

LUXURY ALUMINUM WINDOWS



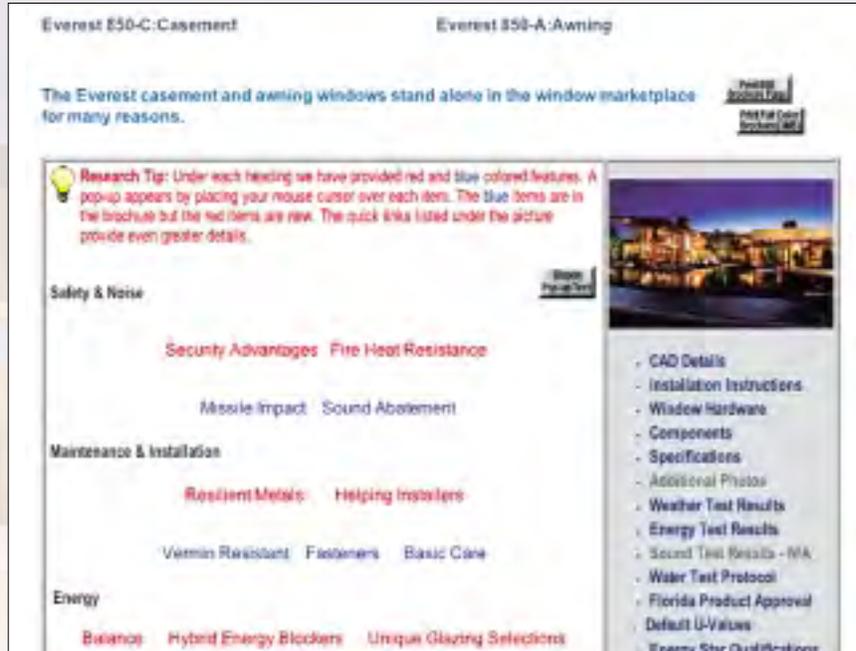
FLEETWOOD
FLEETWOODUSA.COM

WELCOME!

This brochure is designed to give you an overview of our window products. We want to invite you to visit our website for more information. For information on doors, review our aluminum doors brochure that is downloadable from our website.

BROCHURE & WEBSITE

Consistent with our **Green Friendly** products we have printed this brochure on recycled paper. We encourage you to visit www.FleetwoodUSA.com, which includes this information and much more. Select the *Products* tab and you will find an informational link to each window herein, e.g. **Everest 850-C**. Move your mouse cursor over the **red** and **blue** text (see image below) to reveal a pop-up box with information. We have also provided quick links to more detailed information such as drawings and test reports.



BEFORE YOU BEGIN

We are proud of our almost 50 year history as a California based window and door manufacturer. In a time when others are making products in foreign countries, Fleetwood remains true to its essential purpose as an American company, employing American workers making quality products.

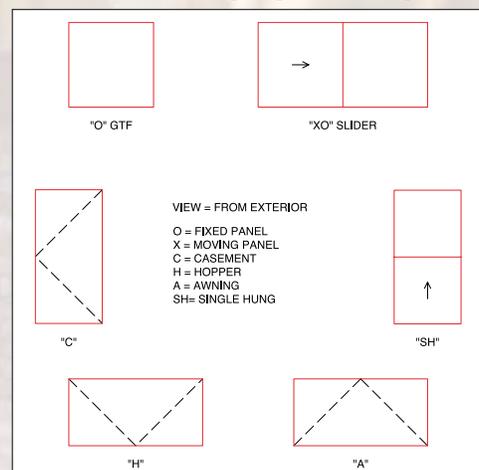
We believe we are helping support the American dream of success by relying upon God and this country's ingenuity and work ethic, which has made the United States of America the greatest country in the world. Our focus is to innovate, not imitate. You will discover that we continue to blaze a trail of top quality and innovative designs, like our Patent Pending "Archetype" door latch system.

We appreciate the amount of time it takes to properly research windows and doors. We believe you will discover that Fleetwood offers much more value than any other window and door company. If possible, visit our factory or a dealer showroom. Once you have operated our windows and doors (the bigger the better!) you will understand our reputation.

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Window Language Glossary



PRODUCT SELECTION GUIDE

To make your research easier, we suggest one of the following packages.

Premium: For luxury homes demanding the finest products available.

- **Custom Pocket/Multi-Sliders:** Norwood 3070-EX or Norwood 3050 (Series 3070-HI-WG for Hurricane Impact markets)
- **Sliding Door:** Norwood 3000
- **Hinged Door:** Pacific 3500
- **Casement/Awning Window:** Westwood 250 or Everest 850
- **Sliding/Single Hung Window:** Aspen 530
- **Fixed Window Systems:** Kona 3800, Westwood 250 or Everest 850

Cold Climate Premium: For luxury homes demanding the finest products available.

- **Custom Pocket/Multi-Slide Doors:** Norwood 3070-CR
- **Sliding Door:** Glacier 3300
- **Hinged Door:** (Expected Release – October 2009)
- **Casement/Awning Window:** Westwood 250 or Everest 850
- **Sliding/Single Hung Window:** Aspen 530
- **Fixed Window Systems:** Kona 3800, Westwood 250 or Everest 850

Basic: For luxury homes desiring a quality level that exceeds the common market choices but whose budget does not allow one of the Premium packages.

- **Custom Pocket/Multi-Slide Doors:** Use Premium Package
- **Sliding Door:** Fleetwood 1000
- **Hinged Door:** Mojave 3400
- **Casement/Awning Window:** Newport 2000
- **Sliding/Single Hung Window:** Westwood 250
- **Fixed Window Systems:** Newport 2000

ANODIZED, PAINTED & REPLICATED WOOD GRAIN FINISHES

One of the unique traits of aluminum is its ability to be **anodized**, which is a chemical process that actually makes the aluminum surface harder and thicker. It was used by the US Military in WWII as a finish to protect against corrosion on its aircraft. If cared for, anodizing can last a lifetime. **Process:** Each extrusion is electrically charged while submerged in acid. The resulting chemical reaction changes aluminum oxide to aluminum hydrate, which is called anodize. This unique process reveals the natural character of extruded aluminum, especially Clear Anodize. If exact color uniformity is required, painting may be a better choice. We offer more information on our website in *Making the Right Choices (Designers and Homeowners sections)*.

