OCT/NOV 2014 VOL.12 NO.4

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Creating Effective Height Safety Solutions

SAFETY SOLUTIONS
OCTOBER/NOVEMBER 2014

CONTENTS

ON THE COVER

When exposed to thermal hazards, workers run an increased risk of dehydration and heat stress-related illnesses. Dizziness, muscle cramps, diminished attention and coordination are some of the effects that stem from dehydration and heat stress in the workplace. These symptoms, if left unaddressed, increase the risk of worker injury and also decrease worker productivity.

When dehydrated, our bodies need more than water alone. We need to replace all the essential nutrients we lose through sweat. These nutrients are known as electrolytes. Blood pressure, fluid balance and muscle contractions are some of the key functions that electrolytes help regulate in our bodies. Having an adequate supply of electrolytes, such as Sqwincher, is an important factor to consider when developing a hydration program.

Sqwincher has served Australasian workers since 1999 and is one of the leading industrial hydration drinks. It costs less to prevent a heat-related accident or illness than it does to recover from one. Keep your workers hydrated with Sqwincher - low in sodium, great tasting and portion-control packs with sugar-free options.

For more information on any Sqwincher -related products, contact your nearest Blackwoods representative.

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NEW ANCHOR POINT STANDARD – SEEING THE FOREST FROM THE TREES ...

Michael Biddle, Managing Director, Capital Safety and Current Chair, Working at Height Association

In October 2013, Standards Australia released AS/NZS5532 - a new Australian and New Zealand standard defining the manufacturing and testing requirements for anchor points used in fall protection. Since its release, there has been a lot of commentary and concern from industry about the impact of the standard and its implication for equipment users. This article explores the reasons behind the creation of the standard and its implications for industry.

What is a fall protection system?

Every fall protection system should have five key elements. They are easily identified as the A,B,C,D,E of fall protection:

A is for Anchor point - a high-strength device from which to to anchor yourself;

B is for Body harness - ideally a fall-arrest-rated product that will secure you in the event of an unplanned fall;

C is for Connector - a device to connect between your anchorage point and body harness, with an energy dissipation mechanism to remove the full impact of fall forces;

D is for Descent and rescue - a plan and/or equipment to ensure you can be safely retrieved after a fall event; and

E is for Education - ensuring you have to right training to perform safe work while at height.

Fall protection systems are required when a risk assessment of a job identifies no practical alternative to perform a job safely exists, other than climbing to a location to work at height.

How did the new standard come about?

For quite some time, Australian consumers, manufacturers and distributors have relied on the various codes of practice issued by state regulators and Safe Work Australia, as well as the AS/NZS1891 standards to determine best practices for working at heights. These codes and standards have generally served industry well. While AS/NZS1891.1 defines the manufacturing and testing requirements for B (Body Harnesses) and C (Connectors), it does not prescribe testing methods for A (Anchorages). It simply defines the 'performance criteria' for anchors. For example, it prescribes that an anchor point for fall arrest for a single person is defined as being able to sustain a force of 15 kN, but does not say how a product must be tested to confirm that performance.

The Working at Height Association (WAHA) has been interested in addressing this discrepancy. Its members noted the shortcoming in the AS/NZS1891 standard represented an issue for consumers. A manufacturer may well claim their product can deliver to the performance criteria, but how would a consumer know something is safe for use without some type of testing to back it up? This might not be an issue if you are making a product less critical than a device that a person trusts their life on; however, anchor points are for that very purpose.

Under the funding model required for the creation of new standards, WAHA then decided to sponsor the creation of a new standard to mitigate this real risk - that a product being sold on the market without any validation testing would be removed from consideration by consumers.

Was there any scrutiny undertaken by independent experts on the new standard?

Standards Australia adopts a very public process in its development process. The committee that has previously undertaken the drafting and amendments to the AS/NZS1891 standard is the same committee of experts that were engaged to oversee the issue of AS/NZS5532. Known as the SF015 committee, the group comprises representatives of a wide range of industry associations, end users, workplace regulators and other interested parties. Once amendments are made, these comments are circulated to the public for feedback and potential changes, in an attempt to remove ambiguity. Given the lengthy time to draft and review

> IT IS BEST TO CONTACT THE MANUFACTURER OR YOUR INSTALLER DIRECTLY ABOUT WHETHER THEIR PRODUCT WILL COMPLY WITH THE NEW STANDARD, OR AT LEAST ADVISE A TIME WHEN THEY MIGHT BE VERIFIED AS COMPLIANT.

the process, in the end AS/NZS5532 was subjected to two separate rounds of public comment, prior to its formal release.

What are the immediate implications of the standard?

In many cases, manufacturers may previously have had their products tested to the 'performance criteria' as noted in the AS/NZS1891 standard. For example, an anchor point manufacturer may have performed either a dynamic or static test (or both) on an anchor they make in their own test lab, or that of third party. If they were satisfied the product could sustain the performance, the product may well then be marked as complying with the requirements of AS/NZS1891.

The difference with AS/NZS5532 is that now the testing requirements for all anchor points are the same. The standard details the test weight, the drop heights, the configuration of testing equipment and other methods that will allow all anchors to be defined as passing. This consistent test methodology therefore provides a higher degree of certainty that manufacturers can not only claim conformance with a standard, but more importantly can provide a product certification.

There is no legal requirement to test and sell a product to the new AS/NZS5532 standard. If a product does, however, get subjected to this test regime and is then certified by a third party such as SAI Global or BSI Benchmark, then this provides the consumer with a greater level of assurance that a product not only conforms to the standard but that it has been rigorously tested to the same criteria as all other complying products on the market.

What if my anchors don't carry a certification mark to AS/NZS5532?

There is nothing illegal about continuing to use a product that does not carry a certification mark to AS/NZS5532. It is essential, however, that you conduct a risk assessment to determine whether a product used for fall arrest will provide the level of protection required. It is best to contact the manufacturer of the products to gain that assurance, or to utilise an inspection service that has the expertise and training from the manufacturer to ensure that the products continue to be safe for use.

Are my existing anchor points unsafe?

Just because a new product standard is released, it does not immediately mean that an existing product is unsafe for use. The release of the new standard simply sets out a new testing regime for anchors to be tested to. It is quite possible that the existing products that you have installed already pass the testing requirements of the new standard. It is best to contact the manufacturer or your installer directly about whether their product will comply with the new standard, or at least advise a time when they might be verified as compliant. A risk assessment is therefore the first step in determining the continued use of product in the absence of any certification information being available.

Is there a phase-in period for implementation of the standard?

In many cases in industry, a phase-in period is deemed appropriate to allow consumers and manufacturers the time to make adjustments to their products, retest them and certify or recertify them in line with a new standard. A 12-month time frame is frequently cited as a suitable phase-in period; however, there are no guidelines available from Standards Australia for this standard.

Given that the manufacture of fall protection equipment to Australian and New Zealand standards is not mandatory under legislation, it could be argued that back-certification may not be required. An argument frequently given is that old model cars without seat belts are not required to have them installed as they were made before new legislation was brought into being. As a matter of due diligence and risk mitigation, however, we would recommend action be undertaken to have products upgraded to the new standard as soon as practical.

Can I continue to use my existing products?

There is no legal reason why you cannot continue to use your existing installed permanent anchor products. It is, however, recommended that you perform a risk assessment as to the safety of the product prior to continued use. If the manufacturer can supply certification information or other testing data to validate the performance of the products in use to the new standard, then existing products should be suitable for ongoing use, provided they are installed according to the manufacturer's instructions and that they pass ongoing inspection requirements.

I have contacted the manufacturer, but they will not respond. What can I do next?

There is no doubt that a number of manufacturers have been caught a little short in getting their products tested and certified to the new AS/NZS5532 standard. This testing delay is not easily solved. The transition to the new standard is very expensive for manufacturers. They are required to potentially procure a new testing rig and perform back-testing on all their products on different roofing profiles and structural materials. Alternatively, third-party testing labs are not yet well equipped to get the testing done in a short time frame. In short, this process is not easy to get done quickly.

Therefore, it is recommended that you request information from the manufacturer as to when the testing information is likely to be available, if at all. If the manufacturer has no plans to test the existing products to the new standard, then you need to make an assessment about continued use of your existing product. Replacement of a newly certified alternative might be considered the best alternative in that instance.

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Infrared cameras

The Fluke Ti90 and Ti95 Infrared Cameras with wireless connectivity are suitable for maintenance, troubleshooting and HVAC/R technicians, electricians and facility managers who need to collaborate and share measurements with others on their team.

Both units feature a spatial resolution of 5.6 mRad, enabling technicians to conduct infrared inspections from a safer distance without compromising accuracy. The 3.5″ colour LCD has adjustable brightness for easy viewing in most conditions.

The cameras come with an extensive SD memory system, including a removable 8 Gb SD memory card or 8 Gb wireless SD Card (where available), letting technicians who share cameras to simply swap SD cards at the end of their shift instead of needing to download images onto their PC before turning the camera over to the next technician.

The Ti95 features Fluke IR-Fusion technology with Picture-in-Picture and full visible on both cameras for easier identification and reporting of problems. AutoBlend and Picture-in-Picture modes are available in the included SmartView reporting software (both models) to easily perform analysis and image adjustments/enhancements.

