WELCOME!

Gaining Efficiency in Retail Stocking

Wakefern

ShopRite

PriceRite

The Fresh Grocer

Readington Farms
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Established 1945
Non-profit Trade Assoc.
$150 Billion Market
19 Industry Groups
Over 800 Members
24 ANSI Standards
Two Major Trade Shows

17 Member Companies
50 Industries/technologies
Ergonomic Resources and Tools
News
Case Studies
Checklists and Technical Support
White Papers
Speakers and Presentation Materials
Workshops and Outreach to the user
MISSION

To broadly promote the benefits of ergonomic assist systems and equipment together with the advantages derived from the use of this equipment in the workplace and to promote the safety and health of the work environments.
Gaining Efficiency in Retail Stocking
Understanding the issues
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Manual material handling

Understanding the issues
Understanding... Manual material handling

.... the issues
Understanding the issues
Understanding the issues

The shelves have grown in height ....

....and they are tightly packed
Understanding the issues

Case goods packaging has changed

...once the plastic is removed the bottom “flat” needs to be fully supported
Understanding the issues

Supporting the “flat” is awkward and leads to poor ergonomic …lack of efficiency

…and product damage.
These unnecessary worker activities can result ergonomic problems.
There are no manual handling issues ....
The two largest issues effecting Workman’s Compensation costs are:

- **Aging**
- **Obesity**
Why Do Older Workers Work?

✓ Studies found many older workers plan to work past the traditional retirement age (Galinsky)

✓ This trend can be attributed, in part, to the reduced value of retirement portfolios/income. (Administration on Aging)

✓ A higher cost of living today (Administration on Aging)

✓ And they work because they want to, because:
  ▪ they want to stay active
  ▪ they are highly engaged in their work
  ▪ satisfied with their jobs
  ▪ committed to their organizations (Galinsky)
The Aging Workforce

Understanding the issues

✓ In 1972, average age of a US worker was 28. Today it’s 46.

✓ The number of workers aged 45+ has doubled since 1950.

✓ According to the AARP, the number of people 55 years and older in the labor force was about 18.2 million in 2000 – It rose to 25.2 million last year and it is projected to rise to 32 million by 2025.

1. Source Ergonomics ASSE Feb 2009 Vol 2, No2 – Dr. Ronald Porter, PT, CEAS, Director, Back School Atlanta, What Works with the Aging Workforce
As We Age…

- Maximal Strength
- Muscle Mass
- Bone density
- Visual and Auditory, Acuity
- Fitness
- Aerobic Capacity
- Cognitive Speed/Function

- Gain Weight
- Arthritis
- High BP
- Diabetes
- Depression
- Heart Disease
- Menopausal & Post Menopausal Issues
Obesity in the Workforce

Definitions of Obesity…..

Body Mass Index (BMI) of 30 or higher.

(Mine’s 31.6 – Boo!)

BMI: A measure of an adult’s weight in relation to their height and age.

- Obese is generally defined as at least +30 lbs. overweight.
- Severely obese is considered to be +60 lbs. overweight.
- Morbidly obese is +100 lbs. overweight.
The Costs of Obesity

- More than one-third (34.9%) of U.S. adults are obese.

- Obesity-related conditions include heart disease, stroke, diabetes and certain types of cancer.

- The annual medical cost of obesity was $147 billion; the individual medical costs are $1,429 higher than those of normal weight.

Source: CDC NIOSH
The Effects of obesity

Obese workers....

...file twice as many WC claims

...have 13 more lost workdays.

...claim 6.8 times more medical claims under WC

...indemnity costs are 11 times higher.

...body parts most prone to injury are: back, lower extremities, wrist, and hands.

The most common causes of these injuries were lifting, lowering & slipping – a.k.a. Manual Material Handling.