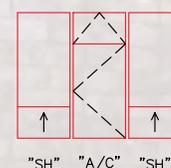
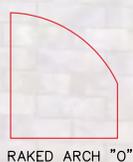
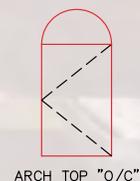
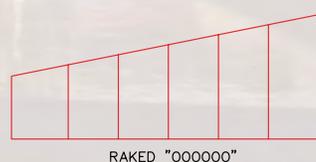
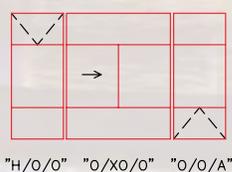
The **painting** process we use to coat our products is not like typical painting. If cared for properly, the factory finish can last a lifetime. **Process:** Each extrusion is chemically pretreated to prepare for a sprayed on primer coating and paint color. To complete the process, each extrusion is baked at about 400°F. Fleetwood ONLY supplies an extraordinary paint blend on custom colors. Many know of this blend as Kynar 500™. Its unique ingredient is a 70% fluoropolymer resin which is designed to retain color integrity in the harshest environments. This is the same paint which high-rise buildings around the world demand because of its exceptional color retention and salt air protection. In applications where limited care and maintenance will be given to the products, we recommend *Edge Armor*. We offer more information on our website in *Making the Right Choices (Designers and Homeowners sections)*.

Our third finish type is **replicated wood grain**. **Process:** Each extrusion is chemically pretreated just like preparing for a painted finish. The extrusion is then sprayed with a proprietary paint that acts as the color base and primer for the wood grain decoration. The final procedure is to apply the desired wood grain pattern.

CUSTOMIZING YOUR WINDOW WALL

Typical window and door manufacturers offer few window style options but with Fleetwood, options are more of a standard. We allow customers to select custom colors, custom sizes, custom configurations and custom hardware locations. We also specialize in bent, arched and rake shaped windows and our Kona system allows for operable inserts within the fixed window-wall.

One of the customizing features we offer is “product combinations.” For example, you can create a window-wall that is comprised of any grouping of casement, sliding, awning, hopper, single hung and fixed windows. In the sketches below we illustrate a few possibilities:



EVEREST 850-C: CASEMENT

The Everest casement and awning windows remain the

SAFETY & NOISE

- **Missile Impact:** The Everest is offered with factory glazed hurricane resistant glass. This specialty glazing is made with a thicker interlayer than standard laminated glass. This interlayer was designed to resist a wood missile impacting at 50' per second.
- **Sound Abatement:** Some homes are located in areas where the ambient sounds are desired. In some cases however, exterior noises such as traffic are best if kept out. To accommodate these situations, we offer all of our products with sound abatement glazing.

MAINTENANCE & INSTALLATION

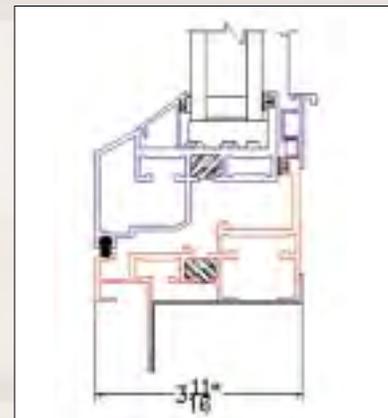
- **Vermin Resistant:** When consideration is being made for the type of windows you want for your home, rodents, termites and vermin (especially the human variety) are often not factored into the decision. Invaders can easily destroy wood or vinyl but our 6063-T6 extrusions are vermin and termite resistant. The 6063-T6 designates the aluminum alloy used in our extrusions and the tempering level.
- **Basic Care:** Fleetwood has published a simple set of procedures to ensure the long life of your Fleetwood windows and doors. It is conveniently located on the *Homeowners* section of our website.

ENERGY

- **Glare:** Another added benefit to selecting high performing glass is that glare is radically reduced, allowing you to enjoy your view all the more. Our spectrally selective low e glass is a great start and by adding tinted glass even more glare is repelled.
- **Selecting Your Glass:** In the *Products* section of our website we list several test results based on varying types of glass, from standard insulated glass to high performance glass. This information can be helpful in determining the right glass choice for your order.
- **Why Aluminum Lasts Longer I:** Aluminum transfers energy effectively. Wood and vinyl window makers have wrongly promoted this as a negative trait. Other window materials absorb heat and cold into the frame, causing that material to fail prematurely. This is especially apparent during season changes where swelling and shrinkage adversely affect a window's performance. Aluminum deals with such stress in a positive way by releasing the energy that would normally cause material failure as it does in vinyl and wood. The fact is that very little energy is lost through the frame material. (Why Aluminum Lasts Longer II is accessible online.)
- **Passive Solar Energy:** Because we have engineered our products for strength, larger sizes are possible. Huge glass expanses not only accentuate your view but also welcome more natural light into the room. More natural light = immediate energy bill savings.

HARDWARE

- **Dual Arm Operators:** The standard hardware for the Everest 850-C and 850-A is a dual arm, gear driven device that operates with little effort. One arm pushes one corner out while the second arm pulls the other corner toward the room. This hardware is available as an option in stainless steel.
- **Optional Butt Hinges:** The standard hardware for each casement and awning is a dual arm operator and hidden hinges. For larger sizes we offer an optional surface mounted butt hinge. Each hinge is constructed of the same aluminum alloy used on the window frame extrusions to match the window frame color and ensure longevity.



CASEMENT/AWNING FRAME, VENT & SCREEN (NAIL FIN FRAME)

EVEREST 850-A: AWNING

elite class in the window marketplace for many reasons.

GREEN FRIENDLY

- **Sustainable Design:** Aluminum is a fantastic building product for those concerned about sustainability. It is naturally plentiful and perpetually surviving (recyclability). Moreover, aluminum rates very high in Life Cycle Assessment and leaves a small ecological footprint.
- **Coated With Logic:** We offer two types of finishes on our aluminum windows and doors: paint and anodizing. Both processes result in environmentally safe products that do not require refinishing. Because Fleetwood products are factory finished for life, you need only keep them clean. Imagine the reduction of VOCs if everyone chose aluminum over other products requiring refinishing? See the inside cover of our brochure for more information regarding painting and anodizing.
- **Lasting Decades:** All windows and doors eventually must be replaced BUT aluminum windows and doors last decades longer than wood and vinyl. Consider the impact on the world's landfills with all the wood and vinyl waste. Additionally, imagine the wasted energy on redundant manufacturing of short-lived wood and vinyl windows and doors.

STRENGTH & BEAUTY

- **Tucked Away:** We are especially proud of the Everest screen because it eclipses conventional designs. Not only does it sit inside the frame depth so as not to interfere with wall trimming, but it also is free of ugly clips and instead fits snugly in the frame pocket with hidden spring clips.
- **Big Sizes:** "How big?" is a defining question that will determine the quality of a window. The Everest was engineered to not only function in extreme sizes but to function with ease. For many windows, a typical max size is 15 square feet but the Everest is EASILY made over 30 square feet. Windows this large enhance the view and maximize ventilation.

