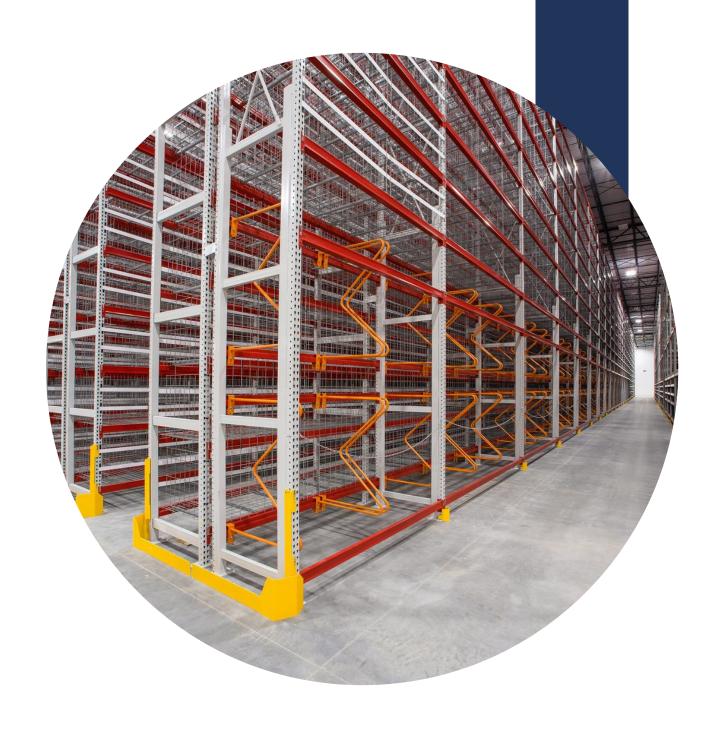


Engineering One Rack Tips & Tricks

Learn new tips and tricks to help navigate One Rack for Speedrack materials, and find out about upcoming building code/RMI changes that could impact they way you scope rack product for your customers.





Introduction



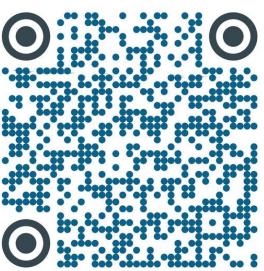
William M. Roney, P.E.

Vice President of Engineering

email: broney@speedrack.net

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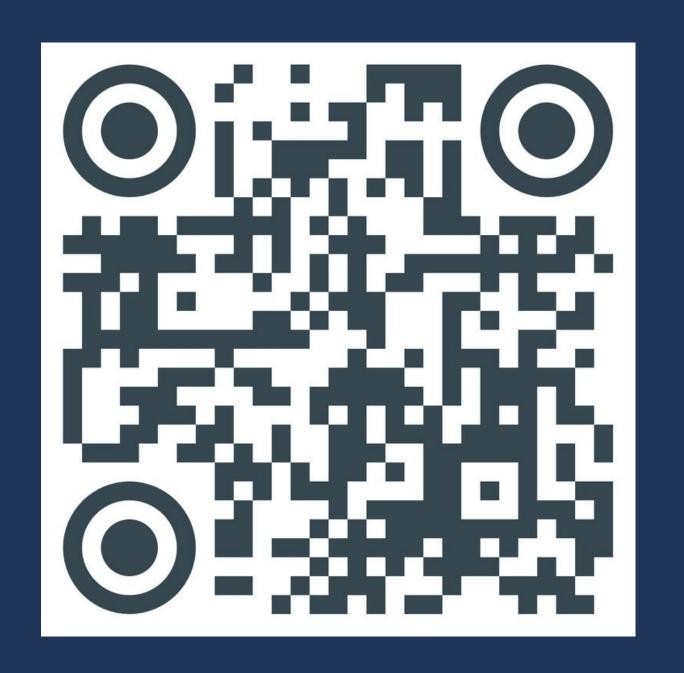






DISTRIBUTOR DAYS Monday July 21st, 2025

Visit speedrack.net/ssi or scan this QR Code to view the itinerary, download presentation slides, and more!



Code Changes

Speedrack
Products Group, Ltd.

