Until Automation Does It All...

...do something to protect workers now
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Chairman
EASE Council
EASE
Ergonomic Assist Systems & Equipment

Director, Business Development
Southworth Products Corp
SOUTHWORTH
making work faster, safer, and easier
Established 1945
Non-profit Trade Assoc.
$180 Billion Market
16 Industry Groups
Over 800 Members
22 ANSI Standards
Two Major Trade Shows

19 Member Companies
60 Industries/technologies
Ergonomic Resources and Tools
Health and safety News
Case Studies
Checklists and Technical Support
White Papers
Speakers and Presentation Materials
Workshops and Outreach to the user
Until Automation Does It All...

Manufacturing
Until Automation Does It All...

Fabrication and Assembly
Until Automation Does It All... Distribution
Until Automation Does It All...

Order Fulfillment
Until Automation Does It All...

Packaging & Palletizing
The road to automation
Automation is a good thing.....

but, automation might not be for everyone...

...and the decision to automate is not easy...

...there are issues :
Automation Is Not For Everyone

• Because getting there takes:
  • Vision / Confidence
  • Adequate Capital
  • Acceptable Return on Investment
  • Need for Flexibility
  • Skills to Operate and Re-program
  • Skills to Maintain and Service
<table>
<thead>
<tr>
<th>Doing something for a most valuable asset means:</th>
<th>Automation</th>
<th>MH Equipment</th>
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<tbody>
<tr>
<td>Resources</td>
<td>Expensive</td>
<td>Much, much less</td>
</tr>
<tr>
<td></td>
<td>Complexity</td>
<td>Easy to implement</td>
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<tr>
<td></td>
<td>Inflexible</td>
<td>Easy to adapt to change</td>
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<tr>
<td></td>
<td>Resources</td>
<td>No additional burden</td>
</tr>
<tr>
<td></td>
<td>Maintenance</td>
<td>No additional expense</td>
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<tr>
<td></td>
<td>ROI $$$$$</td>
<td>Easily measured in months</td>
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Issues with Manual Material Handling

• Low back injuries - Highest cost of all WC payouts
• Most WC claims – over 30% of all claims
• Most lost time injuries….and the longest duration
• Market pressure to do more with less
  • More obese workforce
  • Aging workforce
• Shortage of workers – especially doing MMH tasks
What’s the ROI with MH Equipment

**Savings**

$$$$$ Reduction in lost time injuries

$$$$$ Move more material faster

$$$$$ Reduces body movements – bending, reaching and walking

$$$$$ Helps out-of-shape workers – reduces fatigue

$$$$$ Helps older workers by reducing strength required & fatigue

$$$$$ Reduced Worker’s Compensation claims

$$$$$ 20 to 40% improvement in productivity

$$$$$ Helps retain current employees and increase their output
For those companies that can’t make the leap to automate they should ...

DO SOMETHING!

EASE Can Show You How
Today you will learn:

How to better protect your most valuable asset
Pallets

Approximately 450 million new pallets produced each year in the USA. 1.9 billion (est’m) pallets are in use at any given time.

MANUAL LOADING AND UNLOADING OF PALLETS CONTINUES TO BE ONE OF THE MOST COMMON AND MOST INJURY PRONE TASKS IN INDUSTRY TODAY.
Here are some examples of the problems...
As much as 40% of the time required unloading a pallet, can be spent walking around it!
Load levelers hold the top layer of goods at about 30” to 45”

Turntables eliminate walking around
Notice the top layer is about at the same elevation
Opening up the pick slots
Spread pallets out........
Use vacuum lifters to stack pallets. Pallets can weigh 20 to 40 kgs.
Handling heavier cases is made easy for all workers.
Vacuum lifters are efficient and very useful when handling cartons, pails or case goods.
Pallet positioners can be put into pallet racks.
Some load positioners use air bags instead of springs.
Load positioners can be made portable.
Manual Turntables

Can be loaded with a hand pallet jack
Pallet rotators to exchange pallets

Damaged product on the bottom of a pallet can be easily removed
Highly maneuverable in crowded work areas

These are inexpensive choices especially when compared to fork trucks
Skid lifters

Manual and powered

only for open bottom pallets or skids
Freestanding Workstation Cranes

- Effortless and precise control
- Articulating hanger assemblies
- Enhanced structure stability – no cross bracing
Single & Double Girder Cranes

- Increased efficiency with handling heavy loads in tight work areas
Pillar & Wall Mount Jib cranes
Properly placed supplies and tools promote a highly efficient work space.

These are powered adjustable height benches.
Manufacturing and assembly operations are moving to towable carts.
These devices fit under the carts so do not take up any more space
Containers

Manual loading and unloading of containers leads to upper & lower back injuries
Containers

[Image of blue drums and stacking bins]

[Image of man handling red stacking bins]

[Image of green crate and red crate on wheels]

[Image of red crate on wheels]

[Image of green crate]

[Image of red crate on wheels]
Understanding the problems
Spring loaded positioners to elevate the goods.

Speeds picking the parts and reduces the bending & reach problems.
High hinge tilters for gaining access to the bottom and back of containers
This a low hinge tilter for taller loads
Tilter customized to handle drums

Lift and Tilt for better operator access
Lift and tilts for ease of access to work
Carts, Dollies, Platform Trucks and U-boats

These manual devices reduce carrying loads
Use specialty carts for maximum benefit.
Go to the EASE website for free downloads.

- Vertical handles 18-20” apart or horizontal handle at 37”
- Load does not block line of sight
- Max. push force:
  - Starting it moving: 45 lbs
  - Keeping it moving: 20 lbs
- Good traction (Coefficient of Friction: 0.6+)
- Max. load 500 lbs.
  - Lightweight items only
  - Sealed precision bearings or well-maintained roller bearings
- Max. speed:
  - Walking pace 3 ft./sec (2 mph)
  - Non-swivel
  - Swivel
Rule #1 – don’t overload a cart!
Rule #1 ....even if you have help moving it
Rule #1 ……or even if it has a motor!
Specialty cart for stocking

Eliminates going up & down a step stool
They are powered up and down

lightweight aluminum stackers are highly maneuverable...
Powered 2 wheel hand trucks
Solves back problems, eliminates wasted motion and increase efficiency.

Battery powered scissors lift
Self leveling carts

These can be retro-fitted to existing carts
Calibrated spring provides linear moment
Roller conveyor can be used in rack and shelving.

Reduces the stress on storing or retrieving heavy cases and cartons.
Expandable conveyor

For trucks and containers which are floor loaded.
This expandable conveyor is driven right into the truck or container.
EASE
Ergonomic Assist Systems & Equipment

Products Available:
- pallet retrievers
- pallet straighteners
- pallet elevators & lifts
- pallet stackers & dollies
- pallet turntables
- pallet stands & trolleys
- pallet trucks & skids
- forklifts & hand trucks
- cranes & hoists
- conveyors & belts
- robots & automated systems
- workstations & ergonomic furniture
- safety equipment & signage
- safety training & consulting
- labeling & tagging systems
- other industrial equipment

Solutions to Material Handling Problems
- Ergonomic Assist Systems
- Equipment
- Safety
- Training
- Consulting

EASE can give you the tools to create a safe and healthy work environment for your employees.

Whether you are looking to purchase equipment, find solutions to safety or simply looking for guidance, EASE has the experience to offer our assistance.

Visit our website today to find out more.

www.mhi.org/EASE
Ergonomic Guidelines for Manual Material Handling

Free download

Ergonomic Guidelines for Manual Material Handling
Thank you!

Jim Galante
Chairman

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207-329-5555

Questions