



# 10 VALUABLE BENEFITS SAFETY, CERTIFICATION

& COMPLIANCE ADDS TO YOUR SITE



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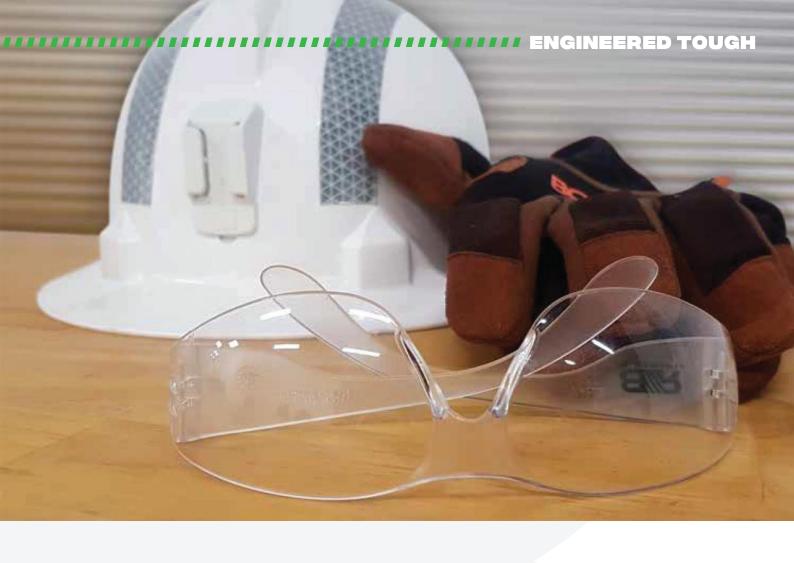
#### BEND-TECH GROUP

**Bend-tech Group** delivers a tailored design, engineering and fabrication service which empowers our customers towards operational safety, efficiency, and excellence. Intelligent systems and processes propel our consultative approach towards problem solving, it is imperative we create comfort and certainty. Service that takes control of problems and accountability puts solutions in motion, we have learned through a deep understanding of our customers that this is what they need.

Being global providers of designed and engineered products, services and solutions has allowed us to develop cross-industrial expertise that has galvanised our internal processes and put us at the forefront of technology and innovation. Our people are what we believe sets us apart, our culture of learning, understanding and excellence means the whole organisation progresses in synchronicity. Our team makes an impact internally, as well as throughout all our customer interactions.

Over 30 years of delivering intelligent design, customcertified products and services has taken us across many industries and into many countries. We have provided our industry leading solutions across the Mining, Defence, Fabrication, Marine, Rail and Oil and Gas industries globally.

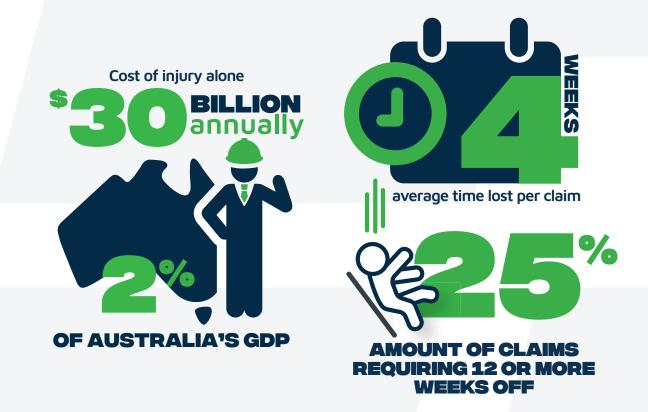




# WORKPLACE SAFETY IS GOOD FOR BUSINESS 5

Businesses that invest in better workplace safety measures mitigate the risks of workplace accidents which leads to improved profitability, staff morale and greater efficiency. Furthermore, businesses also have a legal and ethical responsibility to provide a safe place of work for all employees and contractors on site.

#### **SAFEWORK AUSTRALIA INJURY STATISTICS**



### SAFETY AND ASSOCIATED COSTS

Reports prepared for Safe Work Australia highlight the true cost of work related injuries. Time lost due to injury alone costs the economy \$30 billion, representing 2% of Australia's GDP. More than 50,000 of these injuries require at least 1 full week off work, while the average time lost per incident is 4 weeks. Alarmingly 25% of injuries result in the claimant needing 12 or more weeks away from work, representing a severe loss to productivity and profit.

