

## GENESIS DESIGN AND PLANNING GUIDE

for lifting heights up to fourteen feet



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## Garaventa - the world's #1 choice in accessibility solutions.

Garaventa has been dedicated to developing safe and reliable accessibility solutions since 1978 and is now an industry leader worldwide. Years of hard work and an uncompromising commitment to quality have enabled us to perfect the internationally renowned Garaventa GSL Artira. This same commitment to quality has been applied to the Xpress II inclined platform lift and the Genesis vertical platform lift.

The Xpress II is an inclined platform lift designed just for straight stairways. The sleek and attractive Xpress II can be installed indoors or outdoors and is a cost-effective access solution.

The Genesis vertical platform lift incorporates state of the art features with elegant styling and quiet operation. The Genesis has a variety of models and configurations with many standard and optional features to choose from. With the development of the Genesis vertical platform lift, Garaventa has taken a significant step towards being able to solve most accessibility challenges for building owners.

Our expertise in providing accessibility solutions has enabled our design team to take on the most challenging access situation, and develop innovative solutions for schools, places of worship, offices, hotels, airports, subways and a wide range of public and private buildings around the world.

We have built our business on service. Please contact us and let us help solve your access challenges.



*©2008 Garaventa. As we are continuously improving our products, specifications outlined in this guide are subject to change without notice.*

## **What is a Vertical Platform Lift?**

The Genesis Vertical Platform Lift is a cost effective way to transport persons who cannot or have difficulty using stairs, from one landing to another. The Genesis vertical platform lift provides a code compliant access solution for lifting heights of up to 4343mm (171”) (check the regulations for your jurisdiction). With a variety of platform configurations, the Genesis is available as a 2 or 3 stop unit that can be operated independently or by an attendant. The Genesis is suitable for indoor or outdoor use and is available in a multitude of different colors and finishes so that it blends into any setting.

## **Why a Vertical Platform Lift?**

### **Cost-effective**

Vertical lifts are more cost-effective than an elevator and do not require a machine room to house the electrical and mechanical components.

### **Blends with Environment**

A vertical lift is an attractive space saving alternative to a lengthy or winding ramp. Adjacent to stairs or in an area complimentary to your building, these lifts can be finished to compliment the aesthetics of the site.

### **Meets ADA Requirements (USA)**

Garaventa vertical platform lifts are approved in the ADA Accessibility Guidelines as a means to provide public building access.

## **Design Assistance**

With over 25 years of experience, Garaventa has the expertise to overcome almost any design challenge you face. Please call our Design Hot Line with your accessibility challenge.

1-800-663-6556      or      +1-604-594-0422

## **Finishes**

The standard finish is electrostatically applied and baked powder coat finish in Satin Grey for the steel panels and champagne anodized aluminum extrusions for the framework. As an option, these components can be painted from the large selection of RAL colors (a global paint color system). Alternatively, the Genesis enclosure can be supplied with 5mm (3/16”) bronze tinted or clear Plexiglas panels or 6mm (1/4”) laminated glass panels (supplied by others).

As an option Garaventa also offers Graphic Imaging and Exotic Finishes. Exotic finishes include brass and stainless effects created with special paint. Textured and speckled paint can be applied to the panels and extrusions. The panels can also be supplied with wood finishes, Formica, architectural metals or any material not exceeding 13mm (1/2”) in thickness.

### **Outdoor Applications**

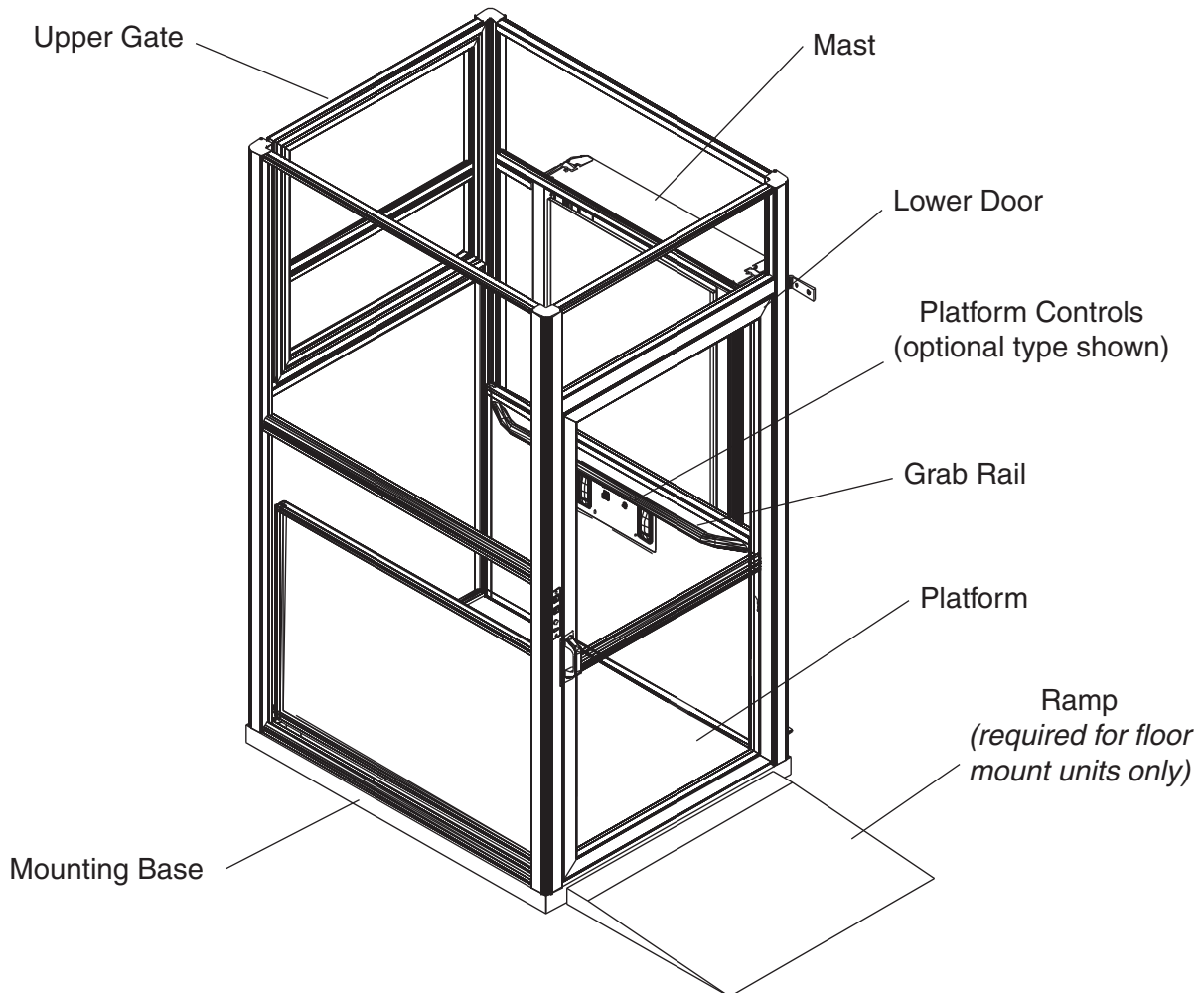
When located outdoors, the Genesis is modified to ensure durability and reliable performance. Included in the outdoor package are: hot dipped galvanized base, plated platform, galvanized mezzanine brackets, sealed electrical box, rubber boots on switches and stainless steel fasteners.

## How it Works

The Genesis vertical platform lift is offered in a variety of configurations and styles for different accessibility challenges. All versions of the Genesis Vertical Lift operate in the same manner and consists of a complete drive system, a platform with side walls, doors with an interlock system and call stations.

The mast houses the electrical and mechanical components that raise and lower the cantilevered platform. The doors or gates cannot be opened unless the platform is at an appropriate landing. The platform is called to the landing by using the call stations located at each landing. Once at a landing, the door interlock is released and the door can be opened.

The Genesis can be used to provide access indoors or outdoors and can be installed directly on the floor or in a 76mm (3") deep pit.



*Enclosure Model with Standard Straight-Through Configuration Shown*

## Enclosure Model vs. Shaftway Model

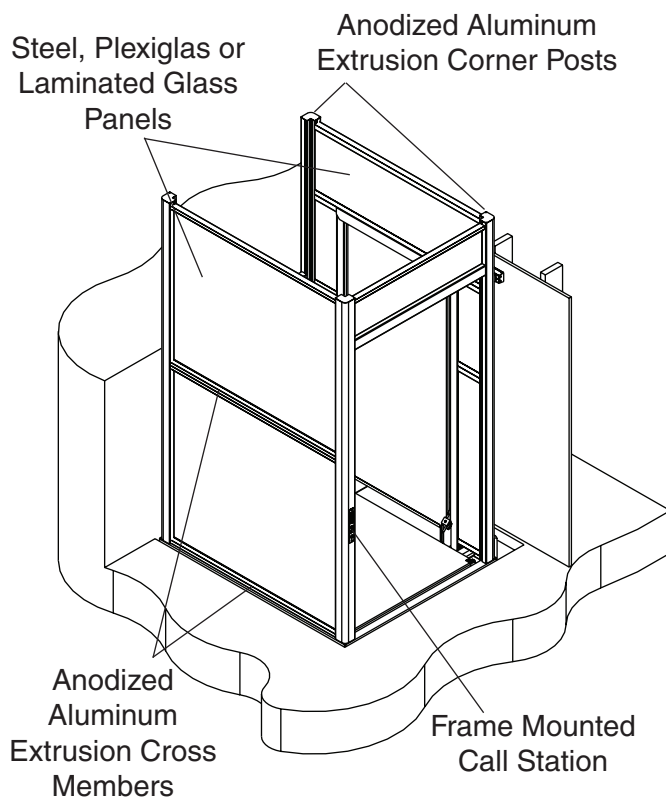
The Genesis is available in two styles, the Enclosure Model and the Shaftway Model. The Enclosure Model consists of a factory supplied mast, platform, doors and factory manufactured walls that enclose the lift. The Shaftway Model consists of a mast, platform and doors. The walls enclosing the lift are built by others using dimensions provided by Garaventa Lift.

### Enclosure Model

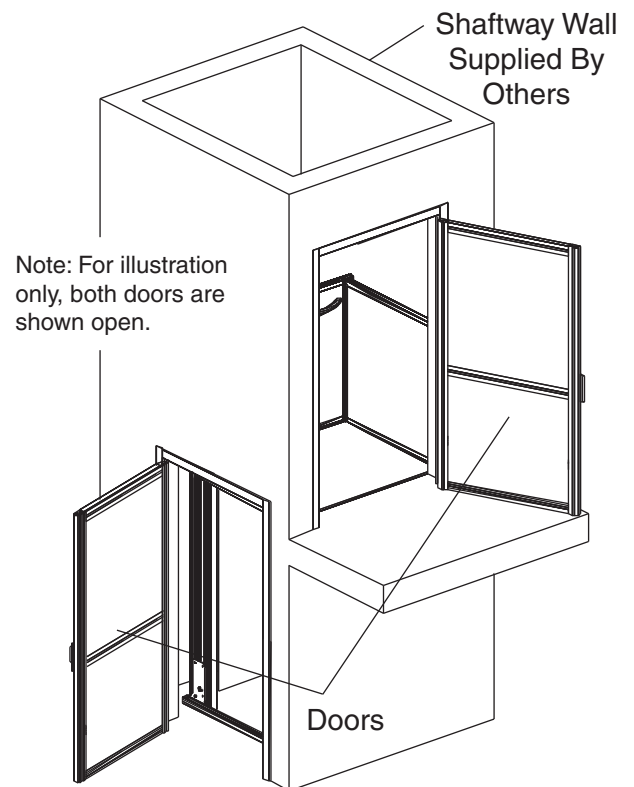
The enclosure frame is constructed of champagne color anodized aluminum extrusions. The attractive contoured corner posts allow the fasteners to be hidden and the vertical etched lines enhance the appearance of the lift. Horizontal cross members are fitted into the corner posts, securing the enclosure panels. The panels come in a choice of 16 gauge painted galvanized mild steel, 5mm (3/16") bronze tinted or clear Plexiglas or 6mm (1/4") laminated glass (by others). The Enclosure model is available in a number of optional finishes.

### Shaftway Model (Hoistway Style)

The Genesis Shaftway unit is designed to fit the essential lift components within your shaftway walls. The Genesis Shaftway Model can have either aluminum frame doors/gates, fire rated steel doors, or the doors can be supplied by others. All styles of doors/gates have interlocks integrated with our control system.



*Enclosure Model*



*Shaftway Model*

## Lifting Heights and Mast Sizes

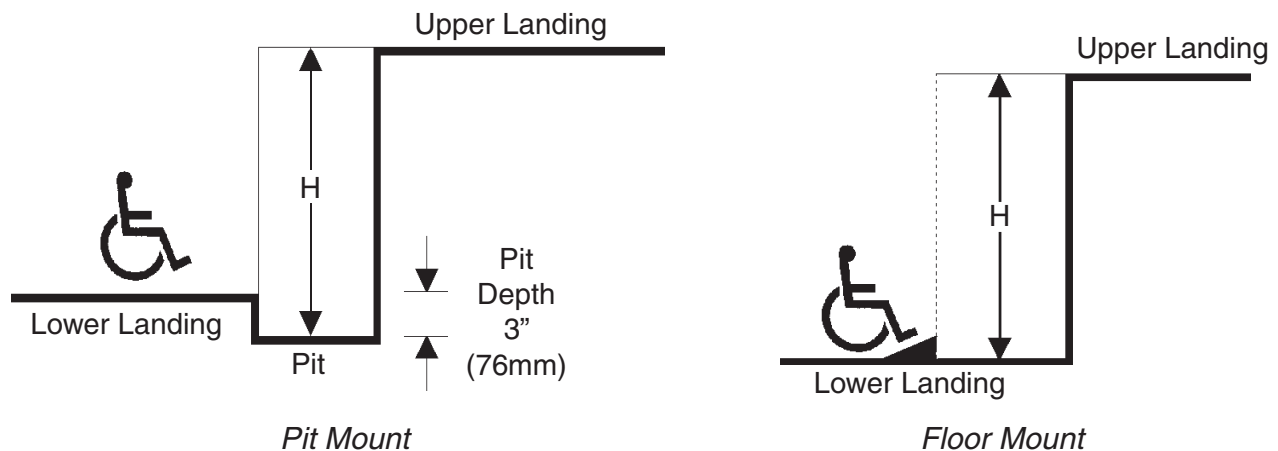
The mast size required for a particular site is determined by the vertical travel required between the upper and lower landings. When the site is measured, **the lift height “H” is always defined as the distance from the surface at the lower landing (pit or floor) where the lift will sit to the upper landing floor** as shown in the diagram below. If the lift is to be mounted directly on the surface of the lower landing and an entry ramp is used, then “H” equals the elevation change between the upper and lower landings. If the lift is pit mounted, then the measurement “H” is 76mm (3”) greater than the elevation change between landings. This measurement is crucial for your custom designed lift. Be certain the height you provide is accurate. We recommend using the “as built” dimension.