- Adoption of IBC 2024 by the Authority Having Jurisdiction (AHJ) will require the 'new' RMI design.
- This should be checked up front so that we can support with a quote design that will apply.
- See screenshot for example from San Antonio, TX which adopted the new IBC edition on May 1, 2025.
- Going to be a challenge over the next several years as Municipalities and States will be adopting this (or not) on their own schedules.
- Best course of action will be to ensure you supply our Sales Team with the actual project location, and not just the closest large city if possible.
- Most frequent changes you will see in the 'new' designs will be larger base plates and larger beam endplates.

2024 Codes

On January 30, 2025, the City Council adopted the <u>2024 International Code Council (ICC)</u> codes and the 2024 San Antonio Property Maintenance Code (SAPMC). The 2024 ICC codes include the following:

- International Building Code (IBC)
- International Existing Building Code (IEBC)
- International Fire Code (IFC)
- International Fuel Gas Code (IFGC)
- International Mechanical Code (IMC)
- International Plumbing Code (IPC)
- International Residential Code (IRC)
- · International Swimming Pool and Spa Code (ISPSC)
- National Electrical Code (NEC)

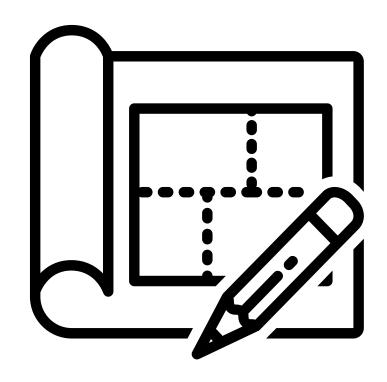
The energy code was excluded from this cycle.

NOTE: The 2024 ICC Codes and SAPMC will become effective May 1, 2025.



Anchoring Near Slab Joints

- A control joint / saw cut won't be the full depth of the slab.
- It can be difficult to determine without the slab/building drawings, but if the field can stick something down to measure the depth, it should be obvious in many cases.
 - A control joint won't be more than 1.5"-2" in depth.
 - An expansion joint will be the full depth of the slab.
- If it is an expansion joint, then the base plate/anchors should never straddle the joint!
- Other than that, you'll just want to keep the required edge distance
 - Note if it is a low seismic job and the anchors are under utilized, we can probably get away with decreasing the capacity based on the proximity to the joint.
- Epoxy anchors are an option.
 - HILTI has an interesting alternative to epoxy called the Hilti Kwik X which is just a screw anchor with an epoxy capsule thrown into the hole before installation.





OneRack Video

 Here is the most recent video OneRack has posted: https://vimeo.com/manage/videos/1083077855



OneRack YouTube Channel

 Here is their YouTube channel, which has a few as well:

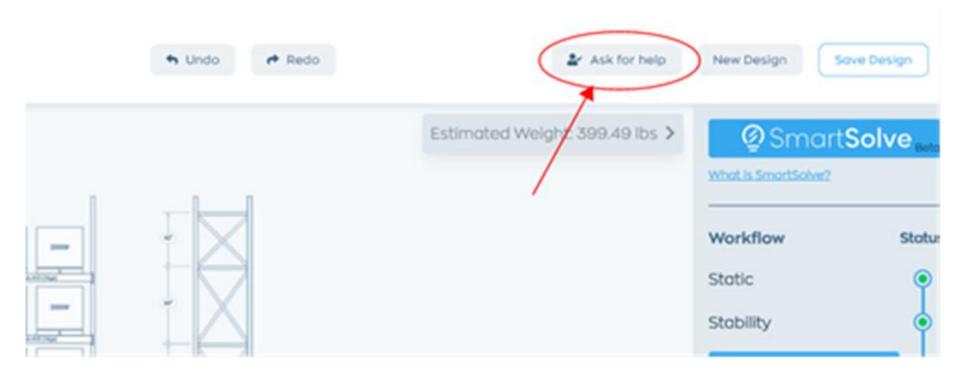
https://www.youtube.com/playlist?list=PLM1TqkFN7reb4 SHxJl9ZjRPufYY9agbZF

OneRack Resources



Help Needed?

