


## TECH DATA

# ActivRAC<sup>®</sup> 7P

MOBILIZED STORAGE SYSTEM

Spacesaver<sup>®</sup> Industrial<sup>®</sup> ActivRAC<sup>®</sup> 7P mobilized storage systems, designed specifically for utility, and backroom storage, provide the safest, most reliable, durable, and easiest user operation available today. Flexible system designs will meet the most demanding industrial requirements.  UL US LISTED system listed. Unique, innovative design allows you to mobilize your existing racking or industrial shelving and install the system on your existing floor. Flexible system design allows you to store more in less space as well as free up value generating space and better organize your materials resulting in improved operational efficiency.

### BENEFITS

Spacesaver provides a state-of-the-art, mobilized storage system design that provides a convenient control operation and safety devices to provide user and materials protection.

### SYSTEM OPERATION

1. Open an aisle with one-touch, user-friendly, directional operation (at the carriage mounted control or via optional infrared or RF remote control).
2. Press a safety "Stop/Reset" button to immediately stop any moving carriage(s).
3. Easily distinguish a system's operational status via the lighted indicators on each carriage.
4. Be protected by in-aisle safety devices that stop carriage movement when a person or object (i.e., box or ladder) is detected.

### SAFETY FEATURES

1. When carriages are in motion, any safety activation (PhotoSweeps<sup>®</sup> and aisle entry sensors) will stop the aisle from closing on that aisle and the mobile carriage LED indicators will illuminate flashing red on both sides of the aisle where the safety was activated.
2. Depressing any "Stop/Reset" button during carriage movement will bring all carriages to a stop.
3. After carriages complete their movement the open aisle will be locked out and the control head indicator on either side of the open aisle will illuminate "Aisle in Use" - it's now safe to enter the aisle.




ActivRAC<sup>®</sup> 7P powered mobilized storage systems are space efficient and easy to use. Designed for continuous use in manufacturing, warehouse and distribution environments, and to provide durable, reliable operation.

# DESIGN AND CAPABILITY



ActivRAC 7P mobilized storage systems are safe, space-efficient and easy to use. They are designed for continuous use in utility, backroom, and warehouse environments and provide durable, reliable and low maintenance operation. They feature fully-welded wheel assemblies that ride on either low profile beveled top mount rails or recessed mounted rails which allow a flush rail/floor configuration. Systems are provided with safety sweep and aisle entry sensors to ensure robust operator safety.

## A. Powered Systems

- Carriage design capability permits virtually unlimited carriage layout configurations.
- Soft-start carriage movement reduces system start-up amperage draw and eliminates jostling of stored material during movement.
- Positive direct wheel DC motor drive with soft start/stop, dynamic braking, current limiting and automatic time out.
  - Provides smooth, even carriage movement.
  - Protects material stored.
  - Provides longer system life.
- Infrared distance sensors for precise carriage positioning.
-  LISTED system listed to assure electrical safety.
- Optional dual controls for accessing a system module from both the front and rear.

## B. Top Mount Rail Design Option

All rails are installed on top of concrete slab.

- 3/8" (9.5mm) tall x 4-1/2" (114mm) wide steel rails with black zinc finish, with beveled edges. ADA compliant.
- Rail and carriage design allows concrete slab to be unlevel at the following maximum variation
  - 3/16" (4.8 mm) variation over any 2' (.6m) rail run
  - 1/4" (6.4mm) maximum variation over any 10' (3.04m) rail run
- Provides minimal interruption of material handling equipment
- Solid, top mounted on floor, supporting up to 7,000 lbs (3,175 kg) per wheel assembly.
- Disperses heavy wheel point loads to floor.
- Designed to operate under heavy, long-term, cyclic stress loads.
- Mobilized storage systems assuring low maintenance and easy operation.

## C. Recessed Rail Design Option

All rails are installed flush with concrete slab.

- 3/8" (9.5mm) tall x 3-1/2" (89mm) wide steel rails with black zinc finish, designed to be installed flush into the concrete floor
- Rail and carriage design allows concrete slab to be unlevel at the following maximum variation:
  - 3/16" (4.8mm) variation over any 2' (.6m) rail run
  - 1/4" (6.4mm) maximum variation over any 10' (3.04m) rail run
- Provides flush non-interrupted transition for material handling equipment
- Solid, flush mounted in floor, supporting up to 7,000 lbs (3,175 kg) per wheel assembly.
- Disperses heavy wheel point loads to floor.
- Designed to operate under heavy, long-term, cyclic stress loads.

