

# Ascension Virtuoso Model 5460F Series Vertical Wheelchair Lift Product Specifications

## 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.