CORROSIVE CLIMATES & FINISHES

- **Anodic Colors:** In recent years anodizing has become more widely requested and for good reason. It is a rich, contemporary looking finish that is very resilient to handling and weathering damage. We offer several different earth tone colors, ranging from black to clear.
- **Unique Paint Colors:** The Everest is available in two stock finishes: Clear Anodize and Dark Bronze Anodize. We do, however, encourage custom colors so take advantage of this creative power and select a color that is perfect for your home. Better yet, create your own color and we will match that color.

Standard Features

- Clear or Dark Bronze Anodize
- Nail-fin Frame & Sill Pan (Non-Thermal)
- 1" Clear IG, Sloped Stops & Bronze IG Spacer
- Thermally Broken Extrusions

Optional Features (see CAD Details online for more options)

- Custom Frame Colors (Anodized or Painted)
- Replicated Wood Grain (Nine Finishes)
- Block Frame & Sill Pan
- Specialty Glass (1/4", 9/16" or 1")
- Silver or Champagne Bronze IG Spacer
- Stainless Steel Hardware

THERMALLY BROKEN 101

Thermal break technology is a proven way of enhancing the thermal performance of aluminum. Fleetwood has successfully used this method for almost 20 years. Here is how it works:

First, the aluminum extrusion is designed with a pocket, which will later receive the energy blocking substance.

Second, the part is extruded, then tempered for hardness and protected with either a painted or anodized finish.

Third, the cavity is knurled to better "grip" the energy blocking substance which will be poured into the pocket.

Fourth, the pocket is filled with molten polyurethane, which hardens in seconds.

Finally, the back of the pocket is removed, creating the energy block.

This process forms a blockade that now separates the exterior from the interior.



For more information, view Products at www.FleetwoodUSA.com

WESTWOOD 250-C: CASEMENT WESTWOOD 250-A:

The Westwood casement, awning and hopper windows do not have some of the extraordinary features of the Everest.

SAVING ENERGY

- **Blocking Heat/Cold:** The Westwood 250-A and 250-C windows come standard with an energy-blocking polymer, known as a thermal break, which has been poured into each frame and vent extrusion. This translates into fantastic energy and living comfort benefits to the owner. The process is illustrated on page 4 in the section titled *Thermally Broken 101*.
- **Thermal Education I:** Aluminum transfers energy very easily. This has wrongly been considered a negative trait but the fact is that very little energy is lost through the frame material. Other window materials absorb heat and cold into the frame, causing that material to fail prematurely. One might say that aluminum is a more intelligent window material in that it deals with such stress in a positive way by releasing the energy that would normally cause material failure as it does in vinyl and wood. Refer to the website for **Thermal Education II**.
- **Online Glass Choices:** In the *Products* section of our website we list several test results with varying types of glass, from standard insulated glass to high performance glass. This information can be helpful in determining the right glass choice for your order.

ATTRACTIVE & STURDY

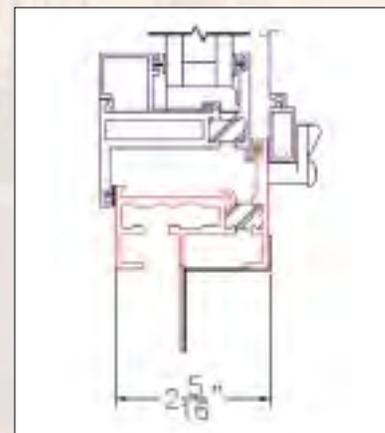
- **Better Screen:** The Westwood 250-C and 250-A come standard with an extruded aluminum screen frame. Most windows in this product category provide a roll formed screen frame. Not only is roll formed aluminum softer and more susceptible to damage but it also cannot be anodized.
- **Thicker Walls:** It does not take a professional to recognize the hidden engineering in each Westwood extrusion because we have made them thicker than most, if not all, rival windows. During operation of the window, the user will immediately appreciate its sturdiness.
- **Combined Symmetry:** When joining fixed and operable windows, the Westwood offers an option such that the fixed portion is built to match the sightlines of the adjoining operable vent.

INSTALLATION HELP & LONG LIFE

- **Waterproof Installation:** To assist builders with a waterproof installation we offer an integral nail-on fin (part of the frame extrusion). Other window manufacturers attach a separate add-on fin. This shortcut can cause water leak issues years down the road.

SAFETY & SOUND CONTROL

- **Hurricane Glazing:** The Westwood is offered with factory glazed hurricane resistant glass. This specialty glazing is made with a thicker interlayer than standard laminated glass. This interlayer was designed to resist a wood missile impacting at 50' per second.
- **Noise Control:** Some homes are located in areas where the ambient sounds are desired. In some cases however, exterior noises such as traffic are best if kept out. To accommodate these situations, we offer all of our products with sound abatement glazing.



CASEMENT/AWNING FRAME, VENT & SCREEN (NAIL FIN FRAME)

AWNING WESTWOOD 250-H: HOPPER

However, the Westwood is often selected in spite of this fact because of its narrower, more linear design.



Complimentary Products

- **Slider & Single Hung (Pages 9-10)**
- **Fixed System (Page 13)**

Standard Features

- Clear or Dark Bronze Anodize
- Nail-fin Frame & Sill Pan (Non-Thermal)
- 1" Clear IG, Square Stops & Bronze IG Spacer
- Casement/Awning: Outside Glaze
- Hopper: Inside Glaze-Minimal Weather Performance
- Thermally Broken Extrusions

Optional Features (see CAD Details online for more options)

- Custom Frame Colors (Anodized or Painted)
- Fast Track White Paint (2-Coat Kynar)
- Replicated Wood Grain (Nine Finishes)
- Edge Armor Paint Process
(10 Year Warranty, Non-Thermally Broken)
- Block or Z Bar Frame & Sill Pan
- Specialty Glass (1/4", 9/16", 1", 1-1/4" or 1-1/2")
- Silver or Champagne Bronze IG Spacer
- Sloped Glass Stops
- Hardware

For more information, view Products at www.FleetwoodUSA.com

LOW MAINTENANCE & PAINTED FINISHES

- **Extended Warranty:** For general applications where regular maintenance of your windows is expected, our standard anodize finishing is an excellent choice for durability purposes. However, for those who may not be able to provide as strict a regime of maintenance, we strongly recommend **Edge Armor**. It is a finish procedure option that involves total fabrication of your products BEFORE painting so all **edges** are **armored** with the same protective finish as the rest of the window. This significantly reduces the amount of required maintenance and extends the finish warranty to 10 years! Please note that this feature is only offered if the Westwood is not thermally broken.
- **Unique Paint Colors:** The Westwood is available in two stock finishes: Clear Anodize and Dark Bronze Anodize. We do, however, encourage custom colors so feel empowered to select a color that best fits the design of your home.

