

6 Reasons For Small & Medium Companies To Implement Order Picking Carousels & VLMs

Sponsored by:

ASRS
Automated Storage / Retrieval Systems

Presented by:

David Schneider
Hanel Storage Systems

Tim Archer
Kardex Remstar

Colman Roche
Sapient Automation

 **PROMAT** 2013
AN MHI INTERNATIONAL EXPO
McCORMICK PLACE CHICAGO JAN 21-24
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Seminar Agenda

- Carousels & VLM Technology
- MHIA Survey & Myths Uncovered
- Case Studies
- Conclusion

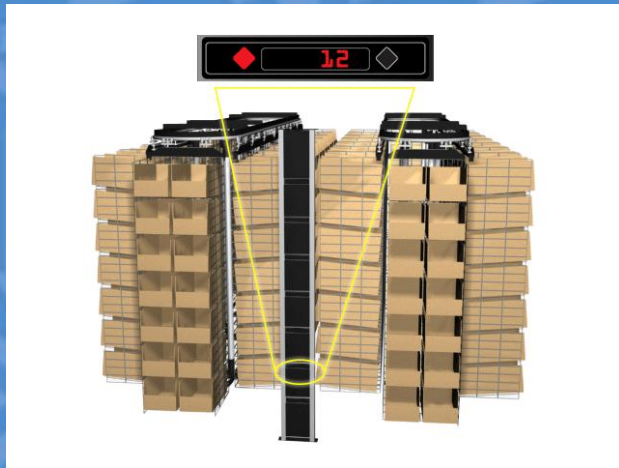
Carousel & VLM Group of AS/RS



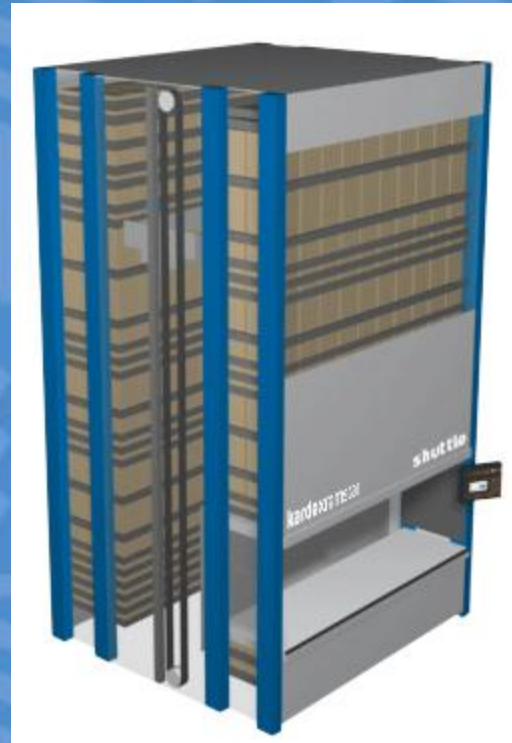
kardexremstar



Carousel & VLM Technology



Horizontal Carousels



Vertical Lift Modules



Vertical Carousels

MHI Automation Survey

- Conducted By The MHI Automation Alliance
- Input From More Than 500 Warehousing, Distribution & Manufacturing Professionals
- The Goal Was To Uncover Thoughts & Feelings About Automation



Myths Uncovered

1. Automation Only Works For Large Organizations
2. Automation Takes Too Long To Implement
3. Automation is Too Expensive
4. Manual Labor Is Cheaper Than Automation
5. Automation Is Obsolete Too Fast
6. Automation Isn't Flexible

