Determining what ASRS Solution Is Best For my Application

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Lenze

SEW EURODRIVE

SICK

SIEMENS

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POWERED BY POSSIBILITIES.
Agenda

1) What factors do I need to consider before selecting an ASRS?

2) What ASRS solutions are available? Which is suitable for me?
So You Want To Build An ASRS…?

Some questions to think about…

• What are my load units?
• What are my throughput requirements?
• What is my order structure?
• What are my storage requirements?
• How many SKUs am I storing and what sort of ABC profile do they fit?
• What is my building situation?
• How do I plan for the future?
In The Beginning There Was A Load Unit...

• How are my items received?

• How are my items picked?

• How are my items shipped?

• What are the dimensions of my products?
What Items Do I Have?

- Item Characteristics
  - Ambient vs cold/freezer
  - Large or small?
    - Length, width, height, weight….
  - Hazardous or caustic?

- Are my products conveyable or “toteable”?
What Is My Key Data?

Key Data:

• # of Orders?
• # of Order Lines?
• # of Picks?
• Picks / Order Line?

• # of SKUs?
  • How many are active a day?
  • DOH Inventory
    • # of storage locations required?

• SKU ABC profile?
  • 80/20?
Where Do I Put This Thing?

• Install it within my existing facility?
  • What area of the warehouse?
  • What is the clear height?
  • How does it fit into my existing material flow?

• Greenfield (new) construction?
  • Plan your ASRS before you finalize your building!!
How Do I Plan For The Future?

• Do not “land lock” it within your warehouse!
  • Place it near areas of the building that can be used for future expansion
  • Place it next to walls where the building can be expanded

• Leave space within the ASRS design for future aisles
  • 5 year plan vs 10 year plan
Other Good Things To Consider…

• How far in advance do I pick my orders before they are shipped?

• When does my peak take place?

• What is my current shift structure and what is my plan for after ASRS?

• What are my goals for ASRS?

• What is my timeline?

• What sort of ASRS technology best fits my application?

• What level of IT investment should I make (WMS vs WCS) with my ASRS project?
What ASRS are available? Which is suitable for me?

SRM with Forks

1. Throughput: Medium
2. Storage Density: Medium
3. No. SKU's: High
4. Relative Cost: Medium

Pallet | Case | Split Case
What ASRS are available? Which is suitable for me?

SRM with Satellite

1. Throughput
2. Storage Density
3. No. SKU’s
4. Relative Cost

<table>
<thead>
<tr>
<th>Pallet</th>
<th>Case</th>
<th>Split Case</th>
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<tr>
<td>Medium</td>
<td>High</td>
<td>Medium-High</td>
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</table>
What ASRS are available? Which is suitable for me?

Shuttle

1. Throughput: High
2. Storage Density: High
3. No. SKU’s: Low-Medium
4. Relative Cost: Medium-High

Pallet | Case | Split Case
What ASRS are available? Which is suitable for me?

Miniload

1. Throughput: Medium
2. Storage Density: Medium
3. No. SKU’s: High
4. Relative Cost: Medium

Pallet | Case | Split Case
What ASRS are available? Which is suitable for me?

Shuttle

1. Throughput
   - High

2. Storage Density
   - Medium-High

3. No. SKU’s
   - Medium

4. Relative Cost
   - Medium-High

Pallet | Case | Split Case
What ASRS are available? Which is suitable for me?

Cube Storage

1. Throughput  
   - Medium-High

2. Storage Density  
   - High

3. No. SKU's  
   - High

4. Relative Cost  
   - Medium-High

Options:
- Pallet
- Case
- Split Case
What ASRS are available? Which is suitable for me?

Horizontal/ Vertical Carousels

1. Throughput
   - Low-Medium
2. Storage Density
   - Medium
3. No. SKU's
   - Low-Medium
4. Relative Cost
   - Low

Pallet | Case | Split Case
What ASRS are available? Which is suitable for me?

Vertical Lift Modules (VLM’s)

1. Throughput: Low-Medium
2. Storage Density: Medium
3. No. SKU’s: Low-Medium
4. Relative Cost: Low-Medium

Pallet, Case, Split Case
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