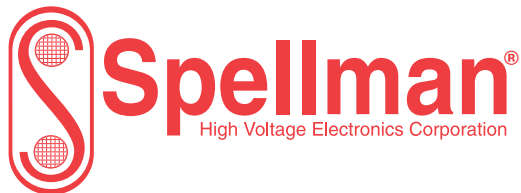


*We are Your NDT X-Ray Resource*



# XRV Sub Systems

1.8KW—6.0KW **TURN KEY** X-RAY SOLUTIONS



Inspection/Security Industrial NDT/Inspection Automotive/Aerospace

# THE SPELLMAN XRV SERIES 1.8KW - 6.0KW X-RAY GENERATORS... IT ALL STARTS HERE



XR450



XR225



XR160



XR320

- **Adjustable arc count, quenching and ramping speeds protect X-Ray tubes**
- **Lightweight compact packaging**
- **Specialized warmup programs optimize tube performance and extend life**
- **Tube database for all standard X-Ray tubes is included with the XRV Controller**
- **The use of terminal blocks for installation offer quick set-up and replacement times**
- **Dual filament power supplies drive all conventional metal ceramic X-Ray tubes**

## RELIABILITY

**Design Validation** – Industry leading reliability and MTBF. Environmental stress screening, electrical overstress, extended arcing and HALT compliance. Testing conducted on X-Ray tube loads and beta testing in multiple applications.

**Encapsulation** – The XRV's oil free design eliminates leaks and environmental concerns. The encapsulated dielectric high voltage section – made of our proprietary large-pour formulation – provides significantly higher dielectric strength than oil, is more forgiving of field stresses, and eliminates the maintenance and biohazards associated with oil tanks.

**Safety and Compliance** – Complies with International Regulatory requirements for CE/UL/CSA.

## PERFORMANCE

**Output Stability and Ripple** – Industry best stability and lowest output ripple provide superior image quality.

**Fast Ramp Up Time** – Ramp time is adjustable from 100mS to 30 seconds through the proprietary XRV GUI control.

**Fast Digital Controller** – The XRV utilizes a DSP based microcontroller to monitor and control critical tube and generator parameters. Helps ensure accuracy, repeatability, and dose stability.

## FLEXIBILITY

**Small Size & Low Cost of Ownership** - XRV Series models measure and weigh far less than their industry counterparts.

**Plug-n-Play Compatibility & Ease of Use** – XRV comes with industry standard and custom digital and analog interfaces, including: RS-232, USB; Ethernet. An intuitive Windows-based GUI facilitates set-up, provides diagnostics and control of status, configuration and operation.

**Serviceability** - The XRV Series has a unique modular design, with four Field-Replaceable Units (FRUs) that minimize MTTR, service inventory and overall repair cycle time. A trouble-shooting tree and fault indicators simplify problem detection for faster, more accurate servicing. And, of course, Spellman's technical support is global, ensuring swift worldwide coverage.

# XRV Sub Systems

1.8KW—6.0KW **TURN KEY** X-RAY SOLUTIONS



*Typical Turn-Key X-Ray Source Solution from Spellman High Voltage.*

When it comes to dependable HV power for X-Ray applications, Spellman High Voltage leads the way. No other manufacturer builds a more reliable, efficient, stable, or compact X-Ray Generator. Offering negative, positive or bipolar output ranging from 160kV to 450kV, Spellman can deliver an ideal solution for a wide variety of applications.

Today's X-Ray applications demand greater performance, higher reliability, and increased flexibility. Spellman has responded with the compact, powerful, and reliable XRV Series. Consider the benefits of the groundbreaking XRV: Low ripple and active power factor correction result in reduced banding and higher quality images; an encapsulated high-voltage section cuts size and reduces weight, enabling the unit to operate oil-free and with little or no maintenance; an innovative, proprietary inverter topology allows for very high efficiency and power density, thus enhancing the overall performance of your equipment.

Combine Spellman's XRV series generator with the Industry's best X-Ray tubes and accessories and the result is an X-Ray sub system second to none.

