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CONTENTS

- 4 In the news
- 8 At height — risk assessments, dos & don'ts and fall protection systems
- 21 Engineering controls for dust in bulk material processing
- 36 Immersive safety — the benefits of VR training in materials handling
- 43 Driving drowsy? Understanding driver fatigue
- 46 Feet first into construction — 4 essentials of women's work boots



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FROM THE EDITOR



The February 2021 issue of *Safety Solutions* comes to you at a critical moment for work health and safety in Australia. We're at a work-watershed; faring better than much of the world right now, yet still reeling from the shock of 2020; buoyed by reopened workplaces, the belief that our 'new normal' will prevail under refined 'COVIDSafe' protocols and the rollout of our national immunisation response. Yet, the tipping point hasn't passed; as our snap border closures remind us, serving as a strange constant across our jurisdictions.

In this critical moment, a key message from experts has risen to the surface to set the theme for 2021: *stay vigilant, don't become complacent*. In other words, we mustn't congratulate ourselves too much, not yet, as there remains many hazards. Our feature contributors carry on this rallying cry against complacency, providing concrete strategies for how we can stay compliant and improve the nation's injury and fatalities statistics through next-level attention to priority areas, both those borne of and before COVIDSafe-ty.

Richard Millar sets our sights on working at height, focusing on construction, risk assessments and fall protection systems. Dwayne Sewell also delves into construction, detailing work boot selection for women joining this vital economic-recovery sector. And Sean Kinder outlines how engineering controls can provide respiratory protection against dust. Hand protection, materials handling, infrastructure and transport are among the other subject spotlights in this issue. But every item in these pages reminds us to stay vigilant, to combat complacency: because safety

and health must stay fore across all facets of our industrial working lives.



Dr Joseph Brennan
Editor, *Safety Solutions*
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TRANSPORT AND LOGISTICS COMPANY CHARGED OVER 2018 INCIDENT

K. & S. Freighters, a national transport and logistics company, has been charged with breaching federal work health and safety laws over an incident that severely injured a worker in Adelaide. Following a Comcare investigation, the Commonwealth Director of Public Prosecutions has filed two charges in the Adelaide Magistrates Court, alleging the company failed in its duties under the *Commonwealth Work Health and Safety Act 2011*.

It will be alleged that the company failed to provide a safe system of work and adequate training and supervision. The incident occurred on 25 November 2018 at a freight depot in Adelaide's northern suburbs. After delivering a load of steel coil, workers were raising the heavy interlocked gates on a truck trailer when the gates fell on a worker, causing severe leg fractures.

The charges are Category 2 offences under the Work Health and Safety Act, each carrying a maximum penalty of \$1.5 million. The matter was addressed in the Adelaide Magistrates Court on 15 January 2021.



WORKER DIES AFTER FALLING 1.4 M FROM PALLET RACK

A Victorian bindery finishing operator died in hospital on 5 October after falling approximately 1.4 metres from a pallet rack at a Clayton South printing and marketing business on 1 October. It is believed that the 64-year-old man fell forward onto a concrete floor while hoisting himself onto the first shelf of a pallet rack to access a box.

The fatality brings the state's toll to 56 — five up on the same time last year. The incident is being investigated by WorkSafe Victoria.



DEGLOVING INCIDENT COSTS MILDURA JUICE COMPANY \$30,000

Lencia Fruit Juices Pty Ltd, a Mildura drinks manufacturer, has been convicted and fined \$30,000 after a worker's hand was dragged into an unguarded bottling machine in June 2019. The drinks manufacturer was found guilty of failing to provide or maintain plant that was safe and without risks to health. The company was also ordered to pay costs of \$1654.83.

The incident occurred when the 33-year-old worker was operating the machine and reached in to remove empty bottles; his right hand became trapped and sustained a partial degloving, a burst tendon and nerve damage. The company had purchased the second-hand machine earlier that month and there was no guarding to prevent workers becoming caught in the moving components.

WorkSafe Victoria Executive Director of Health and Safety Julie Nielsen said there is no room for complacency around high-risk hazards like moving machinery, and urged employers to ensure that the safety of their workers is their first priority.

"This horrific incident could have been easily avoided if the company had put adequate guarding in place," said Nielsen.

To manage risks, employers are advised to identify hazards, assess the risks associated with them, and eliminate or control those risks by isolating them or using an alternative. Staff should also be trained in the safe operation of machine and equipment, and provided with written procedures in the worker's first language.

Employers should also develop and implement safe operating procedures in consultation with employees and health and safety representatives. Guards and gates must also be compliant and fixed to machines at all times. All machines and equipment should be regularly serviced, with signs on or around machines to alert employees of the dangers of operating it.

SWA RELEASES 2018–2019 WORKERS COMPENSATION REPORT

Safe Work Australia has released a report detailing workers compensation statistics from 2018–2019, which revealed that there were a total of 114,435 serious workers compensation claims during that time period.

A trend analysis from 2008–2009 to 2017–2018 further revealed that the rate of serious claims per million hours worked fell by 26%, from 7.7 to 5.7 serious claims per million hours worked. The median time lost for a serious claim increased by 24%, from 5.0 to 6.2 working weeks, from 2008–2009 to 2017–2018.

Occupation and industry data revealed the three occupations with the highest rate of serious claims (per million hours worked) included labourers; community and personal service workers; and machinery operators and drivers. The three industries with the highest rate of serious claims (per million hours worked) were agriculture, forestry and fishing; manufacturing; and transport, postal and warehousing.

The most common injury type was traumatic joint/ligament and muscle/tendon injuries, comprising 39% of all serious claims, while wounds, lacerations, amputations, internal organ damage, and musculoskeletal and connective tissue diseases made up 16% of all serious claims respectively.

LEGISLATION IMPROVES MENTAL HEALTH SUPPORT FOR VIC WORKERS

The Workplace Injury Rehabilitation and Compensation Amendment (Provisional Payments) Bill 2020 will enable Victorian workers who suffer a work-related mental health injury to access early treatment and support. Under the new legislation, Victorian workers who seek compensation for a mental health injury under WorkCover will receive payments to cover reasonable medical expenses while they await the outcome of their claim.

“These landmark reforms will ensure that Victorian workers gets the urgent support they deserve — and can get better and return to work as soon as they can. With more and more workers seeking help for mental health injuries, it’s vital that we remove barriers that prevent people from accessing care and support as soon as they need it,” said Ingrid Stitt, Minister for Workplace Safety.

The scheme is an expansion of the Victorian Government’s pilot providing provisional payments to emergency services workers and volunteers. Eligible volunteers — including Emergency Management Victoria volunteers, volunteer school workers and jurors — will be covered by the scheme.

Mental injury claims have increased in recent years and are expected to account for a third of all workers compensation claims by 2030. The nature of these claims can be more complex and take longer to determine than physical injury claims. Before this reform, workers could wait up to five weeks before receiving payments to access treatment or support — with some facing stressful out-of-pocket costs.

“No one should have to suffer in silence. These changes will encourage workers to put their hand up for help when they’re struggling, knowing that they’ll be given support and access to treatment right away,” said James Merlino, Minister for Mental Health.

The provisional payments scheme covers costs such as GP visits, psychiatrist or psychologist appointments, and medication, thereby removing financial barriers that delay workers from getting the care they deserve.

Workers whose claims are rejected will continue to receive access to payments for up to 13 weeks from the date they submitted the claim. This provides certainty of immediate support whether a claim is accepted or not, encouraging workers to make a claim and seek the treatment they need.

“We’ve seen how valuable the provisional payments scheme has been for our emergency services workers and volunteers — now all Victorian workers will benefit from these important changes,” said Lisa Neville, Minister for Police and Emergency Services.



TWO WORKERS INJURED FOLLOWING SCAFFOLD COLLAPSE

On 18 September 2020, two workers at a residential construction site fell 3.6 metres to the ground when the stairwell void scaffold they were standing on collapsed. Both workers suffered injuries, including a broken hip. Preliminary investigations into the incident suggest a catastrophic failure of the void scaffold support



bracket due to an existing fault. Incorrect fasteners were also in place to prevent accidental dislodgement of the support brackets. The void scaffold was poorly designed and installed, with its components imported and not manufactured to meet the minimum scaffold standards.

Following the incident, SafeWork SA reminded businesses who commission or install void scaffolds to

ensure they meet the minimum specifications as outlined in Australian Standard 1576.1. Scaffold planning and design aims to prevent scaffold collapse before, during and after placement of the scaffold. The collapse of a scaffold can lead to death or significant injury to workers.

REPORT: 53% WORK-RELATED FATALITIES DECREASE BETWEEN 2007 AND 2019

The recently released Work-related Traumatic Injury Fatalities Australia 2019 report has revealed that over the last decade, the number and rate of work-related fatalities have been decreasing. In 2007, the fatality rate was 3.0 fatalities per 100,000 workers. In 2019, this rate has decreased by 53% to 1.4 fatalities per 100,000 workers. The number of work-related fatalities recorded in 2018 represented an unusual decrease compared to the longer-term trends in fatality numbers.

The report provides the latest detailed national statistics on all workers and bystanders fatally injured at work. The report and data is drawn from a range of sources, including reporting of fatalities in the media, notifications from jurisdictional authorities and the National Coronial Information System.

While the number of work-related fatalities has been decreasing over the last decade, it is important to understand the causes of injury, and the industries most affected, to further reduce work-related fatalities.

In 2019, 62% of worker fatalities occurred in the transport, postal and warehousing industry (58 fatalities), the agriculture, forestry and fishing industry (30 fatalities) and the construction industry (26 fatalities).

The most common causes of worker fatalities in 2019 were vehicle collisions (43%), falls from a height (11%) and being hit by falling objects (11%).

The report complements and provides additional detail to the Key Work Health and Safety Statistics published on 12 October 2020.



SPRINGVALE COAL TO SPEND \$540,000 ON ENFORCEABLE UNDERTAKING

The operator of Springvale Colliery near Lithgow will spend approximately \$540,000 as part of an enforceable undertaking after a worker was injured in a 2019 workplace incident. The worker suffered a fractured leg after being struck by a bow shackle after an RUD link failed during a towing operation on 5 February 2019.

Following an investigation by the NSW Resources Regulator, Springvale Coal (the operator of Springvale Colliery) submitted a proposal for an enforceable undertaking that included the funding and delivery of safety and community projects at a minimum cost of \$480,000. An enforceable undertaking is a legally binding agreement proposed by a company following an alleged breach, which may be considered as an alternative to prosecution.

The NSW Resources Regulator accepted the enforceable undertaking, after determining that this action would provide greater benefits to the workforce, industry and community than any other enforcement response.

As part of the undertaking, Springvale Coal will provide underground workers with an Underground Safety Communication System (USCS) at a minimum cost of \$15,000. Per the undertaking, the company will also engage a registered training organisation to develop and deliver a bespoke resource and infrastructure training program for underground coalmine slinging, lifting and towing (SLT) tasks, at a minimum cost of \$100,000. Springvale Coal must also provide a donation to NSW Ambulance (Lithgow Station) to purchase a second first response recovery 4WD vehicle, at a total cost of \$150,000.

The company must also share its experiences and learnings associated with the projects to at least three mining industry conferences or seminars, ensuring that the broader industry benefits from these projects too.

More information about the incident is available on the NSW Resources Regulator's website, including the investigation information release and the final investigation report, published in July 2020.

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AT HEIGHT RISK ASSESSMENTS, DOS & DON'TS AND FALL PROTECTION SYSTEMS

Richard Millar, Chief Executive Officer, Working at Height Association



Working at height remains one of the greatest causes of fatalities and major injuries on Australian worksites, with many workers finding themselves in positions where they are expected to work at height with little or no knowledge of the risks involved. A height safety authority sets out these risks with a focus on the construction industry, explaining the importance of risk assessments and fall protection systems, and offering some key dos and don'ts.

The Australian workforce has many trades that require workers to utilise their skills in the occupation of their choosing, all of whom have been trained in the skills needed to carry out the work required. These workers often find themselves in positions where they are expected to work at height either above or below ground, often with little or no knowledge of the risks they face as there is no legislated requirement other than a recommendation for training in work practice documents for these people to have had at least minimal training in the recognition of risk and the means to minimise those risks and dangers they face when working at height.

