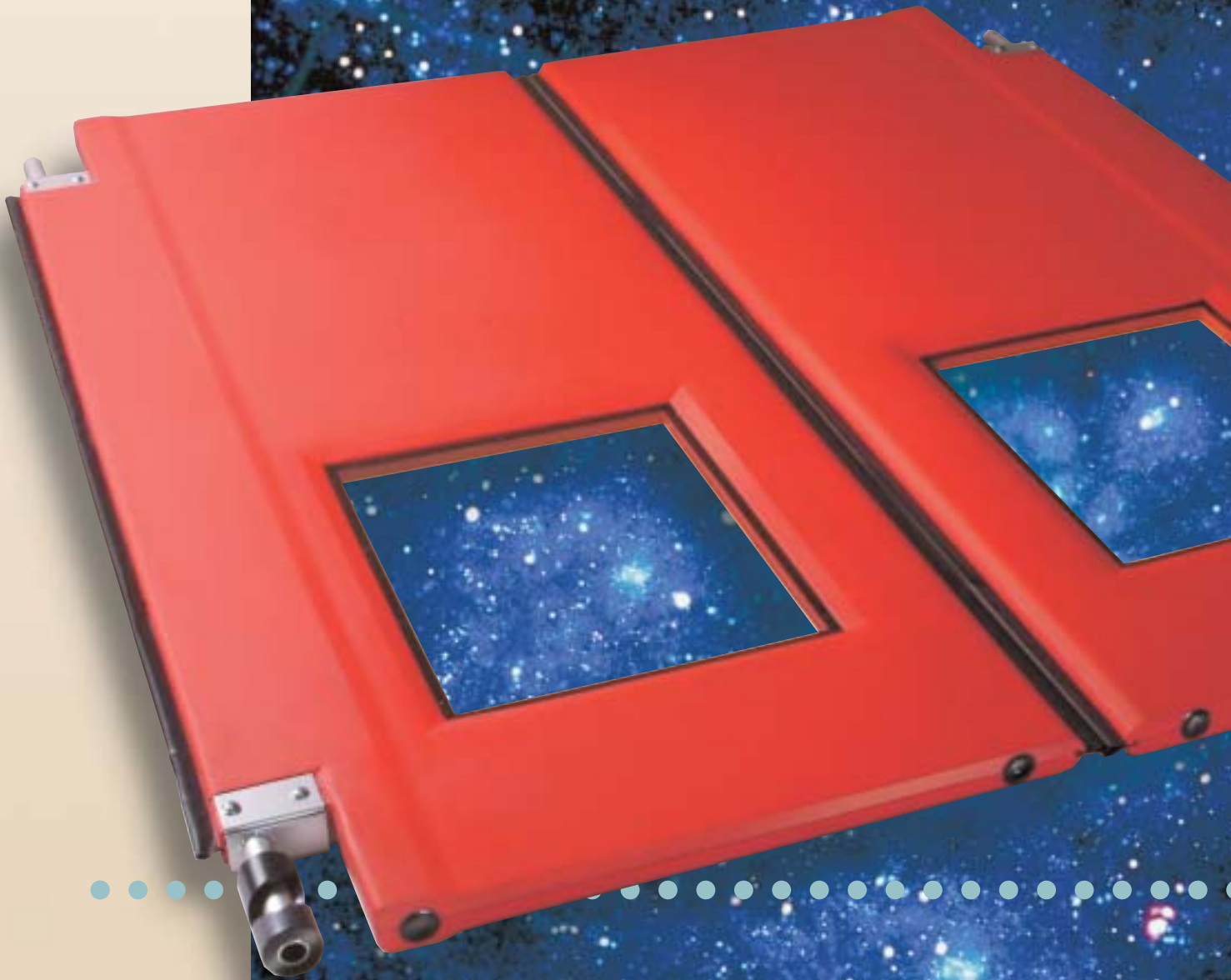


# QUANTUM

**Multi-Use Molded  
Traffic Doors**



# QUANTUM

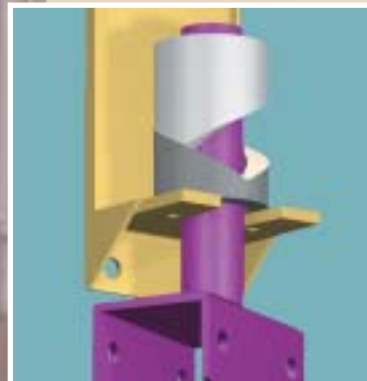
Quantum's New Rotationally Molded Seamless Panels With Low-Wear Helix Hinges Put These Doors Light Years Ahead In Value And Performance.



