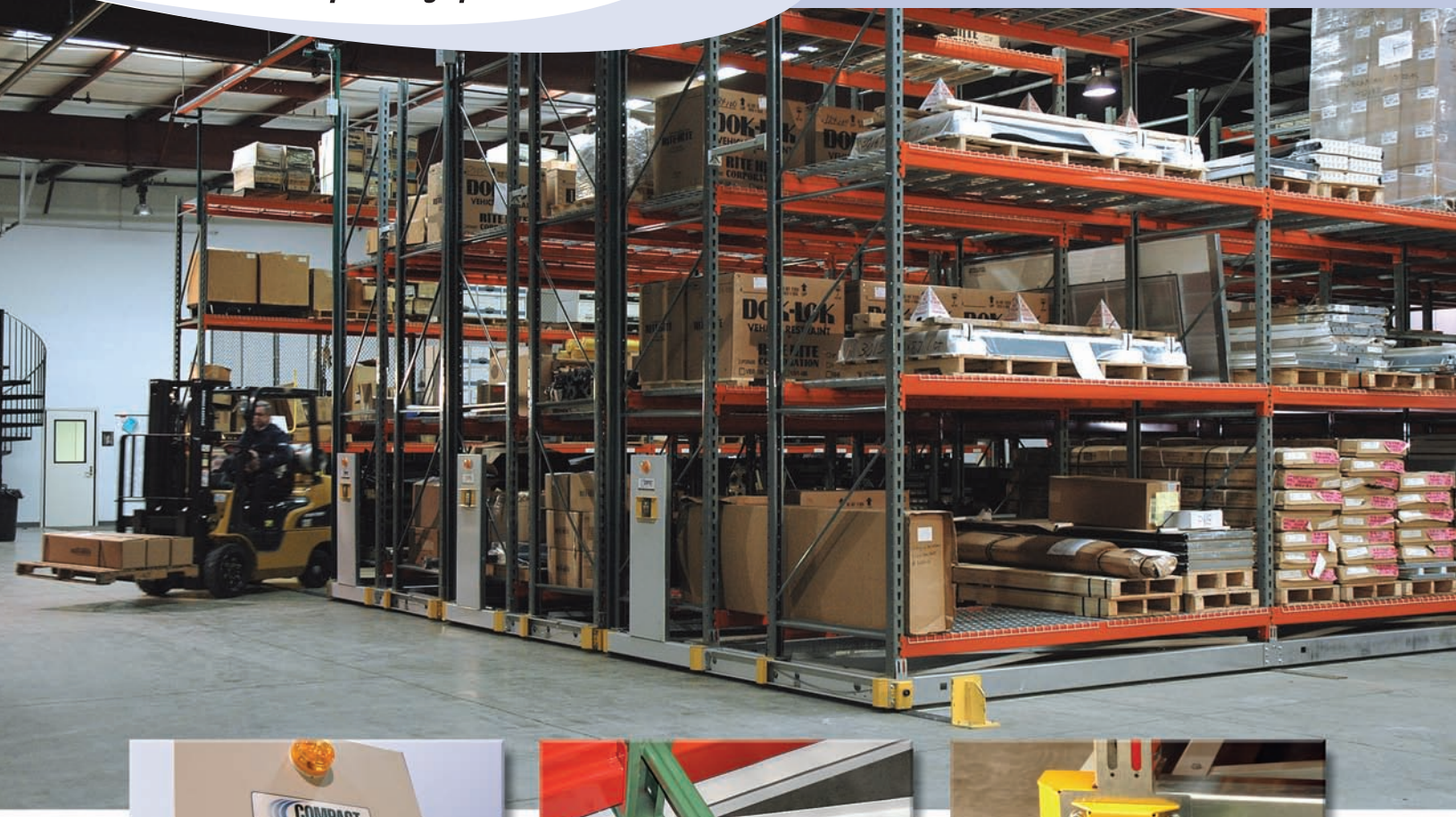
COMPACT
STORAGE SYSTEMS
Increasing Productivity & Optimizing Space

CPA Series 16



- Each carriage is provided with a central safety and movement control unit located at the end of the carriages and contains the following:
  - Directional movement buttons.
  - Safety stop/reset button.
  - Control head LED status indicator.
  - Amber warning light.
  - Solid-state safety and control modules.
  - Audible start movement signal.
- Controlled start and stop sequence.
- Welded structural steel wheel assembly with a maximum capacity of 16,000 lbs per single face rack assembly.
- Each wheel assembly is equipped with two wheels 6" in diameter with dual flanged guidance.
- Each wheel is equipped with two permanently lubricated & shielded radial ball bearings.
- Rails are designed with dual flange guidance made from solid 1018 steel with black oxide finish for rust protection.
- Rails can be installed either surface mounted or recessed 3/8" into the concrete floor.
- Easy accessibility for maintenance and service.
- Infrared photoelectric safety sweeps scan the full length of both sides of each carriage. The sweep will prevent or immediately stop movement if an obstruction is encountered or the beam is broken.
- Safety-stop push button.
- A warning horn sounds for the first 3 seconds of movement.
- Entire system is U.L. listed.

