

APPLICATIONS

WORLDWIDE



MATERIAL HANDLING SOLUTIONS

www.pflow.com
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PFlow Corners the Market for “Big”, Heavy-Duty Material Lifts



- F Series 4-Post Mechanical Lift
- Lifts Loads 20,000 lbs. - 200,000 lbs.
- 26' Vertical Rise
- 14' - 161' Levels of Vertical Rise
- 5 FPM - 40 FPM Travel speed

PFlow Industries pioneered the vertical material lifting system product class in 1977 and has designed, built and installed systems to lift materials from 100 lbs. to 100 tons for a diverse group of applications. While the core market segments are manufacturing, warehousing, distribution and retail, there are PFlow lifts installed in many unique settings, including luxury residences, government facilities, power plants and shipyards.

At the higher end of the capacity range PFlow has built over 750 “Big”, heavy-duty lifts, with capacities of 20,000 lb. or more. These Big lifts are highly engineered and customized systems, adapted from the PFlow four-post F Series design to meet the exacting needs required of the application.

While several competitors have been able to copy the rudiments of PFlow’s more basic lift designs, the Big lifts rely heavily on PFlow’s superior engineering and project management expertise, and have yet to be reliably replicated. Those in the industry know that if you need to lift something big, you need to work with PFlow.

The primary capacity range for Big PFlow lifts is from 20,000 to 50,000 lbs., though some have been designed to lift in excess of 200,000 lbs. The vertical rises can be as short as 5 to 10 sq. ft., or in excess of 200 sq. ft.

As would be expected, the Big lifts feature larger beams and columns, more robust sprockets and drives, and heavy duty steel throughout. Because of their large loads, some feature open tops requiring the entire drive system to be moved from its standard position to an alternate location.

The following summary of eleven Big PFlow lift installations illustrates the extent to which the PFlow engineering team applies its expertise and innovation to design and build Big lifts. Big not only in size, but also in how they solve the biggest lifting challenges.



REDDING POWER PLANT REDDING, CA

The plant is a state-of-the-art facility that generates electricity through the burning of natural gas. The 6,000 lb. capacity lift delivers catalyst blocks to each of ten elevations of the building, moving the 11' x 17' carriage along the 47' rise at a speed of 22 feet per minute.

The catalyst cart is transported onto the lift conveyor by a series of coordinated moves between both the carriage mounted conveyor and the ground level conveyor. Once on the carriage, the catalyst block ascends to the desired elevation where it is pushed into its designated building receptacle. This process is repeated at each of the 10 elevations and is reversed when removing the catalyst carts from the building.



RESIDENTIAL BUS LIFT LAKE TAHOE, NV

The lift is designed to move the owner’s private RV bus from the driveway to an underground garage

directly underneath. The lift features a 200,000 lb. capacity, which includes the bus and the lift platform on which the bus sits while being lowered for storage and retrieved for use.



ADVANCED TECHNOLOGY SOLAR TELESCOPE (ATST) PUKALANI, HI

Installed at the National Optical Astronomy Observatory to lift the

telescope into alternate observing positions. Because of the delicate load, the lift is required to move at a slow, steady speed of 5 feet per minute. It features a 76' vertical rise, a 19' x 19' lift carriage, and a 54,000 lb. payload (44,000 lb. for telescope and 10,000 lb. for lift carriage).

LIFTS THAT ARE BIG IN SCOPE, IF NOT LIFTING CAPACITY



SEA RAY BOAT PRODUCTION FACILITY PALM COAST, FL

A 5,000 lb. capacity lift that doubled the storage space and greatly improved the material handling

system within an existing Sea Ray building. Though the 24' W x 16' deep lift carriage is certainly larger than most, the lift is unique because the entry point on each level requires an unusually wide clearance, encompassing the entire 24' carriage width. Such a large opening is not conducive to the standard sliding, vertical acting or swing gates typically used on lifts. A motorized coiling steel, roll-up door and a special door frame design was required at each level along with an integrated door lift control.

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SOURCE "THE VAULT", CLASSIC CAR STORAGE HOUSTON, TX

A specialty auto dealership expanded its operations to include a two level facility for the storage of cars owned by private collectors. The lift has a 6,000 lb. capacity and an 8' x 16' carriage to handle vehicles. Once the cars are placed on the lift they are moved 14' through the ceiling to the upper level for storage.



AT&T, NJ

A 70,000 lb. capacity lift (20,000 lb. for the 12' x 24' lift carriage, and 50,000 lb. for the load) that lifts 20' shipping containers 40' down into a secure underground facility for unloading of telecommunication equipment.



FIELDALE FARMS, CHICKEN PROCESSING FACILITY BALDWIN, GA

The 8,000 lb. capacity, 10' x 8' carriage lift features Galvanized steel components with caulked seals and NEMA 4X electrical enclosures to withstand the daily washdown required of the sanitary food facility.



INCINERATOR, FL

The 15,000 lb. capacity lift moves contraband materials seized by law enforcement authorities 78' from the ground level to an elevated incinerator where the materials are burned for disposal. The 9' x 9' carriage moves at 37 feet per minute satisfying the requirement to move the materials quickly and securely.

The lift is installed outside not far from the ocean, requiring Galvanized steel components and NEMA 4X electrical enclosures that withstand the corrosive marine environment.

DUPONT CHEMICAL PLANT, IA

A 30,000 lb. capacity lift that moves a forklift carrying large chemical containers to any of six levels along a 161' vertical rise. The 10' x 14' lift carriage moves at 18 feet per minute.



AIR FORCE BASE, UT

A four-post screw lift with electrically synchronized motors on each corner, each with independent drives to keep the platform level within a 1/16" tolerance. Attached to the 20' x 30' carriage is a building that houses electronics to measure radar signals. The lift has a total payload of 40,000 lb., allowing it to lift the building and electrical

equipment into position to better measure the radar.

Because of the delicate equipment and the need to keep the building perfectly level, the lift travels the 17' rise at a speed of 5 feet per minute. Designing a lift to travel slowly is typically more challenging than designing one to move fast!



GOLDKIST CHICKEN PROCESSING PLANT SUMTER, SC

The 8,000 lb. capacity lift is installed in an existing 8.5' x 12' elevator shaft, seamlessly enhancing the productivity of the existing building infrastructure.