Annually, injury costs Australian businesses huge amounts of money, the loss of time and productivity can severely impact an organisations success. Medical bills and compensation can run into the tens of thousands, not to mention the added cost of the interim replacement of the injured worker.

Ensuring a safe workplace can have tremendous effects on an organisations bottom line. Decreasing the rate of injury will improve productivity, boost staff morale, save money and transform profitability.

 $source: \ https://www.safeworkaustralia.gov.au/statistics and -research/cost-injury- and -illness-occupation$ 



#### **Cost of injury**

Incidents, accidents and injuries occur daily on mine-sites and the costs associated are enormous. In the Western Australian mining sector, there is an average of 3000 compensation claims per year, 38% of these require more than 60 days off work. This accounts for \$120 million dollars paid in compensation alone, the loss of time and productivity especially on a mine-site represents are far greater cost.

source: (https://www.workcover.wa.gov.au/content/uploads/2017/06/20170622-Industry-Statistical-Report-Mining.pdf)

### **High risk occupations**

As expected; machinery operators, labourers as well as technicians and trade workers are the most commonly injured employees and contractors on-site. The nature of the work they complete as well as the environment they are exposed too and equipment they work with, dramatically increases their chances of injury.

Employing the correct mitigation measures is incredibly important to ensure high risk positions, site operations as well as equipment and processes are kept to a high safety standard. This will decrease the number of incidents and safety hazards, dramatically improve productivity and the amount lost due to injury.

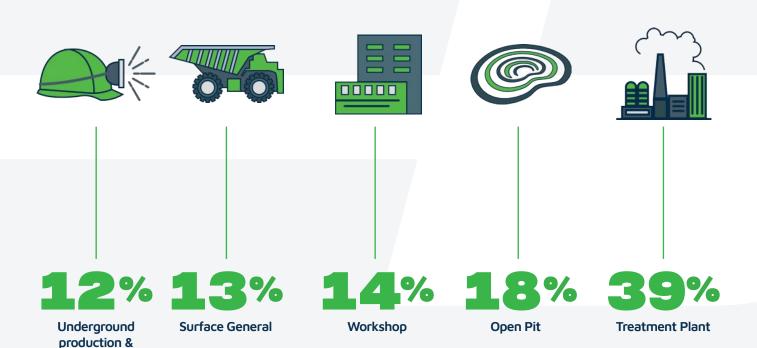
source: https://www.commerce.wa.gov.au/sites/default/files/atoms/files/01\_mining\_2017.pdf

#### **FATALITIES**

In the five years between 2007 and 2012, 36 mine workers died from work related injuries. Workplace accidents can be extremely serious, debilitating or even fatal, the importance of improving safety is obvious.



# TOP 5 INJURY LOCATIONS (WA) 2016-17



 $source: http://www.dmp.wa.gov.au/Documents/Safety/MSH\_Stats\_Reports\_SafetyPerfWA\_2016-17.pdf$ 

development

## SAFETY AND HEALTH SNAPSHOT 2016-18

#### **LINE-OF-FIRE**

253 notable incidents83% classified as serious11% occurred in the processing plant

#### Don't get caught in the line of fire

- Never stand under anything that can fall on you
- Keep hands and body parts away from areas where they can be crushed
- Never start work if there is a risk an object could strike you or a colleague
- · Employ safe, certified equipment

#### **INTEGRITY OF STRUCTURES**

68 notable incidents13% classified as serious22% were related to fixed plant operations

#### Suspended load safety

- Only use structures for their intended purpose unless designed, engineered modifications have been made and certified
- Carry out annual structural checks and inspections and produce detailed reports on required repairs and improvements
- Carry out structural design audits to ensure all steel components on-site are not overstressed
- Ensure any steel and supporting structures comply with the relevant Australian Standard

#### SUSPENDED LOADS

52 notable incidents21% classified as serious48% occurred during maintenance

#### Reduce the risk

- Never walk or work under a suspended load
- Thoroughly check all rigging parts and components
- Think safety and only complete jobs which meet the safety criteria
- Understand line of fire scenarios and plan accordingly
- Understand the stored energy hazards associated with the work being conducted
- Always ensure equipment and processes are certified and compliant with Australian Standards

