade 10.

Sound Transmission Class - Shall meet the requirements of ASTM E90. Ratings vary depending upon glazing. See Product Selection Guide for summary.

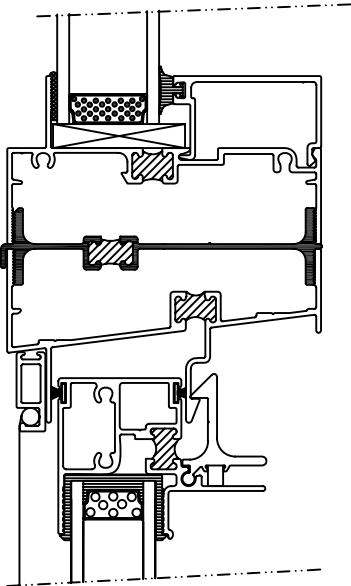
V. INSTALLATION:

Qualifications - Installation shall be performed by skilled, experienced tradesmen. Units shall be installed plumb, level, square and shall be secured in accordance with detailed shop drawings. A non-hardening sealant compatible with aluminum shall be provided by the installer and applied in sufficient quantity to provide a weathertight seal between the window and surrounding construction.

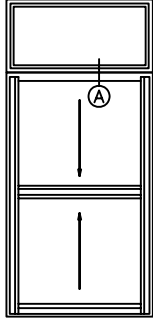
Installation Details - The window manufacturer shall submit complete installation details for the Architects approval. The drawings shall show elevations of windows, full size details of frame and vents, details of construction and anchorage of window.

SERIES 715 3-1/4" DOUBLE HUNG (CW60)

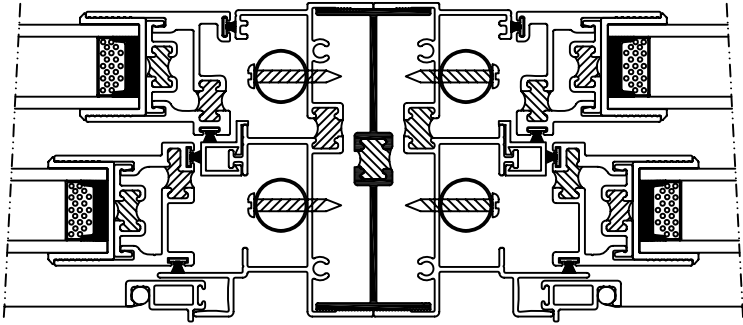
Typical Configurations (Scale: Half Size)



