

Rugged Tablets: Making Manufacturing Management Easy



Backplane
Systems
Technology

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Introduction

Multiple processes occur simultaneously in each function of manufacturing. It can be a task to keep the harmony going, thus apt tools and technologies need to be deployed for effective management. Hence to increase productivity, communication, and connectivity, whilst promoting safety in manufacturing rugged tablets are a must!

According to PR Newswire's "Global Rugged Tablet Market - Forecasts from 2017 to 2022" report, there is increasing uptake of mobile technologies in industry, with the rugged tablet market projected to grow 4.92% to US\$592.906 million by 2022¹. Even in 2013, many companies that rely on field service and transportation were recognising the value of a workforce that is always connected while in the field². The key to this being the tablet, with its blend of portability, communications, and accessibility.

This is not just a short-term trend: both Accenture and IBM have found that companies which embrace this smarter way of working will gain a significant strategic advantage over the competition^{3,4}.

But the commercial tablets used by your average office worker or teenager cannot stand up to the rigours of industrial work. According to ARN, IDC research shows your average tablet has a failure rate of 15.7 percent, but rugged technology has a failure rate of only three percent⁵.

To get maximum value from your investment, rugged tablets are a must. Here are six ways they are helping manufacturing:

1. Seamless communications from the field to the office

Industry-grade rugged tablets, such as the Winmate line of Rugged Tablets from Backplane Systems



Technology, come with a plethora of extended communications options including GPS, 802.11a/b/g/n/ac WLAN, WWAN (3.5G and 4G LTE), Bluetooth 5.0, etc.

This means workers in remote locations can still remain connected even if there is no cellular coverage. This allows real-time reporting and data collection, and improved accuracy and speeds due to the elimination of paperwork.

The result? You have more granular and accurate information coming from the field into your enterprise information management systems. With this information, you are better able to make decisions and respond to fluid situations. This flexibility will keep you a step ahead of the competition, while improving productivity and revenue.

2. Instant, reliable access to information in the field

Whether we are talking about documentation, safety procedures, or a remote machine control interface, workers need fast and easy access to the critical information they need to get the job done, regardless of where they are.

This can be a problem for commercial tablets, because their screens are quickly washed out by the bright Australian sun. But information on the Winmate Rugged Tablet remains visible thanks to its 800 nit Sunlight Readable optically bonded screen.

Information must also be quick to access, and this can be an issue for some rugged tablets, but not for a Winmate Tablet. They feature M.2 SSDs for super-fast reliable storage, USB Type-C 3.1 for rapid data transfer, plus storage capacity of up to 2TB is available in some models.

3. Fast and accurate input

Workers can quickly react to problems in the field thanks to the 10-point capacitive touch screen on Winmate Rugged Tablets.

The screen is intelligent enough to work properly even with gloves on, and able to filter out the bogus signals from contact with the user's palm or the presence of water droplets. Workers can quickly navigate

through the apps and be certain that their inputs are accurate, even when they are working in adverse environments.

4. Works with your existing systems

Unlike commercial tablets, Winmate's Rugged Tablets are not restricted to just one or two proprietary ports: with versatile I/O connectivity options like USB type C & A, LAN, Micro SD, Micro SIM, Micro HDMI, RS-232, etc., these devices are ready to plug-and-play with your operations. Workers can easily capture, display, transfer, or print data by connecting to a PC, monitor, network, or printer, without having to deal with adapters and dongles.

Rugged tablets must also be versatile, and Winmate gives you that versatility by supporting USB Type C in their most recent models. A USB C port is a truly universal port as not only is it smaller and easier to plug devices into, but it also adds a lot of additional functionality to the system, as a USB C port supports external displays, Ethernet ports, and much more.

The tablets can also be fitted with data-capture options like 2D Barcode readers, NFC, Smart Card Readers, etc., allowing users to capture additional information as needed.

Tablets from Winmate also support the latest Operating Systems, from Windows 10 to Ubuntu, meaning they will slip seamlessly into your current IT infrastructure.

5. No downtime

Wimate Rugged Tablets are designed to work on and on and on. Each battery has enough power for continuous use over an 8 hour shift or with an optional high capacity battery with up to 16 hours. With hot-



swap capabilities and a battery charger featuring up to 6 bays, it's a simple matter of swapping out the spent batteries for fresh ones and passing the tablet on to the next person during shift changes.

6. Always ready to go

The best and fastest tablets are useless if they break at the first sign of trouble. Winmate Rugged Tablets continue to operate in temperatures from -20°C to +60°C. They are rated IP65, so they can be reliably used in dusty and wet environments. They have been MIL-STD-810G Drop/Shock and Vibration tested and will keep going even after being dropped 4 feet.

Conclusion

Tablet devices are increasingly finding their way into all aspects of industry operations, specifically manufacturing:

- Field services: field data capture, organising work, tracking assets, materials, and equipment
- Supply chain: inventory logging, tracking, and management
- Processing: condition monitoring and operations control
- Safety: ensuring the safety of workers on the factory floor through connectivity and communication

In the hands of workers, tablets are transforming

the manufacturing industry by increasing their connectivity and making information more accurate and immediate. The result is reduced costs, faster response to changes, increased flexibility, and better decision making.

But not all tablets are created equal: rugged tablets, designed to keep working even in tough environments, will deliver the reliability, uptime, and compatibility that industrial companies in the logistics, field services, and warehouse management fields need to ensure an effective return on their investment.



References

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