**The width of the mast is 998mm (39 1/4”) and is standard for all mast heights.**

Based on the measured value of “H” the drive mast is selected as follows;

Mast Size	Max. “H” Value	Mast Structure Height	Tieback Height
GVL - 42	1143mm (45”)	1737mm (68 3/8”)	1572mm (61 7/8”)
GVL - 60	1600mm (63”)	2194mm (86 3/8”)	2029mm (79 7/8”)
GVL - 72	1905mm (75”)	2498mm (98 3/8”)	2333mm (91 7/8”)
GVL - 96	2515mm (99”)	3108mm (122 3/8”)	2943mm (115 7/8”)
GVL - 120	3124mm (123”)	3718mm (146 3/8”)	3553mm (139 7/8”)
GVL - 144	3734mm (147”)	4327mm (170 3/8”)	4162mm (163 7/8”)
GVL - 168*	4343mm (171”)*	4937mm (194 3/8”)*	4772mm (187 7/8”)

\* Hydraulic drive only and Split Mast standard with this height.



*Two stop lift in a pit and floor mount application. An optional three stop unit is also available.*

## Leadscrew Drive System

Single-phase 2 HP motor attached to a 1" ACME screw, the platform travels at 3 meters (10 ft.) per minute.

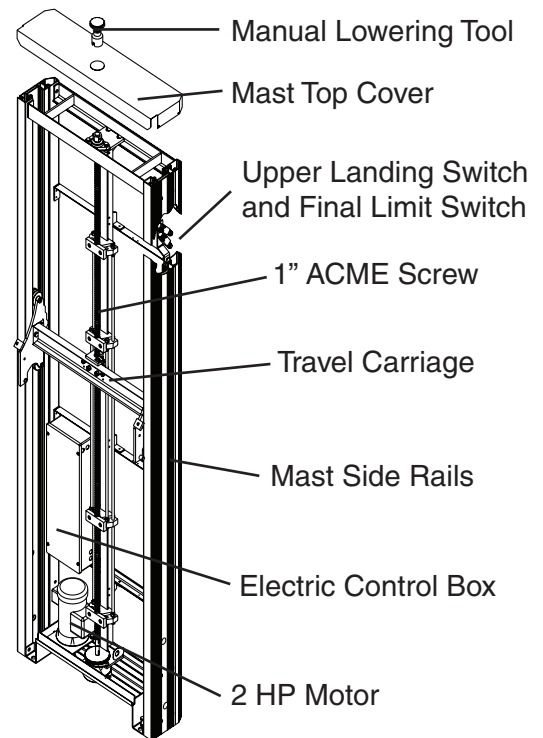
### Mains Power Requirement:

#### North America

120 VAC single phase on a dedicated 20 amp circuit.

#### International

208 - 240 VAC single phase on a dedicated 16 amp circuit.



### Electrical Disconnect (optional)

A code compliant electrical disconnect is supplied with the lift for both safety reasons and customer convenience. This disconnect shuts off the mains power and the 24V battery back-up system to the lift. For the Enclosure Model, the disconnect is located on the side of the mast closest to the lower landing door. For the Shaftway Model, the disconnect is located on the outside of the shaftway walls in a location determined by local code requirements.

### Manual Lowering Handwheel (Lead Screw Model Only - standard)

The manual lowering handwheel has a black plastic handle and slotted shaft that engages a crosspin on the main drive screw.

### Battery Powered Emergency Lowering (Lead Screw Model Only - optional)

The Genesis Leadscrew Model can be supplied with an optional battery-powered emergency lowering system which is automatically activated in the event of a power failure. Using the down directional control, the battery powered emergency lowering system lowers the platform at a speed of approximately 0.3m/min. (1 ft/min.).



## Hydraulic Drive System

Single-phase 3 HP (2.2 KW), 24VDC hydraulic motor. Continuous mains power and auxiliary power system. The lift connects directly to the building power. The power is reduced to 24 VC to operate the control system and drive the motor. The lift is equipped with an auxiliary power system that enables the lift to complete a minimum of 5 trips as required by code. The platform travels between landings at 5.2 meters (17ft.) per minute. **\*Required for heavy use lifts or lifts equipped with a Fan and Ventilation System.**

### Mains Power Requirement:

**North America** - 120 VAC single phase on a dedicated 15 amp circuit.

**International** - 208 - 240 VAC single phase on a dedicated 16 amp circuit.

### Full Time Battery Operation (optional)

For very low use applications and basic units, full time battery operation is appropriate.

### Electrical Disconnect (optional)

A code compliant electrical disconnect is supplied with the lift for both safety reasons and customer convenience. This disconnect shuts off the mains power and the 24V battery back-up system to the lift. The Enclosure Model disconnect is on the side of the mast closest to the lower landing door. The Shaftway Model disconnect is located on the outside of the shaftway wall in a location determined by local code requirements.

### Manual Lowering (Hydraulic Model Only - standard)

The manual emergency lowering device consists of a pull knob mounted in a box on the side of the mast. When used, the platform is lowered to the landing.

### Split Mast (Hydraulic Drive Only - optional)

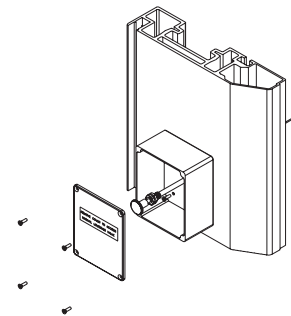
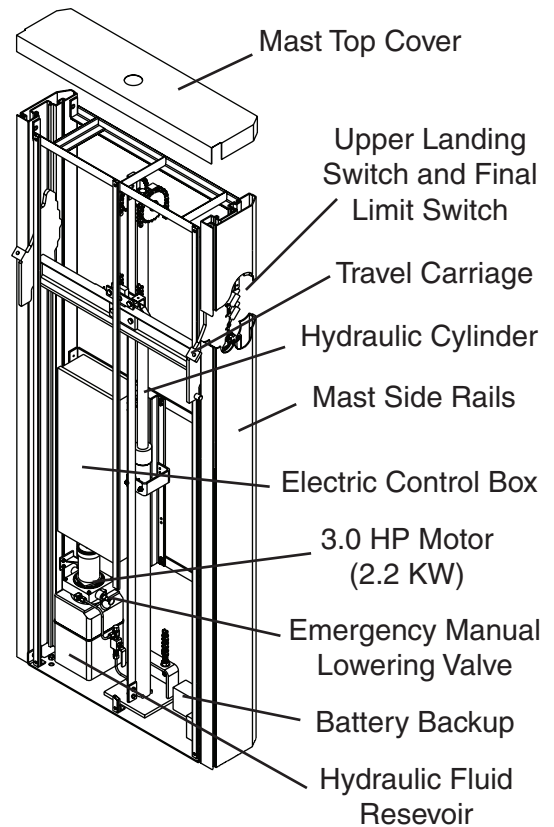
For installation sites where it would be difficult to place the drive mast into position as a single piece, the split mast option is available for GVL-120 and GVL-144. GVL-168 Hydraulic Models are supplied standard with a split mast.

### Remote Drive Cabinet (Hydraulic Drive Only - optional)

For the ultimate in quiet operation, the drive system can be located up to 3 meters (10 feet) away in a remote drive cabinet.

### Mast Heater (Hydraulic Drive Only - optional)

For outside installations where cold temperatures are a concern, a mast heater can be installed to protect hydraulic fluid from freezing.



# Platforms

The platform is rated for a load of 340 kg. (750 lbs.) and has 1070 mm (42 1/8") high side walls. The side wall in front of the mast includes a grab rail and platform controls.

Clear inside dimensions vary depending on the entry/exit configuration and size of platform. For sizes and clear dimensions of an Enclosure Model please see page 28 and for the Shaftway Model pages 18-21.

## Shaftway Platforms

The Genesis Shaftway Model has 4 platform sizes to meet your requirements:

Compact - 914mm x 1257mm (36" x 49 1/2")

Standard - 962mm x 1370mm (38" x 54")

Mid-Size - 962mm x 1522mm (38" x 60")

Large - 1089mm x 1522mm (43" x 60")

\* Custom available

## Enclosure Platforms

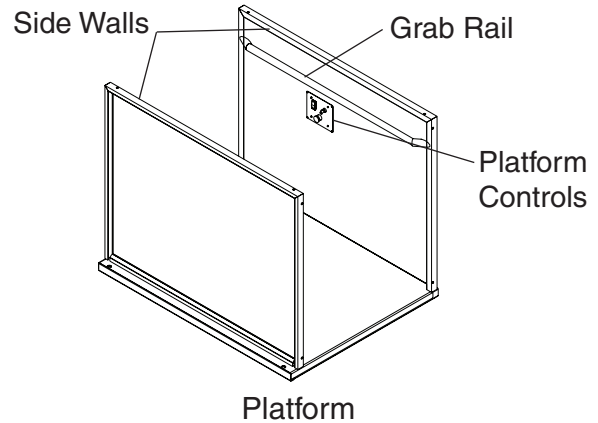
The Genesis Enclosure Model has 3 platform sizes to meet your requirements:

Standard - 914mm x 1370mm (36" x 54")

Mid-Size - 914mm x 1522mm (36" x 60")

Large - 1068mm x 1522mm (42" x 60")

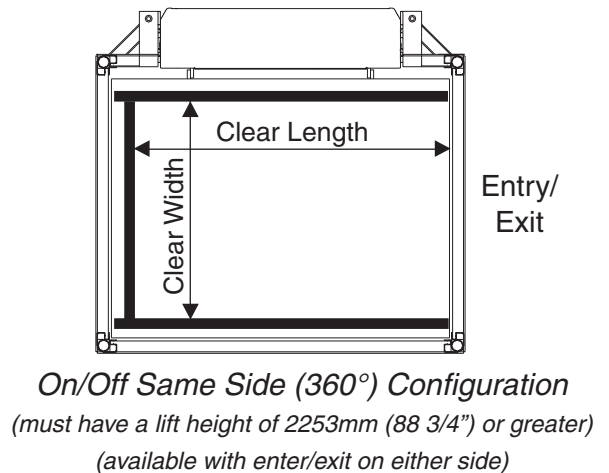
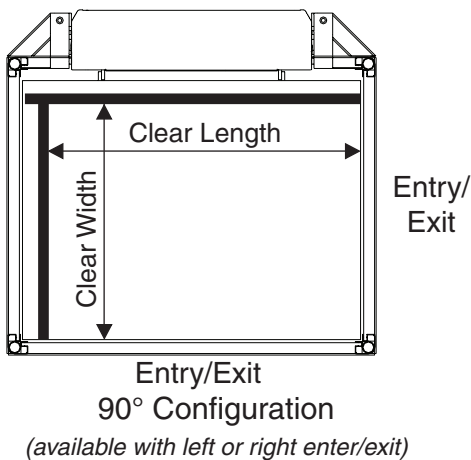
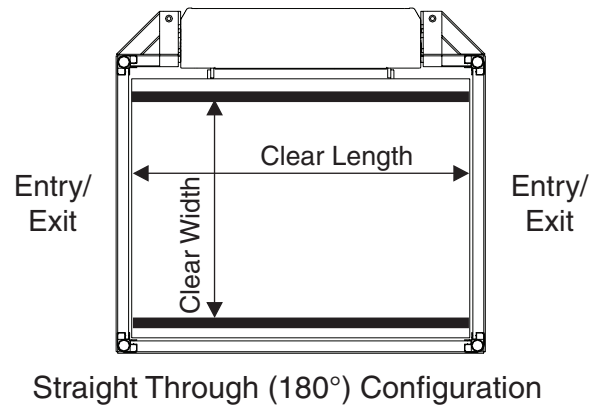
*Platform sizes listed are based on a Straight through configuration.*



# Platform Configurations

## Entry/Exit Configurations

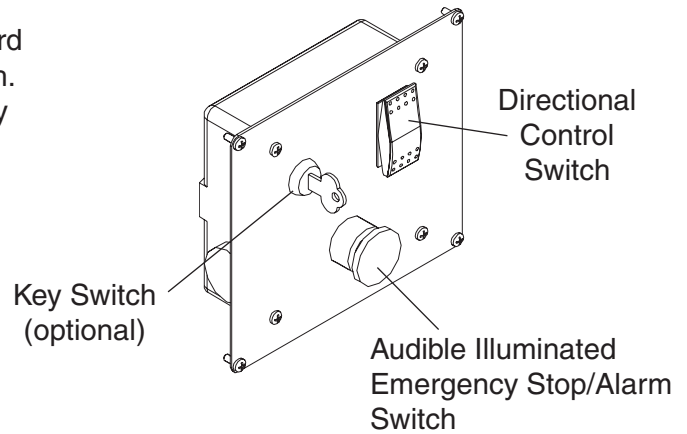
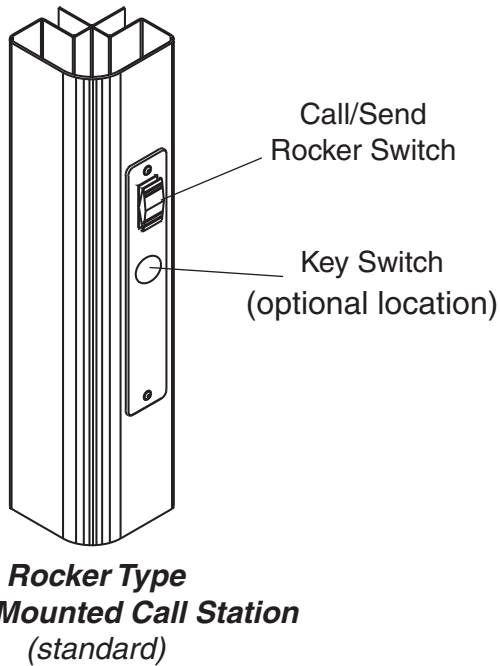
The Genesis is available in various entry/exit configurations. The lift can be supplied as a straight through (180°), a 90° (left or right exit) or an on/off same side (360°) lift configuration. The most common configuration is straight through (180°) with a standard platform. Enclosure model configurations shown.



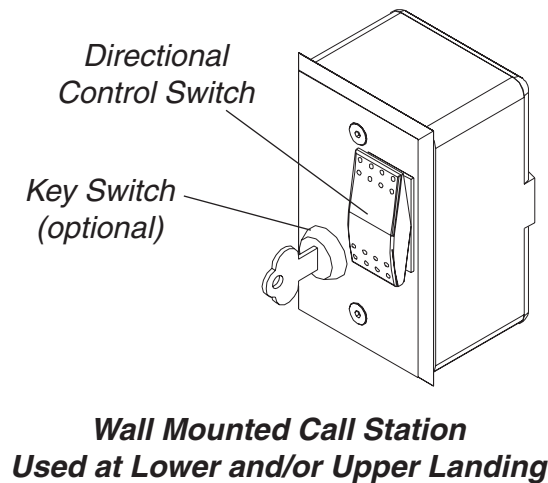
# Operating Controls

## Rocker Style Switches (standard)

The Genesis vertical lift comes equipped standard with rugged indoor/outdoor constant pressure switches. The platform control panel comes standard with an Illuminated Audible Emergency Stop Switch. All controls can be fitted with an optional AEMA key switch.



