

FACTORY  
PLANT  
CONSTRUCTION  
UTILITIES  
MINING



# SAFETY SOLUTIONS



PP 100007391

**uvex phynomic**  
perfect fit, optimum functionality and absolute purity

# uvex





# ACIconnect

AUTOMATION | CONTROL | INSTRUMENTATION

OPTIMISING YOUR INDUSTRY

12-13 AUGUST 2015 | Hall 5, Southee Complex, Sydney Showground



**EARLY BIRD  
DISCOUNT  
LESS THAN \$300  
FOR TWO DAY  
CONFERENCE  
PASS**

## What does the future hold for YOUR industry?

Join automation, control and instrumentation leaders to discuss, network and learn what lies ahead in the constantly disrupted and always-connected business arena.

### Featuring...

#### Engineers Australia Future Tech Forum – Aug 13

Asset Management | Sustainable Building Control | M2M & IoT | Advanced Robotics & Data Analytics | RoboCup | Complex Network Industries | Future Engineering

#### Keynotes from IBM, Aurecon and Siemens

Predictive Asset Optimisation | Transforming Manufacturing | IoT and Industry

#### Future Networks Forum – Aug 12

PROFINET & Profibus Australia | ODVA | FieldComm Group | EtherCAT Technology Group

#### Tech MiniLabs

Intrinsic Safety | PLC ladder logic | Lightning & surge protection | Troubleshooting Industrial Ethernet networks | AS/NZS 3000 wiring standards | Loop tuning | Modbus troubleshooting

#### Sponsors

Platinum

**SIEMENS**

Gold

**Weidmüller**

**AMS**

Looking Forward

**VEGA**

Silver



Exhibitors



Association Partners



Training Partner



Media Partner





# CONTENTS

- 4 Stop the drops
- 8 Minimising the risk of fire in confined spaces
- 16 Asbestos found where you least expect it: are you at risk?
- 26 Forklifts 'face-off' in narrow aisle
- 29 Aussies want workmates to quit the cones
- 36 Firefighters using thermal imaging cameras
- 43 Australian technology transforming safety in workplaces globally
- 46 Equipment designed to reduce manual handling injuries
- 49 Resources
- 50 In my opinion



**READ ONLINE!** This issue is available to read and download at  
[http://www.SafetySolutions.net.au/latest\\_issues](http://www.SafetySolutions.net.au/latest_issues)

Proudly sponsored by  
<http://au.msasafety.com/?locale=en>



## ON THE COVER



The uvex phynomic safety glove range is setting a new standard among seamless safety gloves for precision work where comfort, grip and dexterity are essential.

**Perfect fit** - The uvex phynomic safety glove fits like a second skin allowing for precision and natural dexterity while maintaining complete freedom of movement. The special anatomically formed 3D ergo hand shape creates the basis for the perfect fit.

**Optimum function** - The innovative water-based aqua polymer coating gives the uvex phynomic range excellent grip in wet and dry conditions. Whether in dry, damp or oily areas of application, the revolutionary thin and robust aqua polymer coating always guarantees optimum functionality for safe working as well as high durability. uvex phynomic safety gloves conform to the strong uvex climazone standard criteria concerning breathability.

**Absolute purity** - The uvex pure standard is establishing new benchmarks in purity of safety gloves and guarantees both health protection and product protection. The uvex phynomic range has been dermatologically tested by an independent institute which confirmed the excellent skin compatibility of all the products. The safety gloves are free from harmful solvents (DMF, TEA), free from allergenic substances and certified in accordance with Oeko-Tex Standard 100. For your free sample email: [phynomic@uvex.com.au](mailto:phynomic@uvex.com.au)

uvex Safety Australia Pty. Ltd.  
[www.uvex-safety.com.au](http://www.uvex-safety.com.au)  
Toll free: 1800 815 790



# STOP THE DROPS

*Michael Biddle\*, Managing Director, Australia & New Zealand, Capital Safety and Chair,  
Working at Height Association of Australia*





Working at height continues to represent a major safety management challenge for most workplace health and safety professionals; however, increasingly it is not just 'people falls' that are an issue.

A total of 275 people died as a direct consequence of a fall from a height in the period 2003 to 2012 in Australia; around 11% of total fatalities. Surprisingly, however, an additional 227 people died in the same period as a consequence of being hit by a falling object - about 9% of total fatalities.\*\*

Aside from fatalities, drops and falls also represent a significant volume of general injuries. Falls from a height represented over 7400 workers compensation claims in 2012, with a median lost time of 7.2 weeks. Additionally, over 4200 claims were recorded from injuries created by falling objects, with a median lost time of 4.2 weeks.\*\*\*

Given that these two mechanisms of injury are the third- and fourth-ranked cause of death and significant causes of injury, the question is, are these inevitable? Or indeed, with the right approach, are they preventable? I believe that most would answer yes, provided there is sufficient education, awareness and safety management systems in operation. The prospect of reducing these incidents is therefore very high.

### The cost of drops

The cost of lost time in both health outcomes for workers and lost productivity time is concerning. Importantly, it is also the workers' families that bear the brunt of the impact of these injuries, through loss of income and medical expenses that may follow from the incident.

In addition, the loss of the items themselves can be costly. If objects are dropped down holes, over water, into mud, machinery and other difficult-to-reach places, they are effectively a sunk cost needing replacement. While anyone can drop a tool, the chances are vastly increased when other environmental factors come into play. For example, high wind, rain, greasy environments and even working with ill-fitting gloves can make the challenge of tool security an issue. For a comparatively low cost and a different attitude to containment, these costs can be avoided.

### Using gravity as a work aid

Certain job tasks and industries use 'gravity' to work for them. For example, the demolition of a building might allow for materials to be dropped to a lower level using gravity means, rather than a controlled mechanical descent process such as a crane and debris bucket. Many buildings are also clad in protective mesh or netting to contain debris and prevent it from causing injury or escaping from the building envelope.

In most cases, these work methods are less safe than alternatives. They rely on the principle of containment, rather than prevention of falls in the first place. On most major metropolitan worksites, the incidence of this is thankfully infrequent. In locations where there is less supervision or no regulator present, the same cannot be said.

### Hierarchy of Control

Risk management, utilising the principle of the Hierarchy of Control, is considered to be the best approach to preventing injury. Engineering a hazard out altogether or utilising alternative means of access to minimise fall risks is best practice. Wherever possible, preventing the fall of a person or tools through the use of guarding or barriers is the most appropriate means of protection possible as they remove the fall of people or objects altogether in the first place.

Only when there are no alternative means of prevention should fall protection equipment, including fall protection for tools and equipment, be considered for use.

### Primary vs secondary consequence

When people consider the use of fall protection equipment, they are primarily concerned about protecting themselves or their workers and contractors. Items such as anchoring devices (A), full-body safety harnesses (B), a fall arrest lanyard or self-retracting lifeline to connect between the two (C) and some defined rescue means to allow for safe descent (D) are the core



components of a fall protection safety system. In this sense, they are concerned about the 'primary consequence' of a fall.

When it comes to items such as tools and equipment they use for their job, these are often, however, 'after-thoughts'. These items are equally as important to consider if they fall, as dropping them can have secondary consequences on the people working below them, or the innocent bystanders that are in the near vicinity. Although nuts and bolts, spanners and other lightweight equipment is small in physical size, once the combination of gravity is added, the outcomes can hold grave consequences.

## The physics of drops

People don't realise the impact forces that are generated in a dropped object. A 3 kg item dropped 15 m could create an impact force of over 500 kg. A 1 kg item dropped 50 m will hit the ground at a little over 112 km/h (excluding any air resistance). Even with some form of protection, the result of being struck by an item of relatively low weight can be significant.

## Hard hats


The use of general personal protective equipment (eg, hard hats) can be a good front-line barrier to reduce the impact of a dropped object if it is relatively light and not dropped from a very high location. Their effectiveness is, however, limited when they are exposed to falling bricks, rocks or other heavy items such as hand tools, or indeed even greater heights. A hard hat does not provide any protection for other parts of the body such as shoulders and arms.

The economic loss of equipment (for example, dropping it into the ocean or dropping items into a turbine that then have to be retrieved), coupled with the injury cost to the person injured while working below someone dropping an object, is high. Even if there are no people in direct danger underneath walkways, dropped objects still have the capacity to damage surrounding equipment and machinery. Subsequent repairs can be both costly and time consuming. But this risk is also easily managed if a comprehensive management program for dropped object risk is implemented.

## Methods of containment

Below is an example list of some of the methods of containing dropped objects:

- Lower the working platform to the ground/perform all work on a structure at ground level and then lift it into position once complete rather than taking the tools and equipment to height.
- Kickboards and handrails should be fixed on scaffolding, platforms and walkways. By using additional closed mesh solutions, plywoods or other solid surface materials, coverage can be provided for all the gaps through which items can potentially fall.
- Utilise safety mesh or rated barrier netting (with debris lining) in areas outside walkways and underneath conveyors, walkway platforms and along building/structure perimeters to prevent the drop of materials to a lower level.
- Utilise tool lanyards, tool cinches, tool pouches, tethering devices, holsters, tool buckets and other drop containment devices to secure tools and other items during work at height activities.
- Provide worker with education on the risks and outcomes of dropped objects and provide them with the means by which they can minimise that risk.

Preventing dropped object falls is not just the responsibility of the safety supervisor or the site owner. It is everyone's responsibility to manage these risks because the impact might not be personal, but it might affect your co-workers and unseen bystanders. We all have to work together to STOP the DROP! 

*\*Michael Biddle has over 12 years' experience in the fall protection industry. He is currently the Managing Director, Australia & New Zealand for Capital Safety, a fall protection equipment manufacturer, and the current Chair, Working at Height Association of Australia. \*\*Work-Related Traumatic Injury Fatalities, Australia 2012, published by Safe Work Australia, October, 2013. \*\*\*Australian Workers' Compensation Statistics, 2012-3, published by Safe Work Australia*

Capital Safety Group (Australia)  
www.capitalsafety.com







Half masks



Full face masks



PAPR



Filters



Hoods



Helmets



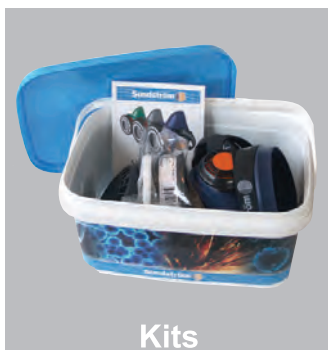
Supplied air



Airline filters



Escape hoods



Kits



Accessories



# The Sundström system.



BUY A PRODUCT — GET A SYSTEM



+61 (0)2 9910 7500  
 1800 655 129 (Aust. & N.Z.)  
[sea.australia@theseagroup.com](mailto:sea.australia@theseagroup.com)  
 +61 (0)2 9979 5364  
 Comprehensive training programs available on website and as app.

Private Bag 1001, Mona Vale NSW 1660, Australia  
 Unit 35, 1 Jubilee Avenue, Warriewood NSW 2102  
[www.theseagroup.com.au](http://www.theseagroup.com.au)  
 /theseagroup









# MINIMISING THE RISK OF FIRE IN CONFINED SPACES

*John Lynch, General Manager, Business Support Services, Wormald*

Confined spaces are some of the most dangerous environments to work in. The risk of entrapment coupled with lack of oxygen, potential exposure to hazardous material or poisonous gases can often make undertaking a rescue challenging.

**B**usinesses are legally required to have an emergency planning strategy in place and be aware of their responsibilities to minimise health and safety risks, which includes providing training to personnel working in confined spaces. Work health and safety laws set out the legal obligations that must be met by employers before work can commence in a confined space.

A unique set of skills and knowledge is required for those working in confined spaces, so the value of training cannot be underestimated. If something goes wrong, knowing what to do and how to do it is vital. To fully understand and manage the risks, it is important to learn and be tested under real-life conditions and training can provide this.

In addition to training, there are several other things to consider before starting work in confined spaces, including entry permits, risk assessments and rescue procedures, so both employers and employees must be prepared.

**Regulations and standards:** Those involved in working in confined spaces should consult the relevant health and safety regulations and work health and safety laws to ensure compliance. Australian Standard AS 2865-2009 Confined Spaces sets out best practice for working in confined spaces and states employers' and employees' legal obligations.

According to the code of practice for confined spaces, employers must undertake adequate preparations before work is carried out: all hazards in a confined space must be identified and risks assessed; each worker must have an entry permit; first aid and rescue procedures must be established; and adequate training must be undertaken.


Hazard and risk assessments are vital to help determine what precautions should be taken before entering a confined space. A risk assessment should consider the atmosphere, all proposed work activities, the number of persons occupying the space, the soundness and security of the structure, the identity and nature of substances last contained in the confined space, emergency response procedures and the competence of the persons undertaking the work. The risk assessment should be carried out by a trained, competent person.

Hazards found in confined spaces can include restricted entry or exit; harmful airborne contaminants; inadequate oxygen levels or airflow; toxicity of any gas, dust or vapour; fire or explosion

hazards; and temperature extremes. Fires or explosions pose serious threat to life so potential ignition sources such as open flames, sparking of electrical equipment, internal combustion engines and static electricity should be identified.

Training and emergency response procedures help to ensure that effective plans and procedures are formulated and ready to be executed in the event of an emergency. According to Australian Standard AS 2865-2009, those working within confined spaces must be trained and assessed as competent to perform those activities. Furthermore, training must be carried out by an approved training provider and Wormald provides a range of fire safety training courses.

In case of emergency, equipment such as breathing apparatus, resuscitation equipment and safety harnesses, as well as appropriately trained persons, must be immediately available. A comprehensive approach to rescue must be considered and each site should have a rescue procedure in place specific to that site.

Emergency situations in confined spaces are often also extremely dangerous for rescuers. Attempts to perform a rescue operation without adequate equipment and training put more people in harm's way. Rescuers may themselves become injured or overcome by gases or oxygen deficiency, so having trained persons on site is essential. 

*Wormald (Tyco/Fire & Security)*  
[www.wormald.com.au](http://www.wormald.com.au)



## Cut protection gloves

The Ansell HyFlex suite of hand protection gloves is engineered with Intercept Cut Resistance Technology to protect workers from cut risks.

The products contain knitting technology which blends engineered, synthetic and natural fibres into high-performance yarns. There are six medium- and lightweight glove styles in the range for use in demanding workplaces such as the automotive, metal fabrication and machinery equipment industries where sharp tools and materials are handled, and cut risks are ever-present.

The products provide comfort and dexterity for workers, come with a silicone-free coating plus improved grip and abrasion resistance, enhancing hand protection and productivity. They are offered in EN cut level 3, 4 and 5 cut protection styles.

The medium weight range includes HyFlex 11-724, 11-727 and 11-735 styles; while the lightweight range includes HyFlex 11-531, 11-537 and 11-539 styles.

Tests conducted in Ansell R&D labs also show the lightweight styles are two and a half times more breathable than other cut protection gloves.

**Ansell Healthcare**  
[www.ansell.com.au](http://www.ansell.com.au)



## Interchangeable safety jacket and vest

The XAX Combo 4 interchangeable safety jacket and vest is part of the XAX Apparel winter-wear garments range. In addition to providing safety and visual protection for both day and night environments, the garment can be easily adapted to suit changing work environments (temperature, rain and wind) to provide comfort for the outdoor worker.

The jacket is 100% waterproof and is made from 300D Oxford weave polyester and PU coated fabric for durability. The ¾-length lightweight mesh garment is designed to be highly visible with 50 mm LOXY retroreflective silver tape. It has a two-way zipper with a storm-front closure, as well as two fleece-lined hand warmer side pockets for cold weather. Other features of the jacket include a concealed hood and sleeve cuffs with wrist closure straps for additional safety.



The removable vest has a large access zipper and is polar fleece-lined with a stand-up collar for warmth. It can be easily zipped into the jacket and is also made from 300D Oxford weave polyester and PU coated fabric with retroreflective silver tape.

Both garments include a clear security tag pouch on the front and a separate phone pocket.

The jacket and vest combination is AS/NZS 1906 and 4602 day/night compliant.

**XAX Apparel Pty Ltd**  
[www.xax.com.au](http://www.xax.com.au)

## Safety switch compliance test

Rapid Test can be installed on a switchboard to provide a method for testing multiple RCDs (residual current devices) without having to plug directly into a power circuit. Testing only takes minutes per switchboard and, as electricians are not exposed to live circuits at the switchboard, it provides a safer alternative to testing RCDs in the field.

It works via a wireless application on a tablet device; the master unit has Wi-Fi capabilities and communicates with the tablet. As testing is completed using the tablet application, the application captures all the data required for the user's compliance needs. At the conclusion of testing, this data is uploaded via the cloud to a data portal via a 4G connection.

