

# How Simple Automation Products Increase Worker Productivity While Reducing Injury



Every hour, some 542 U.S. workers are injured on the job, according to the 2013 edition of “Injury Facts” published by the National Safety Council. That’s nine workers a minute. The majority of these injuries fall into five main categories: \* <sup>1</sup>

**Musculoskeletal**

**Motor vehicle accident**

**Repetitive motion**

**Injured by machinery or struck by object**

**Slip and fall**

These injury statistics, while alarming, actually represent a year-over-year decrease in workplace injuries and illnesses. According to the U.S. Department of Labor’s Bureau of Labor Statistics, the incidence rate of nonfatal workplace injuries and illnesses dropped from 3.5 cases per 100 equivalent full-time workers to 3.4 for all private industry sectors. This represented the first decline in three years. However, the incidence rates among the manufacturing (primary metal, fabricated metal product), warehousing and storage subsectors were higher— 5.7, 5.4 and 5.3, respectively. As stated previously, the majority of these injuries fall into five main categories that occur with high incidence in factory settings. With the possible exception of motor vehicle accidents, the other injuries tend to share the same systemic cause: poor ergonomics.

Ergonomics-related injuries involve movement that, if addressed properly, is all but eliminated, thereby dramatically decreasing injuries and the resulting worker’s compensation claims. These body movements involve unnecessary walking, stooping, bending, reaching, stretching or lifting.

The importance of minimizing injuries related to ergonomic issues has obvious implications. The expense of workers’ compensation costs is extremely high. How high? The Occupational Safety and Health Administration (OSHA) estimates employers pay nearly \$1 billion every week in direct workers’ compensation costs. In addition, the indirect costs (training new employees, accident review and investigation and creation of corrective measures, lost productivity, damaged equipment repairs and so forth) can add up to five times the direct cost. Furthermore, the situation has the potential to increase dramatically as the nation’s workforce continues to age, creating a greater need for ergonomic solutions to compensate for diminishing physical ability.

So how can employers maintain productivity, reduce workers’ compensation costs and still remain profitable? We have compiled a series of tips based upon the most common injuries related to material handling and manufacturing to help improve the ergonomics of your material handling operation while simultaneously increasing worker productivity.

**Tip #1****Reduce needless walking**

**W**alking for exercise—good. Repetitive walking for the purpose of assembly or packaging—not so much. Too often surfaces in manufacturing settings are concrete, offering no support. Constant movement in such a setting increases the likelihood of slipping, falling, added strain on joints and, depending upon the facility, the potential of accidents taking place with other employees or machinery.

There are several options to remedy this hazard. Padded floor mats can ease some stress on joints. However, a better alternative eliminates unnecessary walking. For example, loading or unloading products for shipment can result in excess walking. Not every facility has a forklift, which means the product is manually carried to or from the back of the delivery truck. This process is improved by using a variety of material handling products that help to automate the process and minimize unnecessary walking. These may include dollies, mobile scissor lift tables, pallet trucks and skid lifts. Many of these products not only help move the product from point A to point B, but also have the capability of raising/lowering the load to an appropriate work height.

**Tip #2****Improve efficiency and safety when working with pallets**

**T**he pallet is a material handling mainstay, carrying products from manufacturing facilities to distribution centers and ultimately to the consumer. The pallet also poses several challenges when loaded/unloaded manually.

Safety is a major issue. Pallet loading/unloading is the material handling activity most likely to cause injury. Because it is not safe to walk across pallets, workers must walk around or overstretch to accomplish the loading or unloading. This results in a loss of efficiency. According to the Material Handling Institute, up to 40% of the time spent loading/unloading a pallet is wasted by walking around the pallet. An automated option that improves both safety and productivity is the placement of the pallet on a positioner on a rotating turntable. This allows workers to stand in one place to load the pallet.

**Tip #3****Eliminate unnecessary bending**

In a perfect world, every item you need is located at a level easy to reach. This, however, is not a perfect world. Whatever is at a height above our reach frequently needs placement at a lower level and vice versa. The same is true in material handling. Manual loading of pallets for shipment frequently requires excessive bending, usually while carrying heavy or awkward loads. The result in the short term is a sore back and, over time if left untreated, a potential for serious back problems. According to the Workplace Safety Insurance Board of Canada, back and spine injuries are the most frequent worker injury—three times more than the next most frequent.

Employers can significantly reduce this type of injury by incorporating equipment that minimizes bending. Lift tables and pallet positioners allow easy access to items without the repetitive bending. While a lift table's height is set by the operator, pallet positioners self-adjust to match the ideal working height of the user, making the loading/unloading process faster, more efficient and safer.

**Tip #4****Minimize the amount of frequent lifting**

According to OSHA, lifting heavy items or frequent lifting ranks among the leading causes of workplace injuries. In addition to weight, working in positions causing an awkward posture and lacking a good grip, all contribute to shoulder and back injuries. Unfortunately, items still need proper storage. However, there are alternatives to manual processes that minimize injury and add to productivity. Examples include mobile scissor lifts, self-leveling mobile tables, skid lifts and the Bishamon UniLift®. The UniLift® shares similarities to a pallet truck but allows a pallet to be lifted to comfortable work height. Mobile scissor lifts comes with either a manual pump or a battery-powered lift mechanism to raise and lower loads to heights of 62 inches. This provides workers with easy transfer capabilities by adjusting the height of the lift, minimizing repetitive lifting and bending motions. It also ensures the worker stays within the safe lifting zone (above the knees up to the shoulders).

## Tip #5

## Even short distances are too far to carry products

**T**he product is ready for the move to the next workstation. It's only 30 feet away and no forklift is available. Why not carry it? It will be faster than waiting for the forklift, right? The answer is definitely no. Aside from the multiple trips (and wasted time), it would require that workers expose themselves to other situations with the potential to cause injury. Bending and lifting to pick up the product, carrying a product that might be too heavy, walking over slippery or uneven surfaces are a few of the possible scenarios that should have employers looking for safer alternatives.

These alternatives include carts (for light loads) to pallet trucks. Such options allow for safe and easy movement of product without the need for multiple trips. Additionally, mobile scissor lifts, positioners and skidlifts provide more flexibility with adjusting height when loading/unloading at the next workstation.

## Conclusion

Manual material handling processes remain a necessary part of warehouse activity, and its use will continue for the foreseeable future. However, this does not mean workplace injuries resulting from manual material handling must continue as an inevitable result. Inexpensive material handling products that help automate the process are available. These tools improve the ergonomics of material handling and increase efficiency and productivity while reducing the incidence of workplace injuries.

## About Bishamon Industries

For over 45 years, Bishamon Industries Corp. has been known worldwide as the manufacturer of the most highly engineered ergonomic load handling machinery available. Whether it's the EZ Loader automatic pallet positioner, pallet handlers or various scissor lifts, Bishamon products are safety smart and productivity wise.

<sup>1</sup> Findlaw.com (<http://company.findlaw.com/press-center/2013/one-in-five-americans-has-been-injured-on-the-job.html>)