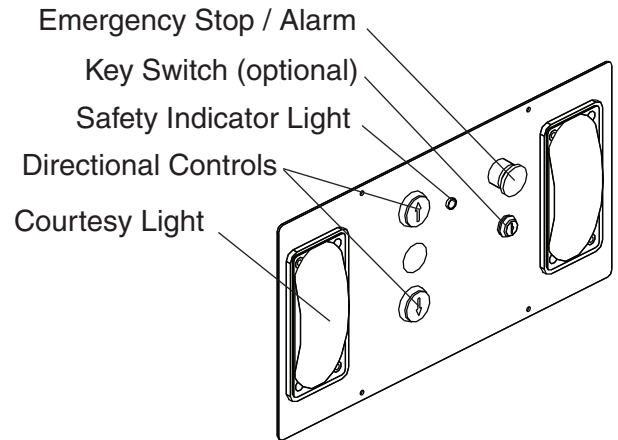
**Platform Controls**



# Operating Controls

## Push Button Style (optional)

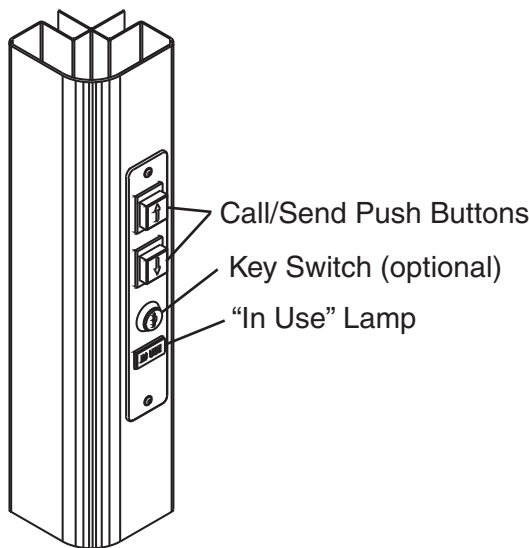
The lift can be equipped with illuminated and tactile push button directional control switches and platform courtesy lighting. Easy to use push button directional controls indicate direction of platform travel. Platform courtesy lighting remains illuminated for the duration of platform travel and for 10 seconds after the platform arrives at the landing.



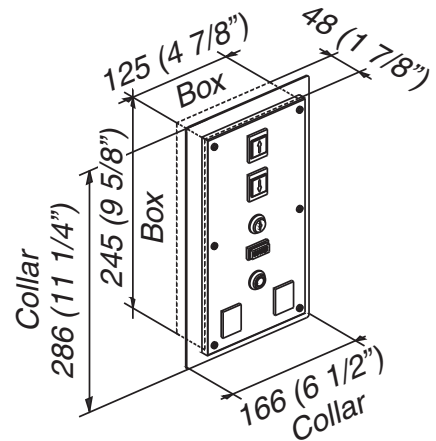
Push Button Style Platform Controls (optional)

## Keyed Call Station and Platform Controls (optional)

To prevent the use of the lift by unauthorized personnel, the call stations and platform controls can be set up for keyed operation.



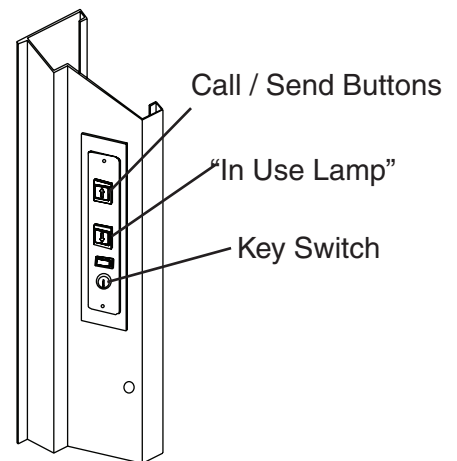
Push Button Type Frame Mounted Call Station (optional)



Push Button Flush Mounted Call Station Collar Dimensions (optional)

## Shaftway Frame Mounted Call Stations: Fire Rated Doors

When a fire rated door is used the call stations are usually mounted in the steel frame of the door, similar to the Garaventa style door call stations. Can be ordered with wall mount call stations.



Frame Mounted Fire Door Call Station (optional)

# Optional Features

## Autodial Telephone

In locations where the lift cannot be easily monitored or as required by code in certain jurisdictions, an autodial telephone can be installed on the platform. The Autodial telephone allows the lift user to make contact with pre-programmed help numbers with the push of a button.

## Plexiglas Dome (optional) (Enclosure Model Only)

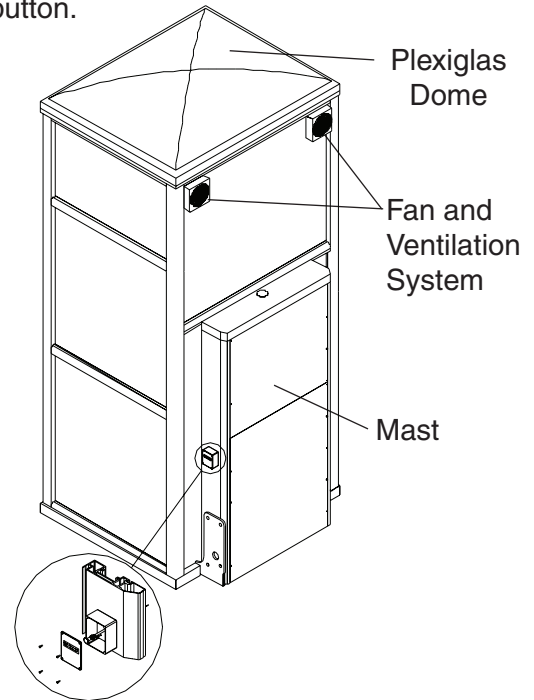
For outdoor applications, a bronze tinted Plexiglas dome can be mounted onto your enclosure. This dome comes standard with a drip rail for rain and condensation.

## Fan and Ventilation System (optional) (Enclosure Model with Dome Only)\*

The fan and ventilation system consists of two exhaust fans, a thermostatic control and a 12 VDC battery backup. The dual fans circulate and completely replace the air in the enclosure every minute when the inside enclosure temperature exceeds 85°F. The Fan and Ventilation System is in accordance with ASME A17.1 and A18.1 code requirements.

\* requires Continuous Mains Power.

**Note:** Codes require a fan and ventilation system for an enclosure lift fitted with Plexiglas panels and a dome, exposed to direct sunlight.



*Dome, Fan and Ventilation System  
(also shown is the Remote Manual  
Emergency Lowering knob and access box,  
available with the Hydraulic Drive)*

## Sloped Roof

For directional water run off or for installations where a dome would not be appropriate (i.e. against a building), the lift can be equipped with a sloped steel roof.

## Garaventa PDO - Power Door Operator

The Garaventa Power Door Operator (PDO) allows for automatic door opening and closing. The PDO is obstruction sensing and is clutched which provides a high level of safety and enhances the usability of the lift. The PDO is suitable for use on Garaventa aluminum framed 36" and 42" doors and gates. For fire door use, consult Garaventa.

## Optional Offset "D" Aluminum Door Handle

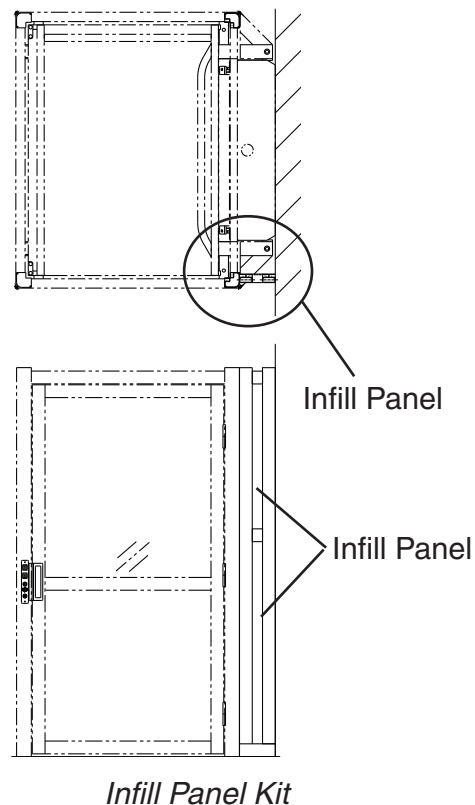
This new option offers a touch of class and improved usability. The handle is available in a standard clear anodized aluminum look (brushed silver) finish.

## Arrival Gong and Digital Floor Display

Required by code in some parts of Europe, the platform mounted arrival Gong and Digital Floor Display enhance lift usability by providing audio and visual lift location information.

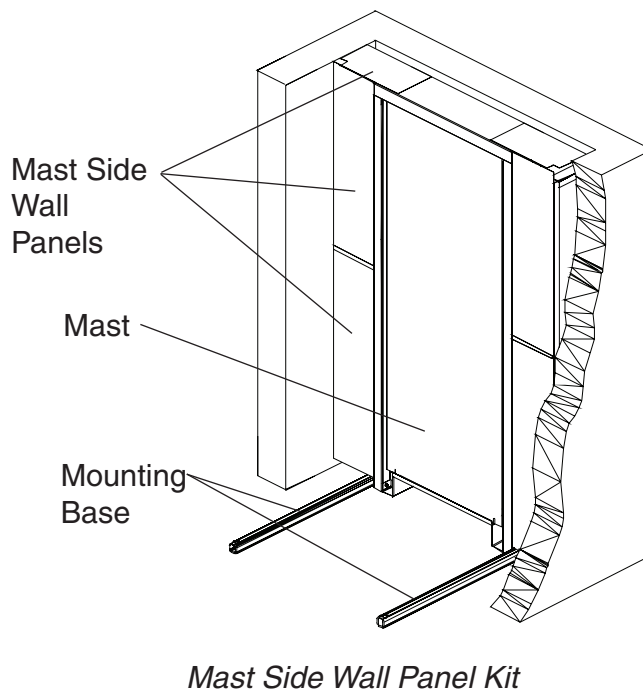
**Infill Panel Kits (optional)**  
(Enclosure Model Only)

Custom infill panel kits are available to seal off the open space between the enclosure and the wall, next to the mast. The panel kit will enhance the overall appearance of the Genesis. The panel kit includes a frame and panels to fill the area.



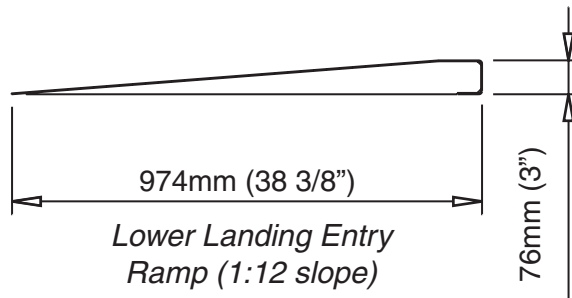
**Mast Side Wall Panel Kits (optional)**  
(Shaftway Model Only)

Custom mast side wall panel kits are available to fill the open area on either side of the mast. The panel kit will enhance the overall appearance of the Genesis and seal off this open space. The panel kit includes the painted steel panels to fill the area between the mast and the inside of the shaftway wall.



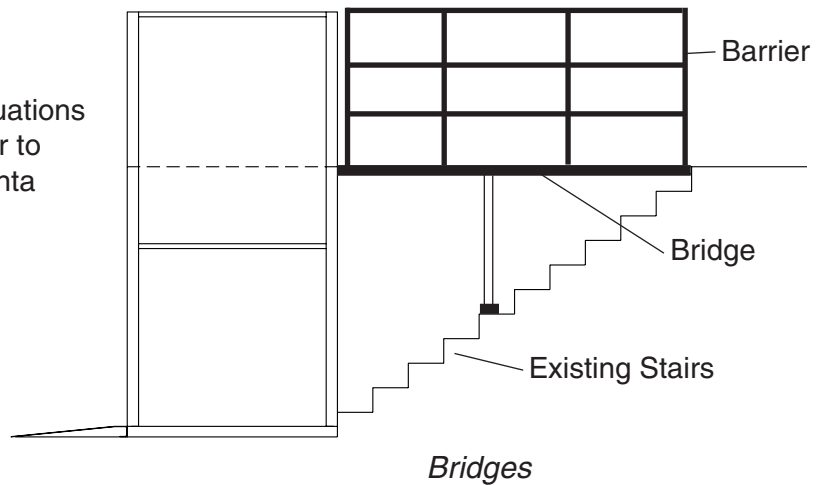
**Ramps (optional)**

A ramp is used when a 76mm (3") deep pit cannot be provided. Six ramps are available for the Genesis, depending on the available space at landings. The ramps are available in slopes of 1:10 and 1:12. Both slopes are available in widths of 1069mm (42"), 1225mm (48 1/4") or 1375mm (54 1/8"). It is recommended that you use a Power Door Operator and a wall mount call station at landings where a ramp is used.



**Bridges (optional)**

A custom bridge can be supplied for situations where a space must be crossed in order to use the lift. Please contact your Garaventa representative to discuss these custom fabricated bridges and barrier options.

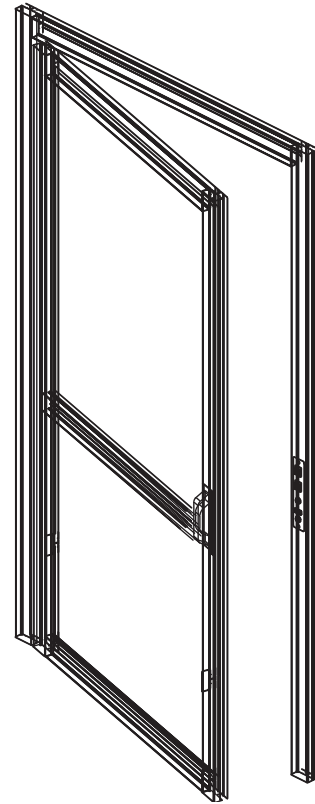


## Garaventa Style Doors and Gates

The Enclosure and Shaftway models utilize Garaventa style doors and/or gates. These non-fire rated doors and gates are prehung in a Champagne colored anodized aluminum extrusion frame. The doors and gates are constructed of matching aluminum extrusions with a powder coated 16 gauge galvanized steel kickplate and an upper panel (powder coated 16 gauge galvanized steel, bronze or clear Plexiglas, or laminated glass). Custom finishes are also available as an option, please refer to page 2. This non-fire rated door and gate are an attractive alternative to the industrial looking fire rated door.

