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Motorized Concrete Screeds

The Problem

- A hand screed requires the worker to be bent over, using a strong grip to pull the board over the wet concrete.
- Workers exert a lot of shoulder and arm force repeatedly.
- Doing this work often or for a long period of time increases the chance of fatigue and pain.
- It puts major stresses on the back, knees, hands, arms, and shoulders, which may lead to serious muscle or joint injuries.

One Solution

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How it Works

- The motorized screed's blade or plow floats on concrete.
- The concrete is levelled by a vibrating aluminum screed, which is powered by a gas or battery powered engine.
- It works best for small to medium-sized jobs.

Benefits

- A motorized screed may reduce a worker's chance of developing muscle and joint injuries.
- This equipment greatly reduces the physical effort needed for hand screeding and eliminates the frequent and prolonged stooping.









Motorized Screeding

- Screeding with motorized equipment can be faster than hand screeding. Many contractors report improvements in productivity.
- The vibration of the blade improves the consolidation of the concrete and reduces time spent "bull floating" the surface.

Potential Drawbacks

- A motorized screed may reduce a worker's chance of developing muscle and joint injuries.
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- Screeding with motorized equipment can be faster than hand screeding. Many contractors report improvements in productivity.
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For more information

- For product descriptions related to this solution see the <u>Center for Construction</u> <u>Research and Training (CPWR).</u>
- Products may also be found on the internet using the following search terms: "power screed," "vibratory screed," or "concrete screed."
- Local contractor tool and equipment suppliers or rental companies may be another source of information on products.
- Visit the IHSA website at: <u>https://www.ihsa.ca/topics_hazards/msds.aspx</u>

The information was used as part of a project "Kramer, D., Bigelow, P., Vi, P., Garritano, E., Wells, R. Encouraging construction companies to adopt innovations to reduce MSDs using different knowledge transfer techniques. 2008-2011. Workplace Safety and insurance Board (Ontario)". In partnership with the Infrastructure Health and Safety Association of Ontario and CRE-MSD.