MAGNUS

WINDOW & DOOR

700/2100 NORTH-AMERICAN STYLE SYSTEM

CRYSTAL™
WINDOW & DOOR SYSTEMS, LTD.
WWW.CRYSTALWINDOWS.COM

About Crystal

In operation for almost **30 years**, Crystal has grown from startup in 1990 to one of the top window manufacturers in North America. We operate nearly one million square feet of manufacturing space at five plants. Our corporate headquarters and flagship production facility are in New York City, and we have additional plants in Chicago, IL; Riverside, CA; Union, MO; and our newest plant is in Benton Township, PA. We employ over 600 people nationwide, and have sales and distribution branch offices in **Illinois (Chicago), Ohio (Cleveland area), and Missouri (St. Louis area)**. Crystal products are distributed in over **40 states**.

Crystal Window & Door Systems is an award-winning national manufacturer of quality, energy efficient vinyl and aluminum replacement and new construction windows, and high-end fenestration systems for virtually every residential, commercial and institutional building type. Our product and service benefits are many:

- Quality Workmanship
- Broad Product Line
- Energy Efficiency
- Innovative Product Features
- Custom Design and Engineering
- Experienced and Knowledgeable Staff
- Extraordinary Value

The Crystal family of companies comprises several integrated firms involved with the production, sale and distribution of windows and related products around the nation.

Crystal's state-of-the-art manufacturing completely integrates window production from profile extrusion through product and installation accessory fabrication. Crystal is a Vitro/PPG Certified Commercial Window Fabricator, and our window and glass assembly processes are NAMI and IGCC certified, and our products are tested to AAMA and NFRC standards. Our experienced R&D engineering team utilizes 3-D printing technology and its own in-house large scale, fully computerized window test chamber to fast-track product development and facilitate quality control.

Crystal's aluminum extrusion subsidiary in Missouri supplies most of the aluminum profiles needed for our aluminum window lines, vertically integrating the process to better manage quality, lead times and costs. The subsidiary also offers extruded aluminum products to other companies and industries, and is making major upgrades of its facility and equipment to remain ahead of the competition. Vinyl window lineals are extruded in-house at the New York facility.

Magnus 700 - Hung-Slider Window

Unique operation and unmatched performance

A lot has changed in the window market over the last decade. More stringent energy and building codes coupled with increasing expectations about what windows can – and must – deliver, have changed the game.

Engineered to Meet the Highest Performance Standards

Magnus window has emerged anew with new configurations, added glazing options and the latest evolutions in thermal and structural technology.

The result is a greater experience; not just for the home or building owner but for every step of the supply chain, as well.

Features:

- Internal and external sash glazing options for performance flexibility.
- Multiple chambers on main profiles for increased strength, energy performance and efficient water drainage.
- Welded sloped sill option for efficient water run-off and easy cleaning.
- High-definition finish for weather and stain resistance and ease of maintenance.

The MAGNUS System 700 Hung-Slider Window design is one of the most comprehensive hung-slider replacement window designs on the market, providing five styles with a variety of design and performance options. This versatile design is an excellent choice for upscale residential and light-commercial applications.

With the System 700 design, single hung, double hung, single slider, double slider and fixed configurations are possible.

The system is available in white, beige or clay and can be laminated with solid color or wood-grain foils.

While many make the claim, only a few window systems are designed to truly go beyond the standard performance requirements in both commercial and residential environments while offering distinct fenestration solutions for each. The System 700 does.

Stronger Transom for Larger Sizes

Increased structural capacity and strength at meeting rails provide a more stable interlock for larger sizes.

More Versatility for Hardware

A design that can work with many different locking/ tilting and balancing hardware options satisfies a greater variety of preferences and custom looks.

A Wider Range of Styles

Utilizing common internal and external sash platforms coupled with sloped and pocket sill options, the System 700 offers multiple styles.

- Single-hung
- Double-hung
- Single-slider
- Double-slider
- Fixed

MAGNUS 700 - Hung-Slider Window

Internal And External Glazing Options

Types
Fixed, Single-Hung, Single-Slider, Double-Hung, Double-Slider

Material
Cadmium and lead-free RAU-PVC

Sealing System
Weatherpile, roll-in glazing spline, flexible co-extrusions

System Depth
3 1/4 in (82.5 mm)

Max. Glass Thickness
1 in (25.4 mm)

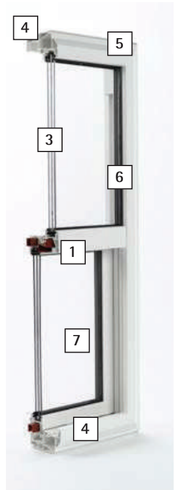
Sightlines Frame / Sash
2.2 in (56 mm) up to 3.4 in (86 mm)

Colors White, beige and clay
U-values Down to 0.16*

STC
Up to 37 dB

Structural Tests
Single-hung: R-PG70
Single-slider: R-PG55
Double-hung: R-PG65
Double-slider: R-PG60
Fixed: CW-G70

Double-hung window with an externally glazed sash and a welded slope sill.



Single-hung window with an internally glazed sash and a pocket sill.

