

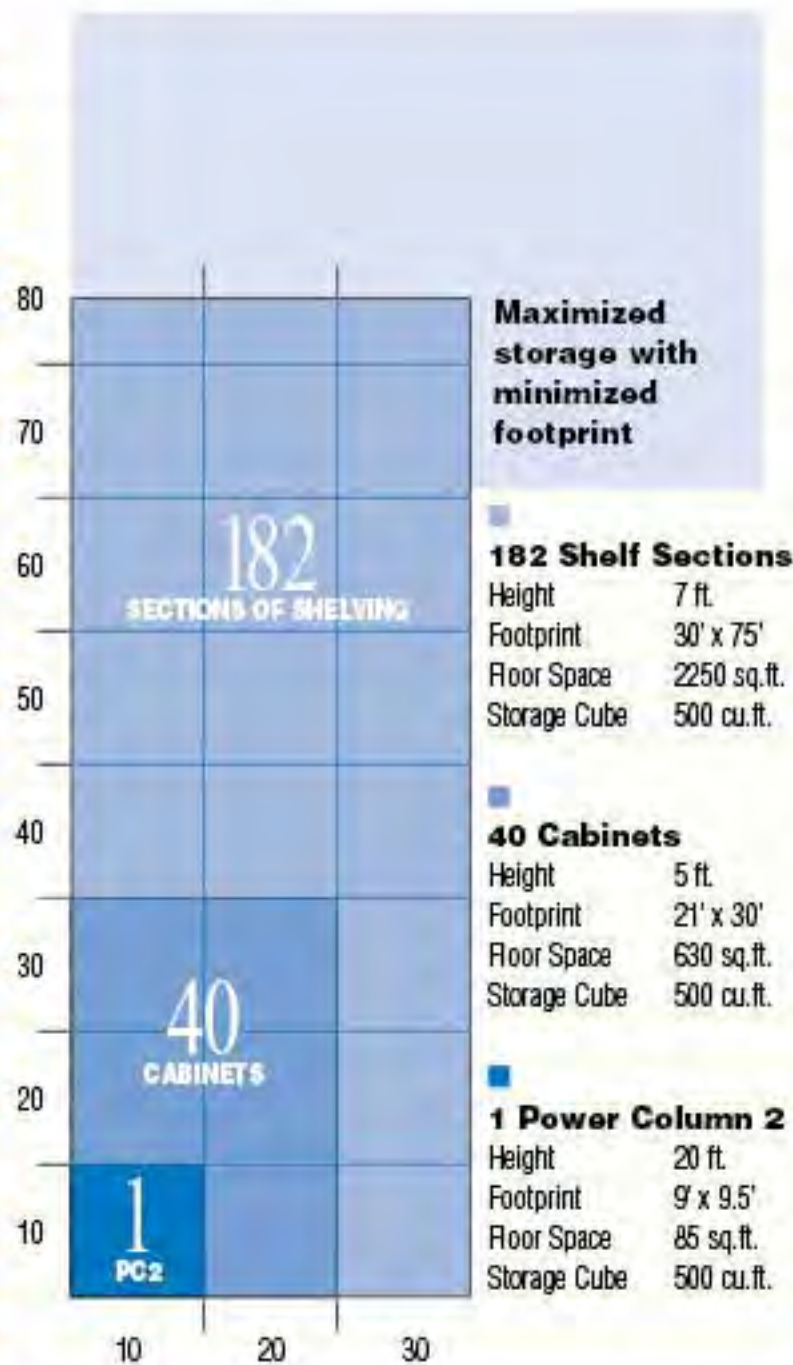
VERTICAL LIFT MODULES

AUTOMATED STORAGE AND RETRIEVAL SOLUTIONS

# At White Systems, we're solutions-driven

As a pioneer in the carousel market, White Systems leads the industry in providing high-density automated storage and retrieval systems. Backed by over 60 years of experience, a White Systems vertical lift module, the Power Column 2, provides **maximum storage for the minimum footprint**. The Power Column 2 provides intelligent automated solutions to storage and retrieval challenges in a safe, secure and user-friendly package.

We solve item order picking problems in e-commerce fulfillment applications, warehouses and distribution centers, manufacturing stockrooms, hospitals, or anywhere there are critical items that just have to get out the door or into use. These systems provide dramatic increases in throughput, productivity, space utilization and management – and often **pay back their investment in less than 12 months**.