The door height is 2032mm (80") and the gate height is 1070mm (42 1/8") and are both available in 2 widths:

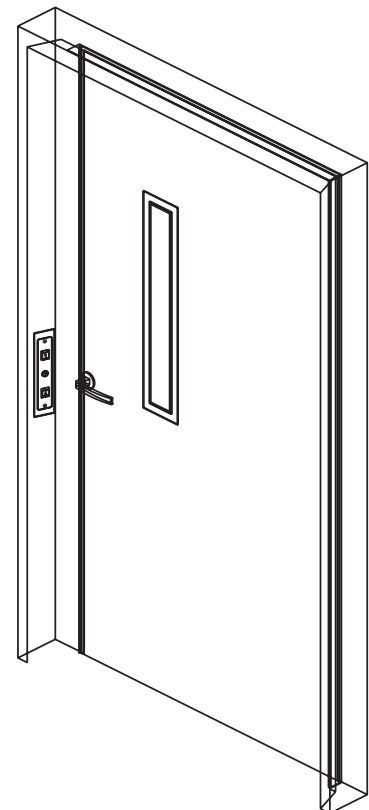
- 905mm (35 5/8")
- 1046mm (41 1/8")



## Fire Rated Doors and Frames

The fire rated door and frame is completely prehung and is constructed of 16 gauge steel. The door is supplied with a vision panel and a delayed action door closer. The door has a 1 1/2 hour 'B' label fire rating with an integrated interlock system. This door comes standard with a frame mounted 2-button keyed call station.

The fire rated door and frame is available in both 906mm (35 5/8") and 1059mm (41 5/8") clear door widths. See the Door Layouts and Clearances section on pages 20-23 for further door and door swing dimensions.





## Locks

### Garaventa Mechanical Interlock (standard on Genesis Enclosure Model)

The Garaventa Mechanical Interlock is the standard lock used for two stop enclosure lifts that are equipped with Garaventa doors and gates. Activated by the movement of the platform, the lock is monitored by the safety circuit to ensure the door or gate is properly locked. If the door or gate is not properly locked the lift will only be able to travel 50mm (2") out of the landing.

### Powerlock 2000 (CSA Certified)

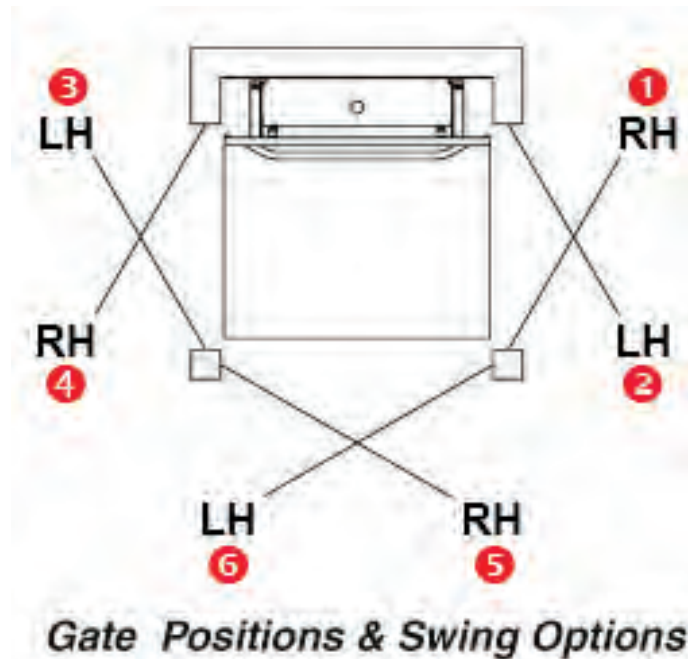
(standard on Genesis Shaftway Model equipped with Garaventa Door/Gates)

The Powerlock 2000 is the lock used in Shaftway units with Garaventa doors/gates, and are optional for Genesis Enclosure lifts. The Powerlock 2000 is a 24 VDC solenoid powered interlock that is monitored by the safety circuit to ensure the Garaventa door/gate is properly locked.

### Locks by Others

Garaventa lifts can be configured to accept interlocks or strikes by others, typically found in fire doors. Consult your local Garaventa representative for more information.

## Door Swings

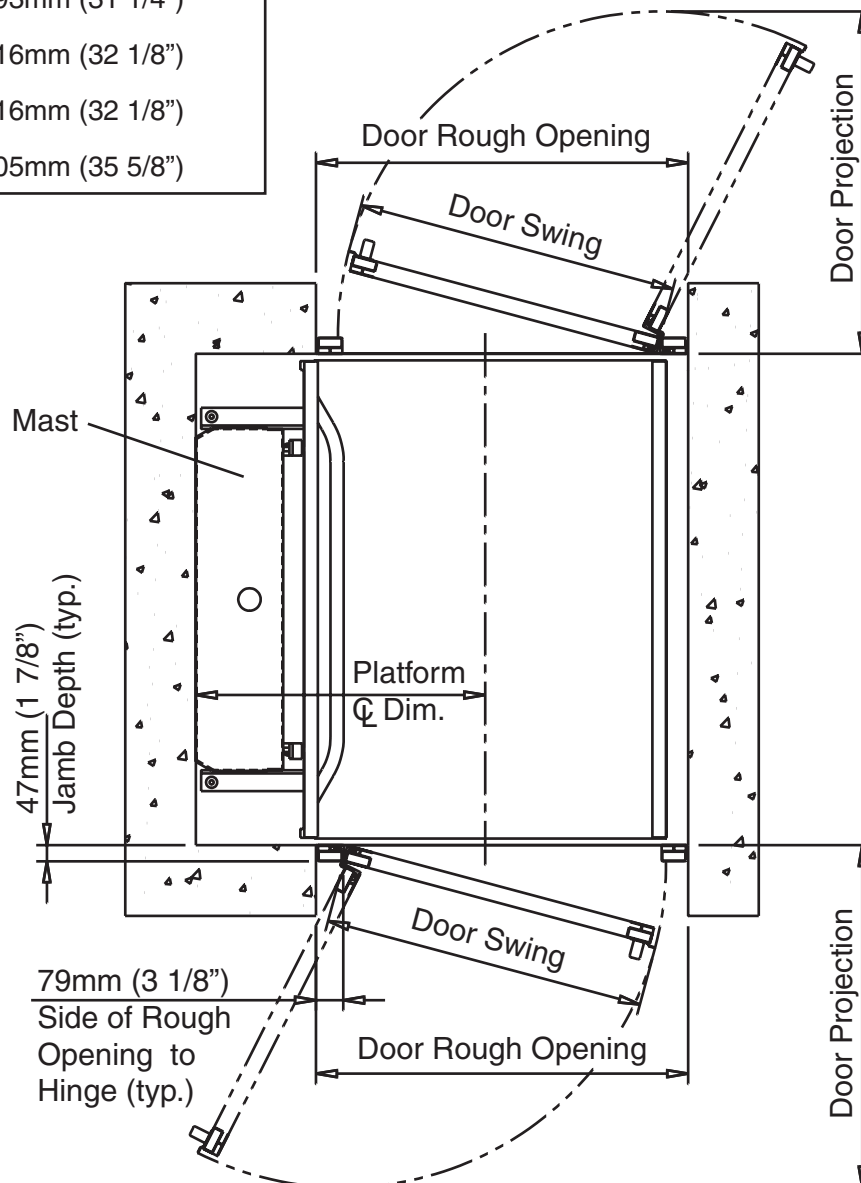


# Garaventa Style Doors, Straight Through (180°) Entry/Exit

Door	Door Width	R/O* Width	R/O* Height	Door Swing	Door Projection
36"	905mm (35 5/8")	1070mm (42 1/8")	2120mm (83 1/2")	926mm (36 1/2")	982mm (38 5/8")
42"	1046mm (41 1/8")	1211mm (47 5/8")	2120mm (83 1/2")	1067mm (42")	1123mm (44 1/4")

R/O\* is Rough Opening

Platform Size	Platform $\varnothing$ Dimension
Compact	793mm (31 1/4")
Standard	816mm (32 1/8")
Mid-Size	816mm (32 1/8")
Large	905mm (35 5/8")

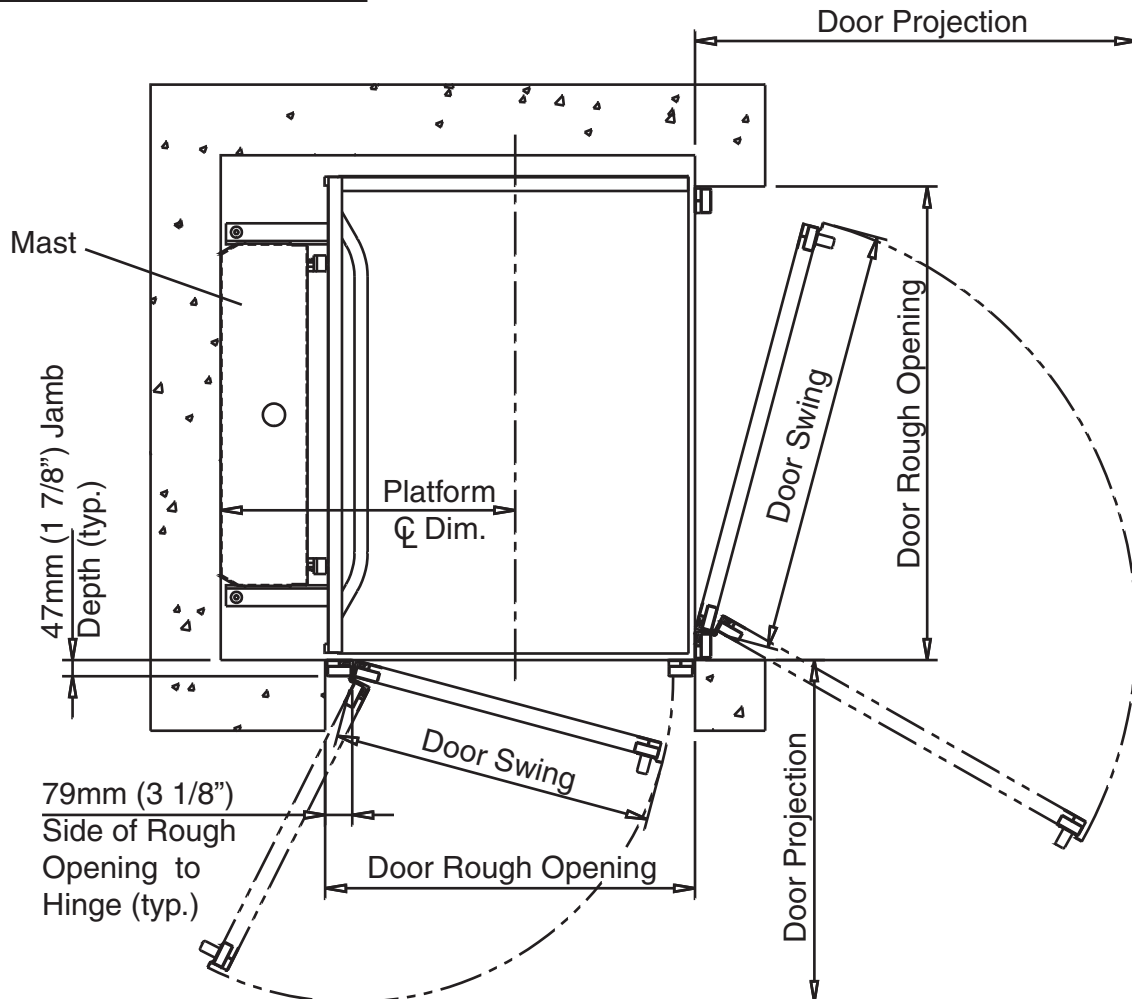


# Garaventa Style Doors, 90° Entry/Exit

Door	Door Width	R/O* Width	R/O* Height	Door Swing	Door Projection
36"	905mm (35 5/8")	1070mm (42 1/8")	2120mm (83 1/2")	926mm (36 1/2")	982mm (38 5/8")
42"	1046mm (41 1/8")	1211mm (47 5/8")	2120mm (83 1/2")	1067mm (42")	1123mm (44 1/4")

R/O\* is Rough Opening

Platform Size	Platform $\varnothing$ Dimension
Compact	813mm (32")
Standard	837mm (33")
Mid-Size	837mm (33")
Large	926mm (36 1/2")

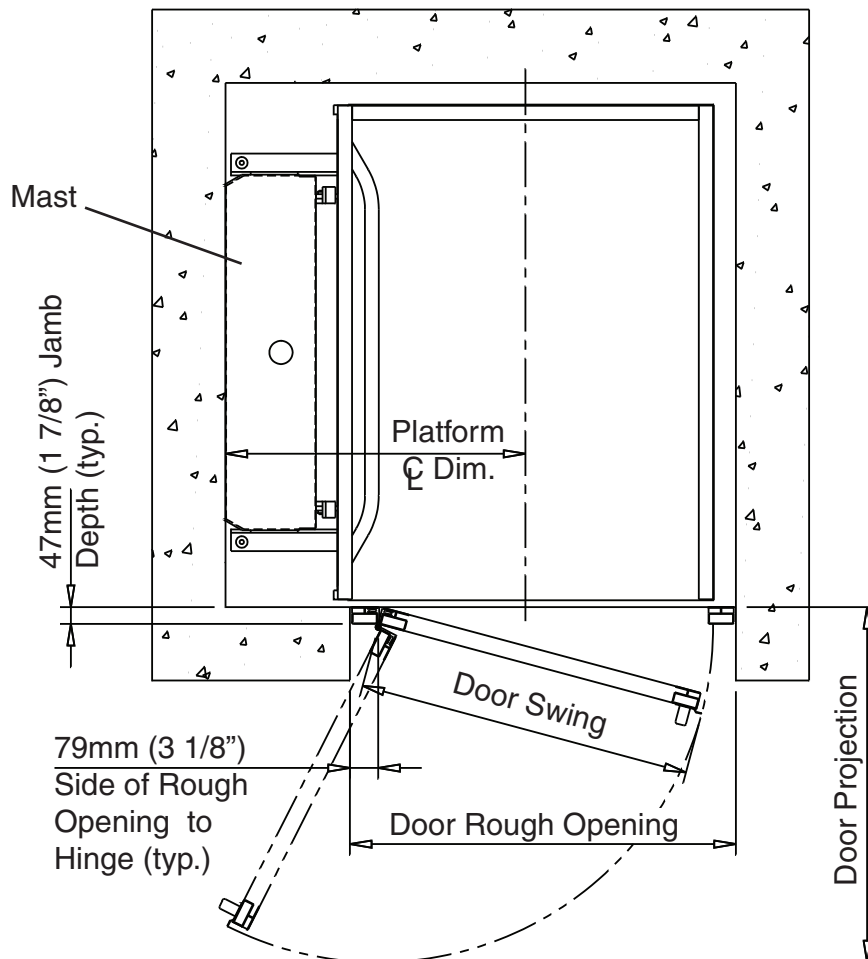


## Garaventa Style Doors, On/Off Same Side (Entry/Exit Adjacent to Mast)

Door	Door Width	R/O* Width	R/O* Height	Door Swing	Door Projection
36"	905mm (35 5/8")	1070mm (42 1/8")	2120mm (83 1/2")	926mm (36 1/2")	982mm (38 5/8")
42"	1046mm (41 1/8")	1211mm (47 5/8")	2120mm (83 1/2")	1067mm (42")	1123mm (44 1/4")