Fluke Australia Pty Ltd
www.fluke.com.au

Compact 480W 1-phase DIN rail-mount power supply

The PULS CPS20 series 480 W 1-phase DIN rail-mount power supplies from Control Logic are available in 12, 24, 36 and 48 V versions. Their 65 mm width makes them the smallest available, according to the company.

The power is available over a temperature range from -25 to +60°C. There are additional power reserves of 20% included, which may be used continuously at temperatures up to +45°C. For short-term peak loads with a maximum length of 15 ms, the units can deliver four times the nominal output current.

The units are equipped with a wide-range input circuit from AC 100 V and AC 240 V and have a 94% full-load efficiency and good partial-load efficiencies. Other features include active power factor correction, DC okay LED indication and good lifetime expectancy.

All models in the CPS20 range have IECEx approval and there are also dedicated DC input versions that can take voltages between 88 and 360 VDC.

Control Logic Pty Ltd
www.control-logic.com.au

Smelter/hot metal safety boots

The HS Series 66-298 and HS Series 66-299 have been introduced to the Oliver Footwear HS Series Smelter Boots, which are specifically designed for operators in 'hot-metal' industries.

Both smelter boots use a new improved upper material that is designed to meet the molten metal pouring test requirements of the international EN ISO 20349 standard for foundry and welding boots. The HS Series 66-299 features an external rigid metatarsal guard while the HS 66-298 has a PORON XRD flexible lightweight metatarsal guard that protects the face of the foot.

Both boots have a dual-density nitrile rubber sole, three rows of heavy-duty Kevlar stitching and heat-resistant and flame-retardant leather uppers. There is also leather lining along the heel and foot area of the boots to provide additional heat protection while both boots have full breathable lining and a padded comfort collar.

The dual-density nitrile rubber sole has a soft midsole to cushion the foot with a high-density, hard-wearing outsole. The outsole being resistant to 300°C of surface contact is also resistant to mineral oils and acids, and organic oils and fats. The sole also has good slip resistance (SRC rated) with abrasion and cut resistance as well as EH (electrical hazard) protection.

Oliver Footwear
www.oliver.com.au

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www.dpp-europe.com/Xpert/

Optical gas detection cameras

FLIR Systems has introduced three thermal cameras for optical gas detection: the G300a, G300pt and A6604. The cameras are suitable for monitoring gas pipelines and installations from safe distances.

Each model contains a cooled indium antimonide (InSb) detector, which enhances the sensitivity of each camera to detect even the smallest gas emissions. The G300a and G300pt cameras have a resolution of 320 × 240 pixels, while the A6604 has a resolution of 640 × 512 pixels. Each camera can be controlled via ethernet, or integrated into any TCP/IP network. They are also GEV/Genicam compatible.

The G300a and A6604 cameras require an additional housing while the G300pt comes with its own housing mounted on a pan/tilt mechanism. The housing can rotate the camera 360° continuously and tilt ± 90°. It also enables users to monitor different areas with the same system. The G300pt is equipped with a long-range daylight/low-light camera, and the video output of the thermal and daylight/low-light cameras are simultaneously available. Users can monitor electrical substations or other equipment that is in the same field of view.

The three cameras detect the following gases: benzene, ethanol, ethylbenzene, heptane, hexane, isoprene, methanol, MEK, MIBK, octane, pentane, 1-pentene, toluene, xylene, butane, ethane, methane, propane, ethylene and propylene.

FLIR Systems Australia Pty Ltd
www.flir.com.au

Pallet mover

The Mitsubishi Premia PBP16-20N2 power pallet mover series is designed for safe horizontal movement of pallets, minimising the risk of back injury. Awarded the Red Dot for its design quality and usability, the Mitsubishi Europe design centre in Finland paid special attention to the key issues of durability, usability and safety when designing the power pallet movers.

Acceleration, top speed and braking characteristics are fully programmable to suit each individual's needs. When the control handle is pulled all the way down or up, the truck automatically stops. When the emergency button is activated, the truck immediately stops. For tight turning in confined spaces, the truck has a 'handle-up' operation feature, making it suitable for use in containers and the back of trucks.

With a lift height of 135 mm, the pallet movers are easy to use and suitable for steep ramps and loading docks, even with damaged pallets. Waterproofed features allow for outdoor use in all weather conditions, while the lifting and lowering levers and linked castor wheels ensure easy operation and good stability.

The power pallet trucks have a strong, endurance-tested and well-protected construction, fewer breakable components, low energy consumption and recyclable parts.

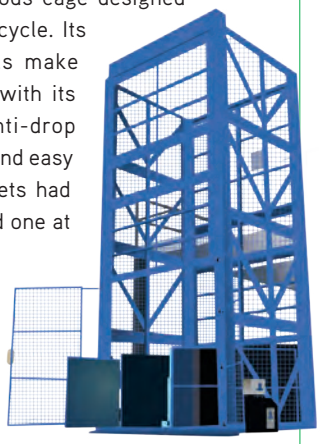
MLA Holdings Pty Ltd
www.mlaholdings.com.au

CASE STUDY

Goods hoist for food processing plant

Optimum Handling Solutions recently supplied an electric goods lift to a large food processing plant. The company needed to efficiently elevate pallets to a roller door opening in the top storey of its building where pallets of flat-packed cardboard boxes were required for the box-making machine.

The solution was a heavy-duty 2000 kg goods hoist with 9 m travel and a goods cage designed to handle two pallets per cycle. Its simple operation controls make it easy for operators and with its interlocked doors and anti-drop feature, the device is safe and easy to use. Previously, all pallets had to be carefully manoeuvred one at a time by an experienced forklift driver up to the door opening - a very tiresome process when 32 pallets get delivered each day.



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Building safety and security systems

Sick provides a diverse range of effective solutions for protecting buildings, property and material assets. Sensors from Sick are suitable for stationary, transportable and mobile applications.

There are several aspects to this type of protection. So that security guards have enough time to respond to an alarm, sensors protect buildings from unauthorised access by intruders from outside. This starts with perimeter protection, which means vertical or horizontal monitoring of fences, walls or open spaces in front of buildings. Sensors from Sick only record the shape of bodies rather than detailed images. The sensors will be able to tell that somebody is present within the monitored area but not who it is.

If an intruder has managed to get past a wall or fence, then the sensors turn their attention to the open areas. If the sensors detect a person, they immediately trigger an alarm so that security guards can respond. Several alarm areas can be defined for each laser detector. Even if several persons are able to infiltrate the monitored area from various points, this is still reliably detected. Entrances and access paths can be excluded, so that disruptions to pedestrians or road traffic are prevented. At night, the sensors can switch to full monitoring of all areas. If a building needs to be directly monitored by sensors, then they cover the facade, roof, doors, gates and windows. Cat burglars don't stand a chance.

If an intruder, vandal or prisoner tries to escape from a building, the monitoring system also protects the building from the inside out. Laser detectors thus protect paintings, sculptures or other valuable items in buildings, without obstructing exhibition visitors or cleaning personnel. Sensors can be used to protect entire walls with an optical curtain or just individual paintings or sculptures, for example. Even vaults in banks can be protected in this manner.

Sick Pty Ltd
www.sick.com.au

Lightweight, oil-repellent glove

The lightweight, oil-repellent Ansell HyFlex 11-926 glove provides protection while helping retain grip on small, oil-coated parts and assembly components. Using Ansell's Ripel liquid repellence technology and Ansell Grip technology, the glove combines protection against knuckle abrasion, oil exposure and oil grip in a single flexible glove.

Featuring a durable three-quarter dip coating to ensure full protection to the back of fingers, the glove can provide all-day comfort, thanks to a soft liner made from a fine-gauge nylon fibre.

The glove has been designed to meet the hand protection needs of people handling oil-coated parts in the automotive, electrical machinery, equipment, metal fabrication, power tools and transportation equipment markets. It is suitable for operations such as cutting, sorting, inspection, uploading and downloading parts of the line; inspection of machine parts and components of metal working; as well as assembly of components and machinery.

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WORKING IN HEAT

As the temperatures warm up around Australia, it is important for workplaces to manage the risk associated with workers in hot environments. Any industry that requires workers to work in outdoor areas exposed to radiant heat or work in confined conditions with close proximity to hot machinery needs to make sure their workers are able to carry out work without a risk to their health and safety so far as is reasonably practicable.

Air temperatures that are too high can contribute to fatigue and heat-related illnesses such as heat stress, which is potentially fatal. Heat stress occurs when the body cannot cool itself enough to maintain a healthy temperature (37˚C in a grown adult). Immediate assistance should be provided if any worker experiences any of the following symptoms of heat strain: dizziness, fatigue, headache, nausea, breathlessness, clammy skin or difficulty remaining alert.

According to SafeWork Australia, both personal and environmental factors should be considered when assessing the risk to workers' health from working in a very hot environment. Personal factors include the level of physical activity, the amount and type of clothing worn, and duration of exposure. Environmental factors include air temperature, the level of humidity, air movement and radiant heat.