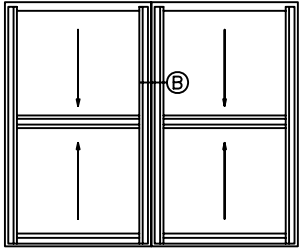
Ⓐ 750-715



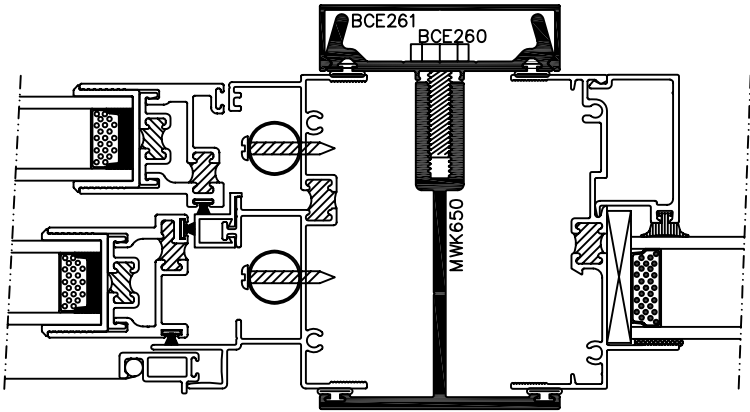
750-715



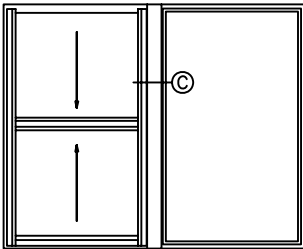
Ⓑ 715-715



715-715



Ⓒ 715-750

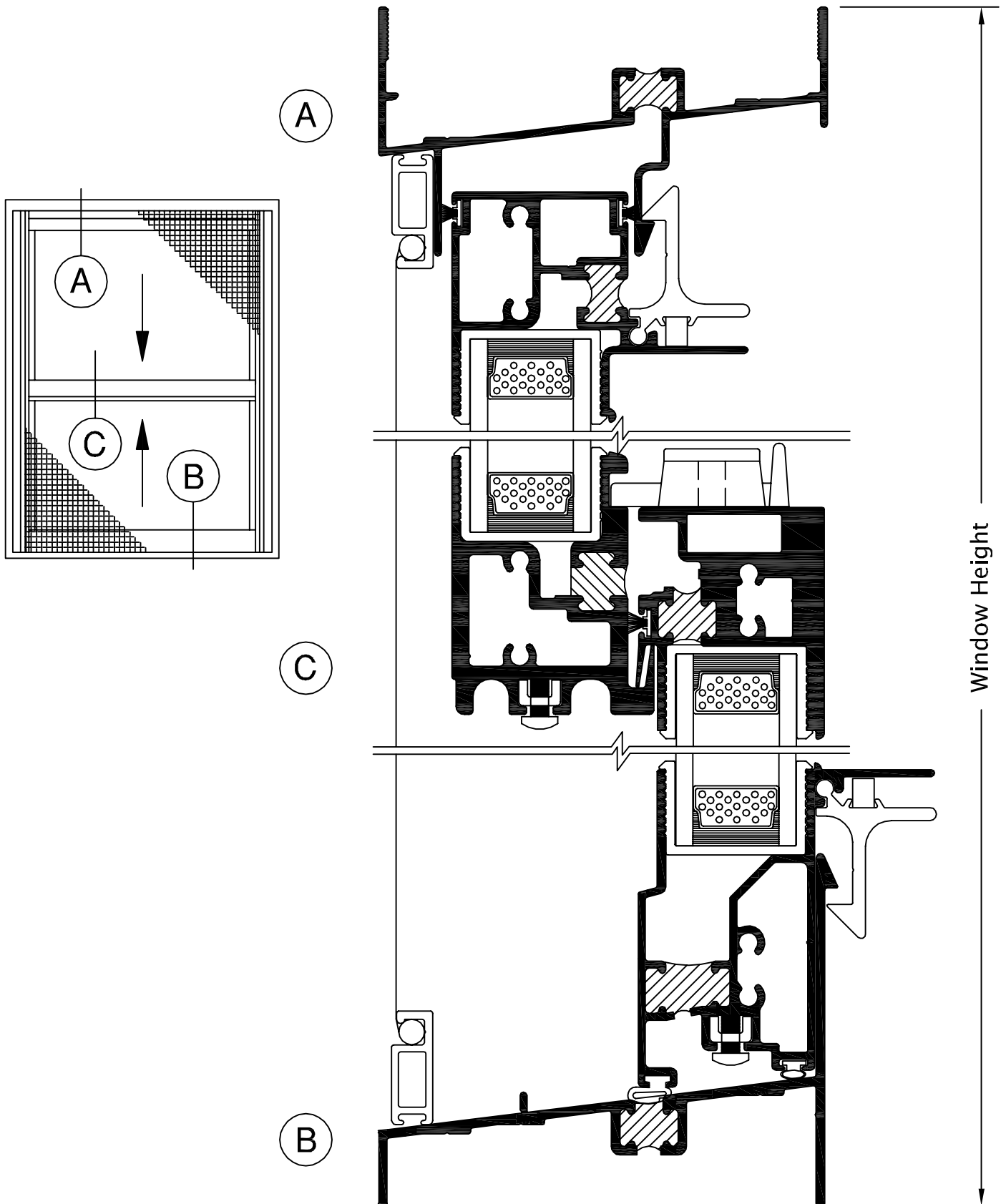


715-750

See Accessories section for additional options

SERIES 715 3-1/4" DOUBLE HUNG (CW60)

Product Details (Scale: Full Size)



SERIES 715 3-1/4" DOUBLE HUNG (CW60)

Product Details (Scale: Full Size)

