Safety

QR Codes: Digital Keys to Manufacturing Safety

Kellie Escoto | Aug 25, 2022

Keeping workers safe is a top priority for manufacturers, but paper forms and misplaced records mean information often gets lost in the shuffle. QR codes can get rid of those obstacles.

The black-and-white grids, often about the size of a postage stamp, that can be scanned like a bar code seem to be everywhere these days. Restaurants encourage patrons to scan the codes to peruse a menu, stores use them to give shoppers access to digital coupons and businesses even include QR codes in commercials to share more information on a product or service.

So how can this technology be adapted for manufacturing? QR codes can digitize many of your business's safety practices, meaning you can eliminate paper waste, reduce errors or lost records and get real-time updates and information."You can really take anything that would normally be on paper and reduce it to a QR code," says Gil Truesdale, chief revenue officer of Martin Technical. "The goal with a QR code is taking paperwork off of a clipboard and bringing it into the digital age."

Are QR codes secure?

If you're implementing QR codes to digitize reporting and tracking in your workplace, you might wonder whether the technology is vulnerable to hackers.

While QR codes themselves are inherently safe, the information on company networks accessed through them may still be at risk, depending on how well those networks are protected.

"The big deal is what kind of security you have" for the app or website you're directing users to, says Gil Truesdale, chief revenue officer of Martin Technical. "If you're using a cloud-based service, such as Amazon Web Services, those are generally highly secure."

As for the codes themselves? "Anyone can scan the code if they have a phone or tablet," Truesdale says. "But if you're using a secure site or app, all they get access to is an inspection checklist or a training program, and there's not much they can do with that."

Quick Response (QR) codes *have been around since 1994*, but their popularity has surged during the past two years as businesses worked to reduce human contact to curb infection risk for customers.

When scanned with a smartphone, QR codes direct users to a website, app or phone number. And they're easier to use than ever, thanks to a rise in mobile technology.

While people once had to download special apps on digital devices to scan them, Apple and Android users can now simply open their camera app, point their phone or tablet at the QR code and tap the URL that pops up on the screen.

Simplifying inspections

Manufacturing facilities are full of equipment, from forklifts to ladders and heavy machinery, all of which must be inspected. Any businesses still relying on paper and clipboards for that should instead take their processes online, Truesdale says.

"In an industrial environment, a company might have 200 ladders," Truesdale explains. "By putting a QR code on every ladder, a technician can simply walk up, scan the code, and go through the inspection checklist on their phone or tablet."

Martin Technical helps companies set up a system in which technicians get a reminder when it's time to reinspect equipment, he says.

If a piece of equipment fails inspection, the maintenance department receives an alert that the item needs to be repaired or taken out of service.

This QR code connects MSC customers to a portal where they can access safety assessments and services.

"When you're using paper, you have to fill it out, turn it in, then it's sent to maintenance—it's a long process," Truesdale explains. "Using a QR code and digitizing it keeps everything really simple and streamlined."

Reducing Injuries and Incidents

When it's time for machinery or equipment maintenance, *the U.S. Occupational Safety and Health Administration* requires a series of steps to ensure that devices are properly turned off and electrical power is disabled.

These procedures, which prevent injuries, are often posted in laminated sheets on the equipment, but Truesdale says companies can take that process online too.

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"If you don't want laminated sheets of paper all over your plant, all you have to do is place a QR code on the machine to access the steps," he says. In fact, "just about everything that's on paper can be reduced to a QR code."

When injuries occur, companies can use QR codes to report them. By scanning a QR code and capturing information on wounds, incidents and near-misses, manufacturers eliminate much of the time once required to gather information and can more quickly focus on establishing new safety measures, if needed.

Managing Emergencies

Whether employees are on location at a field site or in a production center, if an emergency strikes, it's vital to know their locations—information that QR codes *with location tracking* can provide.

By tying location into task- or equipment use-tracking and digitizing it with a QR code, managers can obtain real-time updates on an employee's whereabouts, a vital ability during a fire, power outage or other emergency.

"From start to finish, everything is digitized, documented, trackable, and time- and geo-stamped," for QR code users, Truesdale says.

And there's virtually no learning curve. "You scan the code, and it tells you exactly what to do from that point forward on your phone or tablet," he says.

How have you digitized your company's safety procedures? Share your ideas and experiences in the comments below.

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