

V I N Y L
M A G N U S
W I N D O W S & D O O R S



Commercial Window & Door Solutions

About Crystal



Crystal Window & Door Systems is an award-winning national manufacturer of quality, energy efficient vinyl and aluminum windows, and high-end fenestration systems for residential, commercial and institutional buildings. With industry proven quality and state-of-the-art manufacturing, Crystal offers a wide array of fenestration solutions that include high performance systems for green and sustainable design.

Celebrating more than 30 years of operations, Crystal has grown from startup in 1990 to one of the top window manufacturers in the nation. Crystal products are distributed in more than 35 states and the extended Crystal family of companies includes not only fenestration manufacturing, but also aluminum extrusion.

Crystal and its subsidiaries operate more than 400,000 square ft of manufacturer space at four plants and employ over 400 people at its main factory, regional branches, subsidiaries, and affiliate firms. The main production facility and corporate headquarters are in Queens, NY. Additional Plants are in Chicago, IL; St. Louis, MO; and Riverside, CA. Branch offices are in Scranton, PA and Cleveland, OH.

Crystal Window & Door Systems is a proud long-term partner of REHAU, a global manufacturer of polymer-based solutions for construction, automotive and industry. Founded in Germany more than 70 years ago, REHAU is known for delivering high-performance window and door solutions, with uncompromising attention to detail from design to profile extrusion to service. REHAU offers a variety of styles from typical residential hung-slider, casement and patio door to the most advanced European-style tilt-turn windows that achieve the highest structural, thermal and acoustical performance ratings.



MAGNUS Vinyl

4500 Tilt-Turn Windows	5
1800 Casement Windows	7
700 Hung-Slider Windows	9
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Design / Performance

Designed to be versatile. Engineered to perform. Available in an extensive variety of styles, colors, and configurations that are beautiful, durable and energy efficient.

Durability / Longevity

The proprietary unplasticized polyvinyl chloride (uPVC) formulation and extrusion process result in superior profiles that outlast and outperform alternative materials.

Efficiency / Sustainability

The insulating properties of vinyl and glass result in outstanding energy efficiency. And the vinyl extrusion process and long lifespan reduce pollution.

MAGNUS VINYL WINDOWS & DOORS

COMPREHENSIVE DESIGN & SUPERIOR PERFORMANCE

FEATURES



UPVC FORMULATION

The uPVC formulation includes above-average quantities of titanium dioxide stabilizers and impact modifiers to protect against fading and corrosion.



OPTIMAL COMPRESSION

MAGNUS 4500 and 1800 feature compression-seal technology that optimizes the air, water and sound performance.



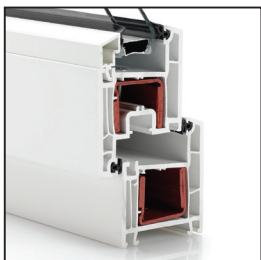
HIGH-DEFINITION FINISH

The unique uPVC formulation also results in a higher than average surface gloss level that enhances its ability to repel dirt and retain color.



MULTIPLE LOCKING POINTS

MAGNUS 4500 and 1800 feature multi-point locking hardware that assures consistent compression on the seals for optimal performance.



STEEL REINFORCEMENT

Main profiles feature a durable multi-chamber design that accommodates reinforcement to boost structural performance.



FUSION-WELDED CORNERS

In addition to the benefits of uPVC, fusion-welded corners greatly reduce leakage potential.

BENEFITS



SAVE ENERGY

Reducing energy usage is important whether it's cold or hot outside, especially on a larger scale when it comes to sustainable building. Lower energy consumption with outstanding thermal performance.



REDUCE NOISE

Noise can be disruptive and disturbing. Reducing noise can improve the performance and well-being of a building's occupants. Increase noise protection with outstanding acoustic performance.









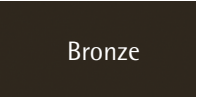




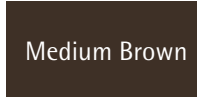




MINIMIZE MAINTENANCE

Thanks to the high-definition finish and advanced engineering, cleaning and maintenance is easy. Reduce cleaning and maintenance effort to a minimum with the high-quality finish and hardware.



GET CREATIVE

MAGNUS Vinyl allows for extensive design variations with brilliant solid colors and luxurious wood grain patterns that will liven up any building. Enhance any color scheme with high-performance decorative finishes.

