VIDIR
vertical storage solutions

vertical

increase safety

ergonomic

customizable

carousel

STORAGE

fully automated

high volume

quick retrieval time

small footprint

Shelving Carousel

Vidir Machine is a leading manufacturer and worldwide supplier of automated storage and retrieval carousels. Our highly versatile line of products offers industry solutions for construction, retail, medical, warehouse, government, automotive, printing and manufacturing. Vertical Carousels take advantage of unused overhead space to save space, increase productivity, and improve workplace safety.

Vidir is a family business that was founded in 1979 to service the local ag industry but in 1985 when two family members were looking for a convenient way to store and display their rolls of vinyl flooring they turned to their dad for a solution. In 1986 the first carousel (which is still in operation today) was built and 30 years later, Vidir products can be found worldwide in over 30 different countries.

Today's Presenter

Dean Dueck

Marketing Manager

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Vidir Quick Facts

- 135 employees over 3 locations in Canada and the US
- 35,000 + system installations around the world
- Installations in over 30 countries worldwide
- Over 10% of Vidir's employees are in product development.
- Family owned business.

Locations

Head Office: Arborg, Manitoba, Canada
PO Box 700
8126 Road 138 North
Arborg, MB, Canada R0C 0A0

Teulon, Manitoba, Canada
PO Box 131
379 1st Street
Teulon, MB, Canada R0C 3B0

Lebanon, Pennsylvania, United State
19 East Lehman Street
Lebanon, Pennsylvania, United States 17046

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Webinar Summary

- ✓ **Shelving Carousel Overview**
- ✓ **What To Look For**
- ✓ **Applications**
- ✓ **Discovery Phase**
- ✓ **Specification Phase**
- ✓ **Logistics Phase**
- ✓ **Service Questions**

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What is a Shelving Carousel?

Vidir's Shelving Carousel is a highly flexible semi/fully automated vertical carousel designed to provide high storage density for bulky and heavier items. This automated storage system works by delivering the product directly to the operator, eliminating climbing and bending to retrieve heavy and bulky items.

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Vertical Carousel Primary Selling Points

