

ROTACASTER SOLUTIONS

RS121107

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Manual transfer stations: Australia Post specifies Rotacaster

The problem: Australia Post used ball transfer tables for manual sorting of bulky international mailbags weighing up to 35 kg. This required substantial and repetitive manual effort by operators to push, pull and rotate the bags, exposing them to potential musculoskeletal injury.

The Challenge: To address this issue Australia Post looked for alternative solutions that would substantially reduce operator input and exposure to risk of injury. With a targeted push/pull force of 50N (5kg) for a 35Kg bag, it was acknowledged that this target would in all likelihood require a powered solution, adding to operating and maintenance costs.

Rotacaster Solution: Rotacaster proposed a manual transfer solution utilizing their 48mm Rotacasters combined with polyacetal (POM) spacer rollers. The roller's smaller diameter was designed to provide support for the soft packaging, while minimizing friction and reducing the number of Rotacaster wheels required. Australia Post and Rotacaster collaborated on the design and construction of the transfer table. Trials were successfully undertaken at an Australia Post gateway.

Outcome: The solution resulted in a significant reduction of push/pull forces to between 40 and 70Nm (4-7kg) in all directions on the table. Australia Post considered this a remarkable achievement in the absence of any powered assist.

Additional Advantages: In addition to reducing the push/pull forces required, without the cost noise and maintenance associated with a powered solution, the polymer surfaces of the Rotacasters and spacer rollers have demonstrated a lower affinity to adhesion of labels and stickers from packages, further reducing down time and maintenance costs.

Comment: Rotacaster CEO Peter McKinnon notes "Feedback from operators using the table has been exceptionally positive. And importantly, the risk of injury has been reduced. Rotacasters are proving their versatility."

Implementation: With this extremely successful trial result, the remaining transfer tables at this Gateway facility will be replaced with the Rotacaster solution, with further upgrades to follow in Sydney, Brisbane and elsewhere.

Type: Transfer Table, air mail
Load: 35Kg (77lbs)
User: Australia Post
Country: Australia

Original ball-bearing transfer table



Rotacaster transfer table



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