

CROWN

# WAV 50 SERIES



Big  
time  
solutions...

that's  
the  
WAVE.®



# The WAVE

Work Assist® Vehicle

provides significant savings

opportunities by **increasing**

**safety, increasing productivity**

**and increasing flexibility.**



Until Crown developed the Wave, workers struggled to manually carry boxes, equipment or tools from one place to another. Now the dangers associated with using ladders and workers climbing on boxes, racks and shelves can be avoided.

The Wave is a revolutionary, mobile productivity

tool that allows one person to safely

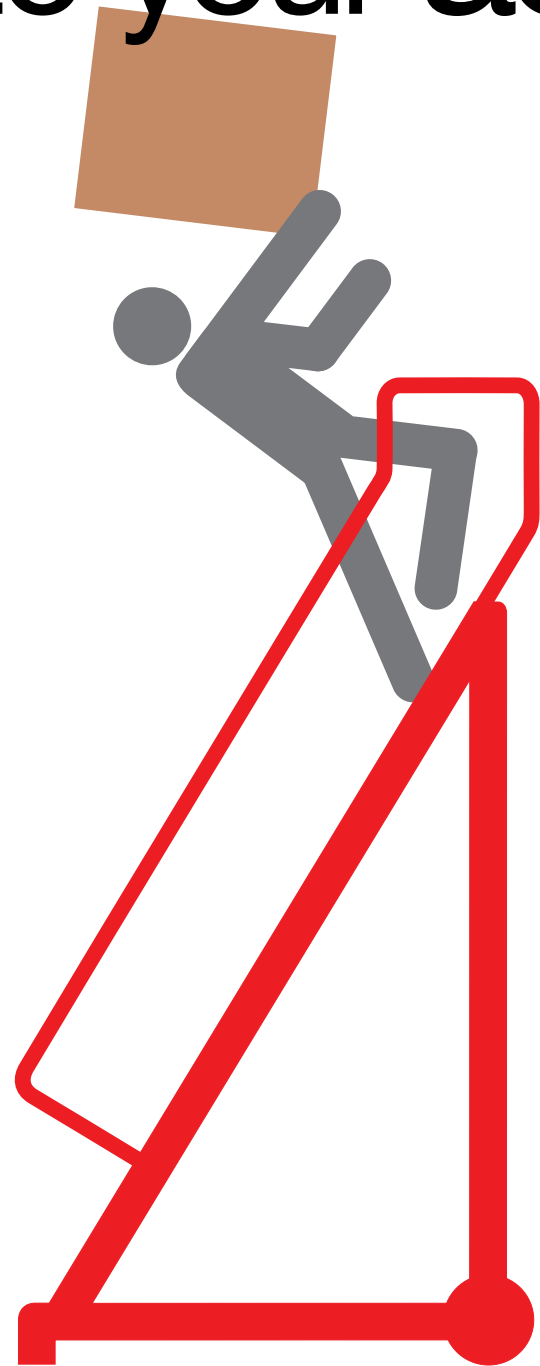
and efficiently accomplish what

normally takes two.



That's  
Big.

# Elevate **safety** and **productivity** to your advantage.



**Did you know that the Occupational Safety and Health Administration (OSHA) requires workers to have at least one hand free to grasp the ladder when moving up or down a ladder?** This isn't a suggestion. **It's the law.** OSHA regulations also prohibit workers from carrying objects or loads that could cause them to lose balance and fall. With the Wave, you substantially reduce these risks while eliminating the need for ladders.

**In a November 2012 report\*, the U.S. Department of Labor reported that in one year 21,530 people lost days away from work due to falls from ladders.** Along with their injuries, these workers lost an average of 14 days of work. Consider the potential toll on your business if you're working without the Wave.

