A CISCO-EAGLE WHITE PAPER:

INDUSTRIAL & WAREHOUSE SECURITY: PUT A STOP TO THEFT AND PILFERAGE





THEFT COSTS WAREHOUSERS, MANUFACTURERS, & SHIPPERS \$15 BILLION EVERY YEAR.



Theft costs companies more than \$15 billion annually. This includes product theft, fraud such as false damage claims for goods, and false inventory and shipping counts.

Pilferage also carries *indirect* costs. Higher insurance premiums, investigative costs, increased personnel turnover, reduced customer satisfaction due to inventory issues, and lower morale are just a few examples.

87% OF LOSSES HAPPEN IN FREIGHT YARDS AND WARFHOUSES

Cargo theft is a serious concern for many businesses. In the U.S. alone, product loss during transit is another \$10 billion annually. Freight yards and warehouses are primary theft threat points, where 87% of losses occur. In most cases

of cargo theft, an inside employee aids and abets the thief, or is working on his own. Employees can falsify records or distract others from being aware the theft is taking place. Scary thought, right?

And if you think your facility is immune because you aren't stocking high-value consumer oriented goods, consider this: once stolen, almost anything can be resold or traded. Thieves know how to sell everything from scrap metal to plastics.

It's all about motivation

In industrial security, the 10/10/80 rule tends to apply: 10% of your employees will never steal from you, 10% will steal whenever they can, and the remaining 80% can be motivated to steal from you -- or motivated not to.

In particular, that 80% will be emboldened when theft is easy, and risks are low.

Controlling these conditions significantly reduces pilferage risks in the very fluid 80%.

WHEN AND WHY DO THE "80%" STEAL

When an employee has financial problems

Pressures at home drive people to do things they normally wouldn't. If an employee is facing monetary problems, the risks escalate.

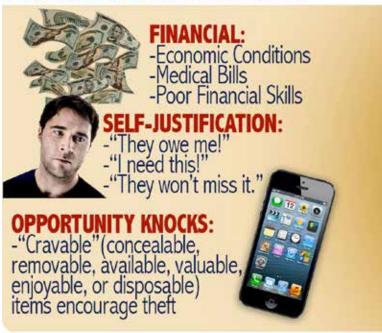
While you might offer employees financial planning and budgeting assistance through company sponsored workshops or counseling to aid employees who are having financial struggles, you have very little control of how they use that knowledge.

When an employee feels entitled to "a little something extra"

Too many people think they are owed more than their compensation.

Creating an environment of fairness and clear expectations goes a long way in reducing entitlement attitudes. Help employees understand how theft actually impacts wages, then empower them to participate in anti-theft and security efforts. Create a culture of honesty that begins with managers. *Fair treatment combats entitlement thinking.*

MOTIVATING FACTORS



When an opportunity arises

Opportunity is the easiest factor to control. Understanding what a thief may be looking for and how to thwart his attempts to steal can greatly reduce the losses you incur as a result of employee theft. Controlling opportunity helps keep the 80% honest. *Theft prevention is about identifying weaknesses and limiting opportunities.*

ARE YOU AN ENABLER?

No one likes to think so, but many operations enable corrupt employees to steal because they don't actively combat it. Thieves work at the edges of institutional awareness, and you have to close those gaps.

EVALUATE FOR SECURITY

Six basic assessment factors:

- Hire right do your due diligence before hiring; background checks and interviews are the first (and perhaps best) line of defense
- Audit your facility lay out to tighten access to cravable inventory and tools
- Defend the perimeter evaluate building exterior perimeters to reduce external opportunities
- Focus on access evaluate facility access points to make it harder to enter and/or remove goods unobserved or unchallenged
- Scrutinize shipping & receiving procedures limit opportunities for employee collusion with outsiders and each other at the dock area
- Get your people involved Institute security awareness programs so that employees participate in reducing theft

When you take action on the above factors, you will reap benefits beyond theft reduction. You'll increase productivity, improve your processes, and slash the very high indirect costs of theft.

KNOW WHY, WHERE AND HOW THEY'LL HIT

Key criteria: value per ounce

When a product has a high per pound value, is easily disposed of through selling, trading or pawning, and is an enjoyable item to own, you have all the ingredients for theft.

For instance, tobacco products are at high risk in grocery distribution operations. Smartphones and other small, valuable items are always at high risk, but this is only the highest risk; thieves frequently steal bulk items if operations aren't adequately prepared.