Working at height remains one of the largest causes of fatalities and major injuries, and the need to train those who work at height should be paramount among managers, persons conducting a business or undertaking (PCBUs) and others working in these areas of risk. When working at height there are a number of risks and fatality and injury causes that include falls from ladders, through fragile surfaces over edges, and off structures and other assets; in fact, 'work at height' means work in any place where, if there were no precautions in place, a person could fall over, fall through or even trip and possibly fall a distance that may cause personal injury or death.

Case study: WorkSafe Victoria 2018 news article

In the article, titled 'Construction company fined following fall fatality' (and accessible at www.worksafe.vic.gov.au/news/2018-12/construction-company-fined-following-fall-fatality), it is reported that a Melbourne construction company had been convicted and fined \$275,000 following the death of a painter who fell 3.46 metres through a stair void at a Mornington Peninsula building site.

The company pleaded guilty in the Melbourne Magistrates' Court to contravening section 26 of the OHS Act when it failed to ensure that the workplace was safe and without risks to health. The company was ordered to pay \$7500 in costs. The news item notes: "A WorkSafe investigation found a wooden handrail at the edge of the first-floor void near where the painter was working had been partially dislodged from one of its clamps."

When we look at the fall incident in this case we can see that falls are not always about fall arrest equipment that are designed to keep workers safe. Rather, it is really about understanding the risk itself, which can often be easily seen if we take the time to carry out a risk assessment of the work and the workplace.

Construction

In their document 'Construction industry profile', Safe Work Australia has shown that the number of workers in the industry has grown by 33% over the last 11 years and draws together various occupations, which include but are not limited to:

- Scaffolders
- Painters
- Bricklayers
- Roofers
- Plumbers
- Engineers
- Builders
- Maintenance workers

New South Wales

In a similar document, SafeWork NSW indicated that in 2010–11, a fall from height accounted for 7730 claims for serious injury. This means that 21 employees each day lodged a claim for a falls-related injury that required one or more weeks off work, and males accounted for three-quarters of the falls-related claims. Within the construction industry, 76% of workers were classed as employees and were covered by workers compensation schemes, and there have been significant reductions in the numbers and rates of injuries and fatalities in this industry over the last 10 years or more. Yet in 2013–14, the construction industry again accounted for 9% of the workforce, but 12% of work-related fatalities. Around 12,600 workers compensation claims are accepted from the construction industry each year for injuries and diseases involving one or more weeks off work. This equates to 35 serious claims each day. In 2012–13, the construction industry had the fourth-highest incidence rate of serious claims per 1000 employees, and had the fifth-highest fatality rate per 100,000 workers in 2013–14.

In NSW, falls from height account for some 35% of injuries and death in construction and mining, though it is interesting to note that this industry is not the most deadly — the transport, postal and warehousing industry heads the list with 38% of the deaths, with SafeWork NSW listing falls from trucks/vehicles as a high risk. Although the regulator has advised that there have been significant reductions in the numbers and rates of injuries and fatalities in the construction industry over the last 10 years or more, height work and falls are still a major cause of death and serious injury (in construction and beyond). This is due to the type of work carried out across a range of industries, including: stacking shelves, working on a roof, unloading a large truck or accessing silos. Falls can also occur at ground level into holes, for example, trenches or service pits.



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DO as much work as you can while you are on the ground.

DO make sure that you and others can safely move to and from the area where working at height takes place.

DO ensure that the equipment that you're using for the job is strong, stable and suitable enough to get the job done. Inspect and maintain this equipment regularly.

DO be careful when you are working near a fragile surface.

DO ensure that you are protected from falling objects.

DO make preparations for emergency evacuations and rescues.

DO make sure that personal protective equipment (PPE) is in good order and fit for use.

DO make sure that you and other at-height workers understand the risk.

DO ensure that you and other at-height workers are properly trained.



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DON'T overload the ladders that you are working on, with equipment or materials.

DON'T try to reach too far when you're on a ladder or stepladder.

DON'T use ladders or stepladders to do work that entails heavy or strenuous tasks. Only use them to do work that's quick and light.

DON'T allow incompetent workers to do any work at height.

DON'T lean or place the ladder on fragile upper surfaces.

DON'T stay quiet when you feel someone is compromising their own safety or the safety of others.

DON'T use PPE when you cannot confirm its suitability for use.

Fallout

Working at height is high risk and remains one of the biggest causes of fatalities, and we should not lose sight of the seriousness of injuries that can occur and which are ongoing and often life changing. There is an awesome amount of information available on the internet related to working at height, including its risks, injuries, the death rate and responsibilities of the PCBU. We can often find the \$ penalties when workers or employers and companies are fined; what we cannot find in the documents are the feelings of devastation and mental cost that workers and companies who have been involved in a fall incur. There are many articles available through the regulators in each of the states and territories on the investigation and resulting outcomes of a fall from height. I have chosen one from WorkSafe Victoria. As a news article it is less complex than others, which helps to show the outcome of an accident and the analysis of the accident by the magistrates' court.

Work at height risk assessment

A risk assessment is a careful examination and recognition of what in your workplace

could cause harm to those who are to carry out work. It enables you to weigh up whether you have taken enough precautions, or should do more to prevent harm. Employers and employees are required to assess the risks in their workplace so that they can put in place a plan to control those risks. It's crucial for you to know how to carry out a risk assessment to ensure people can work safely. When creating a work at height risk assessment there are at least 5 key steps:

1. Identifying the hazards.
2. Deciding who might be harmed and how.
3. Evaluating the risks and deciding on precautions.
4. Recording your findings and implementing them.
5. Reviewing your assessment and updating if necessary.

There is a range of resources available online. The Queensland Government's Department of Education has a working at heights risk assessment template that can be used, for example (accessible at www.education.qld.gov.au/initiativesstrategies/Documents/working-heights-risk-assessment-template.DOCX). Such resources are designed to assist workplaces in managing fall hazards in the workplace. This includes situations that





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WE KNOW THAT INJURIES RESULTANT FROM WORKING AT HEIGHT REMAIN AMONG THE MOST PROMINENT CAUSES OF SERIOUS INJURIES AND FATALITIES. IN PARTICULAR, FALLS FROM LADDERS, SCAFFOLDING, AND VEHICLES AND STRUCTURES OF ANY TYPE CAN CAUSE SERIOUS INJURY, EVEN WHEN THE HEIGHT IS PERCEIVED TO NOT BE DANGEROUS.

those working in construction are routinely exposed to, such as:

- off the ground (eg, up ladders, on work platforms, or on roofs);
- on the ground close to deep holes (eg, excavations) edges or ledges (eg, retaining walls);
- openings through which people could fall (eg, skylight); or
- in areas where objects may fall from higher levels and cause injury.

While having a template to work with is helpful, it is also highly recommended that persons carrying out a risk assessment have training to enable them to understand and recognise the risks that they or workers they are responsible for are faced with, which will better enable relevant persons to put in place appropriate safeguards.

Dos and don'ts

Working at height is considered a high-risk occupation, which normally means that an individual is working in a place that requires necessary precautions to prevent them from falling a distance, resulting in serious injury or death. We know that injuries resultant

from working at height remain among the most prominent causes of serious injuries and fatalities. In particular, falls from ladders, scaffolding, and vehicles and structures of any type can cause serious injury, even when the height is perceived to not be dangerous.

Employers and employees need to ensure that they take all measures necessary to lower the risk of falling from a height, and should do so by using pre-emptive hazard recognition and constant site assessment. To restrict the potential for a fall — including but not limited to when preparing work that may require the worker to work at height — there are a number of suggested dos and don'ts. (The dos and don'ts list is a general guide. While useful as a guide on what to look for, it cannot replace the need for training to provide the competence that workers and employers require.)

Fall protection systems

It is said that a tool is most effective when the user knows how to operate it properly, so it can achieve its intended purpose. This point is especially true when that tool is an element of a fall protection system (which

may be used in conjunction with the risk assessment of the work to be carried out), since misuse of that equipment can lead to a serious injury or fatality, and costly damage to the equipment itself. Fall protection has historically been a great concern requiring the state and territory regulators to provide a plethora of information, such as: work practice documents, compliance notices, and warning and advice notes. Yet falls continue to be a leading cause of fatalities in Australian industrial workplaces.

Employers can, however, take steps to reduce fall injuries and fatalities by understanding how to properly design, implement and use fall protection systems through quality training of workers and managers. The key to addressing the risks of working at height is to ensure that users have the training and supervision to identify the risks, and that correct equipment and processes are used and understood, so that workers can do their jobs safely. Organisations should strive to avoid putting workers in situations where they need fall protection systems; however, when those cases do arise, they should see that the systems in place are designed, implemented and used correctly. You can find further guidance on proper use of fall protection equipment and developing a fall protection program in Australian Standard AS/NZS1891.4 Care and Use of Industrial Fall Arrest Systems.

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Report charts factors fuelling global safety gloves' growth



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The rising number of industrial injuries has driven the growth of the global safety gloves market, with 70% of workplace or industrial injuries involving workers who do not wear safety gloves. The remaining people injured used gloves that were either improper or damaged, thereby illustrating the importance of safety gloves and personal protective equipment (PPE). Industrial safety gloves can help protect against hazards such as sharp objects, heat and cold, chemical burns, contact dermatitis, and various communicable diseases. Another compounding factor in a global spike in the safety gloves market came via the coronavirus (COVID-19) pandemic, which has redefined the availability of PPE for the healthcare industry value chain on a global scale.

Safety gloves form an integral part of the medical and healthcare segment, with latex and nitrile gloves used when dealing with high-risk situations involving blood, bodily fluids or patients with infectious diseases. Latex and vinyl gloves can also be used for low-risk general procedures such as non-invasive physical exams. On the back of these factors, the safety gloves market is predicted to reach a value of US\$19 billion by 2030, according to a report from Persistence Market Research. The report estimates that the safety gloves market will register a compound annual growth rate of more than 6% during the forecast period of 2020–2030. By product type, durable safety gloves accounted for a larger share in the global safety gloves market compared to disposable safety gloves.

COVID-19 has also resulted in a spike in the need for hand hygiene, with community programs spreading awareness among people about adequate health and hygiene practices that must be conducted. Growing consumer awareness has resulted in increasing demand in the safety gloves market landscape. Demand for surgical safety gloves and sterile safety gloves, both declining within the disposable safety gloves market, experienced a steep rise since the first quarter of 2020, and is predicted to drive sales in the overall safety gloves market till the first quarter of 2021. An overview of the changing landscape of the global safety gloves market has led the

report's analysts to conclude that the market is gaining momentum, largely fuelled by the COVID-19 pandemic.

Amid the outbreak of the COVID-19 pandemic, a majority of manufacturers in the safety gloves market increased their production capacities to bridge the supply–demand gap. However, complete lockdowns, total shutdown of all industries and havoc in the industrial space all resulted in a decrease in initial production during the pandemic. In response, manufacturers increased production, catering to rising global demand for safety gloves. Although the lockdowns stalled industrial operations for a period, the demand for safety gloves from the manufacturing sector is predicted to gain prominence over the forecast period. Further, recent operations have seen a surge in general hygiene and sanitation practices by consumers worldwide, which is predicted to drive the global safety gloves market. Competition among the market players has also witnessed a rise, due to the increase in the market's growth trajectory.

The report also found that the global safety gloves market represents a fragmented competitive landscape, where a majority of key players maintain their strategic focus on the pricing strategy, product strategy, digital advertising of products and remodelling of the supply chain network. A majority of the safety gloves market is dominated by a few major players, the report notes, such as 3M, Ansell, Avon Rubber, Cofra, Adhesive & Equipment, Amada Miyachi America, Mallcom, Lakeland Industries, Delta Plus, Superior Glove Works, Globus Group, Midas Safety and Hartalega Holdings Berhad, among others. The report identified North America as the largest market for safety gloves in 2019, followed by Europe. Globally, food safety is finding momentum, with the implementation of good manufacturing practices and overall hygiene across the food service industry, thus further increasing demand for safety gloves and resulting in higher sales across the world.

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Shutdown solution lifts safe forklift handling in prison



Image credit: RCT

Smart technology specialist RCT in Brisbane has worked with Toyota Material Handling Australia (TMHA) to customise a Toyota 8FG25 Forklift that provides appropriate and supervised control of forklift operations within a prison on the east coast of Australia. RCT technicians designed a technology package consisting of a

ControlMaster remote shutdown solution installed on the forklift and linked to a handheld transmitter. The system is designed so that the site supervisor must use the handheld transmitter to engage the forklift, after which trained and certified machine operators can use the forklift. The technology package is designed to automatically shut down the forklift if it is more than 200 metres away from the handheld transmitter or if any part of the solution is interfered with.

