



OTTERBOX

Elevating Mobile Tech in Hazardous Workplaces

Why It's Crucial for Industry Growth
and Why Certifications Matter

SAFETY AT THE JOBSITE: THERE IS ROOM FOR IMPROVEMENT

Despite rapid advancement in mobile technology in the last two decades, hazardous industrial workplaces have not had access to much of the device protection solutions available to the average consumer or other work environments. While there has been limited availability of protections for mobile equipment during this time, issues ranging from high cost to extremely limited functionality, often for only one or two simple tasks, meant that the products were never widely adopted in the industry. Because of this, frontline workers have been held back from fully functioning technological advances that could enhance safety, improve efficiency and open the door for innovation.

Utilizing mobile devices in hazardous locations presents specific challenges from a safety perspective because of the heavy machinery, specialty tooling and the need for certain certifications involved in that decision. Since most devices are not suitable for atmospheres with flammable gas or combustible dust, additional measures must be taken to enhance the safety of workers and devices in these environments. Intrinsic safety must be built into mobile device design criteria during the engineering stages. Thus, due to the

proprietary nature of mobile device designs, it is not possible for another party to evaluate or certify specific devices as intrinsically safe.

There is growing demand among frontline workers for a fully developed, connected mobile solution that provides access to the real-time information required on the modern job site. Achieving safe, uninterrupted operations requires constant communication with colleagues, as well as secure access to systems and tasks. Downtime resulting from communications failures or damage caused by technology failures can lead to compromised worker safety, substantial financial losses, and missed production targets.

The most important piece is the need to maintain a safe environment in hazardous spaces. Many industrial sectors, such as oil and gas, chemical manufacturing, and nuclear power, are subject to stringent regulatory requirements regarding technology protection and safety. Companies that adhere to these regulations not only mitigate legal and financial risks but also demonstrate a commitment to maintaining the highest standards of worker safety and environmental stewardship. The use of non-compliant mobile tech is a non-starter.



ENHANCED SAFETY FOR CONNECTED WORKERS

With the industry driving to a “connected” workforce, it can be easy to overlook the level of engineering, collaboration and testing required to get certified, connected devices in the hands of industrial workers. However, several industry leaders, including top refining companies and global safety science leaders, have collaborated to develop an integrated mobile solution with rigorous verifiable certifications. These advancements offer device protection from heavy use in certain hazardous industrial settings, which can help improve worksite safety by mitigating explosive hazards that may be present in these harsh environments. Designed to enhance safety for connected workers and their technology in rugged and hazardous environments, frontline workers now have access to a comprehensive certified solution. Key elements of the system include:



Restricted Breathing and Protection by Enclosure Protection Methods

- To protect the device from inflammable gas atmospheres, the device enclosure is certified for restricted breathing. Designed to prevent potentially dangerous materials in the surrounding atmosphere from penetrating the mobile enclosure, it minimizes the potential of the device becoming an ignition source. This means the enclosure is designed and certified to restrict the entry of gases, vapors, and mists. To prevent combustible dust from interacting with live parts and creating an ignition hazard, the enclosure utilizes protection by enclosure

Materials Engineering

- All materials in the solution required testing to obtain certification. Plastic materials are lighter in weight and enable more versatile product design for portability. They also minimize the risk of static electricity inherent with a portable metal enclosure that cannot be easily grounded. During the testing process, 59 resins from 15 suppliers were used to produce more than 14,000 samples to identify the substrates best suited to meet the certification requirements and ultimately withstand harsh industrial use.

Third-party Quality Management Systems (QMS)

- This measure ensures that no safety-critical aspects of the certified solution are changed after the certification is issued. Internal checks of the QMS are conducted consistently throughout the year and the system is audited by UL Solutions on an annual basis to demonstrate continued compliance with international requirements.

Mobile technology keeps frontline workers connected to colleagues, systems and tasks. When it takes a hit, employee safety is put at risk, processes unravel, productivity stalls, and, in some instances, disaster ensues. By using certified mobile solutions to safeguard their technology against environmental hazards, companies can minimize the risk of equipment malfunctions and maintain the continuity of operations.

To learn more about the OtterBox Hardline Series product suite and it can help protect hazardous worksites and their employees, [visit otterbox.com/industrial](https://www.otterbox.com/industrial).