



## Construction Fact Sheet

# Stand-Up Auto Feed Screw Gun

### The Problem

- Using screw guns and other fastening tools at or near ground level require stooping, bending, kneeling, or squatting for long periods of time.
- Working repeatedly in these positions can result in fatigue, pain, and injury. Lower back and knees are the areas at greatest risk.
- The worker's risk is increased if he has to lift, push, or pull while stooping.



*Stooping to use screw gun*

### One Solution

- Use an **auto feed screw gun with an extension** that allows the worker to stand upright while working.
- Many stand-up tools have adjustable lengths to fit workers of different heights.
- Stand-up screw guns that automatically feed the screws are available.
- Power-actuated tools (PATs) can be used with a stand-up handle and can be provided by the manufacturer.



*Auto feed stand-up screw gun*

### How It Works

- A **screw gun with an extension** can be used to secure subflooring and decking, to construct concrete forms, and to install drywall and some metal-to-metal work.
  - Screws for these guns come on easy-loading, collated strips that are self feeding. They load in seconds without requiring the worker to bend down, and the newer models have been improved so they do not jam like older models.
  - There are models with fixed and telescoping extensions. Some use extensions that can be removed, allowing the screw gun to be used on walls.

- A **power-actuated fastening tool** with a stand-up handle can be used to fasten metal track to concrete decks for interior steel framing, to install plywood onto concrete as a substrate for wood floors, to attach lumber to concrete and masonry, and to make steel-to-steel connections.
  - These are a fast, reliable, efficient fastening method that can be used independent of weather conditions.
  - The fasteners are made from hardened steel and have a knurled shaft to anchor them securely in the base material.
  - Pre-drilling holes is not necessary.
  - The driving depth can be adjusted for varying jobsite conditions.
  - Hearing protection is advised when firing PATs.
  - It is important that workers practice good personal hygiene and hand washing when using PATs, since they release lead from the powder in the shot.

## Benefits

- Workers who spend less time in a stooped position, or kneeling, have less chance of developing lower back and knee injuries.
- Productivity is also improved. Studies have shown that auto feed stand-up screw guns are about twice as fast at placing screws as traditional screw guns.
- Both stand-up screw guns and PAT tools with stand-up handles have been improved since they were first introduced and are now more dependable and easier to use.
- Screws are more expensive than nails and may not be cost-effective for some jobs. However, using screws may improve the quality of construction on other jobs, such as installing subfloors.

## For More Information

- Products related to this solution are described at [www.cpwr.com/simple.html](http://www.cpwr.com/simple.html).
- Products may also be found on the internet using the following search terms:
  - Stand-Up Screw Guns: “screw gun extension”
  - Power-Actuated Tools with Stand-Up Handles: (tool manufacturer) + “stand-up handle”
- Local contractor tool and equipment suppliers or rental companies may be another source of information on products.
- For general information on this solution, call the Infrastructure Health and Safety Association of Ontario at 416-674-2726 or 1-800-781-2726.

This fact sheet is adapted from Fastening Tools that Reduce Stooping Tip Sheet, which we would like to give credit to the following: Albers, James T., and Estill, Cheryl F. (2007) *Simple Solutions: Ergonomics for Construction Workers*. DHHS, National Institute of Occupational Safety and Health (NIOSH) Publication Number 2007-122. <http://www.cdc.gov/niosh>. To view the full Table of Contents for the *Simple Solutions* document, please visit: <http://www.cpwr.com/simple.html>. *Construction Solutions* is an online product of CPWR – The Center for Construction Research and Training. Research used to develop and maintain *Construction Solutions* was funded by CPWR, using grant U54 OH008307 from NIOSH. The contents are the sole responsibility of the authors and do not necessarily represent the official views of NIOSH. For more information, visit [www.cpwr.com](http://www.cpwr.com) or [www.cpwrConstructionSolutions.org](http://www.cpwrConstructionSolutions.org)