RCT Account Manager (Industrial) Nicholas Noorman said the project ensures all machine operators can use the forklift in an appropriate and safe manner in line with prison guidelines. "We have received very positive feedback from prison authorities and from THMA and look forward to providing ongoing technical support in the future," Noorman said. "This technology package can quite easily be applied to other scenarios, such as forklift driver training courses, to better equip and supervise a workforce." The solution is another addition to the RCT industrial product range, which includes fleet management systems, safety products and electrical spare parts.

RCT

www.rct-global.com

Practical assessments

When it comes to practical assessments in the field, paper-based forms and manual processes are still a widely used practice. While the assessment forms themselves have been created 'digitally' as Word or PDF documents, their usage is still very manual.

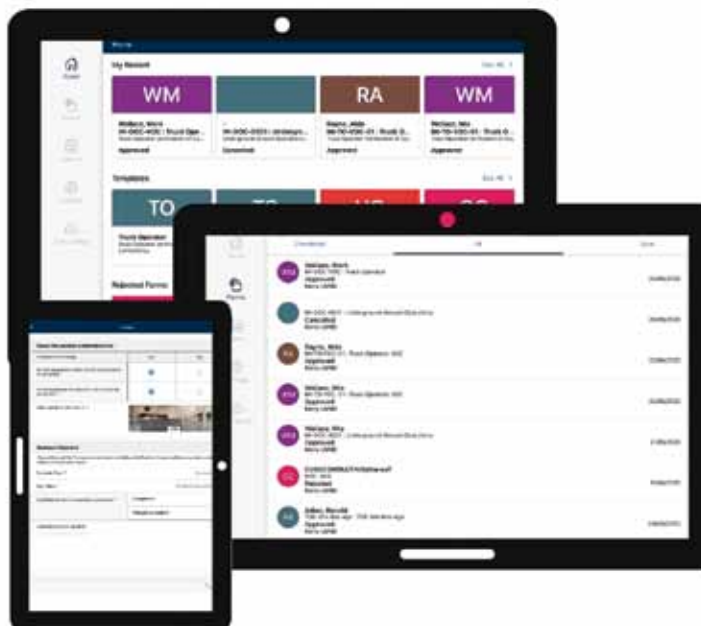
With INX Assessor, training administrators can leverage the form template designer capability to create and manage a library of assessment forms for assessors to conduct and record practical assessments. These forms will be available to assessors for use on iOS and Android devices, to complete in the field, in online or offline mode. As part of in-built workflows, all completed assessments will be routed to a site manager for approval and will be stored in a central administrative portal.

With INX Assessor, all field assessors can now reduce the time spent on administrative tasks such as scanning and filing paper forms and reduce the risks of forms lost or misplaced. With an entire digital process, not only are assessors using systems which are faster and safer, but the data is stored in real time for historical compliance and a simple audit trail.

INX Assessor streamlines efforts for other on-flow tasks. Training administrators have a consolidated view and improved visibility of all assessments throughout the business with the centralised web portal. Once approved, the seamless integration with INX InTuition will automatically update the trainee's profile, ultimately reducing the cost and potential risks of non-compliance.

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Klaus Huber, Product
Manager and Design
Engineer, BalTec

PLAYING IT SAFE: SWISS DESIGN ENGINEERS CHOOSE SICK SAFETY SOLUTIONS

The machine builder BalTec has developed a novel electrical riveting machine. The previously pneumatic drive has been replaced with servomotors, which make the connection technology much more efficient and fast. This machine from BalTec is setting a new benchmark in the industry. When searching for the best partner for safety devices during the exciting development process, SICK was the obvious choice.

Klaus Huber is a mechanical engineer and individualist who likes to tread his own path but with a clear goal in mind: “In the end, it simply has to be ‘very good!’” He started developing the electrically driven riveting machine in November 2015 as a product manager at the mid-sized BalTec Group. After four years of intensive work, the “Electric” product family with its two mechanical sizes reached market readiness for a total of four different force ranges. BalTec produces machines for connection technology and is the global leader in technologies for radial and wobble riveting as well as rolling and pressing. Domenico Mollo, Managing Director at BalTec, added: “We want to differentiate ourselves in the market and always find the best solution for the very specific requirements of each of our international clients. Equipping our machines with the best possible safety concept is absolutely essential to us.”

Driver of sustainability

BalTec did not shy away from starting the costly and lengthy process of developing a servo controlled riveting machine. “As a rule, machines are strictly tied to one process technology with a relatively narrow processing window, but now the three classical forming processes — radial, orbital and roller — can be employed in one compact machine because the servo technology allows us to freely select and specify all kinematic parameters, including the infeed rate and speed of rotation,” explains Huber in regards to the design advantages of the “Electric”. For users, this means they can replace up to three pneumatic machines with a single electrical one and quickly amortize the higher investment cost through greater efficiency, higher speeds, and perfect precision.

Exacting standards: everything from a single source

When it comes to machine safety, the Swiss mechanical engineers were not willing to make any compromises. BalTec set itself the goal of achieving the highest performance level e (EN ISO 13849). They therefore chose to use the **deTec4 core light curtain**, the **STR1**

transponder safety switch, and the **TR10 Lock safety locking device from SICK**. “Using these three systems for access protection, we were able to implement the highest standard of safety for every variant of the ‘Electric’, all from a single source,” says Huber. The absence of blind zones, in particular, is what impressed him the most about the deTec4 core: “It enables me to successfully integrate the device into the overall concept and I consider it a great feature.” He also praises the design feature of the deTec product family whereby the protective field height can be set in increments of 150 millimeters between 300 and 2,100 mm: “That was well thought out!” The short response time provided more design freedom because it allowed the light curtain to be positioned close to the machine and an ergonomically satisfying workspace to be designed.

Short response times and successful design

With short safety times of just 40 ms response time, 100 ms release time and 80 ms risk time, the **STR1 non-contact safety switch** has also been incorporated into the “Electric” with sliding table. It ensures a high machine availability thanks to a large door offset tolerance. The compact design again offers flexibility in mounting. Furthermore, the high coding level of the actuator fulfills the requirements of EN ISO 14119 on manipulation protection without additional measures.

Good future prospects with the “Safety Assistant” app

BalTec offers its own Human Machine Interface (HMI) dashboards for setting up the machine and supports its customers with a training session on the function of this interface. That SICK already offers apps for on-site diagnostics via smartphone for this NFC technology is of great interest to the Swiss machine builder in this regard and puts Klaus Huber at ease: “It’s good to know they already have that in their portfolio and I don’t have to go looking for a new supplier again.”

SICK Pty Ltd
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ENGINEERING CONTROLS FOR DUST IN BULK MATERIAL PROCESSING

Sean Kinder, Field Applications Engineer, Kinder Australia

Dust is important in the production of materials and will be impossible to eliminate within the bulk materials handling industry — it does need management, though. By utilising engineering controls and taking progressive and innovative steps, dust emissions and safety standards can be improved.

Fines — powdery material produced by a crushing or grinding process, generally equal to or less than 5 mm in size — are a necessary requirement for almost all bulk material processing industries. Construction industries require fine aggregate from quarries, which is used in blending road base/manufactured sands for concrete and powered cements, and acts as a binding agent. To extract gold, copper, lead, zinc, nickel and other precious metals from their parent ores in a mine, the processing plant must grind the material to an ultrafine particulate where it can be separated into a concentrate via floatation and/or electrochemical type processes. Crushing and refining of bauxite into alumina powders is the manufacturing technique of smelting aluminium. Pulverising coke and coal into a fine powder increases its material surface area, therefore allowing it to burn more quickly, and is a process used in blast furnaces and power generation. Dust is the word utilised to describe uncontrollable fugitive emission from a process that escapes into the environment.

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Dangers

Given its physical properties, dust can cause respiratory and cardiovascular disorders. In 2020, to reduce the risks of silicosis, an agreed workplace exposure standard (WES) for respirable crystalline silica was reduced to an eight-hour time-weighted average of 0.05 mg/m^3 ; the reduced silica dust WES was implemented in most jurisdictions from 1 July 2020, according to Safe Work Australia. Coalmines also must contend with the hazardous dust particles where prolonged exposure can lead to coal workers' pneumoconiosis or chronic obstructive pulmonary disease. According to SWA, new standards of exposure will be set by October 2022 with a reduced limit of 1.5 mg/m^3 . In order to manage risks, organisations and individuals should perform a risk assessment that may involve utilising the 'Hierarchy of Control' (elimination, substitution, engineering controls, administrative controls and personal protective equipment [PPE]). From this hierarchy: elimination and substitution are borderline impossible given that most bulk material handling process fa-

cilities require the dust to obtain their final product; therefore, engineering and administration controls must be utilised with PPE technologies.

Similar to the behaviour of liquids, dust has been observed to occur mostly when presented with an unnatural excitation of its surrounding environment due to turbulence. In a processing plant, for example, dust forms in crushing and screening chambers and poorly designed conveyor transfer chutes. It's observed that if the output air pressure is not equal to the introduced air pressure, and lighter than the processed asset, material in the form of dust will fill all voids in the system and escape via any means possible (ie, holes, gaps). Being a lighter material, fines, when excited, take longer to settle than the bulk handled. When designs don't take into consideration the settling time of the finer particles, they remain in the atmosphere resulting in emission. In some cases, the air pressure can be so great that it will expel from the system at a higher volume than the design capacity of the system, shown in Figure 1.



IN ORDER TO MANAGE RISKS, ORGANISATIONS AND INDIVIDUALS SHOULD PERFORM A RISK ASSESSMENT THAT MAY INVOLVE UTILISING THE 'HIERARCHY OF CONTROL' ... FROM THIS HIERARCHY: ELIMINATION AND SUBSTITUTION ARE BORDERLINE IMPOSSIBLE GIVEN THAT MOST BULK MATERIAL HANDLING PROCESS FACILITIES REQUIRE THE DUST TO OBTAIN THEIR FINAL PRODUCT; THEREFORE, ENGINEERING AND ADMINISTRATION CONTROLS MUST BE UTILISED WITH PPE TECHNOLOGIES.

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Emission points and engineering controls

Skirting

Engineering controls are the first line of defence against dust. To minimise dust emissions from conveyor transfer points, a skirting system is installed in the loading zones to seal accordingly. Skirting systems are generally made up of a hard-internal primary skirt (which holds the larger asset), protecting it from damaging the secondary skirting. Secondary skirting (made of rubber or polyurethane) seals the transfer point from emitting dust into the environment. Unfortunately, the skirting systems are often a rushed component of the overall conveyor design, being inserted almost during the commissioning phase of projects, which proves a lack understanding. Generally, an area of cost cutting and poor design, transfer points and skirting systems are one of the first locations to be reviewed during the first months of a new operation. On a conveyor system, these systems would be considered one of the most frequently



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Figure 1.

complained about locations due to their confined working conditions and dusty environments (which require continuous cleaning by plant operators).

