

PRODUCT TYPES

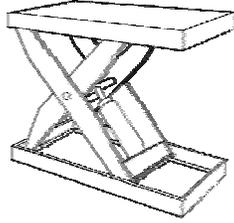


SOUTHWORTH

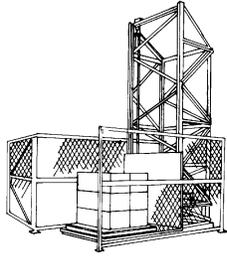
1. PRODUCT TYPES

NOTES

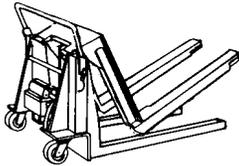
A. Scissors lifts



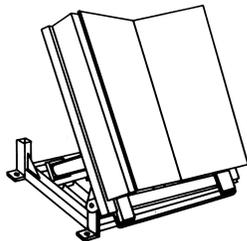
B. Mast lifts



C. Tilters

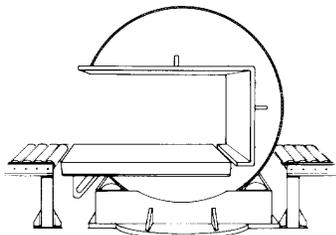


D. Upenders

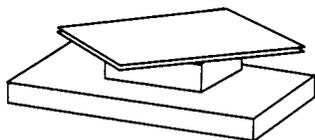


E. Inverters (180°)

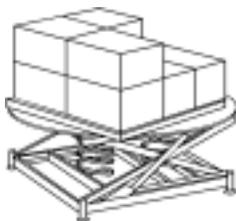
NOTES



F. Turntables



G. Positioners



H. Transporting



2. CATEGORIES

NOTES

A. Facility Products

1. Dock Lifts - Generally 5' of travel or less and principally used to load and unload trucks.
2. VRC – Principally used to go from floor to floor.

B. Industrial (in-plant) Products

A virtual smorgasbord of applications!

3. INSTALLATION

A. Surface mounted

1. Fixed
2. Mobile

- A. Portable – empty
- B. Transport – loaded

B. Pit Mounted

4. STYLES

NOTES

A. Hydraulic

Hydraulic devices use one or more hydraulic cylinders to power up or down. The power unit can be mounted internally on some models. It can be remotely located, usually within 30 feet. The electrical controls can also be mounted internally, space permitting.

B. Pneumatic

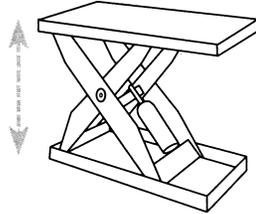
Pneumatically actuated machines use air bags. Vertical travel is limited to 24". Tilters are limited to 45 degrees. They are generally well suited for applications where specific, fixed intermediate elevations are not required. Due to the compressibility of air, control is not precise at any elevation other than fully lowered or fully raised.

C. Mechanical

Mechanical devices use drive screws or linear actuators (ball screws) to raise or lower the lift or tilter. These non-hydraulic machines are suited for precise control applications where interface at specific elevations are required or where the machine must maintain a specific elevation for extended periods of time.

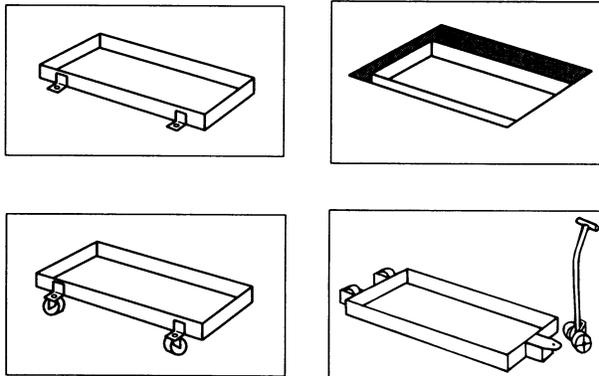
5. SCISSORS LIFTS

NOTES



- A. Raising and lowering device that is supported or stabilized by one or more pantograph leg sections. Capacities to 100,000 lbs., vertical travel to 12'.
- B. Made of three components