Myth 1: It Only Works For Large Organizations



Office Filing



Law Enforcement, Municipalities



Tool Storage



Dies & Fixtures



Machine Shop



Warehouse / Distribution



Automotive Parts Departments



Motorcycle Dealers



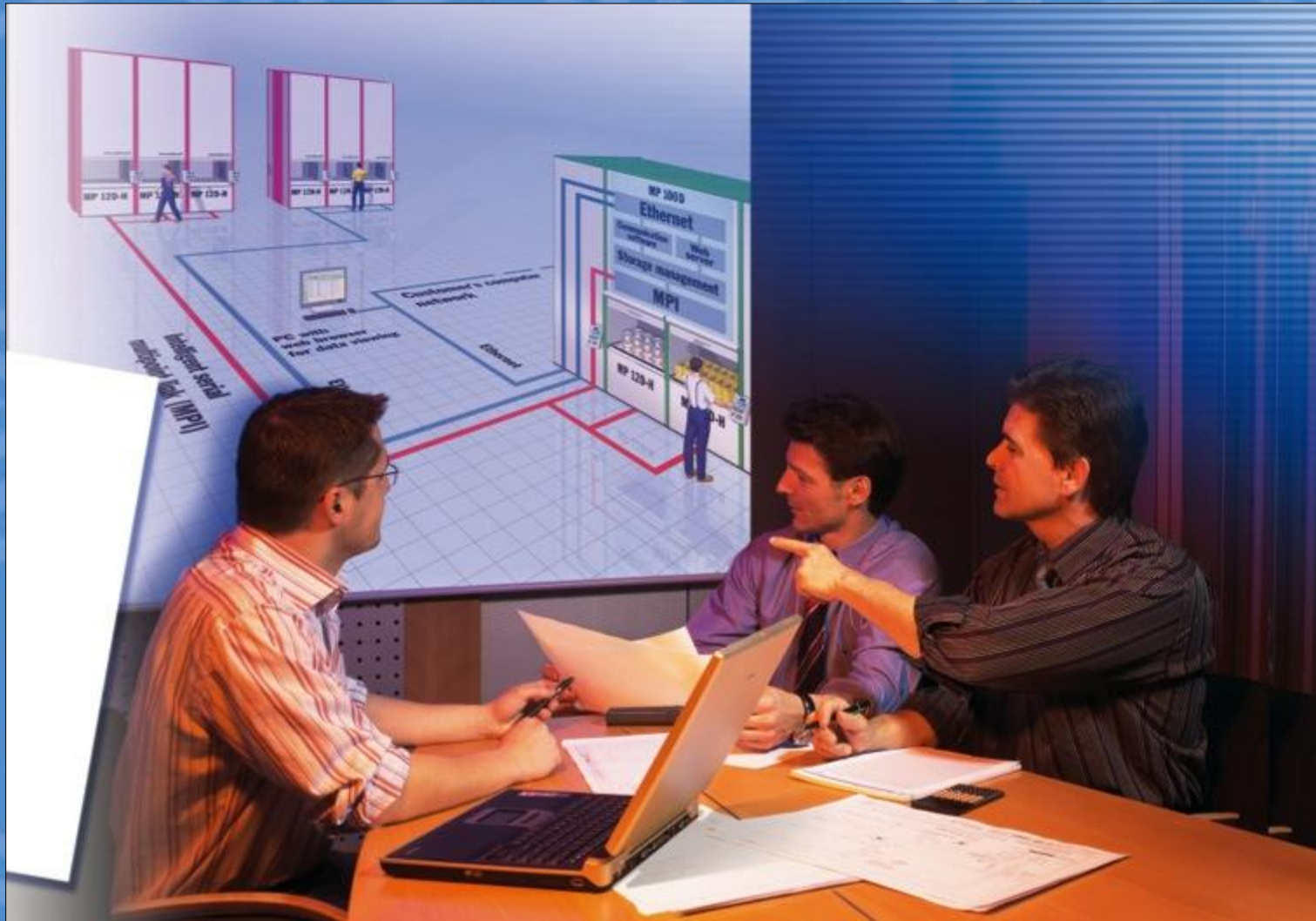
Carousels & VLMs For Smaller Organizations

- Compact Units Are Available
- Units Fit Beneath Standard Ceiling Heights
- Units Can Be Made Portable
- Price Competitive When All Factors Weighed
 - Labor
 - Space Savings
 - Productivity
 - Security

