



SHW Series portable X ray tube/machine/ generators compared with other brands of portable x ray machine

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| Ray machine | XRS-4  |  SHW250 |
| Type of X-ray tube | Pulse ray | High frequency constant voltage |
| output voltage | 370KV (Fixed) | 130-250KV, voltage can be adjusted, suitable for different materials |
| Weight (including batteries) | 10.5Kg. Batteries must be installed before they can work, do not support both AC and DC power supply. | The X-ray generator is 8.5Kg, which can be supplied by AC and DC power supply modes. |
| Focal size | 3mm, large focus size, poor image resolution | 1.5mm (medium), good image quality |
| Maximum exposure time | After a single or cumulative 200 pulses are emitted, the equipment needs to rest for 4 minutes (each time, the time is set differently according to the pulse). | The exposure time required for DR imaging is calculated in seconds, and continuous work can be achieved without rest. |
| Battery endurance | Thirty mm thick steel plate imaging is very poor, 14 mm steel plate imaging requires 150 pulses (8-10 seconds) each time, after launching 1000 pulses, the battery needs to be recharged (according to official data: 1 battery intermittent work for 30 minutes including rest time, the actual working time is only about 1 minute). | With lithium batteries, 250KV X-ray machine can work continuously for more than 8 hours. |
| control mode | Line control or software control | support wired, wireless, software control |
| Penetration capacity | At maximum power, penetrate 50.8mm steel (official data (plus official website links) 2 inches, (film imaging is not recommended, because exposure time is short), DR digital imaging on-site actual test effect is less than 16mm, image quality is good, the thickness of more than 30mm test effect is poor, using standard test block test results, that is, the results. | Under the maximum power, penetrating 40mm A3 steel, the actual detection ability is more than or equal to 40mm. It can be tested by field standard test block (providing the certificate of measurement and verification of X-ray machine issued by the National Metrology and verification agency). The actual test result of DR digital imaging in the field is less than 40mm. The image quality is good and meets the requirements of BS EN ISO 17636 image detection standard. |
| Life | Take penetrating 30mm thick as an example; a new pulse source totals 100,000 pulses; when it is used up, it is necessary to replace the pulse source. The import cost of the original device is 6000\$ According to DR imaging 8 seconds each time, 150 pulses are emitted each time. The maximum number of images is 100000/150 pulses = 667. The total time used by a pulse source is: | Special high frequency tube, using special heat dissipation material, long service life. According to the minimum life of 800 hours without damage, the cost of replacing a ray tube is 6000\$, which is calculated by 5 seconds for each DR imaging. The total number of images is: 800 hours * 3600 (1 hour) seconds = 2880000 seconds / 5 |

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| | <p>667*8 seconds = 5336 seconds / 60 seconds = 89 minutes</p> <p>The average price of each sheet is 6000 yuan/667 sheets =9\$.</p> | <p>seconds imaging = 576000 sheets</p> <p>The average price of each sheet is:</p> <p>6000 \$/576000 = 0.01\$</p> |
| Field of use | <p>It is mainly used for digital imaging in the field of security inspection, which requires low density of penetrating objects and is not suitable for industrial non-destructive testing.</p> | <p>High frequency constant pressure machine industry non-destructive testing X-ray film and digital ray CR, DR can be used.</p> |
| warranty policy | <p>Full warranty of 0 - 50000 pulses within 1 year (except obvious man-made damage)</p> <p>50% warranty for 50000 - 80000 pulses in one year</p> <p>1 - 2 years 0 - 50000 pulse partial warranty. The equipment needs to be repaired back to the manufacturer in the United States. Cycle about 15 days or more</p> | <p>The whole set of equipment is guaranteed for one year (except for obvious man-made damage), and spare machines are provided. There is a maintenance base in Henan Province, and a large number of accessories are available. If it is necessary to replace the ray tube, it will be repaired within one week.</p> <p>Other issues will be resolved within three working days.</p> |