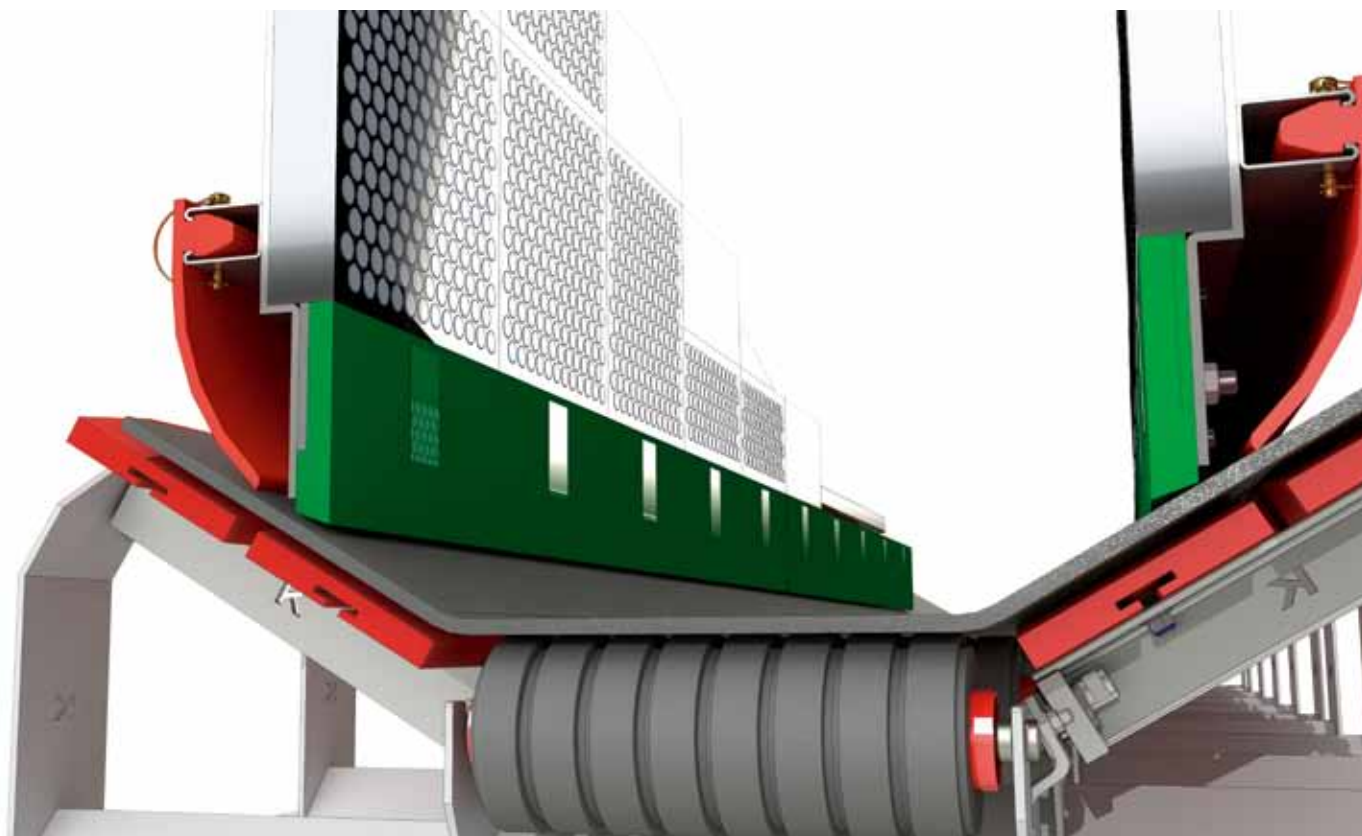
Depending on the application, there are a variety of different types of skirtings that can be installed. Selection should always be considered early on during the design stages of the project plan as a number of factors need to be taken into consideration to ensure that an engineered control is being provided. Some skirts apply a vertical seal, whereas others lay-in and offer self-adjustment. Mounting and clamping systems also vary depending on the allowable heights provided by the surrounding steelwork. Skirting should never be fouled by 'bolting or screwing through'. By doing this, once the skirting wears away, gaps will form and the skirting will not be able to be adjusted, leaving a permanent dust emission point until the skirting is fully replaced. Depending on production requirements, this might be left in this position for several weeks.

Freeboard

An important subject that is often overlooked is that of 'free-board', the distance between the outer edge of the chute and the edge of the conveyor belt. This is the space where the secondary dust skirting is installed. Often, in the event of higher loading on to the conveyor belt and increasing throughput, free-board is sacrificed. This is very problematic for a secondary skirting system. In the event that the conveyor belt mistracks, which is common in transfer points too (due to many factors), it will creep under the skirting, popping the skirting material and creating gaps. This allows dust to escape and results in emission. An added dilemma is when the conveyor belt tracks back to a central position (or even the other side, if conditions are worse). In this scenario, the conveyor belt is known to cut through and prematurely fail the popped skirt. In short, freeboard should always be considered in conveyor transfer point design.



ENGINEERING CONTROLS ARE THE FIRST LINE OF DEFENCE AGAINST DUST.



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Sagging

Conveyor belt sag between idlers in transfer points is another commonly observed dust emission point on conveyor systems. Sagging is the result of material loading on to the flexible conveyor belt. The weight of the bulk material enables the conveyor belt to dip in unsupported areas. Although sag is generally only a few millimetres, it is enough for a gap to form between the secondary skirting and the conveyor belt, resulting in emission. Sag can be eliminated by utilising a conveyor belt support system or impact bed (if the application includes large primary or secondary lump bulk materials).

Conveyor design

Compromising the skirting system and conveyor belt performance itself, some conveyors are designed and fabricated without the understanding of a designated transition and transfer point. The transition point is defined as the area in which the conveyor belt changes its profile from 0 degrees (horizontal when it wraps around a pulley) to the desired troughing angle. In confined locations, some conveyors have been seen to have ultra-short, borderline non-existent transition points. This results in the bulk material impacting and loading on to the conveyor belt, while the conveyor belt is forming from a 0- to 35-degree (or steeper) trough profile. Attempting to apply a secondary skirting system to an application that is changing its profile seldom functions as intended and generally always results in dust emissions.

Covers

In the bulk materials handling industry, it has been observed that a successful method of containing dust without the requirement for added moisture is with the use incorporation of conveyor belt covers. Conveyor belt covers are not affected by wind and reduce dust emission when carrying the bulk material at height or across long exposed areas. This engineering control forms a barrier between the conveyor and environment, without consuming resources (such as water).

Water

Another common way of controlling dust is with the addition of water. By adhering to the dust particles, clumping them together and increasing the weight, water quickly suppresses the dust, slowing its projection velocity, causing it to lose momentum and allowing it to fall into the material flow. This technique — when implemented well by professionals — can dramatically reduce the dust emissions in many applications, if applied carefully and methodically. Attempting to simply 'add water' via a hose without taking into consideration many other parameters can lead to costly issues including: oversaturation of product (material loses specification) or plant blockage due to screens blinding or chutes hanging-up.

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Australian university boosts infrastructure safety with new facility



The National Drop Weight Impact Testing Facility (NDWITF) has been launched at Monash University. The facility is designed to boost the structural safety of present and future high-risk infrastructure, with technology that can observe the behaviour of elements under severe impact loading of up to two tonnes. The facility has the capacity to assess the structural safety of high-risk infrastructure across Australia, including railway networks, tunnels and bridges, buildings and construction materials, as well as road safety barriers and protective equipment. The NDWITF will also support research on construction, mining, geomechanics, energy and the environment. Fields of application and interest include construction materials under high strain loading, structural dynamics and engineering, mining excavation and rock fragmentation.

Enabled by an Australian Research Council (ARC) Linkage Infrastructure, Equipment and Facilities (LIEF) grant, the NDWITF is a Monash-led collaboration involving six other universities. The facility, located in Monash's Department of Civil Engineering, is accessible to all researchers, students and industry. Associate Professor Amin Heidarpour, Head of Structural Engineering at Monash, led this project, and said the engineering facility will provide a national research focus on the behaviour of construction materials and systems under impact loading with unique observation techniques. Associate Professor Heidarpour said the facility will advance understanding of the fundamental behaviour of critical infrastructure exposed to impact loading and will foster innovations in design and construction.

"Understanding the behaviour of construction and geomaterials under dynamic loading is essential in dealing with various

engineering problems, such as protective structures design and impact cratering, excavation and mining, blasting and fragmentation, and risk management," Associate Professor Heidarpour said. The catastrophic failure of construction materials caused by extreme impact conditions, such as natural disasters and man-made hazards, has justified the need to carry out comprehensive research to develop infrastructure with new, innovative, cost-effective and environmentally friendly materials, Monash stated. Associate Professor Heidarpour also said the facility could ensure that Australia is at the forefront of impact engineering research internationally, thereby promoting local innovation and industrial competitiveness.

"Thanks to the ARC LIEF grant, the NDWITF will provide economic, environmental and social benefits to Australia as it will undertake research in robust, resilient, cost-effective and environmentally friendly impact engineering applications," Associate Professor Heidarpour said. Austeng, a Geelong-based engineering company, is a key partner in this project and engineered, manufactured and installed the facility in line with Monash's requirements. "Austeng was proud to be part of this important project and collaborate with Monash University and I am delighted our team was able to deliver a practical and workable solution given the stringent performance parameters set by Monash and the significant engineering challenges involved," Austeng Managing Director Ross George said.

Monash University
www.monash.edu

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Campaign aims to reduce musculoskeletal injuries in transport industry

SafeWork SA has launched a safety campaign focused on reducing musculoskeletal injuries and slips, trips and falls across the road freight transport industry. As part of the campaign, SafeWork SA is visiting a number of road freight transport depots and conducting an audit of safety control measures that are required to be in place to minimise the risk of workers sustaining musculoskeletal disorders. The focus will also be on factors that contribute to slips, trips and falls, including training and safe use of correct manual handling techniques.

According to Safe Work Australia, musculoskeletal injuries account for 46% of injuries in the road transport industry, most commonly caused by muscular stress while handling objects (18%), followed by muscular stress while lifting, carrying or putting down an object (15%). Slips, trips and falls on the same level contributed to 13% of the injury statistics. Workers in the transport industry aged 55–64 years recorded the highest rate for serious injury claims, followed by workers aged 45–54 years. Under the *Work Health and Safety Act 2012* (SA), business owners are responsible for providing a safe work environment and safe systems of work,



which include adequate training and supervision for all workers, ensuring equipment is in safe working order and appropriately managing risks to prevent injuries.

SafeWork SA Executive Director Martyn Campbell said compliance audits are a key way that SafeWork SA contributes to improving safety in South Australian workplaces and encouraged all businesses to be proactive about safety. "During our visits, we work with the business to identify the challenges

and hazards unique to their workplace and discuss the best safety solution for the situation," Campbell said. "Where we find a safety issue that breaches WHS requirements, our inspectors will issue a compliance notice."

To comply with legislative requirements, businesses must identify all hazards specific to their workplace and have appropriate control measures in place to prevent or reduce the risk of harm to workers and the public. Safety plans must also ensure that all hazards have been identified, with control measures in place. All workers must also receive adequate training and supervision, and all safety control measures must also be reviewed regularly.

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NNT Uniforms have polo shirts in a range of colours, fabrics and cuts. One of the bestsellers in the range is the Active Polo, favoured for its relaxed fit and modern shape. Made from a combination of cotton and polyester, the Active Polo range is available in 10 colourways.

The cotton back provides comfort against the skin, while the polyester front increases the functionality of the polo. The shirt's antibacterial finish makes it suitable for any workplace, BBQ or sporting activity.

NNT Uniforms provides uniforms for the corporate, healthcare, hospitality and government industries. Its online store provides workwear and corporate apparel.

Workwear Group

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Rescue training manikins

As a supplier of training manikins, LifeTec is committed to helping customers create training to equip their teams with the skills to react positively in an emergency.

LifeTec believes the most effective training simulates different scenarios as realistically as possible.

Manikins can help aid most research and rescue training (including casualty evacuation). Choosing the right size, weight and type of manikin to use is one of the keys to effective training.

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When you think temporary fencing ...



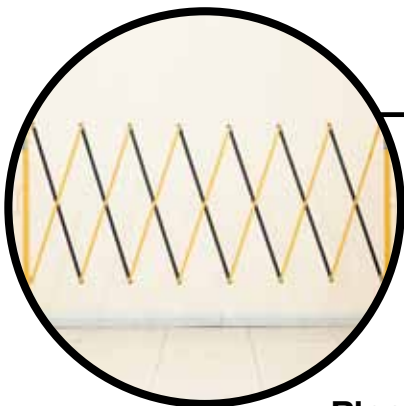
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Plastic Work Zone Barrier

Work Zone Barriers are a great solution for crowd control, footpath construction, pedestrian awareness, and as a work site barrier. The light weight plastic barrier can easily be installed and dismantled by one person and designed for easy storage and transport as it is stackable. The system is portable and each panel links together simply with a moulded pin and lock system. In bright safety orange with reflective stickers, it is an effective barrier to establish no-go zones.



Steel Expandable Barrier

The Aluminium expandable barrier is a perfect solution to restrict unwanted pedestrian access and guide pedestrians safely around designated zones. This barrier system compacts down for storage and when fully expanded covers a 3.5m area and can be joined together to make longer restricted areas if required. Made from aluminium the Expandable Barrier is light weight and can be easily moved when not required. Perfect solutions for warehouses, car parks, distribution centres, storage areas, cool rooms, loading docks and ramps.

