MODEL 250XTFF HIGH PERFORMANCE
THERMAL ALUMINUM WINDOW SYSTEM

SCAN

CAPITOL Aluminum & Glass
Window & Door Specialists





Smart Design, Lasting Value

The Capitol 250XTFF has a 2-1/2" frame depth for tight wall profiles, retrofit applications, and space-conscious new construction. Its aluminum construction and polyamide thermal break are designed to help reduce heat transfer. See the performance tables for the tested configurations and results.

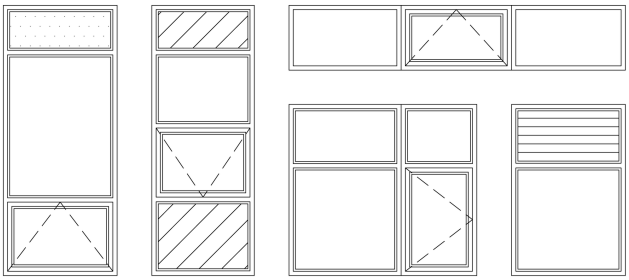
Give your building a fresh look and occupants a more comfortable place to work, learn, or gather. The 250XTFF combines the strength of aluminum with a thermally divided design to deliver everyday durability, indoor comfort, and lasting value for your investment.

Warranty Protection

We stand behind the quality of our products with comprehensive warranties. Our focus on reliability and longevity help minimize contractor callback and ensure long-term customer satisfaction.

- Windows - 10 years
- Anodize - 5 years
- Kynar 2605 - 10 years

Custom Solutions to Meet Your Needs



Capitol Window Accessories

- ☐ Sliding Wicket Screen (for Project-Out Vent and Casement)
- ☐ Hopper Screen (for Project-In Hopper)
- ☐ Integral Blinds + Blind Sash

Frame Finish Color Selections

- ☐ Clear Anodized, Class I
- ☐ Dark Bronze Anodized, Class I
- ☐ Bone White Kynar AAMA 2605

* Custom color selections available upon request.

MODEL 250XTFF HIGH PERFORMANCE
THERMAL ALUMINUM WINDOW SYSTEM

Enhanced Comfort Options

Optimize your interior environment with surface mounted Capitol screens for natural airflow and integral blinds for seamless light management, privacy control, and acoustic buffering.

Boost Building Efficiency

The polyamide thermal break is designed to help reduce heat transfer. Computer simulation shows U-factors as low as 0.26 for selected 250XTFF fixed window glazing and blind sash options. Results depend on the selected configuration.

Tested Structural Performance

The fixed and project-out configurations achieved Class AW-PG100 in the reviewed physical tests. See the performance summary for design pressure, air infiltration, and water penetration results.

Commercial Grade Construction

Built with commercial-grade materials and reinforced corner construction. Follow Capitol's care and maintenance instructions.

DORMITORY FACILITIES



RESIDENCE HALLS



EDUCATIONAL FACILITIES



MODEL 250XTFF
TECHNICAL SPECS + HIGHLIGHTS

THERMAL BARRIER CONSTRUCTION
Features a structural thermal barrier system utilizing two reinforced polyamide nylon strips. This design ensures exceptional thermal separation, significantly reducing heat transfer and optimizing energy efficiency.

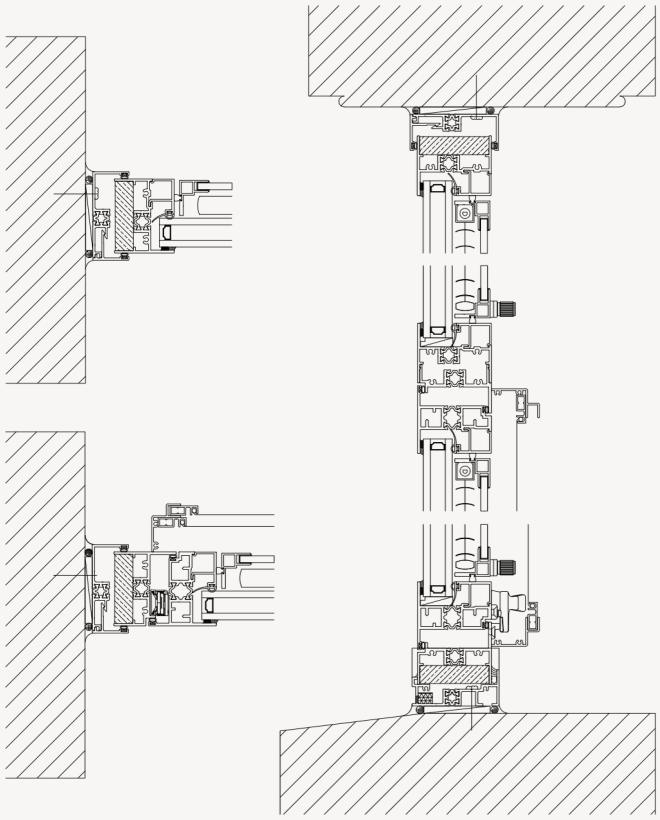
FRAME & SASH ENGINEERING
Main frame members are precisely engineered with a minimum depth of 2-1/2" and wall thicknesses of at least .080". Operable sash members are 2-1/2" in depth, with wall thicknesses no less than .90" at hinge attachment points. All extruded aluminum sections are 6063-T5 or 6063-T6 alloy and temper, and utilize euro-groove technology. Frame components are mortise and tenon, secured with screws into integral screw ports, with each joint back-sealed. Sash corners are mitered and internally reinforced with a gusset and crimped, and all sash extrusions are tubular.

