

# Manufacturing: Reliable communications improve operations and reduce cost



The manufacturing environment demands efficiency and productivity to remain competitive in today's market. In order to improve operations, workers require easy-to-use communications that help them maximize efficiency, improve plant safety, support long work shifts and provide the ability to rapidly respond to incidents.

The MOTOTRBO™ Professional Digital Two-way Radio System helps you address each of those challenges. MOTOTRBO combines the best in two-way radio functionality with digital technology to deliver increased capacity, integrated data applications and enhanced voice communication, where and when you need it. And with a complete portfolio of Motorola Original® accessories, such as heavy duty headsets, earpieces, carry cases and premium batteries with IMPRES™ technology, your staff will be empowered with the right information, at the right time to make business critical decisions, streamline business processes and improve results.

#### Hear better with clear audio

The quick pace of a manufacturing plant often results in a noisy work environment where radio communication is often difficult to understand. Using background noise suppression capability, MOTOTRBO helps to filter out the background noise and ensure that radio communication comes through loud and clear. And with a complete line of audio accessories, including several that offer state-of-the-art IMPRES audio technology, your workers can utilize headsets to provide even greater noise suppression to make sure they clearly hear the message and never miss a call.

#### Talk farther with greater coverage

Reliable communications throughout the entire area of a facility is vital to the smooth operation of a manufacturing plant. With digital technology, MOTOTRBO provides clearer and crisper voice communications over a wider area than comparable analog radios, whose signal strength drops off with distance resulting in distracting static. Using digital technology, MOTOTRBO accurately delivers both voice and data with virtually no loss throughout the coverage area. This results in clearer communications with your workers no matter where they are in the plant.

#### Talk longer with enhanced battery life

With today's demanding work environment often requiring long work shifts, employees need dependable communications equipment that will keep operating throughout the entire shift. MOTOTRBO offers enhanced battery life to do just that. Using advanced TDMA digital technology, MOTOTRBO can operate up to 40% longer between recharges compared to typical analog or FDMA digital two-way radios. In addition, to ensure the radio system is charged and ready to go whenever you need it Motorola's IMPRES energy technology enables communication between the battery and the charger to automate battery maintenance.



### Georgia Nut Company Cracks the Distance Barrier

"With IP Site Connect and MOTOTRBO, there's now solid and consistent communication between the dispatcher, mechanics, and product personnel. With this new system, we can work much more efficiently, which translates into much higher profitability."  
*J.R. Vazquez, Dispatcher at Georgia Nut Company*

### Quickly share information with text messaging

Manufacturing workers must be able to quickly share information whether it is to prioritize an order or check the status of supplies. Text messaging lets workers communicate this type of information quickly and easily, especially when loud manufacturing floors hinder voice communication. The MOTOTRBO text messaging feature enables communications between radios, between radios and dispatch systems, and between radios and email capable devices. So you and your team have access to another form of communication to get the job done.

### Work harder with radios that can take it

Industrial environments can be tough and a plant's two-way radio system must be durable enough to stand up to the challenge. MOTOTRBO radios meet demanding specifications including IP57 for submersibility in water (portable models), as well as U.S. Military and Motorola standards for durability and reliability. Intrinsically safe models are also available on portable radios for use in locations where flammable gas, vapors or combustible dust may be present. Many of the Motorola Original Remote Speaker Microphones are intrinsically safe and not only meet IP57 standards but are designed with an advanced "windporting" feature that lessens background noise from high winds and other severe weather conditions. Your workers can be assured that their radio equipment will stand up to the harsh working conditions of a manufacturing operation and still communicate.

### Work efficiently with hands-free operation

Whether it's in the warehouse, the loading dock, the plant floor, or the office, manufacturing workers need tools that allow hands-free operation, enabling them to focus on the job at hand. MOTOTRBO offers a wide variety of carry cases and belt clips for hands-free portability. And with a complete line of audio accessories, workers can utilize a heavy-duty headset that not only enable hands-free operation, but also provide hearing protection in the high decibel environment of a factory floor.

### Track supplies and deliveries better with GPS location

Quickly locating inbound supplies and outbound deliveries is vital to facilitating smooth operations. With MOTOTRBO's integrated GPS module, you can track your workers and vehicles without cumbersome external GPS devices to install and maintain. In conjunction with location software applications, you can view the location of inbound materials and determine expected arrival times to prepare the receiving department. You can also view the location of outbound deliveries to ensure deliveries are being made on time and sent to the proper locations – all while coordinating your fleet in the most efficient manner.

