

Workplace Health and Safety Queensland

Manual task case study: Using an oxy cutting/welding torch on rotators – Monadelphous Engineering

Monadelphous Engineering provides construction, maintenance and industrial services to the resources, energy and infrastructure sectors.

Background

In 2010, Monadelphous took part in a trial of a program to manage the risks of manual tasks. The Participative Ergonomics for Manual Tasks (PERforM) program helped teams of Monadelphous employees to identify, assess and control high risk manual tasks.

Who was involved?

The cornerstone of the PERforM program is to encourage workers and management to work together to manage manual tasks risks. A range of Monadelphous employees contributed to the success of this trial:

- Workers used their knowledge of the job and task.
- Management provided high-level support for the process.
- A worker was trained to become a PERforM site champion and drove the process within Monadelphous.
- An ergonomics consultant was contracted to mentor the site champion.

What was the hazardous task?

Monadelphous carried out a risk assessment that identified using an oxy cutting gun when working on rotators resulted in forceful gripping for prolonged periods.

What were the risk factors?

The risk assessment identified the following risk factors with potential to cause sprain and strain injuries: forceful exertions, static postures and duration.

What was the solution?

Monadelphous workers fabricated a stand that is fully adjustable, vertically and horizontally. This stand is now used when welding on rotators to clamp and hold the welder in position.

Health and safety benefits

This change eliminated much of the forceful gripping and static and awkward postures associated with using an oxy cutting gun.

Cost benefits

Direct intervention costs: \$6400

Post-intervention benefits:

\$46,592 annual labour saving (due to 7 per cent productivity increase)

Cost recovery period: 1.5 months

More information

While this case study is from the manufacturing industry, the PERforM program has been used successfully in a wide range of industries and can be applied to most types of hazardous manual tasks.

For more information about the PERforM program and additional manual task case studies visit the Workplace Health and Safety Queensland website www.worksafe.qld.gov.au or call the WHS Infoline on 1300 369 915.



Before: Full weight of welding gun is supported by worker



After: welding gun supported by fully adjustable stand

© The State of Queensland (Department of Justice and Attorney-General) 2011

Copyright protects this document. The State of Queensland has no objection to this material being reproduced, but asserts its right to be recognised as author of the original material and the right to have the material unaltered.

The material presented in this publication is distributed by the Queensland Government as an information source only. The State of Queensland makes no statements, representations, or warranties about the accuracy or completeness of the information contained in this publication, and the reader should not rely on it. The Queensland Government disclaims all responsibility and all liability (including, without limitation, liability in negligence) for all expenses, losses, damages and costs you might incur as a result of the information being inaccurate or incomplete in any way, and for any reason.