

# Ascension Vertical Wheelchair Lifts



*Experience Revolutionary Innovation*

## ASCENSION VIRTUOSO WHEELCHAIR LIFTS

Ascension is proud to introduce the expanded Ascension Virtuoso Vertical Wheelchair Lift product line, now featuring both portable and permanently-installed lifts. Ascension portable units have a proven track record of reliability in the accessibility market. The permanent lift continues this proud tradition of design excellence and high-quality manufacturing. We are confident that the Ascension Virtuoso wheelchair lift is the perfect choice to provide accessibility for many years to come, while ensuring the safety and dignity of individuals with disabilities.

The Ascension Virtuoso Model 5460P vertical portable lift remains the preeminent solution when customers want the versatility and convenience of a lift for multiple locations. Use the lift when and where you need it, then store it away. This presents an ideal solution for achieving program access in accordance with ADA requirements.

The Ascension Virtuoso Model 5460F vertical permanently-installed lift is available to meet building code requirements that call for permanent accessibility.



Both model types offer a distinctive, modern approach to vertical accessibility and give building owners, facility managers, architects, and specifiers an exceptional design choice. The Ascension Virtuoso remains the only ADA compliant vertical wheelchair lift in the world without a machine tower or access ramp. This is the kind of revolutionary innovation you can expect only from Ascension. There is no comparison – Ascension vertical wheelchair lifts are the safest, quietest, most attractive, most durable, easiest-to-use lifts you can buy.

Complete architectural, engineering, and project management support is available from Ascension. Whether considering how to utilize one of our portable units across multiple locations or determining how to incorporate the permanent lift into a comprehensive building renovation program, we welcome the opportunity to discuss the specific requirements of any project.

Ascension lifts are the optimal choice for schools, universities, convention centers, auditoriums, arenas, churches, hotels, conference centers, parks and recreation facilities, casinos, historic buildings, courthouses, outdoor amphitheaters, fairgrounds, commercial buildings, retail stores, museums, and various government facilities.



# ASCENSION VIRTUOSO WHEELCHAIR LIFTS

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The design of the Ascension Virtuoso Model Series makes it the premium vertical wheelchair lift for customers who want more than the status quo. This unique design package gives the lift a clean, professional look and contributes to the overall aesthetic quality that customers have come to expect with an Ascension lift.



The lift does not require a machine tower as part of its construction, representing the most fundamental difference in design between the Ascension lift and other vertical lifts on the market. There are no line of sight issues when using the lift for access to stage activities.

The Ascension Virtuoso lift does not have an access ramp at the lower landing, so patrons can easily enter the lift directly at floor level.

The lift provides an easily accessible stage adjustment device and a hinged dock plate for a smooth transition between the platform and the surface of the stage.

The extensive product safety package protects both the passenger and public. The durable safety skirting completely encloses the operating components and the underside of the platform at all times during operation. This unique feature is another example of design innovation only available from Ascension. Additionally, all four sides of the platform are 43" high, making the lift safe for persons using crutches or walkers.

All Ascension Virtuoso lift models come with a standard 20-year drive train and 5-year parts warranty, setting an unparalleled industry benchmark. We want to ensure that you will be satisfied with the long-term performance and dependable service of every Ascension wheelchair lift.

Ascension offers several options to accommodate the unique requirements of your facility, including a stairbridge, outdoor protection packages, CE marking (portable model only), custom colors, and vandal-resistant controls.

Every Ascension Virtuoso lift provides for independent use by individuals with disabilities and meets ADA requirements. Whether you select the lift for its attractive appearance or because of its reliable operation, the Ascension lift will prove to be a valuable asset for any facility.



## ASCENSION VIRTUOSO WHEELCHAIR LIFTS



All Ascension Virtuoso lifts reach a maximum travel height of 60". The Virtuoso series uses an electro-hydraulic mechanism (rated lifting capacity of 750 lbs.) to raise the passenger platform; this mechanism evenly supports the platform on both sides of the lift for maximum stability.