Plastic Expandable Barrier

A multipurpose and moveable system for all your pedestrian & traffic control problems. This lightweight portable, expanding, barrier is compact and suitable for indoor or outdoor use. The plastic crowd control barrier is strong and can be filled with water to make it even more secure. Reflective markers are fitted to the barriers for night or low light visibility solutions. When fully extended, the unit is 2.5 metres wide. Perfect solution for constructions sites, warehouses, car parks, shopping centres, offices, aged care and child care centres.



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Pedestrian detection safety and warning system

The BodyGuard i-Tag pedestrian safety warning system is designed to ensure pedestrian staff are kept a safe distance from all mobile plant. The system separates people from vehicles by setting up a 360-degree safety exclusion zone around the vehicle that is adjustable from 2.5 to 9 m.

If a pedestrian gets too close to mobile plant, the driver gets a clear and unmistakeable human voice warning and high impact visual alert and the pedestrian Tag will vibrate. BodyGuard is suitable for improving safety in warehouses, workshops, outdoor yards and construction sites.

Magnetic mounting makes it easy to install without modifying the plant. The system is not impacted by steel, dirt, dust or water and can detect pedestrians wearing Tags through most solid objects (such as racking, brick and loads on forks).

The BodyGuard Pedestrian safety warning system has Australian (RMC) and Global certifications for safety, and compliance with RFI/EMI and EMC (CE Mark and R.E.D, FCC) standards. The system is Australian designed, manufactured and supported.

BodyGuard Safety Solutions

www.bodyguardsafety.com.au



Zip-sided boot

Blundstone has launched the tough zip-sided #983 boot, offering a range of features. Available at selected retailers, the #983 provides underfoot protection with a lightweight, penetration-resistant insole. The lace-up design also provides ankle protection while the heavy-duty zip gives easy on, easy off convenience.

The #983 features a Crazy Horse water-resistant leather upper — a full nubuck leather that is buffed to achieve a smooth feel and finish. A wax is then applied to the surface, which provides a multi-tone, leaving a natural rustic finish. The boot also features a non-metallic penetration-resistant insole, which is typically manufactured from steel. However, the insole in the #983 is crafted using plasma-treated high-tenacity yarns. These insoles are capable of reducing punctures caused by small nails and other objects, and the use of non-metallic material in the insole allows for flexibility and comfort, due to its lightweight construction. As it can be sewn directly to the upper material, it enables protection to almost 100% of the surface of the sole.

The boot's ergonomic fit and flexibility make it suitable for those who work in wrecking yards, construction sites and the recycling industry, as the penetration-resistant insole helps reduce the risk of sharp objects puncturing feet.

Blundstone Australia Pty Ltd

www.blundstone.com.au

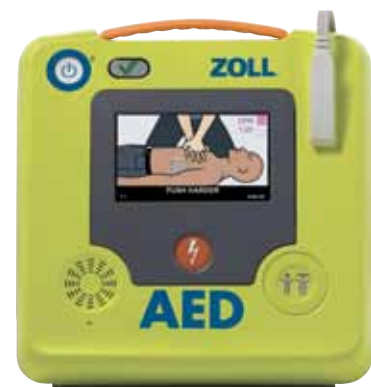
Public access defibrillator

Early defibrillation is a critical component in treating sudden cardiac arrest (SCA). ZOLL offers automated external defibrillators (AEDs) that are designed with lay rescuers in mind. However, when SCA occurs, only half of the victims will initially require a shock, but all will need high-quality cardiopulmonary resuscitation (CPR). ZOLL AEDs include Real CPR Help technology, which prompts the user step by step through the rescue, providing real-time CPR feedback on the depth and rate of chest compressions to help the user deliver high-quality CPR.

The ZOLL AED 3 defibrillator is intended to be an invaluable investment in emergency preparedness. It is designed to give bystanders and rescuers the confidence to help in an SCA emergency and to provide continuous CPR to increase a victim's chance of survival. The ZOLL AED 3 features: integrated paediatric rescue with a universal electrode pad design for both adults and children; Real CPR Help technology to provide real-time feedback to maximise CPR effectiveness; Wi-Fi connectivity to easily manage ZOLL AEDs, ensuring they are always ready for use; long-lasting batteries and pads (5 years) to reduce the frequency of maintenance; smart battery that automatically reports its power level status.

ZOLL Medical Australia

www.zoll.com.au



CUTTING EDGE SAFETY

AUSTRALIA'S NEW CUT RESISTANCE STANDARDS

A new Australian standard for gloves was published in December 2020; a hand protection expert explains why this is a game changer for gloves, the testing and the reduction of hand injuries.

Choosing the right safety gloves for your particular task is vital to ensure proper protection. Throughout most of the world, safety gloves are rated using the European Standard EN388, to determine their level of protection. The standard consists of a series of tests to assess gloves for their ability to withstand abrasion, cutting by a blade, tearing and puncture. The gloves are then rated based on the result.

The 'Coup cut test' for the old standard was conducted with a rotating blade, like a pizza cutter, under a standard weight with the glove material laid out on a flat surface. However, the rise of new cut-resistant fibre technology has uncovered limitations in the Coup test. Certain glove fibres would dull the blade in the Coup test and attain a cut level which may not have been representative of the actual protection level. A new cut-level test was needed to reflect the true cut level more accurately.

A cut test above the rest

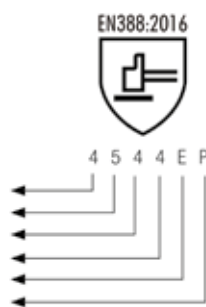
The new standard, EN388:2016, was updated in November 2016 to apply a new test, ISO 13997, to the existing mechanical hazards performance tests. This upgrades the standard to be more relevant to modern real-life applications and fabrics. Now, Australian standards are catching up. The new standard was published in December 2020 and key features include:

- an additional cut (TDM-100) rating and an optional impact rating
- Australian standards mirroring European standard EN388:2016

The new cut test is a game changer for safety gloves. It will more accurately rate protection where there is a higher risk of cut injuries. This means that gloves previously rated at level 5 may only give low to medium protection based on the new cut test (TDM-100). The new cut test method was adopted from the ISO 13997 standard to overcome those limitations. The new cut test is carried out using an instrument called a TDM100 machine. The material is placed on a convex surface and a straight blade is

THE NEW EN RATING

Test	Rating
Abrasion (cycles)	Level 4
Cut (Coup Test)	Level 5
Tear (N)	Level 4
Puncture (N)	Level 4
Cut (TDM-100 Test)	Level E
Impact protection	Achieved



moved across the sample under specified loads until the blade cuts through.

How will safety glove markings change?

Safety glove markings will be updated to include the results of the new ISO 13997 cut test. The current 4 performance values shown under the EN388 'Hammer Shield' icon indicating Abrasion, Cut (Coup test), Tear and Puncture will remain. However,

should the material dull the blade under the Coup test, the second digit will get an "X" and will be tested under the ISO 13997 cut test. A letter (A-F) showing the result of the new cut test will be added to the right-hand side of the current 4 digits. A indicates the lowest rating with F being the highest rating. A new Impact protection result may also be added to the markings for gloves tested for back-of-hand protection. This will be indicated with a P (pass), F (fail) or X (not tested).

Testing under the AS/NZS 2161.3:2020 (EN388:2016) standard allows for a more accurate grading, particularly for cut resistance. This will enable choosing the most appropriate gloves to match the risks of worker activity.

Safety Mate has always been serious about preventing hand injuries. That's why they brought a new standard of glove to the Australian market.

The NXG range of cut-resistant gloves already meets AS/NZS 2161.3:2020 and includes 8 Cut Level D glove styles, and 3 Cut Level F styles. They are ready to assist with risk assessment and hand protection user trials to ensure your workforce are protected. Contact us to discuss the new standards and to arrange a free site glove audit and trials.

SafetyMate

Safety Mate Pty Ltd
www.safetymate.com.au



Reversible jacket

The Office2Site signature reversible jacket is designed to NSW rail standards. The jacket has been tested and meets the AS/NZS 4399:2017 with a UPF 50+ and AS/NZS 1906:4:2010 Reflectivity materials and devices, and high-visibility material for safety garments. The jacket is available to purchase in sizes six to 24.

Office2Site provides a stylish solution for women who work in industries that require them to wear high-visibility personal protective equipment, such as mining, manufacturing, construction and transport. The Office2Site reversible jacket meets compliance standards, and helps women engage on-site and manage an office environment.

Office2Site

www.office2site.com.au



Hospital-grade disinfectant

Whiteley Corporation's Viraclean is a hospital-grade disinfectant used for infection control. It is effective against SARS-CoV-2 (the virus that causes COVID-19), which may be present on healthcare surfaces.

The result of years of intensive research into advanced cleaning and disinfecting technology, the product provides effective surface cleaning, particularly of high-touch areas (ie, doorhandles and benchtops). Effective surface cleaning combined with good hand hygiene will assist in protecting staff and patients throughout the winter season, which has a higher incidence of colds and flus.

Viraclean is a ready-to-use product with a pleasant fragrance. It is pH neutral with good materials compatibility.

The Viraclean label lists that it is proven to kill: *Acinetobacter*; *Candida albicans*; Coronaviruses including SARS-CoV-2 (COVID-19); *Enterococcus faecalis* (VRE); *Escherichia coli* (E coli); Hepatitis B Group virus; Herpes Simplex virus; Influenza virus; *Klebsiella pneumoniae* (CPE/CRE); *Proteus vulgaris*; *Pseudomonas aeruginosa*; *Salmonella choleraesuis*; and *Staphylococcus aureus* (MRSA or Golden Staph).

Whiteley

www.whiteley.com.au



Harness line

The V-SERIES harness line from MSA is designed to be highly comfortable for the user.

Because the safest fall protection harness is one the user will actually want to wear, each V-SERIES harness includes added comfort features — so the wearer can focus on their work, not their harness.

An exclusive racing-style buckle allows for a close, comfortable-fitting harness — eliminating the need for bulky chest straps or cumbersome buckles. The racing-style buckle creates an athletic cut, contouring the harness to the body for improved upper torso movement on the job. Pull-down adjustment allows the wearer to quickly get the right fit that lasts throughout the workday.

The MSA V-SERIES harness line has been designed to offer comfort at every level.

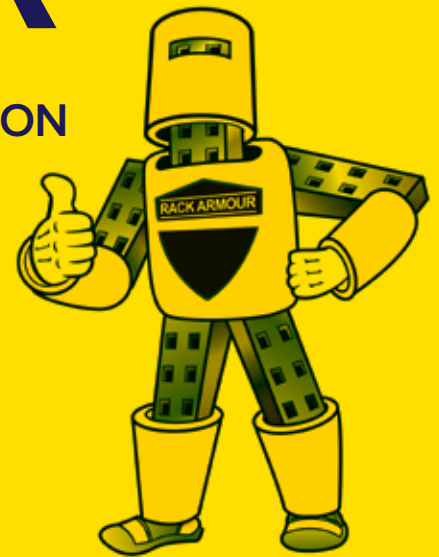
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Wearable solution lifts strain of shoulder injuries



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Soter Analytics has launched SoterCoach — a wearable solution designed to prevent injuries in the workplace. Reported to be the first of its kind to the market, SoterCoach builds on Soter's original wearable solution (developed to prevent back injuries), which forms the cornerstone of the new technology. The new device is interchangeable between the shoulder and back, featuring a graphically pleasing management dashboard and an upgraded user-friendly app that boasts multiple ergonomic coaching programs. The solution consists of a 2 x 3 cm lightweight clip-on device providing real-time biofeedback coupled with a personal app exhibiting data and in situ micro-learning, accompanied by an online dashboard.

The combination has resulted in high user engagement and has proven to reduce the risk of injury in manual handling industries. "Putting ourselves in the shoes of our clients — truly understanding their problems, barriers and facilitators, and engaging in empathetic listening, we are now so proud to launch our new SoterCoach solution that has been built off the back of direct customer feedback," Soter Analytics founder and CEO Matthew Hart said. Soter partnered with St John of God Subiaco Hospital in Western Australia to build the shoulder training functionality, based on direct feedback and insight from wearers.