**The Power Column 2** enables a relatively large inventory to be directed to a picker at one fixed location. By *eliminating the climbing, reaching, and bending* necessary to pick from multiple levels, it provides a more efficient 'parts to picker' instead of 'picker to parts' workflow—increasing worker productivity and safety.

Here are just a few of the benefits offered by White's Power Column 2:

## Increased Operational Productivity for Fast Payback

**Cube Utilization** - Customers have been able to *reclaim up to 96% of floor space* versus static shelving when implementing a Power Column 2.

**Higher Throughput** - *Increase through-put by up to 500%*. The Power Column 2 offers pick rates of 300 lines per hour versus static shelving at 60 lines per hour. Vertical carousel systems don't just store efficiently, they bring the items to the user, reducing walking time by up to 66%.

**Reduced Man-Hours** - At pick rates up to 300 lines per hour, *a single worker* using a Power Column 2 can be *as productive as five workers* picking from static shelving. Software automatically queues orders, batches picks and positions the extractor for quick, efficient picking.

## Accuracy

Even the most efficient storage system is compromised if the picker cannot find the right part every time. *The Power Column 2 eliminates problematic paper pick lists* through the employment of integrated pick-to-light and light pointer systems.

## Controls and Software

Multiple levels of controls and integration options allow connection of the system to existing inventory management systems. Control packages are available for any situation from barcode readers, RFID tags, and label printers to biometric scanners.

## Security

The Power Column 2 offers a level of security that's simply not possible with other types of storage systems. Unlike aisles of unprotected open bins of parts, *a Power Column 2 can be locked down completely*. From simple lockable doors to advanced access systems such as biometrics and RFID systems, there is a security system to meet even the most stringent requirements.

Power Column 2  
VERTICAL LIFT MODULES

Every White Systems employee understands the critical role carousel systems play in your business. We offer the highest level of customer service and support in the industry, ensuring maximum uptime, reliability and productivity.

For case studies of how companies have benefited from using the Power Column 2 please visit the performance reports section of our web site at [www.whitesystems.com](http://www.whitesystems.com).

# Features and Benefits

The Power Column 2 is an enclosed, automated high-speed, high-density storage unit housing trays of items that are stored and retrieved. Moving up and down its center is an inserter/extractor system. The extractor stores and retrieves trays with loads up to 880 lbs, from vertically positioned slots on the front and rear of the unit, and delivers them to its ergonomically designed pick window or workstation.



## Spectrum™ Controls and Software

From calling trays by number with the keypad to fully automated software solutions that manage an entire warehouse, there is a control package available for any level of automation that is desired.

## Powerful, Heavy-Duty Vertical Rack-and-Pinion Drive

The Power Column 2 eliminates chain drives and uses rack-and-pinion drives for **greater speed and reliability**.

## Fast Payback (ROI)

Increased operator efficiencies and higher space utilization allow companies to recover their investments quickly – often in less than a year.

## Patented Ergonomic Tilt-Tray

The Power Column 2 offers an optional tilt-tray system. The tray is presented to the operator at an ergonomically correct 45 degree angle which **reduces bending and reaching, and increases visibility** into the tray cells.

## Software-Controlled Light Pointer

A software-controlled light pointer identifies the pick location by focusing a high intensity light beam on the location, increasing accuracy and efficiency.

## Dual-Tray Delivery System

Automatically retrieves the next tray while the operator is still picking from the current tray so that wait-time is reduced.

## Security

Inventory is kept clean and secure within the Power Column 2. Controls can be password protected and doors are lockable, preventing unauthorized personnel from accessing contents.

White's Power Column 2 takes advantage of unused overhead space in many manufacturing and distribution applications. Enhanced productivity, greater security and **space savings of up to 96% can be achieved**.

## Cube Utilization/Space Savings

The Power Column 2 makes full use of available overhead space, saving up to 96% of valuable floor space.

## Flexibility

Vertical storage systems can accommodate a wide variety of products. **Tray heights can be mixed** for easy reconfiguring to maximize storage efficiency.

## Productivity

The Power Column 2 increases productivity by eliminating walk and search time. Items are delivered to the operator in an ergonomic pick window.

