Factory Inspections: How and When

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Owning and operating a sourcing company in China, I get to speak with a lot of people importing and manufacturing. It amazes me how often importers neglect to utilize inspection companies during their production.

While I always recommend that all DIY importers should have their products inspected by some form of a third-party inspector at least once while their goods are still in the factory, it can be confusing at times to determine when an inspection should take place.

We’ve created this guide that will go over the four most basic forms of inspections. We’ll explain the benefits of each type, and give tips on how to make the most of each inspection, and how to be sure you’re fully prepared for the inspection to begin.
How to decide when to do an inspection

A few hundred dollars spent on inspections can be one of the greatest investments you can make when importing from China; saving you weeks of delays from potential quality and product rework. Knowing when and how to use them, on the other hand, can be somewhat of a challenge. Luckily, these guidelines will make your selection much easier.

In general, there are four main types of quality inspection services to choose from:

- Pre-Production Inspection (PPI)
- During Production Check (DUPRO)
- Container Loading Check (CLC)
- Pre-shipment Inspection (PSI)

1. What is a pre-production inspection?

Pre-production inspections (PPI), also known as initial pre-production checks (IPC), are usually carried out before the production starts. For this inspection, components and materials are inspected and validated to make sure they match your requirements.

When to make a pre-production inspection

Suppliers will often over-promise and under-deliver on important factors that can take a toll on your price, quality and lead-time. In general, it is best for buyers to have an inspecting agent visit their factory to check their product’s components and materials. This can catch potential quality-related issues early and prevent them from causing delays later on during mass production.

What are the advantages of a pre-production inspection?

In general, PPIs help ensure your production is off to a great start, and help maintain it
throughout the manufacturing cycle. They also work great as trial phase, making sure your sample components and materials match your product specifications.

- **Cutting sample-shipping costs:** Traveling to and from China is not always feasible and shipping samples won’t help keep costs any lower. To remedy this, send your samples to an inspection agency where your samples can be compared and analyzed with respect to your specifications.

  **Pro-tip:** Even better, send your samples along with a comprehensive spec sheet for an even better assessment.

- **Tests your materials and components:** Factories will often substitute cheaper materials in an effort to lower their costs. To prevent this, buyers can have an inspector select a couple of random samples to be sent for laboratory testing.

- **Prevents additional costs down the road:** This makes it difficult to cut corners by substituting substandard materials - which could lead to unexpected changes in your design, materials, components, etc. - from occurring midway through your production.

- **Makes sure your assembly instructions are followed:** Sometimes buyers may require their product assembled or packaged in a certain way.

**PPIs help ensure your sample components and materials match your product specifications.**

For example, a cushion cover needs to be stitched properly in order for the cover to fit over the foam properly. Stitching the cushion covers too loose or tight, will force reworking delays. PPIs can avoid these problems from occurring.

**Other benefits:**

- Keeps production on schedule.
- Ensures your factory follows your specifications.
- Serves as your early-warning during manufacturing process.

**What are the drawbacks?**

- **Supplier resentment:** Some factories may refuse to halt production in order to prevent disruption to their
production lines.

- **Inaccurate quality:** Products coming out of initial production line may not reflect your overall production quality.

- **Inspection hold-ups:** Sometimes, production cycles can run for numerous weeks, before a product can be completed. This forces inspectors to wait even longer before they can get their hands on your finished sample to inspect.

How to make the most of your pre-production inspection

- **Provide a spec sheet:** Are your product requirements clear and organized?

- **Plan before moving forward:** Make sure you have added all your product specifications before production starts. No one wants to deal with a buyer that makes changes mid-way through production!

- **Have a Plan B:** Make sure corrective actions are included, planned and understood between you and your supplier.

Make your product requirements clear and organized by providing suppliers a spec sheet.

- **Pro-tip:** It’s best to provide your inspection agents with a physical sample, to be referred throughout the first production run. An on hand sample can ensure your materials, texture, color, size, weight and other features match your finished goods.
2. What is a during production inspection?

During production inspections (DUPRO), takes place when 10 to 50 percent of your goods are completed and packed. Inspectors can be sent to the factory to identify problems as they occur while your products are being manufactured. Units are selected randomly from the production line and compared to your product specifications. Potential delays caused by production errors and quality defects can be caught early and reworked on site.

When to perform a DUPRO Inspection

Early inspection of your products, especially during the early manufacturing cycle, is the most efficient way to prevent last minute quality delays.

