

The BIX223CT/00® is an industrial high sensitivity imaging system for real time radiography.

In combination with BIX-CTR or BIX-CTR-DL control unit and an X-ray generator, the BIX223CT/00® gives the right answer to modern requests of Quality Controls in terms of Speed, Efficiency and reliability.

Applications can be Food and Drugs Industries, Metallic, Welding and Castings materials, Electronics, Composites, Automotive and Aerospace industries, ...

Integrated magnification system is allowing the user to get an optical zoom that magnifies indications up to 3 times which allows a higher definition than without magnification.



Flexibility

Compared to classical Film radiography, the BIX223CT/00® provides: the choice in beam or view incidence to give the selected view of an indication in the product, enlargement capabilities and inspection cost reductions. This is giving a fast decision (compared to film) thanks to direct observation in the screen of the BIX-CTR-DL control unit or in the monitor of the BIX-CTR control unit.

Working principles

An image intensifier is acting like a reversed TV screen. The Input screen is converting X-rays into light inside a vacuum chamber. Light electrons are then accelerated and focused to be collected on a CCD digital type camera which is connected to a screen where the image is displayed. The camera can also be collected to a frame grabber and a computer to get an image processing capability like the IPS® series from Balteau NDT.

"Real" Real time

Image intensifiers are a fast conversion system where no latency is expected due to the working mode. Acquisition rates are as fast as a human eye can see and there are basically no integration time. However, if required, the user may freely select the integration parameters and get slower frame rates but increased X ray sensitivity.

Serviceable item

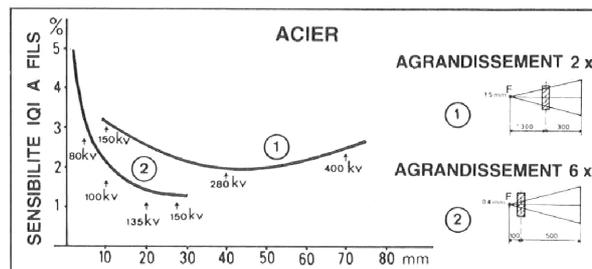
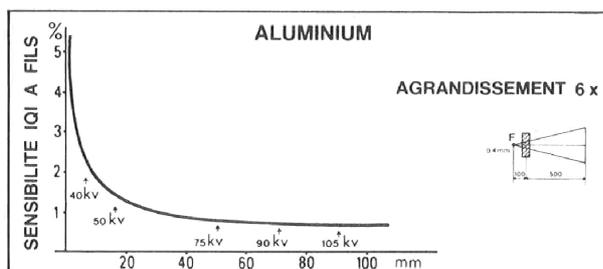
Another main advantage of the image intensifier is the possibility to service the unit and replace inside components for a very affordable price comparatively to other are representing economy and quality requirements. Pulsed wave generators can drive a higher current at full power and will still keep an extremely broad spectrum to guarantee that soft X-rays will be present even at full kV giving a contrast that is not achievable with any other techniques at same kV.

Triple field system

If you display a given size indication on a defined area and you increase the size of the displaying area, you will get an increased definition or precision when measuring the indication. This is why the integrated tri-field system is made for. We give the ability to the user to select between three different magnification factors (optical) that will help him emphasizing tiny details that are barely visible otherwise. This greatly helps interpretation works too and provides an excellent tool for Real time process monitoring

Specifications

Mechanical			
Tube type conversion			
Cesium iodide layer + CCD digital camera			
Triple field	normal	zoom1	zoom2
Input screen (mm)	215	160	120
Output screen (mm)	25	20	20
Conversion factor (cd/m ² /mR/S)	200	100	150
Characteristics	normal	zoom1	zoom2
Typical resolution lp/cm	52	58	68
Typical contrast ratio	30:1	30:1	30:1
Brightness non-uniformity (%)	20	10	5
Distortion integral (%)	4	3	1
Distortion differential (at 90% radius)	18	8	4
Camera			
CCD digital compact camera 12 Bits 1024 x 1024, 75 ohms video output			
Optional accessories			
BIX-CTR-DL control unit with included 10" screen or BIX-CTR control unit (19" rack), external 17" flat screen for processed image, IPS® processing system			



Producer

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