## Accuracy

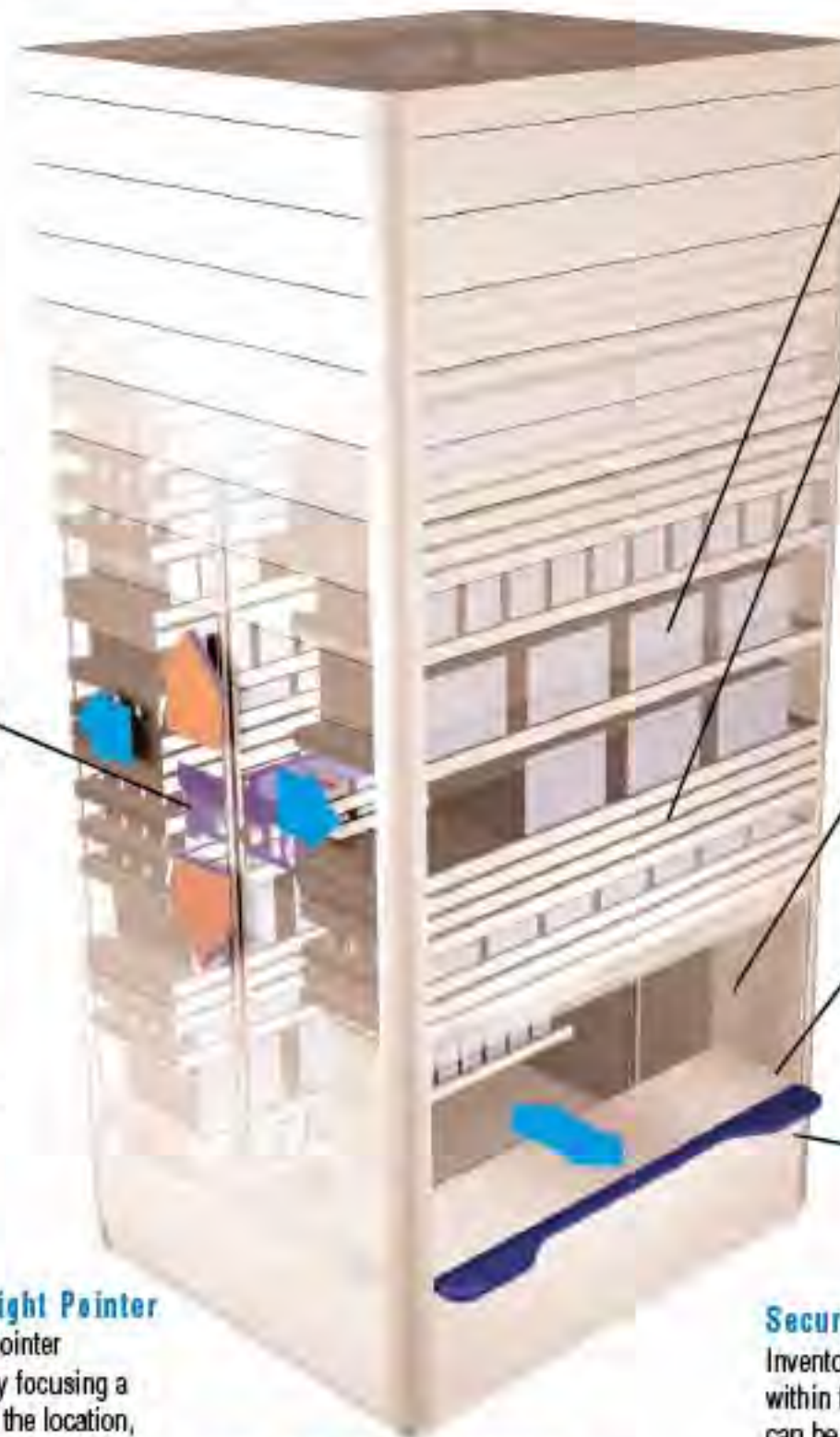
Order and inventory accuracy are greatly enhanced by integrating software, bar code readers and light pointer options.

## Ergonomics/Safety

Climbing, stretching and bending common to walk and search picking applications are eliminated as the Power Column 2 delivers all requested items to the operator at a **comfortable, uniform counter height**.

