

Counterfeit Awareness Training
Jamco America



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Introduction

This Counterfeit Awareness Training is to provide information about counterfeit parts, how to avoid purchasing them, and how to identify them.



As of 2018, **counterfeiting is the largest criminal enterprise in the world**, with domestic and international sales of counterfeit and pirated goods totaling between an estimated **\$1.7 trillion and \$4.5 trillion a year**—a higher amount than either drugs or human trafficking. Around **80 percent of these goods are produced in China**, and **60 percent to 80 percent of those products are purchased by Americans**.

-U.S. Patent and Trademark Office

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What is a counterfeit part?

Per AS5553, a **counterfeit part** is a suspect part that is a copy or substitute without legal right or authority to do so or one whose material, performance, or characteristics are knowingly misrepresented by a supplier in the supply chain.

Examples of counterfeits include, but are not limited to:

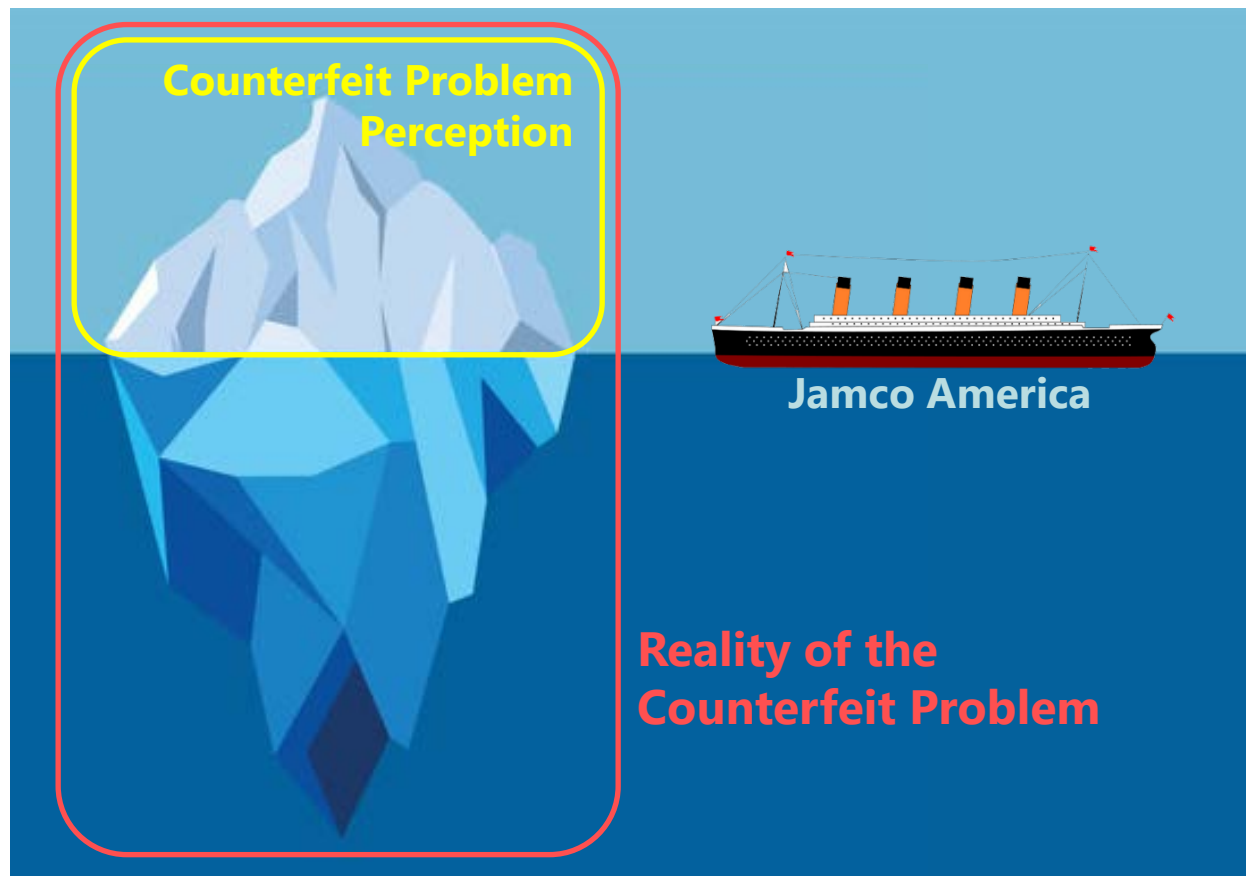
- Parts which do not contain the proper internal construction (die, manufacturer, wire bonding, etc.) consistent with the ordered part.
- Parts which have been used, refurbished or reclaimed, but represented as new product.
- Parts which have different package style or surface plating/finish than the ordered parts.
- Parts which have not successfully completed the Original Component Manufacturer's (OCM)'s full production and test flow but are represented as completed product.
- Parts sold with modified labeling or markings intended to misrepresent the part's form, fit, function, or grade.

