

Employee Screening Technology For Distribution Centres: Lessons Learned For Profit Protection and Improved Security

A Whitepaper from Thruvision
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Executive Summary

The rapid growth of distribution centres (DCs) has created challenges for profit protection and loss prevention. **Theft from distribution centres is estimated to account for up to 5.66% of theft-related losses. In the UK alone, theft losses from distribution centres are estimated at £1.7 billion – a staggering impact on profits.***

There are employee screening technology solutions that address this problem. But distribution centre managers must balance profit protection, employee management concerns, and day-to-day sales and operations. To be effective, any technology implemented must account for these real-world concerns.

In this white paper, Thruvision, a leading provider of profit protection solutions, presents key lessons learned from our work helping top UK and European DC managers. We show that with careful planning and the right technology, it is possible to protect profits while maintaining productivity and employee morale.



The Need for Better Distribution Centre Employee and Contractor Screening

1.6 million people work at UK distribution centres or “DCs”. The overwhelming majority are trustworthy, honest, hardworking individuals. However, it only takes a tiny minority to create serious problems, such as:

- Large scale theft by organised gangs, supplying a black market with stolen merchandise.
- Intellectual property theft of new fashion product designs and prototypes.
- ‘Grazing’ at grocery DCs leading to wider theft issues.
- HR concerns (e.g. intrusive and inappropriate metal detector ‘wandering’ of female DC employees by male security staff).
- Lack of security focus with priority on shift exit times and HMRC rules.
- Metal detectors failing to capture non-metallic items being stolen.
- Lack of inbound DC security (e.g. weapons brought onsite by gangs engaged in a turf war).
- Seasonally high levels of contract workers with significantly less commitment to employer than permanent staff.

* Shrinkage rates in the UK are on average 1.88% of revenue, with up to 24% of theft being internal / organised crime. The UK is ranked 3rd at £8.0B behind USA and China respectively. Source: Sensormatic Global Shrinkage Report 2018

Employee Security Screening Practices Within Distribution Centres

Employee security screening practices vary across industry verticals and DC types. With no formalised security standard, there are a multitude of entry / exit processes in use, with some requiring full employee checks and divestment, and others operating random processes to identify concealed items. However, in most cases, if staff are checked at all, the screening technology used is metal detectors, either handheld or walk-through. Although relatively inexpensive and easy-to-use, these systems cannot detect non-metallic items and often have their detection sensitivity turned 'down' to reduce false alarms and improve employee screening throughput.

It is in this context that Thruvision, a leading provider of employee screening solutions for profit protection and other security applications, has developed expertise helping Distribution Centres in the UK and Europe find effective alternatives to current, generally ineffective processes.

This white paper distills this expertise into four key lessons learned that can help any Distribution Centre security manager.



Lesson #1: Screening Technology Must Generate Real-World ROI

In early 2019, Thruvision was approached by a leading retailer aware they had a theft problem in their DCs located across the UK. Whilst these DCs had security guards and used metal detectors and wands to screen employees as they exited, the company was still finding empty product packaging. This was a clear indication they had an employee theft – and profit protection-- problem that their current employee screening processes were not addressing.

Thruvision used its industry knowledge, theft reduction results achieved with other customers, and input from leading profit protection professionals to design a new staff exit process using Thruvision. This was run as a pilot programme that proved the effectiveness of new process, demonstrate very good initial results, and led to **a five-year profit protection ROI of over £29M.**

This £29M was predominantly based on reducing direct DC losses by 80%, a relatively easy-to-measure quantifiable benefit that Thruvision has delivered for other customers. However, further qualitative benefits, including reduced staff grievances from inappropriate searching and more effective HR disciplinary processes, were also included in the business case.

The retailer has now fully implemented Thruvision's recommended process across all its DCs.

Types of Employee Screening Technology in a Distribution Centre

People Screening is an essential part of a multi-layered security approach in distribution and logistics environments. Coupled with technologies such as access control, CCTV, RETNA Barriers, screening technologies can be an effective method of reducing loss, deterring theft and protecting profits. The main screening options deployed in DC's are:

- **“Walk through” metal detectors** – a mature, low cost technology. Effective for detecting large metallic items, but cannot detect non-metallic items such as clothing, tobacco, alcohol, drugs and small electronics. Prone to alarming frequently they are often “de-tuned” in a DC environment reducing further a limited detection range.
- **“Wands”** – Handheld metal detection wands which are passed over the body and detect metal. Slow to operate, ineffective at deterring theft and prone to inappropriate use (with HR issues).
- **“Stand-off” passive terahertz cameras** – a new, but already proven technology that provides detection performance comparable to “stand-inside” scanners as well as high throughput and a compact physical footprint. Captures all types of items from material to electronics and liquids.