- Mobilized storage systems assuring low maintenance and easy operation.

## D. Drive Wheels & Drive Shaft

- 5" (127mm) Diameter cast iron drive wheels which are located in the wheel assemblies
- Heavy duty 1-5/16" O.D. 11-gauge tubular drive shaft, with bolted ends that provide solid, maintenance free connection to the drive axles in each carriage section.

## E. Uniframe Wheel Assemblies & Carriage Base

- Fully welded uniframe wheel assemblies.
  - Provides maximum strength for the load and cyclic stress requirements of a mobile system.
  - One-piece construction assures wheel alignment.
- Assembled structural steel carriage base has a maximum capacity of 7,000 lbs (3,175 kg) per carriage/ wheel section.

## F. Carriage Base

- Enables system to be installed on typical existing concrete floors without the need for leveled rails, footings, or second floor installation
- Allows system to track and transfer the rack loading equally to all carriage wheels.

## G. Multiple Synchronized Motors

- Number of motors varies with load, thereby, providing the most cost effective design.
- Provides smooth, even carriage movement.
- Maintains proper carriage alignment through closed loop motor feedback and control on all individual motors within carriage regardless of length or weight load distribution.

## H. Cross Bracing

- Keeps wheel assemblies in exact alignment.
- Provides rigid base for racking or shelving.

## I. Photo Sweep®

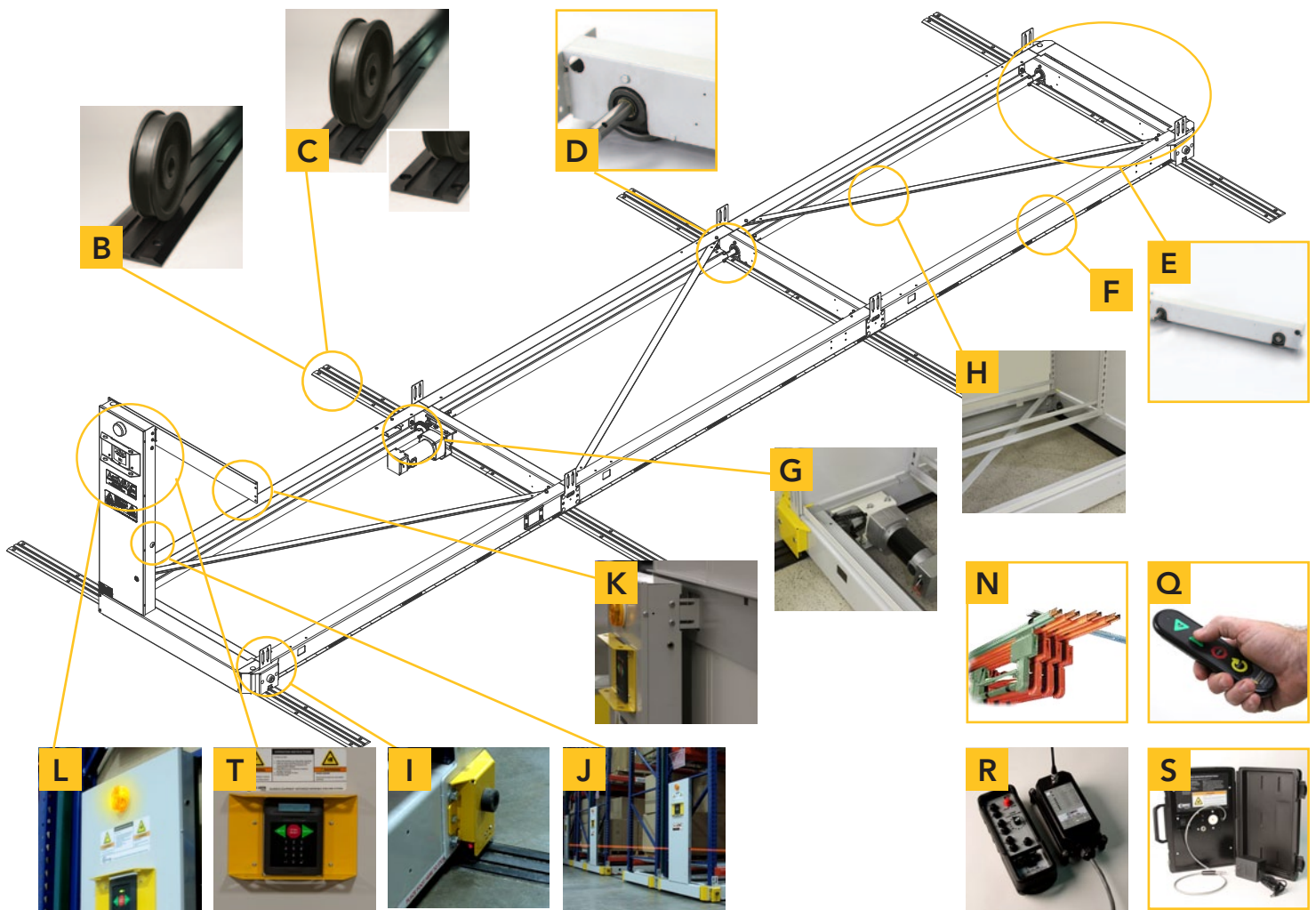
- Extends the entire length of both sides of the carriage, stopping movement and slightly backing carriage away when an obstruction is detected.
- Standard on all ActivRAC 7P mobilized storage systems.

