

ZKX Series

The X-ray Luggage Inspection System



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By: Sabre Products
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1. What are X-ray machines?

An X-ray Inspection system is designed to check luggage, mail and other assets. Nowadays, with more and more criminal activities such as theft, drugs, money laundering and terrorism attacks, the requirements for X-ray machines are increasing rapidly.

2. Why use X-ray machines?

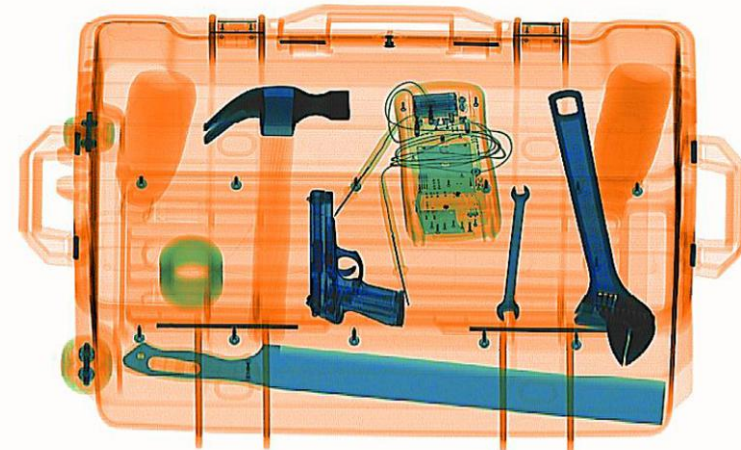
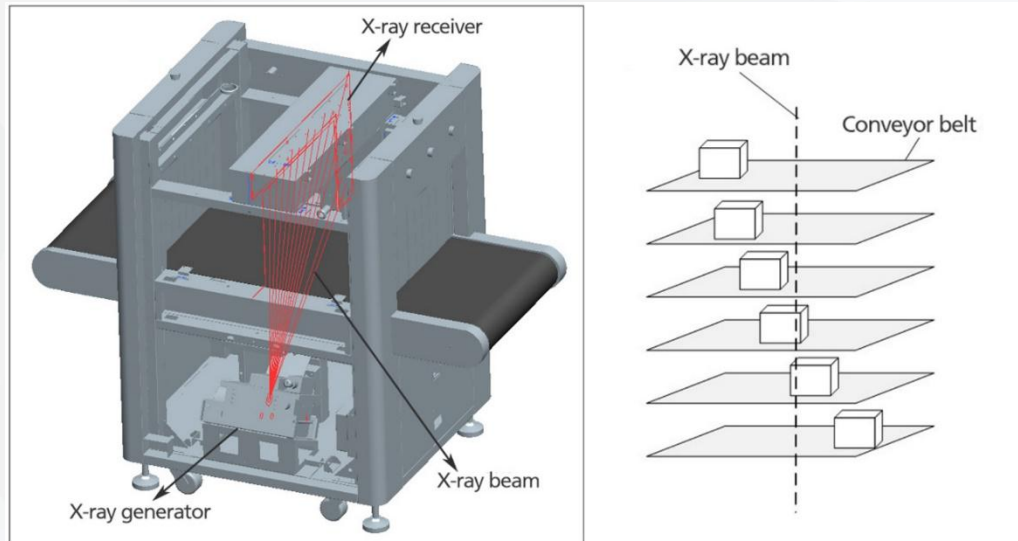
It is sometimes impractical or unsafe to open items requiring inspection; it also can be very time consuming. X-ray machines penetrate the item and reveal their contents and display screen of a computer, showing different colours and shapes; so that security guards can locate suspicious goods more easily to ensure the safety protection of people and assets.

3. Where are X-ray machines used?

They are widely used in Transportation, Government, Corporate, Hotels, Airports, Train stations, at Logistic companies, concert venues and prisons etc ...

