



PiX 417C

BENDABLE X-RAY DETECTORS

Contact us via email or phone to find out more or schedule an in-person demo.

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BENDABLE X-RAY DETECTORS

PiX 417C is the most advanced bendable digital detector currently available in the market. It comes with a rugged exterior case to withstand rigors of NDT use. It also has the highest pixel pitch available currently for a bendable detector. Its unique flexible design allows for reduced geometric distortion & enhanced detail resolution. It comes in a portable and lightweight form factor. At Pacific NDT, we want to ensure that our products offer customers a plug and play experience while ensuring a long term use to maximize their ROI.

What are the advantages of using bendable digital detector for weld inspection?



Using bendable digital detectors for weld inspection offers significant advantages that enhance the effectiveness, efficiency, and scope of non-destructive testing (NDT) processes.

Here are key benefits:

01 Enhanced Image Quality

Reduced Geometric Distortion: The flexibility allows the detector to contour closely to the weld, minimizing the distance between the detector and the subject. This proximity reduces geometric distortion, leading to clearer, more accurate images.

Improved Detail Resolution: Bendable detectors can capture finer details within the weld, aiding in the detection of small flaws, cracks, or voids that might be missed by traditional flat panel detectors.

02 Increased Versatility

Adaptability to Complex Shapes: Welds on pipes, tanks, and irregularly shaped structures can be challenging to inspect with rigid detectors. Bendable detectors can adapt to these shapes, ensuring thorough inspections.

Broad Application Range: Their versatility makes them suitable for a wide range of industries, including oil and gas, aerospace, and manufacturing, where weld integrity is crucial.

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03 Enhanced Safety and Efficiency

Faster Setup and Inspection Times: The ability to easily position and secure the detector around the inspection area reduces setup times, increasing overall inspection throughput.

Reduced Need for Multiple Exposures: By capturing comprehensive images in a single exposure, bendable detectors decrease the time and radiation exposure necessary to inspect a weld.

05 Cost-Effectiveness

Long-Term Durability: Constructed to withstand the rigors of field use, bendable detectors are a durable investment, potentially reducing the need for frequent replacements.

Reduced Inspection Costs: By improving the speed and accuracy of weld inspections, bendable detectors can lead to cost savings by minimizing downtime and the need for rework or repairs.

Conclusion

The use of bendable digital detectors for weld inspection represents a significant advancement in NDT technology. By offering superior image quality, adaptability, and efficiency, these detectors meet the complex demands of modern weld inspections, supporting industries in maintaining the highest standards of safety and quality.

04 Improved Operator Comfort and Safety

Portable and Lightweight Design: These detectors are designed to be portable and easy to handle, reducing operator fatigue and increasing the efficiency of field inspections.

Broad Application Range: Efficient imaging reduces the need for repeated exposures, minimizing the radiation dose to which

06 Enhanced Diagnostic Capability

Superior Fault Detection: The improved image quality and detail resolution enhance the capability to detect and diagnose defects within welds, leading to better-informed maintenance decisions and increased structural integrity.

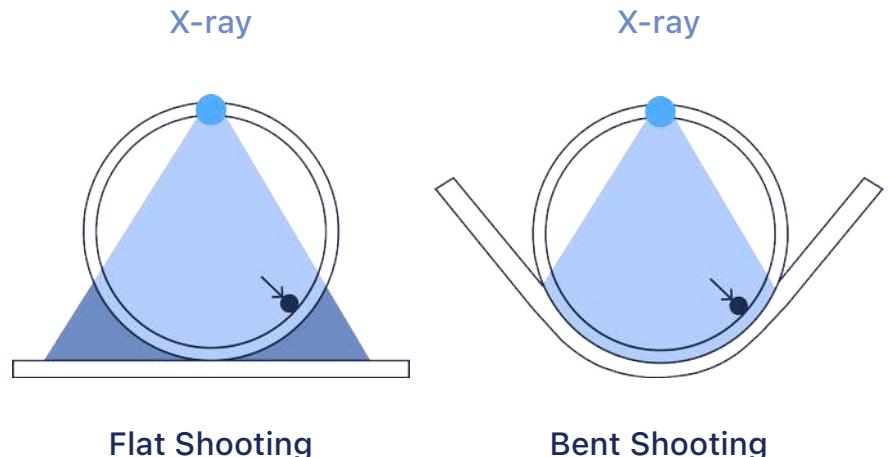


INSPECTION IMAGES

Bendable detectors redefine x-ray imaging by achieving a constant X-ray path length around curved surfaces. Their unique design enables secure attachment to pipes, ensuring a uniform x-ray path length—the key to achieve image accuracy.

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PIX 417C



Example of X-ray images



Flat Shooting X-ray



Bent Shooting X-ray



Flat Shooting X-ray



Bent Shooting X-ray

SPECIFICATIONS

PIX 417C

Model Name	PIX 417C
Technology	Flexible a-Si TFT
Scintillator	Gadox
Pixel Matrix	981 x 4309 pixels
Pixel Pitch	99 μ m
Image Size	3.82 x 16.80 inches
Grayscale	16 bits
X-ray Voltage Range	40 - 450kVp (also optimized for Gamma Ray use)
Maximum Exposure Time	180 sec per frame
X-ray Generator Interface	External Line Trigger / Automatic Exposure Detection
Data interface	Wired: Gigabit Ethernet
Image Acquisition Time	Wired: 1.5 sec. Wireless: 3 sec.
Dimensions	26 x 8.5 x 0.9 inches
Weight	3.6 Lbs (additional 3lbs for protective armor)
Battery	5 h (capturing) 6 h (standby)
Dust and Water Resistant	IP67
Power Consumption	DC 24 V, 1.0 A

*Specifications are subject to change without prior notice.