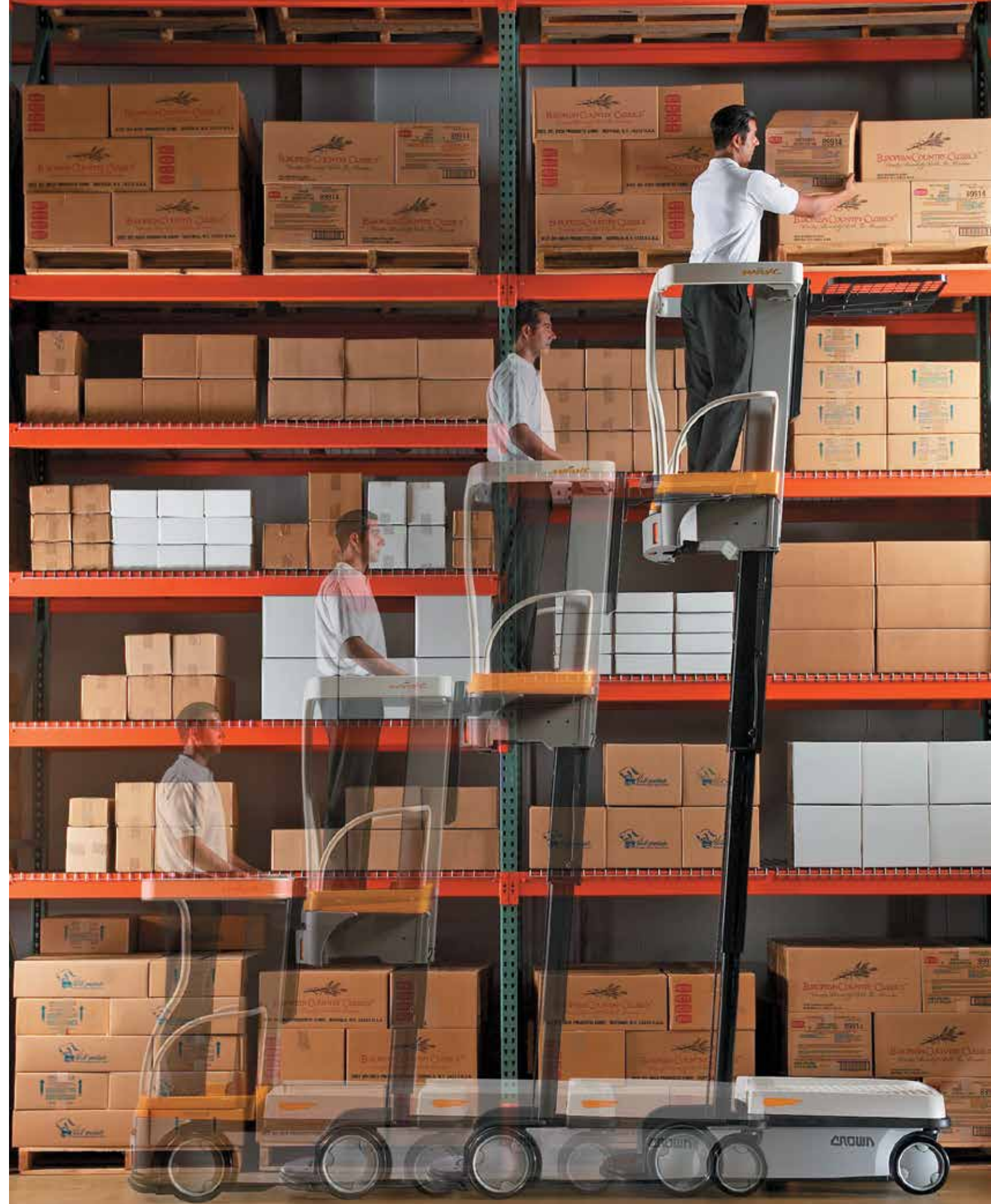
**The Wave® offers clear advantages that help your workers safely move materials by hand.**

\* Contact your Crown dealer for complete report details.

**Have your workers ever climbed on racks, shelves or boxes when a ladder wasn't convenient?**

According to the same report, 56,770 workers lost an average of 19 work days by falling to a lower level. The Wave eliminates climbing and the possibility of stumbling or losing one's balance while climbing.

**What about back injuries?** Sprains and strains accounted for 43 percent of the injuries that caused lost work days. With its ability to transport a worker and a load, as well as travel at elevated heights, the Wave greatly reduces lifting requirements for your workers and has the potential to significantly reduce your operational costs, as well as product damage.



# Cut your labor costs in half with the **WAVE**.



**Crown has a long tradition of delivering exceptional productivity efficiencies with Crown man-up stockpickers and turret trucks.** The Wave benefits from this extensive knowledge, significantly enhancing operator productivity, safety and confidence at heights.

**The Wave helps people work twice as fast,** which improves productivity and cuts your operational costs. You can also cut your labor in half, because the Wave turns many two-person jobs into one-person jobs without compromising safety.