HANDLES & LATCHES

- **Optional Hardware:** We invite you to consider the hardware choices listed on page 14 of this brochure. For coastal applications we offer our standard roto gear with optional stainless steel arms and gears. Additionally, customers can select the contemporary style Cam Handle hardware. The latter comes with a brushed copper nickel lever and two 4-bar hinges with tension adjustability.
- **Full Length Latching:** The standard latch is our multi-point lever. When this latch is engaged, the window is cinched into a closer union with the main frame, giving you the most secure latching device on the market.

SUSTAINABLE

- **Landfills Impacted:** All windows and doors eventually must be replaced BUT aluminum windows and doors last decades longer than wood and vinyl. Consider the impact on the world's landfills with all the wood and vinyl waste. Consider the wasted energy on redundant manufacturing of short-lived wood and vinyl windows and doors.
- **Sustainable Vs. Green:** Wood windows and doors, which are prevalent in luxury homes, are commonly touted as "green" products. Although wood is technically green, don't be misled - wood is only *sustainable* if harvested in compliance with a sustainable forest plan. On the other hand, aluminum is an abundant and sustainably harvested resource. In fact, about 8% of the earth's crust consists of aluminum bauxite. This bountiful supply exceeds global demands and because of its recyclable nature, aluminum is the material for the next century. Additionally, 94% of the world's supply of bauxite is mined in non-forested regions minimizing global environmental impact.
- **Green-Logical:** Manufacturing produces waste destined for the world's landfills. In an effort to practice effective waste minimization, 100% of our aluminum remnants are collected and melted down to make new windows and doors. This greatly reduces energy input because aluminum production from scrap uses 95% less energy and limits the waste stream.

ASPEN 530-HS: HORIZONTAL SLIDER

The Aspen has the distinction of being Fleetwood's premier

EARTH FRIENDLY

- **Remade Glass:** In addition to the high percentage of recycled aluminum used on all Fleetwood products, the glass we use comes from vendors who practice waste reduction by recycling remnants and glass scrap for future use. The recycling of glass minimizes the demand for raw materials and reduces the amount of waste that would otherwise be landfilled.
- **Exceptional Lifecycle:** Aluminum is a fantastic building product for those concerned about sustainability. It is naturally plentiful and perpetually surviving (recyclability). Moreover, aluminum rates very high in Life Cycle Assessment and leaves a small ecological footprint.
- **Avoiding VOCs:** Volatile organic compounds (VOCs) are chemical compounds that outgas from many materials and can pollute the air in your home. Since Fleetwood's painted finishes are factory cured at 400 degrees Fahrenheit, these compounds are safely removed. Neither wood nor vinyl can provide factory baked coatings.

MAGNIFICENT

- **Extruded Screen Frame:** Made of thick wall aluminum extrusions, the Aspen screen stands out as an elite category window screen. Many products skimp on the screen frame by using roll formed instead of extruded aluminum. The difference is obvious in finish quality and sturdiness of the frame. If you are considering an anodized finish on your windows you will want to make sure you get an extruded screen frame, otherwise the screen cannot be anodized and it will not match the window frame.

SPECIAL HARDWARE

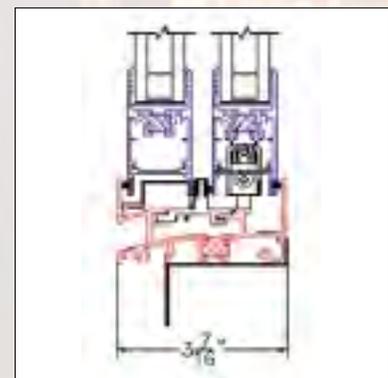
- **The Finest Hardware Available I:** Typical sliding window latches are made of low cost components, which result in early failure. Our exclusive latch was engineered with precision parts and strict tolerances. The result is effortless operation for a lifetime. (To read more about *The Finest Hardware Available II and III*, see the *Products* section online).
- **Rollers:** In keeping with its well-deserved elite status, the Aspen stainless steel roller is more like a sliding door roller than a window roller. The tandem tires are made of nylon which prevents the tracks from getting damaged. These are just two more examples of how Fleetwood designs its products with an emphasis on the "little things." Each roller is adjustable and is strong enough to handle panels that exceed 500 lbs.

CORROSIVE ENVIRONMENTS

- **Stainless Steel Hardware:** There are many Aspen features that will impress you, the least of which is its latch and keeper. Both are constructed of stainless steel and are designed for a clean, contemporary look and feel. The standard latch is a brushed stainless finish but is also available in black upon request.
- **Stainless Steel Latch Receiver:** The "keeper" is the part of the locking hardware that receives the latch when the window is closed. If the keeper fails, the window cannot remain locked, making it crucial for the keeper to function correctly. The Aspen keeper effectively secures the latch AND does so without affecting your view. Most other windows offer a thicker, unsightly center vertical to accommodate their latch.

POWER SAVER

- **Natural Energy:** Because we have engineered our products for strength, larger sizes are possible. Huge glass expanses not only accentuate your view but also welcome more natural light into the room. More natural light = immediate energy bill savings.



HORIZONTAL SLIDER FRAME, VENT & SCREEN (NAIL FIN FRAME)

ASPEN 530-SH: SINGLE HUNG

thermally broken sliding and single hung window system.



Complimentary Products

- Everest Casement & Awning (Pages 3-4)

Standard Features

- Clear or Dark Bronze Anodize
- Nail-fin Frame & Sill Pan (Non-Thermal)
- 1" Clear Insulated Glass, Square Stops & Bronze IG Spacer
- Thermally Broken Extrusions

Optional Features

- (see **CAD Details** online for more options)
- Custom Frame Colors (Anodized or Painted)
 - Replicated Wood Grain (Nine Finishes)
 - Block Frame & Sill Pan
 - Specialty Glass (9/16" or 1")
 - Silver or Champagne Bronze IG Spacer
 - Hardware

- **Hybrid Extrusions:** The Aspen boasts tremendous energy efficiency as a result of its unique thermally broken perimeter frame and glass panel extrusions. This makes it ideal for regions with varying climates where a separation between the temperature of the interior and exterior of a structure is desirable. See *Thermally Broken 101* below for more information.

TROUBLE FREE CARE

- **Daily Usage:** A maintenance issue that is often overlooked is the daily hassle of using a window. The Aspen components and design allow it to glide with ease every time. How much is it worth to NOT fight with opening and closing your window?
- **Simple Upkeep:** Fleetwood has published a simple set of procedures to ensure the long life of your Fleetwood windows and doors. It is conveniently located on the *Homeowners* section of our website.