#### HAZARDOUS MANUAL TASKS

355 musculoskeletal disorders

81% classified as serious

40% of back injuries occurred during production

31% of shoulder injuries occurred during ore treatment

#### Handling hazardous manual tasks

- Ensure safe design, identify and assess all risks
- Use the correct methods and procedures
- Identify mechanical assistance options

#### **MAKING SITES SAFER**

#### **Certification and Australian Standards**

The environment, procedures conducted, and inherent risks means the products and equipment being used must be compliant with Australian Standards®. Compliant products are put to the test before the operator has too, ensuring they will outperform the intended use and provide the safety outcomes required. Compliant products are simply higher quality; designed, engineered and constructed for safe, long lasting, hard wearing and productive application.

#### **STANDARDS**

#### What is a standard?

Standards are voluntary documents that outline specifications, procedures and guidelines. They are aimed at ensuring products, systems and services are reliable, safe and consistent. Standards cover a variety of subjects and industries, including consumer products and services, the environment, construction, manufacturing, energy, water and more.

Standards are regularly audited and reviewed by the Standards Australia board to ensure they are applicable with current practice and are up to date with new technologies and advancements.

#### STANDARDS AND THE LAW

Standards are, on their own, voluntary, however they are often referred to in legislation, when this occurs they come a mandatory benchmark of acceptability. Products that do not comply can be considered inferior as they have not passed the certification and testing required of an Australian Standard® compliant product.

#### **HOW ARE PRODUCTS**

#### certified to comply?

An independent certification and testing body must be employed to carry out the testing and compliance process. The Joint Accreditation System of Australia and New Zealand (JAS-ANZ) houses a list of accredited agencies whom are able to certify products. Once the designation number has been identified for the standard in which the product aims to comply, the rigors of the certification process can begin, only products that satisfy all of the requirements receive certification.



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#### 1. CERTIFICATION PLATES

Certified parts, components and products will always display a certification plate of compliance. Indicating that the item has been tested and will provide the structural, load bearing, or performance measures promised.

Always check for certification plates to ensure the product being used is engineered for its intended purpose and will provide a safe and productive solution.

#### 2. PRODUCTS THAT PERFORM

Products that comply with Australian Standards® offer a significant added value. Standards ensure the product is designed and engineered to safely perform their intended purpose. They have been tested under the various strains and stressors associated with the application, certifying they are over specified for purpose.

#### 3. ELIMINATE SCAFFOLD

The scaffold elimination process involves scoping and inspecting erected scaffold or an area that usually requires scaffold to access, protect or provide support. The need for scaffold in a mobile or fixed plant application can be removed and certified and compliant temporary or fixed solution can be provided.

#### Risks of using scaffold

- Non-company personnel required on-site to erect and breakdown the scaffold
- Scaffolding needs to be highly regulated and inspected and is often not
- Scaffolding is often left in place for extended periods due to lack of permanent access, creating a safety hazard
- Scaffolding is not a form of permanent access or support

Certified access and scaffold replacement platforms solve all of the problems and costs associated with scaffold. Providing permanent, structurally sound compliant access or support to an area, removing the need for constant install and breakdown of scaffold, saving huge amounts of money in the long term.

#### 4. TRESTLES AND STANDS CERTIFIED FOR PERFORMANCE

Trestles and work stands are often treated as a 'one-size fits all' which has the potential to be very dangerous and put lives at risk. Certified trestles and stands are engineered for specific capabilities and styles of load bearing, ensuring the equipment is safe and will perform the designated application.

#### Trestle and stand safety problems

- No certification overloaded, incorrect load bearing
- Poor design
- Use of un-certified trestles and stands
- Different equipment requires different styles of trestles and stands

Fully certified and compliant trestles and stands are engineered for the weight, size and piece of equipment or configuration. Safety should be the number one consideration when load bearing such large, heavy assets.