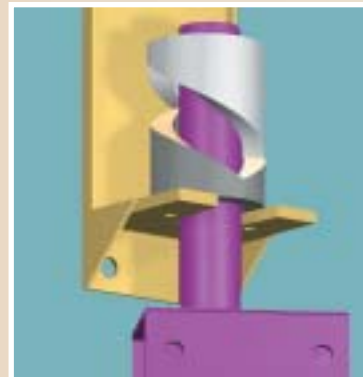
Not since the introduction of RubbAir's original flexible door has the industry seen a product that offers such a quantum leap ahead of existing door designs. Quantum doors provide a one-two punch of advanced hardware and molding technology that delivers more resistance to impact, superior long lasting hinges, corrosion resistant hardware, wider two-way swing, excellent sound and thermal insulation, plus easy installation and minimal upkeep.

## Smooth, Low-Wearing Helix Cam Hinge – Simply Better

The unique geometry of the helix gives Quantum a huge advantage over more complicated designs and requires no oil, grease, bearings or bushings. An upper hinge section of precision machined aluminum travels upon a lower cam section milled from wear-resistant high-strength polymer. Both sections share a common helical wear surface. As the door opens, load and friction are spread evenly across the helix surface...there are no points or edges to concentrate wear.



The aluminum upper helix hinge section "climbs" the dark polymer cam section to swing and raise the door without pressure points or edges.

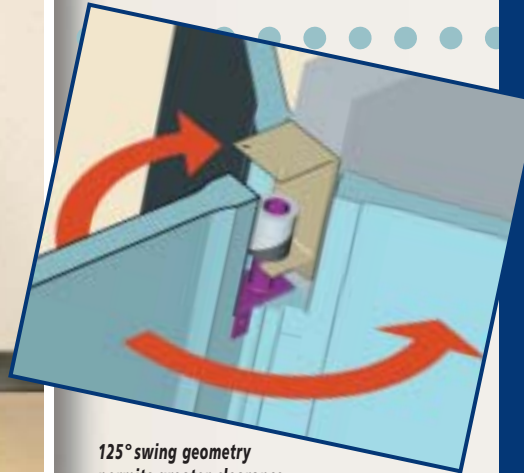


While rotating, about half the total helical surfaces remain in contact to spread the load and reduce wear.



# Quantum FEATURES

- One piece molded body resists penetration by moisture, dust or chemicals
- 50% more shell thickness at impact areas than comparable doors
- Helix hinge allows for up to 125° swing in both directions
- Industrial-grade steel bracing the length of the door's spine
- Rugged polyethylene shell resists impact and bending
- Factory aligned hinge
- 1-3/4" door thickness with foam fill for sound and thermal insulation



125° swing geometry permits greater clearance in both directions.

The result is a smooth ride for the door. Even with bumpers installed, Quantum allows up to 125° of swing both ways to provide clearance without overextending the hinge. As the door closes, it automatically drops back into the closed position.

## Advanced Panel Design and Construction

RubbAir employs proprietary molding techniques to form a tough monolithic polyethylene door "shell" that resists penetration by moisture, dirt or cleaning agents. The structural composition of these doors resists impact, bending and torque like no other. Beginning at the door's center with

a wall thickness 50% greater than competitive door panels, the shell wall progressively increases to resist breakdown or fatigue around load bearing areas.

The entire door is injected with urethane foam for rigid structural characteristics. A steel tube encased in the foam adds additional strength and stability along the spine where it's needed most to prevent warping, breaking or binding at hinge or bearing points.



UNIQUE HELIX HINGE AND CORROSION RESISTANT MOUNTING HARDWARE

SEAMLESS POLYETHYLENE PANELS RESIST PENETRATION BY LIQUIDS

DOUBLE PANE POLYCARBONATE WINDOWS ARE RECESSED TO AVOID WEAR

## Monolithic Molding Advantages



High temperature rotational molding yields a single piece impact-resistant polyethylene shell with no seams or welds.

Progressive wall thickness at the leading and trailing edges, along with molded-in-place window casing and gasket channels, eliminate fabrication and extra cost.

DOOR PANEL SHELL THICKNESS IS 50% GREATER THAN COMPARABLE DOORS

PANELS ARE FOAMED-IN-PLACE AND STIFFENED WITH STEEL TUBE

After removal from high temperature rotational molding machinery, a fully formed seamless door shell awaits finishing.