Ease of access, transport and concealment

If an item can be tucked into a pocket, loose shirt or apron, it is a prime target. If it's easy to remove from the facility either on an employee or in a container of some kind – it is more likely to be targeted. If there's easy access to product, if individual products have high dollar value and are easily traded or sold, you'll want to secure them better.

The higher the dollar value, the easier it is to move and the more popular or appealing the product is, the greater the likelihood that product will be stolen.



THE FUNDAMENTALS OF VULNERABILITY

We will explore each of these vulnerabilities in detail in this paper. These areas sit on the right side of any industrial security pareto analysis; get them right, and you'll plug the worst vulnerabilities in your operation.

- Collusion between an employee and truck driver (or other outsiders)
- \bullet $\boldsymbol{Receiving}$ there are 15 vulnerabilities at this location alone
- **Storage** access, access, access
- Shipping picking, staging and dock
- **Perimeters** places goods can be hidden for later pick-up, access point security

PREVENTING COLLUSION

Dealing with outsiders

Dishonest truckers, visitors, service people, sales reps, contractors, or temporary employees often start small and work their way into your operations through gift giving or building a personal relationship with an employee in order to get choice delivery slots, or access to goods. In time this works its way into the thief finding an employee who will work with him to short orders, load stolen goods into his trailer or other vehicle, or conceal stolen goods. The problem with this type of collusion is that it's often difficult to detect.

Ways to combat collusion

- Prevent truckers from fraternizing with employees by keeping them separated. Utilize a driver holding area or lounge where drivers can cool their heels during loading or unloading. Never allow them to hang around the docks unsupervised.
- Use set scheduling for each delivery and pick-up if possible. Honest truckers prefer a set schedule so they can better plan their routes and keep dispatch informed.
- Rotate the receiving door assignments consistently so that truckers aren't working with the same receiving team each time. This minimizes collusion opportunities.
- Make sure the trucker provides correct information about his cargo. Compare it against your copy of the Advance Shipping Notice.



Above: a driver cage allows visitors to enter your facility, but prevents them from wandering around without someone admitting them personally.

COLLUSION AT THE RECEIVING AREA

Put the right people in the right places

The receiving area is one of the most likely places a theft will occur. There is so much activity going on that goods can be lifted and concealed easily:

- Shipping counts can be altered on the Advance Shipping Notice the trucker hands over
- Goods can be left on the truck, yet the order is signed off
- Fraudulent damaged goods write-offs can occur



- Merchandise is left in a staging area for extended times, leading to easy removal after the count has been done
- Receiving counts are not conducted or altered and received goods not inspected
- Shipping seals are not recorded properly or have been broken in transit

SOLUTIONS

Use the advance shipping notice

The Advance Shipping Notice is one of your best security tools – if you use it.

- Look for alterations of any kind on the trucker's copy – this is a red flag
- **Compare cargo counts** against copy that comes directly from vendor, not the trucker's copy
- If in doubt, contact the vendor company to double check
- **Check shipping seals** broken seals are another red flag.

Follow these steps to guard against cargo transit theft:

- Upon arrival make sure all doors including trailer side doors have seals and that none of the seals have been broken
- Never let the trucker remove shipping seals.
 Question and document any discrepancy in seal condition or numbering
- Seal numbers must match those given on Advance Shipping Notice
- Verify all seals are accounted for on the Advance Shipping Notice
- Count your shipment carefully if your load is "less than load". There may not be seals on the trailer, so these loads are easy prey for thieves

Pay attention to packaging

One of the best indicators of in-transit theft is damaged stretch-wrap around palletized materials. Thieves will often attack the center of the pallets – removing center loads, rearranging top layers, and then re-wrapping the pallet to disguise the loss.



Broken pallets are an easy and inviting target for thieves. If a shipment arrives unwrapped, it's a red flag.

What to watch for in packaging

- Count stock on pallets with less than pristine stretch wrapping. Immediately break down the pallet and do a count to assure correct quantity has been received.
- Stretch wrap palletized goods for out-bound shipping. Make sure it's smooth and tight.
 Overwrap pallet top edges to make inner layers too tight to remove goods in the center of the load. Consider ordering stretch wrap with your logo to ensure others can't easily unwrap and then re-wrap your pallets.