1. The base

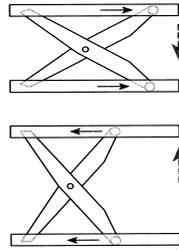


The rigid support for scissors legs

- A. Lagged to the floor
- B. Built into pit
- C. With wheels or casters
- D. Semi-live with skid spotter

2. The leg assemblies

NOTES



Provide level vertical motion to support the platform. Connected by shafts at main axle and hinge blocks; the opposite ends of legs have rollers.

3. The platform

Must be compatible to base and legs, can be furnished with:



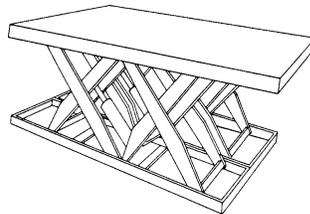
- A. Conveyor – powered or gravity
- B. Turntables – powered or manual
- C. Tilt tops
- D. Special fixtures

C. Tandem lifts

NOTES

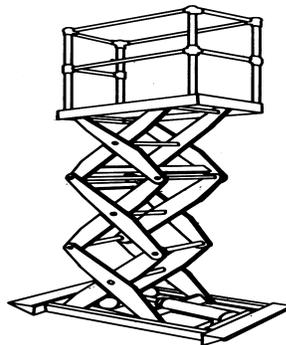


For long or heavy loads



Tandem lifts can be end to end or side to side or both for wide heavy loads.

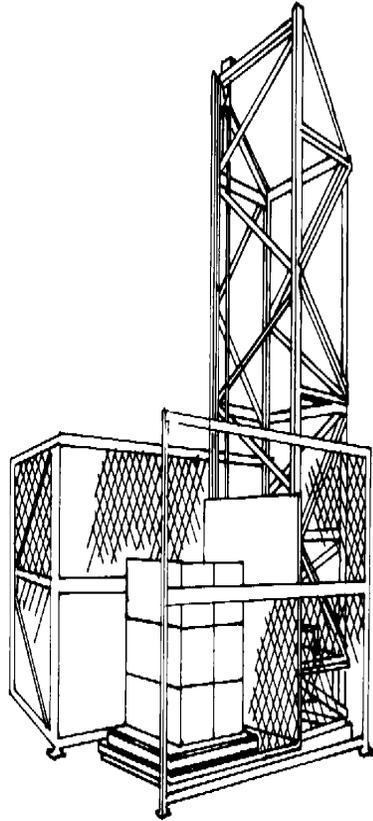
D. Double and triple lifts



Where smaller platforms are required and high travel is needed.

6. MAST LIFTS

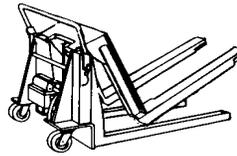
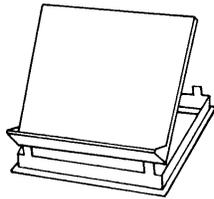
NOTES



- A. Uses vertically mounted cylinder
- B. Mast supports and guides platform
- C. Capacities to 4,000 lbs. and vertical travel to 22'
- D. Examples:
 - 1. ROLLC
 - 2. Stack Box Positioner
 - 3. VRC (Vertical reciprocating conveyors)NOTE: See special section on VRC's

7. TILTERS

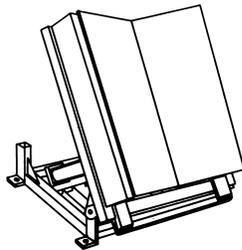
NOTES



- A. Devices which pivot a platform or forks on a horizontal tilt axis up to 110°
- B. Examples: E-Z Reach Container Tilter
- C. Custom capacities to 20,000 lbs.
- D. Custom platform sizes to 64 sq. ft. (approx.)