## J. Aisle Entry Sensor

- Automatically stops or prevents carriage movement when a users enters an aisle.
- Should a user enter a closing aisle, the system will stop all carriage movement and that aisle will need to be reset to resume operation.
- Manual reset at the opened aisle provides additional safety by prompting users to visually check the open aisle before resetting the system.
- Solid state circuitry and photoelectric technology ensures long term system reliability.
- Standard on all ActivRAC 7P mobilized storage systems.

## K. Stanchion Support Bracket

- Universal bracket provides attachment of existing racking/shelving to stanchion.



#### L. Beacon & Horn

- Flashing beacon warns of carriage movement.
- Horn warns of carriage movement in areas where beacon cannot be seen.

#### M. Covered Wiring Raceway

- Protects wiring from abuse and contamination.

#### N. Overhead Buss Bar Power Distribution System

- Access aisle can be as large as needed.
- Keeps aisle free from wiring obstructions.

#### O. Pantographs (Optional)

- To be located towards middle of system.

#### P. Programmable Features. (Optional)

- System has optional programmable functions. (\*Interface from building management or security system will be required by customer)
  - System Priority Aisle
  - System Close Park
  - System Closed/Night Park\*
  - System Fire Park\*

Note: Parks and Auto-moves can also be triggered based on time of day and day of week.

#### Q. Infrared Remote. (Optional)

- Enables operator on a fork truck to operate a system control head within close proximity of the control head without the need to get off the truck.

- Controls Move Left, Move Right, Stop/Reset when directed at the control head and at the needed activation location.

#### R. Radio Frequency Remote. (Optional)

- Enables operator to open an aisle remotely from up to 1000' with no building or large equipment obstructions, or up to 350' with obstructions.
- System must also have aisle entry sensors and used in conjunction with the infrared remote so that the system must be in a clear or ready green state to activate the aisle with the RF remote remotely. If the system is in use, the RF Remote will not remotely open any requested aisle in the system.
- A single RF remote is capable of controlling up to six (6) carriages in a single module and up to fifteen (15) modules from a single remote.

#### S. Power Override Unit. (Optional)

- Handheld rechargeable battery unit enables a single carriage to be moved at a reduced speed if a power failure was to occur and the system needed to be accessed.

#### T. Touch Pad Control (Optional)

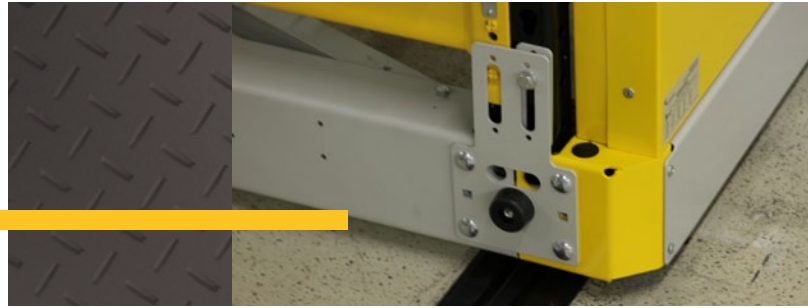
- Can be utilized to access a system module or specific aisles.
- Features pin access with audit trail capability.
- Can track who and when system or aisle is accessed.
- Can limit access to specific aisles by user.