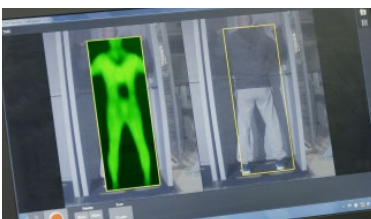
Lesson #2: Employee Screening Must Have Near-Zero Impact on DC Operations

Employees need to get to and from their work quickly. However, typical employee security screening processes, which use wands or metal detectors during entry and exit times often negatively impact employee morale and productivity. This is because employees need to remove all personal items before security wand / metal detection to avoid false alarms or a time-consuming and physically intrusive secondary pat down search.

This is an additional drawback for metal detectors and wands which are, of course, limited to detecting metal items only. Their detection sensitivity is often turned down, which renders them ineffective.

Thruvision's profit protection approach uses a screening technology that can detect metallic AND non-metallic items, and minimizes divestment and secondary search. It allows security operators to immediately see the size, shape and location of concealed items and determine if the concealed item needs further investigation, or whether the individual can proceed.

Thruvision's solution can typically screen 3-4 employees for every 1 person being scanned by a wand or metal detector.



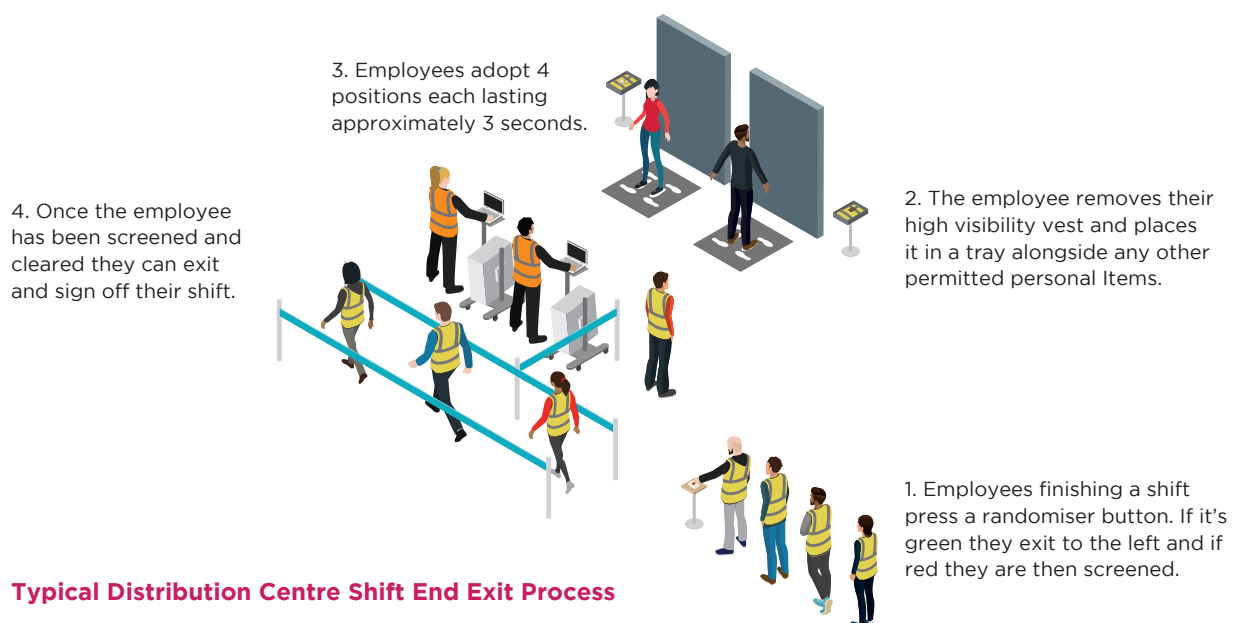
Lesson #3: The Solution Must Address Employee Privacy and Other HR Concerns

The workforce at a DC is often comprised of unionized workers, contractors and indirect labour, with a range of language capabilities. They will often view changes in DC screening processes with scepticism or even hostility. It's critical that a new employee screening process and technology take these realities into account.