SafeWork Australia says if it is not possible to eliminate exposure to extreme heat, the risk of heat strain and heat exhaustion must be minimised so far as is reasonably practicable. For example: with fans, air conditioners or evaporative coolers, insulation, local exhaust ventilation, use of mechanical aids to assist in carrying out manual tasks and alteration to work schedules so that work is done at cooler times.

Staying hydrated

During January this year, some mining sites in Western Australia reported temperatures up to 50˚C or more. While these working conditions are extreme, some workers are frequently exposed to temperatures in excess of 35˚C and the Bureau of Meteorology has reported there is an upward trend in the mean temperature of the hottest day of the year, increasing by around 1˚ over the last 100 years.

The average industrial worker reportedly sweats at a rate of over 1 L per hour working in a thermally stressful environment. This sweat contains water, and essential salts known as electrolytes. As dehydration can adversely affect worker productivity and safety, it has been suggested that a workplace heat stress management program should include a programmed drinking regime.

It is also important for workers in remote areas to have a good supply of fluids available. The human body can survive for a far longer period without food than without water. The amount required depends on body size, metabolism, climatic conditions, the food we eat and activity levels.

According to Thorzt, an electrolyte drink company, electrolyte drinks increase water retention by 25-40% compared with drinking water. The addition of other ingredients such as amino acids is also claimed to help the body to maintain stamina during prolonged physical activity. The company says the addition of amino acids to carbohydrate-electrolyte drinks has been shown to increase fluid retention 15% greater than carbohydrate-electrolyte-only drinks, and 40% greater than water.

According to details on the Thorzt *Keep Hydrated Stay Productive* guide, workers should avoid heavy exertion, extreme heat, sun exposure and high humidity when possible. When these cannot be avoided, take the following preventive steps:

- Monitor your physical condition and that of your co-workers for signs or symptoms of heat illnesses.
- Wear light-coloured, loose-fitting, breathable clothing such as cotton. Avoid non-breathable synthetic clothing.
- Gradually build up to heavy work. Schedule heavy work during the coolest parts of the day.
- Take more breaks when doing heavier work and in high heat and humidity. Take breaks in the shade or a cool area.
- Be aware that protective clothing or PPE may increase the risk of heat-related illnesses.

Sun protection

To protect workers from the harmful effects of the sun, workers and employers can check the daily sun protection times. The sun protection times are issued whenever the UV is due to reach 3 and above, which is the level when UV is damaging. During these times or if workers are due to be outdoors for extended periods, try to:

- reschedule work, where feasible, to minimise UV exposure by minimising outdoor work, doing outdoor jobs undercover or in the morning and late afternoon, sharing outdoor tasks and making use of shade;
- provide and enforce use of shade;
- provide and enforce use of protective clothing (long sleeves, collared t-shirts, broad-brimmed hats, hard hat attachments and sunglasses with lenses marked with appropriate UV and glare protection ratings);
- advise and remind outdoor workers to apply broad-spectrum 30+ sunscreen and re-apply every two hours. Some sunscreen is also now available in a 50+ range.

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CASE STUDY

Forklifts help distributor out of a tight spot

ARB 4x4 Accessories runs a fleet of five 1.8-tonne Toyota 7FBE18 battery-electric three-wheel forklifts at its purpose-built warehouse in Canning Vale, and has used Toyota forklifts at the facility since it opened in 2010.

ARB Corporation WA state manager Rick Long said ARB offers a large range of 4WD accessories to wholesale and retail markets via its branded stores and dealers located around Australia and overseas.

"We deal with everything, from protective and safety equipment like canopies, winches and bull bars to camping accessories," Long said. "These products are often 'ugly' freight: nearly everything we do involves over- or under-sized pallets, making for an interesting and fairly tight warehouse layout.

"The Toyota 7FBE18s we use are perfect for this type of storage facility as they are light and nimble, so our operators can easily manoeuvre them around," he said.

"The two forklifts we most recently commissioned were specially fitted with 6-m masts to take full advantage of the warehouse's height."

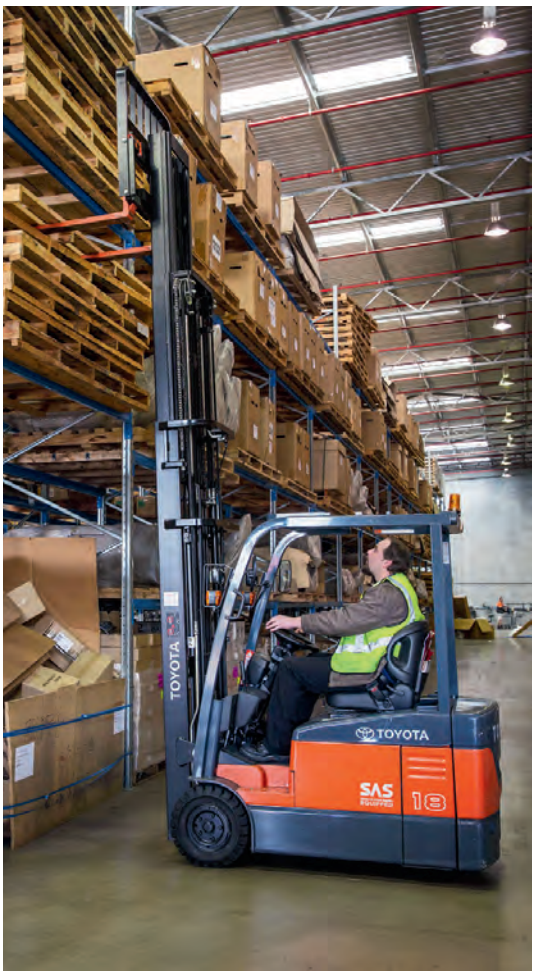
Toyota's 1- to 2-tonne 7FBE range of three-wheel battery-electric forklifts feature the ability to make pivot turns, making them a good choice when operating in tight spaces while offering the performance, reliability and operability of alternating current (AC) power technology.

Ergonomic features include a four-way adjustable suspension seat and rack and pinion hydrostatic power steering, while operator safety is enhanced by features like the System of Active Stability.

All of ARB's Toyota forklifts are serviced by the local Toyota Material Handling branch in Kewdale.

TMH Kewdale area sales manager Danny Carbery said ARB 4x4 Accessories' application of its Toyota 7FBE forklifts was a perfect demonstration of their superior handling capabilities for operators dealing with confined spaces and unusually shaped freight.

Toyota Material Handling Australia Pty Ltd
www.toyotamaterialhandling.com.au



NEW PRODUCTS

Attachment point for tools

The Python D-Ring attachment points are used together with Python Quick Wrap tape and Heat Shrink to create attachment points for a wide range of tools. D-Rings come in a wide variety of sizes, and are each third-party load-rated.

Made from a self-fusing silicone rubber, the Python Quick Wrap tape is capable of creating instant attachment points for nearly any tool in a matter of seconds. The tape conforms to the shape of whatever it is applied to, making it suitable for even the most irregular shaped tools. The tape has a temperature range of -54 to 260°C.

Other benefits include: self-fusing silicone rubber doesn't deface tools; creates instant attachment points for nearly any tool in seconds; conforms to the shape of whatever it is applied to; and provides a third-party tested and rated tool attachment when used with Python D Rings.

Technique Solutions Pty Ltd
www.techniquesolutions.com.au

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CASE STUDY

Compliant fall arrest systems save lives

Nothing highlights the importance of compliant fall arrest systems and correct user training more than a recent incident on a NSW building site.

The fall arrest system, designed to provide access to the roof of a large manufacturing building, comprised several Sayfa 3Sixty anchor points and was to be utilised in the installation of two roof vents.

Following the anchor point installation, a contractor was then employed to install the vents using the anchor points as a means of fall arrest. Penetrations for the vents were made in the roof but the contractor lost his footing shortly afterwards and a fall occurred.

Unfortunately, due to lack of training, experience and supervision, the contractor had failed to connect to the system correctly, allowing excess slack in the adjustable rope lanyard. Fortunately, the rope lanyard arrested the restrained fall moments before the operator reached the fall edge. Of further concern was that a rescue plan was not in effect, which could have had disastrous affects had he become suspended.

There is no doubt that the 3Sixty Anchor point saved his life. It arrested the restrained fall with no signs of damage whatsoever to the system.

This incident, however, is one of many that are all too common in the workplace. It is imperative that all users of these types of systems are properly trained and experienced. Insufficient training and inexperience can cost lives.

User training, system operation manuals and working at heights documentation are vital in maintaining a safe work environment for all personnel.

A Sayfa representative commented: "We at Sayfa pride ourselves on our comprehensive, up-to-date documentation, including operation manuals and working at heights literature, which are provided to the end user on system handover. We can

give you peace of mind and will assist you to ensure that not only are your systems compliant and user friendly, but the people who operate them have a high level of competency by providing the necessary training."

The introduction of the new Standard AS/NZS5532:2013 requires extensive testing as part of the manufacturer's responsibility. The 3Sixty surface mount anchor point meets all the requirements of the new standard.

Sayfa Group
www.sayfa.com.au

NEW PRODUCTS

Radio remote controls

The Safir range of radio remote controls, from Jay Electronique, consists of two families of handheld controls, Beta and Gama and two Bellybox families, Pika and Moka. All of these families can be configured to offer varying combinations of buttons, switches or joysticks to meet user application needs.