GLAZING & INSULATION
Accepts 1" thick insulated glass or 1" thick insulated panels. Glazing materials are set against an integral fin with closed cell PVC foam tape or back-bedding tape and an extruded aluminum glazing bead with EPDM gasket meeting AAMA 800 specifications, supplemented by an exterior heel bead. Factory-installed 5/8" styrofoam insulation is applied in the open back area of the window frame and 2" #6 density fiberglass is applied at each joiner mullion to maintain thermal separation and ensure maximum efficiency.

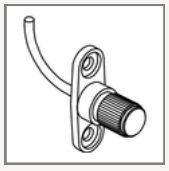
STANDARD HARDWARE & WEATHERSTRIPPING
Hardware components exposed to view are of aluminum, white bronze, or other non-corrosive material compatible with aluminum. Ventilator sash includes white bronze cam handles and two supporting 4-bar heavy-duty stainless steel hinge arms with brass shoes operating in channels to hold the sash firmly at any opening angle. Optional hardware includes rotary geared operator, manual T-pull handle, friction adjuster, multipoint locking device, heavy-duty 5-knuckle butt hinges, and key-controlled or in-hinge limit devices. All sash feature double weather-stripping made of thermoplastic elastomer product installed in specifically designed grooves.

FINISHES
- Class I Clear Anodized (AA-M12-C22-A41)
- Class I Dark Bronze Anodized (2-step AA-M12-C22-A44)
- Bone White Kynar (2-Coat 70% AAMA 2605)
- AAMA 2605 colors from our aluminum finisher's standard palette, as well as custom colors, are available at an additional cost.

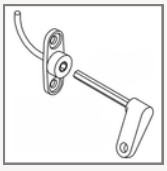
STANDARD DETAILS FOR VENT UNDER FIXED WINDOW
Shown with optional sliding wicket screen and interior access panel with integral blinds.



STANDARD BLIND OPERATORS



☐ Blind Knob



☐ Removable Key

MODEL 250XTFF
TEST RESULTS SUMMARY

Physical Test Results

Measured Performance

MEASURE	RESULT	TEST METHOD
Performance Class / Grade	AW-PG100	AAMA A440-22
Air Infiltration at 300 Pa (6.27 psf)	<0.1 L/s/m² (<0.01 cfm/ft²)	ASTM E283
Air Exfiltration at 75 Pa (1.57 psf)	<0.1 L/s/m² (<0.01 cfm/ft²)	ASTM E283
Design Pressure	±4800 Pa (±100.25 psf)	ASTM E330
Water Penetration	720 Pa (15.04 psf)	ASTM E331
Forced Entry Resistance	Grade 10	ASTM F588
Thermal Transmittance	Fixed: 0.37 Project-Out: 0.49	AAMA 1503-09
CRF — Frame	Fixed: 69 Project-Out: 63	AAMA 1503-09
CRF — Glass	Fixed: 67 Project-Out: 65	AAMA 1503-09

Acoustic Test Results

ASTM E90 / ASTM E413-22 / ASTM E1332-22

TESTED ASSEMBLY	STC	OITC
Fixed 1" laminated tempered IGU with 1/4" clear annealed interior access panel with integral blinds	**43**	**32**
Project-Out 1" laminated tempered IGU with 1/4" clear annealed interior access panel with integral blinds	**44**	**32**

Ratings for assemblies with interior access panels and integral blinds were measured with the blinds down and closed. Results apply to the tested laminated-IGU assembly.

