

Valet-Operated Parking Lift



The Challenge

A repair shop owner wanted to expand the business but was limited in square footage at the ground level in the downtown area of his city. He owned the 3-story commercial building he was in, but had no way to access the upper floors with vehicles without installing concrete driving ramps between floors (which consumed valuable parking space) or installing some kind of lift system. So, the challenge became moving vehicles up to 18-feet long, and weighing up to 10,000 pounds, between three different elevations in the smallest footprint possible. And, because the installation was to take place in California, a Professional Engineer registered in California imposed special material lift code requirements – including special signage, GAL interlocks, and the submittal of seismic calculations for approval.

The Autoquip Solution

The architect in charge of the building modifications contacted an Autoquip sales engineer to review the proposed floor plan and desired performance requirements of the vehicle lift. A four-post vertical reciprocating conveyor (VRC) from our Freightlift family of mechanically-actuated VRCs was identified as the best solution for this application for the following reasons:

1. lift is designed for high-capacity applications – especially with large area carriages
2. lift is designed to hold elevated positions for extended periods of time without drifting down
3. lift is capable of being called or sent to/from multiple landings – with total vertical travels up to 100 feet



4. lift utilizes a mechanically-synchronized lifting chain design that raises all four corners of the carriage in unison – keeping the carriage extremely level during raising & lowering.

The lifts were also equipped with free-fall arrest devices that would completely stop the descent of a lift in the unlikely event of a catastrophic lifting chain failure. And finally, all sides of the carriage were equipped with personnel guarding, including fixed handrails on the non-access sides of the lift and locking swing gates on both loading sides of the lift. The end user is completely satisfied with this clean and reliable vehicle lift solution, and the state of California has also inspected and approved this lift for commercial use by a trained employee/valet (not for use by the general public).

Lift Specifications for this Unique Application:

Model: FL4M-15

Live Load Capacity: 10,000 lbs.

Axle Load Rating: 6,000 lbs.

Vertical Travel: 292"

Number of Stops: 3

Carriage Size: 120" x 240"

Lift Speed: 25 feet per minute

Lift Actuation: Mechanical Gear Motor

The Solution Benefits

Autoquip was uniquely qualified to provide a customized 4-Post VRC design that satisfied all equipment specifications and various code requirements. The customer has a high capacity, near free-standing vehicle lift that has allowed them to triple the amount of available parking/vehicle space – without having purchase additional real estate.