Source: CNA Insurance
The effects of manual material handling represent the biggest single contributor to:

- lost time injuries
- and the most Workman’s comp claims
- highest cost of Workman’s comp claims

Ergonomics initiatives can significantly reduce those incidents.
Finding balance ......
It is NOT balance because ……
Let’s look at some solutions

…..remembering there is no magic bullet

…..there is no single solution that works for all situations

…..it is likely that more than one solution would be appropriate.
Pallets

MANUAL LOADING AND UNLOADING OF PALLETS CONTINUES TO BE ONE OF THE MOST COMMON AND MOST INJURY PRONE TASKS IN INDUSTRY TODAY

Approximately 450 million new pallets produced each year in the USA. 1.4 billion (est’m) pallets are in use at any given time.
As much as 40% of the time required unloading a pallet, can be spent walking around it!
Back bending, reaching out – serious issues and for the older worker or obese, a VERY serious issue
Load positioners automatically function holding the top layer of goods in the 30” to 40” window, greatly reducing the bending.

The turntable eliminates having to walk around.
Load positioners can be made portable. This provides for flexibility on where they can be used on cramped back rooms or congested work areas.
Some load positioners use air bags instead of springs.

….Careful, compressed air is needed to charge the air bag
Manual Turntables

For the backroom

......to transfer merchandise from pallets to U-boats or to stocking carts
Setting up a turntables in the backroom

One person can off-load cartons to U-boats just about as fast as two people without a turntable.
Low profile turntables …..

- Minimizing the need to walk around the pallet ….with a carton
- Hand pallet jack accessible
- No Installation required - easy to relocate
- No maintenance and no lubrication.
- Significantly reduced fatigue .....happier employees!
Stackers powered up/dn and Full Power Stackers
Inexpensive stackers can transport pallets, stack them to free up floor space, load positioners and double as a positioner.
They are highly maneuverable in tight quarters and can eliminate the manual lifting.

These are inexpensive choices especially when compared to fork lifts.
Vacuum lifters fitted to articulated arms allows extended reach
Auto-positioning display systems

- Can be loaded with full pallets
- True customer convenience
- Ideal promotional space
- Proven to increase sales
- Sustainable and reduces waste
Vacuum lifters are highly efficient for handling cartons, bags and pails. They can be easily adapted and work well in a small work areas.
Vacuum lifters are efficient and very useful in areas when sorting cartons or case goods require multiple pick and place tasks.
Containers

Manual loading and unloading of wire baskets, containers, gaylords and totes leads to incidents of upper & lower back injuries.
There are spring loaded positioners that elevates the goods in the container to speed picking the parts and eliminates the bending and back extension issues.
These spring loaded positioners can be adapted fitted into carts, hampers, wheeled tubs and gondolas
High hinge tilters are ideal for gaining access to the bottom and back of containers.
These manual devices reduce carrying loads. Carts, Dollies, Platform Trucks and U-boats.
They come in all shapes and sizes and to gain the maximum benefit should applied to the application
These lightweight aluminum stackers are highly maneuverable... they provide easy access to loads...

...and increase efficiency and productivity!
New specialty cart shows real promise in retail stocking

Eliminates going up & down a step stool

Adjustable height shelf
Adjustable height carts with a tilt stand positions totes

This?

Speeds stocking and eliminates the stressors. Good ergonomics!

Or This?

PREMIUM
Self leveling carts

Calibrated spring provides linear moment and it is adjustable.
Skid lifters

Manual and powered

Careful, can only be used with nestable, open bottom pallets or skids
Some solutions not only solve the back problem, they can eliminate wasted motion and increase efficiency.

Battery powered scissors lift
Self leveling Uboats

Calibrated spring provides linear moment

These can be retro-fitted to existing Uboats
Calibrated spring provides linear moment

These are retro-fitted to existing Uboats
Self leveling floats bring the bottom half of the load...

...into the correct operating range which eliminates bending and reduces reaching.
Some care should be used not to overload carts.
The wheel choice can have a huge impact on the rolling friction of any cart, dolly or portable rack.
Roller conveyor can be used in rack and shelving to reduce the stress on storing or retrieving heavy cases and cartons.
High density vertical storage systems speed order picking and put each item at the correct height.
This expandable conveyor is driven right into the truck.

The individual boxes and cartons are conveyed out.

Notice how the odd sizes and shapes are handled easily by a single piece of equipment.
Pallet rotators make quick work exchanging pallets.

Damaged product on the bottom of a pallet can be easily removed.
There are no manual handling issues ....
Free download

Ergonomic Guidelines for Manual Material Handling
Free download

Ergonomic Solutions for Retailers
Gaining Efficiency in Retail Stocking
THANK YOU!
Questions?

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