R/O\* is Rough Opening

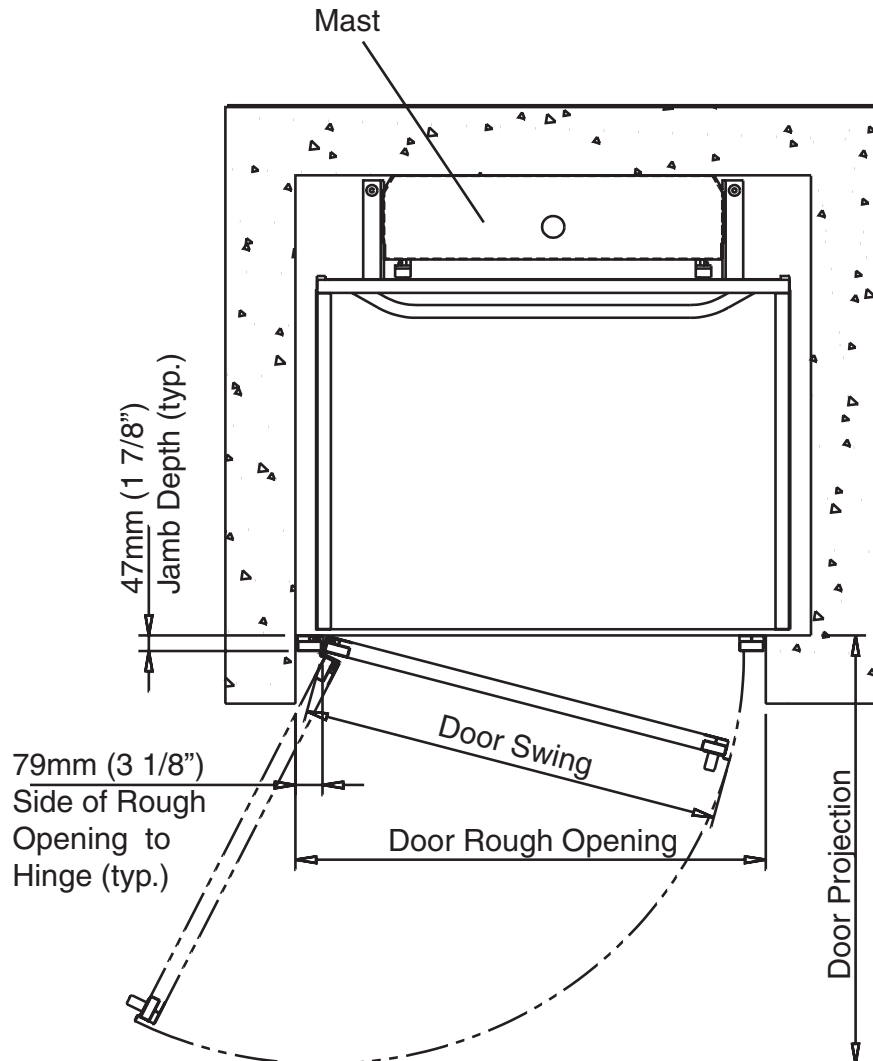
Platform Size	Platform $\varnothing$ Dimension
Compact	793mm (31 1/4")
Standard	816mm (32 1/8")
Mid-Size	816mm (32 1/8")
Large	893mm (35 1/8")



## Garaventa Style Doors, On/Off Same Side (Entry/Exit Opposite to Mast)

Door	Door Width	R/O* Width	R/O* Height	Door Swing	Door Projection
36"	905mm (35 5/8")	1070mm (42 1/8")	2120mm (83 1/2")	926mm (36 1/2")	982mm (38 5/8")
42"	1046mm (41 1/8")	1211mm (47 5/8")	2120mm (83 1/2")	1067mm (42")	1123mm (44 1/4")

R/O\* is Rough Opening

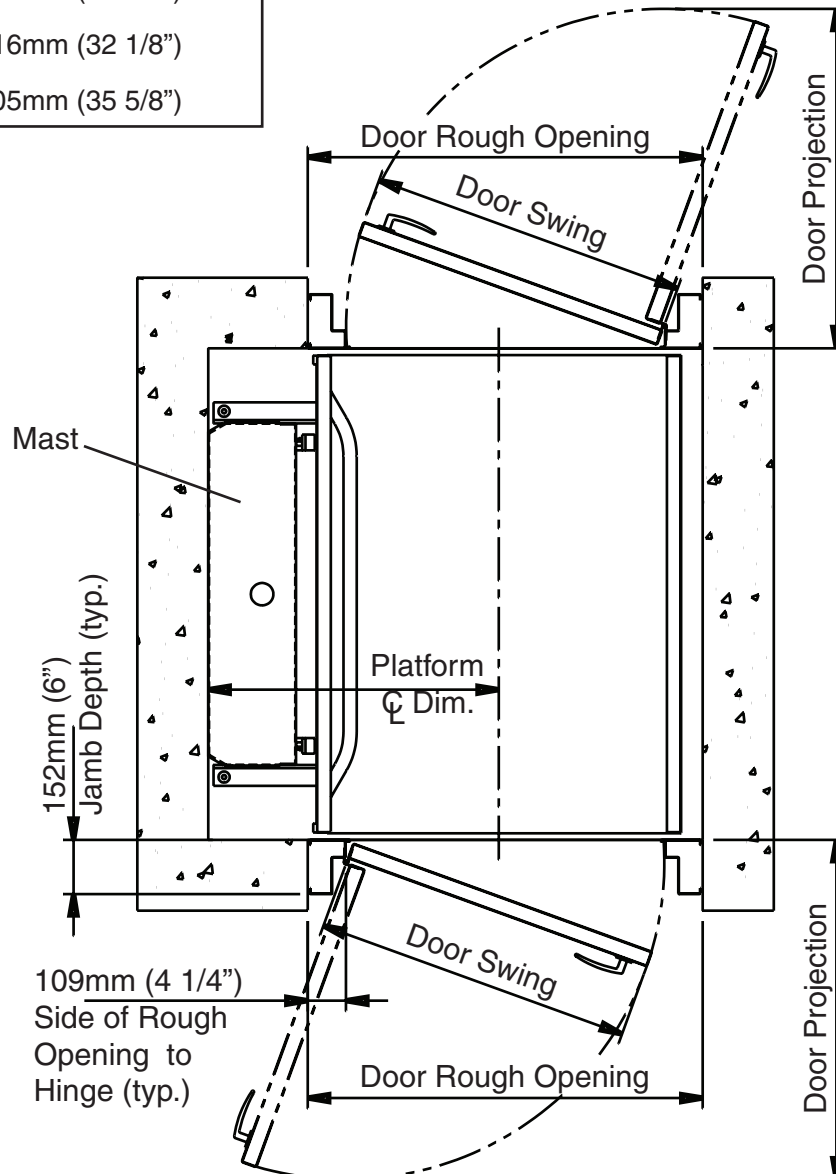


# Fire Rated Doors, Straight Through Entry/Exit

Door	Door Width	R/O* Width	R/O* Height	Door Swing	Door Projection
36"	908mm (35 3/4")	1131mm (44 1/2")	2102mm (82 3/4")	937mm (36 7/8")	1019mm (40 1/8")
42"	1060mm (41 3/4")	1283mm (50 1/2")	2102mm (82 3/4")	1089mm (42 7/8")	1171mm (46 1/8")

R/O\* Rough Opening

Platform Size	Platform $\varnothing$ Dimension
Compact	793mm (31 1/4")
Standard	816mm (32 1/8")
Mid-Size	816mm (32 1/8")
Large	905mm (35 5/8")

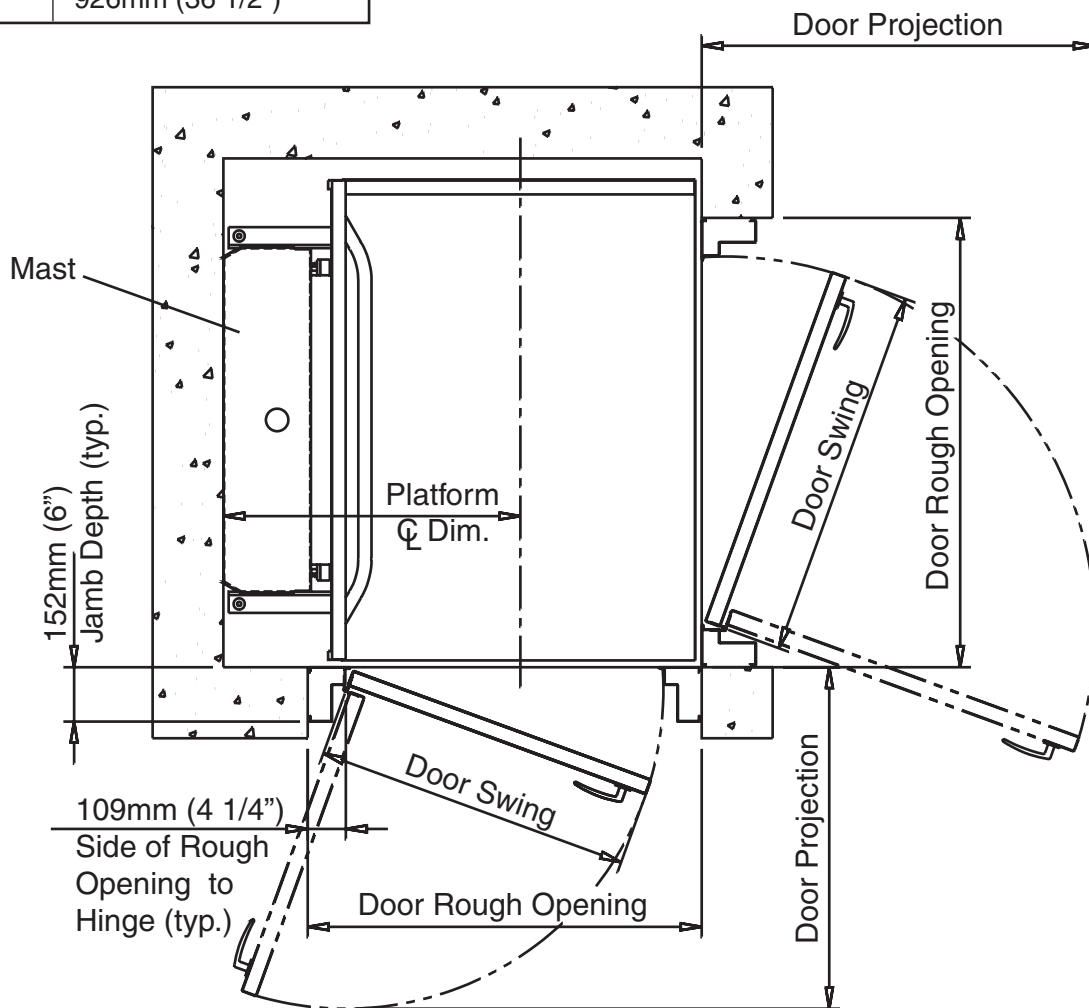


# Fire Rated Doors, 90° Entry/Exit

Door	Door Width	R/O* Width	R/O* Height	Door Swing	Door Projection
36"	908mm (35 3/4")	1131mm (44 1/2")	2102mm (82 3/4")	937mm (36 7/8")	1019mm (40 1/8")
42"	1060mm (41 3/4")	1283mm (50 1/2")	2102mm (82 3/4")	1089mm (42 7/8")	1171mm (46 1/8")

R/O\* Rough Opening

Platform Size	Platform $\varnothing$ Dimension
Compact	813mm (32")
Standard	837mm (33 5/8")
Mid-Size	837mm (33 5/8")
Large	926mm (36 1/2")

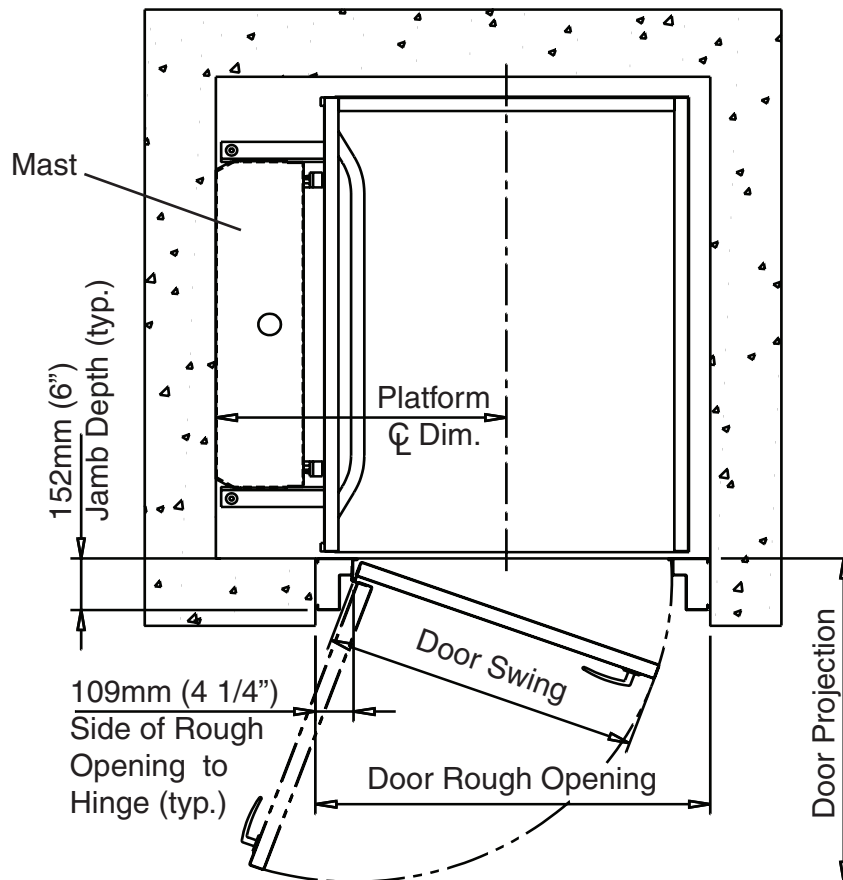


## Fire Rated Doors, On/Off Same Side (Entry/Exit Adjacent to Mast)

Door	Door Width	R/O* Width	R/O* Height	Door Swing	Door Projection
36"	908mm (35 3/4")	1131mm (44 1/2")	2102mm (82 3/4")	937mm (36 7/8")	1019mm (40 1/8")
42"	1060mm (41 3/4")	1283mm (50 1/2")	2102mm (82 3/4")	1089mm (42 7/8")	1171mm (46 1/8")