1 Save **Space**

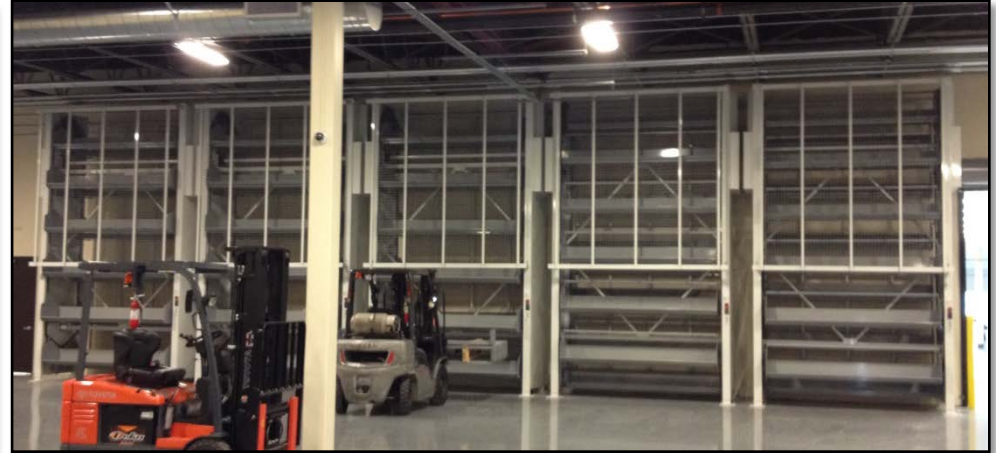**2** Increases Safety

3 Increase Security

4 Improves Efficiency

5 Increases Organization

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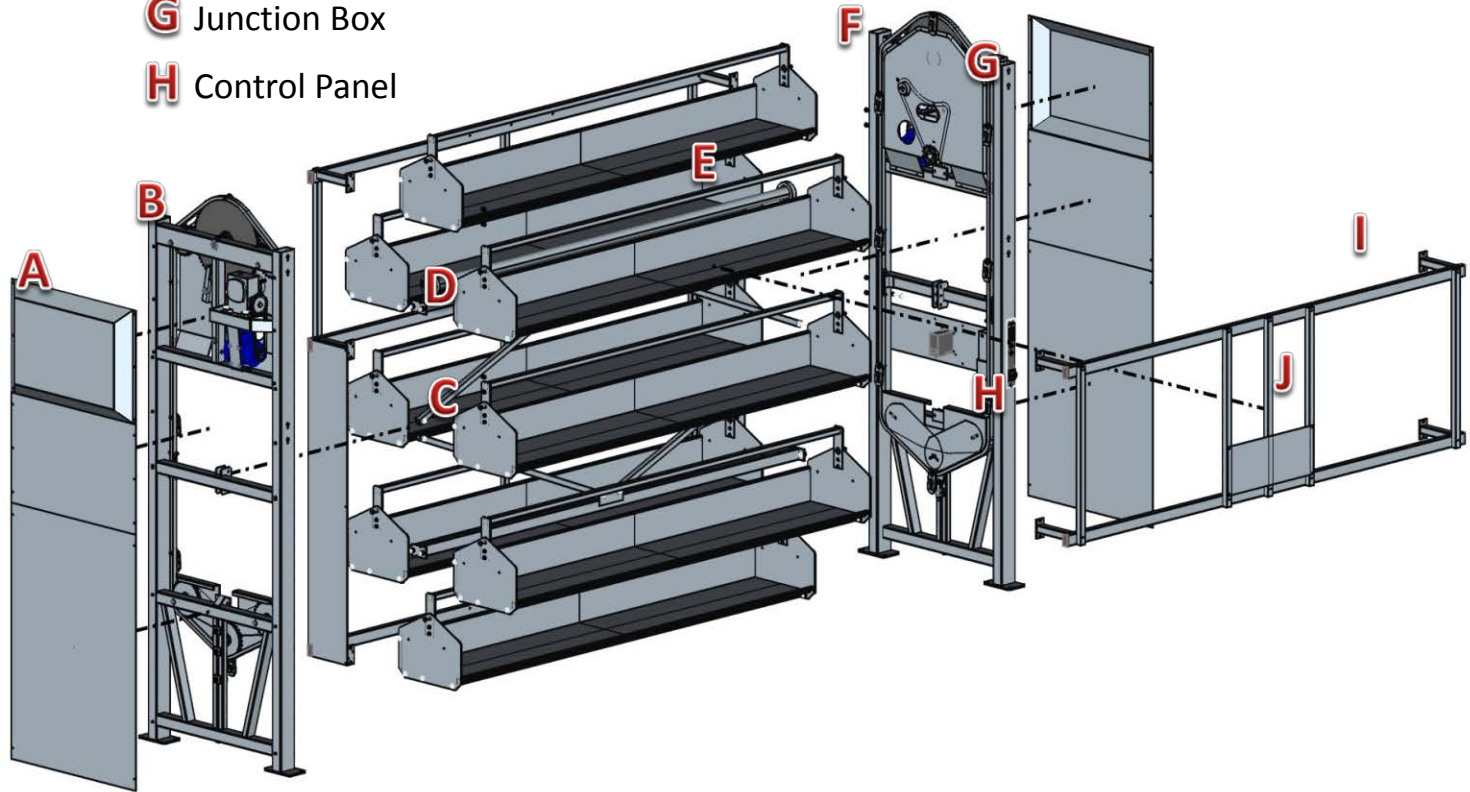**Safe Handling • Easy Access • Maximum Storage • Fast Retrieval • Small Footprint**

Storage System

The Shelving Carousel's carriers are attached to the chain by a single reinforced point resulting in a sturdy yet free hanging carrier. This allows the carriers to be customized for unique applications and gives the operator greater flexibility when dealing with large, bulky, or oddly shaped items.
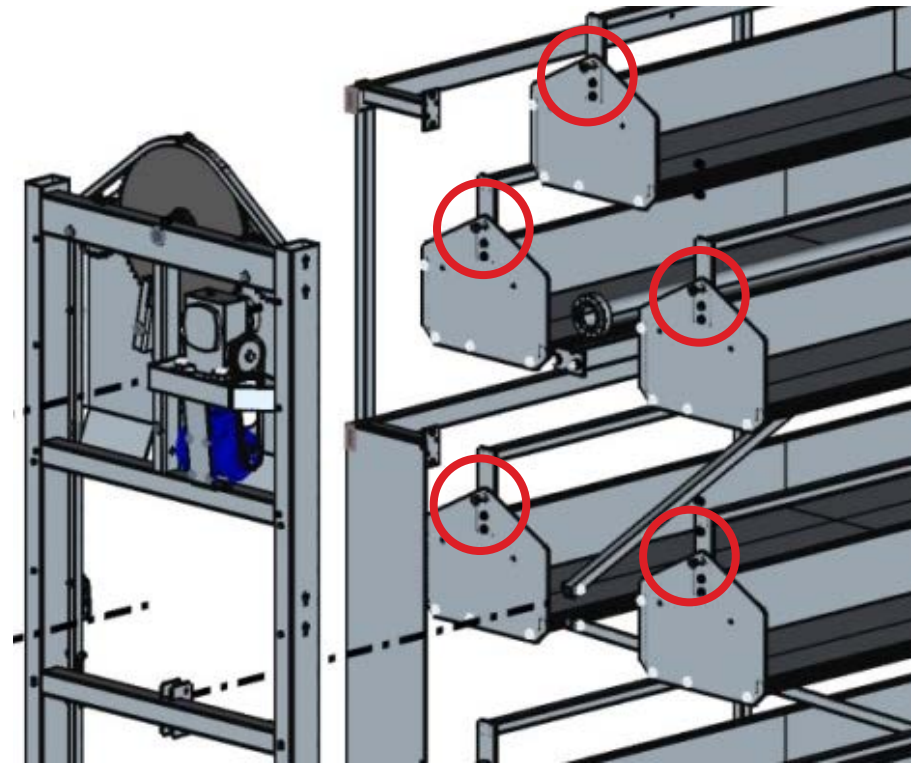
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A Side Paneling

B Left Carousel Tower

C Cross Braces

D Drive Shaft

E Carriers

F Right Carousel Tower

G Junction Box

H Control Panel

**I** Cross Guards

J Upright Guards

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For Further Questions on Vertical Carousel benefits email
robin.chestnut@vidir.com

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Where Is Your Opportunity?