4. Process flow of an X-ray machine

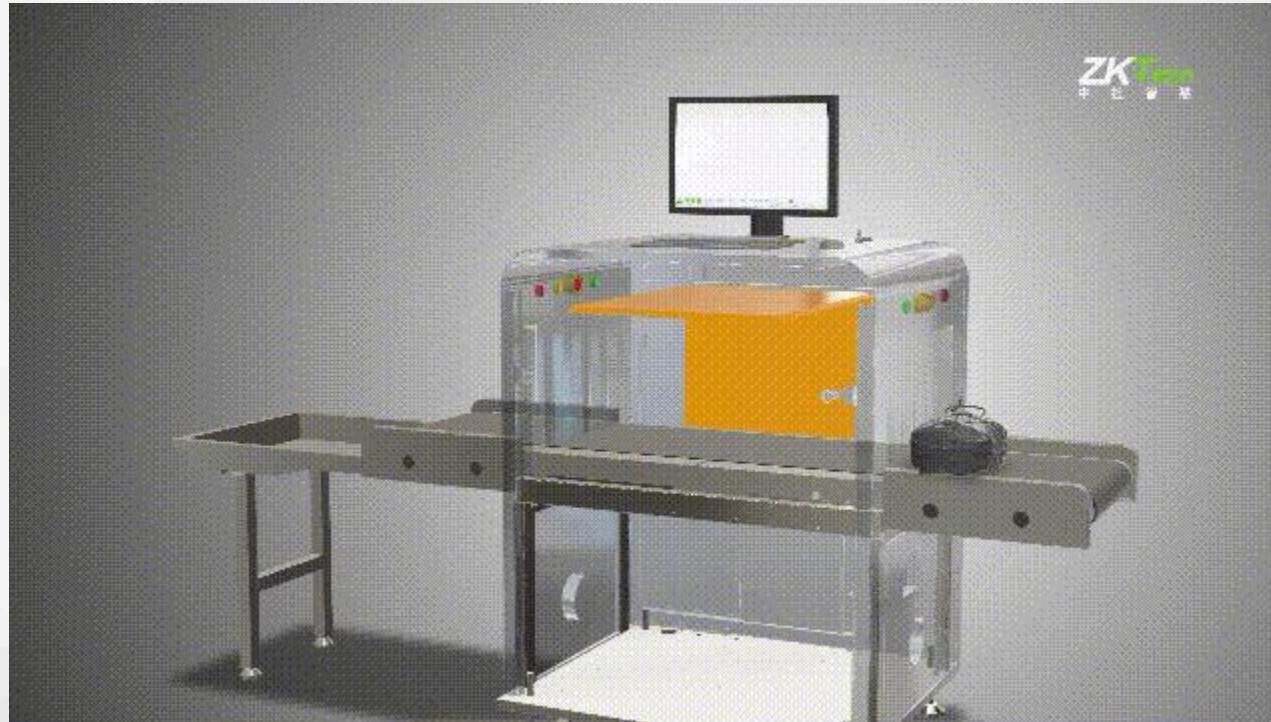
- When luggage goes into the tunnel, the sensors will trigger the generator to create the X-ray waves, which penetrate the item/s and then the X-ray wave receiver will output the electronic signal which will analyse the image algorithms, which will result on a finally display on the computer screen.
- Dual Energy machines can also display different colors to denote different materials: i.e.
Orange: Organic (liquid / daily chemical / food/ drug)
Green: Mixture (plastic / rubber)
Blue: Metal & Inorganic
Black: High density material that the X-ray cannot penetrate (such as heavy metals)



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Product Introduction

5.Working process demonstration (Please Press SHIFT+F5 to watch the video)



5. The X-ray machine is made up of the following parts

- X-ray Generator: The core part of the X-ray inspection system generates an X-ray when the item/s go through the tunnel.
- X-ray Receiver: The receiver of the X-ray wave penetrates the item/s and transforms it/them into an electrical signal.
- Transmission System: Transports the item/s from one side of the tunnel to the other.
- Item Detect Sensor: Is installed at the tunnel entrance in order to trigger the X-ray generator when any item/s are presented at the tunnel entrance.
- Computer: An industrial computer is supplied with every ZKX series product.
- Console board: A customised console board is provided for all units except for the model 5030A.

1. Major Functions

- Products include a high density material alarm: If the system finds that some materials have a higher density than X-ray could penetrate an alarm will be automatically triggered.
- Products also include an explosives and drugs auxiliary detection system: By estimating the material's molecular weight the system is able to reasonably detect suspicious explosives or drugs. However, this is only an auxiliary system; there is no known solution available which guarantees a 100% accuracy rate.
- TIP (Threat Image Projection): This TIP function provides real time scanning of images which improves the operator's reaction time and accuracy.
- Fingerprint log in: Improves the security operating levels to prevent any problem due to passwords being forgotten.

