

# SYSTEM 4500: THE ALL-ROUND TALENT DESIGN. VERSATILITY. PERFORMANCE.

Top Performance, Intelligent Design, Timeless Style: these are the System 4500 window and door designs by REHAU. They are engineered to perform. They are beautiful, durable, energy efficient and available in an extensive variety of styles, colors and configurations.



#### Fusion-welded corners

In addition to the benefits of uPVC's thermal properties, REHAU's fusion-welded corners greatly reduce leakage potential and the need for costly sill pans/pan flashing systems.



#### Steel reinforcement

REHAU's sophisticated multi-chambered designs accommodate steel reinforcement and allow for big window elements. This, in turn, provides greater daylight openings and brighter interior designs.



#### **Compression-seal technology**

When the wind is blowing strong, the sash is pushed against the compression seals optimizing the air and water performance of the windows and doors.



#### Multiple locking points

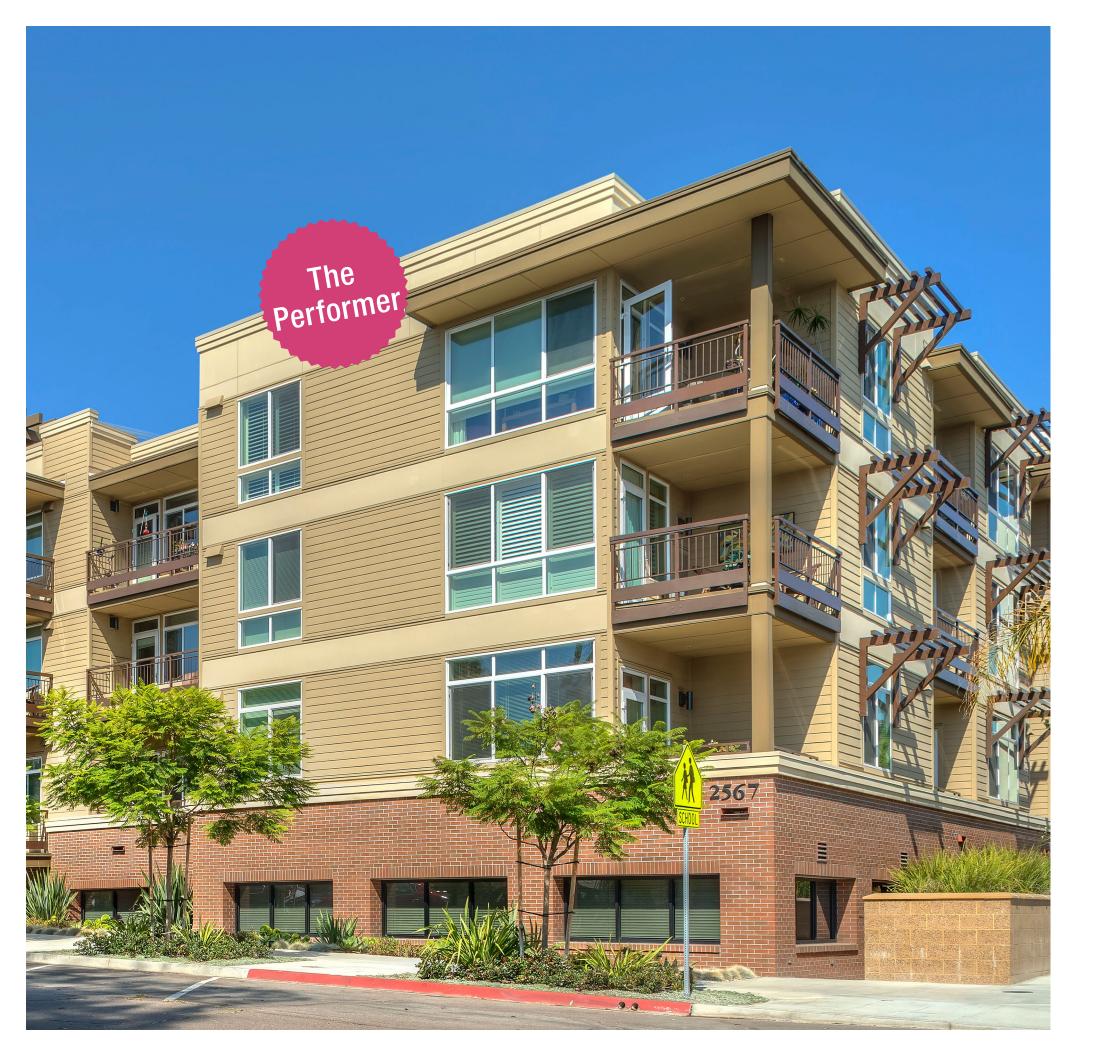
Multi-point locking hardware assures consistent compression on the seals all around the perimeter of the sash and frame for further performance enhancements and improved security.