Unload practices

Be sure all goods have been removed from the truck to the loading dock and the trailer door closed before doing a count and signing off on the shipment. Dishonest drivers and their cohorts in crime work to see that a part of the load is overlooked in the off-loading but not the count, or may move part of the load back into the truck after the count and sign off is done.

 Make sure two of your employees participate in the count and sign-off. Rotate count responsibility among authorized managers and co-workers so that collusion among workers is more difficult. Managers should do spontaneous walk-throughs and spot checks during receiving operations to throw would-be thieves and accomplices off-balance.

- Control driver movements. Another unload issue is allowing the truck to remain at the receiving dock unaccompanied. Just where is the driver? Who is keeping an eye on him? Is he wandering your product areas alone? Locate restrooms and lounge areas close to docks and partition off so that truckers and other non-essential visitors don't have easy access to storage areas. At the docks, consider installing driver cages with dispatch windows.
- Don't stage product for thieves. Do you have product sitting in a staging area near your receiving doors? This is a choice opportunity for a driver or cohort to move staged product into the truck unnoticed. Monitor staged materials carefully at all times, or secure it in partitioned cages with locks to prevent access until ready to move.



• Watch the trailers. To assure goods are not moved back into the trailer, check that the truck is empty, and then close the trailer doors. Go one step further and close the dock door, too.



Damaged goods fraud

Fraudulent damage claims can cause significant losses for both you and the sender. This kind of fraud takes place when receiving of goods is not monitored well. A dishonest employee can mark certain goods as damaged even though there is no damage, then write it up as returned to the sender. He then conceals or removes the goods to his vehicle to take home later.

Carefully monitor the percentage of damaged goods claimed on arriving shipments.

- Take pictures of the damaged goods. Workers
 who know there's going to be a camera involved
 will be less likely to make false damaged goods
 claims.
- Require a two- person sign off on all damaged goods.

- Be sure a manager inspects the damages and signs off on them. Don't leave this in the hands of the dock workers alone.
- Between staging and storage
- Often goods are left unattended in a staging area after arrival. This is risky – a thief could walk by and remove product or even an entire pallet from the shipment. What can you do?
- Keep a watch on staged goods
- Store as quickly as possible to limit theft opportunities
- Shrink wrap palletized loads to limit access

STORAGE AREA SECURITY



ACCESS IS EVERYTHING

Although product in trucks, on docks, and in shipping is exceptionally vulnerable, storage areas are hardly exempt from pilferage. In a bustling industrial facility or warehouse, ample opportunities for theft exist for thieves.

The good news is that with some tweaks in the ways you store goods and grant access to that inventory, you can combat this type of theft.

SECURE STORAGE SOLUTIONS

Limit access to stored products

Workers from other departments and sections of the facility have no business being in storage areas unless by assignment. If they aren't there to pick, count, or replenish, why? Security is mostly about access, so the fewer people who can come close to desirable inventory, components, or tools, the better.

 Store it out of reach. Keep bulk amounts of craveable goods on upper rack levels

- Cage it. Store valuable goods behind lockable partitions, in secure racks, or in special cages. Many warehouses designate high-security storage areas for the most vulnerable and desirable goods.
- Design your facility for security. Control nonemployee access to goods as referred to under Collusion.
- Track workers near high value areas. Use area coded ID badges if necessary, and provide temporary assignment badges to workers doing special work in the storage zones.
- Restrict access to storage zones. If possible, have only one entry and exit point for storage zones and put exit alarms on all other doorways to prevent goods from disappearing through other entry points.
 - Invest in inventory management

You count at receiving. Do you count as goods are slotted into storage positons? You might want to – unmonitored goods are vulnerable at any point between staging and storage. Also, how easy is it to remove and conceal goods from the storage area?

- Take a daily count as a preventive audit process and make sure employees know there is an audit daily to reduce risk-taking behavior.
- Audit often. Audits provide valuable links to who was working when the count was off. If you see a pattern in personnel present, you may have a thief on your radar already.
- Consider RFID tagging or other electronic tracking technologies for instant inventory counts and to track goods not found in their assigned bins. This can often reveal where thieves are concealing goods for later retrieval.
- Electronic inventory management is also valuable in expediting processing through

- customs check points during transit, as the load is easily 'read' and accounted for.
- Consider using cycle counting a prescribed, scheduled program of inventory management through frequency, regularity, and selectivity. See more in the resources section.