2. Major Parameters

- The effectiveness of the X-ray penetration is commensurate with the thickness of the material which is generally measured in millimeters (mm).
- The resolution provides for wire detection which can be defined in terms of the American wire gauge standards (i.e. 40 AWG).
(Note: the thinner the wire, the larger the precision of the gauge numeration is reflected)

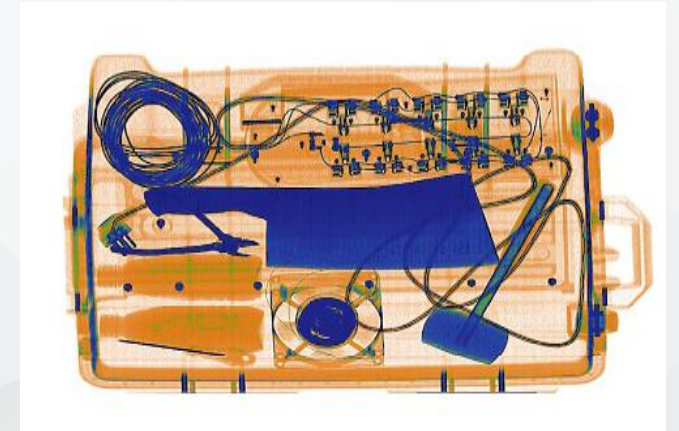
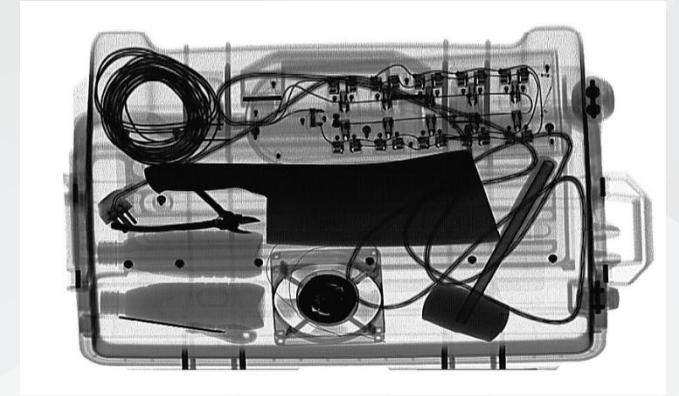
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Product Images



ZKX 5030A

'5030' indicates the tunnel size is 50cm*30cm, 'A' indicates this machine is a single energy machine which can display only black & white images and/or pseudo colour images.



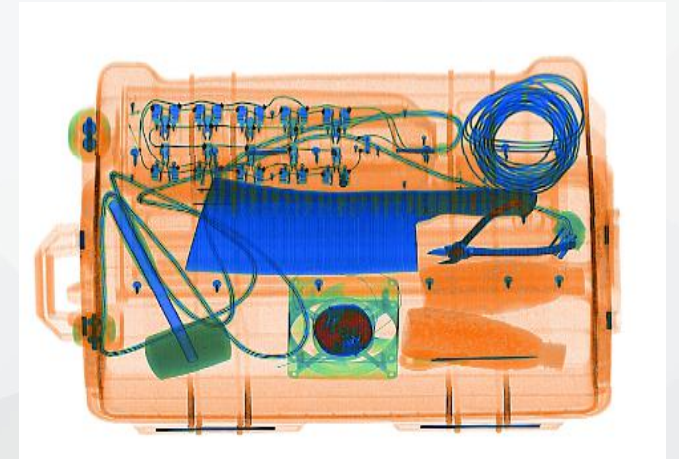
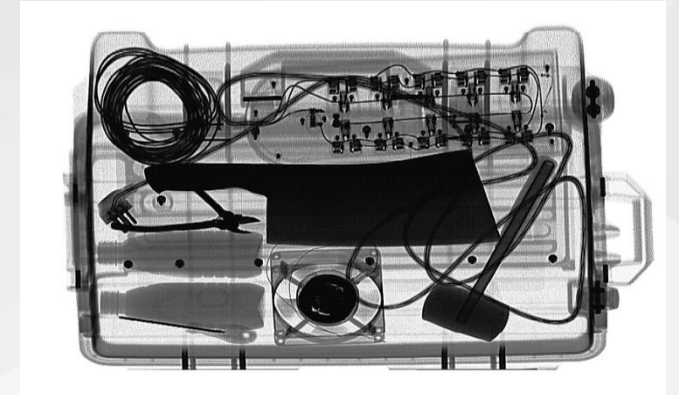
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Product Images



ZKX 5030C

'5030' indicates the tunnel size is 50cm*30cm, 'C' indicates this is a dual energy / double energy machine which can display true colour images.