Standard on all Safir transceivers is a backlit, anti-reflection, LCD which is able to indicate the battery-charge level, the behaviour of the radio link, the name of the equipment being controlled remotely and feedback from the equipment such as weight of load, overload, limit switches, alarms or fault diagnostics. Navigation menus also allow the user to configure the application, integrate a large number of functions or monitor a specific part of the equipment. Further customisation of logos and pictograms which appear on the screen is also available using the iDialog software supplied with each unit.

The emergency stop function is certified SIL3 per EN 61508 or PLe per EN 13849 and the standard function buttons are certified to SIL2 according to EN61508 or PLd according to EN13849. Other options are available to enhance the safety of those applications that require it, such as infrared start-up, action zone limitation, validation buttons or use in an ATEX area. Access to the radio remote control and certain functions can also be limited to authorised operators by password.

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CE 2056

ROAD SAFETY FOR MINE-SITE WORKERS:

A SHARED RESPONSIBILITY

*Teegan Modderman**

At any given time, the resource sector is exposed to a number of safety hazards and risks that can have adverse consequences. Driving constitutes a significant risk that can impact on the safety of any worker. Many remote and isolated sites have a heavy reliance on driving as part of site life. A high percentage of workers are required to drive to and from work, between mine sites or as part of a worker's occupational duties (use of heavy machinery, plant or equipment).

While many companies have implemented, or are working towards implementing, vehicle monitoring systems and fatigue detection technology on-site, a gap remains in the safety of drivers who are travelling to and from work. This area needs further exploration and attention.

Road accidents have a significant and wide-reaching impact on family, friends, colleagues, the general community and emergency services. The emotional toll of such accidents cannot be measured in monetary form, yet families and organisations do face significant financial costs as a result of such an event. These include but not limited to:

- Workers compensation costs
- Loss of productivity and morale
- Loss of income for the families involved
- Funeral costs

According to the Bureau of Infrastructure, Transport and Regional Economics Road Deaths Database (2014), each year up to 1200 people lose their lives due to road crashes in Australia. Over the past eight years, almost two-thirds of all worker fatalities involved a vehicle; being divided approximately equally between vehicle accidents on public roads and vehicle accidents at a workplace or on a private road. Work-related road use is by far the most common cause of death in Australia, and given the difficulties in determining whether a road traffic accident was work-related, these estimations are considered to be an underestimation of the true extent of work-related crashes.

Furthermore, in what is a major concern for resource companies that employ mobile workforces, statistics highlighted by a recent parliamentary enquiry showed a rising accident and death toll on roads in DIDO (drive in drive out) regions.

So why is this happening? In a recent study conducted by TMS Consulting, it was discovered that a high risk for fatigue-related vehicle accidents was apparent in the resources sector due to the long working hours, long commute times and lack of sufficient sleep. Similar findings were noted in another study focusing on a DIDO workforce in the Bowen Basin, which discovered that the percentage of DIDO workers falling asleep while driving to commence work was up to 13% for day shift workers and up to 23% for night shift workers.

Anecdotal evidence has found that many workers leave the workplace straight after shift to drive on average three to four hours home; with some drivers reportedly driving up to nine

hours (900 km) in a single trip. From a fatigue perspective, this is a high-risk time as workers can be awake between 17 and 20 hours by this stage, further impacted by the amount of sleep and work in the previous days. This is equivalent to driving with a blood alcohol level exceeding .05.

Through modern technology, there is the capability to quantitatively measure both speed and blood alcohol content. There have also been many preventive mechanisms put in place to minimise the risk of vehicle-related accidents. Fatigue, on the other hand, is not so advanced. A testing system that can objectively determine whether an individual is fatigued or not is yet to be developed. Instead, we rely on workers to report symptoms of fatigue. As a result, the focus has been primarily on awareness campaigns and signage. That being said, speeding and alcohol are still our two biggest causes of vehicle-related deaths.

With this in mind, organisations need to put safe driving as a high priority on their safety agenda. Driving long distances, particularly after a long shift, can take a toll on workers and this is a risk that needs to be better managed. There is not only a duty of care to look after workers while at site but also on the journey to and from work.

The current working culture at most sites is to 'tough it out', where workers do not want to look weak in front of their work mates and so will operate under dangerous conditions simply to uphold the expected image. This is where a shared responsibility model can play an important part in clarifying the role of both worker and manager in managing factors that may impact on fitness for work, such as fatigue, alcohol, drugs and mental stress. Further, the workplace needs to implement safe systems of work to identify, assess and manage risks that may impact on an individual's safety and fitness for work.

Sometimes we see resistance from employers to manage the risks associated with the commute to and from work because they see that it falls outside of their responsibility, or that the risks involved with commuting are perceived as too complex for them to manage. Despite these assertions, organisations do have a duty of care to identify the risks associated with driving - whether it be between work sites, on the work site or travelling home - and put in place strategies to minimise the risk of harm.

It is acknowledged that transient workforces can be difficult to manage, and while fatigue cannot be measured as such, there are various strategies that can be put in place to manage the risk and ensure employees arrive safely to their destination.

As a starting point, utilisation of a robust fatigue risk management system can assist in minimising the risk of fatigue when commuting. In addition, organisations can implement a journey management software solution that automates an escalation alert when travellers fail to reach their final destination. While journey management software is unable to prevent an accident, it can alert the organisation at the earliest possible opportunity that something may be amiss - which is particularly important in accidents in remote areas where the response time is critical.

Other strategies to manage commuting-related risks could include:

- In-vehicle monitoring systems
- Electronic employee attendance systems which help to control and limit excessive work hours, overtime, etc
- Ongoing training and education on safe driving practices
- Minimising private vehicle use for commuting and/or introducing bus services
- Specialised rostering software which may help limit fatiguing work schedules and/or incorporate commuting hours into the work schedule
- Regular and auditable vehicle maintenance
- Purchasing vehicles with high safety ratings
- Efficient hazard, incident and near-miss reporting systems
- Random drug and alcohol blood testing of employees
- Sleep disorder screening in high-risk employees and drivers

By creating an awareness of the fatigue and journey management considerations, organisations can work towards identifying and, in turn, mitigating this often silent but serious risk.

A large percentage of site workers will travel by vehicle at some point during their life at site and, in turn, are prone to the risks of driving. It is imperative that organisations be proactive in implementing effective solutions to ensure that their workers get to work and then home to their families safely.

Teegan Modderman BSc (Hons) MOrgPsych GCFRM MAPS is a Registered Psychologist, currently working as a Senior Consultant at TMS Consulting. Teegan has worked with organisations across a variety of industries including transport, rail, oil and gas, mining and water to develop, implement, manage and evaluate tailored fatigue risk management and journey management systems.

TMS Consulting Pty Ltd
www.tmsconsulting.com.au

Cabinet cooler systems

The Exair small NEMA 12 cabinet cooler systems keep electrical enclosures cool with -7°C air while resisting heat and dirty environments. The durable system provides a low-cost, easy-to-install, maintenance-free solution for enclosures in hot, remote and/or dirty environments. The cooling capacity of up to 275 BTUH is suitable for small electrical enclosures with problematic overheating, and models with higher cooling capacities are available.

The cabinet coolers circulate -7°C air throughout the enclosure to prevent high-temperature malfunctions. They mount through a standard electrical knockout while maintaining the NEMA 12, 4 or 4X rating of the enclosure. The systems include an automatic drain filter separator to ensure no moisture passes to the inside of the electrical enclosure. An optional thermostat control minimises compressed air use and keeps the enclosure at ±1°C of the setting.

The systems are available with 275 and 550 BTUH and are UL listed and CE compliant. There are no moving parts and applications include cooling control panels, PLCs, microprocessors, fractional Hp variable frequency drives and robotics.

Compressed Air Australia Pty Ltd
www.caasafety.com.au

Respirator kits

Available in welders and spray versions, the Honeywell Respirator Kits are designed to take the hassle out of selecting, transporting and storing respirators, along with filter and cleaning wipes.

The spray kit, which is suitable for spray painting, roller painting and agricultural spraying, protects against organic vapours and particulates. The welders' kit, recommended for woodworking, welding and sanding, is suitable for dusty, particulate-filled environments where nuisance levels of organic vapours or acid gases are present. The inclusion of filters in the convenient and easily distinguishable lunchbox kits means it's always easy to have the right protection for the job at hand.

The kits also feature numerous innovations to improve worker comfort and productivity. A latex-free half mask means that the respirator is appropriate for all workers, including those with latex allergies. Less dead air space in the mask provides for an increased flow of fresh air, increasing worker productivity. Additionally, strategic placement of the exhalation vents prevents exhaled breath from remaining in the mask, leading to a cooler, more comfortable mask. The sealing area of the mask is of variable thickness, providing greater comfort while flexing to conform to the bridge of the nose, without risking collapse of the mask.

All Honeywell Respirator Kits are certified to AS/NZS 1716:2012.

