

western Food Processor

The magazine for food professionals & processors

Stay Safe!

**A WORKSAFEBBC PERSPECTIVE ON
PREVENTING MACHINE-RELATED
INJURIES IN THE WORKPLACE**

**BEAUTY IS IN THE EYE
OF THE BEEF-HOLDER**

A LOOK INSIDE CANADA'S
BEEF INDUSTRY

**THE BC FOOD &
BEVERAGE INDUSTRY
LOOKS FORWARD**

SEALING THE DEAL

INNOVATIONS IN FOOD
PACKAGING AND LABELLING

+ THE U.S. IS DITCHING FOOD DYES. WILL CANADA FOLLOW?

Hand Wrapping vs Machine Wrapping

Using Automation to Reduce Repetitive Strain Injury and Increase Operational Efficiency



courtesy shutterstock.com

Prioritizing worker safety is essential in grocery stores and food processing facilities. Manual tasks like hand wrapping, however, present significant health risks, particularly repetitive strain injury (RSI). This article explores how automation using machine wrapping systems mitigates these risks while enhancing operational efficiency.

Understanding RSI

Repetitive strain injury arises from repeated physical movements which damage muscles, tendons, or nerves. Commonly impacted areas include shoulders, arms, wrists, and hands.

One of Canada's most common workplace injuries, RSI often necessitates physiotherapy and time off work. In 2023, the Association of Workers' Compensation Boards of Canada (AWCBC) reported almost 11,000 lost-time injury claims due to musculoskeletal system and connective tissue disorders.

Challenges of Hand Wrapping

In hand wrapping, workers repeatedly extend their arms to pull stretch wrap around a product every 10-15 seconds, often for hours at a time. These continuous motions strain the arms, shoulders, and neck and lead to RSI. In addition, the physical effort of handling heavy stretch wrap rolls and the force required to pull the material increase injury risks. Operators may also suffer burns from hand wrapper hot plates.

Hand wrapping systems pose other challenges as well. Operator skill and efficiency can vary, leading to inconsistent product presentation, material waste, or low output.

The Automation Advantage

Automated wrapping systems deliver substantial benefits over hand wrapping:

Production Increase:

A trained operator manually wraps no more than 4-5 packs per minute, whereas machines wrap 15 packs per minute — a 300% increase.

Consistent Quality:

Machines ensure uniform, tight seals, unaffected by operator skill level.

Health and Safety:

Automation minimizes repetitive motion by operators, reducing the risk of RSI. Machine wrapping also eliminates manual lifting and pulling, protecting workers from musculoskeletal disorders such as back and spinal injuries.

Cost Savings:

Consistent material usage by tray size reduces waste compared to variable manual application.

Operational Efficiency:

Machine wrapping eliminates the extra step of using a separate weigh scale to print a label.

Transitioning to automated wrapping systems markedly improves worker safety and operational efficiency.



Automated wrapping systems deliver substantial benefits such as, production increase, consistent quality, health and safety, cost savings, and operational efficiency.

The Ideal Solution

The Ishida WM-Nano, the world's only tabletop automated wrapping system, exemplifies these advantages. It automates film attachment, stretching, sealing, and cutting, enhancing efficiency and avoiding physical strain for employees.

The machine's compact design reduces space requirements 50 to 70 per cent over competitor models, allowing it to fit seamlessly into various workspaces.

The WM-Nano's versatility in handling a wide range of products and tray sizes makes it a practical choice for businesses seeking to enhance productivity.



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Conclusion

Transitioning to automated wrapping systems markedly improves worker safety and operational efficiency. By reducing RSI and musculoskeletal injuries while boosting productivity and consistency, automation offers a compelling solution for businesses aiming to safeguard their workforce and optimize performance. **WFP**



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WM-AI-F
Automatic Wrapper
with Linerless Labelling
Up to 35 PPM*



WPL-AI
High Speed Weigh-Price-Labeller
Up to 120 PPM*



WM-Nano
World's First Tabletop
Automated Wrapper
Up to 15 PPM*

*Packages Per Minute. Approximate capacity. Actual results will vary depending on various packaging parameters.