FIRE, SECURITY & NOISE

- **Fire Heat Resistance:** There are window and door products designed and rated to resist the impingement of actual flames but those steel framed products are limited in function and design. Aluminum doors and windows offer great performance and style and actually help maintain wall integrity during a fire. The real enemy which often incinerates houses is heat or flying embers. Typical residential windows (wood or vinyl) are quickly damaged by heat and embers whereas our extruded aluminum retains its form at over 1000 degrees Fahrenheit helping to protect your home.
- **Security:** Because Fleetwood endeavors to make its products better instead of cheaper, we can provide specialty products that others should not. The best glass for high-security is laminated glass. It is two sheets of glass sandwiched to a polyvinyl interlayer, just like your car windshield, which must withstand severe impact for your safety. Unless our competitors have an operating system equal to Fleetwood, they should not attempt this heavier glass.

THERMALLY BROKEN 101

Thermal break technology is a proven way of enhancing the thermal performance of aluminum. Fleetwood has successfully used this method for almost 20 years.

Here is how it works:

First, the aluminum extrusion is designed with a pocket, which will later receive the energy blocking substance.



Second, the part is extruded, then tempered for hardness and protected with either a painted or anodized finish.



Third, the cavity is knurled to better "grip" the energy blocking substance which will be poured into the pocket.

Fourth, the pocket is filled with molten polyurethane, which hardens in seconds.

Finally, the back of the pocket is removed, creating the energy block.



This process forms a blockade that now separates the exterior from the interior.

WESTWOOD 250-HS: HORIZONTAL SLIDER

The Westwood sliding and single hung windows are ideal for applications requiring

STAINLESS STEEL HARDWARE

- **Stainless Steel Latch:** The Westwood latch is superior to EVERY other window latch because it is made of cast stainless steel and shaped for comfortable use. It was designed with the luxury homeowner in mind. This hardware is also available in black. See image below.
- **Stainless Steel Rollers:** Ball bearing rollers help differentiate the Westwood from any other sliding window in its category. The performance is clear on all size windows but is especially manifested in heavy windows. The 3/4" diameter wheels are constructed of stainless steel and are belted with heavy nylon skin to protect the window finish. Some windows use metal tires but this will quickly remove the aluminum finish and begin to shave off the aluminum surface.
- **Balancing Act:** Because of its robust design it takes special hardware to balance the Westwood single hung window. Therefore we have elected not to use the typical "tilt in" feature balance systems that work great for the short term. Instead we have gone into a commercial grade block and tackle sash balance. It has few moving parts and performs its basic function perfectly, which is to perfectly balance the window.

SLEEK & STRONG

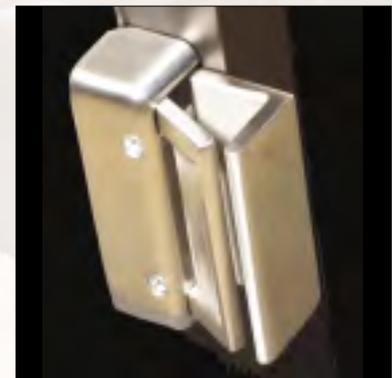
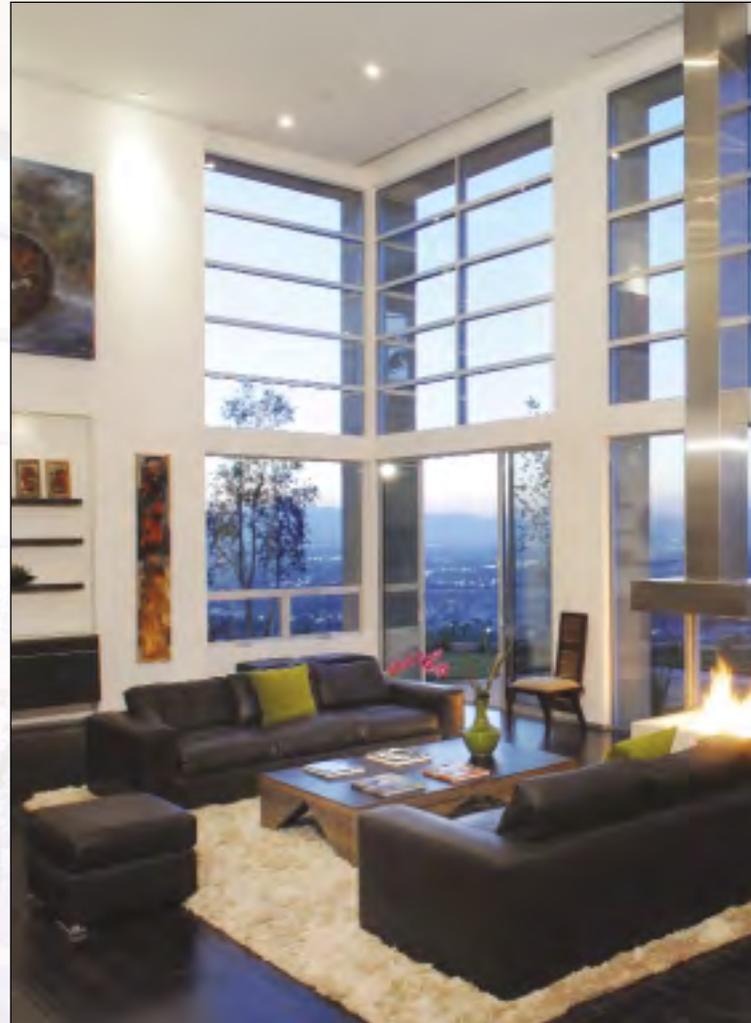
- **Extruded Screen:** The Westwood 250-HS comes standard with an extruded aluminum screen frame. Most windows in this product category provide a roll formed frame. Not only is roll formed aluminum softer and more susceptible to damage but it also cannot be anodized.
- **Narrow Rails & Stiles:** The bottom and top rails of the sliding window and the fixed stiles and jambs of the single hung were designed to accentuate the glass and still provide enough strength for large windows.

RETURN ON INVESTMENT

- **Energy Bill Savings:** Because we have engineered our products for strength, larger sizes are possible. Huge glass expanses not only accentuate your view but also welcome more natural light into the room. More natural light = immediate energy bill savings.
- **Why Aluminum Lasts Longer I:** Aluminum transfers energy effectively. Wood and vinyl window makers have wrongly promoted this as a negative trait. Other window materials absorb heat and cold into the frame, causing that material to fail prematurely. This is especially apparent during season changes where swelling and shrinkage adversely affect a window's performance. Aluminum deals with such stress in a positive way by releasing the energy that would normally cause material failure as it does in vinyl and wood. The fact is that very little energy is lost through the frame material.
- **Energy Glass:** We offer hundreds of high performance glazing choices on the Westwood sliding window, including spectrally selective low e glass. This is an amazing glass innovation that allows a high level of natural light into the room but reflects the harmful and uncomfortable sunrays.