Platform Size	Platform $\varnothing$ Dimension
Compact	793mm (31 1/4")
Standard	816mm (32 1/8")
Mid-Size	816mm (32 1/8")
Large	893mm (35 1/8")

R/O\* Rough Opening

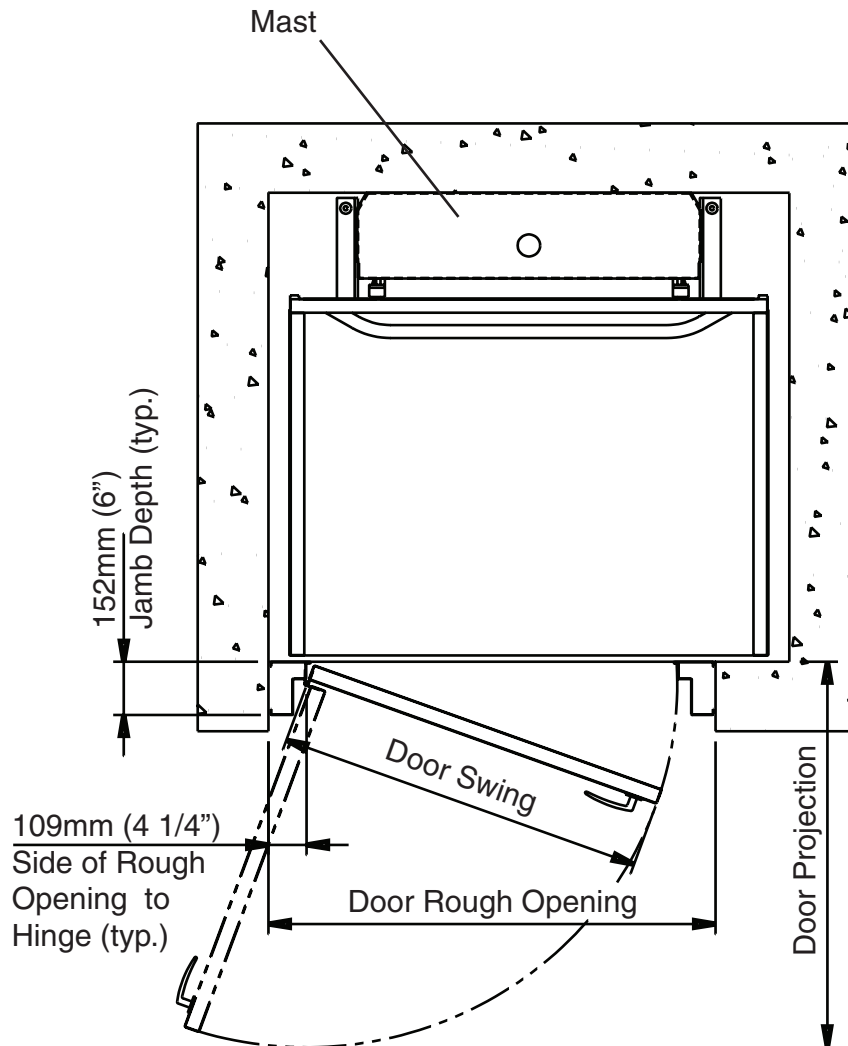




## Fire Rated Doors, On/Off Same Side (Entry/Exit Opposite to Mast)

Door	Door Width	R/O* Width	R/O* Height	Door Swing	Door Projection
36"	908mm (35 3/4")	1131mm (44 1/2")	2102mm (82 3/4")	937mm (36 7/8")	1019mm (40 1/8")
42"	1060mm (41 3/4")	1283mm (50 1/2")	2102mm (82 3/4")	1089mm (42 7/8")	1171mm (46 1/8")

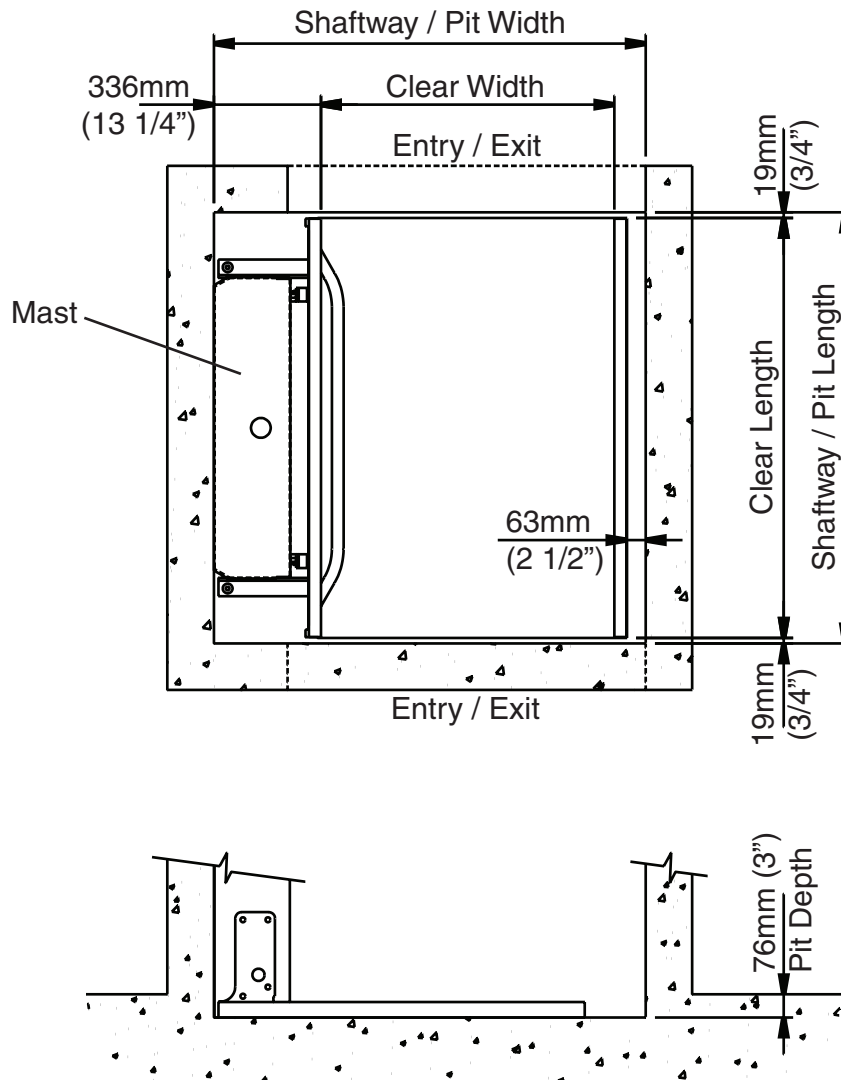
R/O\* Rough Opening



# Shaftway/Pit and Platform Clear Dimensions, Straight Through (180°) Entry/Exit

Platform Size	Shaftway/Pit Width	Shaftway/Pit Length	Clear Width	Clear Length	Net Usable Area
Compact	1353mm (53 1/4")	1295mm (51")	914mm (36")	1257mm (49 1/2")	1.15sq.m. (12.4 sq. ft.)
Standard	1400mm (55 1/8")	1409mm (55 3/8")	962mm (37 7/8")	1370mm (53 7/8")	1.32sq.m. (14.2 sq. ft.)
Mid-Size	1400mm (55 1/8")	1561mm (61 3/8")	962mm (37 7/8")	1522mm (59 7/8")	1.47sq.m. (15.8 sq. ft.)
Large	1552mm (61 1/8")	1561mm (61 3/8")	1089mm (42 7/8")	1522mm (59 7/8")	1.66sq.m. (17.8 sq. ft.)

Add 38mm (1 1/2") to pit width if a tie-back rail is used.

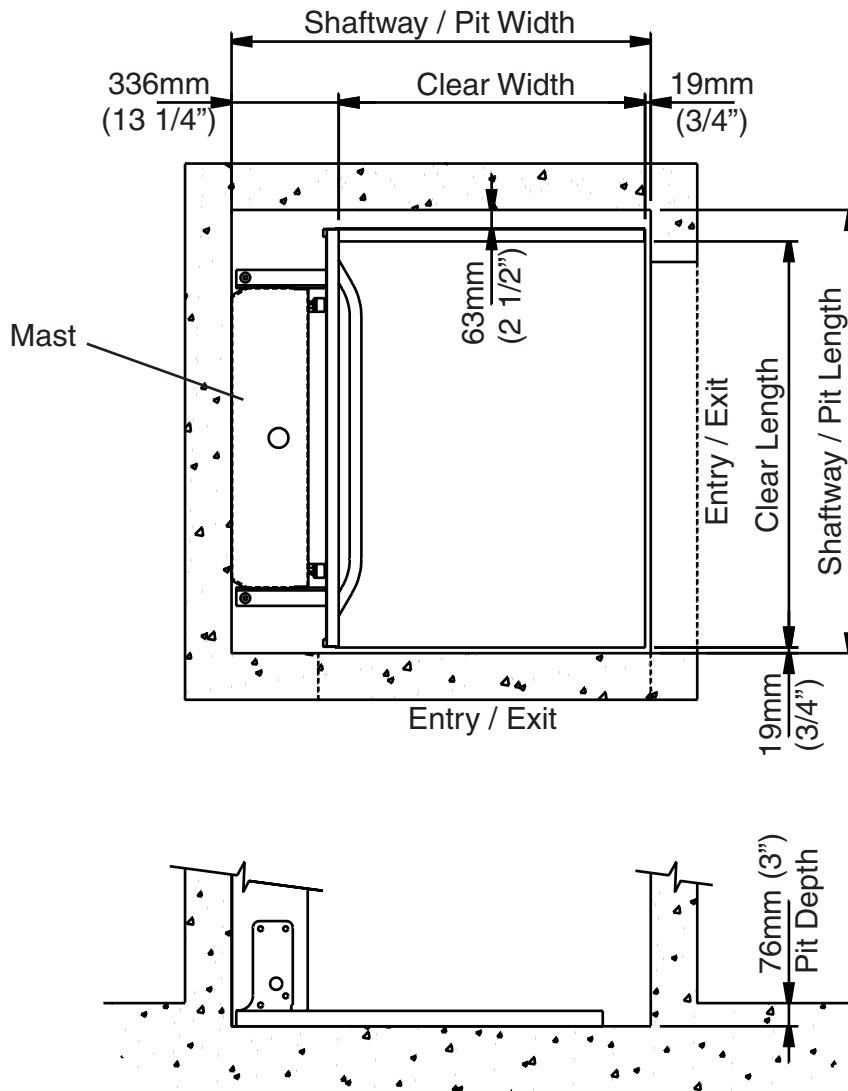


*Straight Through (180°) Entry/Exit Shaftway/Pit and Platform Clear Dimensions*

# Shaftway/Pit and Platform Clear Dimensions, 90° Entry/Exit

Platform Size	Shaftway/Pit Width	Shaftway/Pit Length	Clear Width	Clear Length	Net Usable Area
Compact	1310mm (51 5/8")	1338mm (52 3/4")	955mm (37 5/8")	1216mm (47 7/8")	1.16sq.m. (12.5 sq. ft.)
Standard	1357mm (53 3/8")	1451mm (57 1/8")	1002mm (39 1/2")	1329mm (52 3/8")	1.33sq.m. (14.3 sq. ft.)
Mid-Size	1357mm (53 3/8")	1603mm (63 1/8")	1002mm (39 1/2")	1482mm (58 3/8")	1.49sq.m. (16.0 sq. ft.)
Large	1509mm (59 3/8")	1603mm (63 1/8")	1129mm (44 1/2")	1482mm (58 3/8")	1.67sq.m. (18.0 sq. ft.)

Add 38mm (1 1/2") to pit width if a tie-back rail is used.

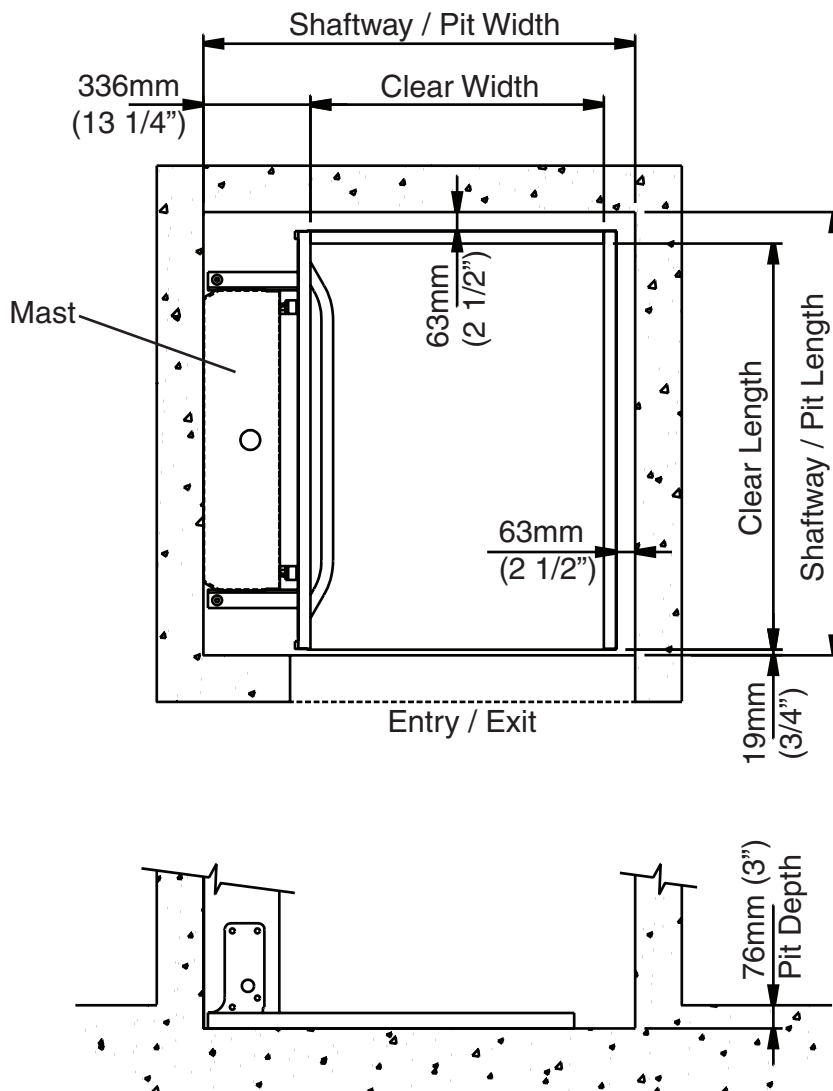


90° Entry/Exit Shaftway/Pit and Platform Clear Dimensions

## Shaftway/Pit and Platform Clear Dimensions, On/Off Same Side (360°) Entry/Exit Adjacent to Mast

Platform Size	Shaftway/Pit Width	Shaftway/Pit Length	Clear Width	Clear Length	Net Usable Area
Compact	1353mm (53 1/4")	1338mm (52 3/4")	914mm (36")	1216mm (47 7/8")	1.11sq.m. (12.0 sq. ft.)
Standard	1400mm (55 1/8")	1451mm (57 1/8")	962mm (37 7/8")	1329mm (52 3/8")	1.28sq.m. (13.7 sq. ft.)
Mid-Size	1400mm (55 1/8")	1603mm (63 1/8")	962mm (37 7/8")	1482mm (58 3/8")	1.42sq.m. (15.3 sq. ft.)
Large	1552mm (61 1/8")	1603mm (63 1/8")	1114mm (43 7/8")	1482mm (58 3/8")	1.65sq.m. (17.8 sq. ft.)