- You can email <u>customerservice@oneracksolutions.com</u> if you have questions
- However, if users have questions about a particular design, they should click the **Ask for Help** button, and send the link to the design this gives OneRack engineering access so they can look at the design.



OneRack Troubleshooting for Speedrack

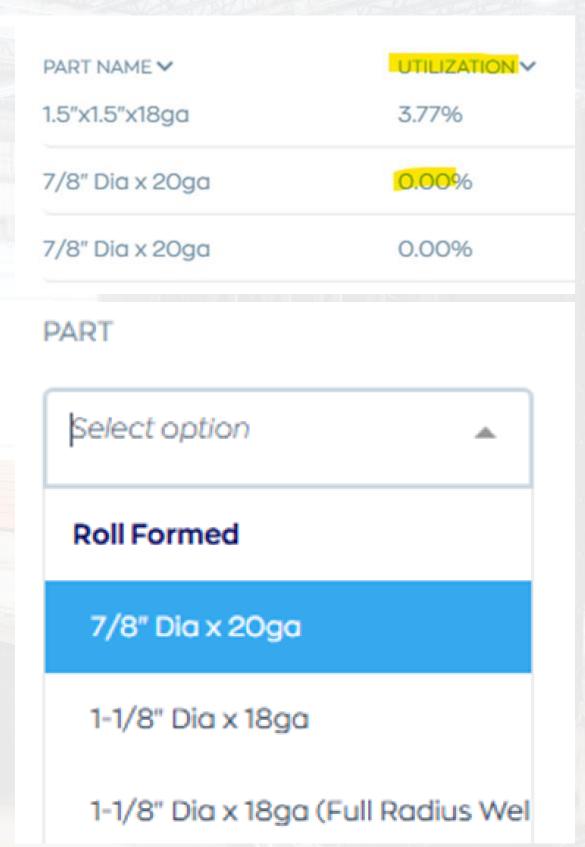
Products Group, Ltd.

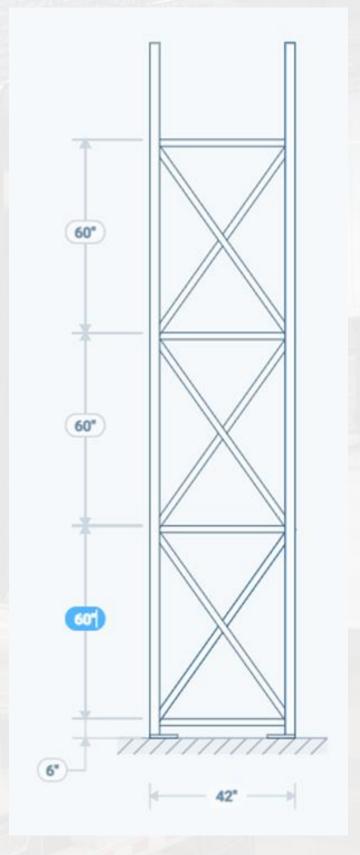
Material

- 1.Most common issue for seismic locations is the diagonal bracing.
- 2.If the 'frame' shows up as red / not checking, scroll down and check the brace utilization.

3.lf > 100%, you can adjust the following:

- a. Brace panel dimension down from 60" down to 42" (by clicking on the dimension next to the brace panel)
- b. Brace section to our heavy duty 1-1/8" dia. option (by clicking the brace under 'part name' in the frame area)
- c. Often in higher seismic areas you will need to look at the "full radius weld" option (which has a price increase and needs to be called out)