The data portal provides users with the ability to monitor and track all of their RCD compliance needs online. Users can also set reminders for their next test date to ensure the site's compliance requirements are met.

The latest version of Rapid Test will enable users to test RCDs without losing power downstream.

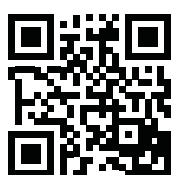
**Rapid Test Systems**  
[www.rapidtestsystems.com.au](http://www.rapidtestsystems.com.au)





# Introducing the new range of **Fall Protection for Tools**<sup>®</sup>

from Capital Safety,<sup>™</sup> the world's leading  
supplier of fall protection for people.



▶ To see the full impact of damage that  
falling objects can inflict, scan the QR code  
or visit [www.capitalsafety.com.au](http://www.capitalsafety.com.au)

Contact Capital Safety for your **FREE**  
**Dropped Objects Awareness Package**



[www.capitalsafety.com.au](http://www.capitalsafety.com.au) | Australia: 1800 245 002 | New Zealand: 0800 212 505

© 2015 Capital Safety

THE ULTIMATE IN FALL PROTECTION



A CAPITAL SAFETY BRAND

## Anti-perspirant technology

The technology is designed to keep gloved hands dry, cool and productive, even in tough conditions.

The MaxiFlex glove uses AIRtech technology in the construction of the coating, which has a network of structured tunnels to ensure good air quality and temperature within the glove. This technology has been further enhanced through the inclusion of the anti-perspirant technology.

The AD-APT technology works using microcapsules integrated into the glove liner that are activated when the skin temperature rises. This releases a natural anti-perspirant (essential oils) that is designed to regulate perspiration to help keep the glove wearer's hands dry and make them cooler. The active ingredients within the technology dissolve in the sweat or moisture on the hand surface. The dissolved substance forms a gel that creates a small, temporary 'plug' near the top of the sweat gland, which is claimed to reduce the amount of sweat secreted to the skin surface of the hand.

While the technology is designed to cool the hand and reduce sweating, the company says it does not impact on the natural ability of the body to control its temperature, ie, thermoregulation.

The technology used within the glove has also been dermatologically accredited by the Skincare Health Alliance certifying it 'skin-friendly'.

**Safety Mate Pty Ltd**

[www.safetymate.com.au](http://www.safetymate.com.au)



## Safety eyewear

Honeywell Hypershock safety eyewear is suitable for applications where high-performance medium impact protection is essential and vision can't be compromised. Being 100% dielectric, the safety glasses are also suitable for environments with a possibility of accidental exposure to electrical charge.

The eyewear's rugged design recognises the diversity of facial shapes and features to deliver a secure fit that's comfortable throughout the working day.

The eyewear is available in clear and espresso lenses, with either Honeywell's hard coat or Anti Fog lens coating. The hard coat is permanently bonded to the lens so that it won't wear off. The high scratch resistance means that the visual clarity of the safety eyewear remains high over time as the glasses themselves resist scratches and other disfigurements that would otherwise impede workers' view. Honeywell Anti Fog lenses feature a combination of hydrophilic and hydrophobic materials, using the best properties of both water-releasing and water-repellent coatings to prevent lens fogging.

For outdoor work, Hypershock polarised lenses are available to cut through glare for visual clarity. The polarised lenses block horizontal light waves that bounce off roads, water, metal and other flat surfaces, removing glare, improving perception of fine details and reducing eye strain.

Approved to Australian and New Zealand Standard AS/NZS 1337.1 by SAI Global, the glasses are comfortable to wear and provide the wearer with good clarity of vision.

**Honeywell Safety Products  
Australia Pty Ltd**

[www.honeywellsafety.com](http://www.honeywellsafety.com)

## Chemical glove

The Glove Company has produced Chloronite, a lightweight chemical glove said to exceed industry standards for chemical protection in hand safety. The glove was rated with seven letters under EN 374, including >480 min resistance to MEK.

The outer layer of chloroprene, combined with accelerator-free nitrile on the inside, produces a product that not only protects the user but is also comfortable to wear for an extended period of time, due to its lightweight design. The glove combines high levels of dexterity with resistance to a vast range of hazardous chemicals.

The product, under certified testing AS/NZS 2161:10.1:2005/EN 374, is said to have higher ratings and more passes on aggressive chemicals than the majority of chemical gloves available on the market today. Certified and tested by VIC Labs, it is suitable for use in a variety of applications, including chemical and biological agents, fuel treatment, cargo hold insecticides, chemical handling and processing, biohazard agents and many more.

**The Glove Company Pty Ltd**

[www.theglovecompany.com.au](http://www.theglovecompany.com.au)





# *time to update?*

## The latest in RFID safety sensors

 **SCHMERSAL**



Sharing the same dimensions as industry standard electromagnetic safety switches, the new RSS16 by Schmersal has one major advantage - there is no mechanical actuator.

The RSS16 identifies its targets via contactless RFID technology that benefits from high tolerance to misalignment, increased safety levels and extra flexibility to approach the target from three sides.

With a longer life and less maintenance requirements, the RSS16 can be used in existing designs by a 1 to 1 replacement with the AZ16.

**high  
tolerance**  
**no additional  
parts required**  
**individual  
coding**  
**no mechanical  
wear**

**PROVEN CONSTRUCTION, INNOVATIVE TECHNOLOGY.**

for more information call 1800 557 705 or email [sales@control-logic.com.au](mailto:sales@control-logic.com.au)  
[www.control-logic.com.au](http://www.control-logic.com.au)

  
**control logic**

industrial.  
electrical.  
automation.



### Antistatic ducting for food and drug manufacturers

Eximo speed LOCK has launched FoodFlex AS, a flexible, antistatic polyether-polyurethane ducting solution with a stainless steel wire spiral, which is designed to be used in a variety of food manufacturing applications where dust and other food product generated abrasives have the potential to generate static electricity.

The ducting is translucent, has a temperature resistance of -40 to +100°C and is designed to be used for the suction and discharge of abrasive and granular materials.

The material is resistant to chemical hydrolysis and a wide range of food-specific microbes, is lightweight, non-toxic and food safe according to US FDA-regulation 21 CFR 177.2600. It is permanently antistatic ( $R \leq 109$  ohm) and conforms to TRBS 2153 to provide good abrasion resistance and good all-round flexibility.

The ducting is available in a range of lengths and diameters.

**Eximo**

[www.eximo.com.au](http://www.eximo.com.au)

### Ute tool box

The Pelican High Side Ute Box is a durable and weather-resistant toolbox made from UV-stabilised polyethylene plastic and designed specifically to fit to the side of a tradesman's vehicle.

It is capable of storing large, bulky equipment and long tools up to 1.58 m in length or up to 1.62 m in length diagonally (depending on shape). It comes with a removable pivoting shelf for configurable storage.

The toolbox lid has dual gas struts for hands-free access, plus reinforced corners and edges for increased strength. It also features a stainless steel 3-point locking system and parallel stainless steel bar to ensure security for valuable items. The lid is equipped with provisions for two lights.

The product weighs 50 kg and is tested to military standards.

**Pelican Products Australia Pty Ltd**

[www.pelicanaustralia.com](http://www.pelicanaustralia.com)



### Multidrug detection solution

The handheld DOA Multi-Screen Drug Detection Reader can be used for drug testing with oral fluid (saliva) and urine drug-of-abuse testing and confirmation. It is claimed to be the only device available that enables users to choose between both oral fluid and urine lateral flow immunoassay drug tests.

Suitable for roadside testing, emergency unit use, emergency and corporate physicians, detention centres, border police, jails etc, the device can be used for qualitative, simultaneous detection of up to eight drugs: cocaine, amphetamines, methamphetamines, MDMA [ecstasy], benzodiazepines, methadone, opiates and marijuana [THC].

It uses a quick, hygienic and secure test method where all test results are clearly displayed with drug test confirmation. Data is stored (for retrieval) and an in-built thermal printer is used to facilitate point-of-test printout of drug test results.

The device is easy to use with a touchscreen for intuitive step-by-step functionality, along with fingerprint scanner, barcode scanner, GPS location/tracking and electronic signature functionality.

Complying with Australian Standards AS4760-2006 (oral fluid) and AS4308-2008 (urine), the device is suitable for any industry where the safety of its workers and customers is a priority.

**Pacific Data Systems**

[www.pacdatasys.com.au](http://www.pacdatasys.com.au)





The 4-fold safety  
of automation

COMPONENTS  
SYSTEMS  
SERVICES

Technical Ecological  
Personal Economical



**Pilz Services. Our Engineers don't just consult,  
they implement safety solutions as well.**

**pilz**  
the spirit of safety

Pilz Services are a global leader in Machinery Safety. Our safety professionals provide local services with global support in all matters of machine and functional safety across a wide variety of industry sectors. From Risk Assessment and Safe Designs through to customised solutions and validations. Profit from our high level of knowledge of the local AS/NZS 4024 standards combined with our access to the latest global safety trends. We reduce risk, implement technical machinery safety and take responsibility with the certification services we provide.

**Be informed about  
ISO 13849  
Talk to us today!**

**Further information about our local Pilz Services: [www.machinesafe.com.au](http://www.machinesafe.com.au)**

Melbourne • Sydney • Brisbane • Auckland

Ph: 1300 723 334 Ph: 03 9544 6300 Fax: 03 9544 6311 [www.pilz.com.au](http://www.pilz.com.au) [safety@pilz.com.au](mailto:safety@pilz.com.au)





# ASBESTOS FOUND WHERE YOU LEAST EXPECT IT: ARE YOU AT RISK?

Laura Valic

Asbestos is a deadly substance, but despite being banned in Australia since 2003, its legacy from mining and widespread use in building materials is far from over.

**W**e've all heard stories involving unsafe practices around asbestos - like men throwing handfuls of the stuff at each other as though they were snowballs or renovators tearing into asbestos-affected buildings without any protective gear. And the stories are not always from years past when less was publicly known about the mineral's carcinogenic properties.

It's estimated one in three homes in Australia contains asbestos, and with the number of mesothelioma cases (rare cancer caused by asbestos) not expected to peak until 2021<sup>1</sup>, asbestos exposure continues to be an important health and safety issue for the nation. Especially when the substance shows up in surprising places.

## Asbestos in recycling

Speaking at a Cancer Council forum on occupational cancer, Asbestos Removal Contractors Association (ARCA) President Bret Baker said asbestos is being found where you least expect it, and you could unknowingly be bringing the substance into your property.

"It's very common these days for recycled building products such as brick and concrete to have asbestos connected [to it]," Baker said.

"It's being found in recyclable materials such as roadbase, temporary construction site entry materials, soil products, wood chip and the like."

While asbestos is not allowed to be used in any form in Australia, the substance is cropping up when contaminated materials are found within the demolition loads brought in for recycling. According to the 2010 guide *Management of Asbestos in Recycled*

*Construction and Demolition Waste*, "products containing asbestos containing materials (ACM) are prohibited from being sold or used as recycling materials".<sup>2</sup>

"Recyclers try to mitigate this but sometimes it is getting through," Baker said.

The NSW Environmental Protection Authority (EPA) released a draft protocol in July 2014 setting out the rules and procedures for recyclers to ensure asbestos - usually in the form of 'fibro' sheeting fragments - does not enter a recycling waste facility and end up in recyclable products sold to third parties. It also outlines how to manage asbestos when it is unexpectedly found in recyclable products.<sup>3</sup> Asked if it is dangerous to be exposed to asbestos in these new materials, Baker responded with an emphatic "yes". He said it typically can be identified from experienced and competent people who then will have it tested in a laboratory for confirmation.

## Asbestos found in imports

Since the national ban, it has been illegal to import asbestos into Australia, except under strict conditions. The Australian Customs and Border Protections Service claims it has, however, detected the substance in a range of imported goods in recent years, including gaskets, heating equipment and pressurised hoses. Baker said asbestos has also been found within equipment such as cars and other machinery.

"It's no longer allowed to be used but that doesn't mean people still don't use it," Baker said.

"An example in Queensland recently was where materials were imported from overseas and it was used in the wall sheeting."





© Lucas280/Dollar Photo Club

Customs state the onus is on importers to ensure they do not import prohibited goods into Australia. Importers may also be liable to any costs of independent inspection, testing, storage and disposal of goods conducted by customs if goods are suspected to contain asbestos. Penalties for importing asbestos can attract fines of up to \$170,000. A way to mitigate the risk is to arrange an inspection and certification of goods by a qualified occupational hygienist, before exportation.<sup>4</sup>

### How informed are you?

There is much information available today from government, associations and agencies about asbestos and its related dangers. In 2014 a national sample survey was conducted for the Asbestos Safety and Eradication Agency (ASEA) to discover where awareness levels were at for groups identified at high risk of exposure. Findings revealed that across the target groups (tradespeople, the general public, DIY home renovators, and real estate agents and landlords\*), knowledge about asbestos was reasonable. Tradespeople (identified as working in some capacity related to the construction industry) were seen to be more engaged on the issue with 82% of respondents claiming they felt informed about asbestos. Other attitudinal insights revealed:

- 64% have confidence in their ability to identify asbestos-containing materials compared to the general public at 17%.
- 28% are moderately or not at all confident in recognising a situation with risk of asbestos exposure.
- 63% strongly agreed that even small exposure to asbestos can be very dangerous, while 4% in this group disagreed and 6% strongly disagreed.



IT'S VERY COMMON THESE DAYS FOR RECYCLED BUILDING PRODUCTS SUCH AS BRICK AND CONCRETE TO HAVE ASBESTOS CONNECTED [TO IT].

- 17% say they would not engage a specialist to remove asbestos.
- 40% had completed training in asbestos awareness, but 29% agreed they could use further training, while 25% said they felt they had insufficient training on how to identify and manage asbestos on the job.<sup>5</sup>

While the data provides only a baseline measure for awareness across the industry, some of the figures indicate there are still many who could increase their knowledge on this issue. For a group that could be expected to routinely be in environments containing asbestos, ignorance or complacency on its dangers, where to find it or what to do when found could result in riskier behaviours on job sites.

### Playing it safe

There are a number of precautions workers can take to limit their risk of exposure to asbestos. Baker told the forum to consider the following before renovating or demolishing a structure:

- Check first if a building contains asbestos before starting.
- Always wear the correct PPE equipment ie, a P3 respirator for friable removals.
- Set up exclusion zones to prevent cross-contamination.
- Use correct dust suppression techniques.
- Never use a domestic vacuum cleaner.

Disclaimer: Before commencing work always seek independent professional advice.

\*Number of survey respondents (General Public: 1015; Tradespeople: 401; DIY home renovators: 824; Real estate agents/landlords: 122).

### References

1. Asbestos.com, 10 April 2015, The Mesothelioma Center, viewed on 29 May 2015, <<http://www.asbestos.com/mesothelioma/australia/>>.
2. WorkCover, 2010, *Management of asbestos in recycled construction and demolition waste* guide November 2010, WorkCover Publications, Gosford, viewed 29 May 2015, <[http://www.adfa.org.au/printedmaterial/asbestos\\_recycled\\_construction\\_demolition\\_waste.pdf](http://www.adfa.org.au/printedmaterial/asbestos_recycled_construction_demolition_waste.pdf)>.
3. State of NSW Environmental Protection Authority, 2014, *Draft Protocol for Managing Asbestos During Resource Recovery Of Construction And Demolition Waste*, media release 22 July 2014, Environment Protection Authority, Sydney, viewed 29 May 2015, <<http://www.epa.nsw.gov.au/epamedia/EPAMedia14072201.htm>>.
4. Australian Customs and Border Protection Service, 2013, *Importing asbestos into Australia*, Australian Customs and Border Protection Service, Canberra, viewed 29 May 2015, <[http://www.customs.gov.au/webdata/resources/files/FS\\_ImportingAsbestos.pdf](http://www.customs.gov.au/webdata/resources/files/FS_ImportingAsbestos.pdf)>.
5. Colmar Brunton, 2014, *Benchmark survey on asbestos awareness report executive summary from report*, Asbestos Safety and Eradication Agency, Canberra, viewed 29 May 2015, pp 8-12, <[https://asbestosafety.gov.au/files/ASEA\\_Asbestos\\_Awareness\\_Research\\_Report\\_exec\\_summary.pdf](https://asbestosafety.gov.au/files/ASEA_Asbestos_Awareness_Research_Report_exec_summary.pdf)>.

## Lightweight safety shoe

The Puma Safety 633187 Dash is a metal free, mid-cut shoe featuring a composite toecap with a 200 J impact rating. It is suitable for workers in transport or warehousing industries where lightweight footwear is preferred.

The shoe is designed to close the gap between regular and safety footwear.

The upper is made of water-repellent nubuck leather with injected toe protection to reduce abrasions. The durable rubber outsole is 300°C heat resistant, as well as SRC antislip rated. A shock-absorbing idCell is embedded in the heel to further enhance the wearer's comfort.

