



Construction Fact Sheet

An Innovation for Mixing Concrete, Mortar and Grout (Hydraulic Mixer)

The Problem

- Loading and unloading mixers requires awkward and twisting postures. When workers mix grout and mortar in the traditional way, they have to repeatedly shovel sand into the mixer.
- Traditional mixers, which are set high enough to dump the product into a tub or wheelbarrow, require workers to lift the shovels above waist level.
- After the product is mixed, the worker must manually dump the product into a tub.
- Workers are at risk of back and shoulder pain. These injuries can result from a one-time accident, but they usually develop over a long period of time.
- If workers have to stoop down to pick up bags, or reach above their shoulders to dump them, the risk is especially high. There is even more risk if workers twist their body while lifting and shoveling.
- The risk of injury from dumping the product from the mixer depends on the weight of the product and hazards for slipping and falling.



Traditional method of shoveling sand into a mixer.



Traditional method of manually dumping the product from the mixer drum into tub.

One Solution

- Use a hydraulic mixer. When filling the hydraulic mixer, the height of the mixer is lower than traditional mixers so the product does not have to be lifted as high.
- A hydraulic mixer eliminates the physical demands of emptying the mixer drum, since the drum is emptied hydraulically by the push of a button.

How It Works

- The hydraulic mixer is lower than traditional mixers and requires less lifting.
- The hydraulically-powered mixer raises the drum during the pouring process to an appropriate height to dump the product.

Benefits

- Hydraulic mixers lower the risk of injury.
- A hydraulic mixer does not require sand and bags of mortar mix to be lifted as high as traditional mixers.
- The unit dumps the mix by the push of a button and so the worker does not have to pull a handle connected to the drum of a traditional mixer.

For More Information

- Products may also be found on the internet using the following search terms: “hydraulic mixers.”
- 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.



Hydraulic mixer operator



Hydraulic mixer in down position