#### High-definition finish

Only occasional cleaning with soap and water is needed to keep the surfaces looking like new, even years after installation.





# TILT-TURN WINDOWS Unique operation & unmatched performance

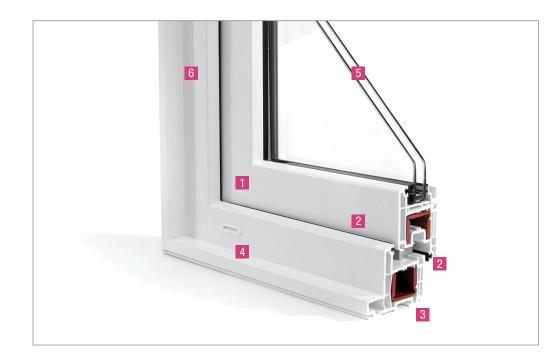
System 4500 window design offers a very unique product for large openings in both residential and commercial markets. The versatile design is three windows in one: an inward opening casement in the turn position, a secure top-venting hopper in the tilt position and a tightly sealed picture window when closed for outstanding thermal and acoustical performance. System 4500 windows also meet the highest available structural standards.

With the System 4500 design, tilt-turn, awning, hopper and fixed configurations are possible. Matching doors in a variety of configurations are available

The System 4500 design produces some of North America's highest performing window units.

# SYSTEM 4500: TILT-TURN WINDOWS

Unique operation & unmatched performance



#### **1** Unique tilt-turn hardware

Operates in both top-venting and inward-swinging positions

Multiple locking points and dual weather seals Provide optimal air and water tightness

#### **3** Large chambers

Accommodate reinforcements required for large openings in heavy commercial applications

#### 4 Accessory groove

Accepts a variety of accessories such as brickmolds, extension jambs and for profiles to couple window elements

#### **5** Up to 1 3/8 in (35 mm) glass

Increases energy efficiency and acoustical properties

#### **6** 3 1/4 in (83 mm) North American frame depth

Allows for hassle-free replacement installation; we also offer the 2 3/8 in (60 mm) European frame







Turn



Closed

#### Tilt-turn designs are three window styles in one: a secure top venting hopper in the tilt position, an inward opening casement in the turn position and a tightly-sealed fixed window when closed.

#### System 4500 comes in a variety of different colors:

whether it is a change from white that you are looking for with a different core profile color or modern solid foil on the window exterior while mimicking a wood look on the exterior, our color options offer something for every taste.



#### Performance Summary

NAFS: up to Class CW-PG75 STC: up to 41 dB U-factor :down to 0.18\*

\* based on simulation



# SWING DOORS Total flexibility & classic beauty

deck or balcony access.

design flexibility.

With the System 4500 swing door design, single inswing and outswing as well as double inswing and outswing configurations are possible.

Few designs are more classic or have as many different uses as swingdoors. System 4500 swing doors are offered as a single sash creating a beautiful main entrance or as dual sash, also referred to as French doors, connecting the indoors with the outdoors. These versatile doors can be used for patio,

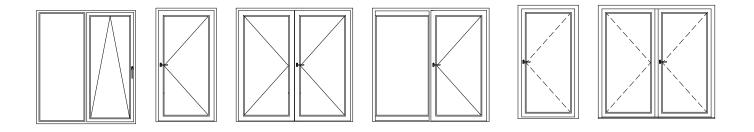
The System 4500 swing door design offers an attractive solution for both residential and commercial applications. Matching fixed and operable windows can be paired with this door as top and side lites allowing for the greatest

## SYSTEM 4500: SWING DOORS Total flexibility & classic beauty



Unique PVC corner blocks connect steel reinforcement keeping hinged door corners in-square for long-term, troublefree operation. Outward opening (left) and inward opening (right) styles meet a variety of design requirements.

#### **I** Frame profiles with different depths Provide flexibility for new construction and replacement applications **2** Multiple locking points and compression seals all around the sash perimeter Provide high water performance, minimal air infiltration, security and good sound insulation **3** Large reinforcement chambers in the sash Allow for sash sizes as large as 8 ft (2.4 m) high and 3.5 ft (1.1 m) wide for single doors and 3 ft (0.9 m) wide for French doors 4 High quality hardware Operates guietly and effortlessly **5** Large glazing capacity, including special high-performance glass of 1 3/8 in (35 mm) in thickness Improves energy efficiency and acoustical properties 6 Weldable corner joints in the sash profiles Strengthen the door panel against distortion and provide long-term, smooth operation