Add 38mm (1 1/2") to pit width if a tie-back rail is used.

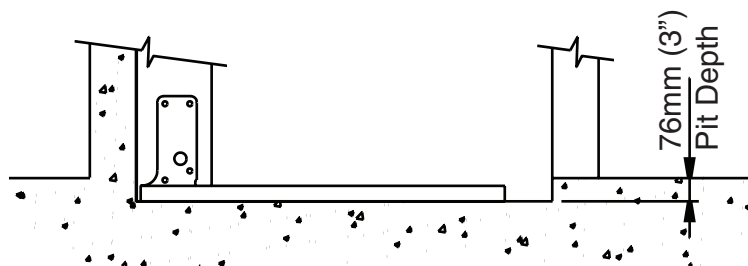
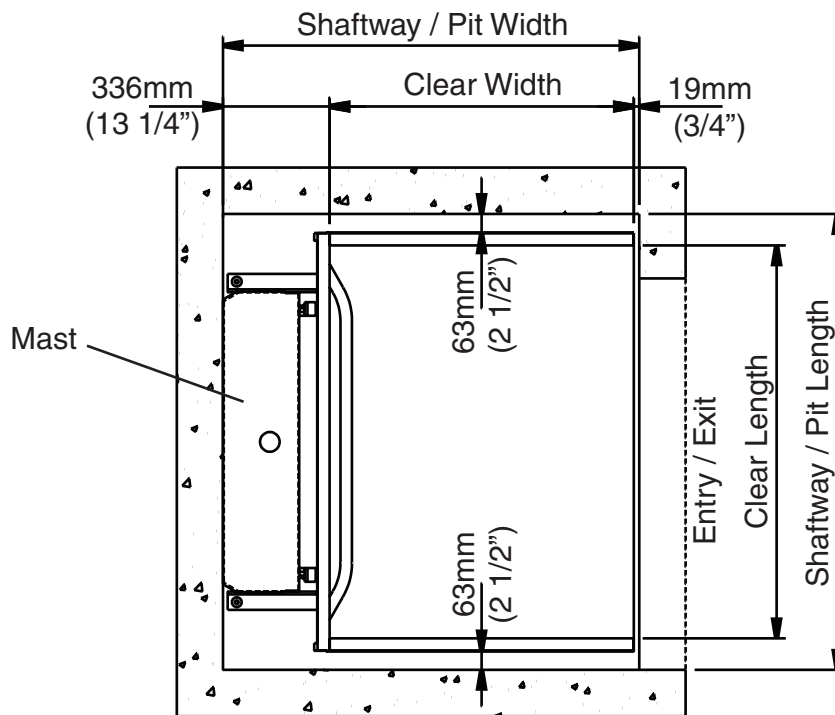


On/Off Same Side (360°) Entry/Exit Adjacent to Mast Shaftway/Pit and Platform Dimensions

## Shaftway/Pit and Platform Clear Dimensions, On/Off Same Side (360°) Entry/Exit Opposite Mast

Platform Size	Shaftway/Pit Width	Shaftway/Pit Length	Clear Width	Clear Length	Net Usable Area
Compact	1310mm (51 1/2")	1381mm (54 3/8")	955mm (37 5/8")	1176mm (46 1/4")	1.12sq.m. (12.1 sq. ft.)
Standard	1357mm (53 3/8")	1494mm (58 7/8")	1002mm (39 1/2")	1288mm (50 3/4")	1.29sq.m. (13.9 sq. ft.)
Mid-Size	1357mm (53 3/8")	1646mm (64 7/8")	1002mm (39 1/2")	1441mm (56 3/4")	1.44sq.m. (15.5 sq. ft.)
Large	1509mm (59 3/8")	1646mm (64 7/8")	1155mm (45 1/2")	1441mm (56 3/4")	1.66sq.m. (17.9 sq. ft.)

Add 38mm (1 1/2") to pit width if a tie-back rail is used.



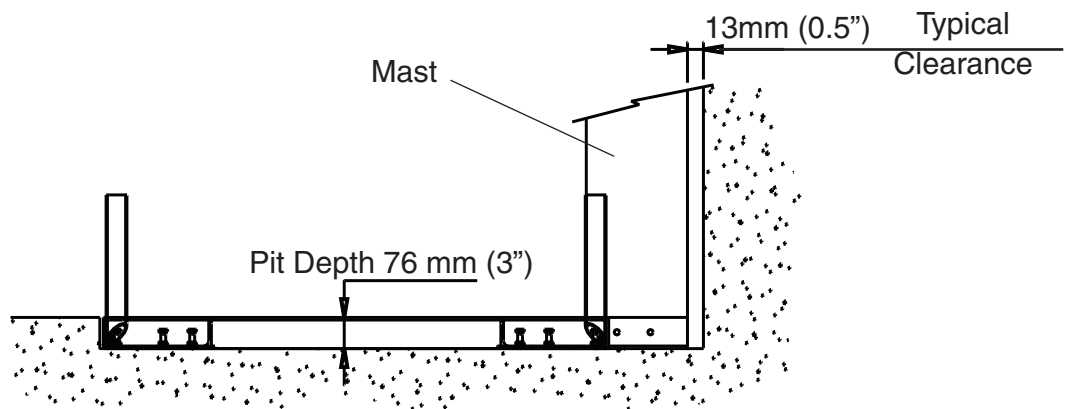
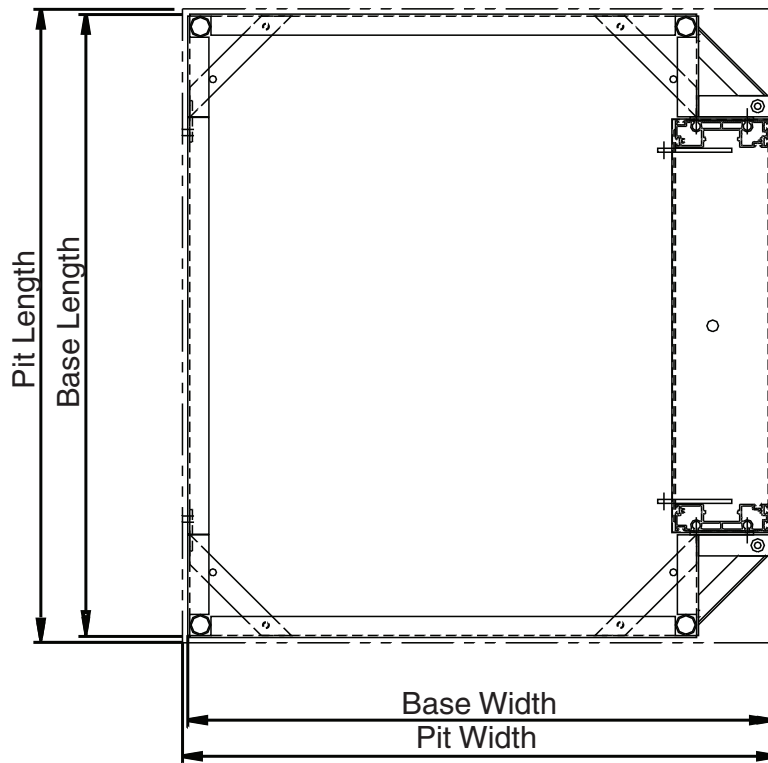
On / Off Same Side (360°) Entry/Exit Opposite Mast Shaftway/Pit and Platform Dimensions

# Enclosure Base and Pit Dimensions

(For Leadscrew or Hydraulic Drive System)

Platform Size	Base Width	Base Length	Pit Width	Pit Length
Standard	1399mm (55 1/8")	1505mm (59 1/4")	1427mm (56 1/8")	1530mm (60 1/4")
Mid-Size	1399mm (55 1/8")	1656mm (65 1/8")	1427mm (56 1/8")	1681mm (66 1/8")
Large	1551mm (61 1/8")	1656mm (65 1/8")	1579mm (62 1/8")	1681mm (66 1/8")

Add 38mm (1 1/2") to pit width if a tie-back rail is used.



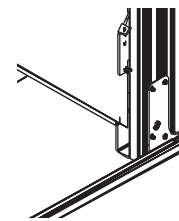
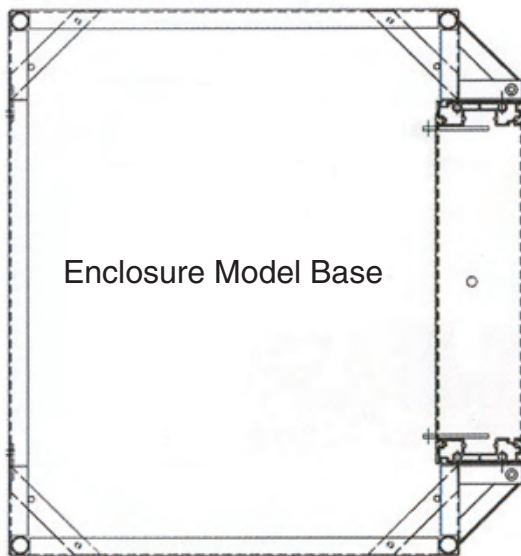
Enclosure Base and Pit Dimensions

## Enclosure Platform Clearances

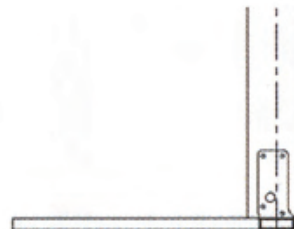
Configuration	Platform Size	Platform Clear Width	Platform Clear Length	Net Usable Area
Straight Through (180°) Entry/Exit	Standard	914mm (36")	1370mm (53 7/8")	1.25sq. m. (13.5 sq. ft.)
	Mid-Size	914mm (36")	1522mm (59 7/8")	1.39sq. m. (15.0 sq. ft.)
	Large	1068mm (42")	1522mm (59 7/8")	1.63sq. m. (17.5 sq. ft.)
90° Entry/Exit	Standard	1002mm (39 1/2")	1278mm (50 3/8")	1.28sq. m. (13.8 sq. ft.)
	Mid-Size	1002mm (39 1/2")	1431mm (56 3/8")	1.43sq. m. (15.4 sq. ft.)
	Large	1155mm (45 1/2")	1431mm (56 3/8")	1.65sq. m. (17.8 sq. ft.)
360° On/Off Same Side (entry/exit adjacent to mast)	Standard	914mm (36")	1278mm (50 3/8")	1.17sq. m. (12.6 sq. ft.)
	Mid-Size	914mm (36")	1431mm (56 3/8")	1.31sq. m. (14.1 sq. ft.)
	Large	1068mm (42")	1431mm (56 3/8")	1.53sq. m. (16.4 sq. ft.)
360° On/Off Same Side (entry/exit opposite to mast)	Standard	1002mm (39 1/2")	1187mm (46 3/4")	1.19sq. m. (12.8 sq. ft.)
	Mid-Size	1002mm (39 1/2")	1339mm (52 3/4")	1.34sq. m. (14.5 sq. ft.)
	Large	1155mm (45 1/2")	1339mm (52 3/4")	1.55sq. m. (16.6 sq. ft.)

## Base Attachment Methods

All Genesis lift bases are fastened to the floor/pit at the lower landing. It is recommended that the floor is a level concrete surface rated for 3500 PSI with a minimum thickness of 102mm (4"). If the floor surface does not meet these specifications, it must be able to withstand the loads shown on the loading diagram.

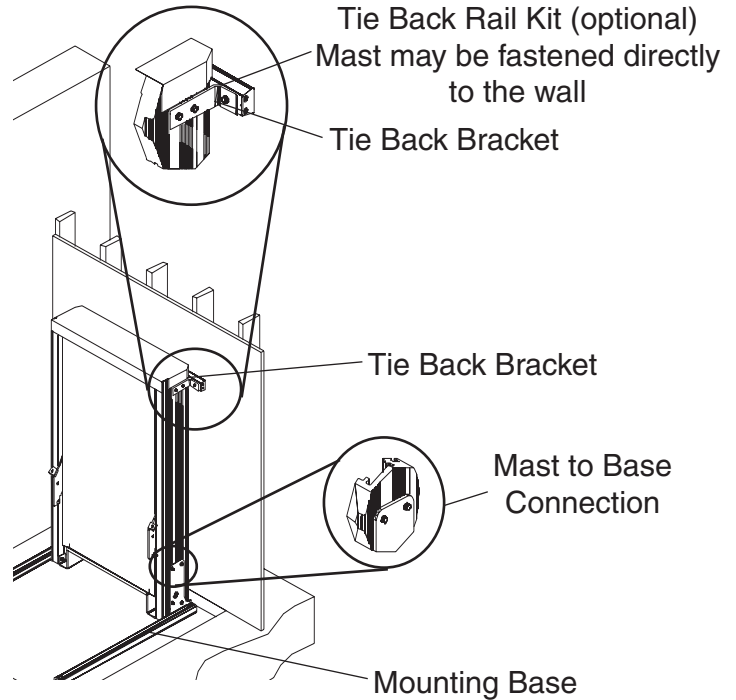


Shaftway Model Base



**Mast Attachments**

The Genesis is supplied with adjustable tie back brackets. These brackets are fastened to the mast and installed into a load bearing support wall. This helps to stabilize the mast. Refer to the loading diagram for the loads that must be supported by the wall.