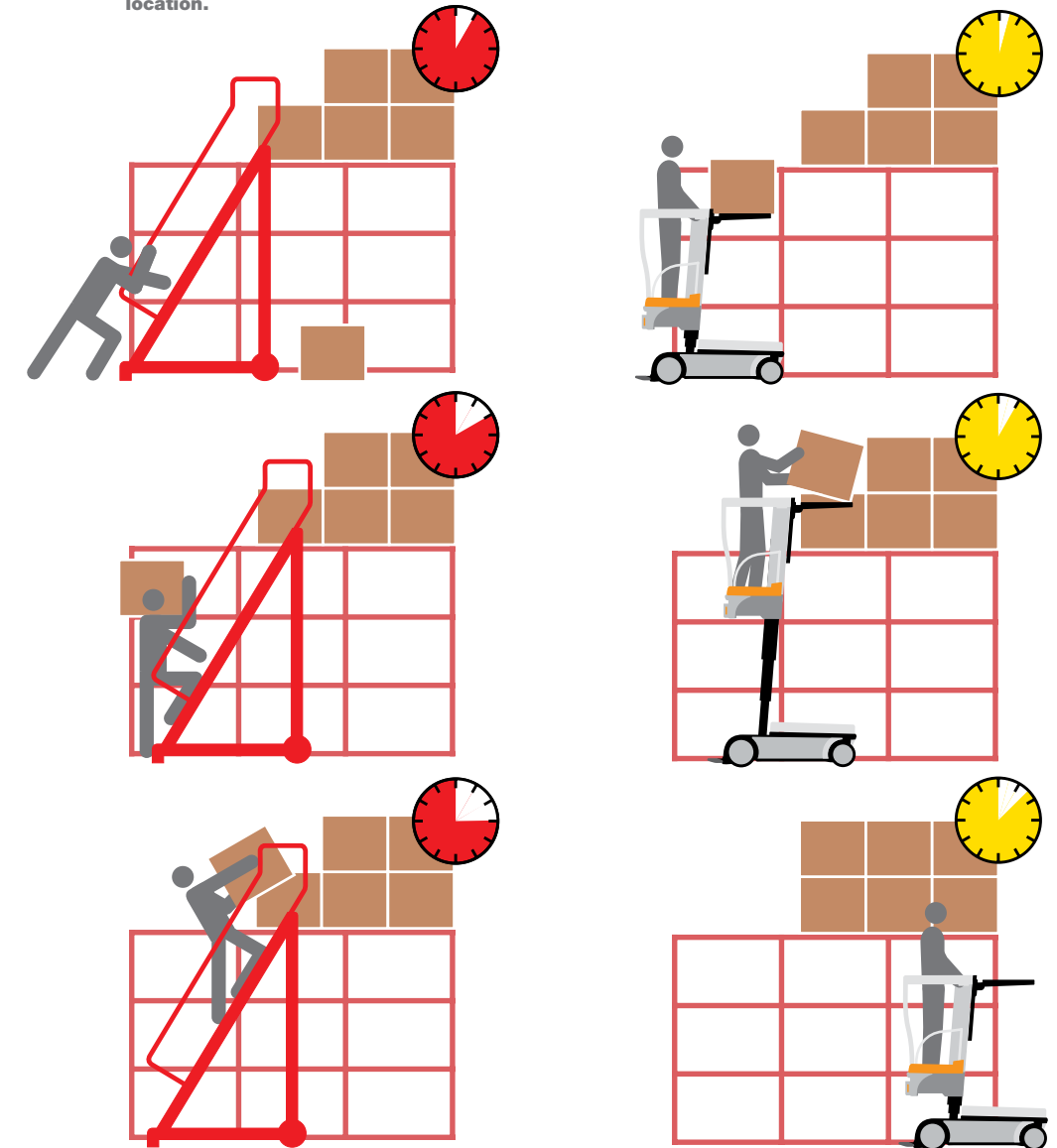
**Operators can travel up to four mph on the Wave,** twice as fast as the average walking speed. Additional productivity enhancements result from the Wave's ability to travel and elevate simultaneously (travel speeds are slowed at heights for safety).

**The Wave offers other cost-saving and time-saving advantages as well.** It requires no setup and reduces the risks of carrying or dropping materials. This means lower damage costs and less clean-up time. The load tray holds up to 200 pounds while the load deck handles up to 250 pounds. In addition, the Wave enables a typical male to easily reach up to 17 feet.

