

STACK - STORAGE AND RETRIEVAL SYSTEM



by RAPISTAK Corporation

With more than three decades of service to the material handling industry, **RAPISTAK CORPORATION** is recognized as a leader in its field and has set the stage for engineered material handling.



Several rack types are used including pallet racks, cantilever rack and high density adjustable pallet racks, adjustable in four inch increments with full proof engagement system. Configurations are available in single or double aisle arrangements and with walk thru or extended runouts to production areas. Racks may be mixed in any combination to meet all your storage needs in a single system. Using the **STACK - STORAGE and RETRIEVAL SYSTEM** on a cantilever rack allows for long loads of bar stock, tubing, pipe, lumber and sheet metal to be handled with ease without the assistance of additional floor personnel.

Due to their load stability, **STACK - STORAGE and RETRIEVAL SYSTEMS** provide the utmost assurance of safety, particularly for high piling or storage operations.

Versatility At It's Best

- In place of fixed shelves, removable and adjustable pallets can be utilized.
- Where normal storage systems require a forklift. **Rapistak S - S/R** systems utilize a captive lifting device. It saves time, space and improves productivity.
- It requires a single operator to handle items weighing from 500 pounds up to 6,000 pounds as standard (*higher capacities are available*).
- Aisle requirements are narrower than those required to maneuver a forklift thus saving floor space.
- The **Rapistak S - S/R** system is compact and efficient. It can be centrally located where you need it most.
- There is no need to wait for a forklift to become available. All material is neat, organized and instantly accessible. Allowing you to store and retrieve items in less than 2-1/2 minutes!

- Over-travel protection which limits hoist travel at upper end of the mast.
- Carriage Safety Stops that prevent a load from falling due to mechanical or electrical failure.
- Precise spotting due to maximum stability at high positions and minimum sway at any elevation, unlike floor mounted equipment.
- Flood light mounted on the rotating mast to illuminate work area.
- Overhead guards, operator handle and mast guards to protect the operator.
- Reduces rack damage.
- Minimal maintenance.
- Smaller aisles can be used for higher storage density.
- Safer and more efficient handling with fewer personnel.
- Expandability is endless with the **Rapistak S - S/R** system. As you grow, the system can grow with you.

The fork and carriages are capable of accommodating all types of materials. Our system uses standard class II forks, or can be modified for custom forks, probes, roll clamps, rotators, or weighing scales. The carriages are designed with high capacity guide rollers that transfer the fork loading back into the mast guide rails for smooth and quiet operation. Extra wide carriages and multiple fork arrangements are also available.

Powered bridge, trolley and rotation for longer systems, heavier loads and/or higher throughput are available. We feature powered bridge and trolley using modular, maintenance free wheelblock systems with a wide range of speeds. Powered rotation consists of a motor and gearbox to a pinion which drives a large diameter geared anti-friction bearing through a slip clutch arrangement. Rotation is continuous at two rpm in either direction.

The mast assembly is engineered for rigidity and minimal deflection with several configurations available. When required, the **S - S/R System** can be outfitted with a telescoping mast with "up and over" capabilities. It features a unique design which allows the mast column to pass over obstructions while also permitting direct loading or unloading of truck and other conveyances.

A variety of electrical options are offered. Through the use of modern technology, we utilize everything from PLC technology, lasers, inverters and limit type switches to achieve precise movements. "Zones" can be set up to prevent contact with storage racks or other obstructions.

CAD design engineering allows the **STACK - STORAGE and RETRIEVAL SYSTEM** to be completely adaptable to a wide variety of material handling applications without the additional cost you would incur for a "custom-made" system. With our system, you can achieve optimum layouts to suit your individual industrial needs including multiple applications for both storage and manufacturing areas.