## Ergonomic Adjustable Counter

The Power Column 2 has an adjustable counter height, allowing operators of different heights to work at an ergonomically correct picking level.





*The Customer Service and Support (CSS) Difference*

## CSS Difference

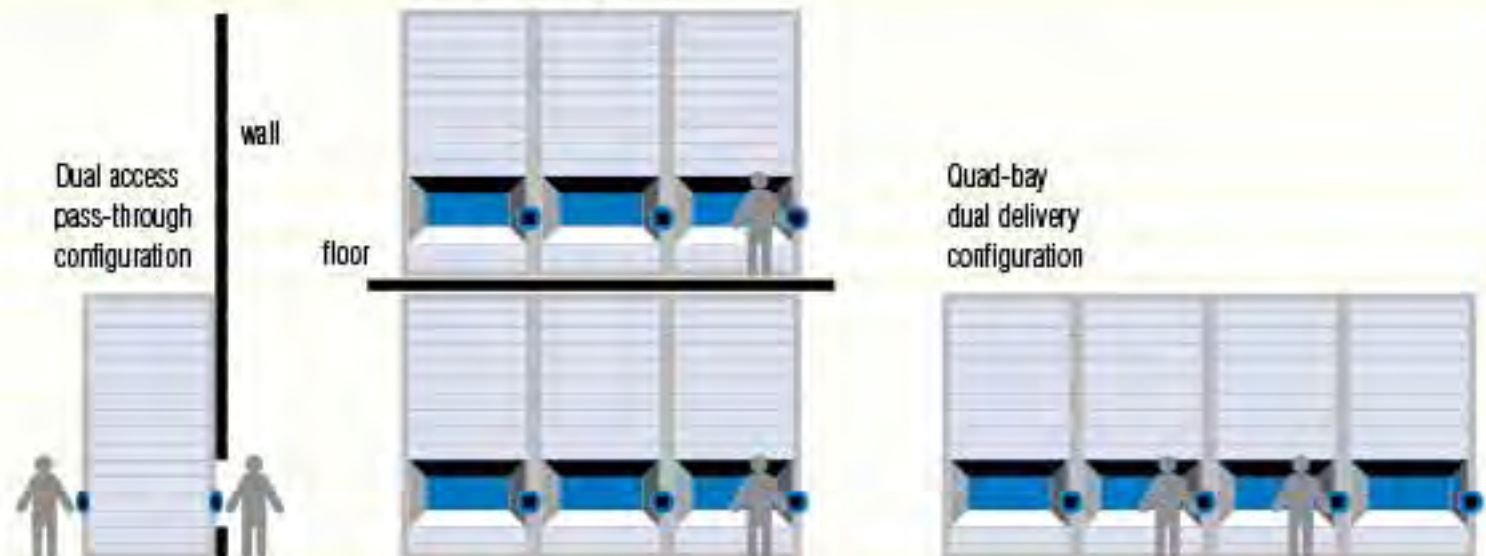
With the largest and only regionally based, dedicated service engineering team of employees in the material handling industry, we understand the critical role carousel systems play within our customers' business process. To ensure *maximum system uptime and reliability* the Customer Service and Support (CSS) team offers the following services:

- System installation and start-up
- Equipment service and repair
- *Emergency response*
- Preventive maintenance and troubleshooting
- Service and Preventative Maintenance contracts
- Live *24/7 technical support* hotline
- Full service MRO parts supply with \$3+ Million in part inventory
- Equipment and system audits
- Product enhancement and modifications
- *Upgrades and retrofits*
- Equipment relocation
- Customized training programs



Triple-bay, dual delivery, dual access floor-to-floor configuration

**The Power Column 2 is available in a variety of configurations to best meet your specific application.**



# Custom Storage and Retrieval Solutions

Customized to meet your unique needs, White Systems prides itself on creating systems that offer the best solution. Special paint color, automated extraction systems, clean room environments – whatever the application, White Systems has the experience and resources to create the right solution. White will always objectively evaluate your material handling situation and *provide a tailored solution*, backed by a fully staffed in-house systems development team with the capability to design and install the complete solution to meet your needs.



## Power Column 2

### Standard Features

#### Trays

Galvanized steel tubular sidewalls, corrugated floor pan.

#### Main opening

37 inch high opening at front of unit with Halogen down lighting.