- ✓ Tall ceilings and material only stored within reaching height.

- ✓ Bulky and difficult items spread on pallets on the floor.

- ✓ Shipping and loading departments. Low value inventory that requires a lot of space.

- ✓ Manufacturing staging areas.

- ✓ Maintenance Departments.

- ✓ Poorly tracked, unorganized, and messy storage.
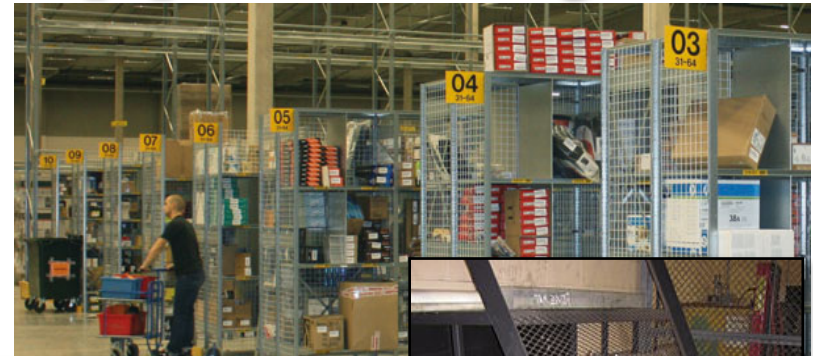
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Who Is Using it?

Industries	Examples of Shelving Carousel Customers
Manufacturing	Heavy Duty Sewing Machinery, Power Management Solutions, Rehab Equipment, Plastic Packaging Material
Automotive	Farm Equipment Dealer, Auto Parts Store, Auto Upholsterer, Racing Car Parts Store
Pharmaceutical	Pharmaceutical Company
Mining	Mining Companies
Electrical	Electrical Supply Store, Lighting Company

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Who To Contact

→ R&D Design Engineer

→ Materials Manager

→ Director of Engineering

→ Logistics Manager

→ Material Supervisor

→ Operations Manager

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4 Most Important Questions to Ask

1   **What is your available ceiling height?**

2   **What items are you looking to store?**

1. **Type of product**   2.   **Does it come in a container?**

3. **Physical Dimensions of the product/container to be stored?**

   A.   **Height**   B.   **Width**

   C.   **Depth**   D.   **Weight**

4. **Quantity per item/container?**

3   **How are you currently storing the items?**

4   **When are you looking to make a decision on this?**

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Take Pictures!

When on-site and if the customer allows it take pictures of the product to be stored and the installation location.

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Based on the information received
during the discovery phase it is time to

START SPECIFYING A MACHINE TO THE PROJECT.

The first thing you will want to do is
determine which size of machine
makes the most sense.

Basic Carousel Package

✓ **Semi-Automated Controls w/ Keypad**

✓ **Electrical: feeds from top right of carousel**

    ✓ **208/230V, 15 Amp, 60 Hz, 3 Phase**

    ✓ **460/480V, 10 Amp, 60 Hz, 3 Phase**

✓ **21' per minute retrieval speed**

✓ **Max Load Capacity: 13,000 lbs.**

✓ **Load per Carrier: 1,000 lbs.**

✓ **Variable Frequency Drive (VFD)**

✓ **Maximum Unit Imbalance 1,950 lbs.**

✓ **2" mesh guarding front and back**

✓ **cCSAus mark**

✓ **Color: White with Grey Interior**

✓ **1 Year Manufacturers Warranty**

"Vertical Storage allows you to utilize your wasted overhead space."

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S39 Carousel Specifications

*Carrier Dimensions: 104" W x 18.5" H x 20" D

MODEL	HEIGHT	WIDTH	DEPTH	CARRIERS	S. CAPACITY	LIVE LOAD	AVG. CARRIER WEIGHT CAPACITY
S39089-0534-08	7' 6"	10' 7"	5' 1"	05	111.37 ft^3	12,033 lbs.	1,000 lbs.
S39106-0634-08	8' 11"	10' 7"	5' 1"	06	133.49 ft^3	11,836 lbs.	1,000 lbs.
S39123-0734-08	10' 4"	10' 7"	6' 5"	07	156.1 ft^3	11,639 lbs.	1,000 lbs.
S39140-0834-08	11' 9"	10' 7"	6' 5"	08	178.34 ft^3	11,442 lbs.	1,000 lbs.
S39157-0934-08	13' 2"	10' 7"	6' 5"	09	200.59 ft^3	11,245 lbs.	1,000 lbs.
S39174-1034-08	14' 7"	10' 7"	6' 5"	10	222.84 ft^3	11,048 lbs.	1,000 lbs.
S39191-1134-08	16' 0"	10' 7"	6' 5"	11	245.08 ft^3	10,851 lbs.	986 lbs.
S39208-1234-08	17' 5"	10' 7"	6' 5"	12	267.33 ft^3	10,654 lbs.	888 lbs.
S39225-1334-08	18' 10"	10' 7"	6' 5"	13	289.58 ft^3	10,457 lbs.	804 lbs.