### Expand capacity with Capacity Plus

Even manufacturing plants operating at a single-site location need the ability to send and receive large amounts of voice and data communication or to connect a large workforce who needs to collaborate. While the digital technology of MOTOTRBO doubles the capacity available on analog radios, sometimes unique business operations require even more.

Capacity Plus expands a MOTOTRBO system to accommodate as many radio users as your operations require, up to 1,200 users. By using a combination of 12 "voice paths" and 24 "data paths", Capacity Plus allows your employees to use the radios for voice communication as needed, while the additional 24 dedicated data paths will enable faster sharing of information such as GPS location coordinates, text messages, work order tickets and much more.

Capacity Plus expands capacity even beyond the standard MOTOTRBO solution, enabling staff from line workers and maintenance to shipping/receiving and security to collaborate as a single unified work team, helping to ensure increased productivity, efficiency, and work safety.



MOTOTRBO's integrated data capability enables GPS-based location tracking of workers and vehicles as well as quick and easy information sharing via text messaging.

#### Applications customized to meet your unique needs

Going beyond delivering exceptional voice quality, MOTOTRBO radios were designed to also support data applications that add value to your organization, including the development of customized applications to meet your specific business needs. From text messaging to work order management to customized applications for your business, MOTOTRBO radios help provide your work force with the right information to increase productivity. For example, telemetry applications can help automate various functions within the plant – with the push of a button, maintenance can turn irrigation systems on and off; the delivery fleet can remotely open the warehouse gate.

#### Bring everyone closer with IP Site Connect

No busy signals, no service fees, and no delay. When you need to talk or send data to one of your plants across town or to a storage facility on the far side of the property, IP Site Connect makes it happen.

IP Site Connect can extend the reach of your MOTOTRBO systems to locations virtually anywhere in the world. Users at a manufacturing plant in the United States can communicate in real-time with workers at up to 14 other locations across multiple cities, states, countries or continents – with no service fee. IP Site Connect can also help you to overcome issues caused by physical barriers such as equipment, buildings, mountains or other structures. Or you can link multiple repeaters together to create a wide-area communications network to help ensure coverage across your entire warehouse and manufacturing plant. All you need are an IP connection and MOTOTRBO radios and repeaters.

With IP Site Connect, employees can share voice and data applications, such as text messaging or GPS-location tracking across an unlimited geographical area. Supervisors can track the location of incoming receivables and outgoing shipments. Security can increase safety by ensuring coverage throughout the plant. And the entire staff can communicate whether they are on the loading dock, on the other side of the property, or at a warehouse across town.

#### Reduce operational costs with the MOTOTRBO digital difference

- **Twice the number of radio users on a single license:** As with any business, cost management in a manufacturing plant is important to increasing profit margins. MOTOTRBO provides exceptional value for two-way radio communication. By utilizing TDMA digital technology, MOTOTRBO enables two virtual channels within a single 12.5 kHz licensed repeater channel. This provides twice the calling capacity for the price of one license. Unlike FDMA digital technology, a second call does not require a second repeater, so you also save on equipment costs.

- **No recurring fees:** With MOTOTRBO there are no recurring monthly fees and no per-call charges, eliminating the need to estimate and pay monthly usage fees.
- **Integrated voice and data:** MOTOTRBO also offers integrated voice and data communication capability, in one hand-held device. With MOTOTRBO portable and mobile radios, you can talk, text, and access GPS-based location tracking applications without having to purchase, install, and maintain cumbersome external GPS devices.
- **Efficient battery technology:** To help control the cost of replacing batteries, Motorola's state-of-the-art IMPRES technology automatically maintains your battery fleet to make sure talk-time is maximized and extended throughout the life of the battery.

MOTOTRBO offers the innovation you have come to expect from Motorola products, connecting people, delivering mobility and making technology personal. In addition, MOTOTRBO radios are backed by a limited two-year warranty, plus one year Repair Service Advantage (US only) / Extended Warranty (Canada).

#### Summary

Today's work environment requires efficiency and productivity in order to remain competitive and two-way radio communication can help to do just that. Powerful, scalable and future-ready, the MOTOTRBO Professional Digital Two-way Radio System is designed to improve your response time and increase your productivity and efficiency today – and tomorrow.





MOTOTRBO is built to the globally recognized Digital Mobile Radio (DMR) standard; DMR is widely backed by major manufacturers of digital professional two-way radio communication equipment. So with MOTOTRBO, you can be assured that you are getting a robust and future-ready digital radio solution.



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