

Case Study – Freight Car Manufacture

Occupational health and safety pays off measurably



Freight wagon manufacturer significantly reduces the number of eye injuries with integrated welding visor and powered respirator system from 3M.

Personal Protective Equipment (PPE) is the last line of worker protection, but it shouldn't compromise comfortable and efficient work. The example of a leading manufacturer of rail freight cars can show just how important it is to select a system suitable for the conditions. By adopting a new 3M™ Powered Air Respirator System with a 3M™ Speedglas™ Welding Helmet, the company has simplified how they protect their workers and significantly reduced the number of eye injuries.

Avoid eye injuries due to foreign bodies

In the past the freight car manufacturer, with over 1,500 employees and 600 welders, used a variety of auto-darkening welding helmets, protective glasses and ear protection systems, in order to enable safe working when welding and processing metal. However, an increasing number of eye injuries were being reported. Further investigations revealed that many of the injuries were caused by foreign bodies.

Because of this situation the company tested new PPE, including the 3M™ Speedglas™ Welding Helmet 9100 MP with the 3M™ Adflo™ Powered Air Turbo. The Speedglas 9100 MP auto-darkening welding helmet helps provide comfortable, uncompromising, all-in-one welding, head, eye, face and respiratory protection for highly demanding environments.

One special feature is the integrated grinding visor on the helmet: When the welding filter is raised for grinding, the respiratory, eye and face protection remains unchanged. The 9100 MP welding helmet can be connected to either a powered air respirator or a 3M™ Versaflo™ Supplied Air Regulator or alternatively via a belt-mounted regulator such as the 3M™ Versaflo™ Regulator V-500E a breathable source of compressed air, in order to provide the employee with clean air to breathe at all times.

The Speedglas 9100 MP combines 5 levels of protection in one easy-to-use and comfortable product, helping to protect the worker whilst maximising productivity.

Practical tests before the company-wide introduction

In practical tests lasting several weeks, the 3M solution proved a success and met with a high level of acceptance from the employees. Consequently, the company equipped over 700 workstations in all relevant areas of the plant with the individually selected PPE. Occupational health and safety experts from 3M provided intensive assistance with this process, with "Train the Trainer" courses as well as employee training, answering questions relating to the correct use and maintenance of the systems.

High employee satisfaction

The employees now report a noticeable improvement in their personal working environment and are satisfied with the excellent comfort and reliability of the system. This is a result of features including the continuous air flow to the helmet, which, as well as respiratory protection, also enables a mist-free view of the workpiece and the task. Nine months after implementation of the 3M systems, the employer's objectives were achieved: In the areas in which the 9100 MP was adopted, the number of eye injuries caused by foreign bodies decreased by over 70 per cent compared to the previous year.

Contact 3M to get support from our experts and help find the right PPE for your workers

At 3M we have a passion for welding and we know the challenges and hazards of your profession. With our 3M™ Speedglas™ helmets providing protection from hot sparks and bright light you can be confident of having full safety protection with the added benefit of comfort and enhanced productivity.

Plus, with our wide range of respiratory and hearing PPE, you can have confidence that we will help you find the right solution to keep your workers safe.

Get in contact with us and speak to a 3M personal safety expert for more information.

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