

# PFlow

Industries, Inc.

## 21 SERIES | 2-POST HYDRAULIC LIFT

Adaptable for mezzanines,  
through-floor, inside or outside  
applications.

- ↓↑ Lifts loads up to 6,000 lbs. Carriage sizes up to 12' x 10'. Vertical rise to 22'. Standard travel speed is 24 FPM (up to 35 FPM available).
- ↓↑ Carriage is lifted and lowered by two hydraulic cylinders mounted on 6" guide columns.
- ↓↑ Torsion bar links the two hydraulic cylinders to equalize the load and ensure the carriage remains level at all times regardless of load placement.
- ↓↑ Velocity fuses prevent uncontrolled descent in the event of hose rupture.
- ↓↑ Pressure switch prevents the carriage from drifting or sinking to ensure smoother, safer loading and unloading operations.
- ↓↑ Pressure-compensated control valve regulates flow of hydraulic oil to ensure smooth, constant lowering speed under any load.
- ↓↑ Quick-connect cabling for push-button stations and gate interlocks are optional. This significantly reduces field-wiring costs.
- ↓↑ DeckLock Safety System available for added security at critical upper levels.
- ↓↑ Suitable for indoor or outdoor use. Optional hot-dipped galvanized or epoxy finish; available for outdoor, chemical, caustic wash-down, or explosion proof environments.
- ↓↑ Conforms to ASME B20.1 Safety Standards.



**GENERAL**

The 21 Series moves materials between two levels. Principal components are guide columns, carriage and hydraulic actuating mechanism.

**APPLICATION DATA**

Lifts loads up to 6,000 lbs. Carriage sizes up to 12' x 10'. Vertical rise to 22'. Standard travel speed is 24 FPM (up to 35 FPM available).

**STRUCTURE**

Guide columns are 6" wide flange. Carriage is fabricated of heavy-duty structural members with steel deck plate. Other deck surfaces can be supplied. Straddle or cantilever carriage available depending on application.

**OPERATION**

Carriage is lifted and lowered by two hydraulic cylinders mounted on guide columns. Cylinders are actuated by a remote mounted hydraulic pump. Transmission of the lifting force is through roller chain attached to the cylinders and carriage. A torsion bar links the two cylinders to equalize the load and ensure carriage remains level at all times.



**ELECTRICAL**

Standard power requirements are 208/230/460VAC, 3-phase (single-phase available). Control voltage is 24VAC. Push button stations and pump mounted pre-wired control panel are NEMA 12 rated. Push button stations are provided for each level and include call/send operators and mushroom-head emergency stop. Quick connect pre-wiring is optional.

**SAFETY FEATURES**

Upward travel of the carriage is limited by mechanical stops that ensure positive leveling with the upper deck. Overtravel is prevented by positive mechanical stops. Safety cams prevent uncontrolled descent if chains break. Pressure builds to "lock" carriage into position at upper level. Velocity fuses prevent uncontrolled descent in case of hydraulic hose rupture. NO RIDER signs are posted at each point of operation. Optional DeckLocks automatically lock carriage at the upper level to eliminate drift or bounce.



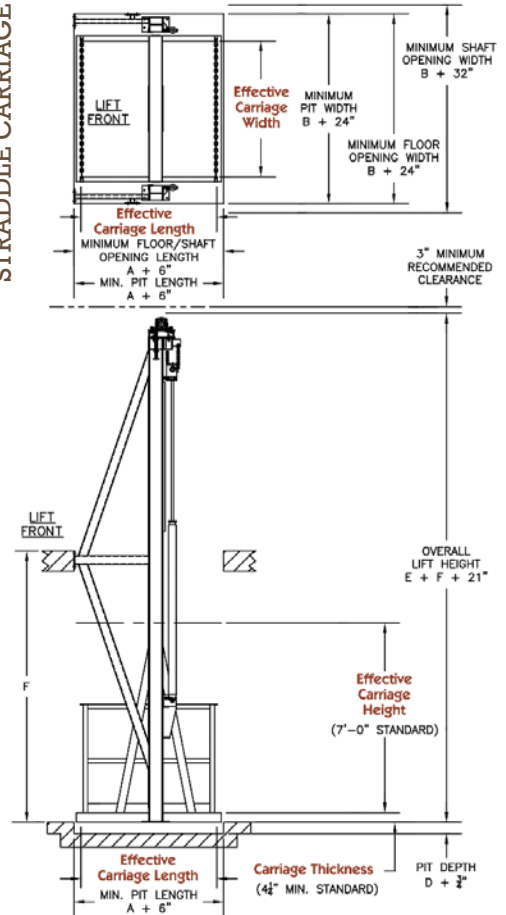
**CARRIAGE SIDE GUARDS**

Carriage is equipped with safety rails on non-operating sides and safety chains or diagonal drop bars on operating ends. Optional expanded metal or sheet metal carriage side guards are available.

**SAFETY ENCLOSURES / GATES**

Safety codes (ASME B20.1) require interlocked gates and enclosures on all sides of the lift. Enclosures must be a minimum of 8' high and reject a ball 2" in diameter.

STRADDLE CARRIAGE



CANTILEVER CARRIAGE

