



Visilift Engineering Load Calculations

Visi-58/Visi-48

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- Primary loads are carried by the four support columns that run from top to bottom on the elevator.
- The primary load (represented below as Lower Floor Total Load) is supported on the bottom of the four columns.
- Each middle floor carries a separate Mid Floor Load supporting only that floor's metal floor rings and doors, while the main cab/hoistway load (Lower Floor Total Load) is transferred fully to the bottom floor.
- Walls of bricks, terra-cotta, hollow blocks, and similar materials shall not be used for attachment of guide-rail brackets unless adequately reinforced.
- Where necessary, the building construction shall be reinforced to provide adequate support for the guide rails.
- Shipping weight is estimated actual including crating materials, etc.
- Floor load figures include elevator structure weight when loaded with full test capacity.
- **Floor load figures shown here are actual loads; your building engineer must add a proper factor of safety to the floor design.**
- Many jurisdictions require floor designs to include at least a safety factor of 2.0, doubling the loads shown here.
- **To reiterate, these figures DO NOT include your factor of safety for floor loads.** Engineer your floor to include (add) an appropriate safety factor and comply with local building codes.

$$\text{Lower Floor Dead Load (lbf)} = (38 \times \text{foot of hoistway}) + (60 \times \text{number of floors}) + 2193$$

$$\text{Lower Floor Impact Load (lbf)} = 3703$$

$$\text{Lower Floor Total Load (lbf)} = \text{Dead Load} + \text{Impact Load}$$

$$\text{Mid Floor Load (lbf)} = 182$$

$$\text{Shipping Weight (lb)} = (694 \times \text{number of floors}) + 1720$$

Note: Shipping weight includes the actual component weights for all parts, plus shipping crate and packaging weight.

Examples

	<u>3 stop with 36' of hoistway</u>	<u>2 stop with 19' hoistway</u>
Lower Floor Dead Load	3,741	3,035
Lower Floor Impact Load	<u>3,703</u>	<u>3,703</u>
Lower Floor Total Load	7,444	6,738
Mid Floor Loads (on each mid floor)	182	182
Shipping Weight	3,802	3,108