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S39 Carousel Specifications

*Carrier Dimensions: 152" W x 18.5" H x 20" D

MODEL	HEIGHT	WIDTH	DEPTH	CARRIERS	S. CAPACITY	LIVE LOAD	AVG. CARRIER WEIGHT CAPACITY
S39089-0534-12	7' 6"	14' 7"	5' 1"	05	162.8 ft^3	11,737 lbs.	1,000 lbs.
S39106-0634-12	8' 11"	14' 7"	5' 1"	06	192.29 ft^3	11,481 lbs.	1,000 lbs.
S39123-0734-12	10' 4"	14' 7"	6' 5"	07	227.78 ft^3	11,225 lbs.	1,000 lbs.
S39140-0834-12	11' 9"	14' 7"	6' 5"	08	260.27 ft^3	10,969 lbs.	1,000 lbs.
S39157-0934-12	13' 2"	14' 7"	6' 5"	09	293.11 ft^3	10,712 lbs.	1,000 lbs.
S39174-1034-12	14' 7"	14' 7"	6' 5"	10	325.60 ft^3	10,456 lbs.	1,000 lbs.
S39191-1134-12	16' 0"	14' 7"	6' 5"	11	358.09 ft^3	10,200 lbs.	927 lbs.
S39208-1234-12	17' 5"	14' 7"	6' 5"	12	390.58 ft^3	9,944 lbs.	829 lbs.
S39225-1334-12	18' 10"	14' 7"	6' 5"	13	423.07 ft^3	9,688 lbs.	745 lbs.

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General rule of thumb – the taller the carousel the more viable the opportunity.

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The Taller the Carousel
the More Efficient the Carousel

S39 Carousel Specifications

*Carrier Dimensions: 152" W x 18.5" H x 20" D

Model	Height	Width	Depth	Carriers	S. Capacity	Live Load	Avg. Carrier Weight Capacity
S39089-0534-12	7' 6"	14' 7"	5' 1"	05	162.8 ft^3	11,737 lbs.	1,000 lbs.
S39106-0634-12	8' 11"	14' 7"	5' 1"	06	192.29 ft^3	11,481 lbs.	1,000 lbs.
S39123-0734-12	10' 4"	14' 7"	6' 5"	07	227.78 ft^3	11,225 lbs.	1,000 lbs.
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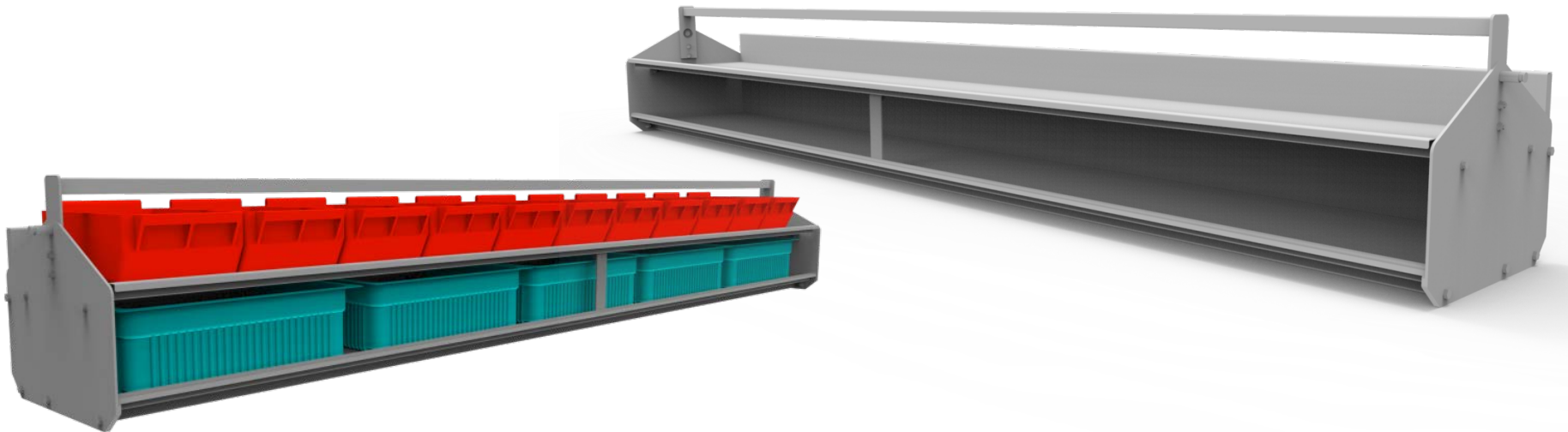
Shelving Carriers Standard

A standard open carrier for the shelving carousel is 18.5" H x 20" D and provides flexibility whether storing SKU's directly on the carrier, using standard containers, or application specific containers to best utilize the available space.

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Shelving Carriers Standard Configurations

Intermediary shelves and dividers are available to partition the carrier to create internal storage compartments for better organization.