The product is certified to Australian standards AS/NZS 2210.3: 2009 Class 1.

### Trading Downunder

[www.tradingdownunder.com.au](http://www.tradingdownunder.com.au)



## Early warning smoke detector

The latest version of the Vesda aspirating smoke detection (ASD) system - the Vesda-E - was developed and released in Melbourne. It has achieved ActivFire Certification, which means that it has passed stringent testing by the CSIRO.

This version has 15 times greater sensitivity to smoke and double the longevity while maintaining sensitivity over its lifetime, all with up to 8% less power consumption. It can quickly add monitoring, servicing and detection capabilities with the addition of bolt-on hardware modules called VESDA Stax, including a version of its ECO gas detection solution. The Stax do not require re-engineering of the smoke detection pipe network.

The system has good set-up, configuration, monitoring and connectivity options, and features downloadable Xapp software applications, which enable new, on-demand monitoring services. Available are WireTrace Xapp, to isolate threats from overheating cables and electrical wires; DieselTrace Xapp, for monitoring diesel smoke trends to enable on-demand ventilation systems; and DustTrace Xapp, for monitoring dust conditions and enabling corrective response to take place with ventilation. Monitoring of the detector is available on popular tablets using an iVesda application.

### Xtralis Pty Ltd

[www.xtralis.com](http://www.xtralis.com)



## Safety crates for removals

The Allied Pickfords plastic crates and skates are designed to replace cardboard boxes when packing and relocating files and items for business removals. The products are designed to be OHS-friendly for both employees and removalists as they eliminate the need to lift heavy boxes.

The skates can accommodate up to four crates and feature a brake on each castor. The crates have two flaps which fit together to form a top. Once filled, the crate can be placed onto the skate, and then another empty crate can be filled on top. Up to four high means there is no need for heavy lifting, as the weight of an empty crate is only 3 kg. The crates and skates can be wheeled onto a truck via the hydraulic tailgate.

Each crate also has two moulded edges, which allows for hanging files to be packed reducing the risk of the content being spilt.

Half-size crates are available for relocations involving stairs.

### Allied Pickfords

[www.alliedpickfords.com.au](http://www.alliedpickfords.com.au)



# HyFlex®

REDEFINING  
**CUT PROTECTION**  
INNOVATION



Next-generation Ansell INTERCEPT Technology™ integrates proprietary, cut-resistant engineered fibers in soft blended yarns that provide the ultimate in comfort, performance and protection. The technology is featured in a range of new HyFlex® cut resistant gloves including innovative ultra light-weight styles..



Learn more/request a sample:  
[ppe.ansell.com.au/intercept](https://ppe.ansell.com.au/intercept)

**Ansell**

## Safety fuses for pneumatic systems

Protect-Air HoseGuard safety fuses offer protection to pneumatic systems in the event of a broken compressed air hose or pipe. If the volume of air exceeds a set value (which is factory set to allow normal air consumption when using air tools), an internal piston instantly shuts off the main flow, while an integral bleed hole allows some air to flow through. This enables the line pressure to automatically reset the safety fuse once the main break is repaired.



The safety fuses are manufactured in aluminium and can be ordered in 316L stainless steel. They are suitable for all applications where compressed air is used, including manufacturing facilities, mining and machinery hire. The system meets OSHA and MSHA requirements, is CE compliant and complies with EN ISO 4414-11.2010-§5.4.5.11.1: Failure of hose assemblies and plastic piping.

**Compressed Air Australia Pty Ltd**

[www.caasafety.com.au](http://www.caasafety.com.au)



## Pocket-sized thermal camera

The FLIR C2 is a full-featured, pocket-sized thermal camera designed to help professionals see hidden heat patterns that can reveal sources of energy loss, signs of structural defects or plumbing issues. With its compact, sleek design, the device fits comfortably into any pocket, so it can be kept handy while the user carries other tools and equipment. The product has a simple-to-use touch screen with auto orientation and is built tough in a rugged casing.

The unit is powered by FLIR's Lepton micro thermal detector, which captures and displays subtle thermal patterns and small temperature differences using 4800 pixels of resolution. The wide-angle, fixed-focus lens is suitable for viewing and analysing large areas. It has a built-in work light and flash to help illuminate poorly lit areas.

Featuring FLIR's MSX real-time image enhancement, the camera creates thermal images with enhanced clarity and readability. MSX automatically embosses edge detail captured by an on-board visible camera onto the thermal image. Numbers, letters, textures and other features become recognisable without compromising the thermal image. The extra illumination of the work light also helps ensure that a brighter visible photo is captured along with the thermal image.

With quick point-and-shoot operation, the product stores radiometric thermal and visible JPEG images with the push of a button. The images can later be downloaded with FLIR Tools - free software that allows users to adjust thermal image levels, isolate and add temperature measurements, change colour palettes and create reports.

**FLIR Systems Australia Pty Ltd**

[www.flir.com.au](http://www.flir.com.au)

## 50+ UPF-rated hat

The Tanami lightweight hat is suitable for outdoor work in harsh Australian conditions.

With a 50+ UPF rating, it provides good protection from solar exposure. The generously sized brim helps cut out sun glare and the flexible back panel shields the neck region from UV exposure. Made from shower-proof material, the hat also has a toggle strap to assist with keeping the hat on in windy conditions.

Available in a range of sizes, the hat has a soft towelling headband for a comfortable fit.

**Vision Safe (PPE)**

[www.visionsafe.com.au](http://www.visionsafe.com.au)





**Our safety system can sit idle for months. I need assurance that it will work when it should and not shut us down when it shouldn't. Any time. Every time.**

# YOU CAN DO THAT



**DELTA V SIS** Smart, modern safety system designed for the life of your plant.

Emerson's smart safety instrumented system takes a modern approach to monitoring your plant's safety status and diagnosing the health of the entire safety loop—to perform on demand—so you can be sure your system will shut down when required, and keep running safely when a component fails. Electronic marshalling in DeltaV SIS gives you the flexibility to implement safety functions easily, safely, while eliminating time consuming tasks, re-work and re-design headaches associated with traditional marshalling. That's modern. That's peace of mind. Find out more at: [www.DeltaVSIS.com](http://www.DeltaVSIS.com)

The Emerson logo is a trademark and a service mark of Emerson Electric Co. © 2014 Emerson Electric Co.

**EMERSON. CONSIDER IT SOLVED.™**

## Safe speed monitoring for machines

With its DFS60S Pro safety encoder and FX3-MOC0 drive monitor, SICK has expanded its portfolio of solutions for the safe monitoring of the drives in mobile and stationary applications.

The trend towards a growing number of levels of freedom in the movement of automated guided vehicles (AGVs) represents a challenge for the safe monitoring of vehicle movement. The advantages of the DFS60s Pro are seen in safe detection of the direction of motion and turning on-the-spot by means of differential drives. If non-safety-certified encoders were used, these complex movements could not be implemented without greater expenditure on control technology. Safety-certified encoders can also be of benefit for stationary drive axes and asynchronous motors because they make a second redundant encoder for maintaining the safety function unnecessary up to SIL2 or PL d.

The FX3-MOC0 drive monitor partners with the DFS60S Pro for implementing consistent safety concepts from the sensor to the actuator via the controller. Numerous safety functions are easily and practically handled with the help of the drive monitor. It is used with the encoder for the safe monitoring of the drives of mobile machines, such as AGVs. With the help of Safe Speed Monitor (SSM) and Safety Limited Speed (SLS) safety functions, the speed of an AGV can be monitored via the safe DFS60S Pro encoder at the wheels and, if necessary, reduced. A vehicle emergency stop can be triggered and safely monitored with Safe Brake Control (SBC) and Safe Stop 1 and Safe Stop 2 (SS1 and SS2) drive monitoring functions.

As a certified safety product, the DFS60S Pro encoder together with the FX3-MOC0 drive monitor provide the opportunity for implementing comprehensive safety solutions from a single source in mobile and stationary applications. Machine constructors and integrators can save time during safety engineering and approval procedures.

**SICK Pty Ltd**  
[www.sick.com.au](http://www.sick.com.au)

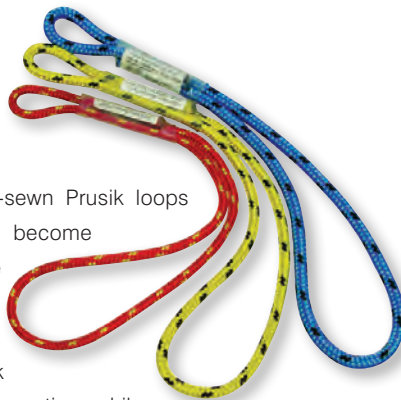


## Pre-sewn Prusik loop

The DBI-SALA Rollgliss Technical Rescue pre-sewn Prusik loops range eliminates the use of knots that could become loose. Constructed from high-strength kernmantle rope, the range provides a sliding hitch that is strong and ready for use when required. The stitched ends are covered in clear heat-shrink to provide added protection and easy visual inspection, while allowing the short loop end of the Prusik to be choked down so it bites onto the karabiner, keeping it under tension in the correct orientation.

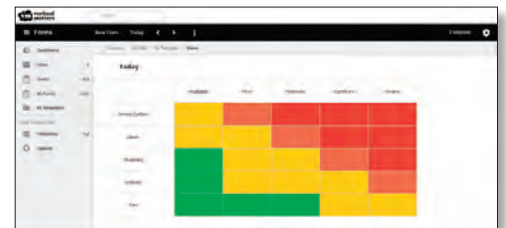
The pre-sewn Prusiks are convenient, easy to handle and ready for use when required. Available in three different-sized, colour-coded diameter ropes: 6, 7 and 8 mm, each diameter rope is available in a variety of lengths that can be used for specific technical rope rescue and industrial-access applications.

**Capital Safety Group (Australia)**  
[www.capitalsafety.com](http://www.capitalsafety.com)



## Risk management system

The Vertical Matters online quality management system now includes a Dynamic Risk Tool, which is designed to help workers identify safety risks associated with tasks and apply appropriate control measures to mitigate the risk while working in the field.



The tool allows users to create a risk register for their business that includes details on safe work method statements (SWMS), job safety assessments (JSA) and risk assessments. Using a simple template approach, risks can be recorded and categorised for certain tasks, including details on control measures to mitigate the risk. This can be directly linked to work instructions and manuals. Once the risk register is created, the risks can be dynamically displayed into a 'likelihood' and 'severity' matrix.

Prior to commencement of a task in the field, the field worker can use a handheld device to complete the SWMS using the 'forms' feature on the tool. This allows the worker to access the appropriate control measures to be applied to mitigate the risks, while the extended functionality of the tool also allows the user to record and track the control measures used. The system can be set to automatically flag management should a gap in the control measure occur.

Further functionality is being added to the tool to include a hazard capture mechanism that supplements the existing risk register and allows teams members to add hazards and control measures back into the risk register at any time while out in the field. Once reviewed and approved by management, these updates can be deployed immediately to any site-specific SWMS.

Suitable for construction, civil engineering, facilities maintenance, traffic management and transport industry applications, the tool can be used on any smartphone, tablet or internet-enabled computer.

**Vertical Matters**  
[www.verticalmatters.com.au](http://www.verticalmatters.com.au)



## Innovative mining boot steps closer to award

Encompassing a suite of innovative technologies and a range of features not used before in the mining environment, the Blundstone new-generation 980 Underground Mining Boot has been shortlisted for the coveted Good Design Awards.

Blundstone CEO Steve Gunn says Blundstone worked directly with the miners experiencing first hand the environment they operate in, enabling designers to create a purpose-built boot that stands up to the harshest of conditions while addressing an age old health and safety problem.

"The Blundstone 980 Underground Mining Boot has fundamentally changed the way mining boots are made. We have designed a boot with a high level of ankle support and stability control whilst ensuring it is extremely comfortable and watertight, boosting overall footwear performance and longevity.

"The boot is expected to reduce absenteeism and associated costs relating to foot health issues and injuries caused by underperforming footwear," said Gunn.

With its origins dating back to 1958, the Good Design Awards showcase superior examples of good design across a broad range of industries and design disciplines, with seven main awards categories and 25 subcategories.

The judges commented: "The Blundstone 980 Underground Mining Boot represents a true understanding of the end user. This is true design excellence in every regard and a showcase of what good design can bring to a very challenging project with tough customers. The Blundstone Mining Boot is a beautifully resolved product that has clearly gone through a professional design process."

After a week-long judging process involving more than 30 local and international design experts, only 266 of the 380 entries qualified for the Good Design Selection stage. These entries are now in the running to receive the country's highest design honour, to be announced at the Good Design Awards Gala evening on 29 May in Sydney.

To qualify for the Good Design Selection, entries must satisfy the stringent criteria for good design that includes factors such as safety, quality, functionality, sustainability and innovation.

The Good Design Awards conduct one of the most rigorous assessment processes in the world and to qualify for this round is a significant achievement.

Dr Brandon Gien, the CEO of Good Design Australia who manages the annual awards program, said, "We pride ourselves in upholding very high standards in our evaluation process and, as a result, only the best submissions make it through to this stage.

"I'm very pleased that the Blundstone 980 Underground Mining Boot has gone on to this stage of the Good Design Awards. It is a testament to the hard work the designers have put in to bring this project to market."

*Blundstone Australia Pty Ltd*  
[www.blundstone.com.au](http://www.blundstone.com.au)



### Compact safety system

The Schneider Electric Tricon CX is a compact system for safety and critical control applications in the oil and gas, power, refining, chemicals, pharmaceutical and biotech industries, where safe operations are critical. A certified ISA Secure EDSA level 1 system, the product ensures operational integrity, protecting against inherent risk and hazards, as well as external threats such as

cyber attack. It is designed to help maximise productivity, reliability and security while minimising risks and the likelihood of business interruption.

The system functionality enables online upgrades without operational interruption. With a smaller and more compact design than its predecessors, the product has a reduced form factor (50%) and lower power consumption. It comes with a 300% increase in controller tag capacity and five times increase in peer-to-peer performance.

Other features include: a supervised DI/DO with line-performance diagnostics; fast analog inputs with integrated HART; 1 ms SOE digital input; a choice of direct termination or external termination panel; and an automated test and verification of safety logic.

**Schneider Electric**

[www.schneider-electric.com](http://www.schneider-electric.com)



### Self-retracting lifelines

Capital Safety has released the DBI-SALA Nano-Lok Extended Length range of self-retracting lifelines (SRLs).

The range provides extended lifeline length, up to 1.6 m when working at height, which increases the anchorage options and provides added mobility and versatility where fall protection is required. The SRLs can be used in place of lanyards and directly attached to any harness, reducing fall clearances.

The range is designed to be unobtrusive to the user when worn and has two single leg webbing lifeline models with either a snap or scaffold hook. DBI-SALA's i-Safe intelligent safety system using RFID technology is built into each SRL to track inspections, control inventory and manage information.

**Capital Safety Group (Australia)**  
[www.capitalsafety.com](http://www.capitalsafety.com)



### Safety software

DoneSafe is a safety compliance software package designed with the user experience in mind and eliminates long forms and jargon, clunky interfaces and high prices.



The software covers all bases - managing everything from hazards and risks, auditing and observations, plant and equipment, chemicals, learning, visitors and contractors, consultation, knowledge base as well as insight-driven reporting.

The cloud-based software is easy to implement and use, and runs on all devices (PC, mobile and tablet), helping organisations comply with legislation and enhance their safety culture without the headaches or the large price tag.

**DoneSafe Pty Ltd**  
[www.donesafe.com](http://www.donesafe.com)

### Protective coverall

DuPont has added the ProShield FR to its coverall range, a hooded protective garment made from a flame-retardant polypropylene non-woven fabric (SMMMMS) that provides limited protection against heat, flames and chemicals. It is suitable for various industries including petrochemical, utilities, railway, welding, oil and gas, and metal fabrication.

The coverall is typically used, depending on chemical toxicity and exposure levels, for protection against particles (Type 5). It also offers protection against limited liquid splashes or sprays of non-flammable liquids (Type 6) in applications where PPE offering chemical, heat and flame protection is required.

The garment protects workers against occasional and brief contact with sparks and small flames as its fabric minimises the spread of flames. It also protects re-usable, flame-resistant garments, such as the Nomex that are worn underneath, from unpressurised chemical spray, aerosols, particulates and dirt and grime. The product is certified to EN ISO 14116 Index 1 (superseded EN 533:1997).

**DuPont (Aust) Limited**  
[www.dupont.com.au](http://www.dupont.com.au)





## Wireless remote control for hoisting

The Schneider Electric Harmony eXLhoist wireless remote control allows intuitive one-handed operation of cranes while also enhancing safety. Combining ergonomic design, long battery life and a SIL3 wireless emergency stop, the device is used to remote control of cranes, while also helping to protect the operator and machine.