#### 5. COMPLIANT RACKING AND STORAGE SOLUTIONS

Non-compliant racking, storage or methods of storage create significant safety risks on-site, putting workers in danger of being crushed or struck by falling materials. Un-certified racking or storage equipment could be overloaded or under-engineered for its purpose, creating a serious hazard.

#### Storage safety problems

- No certification overloaded, under-engineered storage
- · Bad racking configurations and storage efficiency
- No racking or storage equipment at all stock stored on the ground
- Different materials require different racks

Racking and storage equipment that is certified and compliant, provides safe, efficient, materialcentric storage. Consultations and assessments of site requirements will ensure the rack designed or provided fits the purpose, ensuring safe, productive, long lasting solutions.









#### **6. TRANSFORM ACCESS AND INSPECTION DOORS**

Access and inspection situations are inherently dangerous, several incidents involving the access of chutes and conveyors have resulted in near fatalities. Production can also be seriously impacted when using conventional access and inspection doors or non-compliant solutions, due to complete shut-downs for maintenance.

Three door systems provide a safe, production minded solution to access and inspection requirements.

Openings can be safely inspected as the 'jail bar door' prevents operators from falling inside the chute. Once safe, the door can be fully opened, and access is granted for maintenance and inspection.

#### 7. A BOOST IN CONFIDENCE

Safety and compliance standards provide businesses and consumers with the confidence that the products and services they buy, or implement are safe, reliable and fit-for-purpose. Ensuring performance under the toughest environments and situations, compliant products provide the performance and safety measures consumers need.

#### 8. ENHANCE INNOVATION

Safety and compliance standards provide the ability to certify new ideas and custom equipment. They can be created, evolved or discarded to keep up with the changing environment. New standards are developed that reflect the latest technologies, innovations and consumer needs.

#### 9. REDUCE THE RED TAPE

Safety and compliance standards harmonise across Australia's laws and regulations. They offer an alternative to regulation, reducing business costs and limiting red tape, while still providing security and enhanced safety for operators.

#### **10. HELP BUSINESS THRIVE**

Safety and compliance standards are central to Australian business, safety and performance. They mitigate risks and provide products that drive performance. Certified, compliant products are high quality giving the consumer the solution and peace of mind they need.



# BEND-TECH ENGINEERED SAFETY AND COMPLIANCE

Bend-tech products are all engineered, certified and compliant with Australian Standards®. Providing market leading safety and productivity is the aim of every product that we manufacture. The use of unsafe, uncertified, non-compliant products creates a huge range of risks and associated costs for our customers. We ensure that our customers and the operators using our equipment have the peace of mind to conduct their duties and clock off at the end of the day.

We take those extra steps to manufacture high performance products that outperform and out last the rest. We strive to innovate and constantly improve our offerings, placing us in a market leading position in long lasting quality, safety and performance outcomes.

# EXPERIENCE OUR CONSULTING, DESIGN AND ENGINEERING SERVICE

Projects and the associated challenges often require custom solutions which our **CDEC** system facilitates. Consultation, Design, Engineering and Construction is our holistic approach to solution development, making maintenance on-site safe, efficient, and easy.



#### CONSULTATION

We come to you and visit your site to get a hands-on feel for your project. The aim of our consultation is to listen to and understand your requirements. If the project requires it, our 3D scanning capabilities will streamline measurement and data capture. This approach allows us to discuss your problem on-site, possible solutions, and the benefits we can offer.



#### **DESIGN**

After the consultation we go back to our design team to begin the development of your custom solution. Our team produce designs in CAD Design complete with all drafting documentation ensuring an advanced manufacturing process.



#### **ENGINEERING**

Once the design is approved, we begin the engineering process. This ensures that the right material grade is used for your project to guarantee structural and functional integrity. We provide full certification that includes WLL, load ratings, integrity reports as well as certification plates and identifications. We design and engineer all our solutions to ensure full compliance with Australian standards.

Our engineering department includes 9 draftsman and 14 engineers. We are experienced in the design and development of complex mechanical engineering analysis and solutions.



# CONSTRUCTION AND FABRICATION

Our industry leading 10000 sq/m facility in Welshpool, Western Australia is armed with highly qualified consulting, drafting, engineering and fabrication personnel dedicated to manufacturing precision, engineered high performance industrial solutions.

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