## with top and side lites or even operable windows, providing the utmost design flexibility.



#### Performance Summary

Outward Opening -Single Door NAFS: up to LC-PG80 STC: up to 38 dB U-factor: down to 0.24\*

#### Outward Opening – French Door NAFS: up to LC-PG35 STC: up to 38 dB U-factor: down to 0.23\*

Design flexibility: Hinged doors can be built as single as well as French doors, either inward or outward opening. They can easily be combined

#### Inward Opening -

Single Door NAFS: up to LC-PG40 STC: up to 40 dB U-factor: down to 0.23\*

Inward Opening -French Door NAFS: up to LC-PG40 STC: up to 40 dB U-factor: down to 0.23\* \* based on simulation



# TILT-SLIDE DOORS Contemporary style & versatile functionality

REHAU System 4500 tilt-slide doors are an innovative door solution for spaces that do not allow for traditional in-swing doors.

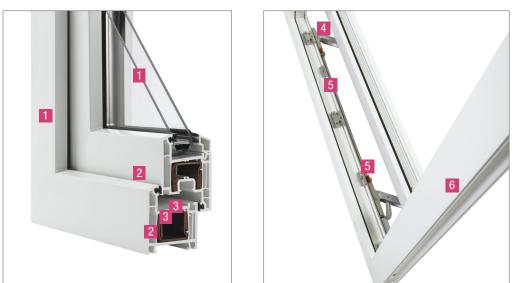
With just a simple turn of a handle, the door sash can be tilted providing secure ventilation. With another turn, the sash slides open parallel to the fixed unit, not into the room, for space-saving functionality. High-quality European hardware system operates quietly and easily.

The optimal profile design and compression-seal technology contribute to outstanding performance.

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

# SYSTEM 4500: TILT-SLIDE DOORS

Contemporary style & versatile functionality



Large chambers accommodate robust reinforcements required in heavy commercial applications. Innovative runner mechanism provides smooth projection of the sash which easily and precisely slides to any desired position.

**L**arge glazing capacity, including special high performance glass up to 1 3/8 in (35 mm) in thickness Improves energy efficiency and acoustical properties **2** Four-chambered sashes and frames

Provide high energy efficiency

**3** Large reinforcement chambers in the sash

Allow for sash sizes as large as 8 ft (2.4 m) high and 5 ft (1.5 m) wide up to a weight of 260 lbs (120 kg)

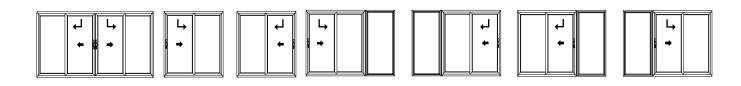
High quality hardware

Operates effortlessly and quietly

Multiple locking points and compression seals all around the sash perimeter
Provide high water performance, minimal air infiltration, security and good sound insulation

#### 6 Frame profiles with different depths

Provide flexibility for new construction and replacement applications



#### Tilt Sash Function for Ventilation in a Secured Position:

High-quality tilt-slide hardware allows a vent position, where the top of the sash tilts toward the inside of the room, but cannot be opened from the outside, providing security on the inside.



#### Performance Summary

NAFS: up to CW-PG55 STC: up to 40 dB U-factor: down to 0.20\*

\* based on simulation



## **BI-FOLD DOORS** Impressive extravagance & uninterrupted living

System 4500 bi-fold doors are a luxurious solution for spaces that need a wide, unobstructed opening. It can be an alternative to hinged and sliding patio doors, but can also be used to accentuate open-plan living.

interruption.

This beautiful door design uses compression-seal technology for superior sound, air and water performance.

window configurations.

Whether for residential or commercial applications, this unique door design allows sash panels to fold to either side, creating a wide opening without any

The System 4500 bi-fold door design can easily be matched with a variety of

## SYSTEM 4500: BI-FOLD DOORS Impressive extravagance & uninterrupted living



## Large glazing capacity of up to 1 3/8 in (35 mm) in thickness Improves energy efficiency and acoustical properties Large reinforcement chambers in the sash Allow for sash sizes as large as 7.5 ft (2.3 m) high and 3 ft (0.9 m) wide, weighing up to 175 lbs (80 kg) Four-chambered sashes and frames Provide high energy efficiency High-quality hardware Operates quietly and effortlessly Lever-locking mechanism Securely closes the end panel of the bi-folding sashes Multiple locking points and compression seals all around the sash perimeter Provide water tightness, minimal air infiltration, security and good sound insulation

**Special hardware** allows the sash to slide parallel in front of a fixed panel. Structural T-mullions allow doors to be configured with up to five panels and an overall width of 15 ft (4.5 m).