The positioning of buttons enables easy one-handed control of the station, allowing the operator to control a complex series of manoeuvres with just one thumb and give their full attention to the hoisted load. Embedded features for increased safety include a wireless SIL3-certified emergency stop at the base of the station grip, within easy reach of the operator. Additionally, the device integrates SIL1 protection against unintended use and is aligned with functional safety standards for wireless remote control.

The estimated battery recharge time for the device is only 15 minutes and it has a runtime of up to 30 h on a single charge. Long-term battery life is up to 5 years.

Operating on the international 2.4 GHz frequency, the device provides global compatibility and universal protection against interference, enabling simultaneous operation of up to 50 wireless devices.

**Schneider Electric Pty Ltd**  
[www.schneider-electric.com](http://www.schneider-electric.com)



## Digital controller

Heastern Industries has launched a range of TOHO TTM-200 series universal digital controllers.

Features include a 5-digit display, which is fully scaleable and allows up to four separate inputs. The range has interchangeable display colours of green, red or orange, a soft-start function and delay timer.

The range also includes improved controllability due to a PID algorithm that shortens the time it takes to stabilise from a control start. The devices can be used as a program controller and are equipped with an easy-to-use process control function. The communication function (RS485/MODBUS) extends up to 500 m and can connect up to 31 units simultaneously.

The range comes in various compact depth sizes, starting from 55 mm for the TTM-204 model and 65 mm for the TTM-205/207/209 models.

**Heastern Industries**  
[www.heastern.com.au](http://www.heastern.com.au)



## Clothing vacuum cleaner

The Guardair CS3000 Personnel Cleaning Station from Knight Pneumatics will clean dust, dirt and debris from workers' general and protective clothing. The unit uses an on-demand air-agitator brush attachment with a high-efficiency pneumatic vacuum. Activated by a thumb-switch, the air agitator loosens and lifts particles while the vacuum sucks them away safely and effectively.

The product features a 20.8 L (5.5-gallon) chemical-resistant polyethylene container and a 1½" ID x 10' flexible vacuum hose. It also has a cartridge filter which is 77% efficient at 0.8 microns and a 3/8" inlet.

The vacuum runs off compressed air and without a motor is virtually maintenance-free. The predrilled steel mounting plate allows the unit to mount on any vertical surface saving floor space.

**Knight Pneumatics Pty Ltd**  
[www.knightpneumatics.com.au](http://www.knightpneumatics.com.au)

**Accurate drug testing where you need it most**

We know that both speed and accuracy in drug and alcohol testing is vital to your business.

Our **LaneWorkSafe Split Specimen Cup®** is simple to use, AS4308-2008 Australian Standard compliant and detects 6 drugs of abuse and 6 adulterants.

With accurate results in as little as two minutes, we keep your workforce where they should be...working.

For further information on our full range of quality testing products, give us a call on **1800 429 219** or visit us at **laneworksafe.com.au**

BSI  
ISO 9001  
P3 36/011

JAS-ANZ  
G

**LaneWorkSafe**  
Worksafe - Workwell



# FORKLIFTS 'FACE-OFF' IN NARROW AISLE

The S3000 Anti Collision safety laser scanner from SICK makes use of its own scanning range record of 7 m for a field where safety is key, but it doesn't stop there - it is actually capable of covering a much greater scanning range of up to 15 m.

A protective field is used to safely detect oncoming forklifts in narrow-aisle applications and reduce their speed before a collision occurs. The S3000 Anti Collision can be relied on to detect a reference target on the oncoming vehicle at a distance of up to 15 m away. This means that it is possible to operate two forklifts at high speed in a single aisle, offering maximum results with a high level of system throughput. Dynamic field switching is a further function that facilitates a high degree of throughput. At the same time, the technology monitors a protective field of up to 7 m to detect human presence.

As a result of spatial restrictions in the aisles, shelving systems that are accessed using industrial trucks do not always conform to a minimum distance of 0.50 m between the shelving units and the vehicle or load to be transported. Passages of this size between shelving systems are referred to as narrow aisles.

It is not possible for operators of industrial trucks in narrow aisles to avoid oncoming vehicles. In order to ensure personal safety, DIN 15185-2 requires operators to take technical and organisational action.

The 'reliable collision protection field' is an auxiliary function of safety laser scanners intended to prevent industrial trucks from colliding in narrow aisles. Unlike conventional safety functions that offer personal protection depending on whether a human presence is directly detected, this function detects a vehicle in the surrounding area and so, by avoiding collisions between two vehicles, indirectly prevents harm to individuals.

The high relative speed of two vehicles that are travelling towards each other makes it necessary for the collision protection field to have a large scanning range. In this case, a protective field with a scanning range of 7 m is no longer good enough. From a user perspective, the objective is to increase throughput as a result of the ability to operate two forklifts in a narrow aisle at high speed.

## Flexibility in logistics

The increased demand for personalisation of products has put new demands on the entire supply chain. Although additional


personalisation requires extra effort in terms of production and logistics, productivity and efficiency are not expected to suffer; which may sound like a contradiction in terms.

In addition, customers increasingly expect a high degree of transparency in business processes to give them maximum flexibility in terms of demand and freedom to act. Supply chains now face the same challenges both within and between the relevant factories, because logistics are everywhere, whether inside a production site or en route to the next one.

Intelligent networking of factories, as foreseen by 'Industry 4.0', solves both problems by creating a high degree of transparency and flexibility through new concepts of automation. There are many different dimensions within the supply chain through which logistics can exert influence.

There are five challenges that directly affect flexibility in all areas of logistics:

1. Communication
2. Track and trace
3. Flexible automation
4. Quality control
5. Safety

**Safety:** Autonomous machines require new safety concepts that are optimised to more flexible production methods. These include the protection of every process step along a production line to deal with man/machine interactions, which are now significantly less susceptible to planning. In all of these approaches and solutions, of course, the safety of people is a priority. However, the safety aspect must also cover an adaptive approach to the production environment, such that the safety solutions themselves are flexible and responsive. This means that complex and highly automated production lines do not need to be shut down completely just because safety cannot be guaranteed at an individual point in the process. 

SICK Pty Ltd  
[www.sick.com.au](http://www.sick.com.au)



## Sun-protection hat

The UVeto Kala hat is designed to protect the wearer from harmful UV rays without obstructing their vision. It allows outdoor workers to focus on the task at hand without the worry of serious sun damage to their neck, face and ears.

The deep curved peak combines with a generous neck flap to provide good protection from the sun. The flaps stop short of the eyes and mouth making it comfortable and practical to wear. The hat also features patented covered vents to keep the wearer cool.

### Vision Safe (PPE)

[www.visionsafe.com.au](http://www.visionsafe.com.au)



## High-power flat air nozzle

Exair's 1" High Power Stainless Steel Flat Super Air Nozzle produces a flat 25 mm wide airstream with a blowing force of 462 g when mounted 305 mm from the target.

The design of the nozzle makes it suitable for tight spaces. The Type 316 stainless steel construction is suitable for corrosive, high-temperature, food, pharmaceutical and chemical environments.

The nozzle maximises entrained airflow while reducing noise levels. A precise amount of compressed air is released through the 0.64 mm air gap opening that is set with a stainless steel shim positioned between the body and removable cap. The airstream pulls

in surrounding room air to produce a forceful stream of high-velocity, laminar airflow. Air consumption is 495 SLPM at 80 PSIG. It meets OSHA dead end pressure standard CFR 1910.242(b). Sound level is low at 82 dBA which meets OSHA noise exposure standard 29 CFR 1910.95(a), and it is CE compliant. Force and flow can be adjusted by installing different shim thicknesses. Optional swivel fittings and flexible hoses to aim the nozzle are also available.

The nozzle is also available in zinc aluminium alloy construction, suitable for rugged industrial applications, such as ejecting heavy parts and slugs, chip removal, part cleaning, drying, liquid blowoff and cooling.

### Compressed Air Australia Pty Ltd

[www.caasafety.com.au](http://www.caasafety.com.au)

# SAFETY JUST GOT EVEN SIMPLER!

FIELDiD helps businesses increase workplace safety, reduce liability and eliminate the problems that come with pen-and-paper-based safety management systems!

**FIELDiD**



**WANT TO SEE MORE?**

Email [fieldid@mayohardware.com.au](mailto:fieldid@mayohardware.com.au) for a free customised demonstration!



SCAN QR CODE  
TO SEE MORE

**SafeSite**  
ease • efficiency • expertise

by  **mayohardware**



[www.safesite.com.au](http://www.safesite.com.au)



### Safety eyewear

Designed for medium impact eye protection, the Honeywell Machete safety eyewear features a tough hard lens coatings and a stylish, light-weight frame.

Weighing less than 30 g, the eyewear is light enough to be comfortable throughout the working day.

The strong, highly scratch-resistant hard coating is permanently bonded to the lens so it won't wear away over time and this provides an extended lifespan.

Available in clear or grey, the contemporary design is suitable for a range of work environments, including mining, construction and manufacturing. It can also be customised with company branding.

The range is approved to Australian and New Zealand Standard AS/NZS 1337.1:2010 for medium impact protection.

**Honeywell Safety Products Australia Pty Ltd**  
[www.honeywellsafety.com](http://www.honeywellsafety.com)

### Safety workwear

Eleven Workwear has launched professional safety clothing by Australian designer Leigh Eam, including pants and shirts, which is designed to be comfortable, fashionable and innovative for demanding Australian industries.

The Eleven Workwear E1160 Chizeled Cargo Work Pants with Inbuilt Knee Protection are made from cotton canvas with elastane. They have a double-layer knee with neoprene for knee protection and a multifunctional cargo pocket and zip-closure pocket. The pants come in various sizes and colours including navy, khaki and black. The Eleven Workwear E1300S Hi-Vis Long Sleeve Drill Shirt is made from cotton drill, with a mechanical stretch to 190 gsm, and features a sun-shield collar. It also has an internal chest pocket with pen partition, spliced front and back, a hanger loop and extra length in the tail. The shirt comes in various sizes and colours, including yellow and navy or orange and navy.

Both garments comply with AS/NZS 4399:1996 sun protection standards.

**RSEA**

[www.rsea.com.au](http://www.rsea.com.au)



### Configurable safety controller

The Panasonic SF-C21 Configurable Safety Controller is a safety control unit that can do the work of up to four safety relay units. Its compact size allows it to be installed in narrow spaces up to 45 mm wide.

Equipped with eight single or four dual Safety Inputs and four single or two dual PNP transistor safety outputs, the unit is capable of safety functions incorporating two-handed control, parallel muting, sequential muting, category 0 and 1 stop, as well as logic utilising AND/OR functions. Using Modbus RTU protocol over RS485 communications, various general-purpose control units such as PLCs or HMIs can monitor the SF-C21 status, the selected logic and any error status.

The unit has flexible configuration features, which allow the user to either select one of the eight predefined, safety-certified logic scenarios using the rotary switch on the front panel or configure a unique scenario to suit the user's application using the free software.

The Configurator SF-C software is safety certified and has a simulation mode to test if the logic and safety circuit prepared by the user operates efficiently. The product complies with safety standards Category 4/PLe to EN ISO 13849-1 and SIL CL 3 according to IEC 62061.

**Control Logic Pty Ltd**

[www.control-logic.com.au](http://www.control-logic.com.au)







# AUSSIES WANT WORKMATES TO QUIT THE CONES

A recent online survey conducted by the National Cannabis Prevention and Information Centre (NCPIC) has found Australian workers believe cannabis use has a detrimental effect on the performance of their co-workers.

**T**he online survey of almost 2000 Australian workers found 40.3% of those who have worked with a cannabis user think the drug causes reduced motivation at work and one-third think their co-workers' use of cannabis has resulted in decreased productivity.

"We know cannabis can have an effect on areas like motivation, reaction time and concentration, which makes it both a blue collar and white collar issue. What we can see from the survey is people working with cannabis users feel the drug is having a very real impact on their workmates, which inevitably affects their own workload and may impact business bottom lines," said Dr Peter Gates, a senior researcher at NCPIC.

"The reality is, if you are a regular cannabis user, there is a chance your colleagues are going to notice you are letting the team down in key performance areas such as motivation and, in turn, productivity."

Interestingly, cannabis smokers did not identify the same shortcomings in their work performance, though 15% did indicate effects on motivation and almost 10% reported the overall quality of their work would improve if they quit.

"While cannabis use may not have a big impact on some, it's not unusual for people who use the drug to overlook or ignore some of the effects it is having on their health, lifestyle or even work. Sometimes a person who is impaired by a drug is not the best judge of their own abilities. What's troubling is that without identifying the cause of their decreased productivity, it can be difficult to put plans in place to address it successfully."

Gates said aside from productivity, safety is a major concern if people are arriving at work affected by an illegal substance. With 38.4% of respondents believing cannabis has caused decreased concentration in their colleague, and 31.1% believing it has impaired that person's ability to perform complex tasks, the dangers point to a very real need to immediately identify and address drug use in the workplace.

"When skills such as concentration, coordination and reaction time become diminished in a cannabis user who is responsible for the safety of their colleagues, it becomes really concerning for everyone at work," Dr Gates said.


Of note, the data showed more than 80% of respondents reported they would be comfortable talking to a cannabis-using co-worker about their decreased performance. More than half said they would feel comfortable talking to the cannabis user's manager. Despite this, only 5% of people who identified using cannabis (around 47% of them having been stoned at work) said they had ever been talked to about the impact of cannabis use on their performance. Being able to talk openly to a supervisor about a colleague's drug use is important, as the user themselves may not feel their work or safety is being affected.

Dr Gates said clear communication about drug use should be a priority in all Australian workplaces.

"Employers need to make sure they have clear drug policies in place at work and that these are not just included in a pile of paperwork during employee induction. Instead, there should be an ongoing dialogue within the workplace so employees understand exactly what behaviour is expected of them and why it's so important.

"Having access to strong assistance programs to support employees who may be underperforming due to drug use is also very important. There is a vast range of services available for people who use drugs, and making sure employees feel they are able to ask for help is a crucial part of developing a healthy and productive workforce," he said.

Guidelines for developing a drug policy, induction materials and other 'drugs at work' resources are available from the NCPIC website at [www.ncpic.org.au](http://www.ncpic.org.au).

Individuals who currently have concerns or problems related to their cannabis use can access the free national Cannabis Information and Helpline on 1800 30 40 50. 



### Particle powered air-purifying respirator

The Sundström SR700 is a lightweight powered air-purifying respirator (PAPR), slimmer and with similar capabilities as its predecessor, the SR500, but it uses only particle filters.

The fan unit can be connected to all Sundström supplied-air headpieces, such as a full face mask, hoods, face shields and the SR580 helmet with visor. The unit uses two particle filters, making it suitable for dusty environments such as demolition work. With a tight-fitting full face mask and appropriate protective clothing, the respirator is also suitable for asbestos removal.

The battery provides up to 8 h of operation and can be recharged in 2 h. Weighing only 1.1 kg including battery and filters, the device offers good mobility and can be used in situations where filter protection against particles is required or recommended.

The device is operated with a single control for starting, stopping and selecting fan speed. The clear display shows the operating status of the respirator, and audible and visible alarms warn of any obstruction to the airflow.

The product has a protection rating of IP67, ensuring it is dust-tight and also resistant to immersion in water to a depth of 1 m for 30 min.

**Safety Equipment Australia Pty Ltd**

[www.sea.com.au](http://www.sea.com.au)

### Prediction data for protection system

Basic prediction capabilities for the CSI 6500 protection system by Emerson allows users to make real-time decisions on operating their critical assets.

These basic prediction capabilities require only minimal time and wiring investments and will be available in the AMS Suite: Machinery Health Manager v 5.61 software.

Using a simple Ethernet connection from the protection system, users receive periodic parameter trends and spectrum/waveform data delivered on specific intervals. This data can determine the health of sleeve bearings on turbo machinery, while the automated process for acquiring prediction data will eliminate the need to connect to buffered outputs on the protection system, thereby reducing the risk of causing a machine trip.

Waveform data from the protection system is also incorporated onto the circular polar plots accessible in the software, which can facilitate diagnosis of developing valve faults in reciprocating compressors.

**Emerson Process Management**

[www.emersonprocess.com.au](http://www.emersonprocess.com.au)



### Prediction software to fight bushfires

The CSIRO has released a software tool that can predict the severity and spread of destructive bushfires. The 'Spark' software will give firefighting agencies insight into fire behaviour, helping them to make informed decisions that could save lives and property.

