

## Protecting your head in mines

**Appropriate head protection is absolutely crucial when it comes to the safety of workers. The correct choice of head protection can save peoples' lives in unpredictable situations, such as during the accident in Chile where 33 miners were trapped underground for 69 days.**

It was helmets from MSA's V-Gard range which protected the Chilean miners' heads until they were rescued by emergency teams. V-Gard is a complete system for head protection developed by MSA. Each of the helmets within the V-Gard family and all the associated accessories have been designed to provide the most effective protection in every industrial application, even the harshest of environments such those found in mines.

Depending on the conditions in a particular mine, the basic HDPE V-Gard helmet or a more advanced ABS solution such as the V-Gard 200/500/520 can be selected. HDPE provides good impact protection while ABS offers greater resistance to shocks, scratches and lateral protection. Different helmet types have slightly different shapes so they can be perfectly adjusted to suit the needs and preferences of different users, such as the angle of the lamp beam which is dependent on the shape of the helmet front. Each of the MSA V-Gard helmets offers the maximum level of protection.

People working in hot areas will benefit from vented helmets. Others who work in cold conditions will still receive the proper level of protection since all MSA helmets have been certified for use even when temperatures fall below -30°C. In addition, any non-vented V-Gard helmet will prevent the wearer being electrocuted should their head come into contact with electrical wires.

The wide range of accessories available extends the functionality of the helmets beyond simply offering head protection, giving significant flexibility while selecting a complex solution for particular needs.

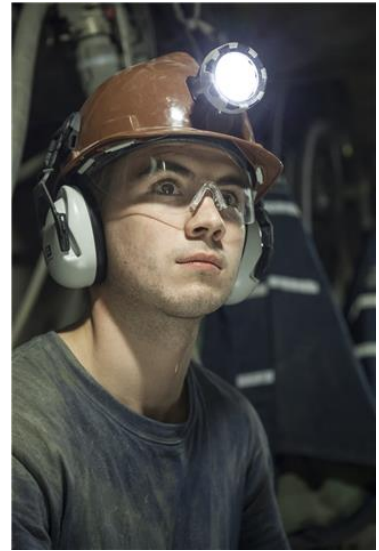
Miners are offered two types of front lamp bracket – the most popular helmet accessory used in mines. Both the plastic and metal lamp brackets are equipped with a rear cable loop. Use of the plastic lamp bracket retains the electrical insulation properties of the helmet and will be preferred in coal mines while the metal bracket will be preferred in metal ore mines.

In mines with explosive atmospheres, it is crucial that helmets meet ATEX requirements. All MSA V-Gard helmets prevent electrostatic charge, making them suitable for use in ATEX environments. All our helmets have been tested in accordance with the EN standard for non-electrical equipment for use in hazardous areas. In the mining industry, they can be used for any type of extraction and at any depth.

Workers operating in conditions where there is a high risk of eye injury will benefit from MSA's stowable visor which can be attached to V-Gard and V-Gard 200 helmets. Alternatively, closely-fitting goggles with a comfort-fit band ensure complete eye protection from dust and flying debris.

More demanding applications will require the use of a visor which covers the entire face. A wide range of MSA visors can be attached to all V-Gard helmets. All of them can be used in conjunction with MSA's disposable half-masks and half-masks with a bayonet-style design.

In their everyday work, miners do not just face risks which may result in an immediate physical injury. They also need to be protected from another type of danger – noise. It can reduce their hearing ability and even lead to complete deafness.



MSA has designed several types of earmuffs to enhance the protection offered by its helmets. They all allow for safe working alongside noisy mechanical equipment in the modern mining industry. MSA also supplies ear plugs.

MSA is protecting miners in many of the world's most famous mining locations: South Africa, Australia, Chile, Brazil, Spain, etc. Knowing the challenging working conditions miners face around the world every day, one of MSA's top priorities is to provide technology-driven, high-quality head protection products to ensure the health and safety of every worker. MSA was established in 1914 to protect miners' lives and 100 years later this is still our focus.