#### Performance Summary

NAFS: up to LC-PG25



# THE SECRET IS THE FORMULATION Better formulation = better durability

Like all REHAU window designs, this includes our proprietary uPVC formulation and extrusion process, which make for superior window systems that outlast and outperform alternative materials like aluminum and wood-clad products. Those corrode and rot from exposure to weather and pollution.

REHAU's formula includes above-average quantities of TiO<sub>2</sub> stabilizers and impact modifiers to protect against fading from solar radiation. When put through five years of weather testing in Arizona, this formula shows its strength; REHAU uPVC performed better than standard vinyl.

Our unique uPVC formula results in a higher than average surface gloss level. REHAU window systems therefore repel dirt and better retain their color.

# SYSTEM 4500: THE ALL-ROUND TALENT DESIGN. VERSATILITY. PERFORMANCE.

### Save energy easily: With better thermal performance.

Reducing energy usage is important. Not just for the occupant's wallet but also on a larger scale when it comes to sustainable building. Lower energy consumption with a good conscience – whether it's cold or hot outside.

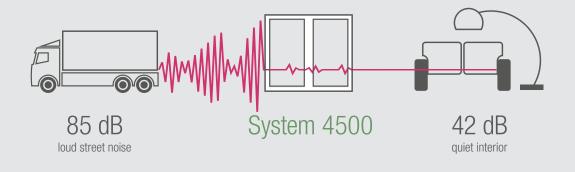
	System 4500 Windows	System 4500 Doors
U-value Standard (dual pane, low-E)	0.28	0.30
U-value Advanced (triple pane, low-E)	0.20	0.24

### Minimize cleaning: With ease of operation, ease of maintenance.

Thanks to a high-quality, high-definition finish (HDF), smudges can be quickly and easily removed using conventional detergents. As far as maintenance, the occasional application of a quality lubricant to the moving parts, such as hinges and lock mechanisms, is all that is needed. The newly developed sealing technology assures optimal closing pressure. Due to advanced engineering and close cooperation with hardware suppliers, the operation of the window is smooth and easy. **Reduce maintenance and cleaning effort to a minimum.** 

### Ensure peace and quiet: With a view on mute.

Noise is disturbing and over time, it is even unhealthy. Increase occupants' feeling of well-being with the previously unattained values in noise protection.



## Trust high levels of safety: With superior security features.

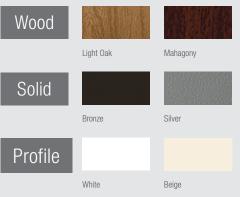
In combination with the appropriate hardware, System 4500 windows and door enhance security with multiple locking points, fusion-welded corners and steel-reinforced, multi-chambered design. **Enjoy the security you are looking for.** 



## Enjoy creative freedom: With countless shapes and colors.

System 4500 allows for a wide choice of customized shapes, e.g., round, half-round, triangular, rake-top, ellipsoidal windows. In addition, extensive design variations with brilliant colors and patterns will liven up any building interior and exterior. **Get creative with almost countless design options.** 







Golden Oak



Irish Oak







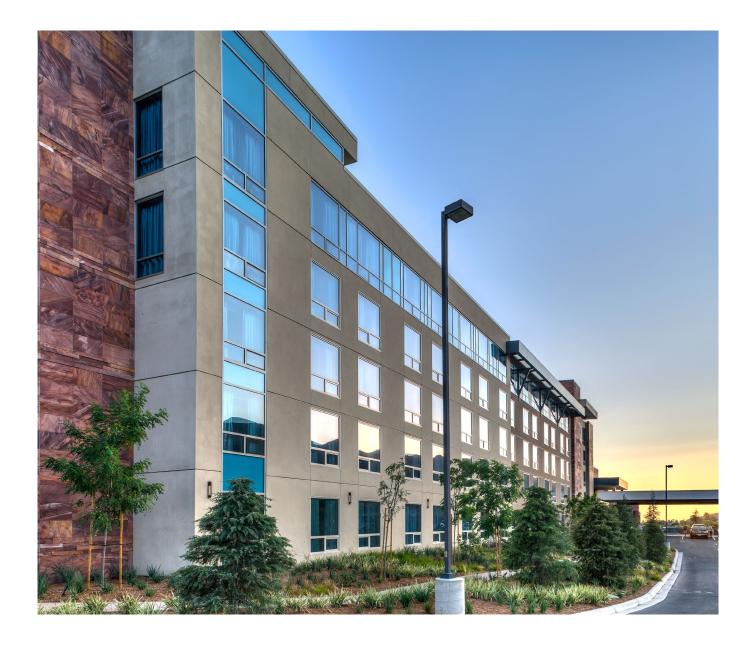
Choco Brown

Burnt Almond

Medium Brown

Clay

Midnight





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