The design team used feedback to address issues that were discouraging use — such as wearability, weight, size, app engagement and encroachment — to build a product that is easily deployable and user-friendly. Feedback has shown a 98% positive rate of engagement for the manual handling training programs. Five years of user experience has allowed Soter Analytics to build a product that is up to professional standards. The wearable solution has been proven by multiple case studies, white papers and a team of doctors, engineers, ergonomists, movement specialists and data scientists, with parameters backed by international safety standards for musculoskeletal safety in the workplace.

Soter Analytics
www.soteranalytics.com



Wet-dry vacuum

Designed to handle the toughest of industrial clean-up jobs with ease, EXAIR's EasySwitch Wet-Dry vacuum uses either a standard or HEPA certified filter when vacuuming dry material. The conversion to vacuuming liquids is fast and easy — simply release one latch and remove the filter element.

EXAIR's EasySwitch Wet-Dry Vac rests upon any 205 L drum. Its powerful vacuum generator has no moving parts and uses no electricity, so there is little concern for failed parts, motor failure or personnel safety associated with using electric vacuums for liquids. Operation is a quiet 79 dBA without the need for additional noise-muffling accessories.

Accessory options include either a standard or antistatic vacuum hose, drum dolly for convenient movement, plastic or premium metal tool attachments, spill recovery kit and tool holder.

Applications include emptying coolant sumps, vacuuming chips, clean-up of floor spills, drains, shavings, sawdust, absorbent, mould and allergen removal, as well as general-purpose applications like vacuuming floors, machines, workstations, industrial machinery and equipment.

The CE compliant EasySwitch is the latest addition to EXAIR's large selection of Industrial Housekeeping products, including the Reversible Drum Vac, High Lift Reversible Drum Vac, Chip Trapper, High Lift Chip Trapper, Chip Vac, Heavy Duty Dry Vac and Heavy Duty HEPA Vac.

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



ARE YOU AT RISK OF ON-SITE ACCIDENTS?

Are your workers becoming complacent about safety?

Are workers at risk due to poor judgment?

Are your workers ignoring your safety processes?

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The BodyGuard Pedestrian Safety Warning System achieves people to plant separation, improving on-site safety and compliance.

The system warns drivers when they get too close to pedestrians with up to 9-metre, 360-degree exclusion zones.

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Get in touch for more information.

SAFETY EXCLUSION ZONE BREACH REPORTING

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- **Pedestrian ID** is recorded so you know who almost got hit
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With this information, you can find out the what, why and how of any close call and make the right decisions to improve safety and compliance on-site.



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IMMERSIVE SAFETY

THE BENEFITS OF VR TRAINING IN MATERIALS HANDLING

Michael O'Reilly, Chief Executive Officer, Next World Enterprises



To reduce workplace accidents, and ultimately save lives, businesses are adopting virtual reality (VR) training — a learning solution that is significantly cheaper and more effective in ensuring employee engagement. VR training takes employees through real-life experience-based simulations and is proven to be far more effective and affordable than traditional training methods, especially when performing high-risk tasks, such as those that are routine in materials handling.

On average, more than 500,000 Australians experience work-related injury or illness each year. In 2019 alone, 183 Australians lost their lives due to occupational fatalities. As reported by Safe Work Australia (SWA), there is a strong correlation between workplace incidents and training. This is due to lack of training, inadequate training, poor quality training or competency-related causal factors (major unplanned/unintended contributors). Up to 60% of workplace incidents have one or more causal factors involved relating to training. This statistic demonstrates that training is one of the leading factors in workplace incidents.

VR training vs traditional methods

Training methods commonly employed in the materials handling industry, like class-based learning and e-learning, are failing to adequately prepare workers for hazardous situations. Conventional modes of learning fail to align with how humans innately learn, as they do not interest or engage the participant. With e-learning,



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for instance, learners struggle to pay attention to the generally uninspiring content delivered, and with massive open online course completion rates of just 10%, many employers are realising that this is resulting in compliance gaps. Furthermore, as little as 10% of knowledge retention is typically maintained two weeks following traditional training. Meanwhile, the application of VR learning is proven to deliver up to 8x better knowledge retention. VR training is delivered in a manner that the brain absorbs effortlessly and is engaging and immersive when compared to traditional methods. Not to mention, learners are more attracted to VR learning because they are less distracted, more emotionally connected and get more out of the experience by 'living it'. Until now, the workforce has not had something as engaging and immersive to allow for optimised results.

When businesses implement VR learning, they can also capture important data that can help a company further eliminate risk. When workers undergo training in an e-learning or face-to-face environment, generally all that can be garnered is an assessment score — pass or fail. However, some VR technology suppliers provide data such as:

- where the worker looked;
- how long they looked at an object for;
- whether or not the hazard was that object;
- if they looked at the hazard but didn't select it on one or more occasions;
- if they lacked situational awareness or had it, for example seeing or missing items in or around their view;
- whether their risk awareness levels were aligned with preset awareness levels and peer perception rankings;
- assessment scores; and
- speed of completion.

VR benefits to materials handling

Materials handling and manual handling contribute significantly to workers compensation premium costs. As stated by SWA, 32% of workers compensation claims relate to muscular stress as a result of lifting objects manually and 15% of serious claims relate to musculoskeletal disorders. Inadequate training plays a major role into these statistics, and VR learning has the potential to reduce workplace incidents. VR can also take training to the next level and significantly decrease risk within an organisation. Through VR learning experiences, businesses can learn how employees operate, on an individual level, and gain insight into an employee's ability to operate safely while performing manual handling or operating lifting aids. With eye tracking technology available in select VR training products, employers can determine how situationally aware an employee is and how good they are at spotting hazards. Hazard awareness and risk tolerance are strongly linked to incident rates, and VR training technology identifies where that misalignment is and helps organisations to intervene proactively.

Another benefit of VR training in relation to materials handling comes for companies based in rural or remote communities. VR training can keep regional workforces up to scratch with their training no matter how far workers venture. This is because VR headsets can be preloaded with learning content and used on demand, whenever and wherever needed. Affordability is a massive issue for generic learning tools or educators (especially in remote communities, where educators need to be flown in and hosted); timely delivery for regional and remote workers is also an issue. The beauty of VR learning experiences is that companies do not need to wait for a trainer or a registered training organisation. Rather, VR headsets can be picked up by an employee, donned and away they go. VR training provides extensive data and significantly supports the reduction of risk in the workplace. More critically, this data is proactive and predictive rather than reactive. Therefore, VR-driven data can then be overlaid with other workplace data to create a risk heat map that can then be used by an organisation to create and implement stronger safety interventions. VR is creating a culture of effective, affordable and efficient learning and safety within businesses, which is essential when it comes to protecting Australians in the workforce.

Next World Enterprises
nextworldenterprises.com



Ultrafine, nitrile-coated washable gloves

The ultrafine, nitrile-coated, washable Aquila NR18E gloves offer many benefits in terms of health, hygiene and a cleaner environment. Wearing gloves means no hand touching and reduced problems from frequent handwashing. The breathable qualities of the coating make the gloves more comfortable than completely sealed disposables such as nitrile, vinyl or latex gloves.

The extended life of these gloves means that for so many domestic, retail, office or industrial situations, there is no need to use non-recyclable, one-time-use gloves, which can negatively impact the environment. The coated gloves from Aquila can be washed between uses, enabling a valuable extended lifetime.

A coating like fine nitrile on the NR18E provides extra grip where it is needed in specific roles, or more generally in a factory assembly or service environment, or outdoors in a range of weather conditions. The Aquila range of coated gloves includes different dips and finishes — such as latex, nitrile and sand — by dipping the whole glove or just the fingers and palm to achieve a balance between grip and dexterity.

Aquila gloves feature a flexible coating over the whole glove for grip and liquid protection, or just the fingers/palm for lightness and to enable gripping of small parts. A sandy coating is also available for handling larger cables or metal rods in wet, muddy or oily conditions.

Aquila

www.aquilaglove.com

Re-usable cloth masks

Colan Australia has launched a range of cloth masks using inherent antiviral fabrics. The Colan PAM masks are made using Metis PCA fibre, proven to inactivate SARS-CoV-2, the virus which causes COVID-19, and has been given TGA approval as a Class 1 medical device. The antiviral effect of the fibre used to make the masks was tested by NATA accredited clinical trial specialty laboratory 360biolabs. Results showed inactivation of SARS-CoV-2 after three hours of contact with the fibre.

Colan has incorporated varying types and weights of Metis PCA-based fabrics into primary and filter layers to produce a range of masks that offer a unique protective feature. The masks are sold by Akeso Socks (a division of Colan Australia), alongside their range of antibacterial, antifungal and odour-free socks. The antiviral properties are inherent to the fibre, rather than the result of chemical treatments, providing continued protection over extended periods of use.

The fabric used to make the masks is also inherently antibacterial, antifungal, flame retardant, moisture absorbing and complies with the textile environmental standard OEKO-TEX 100, which signifies that the fibre does not contain materials that are harmful to humans.

Metis PCA fibre has also been given TGA approval as a Class 1 medical device, following antiviral testing from 360biolabs. It can be used as the primary material in protective face masks or as the filter layer in protective face masks, or other PPE.

Colan Australia

www.colan.com.au



Safety eyewear

The Riley Navigator safety glasses feature an innovative, stylish frame, with a unique four-base curve lens which combines contemporary style with compliance to AS/NZS 1337.1:2010.

These robust, high optical quality safety glasses are constructed with a durable and lightweight plastic frame, with a soft-touch matte finish. With protection against UV radiation and sun glare, as well as medium impact resistant lenses (tested to 45 m/s), the Riley Navigator is designed to provide the reassurance of protection needed in the workplace.

The Riley Navigator glasses are available in a choice of five lens options — Ice Revo, Fire Revo, Polarised, Antique and Dark Grey. Coating technology provides resistance against abrasion from fine particles on the outside, while preventing fogging on the inside of the lens during use.

Safety Mate Pty Ltd

www.safetymate.com.au



Is an AED part of your Emergency Plan?



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AED

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Or call us on 1800 605 555

ZOLL



Mechanical safety gloves

The uvex phynomic airLite safety gloves range for mechanical risks according to EN 388 features a knitted 18-gauge liner designed to fit like a

second skin in combination with cut protection B and C.

An optimum grip and high dexterity are provided by the 'airLite' coating. The gloves are suitable for working with almost all industrial screens, smartphones and tablets. In addition, they are prepared for ESD (electrostatic discharge) applications.

uvex phynomic airLite safety gloves are made in Germany and are free of accelerators and other hazardous substances.

Features include: touchscreen compatibility for use on almost all screens, tablets and mobile phones; the gloves don't contain any substance quantities, which are hazardous to health; antistatic: Certified to EN13650:2014 standard; Model B and C providing B- and C-level cut-protection according to EN 388:2016

UVEX SAFETY AUSTRALIA LIMITED PARTNERSHIP

www.uvex-safety.com.au



Safety reporting app

The T5 App from Take5apps is an economical safety reporting app that incorporates five various safety reporting apps in one, to improve safety reporting in the workplace and safety awareness of the user and management.

The T5 app is used in any manufacturing, service-enabled businesses and contractors who need an OHS solution for their employees. The app is easy to use and provides near constant reporting to supervisors and management. With date and time stamped reporting of risks and hazards, the user and management can resolve issues in the workplace quickly.

The T5 app is available on Android and Apple devices.

Take5apps

take5apps.com.au

PERSONAL COOLING VESTS

PERSONAL AIR CONDITIONERS (PACS) INCREASE WORKERS COMFORT WHILE MINIMISING HEAT STRESS AND FATIGUE.

Powered by compressed air, Vortec PACs consist of a cooling tube that generates cold air to provide air flow to the worker through a diffuse cooling vest. These models are easily adjustable by the worker using an integral temperature adjustment knob. The durable PVC vest allows full range of motion with no airflow restrictions. Body cooling vests can also be worn under other protective clothing.

GUARDAIR HIGH FORCE BLOWGUNS

The Guardair range of high force blowguns are the most powerful safety air gun available. • The Force 5 is designed for heavy-duty industrial and construction cleaning applications and features a dead-man trigger, a safe alternative to dangerous, "home-made," types.

• All models are available from 15cm to 182cm in length and available in heavy-duty aluminium or steel extensions with Venturi and Quiet Force Nozzle options available.