Wood	 Light Oak	 Mahogany	 Golden Oak	 Irish Oak	 Soft Cherry	 Douglas Fir	
Solid	 Bronze	 Silver	 Midnight	 Choco Brown	 Burnt Almond	 Medium Brown	 Black
Profile	 White	 Beige	 Clay				

Color shown are not exact and may vary.
Please see available color samples.



MAGNUS Windows
COMPREHENSIVE DESIGN & SUPERIOR PERFORMANCE

TILT-TURN & HOPPER WINDOWS

COMPREHENSIVE DESIGN & SUPERIOR PERFORMANCE



MAGNUS 4500 tilt-turn window is unique and versatile with its three-windows-in-one design: A secure top-venting hopper in the tilt position, an inward opening casement in the turn position and a tightly sealed picture window when closed.

Tilt-turn hardware allows the sash to tilt inward at the top for secure ventilation or turn inward providing a wide opening for easy cleaning and emergency egress. When closed, the compression-seal design provides outstanding thermal and acoustic performance.

Tilt-Turn window also available as a turn, hopper or fixed window. Matching doors in a variety of configurations are available.

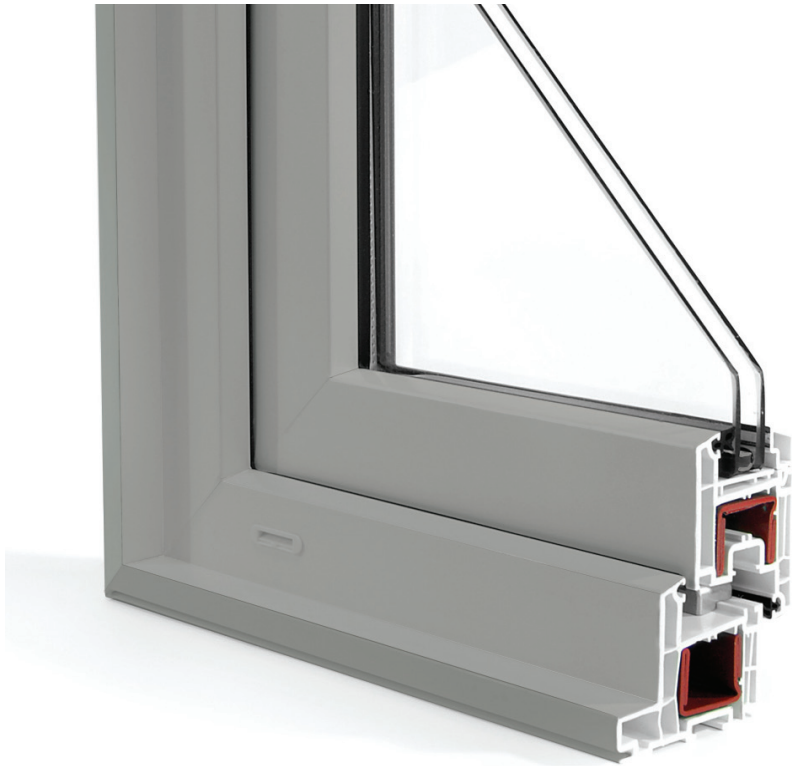
COLORS



A wide selection of decorative finishes are available.

TILT-TURN & HOPPER WINDOWS

COMPREHENSIVE DESIGN & SUPERIOR PERFORMANCE



Unique, High-Quality Hardware

Easily operates in top-venting and inward-swinging positions

Multiple Locking Points

And dual weather seals provide optimal compression and performance

Durable Multi-chambered Frame

Accommodate reinforcements required for large openings in heavy commercial applications

Useful Accessory Groove

North American frame accepts a variety of accessories, such as jamb extensions, brick molds and other special accessories

High-Performance Glass

Increases energy efficiency and acoustical properties

Frame Depths

North American, 3 1/4" (82.5 mm)

European, 2 3/8" (60 mm)

Overall Glass

Up to 1 3/8" (34.9 mm)

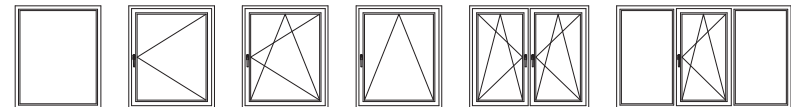
Performance Summary

NAFS: up to Class CW-PG70

STC: up to 41 dB

U-factor: down to 0.20*

*based on simulation



CASEMENT & AWNING WINDOWS

COMPREHENSIVE DESIGN & SUPERIOR PERFORMANCE



Magnus 1800 casement and awning windows are a unique combination of superior material formulation, structural integrity, and superior thermal and acoustical properties.

They have triple-seal technology, installation flexibility, and simpler multi-lite configurations.

