

EnergyQuest®

VINYL WINDOW & PATIO DOOR SYSTEM

ADVANCED THERMAL PERFORMANCE AND PROTECTION YOU CAN TRUST



The **EnergyQuest®** window and patio door system from Quanex takes your replacement program to a new level of performance, aesthetics and marketplace features in demand today. As for performance, EnergyQuest provides the most cost-effective configurations you need to meet the latest Energy Star standards – across all zones. Also ideally suited for builders and homeowners wanting a better window and patio door solution for remodel markets, EnergyQuest offers a comprehensive system solution to exceed your expectations – today – and well into the future.



Quanex

QUALITY YOU CAN COUNT ON

Go beyond industry standards and discover a product that is more than it appears. **EnergyQuest®** vinyl extrusions feature our **MikronBlend®** Vinyl, which not only stands up to trade industry test standards, but also Quanex's additional stringent testing protocol. MikronBlend® Vinyl ensures your vinyl window and doors will perform year after year – without undue risk of failure in any climate, anywhere. Let us help you expand your expectations with a product engineered to be extremely consistent, batch after batch and discover why Quanex is a leader in fenestration solutions and *A Part of Something BiggerSM*

STYLES

Available in a variety of configurations including:

- Double Hung with Tilt Sashes / Sloped Sill
- Single Hung with Tilt Sash / Sloped Sill
- Single Hung
- Double Horizontal Slider
- Horizontal Slider
- Casement
- Awning
- Picture Window
- Specialty Picture Window Shapes
- Sliding Patio Door (2, 3 or 4 panels)

FEATURES

- DH and SH sloped-sill frame design
- Glazing unit capacity up to 1-1/8" thick; exterior glazed
- Triple glazing sash capacity; dual IG option – both with SDL upgrade option
- 3-1/4" frame depth is optimal for remodel applications
- Integral frame accessory channels accept extensive exterior/interior frame accessory options
- DP-50 residential structural rating capable
- Frame reinforcement isolated for better thermal performance
- Frame design mimics classic wood contours
- Block frame, or with integral nail fin at both 1" and 1-3/8" setbacks
- Smaller frame cross-section maximizes glazing area without loss of performance
- Equal sightline reveals on double hung and double slider for enhanced aesthetics
- Muller units utilize continuous head and sill in numerous configurations
- Innovative weather strip applications help reduce air infiltration
- Foam-fill capable - thermal modeling optimized for maximum U-Factor performance



FINISHES

The EnergyQuest system is available in three standard colors which provide a permanent finished surface that will never need re-painting.

MikronBlend® Vinyl Solid Colors



White



Adobe



Almond

*Printing limitations prevent exact color duplication.
Contact your Quanex representative for color samples.*

SUPERIOR ENERGY PERFORMANCE

			TDH	TSH	DHS	HS	CS/AW	PW	SGD
TRIPLE IG (1-1/8" OA)	Spacer	Gas Fill	U-Factor/ SHGC	U-Factor/ SHGC	U-Factor/ SHGC	U-Factor/ SHGC	U-Factor/ SHGC	U-Factor/ SHGC	U-Factor/ SHGC
LowE* / Clear / Clear	Duralite	Air	.27 / .20	.27 / .20	.27 / .20	.26 / .20	.27 / .18	.25 / .23	.30 / .21
LowE* / Clear / Clear	Duralite	Argon	.24 / .20	.24 / .20	.24 / .19	.23 / .20	.25 / .18	.21 / .22	.26 / .21
LowE* / Clear / LowE*	Duralite	Air	.23 / .18	.23 / .19	.23 / .18	.22 / .19	.24 / .17	.20 / .21	.26 / .20
LowE* / Clear / LowE*	Duralite	Argon	.20 / .18	.20 / .18	.20 / .18	.19 / .19	.21 / .17	.17 / .21	.22 / .19
LowE* / Clear / Clear	Super Spacer Premium	Air	.27 / .20	.27 / .20	.27 / .20	.26 / .20	.27 / .18	.25 / .23	.30 / .21
LowE* / Clear / Clear	Super Spacer Premium	Argon	.24 / .20	.24 / .20	.24 / .19	.23 / .20	.25 / .18	.21 / .22	.26 / .21
LowE* / Clear / LowE*	Super Spacer Premium	Air	.23 / .18	.23 / .19	.23 / .18	.22 / .19	.24 / .17	.20 / .21	.26 / .20
LowE* / Clear / LowE*	Super Spacer Premium	Argon	.20 / .18	.20 / .18	.20 / .18	.19 / .19	.21 / .17	.17 / .21	.22 / .19

