



RITZ SAFETY

Learning Guide:

Gloves for Oil & Gas Applications





Intro

Oil and gas workers face some of the toughest conditions in today's workforce. From upstream drilling and extraction to downstream refining and processing, each phase presents unique hazards. Historically, hand and finger injuries have made up nearly 50% of all recordable incidents in the oil and gas industry. Between 2015 and mid-2022, 43% of all serious injuries involved the upper extremities, most of which were hand-related.

Workers encounter sharp steel cables, heavy gas pipes, drilling fluids, high-heat equipment, slick surfaces, and abrasive materials every day. The right glove selection is essential to preventing severe injuries and ensuring workers stay productive and protected.

This information is designed to help you understand the hazards, glove technologies, and product features that matter most when supporting our oil and gas customers.

Why Glove Selection Matters in Oil & Gas

Safety gloves are not one-size-fits-all. A glove that works for one job may fail in another. Our team needs to be able to identify job demands, hazards, and performance factors to recommend the right glove every time.

When selecting gloves for oil and gas applications, consider four critical features:

- 1 Oil Resistance
- 2 Heat Resistance
- 3 Additional Protection (Impact, Cut, Abrasion)
- 4 Style & Fit for Worker Compliance

Let's break down the key features, starting with oil resistance and why it's essential for every glove in the oil and gas industry.





1

Oil Resistance

Why do oil and gas workers need oil-resistant gloves? Because oil, fuel, and drilling fluids don't just create messy worksites, they break down skin, weaken glove material, and make tools dangerously slippery to handle. Without the right glove technology, even simple tasks like tightening a valve or carrying a pipe can turn into a major safety hazard.

That's why oil-resistant gloves are a must-have in the oil and gas industry. The right coatings and treatments combine grip control with repelling properties, ensuring workers maintain a secure hold in slick environments while keeping oils from soaking into the gloves.

Sandy nitrile and micro-foam nitrile: Channel oil away from the glove surface to maintain a tacky, slip-resistant grip, even in heavy-oil environments.

Polyurethane (PU): A lightweight, flexible coating that offers excellent dexterity and control, ideal for precision tasks in light-oil conditions.

High-performance synthetic palms: Durable, abrasion-resistant synthetic materials engineered with textured surfaces to deliver reliable grip in oil-saturated conditions. These palms help workers maintain secure tool control in tough, slick environments.

Leather Glove Treatment Options

Spray-on oil-repellent treatments: These surface-applied treatments provide long-term resistance to oil and water while preserving the natural flexibility and feel of the leather. They help prevent saturation without causing stiffness or breakdown.

Baked-in oil-repellent treatments: Advanced treatments that are infused directly into the leather fibers during manufacturing. This process delivers durable, long-lasting oil resistance that remains effective throughout the life of the glove.

Both treatment methods are engineered for real-world oil-field environments, offering safety professionals reliable options based on budget, performance needs, and application.

The result?

Leather gloves that not only resist oil exposure but also give workers the confidence to handle heavy, slick equipment with greater control and reduced risk.



A photograph of an oil pumpjack (jack-o'-lantern) in an industrial setting. The pumpjack is a large, blue and yellow mechanical structure used for extracting oil. It is set against a dramatic sky with clouds and a low sun, suggesting a sunset or sunrise. The pumpjack's long arm is extended upwards, and the large flywheel is visible. The overall scene is industrial and atmospheric.

2

Heat resistance:

Protection against sparks, flames, and extreme temperatures

Why do oil and gas workers need heat-resistant gloves? Jobs around rigs, refineries, and pipelines often bring workers face-to-face with high heat, open flames, and even arc flash hazards. Without proper protection, gloves can quickly fail, leading to painful burns and other heat-related injuries.

Heat-resistant gloves are essential for oil and gas applications. Depending on the task, gloves should be engineered with:

- **Contact heat ratings (ANSI/ISEA 105-2024):** Tested to withstand direct contact with hot equipment or surfaces.
- **Flame-resistant construction:** Materials that won't ignite or melt when exposed to sparks or flames.
- **Arc flash resistance (ASTM F2675/NFPA 70E):** Specialized protection for electrical tasks where sudden flashes of intense light or heat can occur.

Key technologies to look for include aramid or Kevlar® stitching, which holds strong under extreme temperatures, and treated leathers that add a layer of heat and flame defense. Some leather gloves are specifically designed for welding and hot work, like in the oil and gas industry and refineries, ensuring the gloves won't fail when exposed to extreme conditions.



3

Additional protection:

Impact, cut, and abrasion resistance

What other protections should oil and gas gloves provide?

Beyond oil resistance and heat protection, gloves in the oil and gas industry must defend against the everyday hazards that cause some of the most common and costly injuries on the job.

Impact protection: Heavy pipes, wrenches, and equipment create constant crush and smash risks. Gloves with impact-resistant designs, rated for ANSI/ISEA 138 levels, help to absorb and dissipate force, protecting knuckles and fingers from serious injury.

Cut resistance: Handling steel cables, jagged pipe ends, and sharp tools means cuts and punctures are a daily threat.

Abrasion resistance: Oil and gas jobs are tough on PPE. Rope pulls, rigging, and pipe handling quickly wear down ordinary gloves. High-abrasion materials ensure gloves last longer, saving costs and reducing the need for frequent glove replacements.



4

Comfort that drives compliance through style and fit

Why does glove style and fit matter in the oil and gas industry?

Because even the most protective glove won't help if workers don't wear it. Poorly fitting gloves cause hand fatigue, reduce dexterity, and are often discarded when needed most.

Safety professionals should prioritize gloves with ergonomic, form-fitting designs. Features like innovative liners, seamless knits, and flexible materials strike the right balance between dexterity and protection, ensuring gloves are flexible and move naturally with the hand instead of working against it.

Glove style also matters, and different jobs demand different builds.

Leather gloves: Rugged durability for handling heavy pipe, tools, and equipment with long-lasting performance in abrasive environments.

Knit gloves: Lightweight breathability with cut resistance, ideal for tasks requiring precision handling of smaller tools, valves, or controls.

Gauntlet-style gloves: Extended wrist and arm coverage for added protection during drilling, rigging, and when working around sharp edges or chemicals.

Impact gloves: Protect against crush and pinch injuries during high-risk tasks like lifting, pipe handling, or working in close quarters with heavy machinery.

Fluid-resistant gloves: Essential in areas where workers regularly encounter oils, fuels, drilling fluids, or other chemicals, helping maintain grip while preventing skin contact.



Upstream

In drilling, exploration, and production, workers can face crush and cut hazards from heavy tools, drilling equipment, and handling pipes under pressure. Gloves in this state need impact protection, oil resistance, and abrasion durability for performance in harsh conditions.

Midstream

Transportation, pipeline workers, and field maintenance require gloves that combine grip and dexterity with chemical and oil resistance.

Downstream

Refineries and processing plants bring risks from high heat, flames, and chemical contact. Gloves need to be flame and heat-resistant, plus have cut and puncture protection for handling maintenance tools and metal components.

Bottom line:

When evaluating oil and gas gloves, remember the four essentials: oil resistance, heat resistance, additional hazard protection, and style/fit.

