

# Stair Climber for Materials Handling

## The Problem

- Transporting materials, equipment and supplies around worksites often demands high pushing/pulling or lifting forces, especially when stairs are an obstacle.
- For transporting heavy loads up or down stairs workers either need to perform a team lift, which can potentially increase the risk of a slip/fall or overloading of body tissues if communication between workers is inadequate, or the worker needs to break the load into manageable pieces and take multiple trips which, can be time consuming.



*Manually transporting materials up the stairs*

## One Solution

- Transporting equipment/supplies using a stair climbing device eliminates the manual lifting and pulling forces to move the load up or down stairs.
- For compact or lighter loads, a stair climbing hand truck is an efficient method of transporting goods to different levels.
- For heavy or bulky loads, an all terrain dolly, like the Track-O Lift, is an effective tool to transport materials up or down levels or on uneven terrain without manual exertion required from the worker.



*Transporting equipment up stairs using a stair climbing hand truck*

## How It Works

- The stair climbing hand truck requires workers to position the materials on the bottom of the hand truck by maneuvering the platform under the load. Next the load is secured to the hand truck using tie down straps. To move the load up the stairs, the operator uses controls on the handle to move the wheels and platform up the surface.
- The all terrain dolly requires workers to position the materials on the top platform and secure them with tie down straps.
- The operator then stands above the device and, using a remote control, guides the dolly up the incline. The leverage arm on the device enables the dolly to safely go up stairs and inclined surfaces up to an angle of 40°.

## Benefits

- The eliminated physical loading of the upper body and back from using the automated stair climber is likely to reduce the risk of soft tissue injury and discomfort.
- Eliminating the need to manually carry materials on an incline will reduce the risk of slip and fall injury, as vision is commonly obstructed by the load being lifted.
- Productivity is likely to increase using an automated stair climber to transport materials, as it will eliminate the need for team lifting or breaking the load into smaller tips.



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## For More Information

- Products may also be found on the internet using the following search terms: “stair climbing dolly”.
- Local contractor tool and equipment suppliers or rental companies may be another source of information on products.
- Visit [www.cpwr.com](http://www.cpwr.com) or [www.cpwrConstructionSolutions.org](http://www.cpwrConstructionSolutions.org).
- Visit the IHSA website at: [https://www.ihsa.ca/topics\\_hazards/msds.aspx](https://www.ihsa.ca/topics_hazards/msds.aspx)

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