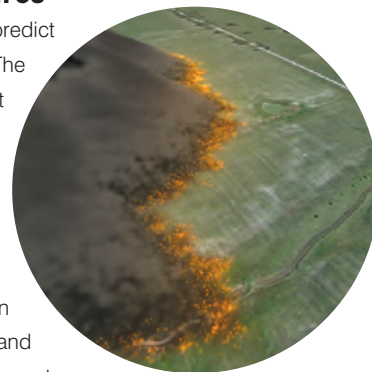
Spark takes current knowledge of fire behaviour and combines it with state-of-the-art simulation science to predict the future location of bushfires and the spread of those already burning. It has been developed as an open framework for fire prediction and analysis, making it simple for fire agencies to incorporate the software into their existing system.

According to CSIRO, it has the potential to be used operationally for real-time fire spread modelling of bushfires. The framework uses geospatial data, such as vegetation types, topography and unburnable elements such as roads and bodies of water. It also looks at weather data such as air temperature, humidity, wind speed and wind direction and then uses this data to model the spread of a fire based on its specific location and current environmental conditions.

The data and modelling software is also anticipated to help reduce the financial burden of disasters on the global economy, which can be severe, as the Black Saturday tragedy was estimated to have cost \$4.4 billion according to estimates from the Victorian Bushfires Royal Commission. The CSIRO claims in south-east Australia the fire season is becoming longer, reducing the opportunities for hazard reduction burning, and it is therefore crucial that communities, emergency services, health services and other authorities prepare for the increasing severity and frequency of extreme fire conditions. A demonstration video of Spark is available at: <https://research.csiro.au/spark/>.

**CSIRO**

[www.csiro.au](http://www.csiro.au)







### Power vest

Developed by researchers at Fraunhofer in Germany, a prototype of the power vest is expected in 2015 with production taking one to two years before it can be released to the market.

Using what experts call 'soft robotics', the power vest could be the way of the future for manual handling as embedded sensor technology can provide back support for workers exposed to frequent heavy lifting.

The non-bulky orthosis (a short form of orthopedic prosthesis) vest is designed to be light, soft and easily worn over clothes, while still supporting the spine without limiting its range of motion. Electronic sensors are incorporated into the material to continuously monitor the way the wearer is moving and activates a warning lamp as soon as it detects any irregularity.

Also, innovative synthetic actuators with adjustable rigidity help the wearer avoid incorrect movements and support correct ones. The energy to assist the wearer comes through the user's movements. When a worker bends down to lift a load, the 'smart medical aid' stores the kinetic energy and can release it again when needed.

**Fraunhofer in Germany**  
[www.fraunhofer.de/en](http://www.fraunhofer.de/en)



## Monitor Noise Exposure in the Workplace

Rent the Brüel & Kjær 4448 Personal Noise Dose Meter from TechRentals

#### Features:

- ✓ Intrinsically Safe
- ✓ Auto-calibration function
- ✓ Highly visible LED dB alarm
- ✓ Rechargeable battery; operation time 28 h
- ✓ 180 h logging storage
- ✓ Kit of 3 includes Type 1 calibrator



**\$ Save with our NEW long term rental rates**



Find out more!

For more information, contact us today:

☎ 1800 632 652 ✉ [rent@techrentals.com.au](mailto:rent@techrentals.com.au)



**TechRentals**  
[www.techrentals.com.au](http://www.techrentals.com.au)

TR1362

## Stepping up safety for water industry application

A small team at SA Water set out to design a solution to enable safe boat access, as they couldn't find a suitable product in the market to address a recurring problem they were encountering.

Water sampling at SA Water's reservoirs is critical in ensuring water quality is maintained year-round. Maintenance and construction worker Jason Carls takes samples of water from seven of the state's reservoirs up to 11 times a week. This daily procedure requires a worker to reverse a utility towing a trailered boat into the water, before climbing into the boat via the utility's tray. The process is reversed after work on the reservoir is complete. Due to the lack of an easy access point, workers have previously boarded the boat by climbing onto the trailer and then pulling themselves up into the boat.

"While there have not been any serious injuries to workers in the past, there have been a number of slips, bruised and grazed shins and a potential for falls," SA Water District Leader South Para Darryl Jones said.

In an effort to improve the current procedure, employees from across two of the state's reservoir depots began researching alternative methods and products on the market.

"The team carried out extensive research to find a solution to our problem. We found a few alternatives; however, they were always with a different model of boat. This would end up being a far greater cost to the corporation."

With this in mind, Jones came together with fellow workers Carls, James Kelly and Jake Kelly and began drafting a design which they later labelled as the 'Safety Steps'.

Developing the design was not a straightforward process and required the expertise of the team at the South Para workshop. After a number of meetings and feedback from fellow peers, the concept was given approval by SA Water management.

The proposed plan was to modify the back of the vehicle tray top and the bow of the boat to enable safe access.

Greg Trevena, fabrication team leader and Sam Lagana, fabrication tradesperson at the South Para workshop, fabricated

the steps to ensure they were compliant with Australian Standard AS1657. The design called for the steps to be made entirely out of aluminium, ensuring they were light enough for workers to manually manoeuvre from the vehicle tray to sit firmly in place on the trailer's draw bar. The vehicle tray top was previously modified on the driver's side to allow for a drop-down step ladder, enabling ease of access into the vehicle tray. Once the worker is on the tray top, they are then able to undo a safety latch which lowers the safety steps into position.

Maintaining three points of contact at all times, the worker is then able to step onto the platform and the bow of the boat, holding the handrails which have been fabricated on the steps and front of the boat.

"Once on the boat, you can then pull a string inside the cabin of the boat to unlock the latch, which then releases the boat safely into the reservoir," Carls said.

"This concept has significantly reduced the level of risk in accessing the boats when water sampling in the reservoirs. Ensuring three points of contact at all times when transitioning from the trailer to the boat has resulted in a much safer and smoother method for the workers. The potential for any injury to occur is now minimal," Jones said.

"The modification has been really well received by fellow workers and we hope that the concept can be shared across other SA Water workgroups," said Carls.

"'Safety Steps' have the potential to be used on different models of boats; however, there may need to be some modifications made depending on the height of the vessel and

length of the draw bar," Trevena said.

The concept was nominated as a finalist in the AWA Water Industry Safety Excellence Award category. SA Water hopes that Safety Steps can also be introduced to other water utilities and any industry requiring a person to frequently board and disembark a boat in this manner.

SA Water  
[www.sawater.com.au](http://www.sawater.com.au)







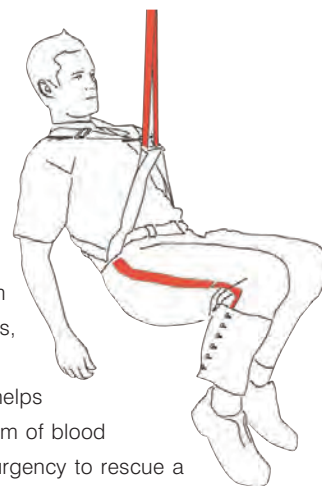
### Safety harness

The ZT (zero trauma) safety harness is designed to provide freedom of movement, comfort and safety for people working from heights, including elevated work platforms.

The harness design is without typical groin straps and this helps to prevent physical injury to the groin during a fall, as the problem of blood supply being restricted around the groin is eliminated, and the urgency to rescue a worker is lessened. Whiplash is also claimed to be reduced by 200%.

The patented gaiters, located at the bottom of the pants, tighten around the calves during a fall, which helps to distribute the pressure of the fall more evenly throughout the whole body. The gaiters are designed to pull the user's calves and legs up to put them in a semi-seated position when suspended.

The safety harness is unisex and certified to bear users weighing up to 150 kg. It has no D-rings, loose straps or lanyards to catch on obstacles, allowing workers to wear the device like normal workwear. The pants material, including a lightweight mesh, is available in black cotton twill, high-vis orange or yellow. The harness is AS/NZS certified and available in Dual and Universal harness configurations.



**TSE Safety Harness**

[www.tsesafetyharness.com.au](http://www.tsesafetyharness.com.au)

**FREE**

## SAFETY SOLUTIONS NEWSLETTER

Get the latest news, industry research,  
tips and trends delivered straight to your inbox.

**SUBSCRIBE NOW!**



For your free subscription, scan the QR code or  
visit [www.safetysolutions.net.au/member/new](http://www.safetysolutions.net.au/member/new)



### Vibration meter

The Fluke 805 FC vibration meter is a portable, multifunction vibration screening tool that provides quantifiable information on the bearing and overall health of motors and other rotating equipment, and shares that data in real time via Fluke Connect.

The product is suitable for frontline mechanical troubleshooting teams that need repeatable measurements of rotating equipment to make imperative go/no-go maintenance decisions. The meter automatically saves vibration data wirelessly to Fluke Connect cloud storage so authorised team members can view all of the measurement data for each asset with the Fluke Connect app on their mobile devices before they leave the inspection site.

The handheld device measures overall vibration from 10 to 1000 Hz and provides a four-level severity assessment for overall vibration and bearing condition. It detects peaks in the vibration signal readings of roller bearings from 4000 to 20,000 Hz, and uses a proprietary algorithm to interpret severity to determine if the bearing is going bad. It features an infrared sensor that automatically measures surface temperature and displays it along with the vibration reading for a broader understanding

of machine health.

The unit has a sensor tip design that minimises measurement variations caused by device angle or contact pressure. This reduces operator error and improves the accuracy and repeatability of quick vibration screening. The meter also provides a severity scale for both overall vibration and bearing condition readings, delivering more information than typical vibration pens.

**Fluke Australia Pty Ltd**

[www.fluke.com.au](http://www.fluke.com.au)



### Rail moisture transmitter

The Michell Instruments dewpoint transmitter gives continuous, online measurements of dewpoint of the compressed air that supplies the braking systems and doors on train carriages.

The transmitter has a heavy-duty M12 electrical connector and is calibrated to measure extreme

ranges of -60 to +60°C dewpoint. The product uses a polymer moisture sensor to provide reliable readings of dewpoint, allowing for operators to respond quickly to any changes in efficiency in the pneumatic air dryer system. This is needed to ensure safety on the tracks as excess moisture during cold weather can lead to freezing or jamming of the braking system or automatic doors.

The product also helps to reduce the cost of maintenance as longer-term moisture in the distribution network and pneumatic components can lead to corrosion.

The transmitter has EMC/RFI approval to rail standard EN50121-3-2 and shock/vibration approval to rail standard IEC16373:1999-01.

**AMS Instrumentation & Calibration Pty Ltd**

[www.ams-ic.com.au](http://www.ams-ic.com.au)



### Full HD security cameras

Sony Electronics has launched four Rapid Dome IP full HD/HD\* security cameras that feature 30x optical zoom and what is said to be the fastest pan speed, highest frame rate and widest dynamic range available.

The W series is said to be the first full HD security camera to feature 130 dB of wide dynamic range, giving operators the ability to accurately describe and assess a security incident.

The cameras are also equipped to perform in severe conditions with the latest IPELA Engine Pro technology.

Features include: gyroscopic image stabilisation to reduce the effect of vibrations during strong winds or when installed near roads; image defogging to increase image visibility under poor weather conditions; focal plane distortion correction to correct image distortion caused by panning; continuous 360° pan movement at the speed of 700°/s.

Designed for wide area surveillance areas such as airports, stadiums, casinos and border control, the series allows operators to quickly pan to areas of interest in a single quick motion, and identify the situation.

The series shoots at twice the number of frames as conventional IP cameras. The 60 fps gives the operator more details to analyse when stepping frame by frame through the video, making a difference in identifying a person or an object in question.

The SNC-WR630 and SNC-WR600 are rated for indoor use with full HD and HD resolution respectively, while the SNC-WR632 and SNC-WR602 unitised models are IP66 rated for outdoor use with full HD and HD resolution respectively.

**Sony Australia Ltd**

[www.sony.com.au](http://www.sony.com.au)



## Tunable diode laser spectrometer

The Yokogawa TDL8000 tunable diode laser spectrometer can quickly make in-situ measurements of gas concentrations in combustion and heating processes that are employed in the oil, petrochemical, electric power, iron and steel, and other industries.

The product is used for measuring O<sub>2</sub> concentrations in fired heaters for improved safety and lifecycle management; measuring CO concentration during combustion processes and the amount of moisture in hydrocarbons and corrosive gases; and measuring ammonia concentration for leak detection during DeNox processes.

The device features a cell board that improves absorption peak detection, an important step in the spectral area method. The receiving unit has an auto gain function that can automatically optimise detection sensitivity depending on the measurement object. By increasing the signal-to-noise ratio (S/N ratio), this improves the reliability of measurements taken in coal combustion and other processes where there is high particulate loading.

The product comes with a 7.5" LCD touch screen, replacing the push-button interface used with preceding models. The light source module containing the laser diode is fully sealed and damage resistant. It can also store up to 50 days' worth of raw data, accessed remotely.

Designed to meet the requirements for SIL2 certification, the product will help ensure the safe operation of plants. It is also expected to be certified to IECEx, ATEX, FM, cFM and TIS explosion-proof standards. It will be suitable for installation in hazardous areas with explosion-proof enclosures.

**Yokogawa Australia Pty Ltd**

[www.yokogawa.com/au/](http://www.yokogawa.com/au/)



## Lens cleaning station

Dirty and clouded safety glasses can impair vision, heightening risk and increasing the chance of workplace accidents. Over an extended period, failure to properly clean protective eyewear will also lead to degradation of the lens, eventually making the PPE unusable. The Honeywell Lens Cleaning Station provides a solution for keeping safety glasses clean with a minimum of fuss to ensure the PPE will provide the best possible protection for longer.

The lens cleaning station has a highly visible wall-mountable design, which acts as a reminder for workers to keep safety glasses clean. Section 4.5 of Australian Standard AS/NZS 1336 provides that items of protective eyewear need to be cleaned in accordance with the manufacturer's directions at regular intervals, including before and after each use where they are being shared between multiple people. The cleaning station features easy-to-follow instructions for optimal cleaning of safety glasses and other protective eyewear.

AS/NZS 1336 also requires that workplaces provide proper facilities for the cleaning of eye protectors. The lens cleaning station features Honeywell lens cleaning solution, tissues and a mirror for checking fit, all in one convenient wall-mountable unit with clear instructions for proper cleaning in accordance with the Australian Standard.

**Honeywell Safety Products Australia Pty Ltd**

[www.honeywellsafety.com](http://www.honeywellsafety.com)



## IDEM Emergency Stop



Model:  
**IDEM ES-SS**

**\$149**  
+gst\*

- Part No. IDE 231001
- Lid safety trip mechanism
- IP69K stainless steel
- EN 60947-5-1, EN 60947-5-5, EN 954-1, EN 62061, UL 508, ISO 13850, ISO 13849-1

## IDEM Pull Rope Switch



Model:  
**IDEM GLS-SS**

**\$319**  
+gst\*

- Part No. IDE 144015
- Up to 80m can be covered using only a single switch and safety spring (100m with 2 switches)
- Rugged integral sealing bellows mean they can be high pressure hosed
- IP69K stainless steel
- Easy to wire with 3 x M20 conduit entries
- IEC 60947-5-1, IEC 60947-5-5, EN 954-1, EN 62061, UL 508, ISO 13850, ISO 13849-1.

\* Offer Ends 31/08/2015 Available to ABN holders only

Distributed by

**DAANET**  
CONTROL INFORMATION CONNECTIVITY

**1300 DAANET**  
[daanet.com.au/idem](http://daanet.com.au/idem)



# FIREFIGHTERS USING THERMAL IMAGING CAMERAS

Clackamas Fire District #1 in the US provides fire, rescue and emergency medical services to five cities in the state of Oregon. With 17 fire stations strategically located throughout Clackamas County and a workforce of more than 200 employees and 100 volunteers, it's the second largest fire protection district in the state.

**L**ike many fire departments in the US, Clackamas Fire has depended on thermal imaging cameras (TICs) for well over a dozen years as a critical tool in helping protect lives and save property.

## Thermal imaging for firefighters

"The technology's really changed since the early days," said Captain Jason Ellison. "Thermal imaging cameras were very large, cumbersome units when we first started using them, and very expensive. In fact, we were only able to afford a couple of cameras for the entire district back then. But with the lower cost models that are available these days, now we have multiple cameras per rig and use them pretty much on a daily basis throughout the district.

"Thermal imagers have allowed us to see in situations where it's nearly impossible to with the naked eye. Obviously inside a fire environment it's incredibly smoky and dark, and we don't know the layout of the building. TICs show us the way through so we can move swiftly, look for the seat of the fire, look for victims; basically, they help provide a very effective roadmap."