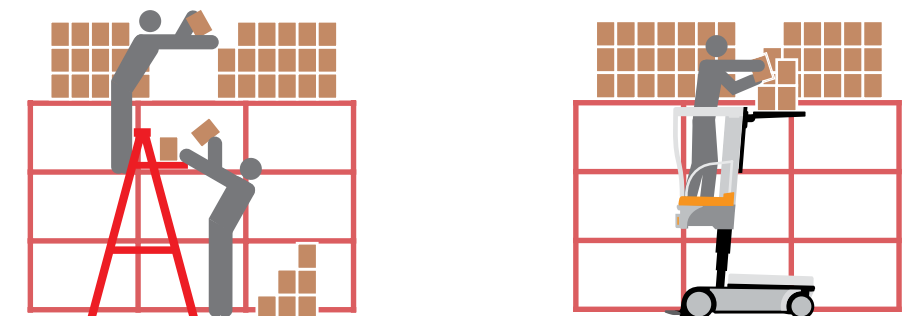
**The compact size and exceptional maneuverability of the Wave further improves productivity,** allowing operators to navigate through spaces as narrow as 36 inches. Just as important, it clears your aisles of oversized rolling ladders.

**There's no safer, faster or more cost-effective way to help your workers transport, lift or move products, tools, equipment or supplies than with the Wave.**

**Time Savings.** The Wave saves time because it provides a quick, safe and efficient way to transport and lift materials that would otherwise be carried by hand. It also eliminates the time-consuming need to move ladders from one place to another. With the Wave, the worker, merchandise and materials can be at the required elevation ready for the task at hand before a worker on foot could even walk to the location.



**Labor Savings.** Many lifting and maintenance tasks require two people to position materials at heights. The Wave offers a safer, more efficient method, which eliminates climbing and reduces heavy and awkward lifting while providing stable footing. This reduces the risk of injury or product damage and allows one person to accomplish what normally takes two.



# The WAVE<sup>®</sup>... multi-purpose at multi-levels.

**Virtually everyone who uses the Wave finds multiple ways to apply its time-saving and labor-saving advantages to improve productivity and safety. That's why many Wave users say the benefits of a Wave**

**keep paying off. The Wave's application flexibility also explains why the current customer base covers hundreds of different industries. It's a great idea that continually inspires users to move faster, safer and wiser.**

◀ **Rail-guided applications for the Wave offer a number of time-and cost-saving advantages.** Working in aisles as narrow as 36 inches, the Wave makes more efficient use of space and enhances productivity by allowing workers to travel and reach various heights in one fluid motion.



Manufacturing environments offer unlimited opportunities for the Wave, because it can be used for an advantage almost anywhere floors are smooth and dry. Its uses include transporting, delivering parts to the line, putting away or retrieving products for assembly and assisting with a variety of light-duty manufacturing and maintenance tasks.



▲ **The Wave improves the speed, efficiency and safety of small parts picking**, whether it's in warehouses, stock rooms or parts departments. It easily maneuvers around people and products, navigates narrow doorways and elevates workers while eliminating unsafe climbing.

▲ **Retail applications** often purchase a Wave to improve the efficiency and safety of picking and restocking. Within days, workers quickly discover other invaluable uses, such as assisting customers with out-of-reach merchandise, taking inventory, changing signage or light bulbs, setting up displays and more.

▶ **Narrow enough to travel through doorways and light enough for most elevators**, the Wave makes an ideal service tool for offices, hotels, hospitals and other commercial applications. It can be used for a variety of house-keeping and maintenance tasks.



**The Wave's exceptional application flexibility is clear. Crown customers in hundreds of different industries have benefited from its productivity-enhancing features.**

Manufacturing	Distribution	Retail
■ Fabricated Metal Products	■ Automobile Parts	■ Department Stores
■ Rubber and Plastics	■ Plumbing and Electrical	■ Grocery Stores
■ Commercial Printing	■ Pharmaceuticals	■ Furniture Stores
■ Textiles	■ Publishing	■ Hardware Stores
■ Furniture and Fixtures	■ Government Services	■ Catalog Fulfillment

# Working with confidence through intelligent control.

**The Wave's intelligent control system keeps the operator working through the task, securely and confidently.**

**The Wave's built-in system of protection starts the moment the operator turns on the key switch, coordinating functional displays, travel control, lift/lower operations, steering and braking. There's no reason to wait for an event that compromises safety, because the built-in safety system provides protection at every movement. The Wave's intelligent system controller knows where the operator is during every function, whether traveling, braking, raising the platform during travel or working at heights. Only the Wave gives you these multiple levels of safety and a productivity advantage.**



**1 Key Switch** provides safety from the start and keeps unauthorized users from using the Wave. On startup, display lights indicate battery charge levels and any faults.