NOTE: Custom designed tilters represent a different hazard than lifts and accordingly, specific inquiry information is needed at time of quote. This information is fundamental to achieve accurate pricing and essential to insure the safest possible application of this product.

8. UPENDERS (DOWNENDERS)

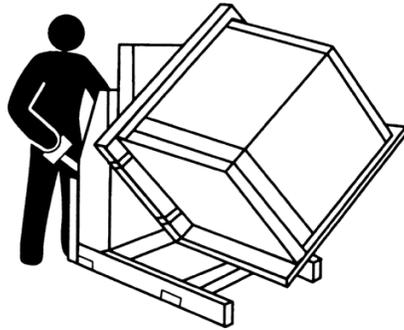


- A. Custom tilters that generally travel 90° and their primary purpose to change the orientation of an object (i.e. standing a coil on end)
- B. Custom capacities to 50,000 lbs. and platform sizes to 100 sq. ft. (approx.)
- C. Upenders can be:
 - 1. Mounted on lifts
 - 2. Mounted on turntables
 - 3. Made portable (or with powered wheels)

9. INVERTERS

NOTES

A. Inverts load 180 degrees to:



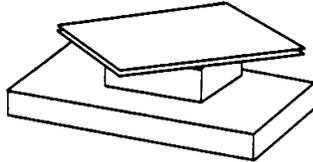
1. Transfer loads from pallets to slip sheets
2. Transfer loads from in-house to shipping pallets
3. Exchange pallet (purge damaged pallet)

B. Capacities to 3,500 lbs.

C. Pallet sizes to up 48" wide x 42" deep x 76" high

10. TURNTABLES

NOTES



A. Types

1. Manual 60" x 60" to 6,000 lbs.
2. Powered 96" x 96" to 20,000 lbs.

B. Styles (manual)

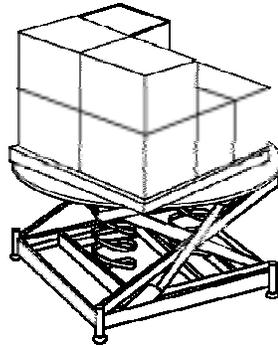
1. Pal Disc 7/8" thick
2. Flush mount (new-Fall '98)
3. Rotator ring (PalletPal)
4. Traditional (Southworth design)

C. Mounting can be to:

1. Floor
2. Lift (Southworth only)
3. Transfer car
4. Stable surface (bench)

11. POSITIONERS – (Level Loaders)

NOTES



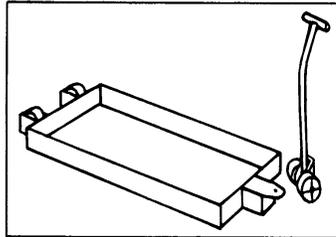
- A. Functions differently than lifts - responds to load changes automatically (lifts respond to the operator's command)
- B. Surface mounted and/or portable.
(NOTE: Cannot be pit mounted)
- C. Examples:
 - 1. PalletPal – Air & Spring – to 4,400 lbs.
 - 2. Dandy Levelers (two models) – to 1,100 lbs.

12. TRANSPORTING

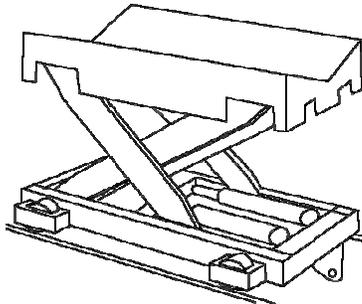
NOTES



- A. Cataloged Dandy line of manually powered lifts which transport loads from place to place. Capacities to 1,760 lbs.



- B. Custom In-plant and standard lifts can be fitted with wheels and casters or semi-live packages. Capacities to 6,000 lbs. (practical limit)



- C. Custom hi-capacity/hi-performance transport lifts- Coil Cars. Capacities to 100,000 lbs.