DUAL IG (7/8" OA)

LowE* / Clear	Duralite	Air	.31 / .21	.31 / .22	.31 / .21	.31 / .22	.31 / .19	.29 / .24	.33 / .22
LowE* / Clear	Duralite	Argon	.27 / .21	.27 / .21	.28 / .21	.27 / .21	.28 / .19	.25 / .24	.29 / .22
LowE* / Clear	Super Spacer Premium	Air	.31 / .21	.31 / .22	.31 / .21	.31 / .22	.31 / .19	.29 / .24	.33 / .22
LowE* / Clear	Super Spacer Premium	Argon	.27 / .21	.27 / .21	.28 / .21	.27 / .21	.28 / .19	.25 / .24	.29 / .22

*Simulations with high performance glass. TDH = Tilt Double Hung, TSH = Tilt Single Hung, DHS = Double Horizontal Slider, HS = Horizontal Slider, CW = Casement, AW = Awning, PW = Picture Window, SGD = Sliding Glass Door

THE HIGHEST QUALITY VINYL

Not all vinyl is created equal. MikronBlend Vinyl is formulated to withstand the toughest conditions and standards.

- Vinyl offers 40% better insulating properties than aluminum frame windows and is non-corrosive to withstand harsh coastal environments.
- Energy-efficiency contributes to USGBC/LEED potential.
- MikronBlend Vinyl is impervious to weather conditions—won't corrode, pit, warp, rot, peel or crack.

AAMA-QUANEX APPROVED*

- **AAMA-Quanex Heat Resistance Test**
The "AAMA-Quanex" Heat Resistance Test exposes vinyl profiles to extreme heat—300°F—then we visually inspect for stress-related surface changes.
- **AAMA-Quanex Impact Resistance Test**
The "AAMA-Quanex" Impact Resistance Test measures profile resistance to cracking or breaking during the fabrication process.
- **AAMA-Quanex Weight Tolerance Test**
The "AAMA-Quanex" Weight Tolerance Test checks that finished profiles conform to the original design's weight.
- **AAMA-Quanex Dimensional Stability Test**
The "AAMA-Quanex" Dimensional Stability Test measures a profile's linear shrinkage at an elevated temperature.
- **AAMA-Quanex Tensile Strength Test**
The "AAMA-Quanex" Tensile Strength Test pulls apart the vinyl sample to determine its strength.
- **AAMA-Quanex Corner Weld Test**
The "AAMA-Quanex" Corner Weld Test applies a weight load—using no set limit—to test the strength of the weld seam as compared to the body of the profile.

*The American Architectural Manufacturers Association (AAMA), also known as FGIA, establishes industry standards for strict performance criteria.