They are an excellent window solution for new construction and replacements in residential and commercial applications.

Triple-Seal Technology

Proprietary, highly engineered technology provides optimal compression to improve insulating properties.



COLORS

White

Beige

Clay

A wide selection of decorative finishes are available.

CASEMENT & AWNING WINDOWS

COMPREHENSIVE DESIGN & SUPERIOR PERFORMANCE



Triple-Seal Technology

Three continuous seals improve insulating properties and ensure optimal compression

Durable Multi-chambered Frame

Accommodates reinforcement required for large openings in heavy commercial applications

Continuous Frame Design

Greater design flexibility with multi-lite configurations in one frame

Useful Accessory Groove

Accepts a variety of accessories, such as jamb extensions, brick molds and other special accessories

High-Performance Glass

Increases energy efficiency and acoustical properties

Frame Depths

3 1/4" (82.5 mm)
3 1/2" (88.9 mm)

Overall Glass

Up to 1 3/8" (34.9 mm)

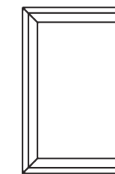
Performance Summary

NAFS: up to Class CW-PG70

STC: up to 40 dB

U-factor: down to 0.20*

* based on simulation



HUNG-SLIDER WINDOWS

COMPREHENSIVE DESIGN & HIGH PERFORMANCE



The MAGNUS 700 Hung-Slider Windows design are one of the most comprehensive hung-slider replacement window designs on the market.

Providing styles with a variety of design and performance options, this versatile design is an excellent choice for upscale residential and light-commercial applications.

Available in white, beige or clay and can be laminated with solid color or wood-grain foils.



COLORS

White

Beige

Clay

A wide selection of decorative finishes are available.

HUNG-SLIDER WINDOWS

COMPREHENSIVE DESIGN & HIGH PERFORMANCE

Durable Multi-chambered Frame

For increased strength, energy performance, and efficient water drainage, also accommodates reinforcement

Efficient Drainage System

A hidden integral drainage system allows water to drain without entering the building

Useful Accessory Groove

Accepts a variety of accessories, such as jamb extensions, brick molds and other special accessories

Internal Sash Glazing

Increases ease and safety of glass replacement

High-Performance Glass

Increases energy efficiency and acoustical properties

Performance Summary

NAFS: up to Class R-PG60 (Fixed CW-PG70)

STC: up to 39 dB

U-factor: down to 0.16*

* based on simulation



Frame Depths

3 1/4" (82.5 mm)

Overall Glass

Up to 1" (25.4 mm)

MAGNUS Doors

COMPREHENSIVE DESIGN & SUPERIOR PERFORMANCE



Tilt-Slide Doors

COMPREHENSIVE DESIGN & SUPERIOR PERFORMANCE



MAGNUS 4500 tilt-slide door is an innovative door solution that provides secure ventilation with space saving functionality and outstanding performance with optimal profile design and compression-seal technology.

The high-quality hardware system operates quietly and easily. With just a simple turn of a handle, the operating panel can be tilted providing secure ventilation. With another turn, it slides open parallel to the fixed side, not into the room, for space-saving functionality.

Matching fixed and operable windows can be paired with this door as top and side lites allowing for the greatest design flexibility.

Compression-Seal Technology

Special hardware compresses rubber seals between the frame and sash when the operating panel is closed. When locking points all around the sash perimeter are engaged, an exceptional barrier to air, water and sound is created.

COLORS



A wide selection of decorative finishes are available.

Tilt-Slide Doors

COMPREHENSIVE DESIGN & SUPERIOR PERFORMANCE



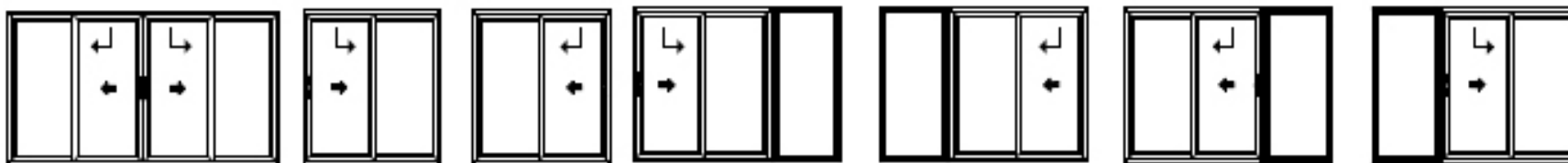
Innovative, High-Quality Hardware
Easily operates in top-venting and sliding positions