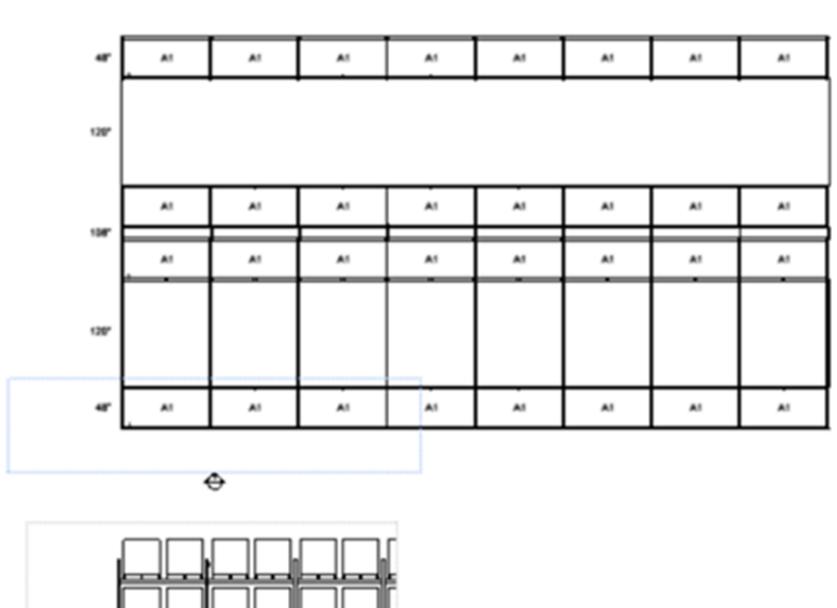






- Configura produces 2D and 3D drawings.
- You can import autocad 2D building files or create your own walls and columns.
- The marker on the bottom left side is a 0,0 point for CAD reference.
- You can insert elevations into the 2D workspace.

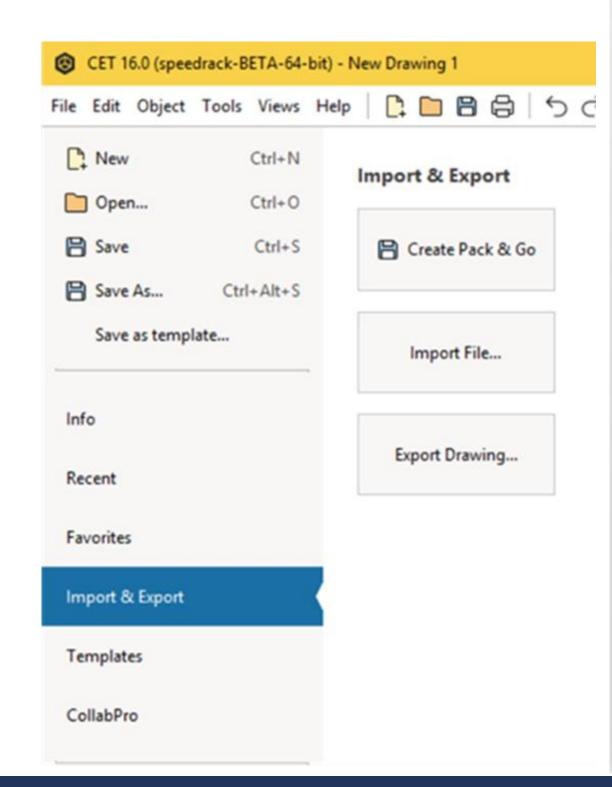
Speedrack & Configura



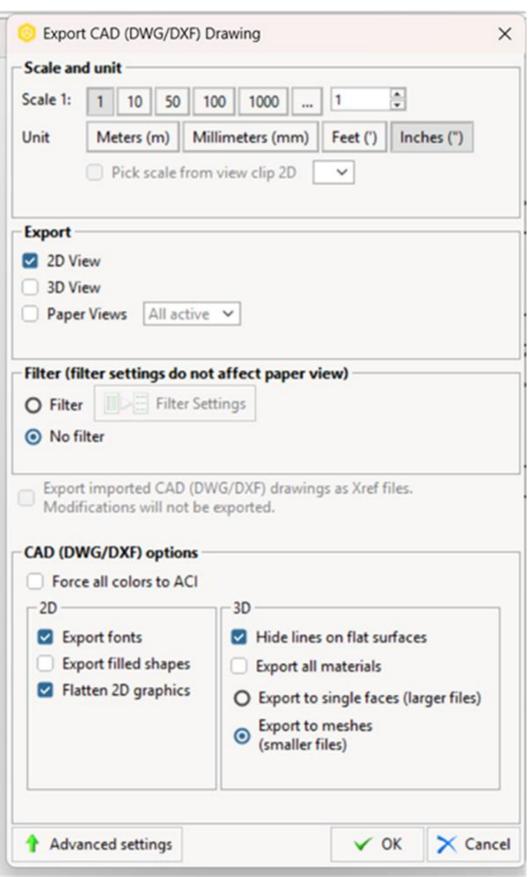
Speedrack & Configura

- From the file command list you can import or export AutoCAD drawings.
- You can control the scale and units in the exported 2D DWG.
- You can also export a 3D DWG.