**Mast Attachment Methods Y Brace and U Brace**

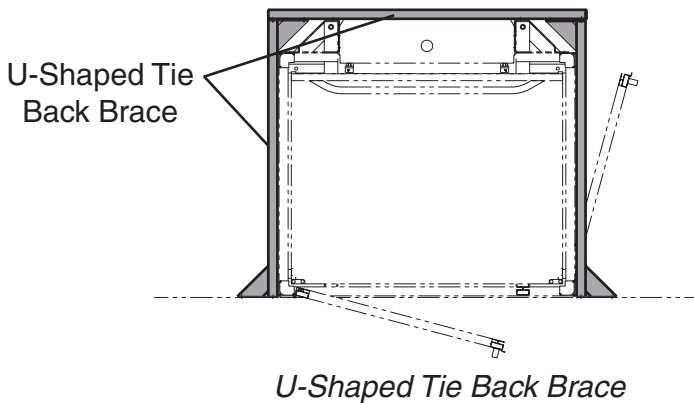
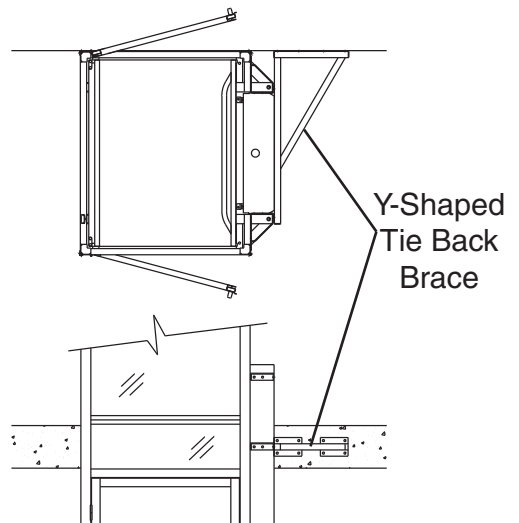
When the adjustable mast tie back bracket cannot be used, mast stabilization can be achieved with the installation of a tie back bracket.

**Y-Shaped Tie-Back Brace (optional)**

Attached to the mast, the Y Brace forms a triangle of support when it is fastened to a structural member at the upper landing.

**U-Shaped Tie-Back Brace (optional)**

The U Brace wraps around the enclosure lift and is fastened to structural member at the upper landing.



*Y-Shaped Tie Back Brace*



# Lead Screw Drive System: Technical Reference of Features

## Platform Sizes:

Standard Enclosure Platform: 914mm x 1370mm (36" x 54")  
 Optional Enclosure Platform: 914mm x 1522mm (36" x 60") - Mid-Size  
 1068mm x 1522mm (42" x 60") - Large  
 Standard Shaftway Platform: 962mm x 1370mm (38" x 54")  
 Optional Shaftway Platform: 914mm x 1257mm (36" x 49 1/2") - Compact  
 962mm x 1522mm (38" x 60") - Mid-Size  
 1089mm x 1522mm (43" x 60") - Large

## Rated Load:

340 kg (750 lbs), with a safety factor of 5

## Drive System:

Mains Power: 120 VAC single phase on a dedicated 20 amp circuit.  
 Outside North America 208-240 VAC single phase on a dedicated 16 amp circuit.  
 Drive Type: ACME screw (1" diameter)  
 Motor: 2 HP, AC Motor. Variable frequency control for smooth start and stop.

## Speed:

3 meters (10 ft) per minute at full load

## Operating Controls:

Keyed Controls: Keyswitch on call stations and platform controls (optional)  
 Directional Controls: Continuous pressure switches  
 Control Voltage: 24 VDC

## Safety Features:

Safety Nut: Safety nut automatically engages if drive nut fails. Platform falls less than 13mm (1/2") when safety nut engages. Engaging safety nut trips the safety circuit.  
 Door Interlocks: Enclosure Model: Mechanical lock with electric contact prevents door from opening unless platform at landing.  
 Shaftway Model: Solenoid powered deadbolt with monitoring circuit. Deadbolt fails in the locked position in the event of power failure. Battery backup provided.  
 Emergency Stop: Stops platform travel and sounds audible alarm.  
 Emergency Operation: Equipped standard with a manual lowering wheel. Optional battery powered lowering system available.

## Finish:

Enclosure Frame & Drive Mast: Anodized aluminum  
 Platform Sidewalls & Drive Mast Cover: Baked powder finish on 16 gauge galvanized steel panels – RAL color #7030 (Fine Textured Satin Grey).  
 Enclosure Sidewalls and Doors: Baked powder finish on 16 gauge galvanized steel panels – RAL color #7030 (Fine Textured Satin Grey) or optional 5mm (3/16") thick clear or bronze tinted Plexiglas.  
 Optional Finishes: Extrusions and panels can be painted any color in the RAL chart.

# Hydraulic Drive System: Technical Reference of Features

## Platform Sizes:

Standard Enclosure Platform: 914mm x 1370mm (36" x 54")  
 Optional Enclosure Platform: 914mm x 1522mm (36" x 60") - Mid-Size  
 1068mm x 1522mm (42" x 60") - Large  
 Standard Shaftway Platform: 962mm x 1370mm (38" x 54")  
 Optional Shaftway Platform: 914mm x 1257mm (36" x 49 1/2") - Compact  
 962mm x 1522mm (38" x 60") - Mid-Size  
 1089mm x 1522mm (43" x 60") - Large

## Rated Load:

340 kg (750 lbs), with a safety factor of 5

## Drive System:

Mains Power: 120 VAC single phase on a dedicated 15 amp circuit.  
 Outside North America - 208-240 VAC single phase on a dedicated 16 amp circuit.  
 Drive Type: Chained Hydraulic (Dual 5/8" ANSI 50 chains)  
 Standard Motor: 3 HP Motor: Continuous mains power and auxiliary battery power  
 Optional Power Supply: 3 HP Motor: 24 VDC from battery system, continuously charged by buildings mains power.

## Speed:

5.2 meters (17 ft) per minute at full load

## Operating Controls:

Keyed Controls: Keyswitch on call station and platform controls (optional)  
 Directional Controls: Continuous pressure switches  
 Control Voltage: 24 VDC

## Safety Features:

Safety: Monitored slack chain device. Automatically engages if the drive chain fails. The platform falls less than 13mm (1/2") when the slack chain safety device engages.  
 Door Interlocks: Enclosure Model: Mechanical lock with electric contact prevents door from opening unless platform at landing.  
 Shaftway Model: Solenoid powered deadbolt with monitoring circuit. Deadbolt fails in the locked position in the event of power failure. Battery backup provided.  
 Emergency Stop: Stops platform travel and sounds audible alarm.  
 Emergency Operation: Auxiliary Power System operates the lift in up and down direction.

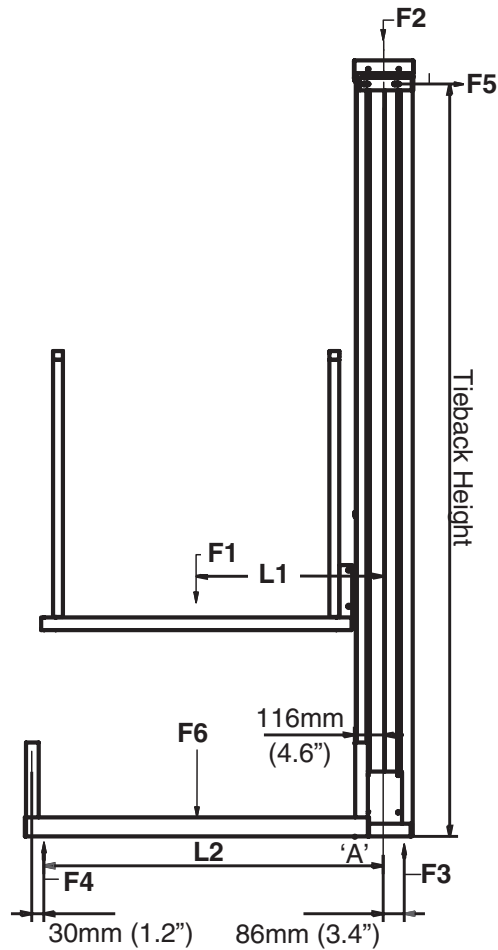
## Finish:

Enclosure Frame & Drive Mast: Anodized aluminum  
 Platform Sidewalls & Drive Mast Cover: Baked powder finish on 16 gauge galvanized steel panels – RAL color #7030 (Fine Textured Satin Grey).  
 Enclosure Sidewalls and Doors: Baked powder finish on 16 gauge galvanized steel panels – RAL color #7030 (Fine Textured Satin Grey) or optional 5mm (3/16") thick clear or bronze tinted Plexiglas.  
 Optional Finishes: Extrusions and panels can be painted any color in the RAL chart.

# Enclosure Model Loading Diagram

## Wall and Floor Reactions

Size	L1	L2
36" x 54"	674mm (26.5")	1222mm (48.1")
36" x 60"	674mm (26.5")	1222mm (48.1")
42" x 60"	750mm (29.5")	1374mm (54.1")



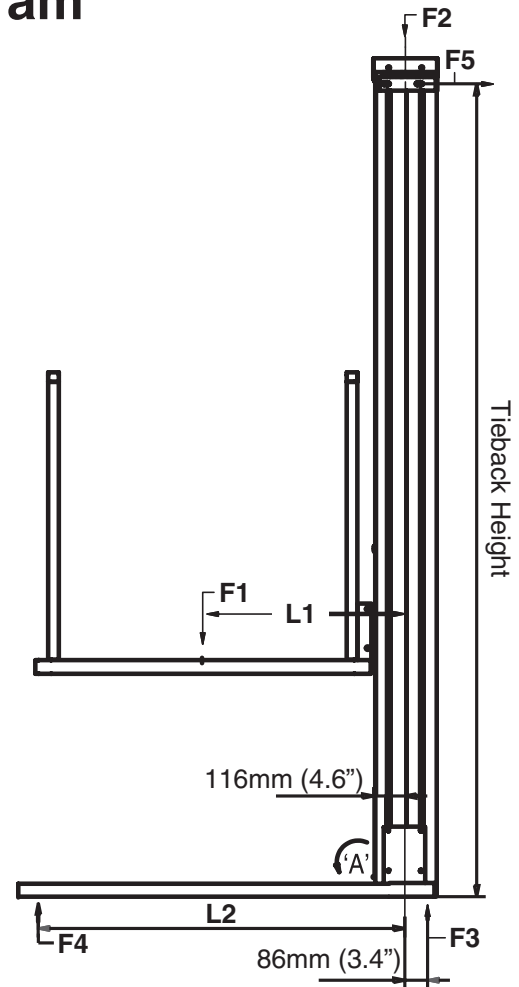
Mast Model	Enclosure Weight (lbs)	Mast Height	Tieback Height (Recommended)	F2 lbs	F3 lbs	F4 lbs	F5 lbs	F6 lbs
42"	400	1737mm (68 3/8")	1643mm (64 3/4")	175	1270	310	456	400
60"	450	2194mm (86 3/8")	2101mm (82 3/4")	215	1320	342	357	450
72"	500	2498mm (98 3/8")	2404mm (94 3/4")	260	1390	375	312	500
96"	625	3108mm (122 3/8")	3014mm (118 3/4")	375	1540	456	249	625
120"	700	3718mm (146 3/8")	3624mm (142 3/4")	450	1640	506	207	700
144"	800	4327mm (170 3/8")	4233mm (166 3/4")	525	1750	570	177	800
168"	900	4937mm (194 3/8")	4843mm (190 3/4")	600	1870	635	155	900

Reactions are based on a 144" mast and a 42" x 60" platform. F1= 1000lbs

These are reaction forces generated by the lift. Adhere to building code, regulations and safety factors for supporting structures. Consult a Structural Engineer or Architect in your jurisdiction. Wind loading effects are not considered in these calculations.

# Shaftway Model Loading Diagram Wall and Floor Reactions

Size	L1	L2
Standard	674mm (26.5")	1100mm (43.3")
Mid-Size	674mm (26.5")	1100mm (43.3")
Large	750mm (29.5")	1100mm (43.3")



Mast Model	Mast Height	Tieback Height (Recommended)	F2 lbs	F3 lbs	F4 lbs	F5 lbs
42"	1737mm (68 3/8")	1643mm (64 3/4")	175	1090	86	456
60"	2194mm (86 3/8")	2100mm (82 3/4")	215	1130	89	357
72"	2498mm (98 3/8")	2404mm (94 3/4")	260	1170	92	312
96"	3108mm (122 3/8")	3014mm (118 3/4")	375	1270	100	249
120"	3718mm (146 3/8")	3624mm (142 3/4")	450	1340	106	207
144"	4327mm (170 3/8")	4233mm (166 3/4")	525	1410	111	177
168"	4937mm (194 3/8")	4843mm (190 3/4")	600	1480	117	155

Reactions are based on a 144" mast and a 42" x 60" platform. F1= 1000lbs

These are reaction forces generated by the lift. Adhere to building code, regulations and safety factors for supporting structures. Consult a Structural Engineer or Architect in your jurisdiction. Wind loading effects are not considered in these calculations.



## Garaventa Vertical Lift

### Vertical Wheelchair Platform Lift

# Specs: Genesis Enclosure and Shaftway

## Need Assistance Writing the Specification?

Genesis specifications will vary from one building site to another based on the stairway configuration, building materials, user requirements and local codes. **Your Local Authorized Garaventa Dealer has the expertise to assist and develop an appropriate design specification for your accessibility project.**

**Authorized Garaventa Dealers can be found Worldwide, call or email Garaventa for the Dealership nearest you.**

In addition, professional designers at Garaventa Lift are available to answer your technical questions and to assist you with the design and specs.

### Garaventa Lift

**Phone:** (604) 594-0422 **Fax:** (604) 594-9915

**Toll Free:** 1-800-663-6556

**web Site:** [www.garaventa.ca](http://www.garaventa.ca)

**Email:** [productinfo@garaventa.ca](mailto:productinfo@garaventa.ca)

### Other Garaventa Lift products include:

GSL Artira - Inclined Platform Lift for straight and turning stairways

Xpress II - Inclined Platform Lift for straight stairways

Genesis OPAL - Vertical Platform Lift for lifting heights up to 1600mm (63")

Genesis STAAGE - Portable Vertical Wheelchair Lift for lifting heights up to 1143mm (45")

## Garaventa Lift Products

Garaventa is dedicated to helping you find quality accessibility solutions. Our design team has worked on many different projects for schools, offices, hotels, airports, subways, places of worship and a wide range of public and private buildings around the world.

Stair-Lift GSL Artira



Stair-Lift Xpress II



Genesis Shaftway and Enclosure Models



Genesis OPAL Model



The Stair-Lift GSL Artira is a versatile access solution suitable for indoor and outdoor applications with a maximum of seven steps. This model is designed for turning or curving stairways following the inside or outside radius of the stairways, or on straight stairways with intermediate landings.

The Stair-Lift Xpress II is designed for straight stairways. When good looks and fast installation times are considerations, the Xpress II is the answer. The Xpress II is safe, durable, code compliant and built with the quality and reliability you expect from Garaventa.

The Garaventa Genesis is a vertical platform lift designed to provide access into or within public buildings. It travels inside a complete, self-contained enclosure or can be located in a shaftway constructed by others. Our unique anodized design is strong, durable and attractive.

The Genesis OPAL is a reliable, cost effective accessibility solution for public buildings or private residences. This vertical lift is ADA compliant and suitable for indoor or outdoor applications requiring vertical transportation up to five feet.

Visit our Architects Resource Center at [www.garaventa.ca](http://www.garaventa.ca)



[www.garaventa.ca](http://www.garaventa.ca)

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