

# GemX-160

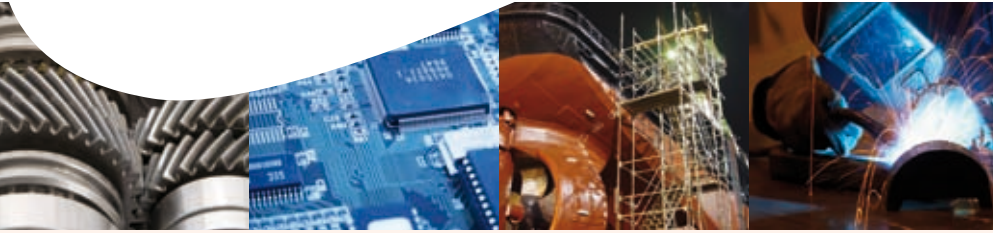
## X-ray generator for portable NDT applications

- All-terrains
- Ultra-portable
- Mini focal spot
- Remote control
- Battery powered

Digital radiology is gradually becoming a must in the NDT field: consumables (films, chemicals, ...) and darkrooms are no longer necessary. New possibilities are emerging such as easy records, direct and efficient image diagnosis, file sharing, ... Standards and regulations, a wide range of applications and investment costs, are all driving the change from film to digital slowly but surely in the right direction.

The NDT department of MEDEX has understood this trend and launched a highly portable X-ray generator optimized for digital imaging but which is also convenient for films. From aerospace to steel castings, the **GemX-160** is the right NDT RT tool and its flexibility means it can meet all the various specific needs of NDT operators.





## Advantages

**All-terrains generator:** the clever handle design means that the *GemX-160* can be turned on and set up within a matter of seconds on any type of terrain or tripod and can X-ray in any direction. Its highly compact form allows the operator to X-ray objects located in very confined spaces.

**Remotely operated and battery powered:** the compact high voltage part, the light and small remote control and the battery power supply give the possibility to the operator to carry the *GemX-160* in one hand only, anywhere from the facility up to the site !

**Convenient for a large range of NDT applications:** the great design of the high voltage part of the *GemX-160* allows our customers to choose:

- a tube with a **glass window** for operators working at relatively high kV (> 60 kV) in order to obtain images of thick objects, heavy materials and at large focal-film distances : pipes, steel castings, ...
- a tube with **beryllium (Be) window** which allows the same types of objects as mentioned above to be X-rayed as well as very light materials and objects at low kV (20 - 60 kV). Therefore, the operator also has the possibility to X-ray thin sheet of steel and aluminum, composite materials, electronics, as well as in fields such as reverse engineering process, biology, geology, archeology, where low kV are requested.

Both glass and beryllium (Be) window tubes have a mini focal spot (0.8 x 0.8 mm) which provides very sharp images and the possibility to make geometrical enlargement.

### Smart :

- **right power** for digital technologies (CR, DR), which are much more sensitive than films.
- **right duty cycle** for 1D scanners, for films and for specific insensitive imaging and detection X-ray systems.
- possibility to increase mA at lower kV (1 mA @ 160 kV, 2 mA @ 80 kV)
- fantastic flexibility in terms of:

#### Power :

- mains
- battery (LiPo): **30 minutes of continuous X-ray**
- lab power supply

#### Control :

- control keyboard integrated on the generator
- wired remote control
- wireless remote control
- hand-switch
- laptop
- the *GemX-160* provides an exclusive feature as a portable generator : **fluoroscopy**. While the *GemX-160* is continuously X-raying, the operator can easily change the mA and the kV from the computer or from the remote control ! This is definitely interesting for real time DR panel and X-ray amplifiers. Thanks to this feature, the calibration of the DR devices are also very quickly done !
- **impressive stability** : the ripple is really 0V. This is unique as a portable generator.

### Safe :

- meets all European and international standards and regulations in terms of shielding
- flashing lights and buzzers are available
- clever security communication protocols ensure safety even in the wireless mode
- safe transport as the *GemX-160* does not contain any insulating gas under dangerous high pressure
- the *GemX-160* is insulated with oil and not with green house gas

## Specifications

### High voltage part and power control:

- 0.1 to 2 mA: 1 mA @ 160 kV, 2 mA @ 80 kV
- 20-160 kV
- oil insulated
- duty cycle 1:4
- weight: 15 kg
- sizes: 282 \* 278 \* 188 mm
- 28-35 Vdc power entry

### Mandatory options:

#### Tube:

- glass window, 0.8 x 0.8 mm, 45 x 45°
- Be window, 0.8 x 0.8 mm, 45 x 45°
- other tubes upon request

#### Power supply:

- 28-35 Vdc
- LiPo battery with battery charger
- universal Vac power supply

#### Control possibilities:

- integrated keyboard on the generator
- remote control (cable)
- wireless remote control
- computer control

### Non mandatory options:

- fluoroscopy
- tripod
- flashing light and interlock key
- transport suitcase

### Your local purchasing center:

#### Manufacturer:

#### Medex Loncin

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