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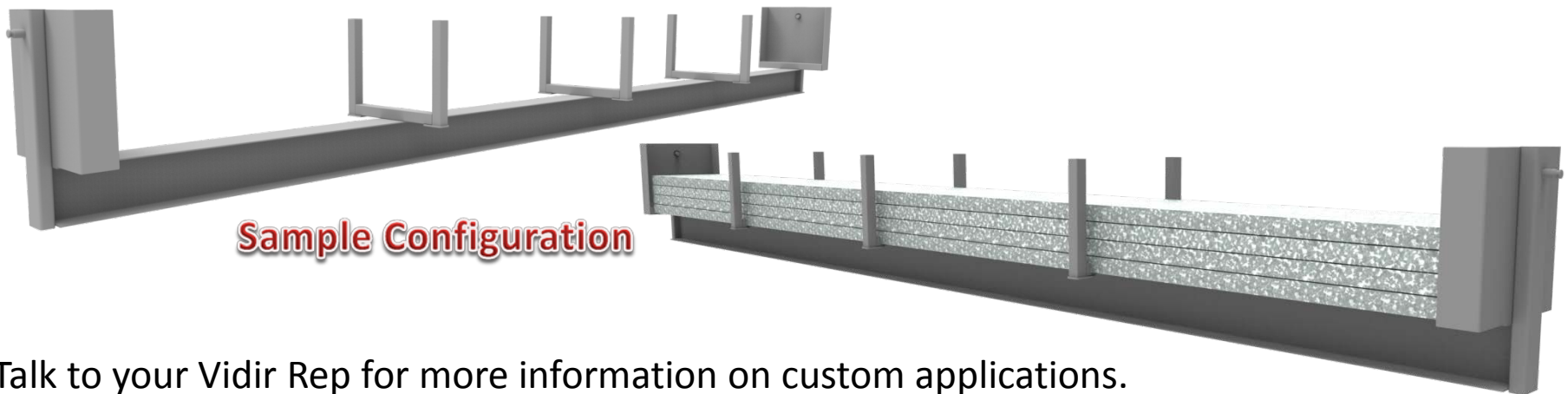
Shelving Carriers Sizes

Description	Width	Depth	Height	C. Capacity	Weight
8' Shelving Carrier	8' 8"	1' 8"	1' 6.5"	1,000 lbs.	197 lbs.
12' Shelving Carrier	12' 8"	1' 8"	1' 6.5"	1,000 lbs.	256 lbs.
8' HD Shelving Carrier	8' 8"	1' 8"	1' 6.5"	2,500 lbs.	260 lbs.
12' HD Shelving Carrier	12' 8"	1' 8"	1' 6.5"	2,500 lbs.	385 lbs.
8' Intermediary Shelf	8' 8"	1' 8"	1' 6.5"	NA	78 lbs.
12' Intermediary Shelf	12' 8"	1' 8"	1' 6.5"	NA	104 lbs.

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Shelving Carriers
Custom Configurations

Carriers can be custom designed to accept unique profiles and handling procedures to accommodate heavier and bulkier items that do not conform to conventional storage systems.

Sample Configuration

Talk to your Vidir Rep for more information on custom applications.

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Shelving Carriers
Custom Configurations

There is a very large range of materials and products that can be stored.
On the following slides you will see some examples of custom applications.

Please contact your Vidir Rep
for more information on customization.

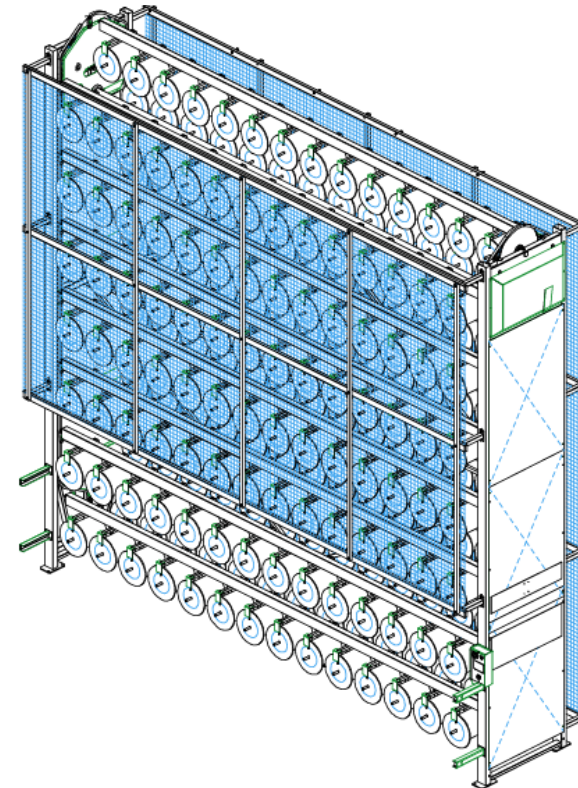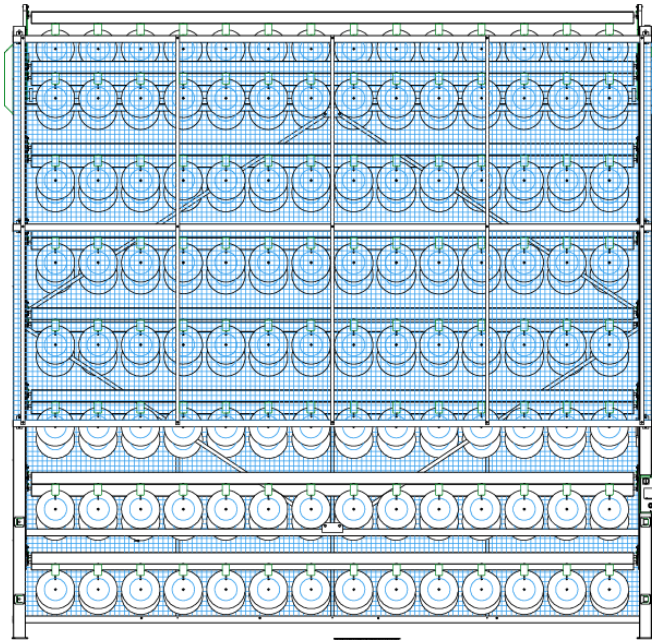**Safe Handling • Easy Access • Maximum Storage • Fast Retrieval • Small Footprint**

