Ingenuity improves safety

It sounds a bit like a superhero, and in terms of preventing worksite injuries, it is. The ‘doorector’ is an ingenious invention to assist in the fitting of doors – and it’s already fitted nearly a thousand around Wellington.

By Lauren Cahill, Site Safe New Zealand

Kiwi ingenuity is alive and well at Fletcher Construction, thanks to one of its most experienced supervisors, Pikiahu ‘Piki’ Emery. A fully trained health and safety representative and health and safety committee member, Mr Emery is continually instigating, trialling and refining safer solutions to improve work practices. One example is the doorector.

To prevent injury, improve efficiency and ensure doors are properly hung during installation, Mr Emery and his fellow workers sought a solution to eliminate the manual-handling component of installing or removing doors. The concept of the doorector was born from a similar product available in the United States.

The doorector is designed to support the weight of a door and help move it into place during installation or removal. This is usually done manually and, as with most jobs that require heavy lifting, is a major cause of strains and sprains. These are classed as soft-tissue injuries and feature highly on ACC’s compensation list.

On the drawing board

While the product sold in the United States could support a maximum weight of 72.5 kg, the doorector needed to support much heavier loads. Consequently, a more stable and sturdier design was required. The doorector had to:

- safely support a door weight in excess of 80 kg
- be stable and strong
- fit through standard and small doorways
- be operable by one person
- be usable by one person to transport a door from its stored position to its installed location
- provide 100 mm of upwards and downwards adjustment
- provide 15–20 mm of sideways tilt
- to install approximately 658 doors in a new building, in conjunction with a second doorector
- at another large hospital project.

The doorector is an excellent example of designing safety into the worksite, with the emphasis on lightening the load and eliminating the manual effort and risk that traditionally occurs when installing doors.

Information supplied by ‘Site Safe Charter Credited’ Fletcher Construction Health and Safety Manager Maurie Rohloff.

For more information on Site Safe and Charter Accreditation, see www.sitesafe.org.nz.