SPEEDRACK & SEMI-AUTOMATION





Automation & Robotics Support

- Speedrack is ready to support you on future projects
- Custom details with built-in adjustability
- Enhancements in Production for Required Tolerances
- Grace Bartrand Director of Quality & Continuous
 Improvement
- Incorporated Lessons Learned from Various Installs
- Technical Acceptance Process:
 - a. Speedrack engineering reviews technical specifications
 - b. Clarifications on tolerances and other requirements (labels! millimeters!)
 - c. Worked on multiple styles & applications
 - d. Examples Include: Stow, HAI, Amazon, Libaio, BoxLogix

Technical Document Clarifications		
Date:		
Section	SPGL Clarification	Response













Pallet Shuttle – Speedrack Atlas 1D

- Excellent cube utilization
- Excellent space utilization
- Excellent productivity
- Standard lift equipment (Semi Automated)



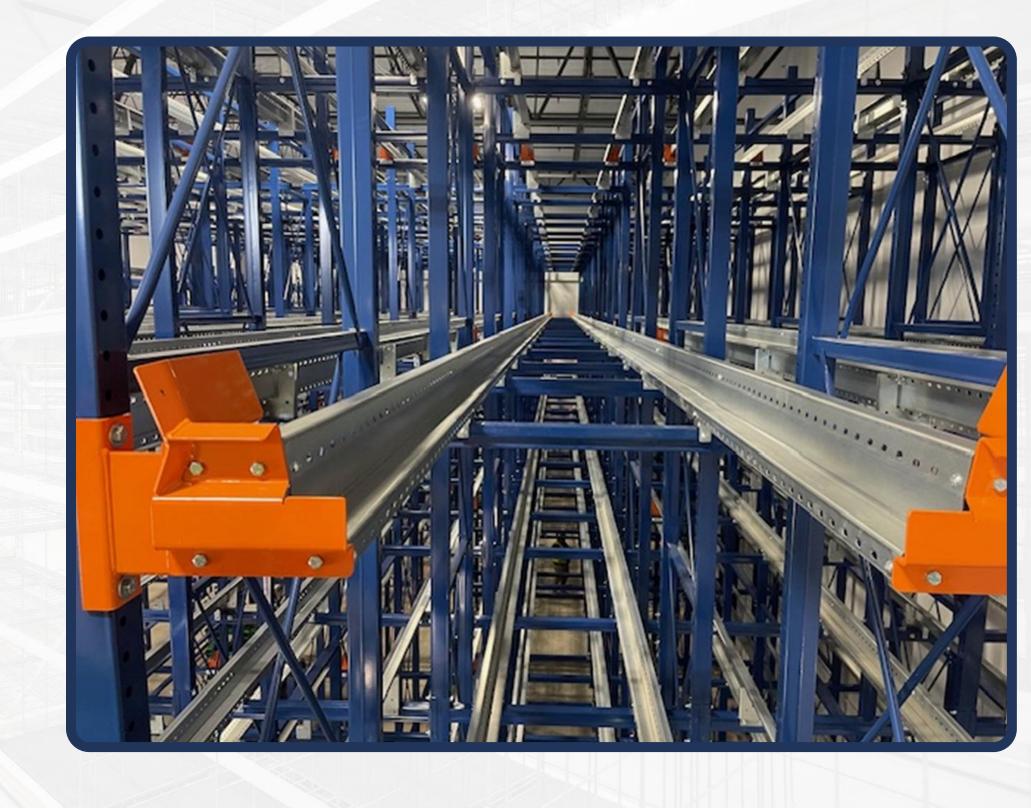




Pallet Shuttle – Speedrack Atlas 1D

- Li+ Battery Powered
- Pallet Size:
- 40"W & 48"W x 48"D
- Max Load: 3,300lb
- Ambient Units (40°F to 120°F)
- Cold Store Units (Down to -22°F)