#### Service opening

Lockable access door on side of unit and panel below counter.

#### Safety

Lockable disconnect switch, E-stop button, access door interlock switch, and motor overload.

#### Drive motors

Direct drive continuous duty AC gear motors. Vertical - 3 hp, extractor - 1/2 hp.

#### Lift mechanism

Vertical - heavy-duty rack and pinion drive. Extractor - dual strand roller chain with steel pawls.

### Specifications and Dimensions\*

#### Tray Sizes

(All dimensions are internal)

Width (in)	Depth (in)	Width (cm)	Depth (cm)
48	25.6	122	65
48	32.25	122	82
65.3	25.6	165	65
65.3	32.25	165	82
98.4	25.6	250	65
98.4	32.25	250	82

#### Tray Heights

Standard product heights can range from 3" - 20" (7.6-50.8cm). Standard trays are 2.75" (7cm) thick, with an internal depth of 2.25" (5.7cm). Tray extensions are available to increase the perimeter wall height to 6" or 10" (15.2 or 25.4cm).

#### Tray Capacity

All standard trays have an 880 lb. (400kg) capacity.

#### Total Capacity

Machine capacity is 88,000 lb. (40,000kg)

#### Unit Weight\*

98"x 32" (250 x 82cm) machine, 26' (7.9m) tall with 50 trays — 12,160 lb. (5,516kg) (plus weight of product). \*Typical and can vary.

Unit Size (in)	Unit Size (cm)
63 x 95.5	160.0 x 242.6
63 x 108.9	160.0 x 276.6
80 x 95.5	203.2 x 242.6
80 x 108.9	203.2 x 276.6
113.4 x 95.5	288.0 x 242.6
113.4 x 108.9	288.0 x 276.6

<b>Tray Pitch Adjustability:</b>	0.5" (1.25cm)
<b>Max. Number of Trays:</b>	100
<b>Max. Overall Height:</b>	50 ft. (15.24m)
<b>Stopping Accuracy:</b>	± 1/16"
<b>Available Motor Type:</b>	AC
<b>Vertical Speed:</b>	4.59 feet per second. (1.40m per second)
<b>Duty Cycle:</b>	100% continuous duty.
<b>Operating Temperature:</b>	40° F to 120° F.
<b>Power Requirements:</b>	480 V AC, three-phase, 15 A.
<b>Seismic:</b>	Zone 4 anchoring available. May require special anchors depending on height of unit.
<b>Special Requirements:</b>	All units are CE listed.

\* Additional models and features available - consult your local sales representative for details. All specifications are nominal and subject to change without notice.

# Integrated System Solutions

*At White, we understand no single piece of equipment can accommodate all material management needs. That's why we develop integrated system solutions.*

## Here are the key components:

**Horizontal Carousels:** White developed and pioneered the carousel concept from its inception. Today we're still the leader. Our horizontal carousels are more advanced, cost-efficient and reliable than ever. The only manufacturer with both bottom-drive and top-drive carousels to handle the full range of applications, White has led the industry in innovation, solving the toughest challenges.

**Vertical Carousels:** Leading companies use White's vertical carousels to increase storage density, order accuracy and efficiency while reducing inventory and man-hours.

**Vertical Lift Modules:** Adds flexibility and speed to high-density storage. Leading the industry in volume and weight capacity, White has taken VLM technology to the next step with the Power Column 2 – fewer machines to do the same job.

**Software & Controls:** White Systems offers a full line of software and controls to meet specific customer demands – from Spectrum/MMS, a state-of-the-art software package with either full inventory management or transaction processing capability to full custom systems integrating carousels, pick-to-light, conveyors and bulk – from induction to packing. Fully supported. Proven. Reliable.

**Customer Service:** White has the industry's largest factory certified field service group. From a single part to around-the-clock on-call maintenance contracts. Moves, upgrades, major overhauls. Nobody beats White in service.

## Complementary Equipment and Accessories



[www.whitesystems.com](http://www.whitesystems.com)

White Systems, Inc.  
30 Boright Avenue  
Kenilworth, NJ 07033

Main office: (800) 275-1442  
Fax: (908) 272-5920  
Email: [info@whitesystems.com](mailto:info@whitesystems.com)

Customer Service and Support: (800) 571-8822  
Fax: (908) 272-2561