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Anchor point range certified to new standard

RIS now has a complete range of single anchor points that have been tested and certified to the rigorous testing regime required by the AS/NZS5532:2013 Standard. This ensures that RIS products provide the highest level of safety to protect people working at heights, and to assist owners and managers to meet their obligations to provide safe work places for all employees and contractors.

Working at heights is a high-risk yet necessary profession for thousands of workers every day throughout Australia, who work on a wide variety of structures including: commercial and residential buildings, health services facilities and hospitals, sporting stadiums, transportation maintenance bays, electricity towers, and mining and industrial sites. The professions engaged in these activities include: roofing contractors, plumbers, air-conditioning technicians, building and equipment maintenance staff and many other tradespeople.

For many years there have been a series of standards (the AS/NZS 1891, AS/NZS 1657, AS/NZS4488) that define minimum standards for the manufacture, design, testing, maintenance and inspection of height safety equipment such as harnesses, lifelines and other types of fall arrest equipment. It has long been acknowledged, however, that a gap existed in the standards as these standards did not address the requirements for the design and testing of single anchor points.

In 2013 the Working at Heights Association of Australia (WAHA) funded the development of a new standard through Standards Australia, which reconvened the SF015 committee that previously developed some of the earlier standards. The draft standard was prepared, and after multiple rounds of public comment were completed, the new AS/NZS5532:2013 Standard was published on 30/10/2013. This new standard defines a common testing methodology to be used by single anchor point manufacturers to ensure their products meet this minimum level of protection for workers when using these safety anchor points.

Roofsafe Industrial Safety
www.rissafety.com

CASE STUDY

Hand injury report reveals those most at risk

A snapshot of Queensland's construction, manufacturing and mining industries identified young males aged between 15-34 as being the most "at risk" for workplace hand injuries, according to a report commissioned by Anthony Elliott, managing director of Elliotts Australia.

The group accounted for over half of the 1182 total recorded hand injury cases, while the construction industry alone accounted for 33.5% of the overall total number of recorded cases, for the documented period of July 2011 to June 2013.

The report, produced by the Queensland Injury Surveillance Unit at the Mater Health Service, collected injury data through participating emergency departments, which were spread across Queensland's metropolitan (Brisbane), regional (Mackay and Moranbah Health Districts), tropical northern coast (Atherton, Mareeba, Tully and Innisfail) and remote (Mt Isa) areas.

Richard Donarski, the Health and Safety Team Leader for Elliott's independent certification body, SAI Global, feels that many self-employed tradespeople may not be aware of the requirements that personal protection equipment (PPE) needs to comply with. This, in turn is what leaves workers open to injury.

"It's a common misconception that all personal safety items are subject to and must meet mandatory standards," observes Donaski.

"The reality is, because many standards aren't legislated, some manufacturers choose not to apply standards to their processes. The consequence is that the very products designed to keep you safe may not necessarily do their job as expected."

Anthony Elliott says that the report highlights the importance of remembering that the role of PPE is to provide the last line of defence against many workplace hazards, and is an effective tool when applied correctly to the hierarchy of controls and strategies implemented by workplaces to protect their workers.

Elliott believes that certification provides an additional layer of assurance to the wearer and their employer. The company has launched two collections of 'Australian First' gloves - the G-Flex and Mec-Flex glove ranges. Both ranges are certified to AUS/NZS2161.3:2005 Occupational protective gloves and CE standards.

Elliott says the launch is part of Elliotts' overall plan to try to lift the glove safety standards in Australia through independent certification and education.

Elliott Australia Pty Ltd
www.elliottaustralia.com

Getting first aid to workers quickly could prevent a minor incident from becoming life threatening. If only I got instant alerts from my safety showers so we could respond faster.

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Asset management software upgrade

Emerson Process Management's AMS Suite: Intelligent Device Manager is now capable of commissioning Foundation fieldbus devices faster with the new version 12.5 software. Users can bring devices online with the features, options, and alerts they select - in a fraction of the time it would normally take. With the version's functionality, Emerson anticipates reduced commissioning time on smart devices by almost 80% compared to existing work practices. In addition to faster start-up, users can make online changes to many devices simultaneously.

Emerson worked with Shell to develop a more efficient configuration solution for Shell's Prelude floating natural gas (FLNG) production vessel project. With over 5000 Foundation fieldbus devices at the Prelude site, many with more than 100 configurable parameters, Shell was concerned about the time it would take to complete commissioning tasks. Configuring the devices one at a time is error prone and laborious - configuring a single device may take up to 60 minutes - then configuration for each individual device must be verified.

The User Configurations tool enables users to standardise asset configuration and eliminate configuration errors. Users have the option to apply configuration templates to device place holders or live devices. The devices can be commissioned one by one as field engineers are wiring the segments or automatically in groups. Built-in reporting allows users to quickly validate that parameters have been applied correctly.

Emerson Process Management
www.emersonprocess.com.au

Low-maintenance breathing apparatus

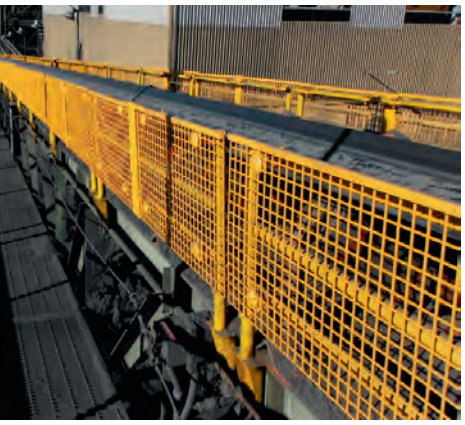
Scott Safety's ProPak self-contained breathing apparatus (SCBA) combines a low-maintenance pneumatics system with a comfortable, sculptured rigid backplate to improve wearer comfort. The breathing apparatus consists of a rigid, glass-reinforced frame incorporating a rescue/carry handle along with a flame-resistant webbing harness.

The SCBA set features a pressure-reducing valve with only two moving parts, while the entire pneumatic circuit can be removed from the set without tools. This makes it easier to swap out pneumatics for testing or repair.

The product is available with four different harness 'comfort' levels, from the ProPak-Sigma to the top-of-the-range ProPak-fx which features fully padded shoulder harness straps and height-adjustable, swivel-mounted waistband for maximum comfort and flexibility. All four models meet stringent European 'Type 2' flame-engulfment standards and carry AS/NZS 1716 and Marine Equipment Directive 'ships-wheel' certifications.

The SCBA range is compatible with a variety of cylinder sizes and pressures and is designed to work with the company's Promask PP or Vision 3 face masks. Provided the set is dynamically tested annually, no scheduled replacement parts are required for up to 12 years.

Scott Safety
www.scottsafety.com



Conveyor and guarding solutions

BLH Conveyor & Guarding Solutions has been developed to combat the risks associated with inadequate safe guarding of plant and equipment.

The solutions are based on moulded modular plastic polymer components that are simple and easy to install. One of the major advantages of these guarding solutions over other guarding methods is the suitability of the products for use in highly corrosive areas where steel is sometimes not an option. For example, the offshore oil and gas industry is an example where salt corrosion of traditional guarding materials may be an issue.

Features include: adaptable as guarding on conveyors, actuators, rotating machinery and many more applications; recyclable for a safer environment; anticorrosive; fire resistant; impact and chemical resistant; UV stabilised; safety yellow colour for high visibility; anti- ageing; non-conductive; lightweight; wind rated; wind tunnel tested; no sharp edges; no pinch points or catch points; re-usable; suits permanent or temporary installations; easy to remove and store, the guarding systems will accommodate a variety of sizes and configurations of equipment; low-cost installations; hot work permits not required; glare resistant; and non heat conductive.

BLH Safety Solutions
www.blhsafetysolutions.com

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The efficient yet robust **SLC/SLG 445** safety light curtain/grid by Schmersal is adaptable to any application combining multiple functions without the need for a PC and software.

Programming is achieved via simple push button commands through its LED display while its highly visible status indication provides operating conditions at a glance.