The lift only uses 5-1/2' of floor space in front of a stage, ideal for auditoriums or other venues with limited space between the stage and seating area. The small footprint saves a significant amount of floor space when compared to ramps. You also get a product designed to blend into any interior architecture and decor.



The lifts feature a 54" long platform to accommodate individuals in scooters and over-sized wheelchairs. The sidewalls and platform gates are made of high-impact transparent thermoplastic, making the Ascension Virtuoso lift unobtrusive to audiences. The passenger also has a clear view of the surroundings. With its smooth ride and user-friendly operation, individuals of all ages are able to participate in stage or platform-related activities, such as graduation ceremonies or musical performances.

The Ascension Virtuoso wheelchair lift can be used while an event is in progress. The lift represents an attractive accessibility solution and its quiet operation will not interrupt a performance or draw unnecessary attention to passengers. This enhances both the dignity of the passenger and the image of the facility providing accessibility.



## ASCENSION VIRTUOSO 5460P MODEL SERIES PORTABLE WHEELCHAIR LIFT

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The Ascension Virtuoso Model 5460P provides access to stages and platforms in multiple locations with just one unit. No installation is required. Use the lift when and where you need it, then simply store it away.



The lift is completely self-contained and compact, requiring no additional components. Every Ascension portable lift ships as a fully assembled product.

The Ascension portable model is easily moved by one person and rolls on its own casters. The casters are quickly removed during the setup process in order to provide a stable platform for operation. The lift then plugs into a standard 120-volt wall outlet and is ready for use. The entire process takes only minutes to complete. No building alterations or site preparations are required.

The Ascension portable lift is rugged and durable enough for a variety of applications, whether for multiple uses within a particular building (convention center) or for relocation throughout an entire geographical area (school district). The lift is easy to transport over long distances by forklift, truck, or trailer. The lift is also weather-hardened for temporary outdoor use.

The Ascension Virtuoso vertical portable wheelchair lift can be relocated through doorways as narrow as 36" using the compression feature. This innovative capability allows the Ascension lift to be used in virtually any building with single doorways, such as older schools.

A side-opening portable model (Ascension SLA-Series) is available for stage configurations that will not allow straight-through lift access. Contact Ascension for complete product information.

## ASCENSION VIRTUOSO 5460F MODEL SERIES PERMANENTLY-INSTALLED WHEELCHAIR LIFT

The Ascension Virtuoso Model 5460F can be used when building code requirements call for a permanently-installed lift. The lift complies with the national wheelchair lift code ASME A18.1.

The permanent model does not require a pit for installation; building owners can therefore realize a significant cost savings by not having to cut a pit into the floor (especially important for existing facilities). The lift can be positioned at a variety of key locations in your building because of its easy installation and low profile design.



# ASCENSION VIRTUOSO 5460P MODEL SERIES

## PRODUCT SPECIFICATIONS

### PORTABLE WHEELCHAIR LIFT

SECTION 14420 AND SECTION 14 42 00

#### PART 1 - GENERAL

##### 1.1 SYSTEM DESCRIPTION

A. The product described herein, manufactured by Ascension, is a portable lifting device intended for the exclusive use of individuals with disabilities. The lift shall be used only by individuals who are unable to negotiate stairs. The lift shall be self-contained, requiring no additional components or modifications of the using facility. The lift shall consist of a platform supported on an electro-hydraulic lifting mechanism with built-in casters for portability. The casters shall permit easy movement of the unoccupied lift over hard, level surfaces. With the casters removed, the lift shall rest firmly on any hard, level surface, and provide a stable base for operation of the lift. The lift shall be low profile (no machine tower or shroud) to maintain viewing lines. The lift shall provide for independent use by individuals with disabilities and include all applicable operating and safety devices for compliance with ADA requirements. The lift shall have a slim profile platform frame to eliminate the need for a pit or access ramp on the lower landing side and facilitate easy entry into the lift directly at floor level by patrons. The lift shall provide adequate lifting force to raise the platform and occupant to a height suitable for access to most stages, platforms, or similar elevated surfaces.

