



Innovative Screening Technology for

Customs

Innovative Technology to Detect & Deter Body-Worn Drugs

Detecting narcotics hidden on the body has long been a complex challenge for customs authorities, with traditional methods proving costly, intrusive, and inefficient. Apstec's HSS Falcon Select changes this by offering fast, non-intrusive, real-time screening for large numbers of passengers and their belongings. Powered by advanced algorithms and AI-driven detection, the solution identifies drugs concealed on the body while respecting privacy and ensuring a smooth border crossing experience. Highly mobile and easy to deploy, HSS Falcon Select enhances existing operations and empowers customs officials with a powerful tool to aid them in their mission.

The Problem

Illegal drugs are trafficked into a country via various routes, the most significant of which are: container shipping; cross-border vehicle traffic; yachts and small boats; and post and fast parcels. However, substantial percentages of illicit drugs are still trafficked on people, in particular passengers, crew and staff crossing borders. Although technology has been put to work detecting concealments in freight, the same is not true of cross-border screening of people, which has always proved to be very challenging for a wide range of practical reasons. Furthermore, large-scale manual operations are intrusive, costly, and generally impractical.

The Solution

Apstec's AI-driven solution HSS Falcon Select delivers the latest technology to the front-line to solve this dilemma. It provides comprehensive, fast, and non-intrusive screening for large numbers of people automatically in real-time and is optimized to detect illegal drugs concealed on the body. It screens people without the need to remove either outer clothing or bags.

HSS Falcon Select delivers a safe, unobtrusive, screening operation that respects the right to privacy and improves the border crossing experience for passengers. Highly mobile and deployable within minutes, it supports a wide range of operational scenarios. The technology was selected as the sole equipment to be funded by the EU, via the Pan European Network of Customs Practitioners, to be developed specifically to deliver 'Fast non-intrusive screening of passengers to detect and deter body-worn drugs.' The project is complete and the resulting HSS Falcon Select solution delivers a powerful capability that complements existing Customs efforts, to increase the effectiveness of operations in a proportionate, pragmatic, and affordable way.



Specifically Designed for Customs

Designed with customs applications in mind, HSS Falcon Select makes customs officers' lives easier by giving them powerful technology that fits into existing operations with minimum disruption. HSS Falcon Select does not seek to supplant customs officers but allows for a targeted response that supports and complements existing operations and intelligence-led interventions. The system provides full height screening, the ability to discriminate between items of interest and benign items, and the ability to detect thin material concealed anywhere on the body. HSS Falcon Select is highly mobile and can be deployed rapidly within minutes to enhance operational flexibility.

HSS Falcon Select's mobility and operational agility support a wide range of operational scenarios including at immediate point of entry, in the customs channels or to screen passengers in transit. Beyond illicit drugs detecting firearms and other weapons is part of the functionality of this equipment. At land borders, there is a convincing case for delivering the capability to detect weapons, as well as narcotics, particularly as there will not have been any pre-screening before arrival at the border.

How It Works

The system emits very low power completely safe millimeter waves into an inspection zone. Sophisticated proprietary software algorithms analyze the data concerning how the waves are reflected from people moving through the inspection zone to determine whether they are carrying concealed objects of interest on the body and automatically identify narcotics concealed on the body. When narcotics are detected, the system alerts and presents an image of the carrier to the customs officer along with the location where the item is being carried to enable a response. HSS Falcon Select also incorporates metal detection as part of an integrated solution, enabling the detection of firearms and large bladed weapons. HSS Falcon Select is fully automatic and works in real-time without the requirement for additional staff to respond to alerts or manage the system. It offers an opportunity to significantly improve the effectiveness of customs operations.

Effect

HSS Falcon Select aims to deter people from attempting to bring illicit items across borders. The combination of robust technology and simple and effective operations delivers a strong deterrent. HSS Falcon Select complements and enhances the effectiveness of existing operations in a non-disruptive manner. The benefits of deploying HSS Falcon Select at borders to detect body-worn drugs include:

- Detects materials with the characteristics of drugs concealed on the body and discriminates between these and benign items
- Non-disruptive and non-invasive
- Flexible mobile or fixed installation with the same equipment
- Automatic detection, no need for an operator
- Provides information to support decision-making
- Good trigger for behavioural detection
- Proportionate and cost-effective

People per hour

>2500



Specifications

Size (WxHxD)	134x239x62 cm
Free passage	120 cm
Weight (2 pillars)	130 kg



HSS Falcon won the Detektor International Award 2025 in the category Alarm & Detection!



About us

Apstec® is a Swedish owned company with a global mission to make the world a safer place by developing innovative, AI-driven screening technology.

We're a leader in security solutions, specializing in advanced security screening technologies. With a commitment to providing safe, efficient, and cost-effective solutions, our products are trusted by clients worldwide.

Contact

If you want more information about our products, and more about us, visit **apstecsystems.com** or contact us at **info@apstecsystems.com**

Book a demo

If you're interested to learn more about how the products work and how they can help your organization, you can book a demo and we'll demonstrate it for you. Drop us a line at **info@apstecsystems.com** and we'll get back to you.