DOUBLE HUNG

DISTINCTIVE ADVANTAGES

- **Dedicated head and sill frame** runs continuous for mulled configurations, providing additional strength and better weather-tight protection
- **Exterior beveled frame design** adds stylish elegance to the exterior appearance, capturing stronger homeowner design appeal
- **Tilt sashes**—both sashes tilt inward for easy cleaning access, while each sash is fully perimeter weatherstripped to seal out the elements when closed tight to the main frame
- **Narrow sight line meeting rail** is designed to maximize daylight glazing area while providing narrow, contemporary sight line reveal
- **Advanced interlock sash design** creates an effective engineered air infiltration barrier combined with effective forced entry resistance
- **Lower sash hardware mount** accepts routed lock and tilt latches for a cleaner, less intrusive appearance. Also accepts combination lock and tilt latch hardware options
- **Equal sash glass sizes** provides attractive equal sight lines across both sashes for broader homeowner appeal
- **Innovative sash weather strip application** wraps around the lower sash edges to greatly minimize air infiltration around sash ends at the meeting rail



SINGLE HUNG

DISTINCTIVE ADVANTAGES

- **Dedicated frame head** can be used in a picture window configuration
- **Lower sash tilts inward** for easy cleaning access
- **Unequal glass sizes**
- **Narrow Height Meeting Rail** maximizes daylight glazing area
- **Same sash** as used in the double hung
- **Standard balance pocket** accommodates wide balance selection
- **True slope sill** is continuous for mulled configurations



PICTURE WINDOW

DISTINCTIVE ADVANTAGES

- **Common frame** on all four sides
- **Double-wall glazing leg** with attractive contoured bevel return
- **Low frame profile** for bending ease in radius configurations
- **Glass unit weight** is engineered to center over the nail fin for optimal support
- **Pocket cover** hides install fasteners in replacement applications for clean interior appearance



All Quanex vinyl extrusions feature our proprietary **MikronBlend®** Vinyl compound. Proven for over 30 years, it is formulated to withstand the toughest conditions and standards. Engineered to be extremely consistent – batch after batch.

CASEMENT/AWNING

DISTINCTIVE ADVANTAGES

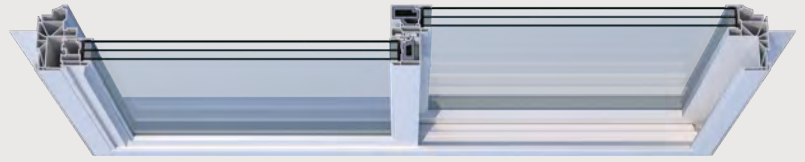
- **Attractive exterior sash detail** is complementary to other EnergyQuest window styles
- **Common frame** on all four sides can be used in a casement picture frame configuration
- **Casement picture window** provides common glass sight lines with operable casement or awning
- **Casement hardware** accommodates standard casement hardware with multi-point lock mechanism
- **Triple weather seal contact points** for maximum infiltration resistance



SINGLE SLIDER

DISTINCTIVE ADVANTAGES

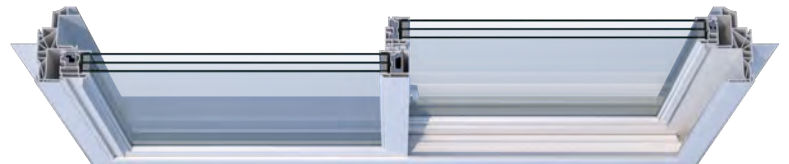
- **Complementary frame design** to the single hung frame
- **Common Frame** all four sides
- **Unequal glass unit sizes**
- **Common single hung sash** profile with single hung
- **Engineered sill design** greatly diminishes deflection due to triple IG unit sash weight
- **Common roller track** with the double slider unit



DOUBLE SLIDER

DISTINCTIVE ADVANTAGES

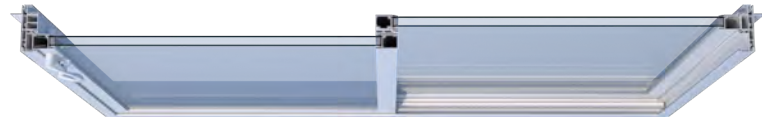
- **Complementary frame design** to the double hung
- **Common frame** all four sides
- **Equal glass sizes** and sight lines across both sashes
- **Offset slider pocket** accommodates use of double hung sash
- **Engineered sill design** greatly diminishes deflection due to triple IG unit sash weight
- **Snap-in roller track** profile is also used for sash anti-lift