#### PART 2 - PRODUCT

##### 2.1 MANUFACTURER

A. Ascension Virtuoso Model 5460P Series vertical portable wheelchair lift, manufactured by Ascension, 3526 E. Fort Lowell Rd., Tucson, AZ, 85716, Tel: 800-459-0400 or 520-881-3993, Fax: 520-881-4983, sales@wheelchairlift.com.  
B. Acceptance of other products is subject to compliance with specified requirements and owner or architect approval.

##### 2.2 PHYSICAL CHARACTERISTICS

A. Lifting capacity: 750 pounds [341 kg].  
B. Weight of lift: 1025 pounds maximum [465 kg].  
C. Vertical speed: seven (7) fpm (feet per minute) [2.1 m/min (meters per minute)].  
D. Vertical travel: 12" to 60" [304 mm to 1524 mm], infinitely adjustable.  
E. Standard platform gate configuration: the upper landing platform gate shall be left-hinged when facing the lift from the upper landing; the lower landing platform gate shall be right-hinged when facing the lift from the lower landing. Contact Ascension for custom platform gate configurations.

##### 2.3 DIMENSIONS

A. Platform size: 36" x 54" [914 mm x 1372 mm] with 43" [1092 mm] high sidewalls and platform gates.  
B. Space requirements (operational, storage, and transport): 44" [1117 mm] high (in the down position), 66" [1677 mm] long, 48" [1219 mm] wide.  
C. No part of the lift shall stand over 44" [1117 mm] high when the platform is on the ground (with the exception for when the optional stage guard is being used).

##### 2.4 MATERIALS

A. The platform, base frame, and lifting device shall be constructed from ASTM A 36, AISI 1018, or AISI 1020 Steel.  
B. The windows shall be fabricated from 1/4" [6.35 mm] thick high impact strength clear thermoplastic.  
C. The safety skirt shall be constructed from rigid plastic.

##### 2.5 FINISH

A. All metal components shall be thoroughly cleaned to remove any foreign substance. Exposed metal surfaces shall be finished with an oven-baked powder coating.  
B. Standard color is black; contact Ascension for custom color selection.

##### 2.6 ELECTRICAL REQUIREMENTS

A. Electric power requirements shall be compatible with 120VAC, 60 hertz, single phase, 15 amp service (option: international electrical configurations available).  
B. The lift shall be supplied with a three prong grounded electrical cord (20' [6.1 m] in length).  
C. The lift shall contain a Ground Fault Circuit Interrupter (GFCI).  
D. The hydraulic pump shall be directly coupled to a capacitor start 1/2 hp motor.  
E. Other than the motor, all control and operating circuits shall be serviced by a 12 VDC solid state linear power supply.  
F. Electrical components shall be UL listed and CSA registered.  
G. Electrical system shall be certified to ASME A17.5 by an independent

testing laboratory.

#### 2.7 SAFETY DEVICES

The lift shall be constructed to meet the applicable requirements of ADAAG, ASME A17.1-1996 or older (PART XX, SECTION 2000), ASME A18.1-2005 and older, and ANSI A117.1 as they would apply to a portable lifting device. The lift shall include the following safety features for protection of the passenger and general public.  
A. Grounded electrical system.  
B. 12 VDC operating controls.  
C. Constant pressure operating switches.  
D. Emergency stop button at passenger control station.  
E. Electro-mechanical interlock to prevent accidental opening of lower landing platform gate.  
F. Gate switches to prevent platform movement if either platform gate is open.  
G. Lift platform stop height switch.  
H. Safety skirt that completely encloses and protects the area under the lift platform.  
I. 43" [1092 mm] high sidewalls and platform gates.  
J. Unobstructed view through transparent sidewalls and platform gates.  
K. Grab bar extending full length of inside wall.  
L. Slip resistant surfaces on platform floor and dock plate.  
M. Structural safety factors as specified in ASME A18.1-2005.  
N. Self-closing platform gates.