Myth 2: It Takes Too Long To Implement



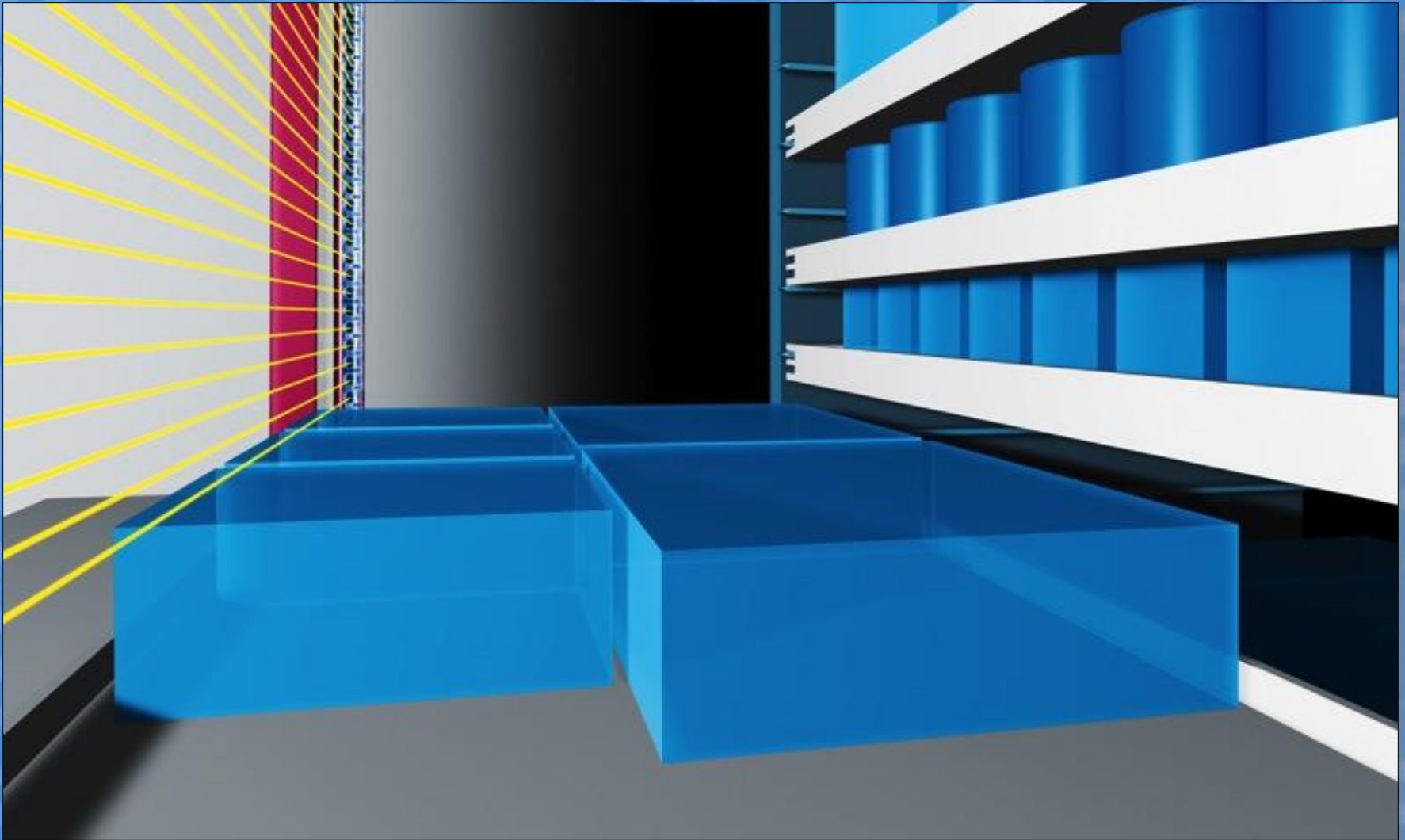
Map Out Process in Advance



Pre-Load Inventory Into Unit



Storage Limitations Eliminated



User-Friendly Operation



User-Friendly Operation



Professional Guidance



Carousel & VLM Implementation

- Map Out Process In Advance
- Pre-load The Unit Controller With Inventory
- Eliminate Location And Size Restraints
- User Friendly Design And User Interface
- Professional Guidance

Myth 3: It's Too Expensive

- National Oilwell Varco
Houston, TX
 - Issue: Keep Manufacturing Stocked With The Right Parts
 - Issue: Meet Lean 5S Requirements
 - Issue: Reduce Time To Pick
- Can We Improve On 4.72 Minutes Per Pick?