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Impacts of Counterfeit Parts

- Personal injury
- Reduced reliability and product recall
- Potential loss of contracts
- Shutdown of manufacturing lines
- Negative cost and schedule impacts
- Penalties for companies and individuals
- Damage to our corporate reputation



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The media recently reported that both **Airbus and Boeing** has purchased and installed counterfeit parts on their aircraft.

The New York Times

F.A.A. Investigating How Questionable Titanium Got Into Boeing and Airbus Jets



The Pentagon estimates that **15% percent** of all spare and replacement electronic parts purchased for its weapons, vehicles and other equipment are counterfeit.

The Fiscal Times

US Military Equipment Built with Counterfeit Parts



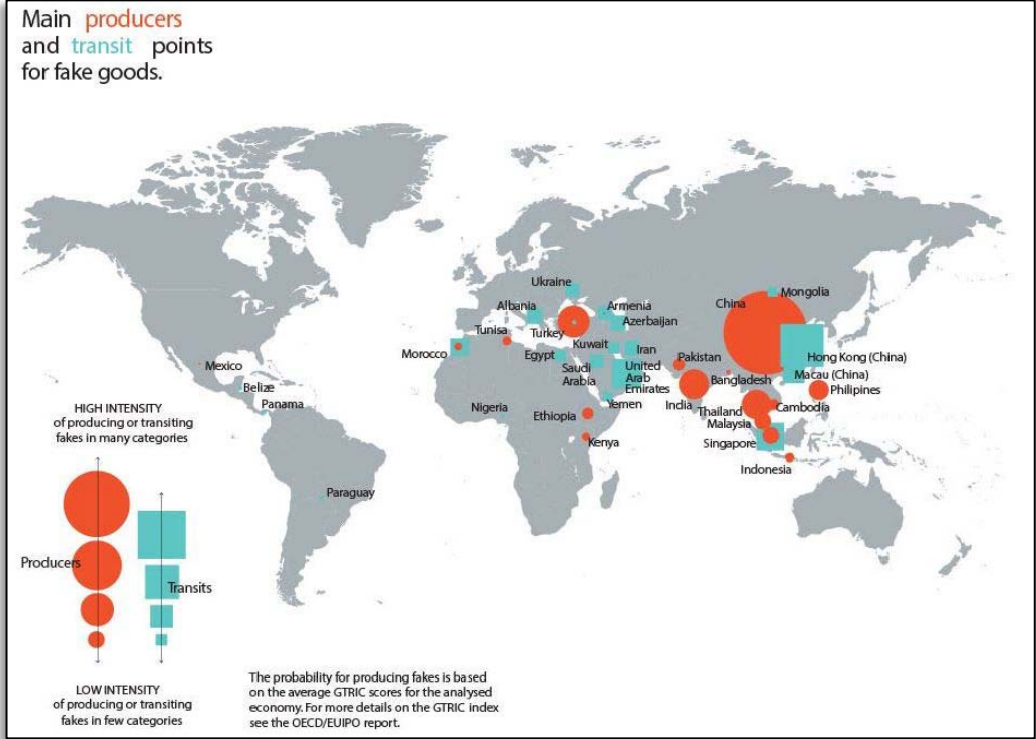
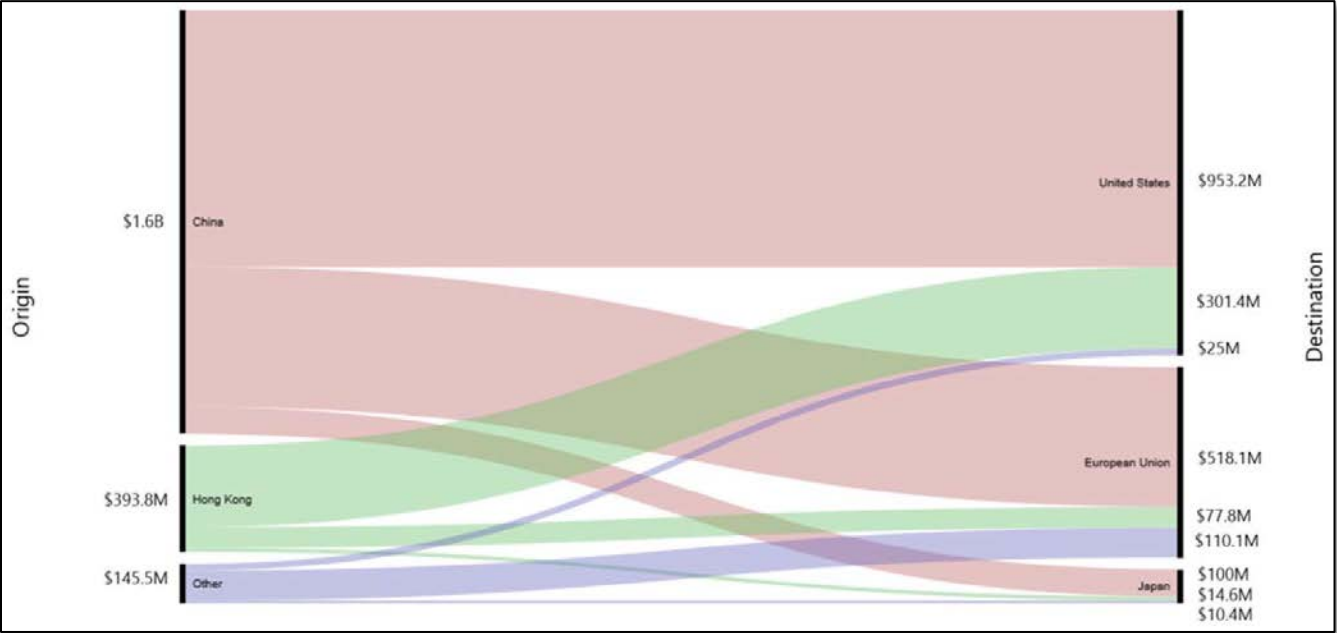
If it is difficult for our customers and the U.S. government to prevent counterfeit parts from entering their supply chain, then Jamco America cannot assume that our supply chain is safe from counterfeit parts.

We all must be vigilant in preventing counterfeit parts from entering Jamco America's supply chain and in identifying suspect counterfeit parts.

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Although many counterfeit parts are manufactured in China and Hong Kong, other countries distribute (transit) counterfeit parts.



The United States is the largest consumer of counterfeit goods

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How do counterfeit parts enter the supply chain?

- E-Waste
- Large internet retailers/resellers (Amazon, eBay, Alibaba, etc.)
- Excess Inventory
- Cloning/Uprating
- Returns
- Value Added Processes (Outside Processing)

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E-Waste

E-waste is any electrical or electronic equipment that's been discarded.

