



COMMERCIAL CASE STUDY

PRODUCT

CARBONX® APPAREL

Several serious safety incidents had occurred at a steel manufacturing company in the midwestern United States. The resulting injuries spurred the company to take drastic corrective action, which included upgrading the safety apparel provided to workers.

Find out why this steel manufacturing company chose to upgrade to the CarbonX fire-retardant underlayer from Mechanix Wear and Chicago Protective Apparel, and how workers are now benefiting from its higher comfort, flexibility, and burn protection.



PART # CX-54, CX-55, CXA-54C

SIZE SM - 4XL

THE PROBLEM

The customer manufactures carbon and alloy steel products for the automotive, energy, and other industries, and had been suffering from frequent and serious safety incidents. They had been cited by OSHA three times in five years for critical safety failures. The latest major incident involved an explosion in one of its plants, where three employees were injured.

The estimated direct cost from these injuries totaled over \$140,000 based on OSHA's average direct cost of \$47,192 per burn injury, and a total estimated indirect cost of nearly \$2.5 million (based on a Vanderbilt University Law School study).

RESULTS



SAVED \$141,000
IN PREVENTABLE INJURY DIRECT COSTS



SAVED \$2.4 MILLION
IN PREVENTABLE INDIRECT COSTS

CUSTOMER

STEEL MANUFACTURER

The customer is a steel manufacturer with facilities located mostly in the midwestern United States, with some plants located overseas. They produce high-quality carbon and steel alloy products for the automotive, energy, and other industries. In addition to producing high-performance steel, they also offer thermal treatments and manufactured components.

100 + YEARS OLD

6 FACILITIES

1.2 M TONS ANNUAL MELT CAPACITY

1,800 + EMPLOYEES

APPLICATION

Blast furnace work

INDUSTRY

Steel manufacturing

CUSTOMER CONSIDERATIONS

- Will the apparel reduce burn injuries?
- Will the apparel be comfortable to wear in high-heat environments?
- Will the apparel be durable?

It was this incident that triggered a change in management's attitudes towards safety. No expense would be spared in protecting workers moving forward.

Part of this new safety initiative involved taking a closer look at the protective equipment being issued to workers. Foundry workers were being issued a legacy fire-retardant underlayer garment that they found very uncomfortable to wear in such a high-heat environment. The garment didn't fit well and hampered worker's movements. They needed something better.



SOLUTION

Driven by this new initiative, the company's Safety Supervisor approached Mechanix Wear for a solution. He already had the CarbonX® line of safety garments in mind. Specifically, he chose the CX-54 fire-retardant base layer shirt, CX-55 fire-retardant base layer pants, and the CXA-54C fire-retardant base layer crewneck.

All of these garments are made from a blend of high-performance fibers that won't burn, melt, or ignite—even when exposed to direct flame. Instead, CarbonX® fibers carbonize and expand when exposed to flame, eliminating oxygen in the fabric and making it harder to combust.

It's lightweight, flexible, and soft to the touch. It also protects the skin from burn injuries, and are a great choice for secondary protection garments.

USER FEEDBACK

Workers loved the new CarbonX® underlayer garments. They are much more comfortable to wear for extended periods of time, and have been widely accepted by the team.

SUMMARY

Fire-retardant underlayer garments for steel manufacturing workers

- More comfortable than previous FR garments
- Provides superior burn protection
- Widely preferred by facility employees



ARE YOU ON THE RIGHT TRACK?

JOIN AN ELITE GROUP OF COMPANIES WHO HAVE SWITCHED TO THE TRACK PROGRAM, TO TAKE CONTROL OF YOUR SAFETY AND COSTS.

- ✓ PRODUCT SAMPLES FOR TRIALS
- ✓ EXPERT JOB SITE ASSESSMENT
- ✓ DETAILED REPORT WITH PPE RECOMMENDATIONS

SIGN UP NOW!