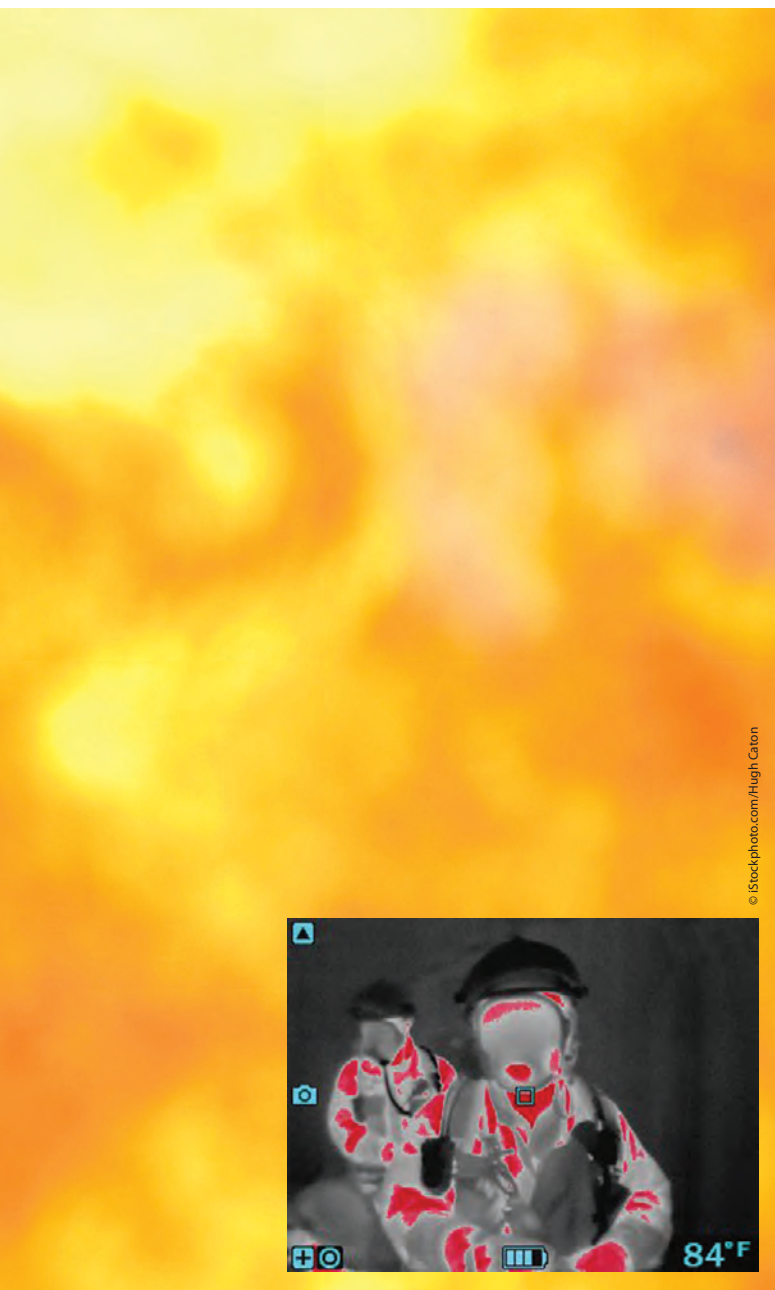
In a technical nutshell, thermal cameras create images from heat instead of light by detecting temperature differences in a scene and transforming those values into a crisp thermal video image on the camera's LCD. On certain models, such as the FLIR K40 and K50, still frames can also be captured and stored to internal memory for later review and downloading for documentation and training.

## Seeing through smoke and in total darkness

"With the thermal imager, I can tell as I move down the hallway where bedrooms are, easily make out the location of beds, closets, windows, and see where others are around me." Ellison added, "Windows, by the way, are a secondary egress for us so knowing where they are is crucial to our safety."

Ellison explained that firefighters manning the nozzle have their hands full and typically aren't the ones carrying a TIC. "There's thick black smoke, ventilation hasn't kicked in yet and it's very hard for them to even see their hands in front of their face. But a company officer close behind with a thermal imager can be right there to hold the TIC in front of that firefighter so he can see the layout





of the structure, press on and direct the nozzle pattern where it needs to go.” That, Ellison said, really speeds up the effort. “In the old days, we’d have one hand feeling the way along a wall and another guy holding onto the leg of the firefighter in front of him. Try finding your way in your house with your eyes closed. That’s what it was like. It really ate up precious time.

“With this (TIC) technology, we’re able to get to the heart of the fire and knock it out much quicker and more safely. Even when the fire’s essentially out, I’m still using the camera to look (through remaining smoke) for hotspots.”

### Thermal imaging saves lives

Tracking down trapped, stranded and missing victims is another way TICs come to Clackamas Fire’s aid. “In any fire situation,” he said, “there’s always a possibility someone’s inside. So a thermal imager is very effective at helping us make sure everyone got out safely and the home gets the ‘all clear’. We also use them in our technical and water rescue efforts. For instance, we can search for people who may be stuck on a remote shore in the dark after




falling in the river. Sometimes at night we have to deal with a car accident where someone got ejected from the vehicle and we need to locate the victim.

“The cameras we originally started out with seemed like the size of computers... very bulky to carry. The new ones like the FLIR K50 are very light and much more compact. And that’s important when you’re already packing 50-plus pounds [22 kg] of gear. A smaller TIC on a lanyard like the FLIR K50 makes it a lot more practical to clip on your turnouts or self-contained breathing apparatus [SCBA] and be hands-free until you need the device. For me, it’s very tactical to use without having to slip my hand through a handle... much easier to just grab, go and then let go of.”

He also likes the Search and Rescue (SAR) mode that narrows the temperature detection span more in line with body temperatures to alert him where victims are faster, especially in hotter environments. On the other hand, when he’s under fire attack, he usually leaves it in ‘fire mode’, which has a 300 to 1200°F (148 to 648°C) range. “That gives me a really good colour alarm to show me where the super-heated gases are and where there’s fire around us.”

The bigger, brighter LCDs of today’s thermal imagers also make using thermal imagers more popular. “Having a nice 4” screen that the FLIR K50 has makes it a lot easier to decipher what I’m looking at to guide my crew members to safety or to their objective.”

More affordable pricing has also made a huge impact. According to Ellison, “We’re looking for tools that can help keep us safe that are also the most cost-effective. FLIR’s affordability will allow us and other departments to put more cameras on the rigs to help us do our job better and keep our guys safe.”

To sum it up, Ellison said it’s a tool that, when used correctly, allows firefighters to move swiftly and safely and get the job done right. It’s technology that would be very difficult to live without. 

FLIR Systems Australia Pty Ltd  
[www.flir.com.au](http://www.flir.com.au)



### Heavy-duty cable roller stand

The Extra Heavy Duty Cable Roller stand from Adept Direct is designed to reduce trips and fall hazards in the workplace by elevating cables, leads and hoses off the ground.

The product builds on the strengths of the company's smaller A-Frame Cable Stands to secure rolls of cable

and data lines, but incorporates a heavier load-carrying capacity up to 150 kg.

The stand ensures cable drums do not roll away during electrical installs and also keeps cable reels tangle-free. At 1 m wide, it can hold a number of cable reels and at 800 mm from the ground to the axle centre, it can secure larger diameter cable rolls.

The cable stand comes in a high-visibility, safety yellow powder-coat finish with non-slip feet and thumbscrews to lock the frames to the cable axle.

#### Adept Direct - Cable Rollers & Lead Stands

[www.adeptdirect.com.au](http://www.adeptdirect.com.au)



### Welding helmets

The Kemppi range of welding helmets is designed to protect against welding, grinding and associated airborne fumes and dust contamination.

The lightweight Beta 90 FreshAir helmet provides flexibility while the three-stage flip lens protects during activities such as arc welding, plasma cutting, gouging or grinding operations. The helmet has a dual-skin hatch that reduces heat to the face and can be combined with a battery-powered FreshAir filter pack or a locally supplied airline. Clean breathing air is channelled through a filter over the face and the adjustable fabric face seal creates a safe breathing zone for the wearer, while the air flow reduces the lens misting.

The Delta 90 and Delta+ 90 FreshAir helmets are designed for workers in extreme conditions, such as shipbuilding, heavy fabrication, and mining and construction. Both provide all-round head protection. The Delta 90 includes optional hearing protection, while the Delta+ 90 includes a separately hinged welding visor that can be raised independently from the impact-grade face shield. Both models can be combined with a rechargeable, battery-powered FreshAir filter pack (operational for up to 10 h) or a local air source.

The FreshAir Flow control comes with an alarm that gives visual and acoustic signals if the battery is drained, the filter is clogged or the airflow is insufficient. Airflow can be adjusted and the filter separates 99.998% of airborne particles.

All helmets in the range meet Australian and New Zealand standards.

#### Kemppi Australia Pty Ltd

[www.kemppi.com](http://www.kemppi.com)



### Swivel fittings for small air nozzles

Exair's Mini Swivel type 316 stainless steel fittings are used to easily adjust the position of an air nozzle and point it exactly

where it is needed. Available in three sizes, the swivels can provide smaller air nozzles in the Exair range with a 50° total angle of adjustment, so the nozzles can be positioned for maximum effectiveness. The 1/8 MNPT Mini Swivel Fittings are suitable for use with the M4 x 0.5 Atto Super Air Nozzle, the M5 x 0.5 Pico Super Air Nozzle and the M6 x 0.75 Nano Super Air Nozzle.

The fittings with Super Air Nozzles deliver a precision, highly focused and forceful blowoff for applications in tight spaces or requiring a minimal amount of compressed air. The fittings can be used with any 316SS or PEEK thermoplastic mini Super Air Nozzles. All of the nozzles have been engineered to maximise entrainment of room air while minimising compressed air consumption. They meet OSHA's standard 1910.242(b) for pressure and OSHA's noise exposure standard 29CFR - 1910.95(a). Exair's nozzles are also CE compliant.

#### Compressed Air Australia Pty Ltd

[www.caasafety.com.au](http://www.caasafety.com.au)



# FREE

to qualified industry professionals

Vital business  
and industry  
information  
that you need  
to know.

The magazine you are reading  
right now is just one of ten  
published by Westwick-Farrow.  
To register for your free  
subscription please follow the  
link for your preferred magazine.

1.



## What's New in Electronics

Professional electronics  
engineering, design and  
manufacturing. New products  
and technology advances.

[www.ElectronicsOnline.net.au/subscribe](http://www.ElectronicsOnline.net.au/subscribe)

6.



## Sustainability Matters

Environmental business solutions  
covering waste minimisation, energy  
efficiency, water optimisation and  
renewable energy.

[www.SustainabilityMatters.net.au/subscribe](http://www.SustainabilityMatters.net.au/subscribe)

2.



## What's New in Process Technology

Automation, control and  
instrumentation products,  
technology, case studies, news  
and application articles.

[www.ProcessOnline.com.au/subscribe](http://www.ProcessOnline.com.au/subscribe)

7.



## ECD Solutions

The latest in electrical,  
communication and data  
products, applications and  
technology advances across a  
range of industries.

[www.ECDsolutions.com.au/subscribe](http://www.ECDsolutions.com.au/subscribe)

3.



## Critical Comms

Communications technology  
for public safety, law enforcement,  
utilities, transport, security  
and defence.

[www.CriticalComms.com.au/subscribe](http://www.CriticalComms.com.au/subscribe)

8.



## What's New in Food Technology & Manufacturing

The latest food processing,  
packaging and ingredients  
products, solutions and  
applications available in  
Australia and New Zealand.

[www.FoodProcessing.com.au/subscribe](http://www.FoodProcessing.com.au/subscribe)

4.



## Lab + Life Scientist

Lab technology advances  
across the life sciences,  
analytical, biotech, enviro,  
industrial, medical and science  
education sectors.

[www.LabOnline.com.au/subscribe](http://www.LabOnline.com.au/subscribe)  
[www.LifeScientist.com.au/subscribe](http://www.LifeScientist.com.au/subscribe)

9.

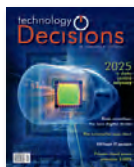


## Field Service Business

The new media channel for the  
booming field service sector.  
Technology advances, business  
solutions and new products.

[www.FieldServiceBusiness.com.au/subscribe](http://www.FieldServiceBusiness.com.au/subscribe)

5.



## Technology Decisions

Business-critical IT infrastructure  
and systems solutions including  
cloud, security, big data,  
compliance and more.

[www.TechnologyDecisions.com.au/subscribe](http://www.TechnologyDecisions.com.au/subscribe)

10.



## Safety Solutions

Industrial safety solutions,  
products, services and  
applications across a range of  
industry sectors.

[www.SafetySolutions.net.au/subscribe](http://www.SafetySolutions.net.au/subscribe)

If you would like a free trial copy please  
send your details to:

**The Circulation Manager**  
[circulation@westwick-farrow.com.au](mailto:circulation@westwick-farrow.com.au)

Name

Title

Company

Address

Postcode

Ph No

Email

Please send me  
magazine Number/s

☐ ☐

*\*Maximum of two titles only. You will receive  
only one trial edition of each. If you wish to  
continue to receive copies of your nominated  
magazine, you will need to complete and  
return a registration form from within  
the magazine.*

**For privacy information, see**  
[www.westwick-farrow.com.au](http://www.westwick-farrow.com.au)

## Constructing tools to tackle alcohol and drug awareness

Launched by Swinburne University of Technology, the [safeconstruction.org.au](http://safeconstruction.org.au) website tool is designed to guide and educate industry about how alcohol and other drug consumption can drastically affect performance and safety on the construction site.

Dr Jo Abbott, Acting Deputy Director of the National eTherapy Centre at Swinburne, said that providing information and tools via the internet helps get messages about safe workplaces out to a large number of workplaces, including those in remote areas, and people can access the information anonymously at a time and place that suits them.

The website is the direct result of a two-year project Safety Impacts of Alcohol and Other Drugs in Construction run by the Sustainable Built Environment National Research Centre (SBEnc), with project partners from the Centre for Accident Research and Road Safety - Queensland (CARRS-Q, Queensland University of Technology), the National Drug Research Institute (Curtin University), the National e-Therapy Centre (Swinburne) and lead industry partner John Holland.

SBEnc lead researcher Professor Herbert Biggs explained a national survey undertaken during the research identified a need for the construction sector to be able to access information and tools when dealing with employees who consume alcohol or take drugs.

"Results detailed in the research report indicate that, as in the general population, a proportion of employees sampled in

the construction industry may be at risk of hazardous alcohol consumption," Professor Biggs said.

"The findings support the need for evidence-based, comprehensive and tailored responses in the construction workplace, and in the broad community, so that those who may be 'at risk' are provided with accessible and relevant information and/or help when necessary, and this is where the website comes in."

SBEnc Chief Executive Officer Professor Keith Hampson said the project and website were a great example of the SBEnc's commitment to enhance the performance of Australia's built environment industry.

"This project involved a unique industry-government-research collaboration across the construction workforce," Professor Hampson said.

"The challenge is to build safer workplaces through

working together and the new website will certainly help to achieve this in the construction industry."

Website participants complete online modules which identify risks and offer prevention strategies.

The website provides information as to how organisations and workplaces can develop alcohol and other drug consumption awareness, policies and practices of overall health, safety and welfare benefits to individual employees.

Although primarily designed for the construction sector, the website is also applicable to other industries. SBEnc is located in the Faculty of Humanities at Curtin University in Perth.



## NEW PRODUCTS



### PPE/industrial consumables vending machine

The BOC Safety First Vending Machine is designed to help companies control the distribution of safety and industrial products to its employees. It provides secure point-of-use distribution with 24/7 access.

Using GRPS telemetry technology, the system can track the usage of the equipment and provide real-time, user-defined reports for management. This information can then be used to help management optimise product usage and make decisions on future product selections.

Individuals are issued with an access key card (ID card reader or pin option) for the machine. To ensure the workers are using the right equipment at the site, the worker's access cards can be set up to allow the user access to all or only selected items from the machine. This provides management control to ensure workers are only able to access the correct items for their work area and it can also restrict the usage of high-value items to only those workers who specifically require them.

The range of products in the machine can be designed to suit any workplace, with adjustable dispensing racks available to suit welding products. Automatic alerts can be programmed to generate when refilling is required so that stock doesn't run out.

An optional Credit Card Reader Pack is also available, which can be used to charge contractors or visitors who are required to use safety equipment while at the work site.

**BOC Limited**

[www.boc.com.au](http://www.boc.com.au)





# SECURITY

EXHIBITION + CONFERENCE

**15-17 JULY 2015**  
**MELBOURNE CONVENTION  
& EXHIBITION CENTRE**

 **REGISTER FREE NOW**  
**SECURITYEXPO.COM.AU**  
PROMO CODE: SEC1

## CELEBRATING 30 YEARS OF CONNECTING THE SECURITY INDUSTRY

The celebratory edition of Australasia's premier security event will bring the industry together from 15-17 July 2015 at the Melbourne Convention & Exhibition Centre. In an annual showcase for the industry, over 140 local and international suppliers, manufacturers and service providers will come together to showcase new solutions for professionals and end users, including advances in 4K video surveillance and mobile solutions for access control.

