

X-ray Products

Product Overview





ERESCO MF3 Series

ERESCO MF3 Portable X-ray Equipment

By using the latest technology and innovative circuitry, the weight of the ERESKO control was reduced by almost 40% compared to the MF2 series. This weight reduction combined with new carrying rings and an even more compact and robust tube design make on-site inspections an easy task in the true sense of the word.

The ergonomic digital control with its new graphical display is easy and safe to operate. The ease of use is further supported by clear text messages in many international languages, display of character sets (e.g. Cyrillic characters), an exposure calculator and many other features. High quality electronic components and robust design of control and tube heads make the ERESKO Series suitable for inspections even in hostile environments like rain (IP 65) or high temperatures (100% duty cycle at 30°C/86°F ambient temperature). Its low power consumption keeps not only the energy cost low but also makes operation with portable power supplies an easy thing to do. Due to its unique power mode the ERESKO MF3 Series can reduce exposure times up to 50% in comparison to other portables which impressively shows its position as the leading product for fast and economic on-site inspections.



ISOVOLT mobil

ISOVOLT Mobile X-ray Equipment

The ISOVOLT mobile has been designed to cope with even very complicated inspection tasks. It is very frequently used in container, pipe production and power plants where the objects are difficult to access.

Therefore the ISOVOLT mobile features a small X-ray tube and a cable of up to 20 m length, enabling high quality on-site inspections at hard-to-reach places.

The ISOVOLT mobile key features are:

- Medium frequency technology
- Constant potential output
- Suitable for continuous operation
- Light-weight, compact design
- Dual-focus operation
- Change-over to operate different tube types
- Fit for narrow-width access doors (> 650 mm)
- Horizontal transport possible



ISOVOLT HS

ISOVOLT Stationary X-ray Equipment

Continuous improvements of the ISOVOLT HS family plus the expertise gained in industry-specific power electronics and digital technology have resulted in a new generation of constant potential X-ray equipment, the ISOVOLT HS series. The very low ripple of the high-voltage generator results in high dose rates of the ISOVOLT HS X-ray equipment. Fast control systems lead to high stability of the operating data and high reproducibility of the inspection results. A real-time controlled automatic warm-up program provides long life-time of the X-ray tubes.

Different X-ray tubes and generators in 160 kV, 225 kV, 320 kV, 420 kV and 450 kV version cover nearly all possible applications. The ISOVOLT HS is ideally suited for dosimetric systems too.

Standard Radioscopic Inspection Systems

The programmable **X-CUBE compact** with its integrated Image Enhancement System VISTAPLUS III offers in the standard version everything required for a fast and easy high quality inspection. The new innovative swivel principle of the X-ray manipulator allows very exact positioning while being up to 5 times faster than other systems in the market. Short inspection cycles due to very fast movements, a programming mode with variable speed, and an excellent detail recognition by integrated image enhancement are key features of this system. The modular design enables easy transportation and fast installation. The form-fitting loading position and the ergonomically optimized operation desk rounds out the concept of this excellent multi-purpose system.

Besides the X-CUBE compact GE Inspection Technologies offers three other Standard Radioscopic Inspection Systems (**DP 150**, **DP 419** and **DP 435 Vario**) to cover all applications and customer requirements from small, light-weight to big, heavy samples and from manual to programmable operation.



X-CUBE compact

Wheel Inspection Systems

The programmable DP 500 wheel inspection systems with automated defect recognition (SABA) represent very economical systems with a high throughput at a very short idle time. The DP 500 is designed for inspection of light-alloy car wheels (13" to 20") whereas the DP 500 XL can cope with the larger diameters of truck wheels too (13" to 25").

Using a GE Inspection Technologies Wheel Identification Station the systems are capable of mixed-mode operation. The gripper principle allows unimpeded irradiation in all test positions. For shortest cycle times and reliable operation the DP 500 is equipped with a SIEMENS S7 PLC control.



DP 500

Customized Inspection Systems

GE Inspection Technologies designs and manufactures a wide range of specialized and customized Radioscopic Inspection Systems for various applications and industries. The two samples below represent only a very small selection of this applications. More information about the product range is available on our website at www.GEInspectionTechnologies.com.

The DP 351 industrial X-ray system is dedicated to **fully automated serial inspection of suspension parts** with GE Inspection Technologies ADR software SABA. The system has been developed for radioscopic inspection of large batches and is characterized, above all, by a very fast cycle time. The twin manipulator enables the loading and unloading of a specimen outside the cabinet while at the same time the inspection of other parts is done inside. Loading and unloading can take place by a robot or manually by an operator.

The DP 392 industrial X-ray system has been developed for **airbag inspection**. The measurement of both shell halves' wall thickness at the rolled seams and a good positive-fitting connection between initiator and the propulsion element of the airbag inflator are the inspection tasks of this application.

SABA is used for fully automated image evaluation which in this case is equipped with an additional pre warning stage for optimal production control.



DP 351



DP 392



DP 424 / DP 425

3D Computed Tomography

As result of the rapid development of computer, software and detector technology, 3D-Computer Tomography is gaining more and more in importance - not only in research but also in industry.

By using cost efficient modern parallel computers for reconstruction and visualization of the measurement data and by using of recent flat panel detectors for acquiring the images, 3D-CT offers unique opportunities to map the structure of about any test sample three-dimensional in the computer.

Based on volumetric data, it's possible to find many defects in the test sample without destroying the sample itself. Furthermore dimensional measurements of the structure of the test samples can be performed and even copies of the test samples can be done by rapid prototyping technologies.

The latest GE Inspection Technologies developments are now allowing volumetric tomography in very short cycle times. Already within minutes internal structures of test samples can be displayed and measured three-dimensionally. Defects in the material can be exactly located, or deviations of the object structure from CAD data can be quickly acquired in a non-destructive way.

Image Enhancement System VISTAPLUS III

VISTAPLUS III is a PC-based digital image enhancement and archiving system that can be operated either with Windows 2000 or Windows XP.

It is superbly suited to enhance the detectability of minute structures and to perform fast evaluations and assessments of radioscopic images.

The VISTAPLUS III is set up for integration in radioscopic X-ray inspection systems and used in many of GE Inspection Technologies systems. Existing customer systems can be upgraded too.



Automatic Image Evaluation System SABA

The universal analysis of complex radioscopic images in batch inspection of safety-relevant parts is a monotonous and strenuous task whose outcome depends on many subjective factors.

The state-of-the-art image evaluation system SABA automates this process and leads to an reproducible objective identification and evaluation of defects in cast parts. Built-in statistic programs enable the optimizations of the production process.

By its universal nature the PC-based SABA can be adapted to other inspection tasks as well, such as fully automatic completeness checks and measurements of various patterns (e.g. areas, sizes and distances).

