





COUNTERFEIT CONSTRUCTION MATERIALS ARE FLOODING THE U.S. MARKET

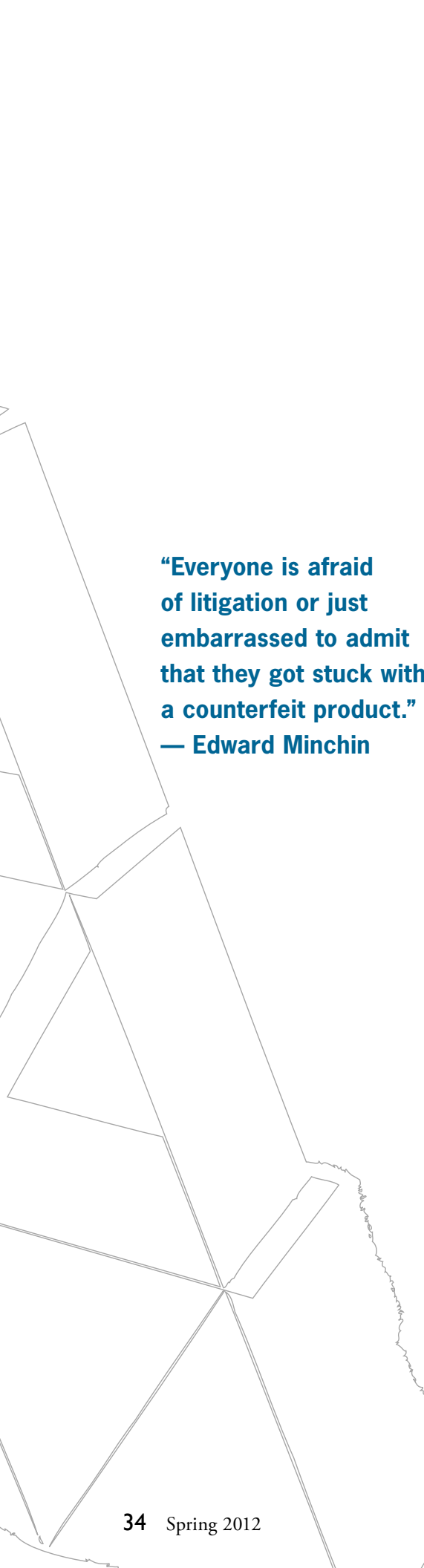
If a deal seems too good to be true, then it probably is.

That may sound like something your dad would say, but it's actually the latest advice experts from the University of Florida are giving builders, manufacturers and consumers regarding construction industry products.

They say that substandard items ranging from bolts and fasteners to heavy equipment like scaffolds and cranes are finding their way onto American job sites at an alarming rate.

Unauthorized factories, particularly in China and India, use low-grade steel and lax manufacturing standards to cheaply produce convincing copies of the authentic construction products that are infiltrating the global market. It's the same sort of dark market that delivers fake Gucci bags to New York City's Canal Street tourists, but with one significant difference — knock-off handbags rarely kill or maim.

It's a catastrophe waiting to happen, according to an anti-counterfeiting operations expert at Underwriters Laboratories. It's even harder to draw attention to the house of cards because few in the construction business want to admit when they have been duped into buying counterfeit products.



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— Edward Minchin

But that is exactly what they must do, according to a 2011 report prepared by a team from the University of Florida working with researchers from Tsinghua University in Beijing.

“Everyone is afraid of litigation or just embarrassed to admit that they got stuck with a counterfeit product,” says Edward Minchin, associate professor at UF’s M.E. Rinker Sr. School of Building Construction, and lead investigator for the study. “They don’t want to tell anyone.”

The team, which also included UF building construction researcher Russell Walters, spent 16 months personally interviewing 192 major players in the construction industry in seven countries. They sought to find out how pervasive the problem has become, what factors are supporting the growth of counterfeit products in construction, and how buyers can best protect themselves. The Construction Industry Institute funded the study and the resulting report.

“Everybody in the industry right down to the homebuilder should be concerned about this,” says Minchin.

In the U.S. and Canada, 76 percent of the contractors, manufacturers, suppliers and builders interviewed in the study said that they had personally had a problem with a counterfeit item or knew of someone who had. The copy-cat products were found most often because they had failed, only occasionally did inspectors identify items before they were able to cause any damage. Almost half of the interviewees said that they had received counterfeit products directly from the manufacturer, but that most had come through trusted suppliers and distributors.

The researchers focused on classical counterfeiting — knock-offs bearing the logos, markings and sometimes legitimate serial numbers lifted from products of respected manufacturers. But they found that the industry has an even bigger problem with products bearing no brand name that are shipped

with documentation falsely certifying that the product is of a certain quality, has met required standard material testing, or possesses important properties.

Construction professionals and manufacturers in China indicated that the push to reduce construction costs is driving the success of counterfeiters. One interviewee noted that using low-grade steel in place of structural steel cut costs in half — basically boosting profits and allowing the counterfeit manufacturer to undercut the authentic competition.

But government policy and cultural differences between construction and manufacturing professionals in China and the U.S. seem to complicate the problem further. While it’s clear that some distributors purchase sub-standard products and purposefully re-brand them to fool unwary clients, some Chinese manufacturers send their sub-standard goods to market because they feel that they are, indeed, good enough.

In short, there is a recognizable gap between U.S. and Chinese expectations for manufacturing standards.