VLM Cost Justified Solution

- Solution: Combine VLM With Better Shelf Allocation
 - Result: 44% Faster Picking
 - Result: Reduction In Labor (11 To 8)
 - Result: 70% Increase In Available Space
- ROI Favors Automation!



Myth 4: Manual Labor Is Cheaper

- Joanne Fabrics
Ontario, Canada
 - Issue: Adding Lines
(Decor Hardware)
 - Issue: Inefficient &
Labor Intensive Picking
 - Issue: Fill Hardware
Orders & Add SKU's
For New Hardware
Lines



VLM Labor Solution

- Solution: 4 VLMs With Inventory Management Software
 - Result: Orders Picked In Half The Time With One Worker
 - Result: Picking Accuracy Improved From 92% To Nearly 98%



Myth 5: Automation Is Obsolete Too Fast!

- Implementation, Start To Finish: 2-6 Months
- ROI Usually 9-24 Months
- Cash-Positive Immediately With Leasing



Myth 5: Automation Is Obsolete Too Fast!

Was

- High Line-count Orders To Replenish Stores

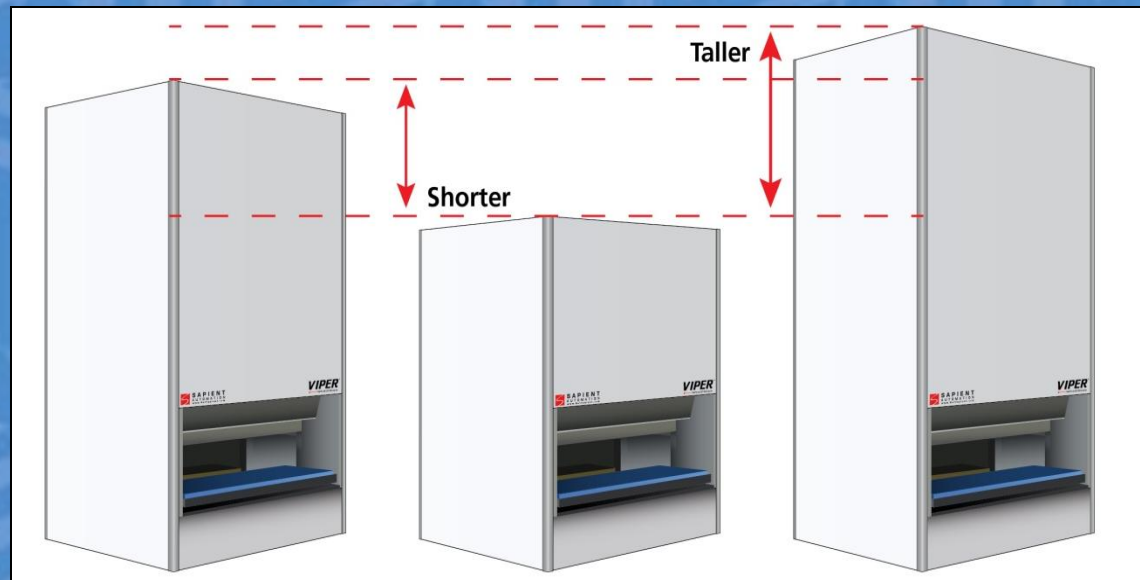
Now