SLIDING PATIO DOOR

DISTINCTIVE ADVANTAGES

- **2, 3 or 4-panel configurations**
- **Sliding door panel glides on raised rail** capped with stainless steel for durability
- **Uses standard sliding patio door hardware**
- **All-welded frame and sash** for rigidity and weather-tight seams
- **Block frame profile** is ideal for replacement applications



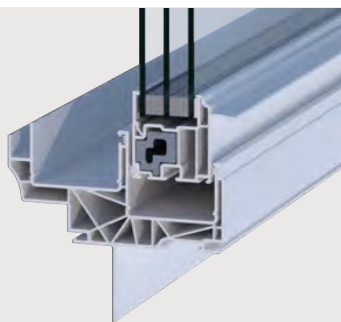
PATIO & DOOR FEATURES



Traditional slope-sill design with innovative sill/sash intersection acts to prevent high wind load sash deflection and wind-borne water intrusion.



Sash interlocks at meeting rail create an engineered air barrier, while narrow rail profile design maximizes glazing area. Weather-strip placement provides multiple contact seal points.



Computer-aided analysis used in design process to limit frame deflection, profile interwebs are placed and angled for maximum structural support.



Chambers designed for foam filling (Examples in red). This allows for no interference with reinforcements or drainage paths. Reinforcement is isolated for improved thermal performance.



Numerous frame accessory options adapt both exterior and interior trims and mulls via integral frame accessory grooves.



T-Mull profiles for double hung, single hung, casement, awning configurations. Shown is casement to casement-PW mull.

STRUCTURAL AND THERMAL PERFORMANCE

OPERATOR TYPE	Rating (Size tested)	Air	Water	U-Factor
TDH	LC-PG35 (48"x78")	0.05	8.36	0.19
TSH	LC-PG35 (48"x78")	0.06	7.52	0.19
DHS	LC-PG35 (72"x60")	0.07	6.06	0.19
HS	R-PG50 (63"x44")	0.12	7.52	0.18
CW	LC-PG40 (36"x72")	0.04	12.12	0.21
AW	LC-PG55 (48"x36")	<.03	12.12	0.21
PW	LC-PG50 (96"x72")	<.01	12.12	0.21
SGD	R-PG40 (72"x82")	0.06	7.52	0.22

Tested per AAMA/WDMA/CSA 101/I.S.2/A440-08 (referred to as NAFS-08)

U-Factors based on computer simulations incorporating triple-glazed unit, high-performance glass package with Duralite® spacer and Argon gas fill. TDH = Tilt Double Hung, TSH = Tilt Single Hung, DHS = Double Horizontal Slider, HS = Horizontal Slider, CW = Casement, AW = Awning, PW = Picture Window, SGD = Sliding Glass Door

ENERGY STAR® V7

CLIMATE ZONE	U-Factor	SHGC
Northern*	≤0.22	≤0.17
North-Central	≤0.24	≤0.40
South-Central	≤0.28	≤0.23
Southern	≤0.32	≤0.23

* All EnergyQuest products meet ENERGY STAR® Version 7.0 requirements - across all zones.



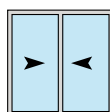
AVAILABLE IN MANY STYLES



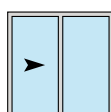
Tilt Double Hung



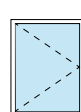
Tilt Single Hung



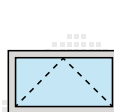
Double Slider



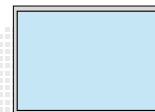
Horizontal Slider



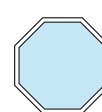
Casement



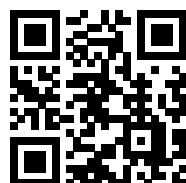
Awning



Picture



Specialty Shapes



Learn more at [QUANEX.COM](https://www.quanex.com)

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