Interviewees in China indicated that their government, in some cases, lacks the power to enforce rules that could stem the flow of counterfeit goods from their country, but some felt that government officials simply did not understand how the businesses operate.

The report found that the most likely products to be counterfeited are products that are bought in bulk, such as raw steel and steel products like pipe, bolts, fittings and valves. These items are cheap to make, and therefore, profitable.

But electrical devices like extension cords and circuit breakers are common items for counterfeiters as well. U.S. Customs and Border Protection agents confiscated \$3.5 million worth of counterfeit circuit breakers in 2008, according to a special report in the *Engineering News-Record* that expanded on the UF team’s research.

TOP 10 COUNTERFEIT CONSTRUCTION GOODS

1. STEEL FASTENERS
2. VALVE
3. PIPE
4. CIRCUIT BREAKERS
5. ROTATING EQUIPMENT
6. ELECTRIC EQUIPMENT
7. PIPE FITTINGS
8. PRESSURE VESSELS
9. CEMENT
- 10.

76%

Respondents who had experienced a problem with counterfeit items or knew someone who had.

63%

Respondents who had received counterfeit products directly from the manufacturer through trusted suppliers.

TOP 3

Top Source Countries:

1. China
2. India
3. United States*

*U.S. counterfeits to Canada from third country source.

THE TEAM SPENT 16 MONTHS PERSONALLY INTERVIEWING 192 MAJOR PLAYERS IN THE CONSTRUCTION INDUSTRY IN SEVEN COUNTRIES TO FIND OUT HOW PERVERSIVE THE PROBLEM HAS BECOME, WHAT FACTORS ARE SUPPORTING THE GROWTH OF COUNTERFEIT PRODUCTS IN CONSTRUCTION, AND HOW BUYERS CAN BEST PROTECT THEMSELVES.

“If someone is caught bringing in a large shipment of drugs, they will do hard time. However, if someone gets caught bringing in a shipment of counterfeit goods, they may get up to 18 months in jail, and the fines are comparatively miniscule.”
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The company that manufactures the popular Square D circuit breakers has issued numerous recalls in recent years as they became aware of large caches of counterfeit versions of their product infiltrating the market. They have repeatedly raided illegal manufacturers in China and gone after several unscrupulous distributors in court, but officials say that hundreds of thousands of faulty circuit breakers could still be in use.

“Most often, the counterfeiters cut cost in these products by using less copper in the wiring,” says Brian Monks, vice president of anti-counterfeiting operations for Underwriters Laboratories. That means that the wiring can’t actually handle the amount of electricity for which it’s rated. “It will probably fail, and sometimes it can start a fire.”

Anyone standing in the vicinity of an exploding breaker would be subjected to extreme heat and sprays of molten metal, according to a lawsuit filed against an independent distributor in Greensburg, Pennsylvania accused of pushing fake Square D circuit breakers on an unsuspecting public. The *Engineering News-Record* story goes on to say that officials felt that shutting down counterfeiters was like playing an endless game of Whac-a-Mole.

Minchin wheels a load of legitimate parts along with corresponding knock-offs from the laboratory in Rinker Hall.

Counterfeits can be difficult to spot without the original model for comparison. The fakes pictured beneath their authentic counterparts on the next page could easily go undetected. Sometimes an unusually low price may be the buyer’s only warning.

These bulk items ship to the U.S. by the millions, and even if a few cargo containers are confiscated by inspecting authorities, enough of them usually make it through to keep the business profitable. New York City officials report that organized crime rings now consider counterfeiting to be a more attractive line of business than prostitution or drugs, Minchin says. And the punishment doled out for the offense is hardly a deterrent.

“If someone is caught bringing in a large shipment of drugs, they will do hard time,” Minchin says. “However, if someone gets caught bringing in a shipment of counterfeit goods, they may get up to 18 months in jail, and the fines are comparatively miniscule.”

Monks says that education and raising awareness, including academic research projects like the University of Florida’s, are key in the fight against counterfeiting. The Department of Energy and other government agencies now provide preventative training for employees. An executive with a large



energy provider told the researchers that they had found counterfeit valves in a nuclear power plant as part of their inspection regimen.

Surprisingly, Minchin says, most of the counterfeit items identified in construction supply chains come from vendors on the companies’ approved vendors list. He found that many respected U.S. companies were not regularly updating their approved vendors lists and they were not testing materials because they were dealing with a trusted supplier.

Builders and manufacturers would do well, the report says, to consult specialists like materials and corrosion engineers whenever there is a question regarding the integrity of a product.



And when the source or quality of a product used in a project cannot be verified, managers must be informed immediately so they can weigh potential risks.

The report recommends that industry leaders should adopt a more formal, unified approach for tracking the origin of products that will make it easier for buyers to see who manufactured the products they purchase. They also suggest that a central database for documented cases of counterfeit goods along with identifying photographs should be established.

Furthermore, the team says that people in purchasing departments must be trained to spot telltale signs of a counterfeit business operation, and that entire supply chains should be notified when a confirmed case of counterfeit products is found.

But consumers have to do their part as well, says Monks. Products that look a bit off or are much cheaper than the same name-brand item sold elsewhere should alert the consumer’s spidey senses.

“You have to do your own due diligence,” he says. “Call the manufacturer and check the serial numbers if you have to.” You can’t assume that just because a product is sold in America that it was manufactured to our standards.

And most importantly — don’t be suckered in by a deal that’s too good to be true. ❌

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