What are the advantages of DUPRO?

- **Corrective action early-on:** DUPRO, like PPI, works as an early-warning system, helping buyers catch and fix quality problems before they appear and start taking a toll on the overall quality of your shipment.

Other benefits:

- Keeps production on schedule.
- Prevents unnecessary additional costs.
- Ensures your factory follows your specifications.

The disadvantages:

- **Requires experienced inspectors:** DUPRO takes more time because of its more involved hands-on approach. Agents with production monitoring experience are required for a successful DUPRO inspection.

- **More costs:** Reworked defective units can lead to loss of time and money for you and the factory. Unless, pre-agreed,
some suppliers may refuse to pay for reworked goods.

**How to make the most of your DUPRO**

A good thorough DUPRO inspection should include the following things:

- **Include a rework clause:** Make sure you include a plan on what is to become of defective units. You can include a clause in your contract that places financial responsibilities on your factory for reworking costs.

- **Experience matters:** Make sure you ask your inspection agency who they will send to inspect and monitor your goods. Sometimes, inspection agencies have agents available that specialize in your product.

**3. What is a container loading check?**

A container loading check, also known as (CLC) takes place once production is complete and your goods have been packed and loaded into containers, ready for transport. Your specifications, labeling, barcodes and packing materials are all checked to match your requirements.

**When to make a container loading check**

Normally, CLCs take place in the factory when goods are loaded into containers for shipment. Quantity is accounted for and checked during this stage. This can be a good option if packaging is essential to you.

**What are the advantages of a container loading check?**

- **Goods are carefully and properly loaded:** Improperly balanced and loaded containers can lead to risky conditions, which can lead to the destruction of your goods while they are en route to their destination. A CLC can help prevent damage from occurring during transport.

**Other benefits:**

- **Reduce transportation failure risk.** This inspection is ideal if you plan to ship a container(s) full of fragile or mixed weighted goods.
• **Trust issues:** A good option if you don’t necessarily trust your supplier and are concerned that your products may be switched out after inspection.

**What are the drawbacks?**

• Nothing can be repaired during this stage.
• These inspections are usually rushed.
• Inspectors can only check a few random samples, meaning, samples may not represent the overall quality of your shipment.

**How to make the most of your container loading check**

• **Weather:** Sometimes it is best to push back a CLC due to bad weather. Cartons loaded during wet weather can have a negative impact on how they will arrive at their destinations. Wet, soggy and damp cartons are a real possibility, so try to schedule CLC outside of the rainy season or ask your supplier if they can be done indoors.

• **Schedule an appointment:** Some suppliers will try to avoid a CLC and schedule container loading a few hours before your inspection agent even arrives, in an effort to hide or switch your goods. To avoid this, coordinate and schedule a set time and date between your inspection agent and supplier. This way loading takes place only AFTER your inspector agent arrives.

• **Palletization:** Palletization of your goods can provide many benefits to your supply chain. If you are shipping fragile goods or simply want good packaging, palletization may be the best option for you. This service can sometimes be provided by some factories. If your supplier cannot provide palletization, try asking a local forwarder. Get carton dimensions and provide them to your forwarder, they will help you calculate your container dimensions.

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**Try to schedule a container loading check outside of the rainy season or do it indoors.**

**Pro-tip:** If you send inspectors only after production is completed, it is simply too late to replace or rework defective goods. I suggest you conduct inspections while your product is in production, that way defects can be caught early. This will save you time and money.

**4. What is a pre-shipment inspection?**

Pre-shipment inspections (PSI), also known as the final random inspection (FRI), occur when 100 percent of production is completed, and 80 percent of the goods have been packaged.
When to make a pre-shipment inspection

Ideally, pre-shipment inspections should take place in the factory, before your goods are transported (when your goods still have the chance of being repaired). This way it makes it harder for your supplier to hide defective goods.

Pro-tip: Buyers should perform pre-shipment inspections at least two days before their shipment date. It’s best to build yourself some breathing room (about two weeks) in the event goods fail inspection and require reworking.

What are the advantages of a pre-shipment inspection?

PSIs make sure your goods are packed, marked, palletized, documented and checked before being loaded and transported. And most importantly, ensure you are being sent what your factory promised to deliver.

- **Specs compliance**: Product, size, components, assembly, labeling, packaging, quantity etc. can all be controlled and monitored.

