

Stop Inspecting Defects: Build Quality Into Your Supplier's Process.

The true cost of inspection is the lost time fixing what was already broken at the source.

Poka-Yoke · Supplier Quality · Lean Six Sigma · Supply Chain

The newsletter for operations directors who prefer eliminating waste over simply finding it.



The Diagnosis: Why Inspection is Failing Us

I have spent years standing on receiving docks where trucks arrived loaded with "good" parts, only for our team to spend three hours sorting through the junk hidden inside. We call this inspection. In reality, it's a triage unit for failures that have already happened somewhere else.

When we rely solely on incoming inspection as our primary gate for quality, we aren't actually practicing quality management; we are just managing waste more efficiently. Every time an inspector catches a bad part at the dock and tosses it into the red bin, they are performing a "save." But that save is a lie of omission. It hides the fact that your supplier's process is broken. It masks the reality that someone on their floor had to make a mistake, or a machine drifted out of spec, or a jig failed—and you just chose not to deal with it until it reached your door.

We call this **The Gatekeeper Fallacy**.

Inspection does not create quality; it only identifies its absence. When we treat the receiving dock as our primary line of defense, we are essentially choosing to spend money on "catching" problems rather than

spending time "preventing" them. It is a reactive stance that keeps your team in a state of constant firefighting. You aren't building a robust supply chain; you are just building a very expensive filter for someone else's incompetence.

Mistake-Proofing at Source: The Principle of Ownership

If we want to stop the flow of junk, we have to move the "fix" as far upstream as possible. This is where Poka-Yoke—or mistake-proofing—becomes mandatory, not optional.

In a manufacturing context, mistake-proofing isn't about high-tech sensors or complex AI monitoring. It's about physical constraints that make it impossible for an operator to do the wrong thing. It's a keyed fixture that won't let a part be loaded backward; it's a weight scale that won't allow a pallet to move unless the count is exact; it's a digital gate that stays locked until the torque wrench confirms the correct setting.

The goal is for the supplier to own the defect elimination process. If your supplier tells you, "We told our operators to be more careful," they are giving you a promise, not a solution. Human attention is a finite and unreliable resource. A process that relies on an operator's "care" will eventually fail when they are tired, distracted, or rushed.

True ownership means the supplier builds quality into the physical reality of their shop floor. They shouldn't need to be "better" at catching mistakes; their process should make it impossible for those mistakes to occur in the first place. We want a system where success is the only path available to the operator, and failure is physically blocked.

What is Actually Happening? (The Cost Asymmetry)

Often, we settle for inspection because it feels easier today. It's an easy way to feel like we are "doing something" about quality without having to have a difficult conversation with our suppliers or re-engineering their workflows. But this comfort comes at a massive hidden cost.

The Comfortable Rationalization	The Underlying Reality
"It's too expensive/time-consuming to redesign the supplier's tooling right now."	We are paying for every failed part, every labor hour spent on sorting, and every shipment delay caused by non-conformance.
"Our inspection team is catching 98% of the issues at the dock."	The 2% we missed are currently being built into our finished goods or are waiting to fail in the hands of your customers.
"We can just hold them to a stricter Quality Agreement (QA) and higher penalties."	A piece of paper doesn't fix a loose bolt on their assembly line; it only creates a legal headache when things inevitably go wrong.
"It's easier to check the parts here than to audit their process there."	We are subsidizing their poor manufacturing by providing them with an "escape hatch" (our inspection dock).

From Inspection Checklist to Embedded Control

To move from catching errors to preventing them, we have to change what we demand during our audits and collaborations. We need to stop looking at their paperwork and start looking at their hardware. When you go to a supplier's site, your goal isn't just to see if they *have* a check; it's to see how the process *forces* them to be correct.

Use this three-step framework to transition from "checking" to "embedding":

1. **Identify the High-Risk Nodes:** Don't try to mistake-proof everything at once. Identify where errors are most likely to occur—like a critical dimension, a specific torque point, or a multi-part assembly. These are your targets for physical controls.
2. **Demand Physical Constraints (Poka-Yoke):** Instead of asking them to "double-check" a measurement, ask how they can make the part impossible to measure incorrectly. Can we use a go/no-go gauge? Can we use a jig that only accepts the correct orientation?
3. **Verify via Stress Testing:** During an audit, don't just watch them do it right. Ask them to show you what happens when they try to do it wrong. If they can "trick" their own process into accepting a bad part during your test, then the control isn't embedded; it's just a habit.

The Supplier Audit: Finding the Flaw Before It Exists

When you walk a supplier's floor, you are looking for the **Point of Human Intervention**. Any time an operator has to use their judgment, memory, or "attention" to ensure quality, that is a crack in the foundation.

Ask these specific questions during your next audit:

- *"What part of this process requires the operator to remember something?"* (If they have to remember a torque value or a sequence, it needs a physical guide.)
- *"How does the machine know if the last step was completed correctly?"* (Look for sensors, interlocks, and automated shut-offs rather than a manual checklist at the end of the shift.)
- *"What happens if an operator tries to skip a step?"* (The process should stop. If it doesn't, you don't have a control; you have a hope.)

You aren't looking for "good" people. You are looking for **robust processes**. A good person can still make a mistake when they get a phone call or hit a rough patch of shift work. A robust process ensures that even an exhausted, distracted operator produces a perfect part because the machine simply won't let them do otherwise.

Making it Stick: Transitioning from Advice to Partnership

The hardest part of this transition is often internal. Your procurement team might want "cheap and fast," while your quality team wants "perfect." You have to bridge that gap by framing the shift as a move toward total cost reduction.

When you work with a supplier, stop giving them advice; start offering them engineering solutions. Instead of saying, "You need to do better on these dimensions," say, "We want to eliminate your rework

and our scrap. Let's look at your fixture design together so that it's impossible for this dimension to drift."

This isn't just about being a "nice" partner; it's about creating an operational standard where we no longer accept the "inspection" excuse. We must integrate these requirements into our Standard Operating Procedures (SOPs). A supplier should be graded not on how many parts they pass at your dock, but on how few defects their process generates in the first place.

When you move from a model of "catch and reject" to "prevent by design," you stop being a gatekeeper and start being an architect of quality. It takes more effort upfront to build a cage for the error, but it saves you from having to deal with the mess when the errors inevitably try to escape.

Call to Action

What is one process you currently 'inspect' that could be redesigned using a physical control? Share your ideas with us and let's keep improving together.

Newsletter replies: newsletter@sixsigmakaizen.com · X: [@kaizen_6sigma](https://twitter.com/kaizen_6sigma)

Stay curious, stay improving,

David Rodgers

SixSigmaKaizen.com

References: IndustryWeek: Your Best Poka-Yoke May Be in Your Supplier's Factory