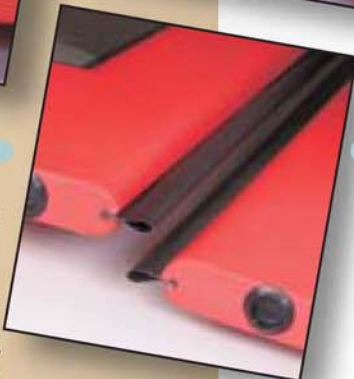
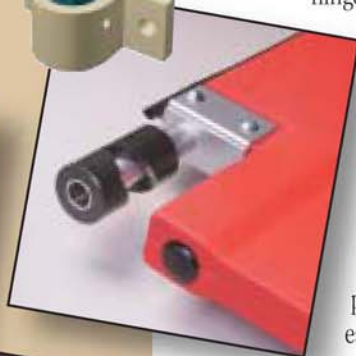


## Wide Selection of Versatile Options

- Jamb guard or combination bottom bearing and jamb guard
- 125/250° combination swing
- 3" or 4" jamb mounting hardware
- Single pane 1/8" polycarbonate windows
- Molded polyethylene bumpers from 12" to 48" tall
- Flexible transoms for openings over 8' tall
- Self-supporting steel frames – drilled and tapped
- Weld plates
- Variety of color choices

## Optional V-Cam Hinge

Rugged cast body V-cam and sealed roller bearing cam follower system provides a variety of swing and rise motions for extra heavy-duty applications. Lifetime warranty!!



**Top:** Stainless hinge post is securely bolted to the door's spine.

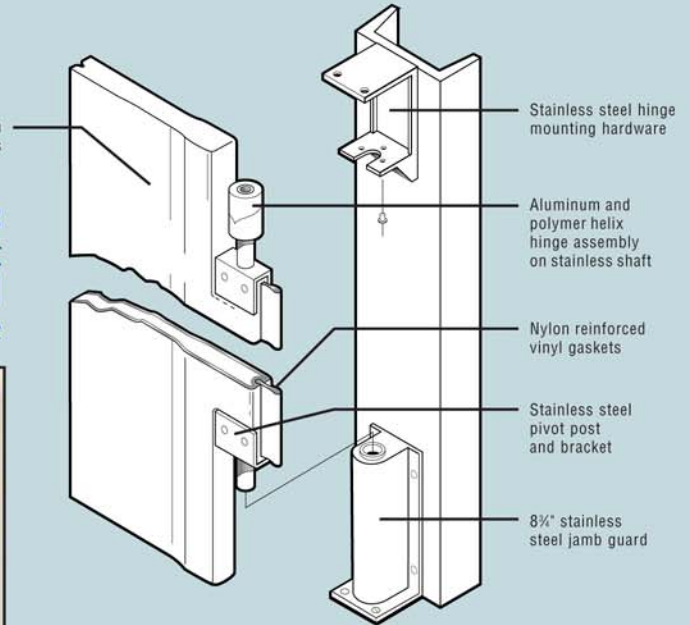
**Middle:** Cross section reveals extra shell thickness at impact areas.

**Bottom:** Nylon reinforced vinyl gaskets slide easily into molded channels to form a seal against air flow and dust.

## Mounting Detail: Corrosion-Resistant Hardware and Helix Hinge



Polyethylene panel with progressive overall thickness



Stainless steel hinge mounting hardware

Aluminum and polymer helix hinge assembly on stainless shaft

Nylon reinforced vinyl gaskets

Stainless steel pivot post and bracket

8 1/4" stainless steel jamb guard

## Easy To Install – Easy To Maintain – Thanks To Practical Design Features

Quantum doors are available in a range of sizes to suit many industrial, retail and commercial door openings. Nylon reinforced vinyl jamb and sweep gaskets, header seals and hinge covers complete the installation to ensure a tight seal against dust and air flow.

### Easy, Reliable Installation Procedure

Quantum doors are shipped with a mounting template to assure precision positioning of the hinge bracket and lower bearing. The door simply drops into the bearing and slides into a slot on the mounting bracket. Three screws secure the helix hinge to the bracket. Tapped holes assure correct alignment. Height adjustments can be easily made by rotating the upper helix section in 360° steps.

### Glazed Windows

Windows are constructed of two clear polycarbonate panes recessed with frames into the door panel to eliminate abrasion or catch points. Durable, good looking ABS frames can be removed easily for window replacement if needed. Like other parts of the Quantum door, the window and frames are USDA/FDA approved and easily washed down.

*Patents pending on helix hinge.*

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