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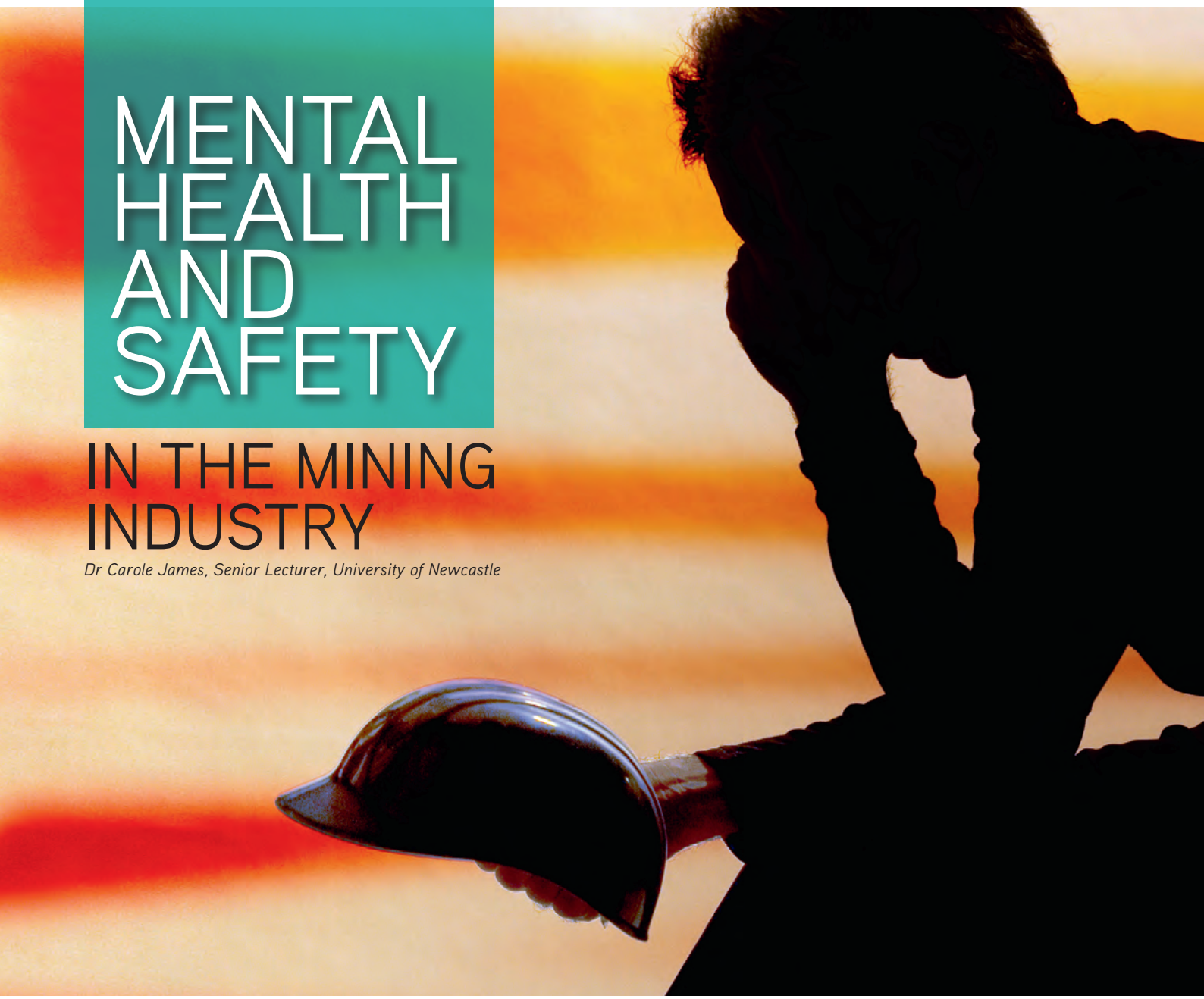
MENTAL HEALTH AND SAFETY IN THE MINING INDUSTRY

Dr Carole James, Senior Lecturer, University of Newcastle



The Newcastle Institute of Energy and Resources at the University of Newcastle is host to a new Centre for Resources Health and Safety that draws on the multidisciplinary expertise of university researchers spanning disciplines including workplace health and safety, psychology, psychiatry, respiratory studies and environmental impacts, to meet sector demand and facilitate industry and government collaborations for the benefit of communities in resource-intensive regions.

The Mental Health and Mining program is one of the programs within the Centre for Resources Health and Safety, which is actively engaged in research with the coal mining industry.

Mental health problems and their impact on workplace safety and productivity is a growing issue for the mining industry. A recent report commissioned by the NSW Minerals Council highlighted the need for research to measure the extent and impacts of mental illness on health, safety and productivity in the coal sector workplace (Kelly et al, 2012). Coal mining is a high-profile industry with a demonstrated commitment to the health and safety of its employees, their families and communities.

Mental illness, a common health problem potentially affecting 20% of the community in any 12-month period, has significant impacts on individuals, the community and workplaces (ABS 2008). People can experience levels of cognitive, emotional, behavioural and social problems that do not meet the criteria for a diagnosed mental illness. These mental health problems will often resolve with time or when life stressors change. However, if mental health problems persist or increase in severity they may develop into a mental illness. Community estimates indicate that mental illness is most common in the working years and affects all employment categories and people of all educational and income levels, cultures and employment categories (ABS 2008).

Whether or not a person develops a mental illness seems to depend on a range of individual, social and community factors. Employment is a protective factor for good mental health and wellbeing. Supportive employment is protective for mental ill-

ness and can provide social connections, purpose and income. In contrast, long working hours, working overtime, organisational structures and low decision-making authority are associated with increased risks of mental illness (ABS 2008).

The costs of workplace injury to Australian industry and the community are significant, with estimates of $57.5 billion in 2005-06, or 5.9% of Australia's gross domestic product (ABS 2011). There is some evidence of an association between mental illness and accidents at work, and also links between moderate and high levels of psychological distress, a significant risk for mental illness, and workplace accidents have been demonstrated (Hilton et al 2008a; 2008b).

Mental illness and precedents such as psychological distress affect the workplace through absenteeism, presenteeism (less than optimal productivity while at work), injuries and, ultimately, lower productivity. In Australia in 2000 it was estimated that mental illness cost the economy $2.7 billion per year. Blue-collar workers accounted for more than half of these estimated costs (Lim et al 2000). The Productivity Commission identified that for both men and women, mental illness has the most significant impact on workforce participation compared with a range of other chronic diseases (Laplagne et al 2007).

A MULTICOMPONENT INTERVENTION PROGRAM TO IMPROVE THE WAY MENTAL HEALTH IS ADDRESSED IS BEING TRIALLED IN FOUR MINES, TO GAIN AN UNDERSTANDING OF THE RANGE OF ASSISTANCE FOR MENTAL HEALTH PROBLEMS THAT ARE AVAILABLE AND CAN BE PROVIDED WITHIN COAL MINING WORKPLACES.

The Working Well: Mental Health in Mining Project, funded by the Australian Coal Association Research Program (ACARP), is a collaboration between NIER, the University of Newcastle, the Hunter Institute of Mental Health and the coal industry. This project has two arms: one investigating the prevalence and incidence of mental health problems amongst coal industry employees and the second providing evaluation of an intervention program.

There is no specific information on the extent of mental health problems, associated factors or their impact on safety and productivity in the coal industry. Estimates of the extent of mental health problems have been reliant on known risk factors, and population-based studies and studies in other workplace settings which do not account for the unique characteristics in mines associated with shift work, drive-in drive-out and fly-in fly-out work systems and resultant dislocation from home and community services. There is evidence that workplaces are important sites to address mental health and mental illness and, given the multifaceted nature of mental health problems, with frameworks for mentally healthy workplaces offering evidence for multicomponent approaches (McKernon et al 2002).

The 'Working Well: Mental Health and Mining' study is collecting data to determine the prevalence of mental health problems in a representative cross-section of employees from multiple mines within the coal industry in NSW and Queensland. This data will allow the identification of prevalence of mental health problems in mining to be established and the patterns of mental health problems among coal industry employees, the factors associated with these problems and the impact on employees' health, workplace safety and productivity.

A multicomponent intervention program to improve the way mental health is addressed is being trialled in four mines, to gain an understanding of the range of assistance for mental health problems that are available and can be provided within coal mining workplaces. This intervention includes components to develop mental health strategies to help prevent mental health problems and support identification and appropriate intervention for these problems. This includes general awareness education programs and a peer-assisted model of support; supervisor/leader training and a policy review to assist in managing mental health in the workplace.

This research, currently being completed, will provide important evidence of mental health in mining and will improve our knowledge of the scope of the problem. It will evaluate strategies in the industry to improve mental health, as a critical part of the industry's overall focus on the general health of its employees.

Coverall for asbestos protection

Tyvek Classic Xpert coveralls provide good protection against hazardous fine particles. The introduction of the garment with a patented seams construction has allowed the coverall to reach new levels in fine particle and liquid protection. The garment reaches a new standard of protection for the EN Type 5 and 6 coveralls category.

This new level of protection is important for workers who are handling materials such as asbestos, which is a very friable material that can allow microscopic materials to release into the air. While workers wearing a coverall that reaches the EN 13982-1 Type 5 standard expect that they will be protected against asbestos particles, in practice this may not be the case. This is because the Type 5 product standard tests the inward leakage fine particles into suits and the standard allows for an inward leakage of up to 15% in eight out of 10 suits tested. Thus, workers expecting to be protected can actually be exposed to up to 15% of fine particles coming inside the suit onto the garments they are wearing underneath.

DuPont launched Tyvek Classic Xpert in the Australian market in 2013 and, according to the company, it is a benchmark for use in asbestos remediation work. In testing against the Type 5 standard, this garment allows less than 1% of fine particles inside the suit in the Average Total Inward Leakage Test (TILa) according to EN 13982-2. This is 15 times better than the EN 13982-1 Type 5 Standard.

The coverall is also comfortable and designed for optimal safety, with the exposed areas minimised in all working conditions. An improved hood fits the contours of the face. A new sleeve design provides a good fit, allowing the worker to perform overhead work and not have the sleeves ride up. There is also a larger zipper that is easier to fasten and unfasten when wearing gloves.

DuPont (Australia) Ltd
www.dupont.com.au

Personal RF field radiation monitor

Available to rent, the RadMan Personal RF Field Radiation Monitor provides safe and timely warning of electromagnetic fields directly threatening humans in their presence. As 50% of the maximum permissible exposure limit is exceeded, a warning buzzer sounds.