SHIPPING & STAGING SECURITY



CONTROL GOODS CAREFULLY ON THEIR WAY OUT

The outbound shipping portion of your facility includes **order picking, staging, and dock operations.** In many cases, what has been said in the Receiving section holds true here, but there are additional considerations.

Order pickers may have access to almost every SKU in your operation, and have opportunities to short through collusion between picker and packer. Pickers can hide items for later retrieval.

Outbound staging areas are highly vulnerable to theft. Goods are frequently left unsecured and unwatched. Anyone walking by can remove small quantities of goods. Somebody good with a forklift can remove entire pallets into a waiting truck through collusion with the driver.

Docks are the most vulnerable point during the shipping process. As in receiving, there is ample opportunity for collusion between dock workers and outsiders. It's an easy place for someone to remove and conceal goods from the load, from storage, or from staging.

SOLUTIONS:

Order picking security

- Hire the right people and don't be shy about conducting back ground and reference checks.
 Due diligence is critical to security in these positions. See more about hiring in the resource section.
- Limit access to the storage area one way in and one way out (so long as you meet fire safety standards). All other entry points should be locked against intruders and alarmed so that inventory can't walk out.

- Consider automation. Equipment such as carousels and ASRS are not only lockable and less accessible – they also track orders and picks better. More information is never good for the thief.
- Keep employee parking partitioned off from building entry and exit points, especially the dock area. Absolutely no employee parking should be near the warehouse.
- Encourage employees to report discarded packaging materials. This is a red flag for theft. Thieves remove packaging in order to better conceal the stolen goods.

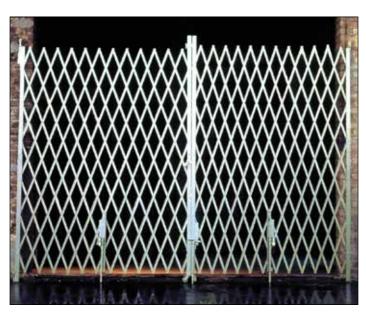
Staging area security measures

- Keep staged goods secure until loading time; don't leave picked orders loose and available
- Shorten the staging process and move goods immediately onto the waiting truck. This means you need to schedule shipment picking carefully to coincide with truck arrival times.
- Palletize and stretch-wrap all goods

Dock operations

- **Don't allow visitors to roam free.** Unauthorized personnell should never have free access to your docks, stock, or storage areas.
- Keep truck doors and dock doors closed until the start of loading. This keeps other goods from finding their way into the trailer with the assistance of thieves.
- Count the load as it enters the truck. Sign-off needs to be by two employees who participated in the count.
- Count the load again after all loading is completed – and just prior to sealing the truck doors.

- Never let the driver apply the seals. Truckers have been known to keep a roll of seals handy in the cab and substitute one of their seals for your seal. They then take your seal and apply it during transit after they've removed some of the load for their own profit.
- Always notate the seal numbers on shipping documents. This lets the receiving company know whether the load has been tampered with.
- **Keep your supply of seals secured.** They are your theft deterrent tool during transit. If you allow unauthorized access to seals, you're helping the thief lay claim to your goods.
- Utilize temporary gates. If you keep dock doors open during work shifts, consider using scissor gates that help prevent people from wandering inside through an open door.



Above: a folding security gate is an inexpensive and easy way to close off dock doors while maintainining visibility, access, and air circulation. People can and do wander into open dock doors.

WAREHOUSE PERIMETER VULNERABILITIES



PUT BOUNDARIES ON THEFT OPPORTUNITIES

Thieves are ingenious when it comes to hiding stolen goods. That's why doing a perimeter audit is vital to secure operations. You should check for anything a thief can hide product in, under, behind or on top of. Make sure that:

• Trash dumpsters, large bins, containers, and recycle bins are located away from the building, preferably not on the dock side. Thieves use dumpsters as concealment



points for retrieving pilfered goods later. If the dumpster must be on the dock side of the building or near the building, put fencing around it and lock the gate. Make frequent spot checks for stolen goods. Make it known that dumpsters are spot checked.

 HVAC units near the warehouse are enclosed and locked. Utility pads and HVAC units also

provide ample opportunity for concealing stolen goods for retrieval later. This also helps protect the units from copper and component thieves.