This includes working and broken items that are thrown in the Garbage or donated to a charity reseller like Goodwill. Often, if the item goes unsold in the store, it will be thrown away. E-waste is particularly dangerous due to toxic chemicals that naturally leach from the metals inside when buried.

The e-waste stream creates opportunities for counterfeiters.

- EPA estimates that only 29.2% of the 3.4 million tons of e-waste is recycled
- A rich material source of product at the end of service life
- Counterfeiters re-mark recycled e-waste with different part numbers, recent date codes, updated characteristics and return it to the supply chain
- Multiple opportunities for the introduction of counterfeit parts into the supply chain



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Large internet retailers/resellers (Amazon, eBay, Alibaba, etc.)

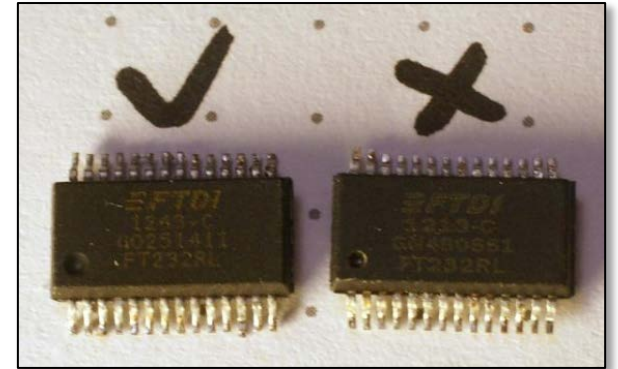
- Counterfeiters will sell cloned parts or lower graded material as a better grade material (Upgrading).
- Counterfeiters will falsify documents (certificate of conformity) to trick companies into thinking they are purchasing the correct product.
- Counterfeiters will part mark different part numbers, recent date codes, and updated characteristics.

Excess Inventory

- Original Equipment Manufacturers (OEMs) will sell excess inventory in the open market
- OEM's warranty is no longer honored
- Inventory is not managed the same way in the open market
- Counterfeiters will offer parts at a deep discount without proper documentation

Returns/Escapes

- Suppliers sometimes will ship nonconforming products returned by one customer to another customer



**If it is too good
to be true, it
often is!**

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Value Added Processes (Outside Processing)

- Any value added/outside processing sent out to a supplier creates additional risk
- Documentation and parts need to be inspected to ensure outside processing is completed correctly
- This includes, but not limited to, manufacturing processes, such as:
 - Paint
 - Anodize
 - Passivation
 - Heat Treat



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Strategies to Eliminate Counterfeit



