



# CP120B & CP160B



## PORTABLE X-RAY GENERATORS

Constant potential ultralightweight battery powered X-ray generators for NDT and Security inspections

- ▶ BOMB DETECTION
  - ▶ DRUG SEARCH
  - ▶ CUSTOMS CONTROL
  - ▶ NDT INSPECTION
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- Constant potential output  
120 kV - 1 mA /  
160 kV - 0.5 mA
  - 60° x 60° directional beam
  - Focal spot of 0.8 mm x 0.5 mm / 0.8 mm x 0.7 mm
  - 7 kg / 9.2 kg including battery pack and handling feature
  - Extended operation, external power supply options
  - Optimized for new digital and radiographic imaging media

### ADVANCED TECHNOLOGY

Over recent years, there have been major advances in imaging technology: CMOS silicon active pixel sensors, CCD capture devices and high speed film-based systems (such as F8 + RCF screens). Combine these with the ultra lightweight, mains power-independent **CP120B** and **CP160B** as the source of X-rays and the result is a totally new concept for NDT and SECURITY applications.

Greater penetrating power and almost incredibly low and compact size are achieved by the advanced 100 kHz resonant mode high voltage transformer. This delivers a constant DC output that easily outperforms contemporary 150 kV and 200 kV cold cathode pulsed X-ray generators. Depending on the detector used, **CP120B** and **CP160B** will image through steel plates up to 10 mm and 21 mm thick with a very short exposure time.

The **CP120B** and **CP160B** can also be run continuously for several minutes without cooling interruptions, a major improvement on the "few seconds" possible with pulsed, cold cathode X-ray units.

### A HANDLING FIXTURE THAT MAKES ALL THE DIFFERENCE...

Careful attention has also been given to help make working on site faster, more accurate and easier. The strong, shock absorbing and visually appealing handling fixture anticipates users' needs.

### REMOTE OPERATION ...

Cable or external driven operation is simply achieved through the front panel connector. Thanks to the serial port RS232, kV, mA, exposure time and pre-warning time can be changed at distance with a standard text terminal.

The communication accepts text commands based on the echo mode protocol. For wireless operation, bluetooth capabilities have even been implemented.



# CP120B & CP160B technical specifications :

CP120B & CP160B	UNITS	CP120B	CP160B
Radiation geometry	-	Directional	Directional
Voltage output type	-	Constant Potential	Constant Potential
Output voltage range	kV	40 to 120	40 to 160
Output voltage selection step	kV	1	1
Tube current range	mA	0.1 to 1.0	0.1 to 0.5
Tube current at full output	mA	1.0	0.5
Tube current selection step	mA	0.1	0.1
Max. anode Dissipation	watts	120	80
Maximum useful angle of X-ray beam	(°)	50 x 50	60 x 60
Dimensions of optical focal spot	mm - in.	0.8 x 0.5 - 0.031 x 0.019	0.8 x 0.7 - 0.031 x 0.027
Inherent filtration	Equiv. mm Al	3.5	3.5
Operating temperature range	°C / °F	-25 to +50 / -13 to +122	-25 to +50 / -13 to +122
Storage temperature range	°C / °F	-40 to +80 / -40 to +176	-40 to +80 / -40 to +176
SF6 insulation pressure at 20°C	kg/cm <sup>2</sup> - lbs/cm <sup>2</sup>	6.0 - 13.2	6.0 - 13.2
Weatherproof level	-	IP54	IP54
Overall dimensions	mm <sup>3</sup> - in. <sup>3</sup>	470x 155 x 227 - 18.6 x 6.1 x 8.9	520 x 155 x 227 - 20.5 x 6.1 x 8.9
Tube head size	mm <sup>2</sup> - in. <sup>2</sup>	ø124 x 440 - ø4.9 x 17.3	ø124 x 490 - ø4.9 x 19.3
Total weight (including battery)	kg - lbs	7 - 15.3	9.2 - 20.1
Penetration into aluminium at max. power (FFD=400mm/Film D7/D=2.0/T=1 min)	mm Al - in. Al	60 - 2.4	100 - 3.9
Max. continuous exposure time	sec.	300	300
Battery Li-Ion	VDC mAh	37	37
Working time at full power until low battery	min at 20°C	15	15
Pre-warning time adjustable	sec.	from 0 to 99	from 0 to 99
Bluetooth connection	-	Yes	Yes
RS232 connection	-	Yes	Yes

## Control & Settings

Overheating protection	X-ray ON flashing LED
Power ON/OFF key switch	START/STOP buttons
Pre-warning time adjustable from 0 to 99 sec.	10 A fuse
Connector for remote operation	Time, kV, mA, pre-warning settings
Temperature, kV, mA, time displayed	Battery Gauge

## Standard Accessories

Hermetic reinforced carrying case
Battery charger

## Optional Accessories

Visual and audible warning + safety interlock key
Spare battery pack
External IP65 mains power supply (85 V to 264 V)
30 m ON/OFF trigger cable
100 m Bluetooth key for PC control

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