

► G180

Xray inspection systems for medical and pharmaceutical applications



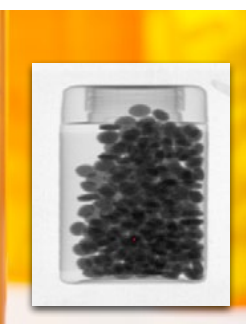
Sapphire G180 series Inspection Systems use the very latest APS technology to achieve a resolution that is 10 times greater than traditional Xray technology, making it ideal for guaranteeing the vital product and packaging integrity required for medical and pharmaceutical applications. Sapphire systems are unrivalled in the industry for sensitivity, speed and sophistication, giving compelling advantages in indentifying assembly errors or contaminants. This series assures accuracy of fill levels in vials, dosing levels in capsules, integrity of blister packs and seals and verifies enclosure of leaflets for patient guidance. The system can also inspect mechanical dosins devices (such as Insulin pumps or Inhalers) to confirm all components are present and conform to specification.

The Sapphire G180 conveyor inspection systems use special conveyors or linear slides to feed the products into the inspection station, and automatically reject or mark the defective items.

The G180 has been used in a wide variety of critical applications where product safety is of utmost importance, but typical Xray sytems cannot handle the required resolution.

Key features

- **Real time Analysis of Product on Packaging Lines**
The system displays each product inspected to confirm product integrity and indicate the location of the detected contaminants.
- **Monitoring of Product and Package Attributes**
Real time inspection of products to confirm count, mass, fill level and detect broken or damaged products and other reject conditions.
- **Detection and Elimination of Foreign Bodies**
Including metal, stone, glass, bone and certain plastics.
- **Multiple Configurations**
For inspection of any product format: trays, pouches, cases, bottles, cans and loose product
- **Designed for Pharma Industry Standards**
To comply with Vendor Certification programs and satisfy cGMP requirements, the inspection system is available with a certified database package to 21CFR Part 11 for automatic data collection and image storage. This system is optionally available with hardware for Wireless or Ethernet networks for data collection, quality check monitoring and production scheduling. The G180 is supplied with an electro polished mirror-finish to meet 3A criteria for pharmaceutical, food and diary, and biotechnology applications.
- **Wash-Down and Easy Maintenance**
The stainless steel cabinet is designed for wash-down environments. This system has been created to easily fit into existing conveyor systems, and the quick release belt allows simple dismantling and cleaning. It is available in sealing standards from IP65 and NEMA4 up to IP69 and PW12.



G180 SPECIFICATIONS

Technology	Computer-controlled 'Low Energy' technology
Xray generator	Various specification from 16kV to 50kV computer controlled
Conveyor speed	0 - 100 inspections/min servo controlled
Detector dimensions	from 120mm x 70mm to 230 x 150mm
Minimum acquisition time	40 milliseconds
Resolution	16384 grey levels per pixel
Video display	Displays video images with real-time
Calibration	Periodic calibration manually or by automatic sequencing
Detection limit	0.075mm typically
Power requirements	110 VAC or 200-240 VAC at 500VA
Dimensions (LxWxH)	600 x 1620 x 600 mm excluding conveyor

Why choose Sapphire?

Leading edge technology

The Sapphire team, the innovators of low energy inspection, today bring to the market the most advanced detector design for highest speed and sensitivity. This provides major benefits of high resolution, very low emissions and excellent thermal characteristics. Inspection of the product flow is achieved by the computer controlled family of low energy generators and the high performance computer image analysis system, making Sapphire inspection systems superior at detecting small statistical variations in the product that signal contamination or deviation from accepted specifications. Sophisticated image processing software provides immediate analysis, detection and rejection - automatically.

Global expertise tuned to your requirements

The Sapphire Alliance is a global network of companies at the forefront of Xray inspection technology, collaborating to provide the most reliable, best-supported systems on the market. Sapphire Alliance members share their years of expertise and learning, having a thorough understanding of the issues their customers face. This ensures that Sapphire Alliance Xray inspection products are at the leading edge in terms of technology, user friendliness and ability to meet the needs of the global marketplace.

With years of experience in your industry, Sapphire can provide advice on the machines from its range that are best suited to meet the inspection requirements of your product. Where necessary, special applications can be programmed that will provide you with an optimal solution.

Highest level support

The Sapphire team recognises that fast response is imperative in serving the needs of the industry. With machines available from stock and an extensive rental fleet, rapid support is available even if your application calls for a customised solution.

Installation and start-up services are available with training packages to suit different levels of staff. All Sapphire systems have remote support facilities enabled through secure hosting centers, and a world-wide team of service engineers will respond promptly when needed.

Distinctive features

- ▶ **User friendly operator control interface** with 15 inch touch screen display. The display accesses the interface and displays real-time images and colour diagnostic data for all inspected products.
- ▶ **Automatic calibration so no frequent calibration is required.** Detector calibration is a one-touch function that takes less than a minute. The system automatically analyses product variations to continuously achieve optimum sensitivity throughout production.
- ▶ **Automatic setup** as a result of the unique adaptive software algorithms. Sapphire pioneered systems that automatically recalculate parameters as each product is inspected to achieve optimum sensitivity - automatically.