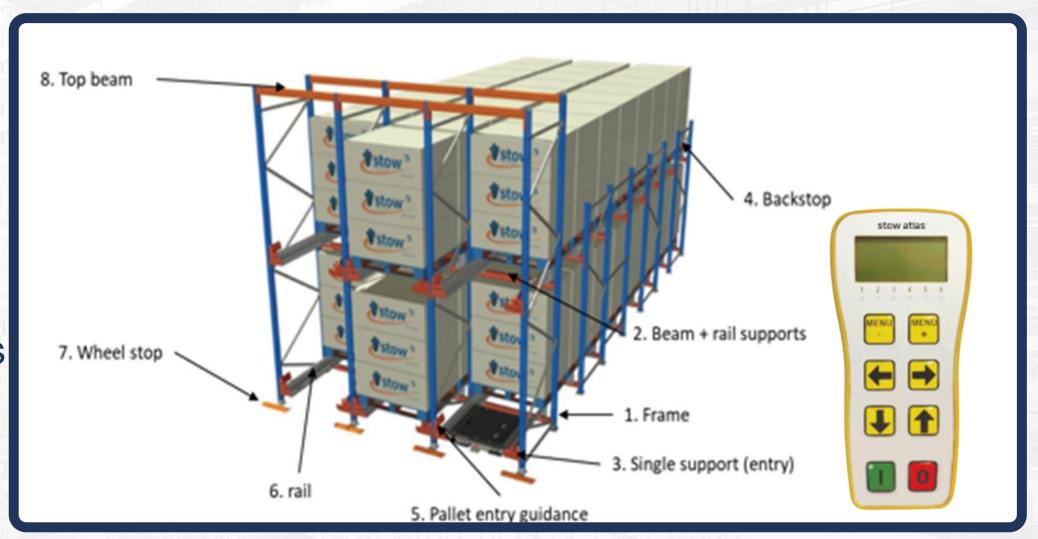






Pallet Shuttle – Speedrack Atlas 1D

- Up to16hr life per charge
- 3hr charging time
- Movement speeds:
 - 2.6ft/s when loaded
 - 3.3ft/s when empty
- Programmable Spacing Between Pallets
 - Compatible with new fire code requirements!





Tote Picking ASRS

(Automated Storage / Retrieval System)

HAIROBOTICS

Speedrack is excited to partner with Hai Robotics, and are now in our final stages of approval for their HPS3 System