SAFEGUARDING & INSTALLATION

- **Vermin Resistant:** When consideration is being made for the type of windows you want for your home, rodents, termites and vermin (especially the human variety) are often not factored into the decision. Invaders can easily destroy wood or vinyl but our 6063-T6 extrusions are vermin and termite resistant. The 6063-T6 designates the aluminum alloy used in our extrusions and the tempering level.



For more information, view Products at www.FleetwoodUSA.com

NEW HARDWARE
See **Stainless Steel Latch**

WESTWOOD 250-SH: SINGLE HUNG

an excellent window but not needing the extraordinary features of the Everest.



Complimentary Products

- Casement & Awning & Hopper (Pages 5-6)
- Fixed System (Page 13)

Standard Features

- Clear or Dark Bronze Anodize
- Nail-fin Frame
- 5/8" Clear IG & Bronze IG Spacer
- Non-Thermally Broken Extrusions

Optional Features

(see **CAD Details** online for more options)

- Custom Frame Colors (Anodized or Painted)
- Fast Track White Paint (2-Coat Kynar)
- Replicated Wood Grain (Nine Finishes)
- Edge Armor Paint Process (10 Year Warranty)
- Block Frame
- Specialty Glass (1/4", 9/16" or 5/8")
- Silver or Champagne Bronze IG Spacer
- Hardware

- **Trouble-free Maintenance:** Fleetwood has published a simple set of procedures to ensure the long life of your Fleetwood windows and doors. It is conveniently located on the *Homeowners* section of our website.
- **Installation Help:** To assist builders with a waterproof installation we offer an integral nail-on fin (part of the frame extrusion). Other window factories attach a separate add-on fin. This shortcut can cause water leak issues years down the road.

SECURITY, SOUND & FIRE

- **Glazing Security:** Because Fleetwood endeavors to make its products better instead of cheaper, we can provide specialty products that others should not. The best glass for high-security is laminated glass. It is two sheets of glass sandwiched to a polyvinyl interlayer, just like your car windshield, which must withstand severe impact for your safety. Unless our competitors have an operating system equal to Fleetwood, they should not attempt this heavier glass
- **Strong Defense:** There are window and door products designed and rated to resist the impingement of actual flames but these steel framed products are limited in function and design. Aluminum doors and windows offer great performance and style and actually help maintain wall integrity during a fire. The real enemy which often incinerates houses is heat or flying embers. Typical residential windows (wood or vinyl) are quickly damaged by heat and embers whereas our extruded aluminum retains its form at over 1000 degrees Fahrenheit helping to protect your home.

BEAUTY & DURABILITY

- **Custom Color Anodizing:** In recent years anodizing has become more widely requested and for good reason. It is a rich, contemporary looking finish that is very resilient to handling and weathering damage. We offer several different earth tone colors, ranging from black to clear.
- **Stainless Strike Plate:** The strike plate, or receiver, is the part that receives the latch when the window is shut. If this critical component breaks down, the window will not remain latched. The Westwood strike plate is made of stainless steel and is an ideal partner to its extraordinary latch. See **Stainless Steel Hardware** on the opposite page.

AUTHENTIC SUSTAINABILITY

- **Earth Conscious Manufacturing II:** In addition to the high percentage of recycled aluminum used on all Fleetwood products, the glass we use comes from vendors who practice waste reduction by recycling remnants and glass scrap for future use. The recycling of glass uses significantly less energy than manufacturing from virgin materials, and also substantially reduces the production of carbon dioxide. Visit our website to learn more in "**Earth Conscious Manufacturing I.**"
- **Landfills Impacted:** All windows and doors eventually must be replaced BUT aluminum windows and doors last decades longer than wood and vinyl. Consider the impact on the world's landfills with all the wood and vinyl waste. Consider the wasted energy on redundant manufacturing of short-lived wood and vinyl windows and doors.
- **During A Fire:** If a fire were to occur in your home your aluminum would not emit toxic fumes. Other window products incinerate quickly and add to the flames but only windows and doors made from metal will not burn. Also, vinyl products are petroleum based and therefore pose a great fire hazard and emit toxic fumes. In fact, some rural communities prohibit vinyl window products.

For more information, view Products at www.FleetwoodUSA.com

GLENWOOD 510-HS: HORIZONTAL SLIDER

The Glenwood is available in all world markets; however it was designed specifically for the high-rise, Lanai markets because of its unique features.

ROBUST & NARROW

- **Sleekest Interlocker On The Market!** The Glenwood was designed to maximize the view by minimizing the vertical sight line. Imagine a two-panel sliding window that is 8' wide and 7' tall with only a 1-1/4" vertical sight line. The view is experienced at its maximum.
- **Fit & Finished:** We have gone to great lengths to make the appearance exceptional. Our design team was diligent in developing symmetry while not compromising quality. One example is the "sill closer" which hides the second track and provides additional water protection by diverting water away from the sill cavity.

MAINTENANCE & INSTALLATION

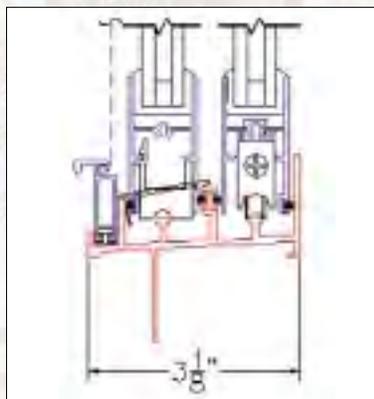
- **Hard Wearing Parts:** The Glenwood utilizes only the highest grade, adjustable stainless steel rollers and latch assemblies. Additionally, we use only stainless steel fasteners to attach these components.
- **Adjustable Panels:** The Glenwood roller has a convenient adjustable feature from either side of the panel. A few turns of a screwdriver and you can adjust your window to the height you desire.

DELUXE HARDWARE

- **Door Rollers:** The rollers on the Glenwood are constructed of stainless steel and belted with rigid nylon. The stainless steel is for strength and defense against corrosion. The nylon protects the aluminum track from damage. So stout is the Glenwood roller that its type is used as a sliding door roller by others. Its unique adjustability makes it easy to fine tune the operation and to compensate for an opening which is not 100% square.
- **Multi-Slide = Multi-Savings:** The Glenwood is ideal for multi-story projects due to its exceptional weather performance. Additionally, it saves money on installation labor when you opt for the *Double Slide* feature. Installing windows above the second floor typically requires scaffolding or mechanical lifts. The Glenwood however, can be installed from inside the room. Money is also saved in window washing because all glass surfaces can be reached from inside the room.