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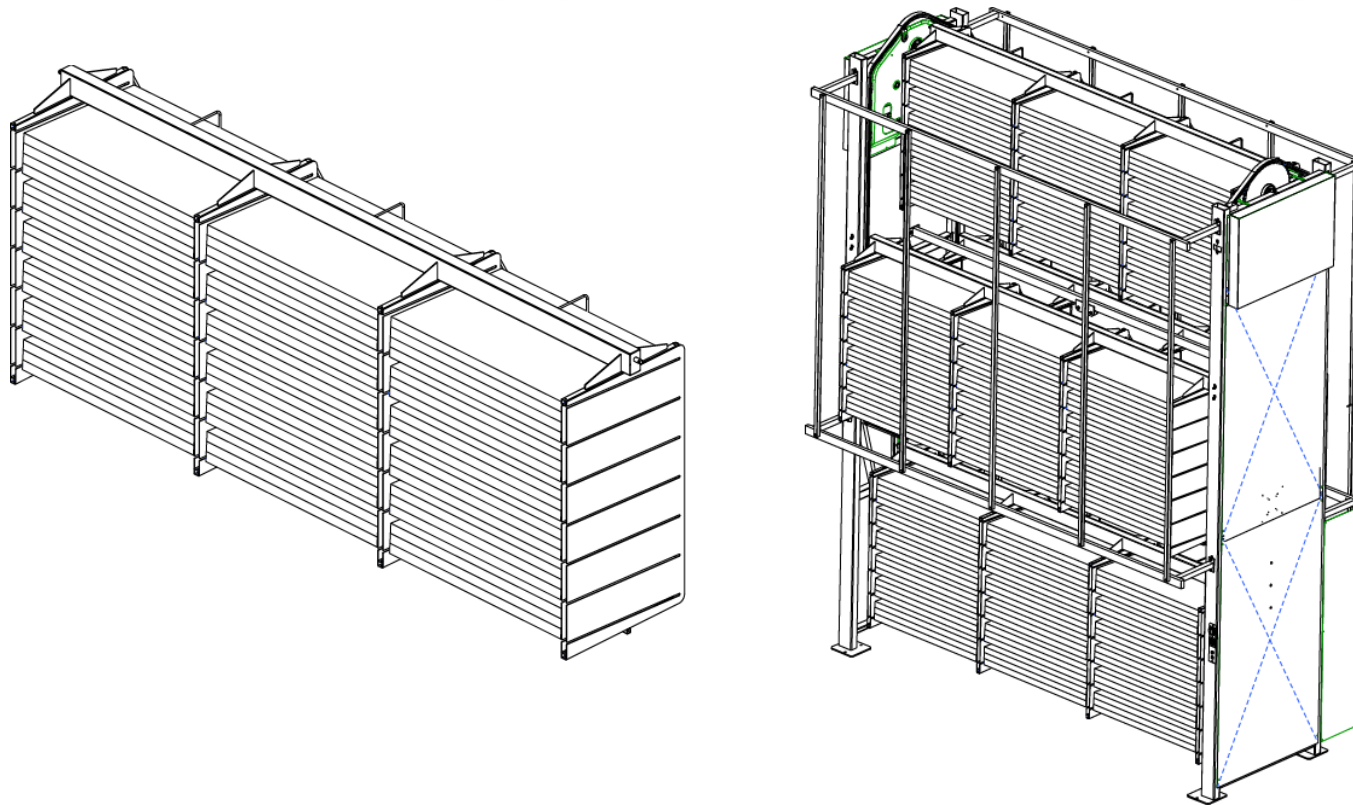
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Custom Application Examples

???