 Bushes or shrubs should never be allowed near dock doors and entry/exit points.
 Shrubbery makes a great place to hide goods until the end of a shift, or other convenient time to retrieve hidden goods.

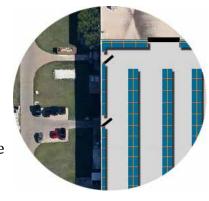




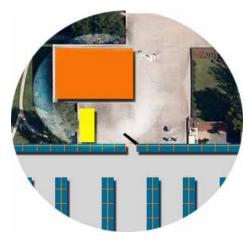
- Employee parking is separated from dock areas and truck parking. Install fencing between the two to keep employees from running goods out to their cars during their shifts.
- Receiving and shipping docks are separated either by proximity or barriers. It's very easy to slip goods from a received shipment and put it in an outbound truck.



 All entry and exit points are wellmonitored or secured against access. Fire exit doors should be locked from entrance by outside intruders and alarmed to deter



employees inside from using those access points for removing goods.



• Restrooms and lounge area can be accessed without going through the storage rack aisles. If drivers must cross the warehouse to use the facilities, then make sure there is a limited access path for them to follow that routes them around, not through areas where inventory is stored.



A WAREHOUSE THEFT DETERRENCE QUIZ

How many issues can you spot?

- 1. Employee parking is potentially too close to shipping dock doors
- 2. Shipping and receiving areas are too close to each other (assuming no barriers)
- 3. Trash dumpster or scrap dumpsters are too close to entry/exit points
- 4. Shrubbery is too near egress points in multiple areas of this facility

- 5. Too many egress points are unsecured (a total of 5 doors in this case)
- 6. HVAC units aren't fenced or otherwisee secured to help prevent hiding of stolen items
- 7. Unsecured, staged goods left outside awaiting truck arrival
- 8. Restroom/trucker break room require that vistors cross warehouse from docks area to the back of the facility
- 9. Dock doors are left open when a truck isn't present

INDUSTRIAL THEFT DETERRENCE IS A MIND GAME. WIN IT.



SHIFT THE RISK-TO-BENEFIT RATIO IN YOUR FAVOR

Much of what keeps an employee from stealing while on the job is his risk-to-benefit perception. If you can establish an atmosphere of high risk without reducing employee morale, you will make significant strides in reducing theft.

To create a high risk environment increase security measures throughout your facility. Be mindful of the most effective security measures you can take:

- Limit access to high-value goods with physical barriers
- · Allow access to authorized personnel only
- Keep non-employee personnel away from your workers
- Secure anything that may assist thieves in stealing

STEP UP OVERALL SECURITY

If thieves believe they are being watched, they will think long and hard before attempting to remove goods. There are several general security measures you can take to increase the 'worry' factor for thieves.



- Install security mirrors at strategic locations to allow observation of activity in the rack aisle, at the docks, staging and other critical theft opportunity points.
- Install monitoring devices such as closedcircuit TV or digital closed-circuit systems. Digital network video offers the added ability to monitor remotely and allows one to easily locate and scan sections of recordings.
- Utilize RFID tags on all goods for tracking and inventory management purposes.
 Install reader arrays that time-stamp product movement through the facility. While systems such as these are an expensive outlay, if you stock high-value goods, the savings in loss to theft will be recouped quickly.

- **Utilize spot checks** to increase risks for thieves, in particular if you are experiencing loss. Spot scan employees at shift changes using metal detectors if your goods are amenable to this type of detection. Search coolers or lunch pails if necessary. This is a step you must undertake carefully.
- Increase monitoring on the floor by management. Step up the number of unscheduled walk-throughs. Do spot checks on shipment counts at receiving and shipping docks.
- Add motion detection systems to critical areas of your facility. When activity is detected an alarm triggers, alerting workers in the area to check on the activity.
- **Go undercover.** If theft is a big problem, consider hiring an undercover agent or security firm who, in the guise of an employee, will infiltrate your operations to identify thieves (and other security issues you may be unaware of).





DEVELOP A SECURITY AWARENESS PROGRAM AND A CULTURE OF HONESTY

Securing the product, managing the inventory and monitoring employees and employee activity are all great ways to reduce theft at the warehouse. In fact, phenomenal results have been achieved through these efforts alone, but if you want to remove the "Big Brother is watching you" mentality, implement a security awareness program that positively involves employees.

Security awareness programs consist of developing a company mindset of anti-theft participation.

