

# Introduction to **PAS 127**:2014

## Checkpoint security screening of people and their belongings – Guide



# Introduction

PAS 127:2014 is a guide to checkpoint security screening of people and their belongings within your organization. The PAS contains everything you need to help identify and implement checkpoint security screening measures that address the issues your organization faces. This booklet provides an introduction to PAS 127:2014 and should not be used as a substitute for obtaining, reading, and acting on PAS 127:2014 itself.

An unfortunate feature of modern society is that buildings, sites, sporting and other public events may all be targets for terrorist or other malicious attacks. It is necessary to remain vigilant, to prevent such attacks as well as protect people and infrastructure from their effects.

PAS 127:2014 is the first publication of its kind to present guidance on good practice for checkpoint security screening of people and their belongings in buildings and at large events. It has been developed using

information derived from a wide range of security experts in industry, government, academia and law enforcement agencies.

Insufficient or inappropriate security measures may be ineffective at reducing the risk of adverse incidents and in some cases may even increase this risk. Conversely, excessive measures will result in unnecessary expense and use of staff and space, and are likely to interfere with the normal functioning of the site or event being protected.



PAS 127:2014 addresses the scarcity of information on checkpoint security screening in non-regulated environments. It aims to give guidance on good practice for setting up checkpoint security systems in public spaces, government and other sensitive buildings, secure sites, large sporting and other public events. A complete process is outlined, from assessing the risk, establishing security requirements and selecting screening strategies through to the deployment of suitable methods and equipment. Although the main focus is on permanent checkpoints, the same underlying principles apply to the installation of temporary checkpoints, for example, at large public events. This guidance should be useful to all those responsible for designing and delivering security systems and procedures for checkpoint screening. It will be of interest to equipment manufacturers, procurement managers, policy makers and the Government.

Security is a complex issue. Security screening may be regarded as a system, the function of which is dependent on its components, the interactions between them and the environment. Therefore a systems approach has been used in PAS 127:2014. It considers people, processes, information and technologies.

PAS 127:2014 was commissioned by the Home Office Centre for Applied Science and Technology (CAST). Its development was facilitated by the British Standards Institution (BSI) with input from a panel of industry experts<sup>1</sup>.

This booklet provides an introduction to PAS 127:2014. The full version is available to order from <http://shop.bsigroup.com/pas127>.

### Who is it for?

PAS 127:2014 gives guidance and recommendations for checkpoint security screening of people, and their bags and possessions, for non-regulated applications. This includes both permanent and temporary installations at government and private buildings, events and sporting venues in public spaces or on private land. The PAS focuses on the detection of weapons and explosive threat items but the methodology can equally be applied to address other threats that an organization may face.

PAS 127:2014 is primarily aimed at anyone who has responsibility for specific planning and/or delivering security operations at venues in either the private or public sector. It will also be of interest to equipment manufacturers, procurement managers and policy makers. The PAS provides a framework for assessing risk and identifying screening requirements, and then specifying and delivering appropriate solutions. Key benefits and limitations of common screening methods and technologies are also summarized. The PAS has been deliberately kept flexible: users may tailor the recommendations to suit the particular requirements of their own organization or event, whilst still adhering to the principles of good practice.

<sup>1</sup>) See back cover

# Outline of PAS 127 process

The organization and/or its appointed security contractors should conduct a comprehensive assessment of risk. This assessment should include the consideration of the organization's vulnerabilities, the possible threats, the likelihood of a malicious attack and the potential impact of such an attack, the recording of this information and actions taken to manage or mitigate the risk.

The organization should record the findings of the risk assessment, formally stating its requirements for security screening.

Based on its requirements, and if required, the organization should identify appropriate screening strategies and identify solutions in the form of security screening technologies and methods. These should be implemented accordingly with regular review.

Ad hoc adoption of individual measures described in this PAS can lead to the implementation of an inadequate

screening capability, or to unsafe practices. For these reasons the whole process should be followed if checkpoint screening measures are required.

