

## Portable X ray Flaw Detector XXG 2005



### Overview

Portable x – ray machine is used to show internal discontinuity of material fault or welding from radiographic image on film. Widely used in shipbuilding, machinery, manufacturing, aviation, railway, pressure vessel, boiler and oil gas pipeline industries for NDT fields.

## Features

1. Small volume, Light weight, easy to take and simplicity of operation.
2. Safe and reliable generator adopts design of SF6 gaseous insulator, grounded-anode, and fan forced cooling.
3. Controller adopts design of hardware with a wide operative range, having the advantage of long service and low failure rate.
4. 1:1 work and rest ratio, eliminating dis-operation;
5. High voltage isolation technology to ensure continual work and avoid interference by voltage changing;
6. High capacity module great improved service time;
7. Pressure indication and fault shooting automatically;
8. Time Delayed function and ground anode design to keep operators safety;
9. High pure aluminum radiator improved 30% heat radiation to keep less heat inside.

**Parameter**

<b>Model</b>	XXG 2005
<b>Tube &amp; Beam Angle</b>	Ceramic Tube & Directional 40°
<b>Tube Voltage</b>	80-200KV
<b>Tube Current</b>	5mA
<b>Capacity</b>	>2.0 KW
<b>Focus Size</b>	1.5*1.5mm
<b>Max. Penetration</b>	A3 Steel 29mm
<b>X ray generator size</b>	290*290*620mm
<b>X ray generator weight</b>	14kg
<b>Power supply</b>	AC220V ±10%,50HZ
<b>Controller Size</b>	367*320*164mm
<b>Controller Weight</b>	13kg
<b>Insulating Material</b>	SF6 gas
<b>Relative Humidity</b>	No more than 85%
<b>Standard Condition</b>	1.Focus : 600mm, exposure time: 5 min 2.Film: KODAK, intensified by double lead foil 3.Treatment in the darkroom: Temp. 20 ±2°C, 5min .Density ≥2.0
<b>Safe Pressure</b>	0.35-0.50 MPa  (Operation will be prohibited in the case less than 0.35 MPa)

**Working principle description**

1. The controller of the equipment adopts the single-phase SCR bridge-rectifying circuit and the rectified voltage turns to the smooth dc voltage by means of the LC filter.
2. This voltage converts to the frequency-adjustable square-wave pulse with single flow direction, becoming the electrical supply of the X-ray generator to power the HV pulse against the voltage increase or decrease of the X-ray tube filament, to ensure the stable current in the X-ray tube.
3. The KV regulating unit can continuously control the voltage up and down, to meet with the different radiographic requirements for different materials.
4. The interference-free circuit improves the shock-resistance capability to protect the control system from the HV shock from the X-ray generator.

**Configuration**

<b>Spare Parts</b>	<b>Quantity</b>
X-ray generator	1
Controller	1
Connecting cables (10 cores) 25m	1
Power cable(2 cores) 10m	1
Earthing wire 5m	1
Fuse (3A)	5
Bag to contain accessories	1