Min Defect Resolution <1μm X-Ray Inspection Machine with 2μm Focal Spot Size for Non-Destructive Testing and Control

Our Product Introduction

Basic Information

- Brand Name: WISDOMSHOW
- Certification: CE
- Model Number: S-8700
- Minimum Order Quantity: Radiation Safety License (Yue Huan Fu Zheng [B0774]); Exemption Filing For Radioisotopes And Radiation Devices
- Packaging Details: Standard Export Wooden Case Packaging
- Payment Terms: T/T,Negotiable
- Supply Ability: Approx. 50-100 Units/month



Product Specification

- Stage Load Capacity: ≤10kg
- Min Defect Resolution: 1μm
- Dimensions: L1560×W1780×H1830mm
- Max Product Size: 500mm × 500mm
- Focal Spot Size: 2μm
- Power Supply: 220V/50-60Hz
- Machine Weight: Approx.4000kg
- Total Power: 2500W
- Highlight: **Min Defect Resolution <1μm X-Ray Inspection Machine** , **2μm Focal Spot Size X-Ray Inspection System** , **Non-Destructive Testing X-Ray Inspection Equipment**



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Product Description

Product Description:

The Online X-Ray Inspection Machine is a state-of-the-art piece of inline SMT X-ray equipment designed to provide unparalleled precision and reliability in electronic component inspection. With the rapid advancements in surface-mount technology (SMT), ensuring the quality and integrity of solder joints and components has become more critical than ever. This Real-time X-ray machine offers manufacturers an efficient and effective solution to identify defects and anomalies at the microscopic level, thereby enhancing product quality and reducing costly rework.

One of the standout features of this X-ray inspection equipment is its exceptionally small focal spot size of just 2µm. This fine focal spot enables the machine to produce high-resolution X-ray images with extraordinary clarity and detail. Whether inspecting complex PCB assemblies or minute electronic components, the 2µm focal spot size ensures that even the tiniest defects can be detected with precision. This capability is crucial for industries requiring stringent quality control, such as aerospace, medical devices, automotive electronics, and consumer electronics.

In terms of physical specifications, the machine is robust yet designed for practical use within production environments. Weighing approximately 4000kg, this industrial-grade machine is constructed with durable materials to ensure stability and longevity during continuous operation. The solid build quality contributes to consistent inspection accuracy by minimizing vibrations and movement that could affect image quality. Despite its substantial weight, the machine is engineered for straightforward integration into existing production lines, supporting inline inspection processes that do not interrupt manufacturing flow.

The Online X-Ray Inspection Machine excels in detecting defects at an ultra-fine resolution, capable of identifying irregularities smaller than 1µm. This exceptional minimum defect resolution allows the machine to uncover hidden issues such as micro-cracks, voids, solder bridging, misalignments, and foreign particles that are often invisible to traditional inspection methods. Early detection of such defects helps prevent downstream failures, ensuring higher yield rates and improved overall product reliability.

Equipped with a stage load capacity of up to 10kg, the machine accommodates a wide range of PCB sizes and weights without compromising inspection speed or accuracy. This flexibility makes it suitable for diverse production scales, from small batch prototyping to high-volume manufacturing. The stage movement is precisely controlled to ensure accurate positioning and repeatability, which is essential for consistent inline SMT X-ray inspection results.

Power efficiency and operational stability are also key attributes of this X-ray inspection equipment. Operating at a total power consumption of 2500W, the machine balances performance with energy efficiency. This power rating supports the high-intensity X-ray source and advanced imaging detectors necessary for real-time inspection without generating excessive heat or requiring complex cooling solutions. The result is a reliable, continuously operable Real-time X-ray machine that meets the demanding requirements of modern electronics manufacturing.

Overall, the Online X-Ray Inspection Machine represents a comprehensive solution for manufacturers seeking to enhance their quality assurance processes through advanced inline SMT X-ray equipment. Its combination of a 2µm focal spot size, sub-micron defect resolution, substantial stage load capacity, and robust build quality ensures precise, real-time defect detection. By integrating this X-ray inspection equipment into production lines, companies can achieve higher product reliability, reduce inspection times, and optimize manufacturing efficiency. This machine is an essential investment for any electronics producer focused on maintaining competitive quality standards in today's fast-paced market.

Features:

Product Name: Online X-Ray Inspection Machine

Min Defect Resolution: 1µm for high precision defect detection

Stage Load Capacity: Supports up to ≤10kg for diverse inspection needs

Power Supply: 220V/50-60Hz ensuring stable and efficient operation

Machine Weight: Approx. 4000kg for robust industrial use

Dimensions: L1560*W1780*H1830mm compact design for space efficiency

Advanced Industrial X-ray machine technology for reliable inspection

High-performance X-ray inspection equipment suitable for various applications

Specialized SMT X-ray machine ideal for detailed solder joint analysis

Technical Parameters:

Focal Spot Size	2µm
Machine Weight	Approx. 4000kg
Dimensions (L*W*H)	1560*1780*1830 mm
Max Product Size	500mm * 500mm
Min Defect Resolution	1µm
Stage Load Capacity	≤10kg
Power Supply	220V/50-60Hz
Total Power	2500W

Applications:

The WISDOMSHOW S-8700 Online X-Ray Inspection Machine is an advanced X-ray solder joint inspection system designed for a wide

range of industrial applications. This automatic X-ray machine is ideal for manufacturing environments where precision and reliability are paramount. Equipped with a focal spot size of just 2μm and a minimum defect resolution of less than 1μm, it ensures the highest level of detail and accuracy in inspecting solder joints and other critical components.

The S-8700 model is perfectly suited for electronics manufacturing plants that require continuous, real-time quality control of printed circuit boards (PCBs). Its online inspection capability allows seamless integration into production lines, enabling rapid detection of defects without interrupting the manufacturing process. With a stage load capacity of up to 10kg and a maximum product size of 500mm * 500mm, this automatic X-ray machine can handle a variety of product dimensions and weights, making it versatile for different production needs.

In addition to electronics, the WISDOMSHOW S-8700 is also applicable in automotive, aerospace, and medical device industries where solder joint integrity is critical for safety and performance. The machine's CE certification and Radiation Safety License (Yue Huan Fu Zheng [B0774]) ensure it meets stringent safety and quality standards, providing peace of mind for operators and management alike.

This X-ray solder joint inspection system is particularly useful during final product inspection stages, failure analysis, and process optimization. Its automatic X-ray machine functionality supports quick and accurate defect identification, reducing the risk of costly recalls and improving overall product reliability. The device's power supply of 220V/50-60Hz and standard export wooden case packaging make it easy to install and transport globally.

With a supply ability of approximately 50-100 units per month and flexible payment terms including T/T and negotiable options, the WISDOMSHOW S-8700 provides an efficient and cost-effective solution for manufacturers seeking to enhance quality assurance through state-of-the-art online X-ray inspection technology.

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