PPE

Choosing the Right Work Glove Gauge for Safety and Dexterity

Matt Morgan | Feb 27, 2025

Workers get their hands on nearly every task in metalworking and manufacturing, which can be risky business. The right protective gloves don't just prevent injuries—they also provide dexterity, comfort and efficiency on the job.

One key factor that influences glove performance is glove gauge. Understanding this metric can help you select the best protection for your workers while maintaining productivity in your applications.

What Is Glove Gauge? Defining the Basics

Gauge is a measure of the stitch density of a glove—how many stitches are in a square inch of knitted material—and ranges from 7 to 21. In one inch, a 7-gauge glove will have seven stitches, and a 21-gauge glove will have 21.

Glove gauge is also an indicator of the product's thickness. Generally, gloves on the lower end of the gauge range are thicker, and gloves on the higher end are thinner.

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> Jeffrey Cohen
> PIP

As material and machining technologies have improved, gauges have increased.

"Before, everybody was like, 'I want a 13-gauge glove. That's the best in the world,'" says Jeffrey Cohen, director of product management at PIP. "Now, 13 gauge is kind of a commodity, 18 gauge has become the standard and 21 gauge is the new innovation."

Cohen says 21-gauge gloves arrived on the scene about a year and a half ago. “They’re used in quite a bit of applications, and customers have been extremely satisfied,” he says.

Why Glove Gauge Matters in Workplace Safety

Selecting the right glove gauge can have a significant effect on injury risk and workplace performance. It makes sure that workers have the protection they need without sacrificing dexterity.

A well-matched glove gauge provides ***cut resistance*** where it’s needed while still allowing workers to maintain the precision and control required for their tasks.

Read more: PIP Uses Tech Advances to Make Cut-Resistant Safety Gloves Thinner—And More Comfortable

“As newer technologies come out, and as people gain trust in thinner, higher-cut gloves, gauge has become more of a topic,” Cohen says. “Especially when you’re talking about processes and applications that require a lot of dexterity—dealing with smaller parts, getting into tight spaces—that becomes more of a conversation.”

Glove gauge also relates to productivity. When gloves fit the job, workers can move freely and complete tasks efficiently. This reduces interruptions caused by discomfort or frequent glove changes, or risky workarounds such as removing gloves for better dexterity.

“Gauge is also going to reflect how much fatigue a worker gets in their hand,” says Nora Kirby, PIP’s national account manager. “The more flexible and higher gauge the glove is, the less they are going to have hand fatigue if they are wearing them all day.”

Finding the Right Balance Between Glove Gauge and Dexterity

Discussions about glove gauge usually involve dexterity, which is essential for workers who need to grip, maneuver and assemble components safely and efficiently.

“The higher gauge you go, the thinner the glove, and you’re definitely going to get more comfort and dexterity,” Cohen says. “Safety managers want their workers to wear gloves that feel good and fit well, and 18 to 21 gauge tends to fit the model of what they’re looking for.”

Although lower-gauge gloves tend to limit movement and fine motor skills, they still have value for heavy-duty tasks such as handling raw metal sheets, operating cutting tools or dealing with sharp scrap metal. Lower-gauge gloves usually fall into a lower price point, too, which is a good consideration when high dexterity isn’t necessary for an application.

Variations in material quality and knitting technique produce variability even among gloves of the same gauge, so it’s good to look beyond the gauge.

“You could have a 21-gauge glove, but if you don’t have the right materials that make up the yarns, that can also affect the comfortability and the dexterity of the glove as well as hand fatigue,” Cohen explains.

Choosing the Right Gauge for Your Work Environment

To make sure a glove has the right gauge and other attributes that you need for your application, you should test it in that application, experts agree.

“Any good safety manager should really put the glove onto their floor for trials before they put it into full service,” Cohen says.

“Gauge is going to be one of the first things people look at for comfort, but you have to know your applications as well,” Kirby adds. “Even though they may be the same on paper, not all gloves do the same in real-life performance.”

If you need superior cut protection for handling sharp, unfinished sheet metal, for example, look for the cut protection rating as well as the gauge. ***Cut ratings are on a scale of A1 to A9***, set by the American National Standards Institute and the International Safety Equipment Association (ANSI/ISEA).

Read more: Ansell Melds State-of-the-Art Cut Resistance with Touchscreen Compatibility

“You’ve got to tailor the specs of the glove to what your application or process requires,” Cohen explains. “If you require high visibility, you’ve got to look if there’s a high-vis component. If there’s a touchscreen requirement, look for that. A lot of companies have sustainable KPIs [key performance indicators] they have to meet, so you may want an eco-friendly component to the glove.”

Some of the biggest advancements that Cohen has seen regarding gauge have been in engineered yarns and knitting processes. These innovations have enabled gloves to push the boundaries and suit many applications, even within the same gauge.

“We’ve seen some really exciting things that allow us to do what I would call multi-hazard within one type of product,” he says. “We can get cut protection in there, we can get FR [flame resistance] in there, we can get arc flash in there, contact heat—all into one.”

What glove gauge do you use most in your facility? Let us know in the comments.