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Custom Application Examples

Bobbin Carousel

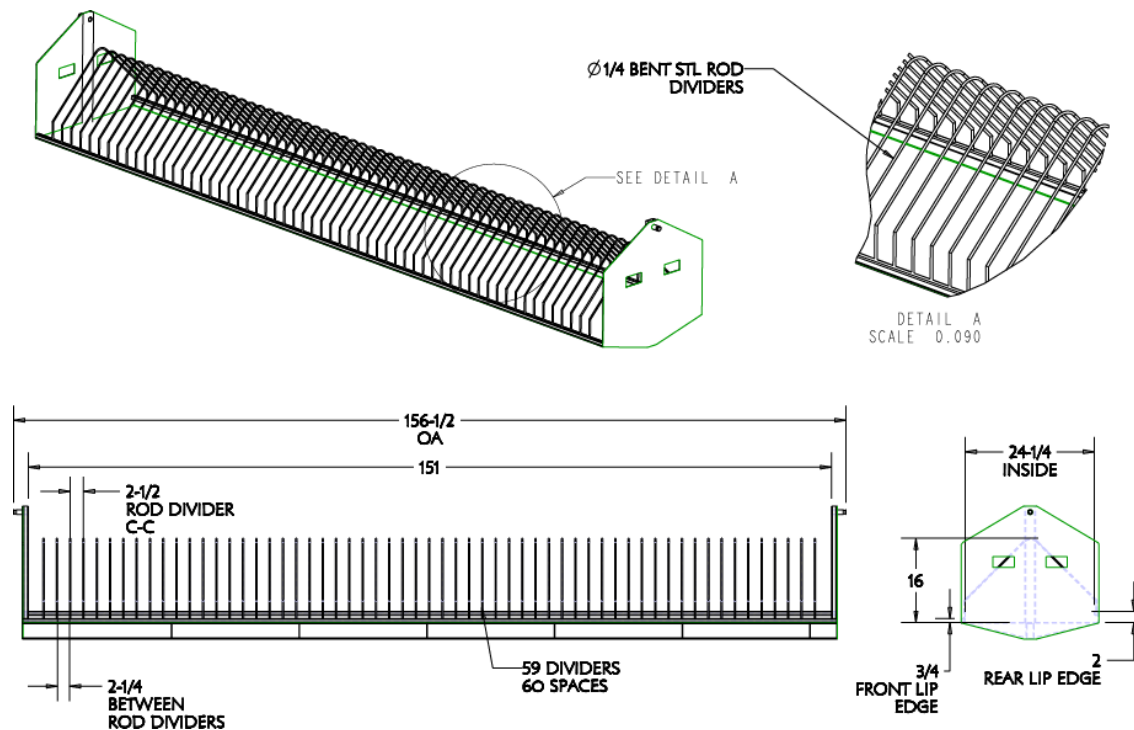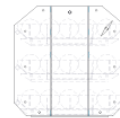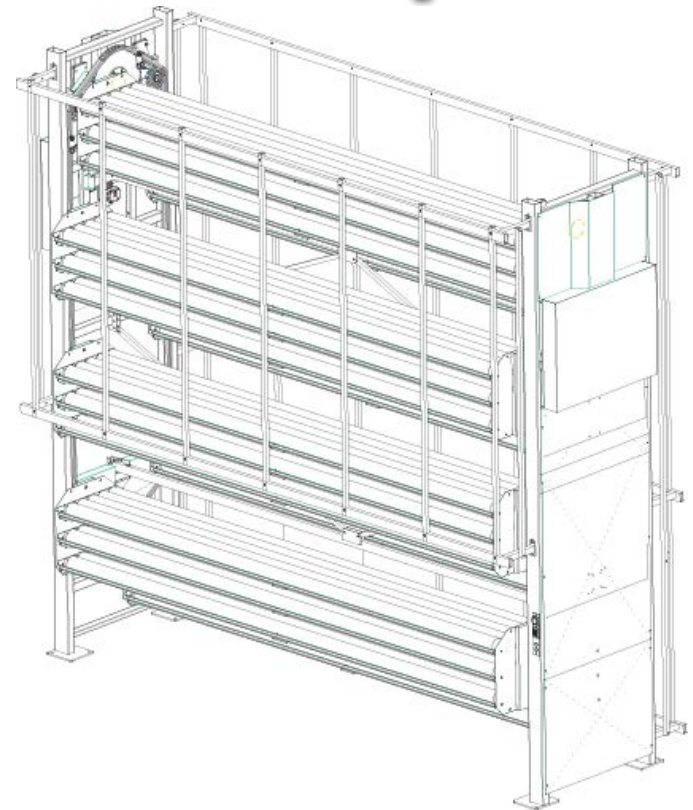**Safe Handling • Easy Access • Maximum Storage • Fast Retrieval • Small Footprint**

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Custom Application Examples

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Custom Application Examples

12 foot Divided Carrier

Ø1/4 BENT STL ROD DIVIDERS

SEE DETAIL A

DETAIL A
SCALE 0.090

156-1/2 OA

151

2-1/2 ROD DIVIDER C-C

59 DIVIDERS 60 SPACES

2-1/4 BETWEEN ROD DIVIDERS

24-1/4 INSIDE

16

3/4 FRONT LIP EDGE

2 REAR LIP EDGE

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Custom Application Examples

Cylinder Carousel

**15 CYLINDERS
PER CARRIER
5 PER LEVEL**

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What Type of Product?