Features of The RAPISTAK Corporation S - S/R SYSTEM



Internal Geared Slewing Bearing
For Mast Rotation



Ease Of Fork Positioning with
Pallet Fork Pockets



Anti-Free Fall Safety Device



Safety Floor Sweep



Geared Drive For Bridge
Movement Via VFC Motor
Controllers



Removable Pendant
Control



Operator's Station with Remote controlled
Color Video Monitor and Adjustable Camera

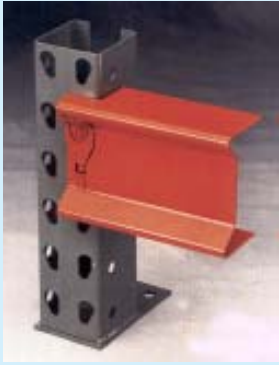
Standard Component Features:

- Machined steel wheels with splined hub for both the trolley and bridge assemblies.
- Motorized double girder top running bridge crane assembly.
- Motorized top running trolley assembly.
- Hand propelled 360 degree rotating mast assembly.
- 30 inch* wide I.T.A. class II adjustable forks (*Standard carriage and forks are listed, optional sizes available).
- Carriage free fall safety stops.
- Two 30 inch class II pallet forks.
- Electric chain hoist with lift speed of 16/3 fpm.
- Mast mounted flood light (rotates with load).
- Polycarbonate operator window (shatter and abrasion resistant).
- Detachable mast mounted pendant control station.
- On/Off key operated mainline switch.
- Protective operator overhead canopy.
- Mast mounted back stop (protects operator from backing into rack).
- Bridge control panel includes:
 - I.E.C. rated mainline contactors.
 - Control transformer with fused secondary.
 - Branch circuit fusing and/or thermal overload relay.
 - I.E.C. rated magnetic reversing contactors.
 - N.E.C. rated terminal blocks.
 - Wire markings both ends.
 - NEMA 1 enclosure.
 - 230 or 460 volt, 3 phase, 60 cycle power circuit.
 - 110 volt control circuit.

Optional Component Features:

- 90 degree mast rotation lock (hand propelled rotation only).
- Mast mounted vertical pallet fork position indicator.
- Mast mounted bay centering position indicator.
- Electronic vertical pallet position indicator.
- Electronic bay centering position indicator.
- B & W or Color video monitor and camera.
- Dual mast floor locks (hand propelled trolley only).
- Stationary man aboard cab.
- Motorization package for hand propelled units.