Plus you will have the opportunity to relive the past three decades of security with exciting new features honouring the industry's defining moments.

You will find all this and much more at the Security Exhibition & Conference 2015.

LEAD INDUSTRY  
PARTNER



Australian Security Industry  
Association Limited

PRINCIPAL EXHIBITION  
SPONSOR



SECURITY COMMUNICATION  
SOLUTIONS INTERNATIONAL

ORGANISED BY





### Flashing sounders

The Pfannenberg Patrol range of combination sounders and flashing lights is suitable for any alarming application or environment, including signalling needs such as machine pre-start or fire evacuation alarms.

The flashing sounders carry a sound level range from 100 to 120 dB with light intensity from 5 to 15 joules. The range can be used up to 170 m away and holds up to 64 different tones that can be custom selected to suit various installations. With an operational temperature range of -40 to 55°C, the flashing sounders continue to be effective in demanding and harsh environments.

The range has an IP66 protection rating against water and dust, as well as the IK08 rating for protection against impact such as hail storms.

**Control Logic Pty Ltd**

[www.control-logic.com.au](http://www.control-logic.com.au)

## WORKPLACE INJURY OR A VACUUM LIFTING SOLUTION? THE CHOICE IS YOURS!



## CALL US NOW ABOUT THE NEW JUMBO FLEX

Now with **50kg** lifting capacity  
Cartons, sacks, buckets, drums, etc.

**FREECALL**  
**1800 992 211**

[sales@millsom.com.au](mailto:sales@millsom.com.au)  
[www.millsom.com.au](http://www.millsom.com.au)

Scan the QR code for more details about this system.

### WHS management system

Smart OHS is an online work health and safety (WHS) management system suitable for all business types, small to large, designed to help reduce risk in the workplace and keep businesses OHS/WHS compliant.

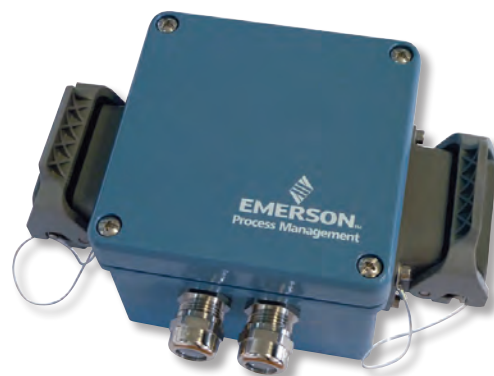
The system can be accessed via the cloud on any device in order to complete tasks such as risk assessments, inspections or staff inductions. The product is also tailored for specific industries and comes with policies and procedures manuals, which are easily amendable to suit individual workplaces.

Members are sent pre-programmed emails, averaging one per fortnight, containing instructions on how to use the system's online forms for compliance tasks. The system is further supported by unlimited email and telephone in-bound support and quarterly outbound support.

Some of the tools available to assist with OHS include: workplace inspection; contractor insurances; staff induction; OHS training record and plan; hazardous substances register; risk assessment/hazard report/task; incident and injury report; and OHS documentation and records.

**Smart OHS**

[www.smartohs.com.au](http://www.smartohs.com.au)



### Machine monitoring system

The CSI 3000 Machinery Health Monitor from Emerson Process Management is a compact protection system for a wide range of machinery such as pumps, compressors, centrifuges, blowers and generators.

It delivers field-mounted, dual-channel protection for rotating assets and is designed to deliver protection data in situations where a standard rack-based system does not fit or is costly.

The monitor measures shaft and bearing vibration, position and speed. It generates key signals, helping to reduce sudden machine shutdowns. The system provides the user with alarm outputs for each channel and does not require additional signal converters for shaft vibration and displacement measurements.

**Emerson Process Management**

[www.emersonprocess.com.au](http://www.emersonprocess.com.au)





# AUSTRALIAN TECHNOLOGY TRANSFORMING SAFETY IN WORKPLACES GLOBALLY

During May this year, medical device company dorsaVi secured its first OHS contract in the United States with construction and mining equipment manufacturer Caterpillar. It also signed with its first two UK-based OHS customers - the London Underground and VINCI Construction UK.

dorsaVi's ViSafe workplace solution consists of wearable sensors that are placed on the body to measure movement and muscle activity in the workplace. This technology enables employers to assess risk of injury to employees, reduce insurance-related costs, meet compliance and test the effectiveness of proposed changes to workplace design, equipment or methods based on objective evidence.

## Materials handling application in the US

Caterpillar's seals metal casting facility in Georgia will use the dorsaVi ViSafe OHS wearable sensor technology to evaluate and define the best practice for workers using heavy material handling equipment. It will be used to monitor the workers to provide an assessment of the movement of their lower back, shoulder elevation and relevant muscle activity. The technology will evaluate and measure core components of manual handling, regular work tasks and recent workplace changes and contrast

the new modified workstations against previous designs. Based on the aggregated data from ViSafe and under the scope of the contract, dorsaVi aims to develop a plan to improve or modify equipment to increase workplace safety. It will also assist in the planning of education and training in manual handling and the implementation of potential interventions.

Group OHS and Compliance Business Manager Mark Heaysman said: "We are thrilled to be expanding our OHS offering in the US and work with an industry leader in Caterpillar Inc. We are confident we can add significant value to their business and workers and we look forward to seeing the real-life benefits from the implementation of our innovative workplace changes.

"dorsaVi is combining established field-based protocols with innovative technology, which informs strategic and financial decisions to improve workplace safety and reduce costs. The Caterpillar team has embraced our ViSafe technology and shared their vision for creating the safest workplace possible."



## Transport and construction applications in the UK


The London Underground carried more than a billion passengers last year and is the oldest rapid transit system in the world. dorsaVi's ViSafe workplace solutions will provide Stations and Distribution Services, a division of TfL's London Underground, with objective measurement and evidence-based solutions to design ergonomically improved vehicles for current and future drivers.

VINCI Construction employs 68,000 employees in 100 countries and its UK branch encompasses three divisions. It will use ViSafe workplace solutions to objectively assess and document the impact of novel work practices and provide evidence of risk reduction among employees.

"The transportation and construction sectors are ideally suited to ViSafe," said Zoe Whyatt, dorsaVi Europe COO.

"With the intensive manual handling and repetitive movements involved, these workers too commonly experience back and shoulder problems. ViSafe can change this pattern."

"By capturing real-time and real-world data, ViSafe consultants collaborate with companies to provide solutions to reduce workplace injuries and the corresponding costs."

ViSafe has been used by many other major corporations, including Coles, Woolworths, Toll, Toyota, Orora (formerly Amcor), Crown and BHP Billiton. 

dorsaVi Pty Ltd  
www.dorsavi.com

## NEW PRODUCTS



### Smoke alarm safety switch

Designed for domestic use, the Exelgard Alarm Safety Switch automatically switches off a home's power circuits when a smoke alarm detects fire, helping to minimise the spread of fire.

The switch must be installed by a licensed electrician and in accordance with detailed instruction in the unit's manual. It is positioned alongside the switchboard and connected to the hard-wired smoke alarms throughout a home.

If a smoke alarm triggers, the switch automatically cuts off the selected power circuit breaker in the switchboard and stops the power supply to household appliances. While the safety switch disconnects power to appliances, it does not affect a home's lighting, ensuring householders have complete visibility in an emergency situation.

The switch must be tested and reset at least once a month and must never exceed four test and reset operations per minute. As the switch relies on smoke alarm signals, it is vital that smoke alarms are maintained according to manufacturers' recommendations.

Home owners must remember to check their smoke alarms once a month by pushing the 'test' button on the unit and change the batteries every 12 months. It is recommended that every household has at least one smoke alarm installed between the bedrooms and remainder of the house, and on any other storey within the home.

**Exelgard**

www.exelgard.com.au

### Protective boot

The (All Terrain) AT 55 Series safety boots from Oliver Footwear come with metatarsal protection designed for two major categories of foot injuries in the workplace - those caused by sprains or lacerations and those that result from falls.

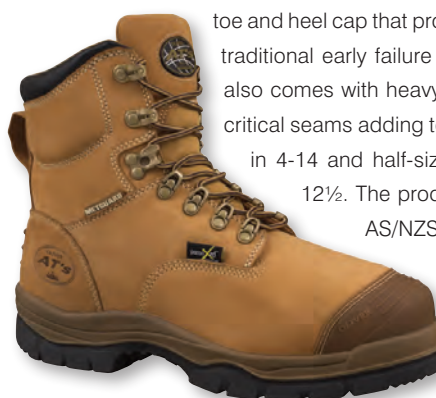
The Oliver AT 55-236 Wheat Lace-Up Met Boot has a PORON XRD Extreme Impact Protection metatarsal guard that protects the foot against falling objects. The boot's material creates a protective shield absorbing up to 90% of the force, as measured according to ASTM-F1614-C.

The Qflex Zero non-metallic insole also reduces the possibility of injury caused by sharp objects that may pierce the sole, while the outsole tread pattern offers slip resistance certified under Australian Standards. The sole also provides heat resistance up to 300°C of surface contact, is resistant to a variety of oils and acids, and has Electrical Hazard (EH) protection.

The product has a nubuck leather upper and sturdy lace-up design, which provides ankle support for rough terrain. The boot also

features a NATUREform steel toe cap and a TECTuff toe and heel cap that protects against scuffing and traditional early failure at these points. The boot also comes with heavy Kevlar stitching along all critical seams adding to its durability. Sizes come in 4-14 and half-size increments from 6½ to 12½. The product is fully compliant with

AS/NZS 2210.3 and international standards EN ISO 203435 and ASTM F2413.



**Oliver Footwear**

www.oliver.com.au



## Portable fall arrest systems

Capital Safety has added the SafRig and Engineered Modular Unit (EMU) to its DBI-SALA FlexiGuard Access Systems range, which are portable and provide an overhead anchorage point anywhere that fall protection is needed.

The products have been developed to keep workers safe when working on heavy-duty transportation equipment, loaders, trucks, aircraft or other oversized equipment.

The SafRig is fitted with a single anchor point and self-retracting lifeline, and is available with either an outrigger or counterweight base. Forklift pockets on the base ensure ease of mobility and placement on-site. The outrigger base is designed to easily drive over and does not require the weight of the vehicle as the anchoring force, allowing the system to be positioned anywhere around the vehicle.

Other features include: 6.1 m anchor height; 1.75 m offset from mast; 360° jib rotation; an overhead tie-off point; and integrated rescue device mounting hardware.

The EMU is a lightweight system that allows for good mobility around the jobsite with a forklift. Various configurations are possible with three adjustable height models and one fixed height version, as well as three mounting options available. The product is supplied with the Glide 360 Horizontal Rail fitted with a mobile trolley and self-retracting lifeline.

Other features include: 1.8 m safe working radius; 360° mast rotation; built-in height adjustment handle and lifting point; and integrated rotational locking pins every 11°.



**Capital Safety Group (Australia)**

[www.capitalsafety.com](http://www.capitalsafety.com)

## KEEP YOUR WORKMATES SAFE



Learn. Network.  
Source. Stay Safe.



**15-17  
SEPTEMBER  
2015**

Register for FREE at  
[safetyinaction.net.au/Melbourne](http://safetyinaction.net.au/Melbourne)

In association with



Major Sponsor



Melbourne  
Exhibition  
Centre



# EQUIPMENT DESIGNED TO REDUCE MANUAL HANDLING INJURIES

**M**anual handling injuries are not limited to those sustained by lifting or carrying heavy loads. A person can be injured when handling objects in a variety of ways, including pulling, pushing, holding or restraining.

According to the Australian Workers Compensation Statistics 2011-12, the most common of these work-related injuries are sprains and strains, accounting for 43% of all serious compensations claims. Between 2000 and 2012, 20% of these serious compensations claims were a direct result of back strains and injuries. In this same time period, 21% of all weeks lost from work were as a result of back injuries.


Safe Work Australia suggests that back injuries are most common in the transport and storage, and manufacturing industries.

MLA Holdings says an effective way to reduce the high rates of back injuries in these industries is to minimise or stop the use

of manual hand pallet jacks when moving heavy loads. Manual pallet jacks can make significant physical demands on operators in confined areas, particularly when heavy loads have to be pulled or pushed using muscle power alone. If moving loads greater than 500 kg, the company suggests a battery-powered version should be considered. It is the effort involved in starting and stopping a load that

results in most back injuries. Mitsubishi's Forklift Briefing website states that the maximum figure for safely starting or stopping a load is an effort of 20 kg for men and 15 kg for women. Testing of hand pallet jacks shows that starting a 500 kg load from a stationary position takes an effort of 23.3 kg. Increase the load to 2000 kg, and the force required is 49.6 kg, much greater than the official guidelines recommend. This is why many back injuries occur and many hours of work are lost at great cost to Australian businesses.

While initially more costly than hand pallet jacks, electric power pallet movers are designed to be a safer and more cost-effective solution in the long run. With the right equipment specification and operator training, electric power pallet movers can reduce the risk of operator injury, reduce fatigue, improve operator performance and increase the efficiency of the operation.

The Mitsubishi Premia power pallet movers are designed to make light work of transporting loads, in a safe and easy manner. The power pallet movers provide a solution to safe horizontal movement of heavy loads while minimising the risk of back injury that may be associated with the use of manual hand pallet jacks. Acceleration, top speed and braking characteristics are fully programmable to suit each individual user's needs. When the control handle is pulled all the way down or up, the truck automatically stops. Furthermore, when the emergency button is activated, the truck immediately stops. For tight turning in confined spaces, the Mitsubishi Premia power pallet movers have a 'handle-up' operation feature, making them suitable for use in containers and the back of trucks. 

MLA Holdings Pty Ltd  
[www.mlaholdings.com.au](http://www.mlaholdings.com.au)







## Oil and gas application software suite

Emerson Process Management has released its SmartProcess Oil and Gas Applications Suite - answering critical challenges facing the oil and gas production/transmission markets. The application software suite was developed by Emerson's industry experts to provide applications for monitoring, controlling and optimising vital oil and gas operations. It is claimed to help operators achieve greater production, reduce lifecycle costs, ensure consistency between sites and reduce the likelihood of HSE events.

The suite incorporates Emerson's family of remote terminal units (RTUs) and flow computers (ROC, ControlWave and FloBoss) to enhance operations. It is designed for the production and transmission markets with two separate series called the Production Manager Series and Transmission Manager Series.

The production manager series contains oil, gas and site-wide applications to increase the efficiency of production operations. The suite makes it easy to get lean operations running faster by selecting an application from the catalogue, loading it into the Emerson RTU and simply configuring. This series allows the operator to scale up their operation or change applications as their wells progress through the lifecycle without needing to change controllers.

The transmission manager series consists of Station Manager, Cause and Effect, and Gas Control Manager, to help operators' systems run more efficiently. This series maintains the integrity of the operators' assets and avoids safety and environmental incidents. These applications ensure consistency, increase effectiveness, reduce installation and support costs, and minimise operational errors.

**Emerson Process Management**  
[www.emersonprocess.com.au](http://www.emersonprocess.com.au)

## Fail-safe actuator control system

The Rotork manPower range of fail-safe actuator control systems for quarter-turn and linear valves and dampers provides high-integrity fail-safe valve operation without the need for any external power supply. The self-contained system is suitable for workshop or field mounting on a wide range of rotary- and linear-operated valves and dampers. It offers a cost-effective solution for actuator applications where operation is infrequent. Typical applications include: emergency shutdown valves and over- or under-pressure protection at remote, unpowered locations.

Each module contains a compact, manually operated hydraulic power unit that provides hydraulic pressure to operate a spring-return actuator. The fail-safe system can be controlled by electrical control signal(s), pressure pilots or fire sensors. When tripped, the actuator spring cartridge drives the valve to its fail-safe position. The safe and easy-to-operate system is manually recharged via the hand pump. There are four power module variants. Rotork installs the appropriate model on an actuator sized to meet the end user's valve torque demand. Modular construction from its standard components facilitates quick delivery and simplifies installation, operation and maintenance. Configurations are available for virtually any size or type of valve. The unit is easy to mount on either new or existing valve actuators or dampers. The closed-loop, non-breathing hydraulic circuit is temperature compensated for use in the most extreme environments. It is also compatible with FDA-approved, food-grade hydraulic fluids. Installation costs are reduced because the need for plant air, fuel gas, electricity or nitrogen backup systems is eliminated.