Physical Dimensions of Parts/Container

- ✓ Height
- ✓ Width
- ✓ Depth
- ✓ Weight

Quantity per Parts/Container

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Retrieval Times

✓ Retrieval time is defined as the time it takes to get the desired material to where you need it.

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Carousel Automation

- Required for more advanced inventory management systems

- Includes frame extensions, safety light curtains, a programmable PLC, and a more advanced controller than the push buttons that come standard

- Allows the customer to integrate carousel functions into their own ERP or WMS systems

- Built in safeties to shut the carousel off if something enters the carousels path

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Inventory Control Solutions
Small Business Solution

Designed for small business but easily scalable, our complete inventory control system consists of a touch screen controller (PLC), and bar code scanning. Additionally our intuitive inventory control software is integrated within the processor on the PLC and allows the inventory on the carousel to be easily managed and monitored.

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Inventory Control Solutions
Enterprise Solution

For organizations with an already established enterprise management solution, our carousels integrate seamlessly with other "off the shelf" or custom inventory solutions through the Vidir API. The API functions as a gateway from our hardware to the clients software. We supply the necessary command codes to program into your application, which allows the client to set the behaviors of the carousels as well as control how it interacts with the world around it.

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Inventory Control Solutions
VIS Solution

This software solution was designed for organizations that do not require a full inventory management solution but wish greater control of their carousels. The Vidir Inventory Software (VIS) is a standalone purchase that is required to be installed on a terminal within the same local network as the carousels they are controlling. The terminal must be running a Windows operating system.

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Vidir Inventory Control (VIC)

Vidir's Inventory Control was built in-house from the ground up to efficiently track and manage inventory across all of Vidir's Carousels.

Features:

- ✓ Order Picking and Fulfillment
- ✓ Product Identification
- ✓ Pick/Stock Lists
- ✓ Transaction History
- ✓ Bin Management
- ✓ Pick to Light Support

- ✓ Reporting
- ✓ Real Time Inventory Counts
- ✓ Multiple Zone Picking
- ✓ Multi-Carousel Support
- ✓ User Access Controls

Part #VIS1-2.0
See price list.

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Heavy Duty Upgrade - Optional

Increases the overall weight capacity to 34,000 lbs., the carrier capacity to 2,500 lbs., and the unit imbalance to 3,000 lbs. Should be considered for applications with a duty cycle greater than 50%.

See price list.

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Bar Code Scanners - Optional

Bar code functionality is included in the 'Small Business Solution' or can be integrated separately with clients inventory management system.

Part #400-0133
See price list.

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Full Enclosure - Optional

The full enclosure replaces the mesh on the front and rear with solid paneling as well as adding an enclosed ceiling. This option is usually purchased for either the security, fire suppression, or to protect product.

See price list.

Dual Controls - Optional

Add a duplicate control center to the left tower of the carousel enabling control from either side to increase retrieval speeds

See price list.

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Touchscreen Computer – Optional

A HD 23" LED multi-touch desktop. This industrial touchscreen can be ordered independently or as part of the 'Small Business Solutions' package.

Part #409-0142
See price list.

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RAL Color - Optional

The primary color on Vidir carousels is white with grey carriers.

We can supply up to 76 additional RAL'S for a moderate upcharge. Per request we can also match customer paint chips.

See price list.

Sample Colors

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ALL freight is handled by Vidir carriers

Carousels ship knocked down and need to be assembled on-site by a trained installation team.

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Installation Program

✓ Needs to be done by a factory certified installer

✓ Certification can happen on the job

✓ Pan Carousels, Bedlift, and MMB require separate training

✓ Training sessions can be done in our facility in Lebanon, PA with enough interest in early 2017.
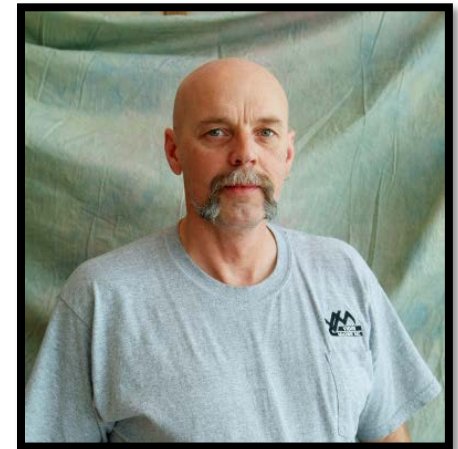
Dave Martens

Installation
Manager

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🔧 Installation

1. Get installation information during your site visit.
   I.   Do they have a loading dock?
   II. Is there a clear path to the installation location from the unloading area?
   III. Suitable concrete floor for anchoring?
   IV. Special training/equipment required?
2. Shelving Carousel installation takes approximately 8 hours for 2 installers
3. The electrical needs to be run prior to the carousel being installed
4. Forklifts and Scissorlifts need to be supplied
5. Equipment usage training is provided
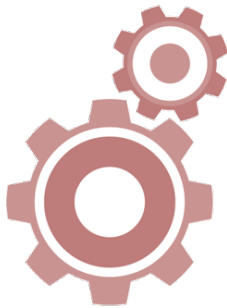
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more information about any details
on this webinar by calling
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