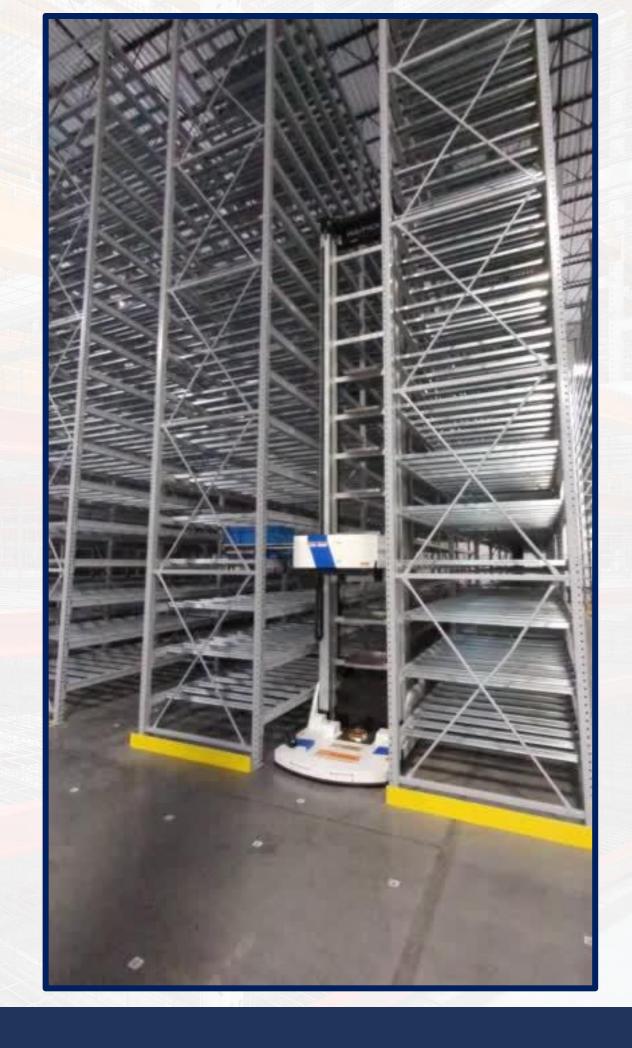




AS/RS

(Automated Storage / Retrieval System)

- Automated Case Pick
- Great Cube Utilization
- Direct to Consumer
 - (E-Commerce, Pharma, Grocery, etc)





AS/RS

(Automated Storage / Retrieval System)

- Variety of Pick-Bots
 - ACR (Autonomous Case-Handling)
 - AMR Companion Bots (Autonomous Mobile Robot)





