

Employee Safety

## Understanding End-user Needs to Develop Innovative Products... A Proven Recipe for Success

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Australian underground mining is one of the harshest working environments that personal protection equipment (PPE) could possibly be exposed to. With a mixture of high moisture, salinity and products such as Amfo (a compound used in conjunction with explosives) which is used by "charge up crews" in nearly all underground mines, PPE equipment is put to the test.

The task was to develop suitable fall protection products including harnesses and fall kits to suit the working applications and environment. Prototypes were developed and trialled by end users over a period of several months.

Critical requirements established through this process included:

- The harness needs to have minimal surface area contact with the worker to aid in heat reduction
- All components need to be stainless steel or aluminum due to extreme corrosion factors
- The webbing requirement needs to be oil and water resistant
- Extended rear dorsal D-ring for easy attachment when working in baskets
- Miners belt incorporated a removable battery/escape set strap that allows both units to be moved forward. This enables the worker to sit in underground vehicles with the equipment attached. This is also easily replaced as a spare part (due to the high corrosion factor)
- Confined space loops
- Quick connect buckles were required on both the leg straps and the miners belt
- A sizing option of small, medium, large and extra large was required

Using the above criteria, a new range of miner's harnesses were developed. These harnesses are made from special webbing with high water, oil and abrasion resistance. In addition, the harnesses featured quick release buckles and stainless steel hardware, as well as a removable battery strap. Fall protection kits were also developed to suit specific requirements.

**The result:** Develop a comfortable and practical solution with the input and involvement of the user. The solution is now considered an industry first.

*Building an enduring culture of safety can be the most cost-effective and proven accident-prevention process. Creating and internalizing this culture is the most successful way to minimize costly injuries and maintain a safer, more productive and engaged workforce. Honeywell Safety Products knows that building a safety of culture is not just a set of rules; it's a new philosophy of preventing injury in the workplace. Safety is no longer something defined and enforced by management;; rather, it becomes the right and responsibility of each and every employee. A culture of safety refers to the extent to which individuals and groups commit to personal responsibility for safety; act to preserve, enhance and communicate safety concerns; strive to actively learn, adapt and modify behavior based on lessons learned from mistakes; and strive to be honored in association with these values. A culture of safety exists when safety is everyone's priority and workers make safe choices on their own.*

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