



Comparison Table: Golden Pulse X-Ray Generator vs. Comet Constant Potential Generator with Pacific NDT Digital Radiography (DR) Systems for NDT Use

Feature	Golden Pulse X-Ray Generator	Comet Constant Potential X-Ray Generator
X-Ray Output	Pulse-based output with high peak intensity	Continuous, stable output with constant intensity
Power Supply Requirement	Operates on battery, offering complete portability	Most models require external power supply (Control Unit) or generator
Portability	Lightweight, compact, and easy to transport. Even the largest model available (XRS4) weighs less than 20 lbs (8.5 Kgs).	Larger and slightly less portable due to power dependency. New Eco series models are lighter and more portable.
Energy Levels	High peak energy (e.g., up to 370kVp) for short bursts	Consistent energy levels with adjustable kVp settings
Ideal Applications	Suitable for field inspections requiring mobility (e.g., pipelines, remote sites, security and forensic usage)	Best for detailed inspections requiring higher resolution and image quality. Works great for portable use as well inside inside a lab setting or radiation shielded cabinets.

Image Quality with DR	Ideal for short-duration exposures at lower radiation levels	Superior consistency in image quality for detailed analysis and prolonged exposure
Radiation Dose	Lower overall radiation dose due to short pulse duration	Higher dose due to continuous radiation
Durability in Field	Designed for rugged, harsh environments	Requires more stable environments; but also work well in extreme field conditions
Compatibility with Pacific NDT DR	Perfect for applications like corrosion under insulation (CUI), and rapid imaging applications (forensic, EOD, Security use).	Ideal for applications requiring consistent and precise imaging over time. Works great to meet code requirements for new weld inspection, aerospace imaging.
Setup Time	Quick and easy setup; highly mobile	Longer setup time; less flexibility in remote locations
Cost	Typically more cost-effective for mobile inspections	Higher initial cost but more efficient for long-term, stationary use
Limitations	Limited exposure duration; less suitable for thick or dense materials	Heavier and slightly less portable; most models are dependent on external power

Key Takeaways

- **Golden Pulse X-Ray Generator:**
 - Best for **portable and field applications**, such as Security, EOD, Forensic Use and remote site testing, where mobility and quick setup are crucial.
 - Works exceptionally well for lower thickness materials, **corrosion under insulation (CUI)** and short-duration imaging.
- **Comet Constant Potential X-Ray Generator:**
 - Ideal for **controlled environments** requiring consistent, detailed imaging over extended periods..
 - Preferred for **thicker materials** and when stability in output is critical.

When paired with **Pacific NDT Digital Radiography systems**, both generators complement the advanced imaging capabilities, with their selection tailored to specific NDT requirements.