#### 2.8 PORTABILITY

A. Casters shall be easily attached to the platform for portability and stored in the base frame when not in use. Casters shall be 3½" [89 mm] in diameter and fabricated from hard rubber. The casters shall be capable of being installed without tools. When the casters are installed, the lift shall roll easily over any hard, smooth, level surface. The lift shall be capable of being moved by forklift or truck.

#### 2.9 OPERATING CHARACTERISTICS

A. Lift shall include three (3) constant pressure "UP/DOWN" switches, located outside of the platform at both ends and inside the platform.  
B. The passenger control station shall be provided with a separate "PUSH TO STOP" emergency button. The emergency stop button shall lock when pushed and require manual reset before operation can resume.  
C. The platform stop height shall be adjustable without the use of tools.  
D. Opening the upper landing platform gate shall deploy a dock plate that rests on the upper landing surface. The dock plate shall provide a smooth transition between the platform and the upper landing. Closing the upper landing platform gate shall retract the dock plate.  
E. The lower landing platform gate shall be provided with a mechanical interlock that prevents the platform gate from being opened whenever the platform is more than 2" [50 mm] above the full down position.

#### 2.10 COMPRESSION CAPABILITY

A. The lift shall be capable of being compressed to 33" [838 mm] wide to facilitate relocation through a 36" [914 mm] wide doorway. Requires additional tool kit from Ascension.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

A. Set up lift for operation as described in manufacturer's operating manual.

#### 3.2 MAINTENANCE

A. Maintenance of the lift shall consist of regular cleaning as deemed necessary by the using facility. General inspection, maintenance, and lubrication shall be specified in the manufacturer's service manual.

#### 3.3 WARRANTY

A. Manufacturer shall provide a warranty for a period of twenty (20) years on the drive train, five (5) years on all other components, and one (1) year on labor, starting from the date of shipment.  
B. Extended warranty plans are available.

NOTE: This specification has been written to assist in preparing a detailed description of a portable wheelchair lift. Additional technical information may be obtained from Ascension. Specifications are also available electronically at [www.wheelchairlift.com](http://www.wheelchairlift.com). Specifications are subject to change.

U.S. Patent No. 6,182,798. Other U.S. and foreign patents pending.

# ASCENSION VIRTUOSO 5460F MODEL SERIES PRODUCT SPECIFICATIONS

14 42 00/ASC  
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## PERMANENTLY-INSTALLED WHEELCHAIR LIFT

SECTION 14420 AND SECTION 14 42 00

### PART 1 - GENERAL

#### 1.1 SYSTEM DESCRIPTION

A. The product described herein is an unenclosed, self-contained vertical wheelchair lift, manufactured by Ascension, intended for the exclusive use of individuals with disabilities. The lift shall require minimal modifications to the using facility. The lift shall consist of a platform supported by an electro-hydraulic lifting mechanism. The lift shall be low profile (no machine tower or shroud) to maintain viewing lines. The lift shall provide for independent use by individuals with disabilities and include all applicable operating and safety devices for compliance with ADA requirements. The lift shall have a slim profile platform frame to eliminate the need for a pit or access ramp on the lower landing side and facilitate easy entry into the lift directly at floor level by patrons. The lift shall provide adequate lifting force to raise the platform and occupant to a height suitable for access to most stages, platforms, or similar elevated surfaces.

#### 1.2 REFERENCES

A. The lift shall be designed and tested in accordance with ASME A18.1-2005, ASME A17.5, ADAAG, ANSI A117.1, and NFPA 70 (NEC).

#### 1.3 SUBMITTALS

A. Submit manufacturer's drawings and product data for approval. Drawings shall show dimensional and wiring requirements.