- Low Line-count Orders
 - Direct-to-Consumer
 - POS Replenishment, As Sold

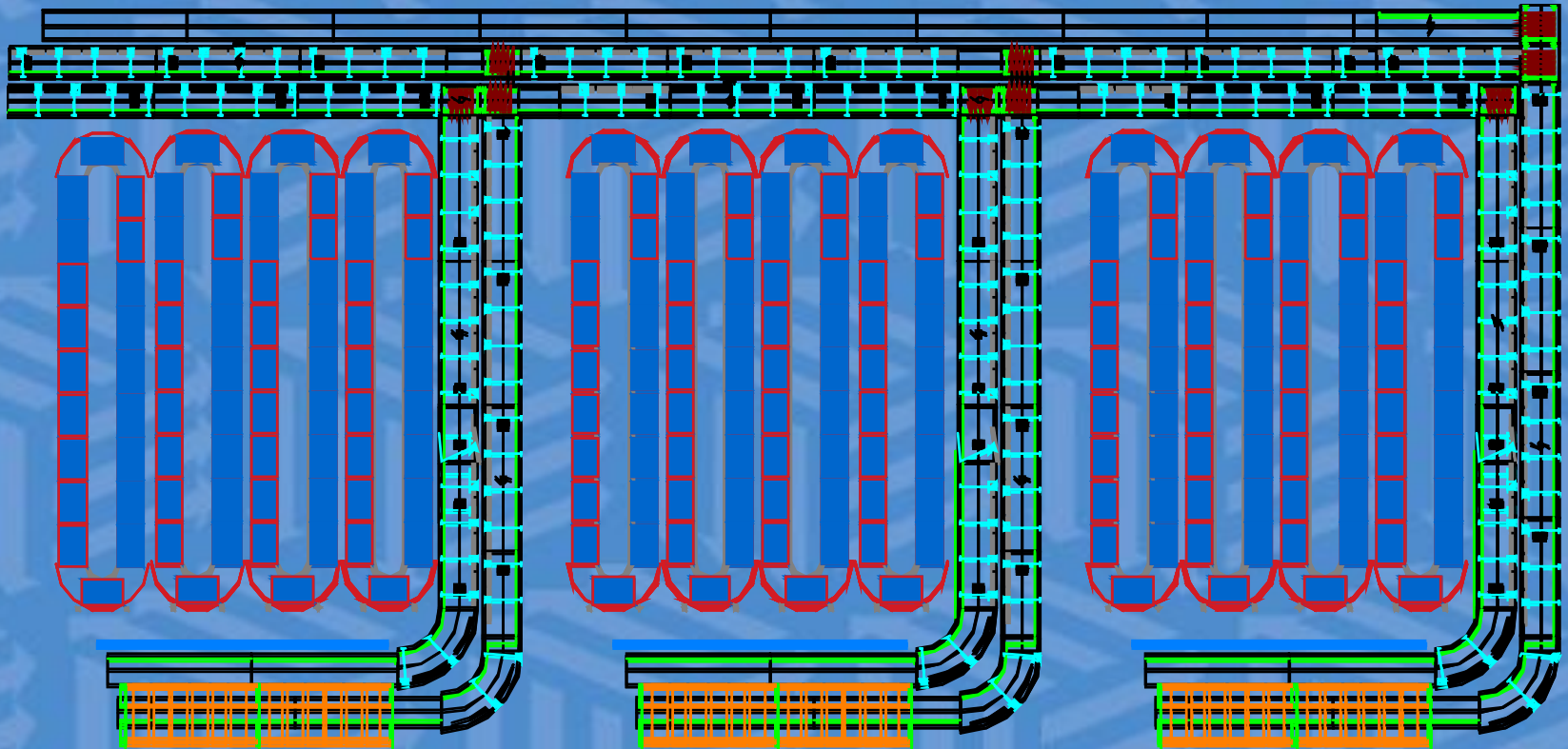


Automation Changes With Your Business

- Industrial Equipment Manufacturer With VLM Initially Installed Under A 28' Ceiling
- Business Shifted Towards Work Cell Optimization
- Moved Closer To Manufacturing Floor: 22' Ceiling
- Re-Located VLM & Reduced Height



Automation Grows With Your Business



- Start As Needed: Storage Focused, or Throughput Focused
- Add As Needed, on Your Schedule

Myths Busted!

1. Automation Works For All Size Facilities
2. Automation Is Quick To Implement
3. Automation Provides a Solid ROI
4. Automation Is Less Expensive Than Manual Labor
5. Automation Changes With Your Business
6. Automation Is Flexible

AS/RS Members

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Thank You!

For More Information on CVLM:

Gary Forger, MHI Managing Executive
gforger@mhi.org

www.MHI.org/ASRS