Knight
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www.knightpneumatics.com.au

INNOVATIVE COMPRESSED AIR PRODUCTS SINCE 1989



Self-retracting lifeline series

MSA Australia offers a range of professional protective equipment (PPE) solutions for leading edge applications. The V-EDGE Self-Retracting Lifeline series can be used in a variety of applications — from overhead, to foot-level tie-off points, and where sharp edges are a concern.

Three product offerings include 8- and 20-foot lengths, and a web personal fall limiter for leading edge. Designed for leading edge and foot-level tie-off, the MSA V-EDGE series of self-retracting lifelines meet EN 360:2002, VG11 sheet 60 and ANSI Z359.14-2014 leading edge fall protection requirements.

The self-retracting lifelines are built with high-quality materials and thoroughly tested, to conform to the latest standards. The V-EDGE series is also available in various configurations, with a compact design and limited weight.

MSA Australia Pty Ltd

au.msasafety.com

Safety auditing app

iAuditor is a free iPad app from SafetyCulture that enables workers to perform safety audits using only their iPad, without the need for clipboards, notepads, checklists or sign-off sheets. The auditing process is streamlined by a simple interface with clear, concise questions to be answered on-screen.

Audits can be quickly organised by name, worksite or GPS location to effectively manage a large database of audits. The app's flexible and scalable nature means users can customise it to use in any industry.

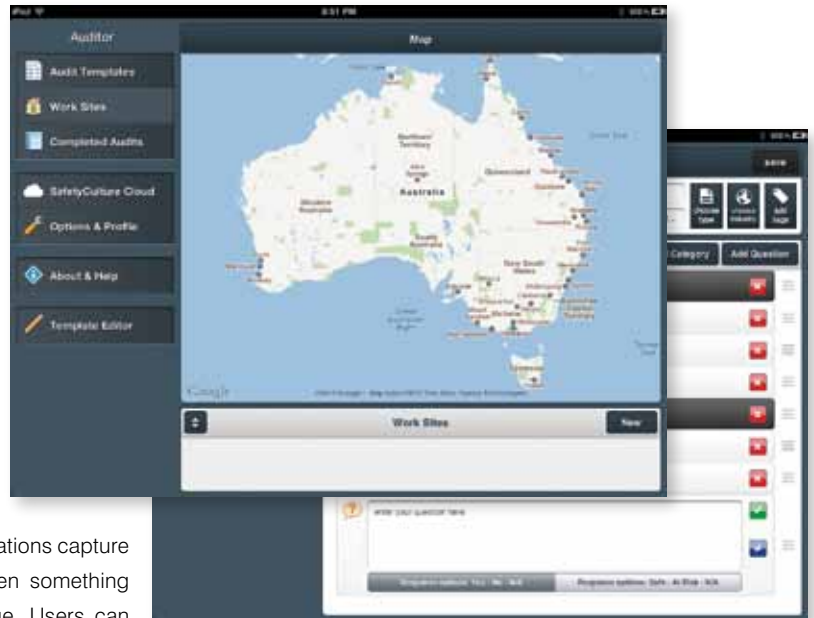
SafetyCulture has now launched an incidents and observations capture feature in iAuditor. With this function, users can flag when something doesn't look right, and work together to resolve the issue. Users can be set up to capture and share incidents, hazards, near misses and other observations easily and intuitively.

With this new feature, users can capture incidents with a few taps and collect evidence in an intuitive chat-style view. Users can also set categories of incidents or observations and turn the information collected into a professional, shareable report. Users can now add up to nine people to their iAuditor team before having to pay.

The incidents feature in iAuditor enables an entire team to capture and share issues as soon as they happen, thereby providing everything for an effective root cause analysis and comprehensive investigation. The updated feature reduces the number of in-person interviews and enhances the trend analytics across user teams.

Safety Culture

www.safetyculture.com.au



DrugWipe Results in Black and White with the WipeAlyser®

A hand-held analysis device for detecting drugs in combination with the DrugWipe. It is ideal for drug screening in the workplace.

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Interested in a demonstration? Contact Pathtech on 1800 069 161

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pathtech.com.au



Multi function cable lockout devices

The MFL-2 Multi Function Cable Lockout Devices from Cirlock are versatile devices which can be used to lock out a number of different energy sources, including valves and steering wheels on vehicles. They can also be used to reduce the number of padlocks needed on a job as the cable can be fed through a number of lockout devices (eg, circuit breaker lockouts) and just 1 padlock applied.

The Cable Lockouts are available as standard with 1 or 2 m cables, and are available with a steel wire cable, or a non-conductive plastics cable, for use where metal cannot be used (ie, electrical cabinets). Additional cables can be supplied in various lengths, making these devices suitable in many situations. Accommodates up to 4 padlocks.

The devices are made in Australia.



Cirlock

www.cirlock.com.au



Re-usable face masks

The NNT 5 Pack Re-usable Face Masks are designed to be an essential part of our everyday lives. Each mask is made of 3 layers of fabric and features adjustable elastic straps with toggle, to ensure the best fit. These Unisex masks are designed for the user to wash and wear through the week and are available in packs of black, navy and grey. Each re-usable mask is made with a polyester outer layer, cotton polyester blend middle layer and a cotton inner layer to ensure breathability and offer a barrier protection from unwanted moisture and particles.

The 3-layer design is based on the DHHS Australian Government Guidelines (dated 13 July 2020). Wearing a face mask is an effective way of protecting yourself and others, together with washing your hands and practising social distancing.

Recommended for all industries. Please note that these masks are not medical grade or personal protective equipment (PPE).

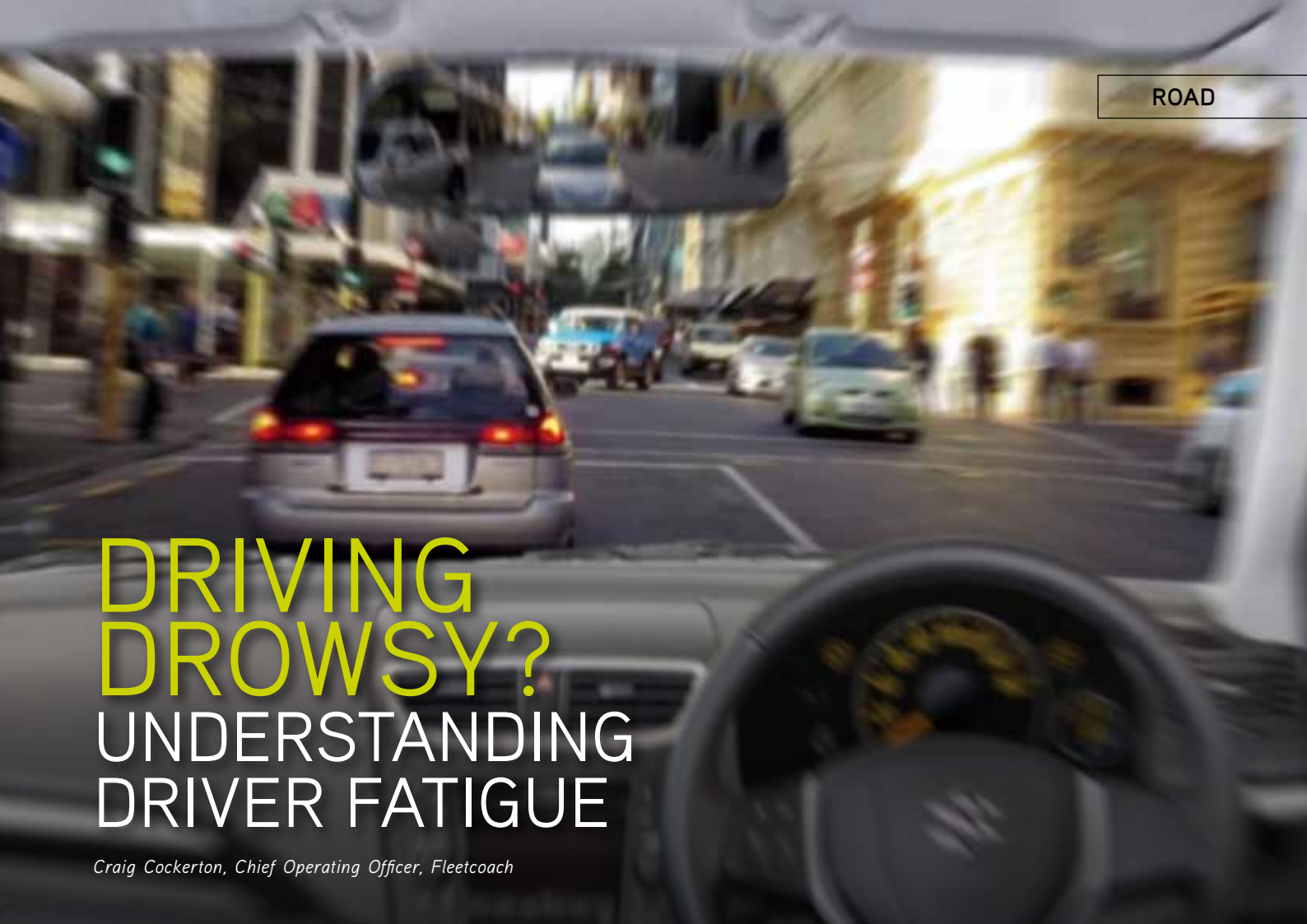
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DRIVING DROWSY?

UNDERSTANDING DRIVER FATIGUE

Craig Cockerton, Chief Operating Officer, Fleetcoach

Many have questions about driver fatigue. This could be because it's widely understood that most adults aren't quite getting enough sleep at night to feel rested, or because a mistake behind the wheel can have enormous consequences.

It's an inescapable fact that fatigue-related crashes are twice as likely to be fatal. Statistics from the Transport Accident Commission state that driver fatigue is a factor in 20% of all fatal road crashes in Victoria, while Queensland's Centre for Accident Research and Road Safety estimates 20–30% of all road deaths and serious injuries might involve tired drivers. Studies have shown that 17 hours awake — that's from 7 am till midnight — has a similar effect on our driving as being over the legal alcohol limit, or roughly the equivalent of three standard drinks in under an hour for the average 90 kg male. Driving can be a lot more tiring than most people realise. You're constantly aware of what's going on around you, reacting to what you see and hear, all the while making sure you keep the vehicle moving in the right direction at the right speed.

Think about the last time you drove while you were tired. You might have felt that you were slower to react, your mind wandered, and you made silly mistakes. Those are just some of the fatigue-related factors that can kickstart the chain of events to an accident. It's important that you're on the lookout for both the early warning signs of when not to drive and the more immediate signs that mean you really should get off the road as soon as you can. Dry eyes, slow blinks, foggy head... and what was that? Did you just fall asleep for a few seconds? You aren't really sure you remember the last few minutes of driving... because everything is feeling heavy, the road is so boring and all you can think about is some restful sleep.

The best thing you can do is prioritise quality sleep before you drive. If you're going on a long trip, make sure you give yourself enough time to take frequent breaks at least every two hours, don't travel for more than eight to ten hours a day and choose a time to drive when you know you'd normally be wide awake. Share the driving if you can, stay hydrated and limit alcohol for a day or two before a long trip. Have some good snacks in the car as this is better than stopping for a heavy meal, and if you do feel yourself becoming drowsy find a safe spot to take a 15-minute power nap. It's also important to understand your own body. Something to consider is that energy levels and fatigue are a big indicator of your general wellbeing. In turn, your wellbeing is a surprisingly important factor in your driving safety, which is why it should be a focus of any quality training program.

If you're regularly feeling tired at the wheel, it could be worth examining why. Just feeling 'tired' isn't the same as feeling unfocused or flat, but we're often tempted to treat them in the same way. Tiredness comes in many forms — lack of sleep, boredom, low energy caused by depression, intense fatigue from illness. So maybe a better solution is to really look at what kind of tired we are, and look to see if there are any lifestyle or mental health factors we could be addressing that will make us safer behind the wheel.

Now. How are you feeling today?

Fleetcoach
www.fleetcoach.com/fatigue

Cut-resistant gloves

The Safety Mate NXG Cut D Lite cut-resistant gloves provide a combination of higher-level cut resistance and 18-gauge super lightweight feel with 360° breathability. The gloves also meet the latest Cut Level D cut protection standard. The new AS/NZS 2161.3:2020 standards mean that Cut Level D has the ability to withstand forces of 15–22 N, potentially providing up to twice the cut resistance of Cut Level C gloves.