ECOLOGICAL

- **Scrap Usage:** Manufacturing produces waste destined for the world's landfills. 100% of our aluminum remnants are collected and melted down to make new windows and doors. This severely reduces energy input because aluminum production from scrap uses 95% less energy and limits the waste stream.
- **Environmentally Preferred:** Because aluminum is a relatively lightweight building product, we can ship our windows and doors all over the world with little logistical waste. Even better, our windows and doors are created in such a way that far reaching markets can purchase glass locally and avoid the glass transit costs.



HORIZONTAL SLIDER FRAME, VENT
& SCREEN (NAIL FIN FRAME)



Complimentary Products

- Fixed System (Page 13)

Standard Features

- Clear or Dark Bronze Anodize
- Nail-fin Frame
- 5/8" Clear IG & Bronze IG Spacer
- Non-Thermally Broken Extrusions

Optional Features

(see **CAD Details** online for more options)

- Custom Frame Colors (Anodized or Painted)
- Fast Track White Paint (2-Coat Kynar)
- Replicated Wood Grain (Nine Finishes)
- Edge Armor Paint Process (10 Year Warranty)
- Block Frame
- Specialty Glass (1/4" or 9/16")
- Silver or Champagne Bronze IG Spacer

PRODUCTS

NEWPORT 2000-C: CASEMENT

NEWPORT 2000-A: AWNING NEWPORT 2000-H: HOPPER

The Newport is available in all world markets; however it was designed specifically for homes desiring thinner lines or the “steel window” look.

HARDWARE & STYLE

- **Optional Hardware Styles:** The Newport offers several hardware choices depending on the style of window you choose. One of the most popular choices is the push out cam handle because of its European style. Refer to Page 14.
- **Steel Window Look:** One member of the Newport family was created for the “steel look” market. We call it the Newport 2000-SL. The “SL” comes standard with true divisions of the glass lites (TDL) so it emulates the classic steel look, but costs much less and requires less maintenance than steel.

EARTH CONCERNS

- **Eco-Cycle:** Manufacturing produces waste destined for the world's landfills. In order to combat this inefficient discarding of materials, 100% of our aluminum remnants are collected and melted down to make new windows and doors. This severely reduces energy input because aluminum production from scrap uses 95% less energy and limits the waste stream.
- **Lifetime Window:** All windows and doors eventually must be replaced BUT aluminum windows and doors last decades longer than wood and vinyl. Consider the impact on the world's landfills with all the wood and vinyl waste. Also, imagine the wasted energy on redundant manufacturing of short-lived wood and vinyl windows and doors.

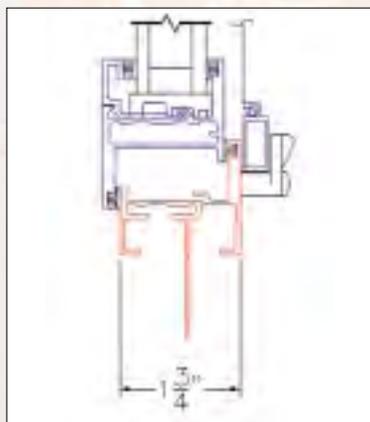
NEAT & STRONG

- **Corner Bolstering:** The longevity of casement and awning windows largely depends on the vent corner strength. The corners hold the entire vent together and if one fails, all fail. The Newport corners are joined with an extruded key, which is hydraulically pressed, and then each corner is sealed with self-leveling acrylic.
- **Extruded Screen:** The Newport screen is constructed of heavy gauge extruded aluminum and is pinned to the main frame with threaded barrel clips. The Newport is often ordered without screens for an even sleeker look that emulates steel windows.

FINISHES & CORROSIVE CLIMATES

- **Earth Tone Anodic Colors:** In recent years anodizing has become more widely requested and for good reason. It is a rich, contemporary looking finish that is very resilient to handling and weathering damage. This option costs more upfront but the value is well worth it!

- **Coastal Finish Suggestion:** If your home is within 5 miles of salt water we strongly recommend **Edge Armor**. It is a finish procedure option that involves total fabrication of your products BEFORE painting so all **edges** are **armored** with the same protective finish as the rest of the window. This option costs more upfront but the value is well worth it! As well as the aesthetic benefit, **Edge Armor** comes with a 10-year warranty. It is only available in painted applications (no anodizing).



CASEMENT/AWNING FRAME, VENT & SCREEN (NAIL FIN FRAME)

Complimentary Products

- Fixed System (Page 13)

Standard Features

- Clear or Dark Bronze Anodize
- Nail-fin Frame
- 1" Clear IG & Bronze IG Spacer
- Square Glass Stops
- Casement/Awning: Outside Glaze
- Hopper: Inside Glaze-Minimal Weather Performance
- Non-Thermally Broken Extrusions

Optional Features

(see **CAD Details** online for more options)

- Custom Frame Colors (Anodized or Painted)
- Fast Track White Paint (2-Coat Kynar)
- Replicated Wood Grain (Nine Finishes)
- Edge Armor Paint Process (10 Year Warranty)
- Block or Z Bar Frame
- Specialty Glass (1/4", 9/16" or 1")
- Silver or Champagne Bronze IG Spacer
- Hardware

For more information, view Products at www.FleetwoodUSA.com

FIXED WINDOW SYSTEMS

Each window system in this brochure has a complimentary fixed system of the same frame depth. The basic design of each system is the same, e.g. perimeter base with varying glass stops depending on the glass selected. Each system is a wise alternative to commercial storefront. Review the door brochure for an additional fixed system (Kona 3800).

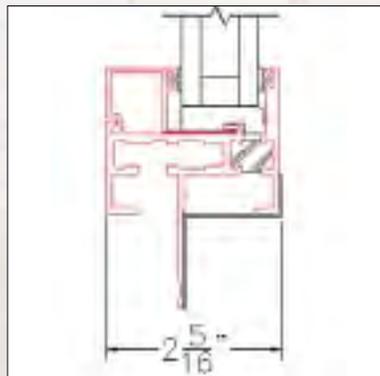
Waterproof Installation: Because storefront is only available in a block frame it relies totally on installation sealant. Sealants that are exposed to weather and UV will deteriorate faster, thus creating a potential water leak in the matter of a few years. Fleetwood fixed systems come standard with an integral nail fin that prevents water from passing through this part of the frame.

Cleaner Sightlines & Details: The Fleetwood fixed systems are equipped with weather-stripping tracks that secure weather blocking gaskets. Storefront comes without weather-stripping and relies on the laborer to pack rubber into all seams and joints. The natural result is uneven sightlines and gaps. Storefront is field glazed whereas Fleetwood offers factory glazing on most sizes.

Weather & Rattling: Storefront glass can shift in the opening. This is a design flaw of storefront because it was made in the field instead of a factory. Even if the tuck-in vinyl is properly installed the glass can still shift left or right to the point that weather can come into the home. Related to this is the inevitable rattling of glass if the vinyl is not inserted correctly.