For noisy environments, earphones are included. The monitor also has LEDs displaying field strength measurements of approximately 12.5, 25, 50 and 100%.

Features include: wide frequency monitoring from 1 MHz to 40 GHz; shaped frequency response matched to national and international standards; simultaneous E and H field monitoring for near field use; detachable absorber cap to provide isotropic response for simple measurement tasks and leak detection.

TechRentals
www.techrentals.com.au

Steel bollards

LSP Safety's removable in-ground lockable bollard can provide a solution to protect a business against ram-raid crimes.The design features a 7-pin tumbler security lock, with coding, if required, for multiple installations.

Manufactured by LSP Safety in Australia using powder-coated galvanised pipe, the bollard provides a visual deterrent.

Line Marking and Safety Products
www.lspsafety.com.au

Rotary impingement tank and trailer cleaning machines

Gamajet E-Z8 tank and trailer cleaning machines from Spray Nozzle Engineering are designed for safer cleaning and improved tank turnaround time. The machines blast away tough residues, thereby eliminating the risk of cross-contamination and the need for dangerous manual cleaning, according to the company.

The machines use rotary impingement technology that enables them to spin and rotate in a precise 360° indexing pattern that scours clean 100% of the tank or trailer interior.

The machines are also clog resistant and are designed to run for 800-1000 h before preventive maintenance is required.

Spray Nozzle Engineering
www.sprayingsolutions.com.au

RESOURCES

Get to know asbestos this November

© iStockphoto.com/Alistair Forrester Shankie

In the lead-up to Asbestos Awareness Day (Friday 28 November), Australians - especially home owners, renovators, tradies and handymen - are being encouraged to visit asbestosawareness.com.au and take the 20-point asbestos safety check to learn how to protect themselves and families from exposure to dangerous asbestos fibres.

Peter Dunphy, chair of the Asbestos Education Committee that conducts the national Asbestos Awareness campaign, said, "There is no safe level of exposure to asbestos fibres.

"With at least one in three Australian homes containing asbestos, many homeowners, renovators, tradies and handymen are putting their health and the health of families at risk when doing home renovations, maintenance and demolition if they release dangerous asbestos dust and fibres that can be inhaled and lead to asbestos-related diseases including mesothelioma."*

Mesothelioma is a cancer that mostly affects the lining of the lungs and develops between 20-50 years after inhaling asbestos fibres. There is no cure and the average survival time after diagnosis is 10-12 months. Inhaling asbestos fibres may also cause other diseases such as lung cancer, asbestosis and benign pleural disease. In the past, Australians diagnosed with mesothelioma have primarily been men exposed to asbestos fibres in mines and asbestos factories (first wave) and in the workplace working with asbestos-containing materials (second wave). With the current wave of asbestos-related diseases, there is a growing body of evidence linking asbestos exposure to DIY and renovations with more people, specifically women, diagnosed as a result of inhaling fibres in a non-occupational setting.

"We know that Australia has one of the highest rates of asbestos-related diseases in the world because Australia was among the highest consumers of asbestos products until a complete ban of asbestos came into force in Australia in 2003," Dunphy said.

"However, there is still a high volume of asbestos-containing building products used prior to 1987 which remain hidden dangers in homes and buildings such as garages and farm structures so it's critical that all Australians become asbestos aware.

"Many Australians wrongly believe that only fibro homes contain asbestos. With asbestos products still commonly found in and around brick, weatherboard, clad and fibro homes built or renovated before 1987, it's vital that homeowners, renovators, tradesmen and handymen 'get to know asbestos this November'.

"Tradespeople who come into direct contact with products that may contain asbestos every day of their working life are particularly vulnerable and need to be doubly aware of the risks and safe management practices of working with asbestos.

"Visit www.asbestosawareness.com.au and take the 20-point safety check to learn where asbestos might be found in homes and on properties and how to manage it safely, because it's not worth the risk to themselves or to their families," he said.

During November, Australians are encouraged to host a Blue Lamington Drive morning or afternoon tea at home or at work to help raise awareness of the current dangers of asbestos while raising vital funds for medical research and support services for sufferers of asbestos-related diseases.

© iStockphoto.com/PeskyMonkey

Safe Work Australia releases practical advice on managing risks

Safe Work Australia has released practical advice on how to manage risks at the workplace. The material includes information sheets to assist small businesses and workers meet their WHS obligations.

There are nine packages of national guidance material which support the model Work Health and Safety (WHS) Act and WHS Regulations. The topics are:

- Workplace traffic management
- Managing cash-in-transit security risks
- Managing risks in forestry operations
- Industrial lift trucks
- Amusement devices
- Safe design, manufacture, import and supply of plant
- Working in the vicinity of overhead and underground electric lines
- Formwork and falsework
- Scaffolds and scaffolding work

The national guidance material was agreed by majority by Safe Work Australia Members in June 2014 and is available at www.swa.gov.au.

Business owners and workers can contact the work health and safety regulator in their state or territory to determine if these guides apply to the work they undertake.

Rental vs Purchase

TR Pty Ltd
ELECTRONIC RENTALS

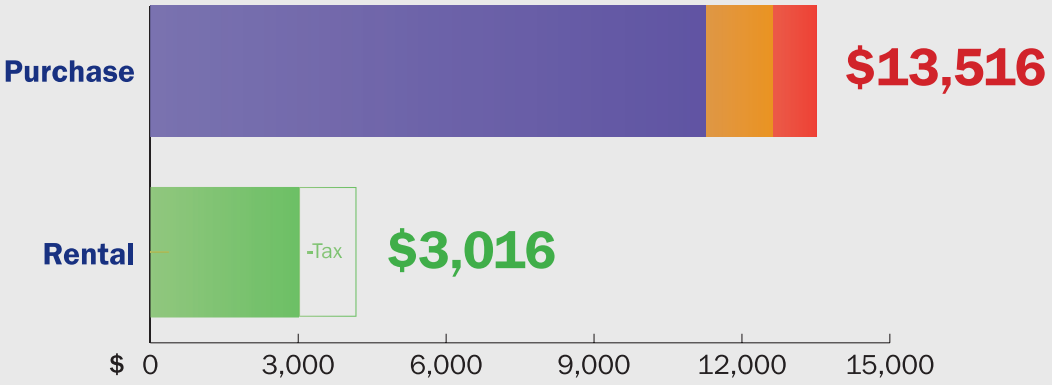
Why rental is more cost effective than ownership

When weighing up whether to purchase or rent, it is clear that the benefits of rental far outweigh the cost of ownership. Not only does rental save you money, but it's the smarter business option, providing you with greater flexibility and control. At the end of your rental period, simply return the equipment and upgrade to a newer version, it's that easy!

- ✓ Rental costs can be 100% tax deductible#
- ✓ Immediate replacement of faulty equipment
- ✓ No capital outlay
- ✓ Avoid obsolescence
- ✓ No depreciating assets
- ✓ Ongoing service and technical support

Please see the chart below which illustrates the benefits of rental over ownership for 10 x BW GasAlertMicroClips with Bump Calibrator.

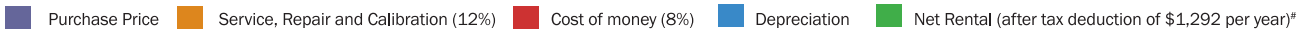
BW GasAlertMicroClip with Bump Calibrator



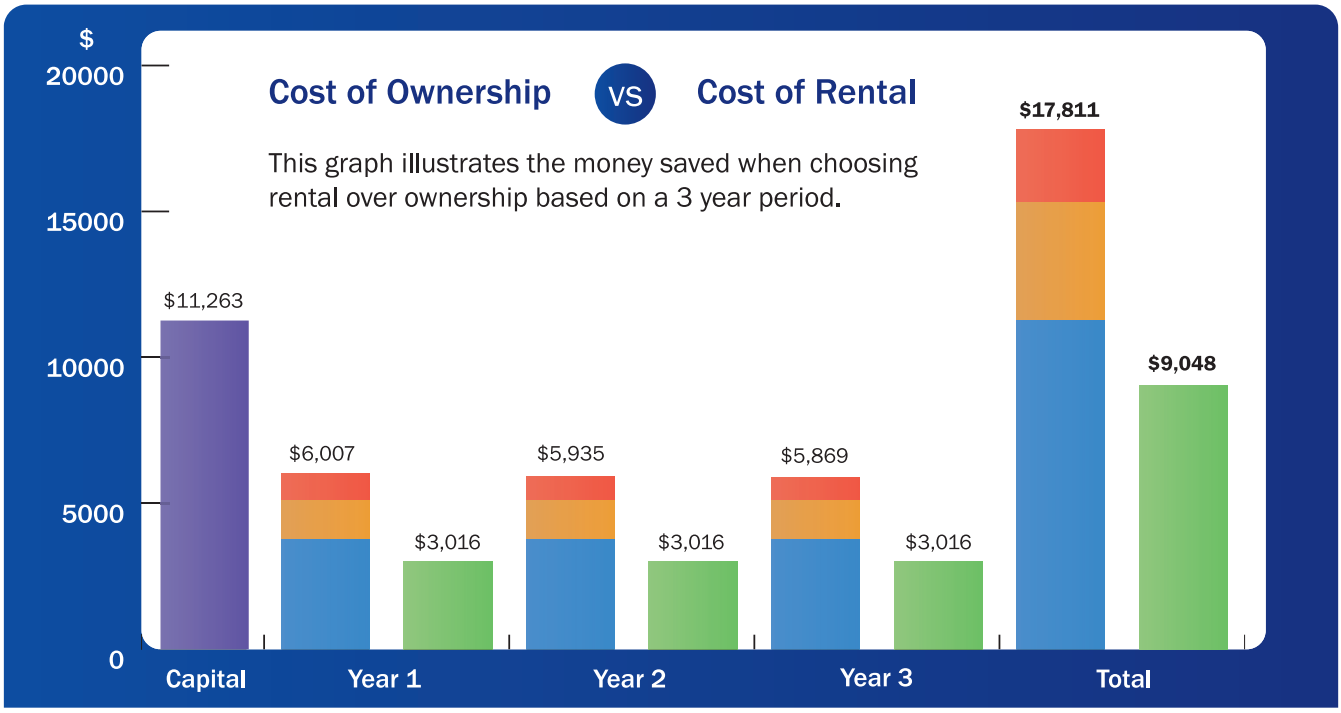
*Figures displayed represent costs at the end of the **first year**.*