Multiple Locking Points
And Dual weather seals provide optimal compression and performance

Durable Multi-chambered Frame
Accommodates reinforcement required in heavy commercial applications

Useful Accessory Groove
North American frame accepts a variety of accessories, such as jamb extensions, brick molds and other special accessories

High-Performance Glass
Increase energy efficiency and acoustical properties



Performance Summary

NAFS: up to LC-PG45
STC: up to 40 dB
U-factor: down to 0.20*

* based on simulation

Frame Depths

North American, 3 1/4" (82.5 mm)
European, 2 3/8" (60 mm)

Overall Glass

Up to 1 3/8" (34.9 mm)

Swing Doors

COMPREHENSIVE DESIGN & SUPERIOR PERFORMANCE



MAGNUS 4500 swing doors are an attractive solution for both residential and commercial projects. Few designs are more classic or versatile as in-swing and out-swing doors.

They can be built as single or double doors, also referred to as hinged or French doors. They can be used for patio, deck or balcony access, as well as entry doors.

Matching fixed and operable windows can be paired with these doors as side-lites allowing for design flexibility.

Compression-Seal Technology

Swing doors qualify for coastal applications, even in hurricane prone areas. Multi-point locking hardware with compression adjust abilities assures consistent compression on the seals around the perimeter of the sash and frame.

Then the wind is blowing strong, the sash is pushed against the compression seal optimizing the air and water performance of the door.

COLORS



A wide selection of decorative finishes are available.

Swing Doors

COMPREHENSIVE DESIGN & SUPERIOR PERFORMANCE



Unique Corner Blocks

Connect steel reinforcement to keep swinging panels in square

Multiple Locking Points

With compression adjustability and dual weather seals provide optimal compression and performance

Durable Multi-chambered Frame

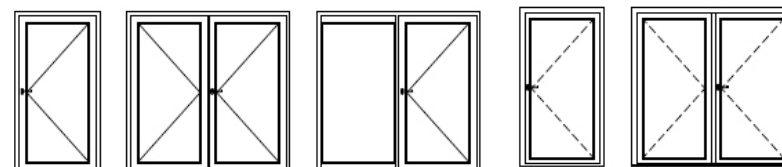
Accommodates reinforcement required in heavy commercial applications

Useful Accessory Groove

North American frame accepts a variety of accessories, such as jamb extensions, brick molds and other special accessories

High-Performance Glass

Increases energy efficiency and acoustical properties



Performance Summary

In-swing Doors

NAFS: up to LC-PG40

STC: up to 40 dB

U-factor: down to 0.22*

* based on simulation

Out-swing Doors

NAFS: up to LC-PG80, double PG35

STC: up to 38 dB

U-factor: down to 0.22*

* based on simulation

Frame Depths

North American, 3 1/4" (82.5 mm)

European, 2 3/8" (60 mm)

Overall Glass

Up to 1 3/8" (34.9 mm)

Sliding Doors

COMPREHENSIVE DESIGN & HIGH PERFORMANCE



MAGNUS 2150 high-performance sliding doors are designed to maximize glass-to-wall ratio while offering superior durability, sound abatement, and energy efficiency.

They are customizable and versatile with multiple configurations that include two, three or four panels.

Their design performance, and features make them an excellent door solution for new construction and replacements in residential and light-commercial applications.

COLORS



A wide selection of decorative finishes are available.

Sliding Doors

COMPREHENSIVE DESIGN & HIGH PERFORMANCE



Durable Multi-chambered Frame

Accommodates reinforcement for structural performance

Efficient Drainage System

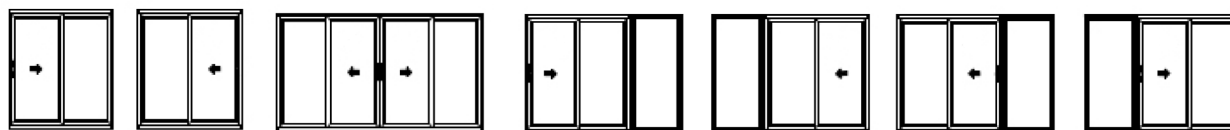
An integral sill drainage system allows water to drain without entering the building

Useful Accessory Groove

Accepts a variety of accessories, such as jamb extensions, brick molds and other special accessories

High-Performance Glass

Increases energy efficiency and acoustical properties



Performance Summary

NAFS: up to LC-PG45
 STC: up to 40 dB
 U-factor: down to 0.20*

* based on simulation

Frame Depths

4 9/16" (116 mm)

Overall Glass

Up to 1 1/4" (32 mm)



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