Pro-tip: I highly recommend providing your inspection agents with a product specifications sheet. It can be used as a quality checklist and ensure requirements are followed.

- **Defects**: Inspection agents use an AQL table, and will select a set number of products at random, tallying the number of defects to determine the overall quality of your goods.

- **On-site testing**: Your inspection agent can perform some tests on your goods while they are being inspected. Product and package drop tests are common examples.

- **The last chance**: This is the last step to check and make changes before your products are shipped. It can be uneasy, if you failed to perform any inspections - you won’t know if your supplier sent the right goods (matching your specifications) until your product arrives at your destination or your client’s hands! This can take several days to a month – way too late to take corrective action!
Other benefits:

• This is the most popular inspection method among importers because it covers multiple production aspects.
• Allows the buyer to have a realistic expectation of their overall product quality.
• Payments and shipments can be authorized after the goods have passed inspection.

What are the drawbacks?

• Quality may not reflect overall order: Samples are randomly drawn, so they may not be representative of your whole order. Furthermore, a deceitful supplier can switch out and replace your inspected products before shipment!

• Failed inspections: Failed inspections pose a serious risk to your suppliers, which can lead to re-negotiating of lower prices and, in some instances, order cancellations. This risk often leads suppliers to turn to more underhanded acts, like bribing inspectors for more lenient inspection reviews.

• Rushed: PSIs usually take place near the close of your order, so by the time it reaches this stage, it may already be a few days passed the deadline, which can lead to these inspections to be rushed.

How to make the most of your pre-shipment inspection

 Buyers are always pushing their suppliers to ship out their goods in a rush, and often, these expectations get pushed onto the inspectors as well. Do yourself and your inspection agents the favor and build in adequate time for your inspections.

Here are some of the consequences of rushed orders:

• Agents are forced to make non-official reports (usually handwritten and without photos) - defeating the purpose of your inspection!
• It undercuts your inspection agent’s report, not giving enough time for questions to be asked and answered from your supplier.
• Many times these inspections take place a just few hours before the goods are shipped, leading to rushed and inaccurate report results, and making quality issues difficult to repair.
The 3 most important things to do to reduce your quality risk

We see this question raised quite often, “How do I make sure my factory is going to produce quality products?” In theory, this has a lot to do with identifying qualified suppliers. And while countless articles have been written on tactics for finding suppliers, we’re going to share with you three tips you can begin implementing after you’ve found your ideal supplier.

These three tips are designed to ensure your supplier knows the exact quality you intend to have manufactured.

1. Include a product specification sheet

“Made in China” products are notorious for being of cheap and bad quality. Truth is, you can find almost any product in

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A product illustration is an important part of a spec sheet.

A product specification sheet is a detailed, concise document that clearly labels all your product’s specifications.
China in varying qualities.

Most buyers complain of receiving bad quality products from their manufacturers. However, many of these stories, once dug deeper, illustrate a clearer picture – many of these buyers lacked or downright failed to include a quality plan.

A quality plan is crucial and should never be left out of an importer’s sourcing strategy. Setting up quality gates helps achieve smoother production and delivery, and puts safeguards in place.

I will go over a very simple tool to assist you in having a strong quality plan. No quality plan is complete without a product specification sheet.

**What is a product specification sheet?**

A product specification sheet is a detailed, concise document that clearly labels all your product’s specifications. It is best to provide this document to your potential suppliers and future inspection agents as it keeps your product details organized throughout the sourcing and manufacturing process.

**Creating a clear product specification sheet**

Product specification sheets don’t have a required template, instead, their intention is to list all the necessary requirements in an organized and easy to understand format for you, your manufacturer and third party inspection agents.

While the specification sheet is great for defining specifications, it can also define your desired quality.

Let’s face it – There is no universal definition of “good quality”.

“Good quality” is subjective from person to person. Your idea of “good quality” and that of your customers will be very different. This will also be true of your manufacturer. With this in mind, it is important to clarify your quality requirements in detail with product specifications.

As a rule of thumb, be descriptive with your details and define your product as much as possible. Picture your supplier as a newcomer to the industry. Included in the specification sheet should be possible defects and clear quality parameters.

For example “a scratch more than 3mm long on the surface of the product will be considered a major defect”. You can use your specification sheet as an inspection
checklist later on when inspections (which you SHOULD do) take place.