## APPLICATIONS

- NDT/Inspection
- Medical Sterilization/Irradiation
- Analytical X-RAY
- Medical X-RAY
- ATE
- Security Cargo Scanning
- Digital Radiography (DR)
- Industrial CT
- Computed Radiography (CR)

Inspection/Security Industrial NDT/Inspection Automotive/Aerospace

# TURN-KEY X-RAY SOURCES FOR INDUSTRIAL NDT APPLICATIONS.

System Matched, Integrated, Tested, and Warrantied... all from One Source

- Tube, generator, HV cable(s), cooler, controller & I/O fully tested together at Spellman High Voltage
- Assembly ready "Plug And Play" out of the box
- Cables, hoses, fittings all part of the packaged solution
- One purchase order
- One phone call to Spellman for support
- 2 year warranty for system exceeds that of individual outsourced components/assemblies. X-Ray tube warranty is prorated.



Shown above, with an output voltage of 450kV is our complete XRV450 turn-key sub system.



Spellman's XRV X-Ray Sub Systems and XRV high voltage power supplies set the standard for compact 1.8kW to 6.0kW, high performance X-Ray inspection generators. Shown here, with an output voltage of 320kV is our complete XRV320 turn-key sub system.

## XRV Controller

With its' One-Shot Profiles, intuitive Touch-Centric menu and interface flexibility, this powerful controller is the perfect match for your system.

- 7" Touch Screen LCD
- 10/100/1000MBIT Ethernet
- Unlimited storage and recall of X-Ray tube profiles
- Complete X-Ray tube database
- Auto and customizable tube seasoning profiles
- Bench and rack mount available



## XRV System Interface Box

- Power distribution for System Components
- Safety interlocks for doors and Tube Cooler
- Rack, bench or wall mount IP65 enclosure
- Meets requirements of 21 CFR 1020.40



## Industrial X-Ray Tube Chillers and Coolers

X-Ray tube coolers and chillers from industry leading manufacturers are designed and validated to work with standard metal ceramic X-Ray tube offerings

- Closed loop X-Ray tube coolers for water and oil
- Closed loop X-Ray tube chillers for water and oil when ambient temperature rises to 40°C
- Coolers available with WW or OW options



## Metal Ceramic X-Ray Tubes

- Full range of metal ceramic tubes from industry leading manufacturers
- Water cooled unipolar designs offered in 100, 160 and 225kV configurations
- Oil cooled bipolar designs offered in 320, 350 and 450kV configurations
- Available in a variety of power levels, focal spots and target angles



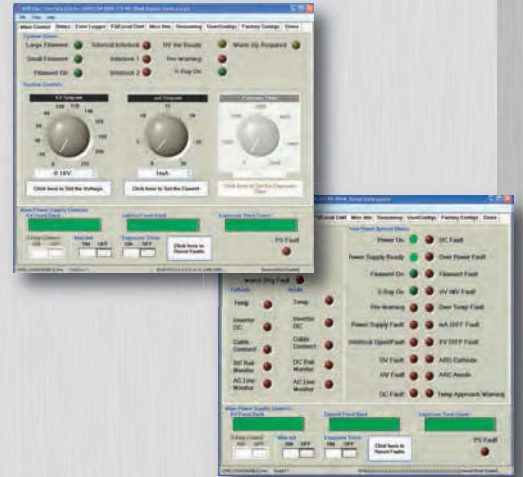
## Standard and Custom HV X-Ray Cables

- Available in custom lengths from industry leading manufacturers
- Straight and right angle connections available
- Standard or Spring loaded connections available



## GUI Control Software for XRV

The GUI is specifically designed for controlling XRV series power supplies. As an alternative to the analog control, the GUI will allow the user to control all necessary functions of the HVPS from a user-friendly windows based menu. Additionally the GUI can be used as a diagnostic tool when the HVPS is controlled via the analog interface.



- Automatic X-Ray tube warm-up
- Max watts operation
- Timed or Continuous Exposure modes
- Configuration menu for user options
- Fault and status monitor
- Easy set up and integration

Let us propose a solution ranging from a stand alone XRV to a complete X-Ray source designed for your application.

Call or visit our website to inquire about an X-Ray NDT solution with the worlds' leading XRV generators.



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