**2 Foot Pedals** include sensors to ensure that the operator has both feet positioned properly on the platform. The Wave will automatically stop travel and lift/lower functions if either foot is removed from a pedal.



**3 Hand Grips** include sensors to ensure that the operator has both hands on the controls before the Wave will operate. Travel and lift/lower functions will stop if either hand is removed. This feature works in conjunction with foot sensors to ensure proper operator positioning. A hand sensor override feature enables the operator to use one hand to steady a load on the tray if necessary.



**5 Safety at Heights** is enhanced by the intelligent controller, which requires the gates to be closed to travel or raise, when the operator platform is raised above 20 inches. Travel speed is also reduced to 2 mph above 20 inches.



**4 Safety at Travel Speeds** is provided through the intelligent controller, which reduces travel speed (2.5 mph) when the gates are closed. When traveling at full speed (4 mph), the Wave requires the gates to be opened to allow unobstructed exit in the event of an emergency.

# Managing with ease... the Wave value equation.



The Wave helps management, in addition to every worker who uses it, operate with ease.

Management quickly realizes how the Wave can impact the bottom line through substantial productivity gains and risk reduction. Return on investment studies easily demonstrate a payback for the Wave typically between 8 to 12 months – a clear justification for the investment.

Operating costs are kept to a minimum due to the Wave's efficient, intelligent design featuring a limited number of moving parts. At the end of the day, the Wave is easy on management and the operator as well.

## Labor is cut in half

A two-person task becomes a one-person task; a one-person task can be accomplished twice as fast.

## + Worker compensation cost reduction

Increased workplace safety reduces workers compensation related expenses.

## + Lost time expense reduction

Increased safety also reduces overtime or replacement labor to compensate for worker injury.

## + Product damage reduction

Safer product handling and lift assistance reduces risk of products being dropped.

## = Operational cost savings

## Users easily learn the intuitive controls

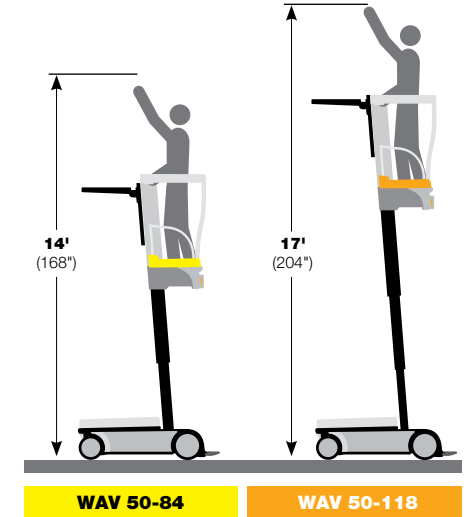
and appreciate the low entry step height, among its many other ergonomic features. In many applications, the Wave can operate for days

without recharging. When recharging is needed, the Wave simply plugs into any standard grounded 110V outlet. Battery maintenance is easy and can be eliminated with maintenance-free batteries.



# Options for added convenience and savings.

Crown designers and engineers have extended the exceptional versatility of the WAV 50 Series with a range of options designed to meet your specific application needs.



For applications with higher reach requirements, the WAV 50-118 option offers 34 additional inches of elevation, which allows a typical male to reach up to 17' versus 14' on the standard WAV 50-84.



Rail guidance



Storage pockets



Strobe lights



Utility hooks



Security key pad



Multiple battery pack options (wet cell/maintenance-free)



Retractable cord reel



Hour meter



**ecologic**<sup>™</sup>

Clean Environment. Smart Business.

Printed on elemental chlorine free and sustainably forested paper.

**CROWN**

You can count on Crown to build lift trucks designed for safe operation, but that's only part of the safety equation. Crown encourages safe operating practices through ongoing operator training, safety-focused supervision, maintenance and a safe working environment. Go to [crown.com](http://crown.com) and view our safety section to learn more.

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SF14446 Rev. 8/13  
Printed in U.S.A.