

## **Vision 450 Technical Specifications**

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### **General Description**

The Vision 450 Pneumatic Elevator works on a vacuum concept. The driving machine (located on top of the cylinder) consists of turbines which remove the air from the top of the car, and move the car in the upward direction. This design does not utilize pulleys, hoists, ropes, chains, or counterweights. The design does have a safety valve located on top of the car, acting as a car top switch. This same valve will open if the car reaches the top of the tube, acting as a final limit. Additionally, there is a timer built in to shut down the operation if the car does not reach the upper floor in a specified amount of time.

When located at the bottom landing, the car sits on the actual floor. When located at other landings, the car is held in place by steel mechanical locks. This removes the need for anti-creep components. Safety brakes are integrated into the design to prevent the car from traveling too fast in the down ward direction. The brakes will engage if pressure is lost in the cylinder, or if the car travels beyond the tripping speed.

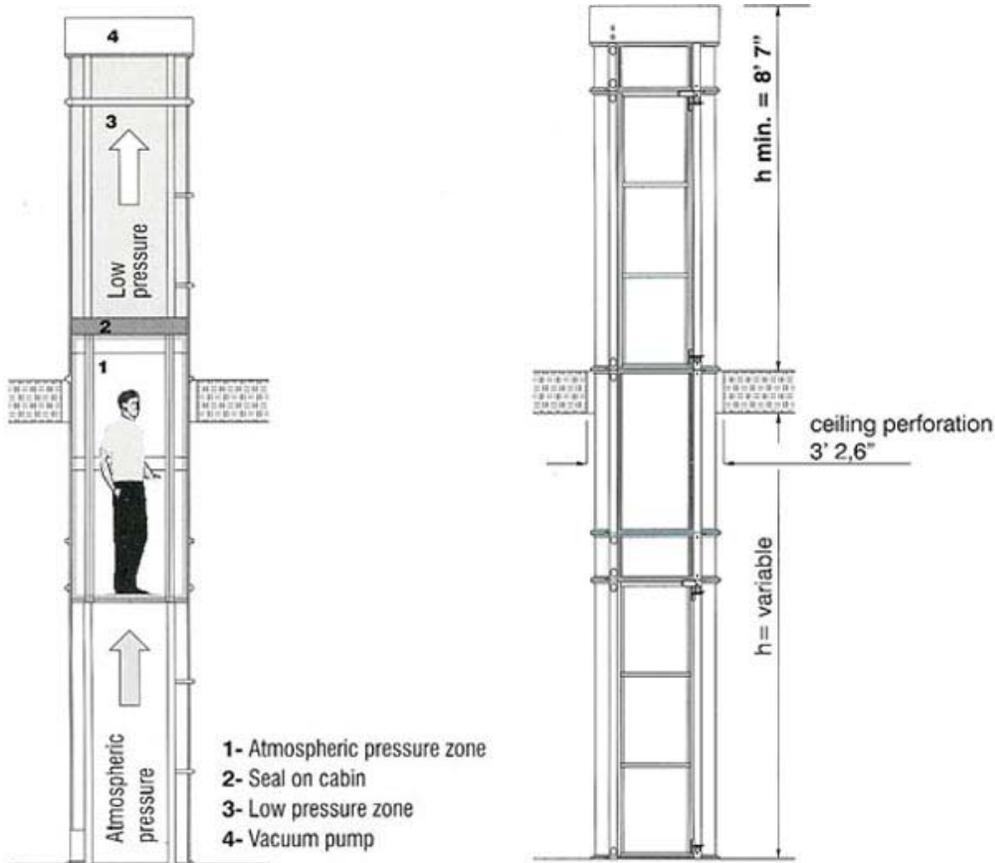
If there is a loss of power as the car is descending or ascending to any floor, the car will slowly descend to the lowest landing. Once the car reaches the bottom landing, the door will automatically unlock.

Additional Features include:

- Light automatically turns on when the door opens, and turns off with a timer.
- Walls are transparent, allowing light to continuously enter the car and cylinder.
- The driving machine has double suspension; if one fails the other will keep the car moving.

# ↑ NATIONWIDE LIFTS

Power Supply:	220 VAC, 60 Hz.
Motor Power:	4.5 KW
Dimensions:	External Cylinder Diameter = 37" (95cm) Internal Cabin Diameter = 32" (82 cm) Internal Cab Height = 77" (195cm)
Total Weight:	800 lbs (for 10' ceiling)
Lift Capacity:	450 lbs
Velocity:	6 in/sec (15 cm/sec) or 30 ft/min (9 m/min)
Illumination:	Halogen lights
Electrical circuits:	24 volts
Lubrication:	Not Required
Installation:	No excavation or shaft required. Elevator rests on floor. Self Supported.
Safety:	Pressure switch; On pressure loss, elevator brakes within 2 inches; On electricity loss, elevator descends at slow speed to bottom landing; Alarm system in car; Emergency ventilation; Door interlocks; Telephone
Warranty:	One year parts and labor





#### Polycarbonate

- ¼” glass impact resistance = 3 ft-lbs
- ¼” polycarbonate sheet impact resistance = over 200 ft-lbs
- The polycarbonate sheets have a forced entry protection; UL 972 and the following approvals: ANSI Z97.1, ASTM D256, ASTM D638, ASTM D790, ASTM D792, & ASTM D1929.

#### Columns

- Aluminum Columns – Alloy 6063-T6
- Strength calculations will be made available upon request

#### Platform

- Platform is made of steel and attached directly to car frame
- Platform area is 5.55 sq ft
- Rated Platform load is 81 lbs/sq ft
- Internal diameter of car is 32”

#### Door Locks

- Manufactured by Prudhomme SA
- Designed for swing type doors
- Compliance with ASME A17.1 & CSA B-44
- UL Approved  
Elevator Door Locking Devices & Contacts  
File No. SA12746  
Project No. 02NK31731  
PD No. 03G03361

#### Elevator Control Panel

- Compliance with ASME A17.1 & A17.5
- UL Approved Controls  
File No. E239478  
Project No. 02NK37284  
PD No. 03G31226

#### Europe (European Community)

- Approved by TUV
- Certificate No. NL.04-400-1001-069-01

#### Latin America Testing and Approval

- Technical Institute Superior Otto Krause of City Buenos Aires