* based on simulation

Features and Benefits

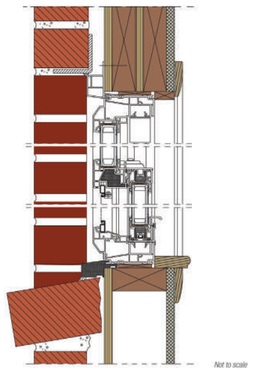
		Internal Glazing	External Glazing
1.	Large capacity for reinforcements meets performance requirements for impact resistance in commercial applications		✶
2.	Steel reinforcements for main profiles boost thermal and structural performance	✶	✶
3.	7/8 in (22 mm) and 1 in (25 mm) glazing options provide excellent acoustical and energy performance properties	✶	✶
4.	Main profiles engineered with multiple chambers increase strength and energy performance while allowing efficient water drainage	✶	✶
5.	3 1/4 in (83 mm) frame depth with internal/external accessory grooves suits a wide range of installation applications by using supplemental profiles for trims, mulling options and unique wall construction	✶	✶
6.	Internal fixed lite on single-hung and single-slider windows enables easy glass replacement from inside the structure	✶	✶
7.	Dry glazing reduces costs and eases glass replacement by not requiring tapes or sealants	✶	
8.	Welded sloped sill option on single- and double-hung windows allows for efficient water run-off and easy cleaning	✶	✶
9.	Glazing stop located on the exterior offers a smooth sash surface – a “cleaner” look for the inside of the window		✶

Available Colors

- White
- Beige
- Clay

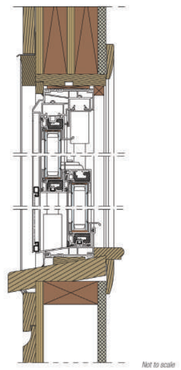
MAGNUS 700 - Hung-Slider Window

Installation Drawings

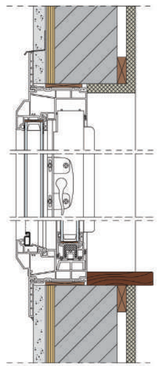


This illustration depicts suggested installation of MAGNUS System 700 singlehung window design with an internally glazed sash installed into a new construction 2 x 4 wood frame and brick veneer wall.

A brickmold with integral nailing flange combined with a cellular sill nosing are used for installation of the unit.

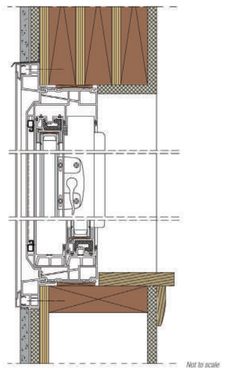


This illustration depicts suggested installation of MAGNUS System 700 double-hung window design with an externally glazed sash and a welded sloped sill, retrofitted into an existing wood frame wall, replacing a wood double-hung window.



This illustration depicts suggested installation of MAGNUS System 700 single-slider window design with an internally glazed sash retrofitted into a concrete block and stucco wall.

This shows the unit installed from the outside incorporating an applied 2 in (51 mm) stucco fin on the frame perimeter.



This illustration depicts suggested installation of MAGNUS System 700 double-slider window design with an externally glazed sash retrofitted into a 2 x 6 wood frame and stucco wall.

This shows the unit installed from the outside using a brickmold profile/ decorative insert combination.

Magnus 2100 Sliding Doors

Dependable durability and smooth operation.

NAFS: up to Class LC-PG40

STC: up to 36 dB

U-factor: down to 0.28

based on simulation

Magnus 2100 Sliding Doors

Traditional North American design meets modern comfort

* based on simulation

Create an open, naturally lit environment in your home no matter how demanding the climate with our Sliding Door 2100.

This uPVC door is designed to maximize your glass-to-wall ratio while offering superior durability, sound abatement and energy efficiency.

Whether you are replacing an existing door or building a new home, this inline sliding door design saves space while lending an elegant touch.

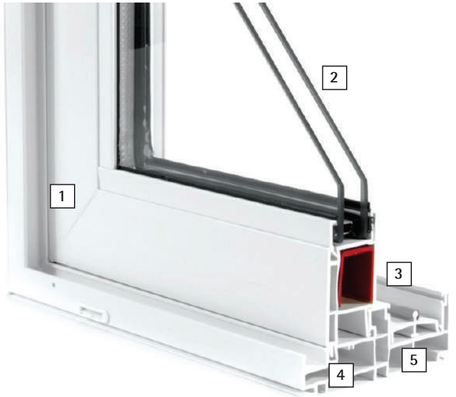
The door's traditional North American design combined with even and proportional sightlines accomodates direct-set glazing and allows for matching fixed lites. Mulling options for multi-panel configurations (XO, OX, OXO, OXXO) in addition to our various color options provide ample creative freedom.

Customizable and stylish:
With a variety of configurations and colors, you can make this door your own.

Performance Summary

NAFS: up to LC-PG40
STC: up to 36 dB
U-factor: down to 0.28

based on simulation



Welded frame and sash corners
Provide structural durability and reduced air and water infiltration

1" (25.4 mm) insulated glass
Enhances energy and sound transmission ratings

Sash accepts steel or aluminum reinforcement
Allows for big openings and excellent structural ratings

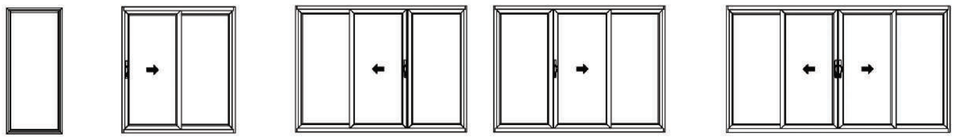
Accessory grooves
Offer flexibility for installation of jamb extensions, dry-wall returns and other accessories

4 5/8" (117.5 mm) frame depth
Provides flexibility for new construction and replacement projects

Wood
Light Oak, Mahagony, Golden Oak, Irish Oak, Soft Cherry, Douglas Fir

Solid
Bronze, Silver, Midnight, Choco Brown, Burnt Almond, Medium Brown, Black

Profile
White, Beige, Clay



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