techrentals

For more info call us on 1800 632 652



Rental vs Ownership for 10 x BW GasAlertMicroClips with Bump Calibrator



13/10/2014
TR1233

#Please ensure you obtain independent professional taxation advice. Prices shown are accurate as of date of publication and are subject to change.
Terms and conditions of rental apply as shown on www.techrentals.com.au. Prices exclude GST. Figures shown have been rounded to the nearest dollar.

Your ageing workforce - are you helping them stay injury-free and healthy?

There is no denying that the Australian workforce is getting older. Our research with companies around Australia reveals three main concerns:

- The likelihood of an increase in injuries.
- A decreasing capability for employees to physically perform the job.
- What to do with employees when they can no longer perform the role.

So what's the solution? No silver bullet unfortunately, but here's a few tips to get you started.

The answer is likely to be right under your nose. There is a high likelihood that you have employees who are ageing well. Finding them, learning from them and then replicating what they do is the secret. This approach is one we have used for years to solve workplace sprain and strain problems. "Locate, investigate and replicate!"

As testimony to this approach, we have been interviewing employees who are ageing well (nominated by their employer because they are over 65 years and still successfully doing physically demanding work) in an effort to uncover their secrets. While each individual has had their own personal message, here are the three most common insights.

1. It's all in your head. These days, people tend to accept that with age comes the expectation of more aches and pains. Almost like it's an inevitability. A fait accompli. In fact, 33% of all of people who complete our Move Training Program cite "getting old" as the reason they have aches and pains. There is no doubt that aches and pains are increasingly common … but it is not normal. We need to change that mindset. The way we think about ageing drastically impacts on how well we age.
2. Move more. In workplaces today, we are faced with the increasing sedentary nature of our lives. This is compounded by the processed elimination of manual handling tasks so that all elements of physicality in the workplace are slowly being removed and replaced by robots and other engineering wonders. Don't get me wrong, I am all for eliminating tasks that are likely to cause harm, but we need to acknowledge that increasing automation and technology is a double-edged sword to our health. By removing physicality, we lose condition, become increasingly sedentary and are more likely to end up fat, lazy and sick. To offset this imbalance and acknowledge our evolutionary desire to move, increase the amount of 'incidental' movement (the exercise we get as part of our daily activities) AND manufacture 'intentional' exercise opportunities, like offering exercise classes and gym membership subsidies.
3. Move smarter. If you take the time to observe the way an 'experienced' employee works, it is likely the way they move is finely tuned and highly efficient. Borne by millions of repetitions, through trial and error, their bodies have forged a brain-body connection that results in staying injury-free and highly productive. Marry that with emerging research in movement science and you have a movement pattern blueprint that reveals the way the human body is designed to move. The only remaining challenge is to have everyone moving just as smartly.

For more in-depth tips on how to execute these solutions, visit www.linkedin.com/in/move4lifeterry.

Terry Wong is General Manager of Move 4 Life. He holds a degree in Physiotherapy and Medical Science from Sydney University and a Grad Cert in Management from AGSM. Also a facilitator and keynote speaker, he is known for his practical, commonsense approach to simplifying the complexities of the human body and revealing how organisations and everyday people can become injury-free and highly productive.

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The Secret To Keeping Electronics Cool!

NEMA 12 Cabinet Coolers

The NEMA 12 Cabinet Coolers for large heat loads up to 5,600 Btu/hr. are ideal for PLCs, line control cabinets, CCTV cameras, modular control centers, etc.

- Measures 203mm high
- Mounts top, side or bottom
- Enclosure remains dust-tight and oil-tight

NEMA 4 and 4X Cabinet Coolers

NEMA 4 and 4X Cabinet Coolers for large heat loads up to 5,600 Btu/hr. They are ideal for PLCs and modular controls.

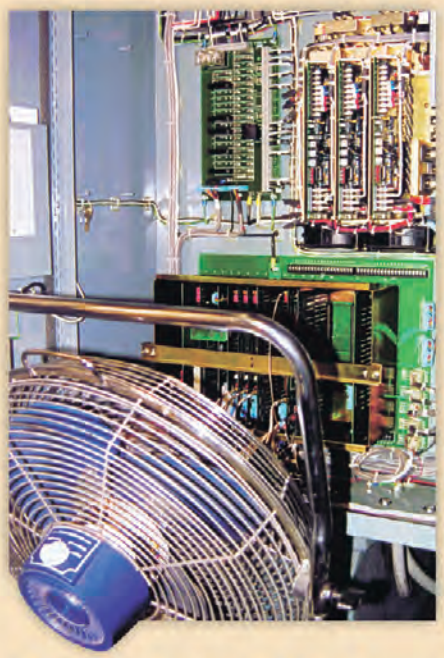
- Enclosure remains dust-tight, oil-tight and splash resistant
- Suitable for wet locations where coolant spray or hose down can occur

Type 316 Stainless Steel Cabinet Coolers

Type 316 Stainless Steel Cabinet Coolers for NEMA 4X applications are available for heat loads up to 5,600 Btu/hr.

- Resists harsh environments not suitable for Type 303/304
- Ideal for food and chemical processing, pharmaceutical, foundries, heat treating and other corrosive environments

A bad choice could cost you thousands!



Look Familiar?

When hot weather causes the electronics inside a control cabinet to fail, there is a panic to get the machinery up and running again. The operator might choose to simply open the panel door and aim a fan at the circuit boards. In reality, the fan ends up blowing a lot of hot, humid, dirty air at the electronics and the cooling effect is minimal. If the machinery starts functioning again, the likelihood of repeated failure is great since the environment is still hot (and threatens permanent damage to the circuit boards). Worse yet, that open panel door is an OSHA violation that presents a shock hazard to personnel.

The Real Solution!

Stop electronic downtime with an EXAIR Cabinet Cooler® System! The complete line of low cost Cabinet Cooler Systems are in stock and can ship now. They mount in minutes through an ordinary electrical knockout and have no moving parts to wear out. Thermostat control to minimize compressed air use is available for all models. All Cabinet Coolers are UL Listed to US and Canadian safety standards. c UL us LISTED

Watch The Video!

NEW CE **The only compressed air powered cooler that is CE compliant!**

An INTELLIGENT COMPRESSED AIR® Product

Mini NEMA 12, 4 and 4X Cabinet Coolers

The mini NEMA 12, 4 and 4X Cabinet Coolers for small heat loads up to 550 Btu/hr. are ideal for control panels, relay boxes, laser housings, electronic scales.

- Measures 127 mm high
- Mounts top, side or bottom
- Enclosure remains dust-tight and oil-tight

High Temperature Cabinet Coolers

High Temperature Cabinet Coolers for NEMA 12, 4 and 4X applications are available for heat loads in many capacities up to 5,600 Btu/hr.

- Suitable for ambients up to 93°C
- Ideal for mounting near ovens, furnaces, and other hot locations

Non-Hazardous Purge Cabinet Coolers

NHP Cabinet Coolers keep a slight positive pressure on the enclosure to keep dirt from entering through small holes or conduits. For use in non-hazardous locations.

- Uses only 1 SCFM in purge mode
- For heat loads up to 5,600 Btu/hr.
- NEMA 12, 4 and 4X

Jeff Hauck, Lasercraft Inc. Cincinnati OH

"It took us three days to get a replacement computer cabinet and we didn't want to risk another heat failure. Fans weren't an option since they would just blow around a lot of hot air. Freon-type air conditioners like those on some of our other machines were a constant maintenance project of their own. **We purchased EXAIR's Model 4330 NEMA 12 Cabinet Cooler System since it was easy to install and requires no maintenance."**

If you would like to discuss an application, contact:

Compressed Air Australia Pty Ltd
Phone: 1300 787 688
Int'l: +61 8 8983 3999
info@caasafety.com.au
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