Factory Quality Control: Because storefront windows are made on the jobsite the quality is dependent on the one worker making your window. In contrast, your Fleetwood windows are made in a controlled environment with Managers and Quality Control Engineers approving the processes. We also have static fabrication tooling that was designed for your window. Storefront typically uses crude hand tooling which often changes.

Thermally Broken Option: Most storefront is not thermally broken whereas Fleetwood offers fixed systems that come standard with an "energy barrier." The result is greater thermal efficiency for enhanced living comfort in all seasons. See *Thermally Broken 101* on page 8 for more information.



TYPICAL GTF SILL DETAIL (NAIL FIN FRAME)
WESTWOOD 250C SHOWN

Everest 850: Fixed System Features

- Thermally Broken
- 3-5/8" Frame: Nail-fin or Block
- 1/4", 9/16" or 1" Glass Stops.
- Combines/Mulls/Stacks with other Series 850 Products

Westwood 250: Fixed System Features

- Thermally Broken
- 2-1/4" Frame: Nail-fin, Block or Z Bar
- 1/4", 9/16", 1" or 1-1/2" Glass Stops.
- Combines/Mulls/Stacks with other Series 250 Products
- 1/4" or 1" Sloped Glass Stops.
- Bent & Radius (Non-Thermally Broken)

Glenwood 510: Fixed System Features

- Non-Thermally Broken
- 3-1/8" Frame: Nail-fin or Block
- 1/4", 9/16" or 1" Glass Stops
- Combines/Mulls/Stacks with Series 510 Slider
- Bent & Radius

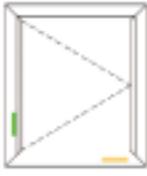
Newport 2000: Fixed System Features

- Non-Thermally Broken
- 1-3/4" Frame: Nail-fin, Block or Z Bar
- 1/4", 9/16" or 1" Glass Stops.
- Combines/Mulls/Stacks with other Series 2000 Products
- Bent & Radius

WINDOW HARDWARE

Hardware shown is standard finish "brushed silver." Some hardware is available in black, gray or white. For more detailed information, navigate to the appropriate product page and select the *Hardware* link in the *Optional Features* section online.

Everest Casement (850-C)



Casement



Standard Folding Rotogear Operator (2 Bar Hinges)

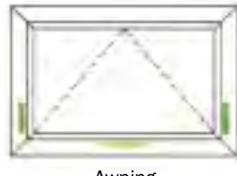


Knob Rotogear Operator (2 Bar Hinges)



Standard Multipoint Lock

Everest Awning (850-A)



Awning



Standard Folding Rotogear Operator (2 Bar Hinges)

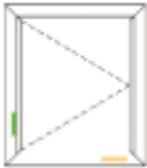


Knob Rotogear Operator (2 Bar Hinges)



Optional Security Lock***

Westwood Casement (250-C) and Newport Casement (2000-C)



Casement



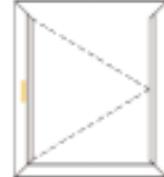
Standard Folding Rotogear Operator (Butt Hinges)



Knob Rotogear Operator (Butt Hinges)



Standard Multipoint Lock

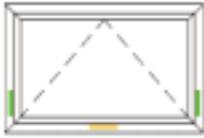


Optional Casement



Cam Handle (4 Bar Hinges) (Wicket Screen)

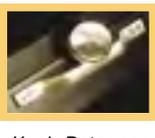
Westwood Awning (250-A) and Newport Awning (2000-A)



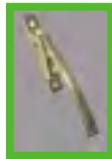
Awning



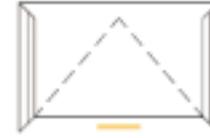
Standard Folding Rotogear Operator** (4 Bar Hinges)



Knob Rotogear Operator** (4 Bar Hinges)



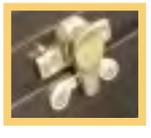
Optional Security Lock***



Optional Awning



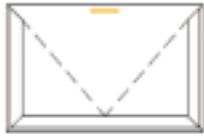
Cam Handle (4 Bar Hinges) (Wicket screen)



Custodial Lock (4 Bar Hinges) (Wicket screen)

Westwood Hopper (250-H) and Newport Hopper (2000-H)

All Hopper hardware available *only* with 4 Bar Hinges.



Hopper



Standard Ring Cam Handle*



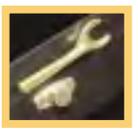
Spring Latch



Ring Pull*



Cam Handle



Custodial Lock w/Wrench

*A single Ring Cam is provided on smaller windows. Wider vents receive two Ring Cam Handles and a Ring Pull in the middle.

Hinges & Wicket Screen



Concealed 2 Bar Hinge (Everest 850 C, A)



Concealed 4 Bar Hinge (Westwood 250 C, A, H) (Newport 2000 C, A, H)



Butt Hinge (Everest, Westwood, Newport C)



Egress 2 Bar Hinge (Everest 850 C)



Concealed Egress 4 Bar Hinge (Westwood 250 C) (Newport 2000 C)



Wicket Screen

Availability of hinges is based on product series and operator type. For more detailed information, navigate to the appropriate product page and select the *Hardware* link in the *Optional Features* section online.

Westwood, Glenwood and Aspen Horizontal Slider & Single Hung



Horizontal Slider



Elevation View



Angle View



Angle View (Optional: Black)



Single Hung

Everest A3 Hardware Horizontal Slider & Single Hung



Horizontal Slider



Elevation View



Elevation View



Single Hung

Expected Release 2009

For more detailed information, navigate to the appropriate product page and select the *Hardware* link in the *Optional Features* section online.

Limited vent travel *Recommended for weather performance and/or security concerns.



Finding A Dealer: If your project is located in one of our major markets (Hawaii, California, Nevada, Arizona, Texas and Florida) we offer a convenient way to find a dealer. On our website, select "Dealer Search" and follow the drop down options till you find a dealer near you.

Budget Pricing: If your project is located outside our major markets we offer an alternative method for a price quote. On our website, select the appropriate category of *Homeowners* or *Designers* and follow the drop down option "Budget Pricing". Our Inside Sales staff will process your quote within 72 hours.

MORE INFORMATION? We encourage you to visit our website at FleetwoodUSA.com



FLEETWOOD WINDOWS & DOORS

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Web: FleetwoodUSA.com

E-mail: Sales@FleetwoodUSA.com

All details subject to change without notice.
June 15, 2009



IMPORTANT

The Limited Lifetime Warranty and the Care & Maintenance Instructions are available from the website or directly from the factory.

DISTRIBUTED BY:

For more information, view Products at www.FleetwoodUSA.com

*Authorized Dealers can buy glass to install in Fleetwood products. If you desire factory glazing and the subsequent glass warranty, make sure the dealer is providing "factory glazed" doors and windows.