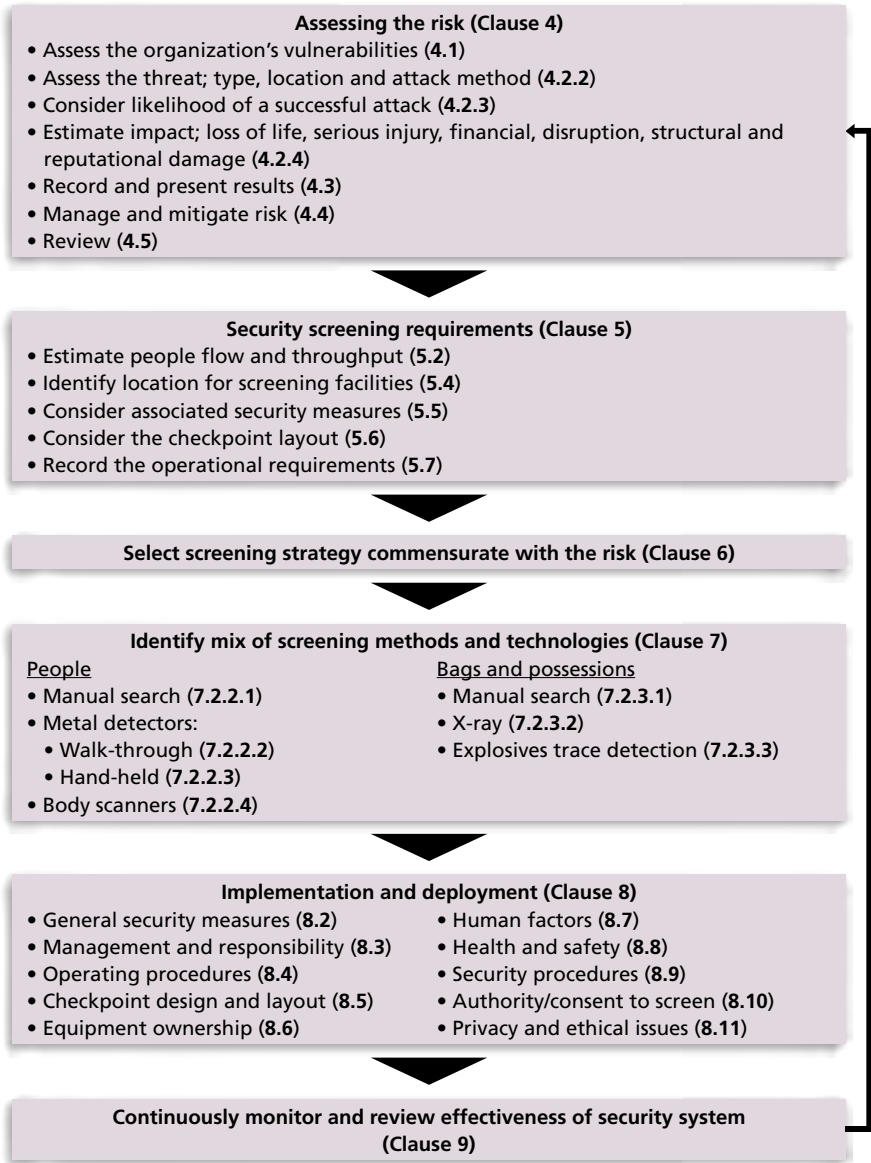
PAS 127 also includes three informative annexes. Annex A presents the factors which should be considered when choosing the best location for a checkpoint screening facility. In the majority of cases this will be a retrospective installation inside an existing building. Checkpoint design considerations are also discussed for new buildings and for temporary installations at events.

Annex B presents a list of British and international standards relevant to security screening with a brief synopsis of each.

Annex C gives general guidance through a list of actions that may form part of an emergency response to the discovery of a high impact threat such as an explosive device. The proportionality of the response to the potential severity of the threat is discussed.