Standard Rack Configuration offered by The **S-S/R** System



Fixed Pallet Support Beams



Bolt Type design with Adjustable Positions



Saw Tooth Design with Adjustable Positions



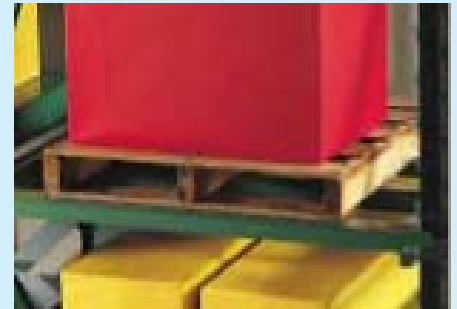
Cantilevered Type Rack Units



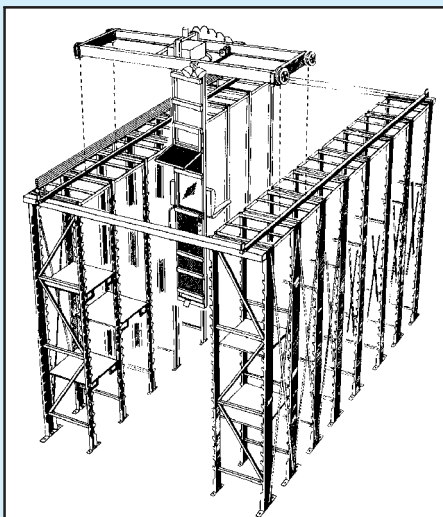
Structural Steel Rack Design



Pallet Support Bracket Design



Fixed Pallet Support With Skid



Typical two bay S-S/R System



Add-On Bays Available For Future Expansion



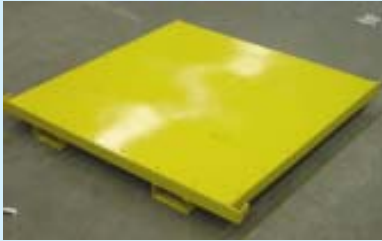
Safety Mesh Guard For End Of Isle

S - S/R Systems can be utilized in storing dies, motors, sprockets, coils and other items where heavy duty, high density storage is required.

With the **S - S/R** System high density adjustable pallet racks save you time, space and money. Not only does it eliminate having to purchase separate pallets. You gain an extra 3 to 5 inches of vertical storage at each level because you eliminate the height of the pallet.

Standard upright widths and depths are available. The **S - S/R** System can be designed and configured to meet your requirements.

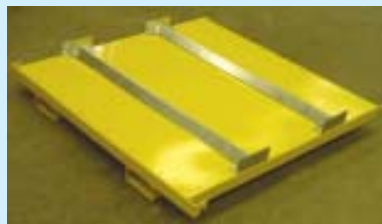
Adjustable Shelving Accessories or Custom Designed Units To Meet Your Requirements



Basic Pallet Design To Meet Your Weight Requirements



Back Safety Lip



Reel Storage Unit



Barrel Type Storage Shelf



Reel Dispenser Shelf

Typical Usages:

Tooling

Stamping die storage
Milling fixtures
Armatures
Welding fixtures & jigs
Injection molds
NC machine center tooling

Maintenance

Reels of wire
Pump/compressor parts
Electrical motors
Batteries
Truck axles and transmissions
Fork truck repair parts
Mining equipment parts
Metal coils

Work - In - Process

Steel drums
Valves and valve parts
Autoclaves
Source documents
Lathe tooling
Aircraft parts
Printing stock
Truck and aircraft tires
Aluminum casting
Fabricated plate works

The products that can be stored are only limited by your imagination and your requirements. The shelves depicted are standards that have been widely utilized in various industries. However, should you require a special design please do not hesitate in asking your material handling consultant.



Wire Basket Shelf



Storage Bins with Dividers and Partitions



CNC Tool Holder Shelf



CNC Tool Holder Cabinet

Standard pallets can be modified to meet your specific needs from CNC tool holder shelves, CNC tool holder cabinets, storage bins with dividers and partitions, wire basket containers, reel dispenser shelves or reel storage units and barrel type shelves. Our design is easily adaptable to your specific requirements. These are samples of projects we have completed.

Typical Applications



Copper Tube Storage System on Cantilever Rack



Pin Style Adjustable Pallet Rack Storage



Free Standing Stacker Crane with additional Single Girder Crane



Roll Handling System



Roll Storage with Man Aboard Stationary Cab



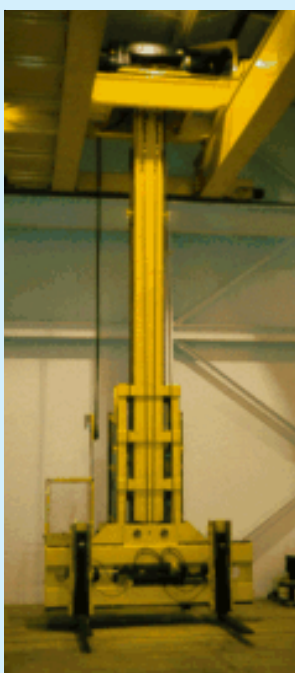
Stacker Crane Retrofit to Existing Racking System



Roll Storage System



Boat Storage Stacker Crane System



7-1/2 Ton Stacker Crane



Multiple Aisle Storage System featuring One Stacker Into Multiple Bays

Distributed by:

RAPISTAK CORPORATION

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