Simulated Energy Performance | Fixed Window

NFRC 100 / 200 / 500 (2026) · SN68 / SS-D · No grids

Glazing / Low-E	Spacer	IGU Fill	Blind Sash	U-Factor	SHGC	VT	CI[1] (Simulated)
1" Clear IGU · SN68 #2	SS-D	Air	None	**0.38**	**0.34**	**0.58**	**59**
1" Clear IGU · SN68 #2	SS-D	90% Argon	None	**0.34**	**0.33**	**0.58**	**62**
1" Clear IGU · SN68 #2	SS-D	Air	1/4" Clear	**0.30**	**0.28**	**0.47**	**56**
1" Clear IGU · SN68 #2	SS-D	90% Argon	1/4" Clear	**0.27**	**0.28**	**0.47**	**57**
1" Bronze IGU · SN68 #3	SS-D	Air	None	**0.38**	**0.26**	**0.31**	**59**
1" Bronze IGU · SN68 #3	SS-D	90% Argon	None	**0.34**	**0.25**	**0.31**	**62**
1" Bronze IGU · SN68 #3	SS-D	Air	1/4" Clear	**0.30**	**0.21**	**0.25**	**56**
1" Bronze IGU · SN68 #3	SS-D	90% Argon	1/4" Clear	**0.27**	**0.21**	**0.25**	**57**
1" Gray IGU · SN68 #3	SS-D	Air	None	**0.38**	**0.26**	**0.28**	**59**
1" Gray IGU · SN68 #3	SS-D	90% Argon	None	**0.34**	**0.25**	**0.28**	**62**
1" Gray IGU · SN68 #3	SS-D	Air	1/4" Clear	**0.30**	**0.20**	**0.23**	**56**
1" Gray IGU · SN68 #3	SS-D	90% Argon	1/4" Clear	**0.27**	**0.20**	**0.23**	**57**

Select results by complete configuration. The lowest U-factor, highest daylight transmission, lowest solar heat gain, and highest sound rating may come from different assemblies.

Reading the Results

U-Factor: heat transfer; lower means less. Units: Btu/(h·ft²·°F).
SHGC: fraction of solar heat admitted.
VT: fraction of visible light transmitted. Appropriate values depend on the project.
STC / OITC: sound insulation / outdoor-to-indoor sound attenuation; higher scores indicate more attenuation under the test conditions.
Fixed: non-opening. Project-Out: outward-opening awning.
AW-PG100: tested class and grade, not a warranty or lifespan rating.
All results apply to specific configurations, sizes and test conditions.

Glazing and Report Basis

SS-D: Chromatech stainless spacer. IGU: insulating glass unit.
#2 / #3: coated surface. Blind sash: separate interior panel, not an IGU pane; nominal 1/4" clear.
Argon is only in the IGU.
[1]CI: simulated Condensation Index. CRF: physically tested Condensation Resistance Factor. Neither guarantees no condensation. SIMS Test Report Number T4507.01-116-45 R1 R1 Dated (July 10, 2026): 1200 × 1500 mm fixed.
Selected SN68 configurations shown. Other glazing makeups available.
Full Test Reports Available Upon Request.

CAPITOL Aluminum & Glass

SCAN

Explore Our Website for Additional Capitol Manufactured Products!

THE CAPITOL ADVANTAGE: YOUR PARTNER IN BUILDING SUCCESS

Decades of Expertise: Leveraging extensive experience in architectural aluminum and glass to deliver proven, reliable solutions.

Uncompromising Quality: Committed to superior craftsmanship and durable products that stand the test of time and performance demands.

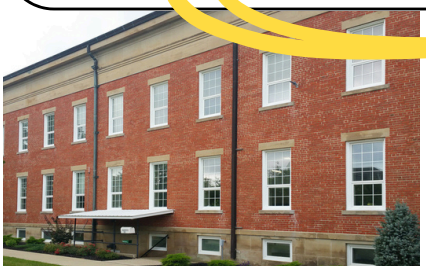
Integrated Solutions: Offering a full suite of seamlessly compatible systems for a unified building aesthetic and streamlined installation.

Performance Driven: Engineering every product for exceptional thermal efficiency, structural integrity, and long-term value.

Dedicated Partnership: Providing comprehensive support from initial design concepts through meticulous installation for every project.

Customization Capabilities: Tailoring solutions to meet unique project specifications and help bring your precise design visions to life.

https://www.capitol-windows.com



WINDOWS

Discover quality and customization in our diverse range of window systems. Whether your project demands energy savings or unique aesthetics, our windows provide the perfect fit for the owner's specific architectural needs and long-term value.



ENTRANCES

Create impactful and secure entrances with Capitol's versatile door systems. Designed for diverse commercial applications, our doors offer a blend of style, durability, and security, backed by expert project support ensuring the best long-term solution for the building owner.



STOREFRONTS

Make a powerful first impression with Capitol's high-performance storefront solutions. Engineered for both stunning aesthetics and lasting durability, our systems seamlessly integrate with our window and door products, enhancing the building's appeal and long-term value for the owner.



CURTAIN WALLS

Unleash your design potential with our versatile and sustainable curtain wall systems. Designed for seamless integration and large-scale impact, our solutions offer exceptional thermal performance and weather protection, contributing to long-term energy savings and occupant comfort.