#### U. Computer Interface (Optional)

- Computer interface allows aisle selection via PC. (Interface to WMS or ERP system provided by customer).



# SPECIFICATIONS



## Rail- Top Mount:

Rail shall be, 1018 steel bar 4 1/2" (114mm) wide x 3/8" (9.5mm) high with black zinc finish. Rail edges shall be beveled down to a maximum of 3/16" (4.8mm) to allow for the rail to be transversed by material handling equipment. Rail shall disperse the wheel point loads to structural slab. Rail shall have two permanently mounted floor anchors maximum 15" (381mm) on center. Rails shall be installed on top of concrete slab. Rail and carriage design allows concrete slab to be unlevel at the following maximum variation of 3/16" (4.8mm) variation over any 2' (0.6m) rail run and 1/4" (6.4mm) maximum variation over any 10' (3.04m) rail run.

## Rail- Recessed Mount:

Rail shall be, 1018 steel bar 3 1/2" (89mm) wide x 3/8" (9.5mm) high with black zinc finish. Rail shall disperse the wheel point loads to structural slab. Rail shall have two permanently mounted floor anchors maximum 15" (381mm) on center. Rail shall be installed recessed into concrete slab and flush to top of concrete slab. Rail and carriage design allows concrete slab to be unlevel at the following maximum variation of 3/16" (4.8mm) variation over any 2' (0.6m) rail run and 1/4" (6.4mm) maximum variation over any 10' (3.04m) rail run.

## Mobile Carriage Bases:

Assembled structural steel carriage base will have a minimum capacity of 7,000 lbs. (3,175 kg) per carriage section. Each wheel assembly shall be equipped with two wheels, minimum 5" (127mm) diameter cast iron wheels. Wheels are equipped with two permanently lubricated and shielded radial ball bearings. Wheel capacity 3,500 lbs (1,587kg) each. Wheels have solid steel axles of 1" in (25mm) diameter. Wheels shall be dual flange, all-wheel guided. Side profiles shall provide and maintain wheel assembly alignment and squareness. Structural steel side profiles shall be minimum 5" (127mm) high, 10 gauge thick steel channel. Finish shall be powder coat paint. These profiles shall be pre-drilled at the factory but are bolted, and assembled on the job site as integral carriage members. Wiring shall be routed through an enclosed housing channels.

## Power & Controls:

System power requirements - 120 VAC single phase input. Powered carriages shall be equipped with 1/8 HP; 90-volt DC gear motors. Multiple carriages shall be moved with a single activation of a carriage control and/or via an infrared or RF remote. Carriage shall be equipped with one or more 1/8 HP, 90-volt DC gear motors, depending on carriage load. Each independent drive shall be synchronous and current limiting to maintain proper carriage alignment through closed loop motor feedback and control on all individual motors within the carriage regardless of length or weight load and eliminate racking and binding. Motor and motor controllers shall provide for soft-start/soft-stop movement, current limiting, between sequential to minimize power demands on start-up, or block movement for faster access. Motors and power train shall provide for maximum carriage travel speed of 3" (76mm) per second. All power transfer to wheels to be done by line shaft drive. Power to mobile carriages is provided by overhead buss bar or overhead pantograph system. Power supply to be provided by others.

## Safety Features:

The following safety features are to be provided: Photoelectric Sweeps. The sweep will prevent or immediately stop movement if an obstruction is encountered or the beam is broken. Photoelectric aisle entry sensor shall be positioned at each entry location. The aisle entry beam will prevent or immediately stop movement if an obstruction is encountered or the beam is broken. Status of the safeties to be displayed on the control unit. Stop push button shall be provided at each aisle control. A warning horn shall be provided whereupon activation of an aisle movement push button it will sound for the first 3 seconds of carriage movement. A flashing yellow warning light is provided on the carriage ends that will flash during system movement.

Specifications are subject to change.  
Patent Pending.



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