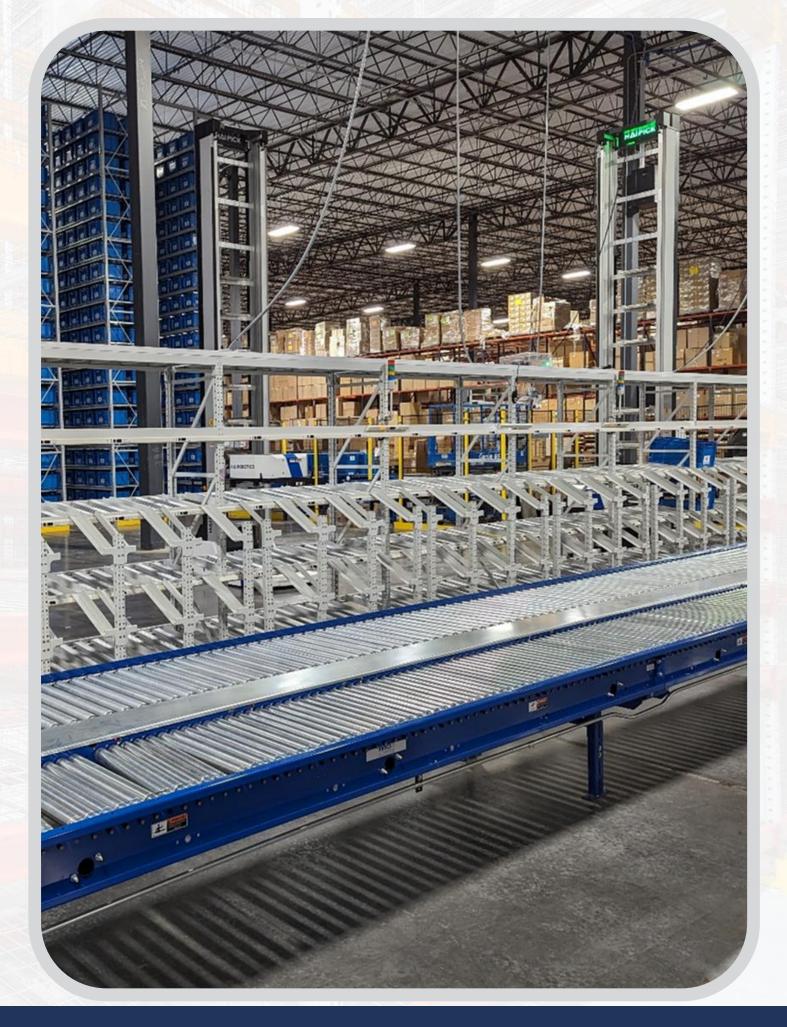


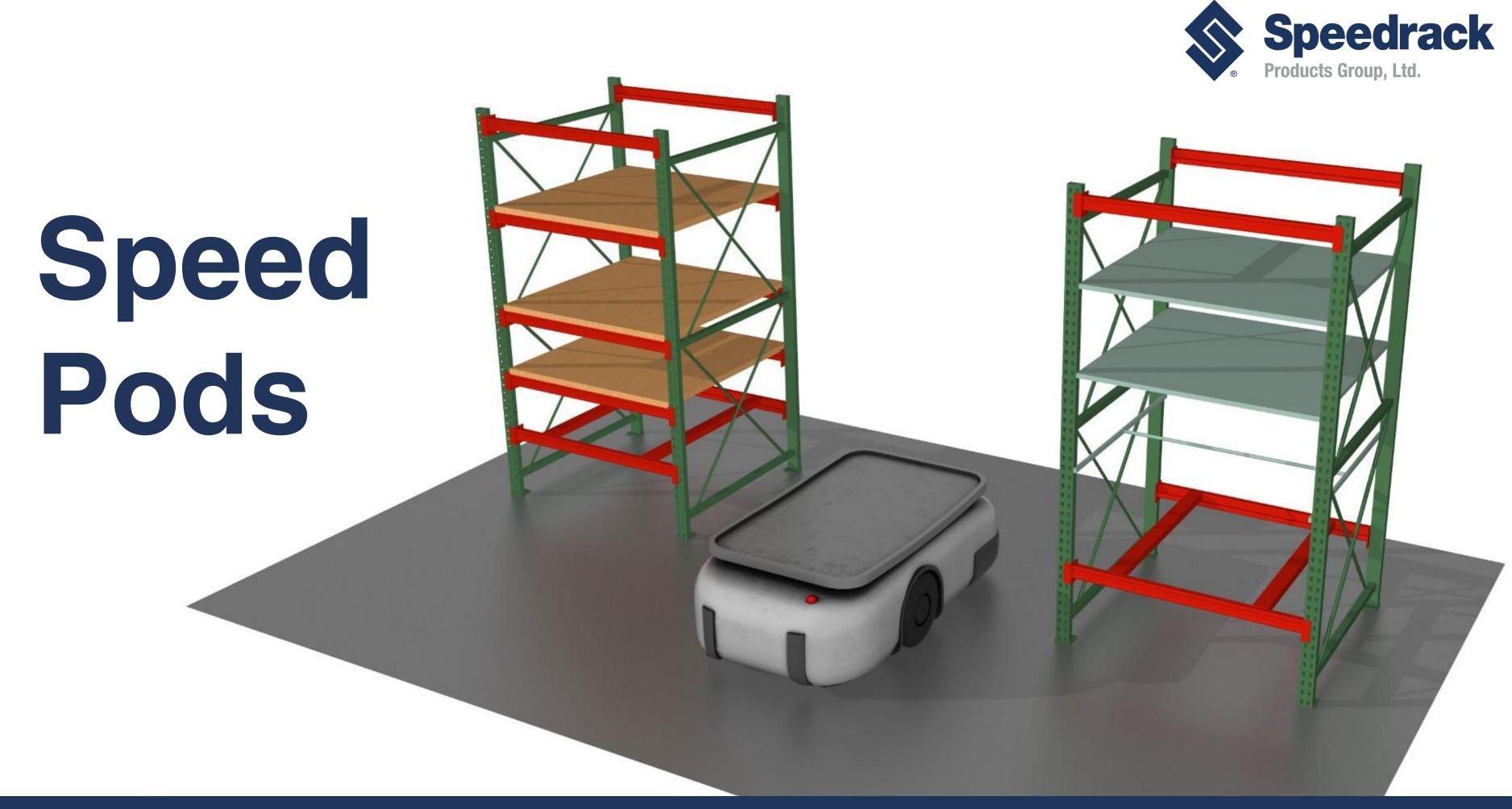


AS/RS

(Automated Storage / Retrieval System)

- Li Battery Powered
 - ACR's
 - 6.6hr run time avg.
 - 1hr charge time avg
- Case / Tote
 - 650mm L x 450mm W x 200-400mm
 (25.6" L x 17.7" W x 7.8"-15.7" H)
 - o 32' 10" pick height
 - Up to 67lb per tote, 8 totes per pick-bot







Thank You!

William M. Roney, P.E. Vice President of Engineering

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phone: 616.588.9865

in Connect on LinkedIn!