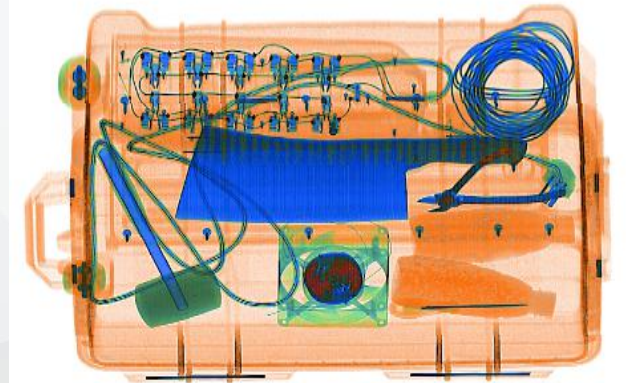
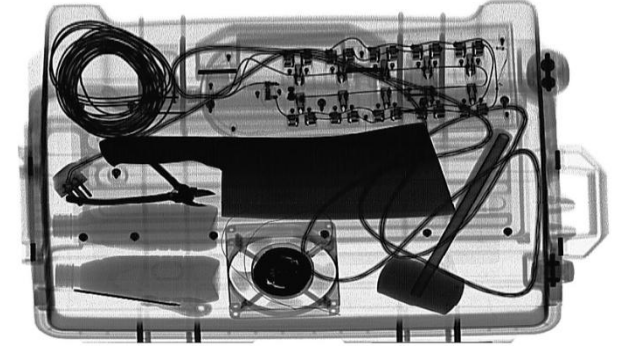
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Product Images



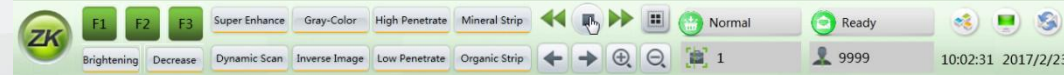
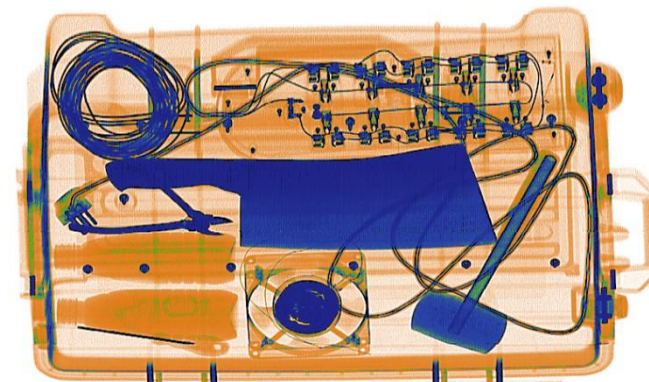
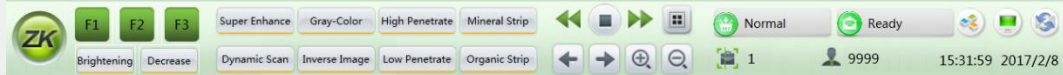
ZKX 6550

'6550' indicates the tunnel size is 65cm*50cm, This is a dual energy machine which displays true colour images.





Console Board



1. Market Positioning

As a new player in the security inspection industry, our first generation products will be positioned in the mid to low end of the market.

ZKTeco Competitive Advantages:

- Biometric modules. (Competitive feature)
- Aggressive Pricing Strategy
- Worldwide sales network which offers a faster and better service.
- The price to quality ratio is far superior to other competitors in the market place

2. Target Market

- Government (Courts/ Prisons / Police stations / Work shops / All three tiers of Government)
- Arenas / Stadia / Large scale events / Concerts / sports grounds
- Hotels / Cinemas / Public and private places of entertainment
- Airports / Railway stations / tourist locations

Product Comparison & Positioning

	SIZE	APPLICATION	FUNCTION & ACCESSORIES
6550	65*50cm	<ul style="list-style-type: none">• Government• Checkpoint• Arena	<ul style="list-style-type: none">• Biometric Console Desk• Video Surveillance System (Optional)• True-colour image display
5030C	50*30cm	<ul style="list-style-type: none">• Government• Hotel	<ul style="list-style-type: none">• True-colour image display
5030A	50*30cm	<ul style="list-style-type: none">• Government• Hotel	<ul style="list-style-type: none">• Pseudo-colour image display

Product Comparison & Positioning

Competitors	Eastimage/ Nuctech/ FISCAN/ SECUSCAN
Appearance	Modern and Compact Design
Market position	Government and civil market
Conclusion	Decent performance/ Lower total cost of ownership/ Biometric function/ Excellent service and maintenance



Police station in South Africa



Court building entrance in South Africa



DPW Building in KZN South Africa



Licensing Department in South Africa

THANK YOU



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