## Summary of PAS 127 process



## Common security screening methods and technologies

Method	Objects detected	Alarm resolution	Notes
<i>People screening</i>			
Manual search	All carried objects: <ul style="list-style-type: none"> <li>• explosives;</li> <li>• guns;</li> <li>• knives;</li> <li>• other suspicious items.</li> </ul>	Often used to resolve WTMD or other alarms.	Requires no technology. Effective if carried out thoroughly. Staff intensive and time consuming. May be seen as invasive. Hand search usually same gender only. Disguised threat items and threat items hidden in other objects may not be identified. Health and safety issues when sharp items may be present.
Walk-through metal detector (WTMD)	Large and small metal items: <ul style="list-style-type: none"> <li>• guns;</li> <li>• metallic knives;</li> <li>• metal components of explosive devices.</li> </ul>	Manual search or HHMD required to resolve alarms. Requires separate checking of divested carried objects.	Fast and automatic, but requires alarm resolution. Does not detect non-metallic threat items. Sensitivity can be adjusted. Potential for high nuisance and false alarm rates. Some WTMDs indicate height above ground of metallic items. Requires correct set-up, on stable floor away from moving metal objects.
Hand-held metal detector (HHMD)	Large and small metal items: <ul style="list-style-type: none"> <li>• guns;</li> <li>• metallic knives;</li> <li>• metal components of explosive devices.</li> </ul>	Can be used as part of WTMD alarm resolution process.	Slower than WTMD for primary screening. Can be set to detect very small metal threat items that are then resolved by thorough inspection. Does not detect non-metallic threat items. Requires correct operator use.
Body scanners, e.g. millimetre wave imagers and portals, X-ray backscatter imagers	Large and small concealed objects of all types, including: <ul style="list-style-type: none"> <li>• explosives;</li> <li>• guns;</li> <li>• knives;</li> <li>• other suspicious items.</li> </ul>	Directed manual search required to resolve alarms.	Detects metallic and non-metallic threat items. High purchase and running costs compared with other techniques. Locates suspicious objects to facilitate alarm resolution. Throughput relatively slow. Privacy issues need to be taken into account, however, newer automated systems do not display actual images. Requires comprehensive operator training. Perceived safety risk with X-ray backscatter technologies.

Method	Objects detected	Alarm resolution	Notes
<b><i>Bag/possessions screening</i></b>			
Manual search	<p>All contained objects:</p> <ul style="list-style-type: none"> <li>• explosives;</li> <li>• guns;</li> <li>• knives;</li> <li>• other suspicious items.</li> </ul>	Often used to resolve X-ray or other alarms.	<p>Requires no technology.</p> <p>Effective if carried out thoroughly.</p> <p>May be staff intensive and time consuming.</p> <p>May be seen as invasive.</p> <p>Disguised threat items and threat items hidden in other objects may not be detected.</p> <p>Health and safety considerations for sharp items.</p> <p>Thoroughness and speed can be tailored according to requirements.</p>
X-ray	<p>All contained objects:</p> <ul style="list-style-type: none"> <li>• explosives;</li> <li>• guns;</li> <li>• knives;</li> <li>• other suspicious items;</li> <li>• disguised threat items and threat items concealed inside other objects.</li> </ul>	Requires an alarm resolution process such as manual search of suspect bags/possessions.	<p>Requires specially trained operators.</p> <p>Requires regular safety checks.</p>
Explosives Trace Detection (handheld or desktop) (ETD)	<p>Explosives (indication that person/bag may have been in the presence of traces of explosives or other contaminated items).</p> <p>Explosives trace detector (ETD) systems may detect explosives particulate traces and/or vapours.</p>	Can be used as a secondary screening technique following X-ray bag screening to increase confidence that no explosive threat items are present.	<p>Generally requires collection of particulate material from surfaces or sampling of airborne vapours for analysis in the ETD system. Usually applied to bags and possessions.</p> <p>ETD can also be used to screen people by taking swabs of personal items that are frequently touched, such as mobile phones or wallets.</p> <p>A trace detection alarm does not necessarily mean that a bulk quantity of explosives is present.</p> <p>ETD systems do not address non-explosive threats.</p> <p>Requires specially trained operators.</p>

PAS 127 provides comprehensive guidance to help organizations identify and implement effective checkpoint security screening measures.

### **Acknowledgement**

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### **How to order a copy**

Copies of PAS 127 can be purchased from <http://shop.bsigroup.com/pas127>

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