CPA Series 16

GENERAL DESCRIPTION: Powered carriages are moved by means of 1/4 HP; 90 Volt DC Gear Motors. Motor controllers provide for soft-start/soft-stop. This allows users to move thousands of pounds by activating the central safety and movement control unit. Multiple carriages can be moved in a single activation. This mobility allows for compaction of the units while remaining accessible on demand. The compaction allows for substantial savings in floor space.

QUALIFICATIONS: The CPA series 16 system is furnished and installed only by those firms engaging in the manufacture of mobile storage products. The entire system shall be warranted by the manufacturer against defective parts and/or workmanship for period of (3) years from final acceptance.

PRODUCT:

Track:

- Track is 1018 steel 3/8" thick x 4-1/2" width.
- Track and carriage design allows concrete slab to be unlevel at the following maximum variations:
  - 7/16" over 20' parallel to a rail and a maximum of 3/16" in a 2' length along a rail.
  - 3/8" across 5 rails up to 40' and a maximum of 1/4" from rail to rail for 10'.
- Track is precision milled for mating with wheels.
- Tracks are attached to the floor every 15".
- Track is shipped in 4' sections and is designed to eliminate sub floor installations.
- Track can be surfaced mounted or recessed 3/8" in the concrete floor.
- Track is coated with black oxide for appearance and rust protection.

Carriage:

- Assembled structural steel carriages will have a maximum capacity of 16,000 lbs per single or 32,000 back to back rack section.
- Each wheel assembly is equipped with two wheels, 6" diameter. All rotating members to ride on ball bearings.
- Wheels are equipped with two permanently lubricated and shielded radial ball bearings.
- Wheels have solid steel axles of 1-3/8" in diameter.
- All carriage sections between wheel assemblies have integral cross bracing to maintain accepted tolerances for function of systems.
- Side profiles provide and maintain wheel assembly alignment and squareness. These profiles are pre-drilled at the factory but are bolted, and assembled on the job site as integral carriage members.
- All wiring is routed through an enclosed housing channel to protect the electronic wiring harness.

MOTOR AND POWER TRAIN:

- Each carriage shall be equipped with one or more 1/4 HP; 90 volt DC gear motors, depending on load rating.
- Each independent drive shall be synchronous and current limiting, in lieu of drive shafts, to maintain proper alignment within system regardless of length or weight load and eliminate racking and binding inherent in tubular or solid steel drive shaft systems.
- Motor and motor controllers to provide for soft-start/soft-stop, current limiting, and be equipped with an automatic time-out.
- Carriage movement is sequential to minimize power demands on start-up.
- Motors and power train provide for carriage travel speed of 3" per second.
- All power transfer to wheels is done by chain drive.

POWER:

- Power to mobile units is provided by an overhead buss bar system requiring only 110 volt service.

CONTROLS:

- Each carriage is provided with a central safety and movement control unit located at the front end of each carriage. This unit is housed in an industrial type enclosure at the front end of the rack system providing the following control functions:

  a. Directional movement buttons.

  b. Safety stop/reset button.

  c. Control head LED status indicator.

  d. An amber warning light.

  e. Solid-state safety and control modules.

  f. Audible start movement signal.

  When the right or left aisle operate push button is pressed, that aisle will open automatically regardless of the position of the carriages. Control systems can be reset automatically after each normal operation or require operator reset if desired. Overall status of the system is displayed on the control head LED status indicator and aisle control unit. Aisle distance limit switches are photoelectric proximity type. As a moving carriage approaches the desired limit position, travel speed will automatically slow as the carriage nests into the required position. All limit switch locations and reflectors, receivers, bumpers, and stops to be mounted at rigid locations and protected from transient damage by fork lifts, carts, personnel, and equipment.

SAFETY FEATURES:

The following safety features will be provided:

a. Photoelectric safety sweeps scan the full length of both sides of each carriage. The sweep will prevent or immediately stop movement if an obstruction is encountered or the beam is broken. Status of the sweep to be displayed on the control unit.

b. Safety-stop push button. as described earlier to be provided at each aisle control unit.

c. A warning horn sounds for the first 3 seconds of carriage movement.

d. A flashing yellow warning light is provided on the carriage ends that will flash active operation.

e. Entire system to be U.L. listed.

WARRANTY:

- The carriage assemble is warranted by the manufacturer against defective parts and or workmanship for a period of three (3) years from final acceptance.
- Track is warranted for five (5) years from final acceptance.
- All wheel bearing assemblies are warranted for the life of the product.

EXECUTION:

- Units to be installed in accordance with manufacturer's written instruction, and conducted by a factory trained certified technician.

OPTIONS:

- *Rechargeable battery pack* that allows for single carriage operation in the event of a total power failure to the system.
- *Infrared user key* to move, stop and reset a carriage remotely from a fork truck.
- *Infrared manager key* for carriage movement master control, as well as system control head power on or off.

COMPACT STORAGE SYSTEMS
Increasing Productivity & Optimizing Space

1064 S Greenwood Springs Blvd Suite F, Greenwood, IN 46143
Toll Free: 866-767-1888 • FAX: (317)215-5091 • www.compactstoragesystems.com