AVOIDANCE
in acquiring
these items



DETECTION
of these items
before use



MITIGATION
of issues due to
counterfeits



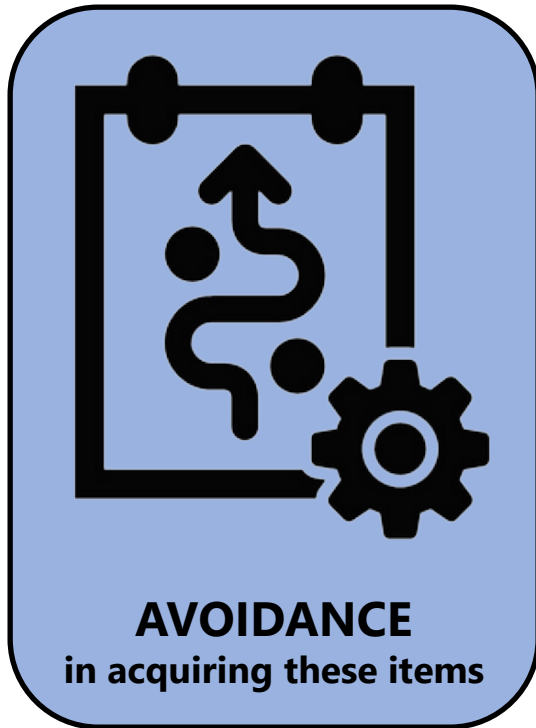
DISPOSTION
of these issues
and items



COMMUNICATION
of incidents and
information

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Avoidance Strategies

- ✓ Purchase parts from original component or equipment manufacturers (OCM/OEM) or their authorized distributors
- ✓ Require traceability from the original source of manufacture
- ✓ Flow down counterfeit avoidance strategies through the supply chain, including requirement to use OCM/OEM authorized sources.
- ✓ Assess and audit sources for compliance
- ✓ Anticipate obsolescence issues in time to initiate actions such as redesign or lifetime buys
- ✓ Provide counterfeit awareness training internally and to suppliers

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Detection

Alert your manager/supervisor and Quality Assurance if you suspect potential counterfeit parts or materials. You should be more suspicious if there are multiple red flags. Investigate if something doesn't look right.

General Red Flags

- ❗ Source other than authorized sources
- ❗ From suspect locations
- ❗ Price too low or different from historical prices
- ❗ Scarce parts are suddenly available
- ❗ Traceability can't be verified
- ❗ No certificate of conformance (CoC)
- ❗ Unusual paperwork
- ❗ Obsolete item
- ❗ Unknown supplier
- ❗ Non-homogeneous lot
- ❗ Prohibited material present

Part-marking issues

- ❗ Does not match similar items
- ❗ Alternations/resurfacing
- ❗ Incomplete
- ❗ Wrong size/location/methods
- ❗ Quality difference
- ❗ Lot number/date code issue

Packaging/constructions issues

- ❗ Not made per drawing
- ❗ Incorrect size, shape, color, finish, or materials
- ❗ Evidence of rework, repair, refinishing, or resurfacing
- ❗ Poor quality

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Mitigation Actions

If you suspect that a counterfeit part infiltrated the supply chain, this issue must be addressed immediately to minimize impact.

- ✓ Quarantine affected parts
- ✓ Notify your manager/supervisor and Quality Assurance of suspect counterfeit parts
- ✓ Gather all records including purchase orders, job numbers and test records
- ✓ Verify the item is or is not counterfeit
- ✓ Notify suppliers and customers as needed
- ✓ Develop a corrective action plan to prevent recurrence

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Disposition

Counterfeiting involves fraud- often from a supplier that is several tiers below Jamco America. Therefore, coordination with appropriate officials must take place prior to disposition of parts.

Best Practices

- ✓ Store counterfeit parts or materials in quarantine (MRB)
- ✓ Clearly identify counterfeit product for management review
- ✓ Do not return counterfeit product to supplier in such a way that they could be reintroduced into the supply chain to be sold again
- ✓ Legal authorities may be contacted to initiate an investigation into the counterfeiting activity. Parts may be required for evidence.

DO NOT THROW PARTS AWAY UNTIL IT IS CLEAR THAT THEY ARE NOT NEEDED FOR INVESTIGATION

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Communication

- ✓ Communication is key throughout the counterfeit investigation.
- ✓ Notify your manager/supervisor and Quality Assurance immediately if suspect counterfeit material is discovered
- ✓ Notify regulatory agencies if suspect counterfeit material is discovered
- ✓ Notify customers if suspect counterfeit material has been shipped to them
- ✓ Notify suppliers if they have shipped suspect counterfeit material to Jamco America

Counterfeit material can only be avoided, detected, mitigated, and dispositioned through rigorous communication throughout the process.

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Counterfeit material is everyone's problem- our problem, our suppliers' problem, our customers' problem.

As a company, with avoidance, detection, mitigation, and disposition strategies, we can prevent counterfeit materials from injuring people and damaging our product.

For more information on counterfeit prevention, refer to AS5553.

Thank you!

End of Counterfeit Awareness Training