#### 1.4 QUALITY ASSURANCE

A. Manufacturer shall be ISO 9001:2000 registered.  
B. Manufacturer shall have not less than ten (10) years of experience in the design and manufacture of vertical wheelchair lifts.  
C. Lift shall be installed in accordance with all applicable codes.

#### 1.5 WARRANTY

A. Manufacturer shall provide a warranty for a period of twenty (20) years on the drive train, five (5) years on all other components, and one (1) year on labor, starting from the date of installation.  
B. Extended warranty plans are available.

#### 1.6 MAINTENANCE

A. Maintenance of the lift shall consist of regular cleaning as deemed necessary by the using facility. General inspection, maintenance, and lubrication shall be specified in the manufacturer's service manual.

### PART 2 - PRODUCT

#### 2.1 MANUFACTURER

A. Ascension Virtuoso Model 5460F Series vertical wheelchair lift, manufactured by Ascension, 3526 E. Fort Lowell Rd., Tucson, AZ, 85716, Tel: 800-459-0400 or 520-881-3993, Fax: 520-881-4983, sales@wheelchairlift.com.  
B. Acceptance of other products is subject to compliance with specified requirements and owner or architect approval.

#### 2.2 PHYSICAL CHARACTERISTICS

A. Lifting capacity: 750 pounds [341 kg].  
B. Vertical speed: seven (7) feet per minute [2.1 meters per minute].  
C. Vertical travel: 12" [304 mm] to 60" [1524 mm] maximum lifting height.  
D. Standard platform gate configuration: the upper landing platform gate shall be left-hinged when facing the lift from the upper landing; the lower landing platform gate shall be right-hinged when facing the lift from the lower landing. Contact Ascension for custom platform gate configurations.

#### 2.3 DIMENSIONS

A. Platform size: 36" x 54" [914 mm x 1371 mm] with 43" [1092 mm] high sidewalls and platform gates.  
B. No part of the lift shall stand over 44" [1117 mm] high when the platform is on the ground (with the exception for when the optional stage guard is being used).

#### 2.4 MATERIALS

A. The base frame and guide rails shall be constructed from ASTM A 36 structural steel, 1/4" [6.35 mm] thick minimum.  
B. The platform shall be constructed from ASTM A 36, AISI 1018, or AISI 1020 Steel.  
C. The windows shall be fabricated from 1/4" [6.35 mm] thick high impact strength clear thermoplastic.

D. The safety skirt shall be constructed from rigid plastic.

#### 2.5 FINISH

A. All metal components shall be thoroughly cleaned to remove any foreign substance. Exposed metal surfaces shall be finished with an oven-baked powder coating.  
B. Standard color is black; contact Ascension for custom color selection.

#### 2.6 DRIVE TYPE

A. Drive shall be direct-acting hydraulic.

#### 2.7 ELECTRICAL REQUIREMENTS

A. Electrical contractor shall provide a 120VAC, 60 hertz, single phase, 15 amp service line (option: international electrical configurations available).  
B. All control and operating circuits shall be serviced by a 12 VDC power supply.  
C. Electrical components shall be UL listed and CSA registered.  
D. Electrical system shall be certified to ASME A17.5 by an independent testing laboratory.  
E. Lift shall include a lockable fused disconnect in accordance with NFPA 70 (NEC).

#### 2.8 SAFETY DEVICES

The lift shall include the following safety features for protection of the passenger and general public.  
A. Grounded electrical system.  
B. 12 VDC operating controls.  
C. Constant pressure operating switches.  
D. Emergency stop button at passenger control station.  
E. Electro-mechanical interlock to prevent accidental opening of lower landing side platform gate.  
F. Switches to prevent platform movement if either platform gate is open.  
G. Safety skirt that completely encloses and protects the area under the platform, with switches to stop platform movement in the case of excess skirt deflection.  
H. 43" [1092 mm] high sidewalls and platform gates.  
I. Unobstructed view through transparent sidewalls and platform gates.  
J. Grab bar extending full length of inside wall.  
K. Slip resistant surfaces on platform floor.  
L. Structural safety factors as specified in ASME A18.1.  
M. Self-closing platform gates.  
N. Alarm and lighted alarm switch on platform.  
O. Option: upper landing gate (where required by code).