**Pro-tip:** Translate your details into Chinese to receive the best results.

The following are a list of guidelines you should consider when forming your product specification sheet:

- What is the application for your product?
- What is the product material?
- What are the dimensions? (Ex: thickness, length, width, height)
- Are there any other needs? (Ex: color, wood type, durability, water resistance etc.)
- Compliance standards based on region sold to (ISO, FDA, CE, etc.)
- Machining requirements (Rough, soft, flexible)
- Every industry will have jargon, terminology and abbreviations. Define as much as you can (a definition section is recommended).
- Wording should be short and direct.
- What is the destination your product will be shipped to?
- Dimensions and weight requirements should include tolerance levels.
- Color specifications should be referred under Pantone code.
- Product performance should be included (for example, extreme temperatures and humidity)
- When specific tests are required, standards used to measure precise measurements should be included (materials, conditions, etc.)

**Try to follow these additional tips too:**

- Include acceptance standards and descriptions of potential defects.
- Want more precision? Have a quality assurance agent review it and ask for their feedback.
- Have your sheet translated for even clearer communication.
- Communication is key. Have your factory manager give you feedback and update it.
- Even better, have your supplier sign, date and stamp your document to show you they understand and accept your specifications. Now, you have

\[\text{Be specific on your material preferences.}\]
proof they understand, at very least - accountability.

2. Provide a physical sample

Providing samples can significantly influence the success of your finished product quality. Physical samples allow inspectors to physically touch your product, allowing you and your inspection agents to feel and compare a factory’s product capacity with respect to your product specifications.

Drawings, technical files, pictures and other relevant information can be substituted if a physical sample is not applicable.

**Pro-tip:** A validated sample is especially critical when work is done with a new supplier. Never finalize an order without it.

**Risks of not providing a reference sample**
Sometimes, suppliers will send you amazing samples, problem is, these samples could be cherry-picked and may not represent the overall quality of mass production.

To avoid this, send a third-party on your behalf (or yourself) to the factory and pick a sample at random right off the production line.

Also, make sure to include a spec sheet that includes your quality parameters.

Try and provide a physical sample when you can. You will increase the likelihood of receiving good quality products and your inspection agents will appreciate it!

3. Decide if implementing penalties for missed deadlines makes sense for your order

This final tip is more so guidelines on whether or not to determine if implementing penalties makes sense for you and your supplier.

We’ve already covered [Why Penalizing Your Suppliers Is Not A Great Idea](#), in our Guided Imports blog, so let’s begin looking at some of the benefits.

Every buyer will have a different litmus test when selecting a supplier. The big three factors are price, quality and lead-time. For example, if lead times are your priority, you can attach a late delivery penalty for every day or week your product is late.

Apply a percentage reduction on the purchase order value for each delivery week/day missed. You can also have the order cancelled at your discretion when a maximum amount of days/weeks is reached.

Adding penalties in your contracts will not prevent all of your problems, but they certainly can make your suppliers more mindful of your orders and expose them to financial risk.

**Pro-tip:** It’s important to keep in mind that this only works if final balance payment is withheld after quality control and product testing has taken place. Don’t prepay prior to production - you will lose leverage should a dispute arise!
About the author

Sam Boyd is an American living in Asia. After working in product development, he founded his own sourcing company in Shenzhen, China. Focused on assisting importers of all sizes to navigate the often treacherous waters of Chinese manufacturing, Sam has grown his company, Guided Imports, into a cornerstone platform for many e-commerce and Amazon sellers who rely on China for their product supply.

By offering transparent and seamless services for importers of all sizes, Guided Imports focuses on simplicity when it comes to working with both new and established importers searching for an easier solution for manufacturing in China.

Sam can be found on his blog, GuidedImports.com/blog, or via email, info@guidedimports.com.
Source smarter with Global Sources

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**Verified Suppliers** are suppliers and exhibitors whose business registration details have been verified by independent third parties such as D&B (Dun & Bradstreet), Ease Credit or Experian. *(For buyers’ convenience, GlobalSources.com also includes some suppliers who have not been verified.)*

**Verified Manufacturers** are Verified Suppliers whose business scope, as licensed by relevant government departments, allows them to manufacture goods.

**Exhibitors** have been verified face-to-face by Global Sources staff and have had a physical booth presence at one or more Global Sources trade shows.

**Supplier Capability Assessment** is an independent, third-party report based on an onsite visit, and includes in-depth information about suppliers’ operations, production capabilities, QC processes, management and more. It is an optional paid service for all Verified Suppliers.