The gloves also combine comfort with dexterity for high performance and are delivered in a lightweight, ergonomic design that helps the user to do their job safely. The effective, easy-to-wear protection is delivered by innovative knitting technology, combined with a breathable nitrile coating, providing comfort and safety for the whole shift.

The gloves feature reinforced thumb and forefinger and touch screen compatibility; the strengthening of key areas lengthens the life of the glove, while the touch screen compatibility eliminates the need to remove a glove in the field to access screens.

The gloves are independently tested and certified to carry the Oeko Tex Standard 100 label and are dermatologically accredited for added reassurance. The sanitised antimicrobial treatment is a further step to protect workers' health.

Safety Mate Pty Ltd

www.safetymate.com.au



Plastic expandable barrier

The Ready Fence plastic expandable barrier is a multipurpose and movable system suitable for pedestrian and traffic control problems. The lightweight, portable, expanding barrier is compact and suitable for indoor or outdoor use.

The plastic crowd control barrier is strong and can be filled with water to make it more secure. Reflective markets are fitted to the barriers for night or low light visibility solutions. When fully extended, the unit is 2.5 m wide. The barrier is a suitable solution for construction sites, warehouses, car parks, shopping centres, offices, aged care and child care centres.

Ready Fence can also tailor temporary fencing solutions; the company provides day hire, long-term hire and temporary fencing for sale, and will deliver direct to set and collect when the customer needs it gone.

Ready Fence (NSW) Pty Ltd

www.readyfence.com.au



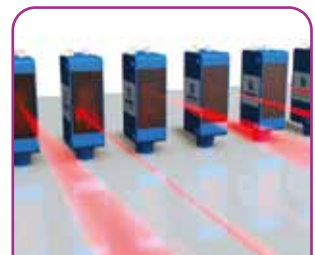
Safety Gate Locks



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Australian Owned & Managed

Scaffolding solution secures construction safety award

ScaffShield, an anti-tamper locking assembly for scaffolding, has received the 2020 National Excellence in Workplace Health and Safety Award (Commercial) at the Master Builders National Excellence in Building & Construction Awards, which were live-streamed on 28 November 2020, due to coronavirus (COVID-19) restrictions. The annual awards recognise the achievements of the nation's best builders. The Federal Safety Commissioner (FSC) sponsors the award. According to ScaffShield's director, Joel Andonopoulos, ScaffShield is designed to ensure scaffolding can't be moved or modified by unauthorised personnel on-site, lowering the risk of scaffold collapse or failure.

Federal Safety Commissioner David Denney said the award recognises the collaboration by ScaffShield with builders, scaffolders, peak industry bodies, engineering firms and regulators to develop an innovative and practical control measure for one of the industry's leading causes of injury. The award also serves as a reminder about possible scaffolding safety risks, as it is one of the high-risk hazards targeted by the Office of the Federal Safety Commissioner's 'Hazard



2020' campaign. Multiplex Constructions Pty Ltd, Vos Construction & Joinery Pty Ltd and Lendlease Building Pty Limited (ACT) received honorary mentions from FSC as finalists for the award.

ScaffShield
www.scaffshield.com

CIRLOCK

LOCKOUT / TAGOUT EQUIPMENT

TAGS AND HOLDERS



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TAG HOLDERS

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FEET FIRST INTO CONSTRUCTION

4 ESSENTIALS OF WOMEN'S WORK BOOTS

Dwayne Sewell, Head of Manufacturing, Steel Blue

Construction, along with other industrial sectors, is undergoing a gender diversity workplace revolution — attracting women into a workforce that has been traditionally dominated by men. A protective footwear expert explains the four essentials of work boot selection, which will ensure women stepping onto Australia's worksites put their best foot forward.

The diversity of the workforce and job functions in traditional blue-collar industries is evolving. Globally, companies of all sizes, including those in the construction, infrastructure and mining industries, are expanding both with new technologies and setting goals to have gender diversification and equality across their operations. With these changes and goals brings along new personal protective equipment (PPE) requirements.

Safety product manufacturers are growing their ranges to adapt to ensure products are fit for purpose and meet the workforce requirements. One important aspect of PPE is safety footwear and there are simple ways to ensure that work boots are fit for purpose for all team members. Here are some tips on selecting the right work boots, particularly for the growing number of women in traditional blue-collar industries such as construction.



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1. Correct fit

A correct fit is the first step to ensuring work boots are fit for purpose. It is recommended that all work boots are correctly fitted by a safety specialist or retailer, and wearing the socks that'll be worn every day, before purchase. If the product does not fit correctly, there is an increased risk of foot injury to the wearer, which in some cases can cause permanent damage.

2. Men's vs women's

The anatomy of the male and female foot is not the same. According to international research conducted by SATRA, the male foot on average is both longer and wider than a female foot. This should be a key consideration when purchasing work boots. Many ladies work boot ranges are simply a smaller men's size, but it

is important to select a brand that has specifically built its range to suit the anatomy of the female foot. Be sure to consult a local safety and PPE specialist, who will have a ladies range available for fitting and purchase.

3. Safety features

It is recommended to properly assess the work environment and choose the footwear that has the right features to suit the requirements of the worker. Key considerations in the selection of appropriate protective footwear include:

- **Boot height:** A lace-up boot with a minimum height covering the ankle can help reduce the risk of rolling the ankle, which can cause injuries and sprains.
- **Lace-up vs zip:** Zip boots are becoming more popular, providing an easy-on and easy-off option, particularly for those in residential construction. However, some sites don't allow zip boots, so a lace-up only option may better suit.
- **Leather:** The popularity of nubuck and suede work boots is growing for both male and female tradies. It's best to assess the work environment to ensure the right leather type is selected. Finished full grain leathers are easier to maintain and clean following a day on the worksite, for example.
- **Toe caps:** There are predominately two types of toe protection available: the traditional steel toe cap and composite non-metallic toe caps. A steel toe cap will perform better against penetration with a nail gun or cutting with a power saw, while composite toe caps are non-metallic and great for workers that need to move through security environments without any hassle.
- **Penetration resistance:** If protection is required from standing on sharp objects, then consideration should be made to purchase a work boot that incorporates a penetration resistant midsole. These can be a steel or composite base.

4. Australian standards

AS 2210.3 prescribes detailed testing of safety footwear. Safety products are tested for basic impact and compression requirements of toe caps and extend to many tests of the upper section and soling. Additional features can be added and subsequently tested for specific job requirements. In construction, this could include electrical properties or levels of water resistance. As part of the standard, it is required for the product to be labelled with the standards it has been tested against. For additional piece of mind, this label should also include a conformance mark to ensure compliance with the referenced standard.

Steel Blue
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Plastic work zone barrier

The plastic work zone barrier from Ready Fence provides a solution for crowd control, footpath construction, pedestrian awareness and as a work site barrier. The lightweight plastic barrier can be installed and dismantled by one person.

The barrier's stackable design means it can be transported and stored with ease. The system is portable and each panel links together with a moulded pin and lock system. In bright safety orange with reflective stickers, it is an effective barrier to establish no-go zones.

Ready Fence can also tailor temporary fencing solutions; the company provides day hire, long-term hire and temporary fencing for sale, and will deliver direct to set and collect when the customer needs it gone.

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Women's work boots

Women's and men's feet are anatomically different, so she wear's footwear is designed to fit a woman's foot correctly, comfortably and safely. Female feet are simply not scaled-down versions of male feet but rather differ in a number of shape characteristics, particularly at the arch, the lateral side of the foot, the first toe and the ball of the foot. she wear does not re-engineer men's footwear into a female design, its footwear is designed 'from the ground up' by women, for women and multiple work boot designs are available to suit different women's foot shapes. Unisex shoes do not exist. They are either designed for men. Or designed for women.

she wear's number one selling work boot range has been designed specifically from women's feedback in industries such as construction and mining. This safety style

is lightweight (one of the lightest work boots on the market) and designed for comfort, with Poron mid sole discs, anti-fatigue footbeds with good arch support and easy zip on/off access. Available in five colours, with an additional limited edition colour currently available, supporting the RizeUp charity.



she wear

www.shewear.com.au

Air safety fuses

If a pressurised air line bursts, or a hose coupling accidentally releases, this can result in a thrashing hose becoming a dangerous projectile. The dangers increase dramatically if an air tool is attached or the line is a large diameter. Installing an air safety fuse can eliminate whiplash hazard and guard against accidental puncture or unexpected maintenance issues.

Protect-Air HoseGuard air safety fuses offer simple and effective protection of your most valuable assets: your employees, machinery and equipment. The device immediately shuts off the air flow should the volume of air exceed a set value. This value is factory preset to allow normal air consumption when using air tools.

In the event that the air line is severed and the air consumption exceeds the set value, an internal piston instantly shuts off the main flow. An integral bleed hole allows a small amount of air to flow through, enabling the device to automatically reset once the main break is repaired.

The innovative system is designed to protect compressed air hoses and pipes. The lightweight and compact product is suitable for all industry situations where compressed air is used.

Compressed Air Australia Pty Ltd

www.caasafety.com.au



Automated external defibrillator

Sudden cardiac arrest (SCA) happens in a split second. A colleague collapses and the clock starts ticking in the race to restore a normal rhythm to their heart. A rescuer armed with an automated external defibrillator (AED), who performs high quality CPR (cardiopulmonary resuscitation), is the victim's best chance for survival until medical personnel arrive.

Designed and built upon years of usability research with both trained and untrained rescuers, the ZOLL AED 3 offers Real CPR Help letting rescuers know that they are doing compressions at the most effective rate and depth. The device's integrated real-time feedback features a full-colour display with vivid rescue images, a CPR timer, intuitive audio cues and a large colour bar that reflects real-time CPR compression depth. This eliminates guesswork and provides rescuers with visual and audio prompts to "Push Harder" or will let them know when they are doing "Good Compressions", keeping them on track to administer high-quality CPR and give the victim the best chance of survival.

To save a life, an AED must be working properly and be ready when needed. The ZOLL AED 3 features a 5-year battery and adult/paediatric electrode pads shelf life which reduce AED device maintenance requirements and its total cost of ownership.

The device is also easy to maintain with in-built Wi-Fi connectivity which automatically reports AED readiness to program management. If the AED 3 ever fails an automated self-test or even fails to report on time, the connected management system will immediately send an email notification.

The ZOLL AED 3 is available in semi-automatic and fully automatic models. For professional rescuers, the ZOLL AED 3 BLS model provides an ECG display and CPR Dashboard as well as a hardened case.

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In response to the Queensland Government's January announcement of a 72-hour lockdown for Greater Brisbane, the Queensland Resources Council (QRC) affirmed the resources sector's committed to doing everything it could to prevent the spread of coronavirus (COVID-19). Based on the QRC's recommendation following the announcement of the Greater Brisbane lockdown, mining and gas companies voluntarily put a three-day hold on regional travel from Greater Brisbane, unless essential from a safety or operational perspective, to help contain the spread of COVID-19. Additionally, after the lifting of the Greater Brisbane lockdown, most resources companies continued to limit non-essential fly-in fly-out (FIFO) travel until 22 January.

"I'm really proud of the way mining and gas companies have responded to this latest COVID challenge because the state economy and hundreds of thousands of people are depending on us to do the right thing," QRC Chief Ian Macfarlane said. "The resources sector contributed \$82.6 billion to the Queensland economy in the past financial year and employs an estimated 420,000 people, so that's a lot of people who are affected by our decisions." The resources sector's swift response also received high praise from Queensland Chief Health Officer (CHO) Jeannette Young and Resources Minister Scott Stewart, with both congratulating the QRC on the sector's community-minded approach to the outbreak.

The QRC has continued to offer employees of member companies pre-flight health checks and temperature testing at Brisbane Airport, with many companies also offering onsite testing. Macfarlane said the resources sector's status as an 'essential industry' means eligible FIFO workers can continue to travel within Queensland and interstate, in line with previously agreed protocols, which are maintained in consultation with the CHO. Macfarlane also urged people who work in the resources sector to maintain social distancing and strict hand hygiene where possible, and to cease all non-essential social contact or group gatherings. "We are not taking anything for granted and will continue to do everything in our power to keep people safe by following all the necessary protocols," Macfarlane said.

Queensland Resources Council
www.qrc.org.au

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