The Norton Report: Addressing ergonomics and repetitive motion injuries in manufacturing

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In today's manufacturing environment, ergonomics and repetitive motion injuries are major issues that every business must address to insure production levels remain at expected levels and employee injuries remain as infrequent as possible. Although many of the hand assembly processes have been replaced with automated equipment over the past 20 years, there is still a surprising number of manual operations still required for many applications. A good percentage of these manual assembly processes still involve the use of conventional hand tools, such as pliers, screwdrivers, crimping tools, etc. Whenever a manual hand tool is being used to perform a function, repetitive motion injuries may be the result. Taking steps to reduce or eliminate these injuries before they occur is important.

Whenever the application dictates, replacing hand tools with pneumatic or hydraulic tools should be considered. For example, if a technician is cutting leads on a circuit board for 6-8 hours a day using a conventional cutting plier, the fatigue and repetitive motion factor escalates quickly. Replacing that hand cutter with a pneumatic cutter will dramatically reduce those factors. In addition, production levels will improve. The same process holds true for other hand operations such as crimping, pinching, turning fasteners, etc. Now, not all hand operations can be performed efficiently with a pneumatic tool, but whenever possible, making this switch will yield immediate results.

Typically, pneumatic tools can be operated with either a hand-lever control, or remote footswitch control. Most of these tools can also be hand-held or fixtured for hands-free operation. If the operation does not lend itself to the use of a standard, off-the-shelf tool, a custom designed tool can often be provided to meet a specific application.

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