#### 2.9 OPERATING CHARACTERISTICS

A. Lift shall include three (3) constant pressure "UP/DOWN" switches, located outside of the platform at both ends and inside the platform.  
B. The passenger control station shall be provided with a separate "PUSH TO STOP" emergency button. The emergency stop button shall lock when pushed and require manual reset before operation can resume.  
C. The lower landing side platform gate shall be provided with a mechanical interlock that prevents the platform gate from being opened whenever the platform is more than 2" [50 mm] above the full down position.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

A. Verify suitability of substrate preparation in accordance with approved manufacturer's drawings.  
B. Verify correct space requirements in accordance with approved manufacturer's drawings.  
C. Verify electrical service is of correct type and at correct location.

#### 3.2 INSTALLATION

A. Lift shall be installed in accordance with architect's approved plans and specifications, manufacturer's instructions, and ASME A18.1 requirements.

#### 3.3 FIELD QUALITY CONTROL

A. Perform acceptance tests as required by code and the authority having jurisdiction. Place rated load on platform and operate for several cycles to verify correct installation and operation. No mechanical failures shall occur and no wear that would affect the reliability of the lift shall be detected.

NOTE: This specification has been written to assist in preparing a detailed description of a vertical wheelchair lift. Additional technical information may be obtained from Ascension. Specifications are also available electronically at [www.wheelchairlift.com](http://www.wheelchairlift.com). Specifications are subject to change.

U.S. Patent No. 6,182,798. Other U.S. and foreign patents pending.

# These Major Facilities Have Selected the Ascension Lift

(complete list available upon request)

## School Districts

New York City Department of Education  
Los Angeles Unified School District  
Chicago Public Schools  
Miami-Dade County Public Schools  
Broward County Public Schools  
Houston Independent School District  
Palm Beach County School District  
Memphis City Schools  
Minneapolis Public Schools  
San Antonio Independent School District  
Detroit Public Schools  
Hawaii State School System  
Tucson Unified School District  
Perkins School for the Blind  
Clark County School District  
Peel District School Board Canada  
Seattle Public Schools

## Universities

University of Notre Dame  
Stanford University  
University of Southern California  
Yale University  
University of California Berkeley  
Duke University  
Penn State University  
Brown University  
Northwestern University  
University of Virginia  
Brigham Young University  
University of Tennessee  
University of Texas at Austin  
United States Naval Academy

## Public Assembly Centers

McCormick Place  
Los Angeles Convention Center  
Orange County (FL) Convention Center  
San Diego Convention Center  
Las Vegas Convention Center  
Boston Convention & Exhibition Center  
Anaheim Convention Center  
Metro Toronto Convention Centre  
Washington DC Convention Center  
Minneapolis Convention Center  
Phoenix Convention Center  
John F Kennedy Center for the Performing Arts  
Kansas City Convention Center  
Broward County Convention Center  
Dallas Convention Center  
Radio City Music Hall  
Kuala Lumpur Convention Centre

## Other Facilities

New York City Police Department  
NASA - Kennedy Space Center  
Marine Corps Base Quantico  
New York City Parks and Recreation  
Kansas City Parks and Recreation  
Hubert Humphrey Building  
Royal Ontario Museum  
Edwards Air Force Base  
Caesars Palace  
The Borgata Hotel Casino and Spa  
Venetian Macao China  
Los Angeles County Fairgrounds  
Hyatt Regency Atlanta  
Kodak Theatre



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see us at  
**Sweets**.com

**Ascension • 3526 E. Fort Lowell Rd. • Tucson, AZ 85716**  
**sales@wheelchairlift.com • www.wheelchairlift.com**