**Rotork Australia**  
[www.rotork.com](http://www.rotork.com)

## ARE YOU LIFTING AND SUPPORTING HEAVY EQUIPMENT USING THESE?





### INTRODUCING

- Optimise safety when stabilising heavy loads
- Working load limit and maximum block capacities
- Tested under the guidance of AS1170.0.2002 and AS2498.3.1998
- 100% Recycled high density polyethylene (HDPE) construction for durability
- Unmatched strength - stronger than most timbers
- Stacks can be customised to irregular shapes

### THE SAFER ALTERNATIVE

**dura crib® & dura stat®**

Plastic Cribbing, Blocking & Stabilization Systems

- Available in hi visibility yellow or ultra strength black
- Stable, predictable and high load bearing
- Light weight
- Resistant to fuel, oil and most commonly used chemicals
- 50 year warranty against splitting, rotting, absorption, termites & mould
- Will not splinter

SAFETY FIRST



**Cribbing and Matting Co.**

Address: Unit 9, 32 Abbott Rd Green Hills, NSW 2147  
Phone: 02 9674 7428 Fax: 02 9674 2724  
Email: [info@cribbandmatco.com.au](mailto:info@cribbandmatco.com.au)  
Web Site: [www.cribbandmatco.com.au](http://www.cribbandmatco.com.au)



## Incident management system

Honeywell has released its Command and Control Suite, which is designed to provide a user-friendly way to manage complex data for effective facility and security management. The system combines intelligent automation, advanced analytics and visualisation with a simplified user experience.

A holistic view of a connected building's video feeds, access control and fire alarms, for example, can be provided together with relevant information from human resource applications. Integrating data from these disparate systems could help security personnel track occupants and make sure they exit the facility in the event of an evacuation, improving employee safety.



The Honeywell Command Wall is the core of the suite and features map-based visualisation and navigation, along with integrated workflows and system-wide integration from a single, intuitive touch-screen interface. Data is presented on the wall from multiple systems across a facility, such as utility meters and temperature sensors, while providing context for more informed decision making. Using progressive disclosure, users can access an enterprise-wide view and also easily zoom into specific areas to quickly understand and react to issues and opportunities as they arise.

A supplement to the Command Wall is Incident Workflow, which guides users step by step through scripted responses to security incidents and other emergencies, helping further reduce risk and improve accuracy in mitigating issues. In addition, Enterprise Dashboards extend the suite's real-time visualisation by presenting detailed energy data and actionable guidance to help control consumption and boost efficiency.

Command and Control Suite technologies integrate with Honeywell's building management platform, Enterprise Buildings Integrator (EBI), which helps facilitate the integration of security, comfort, life safety and energy systems, among other functions. EBI gives users a single point of access and consistent view to information and resources that enhance the ability to monitor, manage and protect a facility, campus or multisite operation.

**Honeywell Building Solutions**

[www.honeywell.com](http://www.honeywell.com)



## Industrial relay

Red Lion has released the Watchdog Relay, designed to monitor and provide a fail-safe shutdown of processes controlled by RTUs, PLCs and other automation devices. The industrial automation device helps to proactively protect unmanned processes on a continual basis.

The relay monitors the pulsing output heartbeat of a connected device to add an extra level of safety to protect critical processes across industrial environments that include oil, gas, maritime, power and energy. If the heartbeat stops due to a power surge, extreme weather or device malfunction, the device's built-in Form C relay will instantly energise and provide a signal that can be used to safely shut down the process. The signal helps avoid costly damage to materials and equipment.

Built to operate in extreme conditions, the product supports temperatures ranging from -40 to 80°C, as well as 5 to 85% humidity. It carries Class I, Div II and ATEX hazardous locations certifications and has been marine and offshore tested and/or verified to meet standards such as ABS, DNV No 2.4 and Lloyds.

**Control Logic Pty Ltd**

[www.control-logic.com.au](http://www.control-logic.com.au)

## Flame-resistant fabric

Westex's UltraSoft AC flame-resistant (FR) fabric offers advanced protection from electric arc flash and flash fires, and is guaranteed flame resistant for the life of the garment.

Made with pima cotton and manufactured with advanced softening technology, the flame-resistant fabric is designed to provide optimum comfort for the wearer.

**Westex by Milliken**

[www.westex.com](http://www.westex.com)



# RESOURCES

## Security Exhibition & Conference



The 2015 Security Exhibition & Conference is returning to the Melbourne Convention & Exhibition Centre from 15-17 July.

Celebrating its 30th anniversary, the 2015 event is expected to be the biggest yet, connecting more than 4500 attendees with 140 leading suppliers in the security industry, including Central Security Distribution, Gallagher, Hills, Pelco by Schneider, Salto and Honeywell.

Security 2015 Event Manager Alanna Phillips said the event would be a three-day showcase of the latest business security solutions, live demonstrations and practical education seminars.

Other key features of the event include:

- The ASIAL Conference Program, which is a two-day conference for security end users featuring a world-class line-up of experts, including Jason Brown of Thales Australia & New Zealand and US Global Security Advisor and Futurist Mark Goodman.
- A half-day executive briefing on crisis communication by international expert Bruce Blythe of Crisis Management International, which will be both active and hands-on.
- An educational and free seminar series over the event's three days based on current key trends offering practical advice for installers and integrators.
- A new product showcase highlighting some of the most innovative new technologies, sponsored by March Networks.

For further information, visit [www.securityexpo.com.au](http://www.securityexpo.com.au).



## Are you vulnerable to process safety risk?

The 7th Annual ProSafe 2015, being held from 23 to 24 July 2015 at The Langham in Melbourne, brings together senior-level process safety practitioners and regulators across various industries. The event goes beyond the realm of process safety to imbibe lessons from other Major Accident Hazard (MAH) industries.

Regulators expect a multilayered approach to protection or control measures that will address technical, managerial and procedural arrangements. While Major Hazard Facilities (MHFs) stay bound by compliance restrictions, Process Safety Management (PSM) is now witnessing an increasing uptake from other safety-critical and asset-intensive industries that aim to prevent lost capacity and major accident hazards.

The ProSafe 2015 event provides a combination of case studies, workshops, discussions and theatre learning on technical risk control and human and organisational factors of critical hazard control.

Key topics include:

- Are your measures in place to maintain performance standards?
- Controlling the risk surrounding permits-to-work (PTW) through effective design and human factor considerations.
- Analysing and mitigating risks around shift handovers tied to compliance vulnerability.
- Preventing process safety from taking a backseat under commissioning deadlines.
- How can you make barriers work for your front-line staff?

Last year, the event attracted a total of 137 delegates with 19 sponsors. In attendance this year will be delegates from companies such as Laing O'Rourke Australia Construction Pty Ltd, Caltex Refineries (Qld) Pty Limited, BAE Systems, Woodside Energy, AGF Energy, Worksafe, Maersk Oil, BP, Shell, Coogee Chemical, Santos GLNG Operations, Caltex Australia, Alinta Energy, Thales, ROC Oil, Macquarie Generation and Methanex New Zealand.

For further information about the course and registration, contact:

[EmilyNg@marcusevanskl.com](mailto:EmilyNg@marcusevanskl.com).

### Gender equality under construction

Move over boys and welcome your newest workmate on site. This latest addition to the team is a highly qualified and trained technical tradesperson and is here to make a difference and help get the job done. And that's right, the latest recruit is a female.

Many of our biggest employers in the construction and safety industry are making huge strides into addressing the gender equality gap on site. These industries have had the 'light bulb' moment and are now recognising that diversifying their workforce is good business. Employers of choice are now making the most of the talent pool available and selecting the best candidates available regardless of race, religion or gender.

Education of the workforce around equality and acceptance is the key driver of promoting this change in workplace demographics. Natural competitive forces will also see companies vying for the edge through employing the most well-rounded staff.

Change is slowly but surely setting in and breaking down years of preconceived gender-based employment roles such as Dad on the factory floor and Mum working administrative duties. All these stereotypes have been engrained in generations through an education system that pushed boys into more physically demanding and technical roles while women were encouraged to pursue roles that were not as demanding physically and allowed them to focus on their role as their stereotypical homemaker.

She's Empowered (SE) is working hard to break down these barriers and encourages students to pursue their dream career. The SE Angel Ambassadors, who have successfully carved out their own careers, are currently going from school to school and empowering students to chase down their dreams by opening doors for work experience and acting as a sounding board for any students who are looking to make the leap.

Women, generally less physically strong than their male counterparts, are being more creative and willing to use available lifting equipment in performing manual tasks. While it would seem there is an increased risk of injury for females in this department, many more injuries come from overestimating one's physical abilities and women tend to readily accept their limitations and practice safer lifting techniques than their male counterparts.

Lifting heavy items and straining are well-identified issues within the workplace; however, other barriers may be smaller and quicker to address, such as camp accommodation being more 'well lit' with CCTV, alongside the need for more hygienic worksite restrooms. As confronting as it may sound, women are potentially at risk of toxic shock syndrome if they don't have the appropriate facilities to change and dispose of sanitation.

Education, support, building awareness and installing cultural change throughout all levels of business is the only way to break down the traditional ways and to embrace the new inclusive way of thinking. Eventually, over time, these measures will see the right people from all backgrounds and genders infiltrate different roles.

Not only will it create a more diverse and accepting workforce, but this diversity will also benefit companies' profit figures.

SE is leading the charge to generate change and open the thinking of individuals and workplace decision-makers to the power that diversity can deliver. No longer just supplying high-visibility workwear designed and fitted for women, SE has evolved to make women more comfortable and empowered at work. Our core mission is driving the She's Empowered Movement by advocating, educating and actioning sustainable social change for equality. We are empowering females to be true to themselves.



*Kym Clark is the founder and Director of She's Empowered. With a background as a mine site accountant, Clark is a regular volunteer at 'Women in Mining' events throughout Australia and an active industry panellist. She is an equality believer with a passion and dedication to creating sustainable generational change in society.*



**A.B.N. 22 152 305 336**  
[www.westwick-farrow.com.au](http://www.westwick-farrow.com.au)

**Head Office:**

Cnr. Fox Valley Road & Kiogle Street,  
(Locked Bag 1289) Wahroonga NSW 2076 Australia  
Ph: +61 2 9487 2700 Fax: +61 2 9489 1265

**Editor:** Carolyn Jackson  
[ss@westwick-farrow.com.au](mailto:ss@westwick-farrow.com.au)

**Editorial Assistant:** Laura Valic

**Chief Editor:** Janette Woodhouse

**Publisher:** Geoff Hird

**Art Director/Production Manager:** Julie Wright

**Art/Production:** Tanya Barac, Odette Boulton

**Circulation Manager:** Sue Lavery  
[circulation@westwick-farrow.com.au](mailto:circulation@westwick-farrow.com.au)

**Copy Control:** Mitchie Mullins  
[copy@westwick-farrow.com.au](mailto:copy@westwick-farrow.com.au)

**Advertising Sales:**

**National Sales Manager - Nicola Fender-Fox**  
Ph: 0414 703 780  
[nfenderfox@westwick-farrow.com.au](mailto:nfenderfox@westwick-farrow.com.au)

**NSW, QLD - Kerrie Robinson**  
Ph: 0400 886 311  
[krobinson@westwick-farrow.com.au](mailto:krobinson@westwick-farrow.com.au)

**VIC, SA - Sandra Romanin**  
Ph: 0414 558 464  
[sromanin@westwick-farrow.com.au](mailto:sromanin@westwick-farrow.com.au)

**Asia - Lachlan Rainey**  
Ph: +61 3 9381 2952

If you have any queries regarding our privacy policy  
please email [privacy@westwick-farrow.com.au](mailto:privacy@westwick-farrow.com.au)



March 2015 total CAB audited circulation (Aust +  
New Zealand) **6501 readers** (89% personally requested)

**Subscriptions:**

For unregistered readers - price on application

ISSN 1447-8277  
PP100007391

Printed and bound by Dynamite Printing  
Ph: +61 3 8554 7400

**NOTICE:**

All material published in this magazine is published in good faith and every care is taken to accurately relay information provided to us. Readers are advised by the publishers to ensure that all necessary safety devices and precautions are installed and safe working procedures adopted before the use of any equipment found or purchased through the information we provide. Further, all performance criteria was provided by the representative company concerned and any dispute should be referred to them.

Information indicating that products are made in Australia or New Zealand is supplied by the source company. Westwick Farrow P/L does not quantify the amount of local content or the accuracy of the statement made by the source.





# REGISTER TODAY FOR YOUR

## FREE SUBSCRIPTION

If you live in Australia<sup>†</sup> and your job title matches those on this form, we will deliver you 6 complimentary issues a year!

### THREE QUICK WAYS TO REGISTER

- + [WWW.SAFETYSOLUTIONS.NET.AU/SUBSCRIBE](http://WWW.SAFETYSOLUTIONS.NET.AU/SUBSCRIBE)
- + FAX THIS COMPLETED FORM TO (02) 9489 1265
- + MAIL THIS COMPLETED FORM TO LOCKED BAG 1289 WAHROONGA NSW 2076

Wrapper number:  
(if known)

--	--	--	--	--	--

**\*All fields required to qualify for your FREE magazine**

NAME\*

JOB TITLE\*

ORGANISATION NAME\*

ADDRESS\*

POSTCODE\*

COUNTRY\*

PHONE NUMBER\*

MOBILE NUMBER\*

EMAIL\*

SIGNATURE\*

DATE\*

JOB FUNCTION\* [ ] INDUSTRY\* [ ] COMPANY SIZE\* [ ]

[select one from lists to the right>]

PRIVACY POLICY AVAILABLE ONLINE AT [WWW.WESTWICK-FARROW.COM.AU](http://WWW.WESTWICK-FARROW.COM.AU)

### OPTIONS

I WOULD LIKE TO RECEIVE THIS MAGAZINE [ ] DIGITAL [ ] PRINT [ ] BOTH

I WOULD ALSO LIKE TO RECEIVE THE SAFETY SOLUTIONS E-NEWSLETTER [ ]

### JOB FUNCTION

(please choose one only)

- 1 Management - Director/C-level
- 2 Management - Specialist
- 18 Analyst/Researcher
- 20 Business Owner
- 21 Comms Tech/Engineer
- 13 Consultant
- 14 Contractor/Tradesperson
- 16 Education/Training
- 3 Engineer - Electrical
- 5 Engineer - Process
- 6 Engineer - Project
- 15 OHS/EHS
- 7 Purchasing/Procurement
- 19 Sales/Marketing
- 12 Scientific Officer - QA
- 17 Student - Undergrad/Apprentice
- 10 Technical Officer
- 9 Technician - IT
- 8 Technician - Maintenance/Service

### INDUSTRY

(please choose one only)

- 1 Agriculture/Rural
- 2 Building/Construction
- 3 Chemicals/Allied Products
- 40 Cleaning
- 4 Communications Systems
- 50 Consulting/Contracting
- 5 Defence/Military
- 6 Education/Training
- 41 Electrical
- 7 Emergency Services/Law Enforcement/Security
- 8 Engineering Services
- 9 Environmental Services
- 10 Finance/Banking/Insurance/Legal
- 17 Government
- 20 Health/Medical
- 43 Information Technology
- 21 Instrumentalities (eg CSIRO)
- 26 Laboratory - Analytical
- 27 Laboratory - Clinical/Medical
- 28 Laboratory - Life Sciences
- 29 Logistics/Transport/Warehouse
- 30 Manufacturing
- 31 Mining
- 32 Oil/Gas/Coal
- 33 Packaging
- 34 Processing
- 35 Retail/Wholesale/Hire
- 36 Service/Maintenance
- 37 Telecommunication
- 38 Testing/Certification (eg NATA)
- 49 Travel/Tourism
- 39 Utilities

### COMPANY SIZE

(please choose one only)

- 1 Under 100
- 2 100 - 250
- 3 251 - 500
- 4 Over 500

<sup>†</sup> For qualified industry professionals outside Australia, the digital magazine and eNewsletters are available FREE of charge. If you would like the print magazine, contact [circulation@westwick-farrow.com.au](mailto:circulation@westwick-farrow.com.au) for subscription prices in your region.



# WHY SPECIFY A FABRIC BRAND?



*Because this  
is too late!*

## The **SAFETY** of any flame resistant garment is in the **FABRIC**.

Many companies are selling FR garments today without disclosing the FR fabric manufacturer. Literally, dozens of imitation "88/12" FR fabrics have emerged in the marketplace recently, and they are *NOT* "EQUAL." Critical performance characteristics like arc rating, comfort, shrinkage control, garment wear life, FR durability to laundering, compliance to national and international standards and more are primarily dependent on the *BRAND* of flame resistant *FABRIC* used to make the garment. *Westex UltraSoft®*, delivers all of these benefits on a consistent basis — backed with decades of market-proven performance.

*DON'T ASSUME* your garment is made with Westex UltraSoft® — SPECIFY and be sure!

Watch the live testing videos and compare fabric performance:

***westex.com/fabricmatters***



Follow us for the latest FR insights.

[www.westex.com](http://www.westex.com) | [andrew.antala@milliken.com](mailto:andrew.antala@milliken.com) | Ph. 61-457-074-274