Health, safety and privacy are very important considerations. Walk-through metal detectors when activated require a physical inspection with a secondary "wand" or "pat down" to resolve an alarm. As well as being ineffective, they are invasive and can result in HR issues.

By contrast, Thruvision's approach to DC profit protection uses a people screening technology called **passive terahertz technology**. **Unlike airport body-scanners, it emits no radiation**, making employee health and safety concerns a non-issue. Without revealing any distinguishing information about an individual, it identifies, in real-time, the size, shape and location of concealed objects. This safety and privacy enhancing capability reduces false alarms and **enables non-intrusive, no-touch 'virtual pat-downs'**. Individuals can remove and show any suspicious concealed item **without** a physical search.

Thruvision significantly reduces staff complaints about inappropriate and intrusive searching and helps improve employee relations.



Typical Distribution Centre Shift End Exit Process

Lesson #4: The Employee Screening Solution Must Have Proven Performance

When selecting an employee screening solution for a fast-paced DC environment, it is essential to use a globally deployed solution, with established customer references. Thruvision has gained acceptance and support from leading retailers worldwide. Here are some examples of its successes:

- Major British fashion retailer caught an individual with £500 of designer clothing concealed in cycle shorts on shift exit. After further investigation it was identified that he had stolen £180K stock (at cost) over a 12-month period
- Leading fashion footwear manufacturer caught an individual with a single new design concept concealed in his trousers. By preventing this Intellectual Property theft, consequent development cost and sales losses were averted.
- A major grocery provider identified an organised criminal gang operating large scale theft from one of their UK distribution centres. The site funded a local economy in black market goods.
- At a high value goods DC, an individual was caught with seven mobile phones strapped to his leg.
- At a grocery cold store centre, high value meat theft was suspected. Thruvision caught an employee with fillet steaks wrapped around his leg.
- At a leading fashion manufacturer, employees were caught stealing branded football shirts by concealing them in their groin area, always a difficult area to search.

Thruvision is proven to detect theft and provides strong deterrence to employees thinking about stealing. Customers report Thruvision helping reduce theft by up to 80%.

Conclusion: Thruvision Meets the DC Employee Screening Challenge

The overall lesson from our work with DCs seeking to improve profit protection is that screening solutions must address multiple and sometimes seemingly conflicting requirements. Because no two DCs are the same, flexibility and real-world performance of any new technology are paramount. Thruvision's employee screening technology offers DCs an independently validated and operationally proven solution that is effective, affordable and respectful of individual privacy, safety and health concerns.

Thruvision is now seen by leading retailers, and their third-party logistics providers as the only solution that meets all of their requirements - reducing theft, protecting employees and helping change culture.

Reference Sources:

- UK Office for National Statistics
- totalprofessions.com
- UK Retail Economics
- UK Government
- Sensormatic Global Shrink Report 2018

*Visualise theft of items
safe and harmlessly,
protect employees from
inappropriate and invasive
screenings, change
organisational culture and
improve efficiencies.*

About Thruvision

Thruvision is the leading provider of next-generation people-screening technology. Using patented passive terahertz technology, Thruvision is uniquely capable of detecting metallic and non-metallic threats including weapons, explosives and contraband items that are hidden under clothing at distances up to 25ft. Addressing the growing need for fast, safe and effective security, Thruvision has been vetted and approved by the U.S. Transportation Security Administration. More than 250 units have been deployed worldwide in 19 countries over the last five years for applications including mass transit and aviation security, facilities and public area protection, customs, and border control and supply chain loss prevention. Thruvision has offices in Oxford, Washington DC and Sydney. To learn more, visit www.thruvision.com.

Key Contacts

Colin Evans, Chief Executive, Thruvision Group PLC

colin.evans@thruvision.com

Kevin Gramer, Vice President, Thruvision Americas

kevin.gramer@thruvision.com

THRUVISION

info@thruvision.com
thruvision.com

UK t: +44 (0) 1235 436180
US t: +1 (540) 878-4844
AUS t: +61 447 330 004

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