 Communicate and demonstrate anti-theft security measures. No need to label it employee theft in particular. Everyone will understand as they become aware of new security measures.

- Teach your employees appropriate procedures for challenging unauthorized people in and around secure areas. Consult with security advisors, if needed.
- Instruct employees in security contact protocols as to when to involve management, the internal security force, or law enforcement.
- Build teamwork. Encourage employee
 participation through discussion of ways to
 further secure the facility against theft (your
 frontline workers probably know more than you
 do about vulnerable points in your procedures).
- Empower employees with proper procedures for handling security issues and security violations. Answer the question of "What do I do when I see....?" What is would you like them to do when they find evidence of theft, or witness it directly? Don't assume that people understand that situation. Train for it. Document it. This can be vital when the situation arises. Most people are honest. Most people do want to do the right thing. Enable them to do it.
- Establish a reporting system or hotline to encourage employees to be watchful and report security violations or occurrences of theft.
 Allow anonymity to better encourage employee participation.
- It may be useful to provide rewards for catching thieves, in particular if you have a higher risk product and issues with theft. This is a measure you should consider carefully and consult with attorneys before implementing.

BE PREPARED FOR ADDED BENEFITS

IMPROVED SECURITY INCREASES EFFICIENCY

Obviously, better security reduces inventory losses, but consider some of the ancillary effects of increased security and theft awareness that add to your bottom line:

- Supply chain efficiencies will improve. Your exposure to supply chain disruptions will probably improve as you gain better awareness of your supply chain through higher visibility and use of the Advance Shipping Notice.
- You'll enjoy a higher rate of customer satisfaction through improved order fulfillment (remember all those customers calling to report their order was short?)
- Better inventory management also reaps the benefit of reduced cycle times and shortens shipping times through faster product location, picking, packing and shipment.
- Realize cost reductions through greater efficiency facility-wide, plus reduced insurance claims, loss coverage and personnel turn-overs.
- Increased compliance with newly mandated government security initiatives such as:
 - 1. Customs Trade Partnership Against Terrorism (C-TPAT), through which you get the benefit of reduced inspections at the port. Processing is expedited; your



shipment moves to the front of the line and penalties are mitigated where possible.

- 2. Emergency Planning and Community Right-to-know Act (EPCRA), which requires detailed haz-mat storage information to be provided to community members.
- 3. Advance Manifest Rule (AMR), requiring detailed electronic cargo data for all transportation modes prior to arrival at port or customs, which will determine prescreening and inspections.
- 4. Free and Secure Trade Initiative (FAST), which allows confirmed low security risk goods on verified reputable carriers rapid border clearance and focuses resources on unknown or high-risk shipments.
- Increased operations flexibility using interchangeable parts, similar or identical plant designs and processes across the company, employee cross-training, improved procurement strategies, and diversified supplier locations through better awareness of supply chain weaknesses.
- Improved corporate culture through higher management to employee communication, empowering employees to be better decision makers, share in security power, increase problem solving abilities and have greater passion for what they do.

THE NUMBERS BEHIND BETTER SECURITY:

From the study, "Innovators in Supply Chain Security", published by Stanford University's Manufacturing Institute, we learn that:

Improved product handling can result in:

- 43% increase in automated handling
- 30% reduction in process deviations through improved processes
- 49% reduction in cargo delays at customs
- 48% reduction in cargo inspections at customs
- 29% reduction in transit time
- 28% reduction in delivery time window
- Greater resilience with 30% reduction in problem identification time, response time and resolution time

Improved product safety leads to:

- 38% theft reduction
- 37% tampering reduction
- · Reduced damages to goods
- Reduced fraud
- Reduce counterfeiting

Improved inventory management means:

- 14% less excess inventory
- 12% improved on-time delivery
- Improved accuracy in received quantities
- Lower inventory levels

Improved customer satisfaction through these activities resulted in:

- 26% reduction in customer attrition
- 20% increase in new customers



Results of security investments made show:

- Improved internal operations
- Stronger customer relations
- Increased profitability
- Theft deterrence measures turn out to be an investment rather than a financial burden

It all comes down to basic deterrence:

- Hire the right employees
- Improve processes and procedures
- · Increase security measures facility-wide
- Involve employees in theft issue problem solving

When you take these steps you reduce theft opportunities, you empower honest employees, reduce the benefits to dishonest ones, and create better working conditions for everyone.



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